

**SUS BKK**

**SF** *Standard Frame Series*

**AZ** *Safety Fence*



SUS





## **SF Standard Frame Series Catalogue**



**Standard Unit Supply (Thailand) Co., Ltd.**  
299 Moo 10, T.Banthi, A.Muang, Lamphun 51180 THAILAND  
Tel : +66-(0)53-569999 Fax : +66-(0)53-569950~1

## From Thailand to Asian Region.

Besides factories in Japan,  
SUS also has factories in Thailand,  
We are covering Asian region from  
Thailand with Japanese quality standard.

### **System Upgrade Solution BKK Co., Ltd.**

(Head Office) Amata City Chonburi  
700/71 Moo 5, T.Klongtamru, A.Muang, Chonburi 20000  
Tel : +66-3845-7069~71, Fax : +66-3845-7072



### **System Upgrade Solution BKK Co., Ltd.**

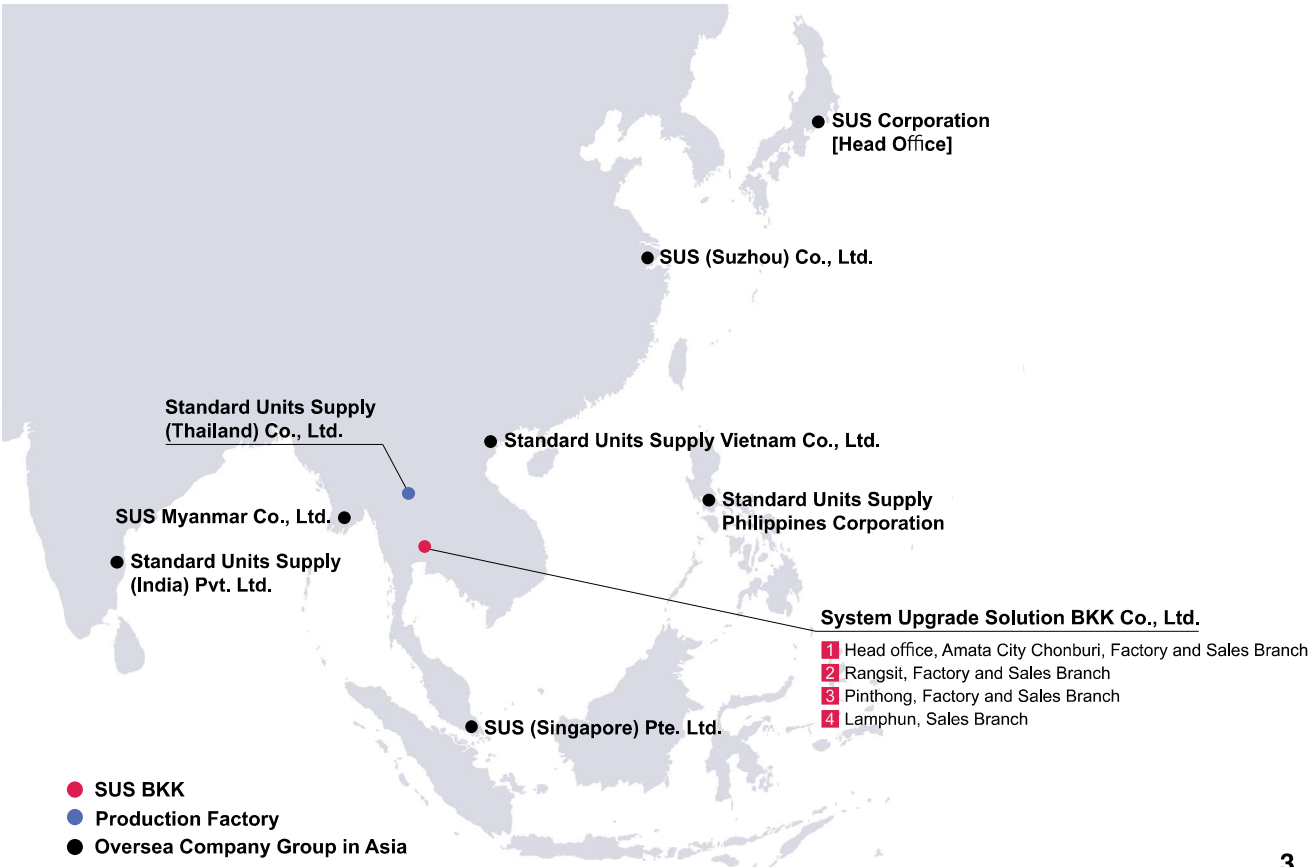
Rangsit Factory, Rangsit Sales Branch, 9/231 - 9/234 Moo 5, Phaholyothin Rd.,  
T.Klong Nueng, A.Klong Luang, Pathumthani 12120  
Tel : +66-2516-3631~4, Fax : +66-2516-3635



### **System Upgrade Solution BKK Co., Ltd.**

Pinthong Factory, Pinthong Sales Branch  
Pinthong 3 Industrial Estate 219/34 Moo 6, T.Bowin, A.Sriracha, Chonburi 20230  
Tel : +66-3811-9307~8, Fax : +66-3811-9309









## CAD Drawing Service

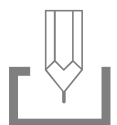
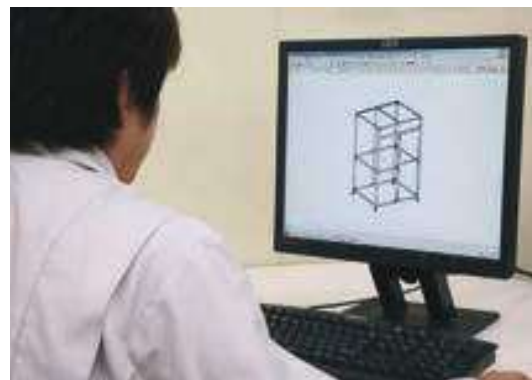
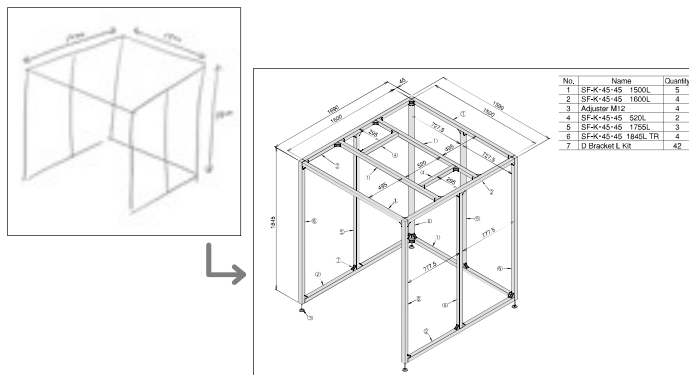
**Asia**

This sign shows the product is designed for Asia region only

SUS will subsidize structure designing for customers.

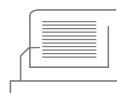
Just show structure specifications to us. We prepare detailed specification by CAD drawings.

Customers don't need to waste time for choosing parts and components for structures.



Please draw freehand shape and dimensions as you desire.

FAX  
⇒  
Customer



SUS will make the drawing and the quotation, and fax to the customer.

FAX  
⇒  
SUS



Customer

FAX  
Order

⇒  
Delivery

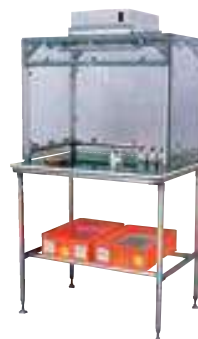


## Assembly Service

Assembly Service is available.

We will also deliver as completed structure to customer factory site.

As for detail, Please contact local sales offices.

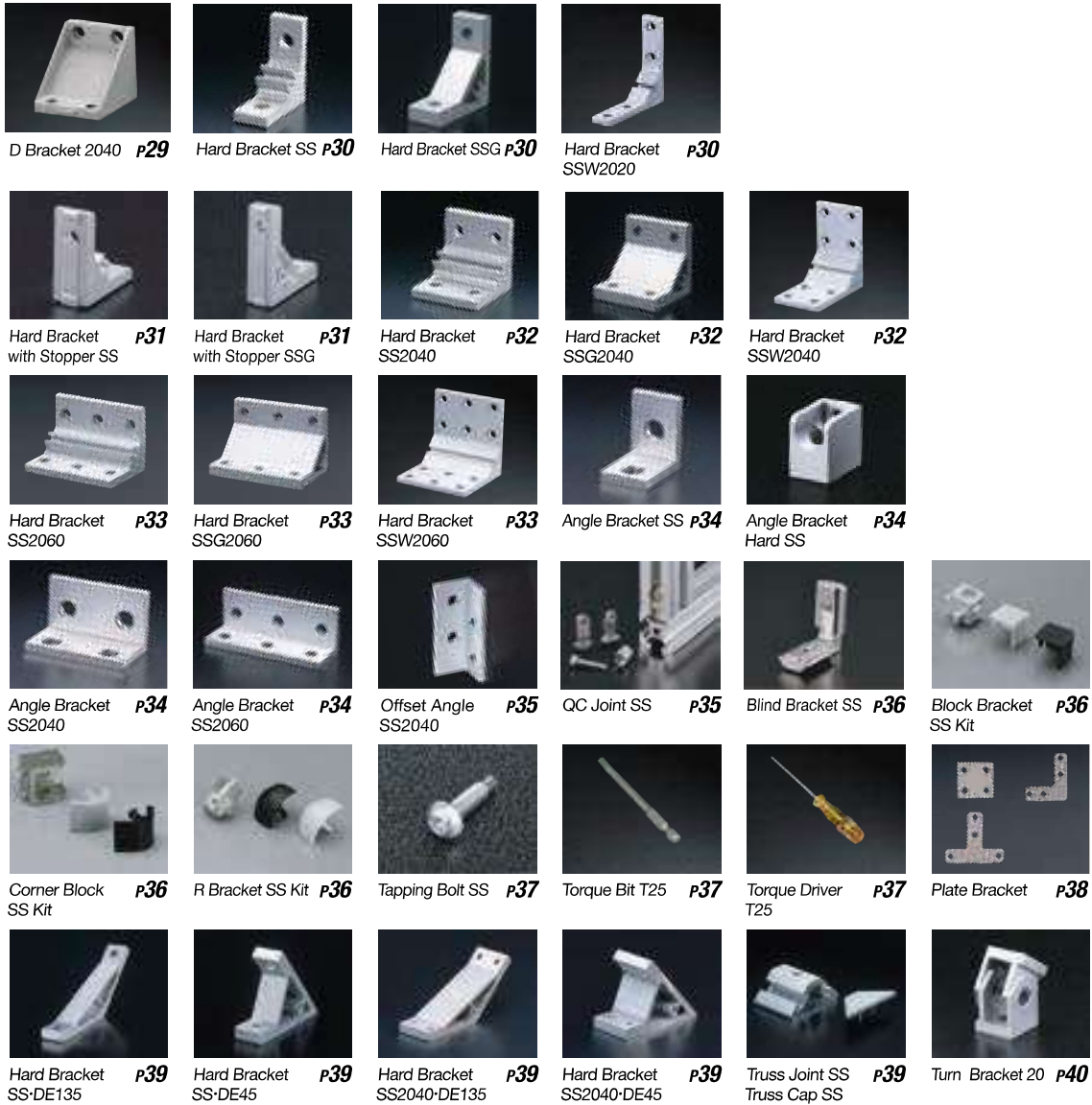




**Frame**SF-20-20 **p20**SF-20-40 **p20**SF-20-60 **p21**SF-20-80 **p21**SF-40-40-2S **p21**SF-40-60-SS **p21**SF-40-80-SS **p21**SF-25-25 **p22**SF-20-20-1F **p22**SF-20-20-2F **p22**SF-20-20-3F **p23**SF-20-20-2H **p23**SF-20-20-R **p23**SF-20-40-1F **p23**SF-20-40-40 **p24**SF-20-DE45 **p24**SF-20-DE30 **p24**SF-20-DE60 **p25****Nut**(for 20 Series)T Nut SS **p26**  
Anti-Skid Cap SSST Nut Stopper SS **p26**Easy Nut SS **p26**After Nut SS **p27**  
After Nut Support SSLock Nut SS **p27**S Free Nut SS **p27**Joint Bar SS120 **p27****Bracket**(for 20 Series)

D Bracket SS

Electroless nickel **p28**D Bracket Spacer SS **p28**D Bracket Flat SS **p28**D Bracket Cross SS **p29**



## Parts (for 20 Series)





**Frame**SF-30-30 **p48**SF2-30-60 **p48**SF-K-30-30 **p49**SF-K-30-60 **p49**SF-30-90 **p49**SF-30-120 **p49**SF2-60-60-2S **p50**SF-60-90 **p50**SF-60-120 **p50**SF2-30-30-1F **p51**SF2-30-30-2F **p51**SF2-30-30-3F **p51**SF2-30-30-2H **p51**SF2-30-60-1F **p52**SF2-30-60-2H **p52**SF-30-60-60 **p52**SF-30-30-R **p52**SF-30-DE45 **p53**SF-30-DE30 **p53**SF-30-DE60 **p54**SF-50-50-2S **p54**SF-50-100-2S **p54**SF-35-35 **p55**SF-35-70 **p55****Nut**(for 30 Series)T Nut S **p56**  
Anti Skid Cap SST Nut Stopper S **p56**Easy Nut S **p56**After Nut S **p57**  
After Nut Support SLock Nut S **p57**S Free Nut S **p57**Free Nut with Headless Bolt S **p58**  
Free Stud SDouble Round Nut **p58**  
S30Double Joint S30 **p58**Joint Bar S140 **p58**Loctite Locknut **p59**

## Bracket (for 30 Series)

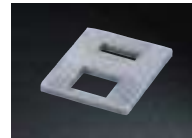


Adjuster Bracket M12 S Kit **p59**



D Bracket S

Electroless Nickel **p60**



D Bracket Spacer S **p60**



D Bracket Flat S **p60**



D Bracket Cross S **p61**



D Bracket 3060 **p61**



D Bracket S3060 **p61**



D Bracket SW **p62**



Hard Bracket S **p62**



Hard Bracket SG **p62**



Hard Bracket SW3030 **p63**



Hard Bracket with Stopper S **p63**



Hard Bracket with Stopper SG **p63**



Hard Bracket S3060 **p64**



Hard Bracket SG3060 **p64**



Hard Bracket SW3060 **p64**



Hard Bracket S3090 **p65**



Hard Bracket SG3090 **p65**



Hard Bracket S50 **p65**



Hard Bracket SG50 **p65**



Hard Bracket SW3090 **p65**



Angle Bracket S **p66**



Angle Bracket Hard S **p66**



Angle Bracket S3060 **p66**



Angle Bracket S50 **p67**



Angle Bracket S3090 **p67**



Offset Bracket S3060 **p67**



Friction Sheet M6 with Case **p67**



QC Joint S **p68**



TG Joint Kit 30 Wrench Hole Cap **p69**



Double Joint Kit S30 **p69**



Blind Bracket S **p70**



Block Bracket S Kit **p70**



Corner Block S Kit **p70**



R Bracket S Kit **p70**



Tapping Bolt S **p71**



Plate Bracket S **p72**



L Bracket S(Stainless) **p73**



Hard Bracket  
S-DE135



Hard Bracket  
S-DE45 **p73**



Hard Bracket  
S3060-DE135



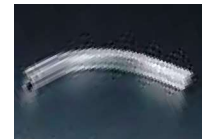
Hard Bracket  
S3060-DE45 **p73**



Truss Joint S **p74**



Turn Bracket 30A  
Turn Bracket 30B **p74**



Bend Bracket S **p75**

## Parts (for 30 Series)



Adjuster Kit **p76**



Foot Base **p77**



Anchor Bracket **p78**



Anchor Plate Bracket **p78**  
60602S Kit



Caster Plate S **p78**



Frame Cap **p79**



Frame Cap  
Lock Type **p80**



D Bracket Cap S **p80**  
Hard Bracket Cap



Slot Cap S **p80**



Slot Seal S **p80**



Cover Holder S **p81**  
Cover Support S



Cable Clamp S **p81**



Slot Hook S **p81**

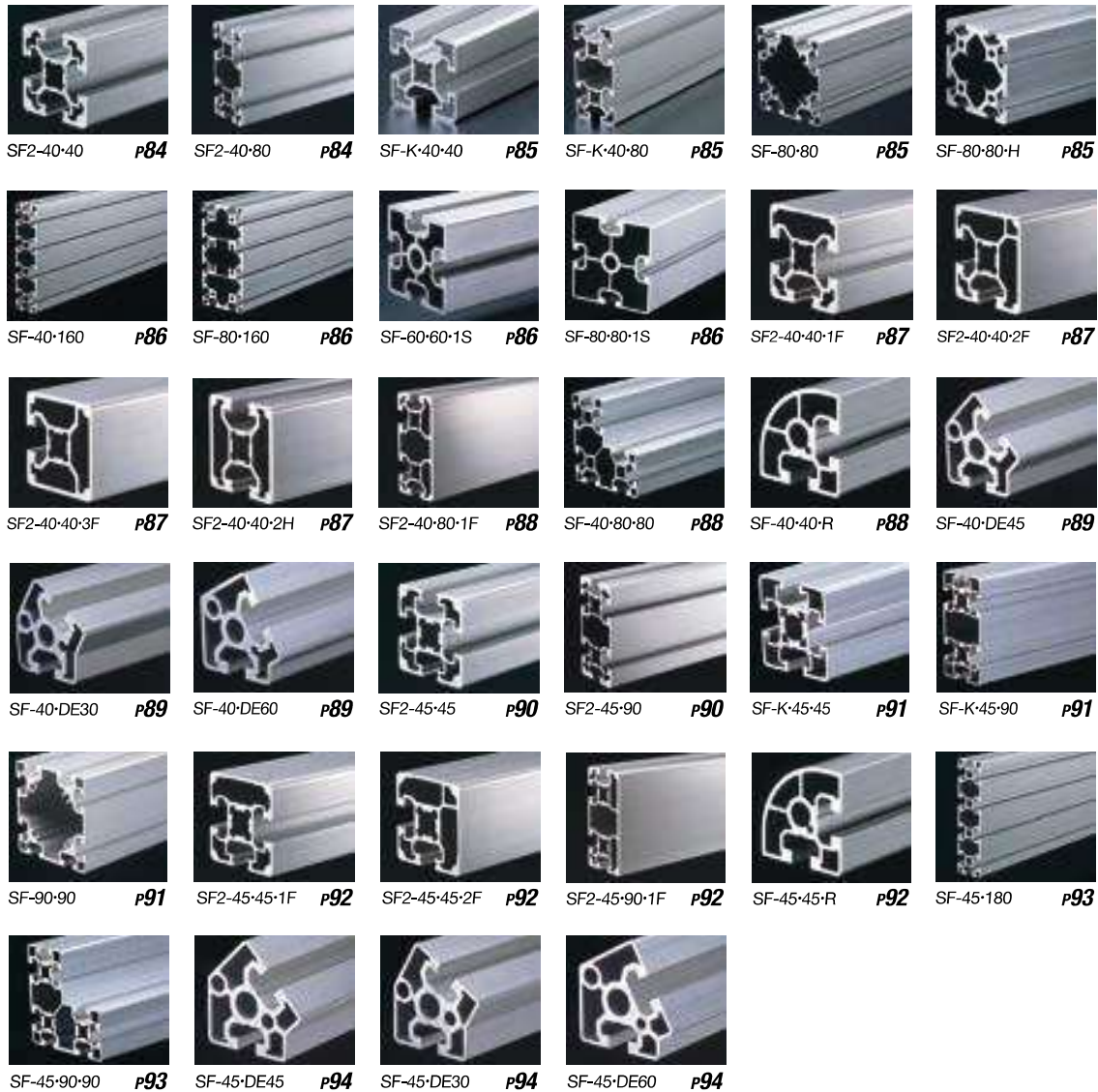


Slider S **p82**



Slot Roller S **p82**

## Frame



## Nut (for 40·45 Series)





**Bracket**(for 40·45 Series)

D Bracket L

Electroless nickel **p99**

D Bracket Spacer L

**p99**

D Bracket Flat L

**p99**

D Bracket Closs L

**p100**

D Bracket 4080/4590 Electroless nickel

**p100**

D Bracket LW

**p100**

D Bracket LWHG

**p101**

Hard Bracket L

**p101**

Hard Bracket LG

**p101**

Hard Bracket LW

**p102**

Hard Bracket with Stopper L

**p102**

Hard Bracket with Stopper LG

**p102**

Hard Bracket L4080

**p103**

Hard Bracket G80

**p103**

Hard Bracket LW4080

**p104**

Hard Bracket GW80

**p104**

Hard Bracket L4590

**p105**

Hard Bracket G90

**p105**

Hard Bracket LW4590

**p106**

Hard Bracket GW90

**p106**

Angle Bracket L40

**p107**

Angle Bracket Hard L40

**p107**

Angle Bracket L4080

**p107**

Angle Bracket L45

**p108**

Angle Bracket Hard L45

**p108**

Angle Bracket L4590

**p108**

Offset Bracket L4080

**p109**

Offset Bracket L4590

**p109**

L Bracket L

**p109**

Hard Bracket L·DE135/45

**p110**

Hard Bracket L4080·DE135/45

**p110**

Hard Bracket L4080·DE135/45

**p110**

Hard Bracket L4590·DE135/45

**p110**

Truss Joint L40/45

**p111**

Turn Bracket 40/45A·B

**p111~112**

Friction Sheet M8 with Case

**p112**

Bend Bracket L40

**p113**

Caster Plate L

**p113**

Adjuster Bracket M12 L Kit

**p113**

QC Joint L

**p114**

TG Joint Kit Wrench Hole Cap

**p115**

Double Joint Kit L

**p115**

Blind Bracket L

**p116**

R Bracket L40 Kit

**p116**

Tapping Bolt L40

**p116**

Plate Bracket L

**p117**

S Plate Bracket

**p118**

## Parts (for 40•45 Series)



Adjuster Kit **p119**



Foot Base **p120**



Anchor Bracket **p121**



Frame Cap **p122**



Frame Cap Lock Type N4040/4545 **p123**



D Bracket Cap L Hard Bracket Cap **p123**



Slot Cap L **p124**



Slot Seal L **p124**



Cable Clamp L **p125**



Slot Hook L **p125**



Cover Holder LCap Lock Type N4040/4545 **p125**



Slider L Hard Bracket Cap **p126**



Slot Roller L40/L45 **p126**

**SF**  
Aluminum Component

## Complex Parts



Flat Bar **p128**



Angle **p129**



Channel **p130**



Adjuster A **p130**



Adjuster B **p131**



Small Diameter Adjuster M12 **p131**



Adjuster with hole for floor fixing **p131**



Foot M8/M12 **p131**



Caspad **p132**



Caster Screw Fitting Type **p133**



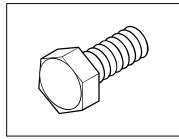
Free/Fixed Caster **p134**



Cable Holder **p135**



Cable Ring **p136**



Bolt **p137**

# Door Panel



Flat Hinge



**p140**



Slip-Joint Hinge **p141**  
Electroless Nickel/Acrylic Paint



Free Hinge **p142~143**  
Free Size Free Hinge



Door Lock **p144**



Pull **p145**



Magnet Catch **p146~148**  
NJ



Magnet Catch G **p149**



Magnet Catch with Limit Switch **p150~152**



Magnet Catch G with Limit Switch **p153**



Ball Catch **p154~155**



Panel Clamp **p156~157**



Seal Cover **p156~157**



Panel Frame SS **p158**



Panel Guard **p160**



Panel Guard T3 **p160**



Sliding Door Rail **p162~163**  
(Resin)



Sliding Door Rail **p162~163**  
2 Rows-3 Rows(Aluminum)



Sliding Door Frame Panel Joint Kit **p164**



Rail Guide Kit **p164**  
Sliding Door Wheel



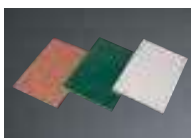
Folding Door Slider **p165**



Magnet Catch for Folding Door **p166**



Magnet Catch with Limit Switch for Folding Door **p166**

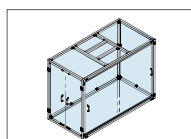


Wooden Board **p168**



Resin Panel **p168**

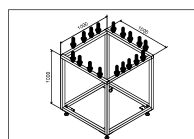
# Technical Data



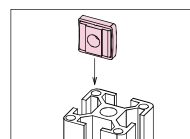
Standard Unit Type-Example of Free unit **p171~175**



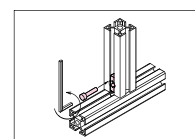
DATA



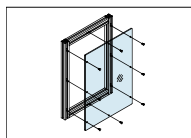
Aluminum Material Data **p176~**



Indication of Allowable Load **p178~**



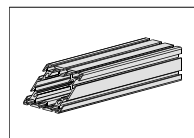
How to use Nut **p187**



How to joint Bracket **p188**



How to install **p194~195**  
Resin Panel



Aluminum Frame Q & A **p196**



# Standard Frame

SF is best suited for machine table or clean booth, and is very effective as components with the flexibility and recyclability. Also, the price setting is reasonable, with overturning the existing idea which says "Aluminum component is expensive". (SF corresponds to design support service and assembly shipment.)



# SF

## Standard Frame

### Total support from CAD design, arrangement to assembly shipment

To construct the aluminum component system, SUS is conducting "Assembly Shipment" and "Free Unit Quotation Service" which we draw up cubic diagram and parts table to estimate the cost based on customer's sketch drawing. Please utilize these services to reduce total cost and to shorten the working hours.

### Responds to resin and steel plate panel or assembly shipment

SUS processes various panels for covers or doors in production line, and assembles when delivery.

### Realized further price down

SUS realized the lower price than ever for SF series by reducing distribution costs and producing in our own factory. Thus, the price is more reasonable and you can decide to introduce equipment more easily.

### New service started to enable local buying in overseas

In view of high reputation in Japan, SUS is spreading to overseas. It's making a good progress to expand into Asian countries which developed countries' are impressively advancing in. We are organizing the system to enable purchasing component directly at your locations, establishing the bases across Asia.

## From Aluminum Frame & Resin Panel to Assemble Shipment

### Flexible Response and Quick Delivery

Degree of freedom to design is increased because frame is cut by 0.1mm unit from 50mm to 4000mm (some of them can be cut to 6000mm as special order). Also, parts standardization and self-manufacture enabled quick delivery.

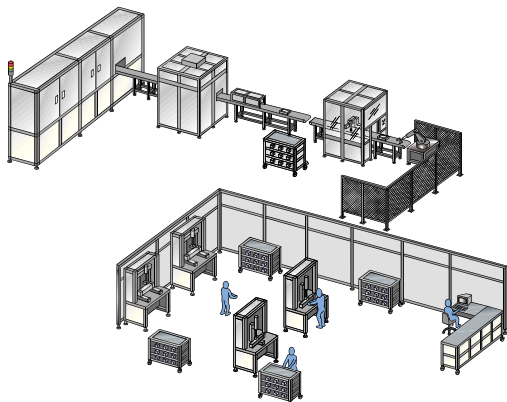
### Excellent Recyclability

Aluminum frames in SF series are combined by bolt and nut, so it's easy to disassemble and they can be reused. Also, in case you dispose, they can be recycled as resources.

SUS takes back the aluminum products in SF catalog as part of the recycling activities. We will reduce the amount of money for the next purchase, according to the weight of the received aluminum products.

### High-Stiffness and Beautiful Frame

At joint part, binding strength is highly ensured by using exclusive nuts. Aluminum surface is finished by alumite treatment (more than 9  $\mu$ m thickness) and it will maintain the glaze for a long time.



## ***Applications***



Auto Loader



Screw-Tightening Machine



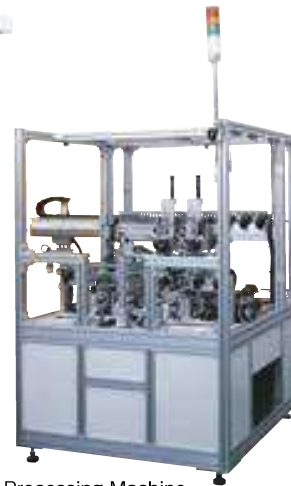
Palletizer



Take-Out Machine



Automatic Inspection Machine



Processing Machine



Coating Machine



Auto Loader

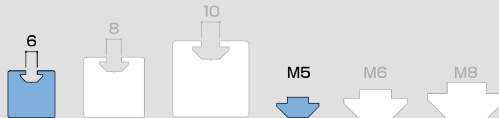




STANDARD FRAME

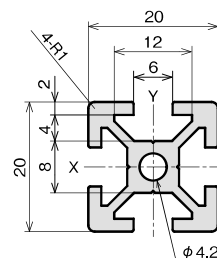
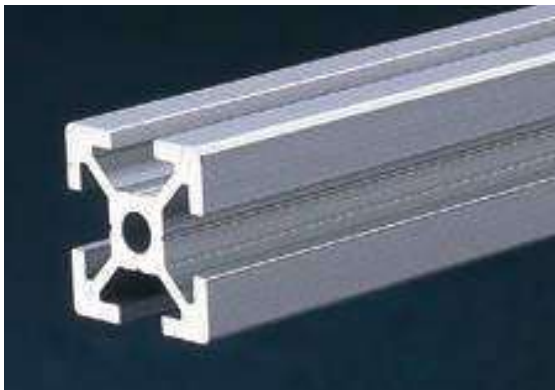
**SF20**  
SERIES





## SF-20·20

Asia



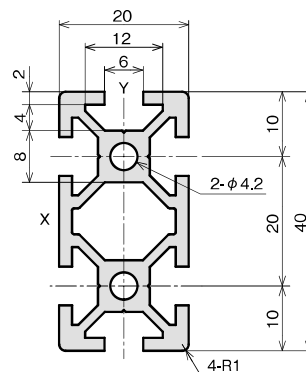
|          |                          |                             |
|----------|--------------------------|-----------------------------|
| Name     | SF-20·20 ( $\ell=4000$ ) | SF-20·20 $\ell=50\sim 4000$ |
| Item No. | SFF-202-T                | SFF-204-T                   |

## Material/Technical Data

|                               |                                    |
|-------------------------------|------------------------------------|
| Material                      | Aluminium Alloy                    |
|                               | Alumite Treatment                  |
| Environment                   | RoHS Compliant                     |
|                               | Green Procurement                  |
| Geometrical moment of inertia | $I_x=0.74 \times 10^4 \text{mm}^4$ |
|                               | $I_y=0.74 \times 10^4 \text{mm}^4$ |
| Section Modulus               | $Z_x=0.74 \times 10^3 \text{mm}^3$ |
|                               | $Z_y=0.74 \times 10^3 \text{mm}^3$ |
| Unit Mass                     | 0.49kg/m                           |

## SF-20·40

Asia



|          |                          |                             |
|----------|--------------------------|-----------------------------|
| Name     | SF-20·40 ( $\ell=4000$ ) | SF-20·40 $\ell=50\sim 4000$ |
| Item No. | SFF-242-T                | SFF-244-T                   |

## Material/Technical Data

|                               |                                    |
|-------------------------------|------------------------------------|
| Material                      | Aluminium Alloy                    |
|                               | Alumite Treatment                  |
| Environment                   | RoHS Compliant                     |
|                               | Green Procurement                  |
| Geometrical moment of inertia | $I_x=5.12 \times 10^4 \text{mm}^4$ |
|                               | $I_y=1.36 \times 10^4 \text{mm}^4$ |
| Section Modulus               | $Z_x=2.56 \times 10^3 \text{mm}^3$ |
|                               | $Z_y=1.36 \times 10^3 \text{mm}^3$ |
| Unit Mass                     | 0.88kg/m                           |



## SF Frame

Standard (  $\ell=4000$  ) (Cut by customer)Item No.  $\ell=4030$ ·Effective range of use  $\ell=4000$ 

SFF-202-T

Quantity (pcs)



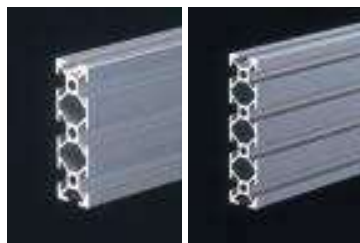
In case of specifying the length (Cut by SUS) ※Order by 0.1mm unit

Item No. Length (mm)

SFF-204-T  $\ell=800$

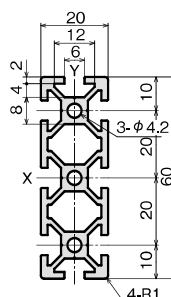
## SF-20-60 / SF-20-80

Asia

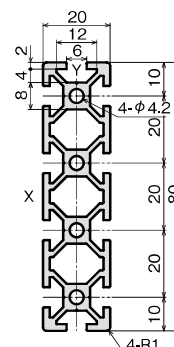


| Material/Technical Data |                                                                                                                                                      |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                                                                                                 |
| Environment             | RoHS Compliant<br>Green Procurement                                                                                                                  |
| Geometrical             | SF-20-60 SF-20-80                                                                                                                                    |
| Moment of Inertia       | $I_x=15.97 \times 10^4 \text{ mm}^4$ $I_y=36.13 \times 10^4 \text{ mm}^4$<br>$I_x=1.97 \times 10^4 \text{ mm}^4$ $I_y=2.58 \times 10^4 \text{ mm}^4$ |
| Section Modulus         | $Z_x=5.30 \times 10^3 \text{ mm}^3$ $Z_y=8.03 \times 10^3 \text{ mm}^3$<br>$Z_x=1.97 \times 10^3 \text{ mm}^3$ $Z_y=2.58 \times 10^3 \text{ mm}^3$   |
| Unit Mass               | 1.26kg/m 1.64kg/m                                                                                                                                    |

|          |                   |                    |
|----------|-------------------|--------------------|
| Name     | SF-20-60 (ℓ=4000) | SF-20-60 ℓ=50~4000 |
| Item No. | SFF-262-T         | SFF-264-T          |
| Name     | SF-20-80 (ℓ=4000) | SF-20-80 ℓ=50~4000 |
| Item No. | SFF-282-T         | SFF-284-T          |



SF-20-60



SF-20-80

## SF-40-40-2S

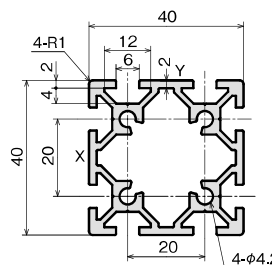
Asia



| Material/Technical Data |                                                                         |
|-------------------------|-------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                    |
| Environment             | RoHS Compliant<br>Green Procurement                                     |
| Geometrical             | SF-40-40-2S                                                             |
| Moment of Inertia       | $I_x=8.89 \times 10^4 \text{ mm}^4$ $I_y=8.89 \times 10^4 \text{ mm}^4$ |
| Section Modulus         | $Z_x=4.45 \times 10^3 \text{ mm}^3$ $Z_y=4.45 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 1.29kg/m                                                                |

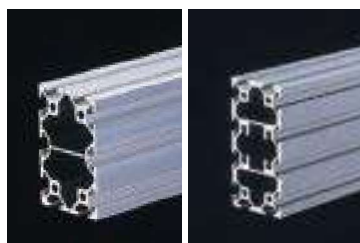
|          |                      |                       |
|----------|----------------------|-----------------------|
| Name     | SF-40-40-2S (ℓ=4000) | SF-40-40-2S ℓ=50~4000 |
| Item No. | SFF-402W-T           | SFF-404W-T            |

●Long Length (up to 6000mm) is available by special order.



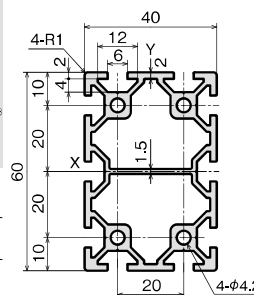
## SF-40-60-SS / SF-40-80-SS

Asia

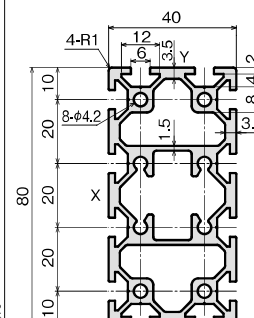


| Material/Technical Data |                                                                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                                                                                                   |
| Environment             | RoHS Compliant<br>Green Procurement                                                                                                                    |
| Geometrical             | SF-40-60-SS SF-40-80-SS                                                                                                                                |
| Moment of Inertia       | $I_x=27.03 \times 10^4 \text{ mm}^4$ $I_y=63.52 \times 10^4 \text{ mm}^4$<br>$I_x=12.63 \times 10^4 \text{ mm}^4$ $I_y=19.39 \times 10^4 \text{ mm}^4$ |
| Section Modulus         | $Z_x=9.01 \times 10^3 \text{ mm}^3$ $Z_y=15.88 \times 10^3 \text{ mm}^3$<br>$Z_x=6.31 \times 10^3 \text{ mm}^3$ $Z_y=9.20 \times 10^3 \text{ mm}^3$    |
| Unit Mass               | 1.80kg/m 2.70kg/m                                                                                                                                      |

|          |                      |                       |
|----------|----------------------|-----------------------|
| Name     | SF-40-60-SS (ℓ=4000) | SF-40-60-SS ℓ=50~4000 |
| Item No. | SFF-462              | SFF-464               |
| Name     | SF-40-80-SS (ℓ=4000) | SF-40-80-SS ℓ=50~4000 |
| Item No. | SFF-4082-T           | SFF-4084-T            |



SF-40-60-SS



SF-40-80-SS

●Exclusive Nut



T Nut SS  
After Nut SS  
Lock Nut SS  
Free Nut SS  
P26~

●Exclusive Cap

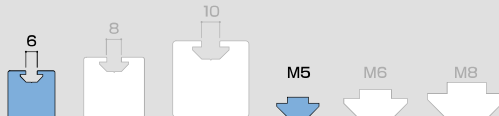


Frame Cap  
P43

●Additional processing and surface treatment are also available.



P198~



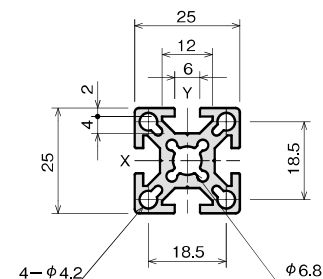
## SF-25·25

Asia



| Material/Technical Data |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                           |
| Environment             | RoHS Compliant<br>Green Procurement                                            |
| Geometrical             | $I_x = 1.64 \times 10^6 \text{ mm}^4$                                          |
| Moment of Inertia       | $I_y = 1.64 \times 10^6 \text{ mm}^4$                                          |
| Section Modulus         | $Z_x = 1.31 \times 10^3 \text{ mm}^3$<br>$Z_y = 1.31 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 0.78 kg/m                                                                      |

| Name     | SF-25·25 ( $\ell=4000$ ) | SF-25·25 $\ell=50 \sim 4000$ |
|----------|--------------------------|------------------------------|
| Item No. | SFF-252-T                | SFF-254-T                    |



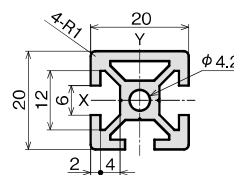
## SF-20·20·1F

Asia



| Material/Technical Data |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                           |
| Environment             | RoHS Compliant<br>Green Procurement                                            |
| Geometrical             | $I_x = 0.83 \times 10^6 \text{ mm}^4$                                          |
| Moment of Inertia       | $I_y = 0.75 \times 10^6 \text{ mm}^4$                                          |
| Section Modulus         | $Z_x = 0.78 \times 10^3 \text{ mm}^3$<br>$Z_y = 0.75 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 0.52 kg/m                                                                      |

| Name     | SF-20·20·1F ( $\ell=4000$ ) | SF-20·20·1F $\ell=50 \sim 4000$ |
|----------|-----------------------------|---------------------------------|
| Item No. | SFF-E22-T                   | SFF-E24-T                       |



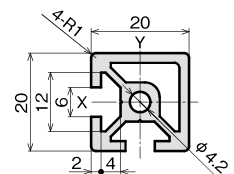
## SF-20·20·2F

Asia



| Material/Technical Data |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                           |
| Environment             | RoHS Compliant<br>Green Procurement                                            |
| Geometrical             | $I_x = 0.81 \times 10^6 \text{ mm}^4$                                          |
| Moment of Inertia       | $I_y = 0.81 \times 10^6 \text{ mm}^4$                                          |
| Section Modulus         | $Z_x = 0.79 \times 10^3 \text{ mm}^3$<br>$Z_y = 0.79 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 0.53 kg/m                                                                      |

| Name     | SF-20·20·2F ( $\ell=4000$ ) | SF-20·20·2F $\ell=50 \sim 4000$ |
|----------|-----------------------------|---------------------------------|
| Item No. | SFF-F22-T                   | SFF-F24-T                       |



## SF Frame

Standard (  $\ell=4000$  ) (Cut by customer)Item No.  $\ell=4030$  Effective range of use  $\ell=4000$ 

SFF-252-T

Quantity (pcs)



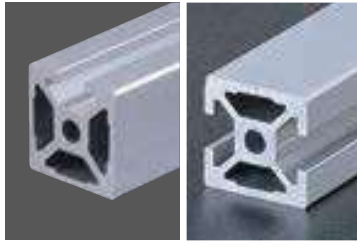
In case of specifying the length (Cut by SUS) \*Order by 0.1mm unit

Item No. Length (mm)

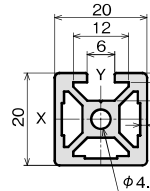
SFF-254-T  $\ell=800$

## SF-20·20·3F / SF-20·20·2H

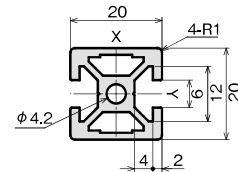
Asia



| Material/Technical Data |                                                                                                                                                                                                                               |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                                                                                                                                                                          |
| Environment             | RoHS Compliant<br>Green Procurement                                                                                                                                                                                           |
| Geometrical             | SF-20·20·3F SF-20·20·2H                                                                                                                                                                                                       |
| Moment of Inertia       | $I_x=0.81 \times 10^4 \text{ mm}^4$ $I_x=0.74 \times 10^4 \text{ mm}^4$                                                                                                                                                       |
| Section Modulus         | $I_y=0.89 \times 10^4 \text{ mm}^4$ $I_y=0.89 \times 10^4 \text{ mm}^4$<br>$Z_x=0.78 \times 10^3 \text{ mm}^3$ $Z_x=0.74 \times 10^3 \text{ mm}^3$<br>$Z_y=0.89 \times 10^3 \text{ mm}^3$ $Z_y=0.89 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 0.56kg/m 0.54kg/m                                                                                                                                                                                                             |



SF-20·20·3F



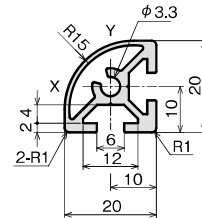
SF-20·20·2H

|          |                      |                       |
|----------|----------------------|-----------------------|
| Name     | SF-20·20·3F (ℓ=4000) | SF-20·20·3F ℓ=50~4000 |
| Item No. | SFF-FF22-T           | SFF-FF24-T            |
| Name     | SF-20·20·2H (ℓ=4000) | SF-20·20·2H ℓ=50~4000 |
| Item No. | SFF-FH22-T           | SFF-FH24-T            |

## SF-20·20·R



| Material/Technical Data |                                                                         |
|-------------------------|-------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                    |
| Environment             | RoHS Compliant<br>Green Procurement                                     |
| Geometrical             | SF-20·20·R                                                              |
| Moment of Inertia       | $I_x=0.55 \times 10^4 \text{ mm}^4$ $I_y=0.55 \times 10^4 \text{ mm}^4$ |
| Section Modulus         | $Z_x=0.48 \times 10^3 \text{ mm}^3$ $Z_y=0.48 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 0.40kg/m                                                                |



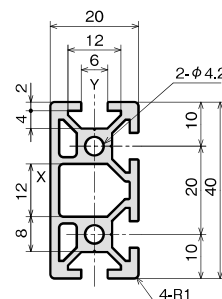
|          |                     |                      |
|----------|---------------------|----------------------|
| Name     | SF-20·20·R (ℓ=4000) | SF-20·20·R ℓ=50~4000 |
| Item No. | SFF-R52             | SFF-R54              |

## SF-20·40·1F

Asia



| Material/Technical Data |                                                                         |
|-------------------------|-------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                    |
| Environment             | RoHS Compliant<br>Green Procurement                                     |
| Geometrical             | SF-20·40·1F                                                             |
| Moment of Inertia       | $I_x=5.40 \times 10^4 \text{ mm}^4$ $I_y=1.53 \times 10^4 \text{ mm}^4$ |
| Section Modulus         | $Z_x=2.70 \times 10^3 \text{ mm}^3$ $Z_y=1.44 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 0.93kg/m                                                                |



|          |                      |                       |
|----------|----------------------|-----------------------|
| Name     | SF-20·40·1F (ℓ=4000) | SF-20·40·1F ℓ=50~4000 |
| Item No. | SFF-E242-T           | SFF-E244-T            |

●Exclusive Nut



T Nut SS  
After Nut SS  
Lock Nut SS  
Free Nut SS  
P26~

●Exclusive Cap

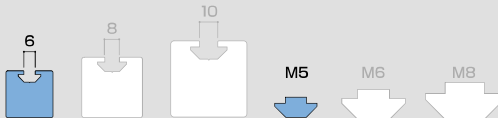


Frame Cap  
P43

●Additional processing and surface treatment are also available.



P198~

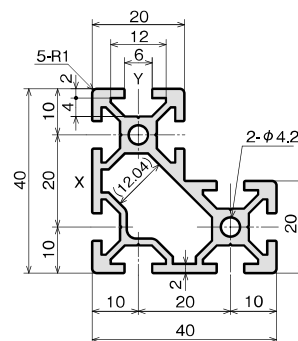


## SF-20·40·40



| Material/Technical Data |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                           |
| Environment             | RoHS Compliant<br>Green Procurement                                            |
| Geometrical             | $I_x = 6.61 \times 10^4 \text{ mm}^4$                                          |
| Moment of Inertia       | $I_y = 6.61 \times 10^4 \text{ mm}^4$                                          |
| Section Modulus         | $Z_x = 3.82 \times 10^3 \text{ mm}^3$<br>$Z_y = 3.82 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 1.16 kg/m                                                                      |

| Name     | SF-20·40·40 (ℓ=4000) | SF-20·40·40 ℓ=50~4000 |
|----------|----------------------|-----------------------|
| Item No. | SFF-G02              | SFF-G04               |

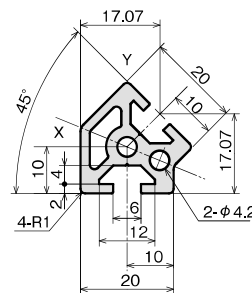


## SF-20·DE45



| Material/Technical Data |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                           |
| Environment             | RoHS Compliant<br>Green Procurement                                            |
| Geometrical             | $I_x = 0.82 \times 10^4 \text{ mm}^4$                                          |
| Moment of Inertia       | $I_y = 0.92 \times 10^4 \text{ mm}^4$                                          |
| Section Modulus         | $Z_x = 0.59 \times 10^3 \text{ mm}^3$<br>$Z_y = 0.69 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 0.59 kg/m                                                                      |

| Name     | SF-20·DE45 (ℓ=4000) | SF-20·DE45 ℓ=50~4000 |
|----------|---------------------|----------------------|
| Item No. | SFF-J52B            | SFF-J54B             |

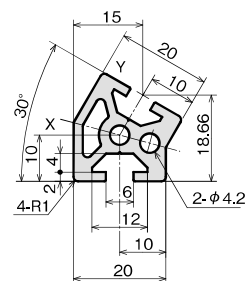


## SF-20·DE30



| Material/Technical Data |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                           |
| Environment             | RoHS Compliant<br>Green Procurement                                            |
| Geometrical             | $I_x = 0.80 \times 10^4 \text{ mm}^4$                                          |
| Moment of Inertia       | $I_y = 0.98 \times 10^4 \text{ mm}^4$                                          |
| Section Modulus         | $Z_x = 0.60 \times 10^3 \text{ mm}^3$<br>$Z_y = 0.77 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 0.61 kg/m                                                                      |

| Name     | SF-20·DE30 (ℓ=4000) | SF-20·DE30 ℓ=50~4000 |
|----------|---------------------|----------------------|
| Item No. | SFF-J52A            | SFF-J54A             |



## SF Frame

Standard (ℓ=4000) (Cut by customer)

Item No. ℓ=4030 Effective range of use ℓ=4000

SFF-G02

Quantity (pcs)



In case of specifying the length (Cut by SUS) \*Order by 0.1mm unit

Item No. Length (mm)

SFF-G04 ℓ=800

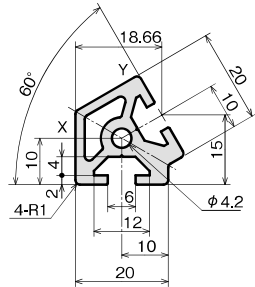


# SF-20•DE60



| Material/Technical Data |                                                                          |
|-------------------------|--------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                     |
| Environment             | RoHS Compliant<br>Green Procurement                                      |
| Geometrical             |                                                                          |
| Moment of Inertia       | $I_x=0.86 \times 10^4 \text{mm}^4$<br>$I_y=0.92 \times 10^4 \text{mm}^4$ |
| Section Modulus         | $Z_x=0.63 \times 10^3 \text{mm}^3$<br>$Z_y=0.73 \times 10^3 \text{mm}^3$ |
| Unit Mass               | 0.61 kg/m                                                                |

| Name     | SF-20•DE60 ( ℓ =4000) | SF-20•DE60 ℓ =50~4000 |
|----------|-----------------------|-----------------------|
| Item No. | SFF-J52C              | SFF-J54C              |



SF20  
SS Size

SF30  
S Size

SF40  
45  
L Size

Complex Parts

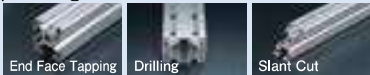
Door Panel  
Clean Equipment

Technical Data

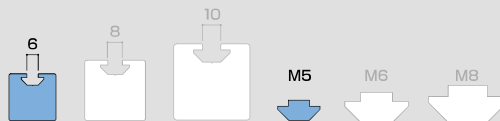
●Exclusive Nut  
T Nut SS  
After Nut SS  
Lock Nut SS  
Free Nut SS  
P26~

●Exclusive Cap  
Frame Cap  
P43

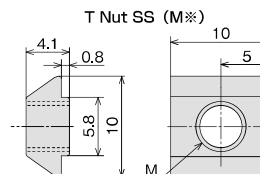
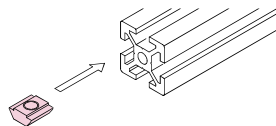
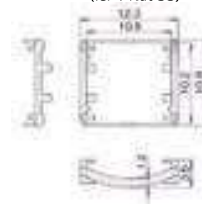
●Additional processing and surface treatment are also available.



P198~



## T Nut SS (M※) / Anti-Skid Cap SS

T Nut SS (M※)  
(for T Nut SS)

| Name     | T Nut SS(M5)<br>(ST Nut SS (M5) ) | T Nut SS(M4)<br>(ST Nut SS (M4) ) | T Nut SS(M3)<br>(ST Nut SS (M3) ) |
|----------|-----------------------------------|-----------------------------------|-----------------------------------|
| Item No. | SFB-013 (SFN-TX5)                 | SFB-012 (SFN-TX4)                 | SFB-011 (SFN-TX3)                 |
| Name     | Anti-Skid Cap SS<br>(50pcs/pack)  |                                   |                                   |
| Item No. | SFA-955                           |                                   |                                   |

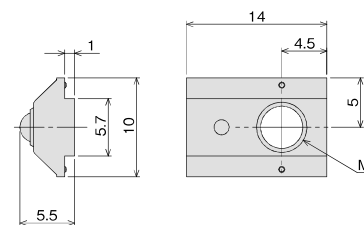
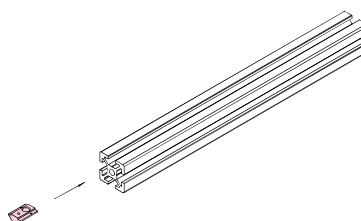
## ■ Usable Frame

Compatible to all SF20 series  
(Groove Width 6mm)

## ■ Material/Technical Data

| T Nut SS                                   | ST Nut SS                             | Anti-Skid Cap SS |
|--------------------------------------------|---------------------------------------|------------------|
| Material: Equivalent to S10C<br>Uni-Chrome | Stainless<br>With conductive function | POM              |
| Weight: 2g                                 | 2g                                    | 0.04g/piece      |
| Environment: RoHS Compliant                | Green Procurement                     |                  |

## ST Nut Stopper SS



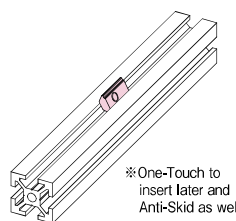
## ■ Usable Frame

Compatible to all SF20 series  
(Groove Width 6mm)

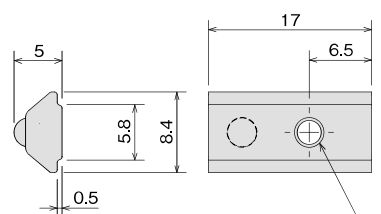
## ■ Material/Technical Data

| M5                          | M4        | M3        |
|-----------------------------|-----------|-----------|
| Material: Stainless         | Stainless | Stainless |
| Weight: 2.6g                | 2.6g      | 2.8g      |
| Environment: RoHS Compliant |           |           |

## Easy Nut SS (M※)



\*One-Touch to insert later and Anti-Skid as well



## ■ Usable Frame

Compatible to all SF20 series  
(Groove Width 6mm)

## ■ Material/Technical Data

| S Easy Nut SS                                     | Easy Nut SS CN                           | Easy Nut SS                              |
|---------------------------------------------------|------------------------------------------|------------------------------------------|
| Material: Stainless<br>With conductive Ni-plating | Equivalent to S10C<br>Uni-Chrome plating | Equivalent to S10C<br>Uni-Chrome plating |
| Weight: 4g/piece                                  |                                          |                                          |
| Environment: RoHS Compliant                       | Green Procurement                        |                                          |



## Parts

How to order

Item No. SFB-013

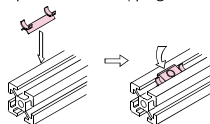
Quantity (pcs)



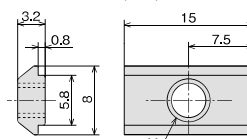
## After Nut SS (M※) / After Nut Support SS



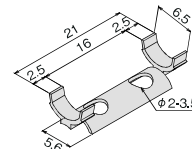
※Using After Nut Support together prevents from slipping.



After Nut SS(M※)



After Nut Support SS (for After Nut)



| Name     | After Nut SS(M5)<br>※1 (S After Nut SS(M5)) | After Nut SS(M4)<br>(S After Nut SS(M4)) | After Nut SS(M3)<br>(S After Nut SS(M3)) |
|----------|---------------------------------------------|------------------------------------------|------------------------------------------|
| Item No. | SFB-605 (SFB-SH5)                           | SFB-604 (SFB-AX4)                        | SFB-603 (SFB-AX3)                        |
| Name     | After Nut Support SS (50pcs/pack)           |                                          |                                          |
| Item No. | SFA-9A1                                     |                                          |                                          |

※1 No conductive type with S After Nut SS

■Usable Frame —  
Compatible to all SF20 series  
(Groove Width 6mm)

### Material/Technical Data

|             | After Nut SS                     | S After Nut SS                        | After Nut Support SS |
|-------------|----------------------------------|---------------------------------------|----------------------|
| Material    | Equivalent to S10C<br>Uni-Chrome | Stainless<br>With conductive function | PP Resin             |
| Weight      | 2g                               | 2g                                    | 0.10g/piece          |
| Environment | ★RoHS Compliant                  | ★Green Procurement                    |                      |

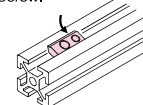
## Lock Nut SS (M※) / S Free Nut SS (M※)



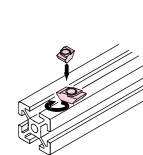
| Name     | Lock Nut SS(M5)<br>(S Lock Nut SS(M5)) | Lock Nut SS(M4)<br>(S Lock Nut SS(M4)) | Lock Nut SS(M3)<br>(S Lock Nut SS(M3)) |
|----------|----------------------------------------|----------------------------------------|----------------------------------------|
| Item No. | ★SFB-4D5 (★SFB-SD5)                    | ★SFB-4D4 (★SFB-LX4)                    | ★SFB-4D3 (★SFB-LX3)                    |
| Name     | S Free Nut SS(M4)                      |                                        | S Free Nut SS(M3)                      |
| Item No. | ★SFB-FX4                               |                                        | ★SFB-FX3                               |

Lock Nut SS (M※)

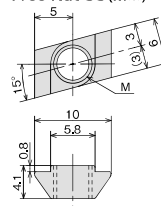
※You can fix Nut and conduct electricity by tightening attached Set Screw.



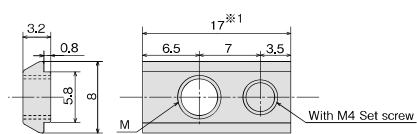
S Free Nut SS



Free Nut SS(M※)



Lock Nut SS (M※)



※1 M3 and M4: Length 15

■Usable Frame —  
Compatible to all SF20 series  
(Groove Width 6mm)

### Material/Technical Data

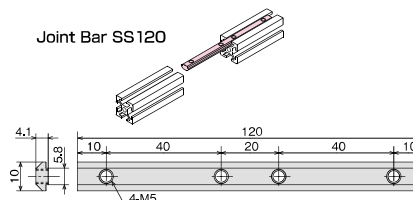
|             | Lock Nut SS                      | Lock Nut SS        | S Free Nut SS                         |
|-------------|----------------------------------|--------------------|---------------------------------------|
| Material    | Equivalent to S10C<br>Uni-Chrome | Stainless          | Stainless<br>With conductive function |
| Weight      | 2g                               | 2g                 | 1g                                    |
| Environment | ★RoHS Compliant                  | ★Green Procurement |                                       |

## Joint Bar SS 120



| Name(Single Item) | Joint Bar SS120 | Name(With Set Screw) | Joint Bar SS120 Kit |
|-------------------|-----------------|----------------------|---------------------|
| Item No.          | ★SFJ-605        | Item No.             | ★SFK-605            |

Joint Bar SS120

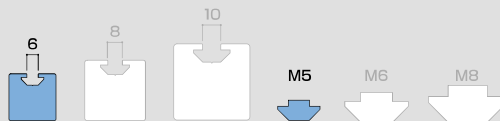


■Usable Frame —  
Compatible to all SF20 series  
(Groove Width 6mm)

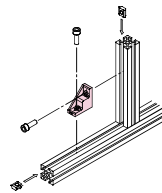
■Kit contents —  
●Joint Bar SS120×1  
●Set screw (M5×5)×4

### Material/Technical Data

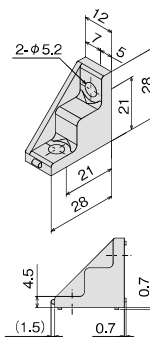
|             |                                          |
|-------------|------------------------------------------|
| Material    | Equivalent to S10C<br>Uni-Chrome plating |
| Weight      | about 25g                                |
| Environment | ★RoHS Compliant ★Green Procurement       |



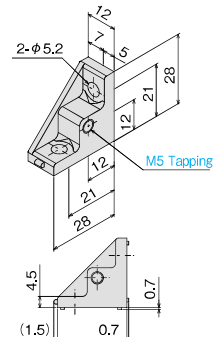
## D Bracket SS



D Bracket SS



D Bracket SS with Tap



|                        |                                                 |                                                                       |                                                       |
|------------------------|-------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------|
| Name(Single Item)      | D Bracket SS<br>(D Bracket SS with Tap)         |                                                                       | D Bracket SS-CN<br>(D Bracket SS-CN with Tap)         |
| Item No.               | ★SFJ-016 ★SFJ-017                               |                                                                       | ★SFJ-016N ★SFJ-017N                                   |
| Name(Bolt and Nut Kit) | D Bracket SS Kit<br>(D Bracket SS with Tap Kit) | D Bracket SS(Stainless)Kit<br>(D Bracket SS with Tap (Stainless) Kit) | D Bracket SS-CN Kit<br>(D Bracket SS-CN with Tap Kit) |
| Item No.               | ★SFK-016 ★SFK-017                               | ★SFK-016S ★SFK-017S                                                   | ★SFK-016N ★SFK-017N                                   |

Please use Kit with Tap to install Side Cover. (Refer P45 for details.)

## Usable Frame

Compatible to all SF20 series  
(Groove Width 6mm)

## Kit Contents

- D Bracket SS (or with Tap) × 1
- Hexagon Socket Bolt (M5×10) × 2
- T Nut SS(M5)×2
- ※ Bolt and Nut in CN (Stainless)  
Kit are Stainless.

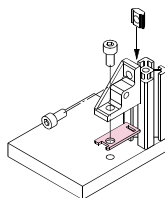
## Material/Technical Data

Material Aluminum Die-Cast  
(CN:Electroless nickel plating)  
With Anti-Skid Function

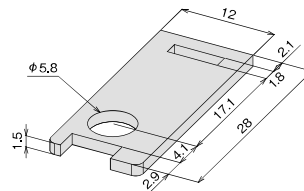
Weight 11g

Environment ★RoHS Compliant  
★Green Procurement

## D Bracket Spacer SS



- Setting to bottom of D Bracket enables to fix on a flat base.



|          |                     |
|----------|---------------------|
| Name     | D Bracket Spacer SS |
| Item No. | SFJ-400S            |

## Usable Frame

Compatible to all SF20 series  
(Groove Width 6mm)

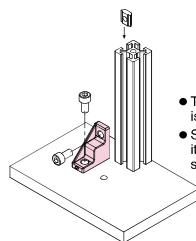
## Material/Technical Data

Material SUS304

Weight 4g

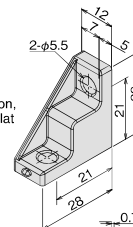
Environment ★RoHS Compliant  
★Green Procurement

## D Bracket Flat SS

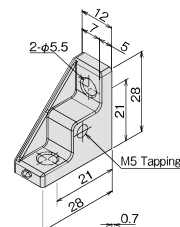


- The D bracket flat SS-B is a mirror image
- Since there is no projection, it can be flush fitted to a flat surface

D Bracket Flat SS



D Bracket Flat SS-A with Tap



|                        |                                                               |                                                                                       |
|------------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Name(Single Item)      | D Bracket Flat SS-A<br>(D Bracket Flat SS-A with Tap)         |                                                                                       |
| Item No.               | SFJ-035 (SFJ-036)                                             |                                                                                       |
| Name(Bolt and Nut Kit) | D Bracket Flat SS-A Kit<br>(D Bracket Flat SS-A with Tap Kit) | D Bracket Flat SS-A Kit (Stainless)<br>(D Bracket Flat SS-A with Tap Kit (Stainless)) |
| Item No.               | SFK-035 (SFK-036)                                             | SFK-035S (SFK-036S)                                                                   |
| Name(Single Item)      | D Bracket Flat SS-B<br>(D Bracket Flat SS-B with Tap)         |                                                                                       |
| Item No.               | SFJ-037 (SFJ-038)                                             |                                                                                       |
| Name(Bolt and Nut Kit) | D Bracket Flat SS-B Kit<br>(D Bracket Flat SS-B with Tap Kit) | D Bracket Flat SS-B Kit (Stainless)<br>(D Bracket Flat SS-B with Tap Kit (Stainless)) |
| Item No.               | SFK-037 (SFK-038)                                             | SFK-037S (SFK-038S)                                                                   |

## Usable Frame

Compatible to all SF20 series  
(Groove Width 6mm)

## Kit Contents

- D Bracket SS-A/B (or with Tap) × 1
- Hexagon Socket Bolt (M5×10) × 2
- T Nut SS(M5)×2
- ※ Bolt and Nut in (Stainless)  
Kit are Stainless.

## Material/Technical Data

Material ADC12

Weight 22g (D Bracket Flat SS)  
21g (D Bracket Flat SS with Tap)

Environment ★RoHS Compliant



## Parts

How to order

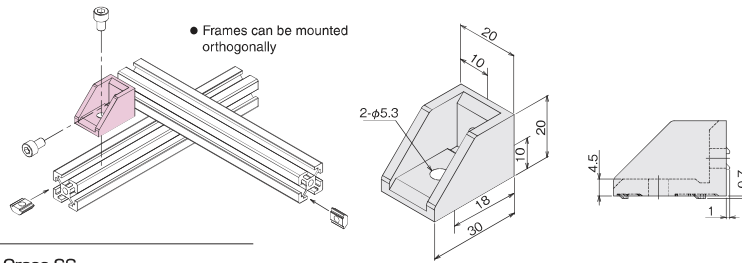
Item No. SFJ-016

Quantity (pcs)

● Cap for Bracket  
P43

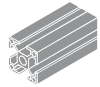


## D Bracket Cross SS



|                        |                        |                                    |
|------------------------|------------------------|------------------------------------|
| Name(Single Item)      | D Bracket Cross SS     |                                    |
| Item No.               | SFJ-043                |                                    |
| Name(Bolt and Nut Kit) | D Bracket Cross SS Kit | D Bracket Cross SS Kit (Stainless) |
| Item No.               | SFK-043                | SFK-043S                           |

### Usable Frame



Compatible to all SF20 series  
(Groove Width 6mm)

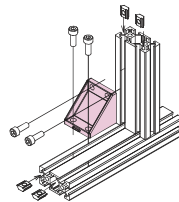
### Kit Contents

- D Bracket Cross SS×1
- Hexagon Socket Bolt (M5×10)×2
- T Nut SS(M5)×2
- ※ Bolt and Nut in (Stainless) Kit are Stainless.

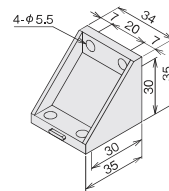
### Material/Technical Data

Material ADC12  
Weight 13g (D Bracket Cross SS)  
Environment **RoHS** Compliant

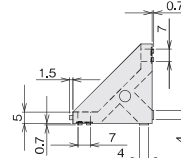
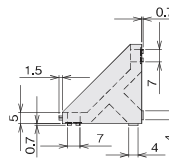
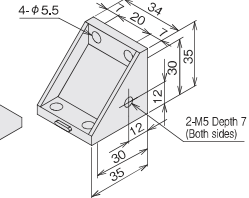
## D Bracket 2040



D Bracket 2040

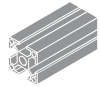


D Bracket 2040 with Tap



|                        |                                                     |                                                                             |
|------------------------|-----------------------------------------------------|-----------------------------------------------------------------------------|
| Name(Single Item)      | D Bracket 2040<br>(D Bracket 2040 with Tap)         |                                                                             |
| Item No.               | SFJ-020 (SFJ-020T)                                  |                                                                             |
| Name(Bolt and Nut Kit) | D Bracket 2040 Kit<br>(D Bracket 2040 with Tap Kit) | D Bracket 2040 (Stainless) Kit<br>(D Bracket 2040 with Tap (Stainless) Kit) |
| Item No.               | SFK-020 (SFK-020T)                                  | SFK-020S (SFK-020P)                                                         |

### Usable Frame



Compatible to all SF20 series  
(Groove Width 6mm)

### Kit Contents

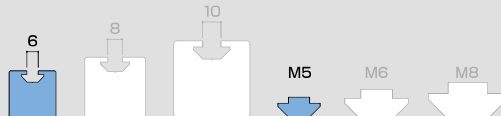
- D Bracket 2040(or with Tap)×1
- Hexagon Socket Bolt (M5×10)×4
- T Nut SS(M5)×4

### Material/Technical Data

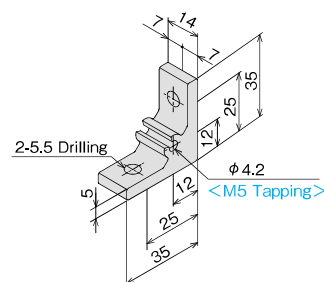
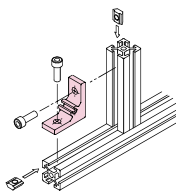
Material Aluminum Die-Cast  
With Anti-Skid Function  
Weight 34g  
Environment **RoHS** Compliant  
**Green** Procurement

Please use Kit with Tap to install Side Cover. (Refer P45 for details.)





## Hard Bracket SS



Please use Kit with Tap to install Side Cover. (Refer P45 for details.)

|                        |                                                       |                                                                            |
|------------------------|-------------------------------------------------------|----------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket SS<br>(Hard Bracket SS with Tap)         |                                                                            |
| Item No.               | ★SFJ-N01 ★SFJ-N01T                                    |                                                                            |
| Name(Bolt and Nut Kit) | Hard Bracket SS Kit<br>(Hard Bracket SS with Tap Kit) | Hard Bracket SS(Stainless)Kit<br>(Hard Bracket SS with Tap(Stainless) Kit) |
| Item No.               | ★SFK-N01 ★SFK-N01T                                    | ★SFK-N01S ★SFK-N01P                                                        |



■Usable Frame —  
Compatible to all SF20 series  
(Groove Width 6mm)

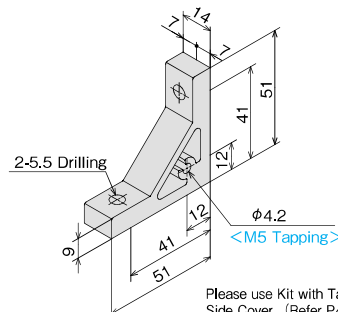
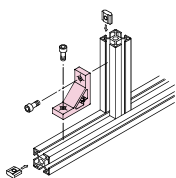
## ■Kit Contents

- Hard Bracket SS(or with Tap)×1
- Hexagon Socket Bolt (M5×10)×2
- T Nut SS(M5)×2
- \*Bolt and Nut in (Stainless)
- Kit are stainless.

## ■Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Perpendicular surface is machining finished.  
Weight 15g  
Environment ★RoHS Compliant  
★Green Procurement

## Hard Bracket SSG



Please use Kit with Tap to install Side Cover. (Refer P45 for details.)

|                        |                                                         |                                                                              |
|------------------------|---------------------------------------------------------|------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket SSG<br>(Hard Bracket SSG with Tap)         |                                                                              |
| Item No.               | ★SFJ-N23 ★SFJ-N23T                                      |                                                                              |
| Name(Bolt and Nut Kit) | Hard Bracket SSG Kit<br>(Hard Bracket SSG with Tap Kit) | Hard Bracket SSG(Stainless)Kit<br>(Hard Bracket SSG with Tap(Stainless) Kit) |
| Item No.               | ★SFK-N23 ★SFK-N23T                                      | ★SFK-N23S ★SFK-N23P                                                          |



■Usable Frame —  
Compatible to all SF20 series  
(Groove Width 6mm)

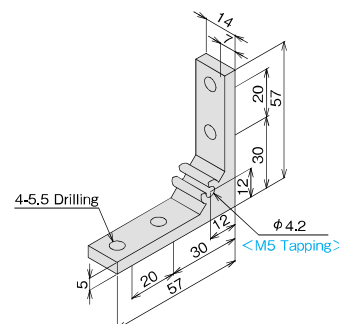
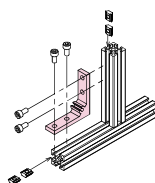
## ■Kit Contents

- Hard Bracket SSG(or with Tap)×1
- Hexagon Socket Bolt(M5×14)×2
- T Nut SS(M5)×2
- \*Bolt and Nut in (Stainless)
- Kit are stainless.

## ■Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Perpendicular surface is machining finished.  
Weight 31g  
Environment ★RoHS Compliant  
★Green Procurement

## Hard Bracket SSW2020



Please use Kit with Tap to install Side Cover. (Refer P45 for details.)

|                        |                                                                 |                                                                                     |
|------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket SSW2020<br>(Hard Bracket SSW2020 with Tap)         |                                                                                     |
| Item No.               | SFJ-N14(SFJ-N14T)                                               |                                                                                     |
| Name(Bolt and Nut Kit) | Hard Bracket SSW2020 Kit<br>(Hard Bracket SSW2020 with Tap Kit) | Hard Bracket SSW2020(Stainless)Kit<br>(Hard Bracket SSW2020 with Tap(Stainless)Kit) |
| Item No.               | SFK-N14(SFK-N14T)                                               | SFK-N14S(SFK-N14P)                                                                  |



■Usable Frame —  
Compatible to all SF20 series  
(Groove Width 6mm)

## ■Kit Contents

- Hard Bracket SSW2020(or with Tap)×1
- Hexagon Socket Bolt (M5×10)×4
- T Nut SS(M5)×4
- \*Bolt and Nut in (Stainless)
- Kit are stainless.

## ■Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
(Special order:Black Alumite is also available.)  
Perpendicular surface is machining finished.  
Weight 22g  
Environment ★RoHS Compliant  
★Green Procurement



## Parts

How to order

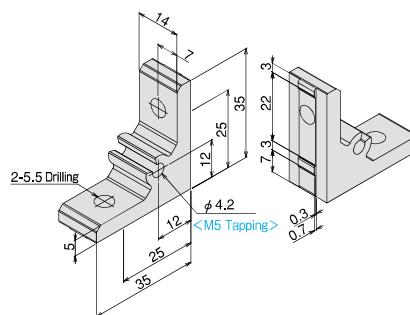
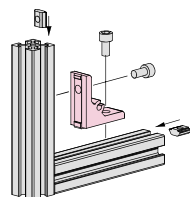
Item No. SFJ-N01

Quantity (pcs)

●Cap for Bracket  
P43



## Hard Bracket with Stopper SS



Please use Kit with Tap to install Side Cover. (Refer P45 for details.)

|                        |                                                                                 |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket with Stopper SS<br>(Hard Bracket with Stopper SS with Tap)         |                                                                                                         |
| Item No.               | SFJJ-N58 (SFJ-N58T)                                                             |                                                                                                         |
| Name(Bolt and Nut Kit) | Hard Bracket with Stopper SS Kit<br>(Hard Bracket with Stopper SS with Tap Kit) | Hard Bracket with Stopper SS Kit (Stainless)<br>(Hard Bracket with Stopper SS with Tap Kit (Stainless)) |
| Item No.               | SFK-N58(SFK-N58T)                                                               | SFK-N58S(SFK-N58P)                                                                                      |



■ Usable Frame —  
Compatible to all SF20 series  
(Groove Width 6mm)

## ■Material/Technical Data

**Material** A6N01SS-T5  
Alumite Treatment  
Perpendicular surface is machining finished.  
With Rotation-Prevention Function

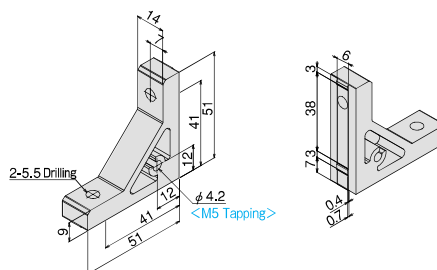
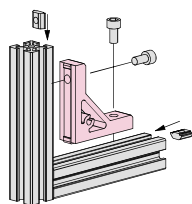
**Weight** 16g

**Environment** ★RoHS Compliant

## Kit Contents:

- Hard Bracket with Stopper SS (or with Tap) ×1
  - Hexagon Socket Bolt (M5×10) ×2
  - T Nut SS (M5) ×2
  - ※ Bolt and Nut in (Stainless)
- Kit are stainless.

## Hard Bracket with Stopper SSG



Please use Kit with Tap to install Side Cover. (Refer P45 for details.)

|                        |                                                                                   |                                                                                                           |
|------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket with Stopper SSG<br>(Hard Bracket with Stopper SSG with Tap)         |                                                                                                           |
| Item No.               | SFJ-N59 (SFJ-N59T)                                                                |                                                                                                           |
| Name(Bolt and Nut Kit) | Hard Bracket with Stopper SSG Kit<br>(Hard Bracket with Stopper SSG with Tap Kit) | Hard Bracket with Stopper SSG Kit (Stainless)<br>(Hard Bracket with Stopper SSG with Tap Kit (Stainless)) |
| Item No.               | SFK-N59 (SFK-N59T)                                                                | SFK-N59S (SFK-N59P)                                                                                       |



■ **Usable Frame** —  
Compatible to all SF20 series  
(Groove Width 6mm)

## ■Material/Technical Data

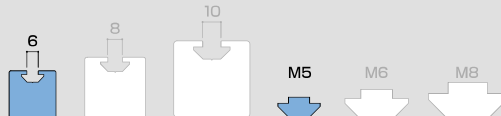
**Material** A6N01SS-T5  
Alumite Treatment  
Perpendicular surface is machining finished.  
With Rotation-Prevention Function

**Weight** 32g

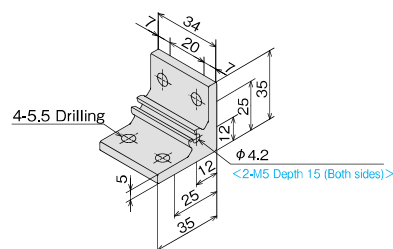
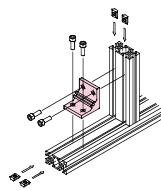
**Environment** ★RoHS Compliant

## ■ Kit Contents

- Hard Bracket with Stopper SSG (or with Tao) × 1
  - Hexagon Socket Bolt (M5×14) × 2
  - T Nut SS (M5) × 2
  - ※ Bolt and Nut in (Stainless)
- Kit are stainless.



## Hard Bracket SS2040



Please use Kit with Tap to install Side Cover. (Refer P45 for details.)

|                        |                                                               |                                                                                     |
|------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket SS2040<br>(Hard Bracket SS2040 with Tap)         |                                                                                     |
| Item No.               | ★SFJ-N02 ★SFJ-N02T                                            |                                                                                     |
| Name(Bolt and Nut Kit) | Hard Bracket SS2040 Kit<br>(Hard Bracket SS2040 Kit with Tap) | Hard Bracket SS2040(Stainless)Kit<br>(Hard Bracket SS2040 with Tap (Stainless) Kit) |
| Item No.               | ★SFK-N02 ★SFK-N02T                                            | ★SFK-N02S ★SFK-N02P                                                                 |

## Usable Frame



SF-20-40/SF-40-40-2S/SF-40-60-SS/  
SF-20-40-40(1F)

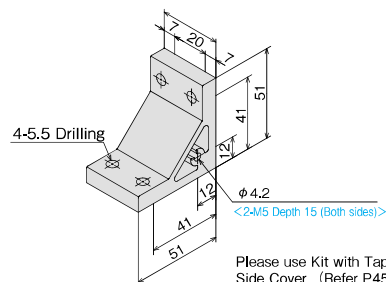
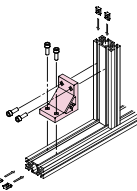
## Kit Contents

- Hard Bracket SS2040(or with Tap)×1
  - Hexagon Socket Bolt (M5×10)×4
  - T Nut SS(M5)×4
  - \* Bolt and Nut in (Stainless)
- Kit are stainless.

## Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Perpendicular surface is machining finished.  
Weight 36g  
Environment ★RoHS Compliant  
★Green Procurement

## Hard Bracket SSG2040



Please use Kit with Tap to install Side Cover. (Refer P45 for details.)

|                        |                                                                 |                                                                                       |
|------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket SSG2040<br>(Hard Bracket SSG2040 with Tap)         |                                                                                       |
| Item No.               | ★SFJ-N24 ★SFJ-N24T                                              |                                                                                       |
| Name(Bolt and Nut Kit) | Hard Bracket SSG2040 Kit<br>(Hard Bracket SSG2040 Kit with Tap) | Hard Bracket SSG2040(Stainless)Kit<br>(Hard Bracket SSG2040 with Tap (Stainless) Kit) |
| Item No.               | ★SFK-N24 ★SFK-N24T                                              | ★SFK-N24S ★SFK-N24P                                                                   |

## Usable Frame



SF-20-40/SF-40-40-2S/SF-40-60-SS/  
SF-20-40-40(1F)

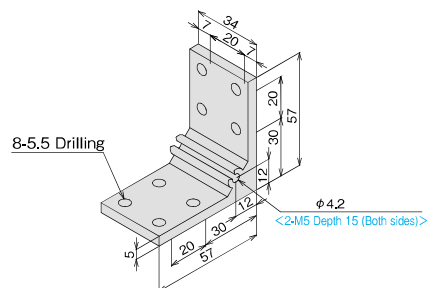
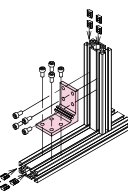
## Kit Contents

- Hard Bracket SSG2040(or with Tap)×1
  - Hexagon Socket Bolt (M5×14)×4
  - T Nut SS(M5)×4
  - \* Bolt and Nut in (Stainless)
- Kit are stainless.

## Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Perpendicular surface is machining finished.  
Weight 75g  
Environment ★RoHS Compliant  
★Green Procurement

## Hard Bracket SSW2040



Please use Kit with Tap to install Side Cover. (Refer P45 for details.)

|                        |                                                                 |                                                                                       |
|------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket SSW2040<br>(Hard Bracket SSW2040 with Tap)         |                                                                                       |
| Item No.               | SFJ-N15(SFJ-N15T)                                               |                                                                                       |
| Name(Bolt and Nut Kit) | Hard Bracket SSW2040 Kit<br>(Hard Bracket SSW2040 Kit with Tap) | Hard Bracket SSW2040(Stainless)Kit<br>(Hard Bracket SSW2040 with Tap (Stainless) Kit) |
| Item No.               | SFK-N15(SFK-N15T)                                               | SFK-N15S(SFK-N15P)                                                                    |

## Usable Frame



SF-20-40/SF-40-40-2S/SF-40-60-SS/  
SF-20-40-40(1F)

## Kit Contents

- Hard Bracket SSW2040(or with Tap)×1
  - Hexagon Socket Bolt (M5×10)×8
  - T Nut SS(M5)×8
  - \* Bolt and Nut in (Stainless)
- Kit are stainless.

## Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
(Special order Black Alumite is also available.)  
Perpendicular surface is machining finished.  
Weight 56g  
Environment ★RoHS Compliant  
★Green Procurement



## Parts

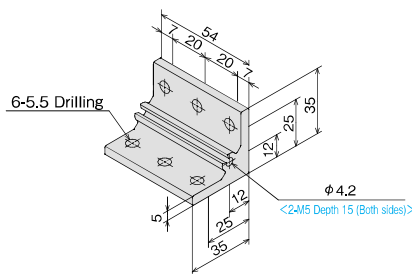
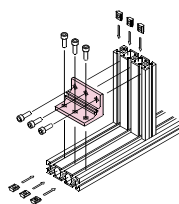
How to order

Item No. Quantity (pcs)  
SFJ-N02

● Cap for Bracket  
P43

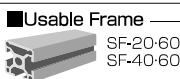


## Hard Bracket SS2060



Please use Kit with Tap to install Side Cover. (Refer P45 for details.)

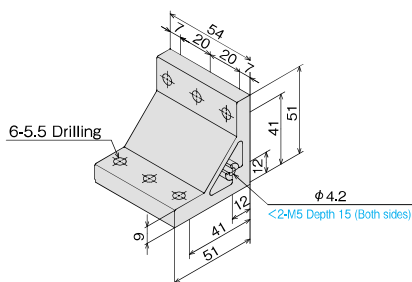
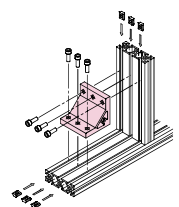
|                        |                                                               |                                                                                     |
|------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket SS2060<br>(Hard Bracket SS2060 with Tap)         |                                                                                     |
| Item No.               | SFJ-N09 (SFJ-N09T)                                            |                                                                                     |
| Name(Bolt and Nut Kit) | Hard Bracket SS2060 Kit<br>(Hard Bracket SS2060 Kit with Tap) | Hard Bracket SS2060(Stainless)Kit<br>(Hard Bracket SS2060 with Tap (Stainless) Kit) |
| Item No.               | SFK-N09 (SFK-N09T)                                            | SFK-N09S (SFK-N09P)                                                                 |



- Kit Contents
- Hard Bracket SS2060(or with Tap)×1
  - Hexagon Socket Bolt (M5×10) ×6
  - T Nut SS (M5)×6
  - ※Bolt and Nut in (Stainless) Kit are stainless.

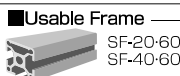
■Material/Technical Data  
Material Aluminium Alloy  
Alumite Treatment  
(Special Order:Black Alumite is also available.)  
Perpendicular surface is machining finished.  
Weight 60g  
Environment RoHS Compliant  
Green Procurement

## Hard Bracket SSG2060



Please use Kit with Tap to install Side Cover. (Refer P45 for details.)

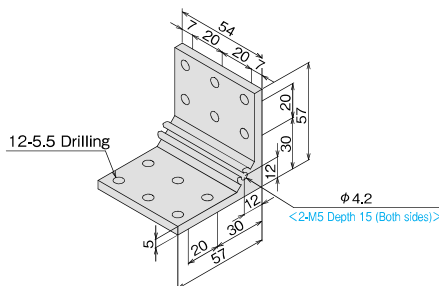
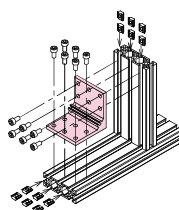
|                        |                                                                 |                                                                                       |
|------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket SSG2060<br>(Hard Bracket SSG2060 with Tap)         |                                                                                       |
| Item No.               | SFJ-N25 (SFJ-N25T)                                              |                                                                                       |
| Name(Bolt and Nut Kit) | Hard Bracket SSG2060 Kit<br>(Hard Bracket SSG2060 Kit with Tap) | Hard Bracket SSG2060(Stainless)Kit<br>(Hard Bracket SSG2060 with Tap (Stainless) Kit) |
| Item No.               | SFK-N25 (SFK-N25T)                                              | SFK-N25S (SFK-N25P)                                                                   |



- Kit Contents
- Hard Bracket SSG2060(or with Tap)×1
  - Hexagon Socket Bolt (M5×14) ×6
  - T Nut SS (M5)×6
  - ※Bolt and Nut in (Stainless) Kit are stainless.

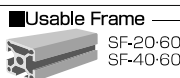
■Material/Technical Data  
Material Aluminium Alloy  
Alumite Treatment  
(Special Order:Black Alumite is also available.)  
Perpendicular surface is machining finished.  
Weight 119g  
Environment RoHS Compliant  
Green Procurement

## Hard Bracket SSW2060



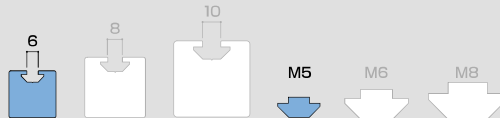
Please use Kit with Tap to install Side Cover. (Refer P45 for details.)

|                        |                                                                 |                                                                                       |
|------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket SSW2060<br>(Hard Bracket SSW2060 with Tap)         |                                                                                       |
| Item No.               | SFJ-N16 (SFJ-N16T)                                              |                                                                                       |
| Name(Bolt and Nut Kit) | Hard Bracket SSW2060 Kit<br>(Hard Bracket SSW2060 Kit with Tap) | Hard Bracket SSW2060(Stainless)Kit<br>(Hard Bracket SSW2060 with Tap (Stainless) Kit) |
| Item No.               | SFK-N16 (SFK-N16T)                                              | SFK-N16S (SFK-N16P)                                                                   |

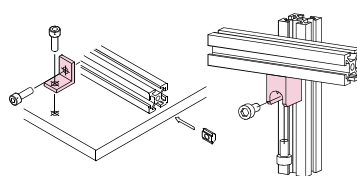


- Kit Contents
- Hard Bracket SSW2060(or with Tap)×1
  - Hexagon Socket Bolt (M5×10)×12
  - T Nut SS (M5)×12
  - ※Bolt and Nut in (Stainless) Kit are stainless.

■Material/Technical Data  
Material Aluminium Alloy  
Alumite Treatment  
(Special Order:Black Alumite Treatment)  
Perpendicular surface is machining finished.  
Weight 89g  
Environment RoHS Compliant  
Green Procurement



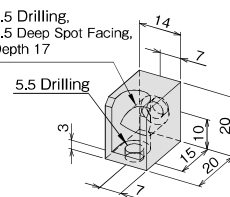
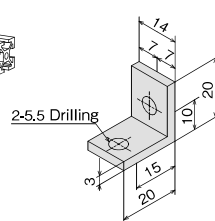
## Angle Bracket SS / Angle Bracket Hard SS



Angle Bracket SS

Angle Bracket Hard SS

5.5 Drilling,  
9.5 Deep Spot Facing,  
Depth 17



| Name(Single Item)      | Angle Bracket SS                                          | Angle Bracket Hard SS                                               |
|------------------------|-----------------------------------------------------------|---------------------------------------------------------------------|
| Item No.               | ★SFJ-A01                                                  | ★SFJ-A14                                                            |
| Name(Bolt and Nut Kit) | Angle Bracket SS Kit<br>(Angle Bracket SS(Stainless) Kit) | Angle Bracket Hard SS Kit<br>(Angle Bracket Hard SS(Stainless) Kit) |
| Item No.               | ★SFK-A01 ★SFK-A01S                                        | ★SFK-A14 ★SFK-A14S                                                  |

## Usable Frame



Compatible to all SF20 series  
(Groove Width 6mm)

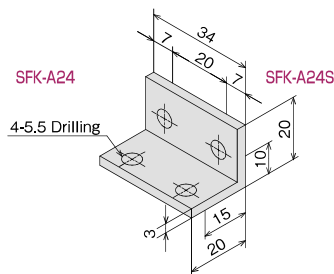
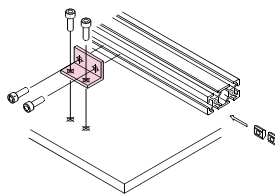
## Kit Contents

- Angle Bracket SS(or Hard)×1
  - Hexagon Socket Bolt (M5×8)×2
  - T Nut SS(M5)×2
- \*Bolt and Nut in (Stainless)  
Kit are stainless.

## Material/Technical Data

|             | Angle Bracket SS  | Angle Bracket hard SS |
|-------------|-------------------|-----------------------|
| Material    | Aluminium Alloy   | A6063                 |
|             | Alumite Treatment | Alumite Treatment     |
| Weight      | 4g                | 9g                    |
| Environment | ★RoHS Compliant   | ★Green Procurement    |

## Angle Bracket SS2040



| Name(Single Item)      | Angle Bracket SS2040                                              |
|------------------------|-------------------------------------------------------------------|
| Item No.               | ★SFJ-A02                                                          |
| Name(Bolt and Nut Kit) | Angle Bracket SS2040 Kit<br>(Angle Bracket SS2040(Stainless) Kit) |
| Item No.               | ★SFK-A02 ★SFK-A02S                                                |

## Usable Frame



SF-20-40/1F  
SF-20-40-40

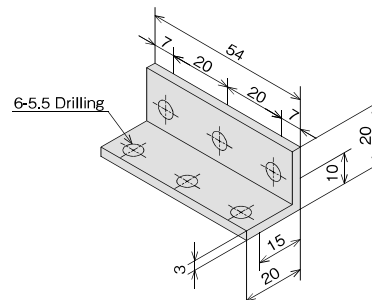
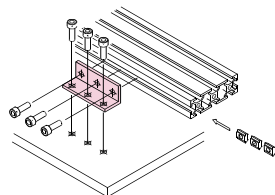
## Kit Contents

- Angle Bracket SS2040×1
  - Hexagon Socket Bolt (M5×8)×4
  - T Nut SS(M5)×4
- \*Bolt and Nut in (Stainless)  
Kit are stainless.

## Material/Technical Data

|             | Angle Bracket SS2040 |
|-------------|----------------------|
| Material    | Aluminium Alloy      |
|             | Alumite Treatment    |
| Weight      | 10g                  |
| Environment | ★RoHS Compliant      |
|             | ★Green Procurement   |

## Angle Bracket SS2060



| Name(Single Item)      | Angle Bracket SS2060                                              |
|------------------------|-------------------------------------------------------------------|
| Item No.               | SFJ-A09                                                           |
| Name(Bolt and Nut Kit) | Angle Bracket SS2060 Kit<br>(Angle Bracket SS2060(Stainless) Kit) |
| Item No.               | SFK-A09(SFK-A09S)                                                 |

## Usable Frame



SF-20-60

## Kit Contents

- Angle Bracket SS2060×1
  - Hexagon Socket Bolt (M5×8)×6
  - T Nut SS(M5)×6
- \*Bolt and Nut in (Stainless)  
Kit are stainless.

## Material/Technical Data

|             | Angle Bracket SS2060 |
|-------------|----------------------|
| Material    | Aluminium Alloy      |
|             | Alumite Treatment    |
| Weight      | 15g                  |
| Environment | ★RoHS Compliant      |
|             | ★Green Procurement   |



## Parts

How to order

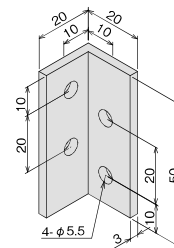
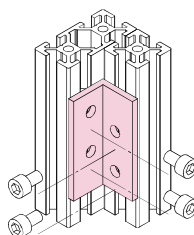
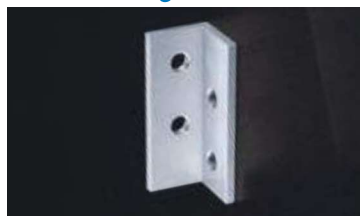
Item No. Quantity (pcs)

SFJ-A01





## Offset Angle SS2040



| Name (Single Item)      | Offset Angle SS2040     |                                     |
|-------------------------|-------------------------|-------------------------------------|
| Item No.                | SFA-4P3                 |                                     |
| Name (Bolt and Nut Kit) | Offset Angle SS2040 Kit | Offset Angle SS2040 Kit (Stainless) |
| Item No.                | SFK-A24                 | SFK-A24S                            |

**Usable Frame**  
Compatible to all SF20 series (Groove Width 6mm)

**Kit Contents**  
 ● Offset Angle SS2040 × 1  
 ● Hexagon Socket Bolt (M5×8) × 4  
 ● Easy Nut SS (M5) × 4  
 ※ Bolt and Nut in (Stainless) Kit are stainless.

**Material/Technical Data**  
 Material A6063 Alumite Treatment  
 Weight 14.2g (Offset Angle SS2040)  
 Environment RoHS Compliant

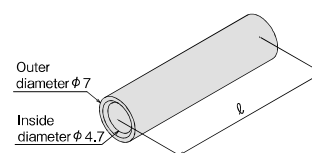
## QC Joint SS



QC Joint SS (Common Parts)



SS Round metal tool



| Name     | QC Joint SS20 Kit | QC Joint SS40 Kit |
|----------|-------------------|-------------------|
| Item No. | SFK-Q20A          | SFK-Q21A          |

|   | SS20 Kit | SS40 Kit |
|---|----------|----------|
| ℓ | 8        | 28       |

| Kit Contents | Kit Name          | QC Joint              | Round metal tool         | Bolt                                    |
|--------------|-------------------|-----------------------|--------------------------|-----------------------------------------|
|              | QC Joint SS20 Kit | QC Joint SS<br>×1 set | SS Round metal tool 20x1 | Hexagon Socket Bolt (M3×15) Stainless×1 |
|              | QC Joint SS40 Kit |                       | SS Round metal tool 40x1 | Hexagon Socket Bolt (M3×35) Stainless×1 |

**Material/Technical Data**  
**QC Joint SS**  
 Material Aluminum Die-Cast  
 Weight 4g (SS20 Kit) 6g (SS40 Kit)  
 Environment RoHS Compliant Green Procurement  
**Round metal tool**  
 Material Aluminium Alloy

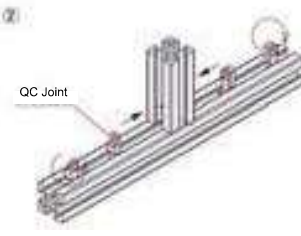
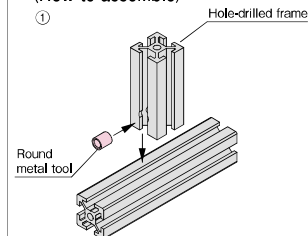
### QC Joint SS

#### <Characteristics>

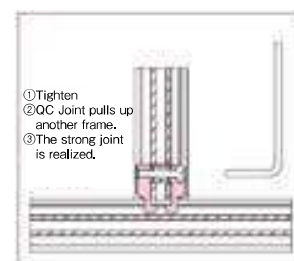
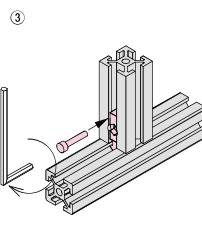
It's easy to set vertically and hardly make gap, because 2 frames are pulled at each other to combine. Also, you don't have to let nuts into frame in advance, and strong fixing is possible by one bolt, so the assembly man-hour is reduced.

#### <How to assemble>

①



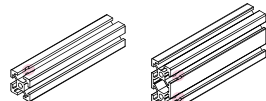
③



#### <Example of kit selection>

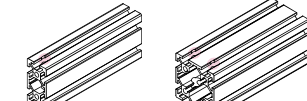
##### ● QC Joint SS20 Kit

(For drilled hole to the direction of mm)



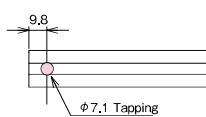
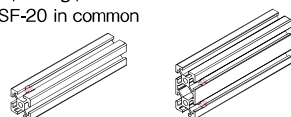
##### ● QC Joint SS40 Kit

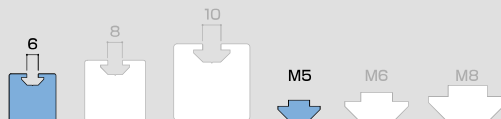
(For drilled hole to the direction of 40mm)



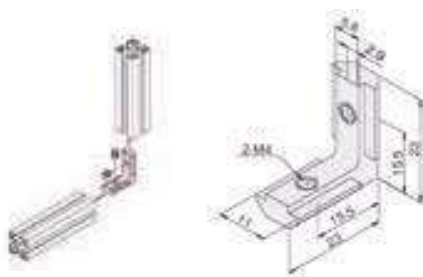
#### <Drilling>

SF-20 in common





## Blind Bracket SS



|          |                  |
|----------|------------------|
| Name     | Blind Bracket SS |
| Item No. | SFK-620A         |

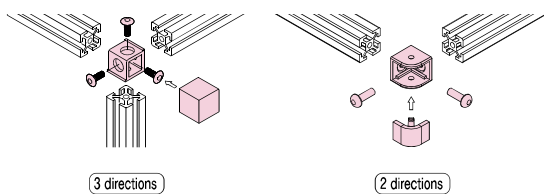
## Usable Frame

Compatible to all SF20 series (Groove Width 6mm)

## Material/Technical Data

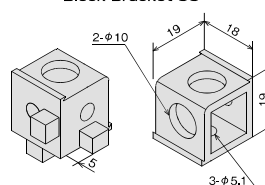
Material Aluminum Die-Cast  
(2 Set Screws M4x5 Stainless Included.)  
Weight 6g  
Environment RoHS Compliant  
Green Procurement

## Block Bracket SS Kit / Corner Block SS Kit

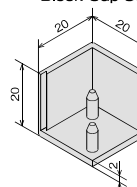


※Hold the Pin edge to insert Cap.

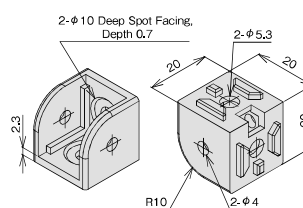
## Block Bracket SS



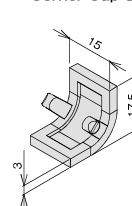
## Block Cap SS



## Corner Block SS



## Corner Cap SS



|          |                      |
|----------|----------------------|
| Name     | Block Bracket SS Kit |
|          | (Black) (Light Gray) |
| Item No. | SFK-Q11 SFK-Q11G     |
| Name     | Corner Block SS Kit  |
|          | (Black) (Light Gray) |
| Item No. | SFK-Q61 SFK-Q61G     |

## Usable Frame

〈Block Bracket SS Kit〉 SF-20-20(1F/2F)  
〈Corner Block SS Kit〉 SF-20-20(1F/2F/3F/2H)

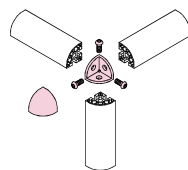
## Material/Technical Data

**Block Bracket SS**  
Material Zinc Die-Cast(Block Bracket SS)  
Polyamide(Block Cap SS)  
Hexagon Socket Button Bolt (M5x15)3 pcs (Block Bracket)  
Weight 27g(Block Bracket SS)  
3g(Block Cap SS)  
Environment RoHS Compliant

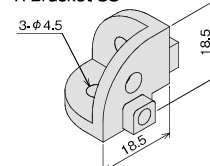
**Corner Block SS**  
Stainless(Corner Block SS)  
Polyamide(Corner Cap SS)  
Hexagon Socket Button Bolt (M5x15)2 pcs (Corner Block)  
23g(Corner Block SS)  
2g(Corner Cap SS)

※M5 Tap Processing is needed to the section of SF20-20 (or 1F/2F). (Refer P199~ for details.)  
※Corner block SS Kit is installable by Tapping Bolt as well.

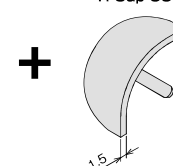
## R Bracket SS Kit



## R Bracket SS



## R Cap SS



## Usable Frame

SF-20-20-R

## Material/Technical Data

**R Bracket SS**  
Material Stainless(SCS13)  
Hexagon Socket Bolt (M4x12)3 pcs  
Weight 18g  
Environment RoHS Compliant

**R Cap SS**  
Polyamide  
Color/Black-Light gray  
2g

※M4 Tap Processing is needed to the section of SF-20-20-R to mount. (Refer P199~ for details.)

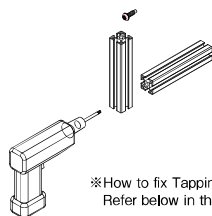


## Parts

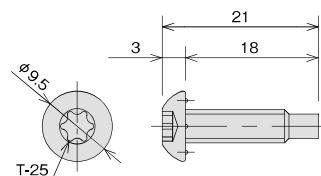
How to order

Item No. Quantity (pcs)  
SFK-600S

## Tapping Bolt SS



※How to fix Tapping Bolt  
Refer below in this page.



|          |                 |
|----------|-----------------|
| Name     | Tapping Bolt SS |
| Item No. | SFB-T20         |

### Usable Frame

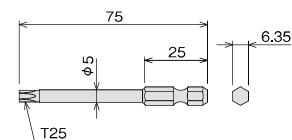


SF-20-20(1F/2F/3F/2H)  
SF-20-40(1F)  
SF-20-60/20-80  
SF-40-40-2S(1F/2F)

### Material/Technical Data

Material SWCH18A  
Uni-Chrome Plating  
Weight 2g  
Environment RoHS Compliant  
Green Procurement

## Torque Bit T25 / Torque Driver T25



Weight 13g



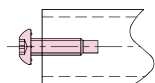
Weight 78g

|          |                |
|----------|----------------|
| Name     | Torque Bit T25 |
| Item No. | SFA-JT25       |

|          |                   |
|----------|-------------------|
| Name     | Torque Driver T25 |
| Item No. | SFA-T25H          |

### How to fix Tapping Bolt

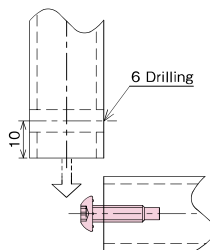
①



Fix the frame with jig etc, and screw the Tapping Bolt halfway into the end face. (Temporary joint)

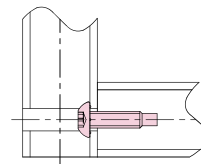
※ In case it is too tight, please use cutting oil.

②



Put the bolt head through T slot of another frame.

③

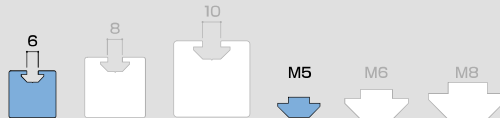


Tighten by Manual tool to fix.

※Manual tool is recommended, because the reaction of torque up is big by using electric drill.



●Drilled by SUS  
Processing Symbol P206~



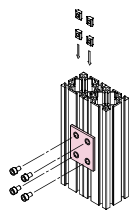
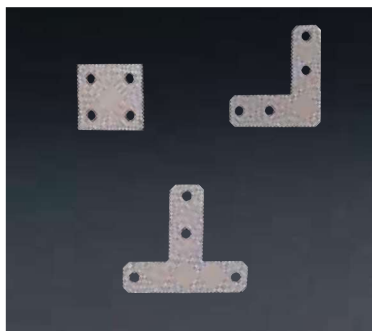
## Plate Bracket

SF20  
SS SizeSF30  
S SizeSF40-45  
L Size

Complex Parts

Door Panel  
Clean Equipment

Technical Data



## ■ Usable Frame

 Compatible to all SF20 series  
(Groove Width 6mm)

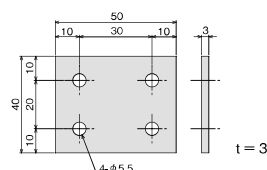
## ■ Kit Contents

Refer table for right

## ■ Material/Technical Data

| Name                        | Weight(g) | Material | Environment                               |
|-----------------------------|-----------|----------|-------------------------------------------|
| S Plate Bracket SSG         | 46        | SUS304   | RoHS<br>Compliant<br>Green<br>Procurement |
| S Plate Bracket SS-L        | 54        |          |                                           |
| S Plate Bracket SS-T        | 56        |          |                                           |
| S Plate Bracket SS-H2       | 6.3       |          |                                           |
| S Plate Bracket SS-H4       | 16.7      |          |                                           |
| S Corner Support Bracket SS | 65        | SUS304   | RoHS<br>Compliant<br>Green<br>Procurement |
| S Corner Support Plate SS   | 104       |          |                                           |

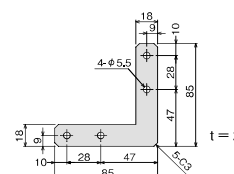
## S Plate Bracket SSG



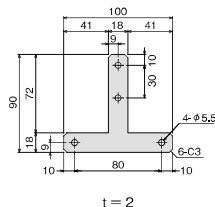
| Name     | S Plate Bracket SSG | S Plate Bracket SSG Kit | S Plate Bracket SS-L type | S Plate Bracket SS-L type Kit |
|----------|---------------------|-------------------------|---------------------------|-------------------------------|
| Item No. | SFJ-121S            | SFK-121S                | SFJ-109S                  | SFK-109S                      |

Kit  
Contents
 ● S Plate Bracket SSG×1  
 ● Hexagon Socket Bolt (M5×8)Stainless×4  
 ● ST Nut SS (M5)×4

## S Plate Bracket SS-L Type



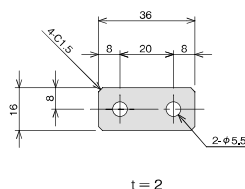
## S Plate Bracket SS-T Type



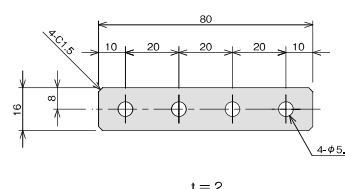
| Name     | S Plate Bracket SS-T type | S Plate Bracket SS-T type Kit |
|----------|---------------------------|-------------------------------|
| Item No. | SFJ-110S                  | SFK-110S                      |

Kit  
Contents
 ● S Plate Bracket SS-T Type×1  
 ● Hexagon Socket Bolt (M5×6)Stainless×4  
 ● ST Nut SS (M5)×4

## S Plate Bracket SS-H2



## S Plate Bracket SS-H4

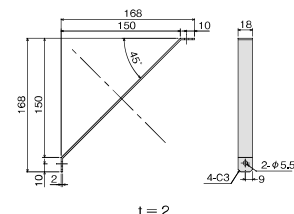


| Name     | S Plate Bracket SS-H2 | S Plate Bracket SS-H2 Kit | S Plate Bracket SS-H4 | S Plate Bracket SS-H4 Kit |
|----------|-----------------------|---------------------------|-----------------------|---------------------------|
| Item No. | SFJ-124S              | SFK-124S                  | SFJ-128S              | SFK-128S                  |

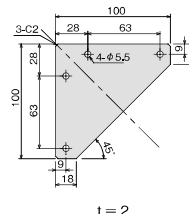
Kit  
Contents
 ● S Plate Bracket SS-H2×1  
 ● Hexagon Socket Bolt (M5×6)Stainless×2  
 ● ST Nut SS (M5)×2

 ● S Plate Bracket SS-H4×1  
 ● Hexagon Socket Bolt (M5×6)Stainless×4  
 ● ST Nut SS (M5)×4

## S Corner Support Bracket SS



## S Corner Support Plate SS



| Name     | S Corner Support Bracket SS | S Corner Support Bracket SS Kit | S Corner Support Plate SS | S Corner Support Plate SS Kit |
|----------|-----------------------------|---------------------------------|---------------------------|-------------------------------|
| Item No. | SFJ-135S                    | SFK-135S                        | SFJ-136S                  | SFK-136S                      |

Kit  
Contents
 ● S Corner Support Bracket SS×1  
 ● Hexagon Socket Bolt (M5×6)Stainless×2  
 ● ST Nut SS (M5)×2

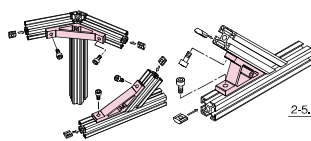
 ● S Corner Support Plate SS×1  
 ● Hexagon Socket Bolt (M5×6)Stainless×4  
 ● ST Nut SS (M5)×4


## Parts

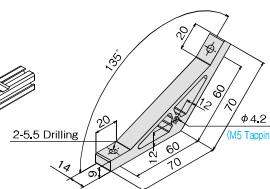
How to order

 Item No.      Quantity (pcs)  
**SFJ-121S**

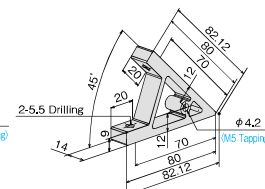
## Hard Bracket SS・DE



Hard Bracket SS-DE135



Hard Bracket SS-DE45



| Name(Single Item)      | Hard Bracket SS-DE135<br>(Hard Bracket SS-DE135 with Tap) |                                                            | Hard Bracket SS-DE45<br>(Hard Bracket SS-DE45 with Tap) |                                                          |
|------------------------|-----------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------|
| Item No.               | SFJ-N31 (SFJ-N31T)                                        |                                                            | SFJ-N32 (SFJ-N32T)                                      |                                                          |
| Name(Bolt and Nut Kit) | SS-DE135Kit<br>(SS-DE135 Kit with Tap)                    | SS-DE135(Stainless)Kit<br>(SS-DE135 with Tap/Stainless)Kit | SS-DE45Kit<br>(SS-DE45 Kit with Tap)                    | SS-DE45(Stainless)Kit<br>(SS-DE45 with Tap/Stainless)Kit |
| Item No.               | SFK-N31 (SFK-N31T)                                        | SFK-N31S (SFK-N31P)                                        | SFK-N32 (SFK-N32T)                                      | SFK-N32S (SFK-N32P)                                      |

### Usable Frame



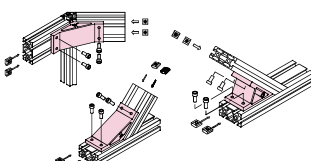
### Kit Contents

- (Hard Bracket SS-DE135Kit)**
- Hard Bracket SS-DE135 (or with Tap) ×1
  - Hexagon Socket Bolt (M5×14) ×2
  - T Nut SS (M5) ×2
- (Hard Bracket SS-DE45Kit)**
- Hard Bracket SS-DE45 (or with Tap) ×1
  - Hexagon Socket Bolt (M5×14) ×2
  - T Nut SS (M5) ×2
- ※ Bolt and Nut in (Stainless)  
Kit are stainless.

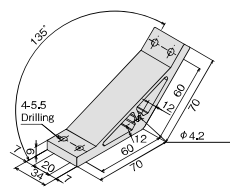
### Material/Technical Data

**Material** Aluminium Alloy  
Alumite Treatment  
**Weight** 48g (DE135)  
41g (DE45)  
**Environment** RoHS Compliant  
**Green Procurement**

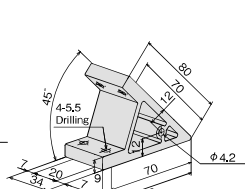
## Hard Bracket SS2040・DE



Hard Bracket SS2040-DE135

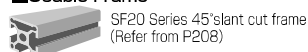


Hard Bracket SS2040-DE45



| Name(Single Item)      | Hard Bracket SS2040-DE135 |                            | Hard Bracket SS2040-DE45 |                           |
|------------------------|---------------------------|----------------------------|--------------------------|---------------------------|
| Item No.               | SFJ-N38                   |                            | SFJ-N37                  |                           |
| Name(Bolt and Nut Kit) | SS2040-DE135Kit           | SS2040-DE135(Stainless)Kit | SS2040-DE45Kit           | SS2040-DE45(Stainless)Kit |
| Item No.               | SFK-N38                   | SFK-N38S                   | SFK-N37                  | SFK-N37S                  |

### Usable Frame



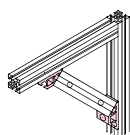
### Kit Contents

- (Hard Bracket SS2040-DE135Kit)**
- Hard Bracket SS2040-DE135 ×1
  - Hexagon Socket Bolt (M5×14) ×4
  - T Nut SS (M5) ×2
- (Hard Bracket SS2040-DE45Kit)**
- Hard Bracket SS2040-DE45 ×1
  - Hexagon Socket Bolt (M5×14) ×4
  - T Nut SS (M5) ×2
- ※ Bolt and Nut in (Stainless)  
Kit are stainless.

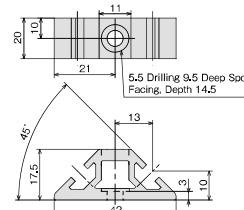
### Material/Technical Data

**Material** Aluminium Alloy  
Alumite Treatment  
**Weight** 127g (DE135)  
107g (DE45)  
**Environment** RoHS Compliant  
**Green Procurement**

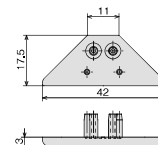
## Truss Joint SS



Truss Joint SS



Truss Cap SS



| Name(Single Item) | Truss Joint SS | Truss Cap SS<br>(Black) (Light Gray) |          |
|-------------------|----------------|--------------------------------------|----------|
| Item No.          | SFJ-J01        | SFA-J01                              | SFA-J01G |



### Usable Frame

(Frame to reinforce) SF-20/20  
(Frame to combine) SF-20/30/40/45 series are installable

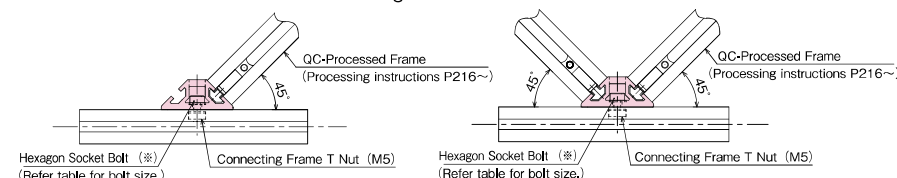
※ Groove size is as same as SF20-20.

### Material/Technical Data

**Truss Joint SS** **Truss Cap SS**  
**Material** Aluminium Alloy Polyamide  
Alumite Treatment  
**Weight** 15g 2g  
**Environment** RoHS Compliant  
**Green Procurement**

### Example of mounting Truss Joint

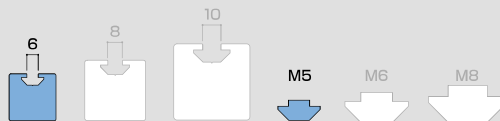
Best suited to reinforce in 45° or truss stiffening.



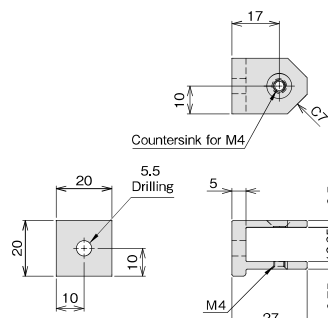
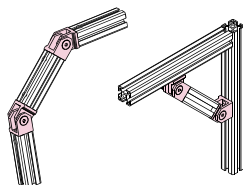
### ※ Guide of bolt size

| Frame to mount to | Bolt size |
|-------------------|-----------|
| SF20 Series       | M5 × 8    |
| SF30 Series       | M5 × 10   |
| SF40・45 Series    | M5 × 14   |





## Turn Bracket 20



(Attachment) Cross-Recessed Flat Head Screw M4 x 6 Stainless 1 pcs/set

|          |                 |
|----------|-----------------|
| Name     | Turn Bracket 20 |
| Item No. | SFK-44A         |

## ■ Usable Frame



(End Surface Installation)  
SF-20-20 Exclusive  
(Side Surface Installation)  
Installable if connecting  
T Nut is (M5).

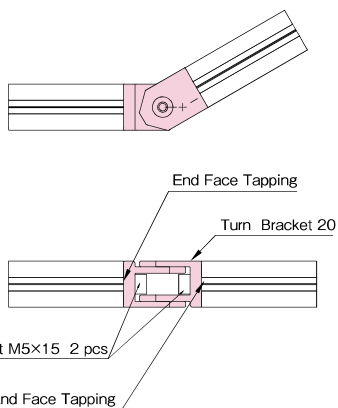
## ■ Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 26g/set  
Environment RoHS Compliant  
Green Procurement

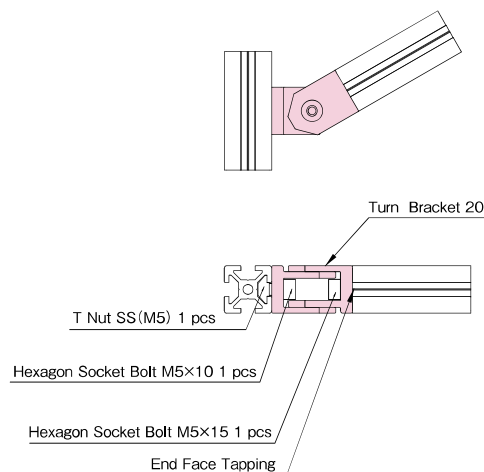
※2 pcs/set

## Example of mounting Turn Bracket

(In case of installing to sections of the Frames.)



(In case of installing to side and end of the Frames.)

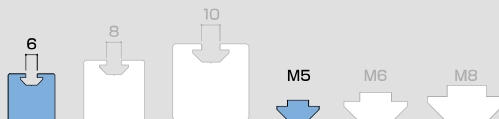


## Parts

How to order

Item No. Quantity (set)  
SFK-44A

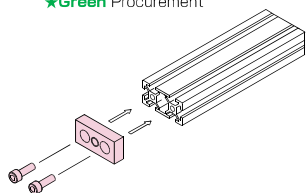




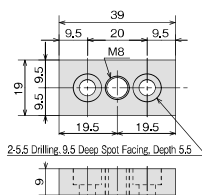
## Foot Base



Environment ★RoHS Compliant  
★Green Procurement



Foot Base 2040



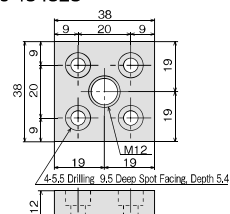
(Material)

|                            |                                                                            |
|----------------------------|----------------------------------------------------------------------------|
| Foot Base 2040             | SS400 Uni-chrome plating Include 2 Hexagon Socket Bolts (M5x15) Weight/40g |
| Foot Base 2040 (Stainless) | SUS304 Include 2 Hexagon Socket Bolts (M5x15) Stainless Weight/40g         |

## Usable Frame

SF-20-40,  
SF-20-40-1F

Foot Base 40402S



(Material)

|                              |                                                                             |
|------------------------------|-----------------------------------------------------------------------------|
| Foot Base 40402S             | SS400 Uni-chrome plating Include 4 Hexagon Socket Bolts (M5x20) Weight/104g |
| Foot Base 40402S (Stainless) | SUS304 Include 4 Hexagon Socket Bolts (M5x20) Stainless Weight/105g         |

## Usable Frame

SF-40-40-2S(1F/2F)

| Name     | Foot Base 2040<br><Foot Base 2040(Stainless)> | Foot Base 40402S<br><Foot Base 40402S(Stainless)> |
|----------|-----------------------------------------------|---------------------------------------------------|
| Item No. | ★SFK-55A ★SFK-55AS                            | ★SFK-51A ★SFK-51AS                                |



## Parts

How to order

Item No.

SFK-55A

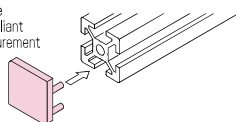
Quantity (set)



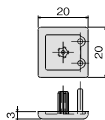
## Frame Cap



Material/Polyamide  
Environment/RoHS Compliant  
Green Procurement  
Weight/In the drawing

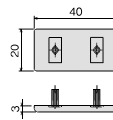


Frame Cap 2020



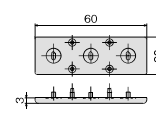
Weight/1.3g  
Usable Frame  
SF-20-20 (1F/2F/3F/2H)

Frame Cap 2040



Weight/2.3g  
Usable Frame  
SF-20-40, SF-20-40-1F, SF-20-80

Frame Cap 2060

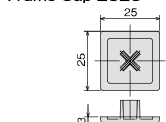


Weight/4.1g  
Usable Frame  
SF-20-60

| Name     | Frame Cap 2020 (Black) | Frame Cap 2020 (Light Gray) | Frame Cap 2040 (Black) | Frame Cap 2040 (Light Gray) | Frame Cap 2060 (Black) | Frame Cap 2060 (Light Gray) |
|----------|------------------------|-----------------------------|------------------------|-----------------------------|------------------------|-----------------------------|
| Item No. | SFA-009                | SFA-009G                    | SFA-010                | SFA-010G                    | SFA-012                | SFA-012G                    |

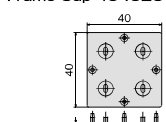
※Use 2 pcs for SF20-80

Frame Cap 2525



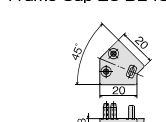
Weight/2.0g  
Usable Frame  
SF-25-25

Frame Cap 40402S



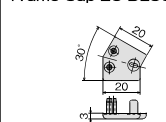
Weight/5.1g  
Usable Frame  
SF-40-40-2S (1F/2F)  
※SF-40-80-SS

Frame Cap 20-DE45



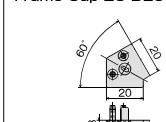
Weight/1.5g  
Usable Frame  
SF-20-DE45

Frame Cap 20-DE30



Weight/1.5g  
Usable Frame  
SF-20-DE30

Frame Cap 20-DE60

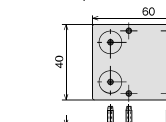


Weight/1.5g  
Usable Frame  
SF-20-DE60

| Name     | Frame Cap 2525 (Black) | Frame Cap 2525 (Light Gray) | Frame Cap 40402S (Black) | Frame Cap 40402S (Light Gray) | Frame Cap 20-DE45 (Black) | Frame Cap 20-DE45 (Light Gray) | Frame Cap 20-DE30 (Black) | Frame Cap 20-DE30 (Light Gray) | Frame Cap 20-DE60 (Black) | Frame Cap 20-DE60 (Light Gray) |
|----------|------------------------|-----------------------------|--------------------------|-------------------------------|---------------------------|--------------------------------|---------------------------|--------------------------------|---------------------------|--------------------------------|
| Item No. | SFA-027                | SFA-027G                    | SFA-014                  | SFA-014G                      | SFA-J5B                   | SFA-J5BG                       | SFA-J5A                   | SFA-J5AG                       | SFA-J5C                   | SFA-J5CG                       |

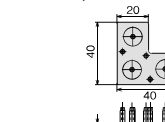
※Use 2 pcs for SF40-80-SS

Frame Cap 4060SS



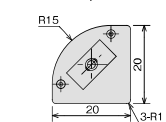
Weight/8.9g  
Usable Frame  
SF-40-60-SS

Frame Cap 204040



Weight/4.3g  
Usable Frame  
SF-20-40-40

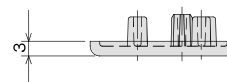
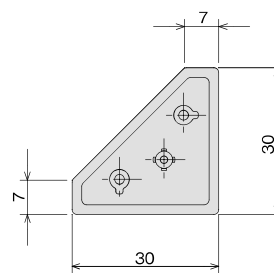
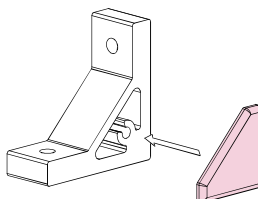
Frame Cap 20-20-R



Weight/1.2g  
Usable Frame  
SF-20-20-R

| Name     | Frame Cap 4060SS (Black) | Frame Cap 4060SS (Light Gray) | Frame Cap 204040 (Black) | Frame Cap 204040 (Light Gray) | Frame Cap 20-20-R (Black) | Frame Cap 20-20-R (Light Gray) |
|----------|--------------------------|-------------------------------|--------------------------|-------------------------------|---------------------------|--------------------------------|
| Item No. | SFA-017                  | SFA-017G                      | SFA-J9A                  | SFA-J9AG                      | SFA-023                   | SFA-023G                       |

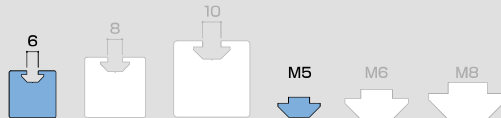
## Hard Bracket Cap



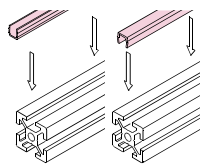
| Name     | Hard Bracket Cap (Light Gray) |
|----------|-------------------------------|
| Item No. | SFA-J11G                      |

■Usable Frame  
Hard Bracket SSG  
Hard Bracket SSG2040  
Hard Bracket SSG2060

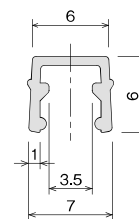
■Material/Technical Data  
Material Polyamide  
Weight 1.8g  
Environment RoHS Compliant  
Green Procurement



## Slot Cap SS



Slot Cap SS



| Name     | Slot Cap SS $\ell=2000$ /pcs |                     |                           |          |
|----------|------------------------------|---------------------|---------------------------|----------|
|          | (Black)                      |                     | (Light Gray)              |          |
| Item No. | SFA-103                      | SFA-103G            |                           |          |
| Name     | (Blue)                       | Slot Cap SS (Green) | $\ell=2000$ /pcs (Yellow) | (Red)    |
| Item No. | SFA-103L                     | SFA-103M            | SFA-103Y                  | SFA-103R |

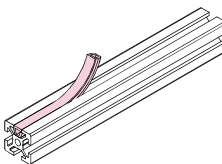
**Usable Frame**

Compatible to all SF20 series (Groove Width 6mm)

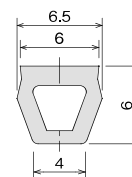
**Material/Technical Data**

Material Polyethylene  
 unit mass 14g/m  
 Environment **RoHS** Compliant  
**Green** Procurement

## Slot Seal SS



Slot Seal SS



| Name     | Slot Seal SS $\ell=5000$ /pcs |  |
|----------|-------------------------------|--|
| Item No. | SFA-170                       |  |

**Usable Frame**

Compatible to all SF20 series (Groove Width 6mm)

**Material/Technical Data**

Material Elastomer  
 Unit Mass 21g/m  
 Environment **RoHS** Compliant  
**Green** Procurement

**Parts**

How to order

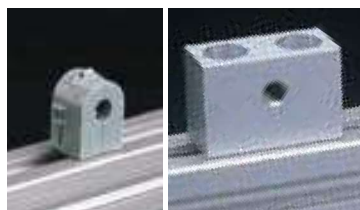
 Item No. **SFA-103**

 Quantity (pcs)  

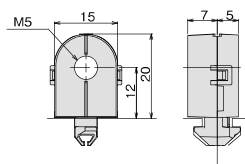
• Exclusive Cutter for Slot Cap and Slot Seal is available.



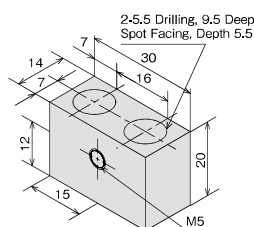
Cover Holder SS with Cap / Cover Support SS / Cover Support SS Flat



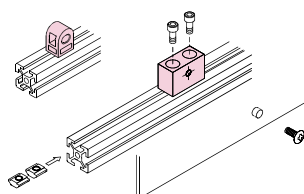
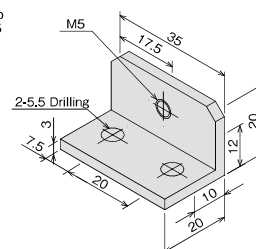
Cover Holder SS with Cap



Cover Support SS



Cover Support SS Flat



■ Usable Frame



Compatible to all SF20 series  
(Groove Width 6mm)

## Kit Contents

〈Cover Support SS Kit〉

- Cover Support SS×1
- Hexagon Socket Bolt (M5×20) ×2
- T Nut SS(M5) ×2
- Truss Screw(M5×10) ×1
- ※Bolt and Nut in CN (Stain

〈Cover Support SS Flat Kit〉

- Cover Support SS Flat×1
  - Hexagon Socket Bolt (M5×8) x2
  - T Nut SS(M5) x2
  - Truss Screw(M5×10) ×1
- (Unless specified, all parts are stainless.)

## Material/Technical Data

Cover Holder SS with Cap

Material Polyamide  
Color/Light gray  
Weight 4g  
※M5 Nut ×1  
Environment ★RoHS Compliant  
★Green Procurement

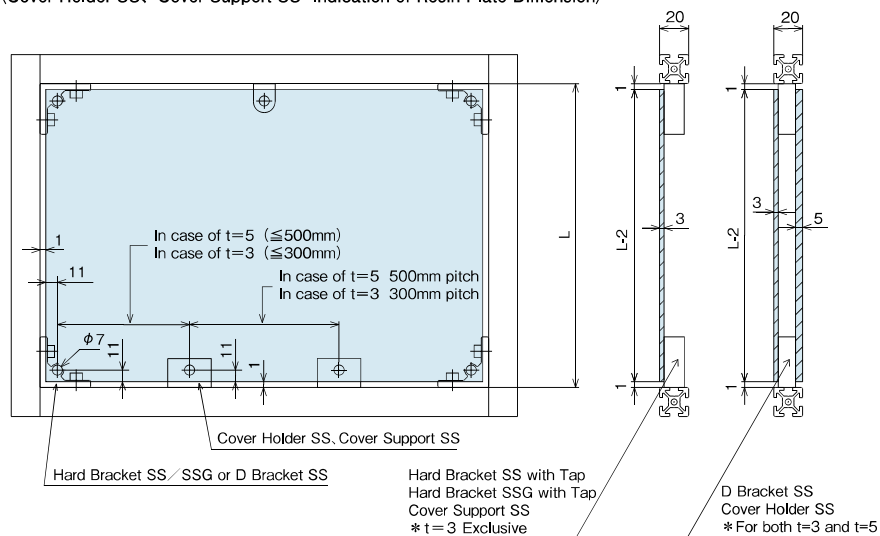
|                       |
|-----------------------|
| Cover Support SS      |
| Cover Support SS Flat |

**Material** A6063S-T5 (Special order:  
Black Alumite is also available.)  
**Weight** 19g (Cover Support SS)  
10g (Cover Support SS Flat)  
**Environment** ★RoHS Compliant  
★Green Procurement

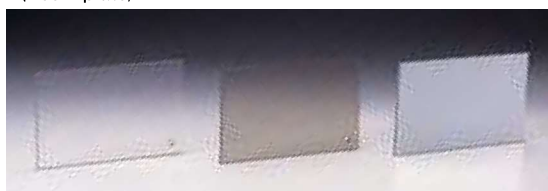
| Name     | Cover Holder SS | Cover Support SS | Cover Support SS Kit<br>(Cover Support SS(Stainless)Kit) | Cover Support SS Flat | Cover Support SS Flat Kit<br>(Cover Support SS Flat(Stainless)Kit) |
|----------|-----------------|------------------|----------------------------------------------------------|-----------------------|--------------------------------------------------------------------|
| Item No. | ★SFA-KH5        | ★SFJ-K01         | ★SFK-K01★SFK-K01S                                        | ★SFJ-K11              | ★SFK-K11★SFK-K11S                                                  |

## How to fix Cover

〈Cover Holder SS、Cover Support SS Indication of Resin Plate Dimension〉



〈Resin plate〉

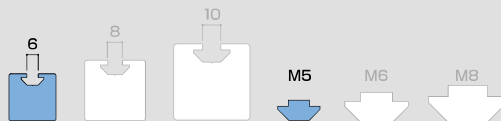


Various Resin Plates are available.  
Refer P168 ~.

〈Door accessories〉



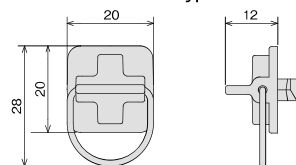
Various parts for door are available.  
Refer P140~.



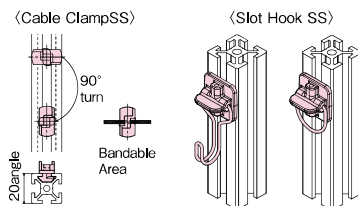
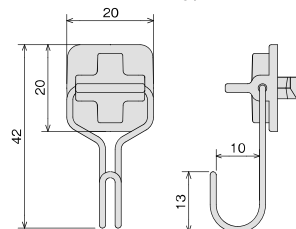
## Cable Clamp SS (last-in) / Slot Hook SS (U), (J)



Cable Clamp SS

Slot Hook SS  
U Type

J Type



| Name     | Cable Clamp SS |              |
|----------|----------------|--------------|
|          | (Black)        | (Light Gray) |
| Item No. | C1P-B03C       | C1P-003C     |
| Name     | Slot Hook SS   |              |
|          | (U Type)       | (J Type)     |
| Item No. | SFK-K31U       | SFK-K31J     |

## Usable Frame

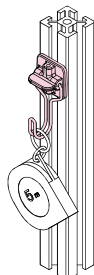
Compatible to all SF20 series  
(Groove Width 6mm)

## Material/Technical Data

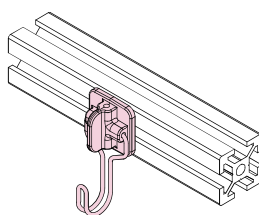
| Cable Clamp SS                             | Slot Hook SS U Type-J Type                      |
|--------------------------------------------|-------------------------------------------------|
| Material Polyamide (Body) Stainless (Hook) | Polyamide (Body) Stainless (Hook)               |
| Color/Black-Light Gray                     | Color/Light Gray                                |
| Weight 1g/piece                            | 2.5g (U Type) 3g (J Type) / Load capacity 1.5kg |
| Environment RoHS Compliant                 |                                                 |
| Green Procurement                          |                                                 |

## How to use Slot Hook

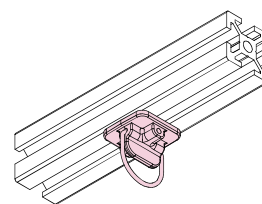
〈To hang small article and tool〉



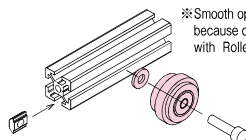
〈To hang memo pad〉



〈To store manual where you can see anytime〉

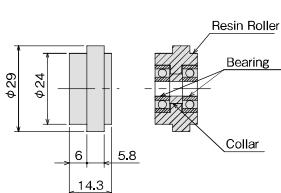


## Slot Roller SS



※ Smooth operation is possible because cutting work is done with Roller.

Slot Roller SS



## Usable Frame

Compatible to all SF20 series  
(Groove Width 6mm)

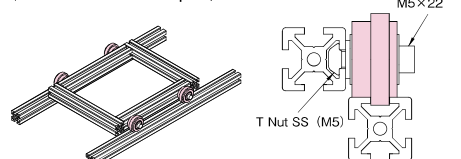
## Material/Technical Data

|                                 |
|---------------------------------|
| Material Nylon 6 (Resin Roller) |
| S45C (Collar)                   |
| Steel (Bearing)                 |
| Weight 18g                      |
| Environment RoHS Compliant      |
| Green Procurement               |

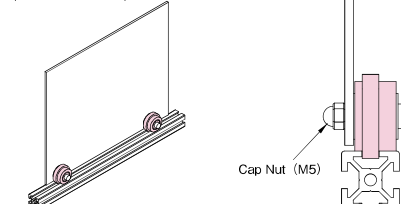
※ Size of the attaching bolt : M5  
※ Appropriate Tightening Torque : 7.4N·m  
※ 2 Bearings-1 Collar-1 Washer

## Example of use

〈To frame's movable part〉



〈As door roller〉



## Parts

How to order

Item No. Quantity (Pac)

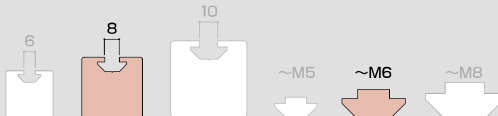
C1P-B03C



STANDARD FRAME

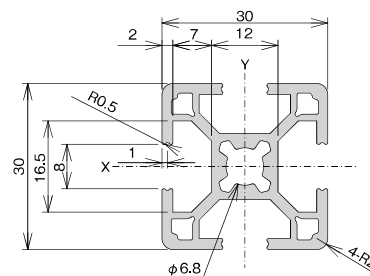
# SF30

SERIES



## SF2-30·30

Asia



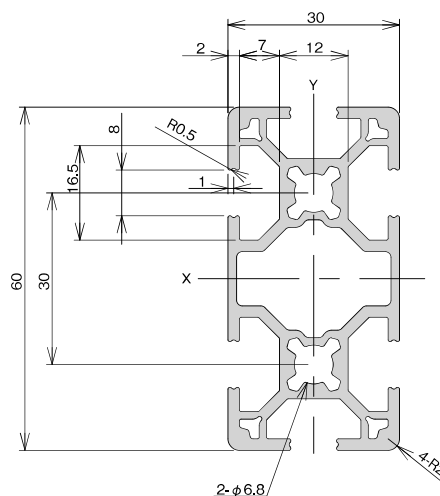
|          |                    |                       |
|----------|--------------------|-----------------------|
| Name     | SF2-30·30 ℓ = 4000 | SF2-30·30 ℓ = 50~4000 |
| Item No. | SFF-322-T          | SFF-324-T             |

## Material/Technical Data

|                   |                                       |
|-------------------|---------------------------------------|
| Material          | Aluminium Alloy                       |
|                   | Alumite Treatment                     |
| Environment       | RoHS Compliant                        |
|                   | Green Procurement                     |
| Geometrical       | $I_x = 2.85 \times 10^4 \text{ mm}^4$ |
| Moment of Inertia | $I_y = 2.85 \times 10^4 \text{ mm}^4$ |
| Section Modulus   | $Z_x = 1.90 \times 10^3 \text{ mm}^3$ |
|                   | $Z_y = 1.90 \times 10^3 \text{ mm}^3$ |
| Unit Mass         | 0.83kg/m                              |

## SF2-30·60

Asia



|          |                    |                       |
|----------|--------------------|-----------------------|
| Name     | SF2-30·60 ℓ = 4000 | SF2-30·60 ℓ = 50~4000 |
| Item No. | SFF-332-T          | SFF-334-T             |

## Material/Technical Data

|                   |                                        |
|-------------------|----------------------------------------|
| Material          | Aluminium Alloy                        |
|                   | Alumite Treatment                      |
| Environment       | RoHS Compliant                         |
|                   | Green Procurement                      |
| Geometrical       | $I_x = 20.79 \times 10^4 \text{ mm}^4$ |
| Moment of Inertia | $I_y = 5.41 \times 10^4 \text{ mm}^4$  |
| Section Modulus   | $Z_x = 6.93 \times 10^3 \text{ mm}^3$  |
|                   | $Z_y = 3.61 \times 10^3 \text{ mm}^3$  |
| Unit Mass         | 1.49kg/m                               |



## SF Frame

Standard(ℓ=4000) (Cut by customer)

Item No. ℓ=4030·Effective range of use ℓ=4000

SFF-322-T

Quantity (pcs)



In case of specifying the length (Cut by SUS) ※Order by 0.1mm unit

Item No. Length (mm)

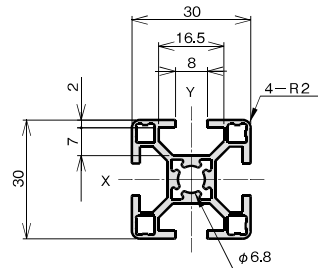
SFF-324-T ℓ=800

## SF-K-30-30

Asia



| Material/Technical Data |                                                                            |
|-------------------------|----------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                       |
| Environment             | RoHS Compliant<br>Green Procurement                                        |
| Geometrical             |                                                                            |
| Moment of Inertia       | $I_x=2.38 \times 10^4 \text{ mm}^4$<br>$I_y=2.38 \times 10^4 \text{ mm}^4$ |
| Section Modulus         | $Z_x=1.59 \times 10^3 \text{ mm}^3$<br>$Z_y=1.59 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 0.73kg/m                                                                   |



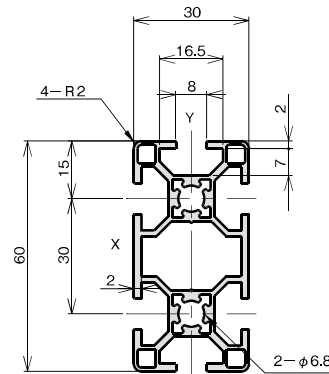
| Name     | SF-K-30-30 $\ell = 4000$ | SF-K-30-30 $\ell = 50 \sim 4000$ |
|----------|--------------------------|----------------------------------|
| Item No. | SFF-B12-T                | SFF-B14-T                        |

## SF-K-30-60

Asia



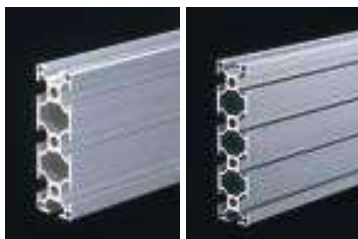
| Material/Technical Data |                                                                             |
|-------------------------|-----------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                        |
| Environment             | RoHS Compliant<br>Green Procurement                                         |
| Geometrical             |                                                                             |
| Moment of Inertia       | $I_x=16.68 \times 10^4 \text{ mm}^4$<br>$I_y=4.63 \times 10^4 \text{ mm}^4$ |
| Section Modulus         | $Z_x=5.56 \times 10^3 \text{ mm}^3$<br>$Z_y=3.09 \times 10^3 \text{ mm}^3$  |
| Unit Mass               | 1.30kg/m                                                                    |



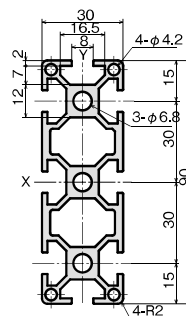
| Name     | SF-K-30-60 $\ell = 4000$ | SF-K-30-60 $\ell = 50 \sim 4000$ |
|----------|--------------------------|----------------------------------|
| Item No. | SFF-B22-T                | SFF-B24-T                        |

## SF-30-90 / SF-30-120

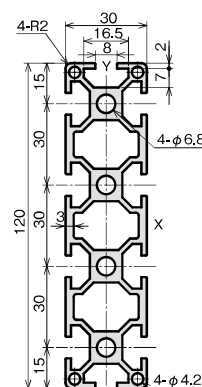
Asia (SF-30-90 only)



| Material/Technical Data |                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                                                |
| Environment             | RoHS Compliant<br>Green Procurement                                                                 |
| Geometrical             |                                                                                                     |
| Moment of Inertia       | $I_x=66.28 \times 10^4 \text{ mm}^4$ (SF-30-90)<br>$I_y=11.19 \times 10^4 \text{ mm}^4$ (SF-30-120) |
| Section Modulus         | $Z_x=14.7 \times 10^3 \text{ mm}^3$ (SF-30-90)<br>$Z_x=25.36 \times 10^3 \text{ mm}^3$ (SF-30-120)  |
| Unit Mass               | 2.44kg/m (SF-30-90)<br>3.21kg/m (SF-30-120)                                                         |

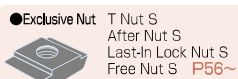


SF-30-90



SF-30-120

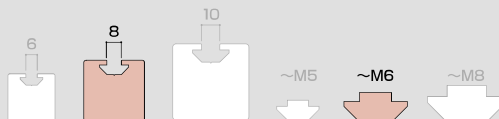
| Name     | SF-30-90 $\ell = 4000$  | SF-30-90 $\ell = 50 \sim 4000$  |
|----------|-------------------------|---------------------------------|
| Item No. | SFF-392-T               | SFF-394-T                       |
| Name     | SF-30-120 $\ell = 4000$ | SF-30-120 $\ell = 50 \sim 4000$ |
| Item No. | SFF-312                 | SFF-314                         |



Additional processing and surface treatment are also available.



P198~

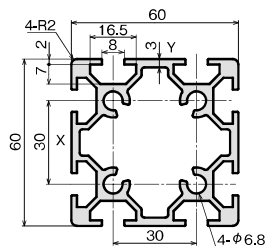


## SF-60·60·2S

Asia



| Material/Technical Data |                                                                            |
|-------------------------|----------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                       |
| Environment             | RoHS Compliant<br>Green Procurement                                        |
| Geometrical             | $I_x=41.38 \times 10^4 \text{mm}^4$                                        |
| Moment of Inertia       | $I_y=41.38 \times 10^4 \text{mm}^4$                                        |
| Section Modulus         | $Z_x=13.79 \times 10^3 \text{mm}^3$<br>$Z_y=13.79 \times 10^3 \text{mm}^3$ |
| Unit Mass               | 2.63kg/m                                                                   |

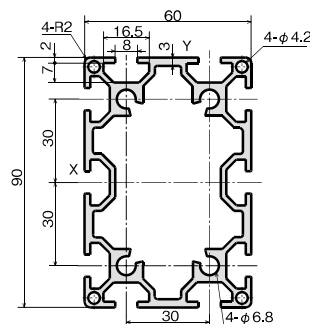


| Name     | SF-60-60-2S $\ell=4000$ | SF-60-60-2S $\ell=50 \sim 4000$ |
|----------|-------------------------|---------------------------------|
| Item No. | SFF-602W-T              | SFF-604W-T                      |

## SF-60·90



| Material/Technical Data |                                                                           |
|-------------------------|---------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                      |
| Environment             | RoHS Compliant<br>Green Procurement                                       |
| Geometrical             | $I_x=111.61 \times 10^4 \text{mm}^4$                                      |
| Moment of Inertia       | $I_y=52.65 \times 10^4 \text{mm}^4$                                       |
| Section Modulus         | $Z_x=24.8 \times 10^3 \text{mm}^3$<br>$Z_y=17.56 \times 10^3 \text{mm}^3$ |
| Unit Mass               | 3.10kg/m                                                                  |

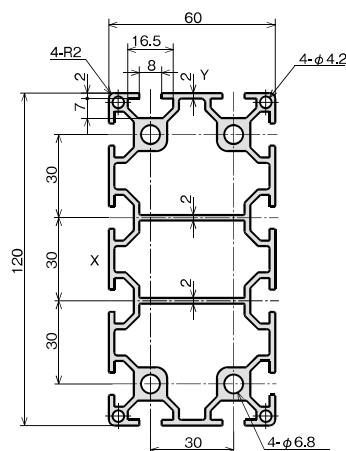


| Name     | SF-60-90 $\ell=4000$ | SF-60-90 $\ell=50 \sim 4000$ |
|----------|----------------------|------------------------------|
| Item No. | SFF-692              | SFF-694                      |

## SF-60·120



| Material/Technical Data |                                                                            |
|-------------------------|----------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                       |
| Environment             | RoHS Compliant<br>Green Procurement                                        |
| Geometrical             | $I_x=242.90 \times 10^4 \text{mm}^4$                                       |
| Moment of Inertia       | $I_y=65.97 \times 10^4 \text{mm}^4$                                        |
| Section Modulus         | $Z_x=40.48 \times 10^3 \text{mm}^3$<br>$Z_y=21.99 \times 10^3 \text{mm}^3$ |
| Unit Mass               | 4.13kg/m                                                                   |



| Name     | SF-60-120 $\ell=4000$ | SF-60-120 $\ell=50 \sim 4000$ |
|----------|-----------------------|-------------------------------|
| Item No. | SFF-612               | SFF-614                       |



SF Frame  
Standard( $\ell=4000$ ) (Cut by customer)

Item No.  $\ell=4030$  Effective range of use  $\ell=4000$   
SFF-602W-T

Quantity (pcs)



In case of specifying the length (Cut by SUS) ※Order by 0.1mm unit  
Length (mm)

Item No.  $\ell=800$   
SFF-604W-T

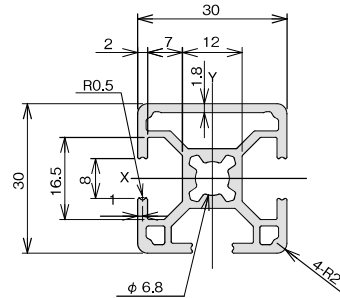


## SF2-30-30-1F

Asia



| Material/Technical Data |                                                                              |
|-------------------------|------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                         |
| Environment             | RoHS Compliant<br>Green Procurement                                          |
| Geometrical             | $I_x = 3.03 \times 10^4 \text{mm}^4$                                         |
| Moment of Inertia       | $I_y = 2.82 \times 10^4 \text{mm}^4$                                         |
| Section Modulus         | $Z_x = 1.99 \times 10^3 \text{mm}^3$<br>$Z_y = 1.88 \times 10^3 \text{mm}^3$ |
| Unit Mass               | 0.85kg/m                                                                     |



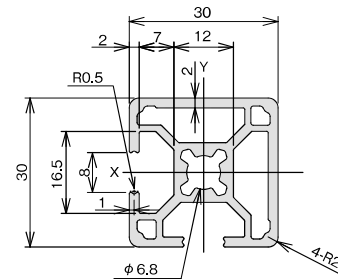
| Name     | SF2-30-30-1F $\ell = 4000$ | SF2-30-30-1F $\ell = 50 \sim 4000$ |
|----------|----------------------------|------------------------------------|
| Item No. | SFF-3E2-T                  | SFF-3E4-T                          |

## SF2-30-30-2F

Asia



| Material/Technical Data |                                                                              |
|-------------------------|------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                         |
| Environment             | RoHS Compliant<br>Green Procurement                                          |
| Geometrical             | $I_x = 3.09 \times 10^4 \text{mm}^4$                                         |
| Moment of Inertia       | $I_y = 3.09 \times 10^4 \text{mm}^4$                                         |
| Section Modulus         | $Z_x = 1.98 \times 10^3 \text{mm}^3$<br>$Z_y = 1.98 \times 10^3 \text{mm}^3$ |
| Unit Mass               | 0.89kg/m                                                                     |



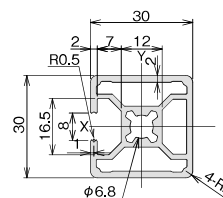
| Name     | SF2-30-30-2F $\ell = 4000$ | SF2-30-30-2F $\ell = 50 \sim 4000$ |
|----------|----------------------------|------------------------------------|
| Item No. | SFF-3F2-T                  | SFF-3F4-T                          |

## SF2-30-30-3F / SF2-30-30-2H

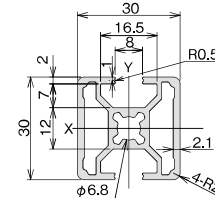
Asia



| Material/Technical Data |                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                                                   |
| Environment             | RoHS Compliant<br>Green Procurement                                                                    |
| Geometrical             | SF2-30-30-3F $I_x = 3.01 \times 10^4 \text{mm}^4$<br>SF2-30-30-2H $I_x = 2.7 \times 10^4 \text{mm}^4$  |
| Moment of Inertia       | SF2-30-30-3F $I_y = 3.27 \times 10^4 \text{mm}^4$<br>SF2-30-30-2H $I_y = 3.25 \times 10^4 \text{mm}^4$ |
| Section Modulus         | SF2-30-30-3F $Z_x = 1.93 \times 10^3 \text{mm}^3$<br>SF2-30-30-2H $Z_x = 1.8 \times 10^3 \text{mm}^3$  |
| Unit Mass               | SF2-30-30-3F $Z_y = 2.18 \times 10^3 \text{mm}^3$<br>SF2-30-30-2H $Z_y = 2.17 \times 10^3 \text{mm}^3$ |
|                         | SF2-30-30-3F 0.90kg/m<br>SF2-30-30-2H 0.86kg/m                                                         |

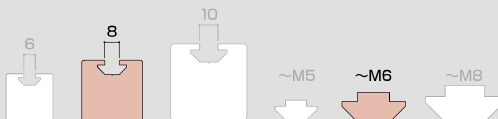


SF2-30-30-3F



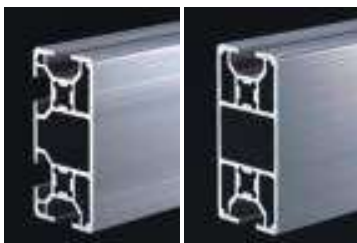
SF2-30-30-2H

| Name     | SF2-30-30-3F $\ell = 4000$ | SF2-30-30-3F $\ell = 50 \sim 4000$ |
|----------|----------------------------|------------------------------------|
| Item No. | SFF-3G2-T                  | SFF-3G4-T                          |
| Name     | SF2-30-30-2H $\ell = 4000$ | SF2-30-30-2H $\ell = 50 \sim 4000$ |
| Item No. | SFF-3H2-T                  | SFF-3H4-T                          |



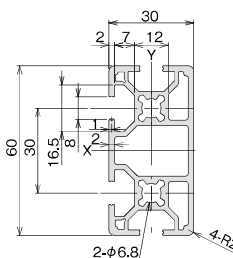
## SF2-30-60-1F / SF2-30-60-2H

Asia

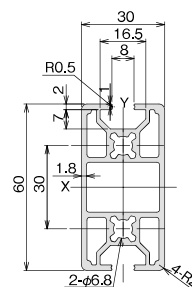


| Material/Technical Data |                                                                         |
|-------------------------|-------------------------------------------------------------------------|
| Material                | Aluminium Alloy                                                         |
|                         | Alumite Treatment                                                       |
| Environment             | RoHS Compliant                                                          |
|                         | Green Procurement                                                       |
| Geometrical             | SF2-30-60-1F SF2-30-60-2H                                               |
| Moment of Inertia       | $I_x=20.93 \times 10^4 \text{mm}^4$ $I_x=21.21 \times 10^4 \text{mm}^4$ |
|                         | $I_y=5.95 \times 10^4 \text{mm}^4$ $I_y=6.35 \times 10^4 \text{mm}^4$   |
| Section Modulus         | $Z_x=6.98 \times 10^3 \text{mm}^3$ $Z_x=7.08 \times 10^3 \text{mm}^3$   |
|                         | $Z_y=3.81 \times 10^3 \text{mm}^3$ $Z_y=4.23 \times 10^3 \text{mm}^3$   |
| Unit Mass               | 1.55kg/m 1.58kg/m                                                       |

|          |                          |                                  |
|----------|--------------------------|----------------------------------|
| Name     | SF2-30-60-1F $\ell=4000$ | SF2-30-60-1F $\ell=50 \sim 4000$ |
| Item No. | SFF-5E2-T                | SFF-5E4-T                        |
| Name     | SF2-30-60-2H $\ell=4000$ | SF2-30-60-2H $\ell=50 \sim 4000$ |
| Item No. | SFF-6H2-T                | SFF-6H4-T                        |



SF2-30-60-1F



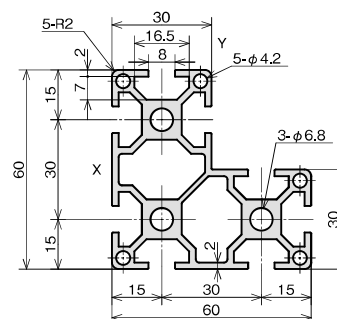
SF2-30-60-2H

## SF-30-60-60



| Material/Technical Data |                                     |
|-------------------------|-------------------------------------|
| Material                | Aluminium Alloy                     |
|                         | Alumite Treatment                   |
| Environment             | RoHS Compliant                      |
|                         | Green Procurement                   |
| Geometrical             | SF-30-60-60                         |
| Moment of Inertia       | $I_x=27.29 \times 10^4 \text{mm}^4$ |
|                         | $I_y=27.29 \times 10^4 \text{mm}^4$ |
| Section Modulus         | $Z_x=10.75 \times 10^3 \text{mm}^3$ |
|                         | $Z_y=10.75 \times 10^3 \text{mm}^3$ |
| Unit Mass               | 2.33kg/m                            |

|          |                         |                                 |
|----------|-------------------------|---------------------------------|
| Name     | SF-30-60-60 $\ell=4000$ | SF-30-60-60 $\ell=50 \sim 4000$ |
| Item No. | SFF-G12                 | SFF-G14                         |

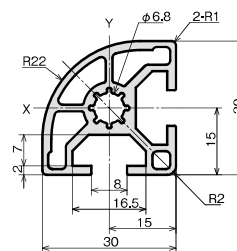


## SF-30-30-R



| Material/Technical Data |                                    |
|-------------------------|------------------------------------|
| Material                | Aluminium Alloy                    |
|                         | Alumite Treatment                  |
| Environment             | RoHS Compliant                     |
|                         | Green Procurement                  |
| Geometrical             | SF-30-30-R                         |
| Moment of Inertia       | $I_x=2.42 \times 10^4 \text{mm}^4$ |
|                         | $I_y=2.42 \times 10^4 \text{mm}^4$ |
| Section Modulus         | $Z_x=1.53 \times 10^3 \text{mm}^3$ |
|                         | $Z_y=1.53 \times 10^3 \text{mm}^3$ |
| Unit Mass               | 0.82/m                             |

|          |                        |                                |
|----------|------------------------|--------------------------------|
| Name     | SF-30-30-R $\ell=4000$ | SF-30-30-R $\ell=50 \sim 4000$ |
| Item No. | SFF-R62                | SFF-R64                        |



SF-30-30-R

SF Frame  
Standard(  $\ell=4000$ ) (Cut by customer)Item No.  $\ell=4030$  Effective range of use  $\ell=4000$ 

SFF-5E2-T

Quantity (pcs)



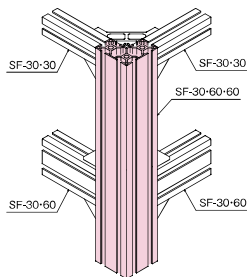
In case of specifying the length (Cut by SUS) \*Order by 0.1mm unit

Item No. Length (mm)

SFF-5E4-T  $\ell=800$

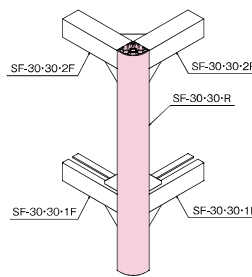
### How to use Frames

〈SF-30-60-60〉



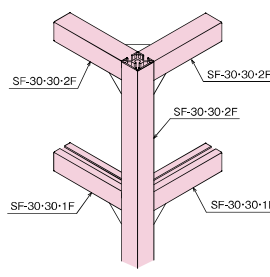
●As the reinforcing Frame at corner, or to ensure space inside.

〈SF-30-30-R〉



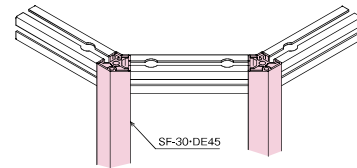
●For safety and beauty by the round corner.

〈SF-30-30-1F〉  
〈SF-30-30-2F〉



●For the clean environment without Frame grave externally.

〈SF-30-DE30〉  
〈SF-30-DE45〉  
〈SF-30-DE60〉

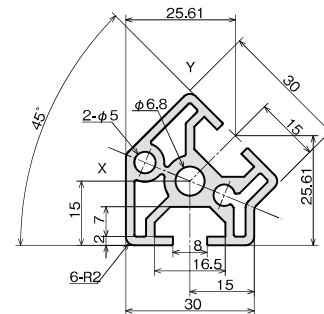


●Many variations to construct angles other than 90°

## SF-30-DE45



| Material/Technical Data |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                           |
| Environment             | RoHS Compliant<br>Green Procurement                                            |
| Geometrical             | $I_x = 3.21 \times 10^4 \text{ mm}^4$                                          |
| Moment of Inertia       | $I_y = 3.72 \times 10^4 \text{ mm}^4$                                          |
| Section Modulus         | $Z_x = 1.56 \times 10^3 \text{ mm}^3$<br>$Z_y = 1.86 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 1.08 kg/m                                                                      |

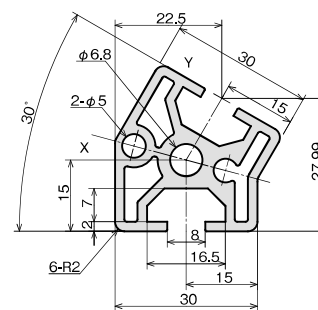


| Name     | SF-30-DE45 $\ell = 4000$ | SF-30-DE45 $\ell = 50 \sim 4000$ |
|----------|--------------------------|----------------------------------|
| Item No. | SFF-J62B                 | SFF-J64B                         |

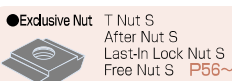
## SF-30-DE30



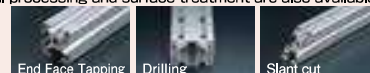
| Material/Technical Data |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                           |
| Environment             | RoHS Compliant<br>Green Procurement                                            |
| Geometrical             | $I_x = 3.15 \times 10^4 \text{ mm}^4$                                          |
| Moment of Inertia       | $I_y = 3.86 \times 10^4 \text{ mm}^4$                                          |
| Section Modulus         | $Z_x = 1.58 \times 10^3 \text{ mm}^3$<br>$Z_y = 2.00 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 1.11 kg/m                                                                      |



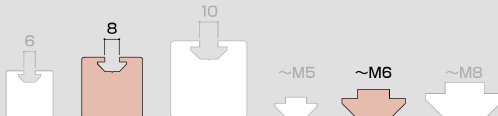
| Name     | SF-30-DE30 $\ell = 4000$ | SF-30-DE30 $\ell = 50 \sim 4000$ |
|----------|--------------------------|----------------------------------|
| Item No. | SFF-J62A                 | SFF-J64A                         |



●Additional processing and surface treatment are also available.



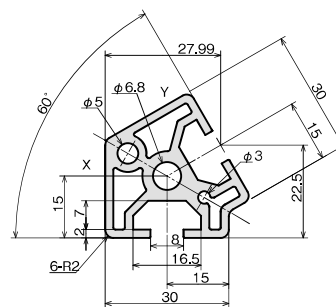
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## SF-30·DE60



| Material/Technical Data          |                                                                            |
|----------------------------------|----------------------------------------------------------------------------|
| Material                         | Aluminium Alloy<br>Alumite Treatment                                       |
| Environment                      | RoHS Compliant<br>Green Procurement                                        |
| Geometrical<br>Moment of Inertia | $I_x=3.33 \times 10^4 \text{ mm}^4$<br>$I_y=3.70 \times 10^4 \text{ mm}^4$ |
| Section Modulus                  | $Z_x=1.67 \times 10^3 \text{ mm}^3$<br>$Z_y=1.89 \times 10^3 \text{ mm}^3$ |
| Unit Mass                        | 1.10 kg/m                                                                  |



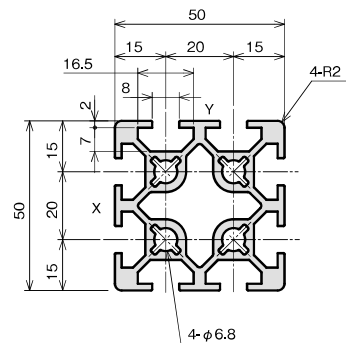
| Name     | SF-30-DE60 $\ell=4000$ | SF-30-DE60 $\ell=50 \sim 4000$ |
|----------|------------------------|--------------------------------|
| Item No. | SFF-J62C               | SFF-J64C                       |

## SF-50·50·2S

Asia



| Material/Technical Data          |                                                                              |
|----------------------------------|------------------------------------------------------------------------------|
| Material                         | Aluminium Alloy<br>Alumite Treatment                                         |
| Environment                      | RoHS Compliant<br>Green Procurement                                          |
| Geometrical<br>Moment of Inertia | $I_x=21.67 \times 10^4 \text{ mm}^4$<br>$I_y=21.67 \times 10^4 \text{ mm}^4$ |
| Section Modulus                  | $Z_x=8.67 \times 10^3 \text{ mm}^3$<br>$Z_y=8.67 \times 10^3 \text{ mm}^3$   |
| Unit Mass                        | 2.32 kg/m                                                                    |



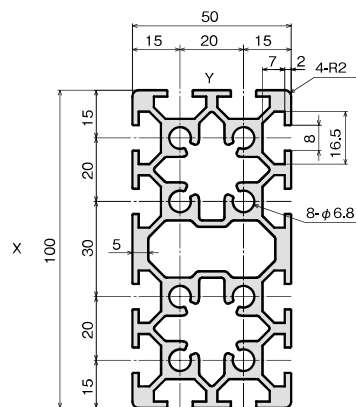
| Name     | SF-50-50-2S $\ell=4000$ | SF-50-50-2S $\ell=50 \sim 4000$ |
|----------|-------------------------|---------------------------------|
| Item No. | SFF-502-T               | SFF-504-T                       |

## SF-50·100·2S

Asia



| Material/Technical Data          |                                                                               |
|----------------------------------|-------------------------------------------------------------------------------|
| Material                         | Aluminium Alloy<br>Alumite Treatment                                          |
| Environment                      | RoHS Compliant<br>Green Procurement                                           |
| Geometrical<br>Moment of Inertia | $I_x=153.40 \times 10^4 \text{ mm}^4$<br>$I_y=42.48 \times 10^4 \text{ mm}^4$ |
| Section Modulus                  | $Z_x=30.68 \times 10^3 \text{ mm}^3$<br>$Z_y=16.99 \times 10^3 \text{ mm}^3$  |
| Unit Mass                        | 4.28 kg/m                                                                     |



| Name     | SF-50-100-2S $\ell=4000$ | SF-50-100-2S $\ell=50 \sim 4000$ |
|----------|--------------------------|----------------------------------|
| Item No. | SFF-512-T                | SFF-514-T                        |

SF Frame  
Standard ( $\ell=4000$ ) (Cut by customer)Item No.  $\ell=4030$  Effective range of use  $\ell=4000$ 

SFF-J62C



In case of specifying the length (Cut by SUS) \*Order by 0.1mm unit

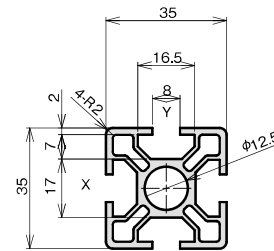
Item No. Length (mm)

SFF-J64C  $\ell=800$

## SF-35·35



| Material/Technical Data |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                           |
| Environment             | RoHS Compliant<br>Green Procurement                                            |
| Geometrical             |                                                                                |
| Moment of Inertia       | $I_x=5.12 \times 10^{-4} \text{mm}^4$<br>$I_y=5.12 \times 10^{-4} \text{mm}^4$ |
| Section Modulus         | $Z_x=2.93 \times 10^{-3} \text{mm}^3$<br>$Z_y=2.93 \times 10^{-3} \text{mm}^3$ |
| Unit Mass               | 1.11 kg/m                                                                      |

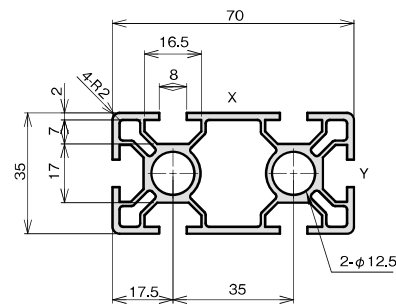


|          |                      |                              |
|----------|----------------------|------------------------------|
| Name     | SF-35·35 $\ell=4000$ | SF-35·35 $\ell=50 \sim 4000$ |
| Item No. | SFF-3A2              | SFF-3A4                      |

## SF-35·70



| Material/Technical Data |                                                                                 |
|-------------------------|---------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                            |
| Environment             | RoHS Compliant<br>Green Procurement                                             |
| Geometrical             |                                                                                 |
| Moment of Inertia       | $I_x=35.09 \times 10^{-4} \text{mm}^4$<br>$I_y=9.04 \times 10^{-4} \text{mm}^4$ |
| Section Modulus         | $Z_x=10.03 \times 10^{-3} \text{mm}^3$<br>$Z_y=5.16 \times 10^{-3} \text{mm}^3$ |
| Unit Mass               | 1.80 kg/m                                                                       |



|          |                      |                              |
|----------|----------------------|------------------------------|
| Name     | SF-35·70 $\ell=4000$ | SF-35·70 $\ell=50 \sim 4000$ |
| Item No. | SFF-3B2              | SFF-3B4                      |

●Exclusive Nut



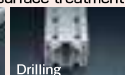
T Nut S  
After Nut S  
Last-In Lock Nut S  
Free Nut S P56~

●Exclusive Cap

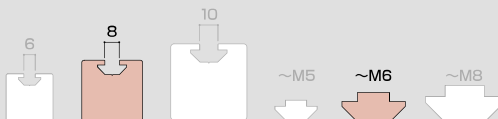


Frame Cap  
P79, 80

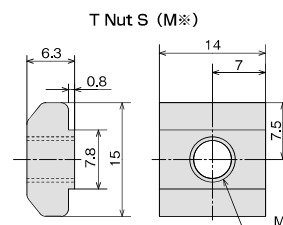
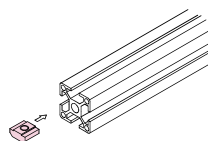
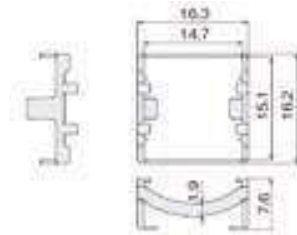
●Additional processing and surface treatment are also available.



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## T Nut S (M※)/ Anti-Skid Cap S

Anti-Skid Cap S  
(for T Nut S and Aluminum T Nut S)

| Name     | T Nut S(M6)<br>(ST Nut S (M6) ) | T Nut S(M5)<br>(ST Nut S (M5) ) | T Nut S(M4)<br>(ST Nut S (M4) ) | T Nut S(M3)<br>(ST Nut S (M3) ) |
|----------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Item No. | SFB-002 (SFA-TS6)               | SFB-001 (SFA-TS5)               | SFB-006 (SFA-TS4)               | SFB-005 (SFA-TS3)               |
| Name     | Anti-Skid Cap S<br>(50pcs/pack) |                                 |                                 |                                 |
| Item No. | SFA-954                         |                                 |                                 |                                 |

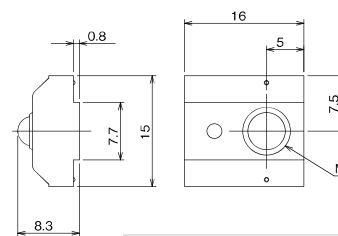
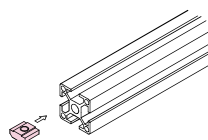
## Usable Frame

Compatible to all SF30 series  
(Groove Width 8mm)

## Material/Technical Data

| T Nut S                                   | ST Nut S                                 | Anti-Skid Cap S |
|-------------------------------------------|------------------------------------------|-----------------|
| Material Equivalent to S10C<br>Uni-Chrome | Stainless<br>With Conductive<br>Function | POM             |
| Weight 8g                                 | 8g                                       | 0.2g/piece      |
| Environment RoHS Compliant                | Green Procurement                        |                 |

## ST Nut Stopper S



| Name     | ST Nut Stopper S<br>(M3) | ST Nut Stopper S<br>(M4) | ST Nut Stopper S<br>(M5) | ST Nut Stopper S<br>(M6) |
|----------|--------------------------|--------------------------|--------------------------|--------------------------|
| Item No. | SFN-SS3                  | SFN-SS4                  | SFN-SS5                  | SFN-SS6                  |

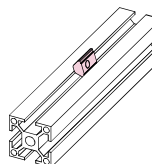
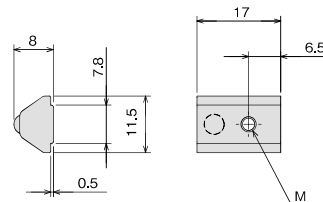
## Usable Frame

Compatible to all SF30 series  
(Groove Width 8mm)

## Material/Technical Data

|             |                                                |
|-------------|------------------------------------------------|
| Material    | Stainless                                      |
| Weight      | 8.90g (M3) 8.60g (M4)<br>8.40g (M5) 8.00g (M6) |
| Environment | RoHS Compliant                                 |

## Easy Nut S (M※)

※One-Touch to  
insert later and  
Anti-Skid as well

## Usable Frame

Compatible to all SF30 series  
(Groove Width 8mm)

| Name     | Easy Nut S<br>(M6)                | Easy Nut S<br>(M5)                | Easy Nut S<br>(M4)                | Easy Nut S<br>(M3)                |
|----------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Item No. | SFB-PN19                          | SFB-PN18                          | SFB-PN17                          | SFB-PN16                          |
| Name     | S Easy Nut S<br>(M6)<br>Stainless | S Easy Nut S<br>(M5)<br>Stainless | S Easy Nut S<br>(M4)<br>Stainless | S Easy Nut S<br>(M3)<br>Stainless |
| Item No. | SFN-ES6                           | SFN-ES5                           | SFN-ES4                           | SFN-ES3                           |

## Material/Technical Data

| Easy Nut S                                        | S Easy Nut S                 |
|---------------------------------------------------|------------------------------|
| Material Equivalent to S10C<br>Uni-Chrome plating | Stainless<br>With Conductive |
| Weight 6g/piece                                   |                              |
| Environment RoHS Compliant                        | Green Procurement            |

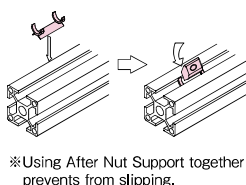
Parts  
How to order  
Item No.  
SFB-002

Quantity (pcs)

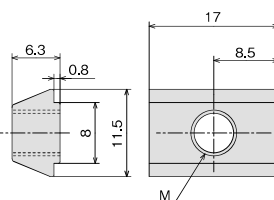




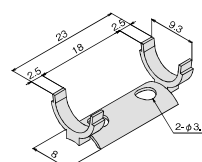
## After Nut S(M※) / After Nut Support S



After Nut S(M※)

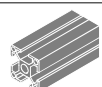


After Nut Support S (for After Nut · Last-In Lock Nut)



| Name     | After Nut S(M6)<br>(S After Nut S(M6)) | After Nut S(M5)<br>(S After Nut S(M5)) | After Nut S(M4)<br>(S After Nut S(M4)) | After Nut S(M3)<br>(S After Nut S(M3)) |
|----------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
| Item No. | SFB-616 (SFN-AS6)                      | SFB-615 (SFN-AS5)                      | SFB-614 (SFN-AS4)                      | SFB-613 (SFN-AS3)                      |

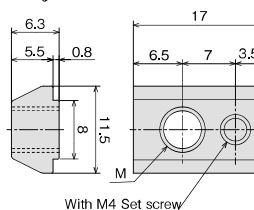
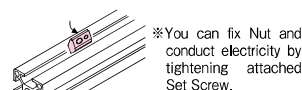
| Name     | After Nut Support S(50pcs/pack) |
|----------|---------------------------------|
| Item No. | SFA-9A2                         |



■Usable Frame —  
Compatible to all SF30 series  
(Groove Width 8mm)

| Material/Technical Data                           |               |                     |
|---------------------------------------------------|---------------|---------------------|
| After Nut S                                       | S After Nut S | After Nut Support S |
| Material Equivalent to S10C<br>Uni-Chrome         | Stainless     | PP Resin            |
| Weight 7g                                         | 7g            | 0.2g/piece          |
| Environment ★RoHS Compliant<br>★Green Procurement |               |                     |

## Lock Nut S(M※)



| Name     | Lock Nut S(M6)<br>(S Lock Nut S(M6)) | Lock Nut S(M5)<br>(S Lock Nut S(M5)) | Lock Nut S(M4)<br>(S Lock Nut S(M4)) | Lock Nut S(M3)<br>(S Lock Nut S(M3)) |
|----------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Item No. | ★SFB-4B6 (★SFL-LS)                   | ★SFB-4B5 (★SFL-LS)                   | ★SFB-4B4 (★SFL-LS)                   | ★SFB-4B3 (★SFL-LS)                   |

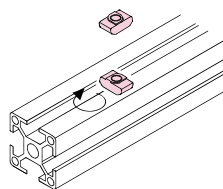
### ■Usable Frame



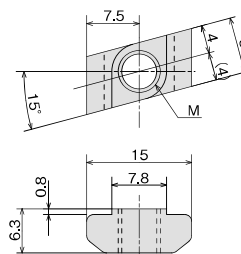
Compatible to all SF30 series  
(Groove Width 8mm)

| Material/Technical Data                           |              |  |
|---------------------------------------------------|--------------|--|
| Lock Nut S                                        | S Lock Nut S |  |
| Material Equivalent to S10C<br>Uni-Chrome         | Stainless    |  |
| Weight 7g                                         | 7g           |  |
| Environment ★RoHS Compliant<br>★Green Procurement |              |  |

## S Free Nut S(M※)



S Free Nut S(M※)



| Name     | ※1 S Free Nut S(M6) | S Free Nut S(M5) | S Free Nut S(M4) | S Free Nut S(M3) |
|----------|---------------------|------------------|------------------|------------------|
| Item No. | SFB-S64             | SFN-FS5          | SFN-FS4          | SFN-FS3          |

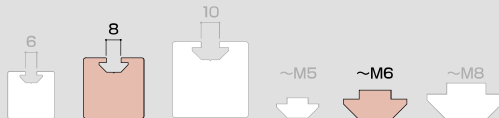
### ■Usable Frame



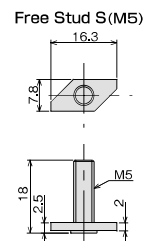
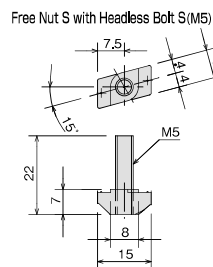
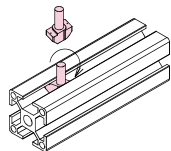
Compatible to all SF30 series  
(Groove Width 8mm)

| Material/Technical Data                           |  |  |
|---------------------------------------------------|--|--|
| S Free Nut S                                      |  |  |
| Material Stainless<br>With Conductive Function    |  |  |
| Weight 4g                                         |  |  |
| Environment ★RoHS Compliant<br>★Green Procurement |  |  |

※1 No conductive type for S Free Nut S (M6)



## Free Nut S with Headless Bolt S (M5) / Free Stud S (M5)



| Name     | Free Nut S with Headless Bolt S (M5) | Free Stud S (M5) |
|----------|--------------------------------------|------------------|
| Item No. | *SFN-NS5                             | *SFN-NS1         |

## Usable Frame



Compatible to all SF30 series  
(Groove Width 8mm)

## Material/Technical Data

## Free Nut S with Headless Bolt S

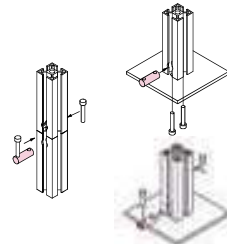
Material Stainless With Conductive Function  
Weight 7g  
Environment \*RoHS Compliant  
★Green Procurement

## Free Stud S

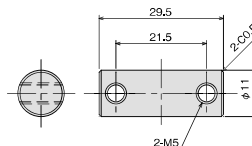
SPHC  
Uni-Chrome Plating  
4g

\*Tightening Torque is below 1.2N·m for Free Stud S.  
(Use Knurling Nut)

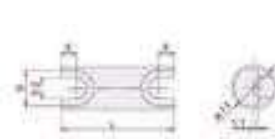
## Double Round Nut S30/Double Joint S30



## Double Round Nut S30



## Double Joint S30



| Name     | Double Round Nut S30 | Double Joint S30 |
|----------|----------------------|------------------|
| Item No. | SFJ-250S             | SFJ-311A         |

## Usable Frame



SF-30-30, SF-30-60  
SF-30-90, SF-30-120

## Material/Technical Data

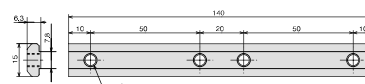
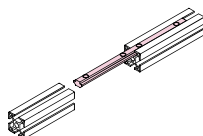
## Double Round Nut S30

Material Stainless  
Weight 19g  
Environment \*RoHS Compliant  
★Green Procurement

## Double Joint S30

A6005CSS-T5  
4.5g

## Joint Bar S140



| Name (Single Item) | Joint Bar S140 | Name (with Set Screw) | Joint Bar S140 Kit |
|--------------------|----------------|-----------------------|--------------------|
| Item No.           | *SFJ-606       | Item No.              | *SFK-606           |

• Note : T Nut material will be delivered without plating.

## Usable Frame



Compatible to all SF30 series  
(Groove Width 8mm)

## Kit Contents

- Joint Bar S140×1
- Set Screw (M6×8)×4

## Material/Technical Data

Material Equivalent to S10C  
Uni-Chrome Plating

Weight 86g

Environment \*RoHS Compliant

★Green Procurement



## Parts

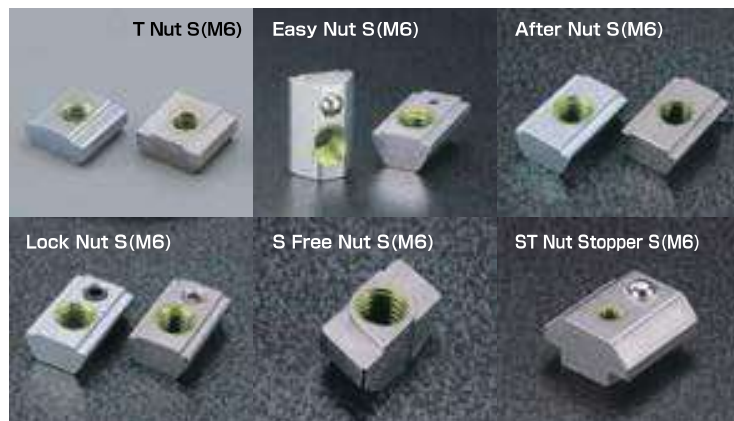
## How to order

Item No.  
SFN-NS5

Quantity (pcs)

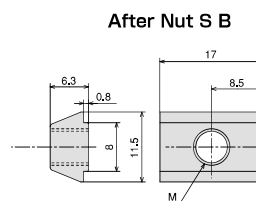
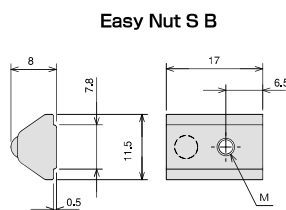
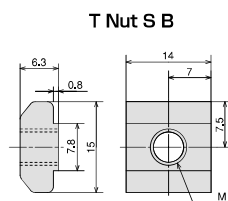


## Loctite Locknut

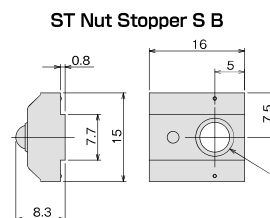
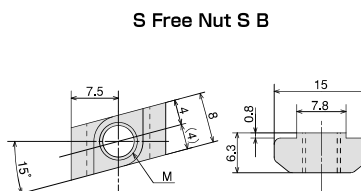
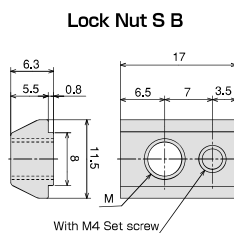


| ■ Material/Technical Data |                                                                                   |                                                                                   |                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                           | <b>T Nut S B</b>                                                                  | <b>Easy Nut S B</b>                                                               | <b>After Nut S B</b>                                                              |
| <b>Material</b>           | Equivalent to S10C<br>Uni-Chrome Plating<br>Stainless<br>With Conductive Function | Equivalent to S10C<br>Uni-Chrome Plating<br>Stainless<br>With Conductive Function | Equivalent to S10C<br>Uni-Chrome Plating<br>Stainless<br>With Conductive Function |
| <b>Weight</b>             | 8g                                                                                | 1.0g(Uni-Chrome Plating)<br>6g(Stainless)                                         | 7g                                                                                |
|                           | <b>Lock Nut S B</b>                                                               | <b>S Free Nut S B</b>                                                             | <b>ST Nut Stopper S B</b>                                                         |
| <b>Material</b>           | Equivalent to S10C<br>Uni-Chrome Plating<br>Stainless<br>With Conductive Function | Stainless<br>With Conductive Function                                             | Stainless<br>With Conductive Function                                             |
| <b>Weight</b>             | 7g                                                                                | 4g                                                                                | 8g                                                                                |
| <b>Environment</b>        | <b>RoHS Compliant</b>                                                             |                                                                                   |                                                                                   |

The inner part of the tap is coated with an anti-loosening agent.

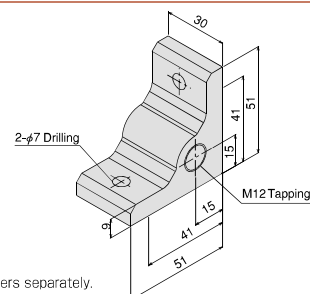
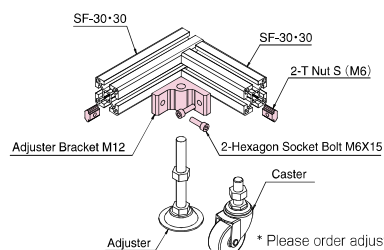


| Name     | T Nut S(M6)B with Loctite<br>(ST Nut S(M6)B with Loctite) | Easy Nut S(M6)B with Loctite<br>(S Easy Nut S(M6)B with Loctite) | After Nut S(M6)B with Loctite<br>(S After Nut S(M6)B with Loctite) |
|----------|-----------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------|
| Item No. | SFB-802(SFB-803)                                          | SFB-806(SFB-807)                                                 | SFB-810(SFB-811)                                                   |



| Name     | Lock Nut S(M6)B with Loctite<br>(S Lock Nut S(M6)B with Loctite) | S Free Nut S(M6)B with Loctite | ST Nut Stopper S(M6)B with Loctite |
|----------|------------------------------------------------------------------|--------------------------------|------------------------------------|
| Item No. | SFB-814(SFB-815)                                                 | SFB-818                        | SFB-820                            |

## Adjuster Bracket M12 S Kit



|                   |                            |
|-------------------|----------------------------|
| Name(Single Item) | Adjuster Bracket M12 S Kit |
| Item No.          | SFK-7E1                    |

■ Usable Frame



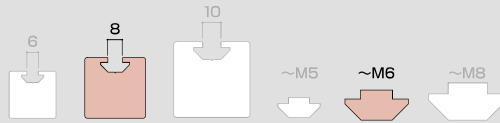
Compatible to all SF30 series  
(Groove Width 8mm)

## Kit Contents

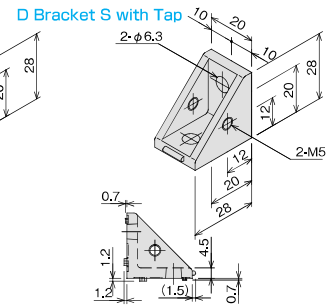
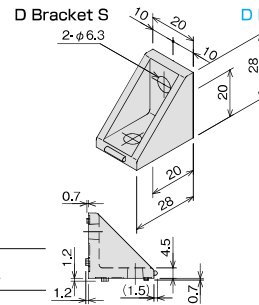
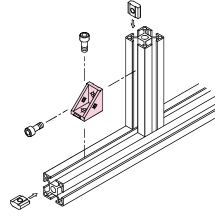
- Adjuster Bracket M12×1
- T Nut S (M6)×2
- Hexagon Socket Bolt (M6×15)×2

**Material/Technical Data**  
**Material** Aluminum Extrusion  
 Alumite Treatment  
**Weight** 107g  
**Environment** RoHS Compliant

## SF30 SERIES



## D Bracket S



|                        |                                               |                                                                    |                                                     |
|------------------------|-----------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------|
| Name(Single Item)      | D Bracket S<br>(D Bracket S with Tap)         |                                                                    | D Bracket S-CN<br>(D Bracket S-CN with Tap)         |
| Item No.               | SFJ-018(SFJ-019)                              |                                                                    | SFJ-018N(SFJ-019N)                                  |
| Name(Bolt and Nut Kit) | D Bracket S Kit<br>(D Bracket S Kit with Tap) | D Bracket S(Stainless)Kit<br>(D Bracket S with Tap(Stainless) Kit) | D Bracket S-CN Kit<br>(D Bracket S-CN Kit with Tap) |
| Item No.               | SFK-018(SFK-019)                              | SFK-018S(SFK-019S)                                                 | SFK-018N(SFK-019N)                                  |



Usable Frame  
Compatible to all SF30 series  
(Groove Width 8mm)



Cap  
P80

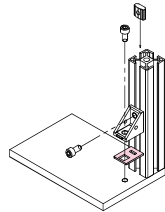
## Kit Contents

- D Bracket S(or with Tap)×1
- Hexagon Socket Bolt (M6×12)×2
- T Nut S(M6)×2
- \* Bolt and Nut in CN- (Stainless) Kit are stainless.

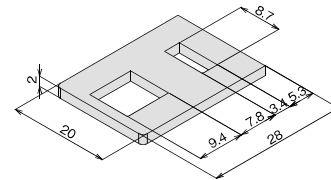
## Material/Technical Data

Material Aluminum Die-Cast(ADC12)  
(CN/Electroless Nickel Plating)  
With Anti-Skid Function  
Weight 13g  
Environment **RoHS** Compliant  
**Green** Procurement

## D Bracket Spacer S



- Setting to bottom of D Bracket enables to fix on a flat base.



|                   |                    |
|-------------------|--------------------|
| Name(Single Item) | D Bracket Spacer S |
| Item No.          | SFJ-401S           |

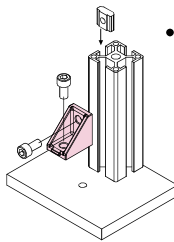
## Usable Frame

Compatible to all SF30 series  
(Groove Width 8mm)

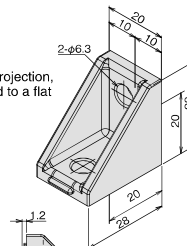
## Material/Technical Data

Material Stainless  
Weight 8g  
Environment **RoHS** Compliant  
**Green** Procurement

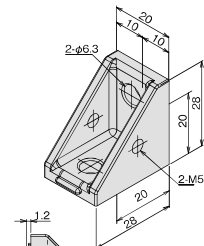
## D Bracket Flat S



- Since there is no projection, it can be flush fitted to a flat surface

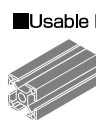


There is no projection for this part.



There is no projection for this part.

|                   |                                                         |                                                                                 |
|-------------------|---------------------------------------------------------|---------------------------------------------------------------------------------|
| Name(Single Item) | D Bracket Flat S<br>(D Bracket Flat S with Tap)         |                                                                                 |
| Item No.          | SFJ-039(SFJ-040)                                        |                                                                                 |
| Name(Single Item) | D Bracket Flat S Kit<br>(D Bracket Flat S with Tap Kit) | D Bracket Flat S Kit (Stainless)<br>(D Bracket Flat S with Tap Kit (Stainless)) |
| Item No.          | SFK-039(SFK-040)                                        | SFK-039S(SFK-040S)                                                              |



Usable Frame  
Compatible to all SF30 series  
(Groove Width 8mm)

## Kit Contents

- D Bracket Flat S(or with Tap)×1
- Hexagon Socket Bolt M6×12 (Trivalent Chromate)×2
- T Nut S(M6)×2
- \* Bolt and Nut in (Stainless) Kit are stainless.

## Material/Technical Data

Material Aluminum Die-Cast (ADC12)  
Weight 28g (D Bracket Flat S)  
27g (D Bracket Flat S with Tap)  
Environment **RoHS** Compliant

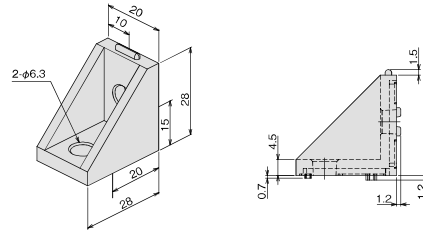
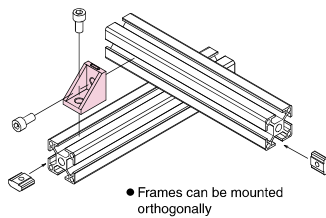


Parts  
How to order  
Item No.  
SFJ-018

Quantity (pcs)



## D Bracket Cross S



|                   |                       |                                   |
|-------------------|-----------------------|-----------------------------------|
| Name(Single Item) | D Bracket Cross S     |                                   |
| Item No.          | SFJ-045               |                                   |
| Name(Single Item) | D Bracket Cross S Kit | D Bracket Cross S Kit (Stainless) |
| Item No.          | SFK-045               | SFK-045S                          |

### Usable Frame

Compatible to all SF30 series (Groove Width 8mm)

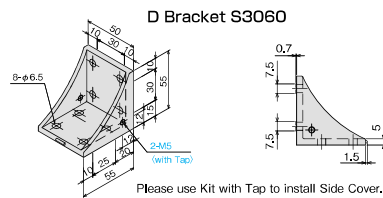
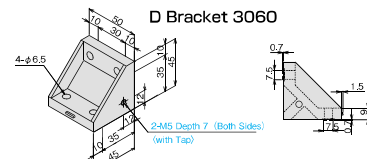
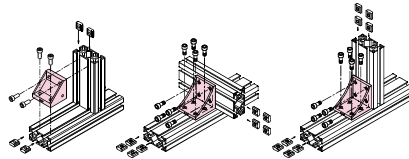
### Kit Contents

- D Bracket Cross S×1
- Hexagon Socket Bolt (M6×12 (Trivalent Chromate))×2
- T Nut S(M6)×2
- ※ Bolt and Nut in (Stainless) Kit are stainless.

### Material/Technical Data

Material Aluminum Die-Cast (ADC12)  
Weight 14g (D Bracket Cross S)  
Environment **RoHS** Compliant

## D Bracket 3060 / D Bracket S3060



|                        |                                             |                                                     |                                               |                                                       |
|------------------------|---------------------------------------------|-----------------------------------------------------|-----------------------------------------------|-------------------------------------------------------|
| Name(Single Item)      | D Bracket 3060<br>(D Bracket 3060 with Tap) |                                                     | D Bracket S3060<br>(D Bracket S3060 with Tap) |                                                       |
| Item No.               | SFJ-021 (SFJ-021T)                          |                                                     | SFJ-A13 (SFJ-A13T)                            |                                                       |
| Name(Bolt and Nut Kit) | 3060Kit<br>(3060 Kit with Tap)              | 3060(Stainless)Kit<br>(3060 with Tap(Stainless)Kit) | S3060 Kit<br>(S3060 Kit with Tap)             | S3060(Stainless)Kit<br>(S3060 with Tap(Stainless)Kit) |
| Item No.               | SFK-021 (SFK-021T)                          | SFK-021S (SFK-021P)                                 | SFK-A13 (SFK-A13T)                            | SFK-A13S (SFK-A13P)                                   |

|                        |                       |
|------------------------|-----------------------|
| Name(Single Item)      | D Bracket 3060-CN     |
| Item No.               | SFJ-021N              |
| Name(Bolt and Nut Kit) | D Bracket 3060-CN Kit |
| Item No.               | SFK-021N              |

### Usable Frame

SF-30-60 /1F  
SF-60-60-2S /1F/2F  
SF-60-90/60-120

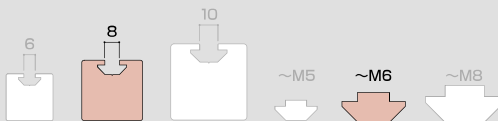
### Kit Contents

- (D Bracket 3060 Kit)
  - D Bracket 3060(or with Tap)×1
  - Hexagon Socket Bolt (M6×15)×4
  - T Nut S(M6)×4
- (D Bracket S3060 Kit)
  - D Bracket S3060(or with Tap)×1
  - Hexagon Socket Bolt (M6×12)×8
  - T Nut S(M6)×8
  - ※ Bolt and Nut in CN- (Stainless) Kit are stainless.

### Material/Technical Data

D Bracket 3060 D Bracket S3060  
Material Aluminum Die-Cast(ADC12)  
(CN/Electroless Nickel Plating)  
Weight With Anti-Skid Function  
100g 65g  
Environment **RoHS** Compliant  
**Green** Procurement

Please use Kit with Tap to install Side Cover.(P81)

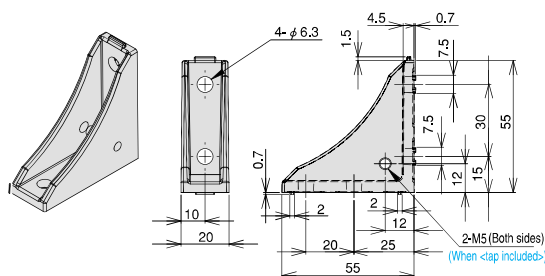
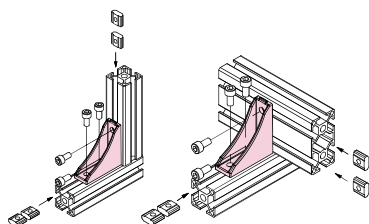
SF20  
SS SizeSF30  
S SizeSF40-45  
L Size

Complex Parts

Door Panel  
Clean Equipment

Technical Data

## D Bracket SW



|                        |                                                 |                                                                         |
|------------------------|-------------------------------------------------|-------------------------------------------------------------------------|
| Name(Single Item)      | D Bracket SW<br>(D Bracket SW with Tap)         |                                                                         |
| Item No.               | SFJ-024 (SFJ-024T)                              |                                                                         |
| Name(Bolt and Nut Kit) | D Bracket SW Kit<br>(D Bracket SW with Tap Kit) | D Bracket SW Kit (Stainless)<br>(D Bracket SW with Tap Kit (Stainless)) |
| Item No.               | SFK-024 (SFK-024T)                              | SFK-024S (SFK-024P)                                                     |



**Usable Frame**  
Compatible to all SF30 series  
(Groove Width 8mm)

## ■Kit Contents

- D Bracket SW (or with Tap) × 1
- Hexagon Socket Bolt (M6×12) × 4
- T Nut S(M6) × 4

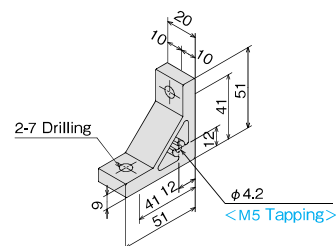
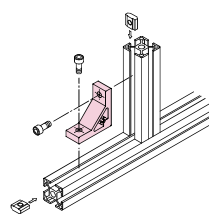
\*Bolt and Nut in (Stainless) Kit are stainless.

\*When mounting the side cover <with tap>, please use a truss head screw M5×6 (if panel: t=3), or truss head screw M5×8 (if panel: t=5).

## ■Material/Technical Data

Material Aluminum Die-Cast (ADC12)  
With Rotation-Prevention Function  
Weight 40g  
Environment RoHS Compliant

## Hard Bracket S



Please use Kit with Tap to install Side Cover. (Refer P81 for details.)

|                        |                                                     |                                                                             |
|------------------------|-----------------------------------------------------|-----------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket S<br>(Hard Bracket S with Tap)         |                                                                             |
| Item No.               | SFJ-N03 (SFJ-N03T)                                  |                                                                             |
| Name(Bolt and Nut Kit) | Hard Bracket S Kit<br>(Hard Bracket S Kit with Tap) | Hard Bracket S (Stainless) Kit<br>(Hard Bracket S (Stainless) Kit with Tap) |
| Item No.               | SFK-N03 (SFK-N03T)                                  | SFK-N03S (SFK-N03P)                                                         |



**Usable Frame**  
Compatible to all SF30 series  
(Groove Width 8mm)

## ■Kit Contents

- Hard Bracket S (or with Tap) × 1
- Hexagon Socket Bolt (M6×15) × 2
- T Nut S(M6) × 2

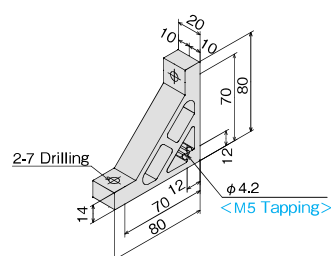
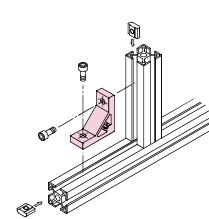
\*Bolt and Nut in (Stainless)

Kit are stainless.

## ■Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Perpendicular surface is machining finished.  
44g  
Weight RoHS Compliant  
Environment Green Procurement

## Hard Bracket SG



Please use Kit with Tap to install Side Cover. (Refer P81 for details.)

|                        |                                                       |                                                                               |
|------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket SG<br>(Hard Bracket SG with Tap)         |                                                                               |
| Item No.               | SFJ-N26 (SFJ-N26T)                                    |                                                                               |
| Name(Bolt and Nut Kit) | Hard Bracket SG Kit<br>(Hard Bracket SG Kit with Tap) | Hard Bracket SG (Stainless) Kit<br>(Hard Bracket SG (Stainless) Kit with Tap) |
| Item No.               | SFK-N26 (SFK-N26T)                                    | SFK-N26S (SFK-N26P)                                                           |



**Usable Frame**  
Compatible to all SF30 series  
(Groove Width 8mm)

## ■Kit Contents

- Hard Bracket SG (or with Tap) × 1
- Hexagon Socket Bolt (M6×22) × 2
- T Nut S(M6) × 2

\*Bolt and Nut in (Stainless)

Kit are stainless.

## ■Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Perpendicular surface is machining finished.  
101g  
Weight RoHS Compliant  
Environment Green Procurement



**Parts**  
How to order  
Item No.  
SFJ-024

Quantity (pcs)

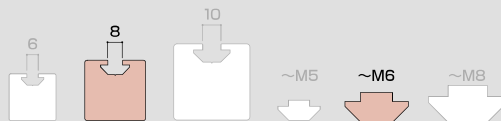


● Cap for Bracket  
P80

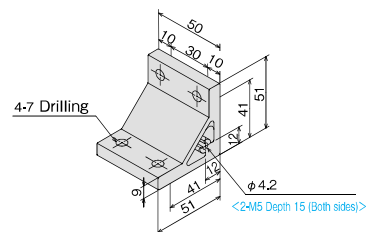
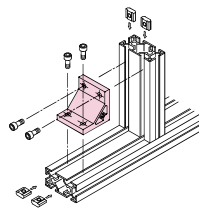








## Hard Bracket S3060



Please use Kit with Tap to install Side Cover. (Refer P81 for details.)

|                        |                                                             |                                                                                   |
|------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket S3060<br>(Hard Bracket S3060 with Tap)         |                                                                                   |
| Item No.               | SFJ-N04(SFJ-N04T)                                           |                                                                                   |
| Name(Bolt and Nut Kit) | Hard Bracket S3060 Kit<br>(Hard Bracket S3060 Kit with Tap) | Hard Bracket S3060(Stainless)Kit<br>(Hard Bracket S3060 (Stainless) Kit with Tap) |
| Item No.               | SFK-N04(SFK-N04T)                                           | SFK-N04S(SFK-N04P)                                                                |



■Usable Frame —  
SF-30-60/1F  
SF-60-60-2S/1F/2F  
SF-60-90/60-120

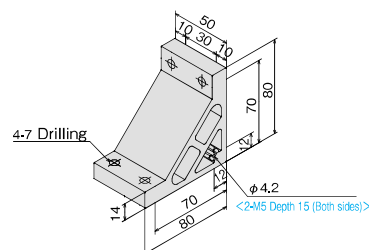
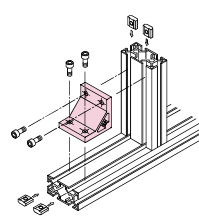
## ■Kit Contents

- Hard Bracket S3060 (or with Tap)×1
- Hexagon Socket Bolt (M6×15)×4
- T Nut S(M6)×4
- ※Bolt and Nut in (Stainless)
- Kit are stainless.

## ■Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Perpendicular surface is machining finished.  
Weight 111g  
Environment RoHS Compliant  
Green Procurement

## Hard Bracket SG3060



Please use Kit with Tap to install Side Cover. (Refer P81 for details.)

|                        |                                                               |                                                                                     |
|------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket SG3060<br>(Hard Bracket SG3060 with Tap)         |                                                                                     |
| Item No.               | SFJ-N27(SFJ-N27T)                                             |                                                                                     |
| Name(Bolt and Nut Kit) | Hard Bracket SG3060 Kit<br>(Hard Bracket SG3060 Kit with Tap) | Hard Bracket SG3060(Stainless)Kit<br>(Hard Bracket SG3060 (Stainless) Kit with Tap) |
| Item No.               | SFK-N27(SFK-N27T)                                             | SFK-N27S(SFK-N27P)                                                                  |



■Usable Frame —  
SF-30-60/1F  
SF-60-60-2S/1F/2F  
SF-60-90/60-120

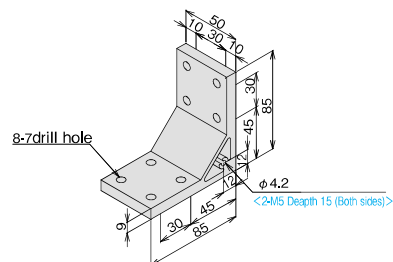
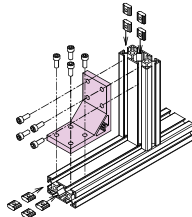
## ■Kit Contents

- Hard Bracket SG3060 (or with Tap)×1
- Hexagon Socket Bolt (M6×22)×4
- T Nut S(M6)×4
- ※Bolt and Nut in (Stainless)
- Kit are stainless.

## ■Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Perpendicular surface is machining finished.  
Weight 256g  
Environment RoHS Compliant  
Green Procurement

## Hard Bracket SW3060



Please use Kit with Tap to install Side Cover. (Refer P81 for details.)

|                        |                                                               |                                                                                     |
|------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket SW3060<br>(Hard Bracket SW3060 with Tap)         |                                                                                     |
| Item No.               | SFJ-N12(SFJ-N12T)                                             |                                                                                     |
| Name(Bolt and Nut Kit) | Hard Bracket SW3060 Kit<br>(Hard Bracket SW3060 Kit with Tap) | Hard Bracket SW3060(Stainless)Kit<br>(Hard Bracket SW3060 (Stainless) Kit with Tap) |
| Item No.               | SFK-N12(SFK-N12T)                                             | SFK-N12S(SFK-N12P)                                                                  |



■Usable Frame —  
SF-30-60/1F  
SF-60-60-2S/1F/2F  
SF-60-90/60-120

## ■Kit Contents

- Hard Bracket SW3060 (or with Tap)×1
- Hexagon Socket Bolt (M6×15)×8
- T Nut S(M6)×8
- ※Bolt and Nut in (Stainless)
- Kit are stainless.

## ■Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 192g  
Environment RoHS Compliant  
Green Procurement



Parts  
How to order  
Item No.  
SFJ-N04

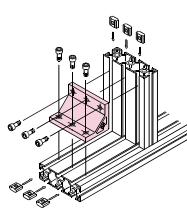
Quantity (pcs)



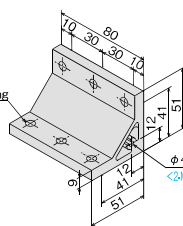
●Cap for Bracket  
P80



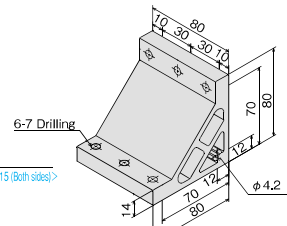
## Hard Bracket S3090/SG3090



Hard Bracket S3090



Hard Bracket SG3090



| Name(Single Item)      | Hard Bracket S3090<br>(Hard Bracket S3090 with Tap) |                                                         | Hard Bracket SG3090 |                       |
|------------------------|-----------------------------------------------------|---------------------------------------------------------|---------------------|-----------------------|
| Item No.               | SFJ-N10(SFJ-N10T)                                   |                                                         | SFJ-N28             |                       |
| Name(Bolt and Nut Kit) | S3090 Kit<br>(S3090 Kit with Tap)                   | S3090(Stainless) Kit<br>(S3090(Stainless) Kit with Tap) | SG3090 Kit          | SG3090(Stainless) Kit |
| Item No.               | SFK-N10(SFK-N10T)                                   | SFK-N10S(SFK-N10P)                                      | SFK-N28             | SFK-N28S              |



Usable Frame  
SF-30-90  
SF-60-90

### Kit Contents

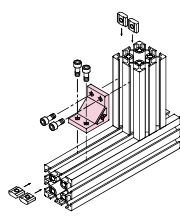
- (Hard Bracket S3090 Kit)  
●Hard Bracket S3090 (or with Tap)×1  
●Hexagon Socket Bolt (M6×15)×6  
●T Nut S(M6)×6  
(Hard Bracket SG3090 Kit)  
●Hard Bracket SG3090×1  
●Hexagon Socket Bolt (M6×22)×6  
●T Nut S(M6)×6  
※Bolt and Nut in (Stainless)  
Kit are stainless.

### Material/Technical Data

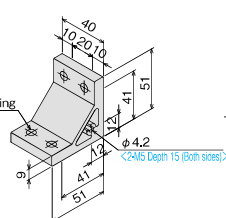
Material Aluminium Alloy  
Alumite Treatment  
Weight 180g(S3090)  
409g(SG3090)  
Environment RoHS Compliant  
Green Procurement

Please use Kit with Tap to install Side Cover. (Refer P81 for details.)

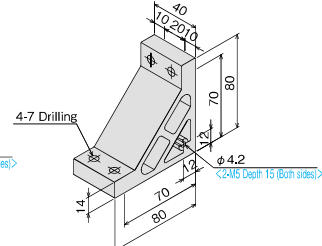
## Hard Bracket S50/SG50



Hard Bracket S50



Hard Bracket SG50



| Name(Single Item)      | Hard Bracket S50<br>(Hard Bracket S50 with Tap) |                                                     | Hard Bracket SG50<br>(Hard Bracket SG50 with Tap) |                                                       |
|------------------------|-------------------------------------------------|-----------------------------------------------------|---------------------------------------------------|-------------------------------------------------------|
| Item No.               | SFJ-N45(SFJ-N45T)                               |                                                     | SFJ-N47(SFJ-N47T)                                 |                                                       |
| Name(Bolt and Nut Kit) | S50 Kit<br>(S50 Kit with Tap)                   | S50(Stainless) Kit<br>(S50(Stainless) Kit with Tap) | SG50 Kit<br>(SG50 Kit with Tap)                   | SG50(Stainless) Kit<br>(SG50(Stainless) Kit with Tap) |
| Item No.               | SFK-N45(SFK-N45T)                               | SFK-N45S(SFK-N45P)                                  | SFK-N47(SFK-N47T)                                 | SFK-N47S(SFK-N47P)                                    |



Usable Frame  
SF-50-50-2S  
SF-50-100-2S

### Kit Contents

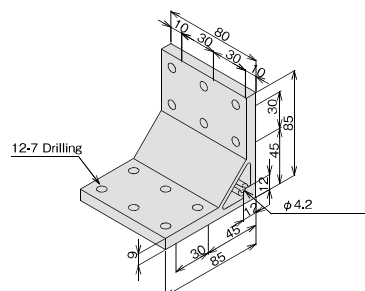
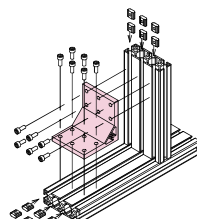
- (Hard Bracket S50 Kit)  
●Hard Bracket S50 (or with Tap)×1  
●Hexagon Socket Bolt (M6×15)×4  
●T Nut S(M6)×4  
(Hard Bracket SG50 Kit)  
●Hard Bracket SG50 (or with Tap)×1  
●Hexagon Socket Bolt (M6×22)×4  
●T Nut S(M6)×4  
※Bolt and Nut in (Stainless)  
Kit are stainless.

### Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 95g(S50)  
218g(SG50)  
Environment RoHS Compliant  
Green Procurement

Please use Kit with Tap to install Side Cover. (Refer P81 for details.)

## Hard Bracket SW3090



Please use Kit with Tap to install Side Cover. (Refer P81 for details.)

| Name(Single Item)      | Hard Bracket SW3090     |                                    |
|------------------------|-------------------------|------------------------------------|
| Item No.               | SFJ-N13                 |                                    |
| Name(Bolt and Nut Kit) | Hard Bracket SW3090 Kit | Hard Bracket SW3090(Stainless) Kit |
| Item No.               | SFK-N13                 | SFK-N13S                           |



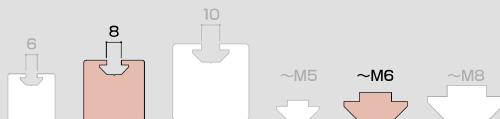
Usable Frame  
SF-30-90  
SF-60-90

### Kit Contents

- Hard Bracket SW3090×1  
●Hexagon Socket Bolt (M6×15)×12  
●T Nut S(M6)×12  
※Bolt and Nut in (Stainless)  
Kit are stainless.

### Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 309g  
Environment RoHS Compliant  
Green Procurement

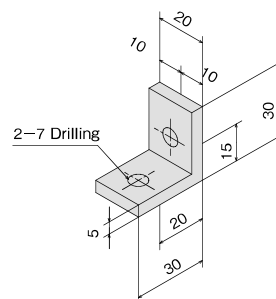
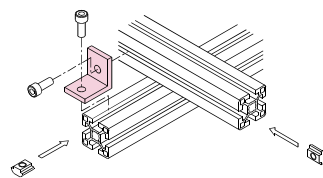
SF20  
SS SizeSF30  
S SizeSF40-45  
L Size

Complex Parts

Door Panel  
Clean Equipment

Technical Data

## Angle Bracket S



|                        |                                                         |
|------------------------|---------------------------------------------------------|
| Name(Single Item)      | Angle Bracket S                                         |
| Item No.               | ★SFJ-A03                                                |
| Name(Bolt and Nut Kit) | Angle Bracket S Kit<br>(Angle Bracket S(Stainless) Kit) |
| Item No.               | ★SFK-A03 ★SFK-A03S                                      |



■Usable Frame  
Compatible to all SF30 series  
(Groove Width 8mm)

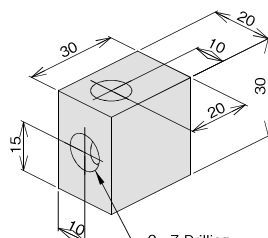
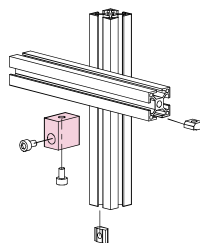
## ■Kit Contents

- Angle Bracket Hard Sx1
- Hexagon Socket Bolt (M6×12)×2
- T Nut S (M6)×2
- ※Bolt and Nut in (Stainless) Kit are stainless.

## ■Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 1.4g  
Environment ★RoHS Compliant  
★Green Procurement

## Angle Bracket Hard S



|                        |                                                                   |
|------------------------|-------------------------------------------------------------------|
| Name(Single Item)      | Angle Bracket Hard S                                              |
| Item No.               | SFJ-A15                                                           |
| Name(Bolt and Nut Kit) | Angle Bracket Hard S Kit<br>(Angle Bracket Hard S(Stainless) Kit) |
| Item No.               | SFK-A15(SFK-A15S)                                                 |



■Usable Frame  
Compatible to all SF30 series  
(Groove Width 8mm)

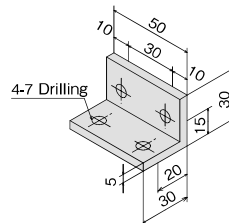
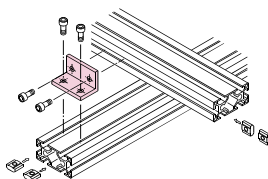
## ■Kit Contents

- Angle Bracket Hard Sx1
- Hexagon Socket Bolt (M6×12)×2
- T Nut S (M6)×2
- ※Bolt and Nut in (Stainless) Kit are stainless.

## ■Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 3.7g  
Environment ★RoHS Compliant  
Green Procurement

## Angle Bracket S3060



|                        |                                                                 |
|------------------------|-----------------------------------------------------------------|
| Name(Single Item)      | Angle Bracket S3060                                             |
| Item No.               | ★SFJ-A04                                                        |
| Name(Bolt and Nut Kit) | Angle Bracket S3060 Kit<br>(Angle Bracket S3060(Stainless) Kit) |
| Item No.               | ★SFK-A04 ★SFK-A04S                                              |



■Usable Frame  
Compatible to all SF30 series  
(Groove Width 8mm)  
※Doesn't meet with SF-35-35  
(include 1F/2F/24/SF-35-70/include 1F/2F).

## ■Kit Contents

- Angle Bracket S3060x1
- Hexagon Socket Bolt (M6×12)×4
- T Nut S (M6)×4
- ※Bolt and Nut in (Stainless) Kit are stainless.

## ■Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 35g  
Environment ★RoHS Compliant  
★Green Procurement



Parts  
How to order  
Item No.  
SFJ-A03

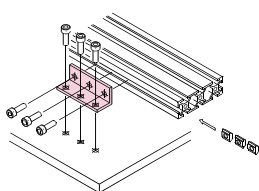
Quantity (pcs)



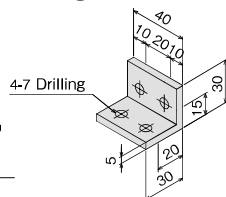
●Cap for Bracket  
P80



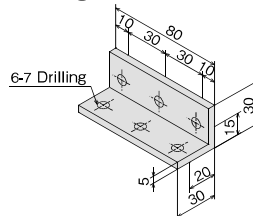
## Angle Bracket S50 / S3090



Angle Bracket S50



Angle Bracket S3090



|                        |                                                             |                                                                 |
|------------------------|-------------------------------------------------------------|-----------------------------------------------------------------|
| Name(Single Item)      | Angle Bracket S50                                           | Angle Bracket S3090                                             |
| Item No.               | SFJA11                                                      | SFJA10                                                          |
| Name(Bolt and Nut Kit) | Angle Bracket S50 Kit<br>(Angle Bracket S50(Stainless) Kit) | Angle Bracket S3090 Kit<br>(Angle Bracket S3090(Stainless) Kit) |
| Item No.               | SFK-A11 (SFK-A11S)                                          | SFK-A10 (SFK-A10S)                                              |

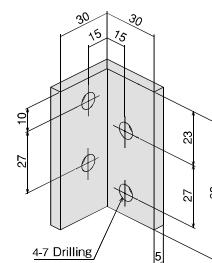
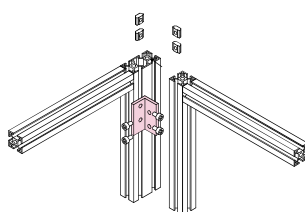
**Usable Frame**  
Compatible to all SF30 series  
(Groove Width 8mm)  
\*Doesn't meet with SF-35/35  
(include 1F/2F/2H/SF-35/70/include 1F/2F).



**Kit Contents**  
(Angle Bracket S50 Kit)  
● Angle Bracket S50x1  
● Hexagon Socket Bolt (M6x12)x4  
● T Nut S(M6)x4  
(Angle Bracket S3090 Kit)  
● Angle Bracket S3090x1  
● Hexagon Socket Bolt (M6x12)x6  
● T Nut S(M6)x6  
\*Bolt and Nut in (Stainless)  
Kit are stainless.

**Material/Technical Data**  
Material Aluminium Alloy  
Alumite Treatment  
Weight 29g (S50)  
60g (S3090)  
Environment **RoHS** Compliant  
**Green** Procurement

## Offset Bracket S3060



|                        |                                                                    |
|------------------------|--------------------------------------------------------------------|
| Name(Single Item)      | Offset Bracket S3060                                               |
| Item No.               | SFJA21                                                             |
| Name(Bolt and Nut Kit) | Offset Bracket S3060 Kit<br>(Offset Bracket S3060 (Stainless) Kit) |
| Item No.               | SFK-A21 (SFK-A21S)                                                 |

**Usable Frame**  
Compatible to all SF30 series  
(Groove Width 8mm)  
\*Doesn't meet with SF-35/35  
(include 1F/2F/2H/SF-35/70/include 1F/2F).

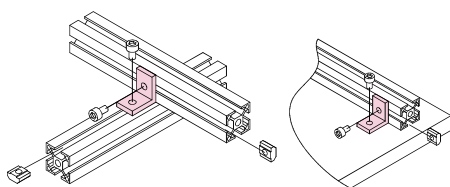


**Kit Contents**  
● Offset Bracket S3060x1  
● Hexagon Socket Bolt (M6x12)x4  
● T Nut S(M6)x4  
\*Bolt and Nut in (Stainless)  
Kit are stainless.

**Material/Technical Data**  
Material A6063  
Alumite Treatment  
(Special order Black Alumite is also available.)  
Weight 42g  
Environment **RoHS** Compliant

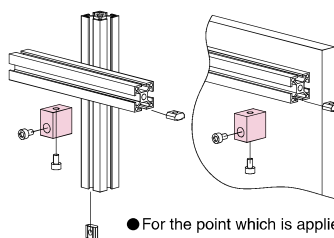
### How to use Angle Bracket · Angle Bracket Hard · Offset Bracket S3060

Angle Bracket



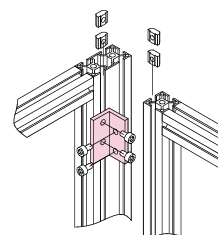
● For cross joint of frames and base fixing

Angle Bracket Hard



● For the point which is applied vertical load

Offset Bracket S3060

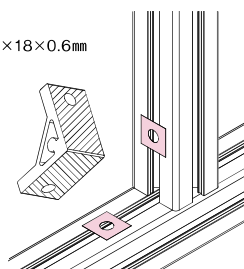


● To assemble from surface

## Friction Sheet M6 with Case (50pcs/Set)



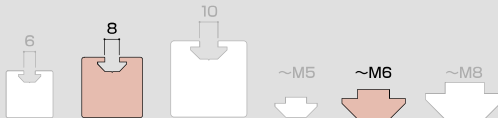
Dimension : 18×18×0.6mm



|          |                                         |
|----------|-----------------------------------------|
| Name     | Friction Sheet M6 with Case (50pcs/Set) |
| Item No. | SFA-M02                                 |

**Material/Technical Data**  
Dimension Sheet : 18×18×0.6mm  
Case : 52×43×15mm  
Material Sheet : Urethane Resin  
Case : ABS  
Weight Sheet : 0.02g/pcs  
Case : 20.3g  
Environment **RoHS** Compliant



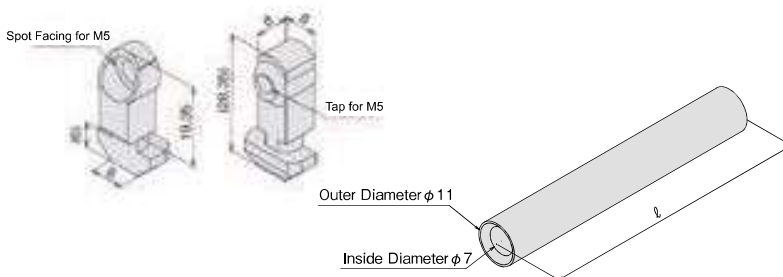


## QC Joint S



QC Joint S(Common Parts)

Round Metal Tool S



|   | S Kit | S50 Kit | S60 Kit | S90 Kit | S100 Kit | S120 Kit |
|---|-------|---------|---------|---------|----------|----------|
| ℓ | 12    | 32      | 42      | 72      | 82       | 102      |



■Usable Frame —  
Compatible to all SF30 series  
(Groove Width 8mm)

\*Doesn't meet with SF-35/35  
(include 1F/2F/2H/SF-35/70) include 1F/2F.

| Name     | QC Joint S Kit | QC Joint S50 Kit | QC Joint S60 Kit | QC Joint S90 Kit | QC Joint S100 Kit | QC Joint S120 Kit |
|----------|----------------|------------------|------------------|------------------|-------------------|-------------------|
| Item No. | SFK-Q30A       | SFK-Q31A         | SFK-Q32A         | SFK-Q33A         | SFK-Q34A          | SFK-Q35A          |

| Kit Name          | QC Joint         | Round metal tool        | Bolt                                    |
|-------------------|------------------|-------------------------|-----------------------------------------|
| QC Joint S Kit    | QC Joint S×1 Set | Round metal tool S30×1  | Hexagon Socket Bolt (M5×22) Stainless×1 |
| QC Joint S50 Kit  |                  | Round metal tool S50×1  | Hexagon Socket Bolt (M5×40) Stainless×1 |
| QC Joint S60 Kit  |                  | Round metal tool S60×1  | Hexagon Socket Bolt (M5×50) Stainless×1 |
| QC Joint S90 Kit  |                  | Round metal tool S90×1  | Hexagon Socket Bolt (M5×80) Stainless×1 |
| QC Joint S100 Kit |                  | Round metal tool S100×1 | Hexagon Socket Bolt (M5×90) Stainless×1 |
| QC Joint S120 Kit |                  | Round metal tool S120×1 | Hexagon Socket Bolt (M5×110)Stainless×1 |

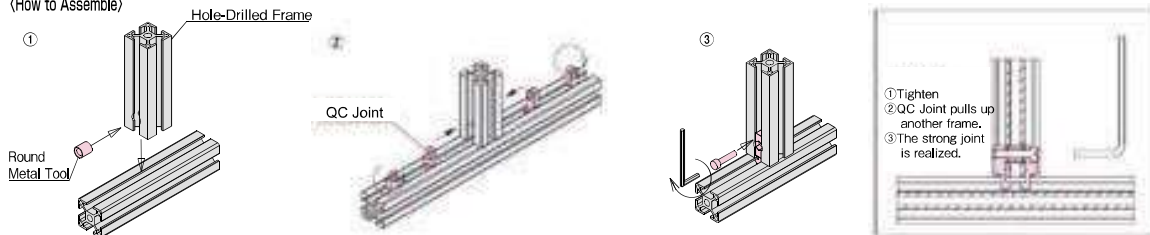
## ■Material/Technical Data

|             | QC Joint S        |                |                | Round metal tool S |                 |                 |
|-------------|-------------------|----------------|----------------|--------------------|-----------------|-----------------|
| Material    | Aluminum Die-Cast |                |                | Aluminium Alloy    |                 |                 |
| Weight      | S Kit<br>15g      | S50 Kit<br>20g | S60 Kit<br>23g | S90 Kit<br>32g     | S100 Kit<br>35g | S120 Kit<br>42g |
| Environment | RoHS Compliant    |                |                | Green Procurement  |                 |                 |

## QC Joint S

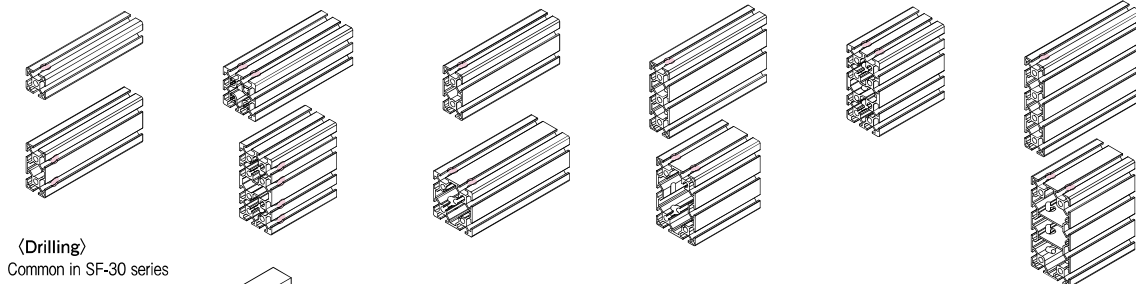
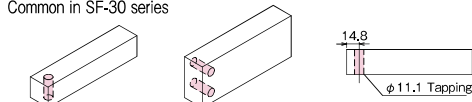
〈Characteristics〉 It's easy to set vertically and hardly make gap, because 2 frames are pulled at each other to combine. Also, you don't have to let nuts into frame in advance, and strong fixing is possible by one bolt, so the assembly man-hour is reduced.

## 〈How to Assemble〉



## 〈Example of Kit Selection〉

- QC Joint S Kit (For drilled hole to the direction of 30mm)
- QC Joint S50 Kit (For drilled hole to the direction of 50mm)
- QC Joint S60 Kit (For drilled hole to the direction of 60mm)
- QC Joint S90 Kit (For drilled hole to the direction of 90mm)
- QC Joint S100 Kit (For drilled hole to the direction of 100mm)
- QC Joint S120 Kit (For drilled hole to the direction of 120mm)

〈Drilling〉  
Common in SF-30 series

●Drillid by SUS  
Processing Symbol P202~



## Parts

How to order

Item No.

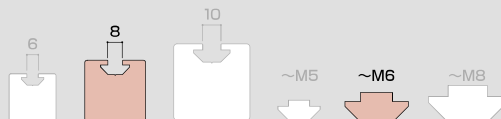
SFK-Q30

Quantity (pcs)

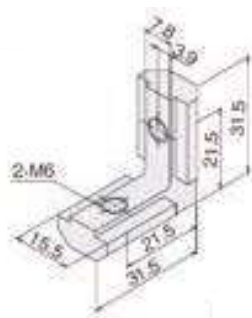
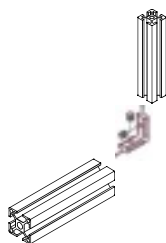




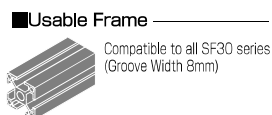




## Blind Bracket S



|          |                 |
|----------|-----------------|
| Name     | Blind Bracket S |
| Item No. | SFK-621A        |



## ■Material/Technical Data

Material Aluminum Die-Cast

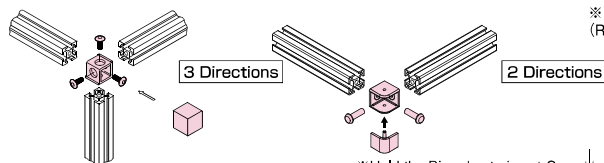
Weight 14.8g

Environment RoHS Compliant

Green Procurement

2 Set Screws M6×8 Stainless Included.

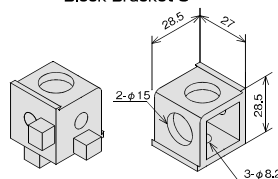
## Block Bracket S Kit / Corner Block S Kit



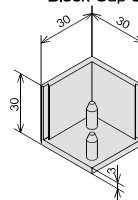
※Hold the Pin edge to insert Cap.

|          |                     |              |
|----------|---------------------|--------------|
| Name     | Block Bracket S Kit |              |
|          | (Black)             | (Light Gray) |
| Item No. | SFK-Q12             | SFK-Q12G     |
| Name     | Corner Block S Kit  |              |
|          | (Black)             | (Light Gray) |
| Item No. | SFK-Q62             | SFK-Q62G     |

## Block Bracket S

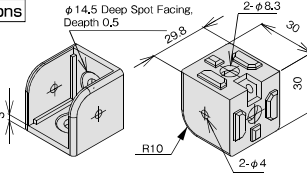


## Block Cap S

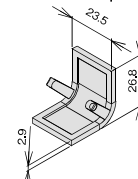


※M8 Tapping is needed to the section of SF30-30 (or 1F/2F). (Refer P199 ~ for details.)

## Corner Block S



## Corner Cap S



※M8 Tapping is needed to the section of SF30-30 (or 1F/2F). (Refer P199 ~ for details.)

※Corner block S Kit is installable by Tapping Bolt as well.

## ■Usable Frame

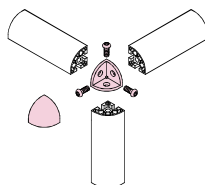
(Block Bracket S Kit)  
SF-30-30 (Include 1F/2F)  
(Corner Block S Kit)  
SF-30-30 (1F/2F/3F/2H)

## ■Material/Technical Data

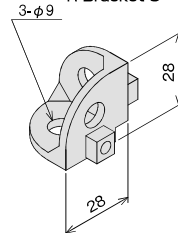
| Block Bracket S Kit <sup>※1</sup>                                 | Corner Block S Kit <sup>※2</sup>                     |
|-------------------------------------------------------------------|------------------------------------------------------|
| Material Zinc Die-Cast(Block Bracket S)<br>Polyamide(Block Cap S) | Stainless(Corner Block S)<br>Polyamide(Corner Cap S) |
| Weight 56g(Block Bracket S)<br>8g(Block Cap S)                    | 71g(Corner Block S)<br>3.2g(Corner Cap S)            |
| Environment RoHS Compliant                                        |                                                      |

※1 3 Hexagon Socket Button Bolt M8×25 Included.  
※2 2 Hexagon Socket Button Bolt M8×25 Included.

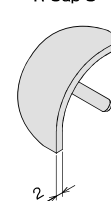
## R Bracket S Kit



## R Bracket S



## R Cap S



※M8 Tapping is needed to the section of SF30-30-R. (Refer P199 ~ for details.)

■Usable Frame  
SF-30-30-R

## ■Material/Technical Data

|                                                       |
|-------------------------------------------------------|
| R Bracket S Kit <sup>※</sup>                          |
| Material Stainless(R Bracket S)<br>Polyamide(R Cap S) |
| Weight 47g(R Bracket S)<br>6g(R Cap S)                |
| Environment RoHS Compliant                            |

※3 Hexagon Socket Button Bolt M8×25 Included.



## Parts

How to order

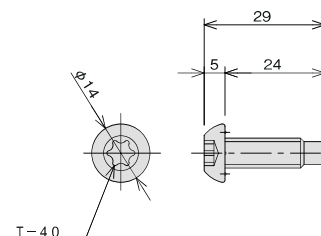
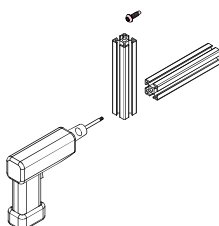
Item No.

SFK-601S

Quantity (pcs)



## Tapping Bolt S



|          |                |
|----------|----------------|
| Name     | Tapping Bolt S |
| Item No. | SFB-T30        |

### Usable Frame



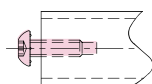
SF-30-30(1F/2F/3F/2H)  
SF-30-60(1F)  
SF-30-90/30-120  
SF-60-60-2S(1F/2F)

### Material/Technical Data

Material SWCH 18A  
Uni-Chrome Plating  
Weight 9g  
Environment RoHS Compliant  
Green Procurement

### How to fix Tapping Bolt

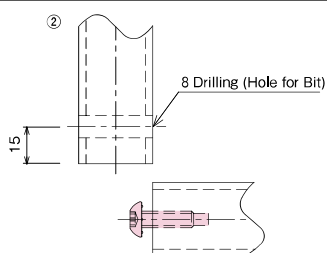
①



Fix the frame with jig etc, and screw the Tapping Bolt halfway into the end face. (Temporary joint)

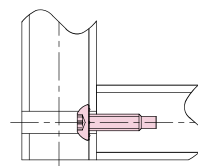
\* In case it's too tight, please use cutting oil.

②



Put the bolt head through T slot of another frame.

③



Tighten by Manual tool to fix.

※Manual tool is recommended, because the reaction of torque up is big by using electric drill.



●Drillid by SUS  
Processing Symbol P202~

SF20  
SS Size

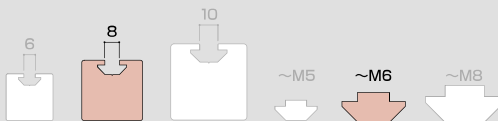
SF30  
S Size

SF40-45  
L Size

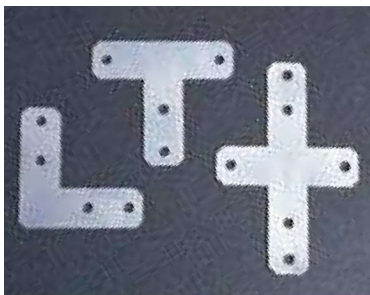
Complex Parts

Door・Panel  
Clean Equipment

Technical Data



## Plate Bracket S



S Plate Bracket SG

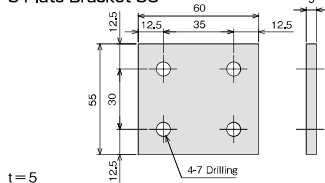
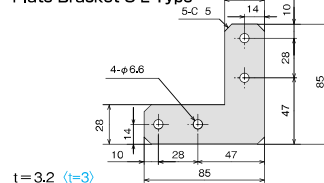


Plate Bracket S-L Type



| Name         | S Plate Bracket SG                                                                                                                              | S Plate Bracket SG Kit | Plate Bracket S-L Type<br>(S Plate Bracket S-L Type)                                                                                                                                                                                              | Plate Bracket S-L Type Kit<br>(S Plate Bracket S-L Type Kit) |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Item No.     | SFJ-122S                                                                                                                                        | SFK-122S               | SFJ-104(SFJ-104S)                                                                                                                                                                                                                                 | SFK-104(SFK-104S)                                            |
| Kit contents | <ul style="list-style-type: none"> <li>●Plate Bracket SG×1</li> <li>●Hexagon Socket Bolt (M6×12)Stainless×4</li> <li>●ST Nut S(M6)×4</li> </ul> |                        | <ul style="list-style-type: none"> <li>●Plate Bracket S-L×1</li> <li>●Hexagon Socket Bolt (M6×10)×4</li> <li>●ST Nut S(M6)×4</li> <li>●S Plate Bracket S-L×1</li> <li>●Hexagon Socket Bolt (M6×10)Stainless×4</li> <li>●ST Nut S(M6)×4</li> </ul> |                                                              |



Plate Bracket S-T Type

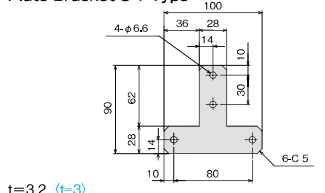
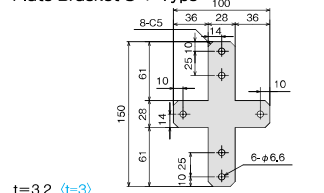


Plate Bracket S-+ Type



| Name         | Plate Bracket S-T Type<br>(S Plate Bracket S-T Type)                                                                                                                                                                                              | Plate Bracket S-T Type Kit<br>(S Plate Bracket S-T Type Kit) | Plate Bracket S-+ Type<br>(S Plate Bracket S-+ Type)                                                                                                                                                                                              | Plate Bracket S-+ Type Kit<br>(S Plate Bracket S-+ Type Kit) |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Item No.     | SFJ-103(SFJ-103S)                                                                                                                                                                                                                                 | SFK-103(SFK-103S)                                            | SFJ-105(SFJ-105S)                                                                                                                                                                                                                                 | SFK-105(SFK-105S)                                            |
| Kit contents | <ul style="list-style-type: none"> <li>●Plate Bracket S-T×1</li> <li>●Hexagon Socket Bolt (M6×10)×4</li> <li>●ST Nut S(M6)×4</li> <li>●S Plate Bracket S-T×1</li> <li>●Hexagon Socket Bolt (M6×10)Stainless×4</li> <li>●ST Nut S(M6)×4</li> </ul> |                                                              | <ul style="list-style-type: none"> <li>●Plate Bracket S-+×1</li> <li>●Hexagon Socket Bolt (M6×10)×6</li> <li>●ST Nut S(M6)×6</li> <li>●S Plate Bracket S-+×1</li> <li>●Hexagon Socket Bolt (M6×10)Stainless×6</li> <li>●ST Nut S(M6)×6</li> </ul> |                                                              |

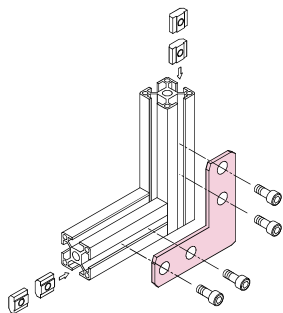


Plate Bracket S-H2

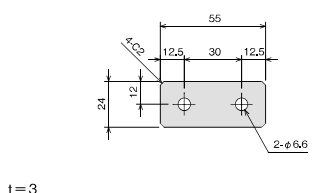
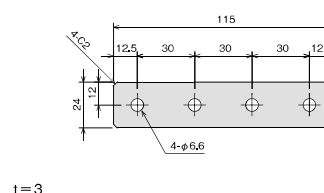
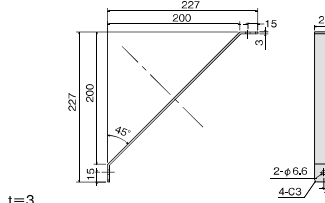


Plate Bracket S-H4

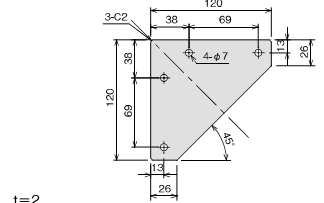


| Name         | Plate Bracket S-H2                                                                                                                                                                                                                                         | Plate Bracket S-H2 Kit | Plate Bracket S-H4 | Plate Bracket S-H4 Kit |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------|------------------------|
| Item No.     | SFJ-125S                                                                                                                                                                                                                                                   | SFK-125S               | SFJ-129S           | SFK-129S               |
| Kit contents | <ul style="list-style-type: none"> <li>●Plate Bracket S-H2×1</li> <li>●Hexagon Socket Bolt (M6×10)Stainless×2</li> <li>●ST Nut S(M6)×2</li> <li>●Plate Bracket S-H4×1</li> <li>●Hexagon Socket Bolt (M6×10)Stainless×4</li> <li>●ST Nut S(M6)×4</li> </ul> |                        |                    |                        |

Corner Support Bracket S



Corner Support Plate S



| Name         | Corner Support Bracket S                                                                                                                                                                                                                                             | Corner Support Bracket S Kit | Corner Support Plate S | Corner Support Plate S Kit |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------|----------------------------|
| Item No.     | SFJ-134S                                                                                                                                                                                                                                                             | SFK-134S                     | SFJ-137S               | SFK-137S                   |
| Kit contents | <ul style="list-style-type: none"> <li>●Corner Support Bracket S×1</li> <li>●Hexagon Socket Bolt (M6×10)Stainless×2</li> <li>●ST Nut S(M6)×2</li> <li>●Corner Support Plate S×1</li> <li>●Hexagon Socket Bolt (M6×10)Stainless×4</li> <li>●ST Nut S(M6)×4</li> </ul> |                              |                        |                            |

## Material/Technical Data

| Name                        | Weight(g) | Material       | Environment                               |
|-----------------------------|-----------|----------------|-------------------------------------------|
| Plate Bracket SG            | 125       | SUS304         | RoHS<br>Compliant<br>Green<br>Procurement |
| Plate Bracket S-L           | 92        | SPCC UniChrome |                                           |
| S Plate Bracket S-L         | 87        | SUS304         |                                           |
| Plate Bracket S-T           | 106       | SPCC UniChrome |                                           |
| S Plate Bracket S-T         | 96        | SUS304         |                                           |
| Plate Bracket S-+           | 145       | SPCC UniChrome |                                           |
| S Plate Bracket S-+         | 135       | SUS304         |                                           |
| Plate Bracket S-H2          | 29.6      | SUS304         |                                           |
| Plate Bracket S-H4          | 62.2      | SUS304         |                                           |
| Corner Reinforced Bracket S | 200       | SUS304         |                                           |
| Corner Reinforced Plate S   | 155.8     | SUS304         |                                           |

## Usable Frame



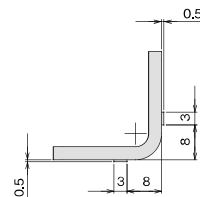
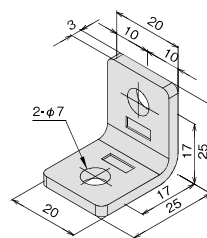
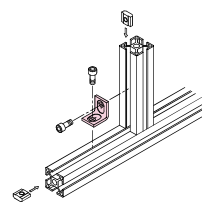
Compatible to all SF30 series  
(Groove Width 8mm)  
\*Plate Bracket S-H2/H4 doesn't  
meet with SF-35-35(include 1F/2F/2H)  
SF-35-70(include 1F/2F).

Parts  
How to order  
Item No.  
SFJ-122S

Quantity (pcs)



## L Bracket S (Stainless)



|                        |                             |
|------------------------|-----------------------------|
| Name(Single Item)      | L Bracket S (Stainless)     |
| Item No.               | SFJ-101S                    |
| Name(Bolt and Nut Kit) | L Bracket S (Stainless) Kit |
| Item No.               | SFK-101S                    |

### Usable Frame



Compatible to all SF30 series  
(Groove Width 8mm)

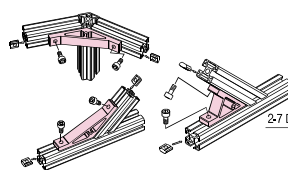
### Kit Contents

- L Bracket S (Stainless)×1
- Hexagon Socket Bolt (M6×10)Stainless×2
- ST Nut S(M6)×2

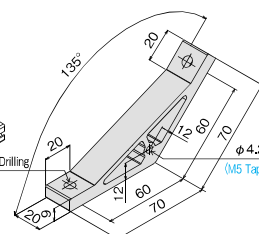
### Material/Technical Data

Material SUS304  
Weight 18g  
Environ **RoHS** Compliant  
**Green** Procurement

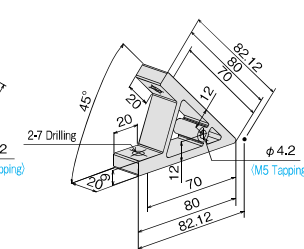
## Hard Bracket S-DE



Hard Bracket S · DE135



Hard Bracket S · DE45



|                        |                                                         |                                                       |
|------------------------|---------------------------------------------------------|-------------------------------------------------------|
| Name(Single Item)      | Hard Bracket S-DE135<br>(Hard Bracket S-DE135 with Tap) | Hard Bracket S-DE45<br>(Hard Bracket S-DE45 with Tap) |
| Item No.               | SFJ-N33 (SFJ-N33T)                                      | SFJ-N34 (SFJ-N34T)                                    |
| Name(Bolt and Nut Kit) | S-DE135 Kit<br>(S-DE135 Kit with Tap)                   | S-DE45 Kit<br>(S-DE45 Kit with Tap)                   |
| Item No.               | SFK-N33 (SFK-N33T)                                      | SFK-N34 (SFK-N34T)                                    |

**Usable Frame**  
SF30-DE45-SF35 Series  
45° slant cut frame  
(Refer P198)

### Kit Contents

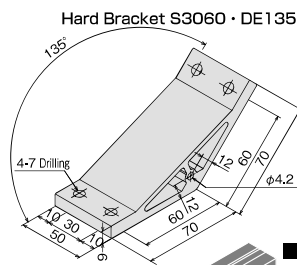
- (Hard Bracket S-DE135 Kit)
- Hard Bracket S-DE135 (or with Tap)×1
- Hexagon Socket Bolt (M6×15)×2
- T Nut S (M6)×2
- (Hard Bracket S-DE45 Kit)
- Hard Bracket S-DE45 (or with Tap)×1
- Hexagon Socket Bolt (M6×15)×2
- T Nut S (M6)×2

\*Bolt and Nut in (Stainless)  
Kit are stainless.

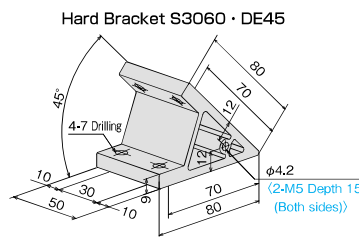
### Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 68g (DE135)  
58g (DE45)  
Environ **RoHS** Compliant  
**Green** Procurement

## Hard Bracket SS3060-DE



Hard Bracket S3060 · DE135



Hard Bracket S3060 · DE45

|                        |                                               |                                                               |
|------------------------|-----------------------------------------------|---------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket S3060-DE135                      | Hard Bracket S3060-DE45<br>(Hard Bracket S3060-DE45 with Tap) |
| Item No.               | SFJ-N40                                       | SFJ-N39 (SFJ-N39T)                                            |
| Name(Bolt and Nut Kit) | S3060-DE135 Kit<br>(S3060-DE135 Kit with Tap) | S3060-DE45 Kit<br>(S3060-DE45 Kit with Tap)                   |
| Item No.               | SFK-N40                                       | SFK-N39 (SFK-N39T)                                            |

**Usable Frame**  
SF-30-60/60-60-2S/  
60-90/60-120 Series  
45° slant cut frame (Refer  
P198)

### Kit Contents

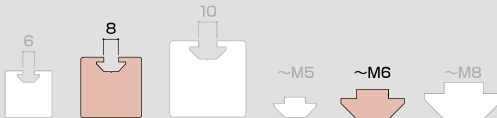
- (Hard Bracket S3060-DE135 Kit)
- Hard Bracket S3060-DE135×1
- Hexagon Socket Bolt (M6×15)×4
- T Nut S (M6)×4
- (Hard Bracket S3060-DE45 Kit)
- Hard Bracket S3060-DE45 (or with Tap)×1
- Hexagon Socket Bolt (M6×15)×4
- T Nut S (M6)×4

\*Bolt and Nut in (Stainless)  
Kit are stainless.

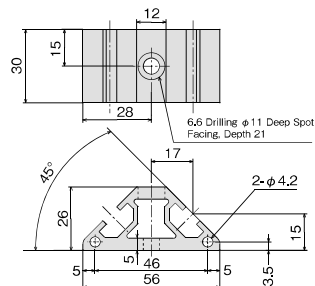
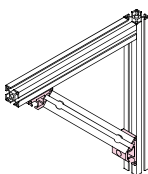
Please use Kit with Tap to install  
Side Cover. (Refer P81 for details.)

### Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 185g (DE135)  
158g (DE45)  
Environ **RoHS** Compliant  
**Green** Procurement



## Truss Joint S



※Groove size is as same as SF-30-30

|                    |               |
|--------------------|---------------|
| Name (Single Item) | Truss Joint S |
| Item No.           | SFJ-J02       |

## ■ Usable Frame

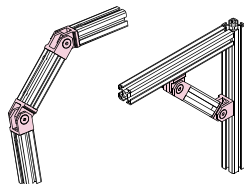


(Frame to reinforce)  
SF-30-30  
(Frame to combine)  
SF-30-40/45 series installable

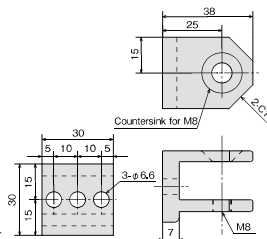
## ■ Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
37g  
Weight **RoHS** Compliant  
Environment **Green** Procurement

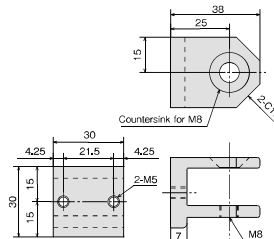
## Turn Bracket 30A / B



Turn Bracket 30A



Turn Bracket 30B



|          |                  |                  |
|----------|------------------|------------------|
| Name     | Turn Bracket 30A | Turn Bracket 30B |
| Item No. | SFK-41A          | SFK-41B          |

## ■ Usable Frame



(End Surface Installation)  
SF-30-30 Exclusive.  
(Side surface Installation)  
T Nut is M6.

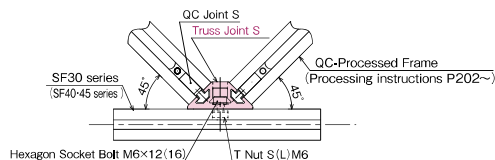
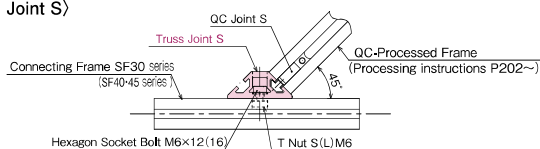
## ■ Material/Technical Data

Turn Bracket 30A/B\*  
Material Aluminium Alloy  
Alumite Treatment  
Weight 33g(30A)/35g(30B)  
Environment **RoHS** Compliant

①30A and B each include Hexagon Socket Flat Head Cap Screw/M8×12.

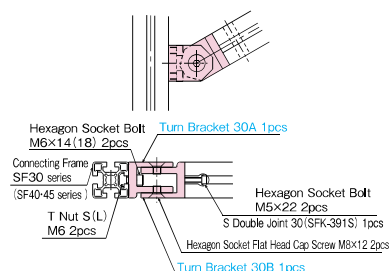
## How to use Truss Joint・Turn Bracket

## 〈Truss Joint S〉

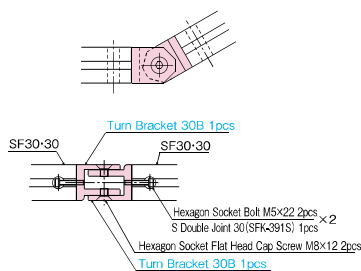


## 〈Turn Bracket〉

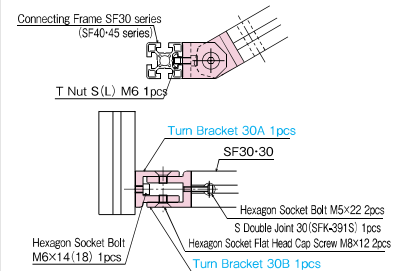
〈In case of installing to side and end of the Frames.〉



〈In case of installing to sections of the Frames.〉



〈In case of installing to side and end of the Frames.〉



● This product cannot be used as supporting point of movable part.



● Use Processing Symbols written from P204~ to specify frilling for Double Joint.



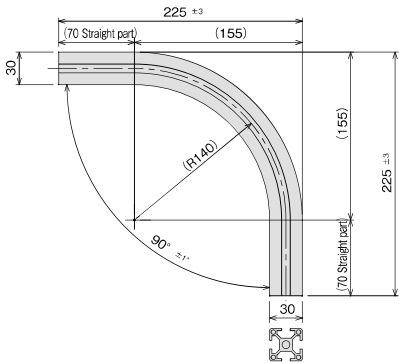
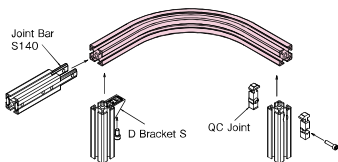
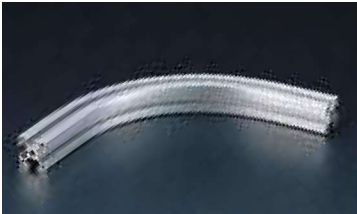
Parts  
How to order  
Item No.  
SFJ-J02

Quantity (pcs)





Bend Bracket S



|          |                |
|----------|----------------|
| Name     | Bend Bracket S |
| Item No. | SFJ-V01        |

Kit Contents



Compatible to SF-30-30 series  
(1F/2F/2H/3F).

Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
(Special order Black Alumite is available.)  
Weight 332g  
Environment RoHS Compliant  
Green Procurement



Adjuster Plate S  
Adjuster Plate S (Stainless)

| Adjuster Plate S             | Material | Treatment  | Weight |
|------------------------------|----------|------------|--------|
| Adjuster Plate S (Stainless) | SUS400   | Uni-Chrome | 0.24kg |

|                              | Material | Treatment  | Weight |
|------------------------------|----------|------------|--------|
| Adjuster Plate S             | SS400    | Uni-Chrome | 0.24kg |
| Adjuster Plate S (Stainless) | SUS304   |            |        |

Technical drawing of the Adjuster Caster Plate 60. The drawing shows a rectangular plate with dimensions 166mm by 125mm. It features a central circular hole with a diameter of 60mm and an M16 thread. There are four 4-M6 threaded holes at the corners. The plate has a thickness of 9mm. The material is SS400, and the treatment is Uni-Chrome. The weight is 1.03kg.

| Material | Treatment  | Weight |
|----------|------------|--------|
| SS400    | Uni-Chrome | 1.03kg |

|                          | Material | Treatment  | Weight |
|--------------------------|----------|------------|--------|
| Adjuster Caster Plate 50 | SS400    | Uni-Chrome | 1.03kg |

Figure 1 shows the dimensions and details of the test specimens. The top view is a square plate with a side length of 125 mm. It features a central hole with a diameter of 16 mm (labeled M16) and four corner holes with a diameter of 6 mm (labeled 4-M6). The central hole is positioned 29 mm from the top and bottom edges and 30 mm from the left and right edges. The corner holes are positioned 30 mm from the top and bottom edges and 12 mm from the left and right edges. The plate thickness is 9 mm. The material is SS400, treated with Uni-Chrome, and tested at 100°C.

|                          | Material | Treatment  | Load Capacity |
|--------------------------|----------|------------|---------------|
| Adjuster Caster Plate 60 | SS400    | Uni-Chrome | 1.03kg        |

|                                     | Material | Treatment  | Weight |
|-------------------------------------|----------|------------|--------|
| Adjuster Caster Plate S             | SS400    | Uni-Chrome | 0.44kg |
| Adjuster Caster Plate S (Stainless) | SUS304   |            |        |

|                                     | Material | Treatment  | Weight |
|-------------------------------------|----------|------------|--------|
| Adjuster Caster Plate S             | SS400    | Uni-Chrome | 0.44kg |
| Adjuster Caster Plate S (Stainless) | SUS304   |            |        |

Adjuster M12  
Adjuster M12(Stainless)

121  
100  
55  
13  
M12x1.75

|                         | Material | Treatment      | Lot Cost/Weight |
|-------------------------|----------|----------------|-----------------|
| Adjuster M12            | SS400    | Uni-Chrome     | 500kg 163g      |
| Adjuster M12(Stainless) | SS304    | Electro-Polish | 500kg 165g      |

|                          | Material | Treatment                | Load Capacity | Weight |
|--------------------------|----------|--------------------------|---------------|--------|
| Adjuster M12             | SS400    | Uni-Chrome               | 500kg         | 169g   |
| Adjuster M12 (Stainless) | SUS304   | Electro-Chrome Polishing | 300kg         | 165g   |

| Material           | Treatment | Lot   | Color | Weight | Bottom          |
|--------------------|-----------|-------|-------|--------|-----------------|
| Adjuster M16 SS400 | Zn Black  | 500kg | 386g  |        | Neoprene rubber |

|              | Material | Treatment | Load Capacity | Weight | Bottom          |
|--------------|----------|-----------|---------------|--------|-----------------|
| Adjuster M16 | SS400    | Zn Black  | 500kg         | 386g   | Neoprene rubber |

| Material                    | Treatment               | Load Capacity | Weight |
|-----------------------------|-------------------------|---------------|--------|
| Antistress RM16 (Stainless) | SUS304 Electro Polished | 5600kg        | 37.5g  |

|                           | Material | Treatment          | Load Capacity | Weight |
|---------------------------|----------|--------------------|---------------|--------|
| Adjuster RM16 (Stainless) | SUS304   | Electric Polishing | 560kg         | 375g   |

Caster A  
Caster A brake attaching  
Caster A (Stainless)  
Caster A with Brake  
(Stainless)

|                      | Material | Load Capacity | Weight |
|----------------------|----------|---------------|--------|
| Caster A             | Rubber   | 30kg          | 189g   |
| Caster A with Brake  | Rubber   | 30kg          | 223g   |
| Caster A (Stainless) | Nylon    | 40.8kg        | 147g   |

|                      | Material | Load Capacity | Weight |
|----------------------|----------|---------------|--------|
| Caster A             | Rubber   | 30kg          | 189g   |
| Caster A with Brake  | Rubber   | 30kg          | 223g   |
| Caster A (Stainless) | Nylon    | 40.8kg        | 147g   |

|          | Material     | Load Capacity | Weight |
|----------|--------------|---------------|--------|
| Caster B | Phenol Resin | 150kg         | 340g   |

|          | Material     | Load Capacity | Weight |
|----------|--------------|---------------|--------|
| Caster B | Phenol Resin | 150kg         | 340g   |

| Material                   | Load Capacity | Weight |
|----------------------------|---------------|--------|
| Caster B (Stainless Steel) | 21.4kg        | 285g   |

|                      | Material     | Load Capacity | Weight |
|----------------------|--------------|---------------|--------|
| Caster B (Stainless) | Phenol Resin | 71.4kg        | 285g   |



Example of order

# SFK-503A

Quantity (pcs)



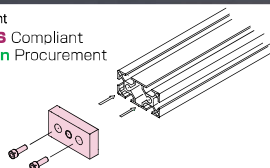
## Foot Base



## Environment

★RoHS Compliant

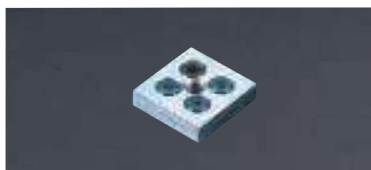
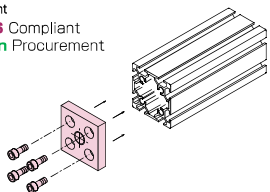
★ **Green** Procurement



## Environment

★RoHS Compliant

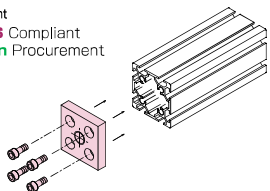
★ **Green** Procurement



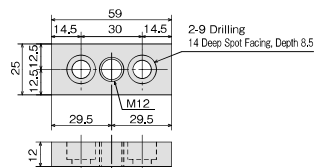
## Environment

★RoHS Compliant

★ **Green** Procurement



## Foot Base 3060



&lt;Material&gt;

|                           |                                                                           |
|---------------------------|---------------------------------------------------------------------------|
| Foot Base3060             | SS400 Uni-Chrome Plating Hexagon Socket Bolt (M8×20)Include 2 Weight/100g |
| Foot Base3060 (Stainless) | SUS304 Hexagon Socket Bolt (M8×20) Include 2 Stainless Bolts Weight/101g  |

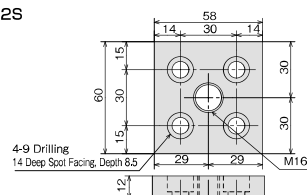
■ Usable Frame



SF-30-60(or 1F)

|          |                                               |
|----------|-----------------------------------------------|
| Name     | Foot Base 3060<br>(Foot Base 3060(Stainless)) |
| Item No. | ★SKF-56A (★SKF-56AS)                          |

## Foot Base 60602S



〈Material〉

|                              |                                                                           |
|------------------------------|---------------------------------------------------------------------------|
| Foot Base 60602S             | SS400 Uni-Chrome Plating Hexagon Socket Bolt (M8×20)Include 4 Weight/257g |
| Foot Base 60602S (Stainless) | SUS304 Hexagon Socket Bolt (M8×20) Include 4 Stainless Bolts Weight/259g  |

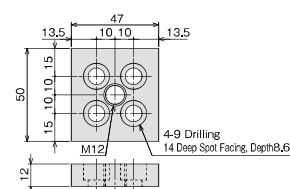
■ Usable Frame



SF-60-60-2S(or 1F)

|          |                                                   |
|----------|---------------------------------------------------|
| Name     | Foot Base 60602S<br>《Foot Base 60602S(Stainless)》 |
| Item No. | ★SFK-58A★SFK-58AS                                 |

## Foot Base 50502S



&lt;Material&gt;

|                  |                                                                              |
|------------------|------------------------------------------------------------------------------|
| Foot Base 50502S | SS400 Uni-Chrome Plating Hexagon<br>Socket Bolt (M8x20)Include 4 Weight/164g |
|------------------|------------------------------------------------------------------------------|

### ■ Usable Frame



SF-50-50-2S

|          |                  |
|----------|------------------|
| Name     | Foot Base 50502S |
| Item No. | ★SFK-68A         |

## Anchor Bracket



|                        |                      |
|------------------------|----------------------|
| Name(Single Item)      | Anchor Bracket       |
| Item No.               | SFJ-84A              |
| Name(Bolt and Nut Kit) | Anchor Bracket Kit S |
| Item No.               | SFK-84AS             |

### ■ Usable Frame



Compatible to all SF30 series  
(Groove Width 8mm)  
\*2F Frame excluded

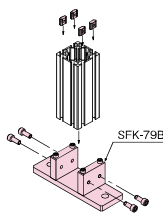
## ■ Kit Contents

- Anchor Bracket×1
- ST Nut S(M6)×3
- Hexagon Socket Bolt(M6×16)Stainless×3
- M6 Flat Washer (Stainless)

## Material/Technical Data

Material A6005CSS-T5  
Weight 430g (Anchor Bracket)  
Environment **RoHS** Compliant

## Anchor Plate Bracket 60602S Kit



|                         |                                 |
|-------------------------|---------------------------------|
| Name (Bolt and Nut Kit) | Anchor Plate Bracket 60602S Kit |
| Item No.                | SFK-79B                         |

■ Usable Frame

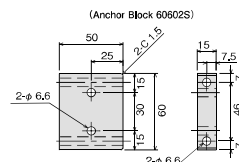
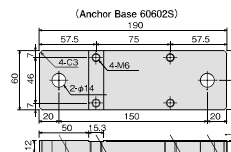


SF-60-60-2S

## Kit Contents

- Anchor Base 60602Sx1
- Anchor Block 60602Sx2
- Hexagon Socket Bolt (M6x60)Stainlessx4
- Hexagon Socket Bolt (M6x22)Stainlessx4
- ST Nut S(M6)x4
- Anti-Sliding Cap S

## Anchor Plate Bracket 60602S Kit



## Material/Technical Data

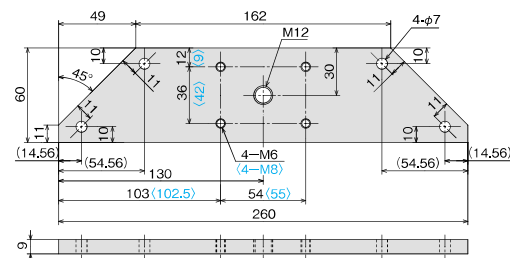
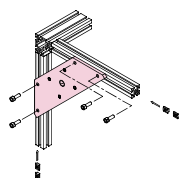
**Material** SUS304 (Base)  
A6063 Anodized Treatment (Anchor Block)

**Weight** 1328g

**Environment** RoHS Compliant  
Green Procurement

※ Hexagon Socket Bolt (M8x25) Stainless Steel

## Caster Plate S



■ Usable Frame



Compatible to all SF30 series  
(Groove Width 8mm)

## How to use

- Adjuster M12
- Caster A
- Caster B
- Commercial Hanging Bolt, etc

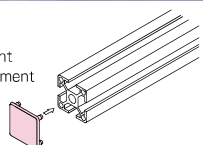
### ■Material/Technical Data

|             | Caster Plate S     | Caster Plate S(Stainless) |
|-------------|--------------------|---------------------------|
| Material    | SS400              | SUS304                    |
|             | Uni-Chrome Plating |                           |
| Weight      | 900g               | 909g                      |
| Environment | ★RoHS Compliant    |                           |
|             | ★Green Procurement |                           |

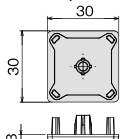
## Frame Cap



Material Polyamide  
Weight Refer Drawing  
Environment RoHS Compliant  
Green Procurement



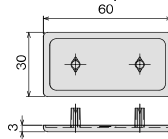
Frame Cap N3030



Weight/2.4g

■Usable Frame  
SF-30-30 (or 1F/2F/3F/2H)  
SF Light 30-30/SF-K-30-30

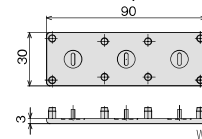
Frame Cap 3060



Weight/4.7g

■Usable Frame  
SF-30-60, SF-30-60-1F,  
SF-K-30-60/SF-30-120

Frame Cap 3090



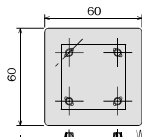
Weight/9.5g

■Usable Frame  
SF-30-90

| Name     | Frame Cap 3030<br>(Black) (Light Gray) | Frame Cap 3060<br>(Black) (Light Gray) | Frame Cap 3090<br>(Black) (Light Gray) |
|----------|----------------------------------------|----------------------------------------|----------------------------------------|
| Item No. | SFA-033B SFA-033G                      | SFA-005 SFA-005G                       | SFA-013 SFA-013G                       |

※Use 2 pcs for SF-30-120.

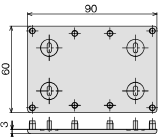
Frame Cap 60602S



Weight/12.6g

■Usable Frame  
SF-60-60 (or 1F/2F)

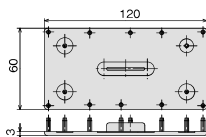
Frame Cap 6090



Weight/19.6g

■Usable Frame  
SF-60-90

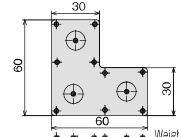
Frame Cap 60120



Weight/25.6g

■Usable Frame  
SF-60-120

Frame Cap 306060

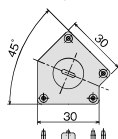


Weight/10.0g

■Usable Frame  
SF-30-60-60

| Name     | Frame Cap 60602S<br>(Black) (Light Gray) | Frame Cap 6090<br>(Black) (Light Gray) | Frame Cap 60120<br>(Black) (Light Gray) | Frame Cap 306060<br>(Black) (Light Gray) |
|----------|------------------------------------------|----------------------------------------|-----------------------------------------|------------------------------------------|
| Item No. | SFA-011 SFA-011G                         | SFA-015 SFA-015G                       | SFA-018 SFA-018G                        | SFA-J9B SFA-J9BG                         |

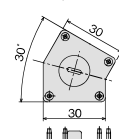
Frame Cap 30-DE45



Weight/3.2g

■Usable Frame  
SF-30-DE45

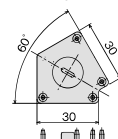
Frame Cap 30-DE30



Weight/3.2g

■Usable Frame  
SF-30-DE30

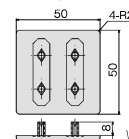
Frame Cap 30-DE60



Weight/3.2g

■Usable Frame  
SF-30-DE60

Frame Cap 5050



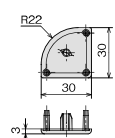
Weight/8.0g

■Usable Frame  
SF-50-50-2S/SF-50-100-2S

| Name     | Frame Cap 30-DE45<br>(Black) (Light Gray) | Frame Cap 30-DE30<br>(Black) (Light Gray) | Frame Cap 30-DE60<br>(Black) (Light Gray) | Frame Cap 5050<br>(Black) (Light Gray) |
|----------|-------------------------------------------|-------------------------------------------|-------------------------------------------|----------------------------------------|
| Item No. | SFA-J6B SFA-J6BG                          | SFA-J6A SFA-J6AG                          | SFA-J6C SFA-J6CG                          | SFA-026 SFA-026G                       |

※Use 2 pcs for SF-50-100.

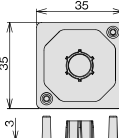
Frame Cap 30-30-R



Weight/2.4g

■Usable Frame  
SF-30-30-R

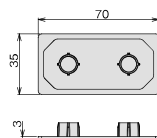
Frame Cap 3535



Weight/3.6g

■Usable Frame  
SF-35-35 (or 1F/2F/2H)

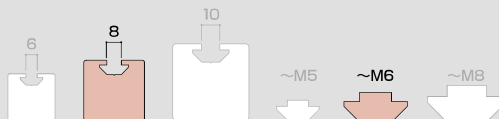
Frame Cap 3570



Weight/6.5g

■Usable Frame  
SF-35-70 (or 1F/2F)

| Name     | Frame Cap 30-30-R<br>(Black) (Light Gray) | Frame Cap 3535<br>(Black) (Light Gray) | Frame Cap 3570<br>(Black) (Light Gray) |
|----------|-------------------------------------------|----------------------------------------|----------------------------------------|
| Item No. | SFA-020 SFA-020G                          | SFA-031 SFA-031G                       | SFA-032 SFA-032G                       |

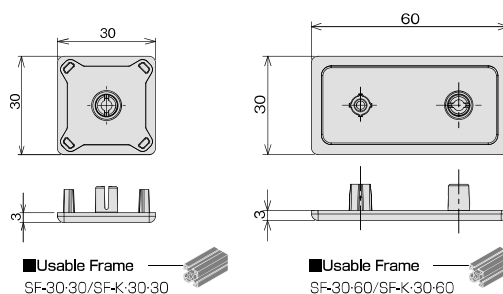


## Frame Cap Lock Type



Material Polyamide (Cap), SWOHOOR (Bolt), Chromate Black Treatment or Stainless (Bolt)  
Weight 3.7g (3030), 5.9g (3060)  
Environment **RoHS** Compliant  
**Green** Procurement

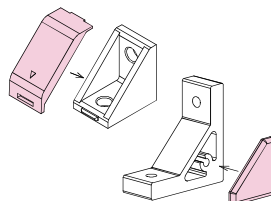
\*Provided bolt enabled to lock without Tap Processing to Frame.



| Name     | Frame Cap Lock Type N3030(Black) *1 | Frame Cap Lock Type N3030(Light Gray) *2 | Frame Cap Lock Type 3060(Black) *3 | Frame Cap Lock Type 3060(Light Gray) *4 |
|----------|-------------------------------------|------------------------------------------|------------------------------------|-----------------------------------------|
| Item No. | SFK-05LB                            | SFK-05LG                                 | SFK-04L                            | SFK-04LG                                |

\*1 With Small Flat Screw with Cross Hole (M4×12) Chromate Black \*2 With Small Flat Screw with Cross Hole (M4×12) Stainless \*3 With Small Flat Screw with Cross Hole (M4×12) Chromate Black \*4 With Small Flat Screw with Cross Hole (M4×12) Stainless

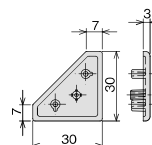
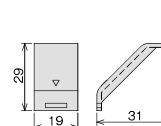
## D Bracket Cap S / Hard Bracket Cap



| Name     | D Bracket Cap S (Black) | D Bracket Cap S (Light Gray) | Hard Bracket Cap (Light Gray) |
|----------|-------------------------|------------------------------|-------------------------------|
| Item No. | SFA-J13                 | SFA-J13G                     | SFA-J11G                      |

D Bracket Cap S

Hard Bracket Cap



■ Usable Bracket  
(D Bracket Cap)  
D Bracket S/Black/CN  
(Hard Bracket Cap)  
Hard Bracket S/S3060  
S3090/Black

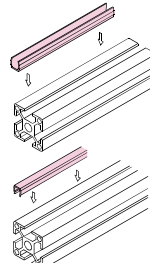
■ Material/Technical Data  
Material Polyamide  
Weight 2.1g (D Bracket Cap S)  
1.8g (Hard Bracket Cap)  
Environment **RoHS** Compliant  
**Green** Procurement

## Slot Cap S / Slot Seal S

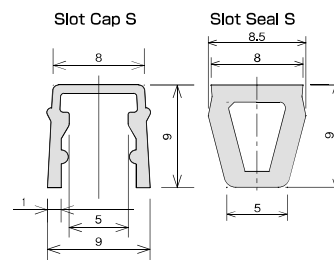
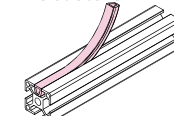


| Name     | Slot Cap S (ℓ=2000mm/pcs)  |              |          |          |          |          |
|----------|----------------------------|--------------|----------|----------|----------|----------|
|          | (Black)                    | (Light Gray) | (Blue)   | (Green)  | (Yellow) | (Red)    |
| Item No. | SFA-104                    | SFA-104G     | SFA-104L | SFA-104M | SFA-104Y | SFA-104R |
| Name     | Slot Seal S (ℓ=5000mm/pcs) |              |          |          |          |          |
| Item No. | SFA-171                    |              |          |          |          |          |

Slot Cap S



Slot Seal S



\* Exclusive Cutter for Slot Cap and Slot Seal is available.

■ Usable Frame  
Compatible to all SF30 series  
(Groove Width 8mm)

■ Material/Technical Data  
Slot Cap S Slot Seal S  
Material Polyethylene Elastomer  
unit mass 25g/m 45g/m  
Environment **RoHS** Compliant  
**Green** Procurement



## Parts

## How to order

Item No.

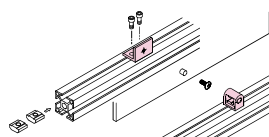
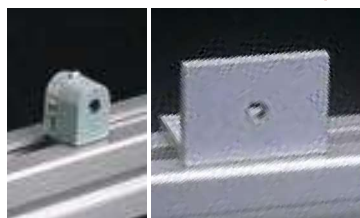
SFK-05LB

Quantity (pcs)

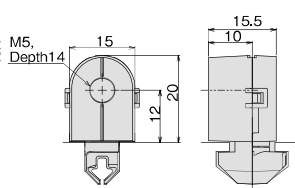




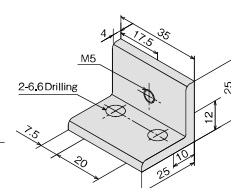
## Cover Holder S with Cap / Cover Support S



Cover Holder S with Cap



Cover Support S



| Name (Single Item) | Cover Holder S with Cap | Cover Support S |
|--------------------|-------------------------|-----------------|
| Item No.           | *SFA-KH6                | *SFJ-K02        |

| Name (Bolt and Nut Kit) | Cover Support S Kit<br>(Cover Support S (Stainless) Kit) |
|-------------------------|----------------------------------------------------------|
| Item No.                | *SFK-K02 *SFK-K02S                                       |

### Usable Frame

Compatible to all SF30 series  
(Groove Width 8mm)



Cover Holder S with Cap

### Kit contents

- Cover Holder S with Cap ×1
- Hexagon Socket Bolt (M6×12) ×2
- T Nut S (M6) ×2
- Truss Screw (M5×10) ×1
- ※ Bolt and Nut in (Stainless) Kit are stainless.

### Material/Technical Data

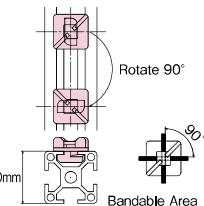
| Cover Holder S with Cap     | Cover Support S                                                                          |
|-----------------------------|------------------------------------------------------------------------------------------|
| Material: Polyamide         | Aluminium Alloy<br>Alumite Treatment<br>(Special order Black Alumite is also available.) |
| Weight: 4g                  | 17g                                                                                      |
| Environment: RoHS Compliant | Green Procurement                                                                        |

※ With M5 nut

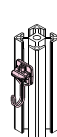
## Cable Clamp S / Slot Hook S (U) · (J)



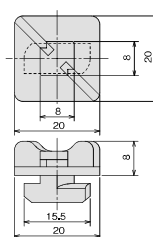
Cable S



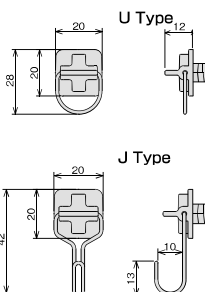
Slot Hook S



Cable S



Slot Hook S



| Name     | Cable Clamp S (50pcs/pack) |
|----------|----------------------------|
|          | (Black) (Light Gray)       |
| Item No. | C1P-B04C C1P-004C          |

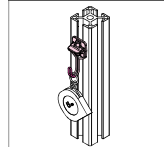
| Name     | Slot Hook S       |
|----------|-------------------|
|          | (U Type) (J Type) |
| Item No. | SFK-K32U SFK-K32J |

### Usable Frame



Compatible to all SF30 series  
(Groove Width 8mm)

### How to use Slot Hook

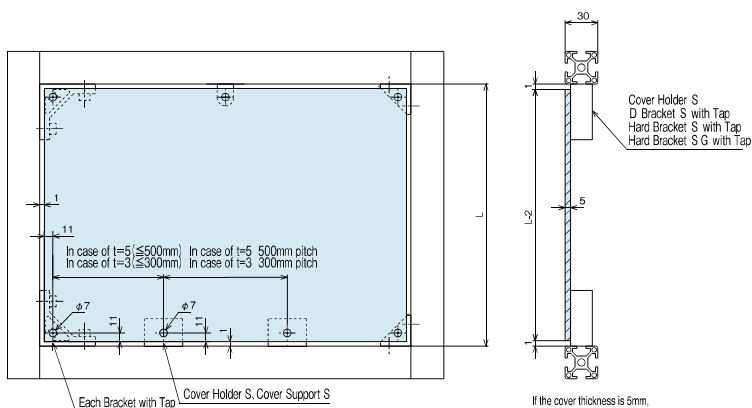


### Material/Technical Data

| Cable S                     | Slot Hook S                                   |
|-----------------------------|-----------------------------------------------|
| Material: Polyamide         | Polyamide (Body)<br>Stainless (Hook)          |
| Weight: 2g/piece            | 3g (U Type) 4g (J Type) / Load capacity 1.5kg |
| Environment: RoHS Compliant | Green Procurement                             |

### How to fix Cover

#### 〈Indication of Cover Holder S, Cover Support S, Resin Plate Size〉



#### 〈Resin plate〉

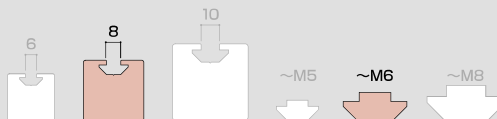


GO ● Various Resin plates are available.  
Refer P168~.

#### 〈Door accessories〉



GO ● Various parts for doors are available.  
Refer P140~.

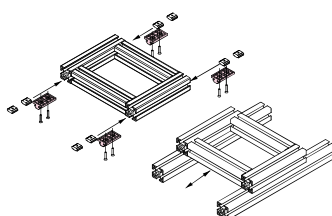
SF20  
SS SizeSF30  
S SizeSF40-45  
L Size

Complex Parts

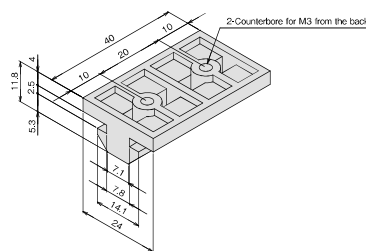
Door Panel  
Clean Equipment

Technical Data

## Slider S



Slider S



|          |          |
|----------|----------|
| Name     | Slider S |
| Item No. | SFA-510  |

## Usable Frame



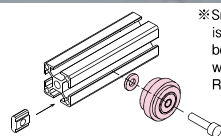
## Material/Technical Data

Material Polyacetal (Gray)  
Weight 9g  
Environment **RoHS** Compliant  
**Green** Procurement

## Recommendation Bolt and Nut Installation List

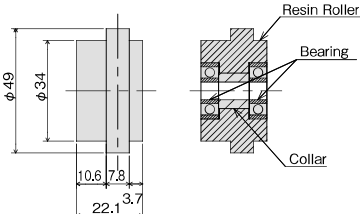
| Name     | Installation Frame | Recommendation Bolt                       | Recommendation Nut | Appropriate Tightening Torque(N·m) |
|----------|--------------------|-------------------------------------------|--------------------|------------------------------------|
| Slider S | SF30 series        | Hexagon Socket Flat Head Cap Screw(M3×20) | T Nut S(M3)        | 0.7                                |

## Slot Roller S



※Smooth operation is possible because cutting work is done with Roller.

Slot Roller S



## Usable Frame



## Material/Technical Data

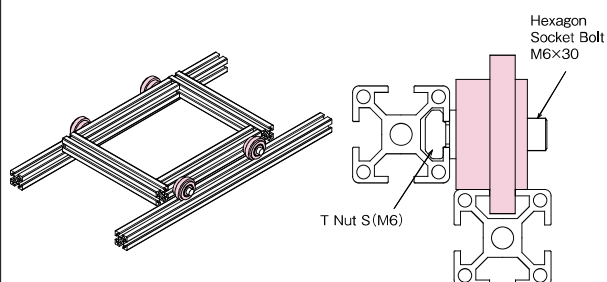
Material Nylon 6(Resin Roller)  
S45C(Collar)  
Steel(Bearing)  
Weight 45g  
Environment **RoHS** Compliant  
**Green** Procurement

※Installation bolt size M6  
※Appropriate Tightening Torque 9.0N·m  
※With 2 Bearings, Collar and Flat Washer.

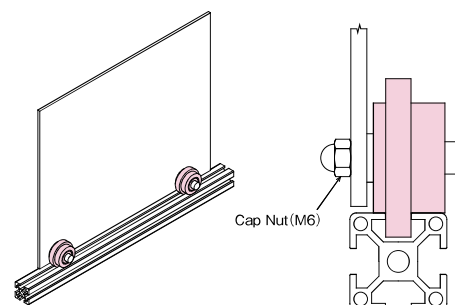
|          |               |
|----------|---------------|
| Name     | Slot Roller S |
| Item No. | SFK-806       |

## How to use Slot Roller

〈To frame's movable part〉



〈As door roller〉



Parts  
How to order  
Item No.  
**SFA-510**

Quantity (pcs)

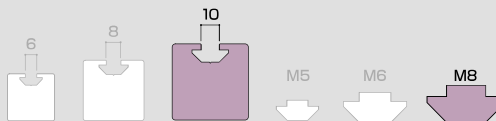




STANDARD FRAME

# SF40·45

SERIES

SF20  
SS SizeSF30  
S SizeSF40•45  
L Size

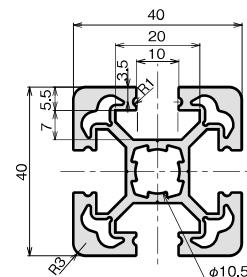
Complex Parts

Door Panel  
Clean Equipment

Technical Data

## SF2-40•40

Asia



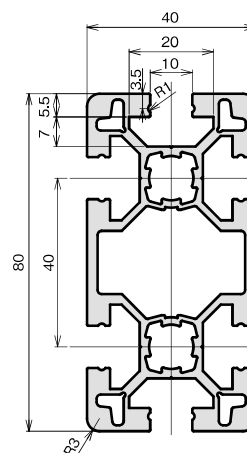
|          |                    |                     |
|----------|--------------------|---------------------|
| Name     | SF2-40•40 (ℓ=4000) | SF2-40•40 ℓ=50~4000 |
| Item No. | SFF-422-T          | SFF-424-T           |

## ■Material/Technical Data

|                   |                                        |
|-------------------|----------------------------------------|
| Material          | Aluminium Alloy                        |
|                   | Alumite Treatment                      |
| Environment       | RoHS Compliant                         |
|                   | Green Procurement                      |
| Geometrical       | $I_x = 10.54 \times 10^4 \text{ mm}^4$ |
| Moment of Inertia | $I_y = 10.54 \times 10^4 \text{ mm}^4$ |
| Section Modulus   | $Z_x = 5.27 \times 10^3 \text{ mm}^3$  |
|                   | $Z_y = 5.27 \times 10^3 \text{ mm}^3$  |
| Unit Mass         | 1.61 kg/m                              |

## SF2-40•80

Asia



|          |                    |                     |
|----------|--------------------|---------------------|
| Name     | SF2-40•80 (ℓ=4000) | SF2-40•80 ℓ=50~4000 |
| Item No. | SFF-432-T          | SFF-434-T           |

## ■Material/Technical Data

|                   |                                        |
|-------------------|----------------------------------------|
| Material          | Aluminium Alloy                        |
|                   | Alumite Treatment                      |
| Environment       | RoHS Compliant                         |
|                   | Green Procurement                      |
| Geometrical       | $I_x = 72.40 \times 10^4 \text{ mm}^4$ |
| Moment of Inertia | $I_y = 19.92 \times 10^4 \text{ mm}^4$ |
| Section Modulus   | $Z_x = 18.10 \times 10^3 \text{ mm}^3$ |
|                   | $Z_y = 9.96 \times 10^3 \text{ mm}^3$  |
| Unit Mass         | 2.8 kg/m                               |



## SF Frame

Standard (ℓ=4000) (Cut by customer)

Item No.  
SFF-422-T

Quantity (pcs)



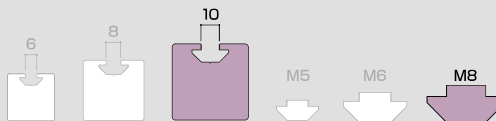
In case of specifying the length (Cut by SUS) ※ Order by 0.1mm unit

Item No.

Length (mm)

SFF-424-T ℓ=800



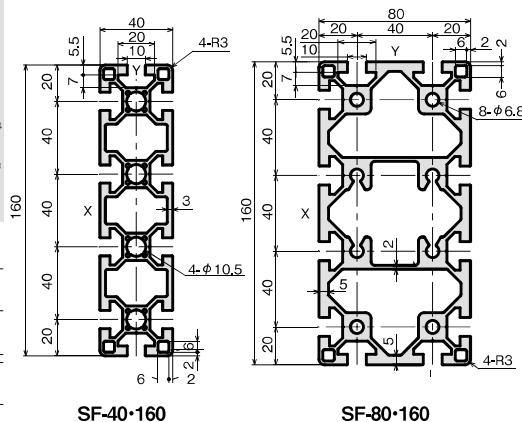


## SF-40•160 / SF-80•160



| Material/Technical Data |                                                                            |
|-------------------------|----------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                       |
| Environment             | RoHS Compliant<br>Green Procurement                                        |
| Geometrical             | SF-40-160 SF-80-160                                                        |
| Moment of Inertia       | $I_x=498.8 \times 10^4 \text{ mm}^4$ $I_x=1000.9 \times 10^4 \text{ mm}^4$ |
|                         | $I_y=38.5 \times 10^4 \text{ mm}^4$ $I_y=295.3 \times 10^4 \text{ mm}^4$   |
| Section Modulus         | $Z_x=62.3 \times 10^3 \text{ mm}^3$ $Z_x=125.1 \times 10^3 \text{ mm}^3$   |
|                         | $Z_y=19.2 \times 10^3 \text{ mm}^3$ $Z_y=73.8 \times 10^3 \text{ mm}^3$    |
| Unit Mass               | 5.54kg/m 10.51kg/m                                                         |

|          |                    |                     |
|----------|--------------------|---------------------|
| Name     | SF-40•160 (ℓ=4000) | SF-40•160 ℓ=50~4000 |
| Item No. | SFF-4162           | SFF-4164            |
| Name     | SF-80•160 (ℓ=4000) | SF-80•160 ℓ=50~4000 |
| Item No. | SFF-812            | SFF-814             |



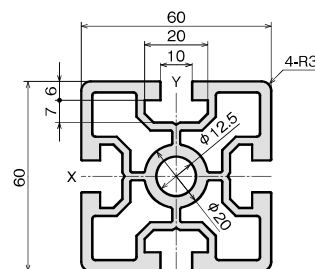
## SF-60•60•1S

Asia



| Material/Technical Data |                                                                           |
|-------------------------|---------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                      |
| Environment             | RoHS Compliant<br>Green Procurement                                       |
| Geometrical             | SF-60-60-1S                                                               |
| Moment of Inertia       | $I_x=49.27 \times 10^4 \text{ mm}^4$ $I_y=49.27 \times 10^4 \text{ mm}^4$ |
| Section Modulus         | $Z_x=16.42 \times 10^3 \text{ mm}^3$ $Z_y=16.42 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 3.72kg/m                                                                  |

|          |                      |                       |
|----------|----------------------|-----------------------|
| Name     | SF-60•60•1S (ℓ=4000) | SF-60•60•1S ℓ=50~4000 |
| Item No. | SFF-602-T            | SFF-604-T             |



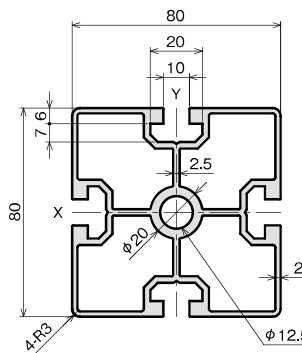
## SF-80•80•1S

Asia



| Material/Technical Data |                                                                           |
|-------------------------|---------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                      |
| Environment             | RoHS Compliant<br>Green Procurement                                       |
| Geometrical             | SF-80-80-1S                                                               |
| Moment of Inertia       | $I_x=90.46 \times 10^4 \text{ mm}^4$ $I_y=90.46 \times 10^4 \text{ mm}^4$ |
| Section Modulus         | $Z_x=22.62 \times 10^3 \text{ mm}^3$ $Z_y=22.62 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 3.94kg/m                                                                  |

|          |                      |                       |
|----------|----------------------|-----------------------|
| Name     | SF-80•80•1S (ℓ=4000) | SF-80•80•1S ℓ=50~4000 |
| Item No. | SFF-822-T            | SFF-824-T             |



**SF Frame**  
Standard (ℓ=4000) (Cut by customer)  
Item No. SFF-4162

In case of specifying the length (Cut by SUS) ※ Order by 0.1mm unit  
Quantity (pcs) Item No. Length (mm)  
□ □ SFF-4164 ℓ=800

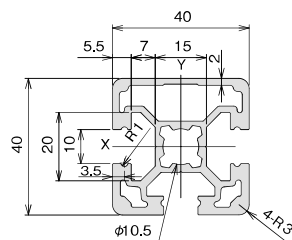


## SF2-40·40·1F

Asia



| Material/Technical Data |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                           |
| Environment             | RoHS Compliant<br>Green Procurement                                            |
| Geometrical             | $I_x = 9.7 \times 10^4 \text{ mm}^4$                                           |
| Moment of Inertia       | $I_y = 9.99 \times 10^4 \text{ mm}^4$                                          |
| Section Modulus         | $Z_x = 4.58 \times 10^3 \text{ mm}^3$<br>$Z_y = 5.00 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 1.53 kg/m                                                                      |



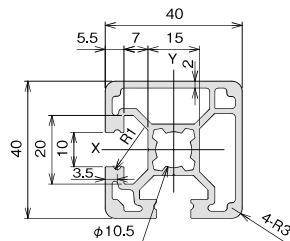
| Name     | SF2-40·40·1F (ℓ=4000) | SF2-40·40·1F ℓ=50~4000 |
|----------|-----------------------|------------------------|
| Item No. | SFF-E12-T             | SFF-E14-T              |

## SF2-40·40·2F

Asia



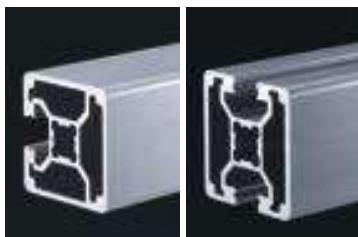
| Material/Technical Data |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                           |
| Environment             | RoHS Compliant<br>Green Procurement                                            |
| Geometrical             | $I_x = 9.72 \times 10^4 \text{ mm}^4$                                          |
| Moment of Inertia       | $I_y = 9.72 \times 10^4 \text{ mm}^4$                                          |
| Section Modulus         | $Z_x = 4.81 \times 10^3 \text{ mm}^3$<br>$Z_y = 4.81 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 1.49 kg/m                                                                      |



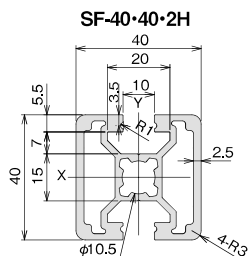
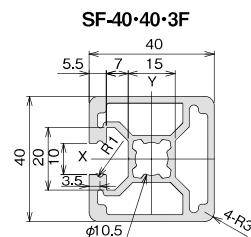
| Name     | SF2-40·40·2F (ℓ=4000) | SF2-40·40·2F ℓ=50~4000 |
|----------|-----------------------|------------------------|
| Item No. | SFF-F12-T             | SFF-F14-T              |

## SF2-40·40·3F / SF2-40·40·2H

Asia



| Material/Technical Data |                                                                               |
|-------------------------|-------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                          |
| Environment             | RoHS Compliant<br>Green Procurement                                           |
| Geometrical             | $I_x = 10.1 \times 10^4 \text{ mm}^4$ $I_y = 10.15 \times 10^4 \text{ mm}^4$  |
| Moment of Inertia       | $I_x = 10.62 \times 10^4 \text{ mm}^4$ $I_y = 10.55 \times 10^4 \text{ mm}^4$ |
| Section Modulus         | $Z_x = 5.00 \times 10^3 \text{ mm}^3$ $Z_y = 5.05 \times 10^3 \text{ mm}^3$   |
| Unit Mass               | 1.55 kg/m 1.57 kg/m                                                           |



| Name     | SF2-40·40·3F (ℓ=4000) | SF2-40·40·3F ℓ=50~4000 |
|----------|-----------------------|------------------------|
| Item No. | SFF-F12-T             | SFF-F14-T              |

| Name     | SF2-40·40·2H (ℓ=4000) | SF2-40·40·2H ℓ=50~4000 |
|----------|-----------------------|------------------------|
| Item No. | SFF-FH12-T            | SFF-FH14-T             |

●Exclusive Nut



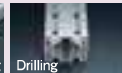
T Nut L  
After Nut L  
Lock Nut L  
Free Nut L  
P95~

●Exclusive Cap

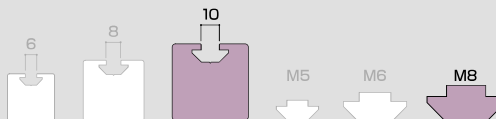


Frame Cap  
P122-123

●Additional processing and surface treatment are also available.



P198~



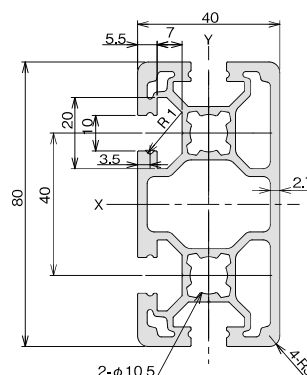
## SF2-40•80•1F

Asia



| Material/Technical Data |                                                                                  |
|-------------------------|----------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                             |
| Environment             | RoHS Compliant<br>Green Procurement                                              |
| Geometrical             | $I_x = 71.00 \times 10^4 \text{ mm}^4$                                           |
| Moment of Inertia       | $I_y = 20.35 \times 10^4 \text{ mm}^4$                                           |
| Section Modulus         | $Z_x = 17.75 \times 10^3 \text{ mm}^3$<br>$Z_y = 10.16 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 2.82 kg/m                                                                        |

| Name     | SF2-40-80-1F (ℓ=4000) | SF2-40-80-1F ℓ=50~4000 |
|----------|-----------------------|------------------------|
| Item No. | SFF-4E82-T            | SFF-4E84-T             |

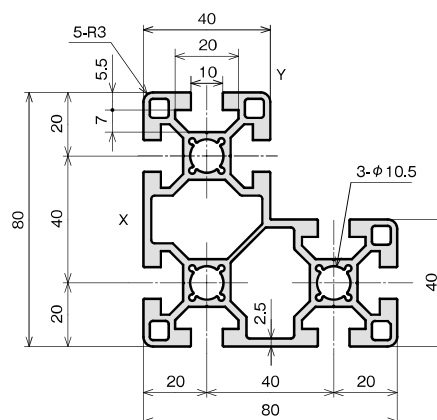


## SF-40•80•80



| Material/Technical Data |                                                                                  |
|-------------------------|----------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                             |
| Environment             | RoHS Compliant<br>Green Procurement                                              |
| Geometrical             | $I_x = 94.15 \times 10^4 \text{ mm}^4$                                           |
| Moment of Inertia       | $I_y = 94.15 \times 10^4 \text{ mm}^4$                                           |
| Section Modulus         | $Z_x = 20.53 \times 10^3 \text{ mm}^3$<br>$Z_y = 20.53 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 4.19 kg/m                                                                        |

| Name     | SF-40-80-80 (ℓ=4000) | SF-40-80-80 ℓ=50~4000 |
|----------|----------------------|-----------------------|
| Item No. | SFF-G22              | SFF-G24               |

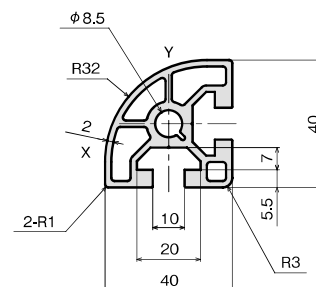


## SF-40•40•R



| Material/Technical Data |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                           |
| Environment             | RoHS Compliant<br>Green Procurement                                            |
| Geometrical             | $I_x = 7.82 \times 10^4 \text{ mm}^4$                                          |
| Moment of Inertia       | $I_y = 7.82 \times 10^4 \text{ mm}^4$                                          |
| Section Modulus         | $Z_x = 3.53 \times 10^3 \text{ mm}^3$<br>$Z_y = 3.53 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 1.53 kg/m                                                                      |

| Name     | SF-40-40-R (ℓ=4000) | SF-40-40-R ℓ=50~4000 |
|----------|---------------------|----------------------|
| Item No. | SFF-R72             | SFF-R74              |



**SF Frame**  
Standard (ℓ=4000) (Cut by customer)  
Item No. **SFF-4E82-T**

Quantity (pcs) ☐ ☐  
Item No. **SFF-4E84-T**

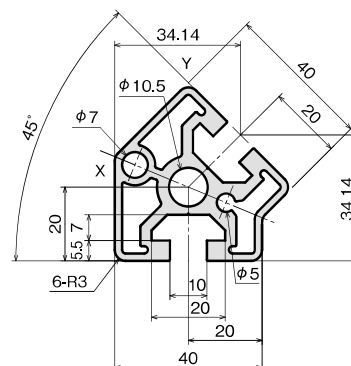
In case of specifying the length (Cut by SUS) ※Order by 0.1mm unit  
Length (mm) ℓ=800

## SF-40·DE45



| Material/Technical Data |                                                                                    |
|-------------------------|------------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                               |
| Environment             | RoHS Compliant<br>Green Procurement                                                |
| Geometrical             | $I_x = 9.87 \times 10^{-4} \text{mm}^4$                                            |
| Moment of Inertia       | $I_y = 10.37 \times 10^{-4} \text{mm}^4$                                           |
| Section Modulus         | $Z_x = 3.59 \times 10^{-3} \text{mm}^3$<br>$Z_y = 3.99 \times 10^{-3} \text{mm}^3$ |
| Unit Mass               | 1.83kg/m                                                                           |

| Name     | SF-40·DE45 (ℓ=4000) | SF-40·DE45 ℓ=50~4000 |
|----------|---------------------|----------------------|
| Item No. | SFF-J72B            | SFF-J74B             |

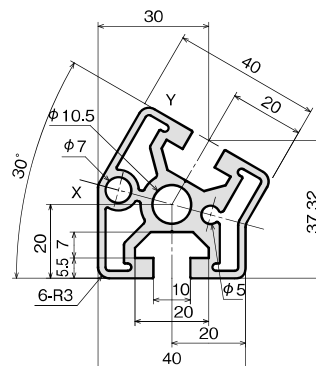


## SF-40·DE30



| Material/Technical Data |                                                                                    |
|-------------------------|------------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                               |
| Environment             | RoHS Compliant<br>Green Procurement                                                |
| Geometrical             | $I_x = 9.89 \times 10^{-4} \text{mm}^4$                                            |
| Moment of Inertia       | $I_y = 10.64 \times 10^{-4} \text{mm}^4$                                           |
| Section Modulus         | $Z_x = 3.73 \times 10^{-3} \text{mm}^3$<br>$Z_y = 4.20 \times 10^{-3} \text{mm}^3$ |
| Unit Mass               | 1.88kg/m                                                                           |

| Name     | SF-40·DE30 (ℓ=4000) | SF-40·DE30 ℓ=50~4000 |
|----------|---------------------|----------------------|
| Item No. | SFF-J72A            | SFF-J74A             |

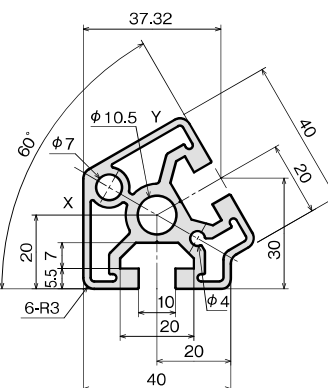


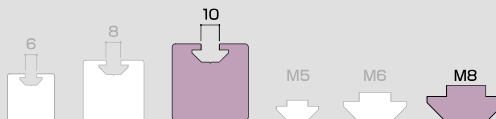
## SF-40·DE60



| Material/Technical Data |                                                                                    |
|-------------------------|------------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                               |
| Environment             | RoHS Compliant<br>Green Procurement                                                |
| Geometrical             | $I_x = 9.99 \times 10^{-4} \text{mm}^4$                                            |
| Moment of Inertia       | $I_y = 10.53 \times 10^{-4} \text{mm}^4$                                           |
| Section Modulus         | $Z_x = 3.74 \times 10^{-3} \text{mm}^3$<br>$Z_y = 4.14 \times 10^{-3} \text{mm}^3$ |
| Unit Mass               | 1.84kg/m                                                                           |

| Name     | SF-40·DE60 (ℓ=4000) | SF-40·DE60 ℓ=50~4000 |
|----------|---------------------|----------------------|
| Item No. | SFF-J72C            | SFF-J74C             |



SF20  
SS SizeSF30  
S SizeSF40•45  
L Size

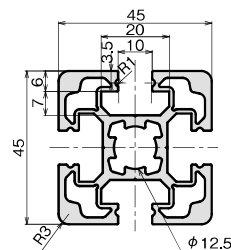
Complex Parts

Door Panel  
Clean Equipment

Technical Data

## SF2-45•45

Asia



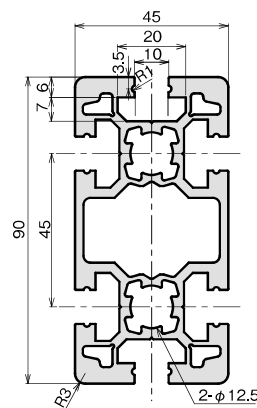
|          |                    |                     |
|----------|--------------------|---------------------|
| Name     | SF2-45•45 (ℓ=4000) | SF2-45•45 ℓ=50~4000 |
| Item No. | SFF-442-T          | SFF-444-T           |

## Material/Technical Data

|                   |                                        |
|-------------------|----------------------------------------|
| Material          | Aluminium Alloy                        |
|                   | Alumite Treatment                      |
| Environment       | RoHS Compliant                         |
|                   | Green Procurement                      |
| Geometrical       | $I_x = 15.28 \times 10^4 \text{ mm}^4$ |
| Moment of Inertia | $I_y = 15.28 \times 10^4 \text{ mm}^4$ |
| Section Modulus   | $Z_x = 6.79 \times 10^3 \text{ mm}^3$  |
|                   | $Z_y = 6.79 \times 10^3 \text{ mm}^3$  |
| Unit Mass         | 1.92kg/m                               |

## SF2-45•90

Asia



|          |                    |                     |
|----------|--------------------|---------------------|
| Name     | SF2-45•90 (ℓ=4000) | SF2-45•90 ℓ=50~4000 |
| Item No. | SFF-472-T          | SFF-474-T           |

## Material/Technical Data

|                   |                                         |
|-------------------|-----------------------------------------|
| Material          | Aluminium Alloy                         |
|                   | Alumite Treatment                       |
| Environment       | RoHS Compliant                          |
|                   | Green Procurement                       |
| Geometrical       | $I_x = 129.24 \times 10^4 \text{ mm}^4$ |
| Moment of Inertia | $I_y = 33.32 \times 10^4 \text{ mm}^4$  |
| Section Modulus   | $Z_x = 28.72 \times 10^3 \text{ mm}^3$  |
|                   | $Z_y = 14.81 \times 10^3 \text{ mm}^3$  |
| Unit Mass         | 3.87kg/m                                |

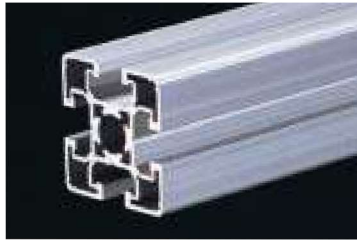


**SF Frame**  
Standard (ℓ=4000) (Cut by customer)  
Item No.  
**SFF-442-T**

Quantity (pcs) ☐ ☐ In case of specifying the length (Cut by SUS) ※Order by 0.1mm unit  
Item No. Length (mm)  
**SFF-444-T** ℓ=800

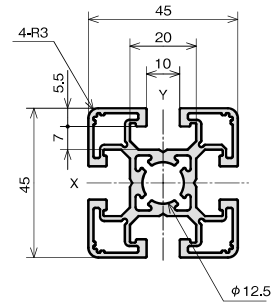
## SF-K·45·45

Asia



| Material/Technical Data |                                                                              |
|-------------------------|------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                         |
| Environment             | RoHS Compliant<br>Green Procurement                                          |
| Geometrical             |                                                                              |
| Moment of Inertia       | $I_x=11.73 \times 10^4 \text{ mm}^4$<br>$I_y=11.73 \times 10^4 \text{ mm}^4$ |
| Section Modulus         | $Z_x=5.21 \times 10^3 \text{ mm}^3$<br>$Z_y=5.21 \times 10^3 \text{ mm}^3$   |
| Unit Mass               | 1.70kg/m                                                                     |

| Name     | SF-K·45·45 (ℓ=4000) | SF-K·45·45 ℓ=50~4000 |
|----------|---------------------|----------------------|
| Item No. | SFF-802-T           | SFF-804-T            |



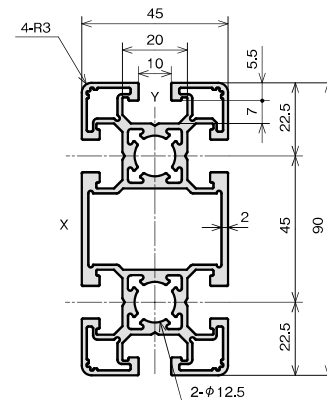
## SF-K·45·90

Asia



| Material/Technical Data |                                                                              |
|-------------------------|------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                         |
| Environment             | RoHS Compliant<br>Green Procurement                                          |
| Geometrical             |                                                                              |
| Moment of Inertia       | $I_x=87.16 \times 10^4 \text{ mm}^4$<br>$I_y=22.87 \times 10^4 \text{ mm}^4$ |
| Section Modulus         | $Z_x=19.37 \times 10^3 \text{ mm}^3$<br>$Z_y=10.16 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 2.98kg/m                                                                     |

| Name     | SF-K·45·90 (ℓ=4000) | SF-K·45·90 ℓ=50~4000 |
|----------|---------------------|----------------------|
| Item No. | SFF-B492-T          | SFF-B494-T           |

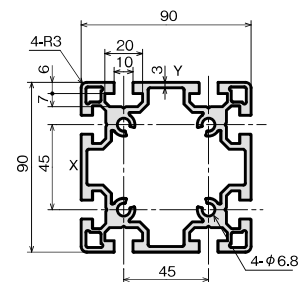


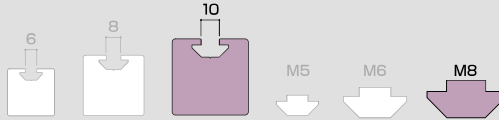
## SF-90·90



| Material/Technical Data |                                                                              |
|-------------------------|------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                         |
| Environment             | RoHS Compliant<br>Green Procurement                                          |
| Geometrical             |                                                                              |
| Moment of Inertia       | $I_x=209.2 \times 10^4 \text{ mm}^4$<br>$I_y=209.2 \times 10^4 \text{ mm}^4$ |
| Section Modulus         | $Z_x=46.5 \times 10^3 \text{ mm}^3$<br>$Z_y=46.5 \times 10^3 \text{ mm}^3$   |
| Unit Mass               | 5.8kg/m                                                                      |

| Name     | SF-90·90 (ℓ=4000) | SF-90·90 ℓ=50~4000 |
|----------|-------------------|--------------------|
| Item No. | SFF-902           | SFF-904            |



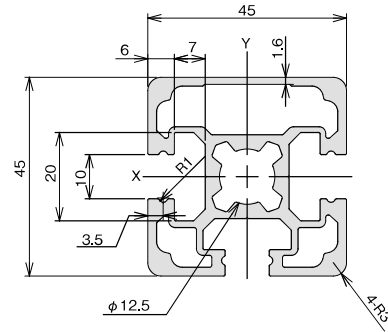


## SF2-45•45•1F

Asia



| Material/Technical Data |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                           |
| Environment             | RoHS Compliant<br>Green Procurement                                            |
| Geometrical             | $I_x = 13.94 \times 10^4 \text{ mm}^4$                                         |
| Moment of Inertia       | $I_y = 14.71 \times 10^4 \text{ mm}^4$                                         |
| Section Modulus         | $Z_x = 5.97 \times 10^3 \text{ mm}^3$<br>$Z_y = 6.53 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 1.83 kg/m                                                                      |



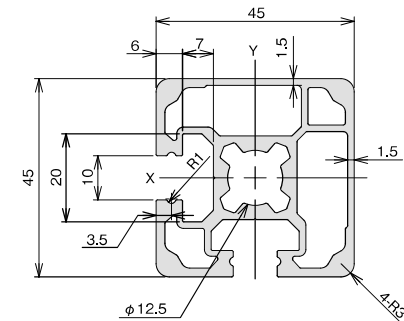
| Name     | SF2-45-45•1F (ℓ=4000) | SF2-45-45•1F ℓ=50~4000 |
|----------|-----------------------|------------------------|
| Item No. | SFF-4J2-T             | SFF-4J4-T              |

## SF2-45•45•2F

Asia



| Material/Technical Data |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                           |
| Environment             | RoHS Compliant<br>Green Procurement                                            |
| Geometrical             | $I_x = 14.14 \times 10^4 \text{ mm}^4$                                         |
| Moment of Inertia       | $I_y = 14.14 \times 10^4 \text{ mm}^4$                                         |
| Section Modulus         | $Z_x = 6.15 \times 10^3 \text{ mm}^3$<br>$Z_y = 6.15 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 1.78 kg/m                                                                      |



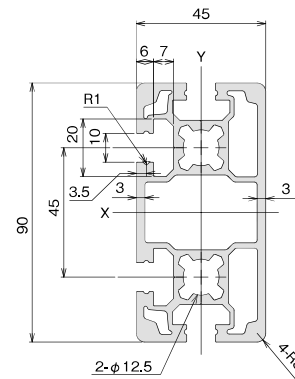
| Name     | SF2-45-45•2F (ℓ=4000) | SF2-45-45•2F ℓ=50~4000 |
|----------|-----------------------|------------------------|
| Item No. | SFF-4K2-T             | SFF-4K4-T              |

## SF2-45•90•1F

Asia



| Material/Technical Data |                                                                                  |
|-------------------------|----------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                             |
| Environment             | RoHS Compliant<br>Green Procurement                                              |
| Geometrical             | $I_x = 117.53 \times 10^4 \text{ mm}^4$                                          |
| Moment of Inertia       | $I_y = 32.08 \times 10^4 \text{ mm}^4$                                           |
| Section Modulus         | $Z_x = 26.12 \times 10^3 \text{ mm}^3$<br>$Z_y = 14.07 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 3.61 kg/m                                                                        |

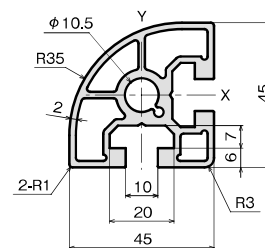


| Name     | SF2-45-90•1F (ℓ=4000) | SF2-45-90•1F ℓ=50~4000 |
|----------|-----------------------|------------------------|
| Item No. | SFF-EF2-T             | SFF-EF4-T              |

## SF-45•45•R



| Material/Technical Data |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                           |
| Environment             | RoHS Compliant<br>Green Procurement                                            |
| Geometrical             | $I_x = 11.33 \times 10^4 \text{ mm}^4$                                         |
| Moment of Inertia       | $I_y = 11.33 \times 10^4 \text{ mm}^4$                                         |
| Section Modulus         | $Z_x = 4.52 \times 10^3 \text{ mm}^3$<br>$Z_y = 4.52 \times 10^3 \text{ mm}^3$ |
| Unit Mass               | 1.79 kg/m                                                                      |



| Name     | SF-45-45•R (ℓ=4000) | SF-45-45•R ℓ=50~4000 |
|----------|---------------------|----------------------|
| Item No. | SFF-R82             | SFF-R84              |



**SF Frame**  
Standard (ℓ=4000) (Cut by customer)  
Item No. **SFF-4J2-T**

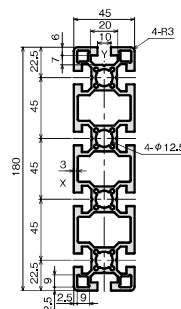
In case of specifying the length (Cut by SUS) ※Order by 0.1mm unit  
Quantity (pcs) Item No. Length (mm)  
□□ **SFF-4J4-T** ℓ=800



## SF-45·180



| Material/Technical Data |                                                                         |
|-------------------------|-------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                    |
| Environment             | RoHS Compliant<br>Green Procurement                                     |
| Geometrical             | $I_x=804.81 \times 10^4 \text{mm}^4$                                    |
| Moment of Inertia       | $I_y=60.75 \times 10^4 \text{mm}^4$                                     |
| Section Modulus         | $Z_x=89.42 \times 10^3 \text{mm}^3$<br>$Z_y=27 \times 10^3 \text{mm}^3$ |
| Unit Mass               | 7.12kg/m                                                                |

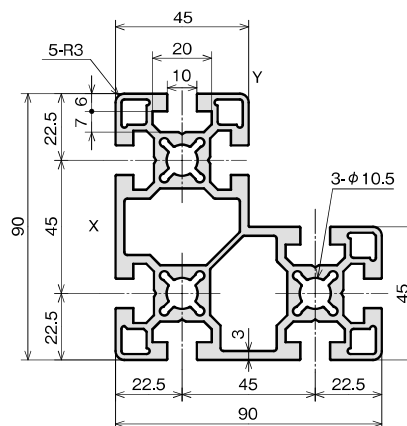


| Name     | SF-45·180 (ℓ=4000) | SF-45·180 ℓ=50~4000 |
|----------|--------------------|---------------------|
| Item No. | SFF-4182           | SFF-4184            |

## SF-45·90·90

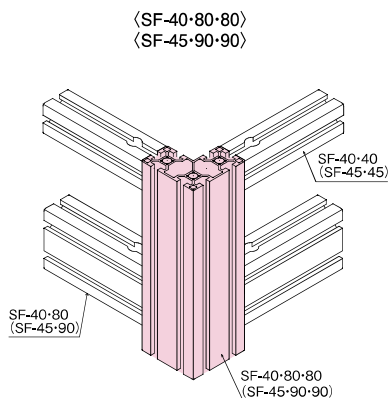


| Material/Technical Data |                                                                            |
|-------------------------|----------------------------------------------------------------------------|
| Material                | Aluminium Alloy<br>Alumite Treatment                                       |
| Environment             | RoHS Compliant<br>Green Procurement                                        |
| Geometrical             | $I_x=149.53 \times 10^4 \text{mm}^4$                                       |
| Moment of Inertia       | $I_y=149.53 \times 10^4 \text{mm}^4$                                       |
| Section Modulus         | $Z_x=28.83 \times 10^3 \text{mm}^3$<br>$Z_y=28.83 \times 10^3 \text{mm}^3$ |
| Unit Mass               | 5.55kg/m                                                                   |

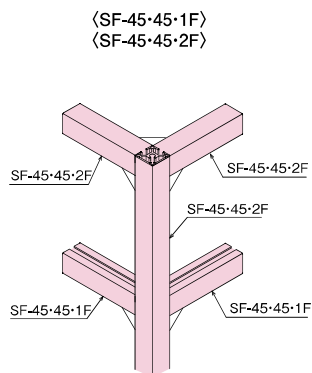


| Name     | SF-45·90·90 (ℓ=4000) | SF-45·90·90 ℓ=50~4000 |
|----------|----------------------|-----------------------|
| Item No. | SFF-G32              | SFF-G34               |

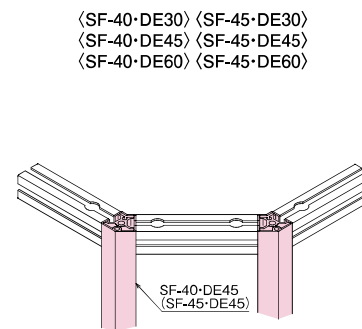
### How to use Frame



● As the reinforcing Frame at corner, or to ensure space inside



● For the clean environment without groove on Frame externally



● Many variations to construct angles other than 90°



Exclusive Nut  
T Nut L  
After Nut L  
Lock Nut L  
Free Nut L  
P95~

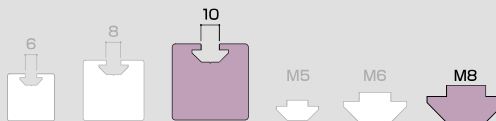


Exclusive Cap  
Frame Cap  
P122-123

● Additional processing and surface treatment are also available.



P198~

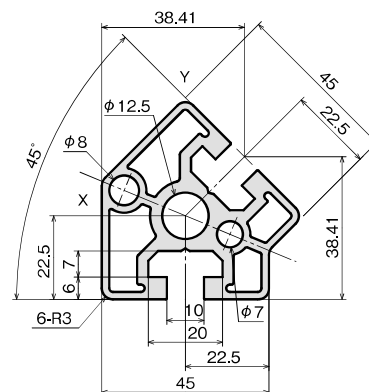


## SF-45•DE45



| Material/Technical Data          |                                                                                  |
|----------------------------------|----------------------------------------------------------------------------------|
| Material                         | Aluminium Alloy<br>Alumite Treatment                                             |
| Environment                      | RoHS Compliant<br>Green Procurement                                              |
| Geometrical<br>Moment of Inertia | $I_x=14.78 \times 10^{-4} \text{mm}^4$<br>$I_y=15.49 \times 10^{-4} \text{mm}^4$ |
| Section Modulus                  | $Z_x=4.72 \times 10^{-3} \text{mm}^3$<br>$Z_y=5.36 \times 10^{-3} \text{mm}^3$   |
| Unit Mass                        | 2.22kg/m                                                                         |

| Name     | SF-45•DE45 (ℓ=4000) | SF-45•DE45 ℓ=50~4000 |
|----------|---------------------|----------------------|
| Item No. | SFF-J82B            | SFF-J84B             |

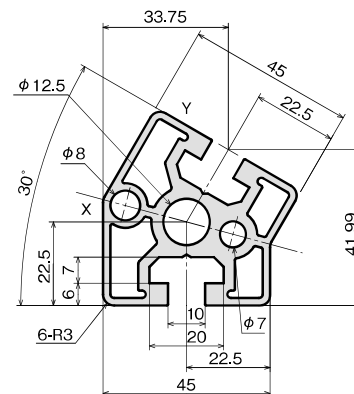


## SF-45•DE30



| Material/Technical Data          |                                                                                  |
|----------------------------------|----------------------------------------------------------------------------------|
| Material                         | Aluminium Alloy<br>Alumite Treatment                                             |
| Environment                      | RoHS Compliant<br>Green Procurement                                              |
| Geometrical<br>Moment of Inertia | $I_x=14.91 \times 10^{-4} \text{mm}^4$<br>$I_y=15.95 \times 10^{-4} \text{mm}^4$ |
| Section Modulus                  | $Z_x=4.95 \times 10^{-3} \text{mm}^3$<br>$Z_y=5.70 \times 10^{-3} \text{mm}^3$   |
| Unit Mass                        | 2.30kg/m                                                                         |

| Name     | SF-45•DE30 (ℓ=4000) | SF-45•DE30 ℓ=50~4000 |
|----------|---------------------|----------------------|
| Item No. | SFF-J82A            | SFF-J84A             |

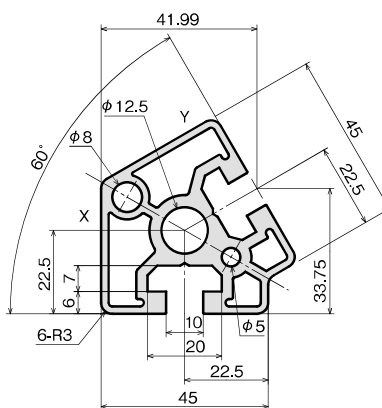


## SF-45•DE60



| Material/Technical Data          |                                                                                  |
|----------------------------------|----------------------------------------------------------------------------------|
| Material                         | Aluminium Alloy<br>Alumite Treatment                                             |
| Environment                      | RoHS Compliant<br>Green Procurement                                              |
| Geometrical<br>Moment of Inertia | $I_x=14.94 \times 10^{-4} \text{mm}^4$<br>$I_y=15.93 \times 10^{-4} \text{mm}^4$ |
| Section Modulus                  | $Z_x=4.86 \times 10^{-3} \text{mm}^3$<br>$Z_y=5.78 \times 10^{-3} \text{mm}^3$   |
| Unit Mass                        | 2.26kg/m                                                                         |

| Name     | SF-45•DE60 (ℓ=4000) | SF-45•DE60 ℓ=50~4000 |
|----------|---------------------|----------------------|
| Item No. | SFF-J82C            | SFF-J84C             |



**SF Frame**  
Standard (ℓ=4000) (Cut by customer)  
Item No.  
**SFF-J82B**

Quantity (pcs)

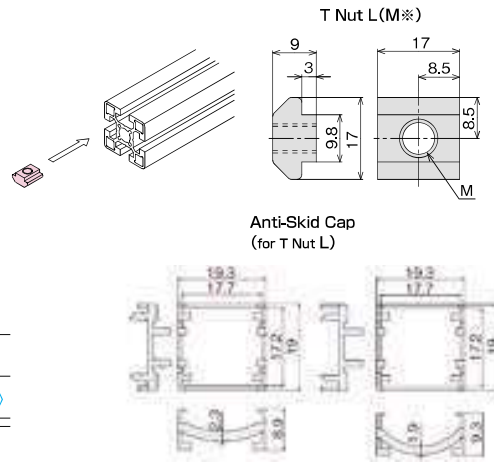
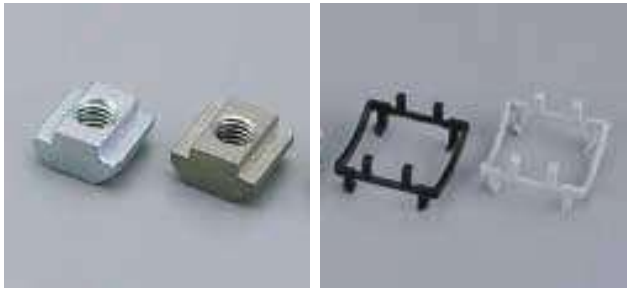


In case of specifying the length (Cut by SUS) ※Order by 0.1mm unit

Item No. Length (mm)

**SFF-J84B** ℓ=800

## T Nut L(M※) / Anti-Skid Cap L40 / L45



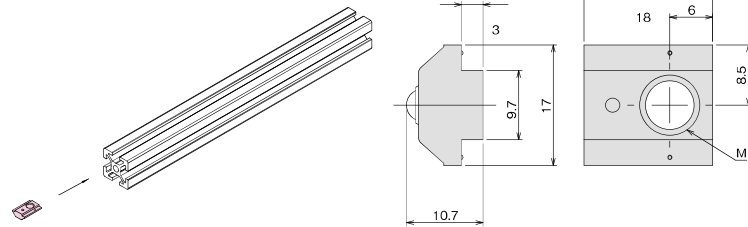
| Name     | T Nut L(M8)<br>(ST Nut L(M8))     | T Nut L(M6)<br>(ST Nut L(M6)) | T Nut L(M5)<br>(ST Nut L(M5))     | T Nut L(M4)<br>(ST Nut L(M4)) |
|----------|-----------------------------------|-------------------------------|-----------------------------------|-------------------------------|
| Item No. | SFB-004(SFN-TL8)                  | SFB-003(SFN-TL6)              | SFB-008(SFN-TL5)                  | SFB-007(SFN-TL4)              |
| Name     | Anti-Skid Cap L40<br>(50pcs/pack) |                               | Anti-Skid Cap L45<br>(50pcs/pack) |                               |
| Item No. | SFA-957                           |                               | SFA-958                           |                               |

■Usable Frame  
Compatible to all SF40 and 45 series  
(Groove Width 10mm)

### Material/Technical Data

|             | T Nut L                          | ST Nut L                              | Anti-Skid Cap                                                           |
|-------------|----------------------------------|---------------------------------------|-------------------------------------------------------------------------|
| Material    | Equivalent to S10C<br>Uni-Chrome | Stainless<br>With Conductive Function | POM Black (L40)<br>POM Gray (L45)<br>0,2g/piece(L40)<br>0,2g/piece(L45) |
| Weight      | 14g                              | 14g                                   |                                                                         |
| Environment | RoHS Compliant                   | Green Procurement                     |                                                                         |

## ST Nut Stopper L



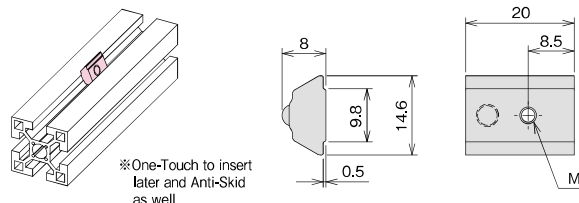
| Name     | ST Nut Stopper L<br>(M8) | ST Nut Stopper L<br>(M6) | ST Nut Stopper L<br>(M5) |
|----------|--------------------------|--------------------------|--------------------------|
| Item No. | SFN-SL8                  | SFN-SL6                  | SFN-SL5                  |
| Name     | ST Nut Stopper L<br>(M4) | ST Nut Stopper L<br>(M3) |                          |
| Item No. | SFN-SL4                  | SFN-SL3                  |                          |

■Usable Frame  
Compatible to all SF40 and 45 series  
(Groove Width 10mm)

### Material/Technical Data

|             |                          |                          |
|-------------|--------------------------|--------------------------|
| Material    | Stainless                | With Conductive Function |
| Weight      | 11.8g (M8)<br>13.5g (M4) | 12.8g (M5)<br>12.5g (M6) |
| Environment | RoHS Compliant           |                          |

## Easy Nut L(M※)



※One-Touch to insert later and Anti-Skid as well.

■Usable Frame  
Compatible to all SF40 and 45 series  
(Groove Width 10mm)

### Material/Technical Data

|             | Easy Nut L                               | S Easy Nut L                 |
|-------------|------------------------------------------|------------------------------|
| Material    | Equivalent to S10C<br>Uni-Chrome plating | Stainless<br>With Conductive |
| Weight      | 10g/piece                                |                              |
| Environment | RoHS Compliant                           | Green Procurement            |

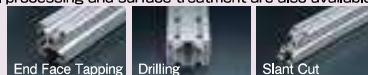
### ●Exclusive Nut

T Nut L  
After Nut L  
Lock Nut L  
Free Nut L  
P95~

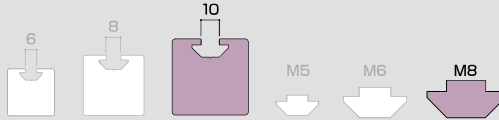
### ●Exclusive Cap

Frame Cap  
P122-123

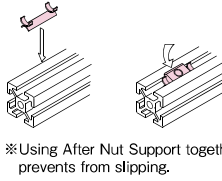
### ●Additional processing and surface treatment are also available.



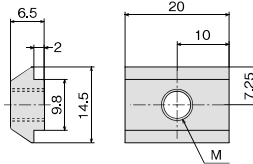
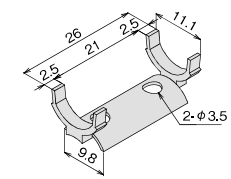
P198~



## After Nut L(M※) / After Nut Support L



After Nut L(M※)

After Nut Support L  
(for After Nut and Lock Nut)

| Name     | After Nut L(M8)<br>(S After Nut L(M8)) | After Nut L(M6)<br>(S After Nut L(M6)) | After Nut L(M5)<br>(S After Nut L(M5)) | After Nut L(M4)<br>(S After Nut L(M4)) |
|----------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
| Item No. | SFB-628(SFN-AL8)                       | SFB-626(SFN-AL6)                       | SFB-625(SFN-AL5)                       | SFB-624(SFN-AL4)                       |
| Name     | After Nut Support L(50pcs/pack)        |                                        |                                        |                                        |
| Item No. | SFA-9A3                                |                                        |                                        |                                        |

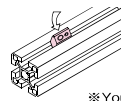
## ■Usable Frame

Compatible to all SF40 and 45 series  
(Groove Width 10mm)

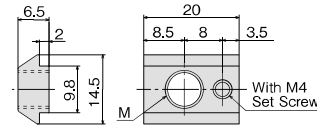
## ■Material/Technical Data

|             | After Nut L                      | S After Nut L                            | After Nut Support L |
|-------------|----------------------------------|------------------------------------------|---------------------|
| Material    | Equivalent to S10C<br>Uni-Chrome | Stainless<br>With Conductive<br>Function | PP Resin            |
| Weight      | 10g                              | 10g                                      | 0.3g/piece          |
| Environment | ★RoHS Compliant                  | ★Green Procurement                       |                     |

## Lock Nut L(M※)



Lock Nut L(M※)



| Name     | Lock Nut L(M8)<br>(S Lock Nut L(M8)) | Lock Nut L(M6)<br>(S Lock Nut L(M6)) | Lock Nut L(M5)<br>(S Lock Nut L(M5)) | Lock Nut L(M4)<br>(S Lock Nut L(M4)) |
|----------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Item No. | ★SFB-4A8★(SFN-LL8)                   | ★SFB-4A6★(SFN-LL6)                   | ★SFB-4A5★(SFN-LL5)                   | ★SFB-4A4★(SFN-LL4)                   |

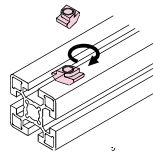
## ■Usable Frame

Compatible to all SF40 and 45 series  
(Groove Width 10mm)

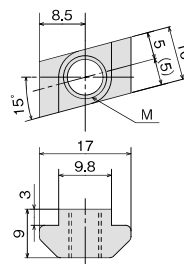
## ■Material/Technical Data

|             | Lock Nut L                       | S Lock Nut L                             |
|-------------|----------------------------------|------------------------------------------|
| Material    | Equivalent to S10C<br>Uni-Chrome | Stainless<br>With Conductive<br>Function |
| Weight      | 10g                              | 10g                                      |
| Environment | ★RoHS Compliant                  | ★Green Procurement                       |

## S Free Nut L(M※)



S Free Nut L(M※)



| Name     | S Free Nut L(M8) | S Free Nut L(M6) | S Free Nut L(M5) | S Free Nut L(M4) |
|----------|------------------|------------------|------------------|------------------|
| Item No. | SFN-FL8          | SFN-FL6          | SFN-FL5          | SFN-FL4          |

## ■Usable Frame

Compatible to all SF40 and 45 series  
(Groove Width 10mm)

## ■Material/Technical Data

|             |                                          |
|-------------|------------------------------------------|
| Material    | Stainless<br>With Conductive<br>Function |
| Weight      | 7g                                       |
| Environment | ★RoHS Compliant ★Green Procurement       |

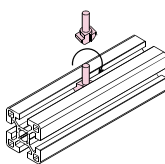


Parts  
How to order  
Item No.  
**SFB-628**

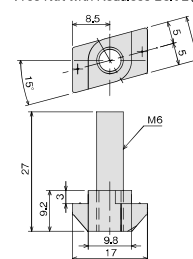
Quantity (pcs)



## Free Nut with Headless Bolt L(M6)



Free Nut with Headless Bolt L(M6)



|          |                                   |
|----------|-----------------------------------|
| Name     | Free Nut with Headless Bolt L(M6) |
| Item No. | ★SFN-NL6                          |

### Usable Frame

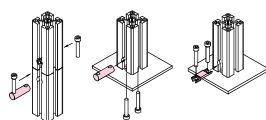


Compatible to all SF40 and 45 series (Groove Width 10mm)

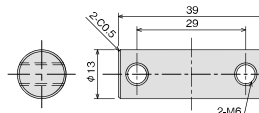
### Material/Technical Data

**Material** Stainless  
With Conductive Function  
**Weight** 1.2g  
**Environment** ★RoHS Compliant ★Green Procurement

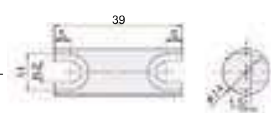
## Double Round Nut L40/L45 / Double Joint L40/L45



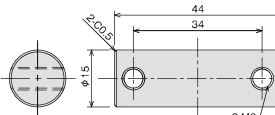
Double Round Nut L40



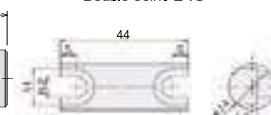
Double Joint L40



Double Round Nut L45



Double Joint L45



|          |                      |                      |
|----------|----------------------|----------------------|
| Name     | Double Round Nut L40 | Double Round Nut L45 |
| Item No. | SFJ-251S             | SFJ-252S             |
| Name     | Double Joint L40     | Double Joint L45     |
| Item No. | SFJ-317A             | SFJ-318A             |

### Usable Frame

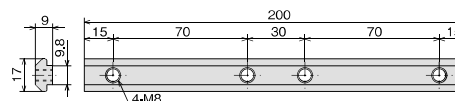
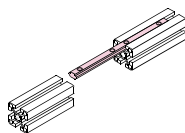


SF-40-40, SF-40-80, SF-40-120, SF-45-45, SF-45-90, SF-45-180

### Material/Technical Data

|                    | Double Round Nut L40/L45                                 | Double Joint L40/L45                                 |
|--------------------|----------------------------------------------------------|------------------------------------------------------|
| <b>Material</b>    | SUS304                                                   | A6005CSS-T5                                          |
| <b>Weight</b>      | 36g (Double Round Nut L40)<br>55g (Double Round Nut L45) | 10.6g (Double Joint L40)<br>12.7g (Double Joint L45) |
| <b>Environment</b> | ★RoHS Compliant                                          | ★Green Procurement                                   |

## Joint Bar L200



|                    |                |                       |                    |
|--------------------|----------------|-----------------------|--------------------|
| Name (Single Item) | Joint Bar L200 | Name (With Set screw) | Joint Bar L200 Kit |
| Item No.           | ★SFJ-607       | Item No.              | ★SFK-607           |

### Usable Frame



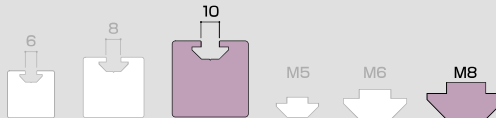
Compatible to all SF40 and 45 series (Groove Width 10mm)

### Kit contents

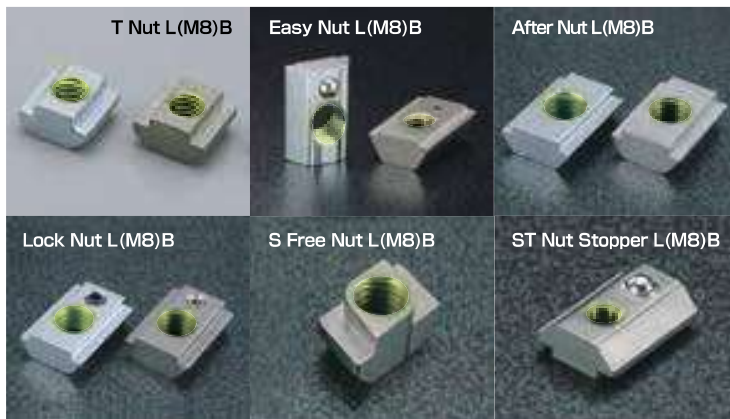
- Joint Bar L200×1
- Set screw (M8×10) ×4

### Material/Technical Data

**Material** Equivalent to S10C  
Uni-Chrome plating  
**Weight** 171g  
**Environment** ★RoHS Compliant ★Green Procurement



## Loctite Locknut



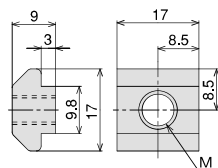
## ■Material/Technical Data

|          | T Nut L                                                                           | Easy Nut L                                                                                                                      | After Nut L                                                                       |
|----------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Material | Equivalent to S10C<br>Uni-Chrome Plating<br>Stainless<br>With Conductive Function | Equivalent to S10C<br>Uni-Chrome Plating<br>Stainless<br>With Conductive Function<br>10g (Uni-Chrome Plating)<br>6g (Stainless) | Equivalent to S10C<br>Uni-Chrome Plating<br>Stainless<br>With Conductive Function |
| Weight   | 8g                                                                                |                                                                                                                                 | 7g                                                                                |
|          | Lock Nut L                                                                        | S Free Nut L                                                                                                                    | ST Nut Stopper L                                                                  |
| Material | Equivalent to S10C<br>Uni-Chrome Plating<br>Stainless<br>With Conductive Function | Stainless<br>With Conductive Function                                                                                           | Stainless<br>With Conductive Function                                             |
| Weight   | 7g                                                                                | 4g                                                                                                                              | 12.5g                                                                             |

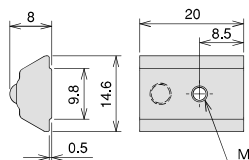
Environment **RoHS** Compliant

※The inner part of the tap is coated with an anti-loosening agent.

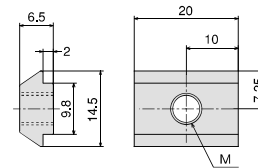
T Nut L



Easy Nut L



After Nut L

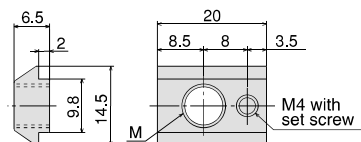


|          |                                                            |
|----------|------------------------------------------------------------|
| Name     | T Nut L(M8)B with Loctite<br>(S T Nut L(M8)B with Loctite) |
| Item No. | SFB-804(SFB-805)                                           |

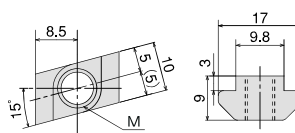
|          |                                                                  |
|----------|------------------------------------------------------------------|
| Name     | Easy Nut L(M8)B with Loctite<br>(S Easy Nut L(M8)B with Loctite) |
| Item No. | SFB-808(SFB-809)                                                 |

|          |                                                                    |
|----------|--------------------------------------------------------------------|
| Name     | After Nut L(M8)B with Loctite<br>(S After Nut L(M8)B with Loctite) |
| Item No. | SFB-812(SFB-813)                                                   |

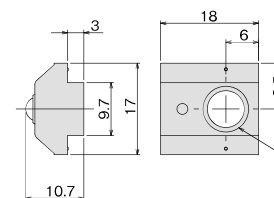
Lock Nut L



S Free Nut L



ST Nut Stopper L



|          |                                                                  |
|----------|------------------------------------------------------------------|
| Name     | Lock Nut L(M8)B with Loctite<br>(S Lock Nut L(M8)B with Loctite) |
| Item No. | SFB-816(SFB-817)                                                 |

|          |                                |
|----------|--------------------------------|
| Name     | S Free Nut L(M8)B with Loctite |
| Item No. | SFB-819                        |

|          |                                    |
|----------|------------------------------------|
| Name     | ST Nut Stopper L(M8)B with Loctite |
| Item No. | SFB-821                            |



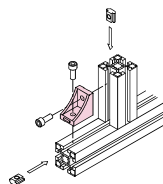
Parts  
How to order  
Item No.  
**SFB-804**

Quantity (pcs)



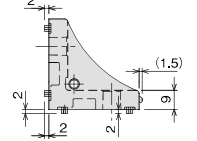
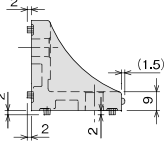
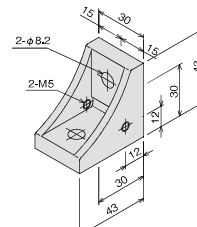
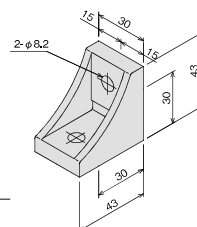


## D Bracket L



D Bracket L

D Bracket L with Tap



Please use Kit with Tap to install Side Cover. (Refer P125 for details.)

### Kit Contents

- D Bracket L (or with Tap) × 1
- Hexagon Socket Bolt (M8×20) × 2
- T Nut (M8) × 2
- \* Bolt and Nut in CN (Stainless)
- Kit are stainless.

### Material/Technical Data

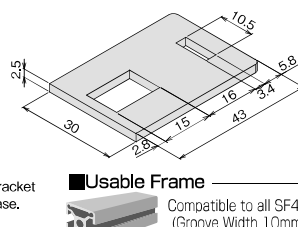
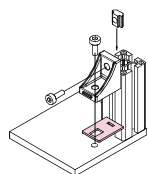
**Material** Aluminum Die-Cast  
(CN Electroless Nickel Plating)  
With Anti-Skid Function  
**Weight** 54g (D Bracket L)  
53g (D Bracket L with Tap)  
**Environment** ★RoHS Compliant  
★Green Procurement

### Usable Frame

Compatible to all SF40 and 45 series  
(Groove Width 10mm)



## D Bracket Spacer L



- Setting to bottom of D Bracket enables to fix on a flat base.

### Usable Frame

Compatible to all SF40 and 45 series  
(Groove Width 10mm)



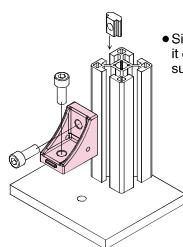
| Name     | D Bracket Spacer L |
|----------|--------------------|
| Item No. | SFJ-402S           |

### Material/Technical Data

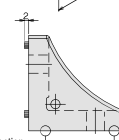
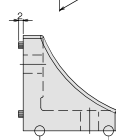
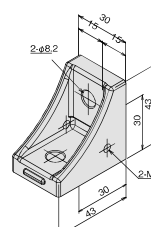
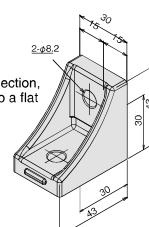
**Material** SUS304  
**Weight** 22g  
**Environment** ★RoHS Compliant  
★Green Procurement

Please use Kit with Tap to install Side Cover. (Refer P125 for details.)

## D Bracket Flat L



- Since there is no projection, it can be flush fitted to a flat surface



There is no projection for this part.

There is no projection for this part.

Please use Kit with Tap to install Side Cover. (Refer P125 for details.)

### Kit Contents

- D Bracket Flat L (or with Tap) × 1
- Hexagon Socket Bolt M8×20 (Trivalent Chromate) × 2
- T Nut (M8) × 2
- \* Bolt and Nut in (Stainless)
- Kit are stainless.

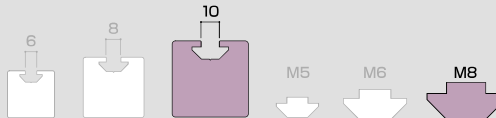
### Material/Technical Data

**Material** Aluminum Die-Cast  
(ADC-12)  
**Weight** 105g (D Bracket Flat L)  
104g (D Bracket Flat L with Tap)  
**Environment** ★RoHS Compliant

### Usable Frame

Compatible to all SF40 and 45 series  
(Groove Width 10mm)



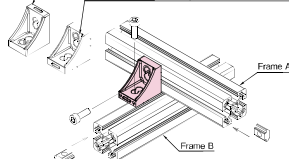


## D Bracket Cross L

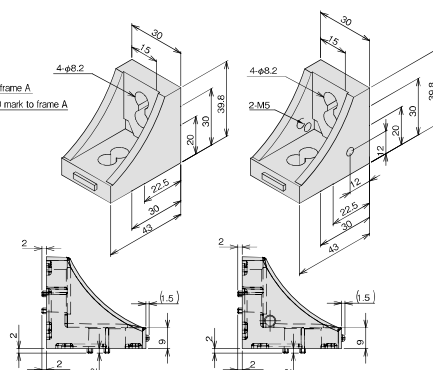


• Frames can be mounted orthogonally

If frame A is the 45 series, please mount the side with the 45 mark to frame A.  
If frame A is the 40 series, please mount the side with the 40 mark to frame A.



When crossing the frames, use the inner part of the hole for frame A, and the outer part of the hole for frame B.



|                        |                       |                                   |
|------------------------|-----------------------|-----------------------------------|
| Name(Single Item)      | D Bracket Cross L     |                                   |
| Item No.               | SFJ-052               |                                   |
| Name(Bolt and Nut Kit) | D Bracket Cross L Kit | D Bracket Cross L Kit (Stainless) |
| Item No.               | SFK-052               | SFK-052S                          |

## Usable Frame



Compatible to all SF40 and 45 series  
(Groove Width 10mm)

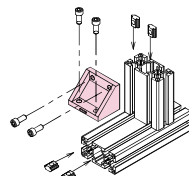
## Kit Contents

- D Bracket Cross L × 1
- Hexagon Socket Bolt M8×20 (Trivalent Chromate) × 2
- T Nut L (M8) × 2
- \* Bolt and Nut in (Stainless) Kit are stainless.

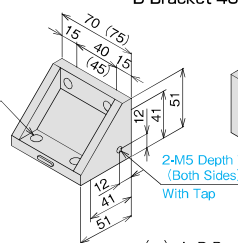
## Material/Technical Data

**Material** Aluminum Die-Cast (ADC-12)  
**Weight** 53g (D Bracket Cross L)  
**Environment** RoHS Compliant

## D Bracket 4080 / 4590



4-9 Drilling



D Bracket 4080 / D Bracket 4590

( ) is D Bracket 4590 size.

|                        |                                                                            |                   |                                                                            |
|------------------------|----------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------|
| Name(Single Item)      | D Bracket 4080<br>(4080 with Tap)                                          | D Bracket 4080-CN | D Bracket 4590<br>(4590 with Tap)                                          |
| Item No.               | SFJ-022 (SFJ-022T)                                                         | SFJ-022N          | SFJ-023 (SFJ-023T)                                                         |
| Name(Bolt and Nut Kit) | 4080 Kit<br>(4080 Kit with Tap)                                            | 4080-CN Kit       | 4590 Kit<br>(4590 Kit with Tap)                                            |
| Item No.               | SFK-022 (SFK-022T)                                                         | SFK-022N          | SFK-023 (SFK-023T)                                                         |
| Name(Bolt and Nut Kit) | D Bracket 4080(Stainless) Kit<br>(D Bracket 4080 with Tap (Stainless) Kit) |                   | D Bracket 4590(Stainless) Kit<br>(D Bracket 4590 with Tap (Stainless) Kit) |
| Item No.               | SFK-022S (SFK-022P)                                                        |                   | SFK-023S (SFK-023P)                                                        |

## Usable Frame



SF-40-80/1F, SF-80-80/H  
SF-45-90/1F, SF-90-90/H

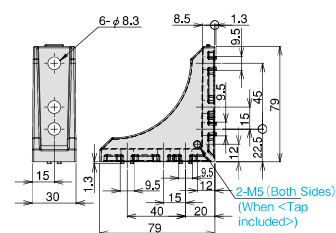
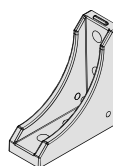
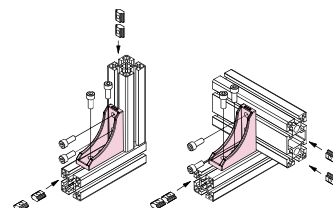
## Kit Contents

- (D Bracket 4080 Kit)
- D Bracket 4080 (or with Tap) × 1
- Hexagon Socket Bolt (M8×20) × 4
- T Nut L (M8) × 4
- (D Bracket 4590 Kit)
- D Bracket 4590 (or with Tap) × 1
- Hexagon Socket Bolt (M8×20) × 4
- T Nut L (M8) × 4

## Material/Technical Data

**D Bracket 4080** **D Bracket 4590**  
**Material** Aluminum Die-Cast (ADC-12) Aluminum Die-Cast (ADC-12)  
With Anti-Skid Function With Anti-Skid Function  
**Weight** 168g 180g  
**Environment** RoHS Compliant Green Procurement

## D Bracket LW



|                        |                                                 |                                                                         |
|------------------------|-------------------------------------------------|-------------------------------------------------------------------------|
| Name(Single Item)      | D Bracket LW<br>(D Bracket LW with Tap)         |                                                                         |
| Item No.               | SFJ-025 (SFJ-025T)                              |                                                                         |
| Name(Bolt and Nut Kit) | D Bracket LW Kit<br>(D Bracket LW with Tap Kit) | D Bracket LW Kit (Stainless)<br>(D Bracket LW with Tap Kit (Stainless)) |
| Item No.               | SFK-025 (SFK-025T)                              | SFK-025S (SFK-025P)                                                     |

Please use Kit with Tap to install Side Cover. (Refer P125 for details.)

## Kit Contents

- D Bracket LW (or with Tap) × 1
- Hexagon Socket Bolt M8×20 (Trivalent Chrome Plating) × 4
- T Nut L (M8)
- \* Bolt and Nut in (Stainless) Kit are stainless.

## Material/Technical Data

**Material** Aluminum Die-Cast (ADC-12)  
With Rotation-Prevention Function  
**Weight** 115g (D Bracket LW)  
**Environment** RoHS Compliant

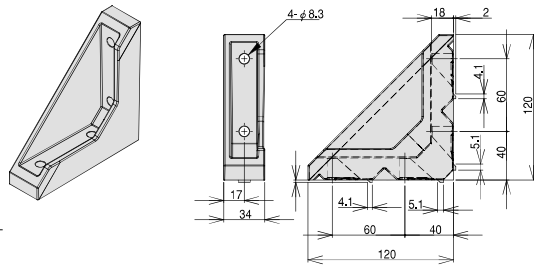
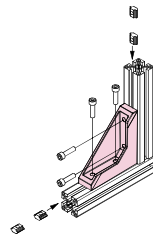


**Parts**  
**How to order**  
Item No.  
**SFJ-047**

Quantity (pcs)



## D Bracket LWHG



|                        |                    |                                |
|------------------------|--------------------|--------------------------------|
| Name(Single Item)      | D Bracket LWHG     |                                |
| Item No.               | SFJ-026            |                                |
| Name(Bolt and Nut Kit) | D Bracket LWHG Kit | D Bracket LWHG Kit (Stainless) |
| Item No.               | SFK-026            | SFK-026S                       |

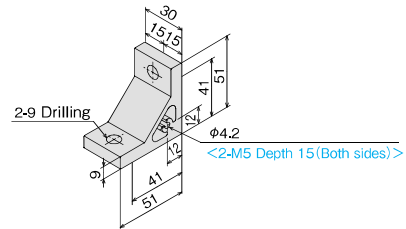
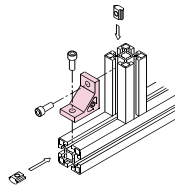
### Kit Contents

- D Bracket LWHG × 1
- Hexagon Socket Bolt (M8×30) × 4
- T Nut L (M8)
- ※ Bolt and Nut in (Stainless) Kit are stainless.

### Material/Technical Data

**Material** Aluminum Die-Cast (ADC-12)  
With Rotation-Prevention Function  
**Weight** 338g  
**Environment** RoHS Compliant

## Hard Bracket L



|                        |                                                     |                                                                           |
|------------------------|-----------------------------------------------------|---------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket L<br>(Hard Bracket L with Tap)         |                                                                           |
| Item No.               | ★SFJ-N05 (★SFJ-N05T)                                |                                                                           |
| Name(Bolt and Nut Kit) | Hard Bracket L Kit<br>(Hard Bracket L Kit with Tap) | Hard Bracket L(Stainless)Kit<br>(Hard Bracket L with Tap (Stainless) Kit) |
| Item No.               | ★SFK-N05 (★SFK-N05T)                                | ★SFK-N05S (★SFK-N05P)                                                     |

### Usable Frame



Compatible to all SF40 and 45 series  
(Groove Width 10mm)

Please use Kit with Tap to install Side Cover. (Refer P125 for details.)

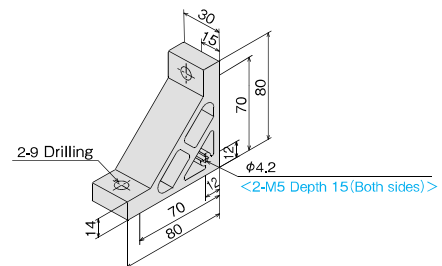
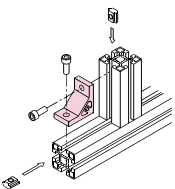
### Kit Contents

- Hard Bracket L (or with Tap) × 1
- Hexagon Socket Bolt (M8×20) × 2
- T Nut L (M8) × 2
- ※ Bolt and Nut in (Stainless) Kit are stainless.

### Material/Technical Data

**Material** Aluminium Alloy  
Alumite Treatment  
Perpendicular surface is machining finished.  
**Weight** 66g  
**Environment** ★RoHS Compliant  
★Green Procurement

## Hard Bracket LG



|                        |                                                       |                                                                             |
|------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket L<br>(Hard Bracket LG with Tap)          |                                                                             |
| Item No.               | ★SFJ-N29 (★SFJ-N29T)                                  |                                                                             |
| Name(Bolt and Nut Kit) | Hard Bracket LG Kit<br>(Hard Bracket LG with Tap Kit) | Hard Bracket LG(Stainless)Kit<br>(Hard Bracket LG with Tap (Stainless) Kit) |
| Item No.               | ★SFK-N29 (★SFK-N29T)                                  | ★SFK-N29S (★SFK-N29P)                                                       |

### Usable Frame



Compatible to all SF40 and 45 series  
(Groove Width 10mm)

Please use Kit with Tap to install Side Cover. (Refer P125 for details.)

### Kit Contents

- Hard Bracket LG (or with Tap) × 1
- Hexagon Socket Bolt (M8×25) × 2
- T Nut L (M8) × 2
- ※ Bolt and Nut in (Stainless) Kit are stainless.

### Material/Technical Data

**Material** Aluminium Alloy  
Alumite Treatment  
Perpendicular surface is machining finished.  
**Weight** 151g  
**Environment** ★RoHS Compliant  
★Green Procurement

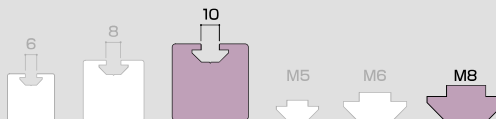
SF20  
SS SizeSF30  
S SizeSF40·45  
L Size

Complex Parts

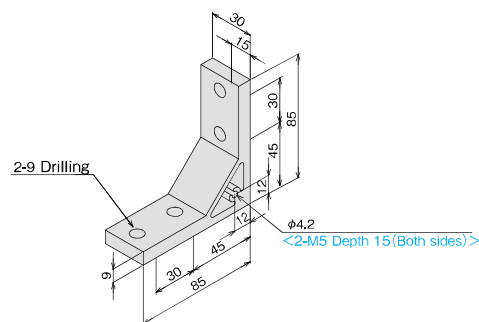
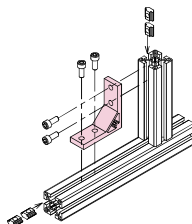
Door·Panel  
Clean Equipment

Technical Data

## SF40•45 SERIES



## Hard Bracket LW



Please use Kit with Tap to install Side Cover. (Refer P125 for details.)

|                        |                                                   |                                                                             |
|------------------------|---------------------------------------------------|-----------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket LW<br>(Hard Bracket LW with Tap)     |                                                                             |
| Item No.               | SFJ-N19(SFJ-N19T)                                 |                                                                             |
| Name(Bolt and Nut Kit) | Hard Bracket LW Kit<br>(Hard Bracket LW with Tap) | Hard Bracket LW(Stainless)Kit<br>(Hard Bracket LW with Tap (Stainless) Kit) |
| Item No.               | SFK-N19(SFK-N19T)                                 | SFK-N19S(SFK-N19P)                                                          |

## Usable Frame



Compatible to all SF40 and 45 series  
(Groove Width 10mm)

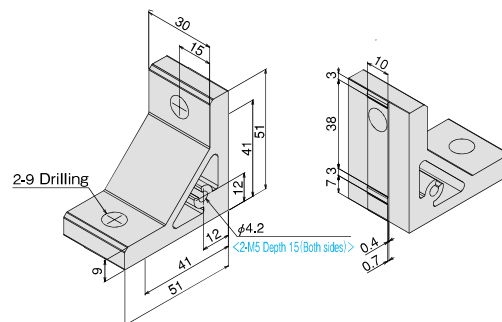
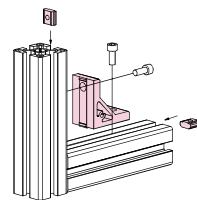
## Kit Contents

- Hard Bracket LW(or with Tap)×1
- Hexagon Socket Bolt (M8×20)×4
- T Nut L(M8)×4
- ※ Bolt and Nut in (Stainless) Kit are stainless.

## Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Perpendicular surface is machining finished.  
Weight 113g  
Environment RoHS Compliant  
Green Procurement

## Hard Bracket with Stopper L



Please use Kit with Tap to install Side Cover. (Refer P125 for details.)

|                        |                                                                               |                                                                                                       |
|------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket with Stopper L<br>(Hard Bracket with Stopper L with Tap)         |                                                                                                       |
| Item No.               | SFJ-N64(SFJ-N64T)                                                             |                                                                                                       |
| Name(Bolt and Nut Kit) | Hard Bracket with Stopper L Kit<br>(Hard Bracket with Stopper L with Tap Kit) | Hard Bracket with Stopper L Kit (Stainless)<br>(Hard Bracket with Stopper L with Tap Kit (Stainless)) |
| Item No.               | SFK-N64(SFK-N64T)                                                             | SFK-N64S(SFK-N64P)                                                                                    |

## Usable Frame



Compatible to all SF40 and 45 series  
(Groove Width 10mm)

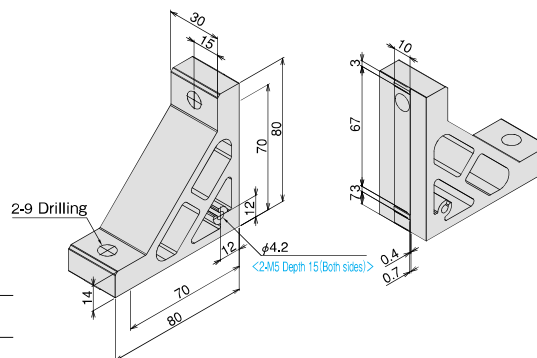
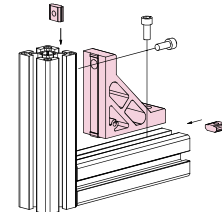
## Kit Contents

- Hard Bracket with Stopper L(or with Tap)×1
- Hexagon Socket Bolt (M8×20)×2
- T Nut L(M8)×2
- ※ Bolt and Nut in (Stainless) Kit are stainless.

## Material/Technical Data

Material A6N01SS-T5  
Alumite Treatment  
Perpendicular surface is machining finished.  
With Rotation-Prevention Function  
Weight 67g  
Environment RoHS Compliant

## Hard Bracket with Stopper LG



Please use Kit with Tap to install Side Cover. (Refer P125 for details.)

|                        |                                                                                 |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket with Stopper LG<br>(Hard Bracket with Stopper LG with Tap)         |                                                                                                         |
| Item No.               | SFJ-N65(SFJ-N65T)                                                               |                                                                                                         |
| Name(Bolt and Nut Kit) | Hard Bracket with Stopper LG Kit<br>(Hard Bracket with Stopper LG with Tap Kit) | Hard Bracket with Stopper LG Kit (Stainless)<br>(Hard Bracket with Stopper LG with Tap Kit (Stainless)) |
| Item No.               | SFK-N65(SFK-N65T)                                                               | SFK-N65S(SFK-N65P)                                                                                      |

## Usable Frame



Compatible to all SF40 and 45 series  
(Groove Width 10mm)

## Kit Contents

- Hard Bracket with Stopper LG(or with Tap)×1
- Hexagon Socket Bolt (M8×25)×2
- T Nut L(M8)×2
- ※ Bolt and Nut in (Stainless) Kit are stainless.

## Material/Technical Data

Material A6N01SS-T5  
Alumite Treatment  
Perpendicular surface is machining finished.  
With Rotation-Prevention Function  
Weight 156g  
Environment RoHS Compliant



Parts  
How to order  
Item No.  
SFJ-N19

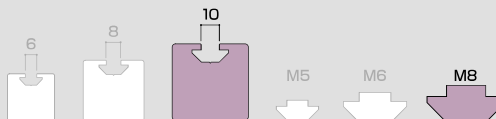
Quantity (pcs)



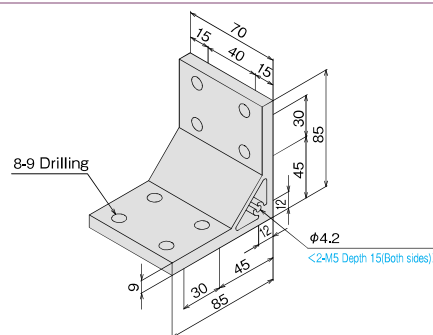
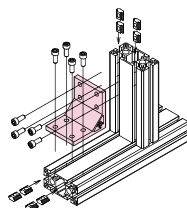
● Cap for Bracket  
P123







## Hard Bracket LW4080



Please use Kit with Tap to install Side Cover. (Refer P125 for details.)

## Usable Frame



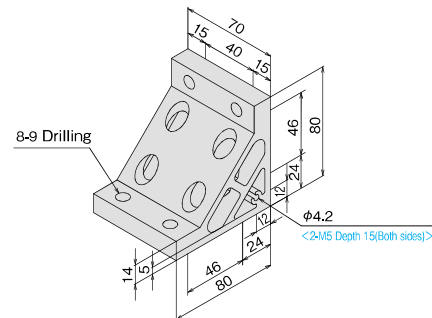
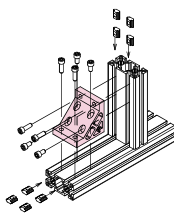
## Kit Contents

- Hard Bracket LW4080 (or with Tap) × 1
  - Hexagon Socket Bolt (M8×20) × 8
  - T Nut L (M8) × 8
- \*Bolt and Nut in (Stainless) Kit are stainless.

## Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 267g  
Environment **RoHS** Compliant  
**Green** Procurement

## Hard Bracket GW80



Please use Kit with Tap to install Side Cover. (Refer P125 for details.)

## Usable Frame



## Kit Contents

- Hard Bracket GW80 (or with Tap) × 1
  - Hexagon Socket Bolt (M8×25) × 4
  - Hexagon Socket Bolt (M8×15) × 4
  - T Nut L (M8) × 8
- \*Bolt and Nut in (Stainless) Kit are stainless.

## Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 333g  
Environment **RoHS** Compliant  
**Green** Procurement

|                        |                                                           |                                                                                 |
|------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------|
| Name(Single Item)      | Hard Bracket GW80<br>(Hard Bracket GW80 with Tap)         |                                                                                 |
| Item No.               | SFJ-N17 (SFJ-N17T)                                        |                                                                                 |
| Name(Bolt and Nut Kit) | Hard Bracket GW80 Kit<br>(Hard Bracket GW80 Kit with Tap) | Hard Bracket GW80(Stainless)Kit<br>(Hard Bracket GW80 with Tap (Stainless) Kit) |
| Item No.               | SFK-N17 (SFK-N17T)                                        | SFK-N17S (SFK-N17P)                                                             |



Parts  
How to order  
Item No.  
**SFJ-N20**

Quantity (pcs)

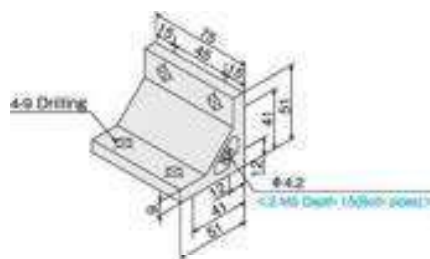
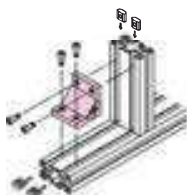


●Cap for Bracket  
P123





## Hard Bracket L4590



Please use Kit with Tap to install Side Cover. (Refer P125 for details.)

### Usable Frame

SF-45-90/1F  
SF-90-90/45-90-90

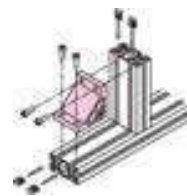
### Kit Contents

- Hard Bracket L4590 (or with Tap) ×1
- Hexagon Socket Bolt (M8×20) ×4
- T Nut L (M8) ×4
- ※ Bolt and Nut in (Stainless) Kit are stainless.

### Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Perpendicular surface is machining finished.  
Weight 163g  
Environment ★RoHS Compliant  
★Green Procurement

## Hard Bracket G90



Please use Kit with Tap to install Side Cover. (Refer P125 for details.)

### Usable Frame

SF-45-90/1F  
SF-90-90/H

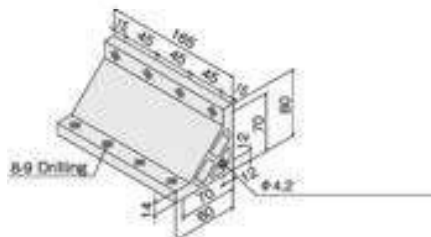
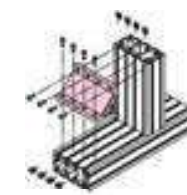
### Kit Contents

- Hard Bracket G90 (or with Tap) ×1
- Hexagon Socket Bolt (M8×25) ×4
- T Nut L (M8) ×4
- ※ Bolt and Nut in (Stainless) Kit are stainless.

### Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Perpendicular surface is machining finished.  
Weight 387g  
Environment ★RoHS Compliant  
★Green Procurement

## Hard Bracket G90180



### Usable Frame

SF-90-180

### Kit Contents

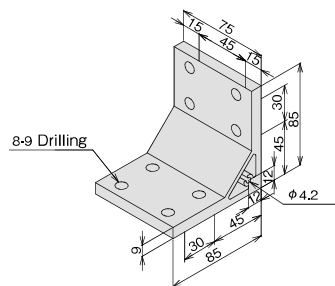
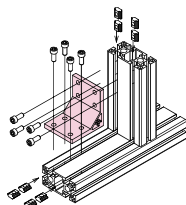
- Hard Bracket G90180 ×1
- Hexagon Socket Bolt (M8×25) ×8
- T Nut L (M8) ×8
- ※ Bolt and Nut in (Stainless) Kit are stainless.

### Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 846g  
Environment ★RoHS Compliant  
★Green Procurement

| Name (Single Item)      | Hard Bracket G90180     |                                     |
|-------------------------|-------------------------|-------------------------------------|
| Item No.                | SFJ-N49                 |                                     |
| Name (Bolt and Nut Kit) | Hard Bracket G90180 Kit | Hard Bracket G90180 (Stainless) Kit |
| Item No.                | SFK-N49                 | SFK-N49S                            |

## Hard Bracket LW4590



|                        |                         |                                   |
|------------------------|-------------------------|-----------------------------------|
| Name(Single Item)      | Hard Bracket LW4590     |                                   |
| Item No.               | SFJ-N21                 |                                   |
| Name(Bolt and Nut Kit) | Hard Bracket LW4590 Kit | Hard Bracket LW4590(Stainless)Kit |
| Item No.               | SFK-N21                 | SFK-N21S                          |

■ Usable Frame



SF-45.90/1F  
SF-90.90/45.90-90

## Kit Contents

- Hard Bracket LW4590 x1
- Hexagon Socket Bolt (M8x20) x 8
- T Nut L(M8)x8
- ※ Bolt and Nut in (Stainless) Kit are stainless.

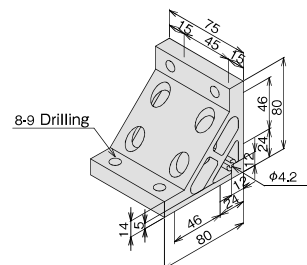
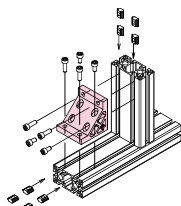
## ■Material/Technical Data

**Material** Aluminium Alloy  
Alumite Treatment  
Perpendicular surface is machining finished.

**Weight** 276 g

**Environment** **RoHS** Compliant  
**Green** Procurement

## Hard Bracket GW90



|                        |                       |                                 |
|------------------------|-----------------------|---------------------------------|
| Name(Single Item)      | Hard Bracket GW90     |                                 |
| Item No.               | SFJ-N22               |                                 |
| Name(Bolt and Nut Kit) | Hard Bracket GW90 Kit | Hard Bracket GW90(Stainless)Kit |
| Item No.               | SFK-N22               | SFK-N22S                        |

■ Usable Frame



SF-45-90/1F  
SF-90-90/45-90-90

## Kit Contents

- Hard Bracket GW90×1
  - Hexagon Socket Bolt (M8×25)×4
  - Hexagon Socket Bolt (M8×15)×4
  - T Nut L(M8)×8
- ※Bolt and Nut in (Stainless) Kit are stainless.

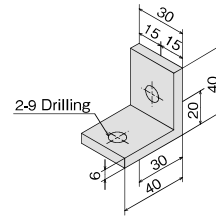
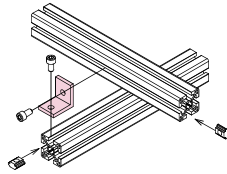
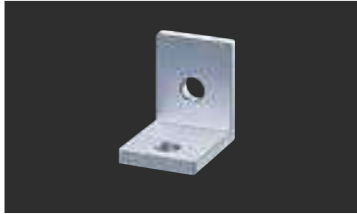
## ■Material/Technical Data

**Material** Aluminium Alloy  
Alumite Treatment  
Perpendicular surface is machining finished.

**Weight** 353 g

**Environment** RoHS Compliant  
Green Procurement

## Angle Bracket L40



|                        |                                                              |
|------------------------|--------------------------------------------------------------|
| Name(Single Item)      | Angle Bracket L40                                            |
| Item No.               | ★SFJ-A05                                                     |
| Name(Bolt and Nut Kit) | Angle Bracket L40 Kit<br>(Angle Bracket L40 (Stainless) Kit) |
| Item No.               | ★SFK-A05 ★SFK-A05S                                           |

### Usable Frame



Compatible to all SF40 series  
(Groove Width 10mm)

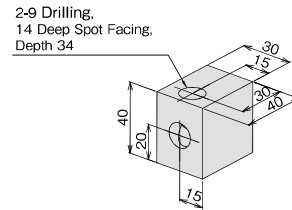
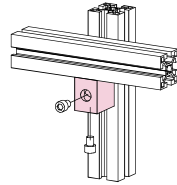
### Kit Contents

- Angle Bracket L40×1
- Hexagon Socket Bolt (M8×15)×2
- T Nut L(M8)×2
- ※ Bolt and Nut in (Stainless) Kit are stainless.

### Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 34g  
Environment ★RoHS Compliant  
★Green Procurement

## Angle Bracket Hard L40



|                        |                                                                        |
|------------------------|------------------------------------------------------------------------|
| Name(Single Item)      | Angle Bracket Hard L40                                                 |
| Item No.               | SFJ-A16                                                                |
| Name(Bolt and Nut Kit) | Angle Bracket Hard L40 Kit<br>(Angle Bracket Hard L40 (Stainless) Kit) |
| Item No.               | SFK-A16 (SFK-A16S)                                                     |

### Usable Frame



Compatible to all SF40 series  
(Groove Width 10mm)

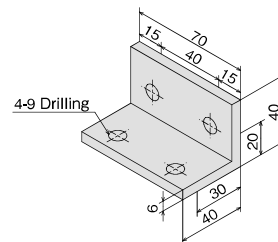
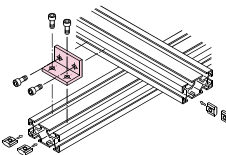
### Kit Contents

- Angle Bracket Hard L40×1
- Hexagon Socket Bolt (M8×15)×2
- T Nut L(M8)×2
- ※ Bolt and Nut in (Stainless) Kit are stainless.

### Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 103g  
Environment ★RoHS Compliant  
★Green Procurement

## Angle Bracket L4080



|                        |                                                                 |
|------------------------|-----------------------------------------------------------------|
| Name(Single Item)      | Angle Bracket L4080                                             |
| Item No.               | ★SFJ-A06                                                        |
| Name(Bolt and Nut Kit) | Angle Bracket L4080 Kit<br>(Angle Bracket L4080(Stainless) Kit) |
| Item No.               | ★SFK-A06 ★SFK-A06S                                              |

### Usable Frame



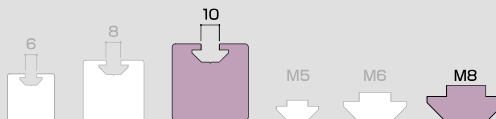
Compatible to all SF40 series  
(Groove Width 10mm)

### Kit Contents

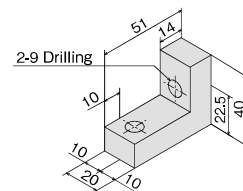
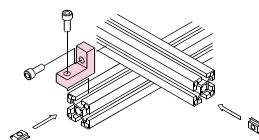
- Angle Bracket L4080×1
- Hexagon Socket Bolt (M8×15)×4
- T Nut L(M8)×4
- ※ Bolt and Nut in (Stainless) Kit are stainless.

### Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 80g  
Environment ★RoHS Compliant  
★Green Procurement



## Angle Bracket L45



|                        |                                                              |
|------------------------|--------------------------------------------------------------|
| Name(Single Item)      | Angle Bracket L45                                            |
| Item No.               | SFJ-007                                                      |
| Name(Bolt and Nut Kit) | Angle Bracket L45 Kit<br>(Angle Bracket L45 (Stainless) Kit) |
| Item No.               | SFK-007(SFK-007S)                                            |

## Usable Frame



Compatible to all SF45 series  
(Groove Width 10mm)

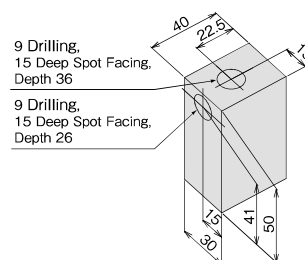
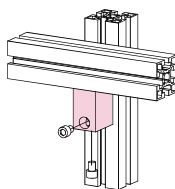
## Kit Contents

- Angle Bracket L45×1
- Hexagon Socket Button Bolt (M8×25)×2
- T Nut L (M8)×2
- ※ Bolt and Nut in (Stainless) Kit are stainless.

## Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 52g  
Environment **RoHS** Compliant  
**Green** Procurement

## Angle Bracket Hard L45



|                        |                                                                        |
|------------------------|------------------------------------------------------------------------|
| Name(Single Item)      | Angle Bracket Hard L45                                                 |
| Item No.               | SFJA-17                                                                |
| Name(Bolt and Nut Kit) | Angle Bracket Hard L45 Kit<br>(Angle Bracket Hard L45 (Stainless) Kit) |
| Item No.               | SFK-A17(SFK-A17S)                                                      |

## Usable Frame



Compatible to all SF45 series  
(Groove Width 10mm)

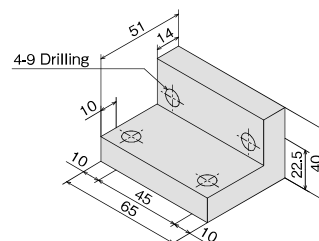
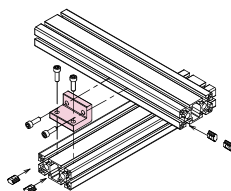
## Kit Contents

- Angle Bracket Hard L45×1
- Hexagon Socket Button Bolt (M8×25)×2
- T Nut L (M8)×2
- ※ Bolt and Nut in (Stainless) Kit are stainless.

## Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 135g  
Environment **RoHS** Compliant  
**Green** Procurement

## Angle Bracket L4590



|                        |                                                                  |
|------------------------|------------------------------------------------------------------|
| Name(Single Item)      | Angle Bracket L4590                                              |
| Item No.               | SFJA08                                                           |
| Name(Bolt and Nut Kit) | Angle Bracket L4590 Kit<br>(Angle Bracket L4590 (Stainless) Kit) |
| Item No.               | SFK-A08(SFK-A08S)                                                |

## Usable Frame



Compatible to all SF45 series  
(Groove Width 10mm)

## Kit Contents

- Angle Bracket L4590×1
- Hexagon Socket Button Bolt (M8×25)×4
- T Nut L (M8)×4
- ※ Bolt and Nut in (Stainless) Kit are stainless.

## Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 175g  
Environment **RoHS** Compliant  
**Green** Procurement

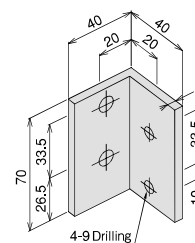
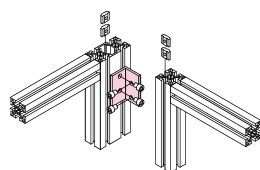


Parts  
How to order  
Item No.  
**SFJ-007**

Quantity (pcs)



## Offset Bracket L4080



|                        |                                                                    |
|------------------------|--------------------------------------------------------------------|
| Name(Single Item)      | Offset Bracket L4080                                               |
| Item No.               | SFJ-A22                                                            |
| Name(Bolt and Nut Kit) | Offset Bracket L4080 Kit<br>(Offset Bracket L4080 (Stainless) Kit) |
| Item No.               | SFK-A22 (SFK A22S)                                                 |

### Usable Frame



Compatible to all SF40 series  
(Groove Width 10mm)

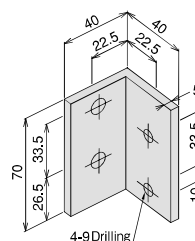
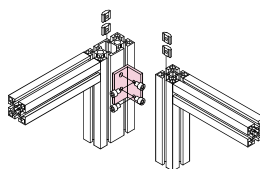
### Kit Contents

- Offset Bracket L4080×1
- Hexagon Socket Bolt(M8×15)×4
- T Nut L(M8)×4
- ※Bolt and Nut in (Stainless) Kit are stainless.

### Material/Technical Data

Material A6063  
Alumite Treatment  
(Special order: Black Alumite is also available.)  
Weight 67g  
Environment RoHS Compliant

## Offset Bracket L4590



|                        |                                                                    |
|------------------------|--------------------------------------------------------------------|
| Name(Single Item)      | Offset Bracket L4590                                               |
| Item No.               | SFJ-A23                                                            |
| Name(Bolt and Nut Kit) | Offset Bracket L4590 Kit<br>(Offset Bracket L4590 (Stainless) Kit) |
| Item No.               | SFK-A23 (SFK-A23S)                                                 |

### Usable Frame



Compatible to all SF45 series  
(Groove Width 10mm)

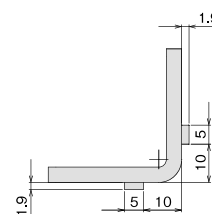
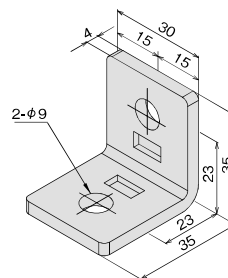
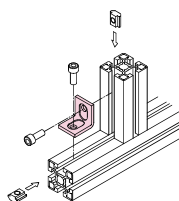
### Kit Contents

- Offset Bracket L4590×1
- Hexagon Socket Bolt(M8×15)×4
- T Nut L(M8)×4
- ※Bolt and Nut in (Stainless) Kit are stainless.

### Material/Technical Data

Material A6063  
Alumite Treatment  
(Special order: Black Alumite is also available.)  
Weight 67g  
Environment RoHS Compliant

## L Bracket L (Stainless)



|                        |                             |
|------------------------|-----------------------------|
| Name(Single Item)      | L Bracket L (Stainless)     |
| Item No.               | SFJ-102S                    |
| Name(Bolt and Nut Kit) | L Bracket L (Stainless) Kit |
| Item No.               | SFK-102S                    |

### Usable Frame



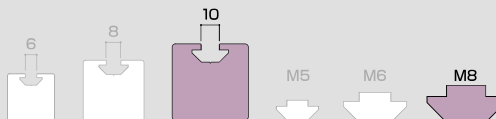
Compatible to all SF40 and 45 series  
(Groove Width 10mm)

### Kit Contents

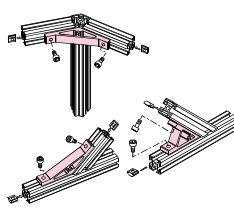
- L Bracket L (Stainless)×1
- Hexagon Socket Bolt (M8×15)Stainless×2
- ST Nut L (M8)×2

### Material/Technical Data

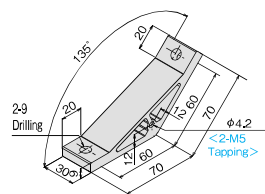
Material SUS304  
Weight 58g  
Environment RoHS Compliant  
Green Procurement



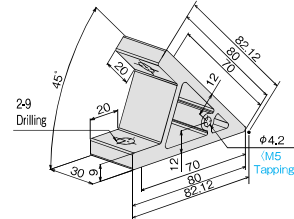
## Hard Bracket L•DE



Hard Bracket L•DE135



Hard Bracket L•DE45



Please use Kit with Tap to install Side Cover.  
(Refer P125 for detail.)

| Name(Single Item)      | Hard Bracket L•DE135<br>(Hard Bracket L•DE135 with Tap) |                                                           | Hard Bracket L•DE45<br>(Hard Bracket L•DE45 with Tap) |                                                         |
|------------------------|---------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------|---------------------------------------------------------|
| Item No.               | SFJ-N35 (SFJ-N35T)                                      |                                                           | SFJ-N36 (SFJ-N36T)                                    |                                                         |
| Name(Bolt and Nut Kit) | L•DE135 Kit<br>(L•DE135 Kit with Tap)                   | L•DE135(Stainless)Kit<br>(L•DE135 with Tap/Stainless) Kit | L•DE45 Kit<br>(L•DE45 Kit with Tap)                   | L•DE45(Stainless)Kit<br>(L•DE45 with Tap/Stainless) Kit |
| Item No.               | SFK-N35 (SFK-N35T)                                      | SFK-N35S (SFK-N35P)                                       | SFK-N36 (SFK-N36T)                                    | SFK-N36S (SFK-N36P)                                     |

## Usable Frame



SF-40-45 Series 45° slant cut frame  
SF-40-DE45/SF-45-DE45 (L•DE135 only)

## Kit Contents

## Hard Bracket L•DE135 Kit

- Hard Bracket L•DE135 (or with Tap) ×1
- Hexagon Socket Bolt (M8×20) ×2
- T Nut L (M8) ×2

## Hard Bracket L•DE45 Kit

- Hard Bracket L•DE45 (or with Tap) ×1
- Hexagon Socket Bolt (M8×20) ×2
- T Nut L (M8) ×2
- ※ Bolt and Nut in (Stainless) Kit are stainless.

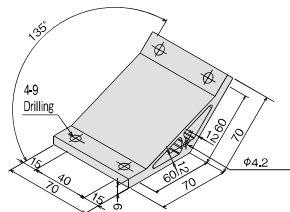
## Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 103g (L•DE135)  
88g (L•DE45)  
Environment RoHS Compliant  
Green Procurement

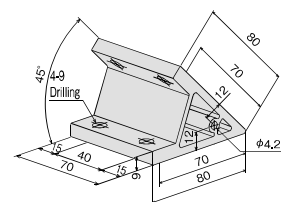
## Hard Bracket L4080•DE



Hard Bracket L4080-DE135



Hard Bracket L4080-DE45



Please use Kit with Tap to install Side Cover.  
(Refer P125 for detail.)

| Name(Single Item)      | Hard Bracket L4080-DE135 |                           | Hard Bracket L4080-DE45 |                          |
|------------------------|--------------------------|---------------------------|-------------------------|--------------------------|
| Item No.               | SFJ-N42                  |                           | SFJ-N41                 |                          |
| Name(Bolt and Nut Kit) | L4080-DE135 Kit          | L4080-DE135(Stainless)Kit | L4080-DE45 Kit          | L4080-DE45(Stainless)Kit |
| Item No.               | SFK-N42                  | SFK-N42S                  | SFK-N41                 | SFK-N41S                 |

## Usable Frame



SF-40-80 45° slant cut frame

## Kit Contents

## Hard Bracket L4080-DE135 Kit

- Hard Bracket L4080-DE135 ×1
- Hexagon Socket Bolt (M8×20) ×4
- T Nut L (M8) ×4

## Hard Bracket L4080-DE45 Kit

- Hard Bracket L4080-DE45 ×1
- Hexagon Socket Bolt (M8×20) ×4
- T Nut L (M8) ×4
- ※ Bolt and Nut in (Stainless) Kit are stainless.

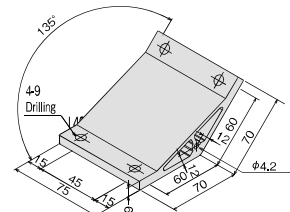
## Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 239g (L4080-DE135)  
203g (L4080-DE45)  
Environment RoHS Compliant  
Green Procurement

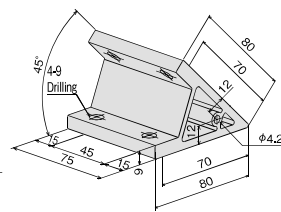
## Hard Bracket L4590•DE



Hard Bracket L4590-DE135



Hard Bracket L4590-DE45



Please use Kit with Tap to install Side Cover.  
(Refer P125 for detail.)

| Name(Single Item)      | Hard Bracket L4590-DE135 |                           | Hard Bracket L4590-DE45 |                          |
|------------------------|--------------------------|---------------------------|-------------------------|--------------------------|
| Item No.               | SFJ-N44                  |                           | SFJ-N43                 |                          |
| Name(Bolt and Nut Kit) | L4590-DE135 Kit          | L4590-DE135(Stainless)Kit | L4590-DE45 Kit          | L4590-DE45(Stainless)Kit |
| Item No.               | SFK-N44                  | SFK-N44S                  | SFK-N43                 | SFK-N43S                 |

## Usable Frame



SF-45-90 45° slant cut frame

## Kit Contents

## Hard Bracket L4590-DE135 Kit

- Hard Bracket L4590-DE135 ×1
- Hexagon Socket Bolt (M8×20) ×4
- T Nut L (M8) ×4

## Hard Bracket L4590-DE45 Kit

- Hard Bracket L4590-DE45 ×1
- Hexagon Socket Bolt (M8×20) ×4
- T Nut L (M8) ×4
- ※ Bolt and Nut in (Stainless) Kit are stainless.

## Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 255g (L4590-DE135)  
219g (L4590-DE45)  
Environment RoHS Compliant  
Green Procurement



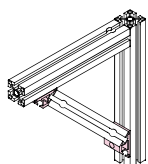
Parts  
How to order  
Item No.  
SFJ-N35

Quantity (pcs)

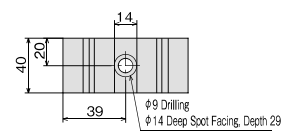




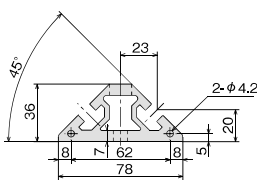
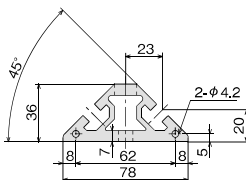
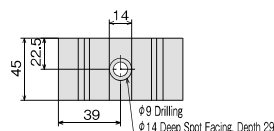
## Truss Joint L40 / L45



Truss Joint L40



Truss Joint L45



※Groove size is as same as SF-40·40, SF-45·45

| Name     | Truss Joint L40 | Truss Joint L45 |
|----------|-----------------|-----------------|
| Item No. | SFJ-J03         | SFJ-J04         |

### Usable Frame



(Frame to reinforce)  
SF-40·40/SF-K-40·40  
SF-45·45/SF-K-45·45  
(Frame to combine)  
Compatible to SF-40·45 series

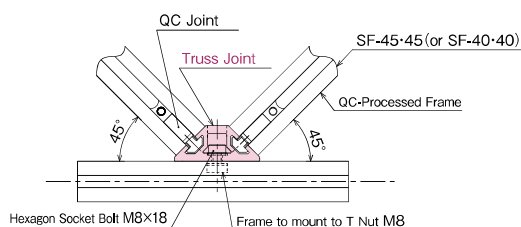
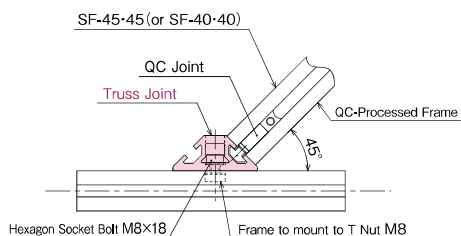
### Material/Technical Data

Truss Joint L40/L45  
Material Aluminium Alloy  
Alumite Treatment  
Weight 103g(L40)  
117g(L45)  
Environment RoHS Compliant  
Green Procurement

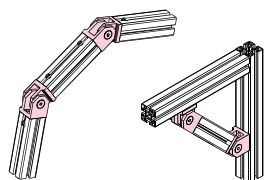
## Truss Joint

### 〈Truss Joint〉

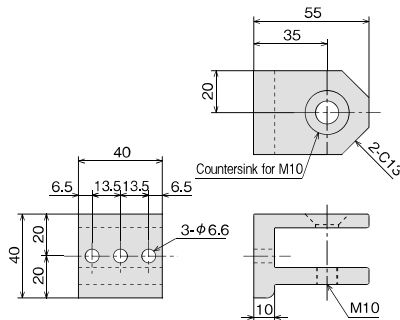
Best suited to reinforce in 45° or truss stiffening.



## Turn Bracket 40A / 40B

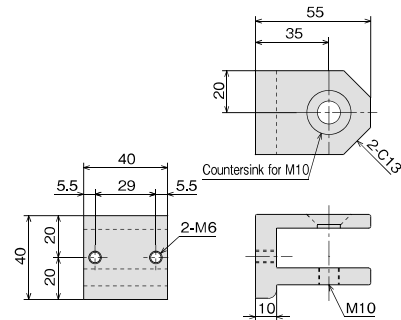


Turn Bracket 40A



Hexagon Socket Flat Head Cap Screw M10×16 included

Turn Bracket 40B



Hexagon Socket Flat Head Cap Screw M10×16 included  
※Refer examples below to select bolt and nut you need.

| Name     | Turn Bracket 40A | Turn Bracket 40B |
|----------|------------------|------------------|
| Item No. | SFK-42A          | SFK-42B          |

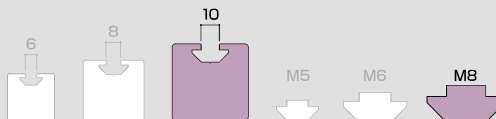
### Usable Frame



〈Section Installation〉  
SF-40·40(1F/K/2H include)  
〈Side Installation〉  
Compatible to all SF40 series

### Material/Technical Data

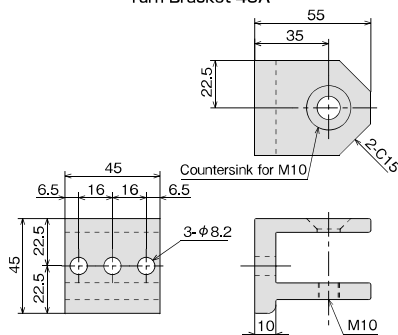
Material Aluminium Alloy  
Alumite Treatment  
Weight 97g(40A)  
98g(40B)  
Environment RoHS Compliant



## Turn Bracket 45A / 45B

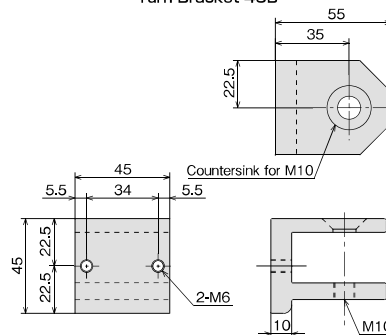


Turn Bracket 45A



Hexagon Socket Flat Head Cap Screw M10×16 included

Turn Bracket 45B



Hexagon Socket Flat Head Cap Screw M10×16 included

※Refer examples below to select bolt and nut you need.

| Name     | Turn Bracket 45A | Turn Bracket 45B |
|----------|------------------|------------------|
| Item No. | SFK-43A          | SFK-43B          |

## Usable Frame

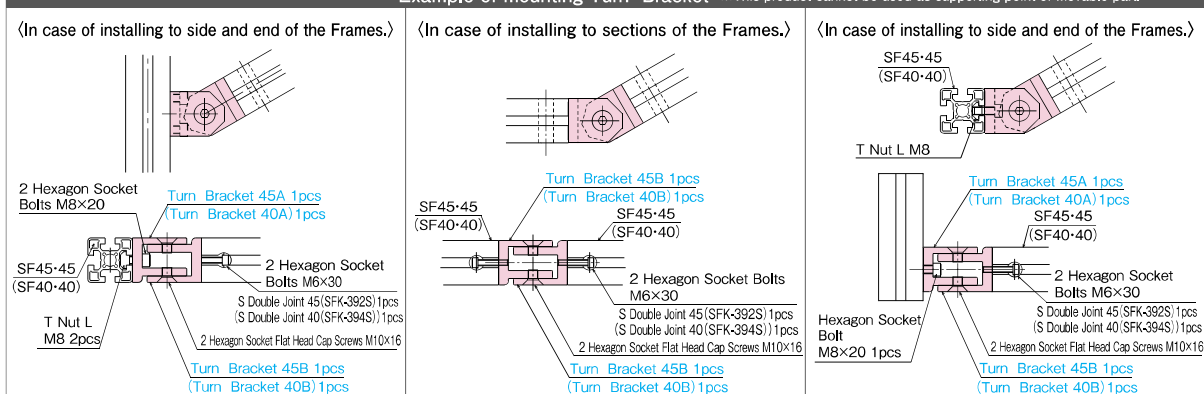


<Section Installation>  
SF-45-45(1F/K/2H include)  
<Side Installation>  
Compatible to all SF45 series

## Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 113g(45A)  
116g(45B)  
Environment RoHS Compliant

## Example of mounting Turn Bracket ※This product cannot be used as supporting point of movable part.

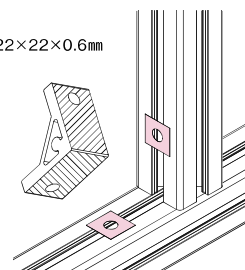


GO ●Use Processing Symbols written from P204 to specify frilling for Double Joint.

## Friction Sheet M8 with Case (50pcs/Set)



Dimension : 22×22×0.6mm



| Name     | Friction Sheet M8 with Case (50pcs/Set) |
|----------|-----------------------------------------|
| Item No. | SFA-M01                                 |

## Material/Technical Data

Material Sheet : Urethane Resin  
Case : ABS  
Weight Sheet : 0.03g/pcs (M8)  
Case : 20.3g  
Environment RoHS Compliant

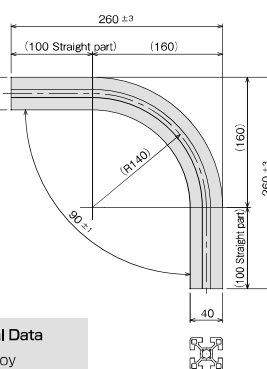
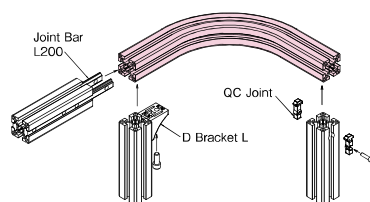
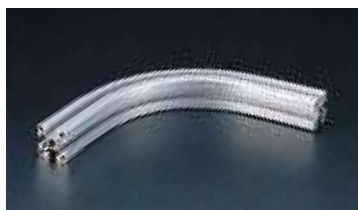


Parts  
How to order  
Item No.  
SFK-43A

Quantity (pcs)



## Bend Bracket L40



|          |                  |
|----------|------------------|
| Name     | Bend Bracket L40 |
| Item No. | SFJ-V02          |

### ■ Usable Frame

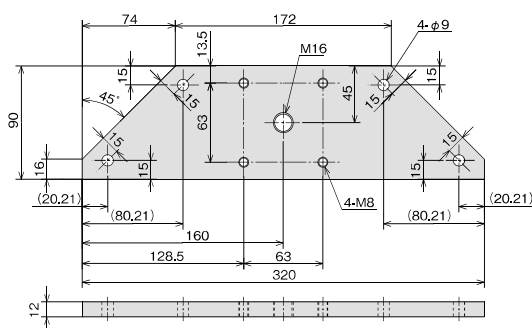
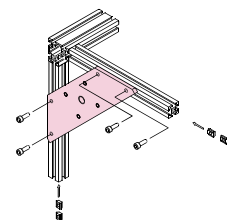


Compatible to SF40·40  
(1F, 2F, 2H, 3F, K)

## ■Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Weight 774g  
Environment **RoHS** Compliant  
**Green** Procurement

### Caster Plate L



|          |                                               |
|----------|-----------------------------------------------|
| Name     | Caster Plate L<br><Caster Plate L(Stainless)> |
| Item No. | ★SFJ-7A3 ⚡SFJ-7A3S                            |

### ■ Usable Frame



Compatible to all SF40 and 45 series  
(Groove Width 10mm)

## ■ Material/Technical Data

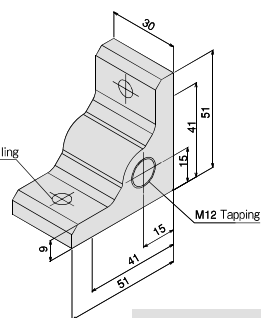
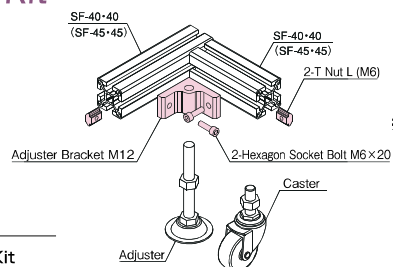
|             | Caster Plate L                        | Caster Plate L<br>(Stainless) |
|-------------|---------------------------------------|-------------------------------|
| Material    | SS400<br>Uni-Chrome                   | SUS304                        |
| Weight      | 2.1kg                                 | 2.1kg                         |
| Environment | ★RoHS Compliant<br>★Green Procurement |                               |

■ Use Example

- Adjuster M16 ●Caster C
- Double-Wheel Caster M16
- Marketing Hanging Bolt etc



## Adjuster Bracket M12 L Kit



|                   |                            |
|-------------------|----------------------------|
| Name(Single Item) | Adjuster Bracket M12 L Kit |
| Item No.          | SFK-7E2                    |

## ■ Kit Contents

- Adjuster Bracket M12×1
- T Nut L (M6)×2
- Hexagon Socket Bolt(M6×20)  
(Uni-Chrome)×2

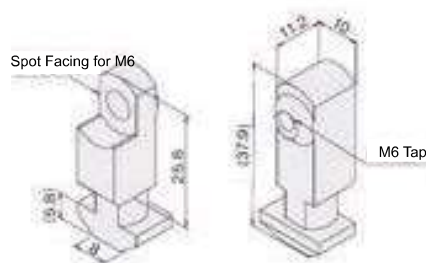
## Material/Technical Data

Material Aluminum Extrusion  
Weight 121g  
Environment **RoHS** Compliant

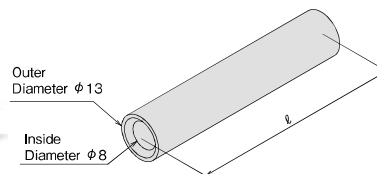
## QC Joint L



QC Joint L(Common Parts)



SS Round Metal Tool



|   | L40 Kit | L45 Kit | L60 Kit | L80 Kit | L90 Kit |
|---|---------|---------|---------|---------|---------|
| R | 15      | 19      | 34      | 55      | 64      |

| Name     | QC Joint L40 Kit | QC Joint L45 Kit | QC Joint L60 Kit | QC Joint L80 Kit | QC Joint L90 Kit |
|----------|------------------|------------------|------------------|------------------|------------------|
| Item No. | SFK-Q40A         | SFK-Q41A         | SFK-Q42A         | SFK-Q43A         | SFK-Q44A         |

| Kit Contents | Kit Name         | QC Joint             | Round Metal Tool        | Bolt                                    |
|--------------|------------------|----------------------|-------------------------|-----------------------------------------|
|              | QC Joint L40 Kit | QC Joint L<br>x1 set | L Round Metal Tool 40x1 | Hexagon Socket Bolt (M6x30) Stainlessx1 |
|              | QC Joint L45 Kit |                      | L Round Metal Tool 45x1 | Hexagon Socket Bolt (M6x35) Stainlessx1 |
|              | QC Joint L60 Kit |                      | L Round Metal Tool 60x1 | Hexagon Socket Bolt (M6x50) Stainlessx1 |
|              | QC Joint L80 Kit |                      | L Round Metal Tool 80x1 | Hexagon Socket Bolt (M6x70) Stainlessx1 |
|              | QC Joint L90 Kit |                      | L Round Metal Tool 90x1 | Hexagon Socket Bolt (M6x80) Stainlessx1 |

## Material/Technical Data

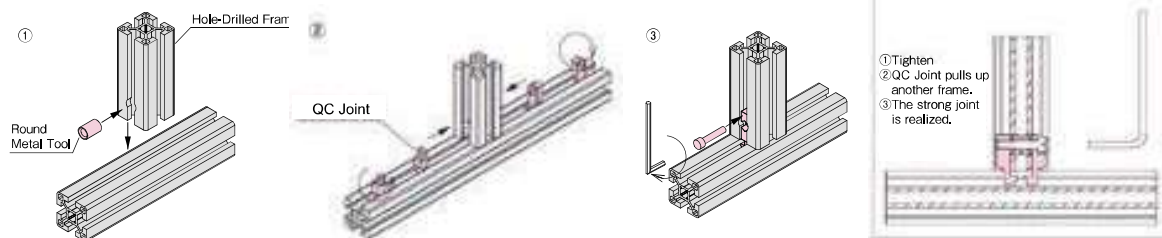
|             | QC Joint L        |         | L Round metal tool |         |         |
|-------------|-------------------|---------|--------------------|---------|---------|
| Material    | Aluminum Die-Cast |         | Aluminium Alloy    |         |         |
|             | L40 Kit           | L45 Kit | L60 Kit            | L80 Kit | L90 Kit |
| Weight      | 30g               | 32g     | 39g                | 48g     | 52g     |
| Environment | RoHS Compliant    |         | Green Procurement  |         |         |

## QC Joint L

### 〈Characteristics〉

It's easy to set vertically and hardly make gap, because 2 frames are pulled at each other to combine. Also, you don't have to let nuts into frame in advance, and strong fixing is possible by one bolt, so the assembly man-hour is reduced.

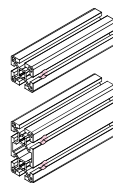
〈How to assemble〉



〈Example of Kit Selection〉

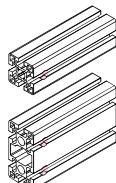
●QC Joint L40 Kit

(For drilled hole to the direction of 40mm)



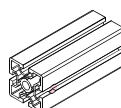
●QC Joint L45 Kit

(For drilled hole to the direction of 45mm)



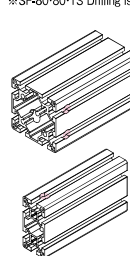
●QC Joint L60 Kit

(For drilled hole to the direction of 60mm)



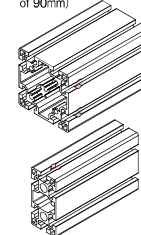
●QC Joint L80 Kit

※SF-80・80・1S Drilling is as same as L60 Kit

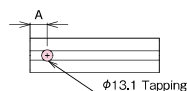
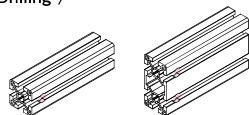


●QC Joint L90 Kit

(For drilled hole to the direction of 90mm)



〈Drilling〉



|                              |      |
|------------------------------|------|
|                              | A    |
| SF40 Series (SF-40/SF-K45)   | 20   |
| SF45 Series (SF-60·1S/80·1S) | 19,5 |



 ●Drillid by SUS  
Processing Symbol P202

## TG Joint Kit 4045 / 60 / 80 / Wrench Hole Cap



**<TG Bolt M12>**  
Hexagon Hole  
φ18.1  
φ9.8  
35  
6  
12.3

**<TG Plate 4045>**  
22  
11  
19.7  
15.7  
19.9  
28

**<TG Plate 60>**  
28  
18  
9  
2  
52  
56  
φ12.3

**<TG Plate 80>**  
19  
40  
18  
9  
2  
74  
78  
2-φ8.5

**Wrench Hole Cap**  
12  
6  
6.5  
※For Anacac of Flat type frame (For 1F,2F,2H,3F)

**Usable Frame**  
SF-40-40, SF-40-80, SF-40-160  
SF-45-45, SF-45-90, SF-45-180  
SF-K-40-40 / K-40-80

**Kit Contents**  
<TG Joint Kit 4045>  
●TG Plate 4045×1  
●TG Bolt M12×1

**Usable Frame**  
SF-60-60-1S

**Kit Contents**  
<TG Joint Kit 60>  
●TG Plate 60×1  
●TG Bolt M12×1

**Usable Frame**  
SF-80-80(H)

**Kit Contents**  
<TG Joint Kit 80>  
●TG Plate 80×1  
●Hexagon Socket Button Bolt M8×20(Uni-chrome) ×2

| Name     | 4045     | TG Joint Kit 60 | 80       | Wrench Hole Cap |
|----------|----------|-----------------|----------|-----------------|
| Item No. | ★SFK-207 | ★SFK-208        | ★SFK-307 | ★SFA-155        |

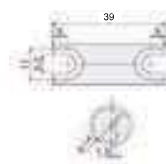
### Material/Technical Data

| TG Bolt M12                                        | TG Plate 4045/60/80 | Wrench Hole Cap                                         |
|----------------------------------------------------|---------------------|---------------------------------------------------------|
| Material SCM435<br>Uni-chrome                      | SPCC<br>Uni-chrome  | Polypropylene<br>(Color/Gray)<br>0.3g (Wrench Hole Cap) |
| Weight 34.6g (Kit4045) ·43.4g (Kit60) ·43g (Kit80) |                     |                                                         |
| Environment ★RoHS Compliant ★Green Procurement     |                     |                                                         |

## Double Joint Kit L 40 / 45 / 60 / 80

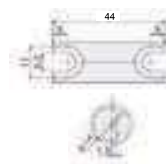


Double Joint Kit L40



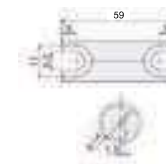
**Usable Frame**  
SF-40-40, SF-40-80  
SF-K-40-40, SF-K-40-80

Double Joint Kit L45



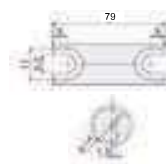
**Usable Frame**  
SF-45-45, SF-45-90  
SF-K-45-45, SF-K-45-90

Double Joint Kit L60



**Usable Frame**  
SF-60-60-1S

Double Joint Kit L80



**Usable Frame**  
SF-80-80(H)  
SF-80-80-1S  
SF-40-80

| Name     | L40      | Double Joint Kit L45 | L60      | L80      |
|----------|----------|----------------------|----------|----------|
| Item No. | SFK-317A | SFK-318A             | SFK-320A | SFK-321A |

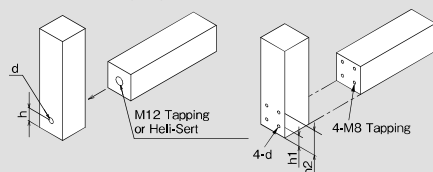
### Kit Contents

- < Double Joint Kit L 40/45/ 60/ 80 >
- Each Double Joint Kit L×1
- Hexagon Socket Bolt (M6×30) Stainless ×2
- ST Nut L(M6)×2

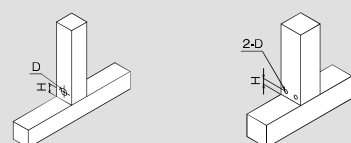
### Material/Technical Data

|             |                                                            |
|-------------|------------------------------------------------------------|
| Material    | A6005CSS-T5                                                |
| Weight      | 50g (Kit L40) 58g (Kit L60)<br>52g (Kit L45) 67g (Kit L80) |
| Environment | RoHS Compliant                                             |

### <TG Joint Drilling Jig>



### <Double Joint Drilling Jig>



### TG Joint · Double Joint

TG, Double Joint are easy to set vertically and hardly make gap, because 2 frames are pulled each other.  
Also, it looks clear because the joint part doesn't bulge outside.



●Refer from P188 how to assemble

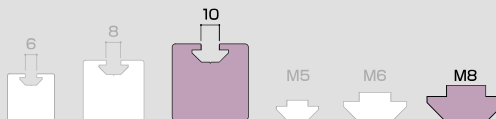
### Processing size (mm)

| Usable Frame     | H  | h    | D     | d  |
|------------------|----|------|-------|----|
| SF-40-40/K-40-40 | 20 | 20   | φ13.1 | φ8 |
| SF-45-45         |    | 22.5 | φ15.1 |    |
| SF-60-60-1S      |    | 30   | φ15.1 |    |

| Usable Frame | H  | h1 | h2 | D     | d  |
|--------------|----|----|----|-------|----|
| SF-80-80(H)  | 20 | 20 | 40 | φ13.1 | φ8 |
| SF-80-80-1S  |    | —  | —  | —     |    |



●Drill by SUS Processing Symbol P202~



## Blind Bracket L



Blind Bracket L



|          |                 |
|----------|-----------------|
| Name     | Blind Bracket L |
| Item No. | SFK-622A        |

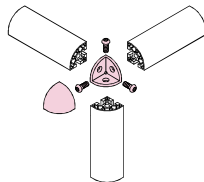
## Usable Frame

Compatible to all SF40 and 45 series(430):  
Other Frame SF30 series  
(K Frame excluded)

## Material/Technical Data

Blind Bracket L  
Material Aluminum Die-Cast  
(2 Set Screws (M8×10)  
Stainless Included)  
Weight 31g  
Environment RoHS Compliant  
Green Procurement

## R Bracket L40 Kit / L45 Kit

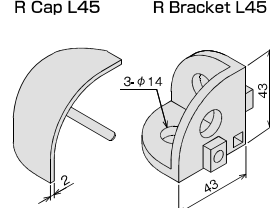
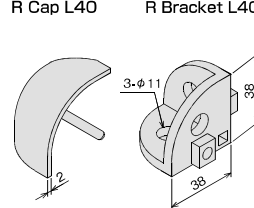


R Cap L40

R Bracket L40

R Cap L45

R Bracket L45



|          |                           |                                |
|----------|---------------------------|--------------------------------|
| Name     | R Bracket L40 Kit (Black) | R Bracket L40 Kit (Light Gray) |
| Item No. | SFK-R03                   | SFK-R03G                       |
| Name     | R Bracket L45 Kit (Black) | R Bracket L45 Kit (Light Gray) |
| Item No. | SFK-R04                   | SFK-R04G                       |

## Usable Frame

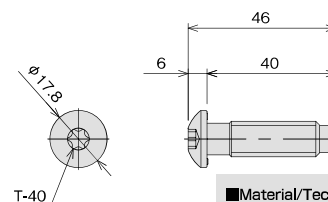
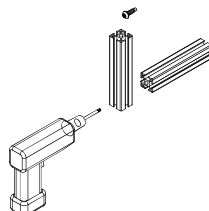
(R Bracket L40 Kit)  
SF-40-40-R  
(R Bracket L45 Kit)  
SF-45-45-R

## Material/Technical Data

R Bracket L40/L45 R Cap L40/L45  
Material Stainless(SCS13) Polyamide  
Weight 130g(L40) 10g(L40)  
167g(L45) 12g(L45)  
Environment RoHS Compliant

※L40 Kit:With 3 Hexagon Socket Button Bolts(M10×30)  
L45 Kit:With 3 Hexagon Socket Button Bolts(M12×35)

## Tapping Bolt L40



|          |                  |
|----------|------------------|
| Name     | Tapping Bolt L40 |
| Item No. | SFB-T40          |

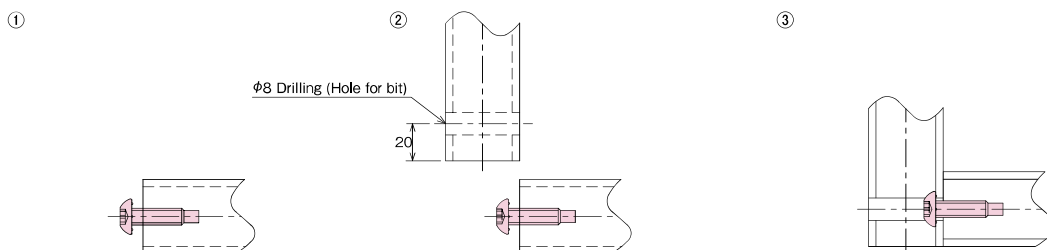
## Usable Frame

SF-40-40(1F/2F/3F/2H)  
SF-40-80(1F)

## Material/Technical Data

Material SAE1022Si  
Uni-Chrome Plating  
Weight 31g  
Environment RoHS Compliant  
Green Procurement

## How to fix Tapping Bolt



Fix the frame with jig etc, and screw the Tapping Bolt halfway into the end face. (Temporary joint)

※ In case it is too tight, please use cutting oil.

Put the bolt head through T slot of another frame.

Tighten by Manual tool to fix.

※Manual tool is recommended, because the reaction of torque up is big by using electric drill.



●Drillid by SUS  
Processing Symbol P206~



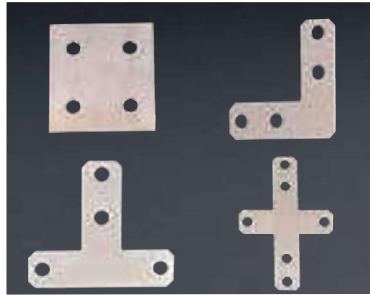
Parts  
How to order  
Item No.  
SFK-602S

Quantity (pcs)

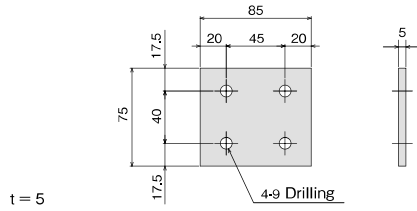




## Plate Bracket L



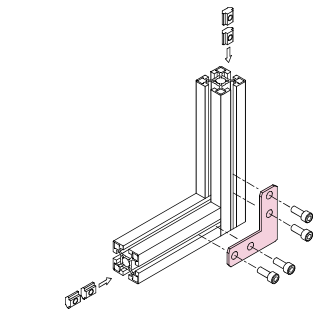
S Plate Bracket LG



### Kit Contents

- ◁Plate Bracket LG Kit
- Plate Bracket LGx1
- Hexagon Socket Bolt (M8×15)Stainless×4
- ST Nut L (M8)×4

| Name     | S Plate Bracket LG | S Plate Bracket LG Kit |
|----------|--------------------|------------------------|
| Item No. | ★SFJ-123S          | ★SFK-123S              |



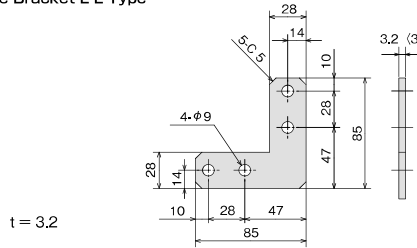
### Usable Frame

- Compatible to all SF40 and 45 series (Groove Width 10mm)
- (SF-60-60-1S, SF-40-DE#, SF-45-DE#excluded)

### Material/Technical Data

| Name                | Weight(g) | Material      | Environment        |
|---------------------|-----------|---------------|--------------------|
| Plate Bracket LG    | 242       | SUS304        |                    |
| Plate Bracket L-L   | 89        | SPCC Unchrome | ★RoHS Compliant    |
| S Plate Bracket L-L | 89        | SUS304        | ★Green Procurement |
| Plate Bracket L-T   | 103       | SPCC Unchrome |                    |
| S Plate Bracket L-T | 103       | SUS304        |                    |
| Plate Bracket L+    | 140       | SPCC Unchrome |                    |

Plate Bracket L-L Type

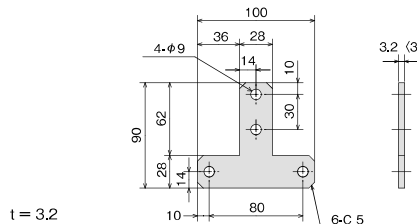


### Kit Contents

- ◁Plate Bracket L-L Type Kit
- Plate Bracket L-Lx1
- Hexagon Socket Bolt (M8×15)×4
- T Nut L (M8)×4
- ◁S Plate Bracket L-L Type Kit
- S Plate Bracket L-Lx1
- Hexagon Socket Bolt (M8×15)Stainless×4
- ST Nut L (M8)×4

| Name     | Plate Bracket L-L Type<br>◁S Plate Bracket L-L Type | Plate Bracket L-L Type Kit<br>◁S Plate Bracket L-L Type Kit |
|----------|-----------------------------------------------------|-------------------------------------------------------------|
| Item No. | ★SFJ-106 ★SFJ-106S                                  | ★SFK-106 ★SFK-106S                                          |

Plate Bracket L-T Type

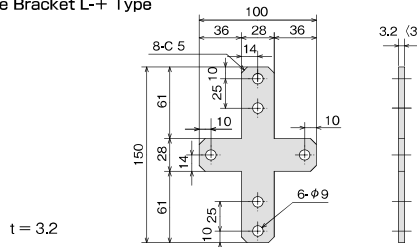


### Kit Contents

- ◁Plate Bracket L-T Type Kit
- Plate Bracket L-Tx1
- Hexagon Socket Bolt (M8×15)×4
- T Nut L (M8)×4
- ◁S Plate Bracket L-T Type Kit
- S Plate Bracket L-Tx1
- Hexagon Socket Bolt (M8×15)Stainless×4
- ST Nut L (M8)×4

| Name     | Plate Bracket L-T Type<br>◁S Plate Bracket L-T Type | Plate Bracket L-T Type Kit<br>◁S Plate Bracket L-T Type Kit |
|----------|-----------------------------------------------------|-------------------------------------------------------------|
| Item No. | ★SFJ-107 ★SFJ-107S                                  | ★SFK-107 ★SFK-107S                                          |

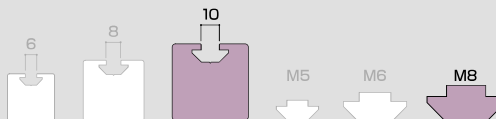
Plate Bracket L+ Type



### Kit Contents

- ◁Plate Bracket L+ Type Kit
- Plate Bracket L+×1
- Hexagon Socket Bolt (M8×15)×6
- T Nut L (M8)×6

| Name     | Plate Bracket L+ Type | Plate Bracket L+ Type Kit |
|----------|-----------------------|---------------------------|
| Item No. | ★SFJ-108              | ★SFK-108                  |

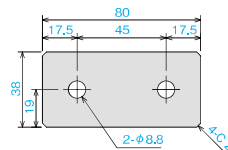
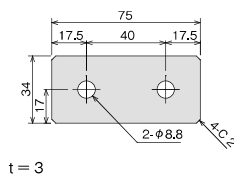


## S Plate Bracket



S Plate Bracket L40-H2

S Plate Bracket L45-H2

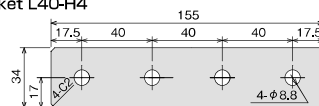


## ■Kit Contents

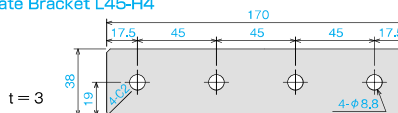
- ◀Plate Bracket L40 (L45) +H2 Kit▶
- Plate Bracket L40-H2 (or L45-H2) ×1
- Hexagon Socket Bolt (M8×15) Stainless×2
- ST Nut L (M8) ×2

| Name     | S Plate Bracket L40-H2<br>(S Plate Bracket L45-H2) | S Plate Bracket L40-H2 Kit<br>(S Plate Bracket L45-H2 Kit) |
|----------|----------------------------------------------------|------------------------------------------------------------|
| Item No. | SFJ-126S (SFJ-127S)                                | SFK-126S (SFK-127S)                                        |

S Plate Bracket L40-H4



S Plate Bracket L45-H4



## ■Kit Contents

- ◀Plate Bracket L40 (L45) +H4 Kit▶
- Plate Bracket L40-H4 (or L45-H4) ×1
- Hexagon Socket Bolt (M8×15) Stainless×4
- ST Nut L (M8) ×4

| Name     | S Plate Bracket L40-H4<br>(S Plate Bracket L45-H4) | S Plate Bracket L40-H4 Kit<br>(S Plate Bracket L45-H4 Kit) |
|----------|----------------------------------------------------|------------------------------------------------------------|
| Item No. | SFJ-131S (SFJ-132S)                                | SFK-131S (SFK-132S)                                        |

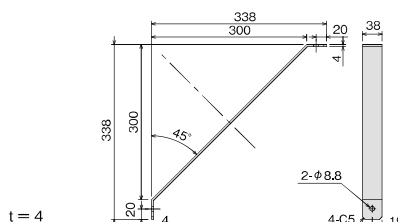
## ■Usable Frame

- Compatible to all SF40 and 45 series (Groove Width 10mm)
- (SF-60-60-1S, SF-40-DE\*, SF-45-DE\* excluded)

## ■Material/Technical Data

| Name                       | Weight(g) | Material | Environment                               |
|----------------------------|-----------|----------|-------------------------------------------|
| S Plate Bracket L40-H2     | 57.6      | SUS304   | RoHS<br>Compliant<br>Green<br>Procurement |
| S Plate Bracket L45-H2     | 69.2      |          |                                           |
| S Plate Bracket L40-H4     | 119.4     |          |                                           |
| S Plate Bracket L45-H4     | 147.7     |          |                                           |
| S Corner Support Bracket L | 570.6     |          |                                           |
| S Corner Support Plate L   | 374.4     |          |                                           |

S Corner Support Bracket L

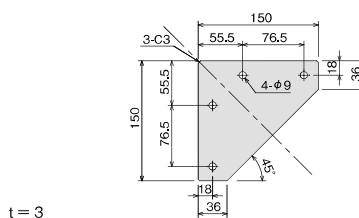


## ■Kit Contents

- ◀Corner Support Bracket L Kit▶
- Corner Support Bracket L ×1
- Hexagon Socket Bolt (M8×15) Stainless×2
- ST Nut L (M8) ×2

| Name     | S Corner Support Bracket L | S Corner Support Bracket L Kit |
|----------|----------------------------|--------------------------------|
| Item No. | SFJ-133S                   | SFK-133S                       |

S Corner Support Plate L



## ■Kit Contents

- ◀Corner Support Plate L Kit▶
- Corner Support Plate L ×1
- Hexagon Socket Bolt (M8×15) Stainless×4
- ST Nut L (M8) ×4

| Name     | S Corner Support Plate L | S Corner Support Plate L Kit |
|----------|--------------------------|------------------------------|
| Item No. | SFJ-138S                 | SFK-138S                     |



Parts  
How to order  
Item No.  
SFJ-126S

Quantity (pcs)

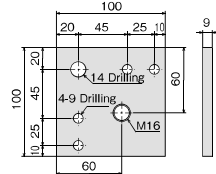


## Adjuster Kit



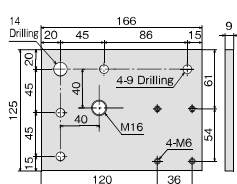
## ■ Plate

Adjuster Plate L  
Adjuster Plate L (Stainless)



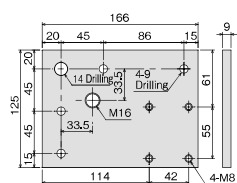
|                              | Material | Treatment  | Weight |
|------------------------------|----------|------------|--------|
| Adjuster Plate L             | SS400    | Uni-Chrome | 0.65kg |
| Adjuster Plate L (Stainless) | SUS304   | —          | 0.66kg |

## Adjuster Caster Plate L



|                         |          |            |        |
|-------------------------|----------|------------|--------|
|                         | Material | Treatment  | Weight |
| Adjuster Caster Plate L | SS-400   | Uni-Chrome | 1.03kg |

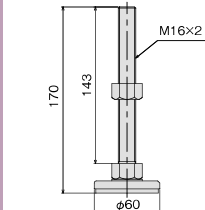
## Adjuster Caster Plate L (Stainless)



|                                     | Material | Treatment | Weight |
|-------------------------------------|----------|-----------|--------|
| Adjuster Caster Plate L (Stainless) | SUS304   | —         | 1.04kg |

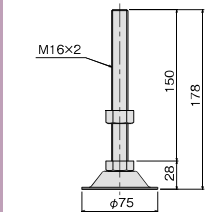
■ Adjuster

## Adjuster M16



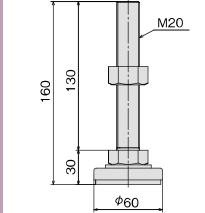
|              | Material | Treatment | Load Capacity | Weight | Bottom         |
|--------------|----------|-----------|---------------|--------|----------------|
| Adjuster M16 | SS400    | Zn Black  | 500kg         | 396g   | Neprene Rubber |

## Adjuster BM16(Stainless)



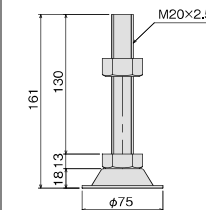
|                           | Material | Treatment              | Load Capacity | Weight |
|---------------------------|----------|------------------------|---------------|--------|
| Adjuster BM16 (Stainless) | SUS304   | Electrolytic Polishing | 560kg         | 375g   |

## Adjuster M20



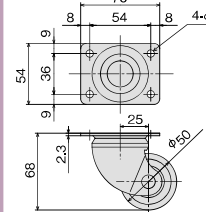
|              | Material | Treatment | Load Capacity | Weight |
|--------------|----------|-----------|---------------|--------|
| Adjuster M20 | SS400    | Zn Black  | 500kg         | 536g   |

## Adjuster BM20(Stainless)



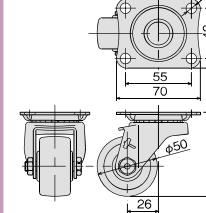
|                           | Material | Treatment              | Load Capacity | Weight |
|---------------------------|----------|------------------------|---------------|--------|
| Adjuster BM20 (Stainless) | SUS304   | Electrolytic Polishing | 880kg         | 540g   |

## Caster B



|          | Material     | Load Capacity | Weight |
|----------|--------------|---------------|--------|
| Caster B | Phenol Resin | 150kg         | 340g   |

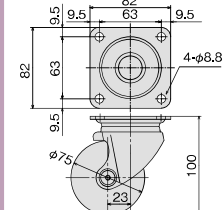
## Caster B(Stainless)



|                      | Material     | Load Capacity | Weight |
|----------------------|--------------|---------------|--------|
| Caster B (Stainless) | Phenol Resin | 71.4kg        | 285g   |

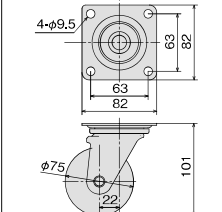
■ Caster

## Caster C



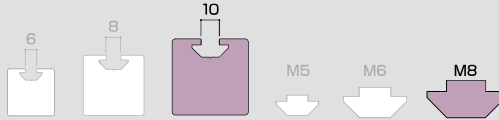
|          | Material | Load Capacity | Weight |
|----------|----------|---------------|--------|
| Caster C | Nylon    | 300kg         | 902g   |

## Caster C (Stainless)



|                      |          |               |        |
|----------------------|----------|---------------|--------|
|                      | Material | Load Capacity | Weight |
| Caster C (Stainless) | MC Nylon | 150kg         | 520g   |

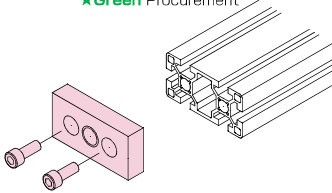
|                                  | Item No. | Name                                          | Compatible Frames                                          | Kit Contents                                                                                                                                                                                                          |
|----------------------------------|----------|-----------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Adjuster<br>+<br>Plate           | SFK-501A | Level Adjuster Kit L                          | Compatible to all SF40 and 45 series (Groove Width 10mm)   | ●Adjuster Plate Lx1 ●Adjuster M16x1<br>●T Nut L(M8)x4 ●Hexagon Socket Bolt(M8x20)x4                                                                                                                                   |
|                                  | SFK-501S | Level Adjuster Kit L (Stainless)              | Compatible to all SF40 and 45 series (Groove Width 10mm)   | ●Adjuster Plate L(Stainless)x1 ●Adjuster B16(Stainless)x1<br>●ST Nut L(M8)x4 ●Hexagon Socket Bolt(M8x20)Stainlessx4                                                                                                   |
|                                  | SFK-513A | Level Adjuster Kit 80                         | SF-80-80<br>SF-80-80-H                                     | ●Adjuster Caster Plate 80x1 ●Adjuster M20x1 ●Flat Washer(M8)x8<br>●T Nut L(M8)x8 ●Hexagon Socket Bolt(M8x25)x8                                                                                                        |
|                                  | SFK-513S | Level Adjuster Kit 80(Stainless)              | SF-80-80<br>SF-80-80-H                                     | ●Adjuster Caster Plate 80(Stainless)x1 ●Hexagon Socket Bolt(M8x25)Stainlessx8<br>●ST Nut L(M8)x8 ●Adjuster B20(Stainless)x1 ●Flat Washer(M8)Stainlessx8                                                               |
|                                  | SFK-515  | Level Adjuster Kit 90                         | SF-90-90<br>SF-90-90-H                                     | ●Adjuster Caster Plate 90x1 ●Adjuster M20x1 ●Flat Washer(M8)x8<br>●T Nut (M8)x8 ●Hexagon Socket Bolt(M8x25)x8                                                                                                         |
| Adjuster<br>Caster<br>+<br>Plate | SFK-502A | Level Adjuster Kit L with Caster              | Compatible to all SF40 and 45 series (Groove Width 10mm)   | ●Adjuster Caster Plate Lx1 ●Caster Bx1 ●Hexagon Socket Bolt(M6x10)x4<br>●Adjuster M16x1 ●T Nut L(M8)x4 ●Hexagon Socket Bolt(M8x20)x4                                                                                  |
|                                  | SFK-502S | Level Adjuster Kit L with Caster (Stainless)  | Compatible to all SF40 and 45 series (Groove Width 10mm)** | ●Adjuster Caster Plate L(Stainless)x1 ●ST Nut L(M8)x4 ●Hexagon Socket Bolt(M8x12)Stainlessx4<br>●Adjuster B16(Stainless)x1 ●Caster B(Stainless)x1 ●Hexagon Socket Bolt(M8x20)Stainlessx4                              |
|                                  | SFK-514A | Level Adjuster Kit 80 with Caster             | SF-80-80<br>SF-80-80-H                                     | ●Adjuster Caster Plate 80x1 ●Adjuster M20x1 ●Hexagon Socket Bolt(M8x25)x8<br>●Caster Cx1 ●T Nut L(M8)x8 ●Flat Washer(M8)x8 ●Hexagon Socket Bolt(M8x12)x4                                                              |
|                                  | SFK-514S | Level Adjuster Kit 80 with Caster (Stainless) | SF-80-80<br>SF-80-80-H                                     | ●Adjuster Caster Plate 80(Stainless)x1 ●Adjuster B20(Stainless)x1 ●Hexagon Socket Bolt(M8x25)Stainlessx8<br>●Caster C(Stainless)x1 ●ST Nut L(M8)x8 ●Flat Washer(M8)Stainlessx8 ●Hexagon Socket Bolt(M8x12)Stainlessx4 |
|                                  | SFK-516  | Level Adjuster Kit 90 with Caster             | SF-90-90<br>SF-90-90-H                                     | ●Adjuster Caster Plate 90x1 ●Adjuster M20x1 ●Hexagon Socket Bolt(M8x25)x8<br>●Caster Cx1 ●T Nut L(M8)x8 ●Flat Washer(M8)x8 ●Hexagon Socket Bolt(M8x12)x4                                                              |



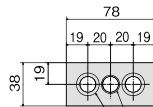
## Foot Base



Environment ★RoHS Compliant  
★Green Procurement



Foot Base 4080



2-14 Drilling,  
20 Deep Spot Facing, Depth 12.5  
t=16

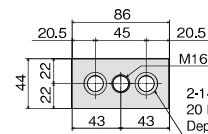
■Usable Frame ———



|                               |                                                                                     |
|-------------------------------|-------------------------------------------------------------------------------------|
| (Material)                    |                                                                                     |
| Foot Base 4080                | SS400 Uni-Chrome Plating<br>2 Hexagon Socket Bolts (M12×25) Included<br>Weight/274g |
| Foot Base 4080<br>(Stainless) | SUS304<br>2 Hexagon Socket Bolts (M12×25) Stainless Included<br>Weight/276g         |

|          |                                             |
|----------|---------------------------------------------|
| Name     | Foot Base 4080 (Foot Base 4080 (Stainless)) |
| Item No. | ★SFK-57A (★SFK-57AS)                        |

Foot Base 4590



t=16

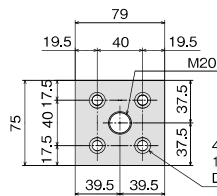
■Usable Frame ———



|                |                                                                                     |
|----------------|-------------------------------------------------------------------------------------|
| (Material)     |                                                                                     |
| Foot Base 4590 | SS400 Uni-Chrome Plating<br>2 Hexagon Socket Bolts (M12×25) Included<br>Weight/371g |

|          |                |
|----------|----------------|
| Name     | Foot Base 4590 |
| Item No. | ★SFK-60A       |

Foot Base 8080



t=16

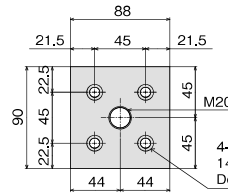
■Usable Frame ———



|                               |                                                                                    |
|-------------------------------|------------------------------------------------------------------------------------|
| (Material)                    |                                                                                    |
| Foot Base 8080                | SS400 Uni-Chrome Plating<br>4 Hexagon Socket Bolts (M8×25) Included<br>Weight/625g |
| Foot Base 8080<br>(Stainless) | SUS304<br>4 Hexagon Socket Bolts (M8×25) Stainless Included<br>Weight/631g         |

|          |                                             |
|----------|---------------------------------------------|
| Name     | Foot Base 8080 (Foot Base 8080 (Stainless)) |
| Item No. | ★SFK-59A (★SFK-59AS)                        |

Foot Base 9090



t=16

■Usable Frame ———

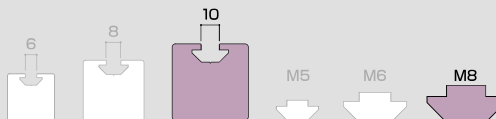


|                |                                                                                    |
|----------------|------------------------------------------------------------------------------------|
| (Material)     |                                                                                    |
| Foot Base 9090 | SS400 Uni-Chrome Plating<br>4 Hexagon Socket Bolts (M8×25) Included<br>Weight/861g |

|          |                |
|----------|----------------|
| Name     | Foot Base 9090 |
| Item No. | ★SFK-54A       |



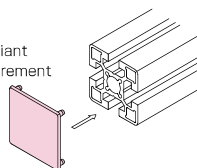




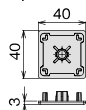
## Frame Cap



Material Polyamide  
Weight In Drawing  
Environment **RoHS** Compliant  
**Green** Procurement



Frame Cap N4040

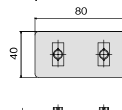


Weight/5.4g

■ Usable Frame

SF-40-40, SF-40-40-1F/2F/3F/2H/SF-K-40-40

Frame Cap 4080

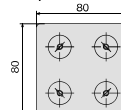


Weight/10.5g

■ Usable Frame

SF-40-80, SF-40-80-1F\*SF-40-160/SF-K-40-80

Frame Cap 8080



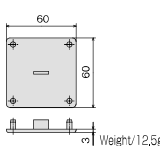
Weight/22.1g

■ Usable Frame

SF-80-80/H \*SF-80-160

| Name     | Frame Cap 4040<br>(Black) (Light Gray) |          | Frame Cap 4080<br>(Black) (Light Gray) |          | Frame Cap 8080<br>(Black) (Light Gray) |          |
|----------|----------------------------------------|----------|----------------------------------------|----------|----------------------------------------|----------|
| Item No. | SFA-034B                               | SFA-034G | SFA-007                                | SFA-007G | SFA-008                                | SFA-008G |
|          | ※Use 2 pcs for SF-40-160               |          |                                        |          | ※Use 2 pcs for SF-80-160               |          |

Frame Cap 60601S

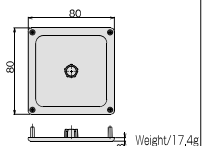


Weight/12.5g

■ Usable Frame

SF-60-60-1S

Frame Cap 80801S

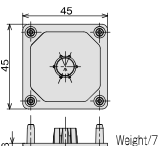


Weight/17.4g

■ Usable Frame

SF-80-80-1S

Frame Cap 4545

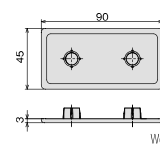


Weight/7.5g

■ Usable Frame

SF-45-45/1F/2F/3F/2H, SF-K-45-45/1F/2F

Frame Cap 4590

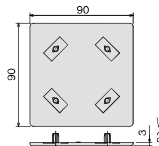


Weight/14.2g

■ Usable Frame

SF-45-90/1F, SF-K-45-90\*SF-45-180

Frame Cap 9090



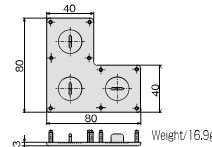
Weight/26.2g

■ Usable Frame

SF-90-90/H \*SF-90-180

| Name     | Frame Cap 60601S<br>(Black) (Light Gray) |          | Frame Cap 80801S<br>(Black) (Light Gray) |          | Frame Cap 4545<br>(Black) (Light Gray) |          | Frame Cap 4590<br>(Black) (Light Gray) |          | Frame Cap 9090<br>(Black) (Light Gray) |          |
|----------|------------------------------------------|----------|------------------------------------------|----------|----------------------------------------|----------|----------------------------------------|----------|----------------------------------------|----------|
| Item No. | SFA-003                                  | SFA-003G | SFA-030                                  | SFA-030G | SFA-035B                               | SFA-035G | SFA-004                                | SFA-004G | SFA-016                                | SFA-016G |
|          |                                          |          |                                          |          | ※Use 2 pcs for SF-90-180               |          |                                        |          | ※Use 2 pcs for SF-45-180               |          |

Frame Cap 40-80-80

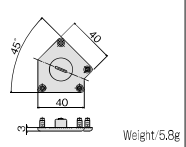


Weight/16.9g

■ Usable Frame

SF-40-80-80

Frame Cap 40-DE45

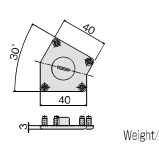


Weight/5.8g

■ Usable Frame

SF-40-DE45

Frame Cap 40-DE30

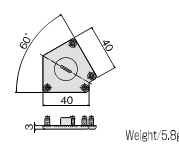


Weight/5.8g

■ Usable Frame

SF-40-DE30

Frame Cap 40-DE60

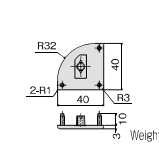


Weight/5.8g

■ Usable Frame

SF-40-DE60

Frame Cap 40-40-R



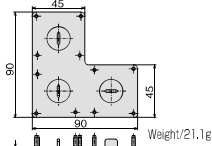
Weight/4.8g

■ Usable Frame

SF-40-40-R

| Name     | Frame Cap 40-80-80<br>(Black) (Light Gray) |          | Frame Cap 40-DE45<br>(Black) (Light Gray) |          | Frame Cap 40-DE30<br>(Black) (Light Gray) |          | Frame Cap 40-DE60<br>(Black) (Light Gray) |          | Frame Cap 40-40-R<br>(Black) (Light Gray) |          |
|----------|--------------------------------------------|----------|-------------------------------------------|----------|-------------------------------------------|----------|-------------------------------------------|----------|-------------------------------------------|----------|
| Item No. | SFA-J9C                                    | SFA-J9CG | SFA-J7B                                   | SFA-J7BG | SFA-J7A                                   | SFA-J7AG | SFA-J7C                                   | SFA-J7CG | SFA-024                                   | SFA-024G |

Frame Cap 45-90-90

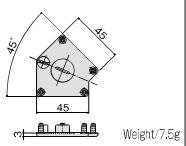


Weight/21.1g

■ Usable Frame

SF-45-90-90

Frame Cap 45-DE45

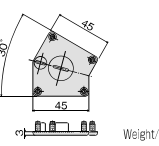


Weight/7.5g

■ Usable Frame

SF-45-DE45

Frame Cap 45-DE30

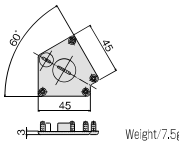


Weight/7.5g

■ Usable Frame

SF-45-DE30

Frame Cap 45-DE60

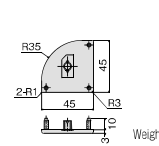


Weight/7.5g

■ Usable Frame

SF-45-DE60

Frame Cap 45-45-R



Weight/6.1g

■ Usable Frame

SF-45-45-R

| Name     | Frame Cap 45-90-90<br>(Black) (Light Gray) |          | Frame Cap 45-DE45<br>(Black) (Light Gray) |          | Frame Cap 45-DE30<br>(Black) (Light Gray) |          | Frame Cap 45-DE60<br>(Black) (Light Gray) |          | Frame Cap 45-45-R<br>(Black) (Light Gray) |          |
|----------|--------------------------------------------|----------|-------------------------------------------|----------|-------------------------------------------|----------|-------------------------------------------|----------|-------------------------------------------|----------|
| Item No. | SFA-J9D                                    | SFA-J9DG | SFA-J8B                                   | SFA-J8BG | SFA-J8A                                   | SFA-J8AG | SFA-J8C                                   | SFA-J8CG | SFA-025                                   | SFA-025G |



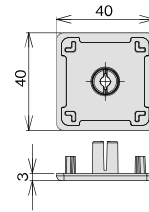
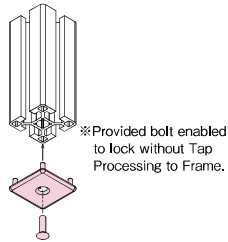
Parts  
How to order  
Item No.  
**SFA-034B**

Quantity (pcs)

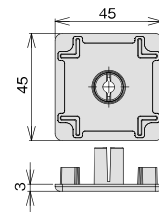




## Frame Cap Lock Type N4040 / N4545



■Usable Frame  
SF-40-40

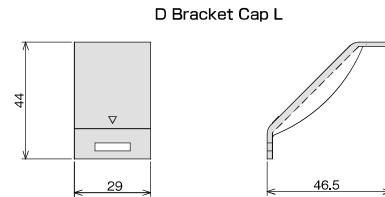
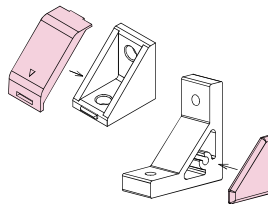


■Usable Frame  
SF-45-45

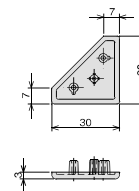
**Material** Polyamide(Cap), SWCH10R(Screw), Chromate Black or Stainless(Screw)  
**Weight** 7.3g(4040), 10.2g(4545)  
**Environment** RoHS Compliant Green Procurement

| Name     | Frame Cap Lock Type N4040(Black) ※1                             | Frame Cap Lock Type N4040(Light Gray) ※2                   | Frame Cap Lock Type N4545(Black) ※3                             | Frame Cap Lock Type N4545(Light Gray) ※4                   |
|----------|-----------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------|
| Item No. | SFK-06LB                                                        | SFK-06LG                                                   | SFK-07LB                                                        | SFK-07LG                                                   |
|          | ※1 With Small Flat Screw with Cross Hole (M5×16) Chromate Black | ※2 With Small Flat Screw with Cross Hole (M5×16) Stainless | ※3 With Small Flat Screw with Cross Hole (M6×18) Chromate Black | ※4 With Small Flat Screw with Cross Hole (M6×18) Stainless |

## D Bracket Cap L / Hard Bracket Cap



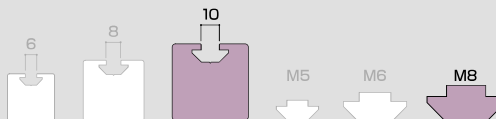
Hard Bracket Cap



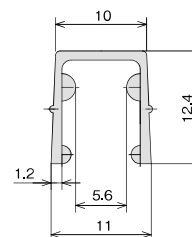
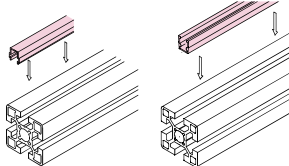
| Name     | D Bracket Cap L(Black)       | D Bracket Cap L(Light Gray) |
|----------|------------------------------|-----------------------------|
| Item No. | SFA-J14                      | SFA-J14G                    |
| Name     | Hard Bracket Cap(Light Gray) |                             |
| Item No. | SFA-J11G                     |                             |

■Usable Frame  
 <D Bracket Cap L>  
 D Bracket L  
 <Hard Bracket Cap>  
 Hard Bracket L/Black  
 L4080/Black  
 L4590/Black

■Material/Technical Data  
**Material** Polyamide  
**Weight** 6.0g(D Bracket Cap L)  
 1.8g(Hard Bracket Cap)  
**Environment** RoHS Compliant  
 Green Procurement



## Slot Cap



| Name     | (Black) | Slot Cap L (ℓ=2000)<br>(Light Gray) | (Green)  |
|----------|---------|-------------------------------------|----------|
| Item No. | SFA-102 | SFA-102G                            | SFA-102M |

| Name     | (Blue)   | Slot Cap L (ℓ=2000)<br>(Yellow) | (Red)    |
|----------|----------|---------------------------------|----------|
| Item No. | SFA-102L | SFA-102Y                        | SFA-102R |

## Usable Frame

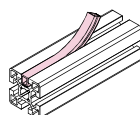


Compatible to all SF40 and 45 series  
(Groove Width 10mm)

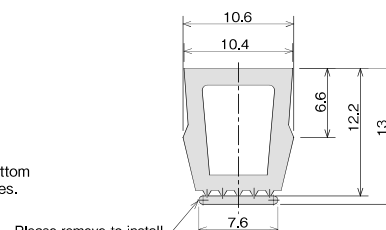
## Material/Technical Data

Material Polyethylene  
Weight 46g/m  
Environment **RoHS** Compliant  
**Green** Procurement

## Slot Seal



※Please remove the bottom  
part to install SF40 Series.



Please remove to install  
SF40 Series.

| Name     | Slot Seal L (ℓ=5000) |
|----------|----------------------|
| Item No. | SFA-172              |

## Usable Frame



Compatible to all SF40 and 45 series  
(Groove Width 10mm)

## Material/Technical Data

Material Elastomer  
Weight 68g/m  
Environment **RoHS** Compliant  
**Green** Procurement



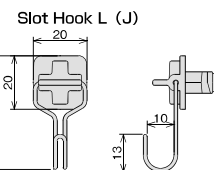
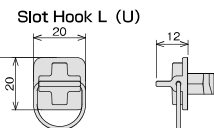
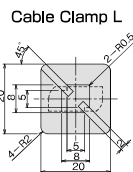
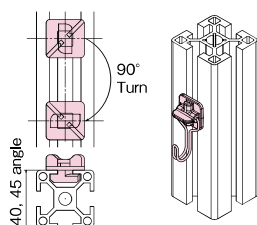
Parts  
How to order  
Item No.  
**SFA-102**

Quantity (pcs)



• Exclusive Cutter for Slot Cap and Slot Seal is available.

### Cable Clamp L / Slot Hook / Slot Hook L (U), (J)



|          |                             |              |
|----------|-----------------------------|--------------|
| Name     | Cable Clamp L (50 pcs/Pack) |              |
|          | (Black)                     | (Light Gray) |
| Item No. | C1P-B12C                    | C1P-012C     |

|          |                 |                 |
|----------|-----------------|-----------------|
| Name     | Slot Hook L (U) | Slot Hook L (J) |
| Item No. | SFK-K33U        | SFK-K33J        |

■ Usable Frame

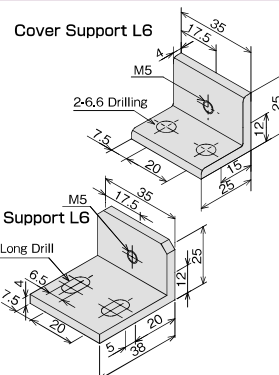
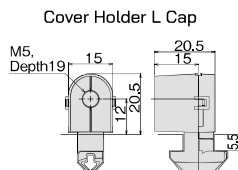
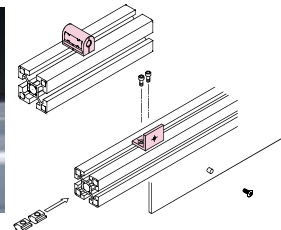


Compatible to all SF40 and 45 series  
(Groove Width 10mm)

## ■Material/Technical Data

|             |                                     |                                         |
|-------------|-------------------------------------|-----------------------------------------|
|             | Cable Clamp L                       | Slot Hook L (U), (J)                    |
| Material    | Polyamide                           | Polyamide                               |
| Weight      | 2.5g/pcs                            | 3.7g(U)<br>4.5g(J)<br>Load Capacity 2kg |
| Environment | RoHS Compliant<br>Green Procurement |                                         |

## Cover Holder L Cap /Cover Support L6



| Name(Single Item) | Cover Holder L Cap | Cover Support L6 | Cover Support L6 Flat |
|-------------------|--------------------|------------------|-----------------------|
| Item No.          | *SFA-KH7           | *SFJ-K04         | *SFJ-K14              |

| Name(Bolt and Nut Kit) | Cover Support L6 Kit<br>(Cover Support L6(Stainless)Kit) | Cover Support L6 Flat Kit<br>(Cover Support L6 Flat (Stainless) Kit) |
|------------------------|----------------------------------------------------------|----------------------------------------------------------------------|
| Item No.               | ★SFK-K04★<br>(★SFK-K04S)                                 | ★SFK-K14★<br>(★SFK-K14S)                                             |

### ■ Usable Frame



Compatible to all SF40 and 45 series  
(Groove Width 10mm)

## ■ Kit Contents

〈Cover Support L6 Kit〉

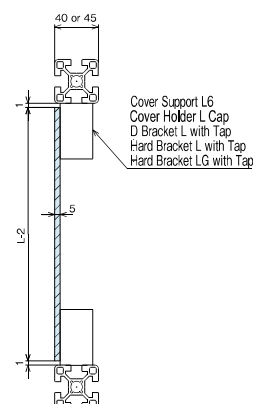
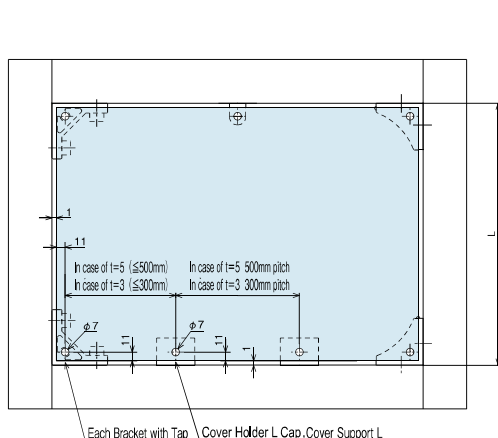
- Cover Support L6×1
  - T Nut L(M6)×2
  - Truss screw(M5×10)×1
  - Hexagon Socket Bolt (M6×15)×2
- 〈Cover Support L6 Flat Kit〉**
- Cover Support L6 Flat×1
  - T Nut L(M6)×2
  - Truss screw(M5×10)×1
  - Hexagon Socket Bolt (M6×15)×2
- ※Bolt and Nut in (Stainless) Kit are stainless.

## ■Material/Technical Data

|                             |                                           |
|-----------------------------|-------------------------------------------|
| Cover Holder L Cap          | Cover Support L6                          |
| Material Polyamide          | Cover Support L6 Flat                     |
| Color/Light Gray            | A6063S-T5                                 |
| Weight 8g                   | Alumite Treatment                         |
| ※With M5 Nut                | (Special one-click Alumite is available.) |
| Environment ★RoHS Compliant | 17g (Cover Support L6)                    |
| ★Green Procurement          | 21 g (Cover Support L6 Flat)              |

## How to fix Cover

〈Indication of Cover Holder, Cover Support, Resin Plate Dimension〉



If the cover thickness is 5mm  
Frame and Cover surfaces become flat.

〈Resin Plate〉

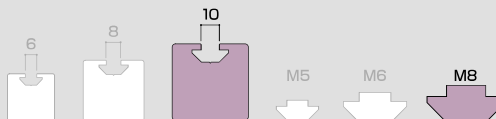


 ● Various Resin plates are available.  
Refer P168~.

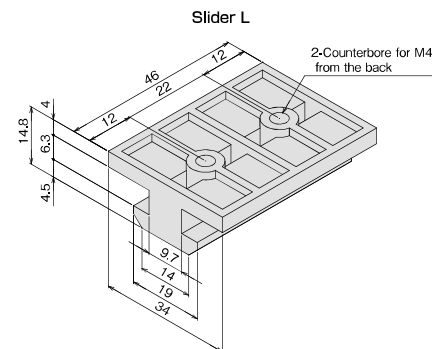
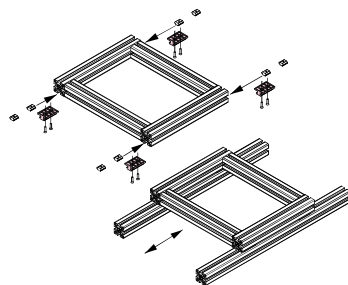
〈Door accessories〉



 ● Various parts for door are available.  
Refer P140~.



## Slider L



|          |          |
|----------|----------|
| Name     | Slider L |
| Item No. | SFA-511  |

## Usable Frame



Compatible to all SF40 and 45 series  
(Groove Width 10mm)

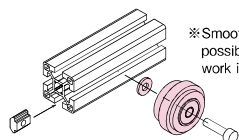
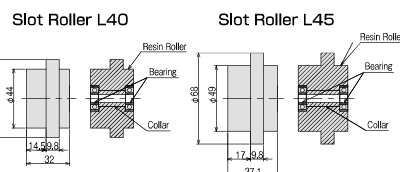
## Material/Technical Data

Material Polyacetal(Gray)  
Weight 15g  
Environment **RoHS** Compliant  
**Green** Procurement

## Installation list of recommendation Bolt·Nut

| Name     | Installation Frame | Recommended Bolt                 | Recommended Nut | Appropriate Tightening Torque(N·m) |
|----------|--------------------|----------------------------------|-----------------|------------------------------------|
| Slider L | SF40-45 series     | Flat Bolt with Cross Hole(M4×25) | T Nut L(M4)     | 1.0                                |

## Slot Roller L40 / L45



※Smooth operation is possible because cutting work is done with Roller.

## Usable Frame



Compatible to all SF40 series  
(Groove Width 10mm)  
Compatible to all SF45 series  
(Groove Width 10mm)

## Material/Technical Data

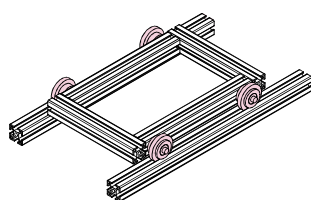
Material 6 Nylon(Resin Roller)  
Steel(Bearing)  
SC45C(Collar)  
Weight 86.5g(L40)·120g(L45)  
Environment **RoHS** Compliant  
**Green** Procurement

※Installation bolt size M6  
※With 2 Bearings·Collar·Washer  
※Appropriate Tightening Torque 9.0N·m

|          |                 |                 |
|----------|-----------------|-----------------|
| Name     | Slot Roller L40 | Slot Roller L45 |
| Item No. | SFK-807         | SFK-808         |

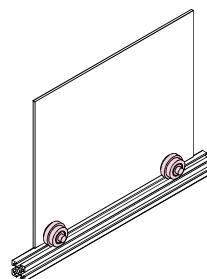
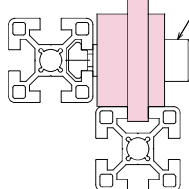
## Example of using Slot Roller L

〈To frame's movable part〉

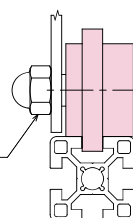


〈As door roller〉

Hexagon Socket Bolt M6×45(L40)  
Hexagon Socket Bolt M6×50(L45)



Cap Nut (M6)



Parts  
How to order  
Item No.  
**SFA-511**

Quantity (pcs)



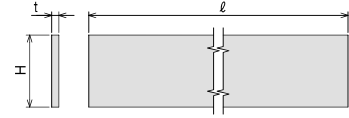


STANDARD FRAME

## Complex Parts

# Complex Parts

## Flat Bar



### Material/Technical Data

**Material** A6063 Alumite Treatment  
**Section Performance and Unit Mass** Refer Table Below  
**Environment** RoHS Compliant

| Name                               | Item No. | H   | t  | Geometrical Moment of Inertia( $\times 10^4 \text{mm}^4$ ) |        | Section Modulus( $\times 10^3 \text{mm}^3$ ) |       | Unit Mass (kg/m) |
|------------------------------------|----------|-----|----|------------------------------------------------------------|--------|----------------------------------------------|-------|------------------|
|                                    |          |     |    | Ix                                                         | Iy     | Zx                                           | Zy    |                  |
| Flat Bar15 T=2 $\ell=50\sim 4000$  | SFF-A154 | 15  | 2  | 0.0562                                                     | 0.001  | 0.075                                        | 0.01  | 0.08             |
| Flat Bar15 T=3 $\ell=50\sim 4000$  | SFF-A164 | 15  | 3  | 0.0843                                                     | 0.0033 | 0.112                                        | 0.022 | 0.12             |
| Flat Bar20 T=2 $\ell=50\sim 4000$  | SFF-A174 | 20  | 2  | 0.1333                                                     | 0.0013 | 0.133                                        | 0.013 | 0.11             |
| Flat Bar20 T=3 $\ell=50\sim 4000$  | SFF-A184 | 20  | 3  | 0.2                                                        | 0.0045 | 0.2                                          | 0.03  | 0.16             |
| Flat Bar20 T=5 $\ell=50\sim 4000$  | SFF-A194 | 20  | 5  | 0.3333                                                     | 0.0208 | 0.333                                        | 0.083 | 0.27             |
| Flat Bar30 T=2 $\ell=50\sim 4000$  | SFF-A204 | 30  | 2  | 0.45                                                       | 0.002  | 0.3                                          | 0.02  | 0.16             |
| Flat Bar30 T=3 $\ell=50\sim 4000$  | SFF-A214 | 30  | 3  | 0.675                                                      | 0.0067 | 0.45                                         | 0.045 | 0.24             |
| Flat Bar30 T=5 $\ell=50\sim 4000$  | SFF-A224 | 30  | 5  | 1.125                                                      | 0.0312 | 0.75                                         | 0.125 | 0.41             |
| Flat Bar30 T=10 $\ell=50\sim 4000$ | SFF-A14  | 30  | 10 | 2.248                                                      | 0.250  | 1.499                                        | 0.500 | 0.81             |
| Flat Bar40 T=3 $\ell=50\sim 4000$  | SFF-A234 | 40  | 3  | 1.6                                                        | 0.009  | 0.8                                          | 0.06  | 0.32             |
| Flat Bar40 T=5 $\ell=50\sim 4000$  | SFF-A244 | 40  | 5  | 2.666                                                      | 0.0416 | 1.333                                        | 0.166 | 0.54             |
| Flat Bar40 T=10 $\ell=50\sim 4000$ | SFF-AC4  | 40  | 10 | 5.330                                                      | 0.333  | 2.665                                        | 0.666 | 1.08             |
| Flat Bar50 T=3 $\ell=50\sim 4000$  | SFF-A384 | 50  | 3  | 3.125                                                      | 0.011  | 1.25                                         | 0.075 | 0.4              |
| Flat Bar50 T=5 $\ell=50\sim 4000$  | SFF-A394 | 50  | 5  | 5.208                                                      | 0.052  | 0.208                                        | 0.208 | 0.68             |
| Flat Bar70 T=5 $\ell=50\sim 4000$  | SFF-A404 | 70  | 5  | 14.282                                                     | 0.073  | 4.081                                        | 0.291 | 0.94             |
| Flat Bar75 T=5 $\ell=50\sim 4000$  | SFF-AY4  | 75  | 5  | 17.567                                                     | 0.078  | 4.685                                        | 0.312 | 1.01             |
| Flat Bar100 T=5 $\ell=50\sim 4000$ | SFF-A414 | 100 | 5  | 41.647                                                     | 0.104  | 8.329                                        | 0.416 | 1.35             |



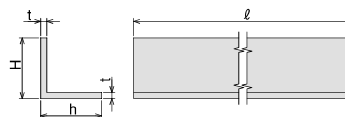
SF Frame

In case of specifying the length (Cut by SUS)

Item No. Length (mm)  
**SFF-A154**  $\ell=800$



## Angle



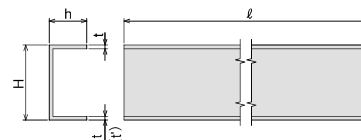
## ■Material/Technical Data

Material A6063 Alumite Treatment  
Section Performance and Unit Mass Refer Table Below  
Environment RoHS Compliant

| Name                               | Item No. | H   | h   | t   | Geometrical Moment of Inertia( $\times 10^4 \text{mm}^4$ ) |         | Section Modulus( $\times 10^3 \text{mm}^3$ ) |        | Unit Mass<br>(kg/m) |
|------------------------------------|----------|-----|-----|-----|------------------------------------------------------------|---------|----------------------------------------------|--------|---------------------|
|                                    |          |     |     |     | Ix                                                         | Iy      | Zx                                           | Zy     |                     |
| Angle1515 T=1.5 $\ell=50\sim 4000$ | SFF-A424 | 15  | 15  | 1.5 | 0.091                                                      | 0.091   | 0.085                                        | 0.085  | 0.12                |
| Angle2020 T=1.5 $\ell=50\sim 4000$ | SFF-A444 | 20  | 20  | 1.5 | 0.223                                                      | 0.223   | 0.154                                        | 0.154  | 0.16                |
| Angle2020 T=2 $\ell=50\sim 4000$   | SFF-A014 | 20  | 20  | 2   | 0.288                                                      | 0.288   | 0.201                                        | 0.201  | 0.21                |
| Angle2020 T=3 $\ell=50\sim 4000$   | SFF-A024 | 20  | 20  | 3   | 0.403                                                      | 0.403   | 0.289                                        | 0.289  | 0.30                |
| Angle2020 T=5 $\ell=50\sim 4000$   | SFF-AU4  | 20  | 20  | 5   | 0.589                                                      | 0.589   | 0.446                                        | 0.446  | 0.47                |
| Angle3030 T=2 $\ell=50\sim 4000$   | SFF-A054 | 30  | 30  | 2   | 1.019                                                      | 1.019   | 0.468                                        | 0.468  | 0.31                |
| Angle3030 T=3 $\ell=50\sim 4000$   | SFF-A064 | 30  | 30  | 3   | 1.458                                                      | 1.458   | 0.681                                        | 0.681  | 0.46                |
| Angle3030 T=5 $\ell=50\sim 4000$   | SFF-A074 | 30  | 30  | 5   | 2.216                                                      | 2.216   | 1.071                                        | 1.071  | 0.74                |
| Angle4040 T=2 $\ell=50\sim 4000$   | SFF-A084 | 40  | 40  | 2   | 2.476                                                      | 2.476   | 0.846                                        | 0.846  | 0.42                |
| Angle4040 T=3 $\ell=50\sim 4000$   | SFF-A094 | 40  | 40  | 3   | 3.581                                                      | 3.581   | 1.239                                        | 1.239  | 0.62                |
| Angle4040 T=5 $\ell=50\sim 4000$   | SFF-A104 | 40  | 40  | 5   | 5.561                                                      | 5.561   | 1.974                                        | 1.974  | 1.01                |
| Angle5050 T=3 $\ell=50\sim 4000$   | SFF-A344 | 50  | 50  | 3   | 7.149                                                      | 7.149   | 1.964                                        | 1.964  | 0.79                |
| Angle5050 T=4 $\ell=50\sim 4000$   | SFF-A454 | 50  | 50  | 4   | 9.255                                                      | 9.255   | 2.569                                        | 2.569  | 1.04                |
| Angle5050 T=5 $\ell=50\sim 4000$   | SFF-A464 | 50  | 50  | 5   | 11.244                                                     | 11.244  | 3.153                                        | 3.153  | 1.28                |
| Angle6060 T=5 $\ell=50\sim 4000$   | SFF-A574 | 60  | 60  | 5   | 19.9                                                       | 19.9    | 4.61                                         | 4.61   | 1.55                |
| Angle7575 T=5 $\ell=50\sim 4000$   | SFF-AM4  | 75  | 75  | 5   | 39.814                                                     | 39.814  | 7.319                                        | 7.319  | 1.96                |
| Angle7575 T=6 $\ell=50\sim 4000$   | SFF-A514 | 75  | 75  | 6   | 46.882                                                     | 46.882  | 8.677                                        | 8.677  | 2.33                |
| Angle100100 T=6 $\ell=50\sim 4000$ | SFF-A524 | 100 | 100 | 6   | 114.390                                                    | 114.390 | 15.718                                       | 15.718 | 3.14                |
| Angle150150 T=6 $\ell=50\sim 4000$ | SFF-A534 | 150 | 150 | 6   | 397.52                                                     | 397.52  | 36.051                                       | 36.051 | 4.76                |
| Angle1520 T=2 $\ell=50\sim 4000$   | SFF-A434 | 15  | 20  | 2   | 0.126                                                      | 0.261   | 0.114                                        | 0.193  | 0.18                |
| Angle2040 T=2 $\ell=50\sim 4000$   | SFF-A034 | 20  | 40  | 2   | 0.348                                                      | 1.964   | 0.219                                        | 0.758  | 0.31                |
| Angle2040 T=3 $\ell=50\sim 4000$   | SFF-A044 | 20  | 40  | 3   | 0.489                                                      | 2.828   | 0.315                                        | 1.108  | 0.46                |
| Angle2550 T=3 $\ell=50\sim 4000$   | SFF-A334 | 25  | 50  | 3   | 0.993                                                      | 5.661   | 0.504                                        | 1.759  | 0.58                |

# Complex Parts

## Channel



### Material/Technical Data

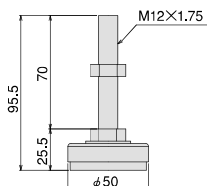
**Material** A6063 Alumite Treatment  
**Section Performance and Unit Mass** Refer Table Below  
**Environment** RoHS Compliant

| Name                               | Item No. | H  | h  | t | Geometrical Moment of Inertia( $\times 10^4 \text{mm}^4$ ) |       | Section Modulus( $\times 10^3 \text{mm}^3$ ) |       | Unit Mass (kg/m) |
|------------------------------------|----------|----|----|---|------------------------------------------------------------|-------|----------------------------------------------|-------|------------------|
|                                    |          |    |    |   | Ix                                                         | Iy    | Zx                                           | Zy    |                  |
| Channel1515 T=2 $\ell=50\sim 4000$ | SFF-A114 | 15 | 15 | 2 | 0.277                                                      | 0.181 | 0.37                                         | 0.196 | 0.22             |
| Channel1530 T=2 $\ell=50\sim 4000$ | SFF-A124 | 30 | 15 | 2 | 1.47                                                       | 0.231 | 0.98                                         | 0.22  | 0.3              |
| Channel2020 T=2 $\ell=50\sim 4000$ | SFF-A134 | 20 | 20 | 2 | 0.718                                                      | 0.452 | 0.718                                        | 0.36  | 0.3              |

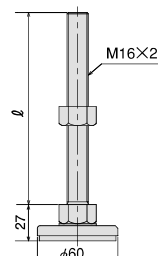
## Adjuster A



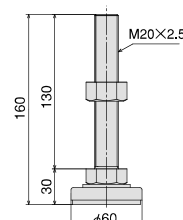
Adjuster A M12



Adjuster A M16



Adjuster A M20



### SUS Original Adjuster A

| Name              | Adjuster A |          |         |          |
|-------------------|------------|----------|---------|----------|
|                   | M12-70     | M16-140T | M16-70T | M20-130T |
| $\ell$ (mm)       | 70         | 170      | 70      | 130      |
| Weight (g)        | 172        | 384      | 283     | 520      |
| Load Capacity (N) | 3500       | 5000     | 5000    | 5000     |
| Item No.          | SFA-607    | SFK-935  | SFK-936 | SFK-938  |

### Material/Technical Data

**Material** SS400 (Zn Black)  
**Bottom** Neo Prene Rubber

SF  
Frame

In case of specifying the length (Cut by SUS) ※Order by 0.1mm unit

Item No. Length (mm)  
**SFF-A114  $\ell=800$**

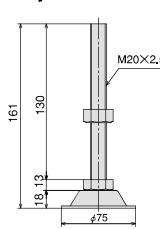
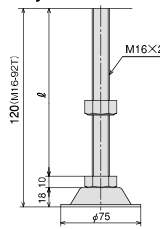
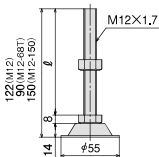
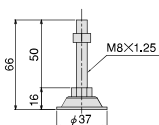
Parts

How to order

Item No.  
**SFA-607**

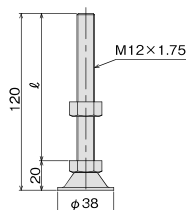
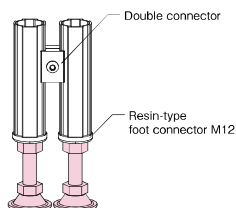
Quantity (pcs)



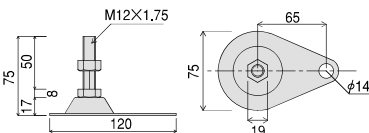


| Name              | Adjuster B |          |                      |         |          |                      |                      |
|-------------------|------------|----------|----------------------|---------|----------|----------------------|----------------------|
|                   | M12-68T    | M12-100T | M12-100T (Stainless) | M16-92T | M16-150T | M16-150T (Stainless) | M20-130T (Stainless) |
| ℓ (mm)            | 68         | 100      | 100                  | 92      | 150      | 150                  | 130                  |
| Weight (g)        | 129        | 153      | 155                  | 276     | 346      | 349                  | 499                  |
| Load Capacity (N) | 3500       | 5000     | 3000                 | 5600    | 5600     | 5600                 | 8800                 |
| Item No.          | SFK-C84    | SFK-933  | SFK-933S             | SFK-C89 | SFK-934  | SFK-934S             | SFK-937S             |

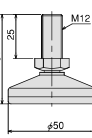
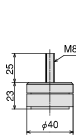
| Name              | Adjuster B |                  |         |                     |
|-------------------|------------|------------------|---------|---------------------|
|                   | M8-50      | M8-50(Stainless) | M12-150 | M12-150 (Stainless) |
| ℓ (mm)            | 50         | 50               | 150     | 150                 |
| Weight (g)        | 55         | 55               | 205     | 204                 |
| Load Capacity (N) | 2000       | 2000             | 6000    | 6000                |
| Item No.          | SFA-613    | SFA-613S         | SFA-614 | SFA-614S            |



| SUS Original Small Diameter Adjuster |                         |          |                      |
|--------------------------------------|-------------------------|----------|----------------------|
| Name                                 | Small Diameter Adjuster |          |                      |
|                                      | M12-60T                 | M12-100T | M12-100T (Stainless) |
| ℓ (mm)                               | 60                      | 100      | 100                  |
| Weight (g)                           | 101                     | 132      | 134                  |
| Load Capacity (N)                    | 2000                    | 2000     | 1200                 |
| Item No.                             | GFN-002                 | GFN-000  | GFN-003S             |



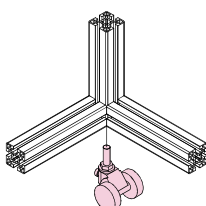
| Name              | Adjuster B |                     |
|-------------------|------------|---------------------|
|                   | M12-50A    | M12-50A (Stainless) |
| ℓ (mm)            | 50         | 50                  |
| Weight (g)        | 195        | 197                 |
| Load Capacity (N) | 5000       | 5000                |
| Item No.          | SFA-605    | SFA-605S            |



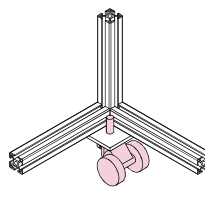
| Name     | Foot M8   | Foot M12 |
|----------|-----------|----------|
| Item No. | SFA-602-T | SFA-603  |

# Complex Parts

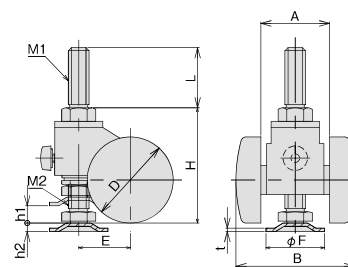
## Caspad



● Install to Fram's end face



● Install to Adjuster Plate



| Name     | Caspad $\phi 50$ -M12 | Caspad $\phi 75$ -M16 |
|----------|-----------------------|-----------------------|
| Item No. | SFA-703               | SFA-704               |

■ Dimension Table

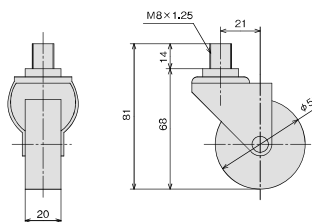
|                       | D  | H  | h1 | h2 | E  | F  | A  | B  | L  | t | M1  | M2  | Load Capacity (N) |
|-----------------------|----|----|----|----|----|----|----|----|----|---|-----|-----|-------------------|
| Caspad $\phi 50$ -M12 | 50 | 67 | 10 | 5  | 30 | 34 | 40 | 69 | 35 | 2 | M12 | M12 | 588               |
| Caspad $\phi 75$ -M16 | 75 | 95 | 24 | 5  | 35 | 42 | 50 | 84 | 35 | 2 | M16 | M12 | 1176              |

### Material/Technical Data

|                    |                                                                          |
|--------------------|--------------------------------------------------------------------------|
| <b>Material</b>    | Nylon (Black) (Caster)<br>Equivalent to SS400 Uni-Chrome (Adjuster-Bolt) |
| <b>Weight</b>      | 253g ( $\phi 50$ ) 392g ( $\phi 75$ )                                    |
| <b>Environment</b> | RoHS Compliant Green Procurement                                         |

## Caster as Single Item

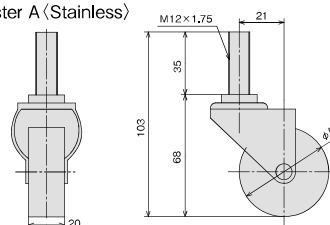
Caster M8



Material/Rubber Load Capacity/30kg With Brake Available  
Weight/154g (165g with Brake)

| Name     | Caster M8 | Caster M8 with Brake |
|----------|-----------|----------------------|
| Item No. | GFN-665   | GFN-666              |

Caster A  
Caster A (Stainless)

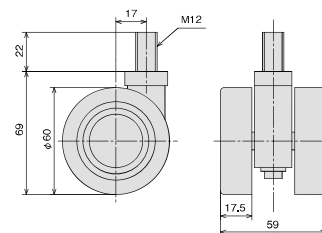


|                      | Material | Load Capacity | Weight      |
|----------------------|----------|---------------|-------------|
| Caster A             | Rubber   | 30kg          | 189g (223g) |
| Caster A (Stainless) | Nylon    | 40,8kg        | 147g (175g) |

( ) : with Brake

| Name     | Caster A | Caster A with Brake | Caster A (Stainless) | Caster A with Brake (Stainless) |
|----------|----------|---------------------|----------------------|---------------------------------|
| Item No. | SFK-582  | SFK-583             | SFK-582S             | SFK-583S                        |

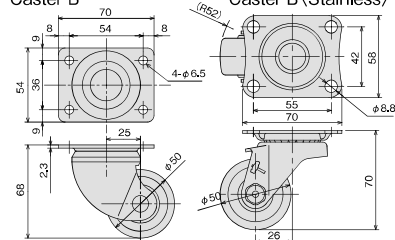
Double-Wheel Casters M12



Material/Nylon Load Capacity/150kg With Brake Available  
Weight/210g (219g with Brake)

| Name     | Double-Wheel Casters M12 | Double-Wheel Casters M12 with Brake |
|----------|--------------------------|-------------------------------------|
| Item No. | TY60-12                  | TY60-12S                            |

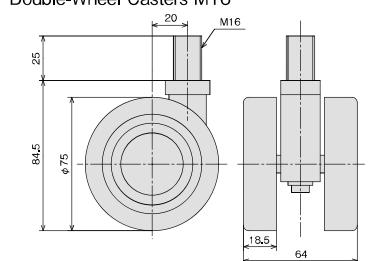
Caster B



|                      | Material     | Load Capacity | Weight |
|----------------------|--------------|---------------|--------|
| Caster B             | Phenol Resin | 150kg         | 340g   |
| Caster B (Stainless) | Phenol Resin | 71.4kg        | 285g   |

Caster B (Stainless)

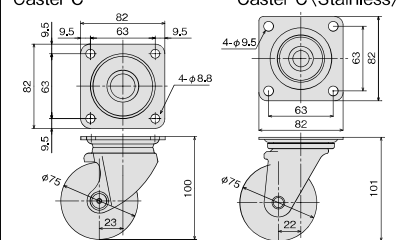
Double-Wheel Casters M16



Material/Nylon Load Capacity/170kg Only with Brake Weight/291g

| Name     | Double-Wheel Casters M16 with Brake |
|----------|-------------------------------------|
| Item No. | TY75-16S                            |

Caster C



|                      | Material | Load Capacity | Weight |
|----------------------|----------|---------------|--------|
| Caster C             | Nylon    | 300kg         | 902g   |
| Caster C (Stainless) | MC Nylon | 150kg         | 520g   |

| Name     | Caster C | Caster C (Stainless) |
|----------|----------|----------------------|
| Item No. | SFK-594  | SFK-594S             |



Parts

How to order

Item No.

SFA-703

Quantity (pcs)

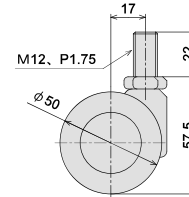
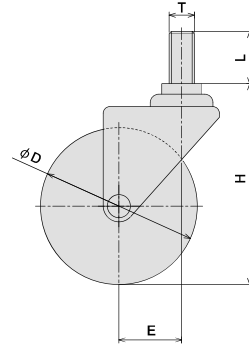
□□

## Caster Screw Fitting Type

Environment: RoHS Compliant



- This Caster is for installation of Foot Connector or Adjuster Caster Connector etc.



φ50M12 Only Caster has double whe  
Wheel: Nylon

### ■ Shaft Screw Caster Size, Weight

| D<br>(mm) | T<br>(mm) | Wheel<br>Material | Body<br>Material |          | No Brake | With Brake | Load<br>Capacity | L<br>(mm) | H<br>(mm) | E<br>(mm) | Weight<br>(g) |
|-----------|-----------|-------------------|------------------|----------|----------|------------|------------------|-----------|-----------|-----------|---------------|
| φ 50      | M8        | Rubber            | Steel            | Item No. | GFN-665  | GFN-666    | 300 N            | 14        | 68        | 21        | 149<br>(169)  |
|           | M12       | Nylon             | —                | Item No. | GFN-513  | GFN-512    | 600 N            | 22        | 57.5      | 17        | 130<br>(130)  |
| φ 75      | M12       | Rubber            | Steel            | Item No. | GFN-667  | GFN-668    | 400 N            | 25        | 95        | 28        | 245<br>(270)  |
|           |           | Urethane          | Steel            | Item No. | GFN-537  | GFN-541    | 500 N            | 25        | 95        | 29        | 282<br>(312)  |
|           |           | Nylon             | Steel            | Item No. | GFN-609  | GFN-610    | 500 N            | 25        | 95        | 29        | 188<br>(237)  |
|           |           | Conductivity      | Steel            | Item No. | GFN-526  | GFN-524    | 240 N            | 25        | 95        | 29        | 316<br>(352)  |

- (Blue Number) is a weight including brake

### Caster Material



### Special Caster Material

|                       | Elasticity | Abrasion<br>Resistance | Oil<br>Resistance | Water<br>Resistance | Chemical<br>Resistance | Heat<br>Resistance |
|-----------------------|------------|------------------------|-------------------|---------------------|------------------------|--------------------|
| Rubber                | ◎          | ○                      | ×                 | ○                   | ○                      | ○                  |
| Urethane              | ○          | ◎                      | ◎                 | △                   | ○                      | ○                  |
| Nylon                 | ×          | ◎                      | ◎                 | ◎                   | ◎                      | ○                  |
| Conductivity (Rubber) | ◎          | ○                      | ×                 | ○                   | ○                      | ○                  |

SF20  
SS Size

SF30  
S Size

SF40-45  
L Size

Complex Parts

Door · Panel  
Clean Equipment

Technical Data

# Complex Parts

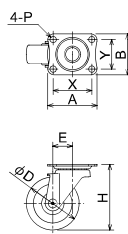
## Free/Fixed caster

Environment: RoHS Compliant

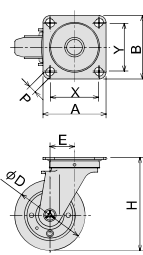


● Install T Nut and Bolt to Green Frame L Slot

Adjustable Caster

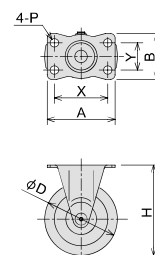


φ 75 Adjustable

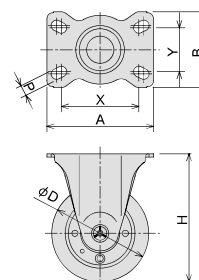


φ 100 · φ 150 Adjustable

Fix Caster



φ 75 Fix



φ 100 · φ 150 Fix

Size, Weight

| D<br>(mm) | T<br>(mm)    | Body<br>Material |          | Adjustable |            | Fix     | Load<br>Capacity | X<br>(mm) | Y<br>(mm) | A<br>(mm)    | B<br>(mm)    | H<br>(mm) | P<br>(mm) | E<br>(mm) | Weight<br>(g) |
|-----------|--------------|------------------|----------|------------|------------|---------|------------------|-----------|-----------|--------------|--------------|-----------|-----------|-----------|---------------|
|           |              |                  |          | No Brake   | With Brake |         |                  |           |           |              |              |           |           |           |               |
| φ 75      | Rubber       | Steel            | Item No. | GFN-539    | GFN-532    | GFN-550 | 600 N            | 55        | 42        | 70           | 58<br>(60)   | 93        | 8.8       | 28        | 610           |
|           |              |                  |          |            |            |         | 630              |           |           |              |              |           |           |           |               |
|           | Urethane     |                  | Item No. | GFN-540    | GFN-533    | GFN-551 | 800 N            |           |           |              |              |           |           |           | 306           |
|           |              |                  |          |            |            |         | 610              |           |           |              |              |           |           |           |               |
|           | Conductivity |                  | Item No. | GFN-538    | GFN-531    | GFN-552 | 360 N            |           |           |              |              |           |           |           | 630           |
|           |              |                  |          |            |            |         | 306              |           |           |              |              |           |           |           |               |
| φ 100     | Rubber       | Steel            | Item No. | GFN-504    | GFN-500    | GFN-502 | 1200 N           | 68        | 68        | 90           | 90           | 132       | 11        | 35        | 1054          |
|           |              |                  |          |            |            |         | 1054             |           |           |              |              |           |           |           |               |
|           | Urethane     |                  | Item No. | GFN-511    | GFN-508    | GFN-553 | 1000 N           |           |           |              |              |           |           |           | 873           |
|           |              |                  |          |            |            |         | 1054             |           |           |              |              |           |           |           |               |
|           | Conductivity |                  | Item No. | GFN-546    | GFN-547    | GFN-548 | 720 N            |           |           |              |              |           |           |           | 1054          |
|           |              |                  |          |            |            |         | 873              |           |           |              |              |           |           |           |               |
| φ 150     | Rubber       | Steel            | Item No. | GFN-521    | GFN-507    | GFN-554 | 1600 N           | 75        | 75        | 102<br>(106) | 102<br>(111) | 190       | 11        | 41        | 1810          |
|           |              |                  |          |            |            |         | 1840             |           |           |              |              |           |           |           |               |
|           | Urethane     |                  | Item No. | GFN-522    | GFN-517    | GFN-555 | 1400 N           |           |           |              |              |           |           |           | 1391          |
|           |              |                  |          |            |            |         | 1810             |           |           |              |              |           |           |           |               |
|           | Conductivity |                  | Item No. | GFN-510    | GFN-516    | GFN-556 | 960 N            |           |           |              |              |           |           |           | 1840          |
|           |              |                  |          |            |            |         | 1460             |           |           |              |              |           |           |           |               |

● ( ) is dimension for Fix Caster

● **Weight** Top : Adjustable no brake  
Middle : Adjustable with brake  
Bottom : Fix



Parts

How to order

Item No.

GFN-539

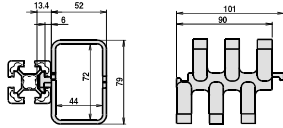
Quantity (pcs)

□□



## Cable Holder

### Cable Holder for SF Large

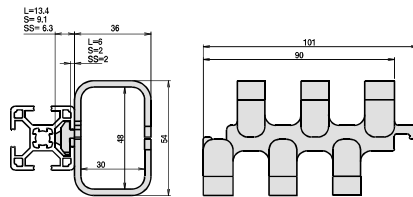


| Usable Frame                           | Name                   | Color            | Item No. |
|----------------------------------------|------------------------|------------------|----------|
| <br>SF series<br>L (Groove Width 10mm) | Cable Holder L (Large) | Semi-Transparent | C1F-L4C  |
|                                        |                        | White            | C1F-L4W  |
|                                        |                        | Red              | C1F-L4R  |
|                                        |                        | Yellow           | C1F-L4Y  |

4 pcs/pack

■Material Material: Polypropylene Flame retardant grade: V-0 (excluding semi-transparent)  
Mass: 35.2g/piece

### Cable Holder for SF Middle

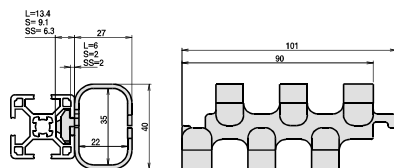


| Usable Frame                           | Name                     | Color            | Item No. |
|----------------------------------------|--------------------------|------------------|----------|
| <br>SF series<br>L (Groove Width 10mm) | Cable Holder L (Middle)  | Semi-Transparent | C1F-L3C  |
|                                        |                          | White            | C1F-L3W  |
|                                        |                          | Red              | C1F-L3R  |
|                                        |                          | Yellow           | C1F-L3Y  |
| <br>SF series<br>S (Groove Width 8mm)  | Cable Holder S (Middle)  | Semi-Transparent | C1F-S3C  |
|                                        |                          | White            | C1F-S3W  |
|                                        |                          | Red              | C1F-S3R  |
|                                        |                          | Yellow           | C1F-S3Y  |
| <br>SF series<br>SS (Groove Width 6mm) | Cable Holder SS (Middle) | Semi-Transparent | C1F-A3C  |
|                                        |                          | White            | C1F-A3W  |
|                                        |                          | Red              | C1F-A3R  |
|                                        |                          | Yellow           | C1F-A3Y  |

4 pcs/pack

■Material Material: Polypropylene Flame retardant grade: V-0 (excluding semi-transparent)  
Mass: L 20.2g/piece, S 19.0g/piece, SS 18.3g/piece

### Cable Holder for SF Small



| Usable Frame                           | Name                    | Color            | Item No. |
|----------------------------------------|-------------------------|------------------|----------|
| <br>SF series<br>L (Groove Width 10mm) | Cable Holder L (Small)  | Semi-Transparent | C1F-L2C  |
|                                        |                         | White            | C1F-L2W  |
|                                        |                         | Red              | C1F-L2R  |
|                                        |                         | Yellow           | C1F-L2Y  |
| <br>SF series<br>S (Groove Width 8mm)  | Cable Holder S (Small)  | Semi-Transparent | C1F-S2C  |
|                                        |                         | White            | C1F-S2W  |
|                                        |                         | Red              | C1F-S2R  |
|                                        |                         | Yellow           | C1F-S2Y  |
| <br>SF series<br>SS (Groove Width 6mm) | Cable Holder SS (Small) | Semi-Transparent | C1F-A2C  |
|                                        |                         | White            | C1F-A2W  |
|                                        |                         | Red              | C1F-A2R  |
|                                        |                         | Yellow           | C1F-A2Y  |

4 pcs/pack

■Material Material: Polypropylene Flame retardant grade: V-0 (excluding semi-transparent)  
Mass: L 10.7g/piece, S 9.7g/piece, SS 9.1g/piece

# C1

Classification of Holder/Ring

F... Holder

R... Ring

Classification of mounting frame

A... Groove Width SS (6mm)

S... Groove Width S (8mm)

L... Groove Width L (10mm)

G... GF

R... DIN rail

Classification of duct size

1... Minimum

2... Small

3... Middle

4... Large

Classification of color

C... Semi-Transparent

W... White

R... Red

Y... Yellow

SF20  
SS SizeSF30  
S SizeSF40-45  
L Size

Complex Parts

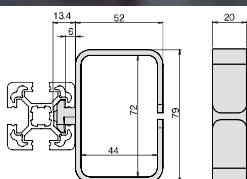
Door · Panel  
Clean Equipment

Technical Data

## Complex Parts

### Cable Ring

### Cable Ring for SF Large

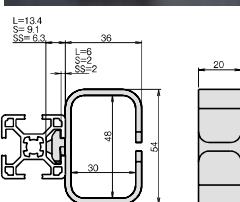


| Usable Frame                                                                                                                 | Name                 | Color            | Item No. |
|------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------|----------|
|  <p>SF series<br/>L (Groove Width 10mm)</p> | Cable Ring L (Large) | Semi-Transparent | C1R-L4C  |
|                                                                                                                              |                      | White            | C1R-L4W  |
|                                                                                                                              |                      | Red              | C1R-L4R  |
|                                                                                                                              |                      | Yellow           | C1R-L4Y  |

10 pcs/pack

■Material: Polypropylene Flame retardant grade: V-0 (excluding semi-transparent)  
Mass: 14.4g/piece

### Cable Ring for SF Middle

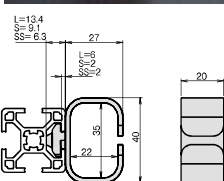


| Usable Frame                                                                                                             | Name                   | Color            | Item No.                |
|--------------------------------------------------------------------------------------------------------------------------|------------------------|------------------|-------------------------|
| <br>SF series<br>L (Groove Width 10mm)  | Cable Ring L (Middle)  | Semi-Transparent | <a href="#">C1R-L3C</a> |
|                                                                                                                          |                        | White            | <a href="#">C1R-L3W</a> |
|                                                                                                                          |                        | Red              | <a href="#">C1R-L3R</a> |
|                                                                                                                          |                        | Yellow           | <a href="#">C1R-L3Y</a> |
| <br>SF series<br>S (Groove Width 8mm)   | Cable Ring S (Middle)  | Semi-Transparent | <a href="#">C1R-S3C</a> |
|                                                                                                                          |                        | White            | <a href="#">C1R-S3W</a> |
|                                                                                                                          |                        | Red              | <a href="#">C1R-S3R</a> |
|                                                                                                                          |                        | Yellow           | <a href="#">C1R-S3Y</a> |
| <br>SF series<br>SS (Groove Width 6mm) | Cable Ring SS (Middle) | Semi-Transparent | <a href="#">C1R-A3C</a> |
|                                                                                                                          |                        | White            | <a href="#">C1R-A3W</a> |
|                                                                                                                          |                        | Red              | <a href="#">C1R-A3R</a> |
|                                                                                                                          |                        | Yellow           | <a href="#">C1R-A3Y</a> |

10 pcs/pack

■Material Material: Polypropylene Flame retardant grade: V-0 (excluding semi-transparent)  
Mass: L 8.4g/piece . S 7.8g/piece. SS 7.4g/piece

### Cable Ring for SF Small

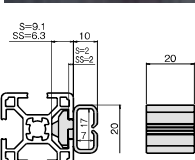


| Usable Frame                                                                                                             | Name                  | Color            | Item No. |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|----------|
| <br>SF series<br>L(Groove Width 10mm) | Cable Ring L (Small)  | Semi-Transparent | C1R-L2C  |
|                                                                                                                          |                       | White            | C1R-L2W  |
|                                                                                                                          |                       | Red              | C1R-L2R  |
|                                                                                                                          |                       | Yellow           | C1R-L2Y  |
| <br>SF series<br>S(Groove Width 8mm)  | Cable Ring S (Small)  | Semi-Transparent | C1R-S2C  |
|                                                                                                                          |                       | White            | C1R-S2W  |
|                                                                                                                          |                       | Red              | C1R-S2R  |
|                                                                                                                          |                       | Yellow           | C1R-S2Y  |
| <br>SF series<br>SS(Groove Width 6mm) | Cable Ring SS (Small) | Semi-Transparent | C1R-A2C  |
|                                                                                                                          |                       | White            | C1R-A2W  |
|                                                                                                                          |                       | Red              | C1R-A2R  |
|                                                                                                                          |                       | Yellow           | C1R-A2Y  |

10 pcs/pack

■ **Material** Material: Polypropylene Flame retardant grade: V-0 (excluding semi-transparent)  
Mass: L 5.3g/piece , S 4.7g/piece , SS 4.3g/piece

### Cable Ring for SF Minimum



| Usable Frame                                                                                                             | Name                    | Color            | Item No. |
|--------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------|----------|
| <br>SF series<br>S(Groove Width 8mm)  | Cable Ring S (Minimum)  | Semi-Transparent | C1R-S1C  |
|                                                                                                                          |                         | White            | C1R-S1W  |
|                                                                                                                          |                         | Red              | C1R-S1R  |
|                                                                                                                          |                         | Yellow           | C1R-S1Y  |
| <br>SF series<br>SS(Groove Width 6mm) | Cable Ring SS (Minimum) | Semi-Transparent | C1R-A1C  |
|                                                                                                                          |                         | White            | C1R-A1W  |
|                                                                                                                          |                         | Red              | C1R-A1R  |
|                                                                                                                          |                         | Yellow           | C1R-A1Y  |

20 pcs/pack

■Material Material: Polypropylene Flame retardant grade: V-0 (excluding semi-transparent)  
Mass: S 1.9g/piece, SS 1.5g/piece



## Bolt

### Hexagon Socket Head Cap Screw

Item No.

| Uni-chrome | Length (mm) |         |         |         |         |         |         |         |         |         |         |         |         | Galvanized trivalent chromate treating products |
|------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------------------------------------------|
| Screw size | 5           | 6       | 8       | 10      | 12      | 14      | 15      | 16      | 18      | 20      | 22      | 25      | 30      | 35                                              |
| M3         |             | SFB-531 | SFB-532 | SFB-533 | SFB-534 |         |         |         | SFB-535 |         |         |         | SFB-536 | SFB-531A                                        |
| M4         |             | SFB-540 | SFB-541 | SFB-542 |         |         |         |         | SFB-546 | SFB-543 | SFB-54D | SFB-544 |         |                                                 |
| M5         |             | SFB-55E | SFB-550 | SFB-551 | SFB-55C | SFB-55A | SFB-554 |         | SFB-55B | SFB-555 | SFB-552 | SFB-553 | SFB-556 |                                                 |
| M6         |             |         | SFB-56E | SFB-561 | SFB-560 | SFB-56B | SFB-562 | SFB-569 | SFB-56C | SFB-563 | SFB-56A | SFB-566 | SFB-564 | SFB-56P                                         |
| M8         |             |         |         |         | SFB-580 |         | SFB-581 |         | SFB-589 | SFB-582 |         | SFB-583 | SFB-584 |                                                 |
| M10        |             |         |         |         |         |         |         |         |         | SFB-929 |         |         |         |                                                 |
| M12        |             |         |         |         |         |         |         |         |         |         |         | SFB-521 |         |                                                 |
| Screw size | 40          | 45      | 50      | 55      | 60      | 70      | 80      | 85      | 90      | 110     | 115     | 120     | 125     | 130                                             |
| M3         |             |         |         |         |         |         |         |         |         |         |         |         |         |                                                 |
| M4         |             | SFB-545 |         |         |         |         |         |         |         |         |         |         |         |                                                 |
| M5         |             |         |         |         |         |         |         |         |         |         |         |         |         |                                                 |
| M6         | SFB-565     | SFB-574 |         |         | SFB-56G |         |         |         |         |         |         |         |         |                                                 |
| M8         | SFB-588     | SFB-58A |         |         | SFB-58B |         | SFB-58C |         |         |         |         |         |         |                                                 |
| M10        |             |         |         |         |         |         |         |         |         |         |         |         |         |                                                 |
| M12        |             |         |         |         |         |         |         |         |         |         |         |         |         |                                                 |

| Stainless  | Length (mm) |          |          |          |          |          |          |          |          |          |          |          |          |          |
|------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Screw size | 5           | 6        | 8        | 10       | 12       | 14       | 15       | 16       | 18       | 20       | 22       | 25       | 30       | 35       |
| M3         | SFB-53PS    | SFB-531S | SFB-532S | SFB-533S | SFB-534S |          | SFB-53ES | SFB-53RS | SFB-535S | SFB-53HS |          |          | SFB-536S | SFB-53FS |
| M4         | SFB-54PS    | SFB-540S | SFB-541S | SFB-542S | SFB-54QS |          | SFB-54RS |          | SFB-546S | SFB-543S | SFB-54DS | SFB-544S | SFB-5D1S | SFB-54SS |
| M5         |             | SFB-55ES | SFB-550S | SFB-551S | SFB-55CS | SFB-55AS | SFB-554S |          | SFB-55BS | SFB-555S | SFB-552S | SFB-553S | SFB-556S | SFB-55ZS |
| M6         |             |          | SFB-56ES | SFB-561S | SFB-560S | SFB-56BS | SFB-562S | SFB-569S | SFB-56CS | SFB-563S | SFB-56AS | SFB-566S | SFB-564S | SFB-56PS |
| M8         |             |          |          | SFB-58PS | SFB-580S | SFB-58KS | SFB-581S |          | SFB-589S | SFB-582S | SFB-58DS | SFB-583S | SFB-584S |          |
| M10        |             |          |          |          |          |          |          |          |          | SFB-929S |          |          |          | SFB-594S |
| M12        |             |          |          |          |          |          |          |          |          | SFB-522S |          | SFB-521S |          |          |
| Screw size | 40          | 45       | 50       | 55       | 60       | 70       | 80       | 85       | 90       | 110      | 115      | 120      | 125      | 130      |
| M3         | SFB-53VS    |          |          | SFB-53GS |          |          |          |          |          |          |          |          |          |          |
| M4         | SFB-5D2S    | SFB-545S | SFB-54TS |          |          |          |          |          |          |          |          |          |          |          |
| M5         | SFB-55US    | SFB-55PS | SFB-55WS | SFB-55QS | SFB-55SS |          | SFB-55XS | SFB-55RS | SFB-55SS | SFB-55YS | SFB-55TS |          |          |          |
| M6         | SFB-565S    | SFB-574S | SFB-56SS |          | SFB-56GS | SFB-56TS | SFB-56US |          |          |          |          |          |          | SFB-56VS |
| M8         | SFB-588S    | SFB-58AS |          | SFB-58SS | SFB-58BS | SFB-58TS | SFB-58CS |          |          |          |          | SFB-58QS | SFB-58RS |          |
| M10        |             |          | SFB-596S |          |          |          |          |          |          | SFB-5D4S |          |          |          |          |
| M12        |             |          |          |          |          |          |          |          |          |          |          |          |          |          |

### Cross-Recessed Flat Head Screw

| Uni-Chrome plating | Length (mm) |          |          |          |          |          |          |          |          |          |          |          |          | Galvanized trivalent chromate treating products |
|--------------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------------------------------------------------|
| Screw size         | 5           | 6        | 8        | 10       | 12       | 15       | 16       | 18       | 20       | 22       | 25       | 30       | 35       | 45                                              |
| M3                 |             | SFB-530A | SFB-530  | SFB-539  |          |          |          |          |          |          |          |          |          |                                                 |
| M4                 |             | SFB-54A  | SFB-54B  | SFB-54E  | SFB-54F  |          |          |          |          |          |          |          |          |                                                 |
| M5                 |             |          | SFB-54G  | SFB-559  | SFB-557  |          |          |          |          |          |          |          |          |                                                 |
| M6                 |             |          |          |          | SFB-54J  | SFB-54K  |          |          |          |          |          |          |          |                                                 |
| Stainless          | Length (mm) |          |          |          |          |          |          |          |          |          |          |          |          |                                                 |
| Screw size         | 5           | 6        | 8        | 10       | 12       | 15       | 16       | 18       | 20       | 22       | 25       | 30       | 35       | 45                                              |
| M3                 | SFB-9N3S    | SFB-9N4S | SFB-530S | SFB-539S |          | SFB-53QS | SFB-5D3S |          | SFB-5D6S |          |          |          |          |                                                 |
| M4                 | SFB-9N6S    | SFB-54AS | SFB-54BS | SFB-54ES | SFB-54FS | SFB-5D5S |          |          | SFB-9N7S | SFB-9N8S | SFB-9N9S |          | SFB-9P6S | SFB-54ZS                                        |
| M5                 |             |          | SFB-54GS | SFB-9P0S | SFB-9P1S | SFB-9P2S | SFB-9P3S |          | SFB-9P4S |          | SFB-9P5S | SFB-9P7S |          |                                                 |
| M6                 |             |          |          | SFB-54HS | SFB-54JS | SFB-54KS |          | SFB-571S |          |          |          |          |          |                                                 |



Hexagon Socket Head Cap Screw



Cross-Recessed Flat Head Screw

Complex Parts

Door · Panel  
Clean Equipment

Technical Data

# Complex Parts

## Bolt

### Hexagon Socket Flat Head Cap Screw

| Uni-Chrome |          | Length (mm) |          |          |          |          |          |          |          |          |          |          |          |          |          | Galvanized trivalent chromate treating products |          |
|------------|----------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------------------------------------------------|----------|
| Screw size |          | 6           | 8        | 10       | 12       | 15       | 16       | 18       | 20       | 25       | 30       | 35       | 40       | 45       | 50       | 55                                              |          |
| M3         |          |             |          |          | SFB-53A  |          |          |          |          |          |          |          |          |          |          |                                                 |          |
| M4         |          |             |          |          |          |          |          |          |          |          |          |          |          |          |          |                                                 |          |
| M5         | SFB-55F  |             | SFB-917  |          | SFB-927  | SFB-502  |          |          |          | SFB-55G  |          |          | SFB-55H  | SFB-9C6  | SFB-9C7  |                                                 |          |
| M6         |          |             | SFB-56J  | SFB-914  | SFB-916  | SFB-915  |          |          |          | SFB-56D  |          |          |          |          |          |                                                 |          |
| M8         |          |             |          |          | SFB-926  | SFB-918  |          | SFB-928  |          | SFB-58F  |          |          |          |          |          |                                                 |          |
| M10        |          |             |          |          |          |          | SFB-920  | SFB-501  |          |          |          |          |          |          |          |                                                 |          |
| Stainless  |          | Length (mm) |          |          |          |          |          |          |          |          |          |          |          |          |          |                                                 |          |
| Screw size |          | 6           | 8        | 10       | 12       | 15       | 16       | 18       | 20       | 25       | 30       | 35       | 40       | 45       | 50       | 55                                              |          |
| M3         |          |             |          | SFB-9L6S | SFB-53AS |          |          |          |          |          |          |          |          |          |          |                                                 |          |
| M4         |          |             | SFB-9L7S | SFB-9L8S |          | SFB-9L9S |          |          |          | SFB-9P8S |          |          |          |          |          |                                                 |          |
| M5         | SFB-55FS |             | SFB-917S | SFB-559S | SFB-927S | SFB-502S |          | SFB-9B5S | SFB-55GS | SFB-9M1S | SFB-9M2S | SFB-55HS | SFB-9C6S | SFB-9C7S | SFB-9M7S |                                                 |          |
| M6         |          |             | SFB-56JS | SFB-914S | SFB-916S | SFB-915S |          | SFB-9M3S | SFB-56DS | SFB-56NS | SFB-9M5S | SFB-9M8S | SFB-9M9S | SFB-9N0S |          |                                                 |          |
| M8         |          |             |          |          | SFB-926S | SFB-918S |          | SFB-928S |          | SFB-58FS | SFB-58JS | SFB-9M6S |          | SFB-9N1S | SFB-9N2S |                                                 | SFB-9R7S |
| M10        |          |             |          |          |          |          | SFB-920S |          |          |          |          |          |          |          |          |                                                 |          |

### Truss Head Screw

| Uni-Chrome |          | Length (mm) |          |          |          |          |          |          |         |         |         |         |
|------------|----------|-------------|----------|----------|----------|----------|----------|----------|---------|---------|---------|---------|
| Screw size |          | 5           | 6        | 8        | 10       | 12       | 14       | 15       | 18      | 20      | 30      | 35      |
| M3         |          |             | SFB-538  |          |          |          |          |          |         |         |         |         |
| M4         | SFB-548  |             |          | SFB-54C  | SFB-924  | SFB-925  |          |          | SFB-54M | SFB-54N |         |         |
| M5         |          |             |          | SFB-558A | SFB-558  | SFB-558B |          | SFB-558C |         |         | SFB-55J | SFB-55K |
| M6         |          |             |          |          | SFB-56K  | SFB-56L  |          | SFB-56M  |         |         |         |         |
| Stainless  |          | Length (mm) |          |          |          |          |          |          |         |         |         |         |
| Screw size |          | 5           | 6        | 8        | 10       | 12       | 14       | 15       | 18      | 20      | 30      | 35      |
| M3         | SFB-53US | SFB-538S    | SFB-53JS |          |          |          |          |          |         |         |         |         |
| M4         | SFB-548S | SFB-54US    | SFB-54CS | SFB-924S | SFB-925S |          | SFB-54VS |          |         |         |         |         |
| M5         |          | SFB-597S    | SFB-55LS | SFB-558S | SFB-55MS | SFB-598S | SFB-55NS |          |         |         |         |         |
| M6         |          |             |          | SFB-56KS | SFB-56LS |          |          |          |         |         |         |         |

### Tapping Screw (Stainless)

| No. | Part Code | Description                                |
|-----|-----------|--------------------------------------------|
| 1   | SFE-100   | Tapping Screw P (SUS) M4×10mm. (P8×3/8")   |
| 2   | SFE-101   | Tapping Screw P (SUS) M4×30mm. (P8×1x1/4") |
| 3   | SFE-102   | Tapping Screw P (SUS) M4×40mm. (P8×1x1/2") |
| 4   | SFE-103   | Tapping Screw P (SUS) M4×25mm. (P8×1")     |
| 5   | SFE-104   | Tapping Screw P (SUS) M4×16mm. (P8×5/8")   |
| 6   | SFE-105   | Tapping Screw P (SUS) M4×35mm. (P8×1x3/8") |

### Plain Washer

| Size | Uni-Chrome | Stainless |
|------|------------|-----------|
| M3   | SFB-904    | SFB-9H1S  |
| M4   | SFB-906    | SFB-9H2S  |
| M5   | SFB-908    | SFB-967S  |
| M6   | SFB-902    | SFB-902S  |
| M8   | SFB-903    | SFB-903S  |
| M10  | SFB-964    | SFB-9H3S  |
| M12  | SFB-905    | SFB-9H4S  |
| M16  | SFB-907    | SFB-9H6S  |

### Spring Washer

| Size | Uni-Chrome | Stainless |
|------|------------|-----------|
| M3   | SFB-9T4    | SFB-9J1S  |
| M4   | SFB-547    | SFB-9J2S  |
| M5   | SFB-9T5    | SFB-9J3S  |
| M6   | SFB-9T6    | SFB-9J4S  |
| M8   | SFB-9T7    | SFB-934S  |
| M10  | SFB-965    | SFB-9J5S  |
| M12  | SFB-9J6    | SFB-9J6S  |

### Hexagon Nut

| Size | Uni-Chrome | Stainless |
|------|------------|-----------|
| M3   | SFB-930    | SFB-9F1S  |
| M4   | SFB-9F2    | SFB-9F2S  |
| M5   | SFB-961    | SFB-961S  |
| M6   | SFB-960    | SFB-960S  |
| M8   | SFB-959    | SFB-959S  |
| M10  | SFB-9F6    | SFB-9F6S  |
| M12  | SFB-901    | SFB-901S  |



Hexagon Socket Flat Head Cap Screw



Truss Head Screw



Tapping Screw (Stainless)



Plain Washer



Spring Washer



Hexagon Nut



Parts

How to order

Item No.

SFB-55F

Quantity (pcs)

□□



STANDARD FRAME

# Door•Panel

Clean Equipment

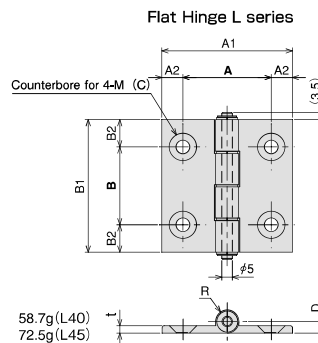
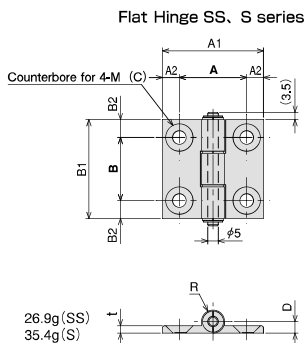
# Door·Panel Parts Fixed Hinge

## Flat Hinge



Material/A6N01SS-T5 Alumite Treatment

■Environment RoHS Compliant



| Name                                                        | Item No.              | A  | B  | A1 | A2   | B1 | B2  | (C) | D   | t   | R   | Indication of the Load (N/Piece) |
|-------------------------------------------------------------|-----------------------|----|----|----|------|----|-----|-----|-----|-----|-----|----------------------------------|
| Flat Hinge SS                                               | SFA-2A1               | 21 | 25 | 36 | 7.5  | 47 | 11  | 5   | 5.6 | 4   | 5.6 | 49                               |
| Flat Hinge SS Kit<br>(Flat Hinge SS (Stainless) Kit)        | SFK-2A1<br>(SFK-2A1S) |    |    |    |      |    |     |     |     |     |     |                                  |
| Flat Hinge S                                                | SFA-2A2               | 32 | 30 | 48 | 8    | 63 | 8.5 | 6   | 6.1 | 4.5 | 6.1 | 73                               |
| Flat Hinge S Kit<br>(Flat Hinge S (Stainless) Kit)          | SFK-2A2<br>(SFK-2A2S) |    |    |    |      |    |     |     |     |     |     |                                  |
| Flat Hinge L40(M6)                                          | SFA-2A3               | 42 | 37 | 62 | 10   | 63 | 13  | 6   | 6.1 | 4.5 | 6.1 | 73                               |
| Flat Hinge L40(M6) Kit<br>(Flat Hinge L40(M6)Stainless Kit) | SFK-2A3<br>(SFK-2A3S) |    |    |    |      |    |     |     |     |     |     |                                  |
| Flat Hinge L45(M6)                                          | SFA-2A4               | 47 | 43 | 80 | 16.5 | 63 | 10  | 6   | 6.1 | 4.5 | 6.1 | 73                               |
| Flat Hinge L45(M6) Kit<br>(Flat Hinge L45(M6)Stainless Kit) | SFK-2A4<br>(SFK-2A4S) |    |    |    |      |    |     |     |     |     |     |                                  |

Kit (Flat Hinge SS Kit)

● Flat Hinge SS×1

Contents ● Cross-Recessed Flat Head Bolt (M5×8)×4

● T Nut SS (M5)×4

Kit (Flat Hinge S Kit)

● Flat Hinge S×1

Contents ● Cross-Recessed Flat Head Bolt (M6×12)×4

● T Nut S (M6)×4

Kit (Flat Hinge L40(M6) Kit)

● Flat Hinge L40(M6)×1

Contents ● Cross-Recessed Flat Head Bolt (M6×15)×4

● T Nut L (M6)×4

Kit (Flat Hinge L45(M6) Kit)

● Flat Hinge L45(M6)×1

Contents ● Cross-Recessed Flat Head Bolt (M6×15)×4

● T Nut L (M6)×4

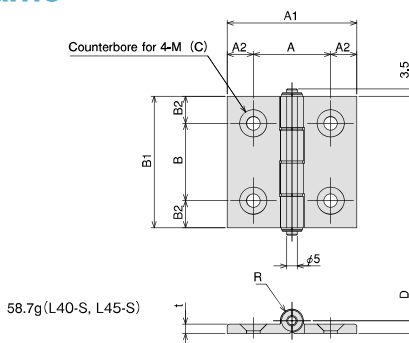
※ Bolt and Nut for (Stainless) Kit is stainless.

## Flat Hinge for Irregular Shape Frame



Material/A6N01SS-T5 Alumite Treatment

■Environment RoHS Compliant



| Name                                                       | Item No.              | A  | B  | A1 | A2   | B1 | B2 | (C) | D   | t   | R   | Indication of the Load (N/Piece) |
|------------------------------------------------------------|-----------------------|----|----|----|------|----|----|-----|-----|-----|-----|----------------------------------|
| Flat Hinge L40-S                                           | SFA-2A5               | 37 | 37 | 62 | 12.5 | 63 | 13 | 6   | 6.1 | 4.5 | 6.1 | 73                               |
| Flat Hinge L40-S Kit<br>(Flat Hinge L40-S (Stainless) Kit) | SFK-2A5<br>(SFK-2A5S) |    |    |    |      |    |    |     |     |     |     |                                  |
| Flat Hinge L45-S                                           | SFA-2A6               | 39 | 39 | 62 | 11.5 | 63 | 13 | 6   | 6.1 | 4.5 | 6.1 | 73                               |
| Flat Hinge L45-S Kit<br>(Flat Hinge L45-S (Stainless) Kit) | SFK-2A6<br>(SFK-2A6S) |    |    |    |      |    |    |     |     |     |     |                                  |

Kit (Flat Hinge L40-S Kit)

● Flat Hinge L40-S×1

Contents ● Cross-Recessed Flat Head Bolt (M6×12)×2

● Cross-Recessed Flat Head Bolt (M6×15)×2

● T Nut L (M6)×2

● T Nut S (M6)×2

Kit (Flat Hinge L45-S Kit)

● Flat Hinge L45-S×1

Contents ● Cross-Recessed Flat Head Bolt (M6×12)×2

● Cross-Recessed Flat Head Bolt (M6×15)×2

● T Nut L (M6)×2

● T Nut S (M6)×2

※ Bolt and Nut for (Stainless) Kit is stainless.



### Parts

How to order

Item No.

SFA-2A1

Quantity (pcs)

□□



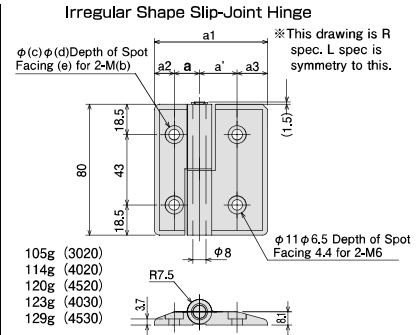
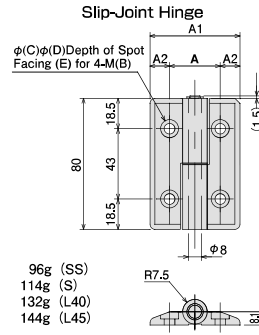
## Slip-Joint Hinge / Irregular Shape Slip-Joint Hinge



Electroless nickel plating  
Environment **RoHS** Compliant **Green** Procurement  
Material Aluminum Die-Casting (ADC12)



Acrylic Paint



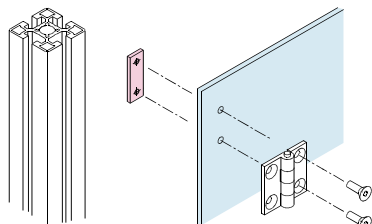
| Name                   | Item No.                   |               |                            |               | A  | A1 | A2   | (B) | (C) | (D) | (E) | Indication of the Load<br>(N/Piece) |
|------------------------|----------------------------|---------------|----------------------------|---------------|----|----|------|-----|-----|-----|-----|-------------------------------------|
|                        | Single Item                |               |                            |               |    |    |      |     |     |     |     |                                     |
|                        | Electroless Nickel Plating | Acrylic Paint | Electroless Nickel Plating | Acrylic Paint |    |    |      |     |     |     |     |                                     |
| Slip-Joint Hinge SS-L  | SFA-2N2                    | SFA-2N2P      | (SFK-2N2S)                 | (SFK-2N2P)    | 26 | 41 | 7.5  | 5   | 5.5 | 9.5 | 4.1 | 73                                  |
| Slip-Joint Hinge SS-R  | SFA-2N1                    | SFA-2N1P      | (SFK-2N1S)                 | (SFK-2N1P)    |    |    |      |     |     |     |     |                                     |
| Slip-Joint Hinge S-L   | SFA-2N4                    | SFA-2N4P      | (SFK-2N4S)                 | (SFK-2N4P)    | 31 | 55 | 12   |     |     |     |     |                                     |
| Slip-Joint Hinge S-R   | SFA-2N3                    | SFA-2N3P      | (SFK-2N3S)                 | (SFK-2N3P)    |    |    |      |     |     |     |     |                                     |
| Slip-Joint Hinge L40-L | SFA-2N6                    | SFA-2N6P      | (SFK-2N6S)                 | (SFK-2N6P)    | 41 | 73 | 16   | 6   | 6.5 | 11  | 4.4 | 98                                  |
| Slip-Joint Hinge L40-R | SFA-2N5                    | SFA-2N5P      | (SFK-2N5S)                 | (SFK-2N5P)    |    |    |      |     |     |     |     |                                     |
| Slip-Joint Hinge L45-L | SFA-2N8                    | SFA-2N8P      | (SFK-2N8S)                 | (SFK-2N8P)    | 46 | 83 | 18.5 |     |     |     |     |                                     |
| Slip-Joint Hinge L45-R | SFA-2N7                    | SFA-2N7P      | (SFK-2N7S)                 | (SFK-2N7P)    |    |    |      |     |     |     |     |                                     |

|              |                                                 |                                                  |                                                  |                                                  |
|--------------|-------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|
| Kit Contents | (Slip-Joint Hinge SS-L(R)Kit)                   | (Slip-Joint Hinge S-L(R)Kit)                     | (Slip-Joint Hinge L40-L(R)Kit)                   | (Slip-Joint Hinge L45-L(R)Kit)                   |
|              | ● Slip-Joint Hinge SS-L(R)×1                    | ● Slip-Joint Hinge S-L(R)×1                      | ● Slip-Joint Hinge L40-L(R)×1                    | ● Slip-Joint Hinge L45-L(R)×1                    |
|              | ● Hexagon Socket Low Head Bolt(M5×8)Stainless×4 | ● Hexagon Socket Low Head Bolt(M6×12)Stainless×4 | ● Hexagon Socket Low Head Bolt(M6×15)Stainless×4 | ● Hexagon Socket Low Head Bolt(M6×15)Stainless×4 |
|              | ● ST Nut SS(M5)×4                               | ● ST Nut S(M6)×4                                 | ● ST Nut L(M6)×4                                 | ● ST Nut L(M6)×4                                 |

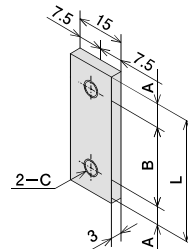
| Name                    | Item No.                      |               |                            |               | a    | a'   | a1 | a2  | a3   | (b) | (c) | (d) | (e) | Indication of the Load<br>(N/Piece) |
|-------------------------|-------------------------------|---------------|----------------------------|---------------|------|------|----|-----|------|-----|-----|-----|-----|-------------------------------------|
|                         | Single Item                   |               |                            |               |      |      |    |     |      |     |     |     |     |                                     |
|                         | (Bolt - Nut Kit (Stainless) ) |               |                            |               |      |      |    |     |      |     |     |     |     |                                     |
|                         | Electroless Nickel Plating    | Acrylic Paint | Electroless Nickel Plating | Acrylic Paint |      |      |    |     |      |     |     |     |     |                                     |
| Slip-Joint Hinge 3020-L | SFA-2D2                       | SFA-2D2P      | (SFK-2D2S)                 | (SFK-2D2P)    | 13   | 15.5 | 48 | 7.5 | 12   | 5   | 5.5 | 9.5 | 4.1 | 73                                  |
| Slip-Joint Hinge 3020-R | SFA-2D1                       | SFA-2D1P      | (SFK-2D1S)                 | (SFK-2D1P)    |      | 20.5 | 57 |     | 16   |     |     |     |     |                                     |
| Slip-Joint Hinge 4020-L | SFA-2D4                       |               | (SFK-2D4S)                 |               |      | 23   | 62 |     | 18.5 |     |     |     |     |                                     |
| Slip-Joint Hinge 4020-R | SFA-2D3                       |               | (SFK-2D3S)                 |               |      |      |    |     |      |     |     |     |     |                                     |
| Slip-Joint Hinge 4520-L | SFA-2D6                       |               | (SFK-2D6S)                 |               |      |      |    |     |      |     |     |     |     |                                     |
| Slip-Joint Hinge 4520-R | SFA-2D5                       |               | (SFK-2D5S)                 |               | 15.5 | 20.5 | 64 | 12  | 16   | 6   | 6.5 | 11  | 4.4 | 98                                  |
| Slip-Joint Hinge 4030-L | SFA-2E2                       |               | (SFK-2E2S)                 |               |      | 23   | 69 |     | 18.5 |     |     |     |     |                                     |
| Slip-Joint Hinge 4030-R | SFA-2E1                       |               | (SFK-2E1S)                 |               |      |      |    |     |      |     |     |     |     |                                     |
| Slip-Joint Hinge 4530-L | SFA-2E4                       |               |                            |               |      |      |    |     |      |     |     |     |     |                                     |
| Slip-Joint Hinge 4530-R | SFA-2E3                       |               |                            |               |      |      |    |     |      |     |     |     |     |                                     |

|              |                                                  |                                                  |                                                  |                                                  |                                                  |
|--------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|
| Kit Contents | (Slip-Joint Hinge 3020-L(R)Kit)                  | (Slip-Joint Hinge 4020-L(R)Kit)                  | (Slip-Joint Hinge 4520-L(R)Kit)                  | (Slip-Joint Hinge 4030-L(R)Kit)                  | (Slip-Joint Hinge 4530-L(R)Kit)                  |
|              | ● Slip-Joint Hinge 3020-L(R)×1                   | ● Slip-Joint Hinge 4020-L(R)×1                   | ● Slip-Joint Hinge 4520-L(R)×1                   | ● Slip-Joint Hinge 4030-L(R)×1                   | ● Slip-Joint Hinge 4530-L(R)×1                   |
|              | ● Hexagon Socket Low Head Bolt(M5×6)Stainless×2  | ● Hexagon Socket Low Head Bolt(M6×8)Stainless×2  | ● Hexagon Socket Low Head Bolt(M6×8)Stainless×2  | ● Hexagon Socket Low Head Bolt(M6×12)Stainless×2 | ● Hexagon Socket Low Head Bolt(M6×12)Stainless×2 |
|              | ● Hexagon Socket Low Head Bolt(M6×12)Stainless×2 | ● Hexagon Socket Low Head Bolt(M6×15)Stainless×2 | ● Hexagon Socket Low Head Bolt(M6×15)Stainless×2 | ● Hexagon Socket Low Head Bolt(M6×15)Stainless×2 | ● Hexagon Socket Low Head Bolt(M6×15)Stainless×2 |
|              | ● ST Nut SS(M5)×2                                | ● ST Nut SS(M5)×2                                | ● ST Nut SS(M5)×2                                | ● ST Nut S(M6)×2                                 | ● ST Nut S(M6)×2                                 |
|              | ● ST Nut S(M6)×2                                 | ● ST Nut L(M6)×2                                 | ● ST Nut L(M6)×2                                 | ● ST Nut L(M6)×2                                 | ● ST Nut L(M6)×2                                 |

## Plate Nut for Flat Hinge



※Use it when the door is resin panel.



| Material/Technical Data |                                                   |
|-------------------------|---------------------------------------------------|
| Material                | Stainless                                         |
| Weight                  | 13g(SS)<br>16g(S)<br>20g(L40)<br>22g(L45)         |
| Environment             | <b>RoHS</b> Compliant<br><b>Green</b> Procurement |

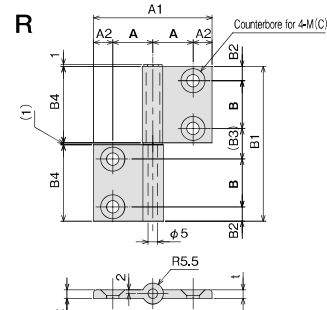
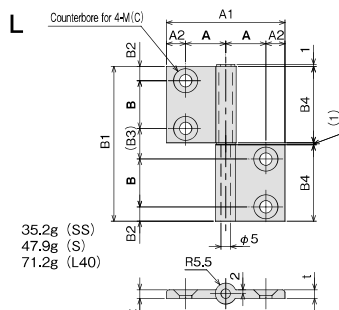
| Name                    | Item No. | A   | B  | L  | C  |
|-------------------------|----------|-----|----|----|----|
| Plate Nut for SS Hinge  | SFB-303  | 7.5 | 25 | 40 | M5 |
| Plate Nut for S Hinge   | SFB-304  |     | 30 | 45 |    |
| Plate Nut for L40 Hinge | SFB-305  | 9   | 37 | 55 | M6 |
| Plate Nut for L45 Hinge | SFB-306  | 10  | 43 | 63 |    |

## Door・Panel Parts Free Hinge

## Free Hinge L and R \* Seperatable



Material/Aluminium Alloy Alumite Treatment  
 Environment RoHS Compliant Green Procurement



| Name                 | Item No.    |              |                        | A  | B  | A1 | A2 | B1  | B2  | B3 | B4 | (C) | t   | Indication of the Load (N/Piece) |
|----------------------|-------------|--------------|------------------------|----|----|----|----|-----|-----|----|----|-----|-----|----------------------------------|
|                      | Single Item | Bolt・Nut Kit | Bolt・Nut(Stainless)Kit |    |    |    |    |     |     |    |    |     |     |                                  |
| Free Hinge SS-L      | SFA-21L     | 〈SFK-21L〉    | 〈SFK-21LS〉             | 16 | 20 | 48 | 8  | 71  | 7.5 | 16 | 35 | 5   | 4   | 49                               |
| Free Hinge SS-R      | SFA-21R     | 〈SFK-21R〉    | 〈SFK-21RS〉             |    |    |    |    |     |     |    |    |     |     |                                  |
| Free Hinge S-L       | SFA-22L     | 〈SFK-22L〉    | 〈SFK-22LS〉             | 21 | 25 | 62 | 10 | 81  | 7.5 | 16 | 40 | 6   | 4.5 | 73                               |
| Free Hinge S-R       | SFA-22R     | 〈SFK-22R〉    | 〈SFK-22RS〉             |    |    |    |    |     |     |    |    |     |     |                                  |
| Free Hinge L40(M6)-L | SFA-23L     | 〈SFK-23L〉    | 〈SFK-23LS〉             | 26 | 30 | 80 | 14 | 101 | 10  | 21 | 50 |     |     |                                  |
| Free Hinge L40(M6)-R | SFA-23R     | 〈SFK-23R〉    | 〈SFK-23RS〉             |    |    |    |    |     |     |    |    |     |     |                                  |

Kit  
 Contents  
 ●Free Hinge SS-L(R)×1  
 ●Cross-Recessed Small Flat Screw(M5×8)×4  
 ●T Nut SS(M5)×4

Kit  
 Contents  
 ●Free Hinge S-L(R)×1  
 ●Cross-Recessed Small Flat Screw(M6×12)×4  
 ●T Nut S(M6)×4

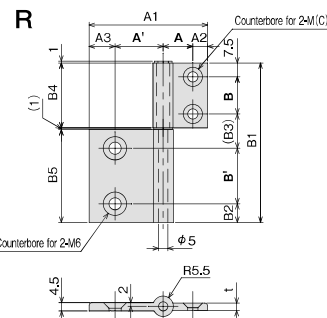
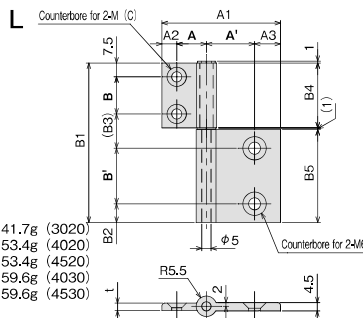
Kit  
 Contents  
 ●Free Hinge L40(M6)-L(R)×1  
 ●Cross-Recessed Small Flat Screw(M6×15)×4  
 ●T Nut L(M6)×4

※Bolt and Nut for [Bolt・Nut (Stainless) Kit] is stainless.

## Irregular Shape Free Hinge L and R \* Seperatable



Environment RoHS Compliant Green Procurement



| Name              | Item No.    |              |                        | A  | A'   | B  | B' | A1 | A2 | A3   | B1 | B2   | B3 | B4 | B5 | (C) | t   | Indication of the Load (N/Piece) |
|-------------------|-------------|--------------|------------------------|----|------|----|----|----|----|------|----|------|----|----|----|-----|-----|----------------------------------|
|                   | Single Item | Bolt・Nut Kit | Bolt・Nut(Stainless)Kit |    |      |    |    |    |    |      |    |      |    |    |    |     |     |                                  |
| Free Hinge 3020-L | SFA-25L     | 〈SFK-25L〉    | 〈SFK-25LS〉             |    | 21   |    | 25 | 55 |    | 10   | 76 | 7.5  | 16 |    | 40 |     |     | 49                               |
| Free Hinge 3020-R | SFA-25R     | 〈SFK-25R〉    | 〈SFK-25RS〉             |    |      |    |    |    |    |      |    |      |    |    |    |     |     |                                  |
| Free Hinge 4020-L | SFA-26L     | 〈SFK-26L〉    | 〈SFK-26LS〉             | 16 | 26   | 20 |    |    | 8  | 14   |    |      |    | 35 |    | 5   | 4   |                                  |
| Free Hinge 4020-R | SFA-26R     | 〈SFK-26R〉    | 〈SFK-26RS〉             |    |      |    |    | 64 |    |      | 86 |      |    |    |    |     |     |                                  |
| Free Hinge 4520-L | SFA-27L     | 〈SFK-27L〉    | 〈SFK-27LS〉             |    |      |    |    |    |    | 11.5 |    |      |    |    |    |     |     | 73                               |
| Free Hinge 4520-R | SFA-27R     | 〈SFK-27R〉    | 〈SFK-27RS〉             |    | 28.5 |    | 30 |    |    |      | 10 | 18.5 |    | 50 |    |     |     |                                  |
| Free Hinge 4030-L | SFA-28L     | 〈SFK-28L〉    | 〈SFK-28LS〉             |    | 26   |    |    |    |    | 14   |    |      |    |    |    |     |     |                                  |
| Free Hinge 4030-R | SFA-28R     | 〈SFK-28R〉    | 〈SFK-28RS〉             | 21 |      | 25 |    | 71 | 10 |      | 91 |      |    | 40 |    | 6   | 4.5 |                                  |
| Free Hinge 4530-L | SFA-29L     | 〈SFK-29L〉    | 〈SFK-29LS〉             |    | 28.5 |    |    |    |    | 11.5 |    |      |    |    |    |     |     | 73                               |
| Free Hinge 4530-R | SFA-29R     | 〈SFK-29R〉    | 〈SFK-29RS〉             |    |      |    |    |    |    |      |    |      |    |    |    |     |     |                                  |

Kit  
 Contents  
 ●Free Hinge 3020-L(R)×1  
 ●Cross-Recessed Small Flat Screw(M6×12)×2  
 ●Cross-Recessed Small Flat Screw(M5×8)×2  
 ●T Nut S(M6)×2  
 ●T Nut SS(M5)×2

Kit  
 Contents  
 ●Free Hinge 4020-L(R)×1  
 ●Cross-Recessed Small Flat Screw(M6×15)×2  
 ●Cross-Recessed Small Flat Screw(M5×8)×2  
 ●T Nut L(M6)×2  
 ●T Nut SS(M5)×2

Kit  
 Contents  
 ●Free Hinge 4520-L(R)×1  
 ●Cross-Recessed Small Flat Screw(M6×15)×2  
 ●Cross-Recessed Small Flat Screw(M5×8)×2  
 ●T Nut L(M6)×2  
 ●T Nut SS(M5)×2

Kit  
 Contents  
 ●Free Hinge 4030-L(R)×1  
 ●Cross-Recessed Small Flat Screw(M6×15)×2  
 ●Cross-Recessed Small Flat Screw(M6×12)×2  
 ●T Nut L(M6)×2  
 ●T Nut S(M6)×2

Kit  
 Contents  
 ●Free Hinge 4530-L(R)×1  
 ●Cross-Recessed Small Flat Screw(M6×15)×2  
 ●Cross-Recessed Small Flat Screw(M6×12)×2  
 ●T Nut L(M6)×2  
 ●T Nut S(M6)×2

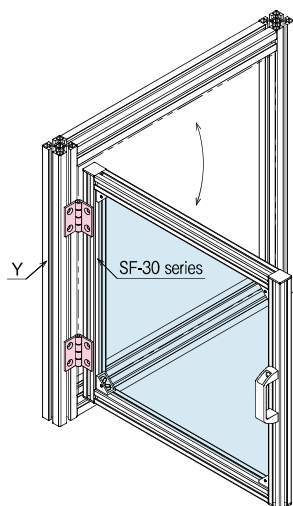
※Bolt and Nut for [Bolt・Nut (Stainless) Kit] is stainless.



Parts  
 How to order  
 Item No. Quantity (pcs)  
 SFA-21L

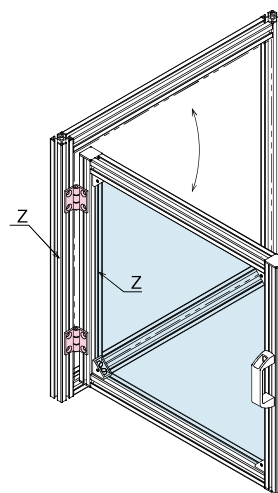
## Choice of Flat Hinge

In case door-side frame is SF30 series and the body frame is SF40 or 45 series.



| Y            | Flat Hinge Name  | Item No.       |
|--------------|------------------|----------------|
| SF-40 series | Flat Hinge L40-S | <b>SFA-2A5</b> |
| SF-45 series | Flat Hinge L45-S | <b>SFA-2A6</b> |

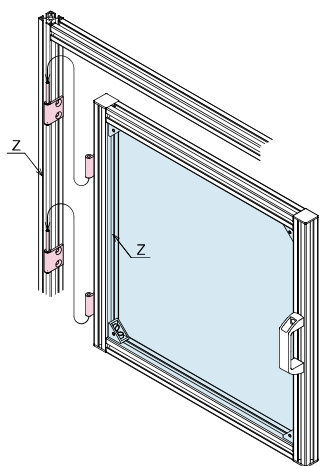
In case frames at door and body are the same series.



| Z            | Flat Hinge Name     | Item No.       |
|--------------|---------------------|----------------|
| SF-20 series | Flat Hinge SS       | <b>SFA-2A1</b> |
| SF-30 series | Flat Hinge S        | <b>SFA-2A2</b> |
| SF-40 series | Flat Hinge L40 (M6) | <b>SFA-2A3</b> |
| SF-45 series | Flat Hinge L45 (M6) | <b>SFA-2A4</b> |

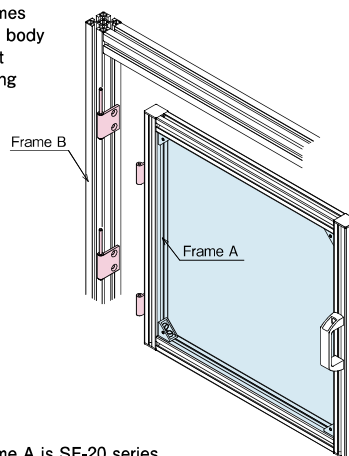
## Choice of Free Hinge and Slip-Joint Hinge

In case frames at door and body are the same series. (This drawing is L type)



| Z            | Hinge Name                 | Item No.                 |
|--------------|----------------------------|--------------------------|
| SF-20 series | Free Hinge SS-L (R)        | <b>SFA-21L (SFA-21R)</b> |
|              | Slip-Joint Hinge SS-L (R)  | <b>SFA-2N2 (SFA-2N1)</b> |
| SF-30 series | Free Hinge S-L (R)         | <b>SFA-22L (SFA-22R)</b> |
|              | Slip-Joint Hinge S-L (R)   | <b>SFA-2N4 (SFA-2N3)</b> |
| SF-40 series | Free Hinge L40 (M6)-L (R)  | <b>SFA-23L (SFA-23R)</b> |
|              | Slip-Joint Hinge L40-L (R) | <b>SFA-2N6 (SFA-2N5)</b> |
| SF-45 series | Slip-Joint Hinge L45-L (R) | <b>SFA-2N8 (SFA-2N7)</b> |

In case frames at door and body are different (This drawing is L type)



In case frame A is SF-20 series.

| Frame B      | Hinge Name                  | Item No.                 |
|--------------|-----------------------------|--------------------------|
| SF-30 series | Free Hinge 3020-L (R)       | <b>SFA-25L (SFA-25R)</b> |
|              | Slip-Joint Hinge 3020-L (R) | <b>SFA-2D2 (SFA-2D1)</b> |
| SF-40 series | Free Hinge 4020-L (R)       | <b>SFA-26L (SFA-26R)</b> |
|              | Slip-Joint Hinge 4020-L (R) | <b>SFA-2D4 (SFA-2D3)</b> |
| SF-45 series | Free Hinge 4520-L (R)       | <b>SFA-27L (SFA-27R)</b> |
|              | Slip-Joint Hinge 4520-L (R) | <b>SFA-2D6 (SFA-2D5)</b> |

In case frame A is SF-30 series.

| Frame B      | Hinge Name                  | Item No.                 |
|--------------|-----------------------------|--------------------------|
| SF-40 series | Free Hinge 4030-L (R)       | <b>SFA-28L (SFA-28R)</b> |
|              | Slip-Joint Hinge 4030-L (R) | <b>SFA-2E2 (SFA-2E1)</b> |
| SF-45 series | Free Hinge 4530-L (R)       | <b>SFA-29L (SFA-29R)</b> |
|              | Slip-Joint Hinge 4530-L (R) | <b>SFA-2E4 (SFA-2E3)</b> |

SF20  
SS SizeSF30  
S SizeSF40-45  
L Size

Complex Parts

Door · Panel  
Clean Equipment

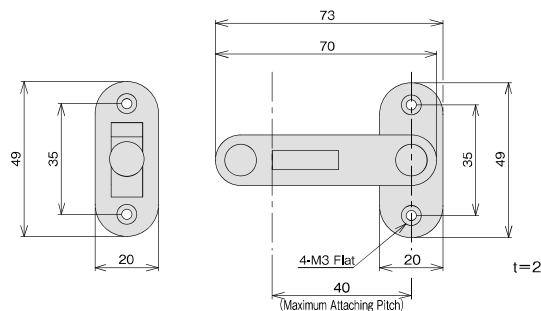
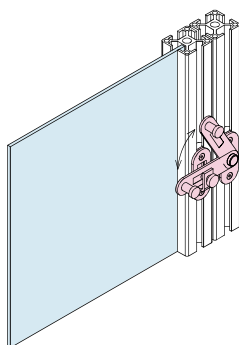
Technical Data

# Door•Panel Parts Free Size Hinge

## Door Lock



- **Material** Stainless SUS304  
 ■ **Weight** 54.9g  
 ■ **Environment** RoHS Compliant Green Procurement



| Name                                                                                                                                                                                                                                                                                                                  | Stainless Door Lock |       |                   |          |   |          |   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------|-------------------|----------|---|----------|---|
| Item No.                                                                                                                                                                                                                                                                                                              | SFA-3A1             |       |                   |          |   |          |   |
| <b>Example of mounting</b> <div> <table border="1"> <thead> <tr> <th>Frame</th><th>Screw Length (mm)</th></tr> </thead> <tbody> <tr> <td>□ For 20</td><td>6</td></tr> <tr> <td>□ For 30</td><td>8</td></tr> </tbody> </table> <p>※Please select by the Frame Shape.<br/>It's usable with Lock Nut as well.</p> </div> |                     | Frame | Screw Length (mm) | □ For 20 | 6 | □ For 30 | 8 |
| Frame                                                                                                                                                                                                                                                                                                                 | Screw Length (mm)   |       |                   |          |   |          |   |
| □ For 20                                                                                                                                                                                                                                                                                                              | 6                   |       |                   |          |   |          |   |
| □ For 30                                                                                                                                                                                                                                                                                                              | 8                   |       |                   |          |   |          |   |

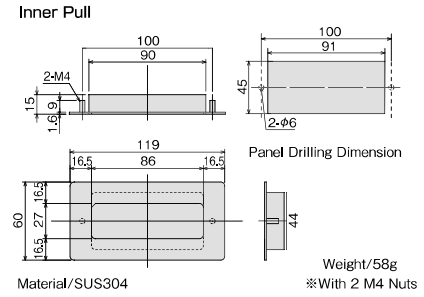
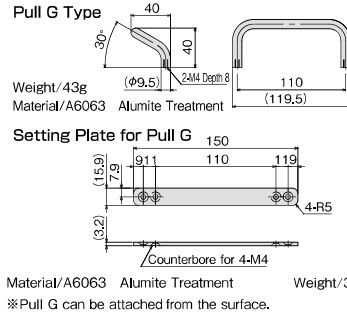


**Parts**  
 How to order  
 Item No.      Quantity (pcs)  
**SFA-3A1**

## Pull

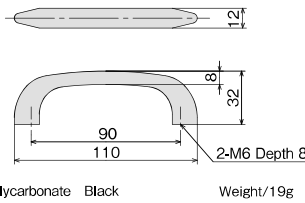


■Weight Refer Drawing  
 ■Environment ★RoHS Compliant  
 Green Procurement

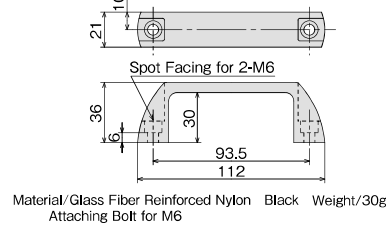


| Name     | Pull G Type | Setting Plate for Pull G | Inner Pull |
|----------|-------------|--------------------------|------------|
| Item No. | ★SFA-305    | ★SFA-306                 | ★SFA-307   |

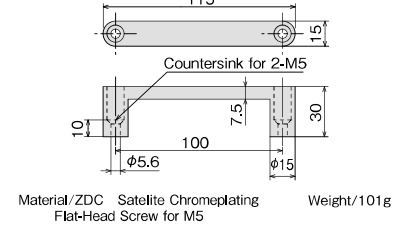
### Pull A Type



### Pull B Type

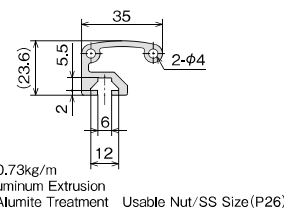


### Pull C Type

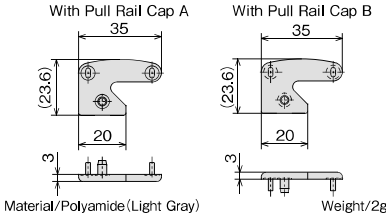


| Name     | Pull A Type | Pull B Type | Pull C Type |
|----------|-------------|-------------|-------------|
| Item No. | ★SFA-301    | ★SFA-308    | SFA-304     |

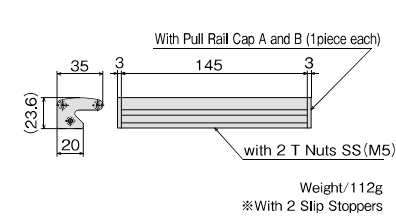
### Pull Rail



### With Pull Rail Cap

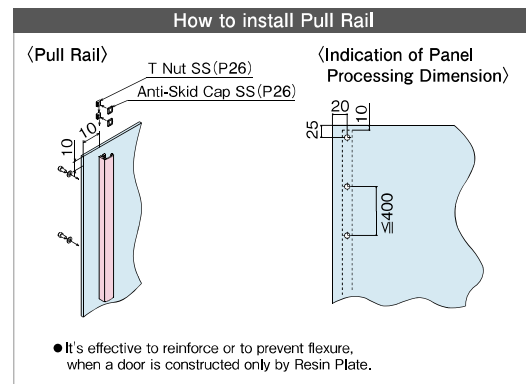
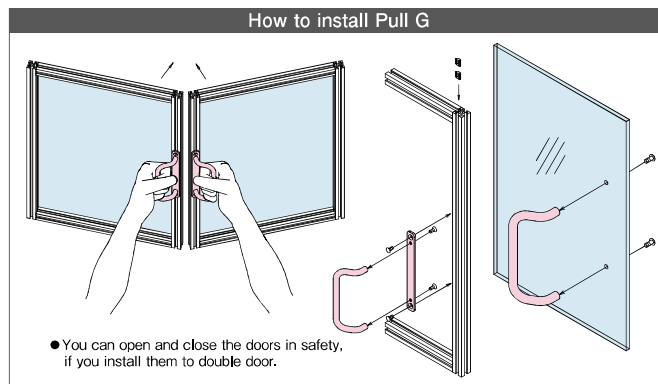


### Pull D Type



| Name     | Pull Rail (ℓ=4000) (4M) | Pull Rail (ℓ=50~4000) (2M) | Pull Rail Cap A | Pull Rail Cap B | Pull D Type |
|----------|-------------------------|----------------------------|-----------------|-----------------|-------------|
| Item No. | ★SFF-T05                | ★SFF-T02 ★SFF-T04          | ★SFA-390        | ★SFA-391        | ★SFK-701    |

●Handle Rail Cut Length 4M: ℓ=(4030mm)  
 It's material to be cut by customer  
 Effective use area ℓ=4000mm

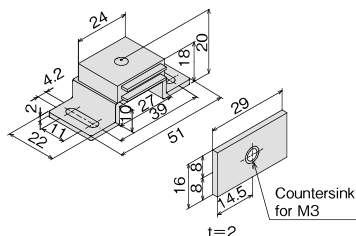


# SF Door•Panel Parts Magnet Catch

## Magnet Catch N (For Frame Rim Door)



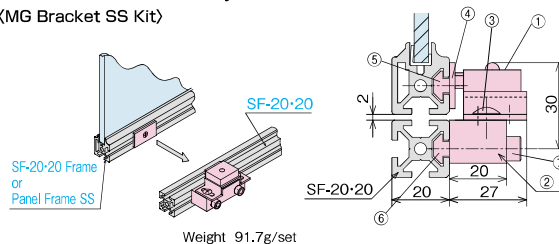
Magnet Catch N (Adsorbability: 29.4N)



|                          |                      |         |            |
|--------------------------|----------------------|---------|------------|
| Name                     | Magnet Catch N       |         |            |
| Item No.                 | SFA-40A              |         |            |
| ■Material/Technical Data |                      |         |            |
|                          | Magnet Catch Housing | Magnet  | MG Bracket |
| Material                 | Stainless            | Ferrite | Aluminum   |
|                          | Dark Brown Painting  |         |            |
| Weight                   | 35g (Magnet Catch N) |         |            |

### In case of Door Frame 20mm (Include Panel Frame)

Door Frame 20mm • Body Frame 20mm  
(MG Bracket SS Kit)

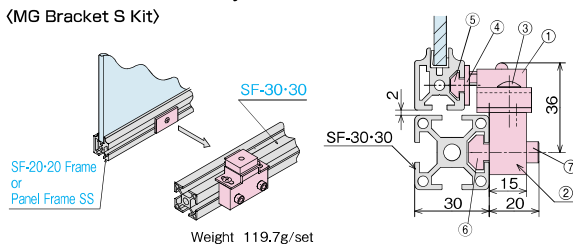


#### Kit Contents

- ① Magnet Catch Nx1
- ② MG Bracket SSx1
- ③ Truss Screw (M4x5)x2
- ④ Flat-Head Screw (M3x6)x1
- ⑤ T Nut SS M3x1
- ⑥ T Nut SS M5x2
- ⑦ Hexagon Socket Bolt (M5x25)x2

|          |                   |
|----------|-------------------|
| Name     | MG Bracket SS Kit |
| Item No. | SFK-4AA           |

Door Frame 20mm • Body Frame 30mm  
(MG Bracket S Kit)

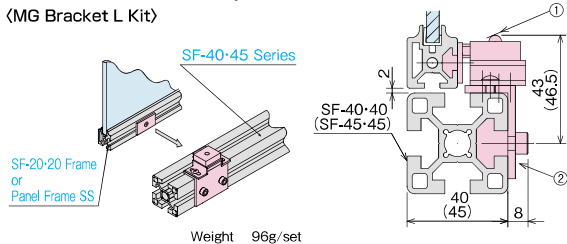


#### Kit Contents

- ① Magnet Catch Nx1
- ② MG Bracket Sx1
- ③ Truss Screw (M4x5)x2
- ④ Flat-Head Screw (M3x6)x1
- ⑤ T Nut SS M3x1
- ⑥ T Nut S M5x2
- ⑦ Hexagon Socket Bolt (M5x22)x2

|          |                  |
|----------|------------------|
| Name     | MG Bracket S Kit |
| Item No. | SFK-4AB          |

Door Frame 20mm • Body Frame 40mm • 45mm  
(MG Bracket L Kit)

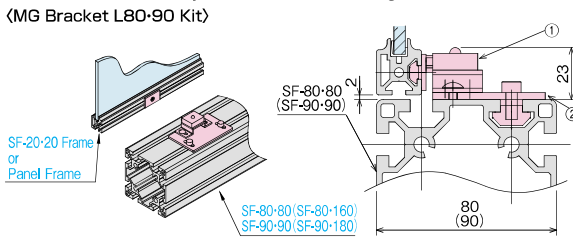


#### Kit Contents

- ① Magnet Catch Nx1
- ② MG Bracket Lx1
- ③ Truss Screw (M4x5)x2
- ④ Flat-Head Screw (M3x6)x1
- ⑤ T Nut SS M3x1
- ⑥ T Nut L M5x2
- ⑦ Hexagon Socket Bolt (M5x15)x2

|          |                  |
|----------|------------------|
| Name     | MG Bracket L Kit |
| Item No. | SFK-4AC          |

Door Frame 20mm • Body Frame 80mm (2 lines of grooves) • 90mm  
(MG Bracket L80-90 Kit)



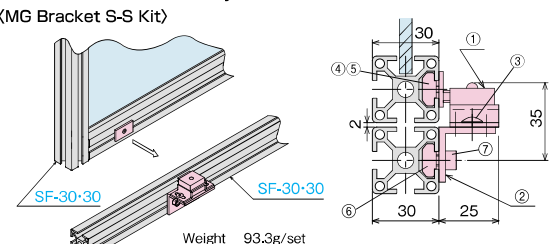
#### Kit Contents

- ① Magnet Catch Nx1
- ② MG Bracket L80-90x1
- ③ Truss Screw (M4x5)x2
- ④ Flat-Head Screw (M3x6)x1
- ⑤ T Nut SS M3x1
- ⑥ T Nut L M5x2
- ⑦ Hexagon Socket Bolt (M5x14)x2

|          |                       |
|----------|-----------------------|
| Name     | MG Bracket L80-90 Kit |
| Item No. | SFK-4AK               |

### In case of Door Frame 30mm

Door Frame 30mm • Body Frame 30mm  
(MG Bracket S-S Kit)

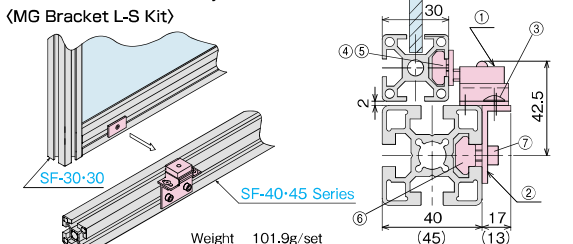


#### Kit Contents

- ① Magnet Catch Nx1
- ② MG Bracket S-Sx1
- ③ Truss Screw (M4x5)x2
- ④ Flat-Head Screw (M3x8)x1
- ⑤ T Nut S M3x1
- ⑥ T Nut S M5x2
- ⑦ Hexagon Socket Bolt (M5x10)x2

|          |                   |
|----------|-------------------|
| Name     | MG Bracket S-S Ki |
| Item No. | SFK-4AH           |

Door Frame 30mm • Body Frame 40mm • 45mm  
(MG Bracket L-S Kit)



#### Kit Contents

- ① Magnet Catch Nx1
- ② MG Bracket L-Sx1
- ③ Truss Screw (M4x5)x2
- ④ Flat-Head Screw (M3x8)x1
- ⑤ T Nut S M3x1
- ⑥ T Nut L M5x2
- ⑦ Hexagon Socket Bolt (M5x12)x2

|          |                    |
|----------|--------------------|
| Name     | MG Bracket L-S Kit |
| Item No. | SFK-4AE            |



#### Parts

How to order

Item No. Quantity (pcs)

SFA-45A





Door Frame □30mm・Body Frame □60mm (2 lines of grooves)  
(MG Bracket S60-S Kit)

Weight 63g/set

|          |                      |
|----------|----------------------|
| Name     | MG Bracket S60-S Kit |
| Item No. | SFK-4AN              |

**Kit Contents**

- ① Magnet Catch N×1
- ② Truss Screw (M4×10)×2
- ③ Flat-Head Screw (M3×8)×1
- ④ T Nut S M3×1
- ⑤ T Nut S M4×2

Door Frame □30mm・Body Frame □80mm (2 lines of grooves)・□90mm  
(MG Bracket L80-90-S Kit)

Weight 111g/set

|          |                         |
|----------|-------------------------|
| Name     | MG Bracket L80-90-S Kit |
| Item No. | SFK-4AL                 |

**Kit Contents**

- ① Magnet Catch N×1
- ② MG Bracket L80-90×1
- ③ Truss Screw (M4×5)×2
- ④ Flat-Head Screw (M3×8)×1
- ⑤ T Nut S M3×1
- ⑥ T Nut L M5×2
- ⑦ Hexagon Socket Bolt (M5×14)×2

■ In case of Door Frame □40mm

Door Frame □40mm・Body Frame □40mm  
(MG Bracket L-L40 Kit)

Weight 97g/set

|          |                      |
|----------|----------------------|
| Name     | MG Bracket L-L40 Kit |
| Item No. | SFK-4AM              |

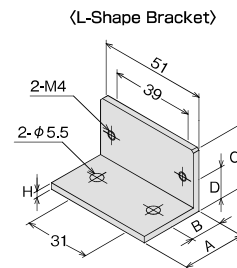
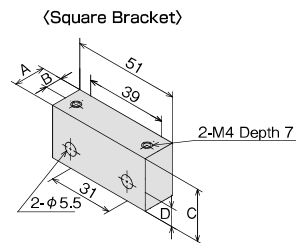
**Kit Contents**

- ① Magnet Catch N×1
- ② MG Bracket L×1
- ③ Truss Screw (M4×5)×2
- ④ Flat-Head Screw (M3×10)×1
- ⑤ Accessory Nut L M3×1
- ⑥ T Nut L M5×2
- ⑦ Hexagon Socket Bolt (M5×15)×2

(Body Frame □40mm)

(Body Frame □45mm)

■ Bracket for Magnet Catch Kit (For Frame Door)



(Square Bracket) Material : A6063 Alumite Treatment

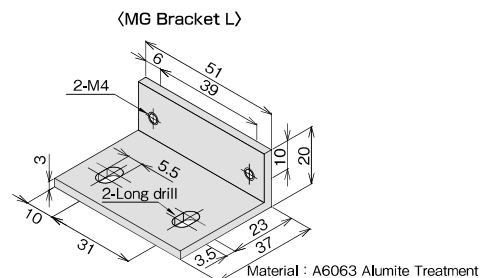
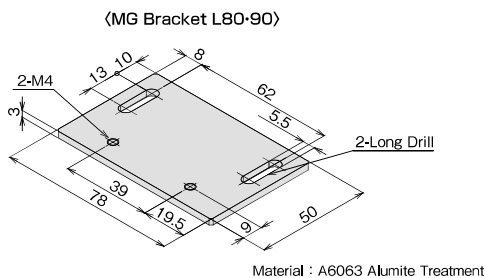
| Item No. | Kit Name          | Bracket Name  | A  | B  | C  | D |
|----------|-------------------|---------------|----|----|----|---|
| SFK-4AA  | MG Bracket SS Kit | MG Bracket SS | 20 | 15 | 15 | 5 |
| SFK-4AB  | MG Bracket S Kit  | MG Bracket S  | 15 | 8  | 25 | 9 |

(Unit : mm)

(L-Shape Bracket) Material : A6063 Alumite Treatment

| Item No. | Kit Name           | Bracket Name   | A  | B    | C  | D   | H   |
|----------|--------------------|----------------|----|------|----|-----|-----|
| SFK-4AH  | MG Bracket S-S Kit | MG Bracket S-S | 25 | 15   | 25 | 15  | 3   |
| SFK-4AE  | MG Bracket L-S Kit | MG Bracket L-S | 35 | 22.5 | 13 | 5.5 | 2.5 |

(Unit : mm)

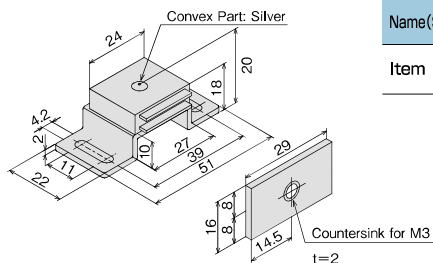


# Door·Panel Parts Magnet Catch

## Magnet Catch J (For Resin Panel Door)

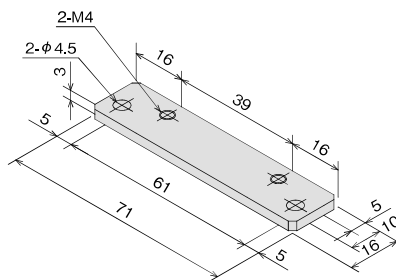
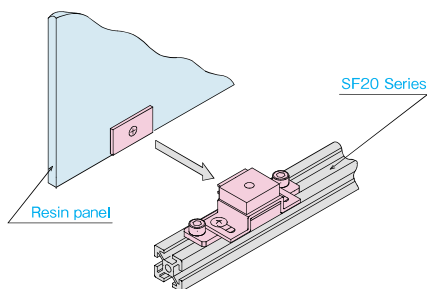


Magnet Catch J (Adsorbability: 14.7N)



| Name(Single Item) | Magnet Catch J |
|-------------------|----------------|
| Item              | SFA-40B        |

MG20P Bracket Kit



| Name(Bolt and Nut Kit) | MG20P Bracket Kit |
|------------------------|-------------------|
| Item No.               | SFK-4AD           |

### Kit Contents

- Magnet Catch J x1
- MG20P Bracket x1
- Truss Screw (M4×5) x2
- Flat-Head Screw (M3×10) x1
- Hexagon Socket Bolt (M4×8) x2
- Cap Nut (M3) x1
- T Nut SS (M4) x2

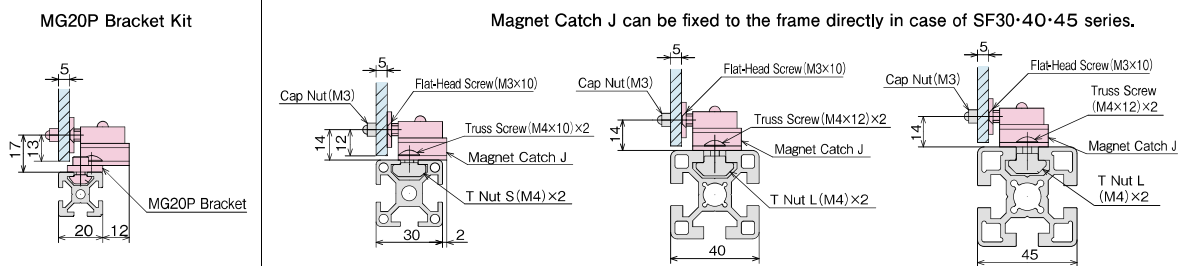
### Material/Technical Data

Material Stainless (Magnet Catch Housing/MP20P Bracket)  
 Ferrite (Magnet)  
 Dark Brown Painting  
 Weight 38g (Magnet Catch J)  
 24g (MG20P Bracket)

### Use Example of Magnet Catch Installation

(Dimension when using Resin Door)

Magnet Catch J can be fixed to the frame directly in case of SF30·40·45 series.



※Please order by single item regarding screws for Magnet Catch in case of SF30·40·45.

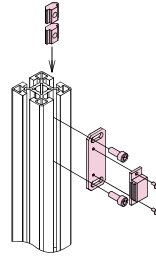


Parts  
How to order  
Item No. Quantity (pcs)  
SFA-45B

## Magnet Catch G (For Resin Panel Door)

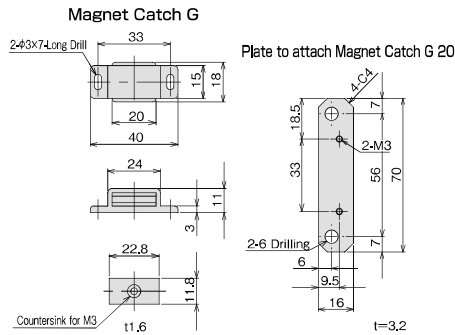


Magnet Catch G (Adsorbability : 10N)

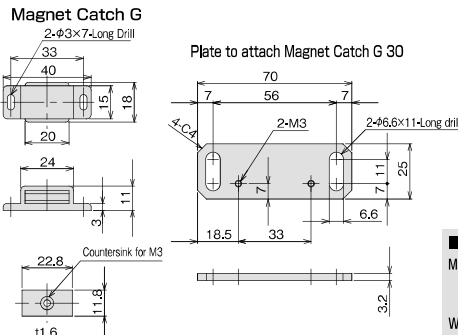


|                   |                |
|-------------------|----------------|
| Name(Single Item) | Magnet Catch G |
| Item No.          | SFA-498        |

## Magnet Catch G-SS Kit



## Magnet Catch G-S/L Kit(Common)



■Material/Technical Data  
 Material ABS(Magnet Catch)  
 SPCC Uni-Chrome  
 (Door Side-Setting Plate)  
 Weight 14g(Magnet Catch G)

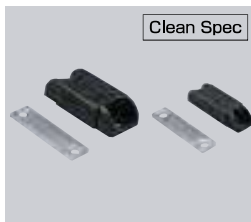
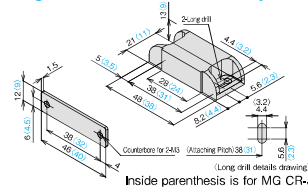
|                        |                       |                      |                      |
|------------------------|-----------------------|----------------------|----------------------|
| Atraching Frame        | SF20 Series           | SF30 Series          | SF40-45 Series       |
| Name(Bolt and Nut Kit) | Magnet Catch G-SS Kit | Magnet Catch G-S Kit | Magnet Catch G-L Kit |
| Item No.               | SFK-4X4               | SFK-4X5              | SFK-4X6              |

Kit Contents  
 (Magnet Catch G-SS Kit)  
 ●Magnet Catch Gx1  
 ●Plate to attach Magnet Catch G 20x1  
 ●Cap Nut(M3)x2  
 ●Truss Screw(M3x6)x2  
 ●Hexagon Socket Bolt (M5x8)x2  
 ●T Nut SS(M5)x2  
 ●Flat-Head Screw(M3x8)x2

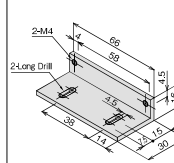
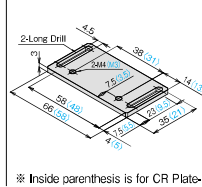
Kit Contents  
 (Magnet Catch G-S Kit)  
 ●Magnet Catch Gx1  
 ●Plate to attach Magnet Catch G 30x1  
 ●Cap Nut(M3)x2  
 ●Truss Screw(M3x6)x2  
 ●Hexagon Socket Bolt (M6x10)x2  
 ●T Nut S(M6)x2  
 ●Flat-Head Screw(M3x10)x2

Kit Contents  
 (Magnet Catch G-L Kit)  
 ●Magnet Catch Gx1  
 ●Plate to attach Magnet Catch G 30x1  
 ●Cap Nut(M3)x2  
 ●Truss Screw(M3x6)x2  
 ●Hexagon Socket Bolt (M6x15)x2  
 ●T Nut L(M6)x2  
 ●Flat-Head Screw(M3x10)x2

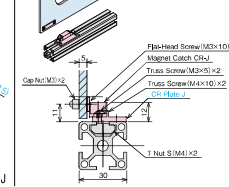
## Magnet Catch CR-N(For Frame Rim Door)/J(For Resin Panel Door)

Magnet Catch CR-N(Adsorbability:23N)  
Magnet Catch CR-J(Adsorbability:13N)

CR Bracket

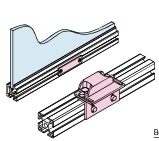
CR Plate-N  
(CR Plate-J)

Magnet Catch CR-J Example of installation

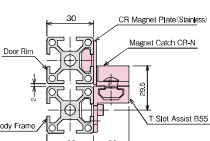


## Installing Example of Magnet Catch Cr-N Kit

※In case of using S Kit



※In case of S-S Kit



## Kit contents

|              | S Kit                                                                                                                                                                                                                    | S-S Kit                                                                                                                                                                                                             | L Kit                                                                                                                                                                                                                                         | L-S Kit                                                                                                                                                                                                                                       | L40-L40 Kit                                                                                                                                                                                                                                                  | L45-L Kit                                                                                                                                                                                                                                            |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Door Rim     | □20mm                                                                                                                                                                                                                    | □30mm                                                                                                                                                                                                               | □20mm                                                                                                                                                                                                                                         | □30mm                                                                                                                                                                                                                                         | □40mm                                                                                                                                                                                                                                                        | □40mm                                                                                                                                                                                                                                                |
| Body Frame   | □30mm                                                                                                                                                                                                                    | □30mm                                                                                                                                                                                                               | □40-45mm                                                                                                                                                                                                                                      | □40-45mm                                                                                                                                                                                                                                      | □40mm                                                                                                                                                                                                                                                        | □40-45mm                                                                                                                                                                                                                                             |
| Kit Contents | ●Magnet Catch CR-Nx1<br>●CR Plate-Nx1<br>●CR Bracketx1<br>●Cross-Recessed Small Flat Screw M3x6(Stainless)x2<br>●ST Nut SS(M3)x2<br>●Truss Screw M4x8(Stainless)x4<br>●Truss Screw M4x12(Stainless)x2<br>●ST Nut S(M4)x2 | ●Magnet Catch CR-Nx1<br>●T Slot Assist B55x1<br>●CR Magnet Platex1<br>●Cross-Recessed Small Flat Screw M3x6(Stainless)x2<br>●ST Nut S(M3)x2<br>●Truss Screw M4x8(Stainless)x4<br>●ST Nut S(M4)x4<br>●ST Nut L(M4)x2 | ●Magnet Catch CR-Nx1<br>●CR Plate-Nx1<br>●CR Bracketx1<br>●CR Magnet Platex1<br>●Cross-Recessed Small Flat Screw M3x6(Stainless)x2<br>●ST Nut S(M3)x2<br>●Truss Screw M4x8(Stainless)x4<br>●Truss Screw M4x12(Stainless)x2<br>●ST Nut L(M4)x2 | ●Magnet Catch CR-Nx1<br>●CR Plate-Nx1<br>●CR Bracketx1<br>●CR Magnet Platex1<br>●Cross-Recessed Small Flat Screw M3x6(Stainless)x2<br>●ST Nut S(M3)x2<br>●Truss Screw M4x8(Stainless)x4<br>●Truss Screw M4x12(Stainless)x2<br>●ST Nut L(M4)x2 | ●Magnet Catch CR-Nx1<br>●T Slot Assist B55x1<br>●CR Magnet Plate<br>●Cross-Recessed Small Flat Screw M3x10(Stainless)x2<br>●Accessory Nut L-M3x2<br>●Truss Screw M4x10(Stainless)x2<br>●ST Nut S(M4)x2<br>●Truss Screw M4x12(Stainless)x2<br>●ST Nut L(M4)x2 | ●Magnet Catch CR-Nx1<br>●CR Plate-Nx1<br>●CR Bracketx1<br>●CR Magnet Platex1<br>●Cross-Recessed Small Flat Screw M3x10(Stainless)x2<br>●Accessory Nut L-M3x2<br>●Truss Screw M4x8(Stainless)x4<br>●Truss Screw M4x12(Stainless)x2<br>●ST Nut L(M4)x2 |

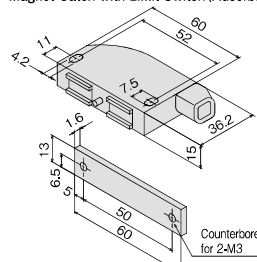
■Material/Technical Data  
 Material A6063(CR Plate-CR Bracket)  
 Resin(Housing)  
 Neodymium(Magnet)  
 Stainless(Fixing Disc-CR Magnet Plate)  
 Weight 16.7g(Magnet Catch CR-N (Single Item))  
 8.9g(Magnet Catch CR-J (Single Item))  
 Environment RoHS Compliant

# Door・Panel Parts Magnet Catch with Limit Switch

## Magnet Catch with Limit Switch



Magnet Catch with Limit Switch (Adsorbability:29.4N)



Name Magnet Catch with Limit Switch

Item No. SFA-42A

## Material/Technical Data

Material PBT(Case)  
 Ferrite(Magnet)  
 Weight 52.5g  
 (Magnet Catch with Limit Switch)

Switch Spec: ON when door is closed. 1 ○ — ○ 2

| Rated Voltage [V] | Resistant Load [A] | Lumped Load [A] | Induction Load [A] |
|-------------------|--------------------|-----------------|--------------------|
| AC125             | 5                  | 1.5             | 3                  |
| AC250             | 5                  | —               | 3                  |
| DC30              | 5                  | —               | 1.5                |

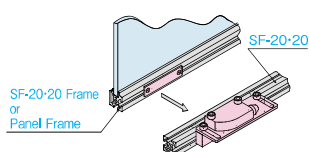
## Purpose Example

| Name               | Door                          | Component                                             |
|--------------------|-------------------------------|-------------------------------------------------------|
| ML Bracket SS Kit  | SF-20-20 or<br>Panel Frame SS | SF-20-20 Series<br>SF-30-30 Series<br>SF-40-45 Series |
| ML Bracket S Kit   | SF-30-30                      | SF-30-30 Series<br>SF-40-45 Series<br>SF-20-20 Series |
| ML Bracket L-S Kit | SF-30-30                      | SF-30-30 Series<br>SF-40-45 Series                    |
| ML Plate           | Resin Panel                   | SF-20-20 Series<br>SF-40-45 Series                    |

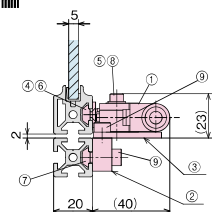
※Bolt and Nut isn't included to ML Plate.

### ■In case of Door Frame □20mm (Include Panel Frame)

Door Frame □20mm・Body Frame □20mm  
 (ML Bracket SS Kit)



Weight 181g/set

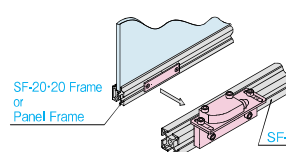


## Kit Contents

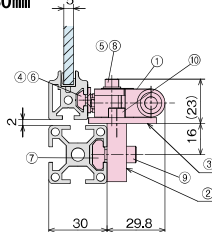
- ①Magnet Catch with Limit Switch×1
- ②ML Bracket SS×1
- ③ML Plate×1
- ④Flat-Head Screw(M3×6)×2
- ⑤For Flat Washer M4×2
- ⑥T Nut SS M3×2
- ⑦T Nut SS M5×2
- ⑧Hexagon Socket Bolt (M4×18)×2
- ⑨Hexagon Socket Bolt (M5×15)×4

|          |                   |
|----------|-------------------|
| Name     | ML Bracket SS Kit |
| Item No. | SFK-4CA           |

Door Frame □20mm・Body Frame □30mm  
 (ML Bracket S Kit)



Weight 221g/set

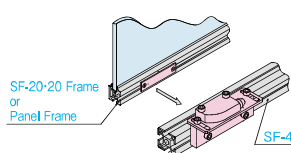


## Kit Contents

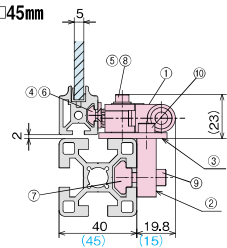
- ①Magnet Catch with Limit Switch×1
- ②ML Bracket S×1
- ③ML Plate×1
- ④Flat-Head Screw(M3×6)×2
- ⑤For Flat Washer M4×2
- ⑥T Nut SS M3×2
- ⑦T Nut S M5×2
- ⑧Hexagon Socket Bolt (M4×18)×2
- ⑨Hexagon Socket Bolt (M5×15)×2
- ⑩Hexagon Socket Bolt (M5×18)×2

|          |                  |
|----------|------------------|
| Name     | ML Bracket S Kit |
| Item No. | SFK-4CB          |

Door Frame □20mm・Body Frame □40mm・□45mm  
 (ML Bracket L Kit)



Weight 217.5g/set

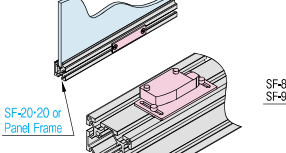


## Kit Contents

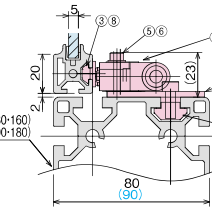
- ①Magnet Catch with Limit Switch×1
- ②ML Bracket L×1
- ③ML Plate×1
- ④Flat-Head Screw(M3×6)×2
- ⑤For Flat Washer M4×2
- ⑥T Nut SS M3×2
- ⑦T Nut L M5×2
- ⑧Hexagon Socket Bolt (M4×18)×2
- ⑨Hexagon Socket Bolt (M5×15)×2
- ⑩Hexagon Socket Bolt (M5×22)×2

|          |                  |
|----------|------------------|
| Name     | ML Bracket L Kit |
| Item No. | SFK-4CC          |

Door Frame □20mm・Body Frame □80mm (2 lines of grooves)・□90mm  
 (ML Bracket L80-90 Kit)



Weight 125g/set



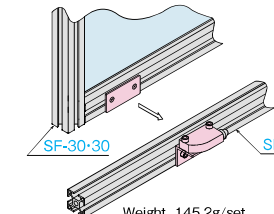
## Kit Contents

- ①Magnet Catch with Limit Switch×1
- ②ML Bracket L80-90×1
- ③T Nut SS M3×2
- ④T Nut L M5×2
- ⑤For Flat Washer M4×2
- ⑥Hexagon Socket Bolt (M4×18)×2
- ⑦Hexagon Socket Bolt (M5×14)×2
- ⑧Flat-Head Screw(M3×6)×2

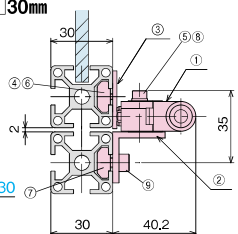
|          |                       |
|----------|-----------------------|
| Name     | ML Bracket L80-90 Kit |
| Item No. | SFK-4CJ               |

### ■In case of Door Frame □30mm

Door Frame □30mm・Body Frame □30mm  
 (ML Bracket S-S Kit)



Weight 145.2g/set

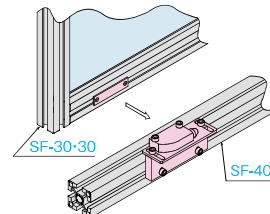


## Kit Contents

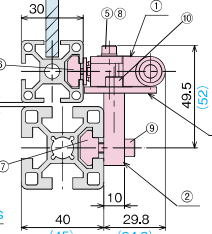
- ①Magnet Catch with Limit Switch×1
- ②ML Bracket S-S×1
- ③ML Magnet Plate×1
- ④Flat-Head Screw(M3×8)×2
- ⑤For Flat Washer M4×2
- ⑥T Nut S M3×2
- ⑦T Nut S M5×2
- ⑧Hexagon Socket Bolt (M4×20)×2
- ⑨Hexagon Socket Bolt (M5×10)×2

|          |                    |
|----------|--------------------|
| Name     | ML Bracket S-S Kit |
| Item No. | SFK-4CD            |

Door Frame □30・Body Frame □40mm・□45mm  
 (ML Bracket L-S Kit)



Weight 284.7g/set



## Kit Contents

- ①Magnet Catch with Limit Switch×1
- ②ML Bracket L-S×1
- ③ML Plate×1
- ④Flat-Head Screw(M3×8)×2
- ⑤For Flat Washer M4×2
- ⑥T Nut S M3×2
- ⑦T Nut L M5×2
- ⑧Hexagon Socket Bolt (M4×18)×2
- ⑨Hexagon Socket Bolt (M5×15)×2
- ⑩Hexagon Socket Bolt (M5×22)×2

|          |                    |
|----------|--------------------|
| Name     | ML Bracket L-S Kit |
| Item No. | SFK-4CF            |



## Parts

How to order

Item No.

SFA-42A

Quantity (pcs)

□□

Door Frame □30mm · Body Frame □60mm (2 lines of grooves)  
(ML Bracket S60-S Kit)

Weight 179g/set

**Kit Contents**

- ① Magnet Catch with Limit Switch×1
- ② ML Magnet Plate 1×1
- ③ ML Plate×1
- ④ Flat-Head Screw (M3×8)×2
- ⑤ T Nut S M3×2 ⑥ T Nut S M5×2
- ⑦ Hexagon Socket Bolt (M5×10)×2
- ⑧ For Flat Washer M4×2
- ⑨ Hexagon Socket Bolt (M4×18)×2

|          |                      |
|----------|----------------------|
| Name     | ML Bracket S60-S Kit |
| Item No. | SFK-4CN              |

Door Frame □30mm · Body Frame □80mm (2 lines of grooves) · □90mm  
(ML Bracket L80-90-S Kit)

Weight 162g/set

**Kit Contents**

- ① Magnet Catch with Limit Switch×1
- ② ML Bracket L80-90×1
- ③ ML Magnet Plate 1×1
- ④ For Flat Washer M4×2
- ⑤ T Nut S M3×2 ⑥ T Nut L M5×2
- ⑦ Hexagon Socket Bolt (M4×18)×2
- ⑧ Hexagon Socket Bolt (M5×14)×2
- ⑨ Cross-Recessed Small Flat Screw (M3×8)×2

|          |                         |
|----------|-------------------------|
| Name     | ML Bracket L80-90-S Kit |
| Item No. | SFK-4CK                 |

■ In case of Door Frame □40mm

Door Frame □40mm · Body Frame □40mm  
(ML Bracket L40-L40 Kit)

Weight 266g/set

**Kit Contents**

- ① Magnet Catch with Limit Switch×1
- ② ML Plate×1 ③ Flat-Head Screw (M3×10)×2
- ④ For Flat Washer M4×2 ⑤ ML Bracket×1
- ⑥ T Nut L M5×2
- ⑦ ML Magnet Plate 1×1
- ⑧ Hexagon Socket Bolt (M4×18)×2
- ⑨ Accessory Nut L (M3)×2
- ⑩ Hexagon Socket Bolt (M5×22)×2

|          |                        |
|----------|------------------------|
| Name     | ML Bracket L40-L40 Kit |
| Item No. | SFK-4CL                |

Door Frame □40mm · Body Frame □45mm  
(ML Bracket L45-L40 Kit)

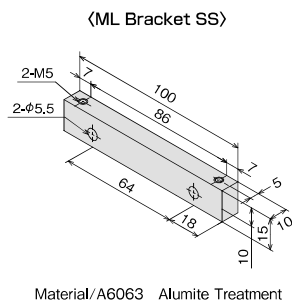
Weight 293g/set

**Kit Contents**

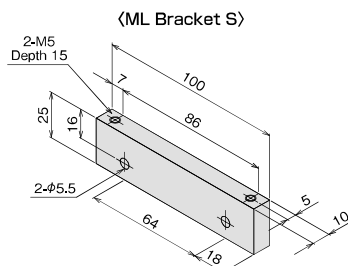
- ① Magnet Catch with Limit Switch×1
- ② ML Bracket L-S×1 ③ ML Plate×1
- ④ ML Magnet Plate 1×1
- ⑤ Flat-Head Screw (M3×10)×2
- ⑥ Accessory Nut L (M3)×2
- ⑦ Hexagon Socket Bolt (M4×18)×2
- ⑧ For Flat Washer M4×2 ⑨ T Nut L (M5)×2
- ⑩ Hexagon Socket Bolt (M5×22)×2

|          |                        |
|----------|------------------------|
| Name     | ML Bracket L45-L40 Kit |
| Item No. | SFK-4CM                |

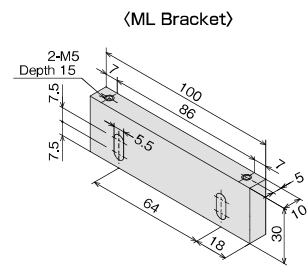
■ Bracket for Magnet Catch with Limit Switch Kit (For Frame Rim Door)



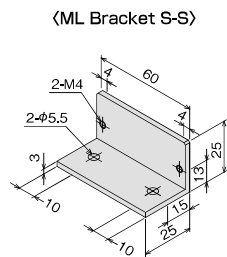
Material/A6063 Alumite Treatment



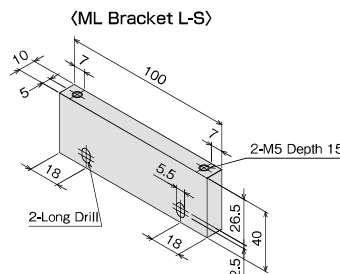
Material/A6063 Alumite Treatment



Material/A6063 Alumite Treatment



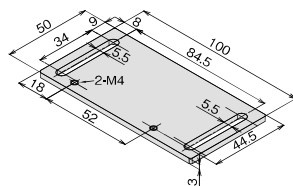
Material/A6063 Alumite Treatment



Material/A6063 Alumite Treatment

# Door•Panel Parts Magnet Catch with Limit Switch

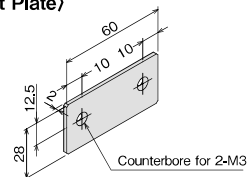
## (ML Bracket L80•90)



### Material/Technical Data

**Material** Aluminium Alloy  
Alumite Treatment  
**Weight** 36.4g  
**Environment** RoHS Compliant  
Green Procurement

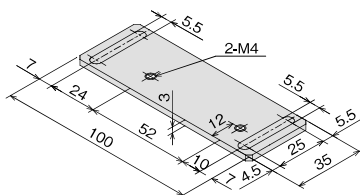
## ★ (ML Magnet Plate 1) ★ (CR Magnet Plate)



### Material/Technical Data

|                    | ML Magnet Plate 1                                 | CR Magnet Plate                                        |
|--------------------|---------------------------------------------------|--------------------------------------------------------|
| <b>Material</b>    | SPCC                                              | Stainless(SUS430)                                      |
| <b>Weight</b>      | 25.2g                                             | 25.6g                                                  |
| <b>Environment</b> | ★ <span style="color: red;">RoHS</span> Compliant | ★ <span style="color: green;">Green</span> Procurement |

## (ML Plate)

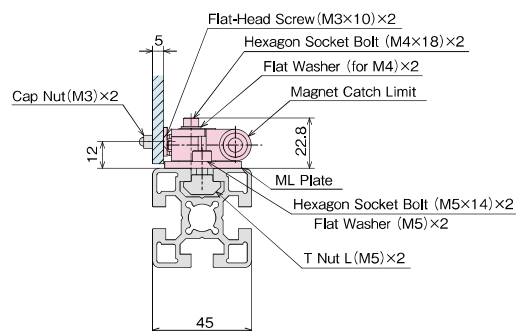
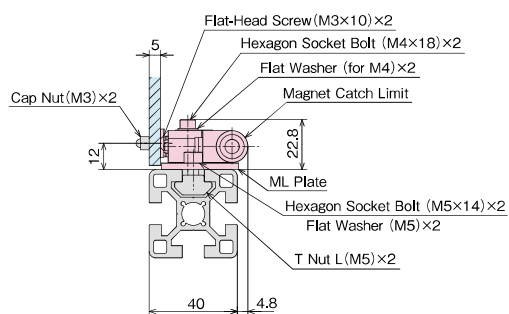
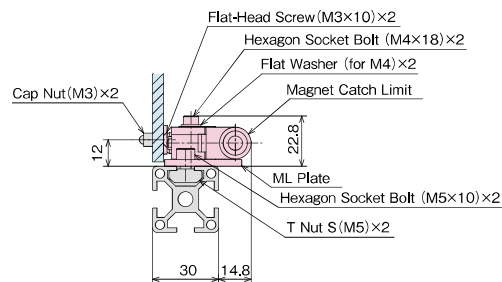
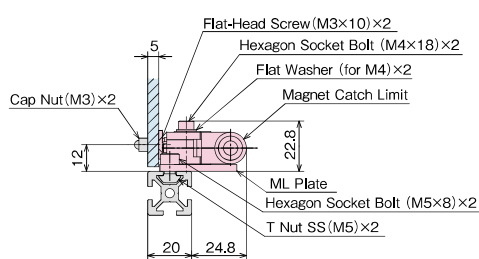


|          |                                          |
|----------|------------------------------------------|
| Name     | ML Plate                                 |
| Item No. | <span style="color: red;">SFA-42E</span> |

### Material/Technical Data

**Material** SUS304  
**Weight** 70.9g  
**Environment** RoHS Compliant  
Green Procurement

## Dimension Indication when using Resin Panel t5 Door



※ Bolt and Nut aren't included.



### Parts

#### How to order

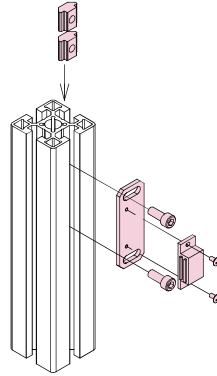
Item No. SFA-42E Quantity (pcs)



## Magnet Catch G with Limit Switch

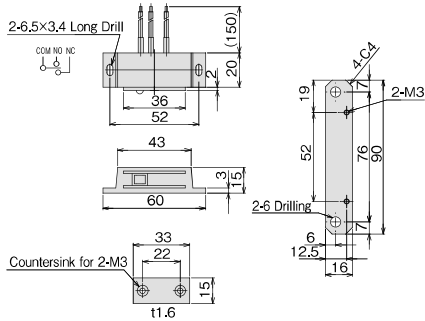


Magnet Catch G with Limit Switch  
(Adsorbability: 19N)

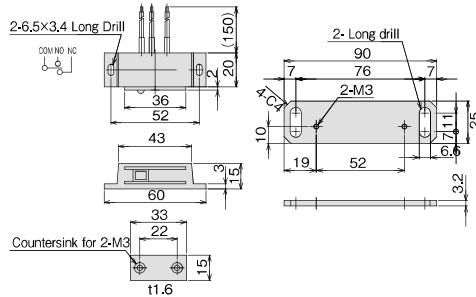


|                   |                                  |
|-------------------|----------------------------------|
| Name(Single Item) | Magnet Catch G with Limit Switch |
| Item No.          | SFA-499                          |

MG-G Limit SS Kit



MG-G Limit S/L Kit(Common)



■Material/Technical Data  
 Material ABS(Magnet Catch with G Limit Switch)  
 SPCC Uni-chrome(Door Side-Installing Plate)  
 Weight 40g(Magnet Catch with G Limit Switch)  
 Retentivity 3

|                        |                   |                  |                  |
|------------------------|-------------------|------------------|------------------|
| Attaching Frame        | SF20 Series       | SF30 Series      | SF40-45 Series   |
| Name(Bolt and Nut Kit) | MG-G Limit SS Kit | MG-G Limit S Kit | MG-G Limit L Kit |
| Item No.               | SFK-4X1           | SFK-4X2          | SFK-4X3          |

|              |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                       |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Kit Contents | <b>&lt;MG-G Limit SS Kit&gt;</b><br>●Magnet Catch G with Limit Switch×1<br>●T Nut SS(M5)×2<br>●MG-G Limit Installing Plate 20×1<br>●Truss Screw(M3×6)×2<br>●Flat-Head Screw(M3×8)×2<br>●Hexagon Socket Bolt(M5×8)×2<br>●Cap Nut(M3)×2 | <b>&lt;MG-G Limit S Kit&gt;</b><br>●Magnet Catch G with Limit Switch×1<br>●T Nut S(M6)×2<br>●MG-G Limit Installing Plate 30×1<br>●Truss Screw(M3×6)×2<br>●Flat-Head Screw(M3×10)×2<br>●Hexagon Socket Bolt(M6×10)×2<br>●Cap Nut(M3)×2 | <b>&lt;MG-G Limit L Kit&gt;</b><br>●Magnet Catch G with Limit Switch×1<br>●T Nut L(M6)×2<br>●MG-G Limit Installing Plate 30×1<br>●Truss Screw(M3×6)×2<br>●Flat-Head Screw(M3×10)×2<br>●Hexagon Socket Bolt(M6×15)×2<br>●Cap Nut(M3)×2 |
|              |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                       |

# Door•Panel Parts Ball Catch

## Ball Catch Exclusive Bracket

SF20

SS Size

SF30

S Size

SF40

L Size

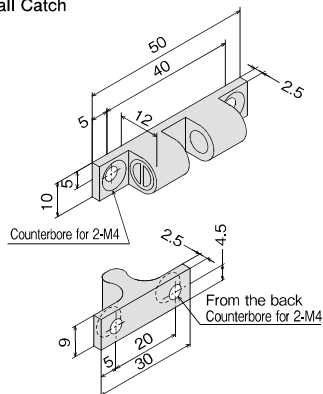
Complex Parts

Door•Panel  
Clean Equipment

Technical Data



Ball Catch

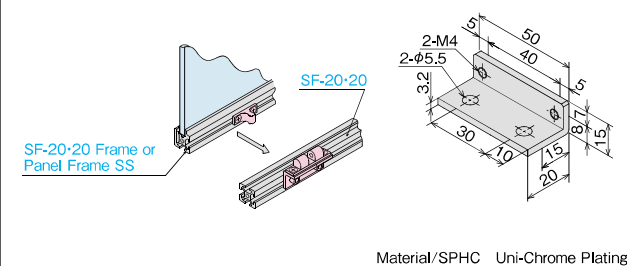


### Material/Technical Data

Material Zinc Alloy (ZDC) (Ball Catch)  
 Chrome Plating Treatment  
 Weight 24g (Ball Catch)  
 Pulling Load (Reference Value): 18.6N  
 Inserting Load (Reference Value): 27.5N

|                    |            |
|--------------------|------------|
| Name (Single Item) | Ball Catch |
| Item No.           | SFA-41A    |

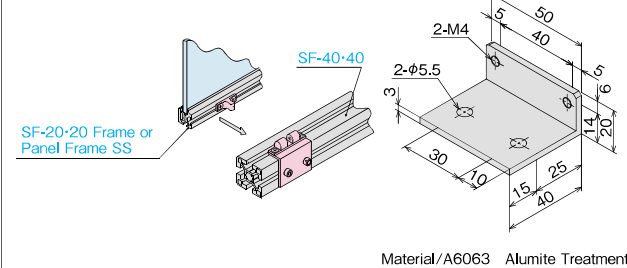
BW Bracket SS Kit



### Kit Contents

- Ball Catch×1
- BW Bracket SS×1
- Flat-Head Screw (M4×6)×2
- Flat-Head Screw (M4×8)×2
- T Nut SS M4×2
- T Nut SS M5×2
- Hexagon Socket Bolt (M5×8)×2

BW Bracket L40 Kit



### Kit Contents

- Ball Catch×1
- BW Bracket L40×1
- Flat-Head Screw (M4×6)×2
- Flat-Head Screw (M4×8)×2
- T Nut SS M4×2
- T Nut L M5×2
- Hexagon Socket Bolt (M5×12)×2

| Name (Bolt and Nut Kit) | BW Bracket SS Kit | BW Bracket L40 Kit |
|-------------------------|-------------------|--------------------|
| Item No.                | SFK-4BA           | SFK-4BC            |



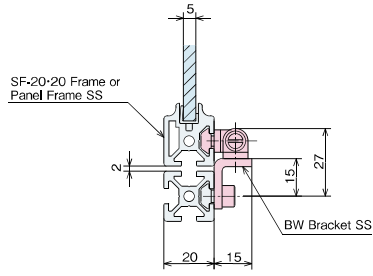
### Parts

#### How to order

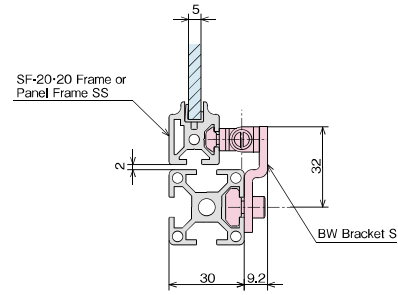
Item No. Quantity (pcs)  
 SFA-41A

Use Example when using Ball Catch

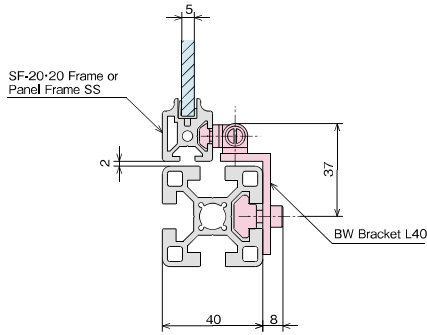
<Dimension Indication when using SF-20-20 Frame or Panel Frame SS Door>



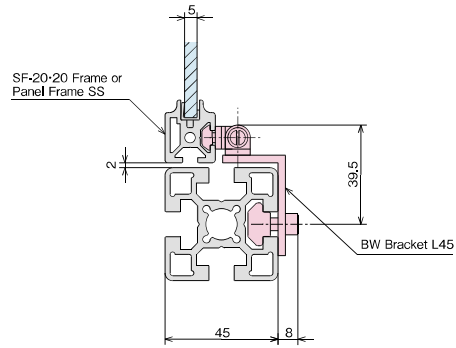
BW Bracket SS Kit



BW Bracket S Kit



BW Bracket L40 Kit



BW Bracket L45 Kit

SF20  
SS Size

SF30  
S Size

SF40-  
45  
L Size

Complex Parts

Door - Panel  
Clean Equipment

Technical Data

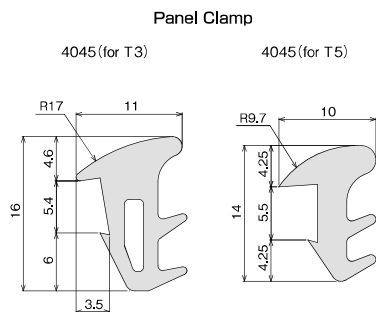
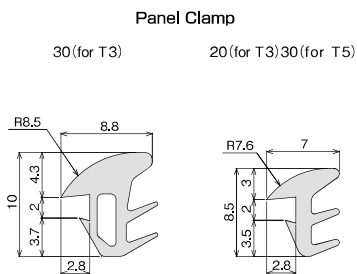
# Door•Panel Parts

## Panel Clamp



### Material/Technical Data

Material CSM60'±5"(Synthetic Rubber)/Light Gray  
 Weight 51.4g(30(for T3)) 111g(for 4045T3)  
 216g(20(for T3)30(for T5)) 528g(for 4045T5)  
 Environment **RoHS** Compliant **Green** Procurement



| Name     | Panel Clamp (ℓ=5000mm) |                         | Panel Clamp (ℓ=5000mm) |               |
|----------|------------------------|-------------------------|------------------------|---------------|
|          | 30 (for T3)            | 20 (for T3) 30 (for T5) | 4045 (for T3)          | 4045 (for T5) |
| Item No. | SFA-125                | SFA-121                 | SFA-126                | SFA-123       |

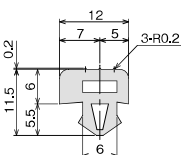
## Seal Cover



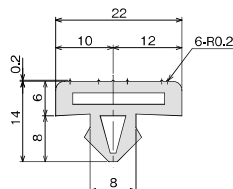
### Material/Technical Data

Material CSM60'±5"(Synthetic Rubber)  
 Light Gray  
 Weight 327g(SS)  
 516g(S) 801g(L)  
 Environment **RoHS** Compliant **Green** Procurement

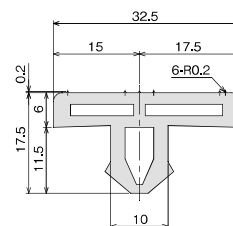
Seal Cover SS



Seal Cover S



Seal Cover L



| Name     | Seal Cover SS (ℓ=2500mm) | Seal Cover S (ℓ=2500mm) | Seal Cover L (ℓ=2500mm) |
|----------|--------------------------|-------------------------|-------------------------|
|          |                          |                         |                         |
| Item No. | SFA-131                  | SFA-133                 | SFA-135                 |



### Parts

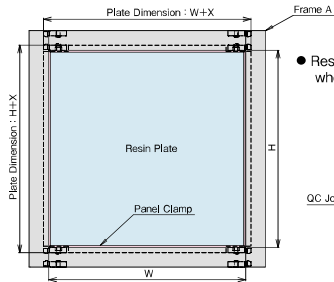
How to order

Item No. Quantity (pcs)

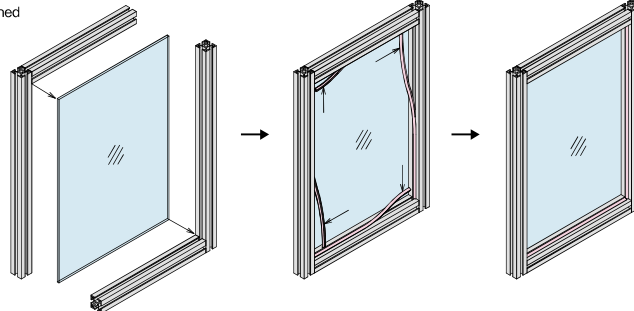
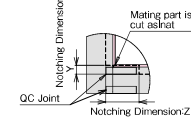
SFA-125

## How to install Panel Clamp

### (Indication of Installation Size and Parts Selection)



- Resin Plate needs to be notched when using QC Joint.



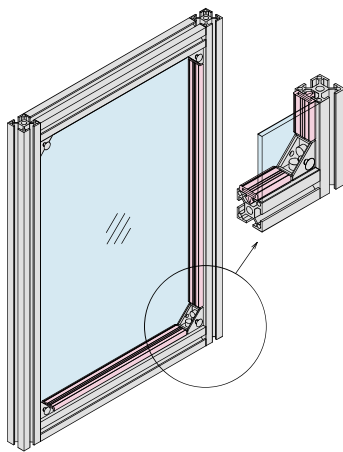
| Frame A      | Panel Clamp      | Resin Plate Thickness | QC Joint    | X  | Y  | Z    |
|--------------|------------------|-----------------------|-------------|----|----|------|
| SF-20 Series | Panel Clamp 2030 | 3mm                   | QC Joint SS | 10 | 6  | 25.5 |
| SF-30 Series | Panel Clamp 2030 | 3mm or 5mm            | QC Joint S  | 16 | 9  | 36   |
| SF-40 Series | Panel Clamp 4045 | 3mm or 5mm            | QC Joint L  | 23 | 12 | 47.5 |
| SF-45 Series | Panel Clamp 4045 | 3mm or 5mm            | QC Joint L  | 24 | 13 | 47.5 |

- Insert Resin Panel into the groove before assembling the frames.

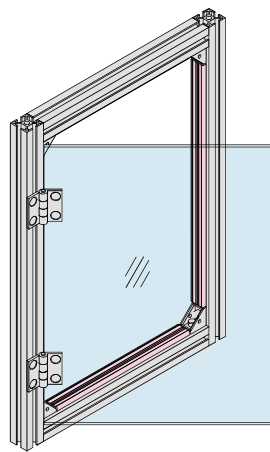
- Push Panel Clamp into the gap between Resin Panel and Frame's groove.

- Cover can be fixed with the simple appearance and Resin Panel won't jolt.

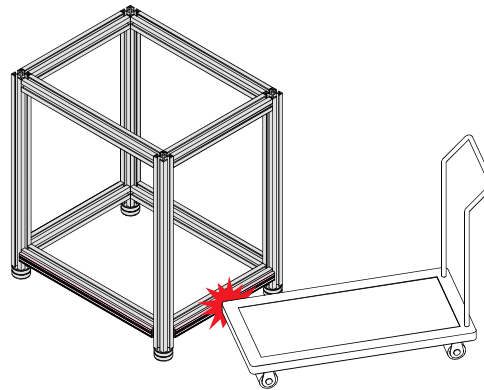
## How to use Seal Cover



- It can fill a gap between Resin Panel and frame.



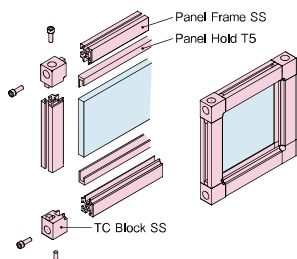
- As a stopper when making a resin door.



- To protect Aluminum Frame.

# Door・Panel Parts Panel Frame[For Small and Medium Door]

## Panel Frame SS / Panel Hold T5 / TC Block SS



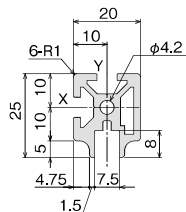
※M5 Tapping is needed to the cut surface of Panel Frame.  
(Refer P199~ for details)

### Material/Technical Data

|                    |                                                                                                                    |
|--------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Material</b>    | Aluminium Alloy (Panel Frame)<br>Alumite Treatment<br>Ethylene Vinyl Acetate (Panel Hold T5)<br>ZDC2 (TC Block SS) |
| <b>Weight</b>      | 0.6kg/m (Panel Frame)<br>14g/m (ℓ=2000mm/pcs) (Panel Hold T5)<br>40g (TC Block SS) ※                               |
| <b>Environment</b> | RoHS Compliant Green Procurement                                                                                   |

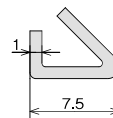
※Hexagon Socket Bolt M5×15 with 2 pcs

Panel Frame SS



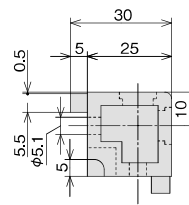
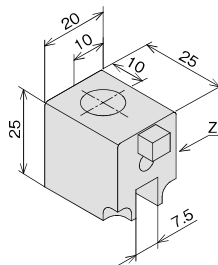
※Based on a groove shape SF20.

Panel Hold T5



| Name     | Panel Frame SS ℓ=4000 | Panel Frame SS ℓ=50~4000 | Panel Hold T5 ℓ=2000 |
|----------|-----------------------|--------------------------|----------------------|
| Item No. | SFF-T62               | SFF-T64                  | SFA-108              |

TC Block SS

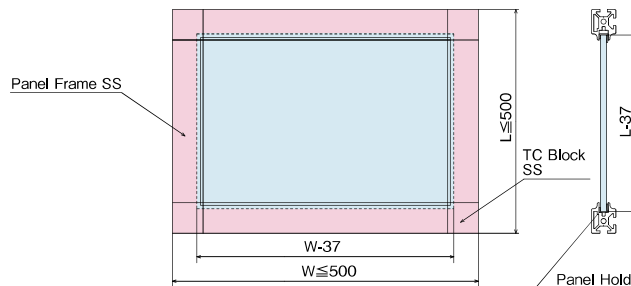


View Z

| Name     | TC Block SS |
|----------|-------------|
| Item No. | SFK-Q01     |

### Size indication for Panel Frame

〈Size indication for Panel Frame, Resin Plate〉



There is a risk that the Panel Frame sags if cover size becomes more than 500 × 500. We recommend that you use SF20 or SF30 series to build the frame.



### Parts

How to order

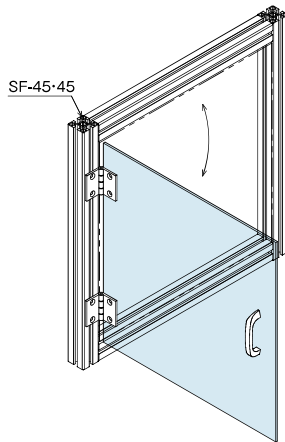
Item No. SFF-T62

Quantity (pcs)



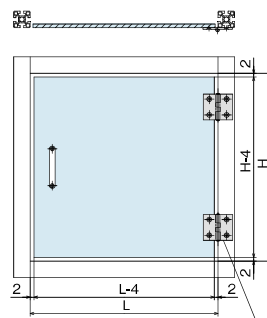


### Installment Indication for Resin Panel Door (Small door)

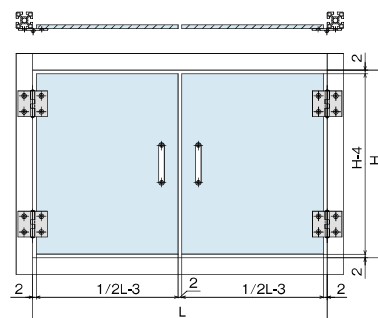


● This drawing is example of using Flat Hinge (M6).

(In case of Single Swing Door)

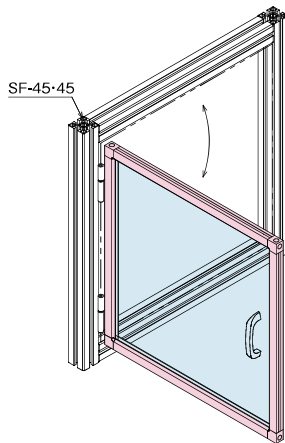


(In case of Hinged Double Door)



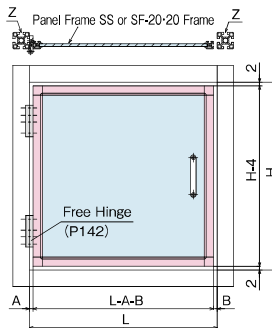
※Refer from P140 for Hinge and Magnet Catch.

### Installment Indication for Panel Frame Door (Small and Medium Door)

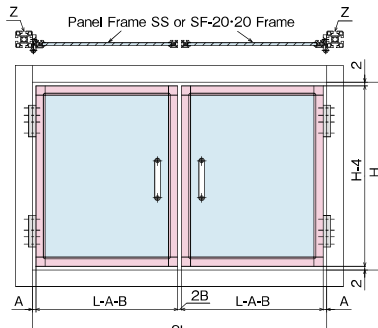


● This drawing is example of using Free Hinge 4520L.

(In case of Single Swing Door)



(In case of Hinged Double Door)

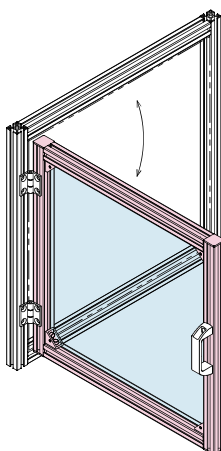


[Dimension Indication when creating Panel Frame Door]

|     | SF20 or SF30 |                  |        | SF40 or SF45 |     |        |
|-----|--------------|------------------|--------|--------------|-----|--------|
| Z   | 200          | 330              | 700    | 200          | 330 | 700    |
| Lmm | S            | S                | and up | S            | S   | and up |
|     | 329          | 699              |        | 329          | 699 |        |
| Amm | 4.6 (SF20)   | 5.0 (SF30-40-45) |        |              |     |        |
| Bmm | 3            | 2.5              | 2      | 3            | 2.5 | 2      |

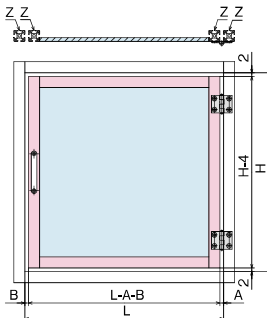
※Refer from P140 for Hinge and Magnet Catch.

### Installment Indication for Frame Door (Medium and Large Door)

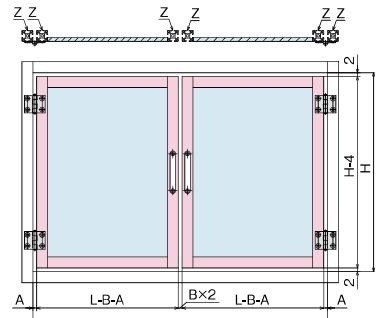


● This drawing is example of using Flat Hinge S.

(In case of Single Swing Door)



(In case of Hinged Double Door)



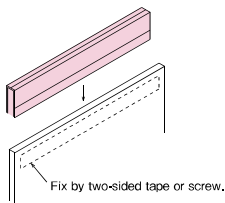
[Dimension Indication when creating Frame Door] When using Flat Hinge

|     | SF20 | SF30 | SF40 or SF45     |
|-----|------|------|------------------|
| Z   | 250  | 440  | 215 400 700 1000 |
| Lmm | S    | S    | S and up         |
|     | 439  | 399  | 699 999          |
| Bmm | 2    | 3    | 2 5 4 3 2        |
| Amm | 1    | 2    | 2                |

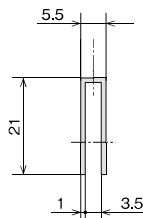
※Refer from P140 for Hinge and Magnet Catch.

# Door・Panel Parts Rail [For Small Sliding Door]

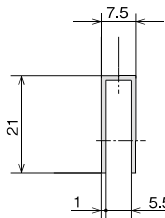
## Panel Guard



Panel Guard T3



Panel Guard T5



| Name     | Panel Guard T3 (ℓ=3000) | Panel Guard T3 (ℓ=50~3000) | Panel Guard T5 (ℓ=3000) | Panel Guard T5 (ℓ=50~3000) |
|----------|-------------------------|----------------------------|-------------------------|----------------------------|
| Item No. | SFF-K32                 | SFF-K34                    | SFF-K52                 | SFF-K54                    |

### Material/Technical Data

Material Aluminium Alloy  
Alumite Treatment  
Unit Mass 0.4kg/m  
Environment **RoHS** Compliant **Green** Procurement

● ℓ=3000 Type is to be cut by customer. Effective range of use ℓ=(3000)

### Panel Guard Slat Cut Service

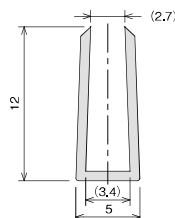
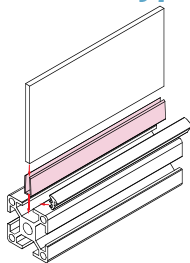


|           | Processing Contents                                                | Processing Symbol |
|-----------|--------------------------------------------------------------------|-------------------|
| One Side  | Diagram showing a 45° cut on one side of the guard with length ℓ.  | DVS               |
| Both Side | Diagram showing 45° cuts on both sides of the guard with length ℓ. | DVW               |



Panel Guard T5 800mm In case both sides are cut aslant  
**SFF-K54 800mm DVW** (Or both sides are cut aslant)

## Panel Guard T3 〈Resin Type〉



| Name     | Panel Guard T3 (Resin Type) |
|----------|-----------------------------|
| Item No. | SFA-109                     |

It becomes Spacer of t=5 by installing t=3 Panel.

### Material/Technical Data

Material Polyethylene (Silver)  
Unit Mass 21g/m (ℓ=2000mm/PCS)  
Environment **RoHS** Compliant **Green** Procurement



### SF Frame

Standard Length (Cut by Customer) ℓ=3100-Effective range of use ℓ=3000

Item No. **SFF-K32**

Quantity (pcs)



In case of specifying the length (Cut by SUS)

Item No. **SFF-K34**

Length (mm) ℓ=800  
※ Order by 0.1mm unit

### Parts

How to order

Item No. **SFA-109**

Quantity (pcs)



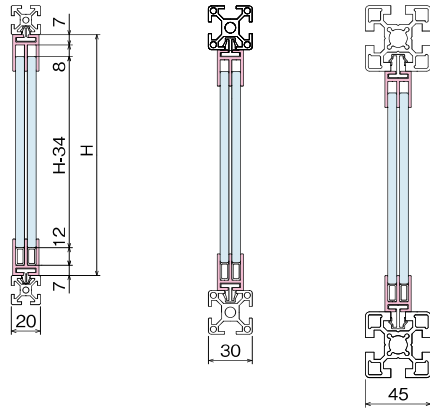




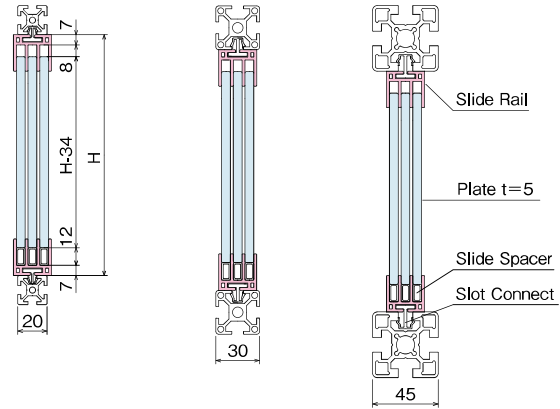
Dimensional Indication of Installing Slide Rail and Slide Door Rail

〈Slide Rail〉

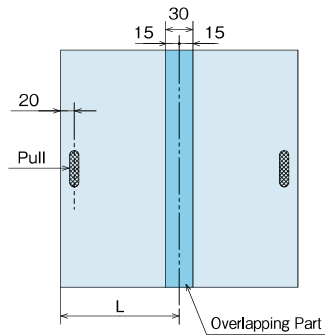
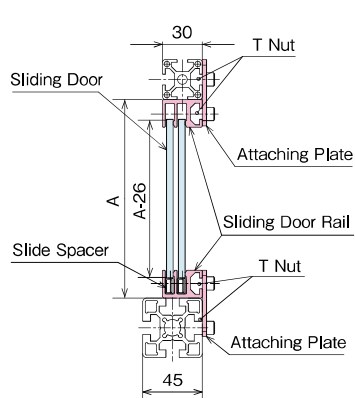
● 2 Directions Type



● 3 Directions Type



〈Sliding Door Rail〉



- Plate size
- \* Plate Thickness... t = 5
  - \* Lateral: L+15  
(In case overlapping 30mm)
  - \* longitudinal:  
Slide Rail: H-34  
Sliding Door Rail: A-26

SF20

SS Size

SF30

S Size

SF40

L Size

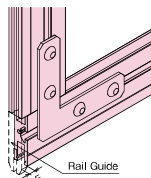
Complex Parts

Door Panel  
Clean Equipment

Technical Data

# Door•Panel Parts Sliding Door Frame[For Medium Size Sliding Door]

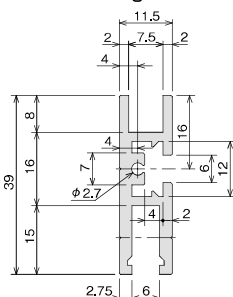
## Sliding Door Frame/Panel Joint Kit



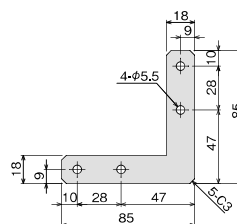
### Material/Technical Data

|                               |                                                                                                                                                                             |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material                      | Aluminium Alloy (Frame)<br>SUS304 (Panel Joint)<br>Alumite Treatment                                                                                                        |
| Environment                   | ★RoHS Compliant<br>★Green Procurement                                                                                                                                       |
| Geometrical Moment of Inertia | $I_x = 2.47 \times 10^{-4} \text{mm}^4$<br>$I_y = 0.357 \times 10^{-4} \text{mm}^4$<br>$Z_x = 1.247 \times 10^{-3} \text{mm}^3$<br>$Z_y = 0.602 \times 10^{-3} \text{mm}^3$ |
| Section Modulus               |                                                                                                                                                                             |
| Weight                        | 0.58kg/m (Frame)<br>54g (Plate Bracket)                                                                                                                                     |

Frame for Sliding Door's Rim



Panel Joint Kit



t=2

| Name     | Sliding Door Frame<br>ℓ=4000 | Sliding Door Frame<br>ℓ=50~4000 |
|----------|------------------------------|---------------------------------|
| Item No. | ★SFF-D02                     | ★SFF-D04                        |

● Cut length is the material to be cut by customer.  
Effective range of use ℓ = 4000

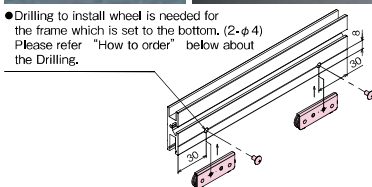
| Name     | Panel Joint Kit |
|----------|-----------------|
| Item No. | SFK-130         |

Kit Contents  
● S Plate Bracket SS-Lx1  
● T Nut SS(M5)×4  
● Hexagon Socket Button Bolt (M5×6)×4

## Rail Guide Kit/Sliding Door Wheel



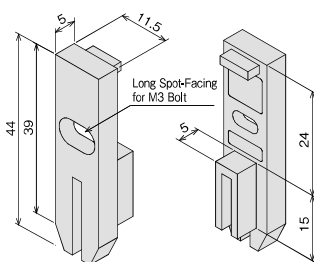
● Drilling to install wheel is needed for the frame which is set to the bottom. (2-φ4)  
Please refer "How to order" below about the Drilling.



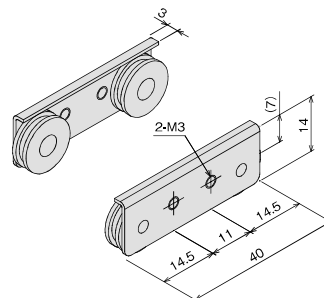
### Material/Technical Data

|             |                              |                      |
|-------------|------------------------------|----------------------|
|             | Rail Guide                   | Wheel                |
| Material    | Polyacetal                   | Polyacetal           |
| Weight      | 2.8g                         | 6.4g                 |
|             | Include Lock Screw (M3x12)x1 | Truss Screw (M3x5)x1 |
| Environment | RoHS Compliant               |                      |

Rail Guide Kit



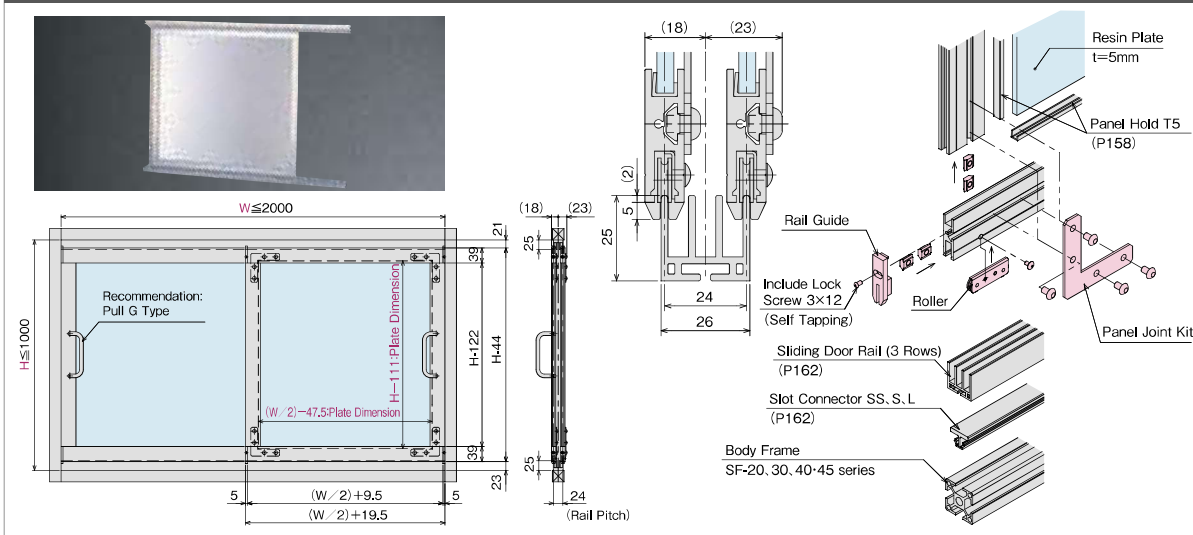
Sliding Door Wheel



| Name     | Rail Guide Kit |
|----------|----------------|
| Item No. | SFK-5A3        |

| Name     | Sliding Door Wheel |
|----------|--------------------|
| Item No. | SFA-504            |

## Unit Construction



### SF Frame

Standard Length (Cut be Customer)

| Item No. | Length (mm) | Drilling No. to install Corocon | Quantity (pcs)       |
|----------|-------------|---------------------------------|----------------------|
| SFF-D04  | ℓ = 800     | CH                              | <input type="text"/> |

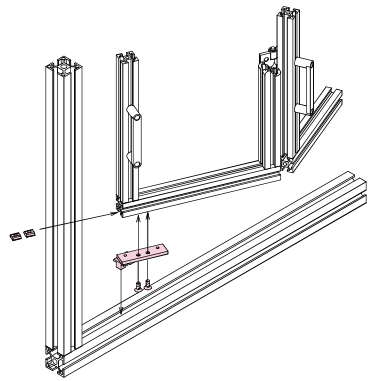
### Parts

How to order

| Item No. | Quantity (pcs)       |
|----------|----------------------|
| SFK-130  | <input type="text"/> |



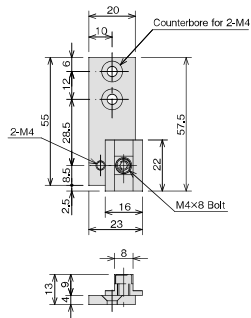
## Folding Door Slider



### Material/Technical Data

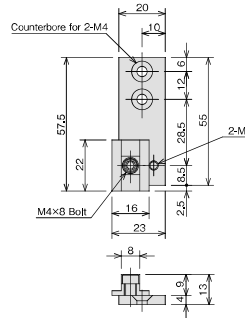
|             |                                                 |
|-------------|-------------------------------------------------|
| Material    | Polyacetal(Slide)<br>Stainless(Attaching Plate) |
| Weight      | 45g(S-SSA/B)<br>65g(S)<br>63g(L-S)              |
| Environment | RoHS Compliant<br>Green Procurement             |

### Folding Door Slider S-SSA



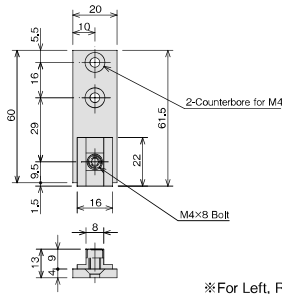
Down when Door opens to right  
Up when Door opens to left

### Folding Door Slider S-SSB



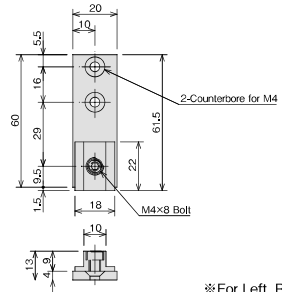
Down when Door opens to right  
Up when Door opens to left

### Folding Door Slider S



※For Left, Right, Up and Down

### Folding Door Slider L-S



※For Left, Right, Up and Down

### Kit Contents

- Folding Door Slider Block Sx1
- Folding Door Slider Plate SSx1
- ST Nut S(M4)×2
- Hexagon Socket Bolt(M4×8) Stainlessx1
- Flat Screw(M4×8) Stainlessx2
- Spacerx1

### Usable Frame

〈Structural〉  
SF-30 Series  
〈Door〉  
SF-20-20

### Kit Contents

- Folding Door Slider Block Sx1
- Folding Door Slider Plate Sx1
- ST Nut S(M4)×2
- Hexagon Socket Bolt(M4×8) Stainlessx1
- Flat Screw(M4×12) Stainlessx2
- Spacerx1

### Usable Frame

〈Structural〉  
SF-30 Series  
〈Door〉  
SF-30-30

### Kit Contents

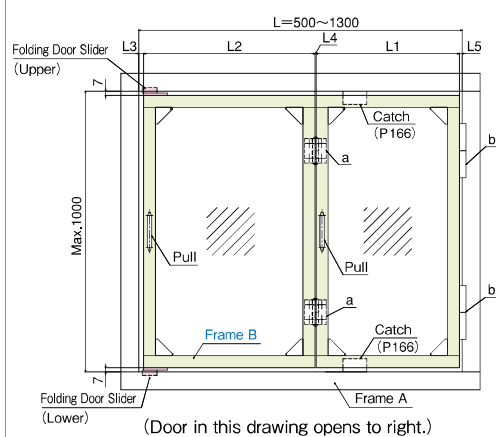
- Folding Door Slider Block Lx1
- Folding Door Slider Plate Sx1
- ST Nut S(M4)×2
- Hexagon Socket Bolt(M4×8) Stainlessx1
- Flat Screw(M4×12) Stainlessx2
- Spacerx1

### Usable Frame

〈Structural〉  
SF-40-45 Series  
〈Door〉  
SF-30-30

| Name     | Folding Door Slider S-SSA | Folding Door Slider S-SSB | Folding Door Slider S | Folding Door Slider L-S |
|----------|---------------------------|---------------------------|-----------------------|-------------------------|
| Item No. | SFK-801A                  | SFK-802A                  | SFK-803A              | SFK-804A                |

### Size Indication for Folding Door Slider



### Indication of Parts Choice

| Frame A     | Frame B     | Folding Slider Up                     | Folding Slider Down                   | Hinge a                 | Hinge b                    |
|-------------|-------------|---------------------------------------|---------------------------------------|-------------------------|----------------------------|
| SF30 Series | SF20 Series | Folding Slider S-SSB Note) (SFK-802A) | Folding Slider S-SSA Note) (SFK-801A) | Flat Hinge SS (SFA-2A1) | Free Hinge 3020R (SFA-25R) |
| SF30 Series | SF30 Series | Folding Slider S (SFK-803A)           | Folding Slider S (SFK-803A)           | Flat Hinge S (SFA-2A2)  | Free Hinge S-R (SFA-22R)   |
| SF40 Series | SF30 Series | Folding Slider L-S (SFK-804A)         | Folding Slider L-S (SFK-804A)         | Flat Hinge S (SFA-2A2)  | Free Hinge L40-R (SFA-23R) |

### Note:

- 1) When the folding door opens to the left, the folding door slider S-SS will become upside down.
- 2) For SF45 series, it's not compatible for this structure.

### Dimension Indication

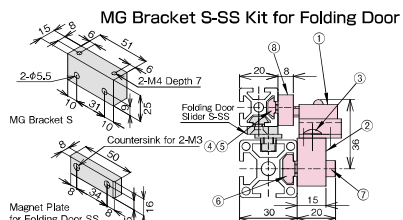
| Frame A     | Frame B     | L1                  | L2      | L3                                                                              | L4 | L5  |
|-------------|-------------|---------------------|---------|---------------------------------------------------------------------------------|----|-----|
| SF30 Series | SF20 Series | (L-L3-L4-L5-31.8)/2 | L1+31.8 | L=Less than 500-700 ...9.5<br>L=Less than 700-1000 ...7.5<br>L=1000-1300 ...5.5 | 1  | 4.8 |
| SF30 Series | SF30 Series | (L-L3-L4-L5-33)/2   | L1+33   | L=Less than 500-700 ...9.5<br>L=Less than 700-1000 ...7.5<br>L=1000-1300 ...5.5 | 2  | 5   |
| SF40 Series | SF30 Series | (L-L3-L4-L5-38)/2   | L1+38   | L=Less than 500-700 ...9.5<br>L=Less than 700-1000 ...7.5<br>L=1000-1300 ...5.5 | 2  | 5   |

When the folding door opens to the left, the folding slide S-SS will become upside down.

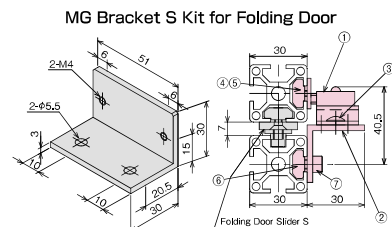
### Magnet Catch Kit for Folding Door



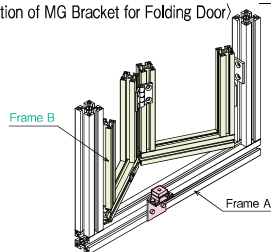
※Refer from P146 for details of Magnet Catch as Single Item.  
 〈Choice Indication of MG Bracket for Folding Door〉



- |              |                      |                                     |
|--------------|----------------------|-------------------------------------|
| Kit Contents | ①Magnet Catch Nx1    | ⑤T Nut SS(M3)×2                     |
|              | ②MG Bracket Sx1      | ⑥T Nut S(M5)×2                      |
|              | ③Truss Screw(M4×5)×2 | ⑦Hexagon Socket Bolt(M5×22)×2       |
|              | ④Flat Screw(M3×12)×2 | ⑧Magnet Plate for Folding Door SS×1 |

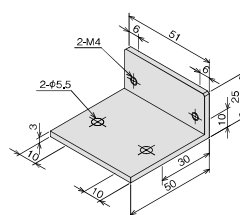


- |              |                      |                               |
|--------------|----------------------|-------------------------------|
| Kit Contents | ①Magnet Catch Nx1    | ⑤T Nut S(M3)×1                |
|              | ②MG Bracket Sx1      | ⑥T Nut S(M5)×2                |
|              | ③Truss Screw(M4×5)×2 | ⑦Hexagon Socket Bolt(M5×10)×2 |
|              | ④Flat Screw(M3×8)×1  |                               |

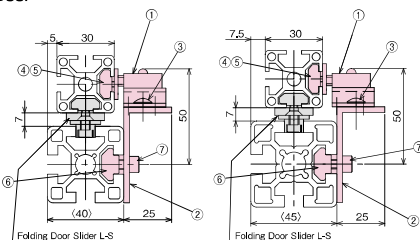


| Frame A         | Frame B      | MG Bracket for Folding Door          |
|-----------------|--------------|--------------------------------------|
| SF-30 series    | SF-20 series | MG Bracket S-SS Kit for Folding Door |
| SF-30 series    | SF-30 series | MG Bracket S Kit for Folding Door    |
| SF-40/45 series | SF-30 series | MG Bracket L-S Kit for Folding Door  |

## MG Bracket L-S Kit for Folding Door



- |              |                      |                     |                               |
|--------------|----------------------|---------------------|-------------------------------|
| Kit Contents | ①Magnet Catch Nx1    | ④Flat Screw(M3x8)x1 | ⑦Hexagon Socket Bolt(M5x15)x2 |
|              | ②MG Bracket L-Sx1    | ⑤T Nut S(M3)x1      |                               |
|              | ③Truss Screw(M4x5)x2 | ⑥T Nut L(M5)x2      |                               |



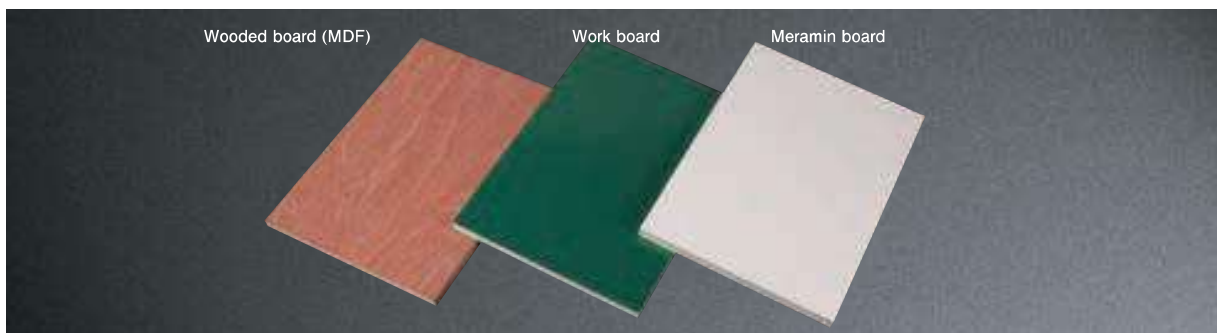
| Name     | MG Bracket S-SS Kit for Folding Door | MG Bracket S Kit for Folding Door | MG Bracket L-S Kit for Folding Door |
|----------|--------------------------------------|-----------------------------------|-------------------------------------|
| Item No. | SFK-4AJ                              | SFK-4AF                           | SFK-4AG                             |

※Please refer from P146 to use for other purpose than Folding Door



# Panel•Sheet

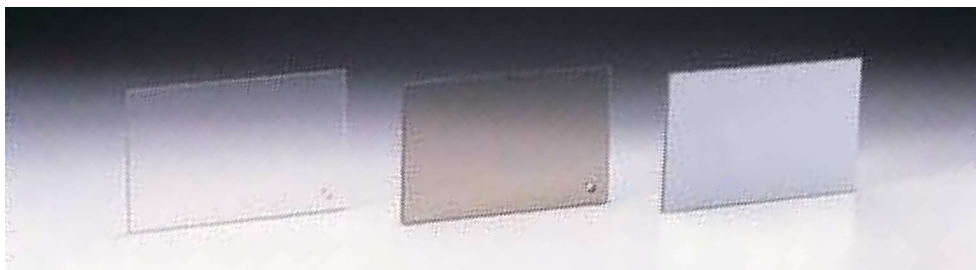
## Wooden Board



### Products/Options

| Material                  | Board Thickness(mm) Include All | Surface                            | Color                  | Maximum size (mm) |
|---------------------------|---------------------------------|------------------------------------|------------------------|-------------------|
| Wooden Board (MDF)        | 9, 12, 16                       | White 1 Face, Wooden 1 Face        | (White End Face)       | 1200×2400         |
| Work Board                | 11, 14, 18 (Included Mat)       | White 1 Face, ESD Rubber Mat (2mm) | Green (White End Face) |                   |
| Work Board (Ground Cable) | 11, 14, 18 (Included Mat)       | White 1 Face, ESD Rubber Mat (2mm) | Green (White End Face) |                   |
| Meramin Board             | 9, 12, 16                       | White 2 Face                       | White (White End Face) |                   |

## Resin Panel



### Products/Options

| Name                       | Standard color | Panel thickness (mm) | Density | Atmospheric temperature | Maximum size |
|----------------------------|----------------|----------------------|---------|-------------------------|--------------|
| Polyvinyl Chloride (PVC)   | Transparent    | 3 or 5               | 1.40    | Up to 60 °C             | 1200×2400    |
| Acrylic (PMMA)             | Transparent    | 3 or 5               | 1.19    | Up to 80 °C             |              |
| Polycarbonate (PC)         | Transparent    | 3 or 5               | 1.20    | Up to 130 °C            |              |
| Alumi Composit Panel (ACP) | Silver         | 3                    | 0.81    | Up to 70 °C             |              |

\* If you require antistatic processing for panels, please notify when requesting for quotation.



STANDARD FRAME

# Technical Data

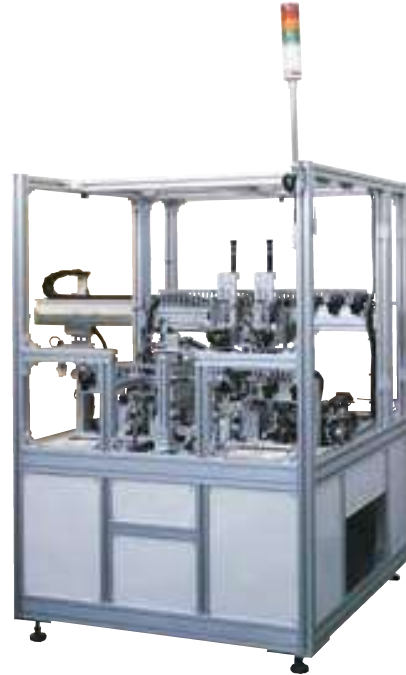
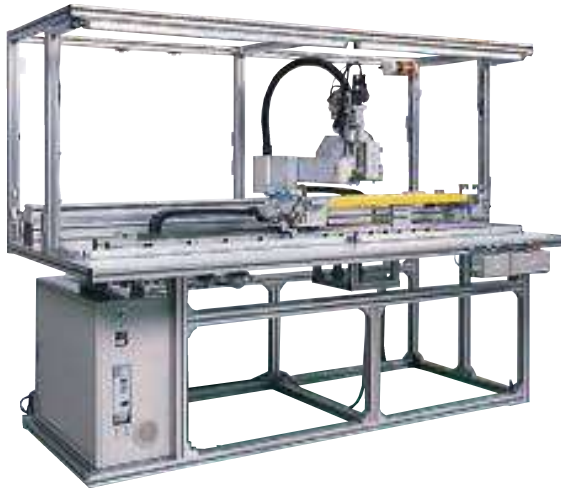
**EASY To Check,  
EASY To Order,  
EASY To Assemble.**

SF20  
SS SizeSF30  
S SizeSF40-45  
L Size

Complex Parts

Door - Panel  
Clean Equipment

Technical Data

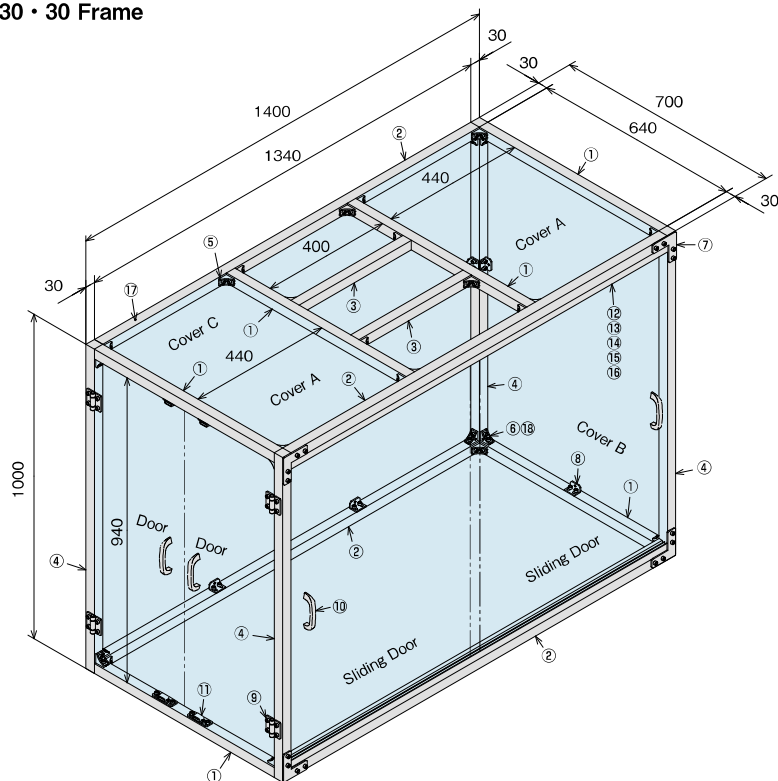


Please contact to SUS  
in order to make your own image.



## Reference Example of Free Unit

SF-30 • 30 Frame



| No. | Name                             | Quantity |
|-----|----------------------------------|----------|
| 1   | SF2-30•30 640L                   | 6        |
| 2   | SF2-30•30 1340L                  | 4        |
| 3   | SF2-30•30 400L                   | 2        |
| 4   | SF2-30•30 1000L                  | 4        |
| 5   | D Bracket S Kit                  | 22       |
| 6   | D Bracket S Kit with Tap         | 8        |
| 7   | Plate Bracket S-L Kit            | 4        |
| 8   | Cover Support S Kit              | 10       |
| 9   | Fixed Hinge S Kit                | 4        |
| 10  | Pull A                           | 4        |
| 11  | Magnet Catch N                   | 4        |
| 12  | Sliding Door's Rail 1340L        | 2        |
| 13  | Slide Spacer                     | 2        |
| 14  | Plate                            | 6        |
| 15  | T Nut S M6                       | 12       |
| 16  | Hexagon Socket Bolt M6×10        | 12       |
| 17  | T Nut S M5                       | 10       |
| 18  | Truss Screw                      | 18       |
| 19  | Sliding Door Acrylic t = 5 Clear | 2        |
| 20  | Door Acrylic t = 5 Clear         | 2        |
| 21  | Cover A Acrylic t = 5 Clear      | 2        |
| 22  | Cover B Acrylic t = 5 Clear      | 1        |
| 23  | Cover C Acrylic t = 5 Clear      | 1        |

| No. | Item No.  | Name                                     | Quantity | Note                |
|-----|-----------|------------------------------------------|----------|---------------------|
| 1   | SFF-324-T | SF-30 • 30 L = 640                       | 6        |                     |
| 2   | SFF-324-T | SF-30 • 30 L = 1340                      | 4        |                     |
| 3   | SFF-324-T | SF-30 • 30 L = 400                       | 2        |                     |
| 4   | SFF-324-T | SF-30 • 30 L = 1000                      | 4        |                     |
| 5   | SFK-018   | D Bracket S Kit                          | 22       |                     |
| 6   | SFK-019   | D Bracket S Kit with Tap                 | 8        |                     |
| 7   | SFK-104   | Plate Bracket S-L Kit                    | 4        |                     |
| 8   | SFK-K02   | Cover Support S Kit                      | 10       |                     |
| 9   | SFK-221   | Fixed Hinge S Kit                        | 4        |                     |
| 10  | SFA-301   | Pull A                                   | 4        |                     |
| 11  | SFA-45B   | Magnet Catch J                           | 4        |                     |
| 12  | SFF-R04   | Sliding Door's Rail L = 1340             | 2        |                     |
| 13  | SFA-107   | Slide Spacer L = 2000                    | 2        |                     |
| 14  | SFA-502   | Plate (For Sliding Door's Rail)          | 6        |                     |
| 15  | SFB-002   | T Nut S (M6)                             | 12       |                     |
| 16  | SFB-561   | Hexagon Socket Bolt (Uni-Chrome) M6×10   | 12       |                     |
| 17  | SFB-001   | T Nut S (M5)                             | 10       |                     |
| 18  | SFB-558   | Truss Screw M5×10                        | 18       |                     |
| 19  | SFY       | Sliding Door 914×685 (Drilling included) | 2        | Acrylic t = 5 Clear |
| 20  | SFY       | Door 938×317 (Drilling included)         | 2        | Acrylic t = 5 Clear |
| 21  | SFY       | Cover A 694×494 (Drilling included)      | 2        | Acrylic t = 5 Clear |
| 22  | SFY       | Cover B 998×638 (Drilling included)      | 1        | Acrylic t = 5 Clear |
| 23  | SFY       | Cover C 1338×998 (Drilling included)     | 1        | Acrylic t = 5 Clear |

SF20

SS Size

SF30

S Size

SF40

L Size

Complex Parts

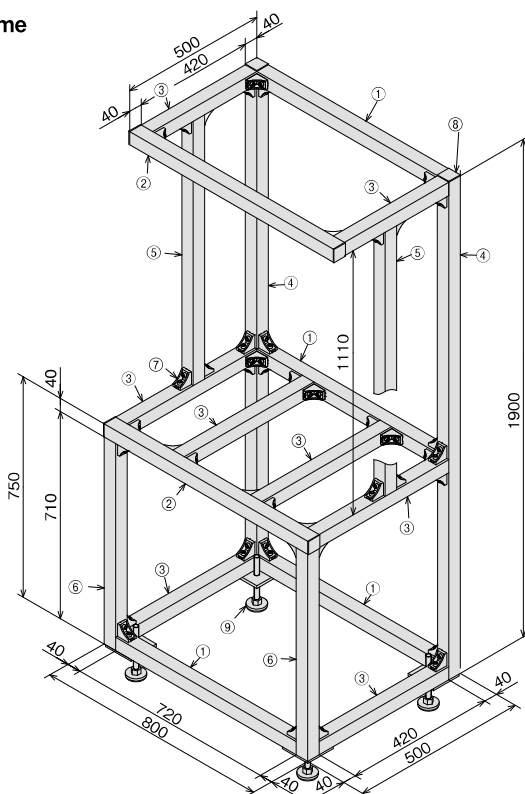
Door • Panel  
Clean Equipment

Technical Data

# Technical Data *Free Unit*

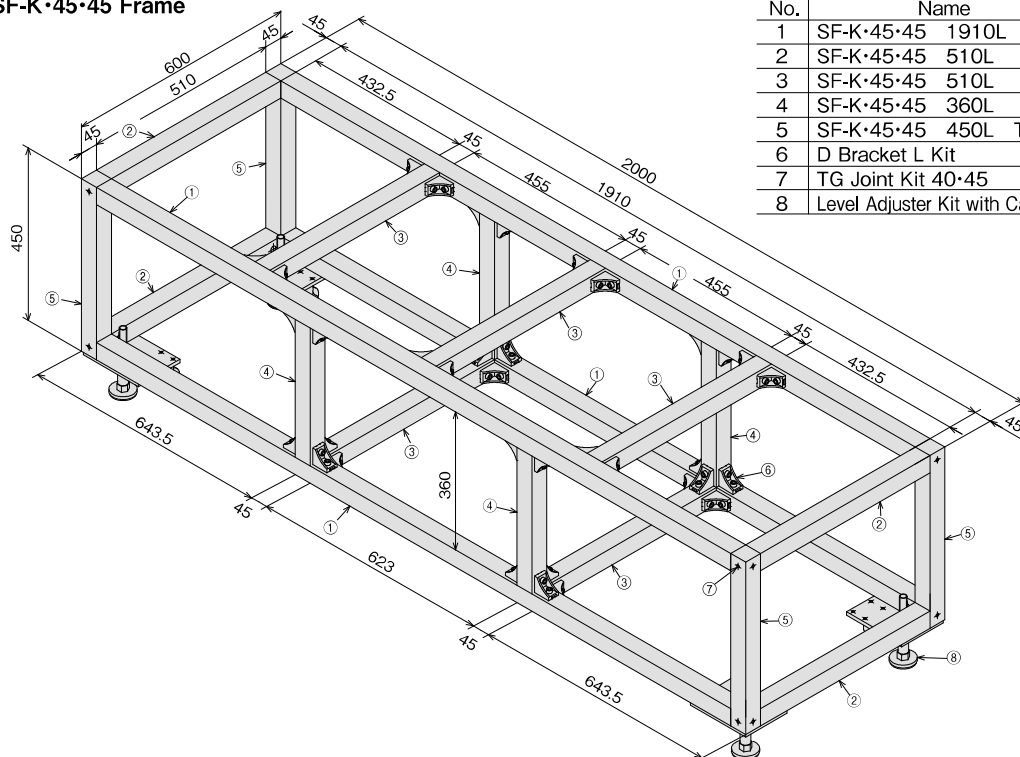
## Reference Example of Free Unit

SF2-40•40 Frame



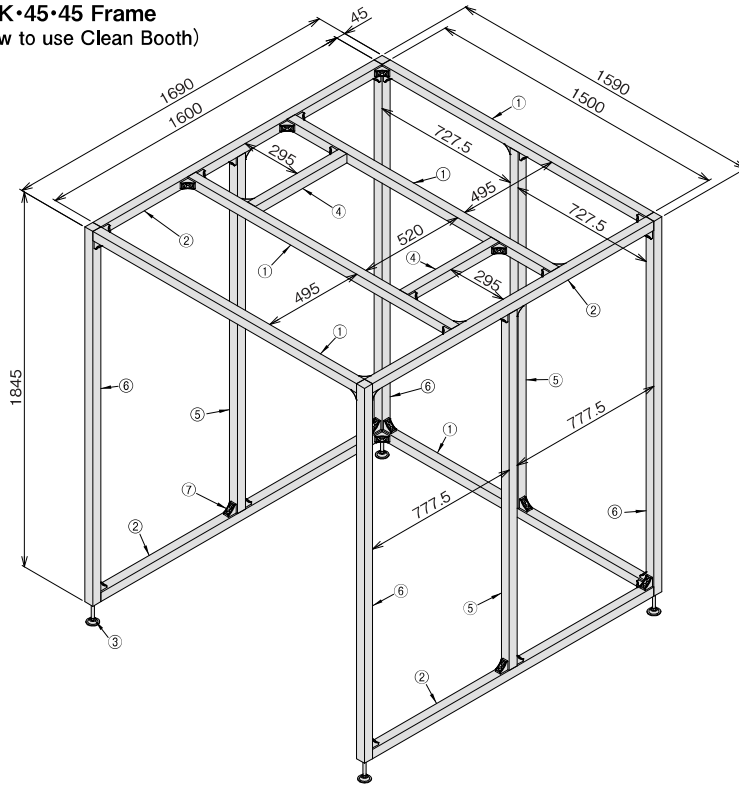
| No. | Name                 | Quantity |
|-----|----------------------|----------|
| 1   | SF2-40•40 720L       | 4        |
| 2   | SF2-40•40 800L       | 2        |
| 3   | SF2-40•40 420L       | 8        |
| 4   | SF2-40•40 1900L      | 2        |
| 5   | SF2-40•40 1110L      | 2        |
| 6   | SF2-40•40 710L       | 2        |
| 7   | D Bracket L Kit      | 48       |
| 8   | Frame Cap 4040       | 6        |
| 9   | Level Adjuster Kit L | 4        |

SF-K•45•45 Frame



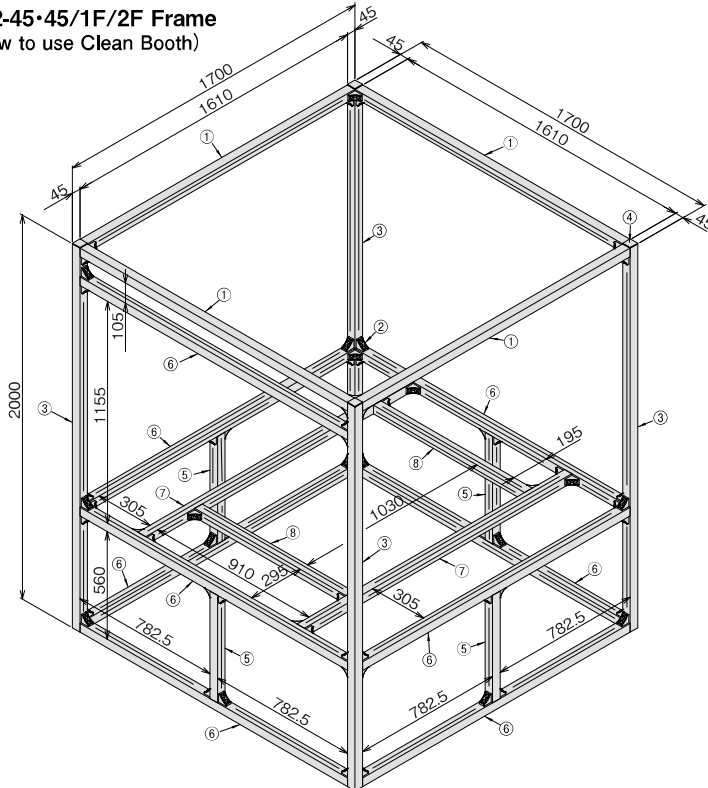
| No. | Name                             | Quantity |
|-----|----------------------------------|----------|
| 1   | SF-K•45•45 1910L TW              | 4        |
| 2   | SF-K•45•45 510L TW               | 4        |
| 3   | SF-K•45•45 510L                  | 5        |
| 4   | SF-K•45•45 360L                  | 4        |
| 5   | SF-K•45•45 450L TGM              | 4        |
| 6   | D Bracket L Kit                  | 40       |
| 7   | TG Joint Kit 40•45               | 16       |
| 8   | Level Adjuster Kit with Caster L | 4        |

**SF-K·45·45 Frame**  
(How to use Clean Booth)



| No. | Name                | Quantity |
|-----|---------------------|----------|
| 1   | SF-K·45·45 1500L    | 5        |
| 2   | SF-K·45·45 1600L    | 4        |
| 3   | Adjuster M12        | 4        |
| 4   | SF-K·45·45 520L     | 2        |
| 5   | SF-K·45·45 1755L    | 3        |
| 6   | SF-K·45·45 1845L TR | 4        |
| 7   | D Bracket L Kit     | 42       |

**SF2-45·45/1F/2F Frame**  
(How to use Clean Booth)



| No. | Name                   | Quantity |
|-----|------------------------|----------|
| 1   | SF2-45·45·2F 1610L     | 4        |
| 2   | D Bracket L Kit        | 72       |
| 3   | SF2-45·45·2F 2000L     | 4        |
| 4   | Frame Cap 45·45(Black) | 4        |
| 5   | SF2-45·45·1F 560L      | 4        |
| 6   | SF2-45·45·1F 1610L     | 9        |
| 7   | SF2-45·45 1610L        | 2        |
| 8   | SF2-45·45 910L         | 2        |

# Technical Data Free Unit

## Reference Example of Free Unit

SF20

SS Size

SF30

S Size

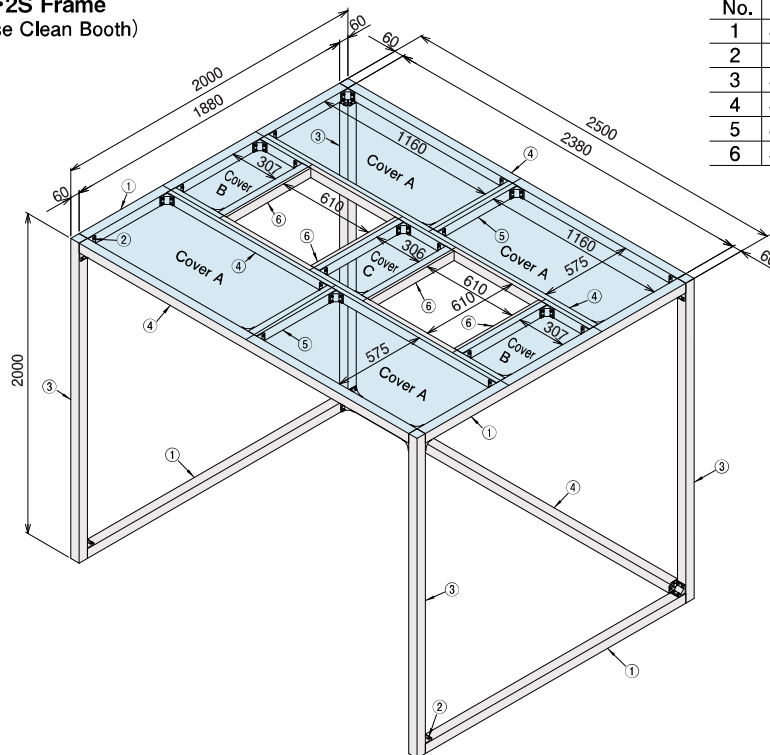
SF40-45  
L Size

Complex Parts

Door - Panel  
Clean Equipment

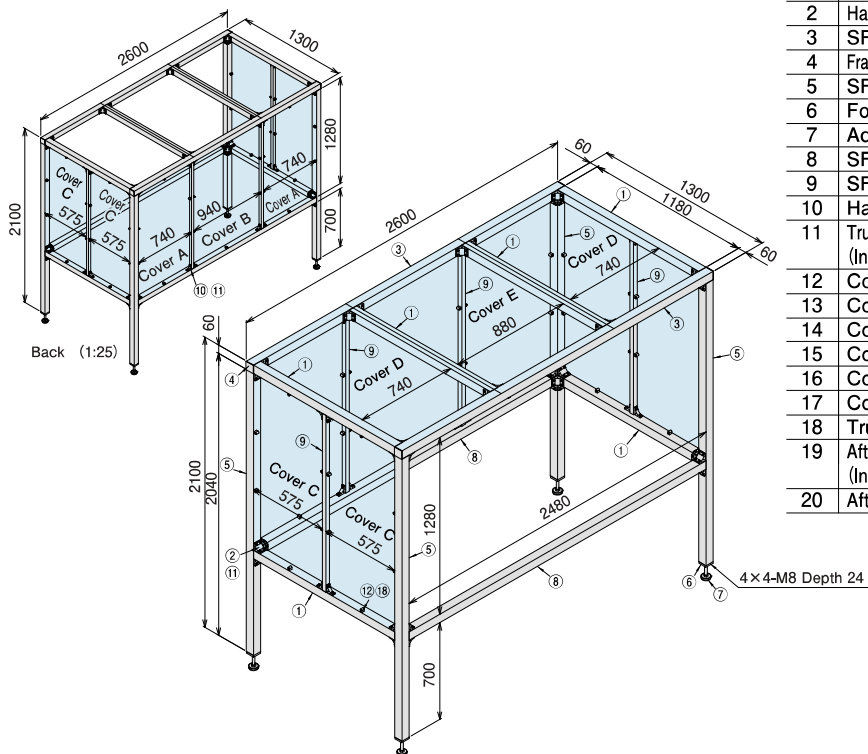
Technical Data

**SF-60•60•2S Frame**  
(How to use Clean Booth)



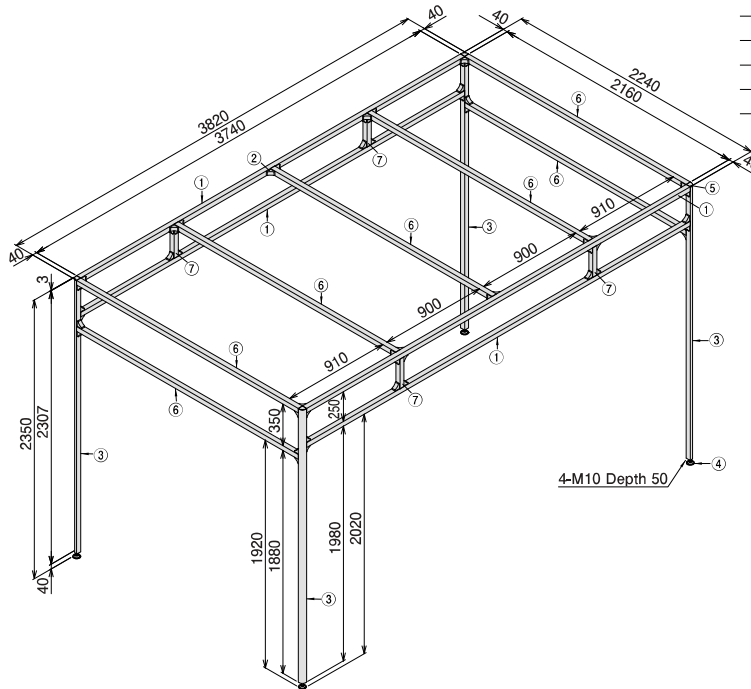
| No. | Name                   | Quantity |
|-----|------------------------|----------|
| 1   | SF-60•60•2S 1880L      | 4        |
| 2   | Hard Bracket S3060 Kit | 44       |
| 3   | SF-60•60•2S 2000L      | 4        |
| 4   | SF-60•60•2S 2380L      | 5        |
| 5   | SF-60•60•2S 575L       | 2        |
| 6   | SF-60•60•2S 610L       | 4        |

**SF-60•60•2S Frame**  
(How to use Clean Booth)



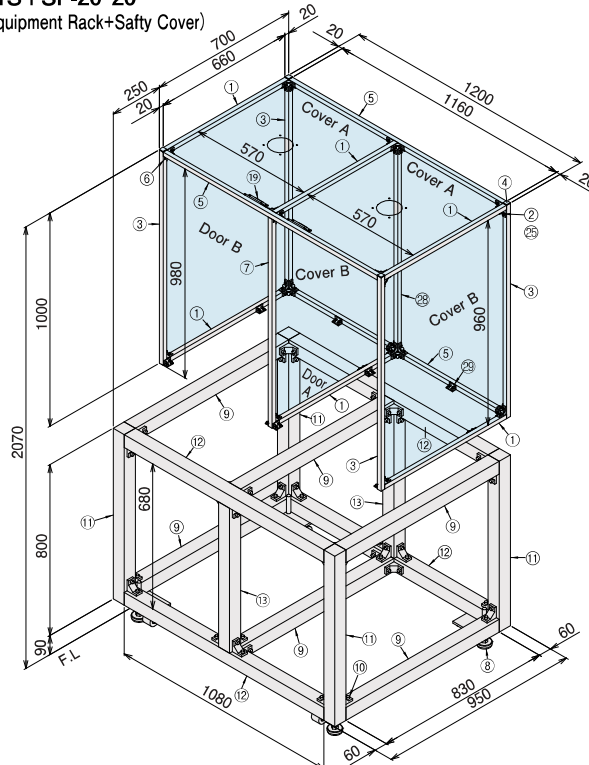
| No. | Name                                                    | Quantity |
|-----|---------------------------------------------------------|----------|
| 1   | SF-60•60•2S 1180L                                       | 6        |
| 2   | Hard Bracket S3060 Kit with Tap                         | 40       |
| 3   | SF-60•60•2S 2600L                                       | 2        |
| 4   | Frame Cap 60•60•2S (Light Gray)                         | 4        |
| 5   | SF-60•60•2S 2040L TL                                    | 4        |
| 6   | Foot Base 60602S                                        | 4        |
| 7   | Adjuster M16                                            | 4        |
| 8   | SF-60•60•2S 2480L                                       | 2        |
| 9   | SF2-30•30 1280L                                         | 4        |
| 10  | Hard Bracket S Kit with Tap                             | 16       |
| 11  | Truss Screw M5×10<br>(Include to install Cover D and E) | 52       |
| 12  | Cover Holder S                                          | 42       |
| 13  | Cover A                                                 | 2        |
| 14  | Cover B                                                 | 1        |
| 15  | Cover C                                                 | 4        |
| 16  | Cover D                                                 | 2        |
| 17  | Cover E                                                 | 1        |
| 18  | Truss Screw M5×15                                       | 42       |
| 19  | After Nut S M5<br>(Include to install Cover D and E)    | 24       |
| 20  | After Nut Support S (50 pieces)                         | 1        |

### SF2-40-40 (How to use Clean Booth)



| No. | Name                               | Quantity |
|-----|------------------------------------|----------|
| 1   | SF2-40-40 3740L                    | 4        |
| 2   | D Bracket L Kit                    | 60       |
| 3   | SF-40-40-R 2307L TL50              | 4        |
| 4   | Level Adjuster (KC-280-4: Takigen) | 4        |
| 5   | Frame Cap 40-40-R (Black)          | 4        |
| 6   | SF2-40-40 2160L                    | 7        |
| 7   | SF2-40-40 250L                     | 4        |

### SF-60-60-1S+SF-20-20 (How to use Equipment Rack+Safty Cover)



| No. | Name                                 | Quantity |
|-----|--------------------------------------|----------|
| 1   | SF-20-20 660L                        | 6        |
| 2   | Hard Bracket SS Kit with Tap         | 40       |
| 3   | SF-20-20 1000L                       | 4        |
| 4   | Frame Cap 20-20 (Black)              | 12       |
| 5   | SF-20-20 1160L                       | 3        |
| 6   | Blind Bracket SS                     | 4        |
| 7   | SF-20-20 980L                        | 1        |
| 8   | Level Adjuster Kit with Caster L     | 4        |
| 9   | SF-60-60-1S 830L                     | 6        |
| 10  | Hard Bracket L Kit                   | 40       |
| 11  | SF-60-60-1S 800L                     | 4        |
| 12  | SF-60-60-1S 1080L                    | 4        |
| 13  | SF-60-60-1S 680L                     | 2        |
| 14  | SF-20-20 524L                        | 4        |
| 15  | SF-20-20 572L                        | 4        |
| 16  | Pull A Type                          | 2        |
| 17  | Flag Hinge SS-R Kit                  | 2        |
| 18  | Flag Hinge SS-L Kit                  | 2        |
| 19  | ML Bracket SS Kit                    | 2        |
| 20  | Truss Screw M6x10                    | 4        |
| 21  | Cover A                              | 2        |
| 22  | Cover B                              | 3        |
| 23  | Cover C                              | 2        |
| 24  | Cover D                              | 2        |
| 25  | Truss Screw M5x10                    | 36       |
| 26  | Cover Holder SS (To install Cover)   | 66       |
| 27  | Truss Screw M5x15 (To install Cover) | 66       |
| 28  | SF-20-20 960L                        | 1        |
| 29  | Angle Bracket SS2040 Kit             | 10       |

# Technical Data Material Property

## Material Property

6061:Heat-treated type corrosive-resistant alloy. It's used for bolt and rivet component because the welded joint's strength is low, though it has pretty high bearing value by T6 treatment.

**SF**  
series

6N01:Alloy with moderate strength for extrusion. With the intermediate strength between 6061 and 6063, it has good property for extrusion and press-hardening heat treatment. Therefore, big and thin material with complicated sectional shape can be produced. It's also good in corrosive-resistance and weldability.

6063:Representative alloy for extrusion. Although the strength is lower than 6061, it has good property for extrusion. Complicated sectional shape can be produced and it's good in corrosive-resistance and for surface treatment.

## Aluminum Material Data

| SUS will use both materials depending on Usage |                                    |                        |
|------------------------------------------------|------------------------------------|------------------------|
| Material                                       | A6N01SS-T5                         | A6063S-T5              |
| Tensile Strength                               | 270N/mm <sup>2</sup>               | 187N/mm <sup>2</sup>   |
| Bearing Force                                  | 225N/mm <sup>2</sup>               | 147N/mm <sup>2</sup>   |
| Longitudinal Elastic Modulus                   | 69972N/mm <sup>2</sup>             | 68600N/mm <sup>2</sup> |
| Hardness                                       | Brinell Hardness 88HB              | Brinell Hardness 60HB  |
| Treatment                                      | Anodizing Thickness: More than 9μm |                        |

## Frame Material Data

### ●Technical Data Table

| Aluminum Frame | Geometrical Moment of Inertia ×10 <sup>4</sup> mm <sup>4</sup> |       | Section Modulus×10 <sup>3</sup> mm <sup>3</sup> |       | Ix × E<br>×10 <sup>9</sup> N·mm <sup>2</sup> | Iy × E<br>×10 <sup>9</sup> N·mm <sup>2</sup> | Cross Section<br>mm <sup>2</sup> | Unit Mass<br>kg/m | Frame Slot Width<br>mm |
|----------------|----------------------------------------------------------------|-------|-------------------------------------------------|-------|----------------------------------------------|----------------------------------------------|----------------------------------|-------------------|------------------------|
|                | Ix                                                             | Iy    | Zx                                              | Zy    |                                              |                                              |                                  |                   |                        |
| SF-20-20       | 0.74                                                           | 0.74  | 0.74                                            | 0.74  | 0.52                                         | 0.52                                         | 182                              | 0.49              | 6                      |
| SF-20-20-1F    | 0.83                                                           | 0.75  | 0.78                                            | 0.75  | 0.58                                         | 0.52                                         | 194                              | 0.52              | 6                      |
| SF-20-20-2F    | 0.81                                                           | 0.81  | 0.79                                            | 0.79  | 0.57                                         | 0.57                                         | 195                              | 0.53              | 6                      |
| SF-20-20-3F    | 0.81                                                           | 0.89  | 0.78                                            | 0.89  | 0.57                                         | 0.62                                         | 208                              | 0.56              | 6                      |
| SF-20-20-2H    | 0.74                                                           | 0.89  | 0.74                                            | 0.89  | 0.52                                         | 0.62                                         | 200                              | 0.54              | 6                      |
| SF-20-40       | 5.12                                                           | 1.36  | 2.56                                            | 1.36  | 3.58                                         | 0.95                                         | 324                              | 0.88              | 6                      |
| SF-20-40-1F    | 5.40                                                           | 1.53  | 2.70                                            | 1.44  | 3.78                                         | 1.07                                         | 344                              | 0.93              | 6                      |
| SF-20-60       | 15.97                                                          | 1.97  | 5.30                                            | 1.97  | 11.17                                        | 1.38                                         | 465                              | 1.26              | 6                      |
| SF-20-80       | 36.13                                                          | 2.58  | 9.03                                            | 2.58  | 25.28                                        | 1.81                                         | 607                              | 1.64              | 6                      |
| SF-40-40-2S    | 8.89                                                           | 8.89  | 4.45                                            | 4.45  | 6.22                                         | 6.22                                         | 478                              | 1.29              | 6                      |
| SF-40-40-2S-1F | 9.78                                                           | 9.32  | 5.08                                            | 4.66  | 6.84                                         | 6.52                                         | 522                              | 1.41              | 6                      |
| SF-40-40-2S-2F | 9.60                                                           | 9.60  | 4.89                                            | 4.89  | 6.72                                         | 6.72                                         | 497                              | 1.35              | 6                      |
| SF-40-60-SS    | 27.03                                                          | 12.63 | 9.01                                            | 6.31  | 18.91                                        | 8.84                                         | 665                              | 1.80              | 6                      |
| SF-40-80-SS    | 63.52                                                          | 18.39 | 15.88                                           | 9.20  | 44.45                                        | 12.87                                        | 994                              | 2.70              | 6                      |
| SF-20-40-40    | 6.61                                                           | 6.61  | 3.82                                            | 3.82  | 4.63                                         | 4.63                                         | 429                              | 1.16              | 6                      |
| SF-20-20-R     | 0.55                                                           | 0.55  | 0.48                                            | 0.48  | 0.38                                         | 0.38                                         | 150                              | 0.40              | 6                      |
| SF-20-DE30     | 0.80                                                           | 0.98  | 0.60                                            | 0.77  | 0.56                                         | 0.69                                         | 228                              | 0.61              | 6                      |
| SF-20-DE45     | 0.82                                                           | 0.92  | 0.59                                            | 0.69  | 0.57                                         | 0.64                                         | 221                              | 0.59              | 6                      |
| SF-20-DE60     | 0.86                                                           | 0.92  | 0.63                                            | 0.73  | 0.60                                         | 0.64                                         | 227                              | 0.61              | 6                      |
| SF-25-25       | 1.64                                                           | 1.64  | 1.31                                            | 1.31  | 1.15                                         | 1.15                                         | 288                              | 0.78              | 6                      |
| SF2-30-30      | 2.84                                                           | 2.84  | 1.89                                            | 1.89  | 1.99                                         | 1.99                                         | 332                              | 0.90              | 8                      |
| SF2-30-30-1F   | 3.03                                                           | 2.76  | 1.98                                            | 1.84  | 2.12                                         | 1.93                                         | 339                              | 0.92              | 8                      |
| SF2-30-30-2F   | 3.05                                                           | 3.05  | 1.96                                            | 1.96  | 2.13                                         | 2.13                                         | 351                              | 0.95              | 8                      |
| SF2-30-30-3F   | 2.99                                                           | 3.24  | 1.91                                            | 2.16  | 2.09                                         | 2.27                                         | 361                              | 0.98              | 8                      |
| SF2-30-30-2H   | 2.69                                                           | 3.23  | 1.79                                            | 2.15  | 1.88                                         | 2.26                                         | 345                              | 0.93              | 8                      |
| SF2-30-60      | 20.56                                                          | 5.33  | 6.85                                            | 3.56  | 14.39                                        | 3.73                                         | 592                              | 1.60              | 8                      |
| SF2-30-60-1F   | 20.92                                                          | 5.81  | 6.97                                            | 3.75  | 14.64                                        | 4.07                                         | 615                              | 1.66              | 8                      |
| SF-30-90       | 66.26                                                          | 8.44  | 14.72                                           | 5.62  | 46.36                                        | 5.91                                         | 905                              | 2.44              | 8                      |
| SF-30-120      | 152.58                                                         | 11.24 | 25.43                                           | 7.49  | 106.76                                       | 7.86                                         | 1191                             | 3.22              | 8                      |
| SF-30-60-2H    | 21.23                                                          | 6.23  | 7.08                                            | 4.21  | 14.86                                        | 4.36                                         | 631                              | 1.70              | 8                      |
| SF-K-30-30     | 2.38                                                           | 2.38  | 1.59                                            | 1.59  | 1.67                                         | 1.67                                         | 270                              | 0.73              | 8                      |
| SF-K-30-60     | 16.68                                                          | 4.63  | 5.56                                            | 3.09  | 11.67                                        | 3.24                                         | 483                              | 1.30              | 8                      |
| SF-50-50-2S    | 21.67                                                          | 21.67 | 8.67                                            | 8.67  | 15.16                                        | 15.16                                        | 859                              | 2.32              | 8                      |
| SF-50-50-2S-1F | 22.23                                                          | 21.40 | 8.87                                            | 8.56  | 15.55                                        | 14.97                                        | 862                              | 2.33              | 8                      |
| SF-50-50-2S-2F | 22.26                                                          | 22.26 | 8.77                                            | 8.77  | 15.58                                        | 15.58                                        | 874                              | 2.36              | 8                      |
| SF-50-100-2S   | 153.40                                                         | 42.48 | 30.68                                           | 16.99 | 107.34                                       | 29.72                                        | 1614                             | 4.36              | 8                      |



●Technical Data Table

| Aluminum Frame       | Geometrical Moment of Inertia $\times 10^4 \text{ mm}^4$ |        | Section Modulus $\times 10^3 \text{ mm}^3$ |       | $I_x \times E$<br>$\times 10^9 \text{ N} \cdot \text{mm}^2$ | $I_y \times E$<br>$\times 10^9 \text{ N} \cdot \text{mm}^2$ | Cross Section<br>$\text{mm}^2$ | Unit Mass<br>$\text{kg/m}$ | Frame Slot Width<br>$\text{mm}$ |
|----------------------|----------------------------------------------------------|--------|--------------------------------------------|-------|-------------------------------------------------------------|-------------------------------------------------------------|--------------------------------|----------------------------|---------------------------------|
|                      | $I_x$                                                    | $I_y$  | $Z_x$                                      | $Z_y$ |                                                             |                                                             |                                |                            |                                 |
| SF-35-35             | 5.12                                                     | 5.12   | 2.93                                       | 2.93  | 3.58                                                        | 3.58                                                        | 412                            | 1.11                       | 8                               |
| SF-35-35-1F          | 4.98                                                     | 5.17   | 2.84                                       | 2.92  | 3.48                                                        | 3.62                                                        | 394                            | 1.06                       | 8                               |
| SF-35-35-2F          | 5.37                                                     | 5.37   | 2.98                                       | 2.98  | 3.76                                                        | 3.76                                                        | 405                            | 1.09                       | 8                               |
| SF-35-35-2H          | 4.83                                                     | 5.23   | 2.76                                       | 2.99  | 3.38                                                        | 3.66                                                        | 376                            | 1.02                       | 8                               |
| SF-35-70             | 35.09                                                    | 9.04   | 10.03                                      | 5.16  | 24.55                                                       | 6.33                                                        | 667                            | 1.80                       | 8                               |
| SF-35-70-1F          | 33.94                                                    | 9.47   | 9.70                                       | 5.36  | 23.75                                                       | 6.63                                                        | 659                            | 1.78                       | 8                               |
| SF-35-70-2F          | 34.26                                                    | 9.42   | 9.79                                       | 5.27  | 23.97                                                       | 6.59                                                        | 656                            | 1.77                       | 8                               |
| SF-60-60-2S          | 41.38                                                    | 41.38  | 13.79                                      | 13.79 | 28.95                                                       | 28.95                                                       | 971                            | 2.62                       | 8                               |
| SF-60-60-2S-1F       | 45.34                                                    | 43.31  | 14.65                                      | 14.44 | 31.73                                                       | 30.30                                                       | 1071                           | 2.89                       | 8                               |
| SF-60-60-2S-2F       | 43.75                                                    | 43.75  | 14.66                                      | 14.66 | 30.61                                                       | 30.61                                                       | 1011                           | 2.73                       | 8                               |
| SF-60-90             | 111.61                                                   | 52.65  | 24.80                                      | 17.56 | 78.10                                                       | 36.84                                                       | 1156                           | 3.12                       | 8                               |
| SF-60-120            | 242.90                                                   | 65.97  | 40.48                                      | 21.99 | 169.96                                                      | 46.16                                                       | 1526                           | 4.12                       | 8                               |
| SF-30-60-60          | 27.28                                                    | 27.28  | 7.88                                       | 7.88  | 19.09                                                       | 19.09                                                       | 863                            | 2.33                       | 8                               |
| SF-30-30-R           | 2.42                                                     | 2.42   | 1.53                                       | 1.53  | 1.69                                                        | 1.69                                                        | 305                            | 0.82                       | 8                               |
| SF-30-DE30           | 3.15                                                     | 3.86   | 1.58                                       | 2.00  | 2.20                                                        | 2.70                                                        | 412                            | 1.11                       | 8                               |
| SF-30-DE45           | 3.21                                                     | 3.72   | 1.56                                       | 1.86  | 2.25                                                        | 2.60                                                        | 401                            | 1.08                       | 8                               |
| SF-30-DE60           | 3.33                                                     | 3.70   | 1.67                                       | 1.89  | 2.33                                                        | 2.59                                                        | 410                            | 1.10                       | 8                               |
| SF2-40-40            | 10.48                                                    | 10.48  | 5.24                                       | 5.24  | 7.33                                                        | 7.33                                                        | 643                            | 1.74                       | 10                              |
| SF2-40-40-1F         | 9.76                                                     | 10.08  | 4.69                                       | 5.04  | 6.83                                                        | 7.05                                                        | 704                            | 1.90                       | 10                              |
| SF2-40-40-2F         | 9.66                                                     | 9.66   | 4.74                                       | 4.74  | 6.76                                                        | 6.76                                                        | 589                            | 1.59                       | 10                              |
| SF2-40-40-3F         | 9.97                                                     | 10.51  | 4.94                                       | 5.25  | 6.98                                                        | 7.35                                                        | 618                            | 1.67                       | 10                              |
| SF2-40-40-2H         | 9.74                                                     | 10.44  | 4.87                                       | 5.22  | 6.82                                                        | 7.31                                                        | 612                            | 1.65                       | 10                              |
| SF2-40-80            | 72.30                                                    | 19.92  | 18.07                                      | 9.96  | 50.59                                                       | 13.94                                                       | 1114                           | 3.01                       | 10                              |
| SF2-40-80-1F         | 70.50                                                    | 20.32  | 17.62                                      | 10.14 | 49.33                                                       | 14.22                                                       | 1105                           | 3.11                       | 10                              |
| SF-40-160            | 498.81                                                   | 38.58  | 62.35                                      | 19.29 | 349.03                                                      | 27.00                                                       | 2049                           | 5.54                       | 10                              |
| SF-K-40-40           | 7.50                                                     | 7.50   | 3.75                                       | 3.75  | 5.25                                                        | 5.25                                                        | 492                            | 1.33                       | 10                              |
| SF-K-40-80           | 55.37                                                    | 14.44  | 13.84                                      | 7.22  | 38.74                                                       | 10.10                                                       | 856                            | 2.31                       | 10                              |
| SF-80-80             | 129.84                                                   | 129.84 | 32.46                                      | 32.46 | 90.85                                                       | 90.85                                                       | 1703                           | 4.60                       | 10                              |
| SF-80-160            | 1000.9                                                   | 295.39 | 125.11                                     | 73.84 | 700.35                                                      | 206.69                                                      | 3891                           | 10.51                      | 10                              |
| SF-80-80-H           | 182.84                                                   | 182.84 | 45.71                                      | 45.71 | 127.94                                                      | 127.94                                                      | 2616                           | 7.06                       | 10                              |
| SF-90-90-H           | 303.40                                                   | 303.40 | 67.42                                      | 67.42 | 212.30                                                      | 212.30                                                      | 3270                           | 8.83                       | 10                              |
| SF-40-80-80          | 94.15                                                    | 94.15  | 27.56                                      | 27.56 | 65.88                                                       | 65.88                                                       | 1550                           | 4.19                       | 10                              |
| SF-40-40-R           | 7.82                                                     | 7.82   | 3.53                                       | 3.53  | 5.47                                                        | 5.47                                                        | 566                            | 1.53                       | 10                              |
| SF-40-DE30           | 9.89                                                     | 10.64  | 3.73                                       | 4.20  | 6.92                                                        | 7.45                                                        | 694                            | 1.88                       | 10                              |
| SF-40-DE45           | 9.87                                                     | 10.37  | 3.59                                       | 3.99  | 6.91                                                        | 7.26                                                        | 676                            | 1.83                       | 10                              |
| SF-40-DE60           | 9.99                                                     | 10.53  | 3.74                                       | 4.14  | 6.99                                                        | 7.37                                                        | 679                            | 1.84                       | 10                              |
| SF2-45-45            | 15.24                                                    | 15.24  | 6.78                                       | 6.78  | 10.66                                                       | 10.66                                                       | 783                            | 2.10                       | 10                              |
| SF2-45-45-1F         | 13.91                                                    | 14.65  | 5.90                                       | 6.51  | 9.73                                                        | 10.25                                                       | 732                            | 1.98                       | 10                              |
| SF2-45-45-2F         | 14.09                                                    | 14.09  | 6.14                                       | 6.14  | 9.86                                                        | 9.86                                                        | 717                            | 1.94                       | 10                              |
| SF2-45-45-3F         | 14.41                                                    | 15.02  | 6.39                                       | 6.67  | 10.08                                                       | 10.51                                                       | 736                            | 1.99                       | 10                              |
| SF2-45-45-2H         | 14.3                                                     | 14.71  | 6.35                                       | 6.53  | 10.01                                                       | 10.29                                                       | 731                            | 1.98                       | 10                              |
| SF2-45-90            | 125.54                                                   | 32.50  | 27.90                                      | 14.44 | 87.84                                                       | 22.74                                                       | 1543                           | 4.17                       | 10                              |
| SF2-45-90-1F         | 117.42                                                   | 32.07  | 26.09                                      | 14.10 | 82.16                                                       | 22.44                                                       | 1438                           | 3.88                       | 10                              |
| SF-45-180            | 804.81                                                   | 60.75  | 89.42                                      | 27    | 563.14                                                      | 42.51                                                       | 2636                           | 7.12                       | 10                              |
| SF-K-45-45           | 11.74                                                    | 11.74  | 5.22                                       | 5.22  | 8.21                                                        | 8.21                                                        | 628                            | 1.70                       | 10                              |
| SF-K-45-45-1F        | 10.88                                                    | 11.33  | 5.04                                       | 5.03  | 7.61                                                        | 7.93                                                        | 590                            | 1.60                       | 10                              |
| SF-K-45-45-2F        | 11.13                                                    | 11.13  | 4.99                                       | 4.91  | 7.79                                                        | 7.79                                                        | 585                            | 1.58                       | 10                              |
| SF-K-45-90           | 87.17                                                    | 22.87  | 19.37                                      | 10.17 | 60.99                                                       | 16.00                                                       | 1102                           | 2.98                       | 10                              |
| SF-90-90             | 204.97                                                   | 204.97 | 45.55                                      | 45.55 | 143.42                                                      | 143.42                                                      | 2143                           | 5.79                       | 10                              |
| SF-90-180            | 2136.6                                                   | 598.51 | 237.4                                      | 133   | 1495.02                                                     | 418.79                                                      | 6320                           | 17.07                      | 10                              |
| SF-45-90-90          | 149.53                                                   | 149.53 | 28.83                                      | 28.83 | 104.63                                                      | 104.63                                                      | 2052                           | 5.54                       | 10                              |
| SF-45-45-R           | 11.33                                                    | 11.33  | 4.52                                       | 4.52  | 7.93                                                        | 7.93                                                        | 664                            | 1.79                       | 10                              |
| SF-45-DE30           | 14.91                                                    | 15.95  | 4.95                                       | 5.7   | 10.43                                                       | 11.16                                                       | 851                            | 2.30                       | 10                              |
| SF-45-DE45           | 14.73                                                    | 15.49  | 4.72                                       | 5.36  | 10.31                                                       | 10.84                                                       | 821                            | 2.22                       | 10                              |
| SF-45-DE60           | 14.94                                                    | 15.93  | 4.86                                       | 5.73  | 10.45                                                       | 11.15                                                       | 834                            | 2.26                       | 10                              |
| SF-60-60-1S          | 49.32                                                    | 49.32  | 16.44                                      | 16.44 | 34.51                                                       | 34.51                                                       | 1380                           | 3.73                       | 10                              |
| SF-80-80-1S (L=4000) | 90.46                                                    | 90.46  | 16.35                                      | 16.35 | 63.30                                                       | 63.30                                                       | 1461                           | 3.94                       | 10                              |

| Steel Frame      |             | $I \times E$<br>$\times 10^9 \text{ N} \cdot \text{mm}^2$ | Unit Mass<br>$\text{kg/m}$ |
|------------------|-------------|-----------------------------------------------------------|----------------------------|
| Equal Angle Iron | L30×30×t3   | 2.92                                                      | 1.32                       |
|                  | L40×40×t5   | 11.15                                                     | 2.95                       |
|                  | L50×50×t6   | 22.84                                                     | 3.77                       |
|                  | L65×65×t6   | 60.51                                                     | 5.91                       |
|                  | L75×75×t6   | 94.87                                                     | 6.85                       |
| Square Iron      | □50×50×t2.3 | 32.72                                                     | 3.34                       |
|                  | □50×50×t3.2 | 41.98                                                     | 4.50                       |
|                  | □60×60×t2.3 | 58.24                                                     | 4.06                       |
|                  | □75×75×t2.3 | 11.75                                                     | 5.14                       |

 $I \times E$  = Geometrical Moment of Inertia  $\text{mm}^4 \times$  Longitudinal Elastic Modulus  $\text{N/mm}^2$ 

●Indication of Frame Selection

 $I_x \times E$  (Aluminum Frame)  $\geq I \times E$  (Steel Frame)

 $I_y \times E$  (Aluminum Frame)  $\geq I \times E$  (Steel Frame)
SF20  
SS SizeSF30  
S SizeSF40-45  
L Size

Complex Parts

Door Panel  
Clean Equipment

Technical Data

# Technical Data Indication of Allowable Load

## Indication of Frame's Allowable Load

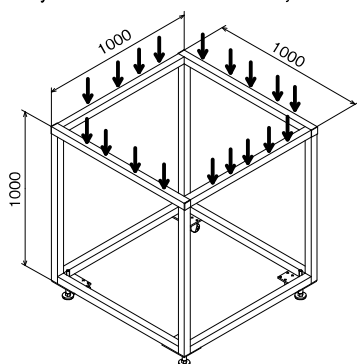
- Calculated as center-concentrated load by both ends supported beam.
- Assumed the load when flexure volume reaches 1/1000mm of the frame's length as the allowable load.

| Name                | Both Ends Supported            |                                 | Allowable Load     |                    |
|---------------------|--------------------------------|---------------------------------|--------------------|--------------------|
|                     | L=1000 Centralized Flexure 1mm | L=500 Centralized Flexure 0.5mm | Allowable Load (N) | Allowable Load (N) |
| SF-2020             | 25                             |                                 | 99                 |                    |
| SF-2040 (Width)     | 45                             |                                 | 181                |                    |
| SF-2040 (Height)    | 172                            |                                 | 688                |                    |
| SF-2060 (Width)     | 66                             |                                 | 265                |                    |
| SF-2060 (Height)    | 537                            |                                 | 2147               |                    |
| SF-2080 (Width)     | 86                             |                                 | 344                |                    |
| SF-2080 (Height)    | 1208                           |                                 | 4832               |                    |
| SF-40402S           | 299                            |                                 | 1194               |                    |
| SF-4060SS (Width)   | 424                            |                                 | 1697               |                    |
| SF-4060SS (Height)  | 908                            |                                 | 3631               |                    |
| SF-4080SS (Width)   | 614                            |                                 | 2457               |                    |
| SF-4080SS (Height)  | 2125                           |                                 | 8499               |                    |
| SF-204040           | 222                            |                                 | 888                |                    |
| SF-2020R            | 18                             |                                 | 74                 |                    |
| SF-2525             | 55                             |                                 | 221                |                    |
| SF2-3030            | 95                             |                                 | 380                |                    |
| SF2-3060 (Width)    | 179                            |                                 | 715                |                    |
| SF2-3060 (Height)   | 678                            |                                 | 2714               |                    |
| SF-K3030            | 80                             |                                 | 320                |                    |
| SF-K3060 (Width)    | 156                            |                                 | 622                |                    |
| SF-K3060 (Height)   | 560                            |                                 | 2241               |                    |
| SF-3090 (Width)     | 283                            |                                 | 1134               |                    |
| SF-3090 (Height)    | 2226                           |                                 | 8904               |                    |
| SF-30120 (Width)    | 376                            |                                 | 1503               |                    |
| SF-30120 (Height)   | 5111                           |                                 | 20442              |                    |
| SF-60602S           | 1390                           |                                 | 5562               |                    |
| SF-6090 (Width)     | 1767                           |                                 | 7067               |                    |
| SF-6090 (Height)    | 3728                           |                                 | 14912              |                    |
| SF-60120 (Width)    | 2217                           |                                 | 8867               |                    |
| SF-60120 (Height)   | 8162                           |                                 | 32646              |                    |
| SF-306060           | 917                            |                                 | 3666               |                    |
| SF-3030R            | 81                             |                                 | 325                |                    |
| SF-50502S           | 725                            |                                 | 2902               |                    |
| SF-501002S (Width)  | 1389                           |                                 | 5555               |                    |
| SF-501002S (Height) | 5048                           |                                 | 20192              |                    |

| Name              | Both Ends Supported            |                                 | Allowable Load     |                    |
|-------------------|--------------------------------|---------------------------------|--------------------|--------------------|
|                   | L=1000 Centralized Flexure 1mm | L=500 Centralized Flexure 0.5mm | Allowable Load (N) | Allowable Load (N) |
| SF-3535           | 172                            |                                 | 688                |                    |
| SF-3570 (Width)   | 304                            |                                 | 1214               |                    |
| SF-3570 (Height)  | 1179                           |                                 | 4714               |                    |
| SF2-4040          | 349                            |                                 | 1397               |                    |
| SF2-4080 (Width)  | 665                            |                                 | 2660               |                    |
| SF2-4080 (Height) | 2415                           |                                 | 9659               |                    |
| SF-40160 (Width)  | 1296                           |                                 | 5183               |                    |
| SF-40160 (Height) | 16753                          |                                 | 67013              |                    |
| SF-K4040          | 252                            |                                 | 1008               |                    |
| SF-K4080 (Width)  | 485                            |                                 | 1940               |                    |
| SF-K4080 (Height) | 1860                           |                                 | 7439               |                    |
| SF-8080           | 4336                           |                                 | 17344              |                    |
| SF-8080H          | 6130                           |                                 | 24518              |                    |
| SF-9090H          | 10190                          |                                 | 40761              |                    |
| SF-80160 (Width)  | 9921                           |                                 | 39685              |                    |
| SF-80160 (Height) | 33617                          |                                 | 134467             |                    |
| SF-408080         | 3162                           |                                 | 12649              |                    |
| SF-4040R          | 262                            |                                 | 1049               |                    |
| SF2-4545          | 508                            |                                 | 2033               |                    |
| SF2-4590 (Width)  | 1085                           |                                 | 4338               |                    |
| SF2-4590 (Height) | 4188                           |                                 | 16753              |                    |
| SF-45180 (Width)  | 2040                           |                                 | 8162               |                    |
| SF-45180 (Height) | 27031                          |                                 | 108123             |                    |
| SF-K4545          | 394                            |                                 | 1576               |                    |
| SF-K4590 (Width)  | 768                            |                                 | 3072               |                    |
| SF-K4590 (Height) | 2927                           |                                 | 11710              |                    |
| SF-9090           | 7026                           |                                 | 28105              |                    |
| SF-90180 (Width)  | 20102                          |                                 | 80408              |                    |
| SF-90180 (Height) | 71761                          |                                 | 287044             |                    |
| SF-459090         | 5024                           |                                 | 20094              |                    |
| SF-4545R          | 381                            |                                 | 1522               |                    |
| SF-60601S         | 1655                           |                                 | 6619               |                    |
| SF-80801S         | 3038                           |                                 | 12153              |                    |

## Indication of Unit's Allowable Load

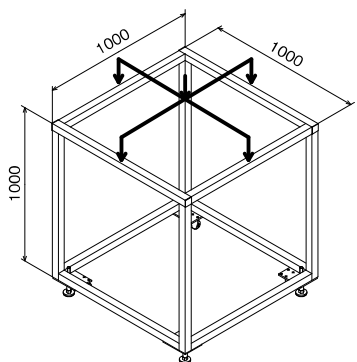
Uniformly-Distributed Load Loaded evenly to the frame



Condition: Calculated based on that each frame's flexure volume is 1mm at the center of the frame in the flat surface of 1000mm×1000mm.

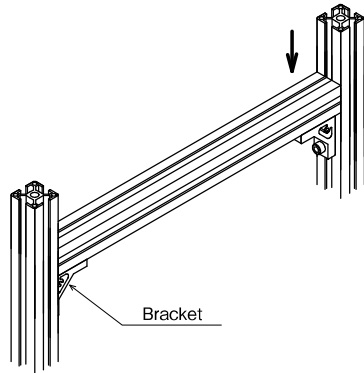
| Name                | Unit's Allowable Load L=1000 |                    |
|---------------------|------------------------------|--------------------|
|                     | Uniformly-Distributed Load   | Concentrated Load  |
|                     | Allowable Load (N)           | Allowable Load (N) |
| SF-2020             | 180                          | 112                |
| SF-2040 (Width)     | 279                          | 174                |
| SF-2040 (Height)    | 1079                         | 674                |
| SF-2060 (Width)     | 398                          | 249                |
| SF-2060 (Height)    | 3366                         | 2104               |
| SF-2080 (Width)     | 506                          | 316                |
| SF-2080 (Height)    | 7577                         | 4736               |
| SF-40402S           | 1835                         | 1147               |
| SF-4060SS (Width)   | 2552                         | 1595               |
| SF-4060SS (Height)  | 5578                         | 3486               |
| SF-4080SS (Width)   | 3617                         | 2261               |
| SF-4080SS (Height)  | 13054                        | 8159               |
| SF-204040           | 1364                         | 853                |
| SF-2020R            | 116                          | 72                 |
| SF-2525             | 344                          | 215                |
| SF2-3030            | 590                          | 369                |
| SF2-3060 (Width)    | 1075                         | 672                |
| SF2-3060 (Height)   | 4212                         | 2632               |
| SF-K3030            | 512                          | 320                |
| SF-K3060 (Width)    | 995                          | 622                |
| SF-K3060 (Height)   | 3585                         | 2241               |
| SF-3090 (Width)     | 1651                         | 1032               |
| SF-3090 (Height)    | 13820                        | 8637               |
| SF-30120 (Width)    | 2117                         | 1323               |
| SF-30120 (Height)   | 31726                        | 19829              |
| SF-60602S           | 8365                         | 5228               |
| SF-6090 (Width)     | 10289                        | 6431               |
| SF-6090 (Height)    | 22428                        | 14018              |
| SF-60120 (Width)    | 12485                        | 7803               |
| SF-60120 (Height)   | 49100                        | 30687              |
| SF-306060           | 5514                         | 3446               |
| SF-3030R            | 505                          | 315                |
| SF-50502S           | 4411                         | 2757               |
| SF-501002S (Width)  | 8000                         | 5000               |
| SF-501002S (Height) | 30692                        | 19183              |

Concentrated Load Loaded to the center of the frame



| Name              | Unit's Allowable Load L=1000 |                    |
|-------------------|------------------------------|--------------------|
|                   | Uniformly-Distributed Load   | Concentrated Load  |
|                   | Allowable Load (N)           | Allowable Load (N) |
| SF-3535           | 1101                         | 688                |
| SF-3570 (Width)   | 1943                         | 1214               |
| SF-3570 (Height)  | 7543                         | 4714               |
| SF2-4040          | 2146                         | 1341               |
| SF2-4080 (Width)  | 3916                         | 2447               |
| SF2-4080 (Height) | 14837                        | 9273               |
| SF-40160 (Width)  | 6966                         | 4354               |
| SF-40160 (Height) | 102932                       | 64333              |
| SF-K4040          | 1548                         | 967                |
| SF-K4080 (Width)  | 2856                         | 1785               |
| SF-K4080 (Height) | 11426                        | 7141               |
| SF-8080           | 25531                        | 15957              |
| SF-8080H          | 36091                        | 22557              |
| SF-9090H          | 65217                        | 40761              |
| SF-80160 (Width)  | 53336                        | 33335              |
| SF-80160 (Height) | 180724                       | 112952             |
| SF-408080         | 18619                        | 11637              |
| SF-4040R          | 1612                         | 1007               |
| SF2-4545          | 3106                         | 1941               |
| SF2-4590 (Width)  | 6316                         | 3948               |
| SF2-4590 (Height) | 25599                        | 15999              |
| SF-45180 (Width)  | 10708                        | 6692               |
| SF-45180 (Height) | 165212                       | 103258             |
| SF-K4545          | 2408                         | 1505               |
| SF-K4590 (Width)  | 4474                         | 2796               |
| SF-K4590 (Height) | 17892                        | 11183              |
| SF-9090           | 40921                        | 25576              |
| SF-90180 (Width)  | 105495                       | 65934              |
| SF-90180 (Height) | 417936                       | 261210             |
| SF-459090         | 29257                        | 18286              |
| SF-4545R          | 2326                         | 1454               |
| SF-60601S         | 9955                         | 6222               |
| SF-80801S         | 19445                        | 12153              |

## Indication of Bracket's Allowable Load (Slip)



| Size | Bracket Name          | Allowable Load(N) | Size | Bracket Name                            | Allowable Load(N) |
|------|-----------------------|-------------------|------|-----------------------------------------|-------------------|
| SS   | D Bracket SS          | 833               | L    | D Bracket L                             | 2058              |
|      | D Bracket 2040        | 1887              |      | D Bracket 4080                          | 5055              |
|      | Hard Bracket SS       | 833               |      | D Bracket 4590                          | 5055              |
|      | Hard Bracket SSG      | 833               |      | Hard Bracket L                          | 2058              |
|      | Hard Bracket SSW 2020 | 1290              |      | Hard Bracket LG                         | 2058              |
|      | Hard Bracket SS 2040  | 1470              |      | Hard Bracket LW                         | 5422              |
|      | Hard Bracket SSG 2040 | 1470              |      | Hard Bracket L 4080                     | 2940              |
|      | Hard Bracket SSW 2040 | 2233              |      | Hard Bracket G 80                       | 3920              |
|      | Hard Bracket SS 2060  | 1960              |      | Hard Bracket G 80160                    | 7056              |
|      | Hard Bracket SSG 2060 | 1960              |      | Hard Bracket LW4080                     | 8542              |
|      | Hard Bracket SSW2060  | 4360              |      | Hard Bracket GW80                       | 8542              |
|      | Angle Bracket SS      | 686               |      | Hard Bracket L 4590                     | 2940              |
|      | Angle Bracket Hard SS | 686               |      | Hard Bracket G 90                       | 3920              |
|      | Angle Bracket SS 2040 | 1176              |      | Hard Bracket G 90180                    | 7056              |
|      | Angle Bracket SS 2060 | 1617              |      | Hard Bracket LW4590                     | 8542              |
|      | QC Joint SS           | 345               |      | Hard Bracket GW90                       | 8542              |
|      | S Blind Bracket SS    | 196               |      | Angle Bracket L 40                      | 1666              |
|      | D Bracket S           | 1176              |      | Angle Bracket Hard L40                  | 1666              |
|      | D Bracket 3060        | 2825              |      | Angle Bracket L 4080                    | 2352              |
| S    | Hard Bracket S        | 1176              |      | Angle Bracket L 45                      | 1666              |
|      | Hard Bracket SG       | 1176              |      | Angle Bracket Hard L45                  | 1666              |
|      | Hard Bracket SW 3030  | 3035              |      | Angle Bracket L 4590                    | 2352              |
|      | Hard Bracket S 3060   | 1960              |      | Offset Angle L4080                      | 2352              |
|      | Hard Bracket SG 3060  | 1960              |      | Offset Angle L4590                      | 2352              |
|      | Hard Bracket SW 3060  | 4307              |      | S Blind Bracket L                       | 1274              |
|      | Hard Bracket S 3090   | 2744              |      | QC Joint L                              | 800               |
|      | Hard Bracket SG 3090  | 2744              |      | TG Joint 4045                           | 1560              |
|      | Hard Bracket S 50     | 1960              |      | TG Joint 60                             | 1560              |
|      | Hard Bracket SG 50    | 1960              |      | TG Joint 80 Kit (When using □ 80 Frame) | 7687              |
|      | Hard Bracket SW 3090  | 5737              |      | S Double Joint 40                       | 1200              |
|      | Angle Bracket S       | 980               |      | S Double Joint 45                       | 1200              |
|      | Angle Bracket Hard S  | 980               |      | S Double Joint 60                       | 1200              |
|      | Angle Bracket S 3060  | 1568              |      | S Double Joint 80                       | 1200              |
|      | Angle Bracket S 3090  | 2352              |      |                                         |                   |
|      | Angle Bracket S 50    | 1568              |      |                                         |                   |
|      | S Blind Bracket S     | 686               |      |                                         |                   |
|      | QC Joint S            | 395               |      |                                         |                   |
|      | TG Joint 30           | 945               |      |                                         |                   |
|      | S Double Joint 30     | 1200              |      |                                         |                   |
|      | KF Joint              | 535               |      |                                         |                   |

SF20

SS Size

SF30

S Size

SF40-45

L Size

Complex Parts

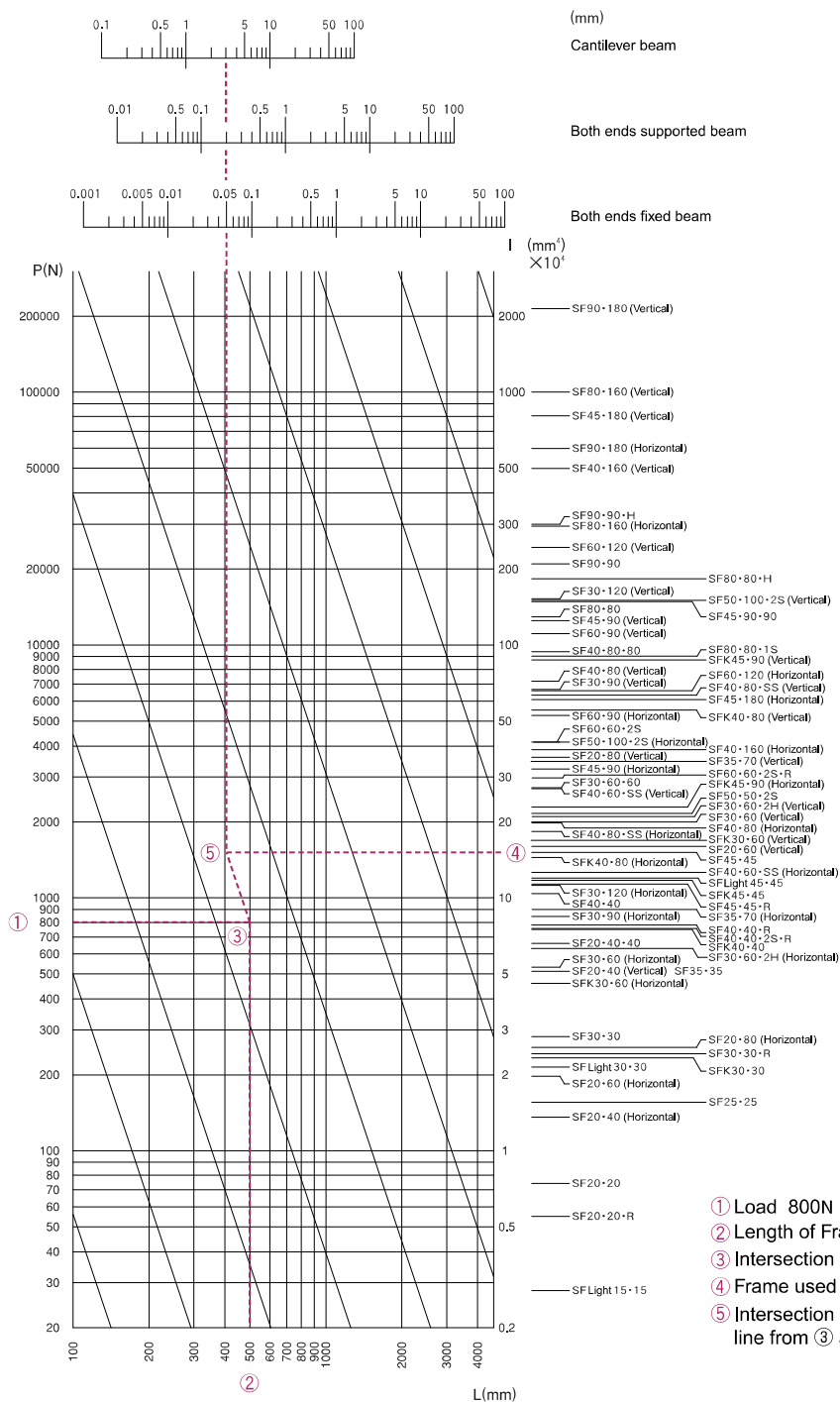
Door - Panel  
Clean Equipment

Technical Data

# Technical Data

## Deflection Calculating Abridged List

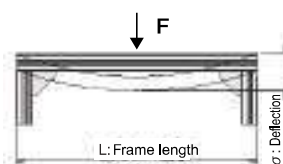
- 1 Determine the load on the frame.
- 2 Determine the length of the frame used.
- 3 Draw a horizontal line from ① to the right.  
Draw a vertical line from ② upward.  
Find ③, which is the intersection of ① and ②.
- 4 Determine the moment of inertia of the frame area to use and draw a horizontal line to the left.
- 5 Draw a diagonal line from ③, parallel to the diagonal line on the graph, and find ⑤, which is the intersection with ④.  
Draw a vertical line from ⑤ upward, and the deflection quantity is found at the intersection with the scale of each fixing method.



## Frame Recommended Load

**Requirements:** Fix both ends of frame, use the recommended load when the load F is concentrated in the direction of the arrow.

**Recommended load:** Sliding load of the load bracket where deflection  $\delta$  becomes 1/1000 of the length of frame, L disregarded.



Calculation formula

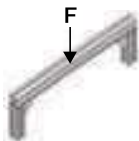
◆ Recommended load

$$\delta = \frac{FL^3}{48EI}$$

◆ Limit load

$$\sigma = \frac{FL}{4Z}$$

### ■ SF-20・20 SFF-204



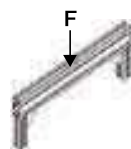
| Frame length (mm) | Deflection tolerance (mm) 1/1000 | Recommended load (N) | Limit load (N) |
|-------------------|----------------------------------|----------------------|----------------|
| 500               | 0.5                              | 90                   | 1200           |
| 1000              | 1                                | 24                   | 600            |
| 1500              | 1.5                              | 10                   | 400            |
| 2000              | 2                                | 6                    | 300            |

### ■ SF2-20・40 SFF-244



<Horizontal>

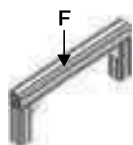
| Frame length (mm) | Deflection tolerance (mm) 1/1000 | Recommended load (N) | Limit load (N) |
|-------------------|----------------------------------|----------------------|----------------|
| 500               | 0.5                              | 180                  | 2200           |
| 1000              | 1                                | 45                   | 1100           |
| 1500              | 1.5                              | 20                   | 740            |
| 2000              | 2                                | 10                   | 550            |



<Vertical>

| Frame length (mm) | Deflection tolerance (mm) 1/1000 | Recommended load (N) | Limit load (N) |
|-------------------|----------------------------------|----------------------|----------------|
| 500               | 0.5                              | 680                  | 4100           |
| 1000              | 1                                | 170                  | 2000           |
| 1500              | 1.5                              | 75                   | 1300           |
| 2000              | 2                                | 40                   | 1000           |

### ■ SF-40・40・2S SFF-404W



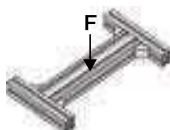
| Frame length (mm) | Deflection tolerance (mm) 1/1000 | Recommended load (N) | Limit load (N) |
|-------------------|----------------------------------|----------------------|----------------|
| 500               | 0.5                              | 1100                 | 7200           |
| 1000              | 1                                | 290                  | 3600           |
| 1500              | 1.5                              | 130                  | 2400           |
| 2000              | 2                                | 70                   | 1800           |

### ■ SF2-30・30 SFF-324



| Frame length (mm) | Deflection tolerance (mm) 1/1000 | Recommended load (N) | Limit load (N) |
|-------------------|----------------------------------|----------------------|----------------|
| 500               | 0.5                              | 380                  | 3100           |
| 1000              | 1                                | 95                   | 1500           |
| 1500              | 1.5                              | 40                   | 1000           |
| 2000              | 2                                | 20                   | 770            |

### ■ SF2-30・60 SFF-334



<Horizontal>

| Frame length (mm) | Deflection tolerance (mm) 1/1000 | Recommended load (N) | Limit load (N) |
|-------------------|----------------------------------|----------------------|----------------|
| 500               | 0.5                              | 710                  | 5800           |
| 1000              | 1                                | 170                  | 2900           |
| 1500              | 1.5                              | 75                   | 1950           |
| 2000              | 2                                | 40                   | 1450           |



<Vertical>

| Frame length (mm) | Deflection tolerance (mm) 1/1000 | Recommended load (N) | Limit load (N) |
|-------------------|----------------------------------|----------------------|----------------|
| 500               | 0.5                              | 2790                 | 11300          |
| 1000              | 1                                | 690                  | 5600           |
| 1500              | 1.5                              | 310                  | 3700           |
| 2000              | 2                                | 170                  | 2800           |

# Technical Data

SF20

SS Size

## ■ SF2-40・40 SFF-424

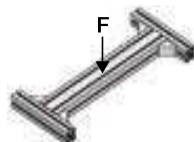


| Frame length (mm) | Deflection tolerance (mm) 1/1000 | Recommended load (N) | Limit load (N) |
|-------------------|----------------------------------|----------------------|----------------|
| 500               | 0.5                              | 1400                 | 8600           |
| 1000              | 1                                | 350                  | 4300           |
| 1500              | 1.5                              | 150                  | 2800           |
| 2000              | 2                                | 80                   | 2100           |

SF30

S Size

## ■ SF2-40・80 SFF-434

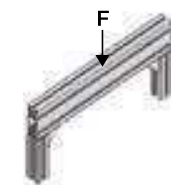


〈Horizontal〉

| Frame length (mm) | Deflection tolerance (mm) 1/1000 | Recommended load (N) | Limit load (N) |
|-------------------|----------------------------------|----------------------|----------------|
| 500               | 0.5                              | 2650                 | 16300          |
| 1000              | 1                                | 660                  | 8100           |
| 1500              | 1.5                              | 290                  | 5440           |
| 2000              | 2                                | 160                  | 4050           |

SF40・45

L Size



〈Vertical〉

| Frame length (mm) | Deflection tolerance (mm) 1/1000 | Recommended load (N) | Limit load (N) |
|-------------------|----------------------------------|----------------------|----------------|
| 500               | 0.5                              | 9700                 | 29600          |
| 1000              | 1                                | 2400                 | 14800          |
| 1500              | 1.5                              | 1080                 | 9800           |
| 2000              | 2                                | 600                  | 7400           |

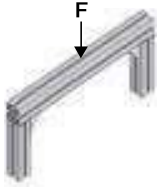
Complex Parts

Door・Panel  
Clean Equipment

Technical Data

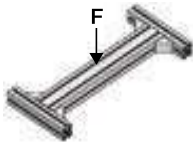


■ SF2-45・45 **SFF-444**



| Frame length (mm) | Deflection tolerance (mm) 1/1000 | Recommended load (N) | Limit load (N) |
|-------------------|----------------------------------|----------------------|----------------|
| 500               | 0.5                              | 2000                 | 11000          |
| 1000              | 1                                | 500                  | 5500           |
| 1500              | 1.5                              | 200                  | 3700           |
| 2000              | 2                                | 120                  | 2700           |

■ SF2-45・90 **SFF-474**



〈Horizontal〉

| Frame length (mm) | Deflection tolerance (mm) 1/1000 | Recommended load (N) | Limit load (N) |
|-------------------|----------------------------------|----------------------|----------------|
| 500               | 0.5                              | 4400                 | 24000          |
| 1000              | 1                                | 1100                 | 12000          |
| 1500              | 1.5                              | 450                  | 8000           |
| 2000              | 2                                | 250                  | 6000           |



〈Vertical〉

| Frame length (mm) | Deflection tolerance (mm) 1/1000 | Recommended load (N) | Limit load (N) |
|-------------------|----------------------------------|----------------------|----------------|
| 500               | 0.5                              | 17300                | 47100          |
| 1000              | 1                                | 4300                 | 23500          |
| 1500              | 1.5                              | 1900                 | 15700          |
| 2000              | 2                                | 1000                 | 11700          |

SF20

SS Size

SF30

S Size

SF40・45

L Size

Complex Parts

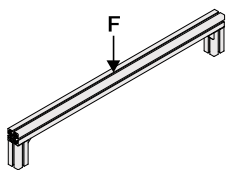
Door・Panel  
Clean Equipment

Technical Data

# Technical Data

SF20  
SS Size

## ■ SF2-50·50·1S SFF-544



| Frame length (mm) | Deflection tolerance (mm)<br>1/1000 | Recommended load (N) | Limit load (N) |
|-------------------|-------------------------------------|----------------------|----------------|
| 500               | 0.5                                 | 3570                 | 19440          |
| 1000              | 1                                   | 890                  | 9720           |
| 1500              | 1.5                                 | 390                  | 6480           |
| 2000              | 2                                   | 220                  | 4860           |

SF30  
S Size

## ■ SF2-60·60·2S SFF-6A4



| Frame length (mm) | Deflection tolerance (mm)<br>1/1000 | Recommended load (N) | Limit load (N) |
|-------------------|-------------------------------------|----------------------|----------------|
| 500               | 0.5                                 | 5500                 | 22600          |
| 1000              | 1                                   | 1350                 | 11300          |
| 1500              | 1.5                                 | 600                  | 7500           |
| 2000              | 2                                   | 340                  | 5650           |

SF40·45  
L Size

Complex Parts

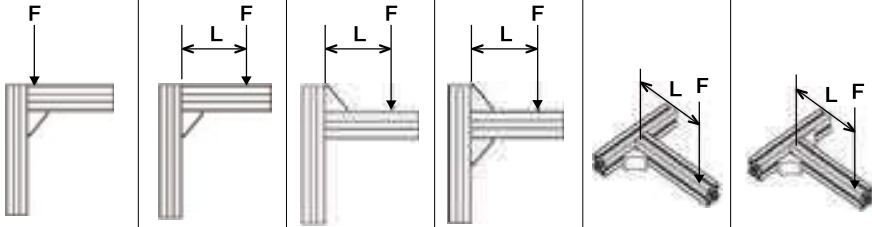
Door Panel  
Clean Equipment

Technical Data

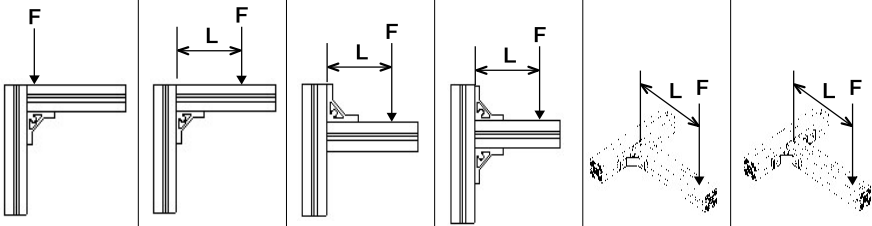
## SF Bracket/Joint Load Tolerance Guideline

Frame junction point (cantilever fixed tolerance) [Half value calculated from experimental values.]

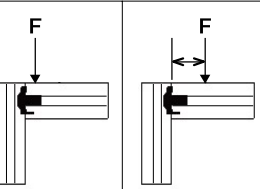
(Sliding: N, Moment: N·m)

| D Bracket  |                          |  |          |          |          |          |          |
|------------|--------------------------|------------------------------------------------------------------------------------|----------|----------|----------|----------|----------|
|            |                          | Sliding                                                                            | Moment ① | Moment ② | Moment ③ | Moment ④ | Moment ⑤ |
| Frame size | Proper tightening torque |                                                                                    |          |          |          |          |          |
| 20         | 7.4 N·m                  | 382                                                                                | 3.6      | 12.8     | 26.0     | 2.0      | 6.9      |
| 30         | 10.8 N·m                 | 798                                                                                | 12.6     | 29.6     | 62.4     | 10.5     | 32.0     |
| 40         | 24.9 N·m                 | 100                                                                                | 36.0     | 70.0     | 98.0     | 22.5     | 36.7     |
| 45         | 24.9 N·m                 | 1000                                                                               | 40.0     | 73.0     | 130.0    | 23.5     | 38.9     |
| 60·2S      | 10.8 N·m                 | 1490                                                                               | 46.1     | 107.4    | 161.5    | 30.4     | 47.5     |
| 80·2S      | 24.9 N·m                 | 2030                                                                               | 53.2     | 233.7    | 294.5    | 49.9     | 117.8    |
| 90·2S      | 24.9 N·m                 | 2230                                                                               | 57.0     | 236.6    | 335.4    | 89.3     | 159.6    |

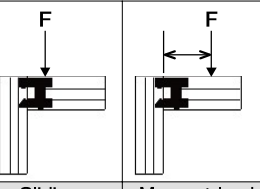
(Sliding: N, Moment: N·m)

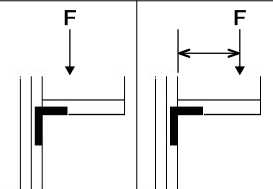
| Hard Bracket |                          |  |          |          |          |          |          |
|--------------|--------------------------|-------------------------------------------------------------------------------------|----------|----------|----------|----------|----------|
|              |                          | Sliding                                                                             | Moment ① | Moment ② | Moment ③ | Moment ④ | Moment ⑤ |
| Frame size   | Proper tightening torque |                                                                                     |          |          |          |          |          |
| 20           | 7.4 N·m                  | 375                                                                                 | 6.7      | 27.4     | 36.6     | 1.9      | 7.1      |
| 30           | 10.8 N·m                 | 555                                                                                 | 25.3     | 72.7     | 90.9     | 2.8      | 38.9     |
| 40           | 24.9 N·m                 | 860                                                                                 | 39.4     | 77.8     | 122.2    | 14.7     | 35.9     |
| 45           | 24.9 N·m                 | 1140                                                                                | 36.4     | 98.0     | 167.7    | 11.1     | 41.4     |
| 60·2S        | 10.8 N·m                 | 1260                                                                                | 64.1     | 123.2    | 195.9    | 23.6     | 57.6     |
| 80·2S        | 24.9 N·m                 | 2130                                                                                | 114.1    | 186.9    | 303.0    | 42.4     | 144.4    |
| 90·2S        | 24.9 N·m                 | 1910                                                                                | 104.0    | 205.0    | 338.4    | 72.7     | 184.8    |

(Sliding: N, Moment: N·m)

| TG Joint   |                          |  |             |
|------------|--------------------------|-------------------------------------------------------------------------------------|-------------|
|            |                          | Sliding                                                                             | Moment load |
| Frame size | Proper tightening torque |                                                                                     |             |
| 30         | 10.8 N·m                 | 500                                                                                 | 40.0        |
| 40         | 24.9 N·m                 | 500                                                                                 | 50.0        |
| 45         | 24.9 N·m                 | 500                                                                                 | 50.0        |
| 60·1S      | 10.8 N·m                 | 2210                                                                                | 57.0        |
| 80·2S      | 24.9 N·m                 | 2440                                                                                | 240.0       |

(Sliding: N, Moment: N·m)

| QC Joint   |                          |  |             |
|------------|--------------------------|-------------------------------------------------------------------------------------|-------------|
|            |                          | Sliding                                                                             | Moment load |
| Frame size | Proper tightening torque |                                                                                     |             |
| 30         | 10.8 N·m                 | 126                                                                                 | 12.0        |
| 40         | 24.9 N·m                 | 361                                                                                 | 39.5        |
| 45         | 24.9 N·m                 | 510                                                                                 | 48.8        |
| 60·2S      | 10.8 N·m                 | 290                                                                                 | 162.6       |
| 80·2S      | 24.9 N·m                 | 560                                                                                 | 281.1       |
| 90·2S      | 24.9 N·m                 | 620                                                                                 | 273.9       |

| Blind Bracket |                          |  |             |
|---------------|--------------------------|---------------------------------------------------------------------------------------|-------------|
|               |                          | Sliding                                                                               | Moment load |
| Frame size    | Proper tightening torque |                                                                                       |             |
| 20            | 7.4 N·m                  | 105                                                                                   | 1.3         |
| 30            | 10.8 N·m                 | 500                                                                                   | 6.0         |
| 40            | 24.9 N·m                 | 500                                                                                   | 14.0        |
| 45            | 24.9 N·m                 | 500                                                                                   | 13.8        |

SF20

SS Size

SF30

S Size

SF40·45

L Size

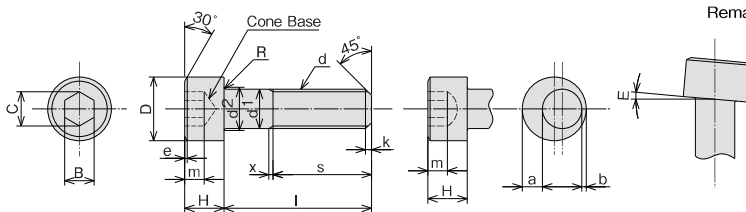
Complex Parts

Door·Panel  
Clean Equipment

Technical Data

# Technical Data Hexagon Socket Bolt, SI Unit List

## Hexagon Socket Bolt Excerpt from JISB1176 (1988)

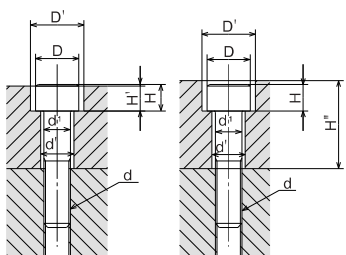


- Remarks
1. Don't use the staff which the name is in parenthesis as possible as you can.
  2. Developed length (l), length of thread part (s) and length of incomplete thread is by appendix table 2.
  3. Base shape of hexagonal hole can be circular cone or circle.
  4. There must not have significant eccentric to the hexagonal hole.
  5. Inner chamfering can be done to the hexagonal hole.
  6. Put parallel or slash knurling to the side of the head. However, knurling is not needed by specification. In this case, allowable difference of D is h13 according to JIS B 0401 (Dimensional tolerance and engaging).
  7. Spanner for this bolt is JIS B 4648 (Hexagonal bar spanner).

Unit mm

| Size of Screw (d) | M3×0.5              | M4×0.7           | M5×0.8 | M6    | M8               | M10 | M12              | (M14) | M16  | (M18)            | M20   | (M22) | M24  | (M27)            | M30   |      |
|-------------------|---------------------|------------------|--------|-------|------------------|-----|------------------|-------|------|------------------|-------|-------|------|------------------|-------|------|
| Pitch P           | 0.5                 | 0.7              | 0.8    | 1     | 1.25             | 1.5 | 1.75             | 2     | 2    | 2.5              | 2.5   | 2.5   | 3    | 3                | 3.5   |      |
| d <sub>1</sub>    | Basic Dimension     | 3                | 4      | 5     | 6                | 8   | 10               | 12    | 14   | 16               | 18    | 20    | 22   | 24               | 27    | 30   |
|                   | Allowable Tolerance |                  |        | -0.1  |                  |     |                  | -0.15 |      |                  |       |       |      | -0.2             |       |      |
| D                 | Basic Dimension     | 5.5              | 7      | 8.5   | 10               | 13  | 16               | 18    | 21   | 24               | 27    | 30    | 33   | 36               | 40    | 45   |
|                   | Allowable Tolerance | 0                |        | -0.36 |                  |     | 0                | -0.43 |      | 0                | -0.52 |       |      | 0                | -0.62 |      |
| H                 | Basic Dimension     | 3                | 4      | 5     | 6                | 8   | 10               | 12    | 14   | 16               | 18    | 20    | 22   | 24               | 27    | 30   |
|                   | Allowable Tolerance | 0                | -0.25  | 0     | -0.3             |     | 0                | -0.36 |      | 0                | -0.43 |       |      | 0                | -0.52 |      |
| e                 | About               | 0.2              | 0.3    | 0.3   | 0.4              | 0.5 | 0.6              | 0.7   | 0.8  | 1                | 1     | 1     | 1    | 1                | 1.5   | 1.5  |
| B                 | Basic Dimension     | 2.5              | 3      | 4     | 5                | 6   | 8                | 10    | 12   | 14               | 14    | 17    | 17   | 19               | 19    | 22   |
|                   | Allowable Tolerance | +0.080<br>+0.020 |        |       | +0.105<br>+0.030 |     | +0.130<br>+0.040 |       |      | +0.230<br>+0.050 |       |       |      | +0.275<br>+0.065 |       |      |
| C                 | About               | 2.9              | 3.6    | 4.7   | 5.9              | 7   | 9.4              | 11.7  | 14   | 16.3             | 16.3  | 19.8  | 19.8 | 22.1             | 22.1  | 25.6 |
| m                 | MIN                 | 1.6              | 2.2    | 2.5   | 3                | 4   | 5                | 6     | 7    | 8                | 9     | 10    | 11   | 12               | 13.5  | 15   |
| R                 | MIN                 | 0.1              | 0.2    | 0.2   | 0.25             | 0.4 | 0.4              | 0.6   | 0.6  | 0.6              | 0.6   | 0.8   | 0.8  | 0.8              | 1     | 1    |
| da                | MAX                 | 3.6              | 4.7    | 5.7   | 6.8              | 9.2 | 11.2             | 14.2  | 16.2 | 18.2             | 20.2  | 22.4  | 24.4 | 26.4             | 30.4  | 33.4 |
| k                 | About               | 0.6              | 0.8    | 0.9   | 1                | 1.2 | 1.5              | 2     | 2    | 2                | 2.5   | 25    | 25   | 3                | 3     | 3.5  |
| a-b               | MAX                 | 0.2              | 0.2    | 0.3   | 0.3              | 0.4 | 0.5              | 0.7   | 0.7  | 0.8              | 0.9   | 0.9   | 1.1  | 1.2              | 1.3   | 1.5  |
| E                 | MAX                 |                  |        |       |                  |     |                  |       | 1°   |                  |       |       |      |                  |       |      |

## Hexagon Socket Bolt Drilling Dimension (Reference Value)



| Size of Screw (d) | M3  | M4  | M5  | M6  | M8  | M10  | M12 | M14  | M16  | M18  | M20  | M22  | M24  | M27 | M30 |
|-------------------|-----|-----|-----|-----|-----|------|-----|------|------|------|------|------|------|-----|-----|
| d <sub>1</sub>    | 3   | 4   | 5   | 6   | 8   | 10   | 12  | 14   | 16   | 18   | 20   | 22   | 24   | 27  | 30  |
| d'                | 3.4 | 4.5 | 5.5 | 6.6 | 9   | 11   | 14  | 16   | 18   | 20   | 22   | 24   | 26   | 30  | 33  |
| D                 | 5.5 | 7   | 8.5 | 10  | 13  | 16   | 18  | 21   | 24   | 27   | 30   | 33   | 36   | 40  | 45  |
| D'                | 6.5 | 8   | 9.5 | 11  | 14  | 17.5 | 20  | 23   | 26   | 29   | 32   | 35   | 39   | 43  | 48  |
| H                 | 3   | 4   | 5   | 6   | 8   | 10   | 12  | 14   | 16   | 18   | 20   | 22   | 24   | 27  | 30  |
| H'                | 2.7 | 3.6 | 4.6 | 5.5 | 7.4 | 9.2  | 11  | 12.8 | 14.5 | 16.5 | 18.5 | 20.5 | 22.5 | 25  | 28  |
| H''               | 3.3 | 4.4 | 5.4 | 6.5 | 8.6 | 10.8 | 13  | 15.2 | 17.5 | 19.5 | 21.5 | 23.5 | 25.5 | 29  | 32  |

Remarks Bolt Hole Dimension (d') above is according to JIS B 1001.

## List of SI Unit for Main Amount

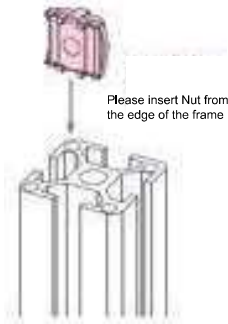
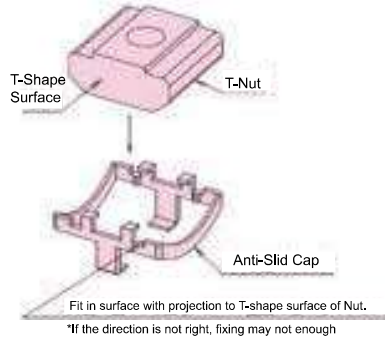
| Name of Amount | Existing Unit     | SI Unit                                     | Equivalent                                                  |
|----------------|-------------------|---------------------------------------------|-------------------------------------------------------------|
| Length         | μ                 | μm                                          | 1 μ=1 μm                                                    |
|                | Å                 | m<br>(Å can be used together)               | 1 Å=10 <sup>-10</sup> m                                     |
|                | ft                |                                             | 1 ft=3.048×10 <sup>-1</sup> m                               |
|                | in                |                                             | 1 in=2.54×10 <sup>-2</sup> m                                |
|                | mile              |                                             | 1 mile=1.60934×10 <sup>3</sup> m                            |
| Area           | a                 | m <sup>2</sup><br>(a can be used together)  | 1 a=10 <sup>2</sup> m <sup>2</sup>                          |
|                | yd <sup>2</sup>   |                                             | 1 yd <sup>2</sup> =2.01168×10 <sup>2</sup> m <sup>2</sup>   |
|                | ft <sup>2</sup>   |                                             | 1 ft <sup>2</sup> =9.29030×10 <sup>-2</sup> m <sup>2</sup>  |
|                | in <sup>2</sup>   |                                             | 1 in <sup>2</sup> =6.4516×10 <sup>-4</sup> m <sup>2</sup>   |
|                | acre              |                                             | 1 acre=4.04686×10 <sup>3</sup> m <sup>2</sup>               |
|                | mile <sup>2</sup> |                                             | 1 mile <sup>2</sup> =2.58999×10 <sup>6</sup> m <sup>2</sup> |
| Volume         | cc                | cm <sup>3</sup>                             | 1 cc=1 cm <sup>3</sup>                                      |
|                | L, l              | dm <sup>3</sup> (L, l can be used together) | 1 L=1 dm <sup>3</sup>                                       |
|                | gal               | m <sup>3</sup>                              | 1 gal=4.54609×10 <sup>-3</sup>                              |
|                | gal               |                                             | 1 gal=3.78541×10 <sup>-3</sup>                              |
|                | barrel            |                                             | 1 barrel=1.590×10 <sup>-1</sup>                             |

| Name of Amount        | Existing Unit                      | SI Unit                          | Equivalent                                                     |
|-----------------------|------------------------------------|----------------------------------|----------------------------------------------------------------|
| Weight                | t                                  | kg (t can be used together)      | 1 t=10 <sup>3</sup> kg                                         |
|                       | car                                | mg                               | 1 car=200mg                                                    |
| Density·Concentration | kgf·s <sup>2</sup> /m <sup>4</sup> | kg/m <sup>3</sup>                | 1 kgf·s <sup>2</sup> /m <sup>4</sup> =9.80665kg/m <sup>3</sup> |
| Momentum              | kgf·s                              | kg·m/s                           | 1 kgf·s=9.80665kg·m/s                                          |
| Moment of Inertia     | kgf·m·s <sup>2</sup>               | kg·m <sup>2</sup>                | 1 kgf·m·s <sup>2</sup> =9.80665kg·m <sup>2</sup>               |
| Power                 | kgf                                | N                                | 1 kgf=9.80665N                                                 |
|                       | dyn                                |                                  | 1 dyn=10 <sup>-5</sup> N                                       |
| Moment of Power       | kgf·m                              | N·m                              | 1 kgf·m=9.80665N·m                                             |
| Pressure              | kgf/cm <sup>2</sup>                | Pa<br>(bar can be used together) | 1 kgf/cm <sup>2</sup> =9.80665×10 <sup>4</sup> Pa              |
|                       |                                    |                                  | 1 kgf/cm <sup>2</sup> =9.80665×10 <sup>-1</sup> bar            |
|                       | bar                                |                                  | 1 bar=10 <sup>5</sup> Pa                                       |
|                       | at (Technical Atmosphere)          |                                  | 1 at=9.80665×10 <sup>4</sup> Pa                                |
|                       | atm (Pressure)                     |                                  | 1 atm=101325Pa                                                 |
|                       | mH <sub>2</sub> O, mAg             |                                  | 1 mH <sub>2</sub> O=9.80665×10 <sup>3</sup> Pa                 |
|                       | mmHg                               |                                  | 1 mmHg=133.322Pa                                               |
|                       | Torr                               |                                  | 1 Torr=133.322Pa                                               |

# Technical Data *How to use Nut*

## How to use Nut

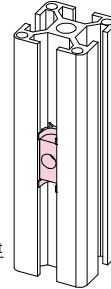
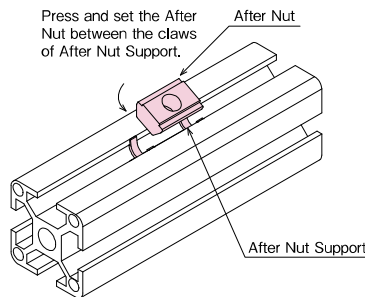
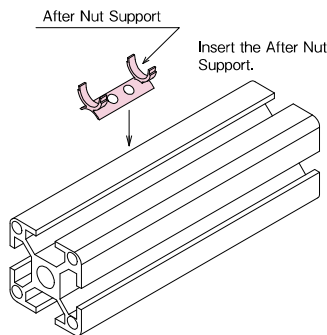
### T Nut + Anti-Skid Cap



It's hardly slide with Anti-skid Cap.

|                  |                              |            |
|------------------|------------------------------|------------|
| for SF-20 Series | T Nut SS<br>Anti-Skid Cap SS | <b>P26</b> |
| for SF-30 Series | T Nut S<br>Anti-Skid Cap S   | <b>P56</b> |
| for SF-40 Series | T Nut L<br>Anti-Skid Cap L40 | <b>P95</b> |
| for SF-45 Series | T Nut L<br>Anti-Skid Cap L45 | <b>P95</b> |

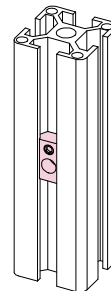
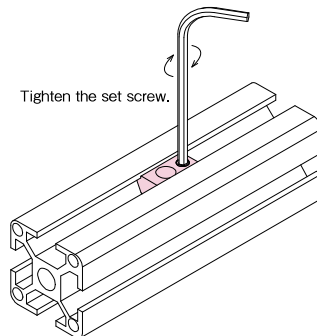
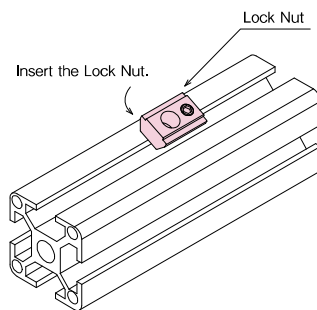
### After Nut + After Nut Support



Nut can be positioned in the right place by After Nut Support, and it hardly displace because of the convenient lock function.

|                     |                                      |            |
|---------------------|--------------------------------------|------------|
| for SF-20 Series    | After Nut SS<br>After Nut Support SS | <b>P27</b> |
| for SF-30 Series    | After Nut S<br>After Nut Support S   | <b>P57</b> |
| for SF-40-45 Series | After Nut L<br>After Nut Support L   | <b>P96</b> |

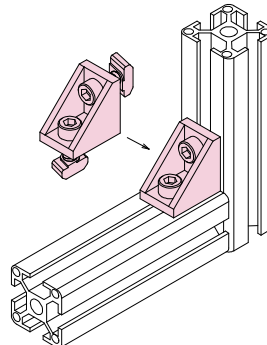
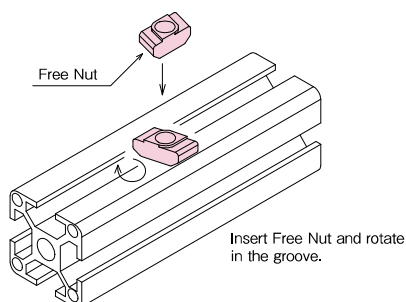
### Lock Nut



By tightening the set screw, position of the Nut is fixed and hardly moves. After Nut Support can also be used and hardly moves as a temporary setting.

|                     |             |            |
|---------------------|-------------|------------|
| for SF-20 Series    | Lock Nut SS | <b>P27</b> |
| for SF-30 Series    | Lock Nut S  | <b>P57</b> |
| for SF-40-45 Series | Lock Nut L  | <b>P96</b> |

### Free Nut



Nut can be inserted in the condition that is remained in bracket, etc.

|                     |             |            |
|---------------------|-------------|------------|
| for SF-20 Series    | Free Nut SS | <b>P27</b> |
| for SF-30 Series    | Free Nut S  | <b>P57</b> |
| for SF-40-45 Series | Free Nut L  | <b>P96</b> |

SF20  
SS SizeSF30  
S SizeSF40-45  
L Size

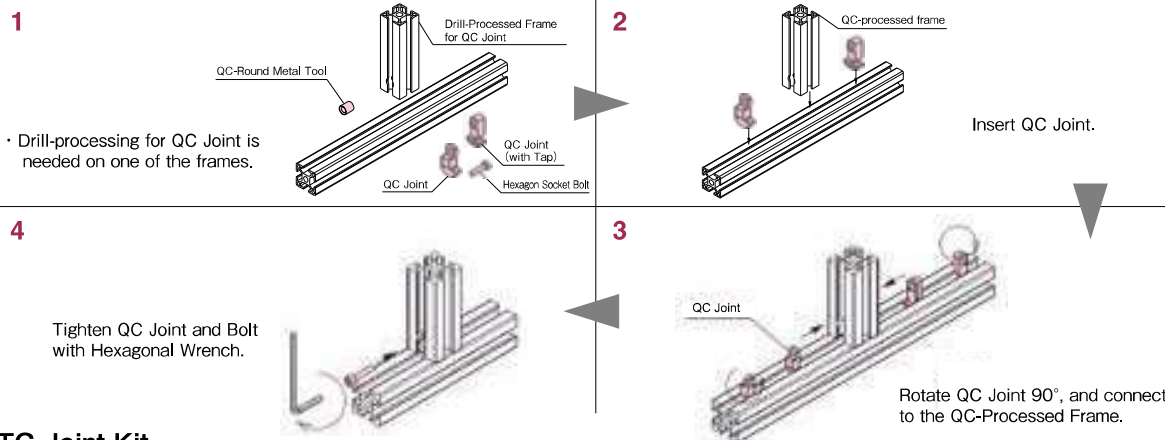
Complex Parts

Door · Panel  
Clean Equipment

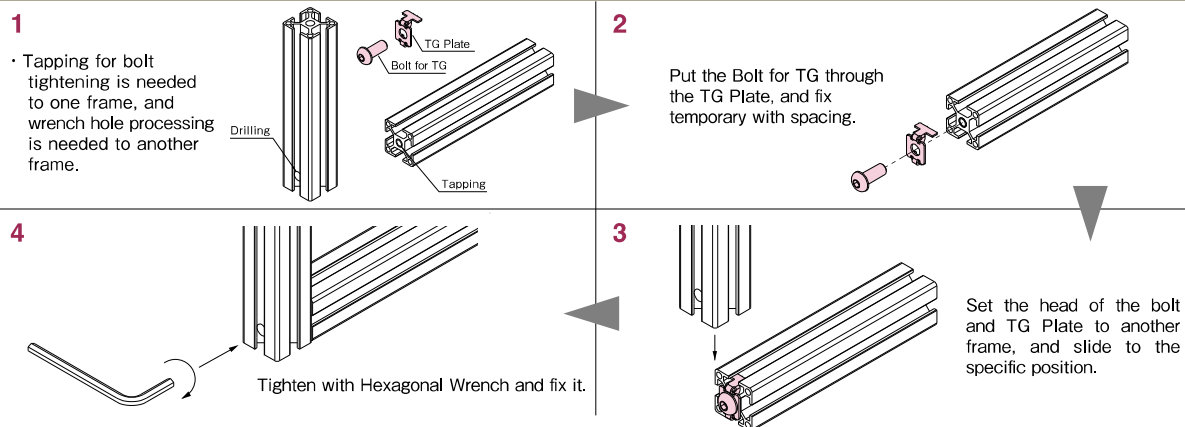
Technical Data

# Technical Data *How to joint Bracket*

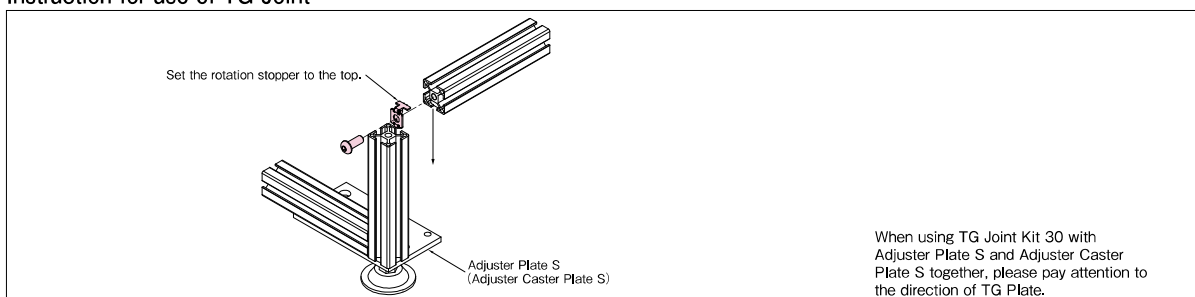
## QC Joint Kit



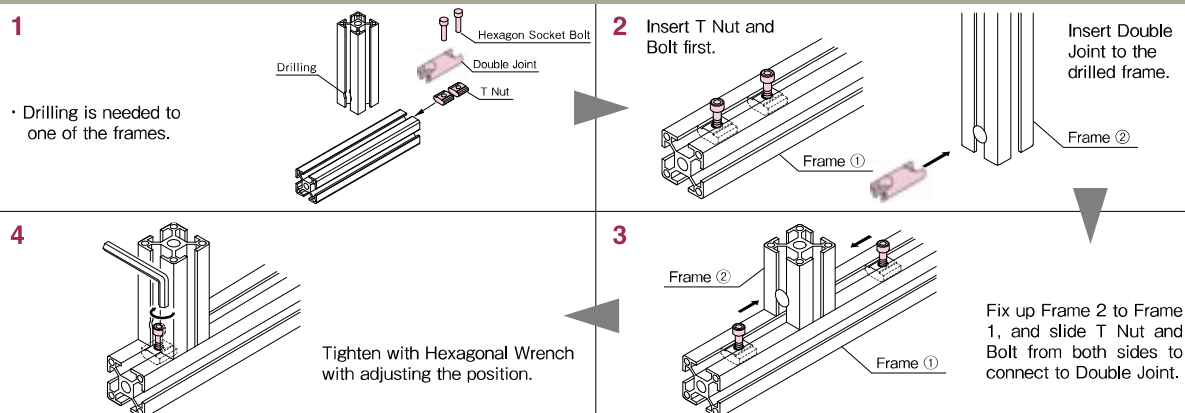
## TG Joint Kit



### Instruction for use of TG Joint



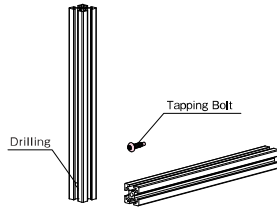
## Double Joint Kit



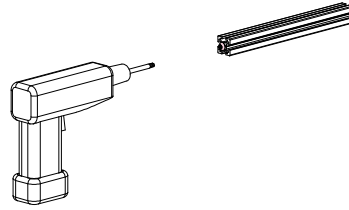


## Tapping Bolt

- 1** Drilling is needed to the frame which fixes with Tapping Bolt.

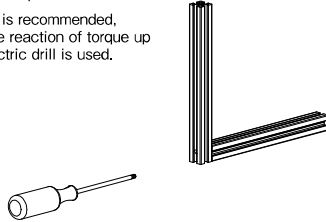


- 2** Fix Tapping Bolt temporary by Electric Driver.

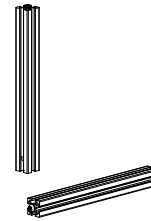


- 4** Tighten by Torque Wrench to fix.

\* Manual tool is recommended, because the reaction of torque up is big if electric drill is used.

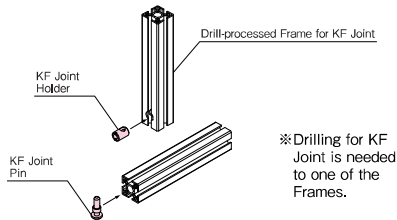


- 3** Insert the head of the bolt to another frame's groove, and slide to the specified position.

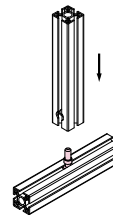


## How to assemble KF Joint

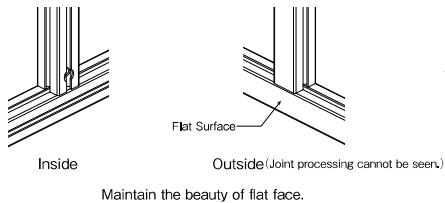
- 1** Drilling for KF Joint is needed to one of the frames.



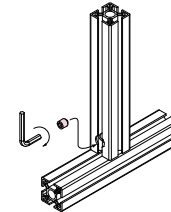
- 2** Put the frame to KF Joint pin.



- 4** Appearance from the opposite side is clear because the drilling for KF Joint is not penetrated.



- 3** Tighten set screw (sharp edge) by Hexagonal Wrench.



SF20  
SS Size

SF30  
S Size

SF40-45  
L Size

Complex Parts

Door · Panel  
Clean Equipment

Technical Data

# Technical Data Free Unit

SF20  
SS Size

SF30  
S Size

SF40-45  
L Size

Complex Parts

Door Panel  
Clean Equipment

Technical Data

## Each L-Shape Bracket

1



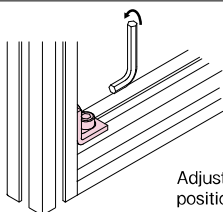
Fix bolt and Nut temporary to bracket.

2

Insert the bracket kit to frame's groove.

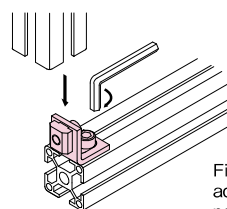


4



Adjust the frame's position, and tighten finally.

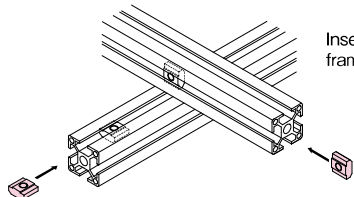
3



Fix temporarily, adjusting the bracket's position.

## Angle Bracket

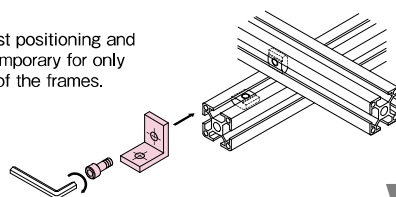
1



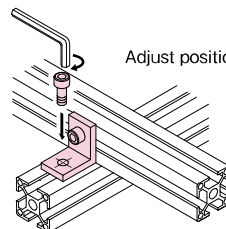
Insert T Nuts to both frames at first.

2

Adjust positioning and fix temporary for only one of the frames.



3



Adjust position and tighten finally.

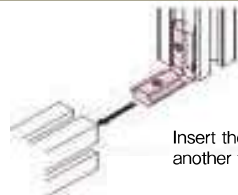
## Blind Bracket

1



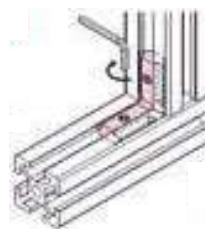
Fix Blind Bracket temporary to frame.

2



Insert the Blind Bracket fixed in 1 to another frame's groove.

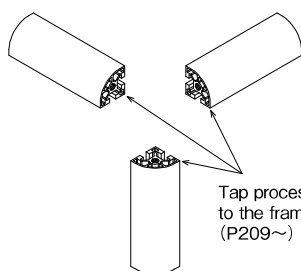
3



Position well and tighten the set screw by wrench.

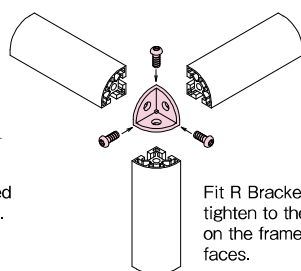
## R Bracket (Block Bracket)

1



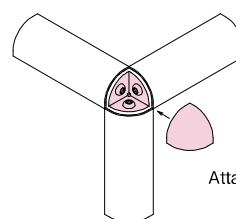
Tap processing is needed to the frame's end faces. (P209~)

2



Fit R Bracket and tighten to the tap on the frame's end faces.

3



Attach R Cap.



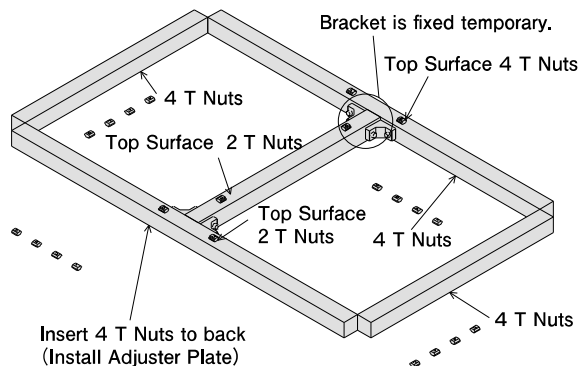
# Technical Data *How to Assemble SF Unit*

## How to Assemble SF Unit

**Before Assembly** | 1. Please assemble in wide space on flat floor. 2. Classify the Frames by dimensions and parts.

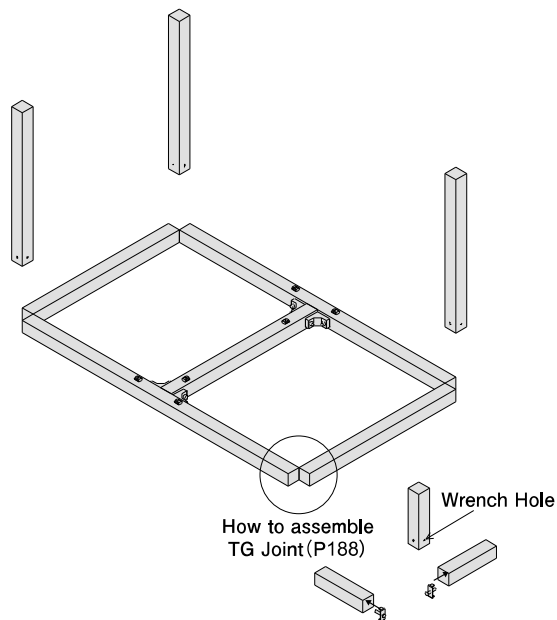
\* Example of using TG Joint Kit and Hard Bracket

### 1 Base Assembly



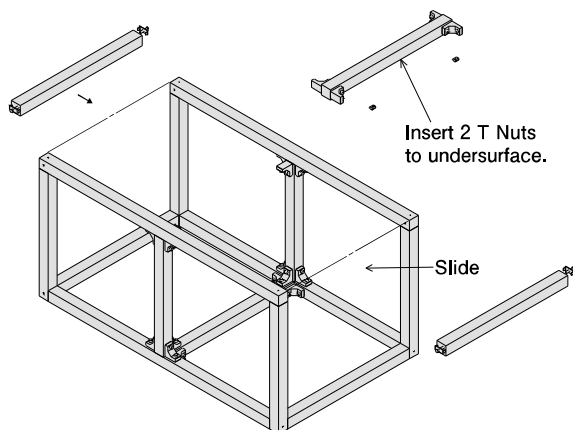
\* Please don't forget to insert Nuts.

### 2 Put up poles

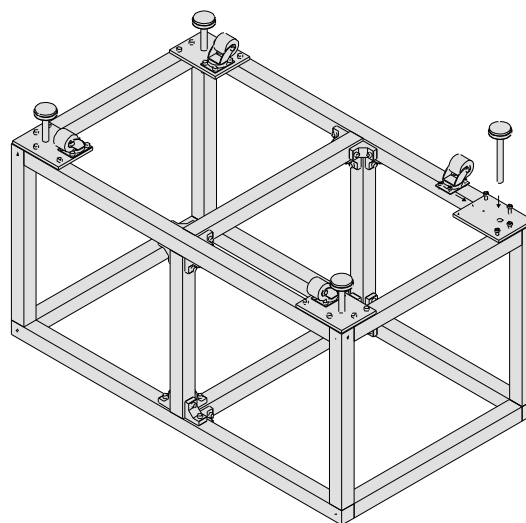


\* Please confirm the directions.

### 5 Assemble top surface (2)



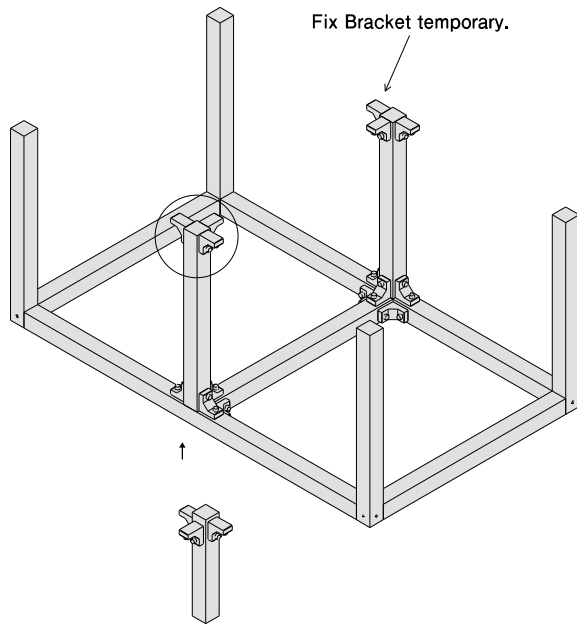
### 6 Turn unit upside-down, and install Adjuster and Caster



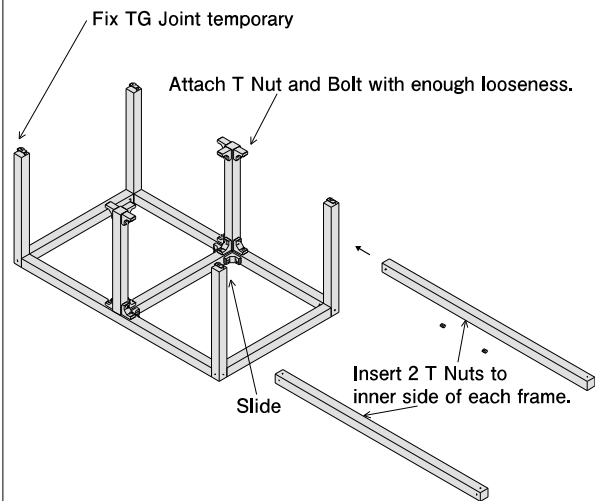
\* Don't forget to prepare T Nut and Free Nut to install Top Plate and Cover.

3. Scratch marking-off on Frame 4. Confirm the quantity of Nuts to insert before assembly.

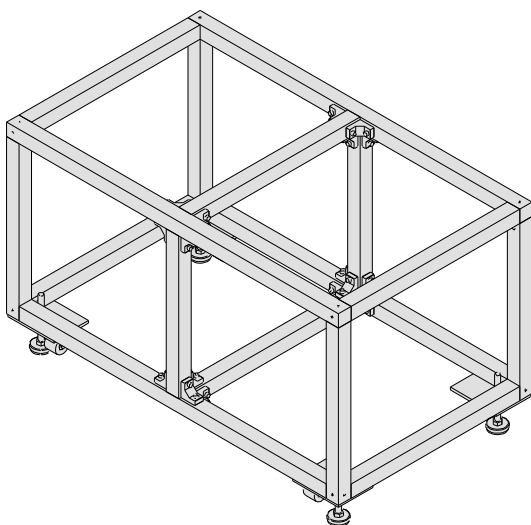
3 Put up intermediate poles



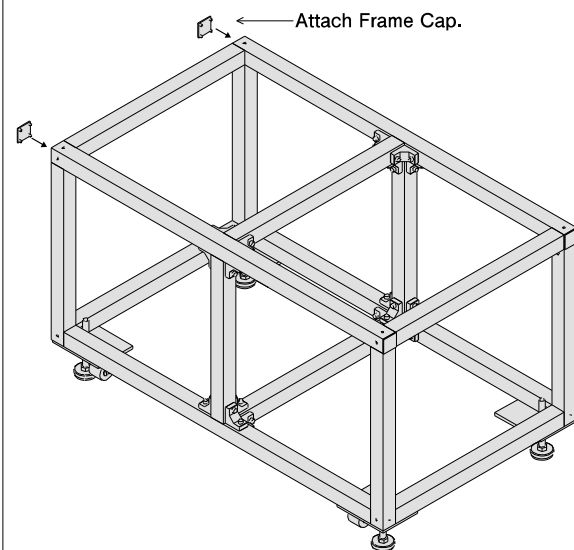
4 Assemble top surface (1)



7 Tighten finally with adjusting the Frame's position.



8 Completion



\* Please clean the surface with alcohol, etc after assembly.

# Technical Data *How to install*

## How to install Panel

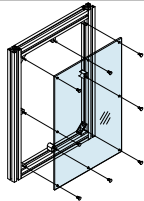
SF20  
SS SizeSF30  
S SizeSF40-45  
L Size

Complex Parts

Door - Panel  
Clean Equipment

Technical Data

### How to fix by Bracket's Tap



#### (How to install)

- Fasten Resin Panel to the tap of D Bracket or Hard Bracket by bis.

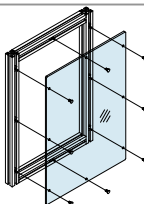
#### (Selection Indication)

- Panel installation is easy even after assembling frame, and the Panel's surface becomes as same as Frame's surface.

(For details)  
Bracket with Tap

|                 |      |
|-----------------|------|
| SF-20 series    | P28~ |
| SF-30 series    | P60~ |
| SF-40・45 series | P99~ |

### How to fix from outer Frame



#### (How to install)

- Insert After Nut in frame's groove, and fasten Resin Panel by bis.

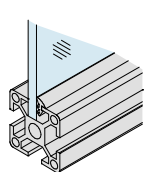
#### (Selection Indication)

- High-airtightness component with lessen the gap with frame.

(For details)  
After Nut to fix Resin Panel.

|              |      |
|--------------|------|
| After Nut SS | P27~ |
| After Nut S  | P57~ |
| After Nut L  | P96~ |

### How to fix by Panel Clamp



#### (How to install)

- Fit Resin Panel into the frame's groove before assembling the frame, and fix by Panel Clamp completely.

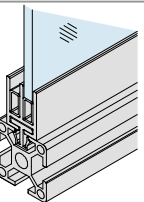
#### (Selection Indication)

- Appearance is clear.
- Frame assembly and inserting Panel is done at the same time, so it's suitable for unit in face.

(For details)

|             |      |
|-------------|------|
| Panel Clamp | P156 |
|-------------|------|

### Resin Panel Sliding Door



#### (How to install)

- Resin Panels become a Sliding Door, using Slide Rail and Slide Spacer.

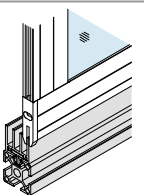
#### (Selection Indication)

- Sliding Door Structure at low cost.

(For details)

|                |      |
|----------------|------|
| Slide Rail     | P162 |
| Slot Connector |      |
| Slide Spacer   |      |

### Medium Size Sliding Door



#### (How to install)

- Sliding Door's rim frame is used as a Sliding Door with installing rollers to the convex part of the slide rail.

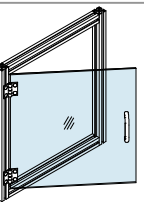
#### (Selection Indication)

- Suitable for medium size.

(For details)

|                              |      |
|------------------------------|------|
| Slide Rail                   | P162 |
| Slot Connector               |      |
| Frame for Sliding Door's Rim |      |
| Panel Joint Kit              | P164 |
| Rail Guide                   |      |
| Sliding Door Wheel           | P160 |
| Panel Guard                  |      |

### Resin Door



#### (How to install)

- Attach hinges to Resin Panel and use as a door.

#### (Selection Indication)

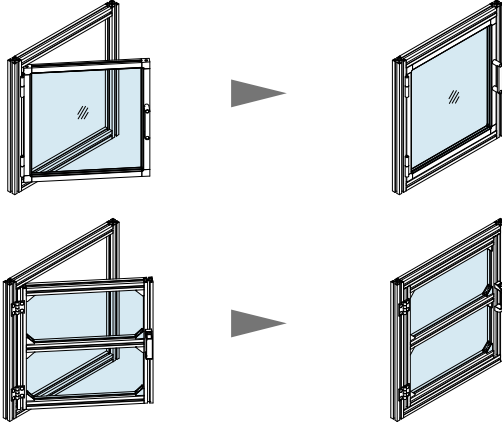
- Door structure at low cost.

(For details)

|                   |       |
|-------------------|-------|
| Installation size | P159  |
| Fixed Hinges      | P140~ |



Panel Frame Door, Frame Door



(How to install)

- Make a rim by various kinds of Frame to use as a door.

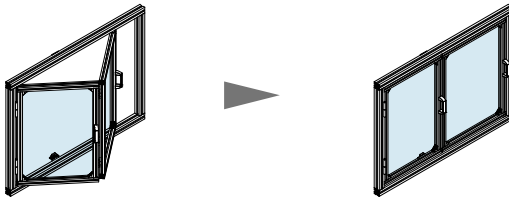
(Selection Indication)

- Medium to large size door structure.

(For details)

|                   |       |
|-------------------|-------|
| Installation size | P159  |
| Panel Frame       | P158  |
| TC Block          |       |
| Fixed Hinges      | P140~ |

Folding Door



(How to install)

- Make a rim by Frames, and attach Folding Door Slider to slide the frame's groove.

(Selection Indication)

- You can use the covering's outer space effectively when opening and closing.

(For details)

|                     |      |
|---------------------|------|
| Folding Door Slider | P165 |
|---------------------|------|

SF20

SS Size

SF30

S Size

SF40-45

L Size

Complex Parts

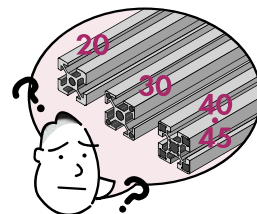
Door · Panel  
Clean Equipment

Technical Data

# Technical Data Q & A

## Q What is the indication of selecting aluminum frame?

- A** SF series is composed of 3 series as follows.
- SF20 series** (groove width 6mm). For small size covering, rack for small parts, etc.
- SF30 series** (groove width 8mm). For medium size covering, conveyer frame, etc.
- SF40·45 series** (groove width 10mm). For large size clean booth, equipment table, component material, etc.
- Please solve the mass of the products at first, and select the frame referring indication of allowable load (P178).

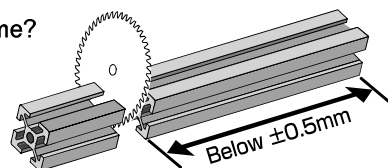


## Q What is the indication of selecting bracket?

- A** Usable bracket is written separately by each series. Please refer indication of bracket's allowable load (P179).
- In case that L-shaped bracket interferes product or panel, please select QC Joint, TG Joint, KF Joint, S Double Joint, Tapping Bolt, S Blind Bracket or Plate Bracket.
  - In case that aluminum frame overhangs to cantilever, please use Truss Joint, Turn Bracket or Hard bracket DE135/45 and construct large size stay.

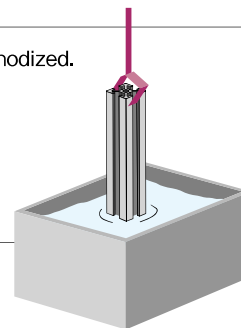
## Q How much is the cutting tolerance of aluminum frame?

- A**  $\pm 0.5\text{mm}$  less than specified size.



## Q How is aluminum frame finished?

- A** A. In SF series, frame's surface is anodized to finish (more than  $9\mu\text{m}$ ). Cut surface is not anodized.
- \* Black anodizing is also available. Black anodizing cost will be added to our price list.
  - \* Please refer the standard black anodized Frame and Bracket in the series page.
  - \* Frame without anodizing for conduction measure can also be ordered specially.



## Q How is aluminum frame cut?

- A** It's cut by tip saw for mild steel. Please cover the cut surface by Frame Cap after assembling frame.

## Q Can JIS standard hexagon nut and square nut be used for SF series?

- A** No. The area of pressure by sitting is cordoned by using the exclusive nut, and SUS is manufacturing the nut to prevent aluminum material from buckling.
- \* Exclude SF Light series.



Coution

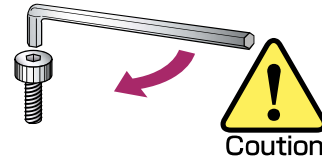
## Q Does Nut fall down when frame is stood vertically?

- A** Please attach "Anti-Skid Cap" to T Nut and insert to the frame's groove. Or in case of inserting later, please use "Easy Nut", "After Nut Support" and "Lock Nut". "Anti-Skid Cap" and "After Nut Support" is provided as 50pieces/pack.

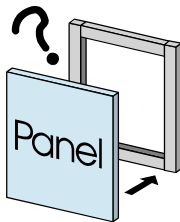
**Q** What is appropriate tightening force in using Nut or Hexagon Socket Bolt?**A**

| Size of screw | Appropriate tightening force | (Appropriate tightening torque-reference) |
|---------------|------------------------------|-------------------------------------------|
| M3            | 3.2KN                        | ( 1.9N・m)                                 |
| M4            | 5.1KN                        | ( 4.1N・m)                                 |
| M5            | 7.4KN                        | ( 7.4N・m)                                 |
| M6            | 9.0KN                        | (10.8N・m)                                 |
| M8            | 15.5KN                       | (24.9N・m)                                 |

Aluminum may buckle or Nut may break if you tighten harder than the appropriate tightening force. We recommend using T Nut to the tightening part which intensity applies.

**Q** How can we fix Resin Panel to Aluminum Frame?**A**

Please select fixing method according to your purpose.



In case you stick Panel to outer frame ... Please insert T Nut (with Anti-Skid Cap) to frame's groove at first, and fix by Truss Screw.

In case you fasten Panel to inner frame by bis ... Fixing method is in P45, 81 and 125. With this method, the appearance is good and removing Panel is easy, so it's suitable for Safety Cover, etc.

In case you fit into inner frame. ... Fixing method is in P156 and 157. With this method, drill-processing or fastening with bis aren't necessary, so it's suitable for the purpose of emphasizing design.

**Q** How can we install doors to Aluminum Frame?**A**

Please select the installing method according to your purpose.

Resin Panel Door ... Please refer Resin Panel (P168) and Hinge・Pull, etc (P140 ~ ).

Frame Rim Door ... Please select Panel Frame (P158) or SF20 series (P20 ~ ) and create the door.

\* Please construct frame rim with SF30 series for large size door.

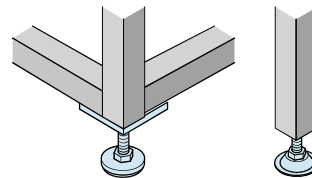
**Q** How can we fix Adjuster or Caster?**A**

Usable adjuster and caster are provided by each frame size.

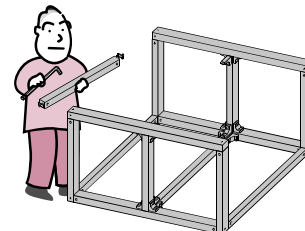
SF20 series (P41, 42)

SF30 series (P76, 77)

SF40・45 series (P119, 120)

**Q** What are the precautions for assembly?**A**

- Please assemble frames in wide space on flat floor.
- Regarding squaring and surface matching in assembling frame, it's convenient to fit Chamfering Jig from outside.
- Purchasing Lock Nut at the beginning is recommended as reserve parts.
- Please check whether you forgot to tighten all bolts or not after assembly.
- SUS also responds Unit Assembly Service.



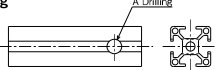
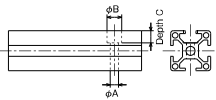
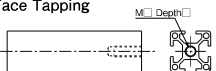
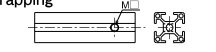
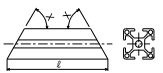
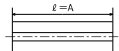
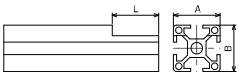
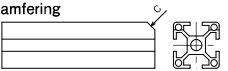
# Technical Data Frame Processing

## Frame Processing List

Please specify by processing No. (P198~209) or in the drawing when you want the frame processing below.

Item No. Length(mm) Processing No.  
**SF2-30-30** **l=800** **TGS**

Specify by drawing in case of no Processing No.

| Processing Name                                                                                                     | Processing Contents                              | Note                                                                                                                  | Category            |          |         |              |
|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------|----------|---------|--------------|
| Drilling<br>                       | In case A=8/11.1/13.1/15.1                       | Please refer the processing number list in P204~209 for drilling TG Joint, S Double Joint, Tapping Bolt and KF Joint. | SFZ-002             |          |         |              |
|                                                                                                                     | In case A<20 and other than above                | Specify by drawing.                                                                                                   | SFZ-003             |          |         |              |
|                                                                                                                     | In case A≥20                                     |                                                                                                                       | SFZ-009             |          |         |              |
| Counterbore<br>                    |                                                  | Specify by drawing.<br>(Refer P186)                                                                                   | SFZ-004             |          |         |              |
|                                                                                                                     | SF30 series<br>(for M6 Hexagon Socket Bolt)      |                                                                                                                       |                     | A<br>6.6 | B<br>11 | C<br>9       |
|                                                                                                                     | SF40 (45) series<br>(for M8 Hexagon Socket Bolt) |                                                                                                                       |                     | 9        | 14      | 12.5<br>(13) |
|                                                                                                                     | SF20 series<br>(for M5 Hexagon Socket Bolt)      |                                                                                                                       |                     | 5.5      | 9.5     | 6            |
|                                                                                                                     | (for M12 Hexagon Socket Bolt)                    | 14                                                                                                                    | 20                  | specify  |         |              |
|                                                                                                                     | Spot Facing other than above                     |                                                                                                                       | SFZ-009             |          |         |              |
| End Face Tapping<br>               | M5 Depth15                                       | Refer P199~201<br>Drilled to the depth of 50<br>Specify by drawing.                                                   | SFZ-005             |          |         |              |
|                                                                                                                     | ・ M8 Depth 24※<br>・ M12 Depth 36※                |                                                                                                                       | SFZ-008             |          |         |              |
|                                                                                                                     | M12 Helisert 1.5D                                |                                                                                                                       | SFZ-006             |          |         |              |
|                                                                                                                     | M14 Depth 42                                     | Specify by drawing.                                                                                                   | SFZ-007             |          |         |              |
| Side Tapping<br>                   | Taping on Frame Side                             | Specify by drawing.                                                                                                   | SFZ-009             |          |         |              |
| QC Joint Processing<br>            | Drilling for QC Joint                            | Refer P202~203                                                                                                        | SFZ-002             |          |         |              |
| High Accuracy Cut (HC)<br>        | A=0.5                                            | Standard Cutting Size Tolerance                                                                                       |                     |          |         |              |
|                                                                                                                     | A=0.2~0.4<br>(ℓ≤1000mm)                          | Specify by drawing.                                                                                                   | SFZ-015             |          |         |              |
| Slant Cut<br>                    | X=45°                                            | Specify by Processing No. below.<br>Specify by drawing for others.                                                    | SFZ-016             |          |         |              |
|                                                                                                                     | 45°<X<90°(0.5° Unit)                             | Specify by drawing.                                                                                                   | SFZ-013             |          |         |              |
|                                                                                                                     | X<45°                                            |                                                                                                                       | SFZ-014             |          |         |              |
| Cost to cut nonstandard size<br> | Cut the dimension of 30mm≤A≤50mm                 | It's adapted when receiving the specification to cut more than 30mm and below 50mm.                                   | SFZ-009             |          |         |              |
| Notching<br>                     | A×B≤900mm <sup>l</sup>                           | L≤100mm<br>100mm<L≤200mm                                                                                              | Specify by drawing. | SFZ-009  |         |              |
|                                                                                                                     | 900mm <sup>l</sup> <A×B<br>≤2700mm <sup>l</sup>  | L≤100mm<br>100mm<L≤200mm                                                                                              |                     |          |         |              |
|                                                                                                                     | 2700mm <sup>l</sup> <A×B                         | L≤100mm<br>100mm<L≤200mm                                                                                              |                     |          |         |              |
|                                                                                                                     |                                                  |                                                                                                                       |                     |          |         |              |
| C-Chamfering<br>                 | C Below 0.5                                      | Specify by drawing.                                                                                                   | SFZ-009             |          |         |              |
|                                                                                                                     | C 0.6~C 5                                        |                                                                                                                       |                     |          |         |              |
|                                                                                                                     | C 5.1~C 10                                       |                                                                                                                       |                     |          |         |              |
|                                                                                                                     | C 10.1 and up                                    |                                                                                                                       |                     |          |         |              |

## 45°Slant Cut Frame Processing Number List

Please specify Processing No. below to the Frame when using Hard Bracket DE135/45 in P39-73-110

Item No. Length(mm) Processing No.  
**SF2-30-60** **l=800** **DHS**

※ Specify by drawing in case of no Processing No.

※ Specify in drawing other than intended Frames.

| Processing No. | 45°Slant Cut Shape | Intended Frame                                                                                                                                                                                           | Processing No. | 45°Slant Cut Shape | Intended Frame                                                                                                                                                                                      |
|----------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DSS            |                    | SF-20-20<br>SF-25-25<br>SF-40-40-2S<br>SF-30-30<br>SF-K-30-30<br>SF-35-35<br>SF-50-50-2S<br>SF-60-60-2S<br>SF-40-40<br>SF-80-80(H)<br>SF-K-40-40<br>SF-K-45-45<br>SF-90-90<br>SF-60-60-1S<br>SF-80-80-1S | DHW            |                    | SF-30-60-2H<br>SF-K-30-60<br>SF-30-90<br>SF-30-120<br>SF-60-90<br>SF-50-100-2S<br>SF-60-120<br>SF-40-80<br>SF-40-160<br>SF-45-90<br>SF-K-40-80<br>SF-K-45-90<br>SF-80-160<br>SF-90-180<br>SF-45-180 |
| DSW            |                    | SF-20-40<br>SF-20-60<br>SF-20-80<br>SF-40-60<br>SF-40-80-SS<br>SF-30-60                                                                                                                                  | DVS            |                    | Panel Guard T3(SFF-K34)※<br>Panel Guard T5(SFF-K54)※<br>SF-35-70※<br>※Only DVS-DVW                                                                                                                  |
| DHS            |                    |                                                                                                                                                                                                          | DVW            |                    |                                                                                                                                                                                                     |

## Tapping on Frame's Cut Surface

- \* You can order in your drawing, too.
- \* Please inquire regarding the nonstandard depth.
- \* Only when YG Joint, S Double Joint and KF Joint will be drilled together with tapping, please specify L or R.

### SF20 Series

|                                              |                         |                                                    |
|----------------------------------------------|-------------------------|----------------------------------------------------|
| <b>SF-20•20</b> (1F•2F•3F•Black•2H Included) |                         |                                                    |
| Item No. <b>SF-20•20</b>                     | Length(mm) <b>ℓ=800</b> | Tapping <b>TL or TR (In case of both sides TW)</b> |
| <b>SF-20•60</b>                              |                         |                                                    |
| <b>SF-20•80</b>                              |                         |                                                    |
| <b>SF-20•40•20</b>                           |                         |                                                    |
| <b>SF-20•20•R</b>                            |                         |                                                    |
| <b>SF-25•25</b> (Black Included)             |                         |                                                    |
| <b>SF-20•40</b> (1F•Black Included)          |                         |                                                    |
| Item No. <b>SF-20•40</b>                     | Length(mm) <b>ℓ=800</b> | Tapping <b>TL or TR (In case of both sides TW)</b> |
| <b>SF-40•40•2S</b> (1F•2F•Black Included)    |                         |                                                    |
| <b>SF-40•80•SS</b>                           |                         |                                                    |
| <b>SF-40•60•SS</b>                           |                         |                                                    |
| <b>SF-20•DE45</b> (DE30•DE60 Included)       |                         |                                                    |

### SF30 Series

|                                           |  |  |
|-------------------------------------------|--|--|
| <b>SF2-30•60</b> (1F•2H Included)         |  |  |
| <b>SF-K•30•60</b>                         |  |  |
| <b>SF-30•120</b>                          |  |  |
| <b>SF-60•90</b>                           |  |  |
| <b>SF2-30•30</b> (1F•2F•3F•2H Included)   |  |  |
| <b>SF-K•30•30</b>                         |  |  |
| <b>SF-30•90</b>                           |  |  |
| <b>SF-60•60•2S</b> (1F•2F•Black Included) |  |  |

SF20  
SS Size

SF30  
S Size

SF40•45  
L Size

Complex Parts

Door • Panel  
Clean Equipment

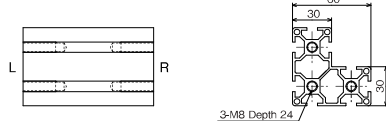
Technical Data

# Technical Data *Frame Processing*

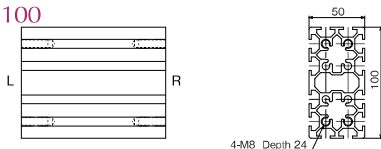
## Tapping on Frame's Cut Surface

### SF30 Series

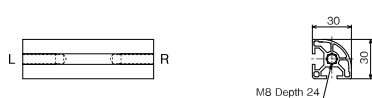
#### SF-30•60•60



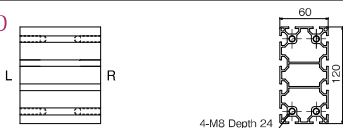
#### SF-50•100



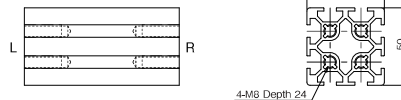
#### SF-30•30•R



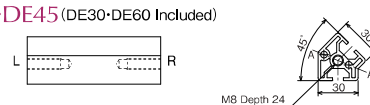
#### SF-60•120



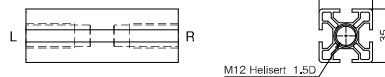
#### SF-50•50 (1F•2F Included)



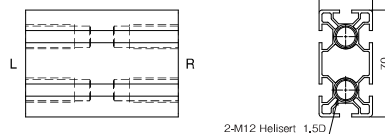
#### SF-30•DE45 (DE30•DE60 Included)



#### SF-35•35 (1F•2F•2H Included)

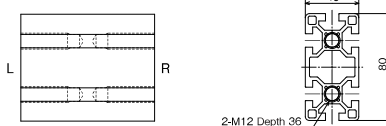


#### SF-35•70 (1F•2F Included)

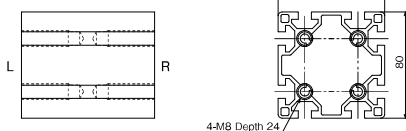


### SF40 Series

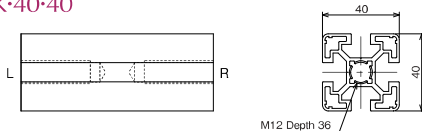
#### SF2-40•80 (1F)



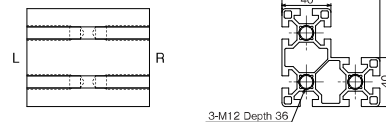
#### SF-80•80 (Black•H Included)



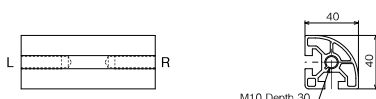
#### SF-K•40•40



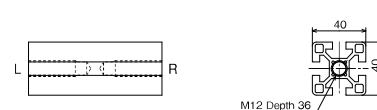
#### SF-40•80•80



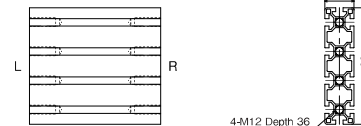
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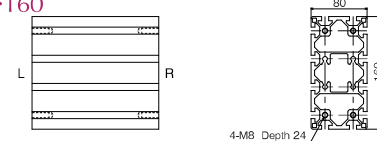
#### SF2-40•40 (1F•2F•3F•2H Included)



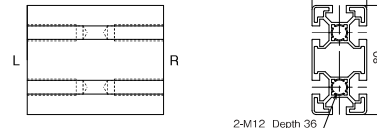
#### SF-40•160



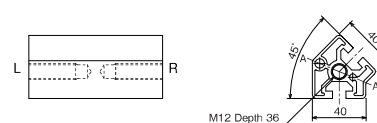
#### SF-80•160



#### SF-K•40•80



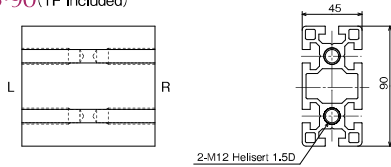
#### SF-40•DE45 (DE30•DE60 Included)



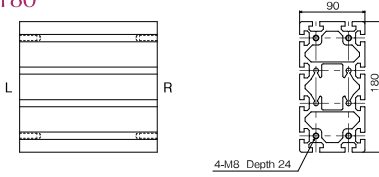


## SF45 Series

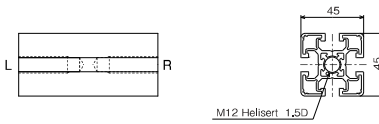
SF2-45•90 (1F Included)



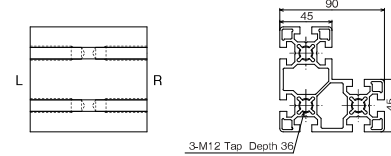
SF-90•180



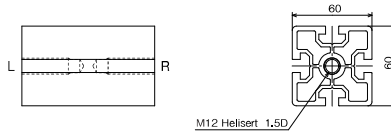
SF-K•45•45 (1F•2F Included)



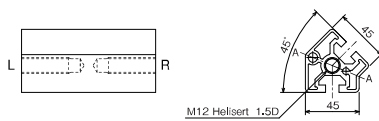
SF-45•90•90



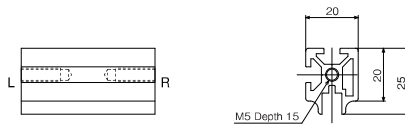
SF-60•60•1S



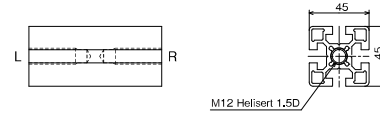
SF-45•DE45 (DE30•DE60 Included)



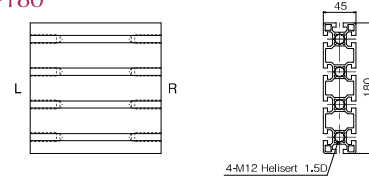
Panel Frame



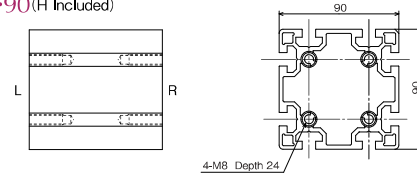
SF2-45•45 (1F•2F•3F•2H Included)



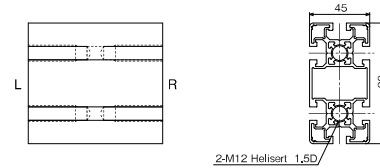
SF-45•180



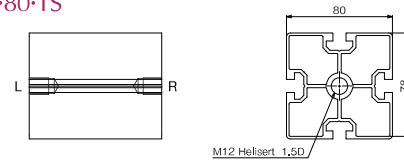
SF-90•90 (H Included)



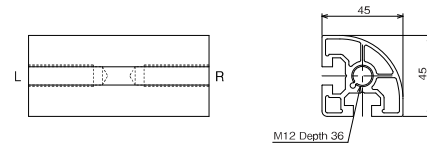
SF-K•45•90



SF-80•80•1S



SF-45•45•R



SF20

SS Size

SF30

S Size

SF40

L Size

Complex Parts

Door • Panel  
Clean Equipment

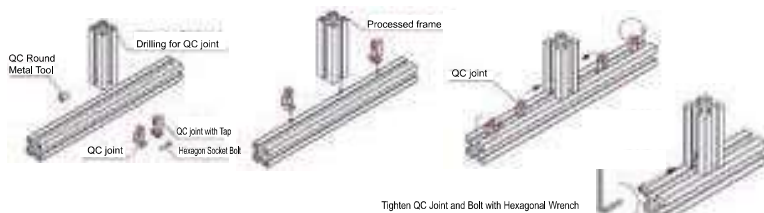
Technical Data

# Technical Data Drilling Symbol for QC Joint

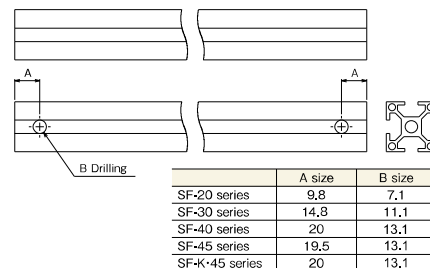
Drilling for QC joint

## Drilling Symbol for QC Joint

&lt; QC Joint Assembly Contents &gt;



&lt;Position and size of the hole to insert round metal for QC Joint&gt;

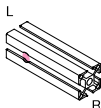
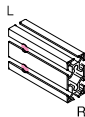
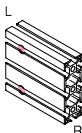
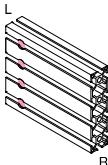
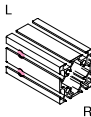
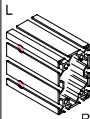
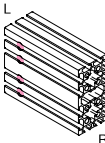
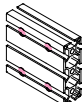
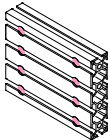
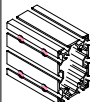
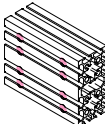
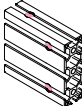
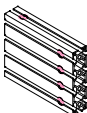
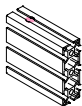
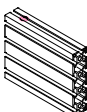
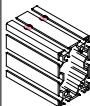
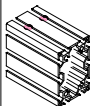
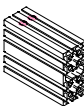
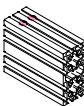
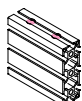
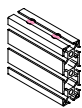
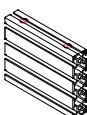
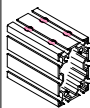
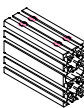
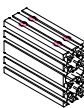


◆QC Joint…… Insert QC Joint to frame's groove (last-in is possible), and fit another frame with QC round metal installed to combine by tightening bolt. It's easily squared and hardly makes gap because 2 frames pull each other. Appearance is clear without outer joint part's overhang. Also, assembly process is shortened because there's no need to set Nuts to frame before.

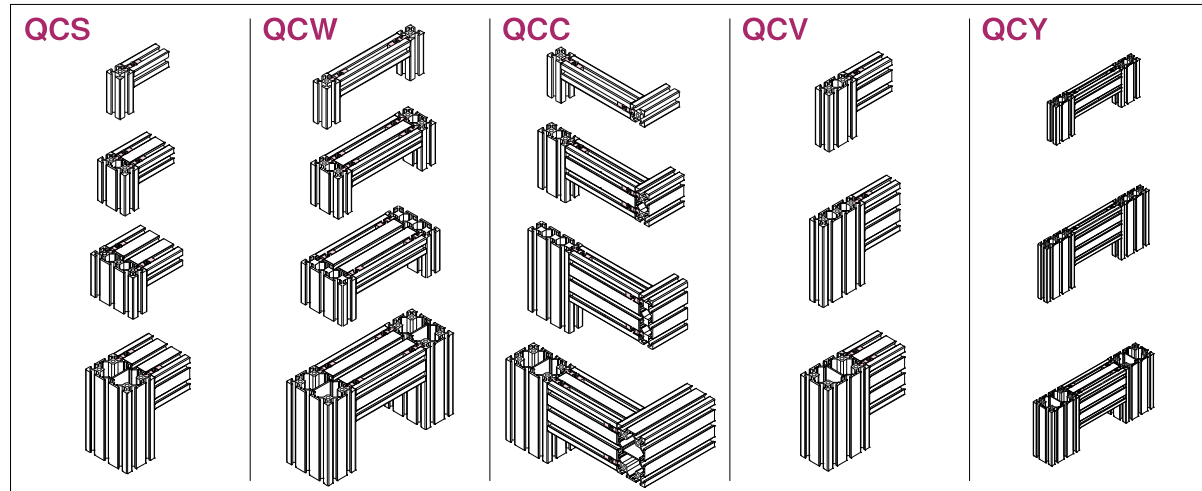
- Please specify by QC Joint processing number when you use each QC Joint in P35,67,114
- Please mind the direction because QC Joint cannot be inserted to the surface without groove.

Item No. Length(mm) Processing No.  
**SFF-324** **ℓ=800** **QCS**

### QC Joint Processing List

| Groove Type                                                                         | 1 Row × 1 Row                                                                                                            |                                                                                                                                             | 1 Row × 2 Rows                                                                               |                                                                                     | 1 Row × 3 Rows                                                                      |                                                                                     | 1 Row × 4 Rows                                                                        |                                                                                               | 2 Rows × 2 Rows                                                                       |                                                                                       | 2 Rows × 3 Rows                                                                       |                                                                                       | 2 Rows × 4 Rows                                                                       |  |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--|
| Processing No.<br><br>Frame Name                                                    | SF-20-20<br>SF2-30-30<br>SF2-K-30-30<br>SF2-40-40<br>SF-K-40-40<br>SF2-45-45<br>SF-K-45-45<br>SF-60-60-1S<br>SF-80-80-1S | SF-20-20-1F<br>SF-20-20-2H<br>SF2-30-30-1F<br>SF2-30-30-2H<br>SF2-40-40-1F<br>SF2-40-40-2H<br>SF2-45-45-1F<br>SF2-45-45-2H<br>SF-K-45-45-1F | SF-20-40<br>SF2-30-60<br>SF2-K-30-60<br>SF2-40-80<br>SF2-K-40-80<br>SF2-45-90<br>SF2-K-45-90 | SF-20-40-1F<br>SF2-30-60-1F<br>SF2-30-60-2H<br>SF2-40-80-1F<br>SF2-45-90-1F         | SF-20-60<br>SF-30-90                                                                | SF-30-120                                                                           | SF-20-80<br>SF-40-160<br>SF-45-180                                                    | SF-40-40-2S<br>SF-50-50-2S<br>SF-60-60-2S<br>SF-80-80<br>SF-80-80-H<br>SF-90-90<br>SF-90-90-H | SF-40-40-2S-1F<br>SF-60-50-2S-1F<br>SF-60-60-2S-1F                                    | SF-40-60-SS<br>SF-60-90                                                               | SF-60-120<br>SF-50-100-2S                                                             | SF-40-80-2S<br>SF-80-160<br>SF-90-180                                                 |                                                                                       |  |
|                                                                                     |                                       |                                                                                                                                             |           |                                                                                     |  |                                                                                     |    |                                                                                               |  |                                                                                       |  |                                                                                       |  |  |
|                                                                                     |                                       |                                                                                                                                             |           |                                                                                     |  |                                                                                     |    |                                                                                               |  |                                                                                       |  |                                                                                       |  |  |
|                                                                                     |                                       |                                                                                                                                             |           |                                                                                     |  |                                                                                     |    |                                                                                               |   |                                                                                       |  |                                                                                       |  |  |
|                                                                                     |                                       |                                                                                                                                             |           |                                                                                     |  |                                                                                     |  |                                                                                               |  |                                                                                       |  |                                                                                       |  |  |
|  |                                                                                                                          |                                                          |                                                                                              |  |                                                                                     |  |                                                                                       |          |                                                                                       |  |                                                                                       |  |                                                                                       |  |

## Reference Example of QC Joint

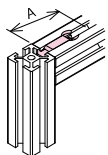


QC Joint Kit Table

| Groove Type     | Frame Name     | QCS        | QCW        | QCC                     | QCV        | QCY        |
|-----------------|----------------|------------|------------|-------------------------|------------|------------|
| 1 Row × 1 Row   | SF-20-20       | SS Kit×1   | SS Kit×2   | SS Kit×2                |            |            |
|                 | SF-20-20-1F    |            |            |                         |            |            |
|                 | SF-20-20-2H    |            |            |                         |            |            |
|                 | SF2-30-30      | S Kit×1    | S Kit×2    | S Kit×2                 |            |            |
|                 | SF-K-30-30     |            |            |                         |            |            |
|                 | SF2-30-30-1F   |            |            |                         |            |            |
|                 | SF2-30-30-2H   | L40 Kit×1  | L40 Kit×2  | L40 Kit×2               |            |            |
|                 | SF2-40-40      |            |            |                         |            |            |
|                 | SF-K-40-40     |            |            |                         |            |            |
|                 | SF2-40-40-1F   | L45 Kit×1  | L45 Kit×2  | L45 Kit×2               |            |            |
| 1 Row × 2 Rows  | SF2-40-40-2H   |            |            |                         |            |            |
|                 | SF2-45-45      | L60 Kit×1  | L60 Kit×2  | L60 Kit×2               |            |            |
|                 | SF-K-45-45     |            |            |                         |            |            |
|                 | SF2-45-45-1F   |            |            |                         |            |            |
|                 | SF2-45-45-2H   | L80 Kit×1  | L80 Kit×2  | L80 Kit×2               |            |            |
|                 | SF-K-45-45-1F  |            |            |                         |            |            |
|                 | SF-60-60-1S    |            |            |                         |            |            |
|                 | SF-80-80-1S    | SS Kit×2   | SS Kit×4   | SS Kit×2 / SS40 Kit×1   | SS40 Kit×1 | SS40 Kit×2 |
|                 | SF-20-40       | S Kit×2    | S Kit×4    | S Kit×2 / S60 Kit×1     | S60 Kit×1  | S60 Kit×2  |
|                 | SF2-30-60      |            |            |                         |            |            |
|                 | SF-K-30-60     |            |            |                         |            |            |
| 1 Row × 3 Rows  | SF2-30-60-1F   | L40 Kit×2  | L40 Kit×4  | L40 Kit×2 / L80 Kit×1   | L80 Kit×1  | L80 Kit×2  |
|                 | SF2-30-60-2H   |            |            |                         |            |            |
|                 | SF2-40-80      |            |            |                         |            |            |
|                 | SF-K-40-80     | L45 Kit×2  | L45 Kit×4  | L45 Kit×2 / L90 Kit×1   | L90 Kit×1  | L90 Kit×2  |
|                 | SF2-40-80-1F   |            |            |                         |            |            |
|                 | SF2-45-90      |            |            |                         |            |            |
|                 | SF-K-45-90     | SS Kit×2   | SS Kit×4   | SS Kit×2 / SS60 Kit×1   | SS60 Kit×1 | SS60 Kit×2 |
|                 | SF2-45-90-1F   |            |            |                         |            |            |
|                 | SF-20-60       |            |            |                         |            |            |
|                 | SF-30-90       | S Kit×2    | S Kit×4    | S Kit×2 / S90 Kit×1     | S90 Kit×1  | S90 Kit×2  |
| 1 Row × 4 Rows  | SF-20-80       | SS Kit×4   | SS Kit×8   | SS Kit×2 / S90 Kit×1    |            |            |
|                 | SF-30-120      | S Kit×4    | S Kit×8    | S Kit×4 / S120 Kit×1    | S120 Kit×1 | S120 Kit×2 |
|                 | SF-40-160      | L40 Kit×4  | L40 Kit×8  |                         |            |            |
|                 | SF-45-180      | L45 Kit×4  | L45 Kit×8  |                         |            |            |
| 2 Rows × 2 Rows | SF-40-40-2S    | SS40 Kit×2 | SS40 Kit×4 | SS40 Kit×4              |            |            |
|                 | SF-40-40-2S-1F |            |            |                         |            |            |
|                 | SF-50-50-2S    |            |            | S50 Kit×4               |            |            |
|                 | SF-50-50-2S-1F | S50 Kit×2  | S50 Kit×4  |                         |            |            |
|                 | SF-60-60-2S    | S60 Kit×2  | S60 Kit×4  | S60 Kit×4               |            |            |
|                 | SF-60-60-2S-1F |            |            |                         |            |            |
|                 | SF-80-80       |            |            | L80 Kit×4               |            |            |
|                 | SF-80-80(H)    | L80 Kit×2  | L80 Kit×4  |                         |            |            |
|                 | SF-90-90(H)    | L90 Kit×2  | L90 Kit×4  | L90 Kit×4               |            |            |
|                 | SF-40-60-SS    | SS40 Kit×2 | SS40 Kit×4 | SS40 Kit×2 / SS60 Kit×2 | SS60 Kit×2 | SS60 Kit×4 |
| 2 Rows × 3 Rows | SF-60-90       | S60 Kit×2  | S60 Kit×4  | S60 Kit×2 / S90 Kit×2   | S90 Kit×2  | S90 Kit×4  |
|                 | SF-40-80-2S    | SS40 Kit×4 | SS40 Kit×8 |                         |            |            |
|                 | SF-50-100-2S   | S50 Kit×4  | S50 Kit×8  | S50 Kit×4 / S100 Kit×2  | S100 Kit×2 | S100 Kit×4 |
|                 | SF-60-120      | S60 Kit×4  | S60 Kit×8  | S60 Kit×4 / S120 Kit×2  | S120 Kit×2 | S120 Kit×4 |
|                 | SF-80-160      | L80 Kit×4  | L80 Kit×8  |                         |            |            |
|                 | SF-90-180      | L90 Kit×4  | L90 Kit×8  |                         |            |            |

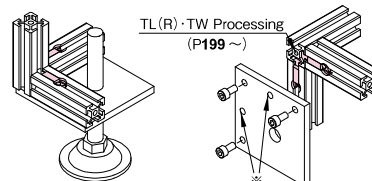
## Precautions for using QC Joint

\* There is a part which cannot use on frame's groove after QC Joint processing.



| Series         | A Size (mm) |
|----------------|-------------|
| SF20 Series    | 13.35       |
| SF30 Series    | 20.35       |
| SF40-45 Series | 26.55       |

\* In case of using plate like Level Adjuster Kit, etc together

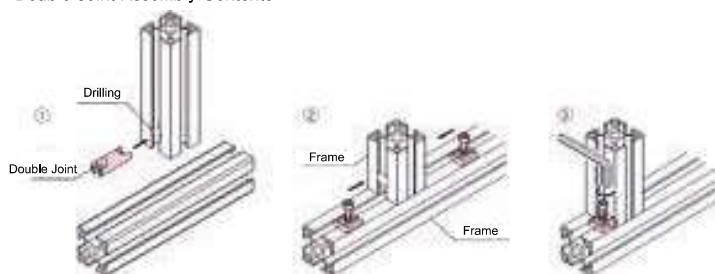


Please do the Tapping on vertical frame, and fix the plate at 3 points, because QC Joint and the holes with \* mark overlap.

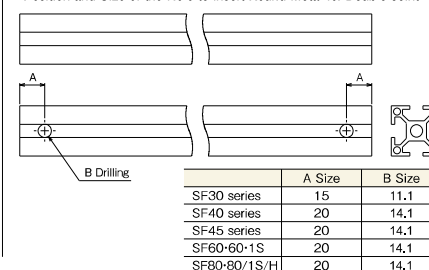
# Technical Data Drilling Symbol for Double Joint

## Drilling Symbol for Double Joint

<Double Joint Assembly Contents>



<Position and Size of the Hole to insert Round Metal for Double Joint>



- ◆ Double Joint ..... Drill a hole to insert Double Joint metal on frame ② and insert nuts to frame ① then fix from the both sides of metal for joint by bolt. It's easily squared and hardly makes gap because 2 frames pull each other. Appearance is clear without outer joint part's overhang.

Please specify Double Joint Drilling No, below to the Frame when using Double Joints in P69-115.

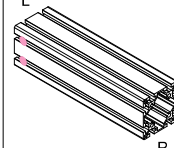
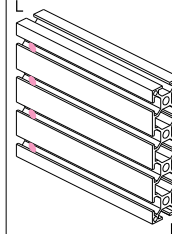
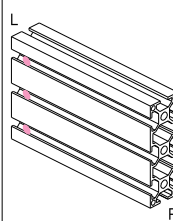
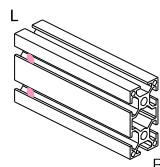
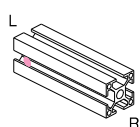


Item No. Length(mm) Processing No.  
**SFF-324** **ℓ=800** **WJAS**

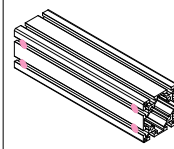
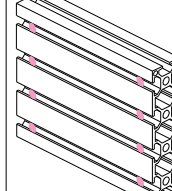
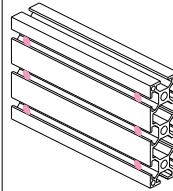
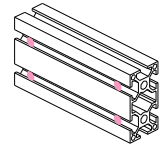
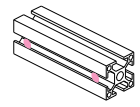
### Double Joint Processing List

| Groove Type         |                     | 1 Row × 1 Row Type<br>(Include 1F·2H Types)                              | 1 Row × 2 Rows Type     | 1 Row × 3 Rows Type | 1 Row × 4 Rows Type | 2 Rows × 2 Rows Type |
|---------------------|---------------------|--------------------------------------------------------------------------|-------------------------|---------------------|---------------------|----------------------|
| SF30 Series         | Double Joint Kit 30 | SF2-30-30<br>SF2-30-30-1F<br>SF2-30-30-2H<br>SF-K-30-30                  | SF2-30-60<br>SF-K-30-60 | SF-30-90            | SF-30-120           |                      |
|                     |                     | SF2-40-40<br>SF-K-40-40<br>SF2-40-40-1F<br>SF2-40-40-2H                  | SF2-40-80<br>SF-K-40-80 |                     | SF-40-160           |                      |
|                     |                     | SF2-45-45<br>SF-K-45-45<br>SF2-45-45-1F<br>SF-K-45-45-1F<br>SF2-45-45-2H | SF2-45-90<br>SF-K-45-90 |                     | SF-45-180           |                      |
|                     |                     | SF-60-60-1S<br>SF-80-80-1S                                               |                         |                     |                     | SF-80-80(H)          |
| SF40 Series         | Double Joint Kit 40 |                                                                          |                         |                     |                     |                      |
|                     |                     |                                                                          |                         |                     |                     |                      |
| SF45 Series         | Double Joint Kit 45 |                                                                          |                         |                     |                     |                      |
|                     |                     |                                                                          |                         |                     |                     |                      |
| Double Joint Kit 60 | Double Joint Kit 80 |                                                                          |                         |                     |                     |                      |
|                     |                     |                                                                          |                         |                     |                     |                      |

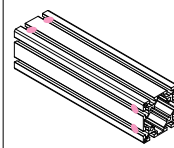
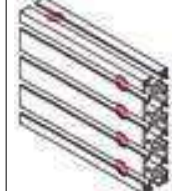
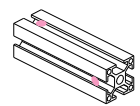
WJAS



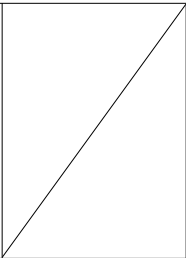
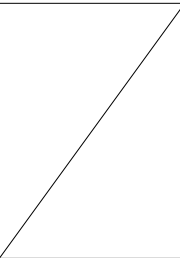
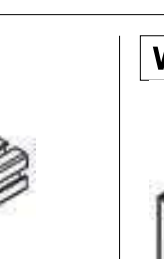
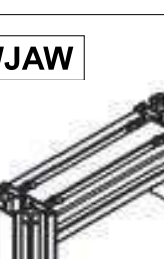
WJAW



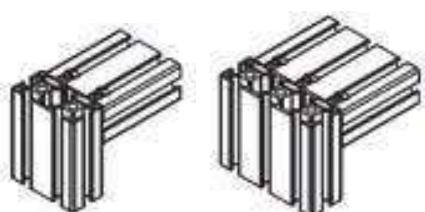
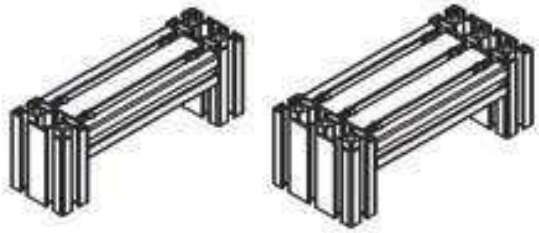
WJAC



Double Joint Processing List

|      |                                                                                   |                                                                                    |                                                                                     |                                                                                      |                                                                                     |
|------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| WJAV |  |   |   |   |  |
|      |                                                                                   |   |   |   |                                                                                     |
|      |                                                                                   |  |  |  |                                                                                     |

Reference Example of Double Joint

|      |                                                                                     |      |                                                                                      |
|------|-------------------------------------------------------------------------------------|------|--------------------------------------------------------------------------------------|
| WJAS |   | WJAW |   |
|      |                                                                                     |      |                                                                                      |
| WJAC |  | WJAV |  |
|      |                                                                                     |      |                                                                                      |
| WJAY |  |      |                                                                                      |
|      |                                                                                     |      |                                                                                      |

SF20  
SS Size

SF30  
S Size

SF40-45  
L Size

Complex Parts

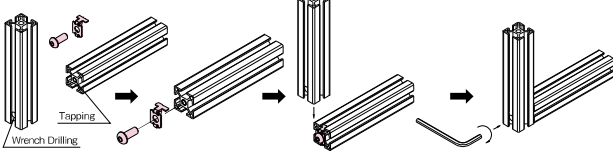
Door · Panel  
Clean Equipment

Technical Data

# Technical Data Drilling Symbol for TG Joint and Tapping Bolt

## Drilling Symbol for TG Joint and Tapping Bolt

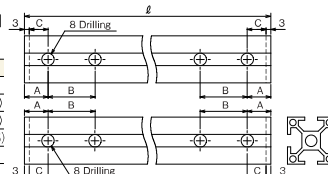
### <TG Assembly Contents>



### <Position and Size of the Hole to Insert Round Metal for TG Joint and Tapping Bolt>

|                | A Size | B Size | C Size    |
|----------------|--------|--------|-----------|
| *1 SF20 Series | 10     | 20     | A-3(7)    |
| SF30 Series    | 15     | 30     | A-3(12)   |
| SF40 Series    | 20     | 40     | A-3(17)   |
| *2 SF45 Series | 22.5   | 45     | A-3(19.5) |
| *2 SF60-60-1S  | 30     | —      | —         |

\*1 Only Tapping Bolt \*2 Only TG Joint  
Drilling for SF20 : 6 Drilling



◆TG Joint..... After Tap processing on the end face of one frame, fix metal for TG Joint temporary to tighten from wrench hole of another frame to combine. It's easily squared and hardly makes gap because 2 frames pull each other. Appearance is clear without outer joint part's overhang.

◆Tapping Bolt... Joint as same as TG is possible without tap-processing or metals for TG Joint.

Please specify TG processing number below for frame to be drilled wrench hole, when you use any TG Joint or Tapping Bolt.

Item No. Length(mm) ProcessingNo.  
SFF-324 ℓ=800 TGS

### ◆<Optional Specification for Frame Cap> Within Outer Size

If you want to make Frame Cap within outer size, please use options.

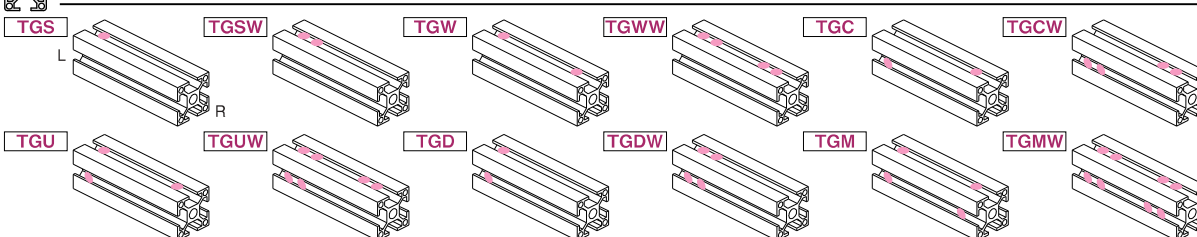


Item No. Length(mm) Processing No.  
SFF-324 ℓ=800 TGS

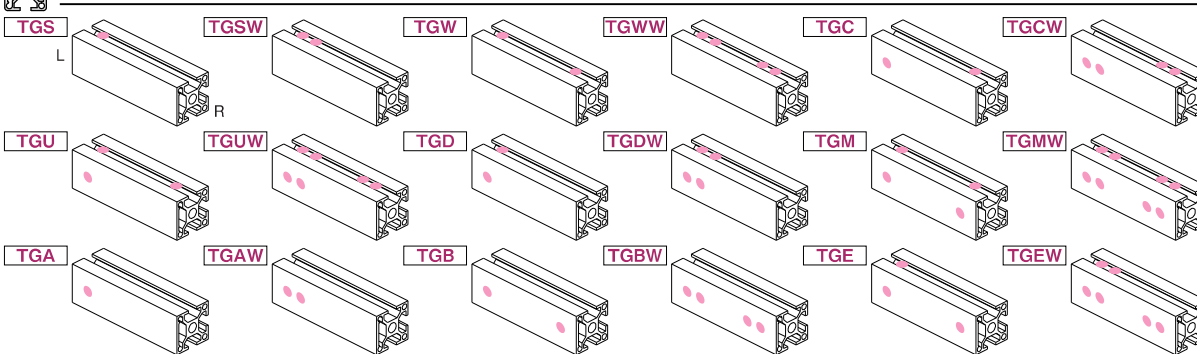
3 (A Size—3:Both end surfaces)  
3R (A Size—3:Only right side)  
3L (A Size—3:Only left side)

### TG Joint · Tapping Bolt Processing List \*1 Only Tapping Bolt \*2 Only TG Joint

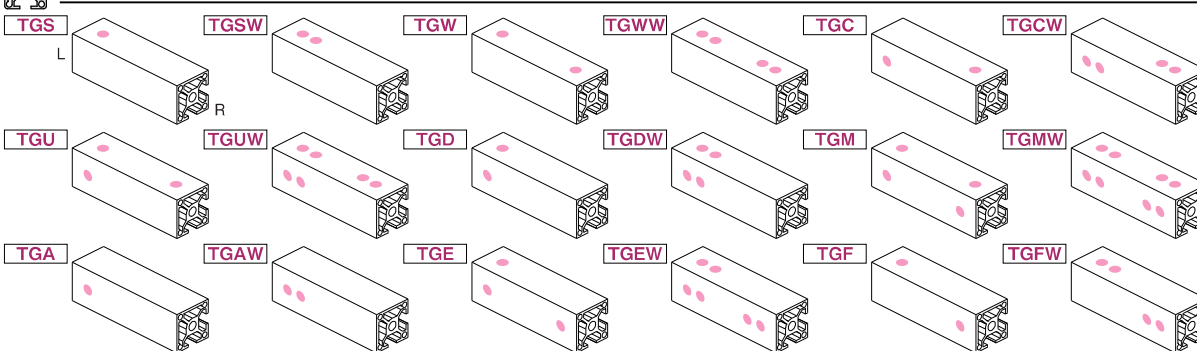
Groove Type 1Row×1Row ◆Object Frame... SF-20·20 SF2-30·30/SF-K·30·30 SF2-40·40/SF-K·40·40 SF2-45·45 SF-60-60-1S



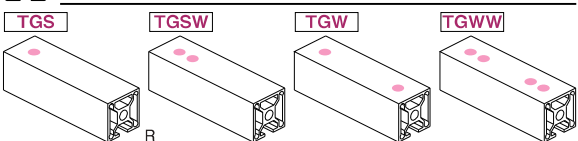
Groove Type 1Row×1Row<1 Flat Surface> ◆Object Frame... SF-20·20·1F SF2-30·30·1F SF2-40·40·1F/SF-K·40·40·1F SF2-45·45·1F



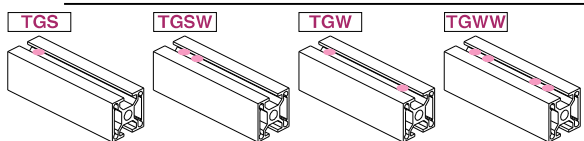
Groove Type 1Row×1Row<2 Flat Surfaces> ◆Object Frame... SF-20·20·2F SF2-30·30·2F SF2-40·40·2F/SF-K·40·40·2F SF2-45·45·2F



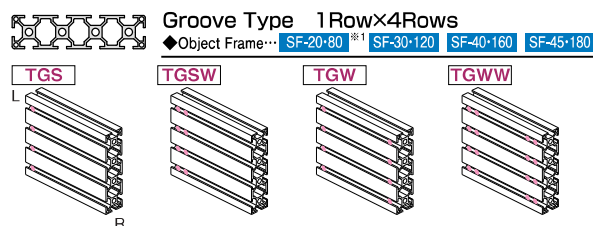
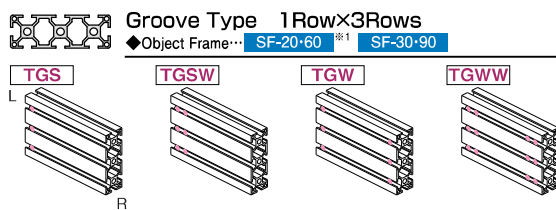
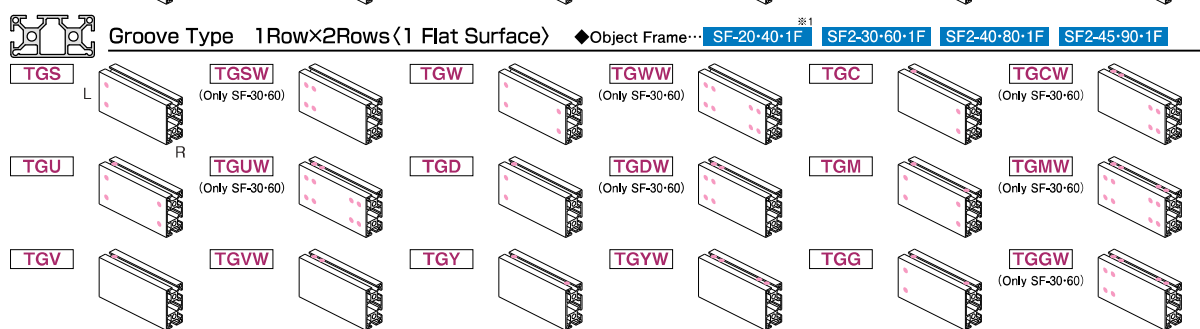
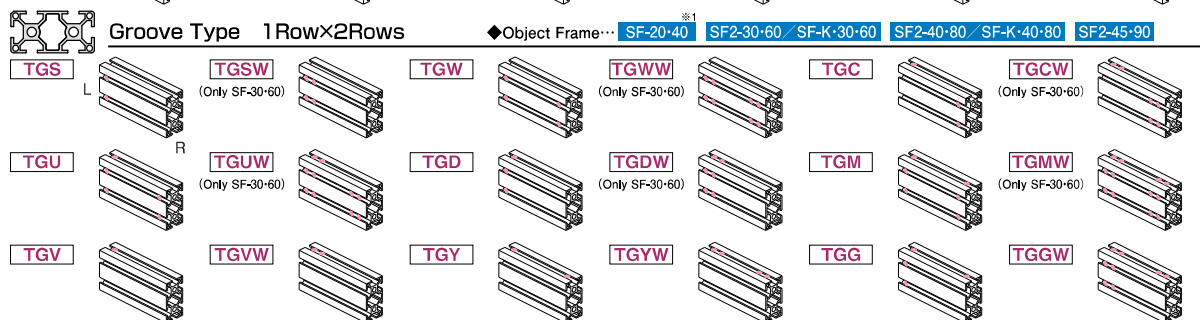
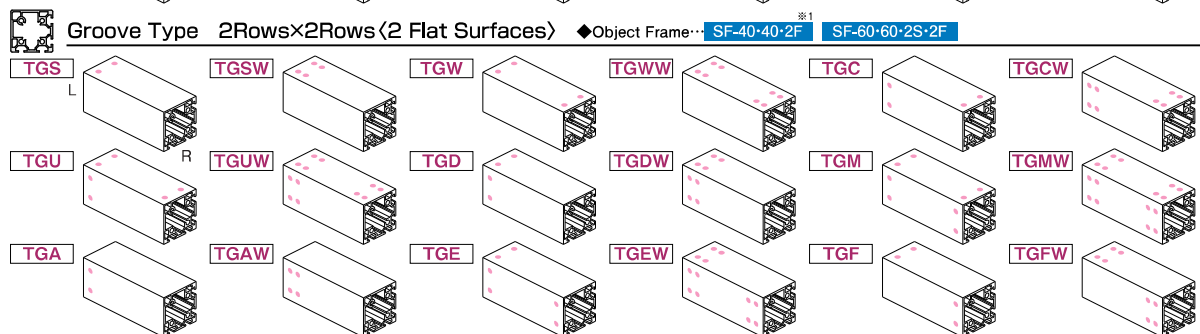
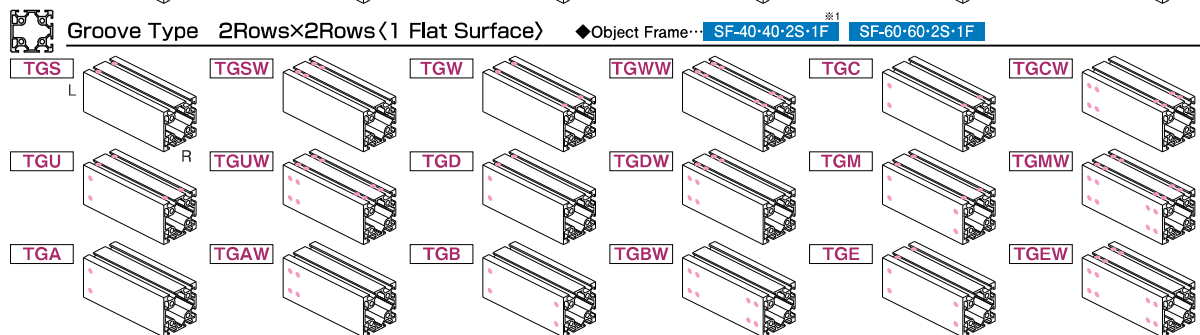
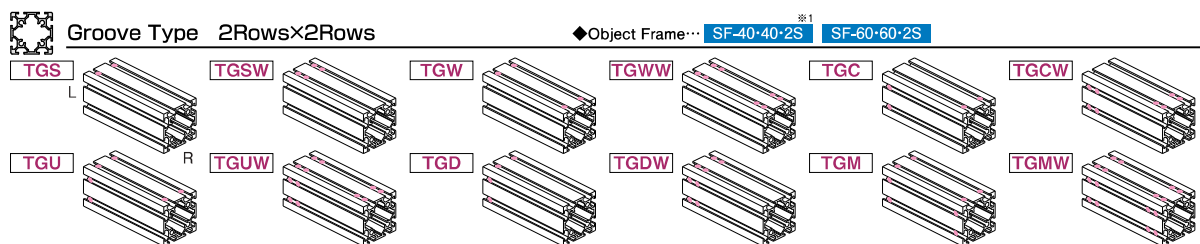
Groove Type 1Row×1Row<3 Flat Surfaces> ◆Object Frame... SF-20·20·3F SF2-30·30·3F SF2-40·40·3F SF2-45·45·3F



Groove Type 1Row×1Row<2H> ◆Object Frame... SF-20·20·2H SF2-30·30·2H SF2-40·40·2H SF2-45·45·2H





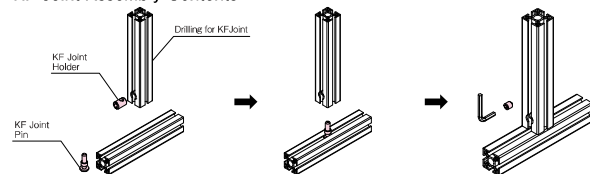




# Technical Data Drilling Symbol for KF Joint

## Drilling Symbol for KF Joint

### <KF Joint Assembly Contents>

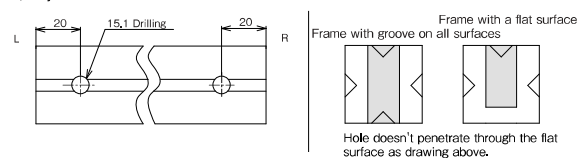


◆KF Joint…… After KF Joint processing on one of the frame, insert KF Joint Holder. Insert KF Joint Pin to another frame and inset to KF Joint Holder, and tighten by set screw to combine. Tightening is easier from one side as drawing above. Frame with a flat surface doesn't disturb the appearance to joint.

Please specify KF Processing No. below to the Frame to drill a hole for KF Joint in case using KF Joint in P69.

### <Drawing of Position, Size and Depth of the Hole for KF Joint>

◆Object frame…SF-35·35/1F/2F/2H-SF-35·70/1F/2F



Item No. Length(mm) Processing No.  
SFF-3A4 ℓ=800 KFS

### Joint Processing List

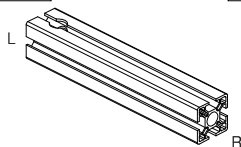


Groove Type 1Row×1Row

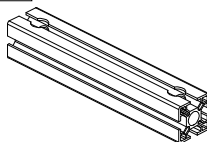
◆Object Frame… SF-35·35



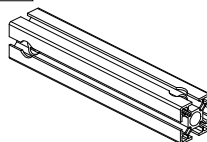
KFS



KFW



KFC

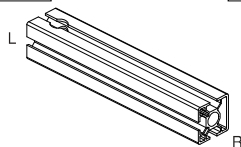


Groove Type 1Row×1Row<1 Flat Surface>

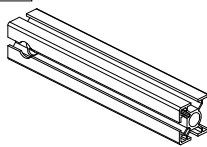
◆Object Frame… SF-35·35·1F



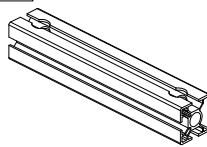
KFS



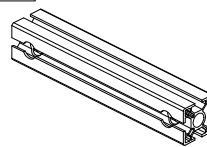
KFA



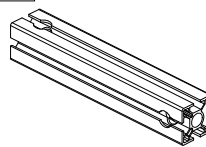
KFW



KFD



KFE

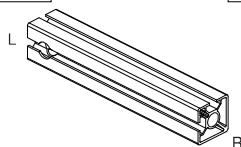


Groove Type 1Row×1Row<2 Flat Surfaces>

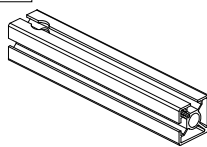
◆Object Frame… SF-35·35·2F



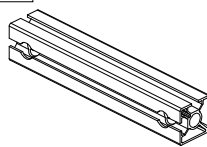
KFA



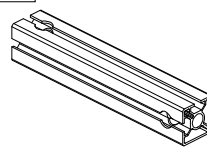
KFB



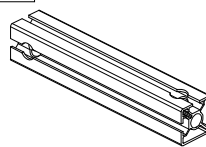
KFD



KFF



KFG

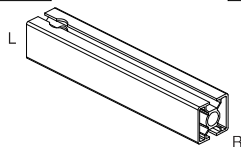


Groove Type 1Row×1Row<Opposite Faces Flat>

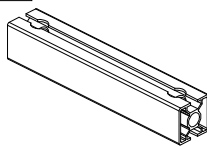
◆Object Frame… SF-35·35·2H



KFS



KFW

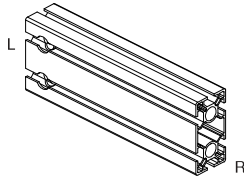




Groove Type 1Rowx2Rows

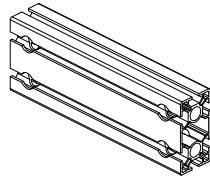
◆Object Frame... SF-35-70

KFS

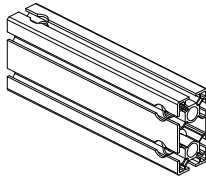


R

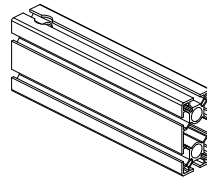
KFW



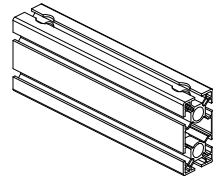
KFC



KFV



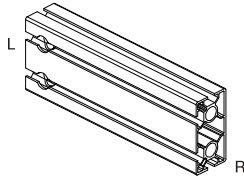
KFY



Groove Type 1Rowx2Rows<1 Flat Surface>

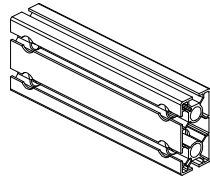
◆Object Frame... SF-35-70-1F

KFA

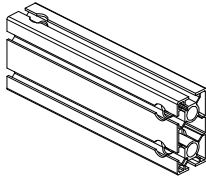


R

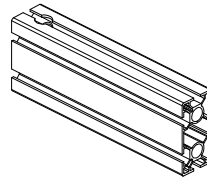
KFD



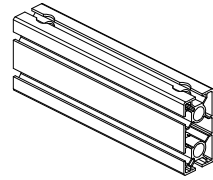
KFE



KFV



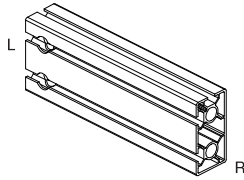
KFY



Groove Type 1Rowx2Rows<2 Flat Surfaces>

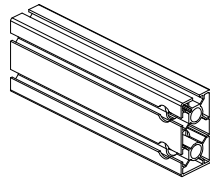
◆Object Frame... SF-35-70-2F

KFA

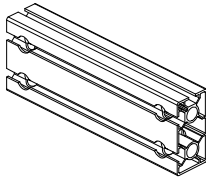


R

KFB

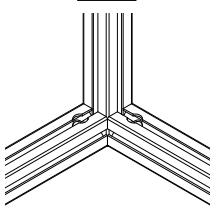


KFD

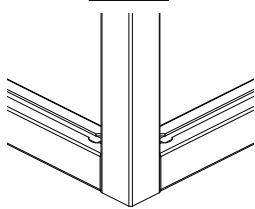


■Simple looking by using KF Joint because drilled hole cannot be seen externally.

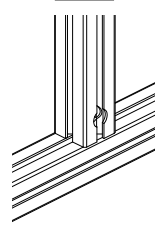
Inside



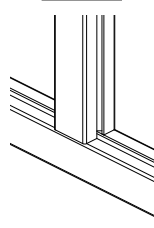
Outside



Inside



Outside



SF20  
SS Size

SF30  
S Size

SF40<sub>45</sub>  
L Size

Complex Parts

Door・Panel  
Clean Equipment

Technical Data

SUS

## **AZ Safety Fence Series Catalogue**

## 30 Series



AZ30  
Safety Fence **p.218**



AZ30  
Open Door **p.218**



Anchor Bracket **p.219**



AZ Bracket Spacer **p.219**



Coupling Metal Kit **p.220**



AZ Frame Cap  
Lock Type **p.220**



Part Mounting Nut **p.221**



Cable Clamp S  
Slot Hook S **p.221**



Slot Cap S **p.221**



Door Stopper Kit **p.222**



Magnet Catch Kit  
for Open Door **p.222**



Cable Holder **p.222**



Cable Ring **p.221**

## 40 Series High-Rigidity



AZ40  
Safety Fence **p.224**



AZ40 Safety Fence  
Connect type **p.225**



AZ40  
Open Door **p.225**



Anchor Bracket **p.226**



AZ Bracket Spacer **p.226**



Coupling Metal Kit **p.227**



AZ Frame Cap  
Lock Type **p.227**



Part Mounting Nut **p.228**



Cable Clamp L  
Slot Hook L **p.228**



Slot Cap L **p.228**

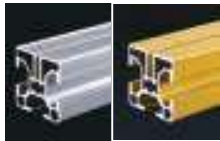


Door Stopper Kit **p.229**



Magnet Catch Kit  
for Open Door **p.229**

## Common Parts



AZ Pillar **p.232, 233**



AZ Pillar  
Connect type **p.233**



AZ Beam  
(For panel thickness of 3mm) **p.232, 233**



Flat Hinge Kit **p.234**



Door Caster Kit **p.234**



Door Stopper Kit **p.234**



Pull G Type **p.235**



Door Lock Kit **p.235**



Magnet Catch Kit  
for Open Door **p.235**



AZ Frame Cap  
Lock Type **p.236**



Cable Clamp  
Slot Hook **p.236**



Slot Cap **p.236**



Panel Fix Piece **p.236**

## Technical Data



Technical Data **p.241~**

30 Series

40 Series

Common Parts

Technical Data

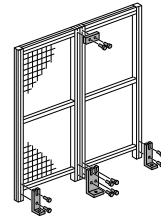




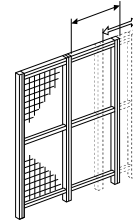


## Feature

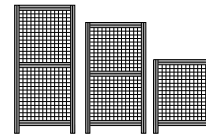
1. The safety fence can be easily installed, simply by joining the fences.



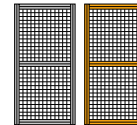
2. The W dimension can be freely designed.



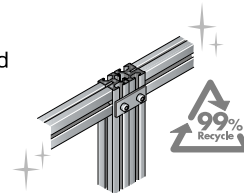
3. The H dimension can also be freely designed.



4. The frame color is selectable from silver or yellow. The surface members are also standardized, ranging from wire mesh to a resin panel.



5. An aluminum frame is exclusively adopted for the safety fence, allowing a cost-effective and exceptionally durable end product. The aluminum safety fence is also visually appealing and environmentally friendly.



6. The design-support service (free of charge) can assist with height/form/surface members for non-standard products. You can consider a design for the space that meets your needs. For details, please contact your nearest sales office. (P264)





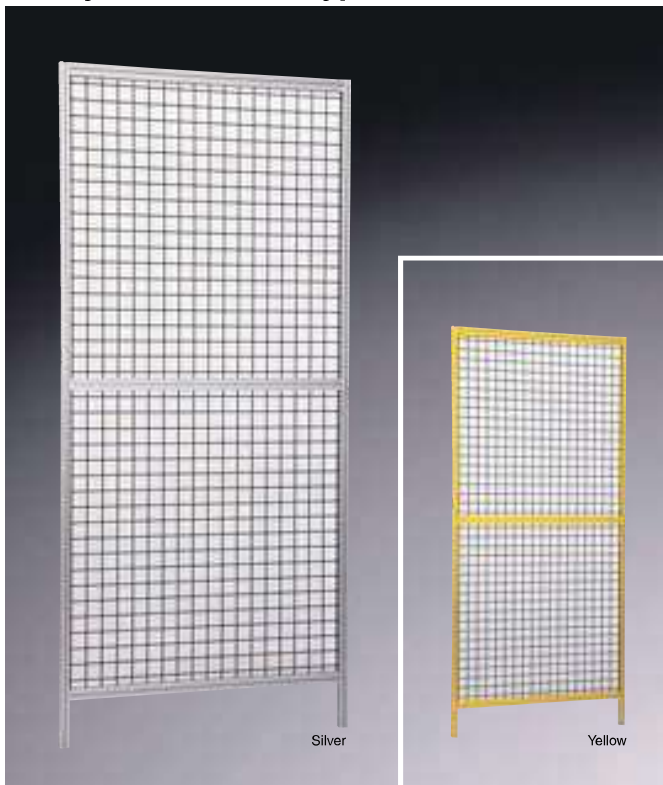


SAFETY FENCE

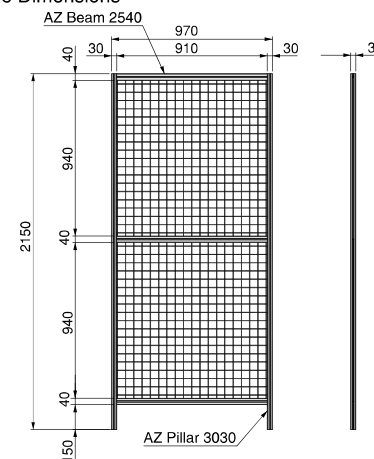
# AZ30

SERIES

## Safety Fence AZ30 Type



Sample Dimensions



## ■Material/Technical Data

Frame material : A6063

Environment : **RoHS** Compliant

Frame color : Silver Alumite Treatment

Yellow Baking finish

|                   | AZ Beam 2540                       | AZ Pillar 3030                     |
|-------------------|------------------------------------|------------------------------------|
| Geometrical       | $I_x=3.74 \times 10^4 \text{mm}^4$ | $I_x=2.16 \times 10^4 \text{mm}^4$ |
| Moment of Inertia | $I_y=1.57 \times 10^4 \text{mm}^4$ | $I_y=2.21 \times 10^4 \text{mm}^4$ |
| Section Modulus   | $Z_x=1.87 \times 10^3 \text{mm}^3$ | $Z_x=1.40 \times 10^3 \text{mm}^3$ |
|                   | $Z_y=1.26 \times 10^3 \text{mm}^3$ | $Z_y=1.47 \times 10^3 \text{mm}^3$ |
| Unit Mass         | 0.69kg/m                           | 0.66kg/m                           |

## Panel variation

Environment : **RoHS** Compliant

| A                                                                                   | B                                                                                   | C                                                                                    | D                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Wire Mesh (steel) pitch 50<br>Wire diameter: $\phi 3.2$                             | Wire Mesh (steel) pitch 30<br>Wire diameter: $\phi 3.2$                             | Acrylic<br>Transparent t3                                                            | Aluminum Composite Panel (ACP)<br>Silver t3                                           |
|  |  |  |  |
| Black baking finish /welded wire netting                                            | Black baking finish /welded wire netting                                            |                                                                                      |                                                                                       |

For details of the panels, please see P168, 238.

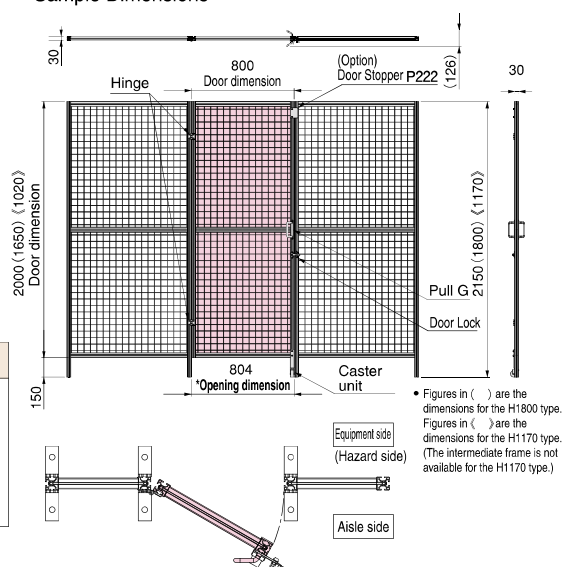
## Open Door (Left-opening)



## Structure of the Open Door

- Open Door Body
- Fixed Hinge
- Pull G
- Caster Unit
- Door Lock

Sample Dimensions



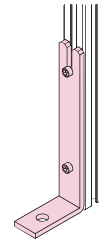
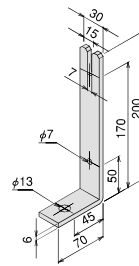
## Accessory

### Anchor Bracket L Type-1 30 Kit



|          |                               |
|----------|-------------------------------|
| Name     | Anchor Bracket L Type-1 30Kit |
| Item No. | AZK-300                       |

- Material/Technical Data  
Material : SS400  
Galvanizing trivalent  
chromate treatment※  
Environment : **RoHS** Compliant  
Weight : 357g
- Usable Frame  
AZ Pillar 3030 (including yellow)
- Kit Contents
- Anchor Bracket L-Type 1-piece (Type 30)
  - Hexagon Socket Bolt
  - ST Nut S
  - Anti-Skid Cap

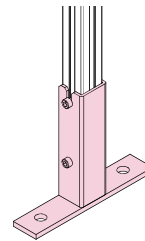
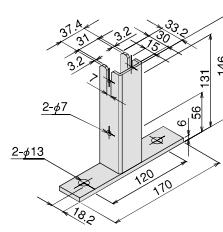


### Anchor Bracket C Type-1 30 Kit



|          |                                |
|----------|--------------------------------|
| Name     | Anchor Bracket C Type-1 30 Kit |
| Item No. | AZK-302                        |

- Material/Technical Data  
Material : SS400/SPCC  
Galvanizing trivalent  
chromate treatment※  
Environment : **RoHS** Compliant  
Weight : 621g
- Usable Frame  
AZ Pillar 3030 (including yellow)
- Kit Contents
- Anchor Bracket C-Type 1-piece (Type 30)
  - Hexagon Socket Bolt
  - ST Nut S
  - Anti-Skid Cap

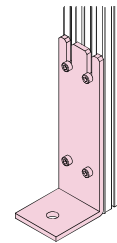
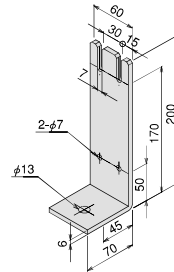


### Anchor Bracket L Type-2 30 Kit



|          |                                |
|----------|--------------------------------|
| Name     | Anchor Bracket L Type-2 30 Kit |
| Item No. | AZK-301                        |

- Material/Technical Data  
Material : SS400  
Galvanizing trivalent  
chromate treatment※  
Environment : **RoHS** Compliant  
Weight : 744g
- Usable Frame  
AZ Pillar 3030 (including yellow)
- Kit Contents
- Anchor Bracket L-Type 2-piece (Type 30)
  - Hexagon Socket Bolt
  - ST Nut S
  - Anti-Skid Cap

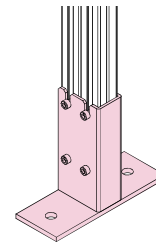
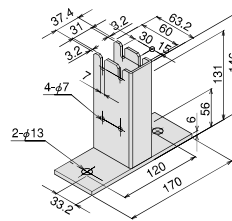


### Anchor Bracket C Type-2 30 Kit



|          |                                |
|----------|--------------------------------|
| Name     | Anchor Bracket C Type-2 30 Kit |
| Item No. | AZK-303                        |

- Material/Technical Data  
Material : SS400/SPCC  
Galvanizing trivalent  
chromate treatment※  
Environment : **RoHS** Compliant  
Weight : 1122g
- Usable Frame  
AZ Pillar 3030 (including yellow)
- Kit Contents
- Anchor Bracket C-Type 2-piece (Type 30)
  - Hexagon Socket Bolt
  - ST Nut S
  - Anti-Skid Cap

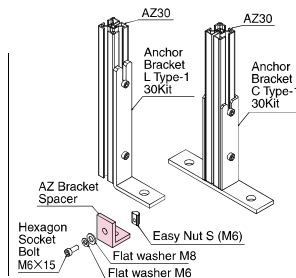
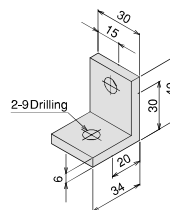


### AZ Bracket Spacer 30 Kit



|          |                          |
|----------|--------------------------|
| Name     | AZ Bracket Spacer 30 Kit |
| Item No. | AZK-30G                  |

- Material/Technical Data  
Material : Aluminum Extrusion  
Environment : **RoHS** Compliant  
Weight : 34g
- Kit Contents
- AZ Bracket Spacer
  - Hexagon Socket Bolt
  - ST Nut S



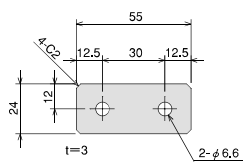
When using a combination of C- and L-Type anchor brackets, the product is used to adjust the height of the frame at the side of the L-Type anchor bracket.

## Accessory

## Coupling Metal Kit

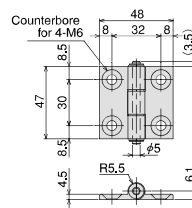


Plate Bracket S-H2



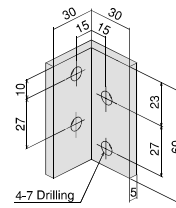
■Material/Technical Data  
Material : SUS304  
Environment : **RoHS** Compliant  
Weight : 28g

Flat Hinge S (For 30)



■Material/Technical Data  
Material : A6N01SS-T5 Alumite Treatment  
Environment : **RoHS** Compliant  
Weight : 30g

Offset Bracket S3060



■Material/Technical Data  
Material : A6063 Alumite Treatment  
Environment : **RoHS** Compliant  
Weight : 42g

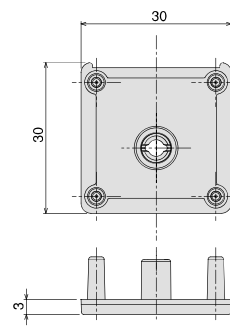
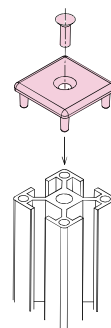
| Name         | Plate Bracket S-H2 Kit                                                                                                    | Flat Hinge S Kit (For 30)                                                                                                    | Offset Bracket S3060 Kit                                                                                                   |
|--------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Item No.     | SFK-125S                                                                                                                  | SFK-2A2                                                                                                                      | SFK-A21                                                                                                                    |
| Kit Contents | <ul style="list-style-type: none"> <li>• Plate Bracket S-H2</li> <li>• Hexagon Socket Bolt</li> <li>• ST Nut S</li> </ul> | <ul style="list-style-type: none"> <li>• Flat Hinge S</li> <li>• Hexagon Socket Flat Head Bolt</li> <li>• T Nut S</li> </ul> | <ul style="list-style-type: none"> <li>• Offset Bracket S3060</li> <li>• Hexagon Socket Bolt</li> <li>• T Nut S</li> </ul> |

■Usable Frame  
• AZ Pillar 3030

## AZ Frame Cap Lock Type

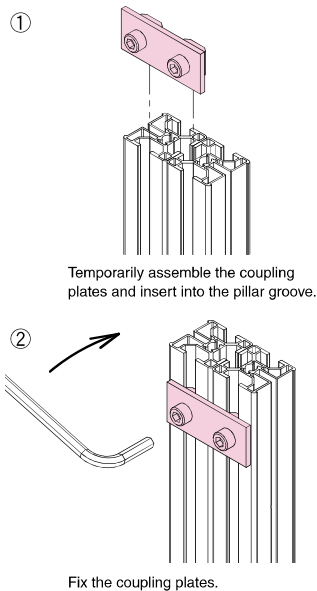


■Material/Technical Data  
Material : Polyamide (Cap)  
Stainless (Screw)  
Environment : **RoHS** Compliant  
Weight : 3.7g  
■Usable Frame  
AZ Pillar 3030 (including yellow)  
■Kit Contents  
• Frame Cap  
• Cross-Recessed Small Flat Screw (Stainless)

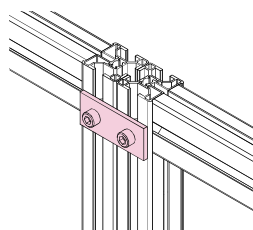


| Name     | AZ Frame Cap Lock Type 3030<br>(Light Gray) |
|----------|---------------------------------------------|
| Item No. | AZK-304G                                    |

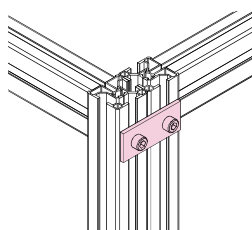
## Coupling procedure



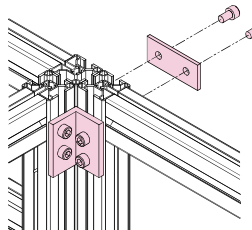
## Straight coupling



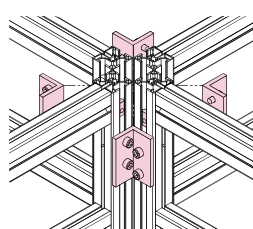
## 90° coupling



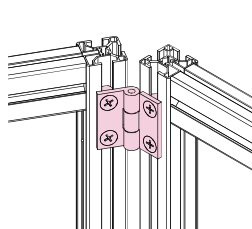
## T coupling



## Cross coupling



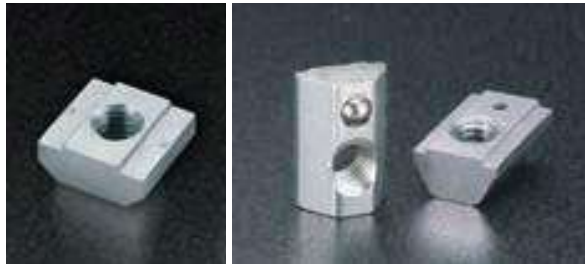
## Angle-free coupling



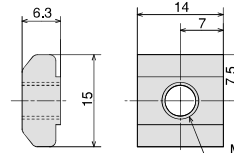
How to order standard products  
Item No.      Quantity (pcs)  
**SFK-125S**    ☐ ☐



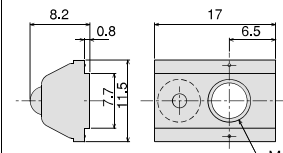
## Part Mounting Nut



ST Nut S



S Easy Nut S



| Pre-assembly nut  | ST Nut S (M6)     | ST Nut S (M5)     | ST Nut S (M4)     | ST Nut S (M3)     |
|-------------------|-------------------|-------------------|-------------------|-------------------|
| Item No.          | SFN-TS6           | SFN-TS5           | SFN-TS4           | SFN-TS3           |
| Post-assembly nut | S Easy Nut S (M6) | S Easy Nut S (M5) | S Easy Nut S (M4) | S Easy Nut S (M3) |
| Item No.          | SFN-ES6           | SFN-ES5           | SFN-ES4           | SFN-ES3           |

■Material/Technical Data  
Material : Stainless  
With Conductive Function  
Environment : **RoHS** Compliant  
Weight : 8g

■Material/Technical Data  
Material : Stainless  
With Conductive Function  
Environment : **RoHS** Compliant  
Weight : 6g

■Usable Frame  
• AZ Pillar 3030 • AZ Beam 2540

## Support bolt

Hexagon Socket Bolt (Uni-Chrome)

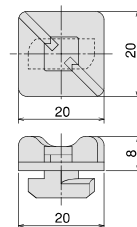
Galvanizing trivalent chromate treatment **RoHS** Compliant

| Screw size | 6       | 8       | 10      | 12      | 14      | 15      | 18      | 20      | 22      | 25      |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| M3         | SFB-531 | SFB-532 | SFB-533 | SFB-534 | —       | —       | SFB-535 | —       | —       | —       |
| M4         | SFB-540 | SFB-541 | SFB-542 | —       | —       | —       | SFB-546 | SFB-543 | SFB-54D | SFB-544 |
| M5         | SFB-55E | SFB-550 | SFB-551 | SFB-55C | SFB-55A | SFB-554 | SFB-55B | SFB-555 | SFB-552 | SFB-553 |
| M6         | —       | SFB-56E | SFB-561 | SFB-560 | SFB-56B | SFB-562 | SFB-56C | SFB-563 | SFB-56A | SFB-566 |

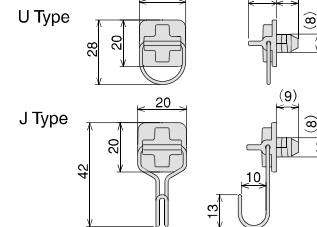
## Cable Clamp S/Slot Hook S



Cable Clamp S



Slot Hook S

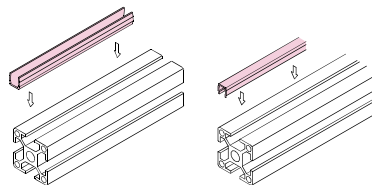


| Name     | Cable Clamp S (50 pcs.) |          | Slot Hook S |          |
|----------|-------------------------|----------|-------------|----------|
|          | (Light Gray)            | (Black)  | (U Type)    | (J Type) |
| Item No. | C1P-004C                | C1P-B04C | SFK-K32U    | SFK-K32J |

■Usable Frame  
• AZ Pillar 3030 • AZ Beam 2540

■Material/Technical Data  
Material : Polyamide  
Environment : **RoHS** Compliant  
Weight : Cable Clamp S 2g/pcs  
Slot Hook S U Type 3g/pcs  
Slot Hook S J Type 4g/pcs  
Load capacity : Slot Hook S 1.5kg

## Slot Cap S



| Name     | (Light Gray) | (Black) | Slot cap S (l=2000 mm/piece) |          |          |          |
|----------|--------------|---------|------------------------------|----------|----------|----------|
|          |              |         | (Blue)                       | (Green)  | (Yellow) | (Red)    |
| Item No. | SFA-104G     | SFA-104 | SFA-104L                     | SFA-104M | SFA-104Y | SFA-104R |

■Material/Technical Data  
Material : Polyethylene  
Environment : **RoHS** Compliant  
Unit Mass : Slot Cap S 25g/m

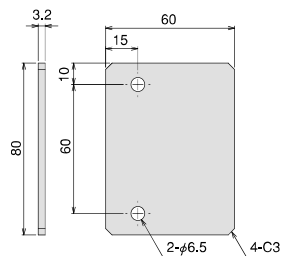
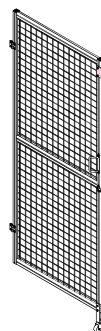
■Usable Frame  
• AZ Pillar 3030 • AZ Beam 2540

## Accessory

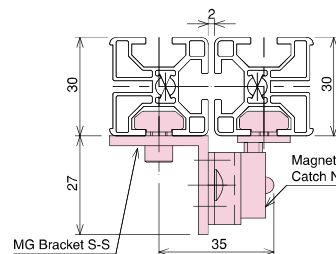
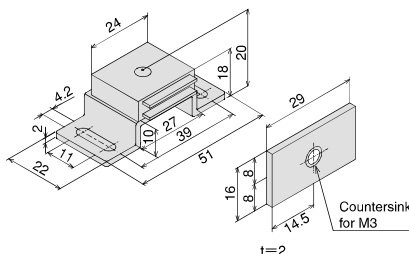
## Door Stopper Kit (For 30)



- **Material/Technical Data**  
 Material : SPCC  
 Environment : **RoHS** Compliant  
 Weight : 142g
- **Usable Frame**  
 AZ Pillar 3030
- **Kit Contents**
- Stopper Plate
  - Hexagon Socket Bolt
  - ST Nut S
  - Anti-Skid Cap



|          |                           |
|----------|---------------------------|
| Name     | Door Stopper Kit (For 30) |
| Item No. | AZK-30D                   |

Magnet Catch Kit for Open Door  
(MG Bracket S-S Kit)

- **Material/Technical Data**  
 Material : Magnet Catch Housing: Stainless Dark Brown Painting  
 Magnet: Ferrite  
 MG Bracket: Aluminum  
 T Nut: Equivalent to S10C Uni-Chrome plating  
 Environment : **RoHS** Compliant  
 Weight : 93g

- **Usable Frame**  
 AZ Pillar 3030

- **Kit Contents**
- Magnet Catch N
  - MG Bracket S-S
  - Truss Screw
  - Flat-Head Screw
  - T Nut S (M3)
  - T Nut S (M5)
  - Hexagon Socket Bolt

|          |                    |
|----------|--------------------|
| Name     | MG Bracket S-S Kit |
| Item No. | SFK-4AH            |

## Cable Holder/ Cable Ring (Middle) (Small) (Minimum)



Cable Holder



Cable Ring

Cable holder/ring capable of simply getting the cable in and out. Detachable in a single operation and eliminates the need for a bolt or screw. Connectable via a special hook, so also when coupling, can be arranged evenly and in a straight line.

→ P.135



How to order standard products  
 Item No. **AZK-30D**      Quantity (pcs)

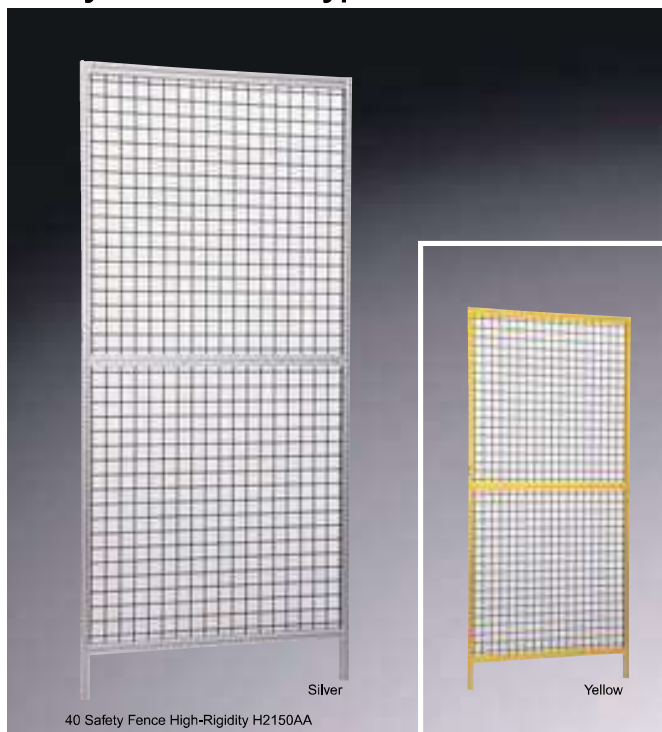


SAFETY FENCE

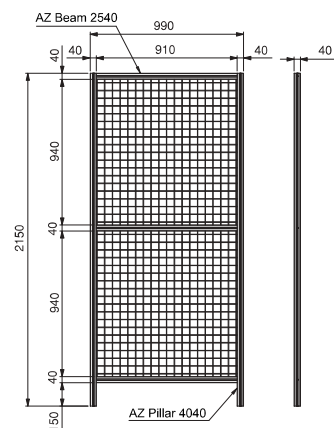
# AZ40

SERIES High-Rigidity

## Safety Fence AZ40 Type



### Sample Dimensions



#### Material/Technical Data

Frame material : A6063

Environment : **RoHS** Compliant

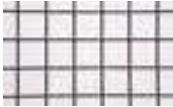
Frame color : **Silver** Alumite Treatment

**Yellow** Baking finish

|                   | AZ Beam 2540                        | AZ Pillar 4040                      |
|-------------------|-------------------------------------|-------------------------------------|
| Geometrical       | $I_x=3,74 \times 10^4 \text{ mm}^4$ | $I_x=5,98 \times 10^4 \text{ mm}^4$ |
| Moment of Inertia | $I_y=1,57 \times 10^4 \text{ mm}^4$ | $I_y=6,17 \times 10^4 \text{ mm}^4$ |
| Section Modulus   | $Z_x=1,87 \times 10^3 \text{ mm}^3$ | $Z_x=2,87 \times 10^3 \text{ mm}^3$ |
|                   | $Z_y=1,26 \times 10^3 \text{ mm}^3$ | $Z_y=3,09 \times 10^3 \text{ mm}^3$ |
| Unit Mass         | 0.69kg/m                            | 1.06kg/m                            |

### Panel variation

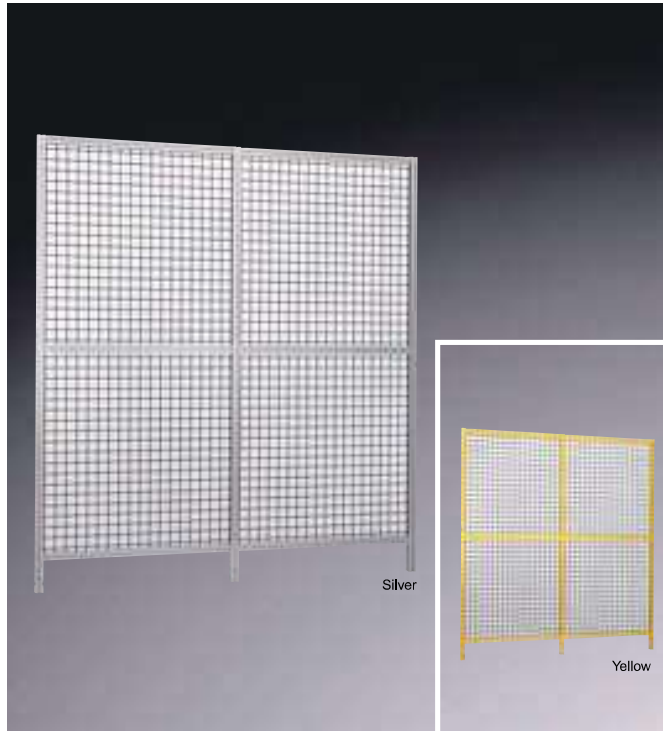
Environment : **RoHS** Compliant

| A                                                                                                                                                                                                 | B                                                                                                                                                                                                 | C                                                                                                                        | D                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Wire Mesh (steel) pitch 50</b><br>Wire diameter: $\phi 3,2$<br><br>Black baking finish /welded wire netting | <b>Wire Mesh (steel) pitch 30</b><br>Wire diameter: $\phi 3,2$<br><br>Black baking finish /welded wire netting | <b>Acrylic</b><br>Transparent t3<br> | <b>Aluminum Composite Panel (ACP)</b><br>Silver t3<br> |

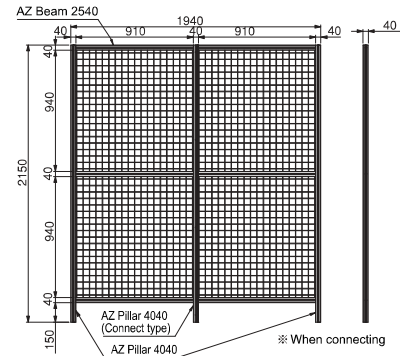
For details of the panels, please see P168, 238.

## High-Rigidity Connect Type

### AZ40 Connect Type



Sample Dimensions



#### Material/Technical Data

Frame material: A6063

Environment: **RoHS** Compliant

Frame color: Silver Alumite Treatment

Yellow Baking finish

|                   | AZ Beam 2540                        | AZ Pillar 4040                      | AZ Pillar 4040 (Connect type)       |
|-------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Geometrical       | $I_x=3.74 \times 10^4 \text{ mm}^4$ | $I_x=5.98 \times 10^4 \text{ mm}^4$ | $I_x=3.13 \times 10^4 \text{ mm}^4$ |
| Moment of Inertia | $I_y=1.57 \times 10^4 \text{ mm}^4$ | $I_y=6.17 \times 10^4 \text{ mm}^4$ | $I_y=2.26 \times 10^4 \text{ mm}^4$ |
| Section Modulus   | $Z_x=1.87 \times 10^3 \text{ mm}^3$ | $Z_x=2.87 \times 10^3 \text{ mm}^3$ | $Z_x=1.26 \times 10^3 \text{ mm}^3$ |
|                   | $Z_y=1.26 \times 10^3 \text{ mm}^3$ | $Z_y=3.09 \times 10^3 \text{ mm}^3$ | $Z_y=1.06 \times 10^3 \text{ mm}^3$ |
| Unit Mass         | 0.69kg/m                            | 1.06kg/m                            | 0.65kg/m                            |

#### Panel variation

Environment: **RoHS** Compliant

| A                                                                                                                                                                                          | B                                                                                                                                                                                          | C                                                                                                                 | D                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Wire Mesh (steel) pitch 50<br>Wire diameter: $\phi 3.2$<br><br>Black baking finish /welded wire netting | Wire Mesh (steel) pitch 30<br>Wire diameter: $\phi 3.2$<br><br>Black baking finish /welded wire netting | Acrylic<br>Transparent t3<br> | Aluminum Composite Panel (ACP)<br>Silver t3<br> |

For details of the panels, please see P168, 238.

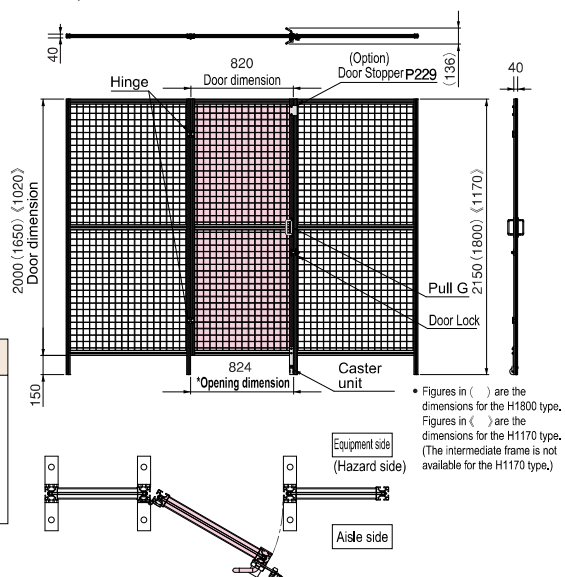
## High-Rigidity Open Door for Panel thickness of 3mm (left-opening)



#### Structure of the Open Door

- Open Door Body
- Fixed Hinge
- Pull G
- Caster Unit
- Door Lock

Sample Dimensions



The panel variation is the same as the P224.

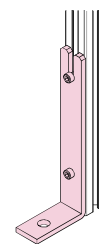
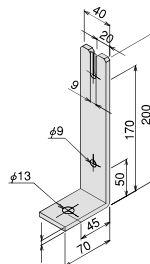
## Accessory

## Anchor Bracket L Type-1 40 Kit



|          |                                |
|----------|--------------------------------|
| Name     | Anchor Bracket L Type-1 40 Kit |
| Item No. | AZK-400                        |

- **Material/Technical Data**  
**Material :** SS400  
 Galvanizing trivalent  
 chromate treatment\*  
**Environment :** RoHS Compliant  
**Weight :** 496g
- **Usable Frame**  
 AZ Pillar 4040  
 AZ Pillar 4040t5 (including yellow)
- **Kit Contents**  
 • Anchor Bracket L-Type 1-piece (Type 40)  
 • Hexagon Socket Bolt  
 • ST Nut L  
 • Anti-Skid Cap L

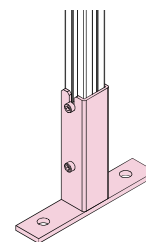
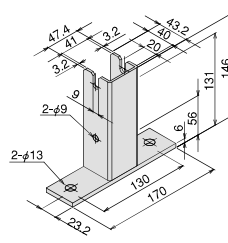


## Anchor Bracket C Type-1 40 Kit



|          |                                |
|----------|--------------------------------|
| Name     | Anchor Bracket C Type-1 40 Kit |
| Item No. | AZK-402                        |

- **Material/Technical Data**  
**Material :** SS400/SPCC  
 Galvanizing trivalent  
 chromate treatment\*  
**Environment :** RoHS Compliant  
**Weight :** 838g
- **Usable Frame**  
 AZ Pillar 4040  
 AZ Pillar 4040t5 (including yellow)
- **Kit Contents**  
 • Anchor Bracket C-Type 1-piece (Type 40)  
 • Hexagon Socket Bolt  
 • ST Nut L  
 • Anti-Skid Cap L

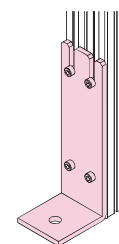
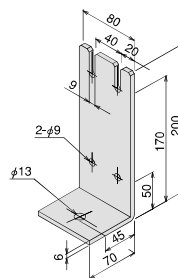


## Anchor Bracket L Type-2 40 Kit



|          |                                |
|----------|--------------------------------|
| Name     | Anchor Bracket L Type-2 40 Kit |
| Item No. | AZK-401                        |

- **Material/Technical Data**  
**Material :** SS400  
 Galvanizing trivalent  
 chromate treatment\*  
**Environment :** RoHS Compliant  
**Weight :** 1001g
- **Usable Frame**  
 AZ Pillar 4040  
 AZ Pillar 4040t5 (including yellow)
- **Kit Contents**  
 • Anchor Bracket L-Type 2-piece (Type 40)  
 • Hexagon Socket Bolt  
 • ST Nut L  
 • Anti-Skid Cap L

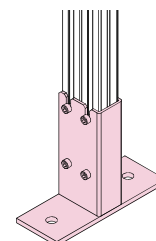
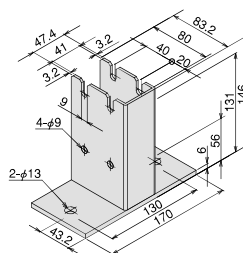


## Anchor Bracket C Type-2 40 Kit



|          |                                |
|----------|--------------------------------|
| Name     | Anchor Bracket C Type-2 40 Kit |
| Item No. | AZK-403                        |

- **Material/Technical Data**  
**Material :** SS400/SPCC  
 Galvanizing trivalent  
 chromate treatment\*  
**Environment :** RoHS Compliant  
**Weight :** 1196g
- **Usable Frame**  
 AZ Pillar 4040  
 AZ Pillar 4040t5 (including yellow)
- **Kit Contents**  
 • Anchor Bracket C-Type 2-piece (Type 40)  
 • Hexagon Socket Bolt  
 • ST Nut L  
 • Anti-Skid Cap L

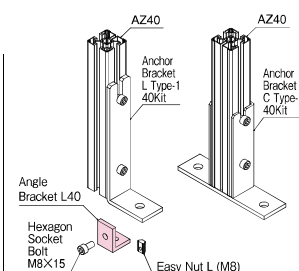
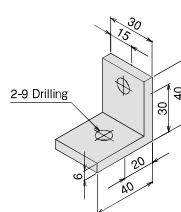


## AZ Bracket Spacer 40 Kit



|          |                          |
|----------|--------------------------|
| Name     | AZ Bracket Spacer 40 Kit |
| Item No. | AZK-40F                  |

- **Material/Technical Data**  
**Material :** Aluminum Extrusion  
**Environment :** RoHS Compliant  
**Weight :** 34g
- **Kit Contents**  
 • AZ Bracket Spacer  
 • Hexagon Socket Bolt  
 • ST Nut L



When using a combination of C- and L-Type anchor brackets, the product is used to adjust the height of the frame at the side of the L-Type anchor bracket.

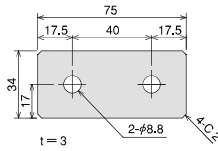




## Coupling Metal Kit

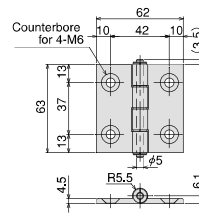


Plate Bracket L40-H2



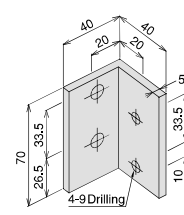
■Material/Technical Data  
Material : SUS304  
Environment : **RoHS** Compliant  
Weight : 54g

Flat Hinge L40 (M6)



■Material/Technical Data  
Material : A6N01SS-T5 Alumite Treatment  
Environment : **RoHS** Compliant  
Weight : 58.7g

Offset Bracket L4080



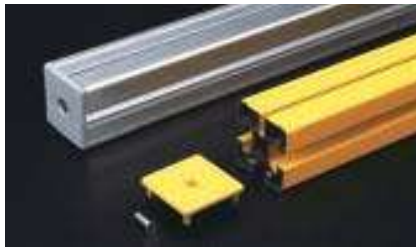
■Material/Technical Data  
Material : A6063 Alumite Treatment  
Environment : **RoHS** Compliant  
Weight : 67g

| Name         | Plate Bracket L40-H2 Kit                                                                                              | Flat Hinge L40 (M6) Kit                                                                                                         | Offset Bracket L4080 Kit                                                                                             |
|--------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Item No.     | <b>SFK-126S</b>                                                                                                       | <b>SFK-2A3</b>                                                                                                                  | <b>SFK-A22</b>                                                                                                       |
| Kit Contents | <ul style="list-style-type: none"> <li>Plate Bracket L40-H2</li> <li>Hexagon Socket Bolt</li> <li>ST Nut L</li> </ul> | <ul style="list-style-type: none"> <li>Flat Hinge L40 (M6)</li> <li>Cross-Recessed Small Flat Screw</li> <li>T Nut L</li> </ul> | <ul style="list-style-type: none"> <li>Offset Bracket L4080</li> <li>Hexagon Socket Bolt</li> <li>T Nut L</li> </ul> |

### Usable Frame

- AZ Pillar 4040
- AZ Pillar 4040t5 (including yellow)

## AZ Frame Cap Lock Type

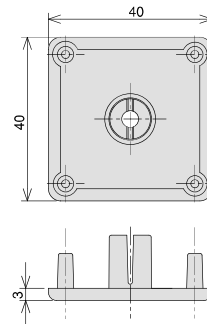
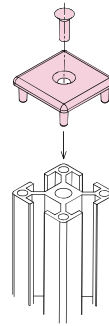


■Material/Technical Data  
Material : Polyamide (Cap)  
Stainless (Screw)  
Environment : **RoHS** Compliant  
Weight : 7.3g

■Usable Frame  
AZ Pillar 4040  
AZ Pillar 4040t5 (including yellow)

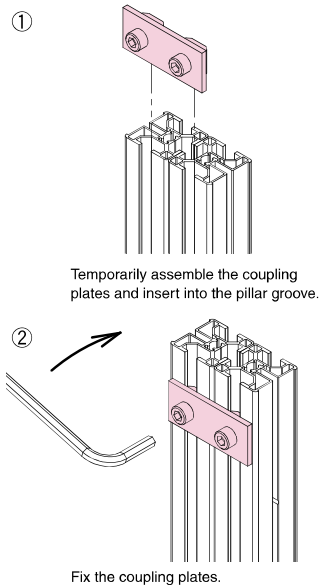
■Kit Contents  

- Frame Cap
- Cross-Recessed Small Flat Screw (Stainless)

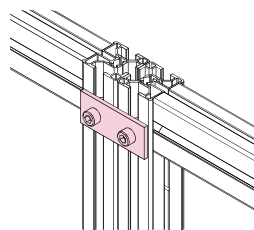


| Name     | AZ Frame Cap Lock Type 4040 (Light Gray) |
|----------|------------------------------------------|
| Item No. | <b>SFK-02LG</b>                          |

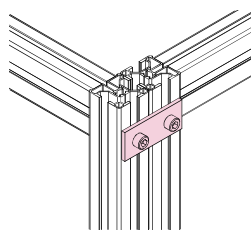
### Coupling procedure



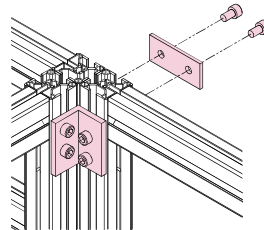
### Straight coupling



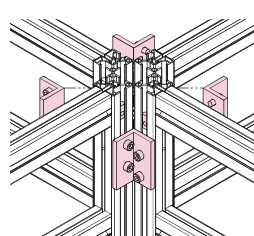
### 90° coupling



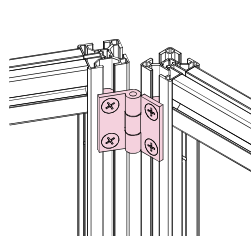
### T coupling



### Cross coupling



### Angle-free coupling



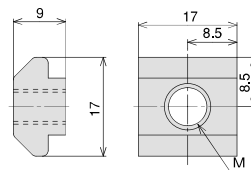
## Accessory

## Part Mounting Nut

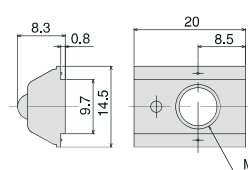


| Pre-assembly nut  | ST Nut L (M8)     | ST Nut L (M6)     | ST Nut L (M5)     | ST Nut S (M4)     |
|-------------------|-------------------|-------------------|-------------------|-------------------|
| Item No.          | SFN-TL8           | SFN-TL6           | SFN-TL5           | SFN-TL4           |
| Post-assembly nut | S Easy Nut L (M8) | S Easy Nut L (M6) | S Easy Nut L (M5) | S Easy Nut L (M4) |
| Item No.          | SFN-EL8           | SFN-EL6           | SFN-EL5           | SFN-EL4           |

ST Nut L



S Easy Nut L



■Material/Technical Data  
Material : Stainless  
With Conductive Function  
Environment : **RoHS** Compliant  
Weight : 14g

■Material/Technical Data  
Material : Stainless  
With Conductive Function  
Environment : **RoHS** Compliant  
Weight : 10g

■Usable Frame  
• AZ Pillar 4040 • AZ Pillar 4040t5  
• AZ Pillar 4040 Coupling (including yellow)

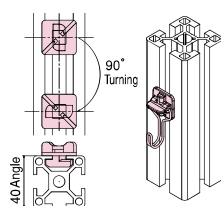
## Support bolt

Hexagon Socket Bolt (Uni-Chrome)

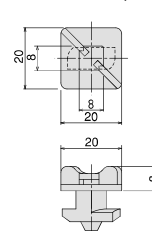
Galvanizing trivalent chromate treatment **RoHS** Compliant

| Screw size | 6       | 8       | 10      | 12      | 14      | 15      | 18      | 20      | 22      | 25      |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| M4         | SFB-540 | SFB-541 | SFB-542 | —       | —       | —       | SFB-546 | SFB-543 | SFB-54D | SFB-544 |
| M5         | SFB-55E | SFB-550 | SFB-551 | SFB-55C | SFB-55A | SFB-554 | SFB-55B | SFB-555 | SFB-552 | SFB-553 |
| M6         | —       | SFB-56E | SFB-561 | SFB-560 | SFB-56B | SFB-562 | SFB-56C | SFB-563 | SFB-56A | SFB-566 |
| M8         | —       | —       | —       | SFB-580 | —       | SFB-581 | SFB-589 | SFB-582 | —       | SFB-583 |

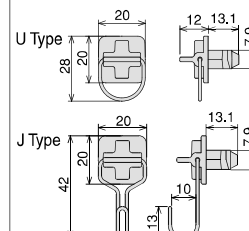
## Cable Clamp L/Slot Hook L



Cable Clamp L



Slot Hook L

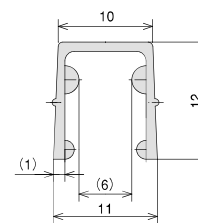
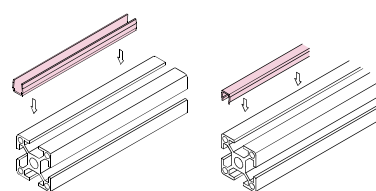


| Name     | Cable Clamp L (50 pcs.) |          | Slot Hook L |          |
|----------|-------------------------|----------|-------------|----------|
|          | (Light Gray)            | (Black)  | (U Type)    | (J Type) |
| Item No. | C1P-012C                | C1P-B12C | SFK-K33U    | SFK-K33J |

■Usable Frame  
• AZ Pillar 4040 • AZ Pillar 4040t5  
• AZ Pillar 4040 Coupling (including yellow)

■Material/Technical Data  
Material : Polyamide  
Environment : **RoHS** Compliant  
Weight : Cable Clamp L 2.5g/pcs  
Slot Hook L U Type 3.7g/pcs  
Slot Hook L J Type 4.5g/pcs  
Load capacity : Slot Hook L 2kg

## Slot Cap L



| Name     | (Light Gray) | (Black) | Slot cap L (l=2000 mm/piece) |          | (Yellow) | (Red)    |
|----------|--------------|---------|------------------------------|----------|----------|----------|
|          |              |         | (Blue)                       | (Green)  |          |          |
| Item No. | SFA-102G     | SFA-102 | SFA-102L                     | SFA-102M | SFA-102Y | SFA-102R |

■Material/Technical Data  
Material : Polyethylene  
Environment : **RoHS** Compliant  
Unit Mass : Slot Cap L 46g/m

■Usable Frame  
• AZ Pillar 4040 • AZ Pillar 4040t5  
• AZ Pillar 4040 Coupling (including yellow)

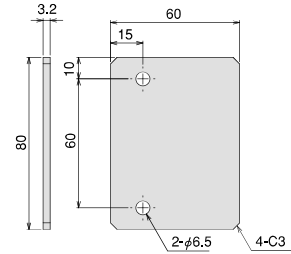
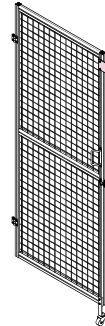


How to order standard products  
Item No.      Quantity (pcs)  
**SFN-TL8**

## Door Stopper Kit (For 40)

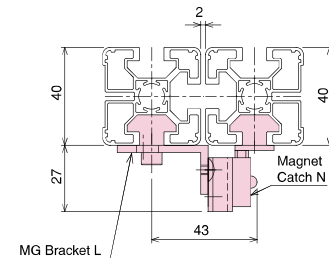
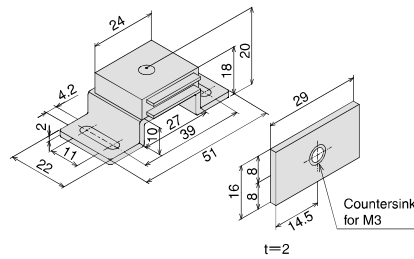


- **Material/Technical Data**  
**Material :** SPCC  
**Environment :** RoHS Compliant  
**Weight :** 155g
- **Usable Frame**  
 AZ Pillar 4040  
 AZ Pillar 4040t5  
 AZ Pillar 4040 Coupling  
 (including yellow)
- **Kit Contents**
- Stopper Plate
  - Hexagon Socket Bolt
  - ST Nut L
  - Anti-Skid Cap L



|          |                           |
|----------|---------------------------|
| Name     | Door Stopper Kit (For 40) |
| Item No. | AZK-40C                   |

## Magnet Catch Kit for Open Door (MG Bracket L-L40 Kit)



- **Material/Technical Data**  
**Material :** Magnet Catch Housing: Stainless Dark Brown Painting  
**Magnet:** Ferrite  
**MG Bracket:** Aluminum  
**T Nut:** Equivalent to S10C Uni-Chrome plating  
**Environment :** RoHS Compliant  
**Weight :** 97g

- **Usable Frame**  
 AZ Pillar 4040  
 AZ Pillar 4040t5  
 AZ Pillar 4040 Coupling  
 (including yellow)
- **Kit Contents**
- Magnet Catch N
  - MG Bracket L
  - Truss Screw
  - Flat-Head Screw
  - Accessory Nut (M3)
  - ST Nut L (M5)
  - Hexagon Socket Bolt

|          |                      |
|----------|----------------------|
| Name     | MG Bracket L-L40 Kit |
| Item No. | SFK-4AM              |

## Cable Holder (Large) (Middle) (Small)/ Cable Ring (Large) (Middle) (Small)



Cable Holder



Cable Ring

Cable holder/ring capable of simply getting the cable in and out. Detachable in a single operation and eliminates the need for a bolt or screw. Connectable via a special hook, so also when coupling, can be arranged evenly and in a straight line.

→ P.135





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## Common Parts

# Common Parts

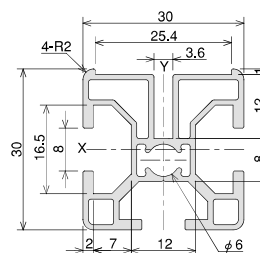
## AZ Pillar 3030



|          |                             |
|----------|-----------------------------|
| Name     | AZ Pillar 3030<br>ℓ=50~4000 |
| Item No. | AZF-304                     |

|                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Material/Technical Data</b><br>Material: A6063SS-T6<br>Silver Alumite Treatment<br>Environment: <b>RoHS</b> Compliant<br>Geometrical Moment of Inertia:<br>$I_x = 2.16 \times 10^4 \text{ mm}^4$<br>$I_y = 2.21 \times 10^4 \text{ mm}^4$<br>Section Modulus:<br>$Z_x = 1.40 \times 10^3 \text{ mm}^3$<br>$Z_y = 1.47 \times 10^3 \text{ mm}^3$<br>Unit Mass: 0.66kg/m |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

■ For panel thickness of 3mm



\*Separate processing required. (see P243~)

\*For the coupling with the AZ beam 2540, a tapping bolt for assembly is required. (See bottom of this page)

## AZ Beam 2540

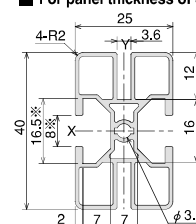


|          |                           |
|----------|---------------------------|
| Name     | AZ Beam 2540<br>ℓ=50~4000 |
| Item No. | AZF-014                   |

|                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Material/Technical Data</b><br>Material: A6063SS-T6<br>Silver Alumite Treatment<br>Environment: <b>RoHS</b> Compliant<br>Geometrical Moment of Inertia:<br>$I_x = 3.74 \times 10^4 \text{ mm}^4$<br>$I_y = 1.57 \times 10^4 \text{ mm}^4$<br>Section Modulus:<br>$Z_x = 1.87 \times 10^3 \text{ mm}^3$<br>$Z_y = 1.26 \times 10^3 \text{ mm}^3$<br>Unit Mass: 0.69kg/m |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Common for the 30/40 series

■ For panel thickness of 3mm

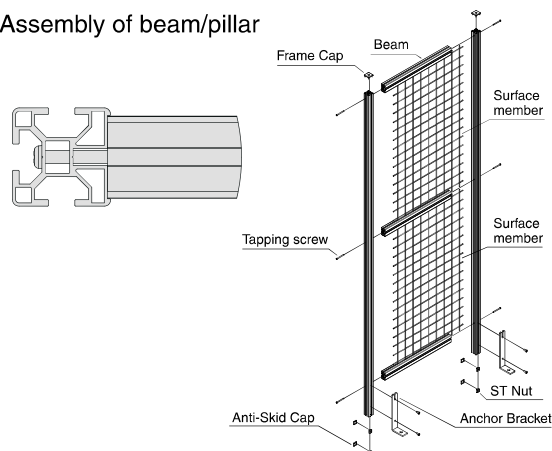


⚠ Please note the dimension with the mark ※ has a different groove shape from the AZ pillar 4040.

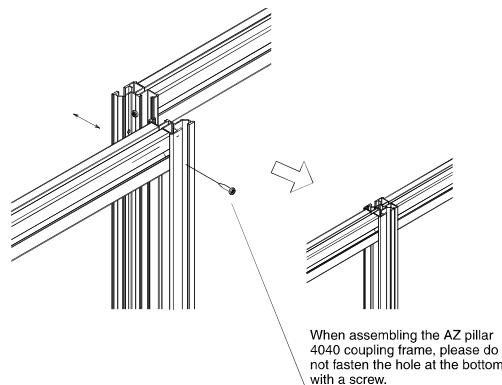
\*Separate processing required. (see P243~)

\*For the coupling with the AZ pillar 3030, a tapping bolt for assembly is required. (See bottom of this page)

## Assembly of beam/pillar



## Coupling frame assembly



## Tapping Bolt for AZ Frame Assembly

|          |                                            |
|----------|--------------------------------------------|
| Name     | Round Head Tapping Screw M4x45 (Stainless) |
| Item No. | SFB-9D1S                                   |

### Application Location

Assembly of AZ pillar 3030 and AZ beam 2540  
Assembly of AZ pillar 4040 and AZ beam 2540  
Assembly of AZ pillar 4040 coupling frame and AZ beam 2540

### Environment

**RoHS** Compliant

## Tapping bolt for the AZ pillar 4040 coupling frame assembly

|          |                                        |
|----------|----------------------------------------|
| Name     | Sun Lock Screw M4x20 (Screw length 15) |
| Item No. | SFB-57C                                |

### Application Location

Assembly of the AZ pillar 4040 coupling frames

### Environment

**RoHS** Compliant



How to order  
Item No.  
**AZF-304**

Length  
**ℓ=1500**

Quantity (pcs)

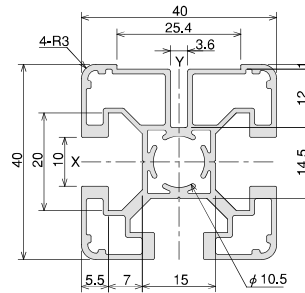


## AZ Pillar 4040



|                                 |                                 |
|---------------------------------|---------------------------------|
| ■ Material/Technical Data       |                                 |
| Material :                      | A6063SS-T6                      |
|                                 | Silver Alumite Treatment        |
| Environment :                   | RoHS Compliant                  |
| Geometrical Moment of Inertia : |                                 |
| $I_x$ =                         | $5.98 \times 10^4 \text{ mm}^4$ |
| $I_y$ =                         | $6.17 \times 10^4 \text{ mm}^4$ |
| Section Modulus :               |                                 |
| $Z_x$ =                         | $2.87 \times 10^3 \text{ mm}^3$ |
| $Z_y$ =                         | $3.09 \times 10^3 \text{ mm}^3$ |
| Unit Mass :                     | 1.06kg/m                        |

■ For panel thickness of 3mm



|          |                                       |
|----------|---------------------------------------|
| Name     | AZ Pillar 4040<br>$\ell=50 \sim 4000$ |
| Item No. | AZF-404                               |

\*Separate processing required. (see P243-)

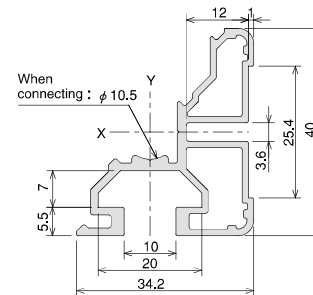
\*For the coupling with the AZ beam 2540, a tapping bolt for assembly is required. (see P232)

## AZ Pillar 4040 (Connect type)



|                                 |                                 |
|---------------------------------|---------------------------------|
| ■ Material/Technical Data       |                                 |
| Material :                      | A6063SS-T6                      |
|                                 | Silver Alumite Treatment        |
| Environment :                   | RoHS Compliant                  |
| Geometrical Moment of Inertia : |                                 |
| $I_x$ =                         | $3.13 \times 10^4 \text{ mm}^4$ |
| $I_y$ =                         | $2.26 \times 10^4 \text{ mm}^4$ |
| Section Modulus :               |                                 |
| $Z_x$ =                         | $1.26 \times 10^3 \text{ mm}^3$ |
| $Z_y$ =                         | $1.06 \times 10^3 \text{ mm}^3$ |
| Unit Mass :                     | 0.65kg/m                        |

■ For panel thickness of 3mm



|          |                                                      |
|----------|------------------------------------------------------|
| Name     | AZ Pillar 4040 (Connect type)<br>$\ell=50 \sim 4000$ |
| Item No. | AZF-414                                              |

\*Assembly of coupling frames requires separate processing and tapping screws. (see P244-)

# Common Parts

## Open Door Parts

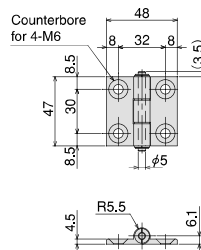
### Flat Hinge Kit



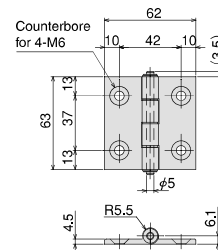
- **Material/Technical Data**  
 Material : A6N01SS-T5 Alumite Treatment  
 Environment : **RoHS** Compliant  
 Weight : 34g (For 30)/58.7g (For 40)
- **Usable Frame**  
 AZ Pillar 3030 (For 30)  
 AZ Pillar 4040 (For 40)  
 (including yellow)
- **Kit Contents**
- Flat Hinge
  - T Nut
  - Cross-Recessed Small Flat Screw

| Name     | Flat Hinge S Kit (For 30) | Flat Hinge L40 (M6) Kit (For 40) |
|----------|---------------------------|----------------------------------|
| Item No. | <b>SFK-2A2</b>            | <b>SFK-2A3</b>                   |

Flat Hinge S



Flat Hinge L40 (M6)

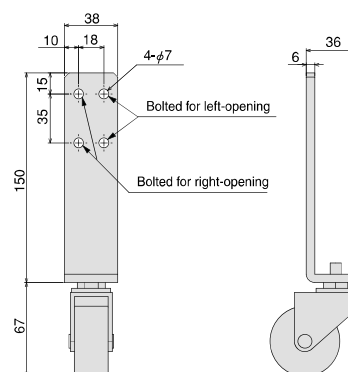


### Door Caster Kit



- **Material/Technical Data**  
 Material : Rubber (Caster)  
 SS400 (Bracket)  
 Weight : 333g (For 30)/343g (For 40)
- **Usable Frame**  
 AZ Pillar 3030 (For 30)  
 AZ Pillar 4040 (For 40)  
 (including yellow)
- **Kit Contents**
- Caster M8
  - Bracket
  - T Nut
  - Hexagon Socket Bolt

| Name     | Door Caster Kit (For30) | Door Caster Kit (For40) |
|----------|-------------------------|-------------------------|
| Item No. | <b>AZK-30E</b>          | <b>AZK-40D</b>          |

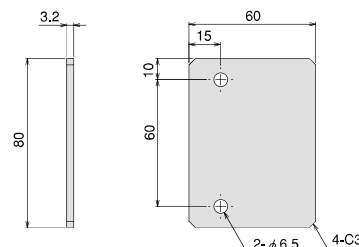


### Door Stopper Kit

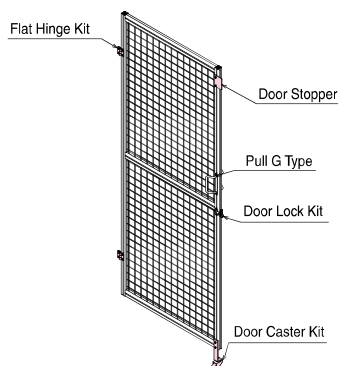


- **Material/Technical Data**  
 Material : SPCC  
 Environment : **RoHS** Compliant  
 Weight : 139g (For 30)/151g (For 40)
- **Usable Frame**  
 AZ Pillar 3030 (For 30)  
 AZ Pillar 4040 (For 40)  
 (including yellow)
- **Kit Contents**
- Stopper Plate
  - T Nut
  - Hexagon Socket Bolt
  - Anti-Skid Cap

| Name     | Door Stopper Kit (For30) | Door Stopper Kit (For40) |
|----------|--------------------------|--------------------------|
| Item No. | <b>AZK-30D</b>           | <b>AZK-40C</b>           |



### Open Door Configuration Diagram



How to order  
 Item No.  
**SFK-2A2**

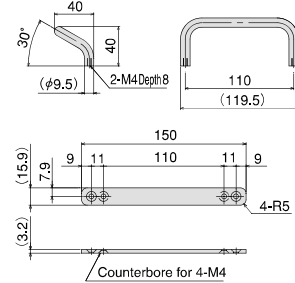
Quantity (pcs)



## Pull G Type



- **Material/Technical Data**  
**Material :** A6063 (Pull/Plate)  
**Environment :** **RoHS** Compliant  
**Weight :** 83g (For 30)/93g (For 40)
- **Usable Frame**  
 AZ Pillar 3030 (For 30)  
 AZ Pillar 4040 (For 40)  
 (including yellow)
- **Kit Contents**  
 • Pull G Type • Setting Plate for Pull G  
 • T Nut • Cross-Recessed Small Flat Screw  
 • Anti-Skid Cap

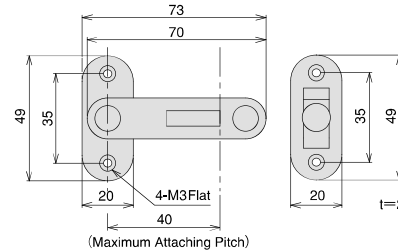


| Name     | Pull G Type Kit (For30) | Pull G Type Kit (For40) |
|----------|-------------------------|-------------------------|
| Item No. | <b>AZK-30B</b>          | <b>AZK-40A</b>          |

## Door Lock Kit



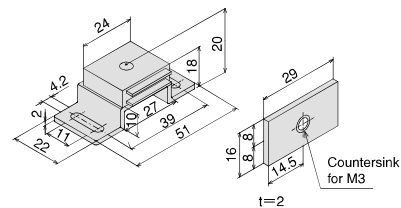
- **Material/Technical Data**  
**Material :** SUS304 (Door Lock)  
**Environment :** **RoHS** Compliant  
**Weight :** 97g (For 30)/101g (For 40)
- **Usable Frame**  
 AZ Pillar 3030 (For 30)  
 AZ Pillar 4040 (For 40)  
 (including yellow)
- **Kit Contents**  
 • Door Lock  
 • Easy Nut  
 • Cross-Recessed Small Flat Screw



| Name     | Door Lock Kit (For30) | Door Lock Kit (For40) |
|----------|-----------------------|-----------------------|
| Item No. | <b>AZK-30C</b>        | <b>AZK-40B</b>        |

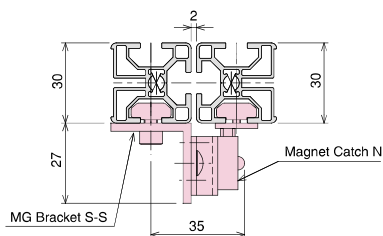
## Magnet Catch Kit for Open Door

### MG Bracket S-S Kit/MG Bracket L-L40 Kit

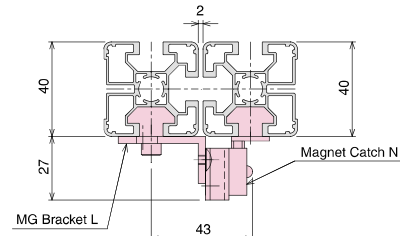


- **Material/Technical Data**  
**Material :** Magnet Catch : Stainless Dark Brown Painting  
**Housing :** Magnet : Ferrite  
**MG Bracket :** Aluminum  
**Environment :** T Nut: Equivalent to S10C Uni-Chrome plating  
**Weight :** **RoHS** Compliant  
 35g (Magnet Catch)
- **Usable Frame**  
 • AZ Pillar 3030 (S-S Kit)  
 • AZ Pillar 4040 (L-L40 Kit)  
 (including yellow)
- **Kit Contents**  
 • Magnet Catch N  
 • MG Bracket S-S/L  
 • Truss Screw  
 • Flat-Head Screw  
 • Accessory Nut L (M3)  
 • T Nut  
 • Hexagon Socket Bolt

| Name     | MG Bracket S-S Kit | MG Bracket L-L40 Kit |
|----------|--------------------|----------------------|
| Item No. | <b>SFK-4AH</b>     | <b>SFK-4AM</b>       |



- **Kit Contents**  
 • Magnet Catch N • MG Bracket S-S • Truss Screw • Flat-Head Screw  
 • Hexagon Socket Bolt • T Nut



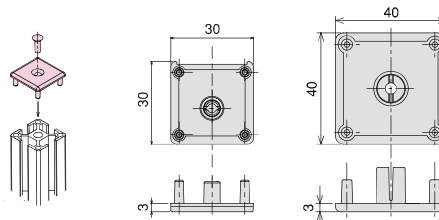
- **Kit Contents**  
 • Magnet Catch N • MG Bracket L • Truss Screw • Flat-Head Screw  
 • Accessory Nut • T Nut • Hexagon Socket Bolt

# Common Parts

## AZ Frame Cap Lock Type



■ **Material/Technical Data**  
 Material : Polyamide (Cap) Stainless (Screw)  
 Environment : **RoHS** Compliant  
 Weight : 3.7g (For 30) 7.3g (For 40)  
 ■ **Usable Frame**  
 AZ Pillar 3030/AZ Pillar 4040  
 ■ **Kit Contents**  
 • Frame Cap  
 • Cross-Recessed Small Flat Screw (Stainless)

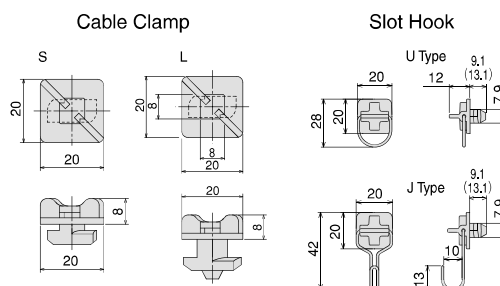


| Name     | AZ Frame Cap Lock Type 3030<br>(Light Gray) | AZ Frame Cap Lock Type 4040<br>(Light Gray) |
|----------|---------------------------------------------|---------------------------------------------|
| Item No. | AZK-304G                                    | SFK-02LG                                    |

## Cable Clamp/Slot Hook



■ **Material/Technical Data**  
 Material : Polyamide  
 Environment : **RoHS** Compliant  
 Weight : Cable Clamp 2g/pcs (S)  
 2.5g/pcs (L)  
 Slot Hook U Type 3g/pcs (S)  
 3.7g/pcs (L)  
 Slot Hook J Type 4.0g/pcs (S)  
 4.5g/pcs (L)  
 Load capacity : Slot Hook  
 1.5kg (S)  
 2kg (L)



### ■ For 30

| Name     | Cable Clamp S (50 pcs.)<br>(Light Gray) | (Black)  | Slot Hook S<br>(U Type) | (J Type) |
|----------|-----------------------------------------|----------|-------------------------|----------|
| Item No. | C1P-004C                                | C1P-B04C | SFK-K32U                | SFK-K32J |

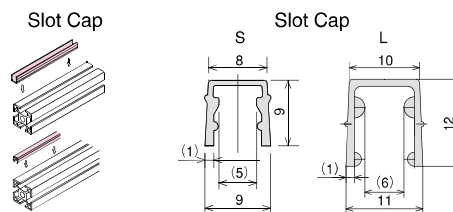
### ■ For 40

| Name     | Cable Clamp L (50 pcs.)<br>(Light Gray) | (Black)  | Slot Hook L<br>(U Type) | (J Type) |
|----------|-----------------------------------------|----------|-------------------------|----------|
| Item No. | C1P-012C                                | C1P-B12C | SFK-K33U                | SFK-K33J |

## Slot Cap S



■ **Material/Technical Data**  
 Material : Polyethylene  
 Environment : **RoHS** Compliant  
 Weight : Slot Cap S 25g/m  
 Slot Cap L 46g/m



### ■ For 30

| Name     | (Light Gray) | (Black) | Slot Cap S (ℓ=2000mm/pcs)<br>(Blue) | (Green)  | (Yellow) | (Red)    |
|----------|--------------|---------|-------------------------------------|----------|----------|----------|
| Item No. | SFA-104G     | SFA-104 | SFA-104L                            | SFA-104M | SFA-104Y | SFA-104R |

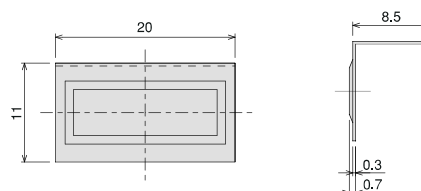
### ■ For 40

| Name     | (Light Gray) | (Black) | Slot Cap L (ℓ=2000mm/pcs)<br>(Blue) | (Green)  | (Yellow) | (Red)    |
|----------|--------------|---------|-------------------------------------|----------|----------|----------|
| Item No. | SFA-102G     | SFA-102 | SFA-102L                            | SFA-102M | SFA-102Y | SFA-102R |

## Panel Fix Piece (For Resin Panel)



■ **Material/Technical Data**  
 Material : SECC (Electro galvanized Steel Sheet)  
 Weight : 0.9g



| Name     | Panel Fix Piece (For Resin Panel) |
|----------|-----------------------------------|
| Item No. | AZP-001                           |

\*Please mount panel-fix pieces to the sides and upper and lower parts of the panel. (4 pieces for each panel)  
 \*Wire mesh not required



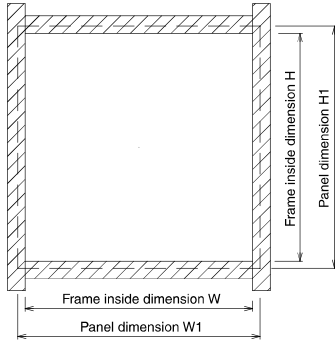
How to order  
 Item No.  
**AZK-304G**

Quantity (pcs)



## Guidelines for steel/aluminum panel dimensions

### Method of calculating panel dimensions



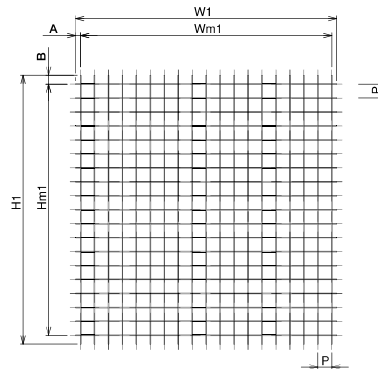
Method of calculating panel dimensions

| Panel type | Wire mesh | Resin panel |
|------------|-----------|-------------|
| Height H1  | H+23      | H+21        |
| Width W1   | W+25      | W+23        |

※Common to the 30/40 Series.



### Detailed dimensions of wire mesh



**How to determine the A/B dimension**  
The minimum required dimension for A shall be 12mm.

$$W1 - (12 \times 2) = Wm1$$

$Wm1/P = n \rightarrow n$  is a integer

$$A = (W1 - P \times n) / 2$$

The minimum required dimension for B shall be 12mm.

$$H1 - (12 \times 2) = Hm1$$

$Hm1/P = n \rightarrow n$  is a integer

$$B = (H1 - P \times n) / 2$$

## Design procedure/material

• AZ coupling method ..... **P.242**

• AZ strength data ..... **P.246**

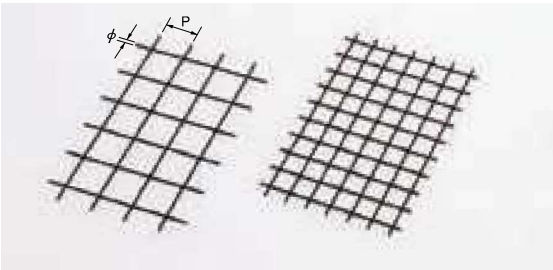
• AZ safety-distance material ..... **P.248**

• Resin panel ..... **P.168**

• Wire mesh ..... **P.238**

# Wire Mesh

## Wire Mesh

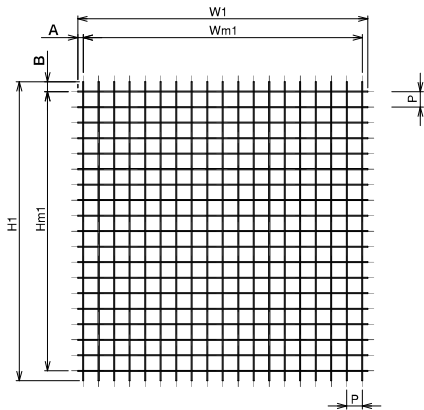


| Item No. | Material | P (Pitch) | Wire diameter | Surface treatment   | Guidelines for mass (kg/m <sup>2</sup> ) | Size MAX (mm) |
|----------|----------|-----------|---------------|---------------------|------------------------------------------|---------------|
| AZY-002  | Steel    | 30        | φ 3.2         | Black baking finish | 4.2                                      | 963×935       |
| AZY-001  |          | 50        |               |                     | 2.5                                      |               |

■ Material/Technical Data  
Environment : RoHS Compliant

### Method of calculating wire mesh dimension (using AZ series)

Detailed dimension of wire mesh



How to determine the A/B dimension  
The minimum required dimension for A shall be 12mm.  
 $W1 - (12 \times 2) = Wm1$   
 $Wm1 / P = n \rightarrow n$  is a integer  
 $A = (W1 - P \times n) / 2$   
The minimum required dimension for B shall be 12mm.  
 $H1 - (12 \times 2) = Hm1$   
 $Hm1 / P = n \rightarrow n$  is a integer  
 $B = (H1 - P \times n) / 2$











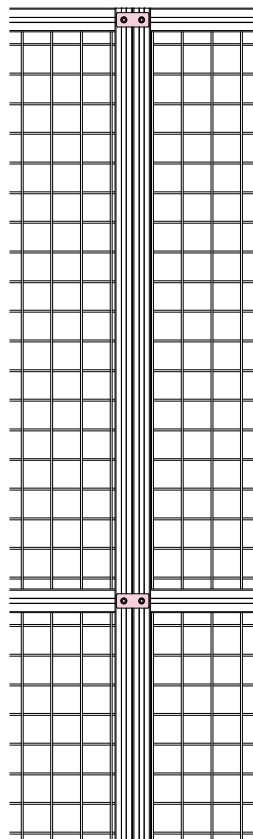
SAFETY FENCE

# Technical Data

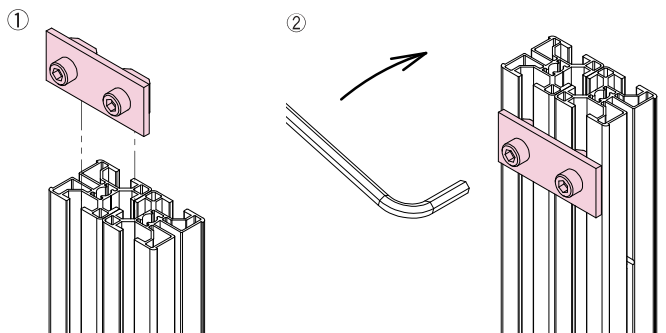
### AZ Coupling Method

#### ① Couple safety fences to form the corner of the safety fence (standard).

\* Coupling plates shall be installed in at least two locations (the upper/center parts of the frame), and the lower part shall be coupled with anchor bracket 2.



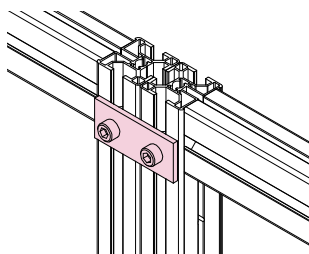
Coupling procedure



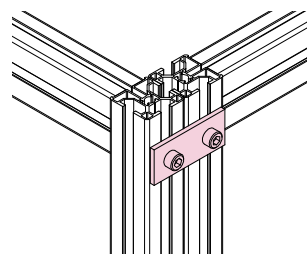
Temporarily assemble the coupling plates and insert into the pillar groove.

Fix the coupling plates.

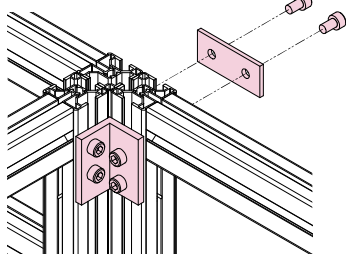
Straight coupling



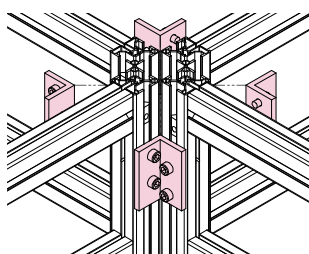
90° coupling



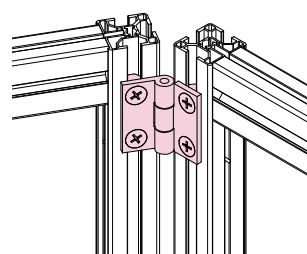
T coupling



Cross coupling



Angle-free coupling

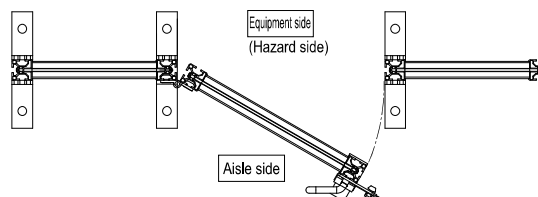


#### ② Mounting of the door part

■ In the case of a open door

\* Mount with a flat-type hinge.

Fix the metal to the side of the inside lock.



#### ③ Anchor fixing with anchor bracket

\* Please set at least one anchor per pillar, in principle.

\* Fix with an M10 or M12 anchor bolt.

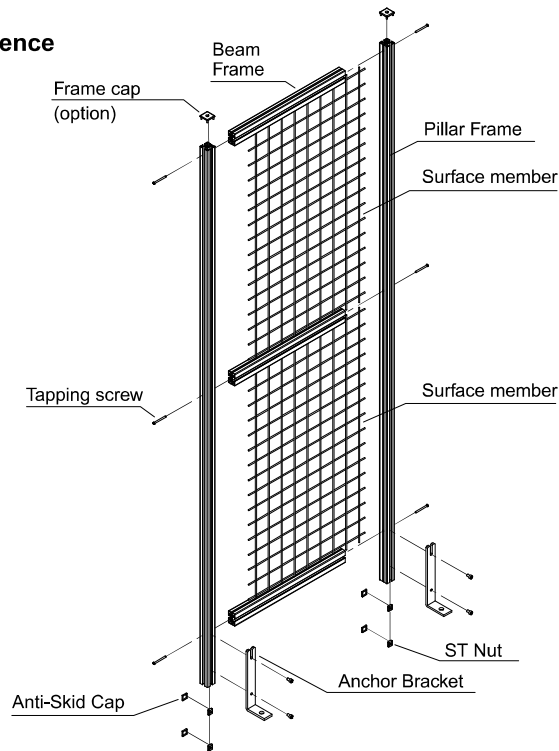
\* If the anchor is incorrectly set, the strength of safety fence may be affected. Please note.

# Technical Data

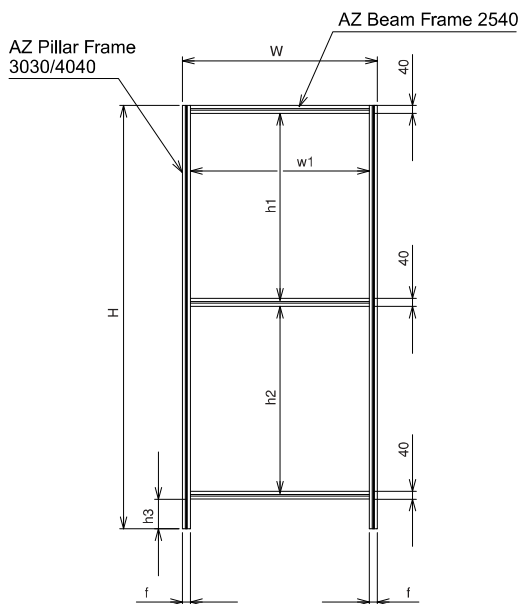
## Dimension material

### Dimension material

#### Structural drawing of a fence



#### AZ frame process drawing



#### ● Dimension of AZ beam frame 2540

$$L_b = W - f - f + 2$$

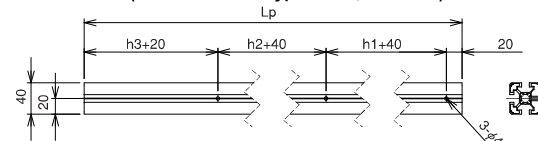
\* f indicates AZ pillar frame 3030 .....30  
AZ pillar frame 4040 .....40

#### ● Dimension of AZ pillar frame 3030/4040

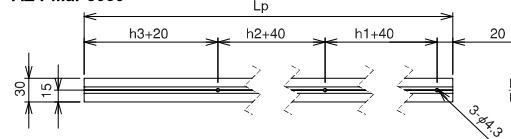
$$L_p = H$$

\* Hole processing is as per the following drawing

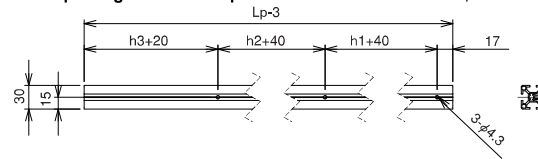
#### AZ Pillar 4040 (For the connect type frame, see P233)



#### AZ Pillar 3030



#### When placing the frame cap flush with the surface ※AZ pillar 3030 only



#### ⚠ Caution

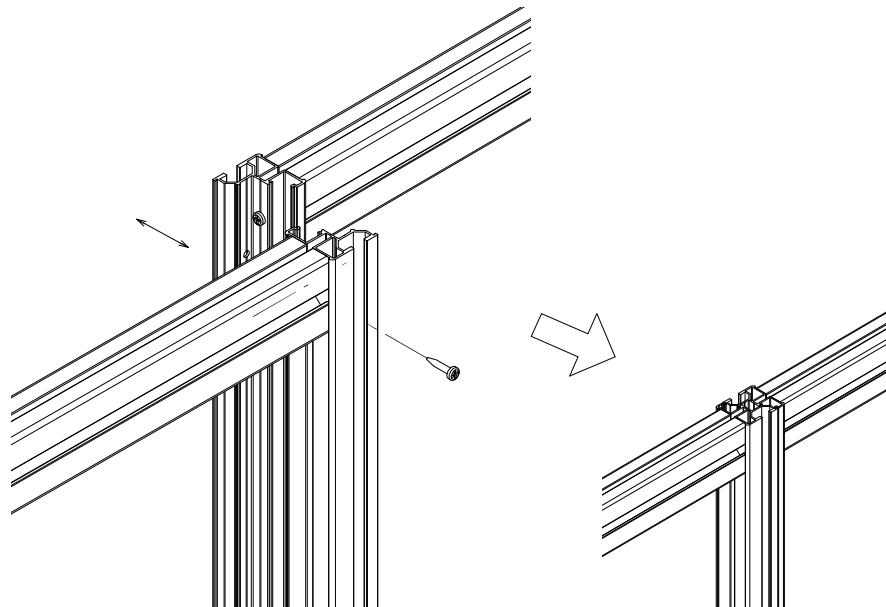
The guideline for the W dimension is 300~2000 <1500> mm or so.  
Figures in < > are for the pillar frame 3030. The guideline for H dimension is h1 (h2) dimension of 940 or less and maximum 2500mm.  
(However, for cases of 2150mm or more, please contact us.)  
When there is one surface member, please calculate assuming no h2.

#### Method of calculating panel dimensions

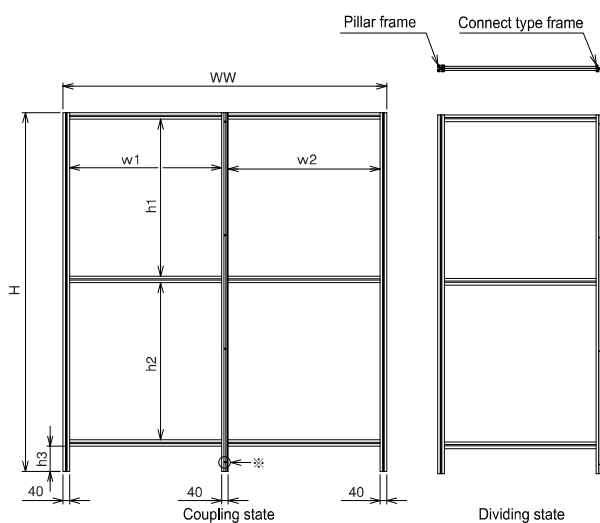
| Panel type  | Wire mesh  | Resin panel |
|-------------|------------|-------------|
| Height h/h2 | h1 (h2)+23 | h1 (h2)+21  |
| Width w1    | w1+25      | w1+23       |

## Dimension material

### Connect type frame diagram



### AZ frame process drawing (articulating)



\* If there is interference with the nut at the time of anchor mounting, screwing is not necessary. Please process as necessary.  
\* To fix the 40 square consolidated type, a C-Type anchor bracket is recommended.

AZ Pillar 4040 coupling frame machining dimension

| Lp        | a  | b | c |
|-----------|----|---|---|
| 2150~1700 | 50 | 5 | 6 |
| 1699~1301 | 50 | 4 | 5 |
| 1300~1170 | 60 | 3 | 4 |

#### ● Dimension of AZ beam frame 2540

$$Lb = (WW - 120) / 2 + 2$$

However, when w1 and w2 are not equal,

$$Lb1 = w1 + 2$$

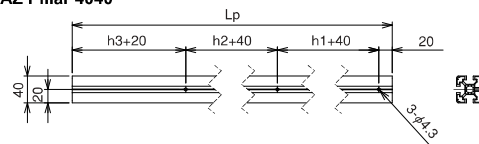
$$Lb1 = w2 + 2$$

#### ● Dimension of AZ pillar frame 4040 (integrated and articulating)

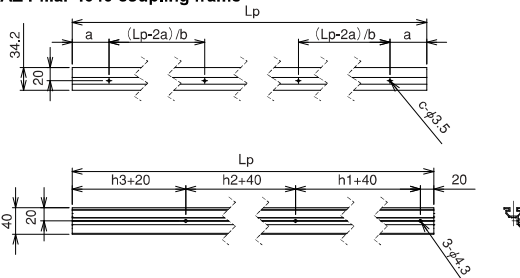
$$Lp = H$$

\* Hole processing is as per the following drawing

#### AZ Pillar 4040



#### AZ Pillar 4040 coupling frame



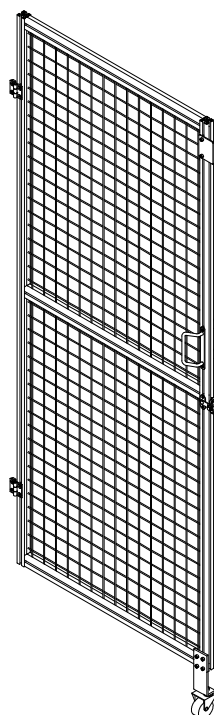
#### ⚠ Caution

The guideline for the WW dimension is 600~1940mm or so.  
The guideline for the H dimension is that h1(h2) dimension of 940 or less and a maximum of 2500mm.  
(However, for cases of 2150mm or more, please contact us.)  
When there is one surface member, please calculate assuming no h2.

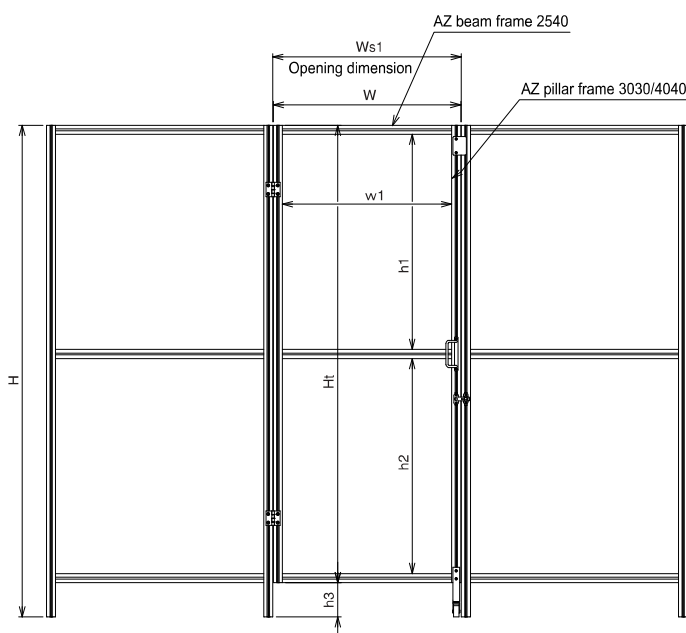
\* For wire mesh/panel dimension, please see P237.



Open door diagram



AZ frame process drawing (open door)



● Dimension of AZ beam frame 2540

$$Lb = W - f - f + 2$$

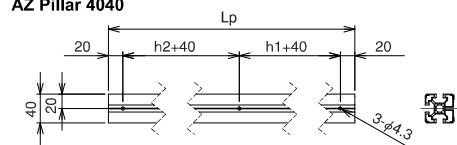
\* f indicates AZ pillar frame 3030 .....30  
AZ pillar frame 4040 .....40

● Dimension of AZ pillar frame 3030/4040

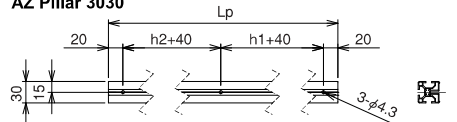
$$Lp = H - h3$$

\* Hole processing is as per the following drawing

AZ Pillar 4040

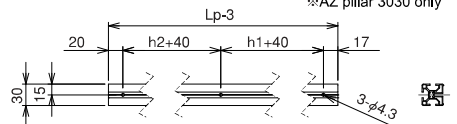


AZ Pillar 3030



When placing the frame cap flush with the surface

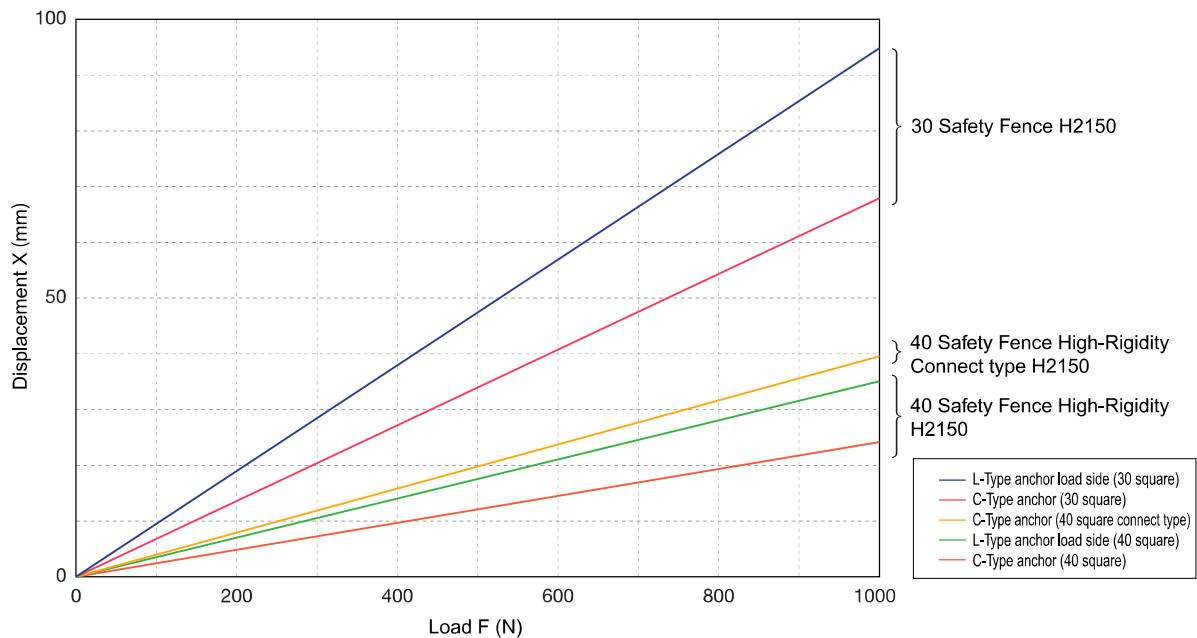
※AZ pillar 3030 only



**Caution**

For the door dimension W for the opening dimension Ws1, please refer to the guideline for frame door mounting in the catalogue. The guideline for the door dimension is the same as for the fence. The machining dimension of the surface member is the same as the fence.

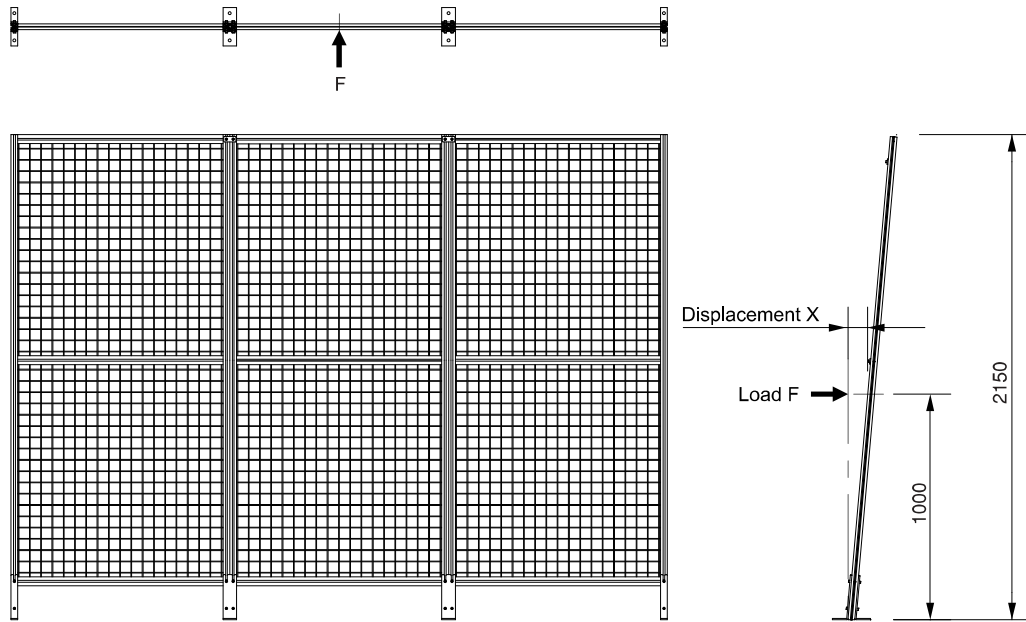
\* For wire mesh/panel dimension, please see P237.

**AZ strength data****Guideline to deflect the safety fence frame**

| Frame      | 30 Safety Fence                |               | 40 Safety Fence High-Rigidity  |               | 40 Safety Fence High-Rigidity Connect |
|------------|--------------------------------|---------------|--------------------------------|---------------|---------------------------------------|
| Anchor     | L-Type anchor (Load side only) | C-Type anchor | L-Type anchor (Load side only) | C-Type anchor | C-Type anchor                         |
| Load F (N) | Displacement X (mm)            |               |                                |               |                                       |
| 0          | 0                              | 0             | 0                              | 0             | 0                                     |
| 200        | 19                             | 12            | 8                              | 5             | 8                                     |
| 400        | 38                             | 26            | 15                             | 10            | 16                                    |
| 600        | 57                             | 40            | 22                             | 15            | 24                                    |
| 800        | 76                             | 54            | 28                             | 19            | 31                                    |
| 1000       | 95                             | 68            | 35                             | 24            | 39                                    |

## AZ strength data

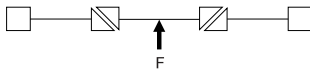
### Test procedures/conditions



### Test conditions

1. 30 safety fence/40 safety fence high-rigidity/40 safety fence high-rigidity coupling each of the H2150 type (upper/lower wire mesh Pitch 50) inspected by connecting the three sides.
2. For the connection, attach the anchor bracket L-type 2-piece or the anchor bracket C-type 2-piece to the coupling plate at the top.
3. For the anchor brackets, use anchors with an M10 screw thread 15mm deep and fix with bolts.

\*1 40 safety fence high-rigidity coupling shall be coupled as in the following drawing.



### Test procedures

1. Horizontally add static load to the position of center of width direction/height 1000mm.
2. Measure displacement X when adding Load F.



# Technical Data

## Safety distance material

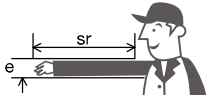
Safety distance of arms (at high risk) (JIS B9709 ISO 13852)

Unit/mm

|                       | Height of protective structure     |      |      |      |      |      |      |      |      |      |
|-----------------------|------------------------------------|------|------|------|------|------|------|------|------|------|
|                       | 1000                               | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2500 | 2700 |
| Height of danger zone | Horizontal distance to danger zone |      |      |      |      |      |      |      |      |      |
| 2700                  | —                                  | —    | —    | —    | —    | —    | —    | —    | —    | —    |
| 2600                  | 900                                | 800  | 700  | 600  | 600  | 500  | 400  | 300  | 100  | —    |
| 2400                  | 1100                               | 1000 | 900  | 800  | 700  | 600  | 400  | 300  | 100  | —    |
| 2200                  | 1300                               | 1200 | 1000 | 900  | 800  | 600  | 400  | 300  | —    | —    |
| 2000                  | 1400                               | 1300 | 1100 | 900  | 800  | 600  | 400  | —    | —    | —    |
| 1800                  | 1500                               | 1400 | 1100 | 900  | 800  | 600  | —    | —    | —    | —    |
| 1600                  | 1500                               | 1400 | 1100 | 900  | 800  | 500  | —    | —    | —    | —    |
| 1400                  | 1500                               | 1400 | 1100 | 900  | 800  | —    | —    | —    | —    | —    |
| 1200                  | 1500                               | 1400 | 1100 | 900  | 700  | —    | —    | —    | —    | —    |
| 1000                  | 1500                               | 1400 | 1000 | 800  | —    | —    | —    | —    | —    | —    |
| 800                   | 1500                               | 1300 | 900  | 600  | —    | —    | —    | —    | —    | —    |
| 600                   | 1400                               | 1300 | 800  | —    | —    | —    | —    | —    | —    | —    |
| 400                   | 1400                               | 1200 | 400  | —    | —    | —    | —    | —    | —    | —    |
| 200                   | 1200                               | 900  | —    | —    | —    | —    | —    | —    | —    | —    |
| 0                     | 1100                               | 500  | —    | —    | —    | —    | —    | —    | —    | —    |

Safety distance extending through opening part of protective structure (part of arm)

Unit/mm

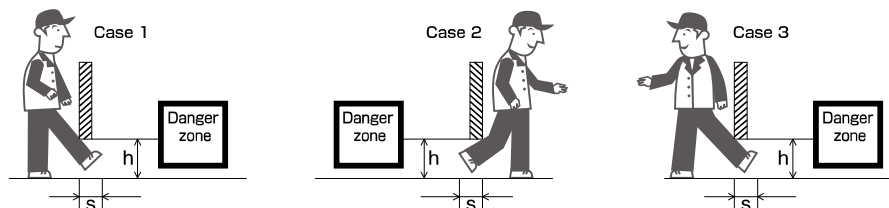
| Body part                 | Illustration                                                                        | Opening                        | Safety distance sr |                  |                  |
|---------------------------|-------------------------------------------------------------------------------------|--------------------------------|--------------------|------------------|------------------|
|                           |                                                                                     |                                | Rectangle          | Square           | Circle           |
| Arm from base of shoulder |  | 30 < e ≤ 40<br>(20 < e ≤ 30)   | ≥ 850<br>(≥ 900)   | ≥ 200<br>(≥ 550) | ≥ 120<br>(≥ 120) |
|                           |                                                                                     | 40 < e ≤ 120<br>(30 < e ≤ 100) | ≥ 850<br>(≥ 900)   | ≥ 850<br>(≥ 900) | ≥ 850<br>(≥ 900) |

\* For values in ( ), the assumption is a person aged between 3 and 14.

Safe distance of the legs (JIS B9708 ISO 13853)

Unit/mm

| Height up to the structure to protect | Safety distance for inhibition S |             |             |
|---------------------------------------|----------------------------------|-------------|-------------|
|                                       | Case 1                           | Case 2      | Case 3      |
| $h \leq 200$                          | $\leq 340$                       | $\leq 665$  | $\leq 290$  |
| $200 < h \leq 400$                    | $\leq 550$                       | $\leq 765$  | $\leq 615$  |
| $400 < h \leq 600$                    | $\leq 850$                       | $\leq 950$  | $\leq 800$  |
| $600 < h \leq 800$                    | $\leq 950$                       | $\leq 950$  | $\leq 900$  |
| $800 < h \leq 1000$                   | $\leq 1120$                      | $\leq 1195$ | $\leq 1050$ |



Minimum clearance to prevent crushing (JIS B9711 ISO 13854)

Unit/mm

| Body part         | Body | Head | Legs | Feet | Toes | Arms | Wrists | Fingers |
|-------------------|------|------|------|------|------|------|--------|---------|
| Minimum clearance | 500  | 300  | 180  | 120  | 50   | 120  | 100    | 25      |



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| SFK-R02  | R Bracket S Kit (Black)             | 70      |
| SFK-R02G | R Bracket S Kit (Light Gray)        | 70      |
| SFK-R03  | R Bracket L40 Kit (Black)           | 116     |
| SFK-R03G | R Bracket L40 Kit (Light Gray)      | 116     |
| SFK-R04  | R Bracket L45 Kit (Black)           | 116     |
| SFK-R04G | R Bracket L45 Kit (Light Gray)      | 116     |
| SPN-AL4  | After Nut L (M4) (Stainless)        | 96      |
| SPN-AL5  | After Nut L (M5) (Stainless)        | 96      |
| SPN-AL6  | After Nut L (M6) (Stainless)        | 96      |
| SPN-AL8  | After Nut L (M8) (Stainless)        | 96      |
| SPN-AS3  | After Nut S (M3) (Stainless)        | 57      |
| SPN-AS4  | After Nut S (M4) (Stainless)        | 57      |
| SPN-AS5  | After Nut S (M5) (Stainless)        | 57      |
| SPN-AS6  | After Nut S (M6) (Stainless)        | 57      |
| SPN-AX3  | After Nut SS (M3) (Stainless)       | 27      |
| SPN-AX4  | After Nut SS (M4) (Stainless)       | 27      |
| SPN-EL3  | Easy Nut L (M3) (Stainless)         | 95      |
| SPN-EL4  | Easy Nut L (M4) (Stainless)         | 95, 228 |
| SPN-EL5  | Easy Nut L (M5) (Stainless)         | 95, 228 |
| SPN-EL6  | Easy Nut L (M6) (Stainless)         | 95, 228 |
| SPN-EL8  | Easy Nut L (M8) (Stainless)         | 95, 228 |
| SPN-ES3  | Easy Nut S (M3) (Stainless)         | 56, 221 |
| SPN-ES4  | Easy Nut S (M4) (Stainless)         | 56, 221 |
| SPN-ES5  | Easy Nut S (M5) (Stainless)         | 56, 221 |
| SPN-ES6  | Easy Nut S (M6) (Stainless)         | 56, 221 |
| SPN-EX3  | Easy Nut SS (M3) (Stainless)        | 26      |
| SPN-EX4  | Easy Nut SS (M4) (Stainless)        | 26      |
| SPN-FL4  | Free Nut L (M4) (Stainless)         | 96      |
| SPN-FL5  | Free Nut L (M5) (Stainless)         | 96      |
| SPN-FL6  | Free Nut L (M6) (Stainless)         | 96      |
| SPN-FL8  | Free Nut L (M8) (Stainless)         | 96      |
| SPN-FS3  | Free Nut S (M3) (Stainless)         | 57      |
| SPN-FS4  | Free Nut S (M4) (Stainless)         | 57      |
| SPN-FS5  | Free Nut S (M5) (Stainless)         | 57      |
| SPN-FX3  | Free Nut SS (M3) (Stainless)        | 27      |
| SPN-FX4  | Free Nut SS (M4) (Stainless)        | 27      |
| SPN-LL4  | Lock Nut L (M4) (Stainless)         | 96      |
| SPN-LL5  | Lock Nut L (M5) (Stainless)         | 96      |
| SPN-LL6  | Lock Nut L (M6) (Stainless)         | 96      |
| SPN-LL8  | Lock Nut L (M8) (Stainless)         | 96      |
| SPN-LS3  | Lock Nut S (M3) (Stainless)         | 57      |
| SPN-LS4  | Lock Nut S (M4) (Stainless)         | 57      |
| SPN-LS5  | Lock Nut S (M5) (Stainless)         | 57      |
| SPN-LS6  | Lock Nut S (M6) (Stainless)         | 57      |
| SPN-LX3  | Lock Nut SS (M3) (Stainless)        | 27      |
| SPN-LX4  | Lock Nut SS (M4) (Stainless)        | 27      |
| SPN-NL6  | Free Nut L With Headless Bolt (M6)  | 97      |
| SPN-NS5  | Free Nut S With Headless Bolt (M5)  | 58      |
| SPN-NSE1 | Free Stud S (M5)                    | 58      |
| SPN-SL3  | ST Nut Stopper L (M3)               | 95      |
| SPN-SL4  | ST Nut Stopper L (M4)               | 95      |
| SPN-SL5  | ST Nut Stopper L (M5)               | 95      |
| SPN-SL6  | ST Nut Stopper L (M6)               | 95      |
| SPN-SL8  | ST Nut Stopper L (M8)               | 95      |
| SPN-SS3  | ST Nut Stopper S (M3)               | 56      |
| SPN-SS4  | ST Nut Stopper S (M4)               | 56      |
| SPN-SS5  | ST Nut Stopper S (M5)               | 56      |
| SPN-SS6  | ST Nut Stopper S (M6)               | 56      |
| SPN-SX3  | ST Nut Stopper SS (M3)              | 26      |
| SPN-SX4  | ST Nut Stopper SS (M4)              | 26      |
| SPN-SX5  | ST Nut Stopper SS (M5)              | 26      |
| SPN-TL4  | T Nut L (M4) (Stainless)            | 95, 228 |
| SPN-TL5  | T Nut L (M5) (Stainless)            | 95, 228 |
| SPN-TL6  | T Nut L (M6) (Stainless)            | 95, 228 |
| SPN-TL8  | T Nut L (M8) (Stainless)            | 95, 228 |
| SPN-TS3  | T Nut S (M3) (Stainless)            | 56, 221 |
| SPN-TS4  | T Nut S (M4) (Stainless)            | 56, 221 |
| SPN-TS5  | T Nut S (M5) (Stainless)            | 56, 221 |
| SPN-TS6  | T Nut S (M6) (Stainless)            | 56, 221 |
| SPN-TX3  | T Nut SS (M3) (Stainless)           | 26      |
| SPN-TX4  | T Nut SS (M4) (Stainless)           | 26      |
| SPN-TX5  | T Nut SS (M5) (Stainless)           | 26      |
| T        |                                     |         |
| TY60-12  | Double Wheel Caster M12             | 132     |
| TY60-12S | Double Wheel Caster M12 w/ith Brake | 132     |
| TY75-16S | Double Wheel Caster M16 w/ith Brake | 132     |



## SUS BKK Delivery Policy

### Remark

Delivery lead time is counted from the next day of PO receipt date.

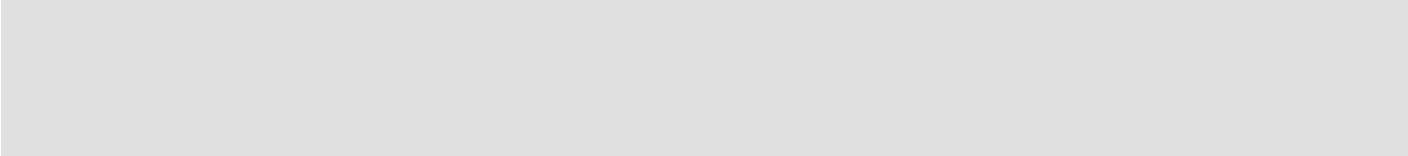
Received PO before midnight is counted as an order on the day.

Delivery leadtime does not include company holidays.

Delivery to customers in some rural areas require longer lead time than below.

| Item   |                |                        | Quantity         | Leadtime                          |
|--------|----------------|------------------------|------------------|-----------------------------------|
| SF, AZ | Frame          | L=4000 or Cutting Size | less than 20pcs  | 1 Working Day                     |
|        |                |                        | less than 50pcs  | 2 Working Days                    |
|        |                | with Standard Process  | less than 20pcs  | 2 Working Days                    |
|        |                |                        | less than 50pcs  | 3 Working Days                    |
|        | Parts          | No Process             | less than 200pcs | 1 Working Day                     |
|        |                |                        | less than 500pcs | 2 Working Days                    |
|        | Assembly Order |                        |                  | Need to be confirmed individually |

| Item  |              |                       | Quantity        | Leadtime                          |
|-------|--------------|-----------------------|-----------------|-----------------------------------|
| Panel | Resin Panel  | with Standard Process | less than 20pcs | 3 Working Days                    |
|       | Wooden Board | with Standard Process | less than 20pcs | 3 Working Days                    |
|       | Metal Panel  |                       |                 | Need to be confirmed individually |





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