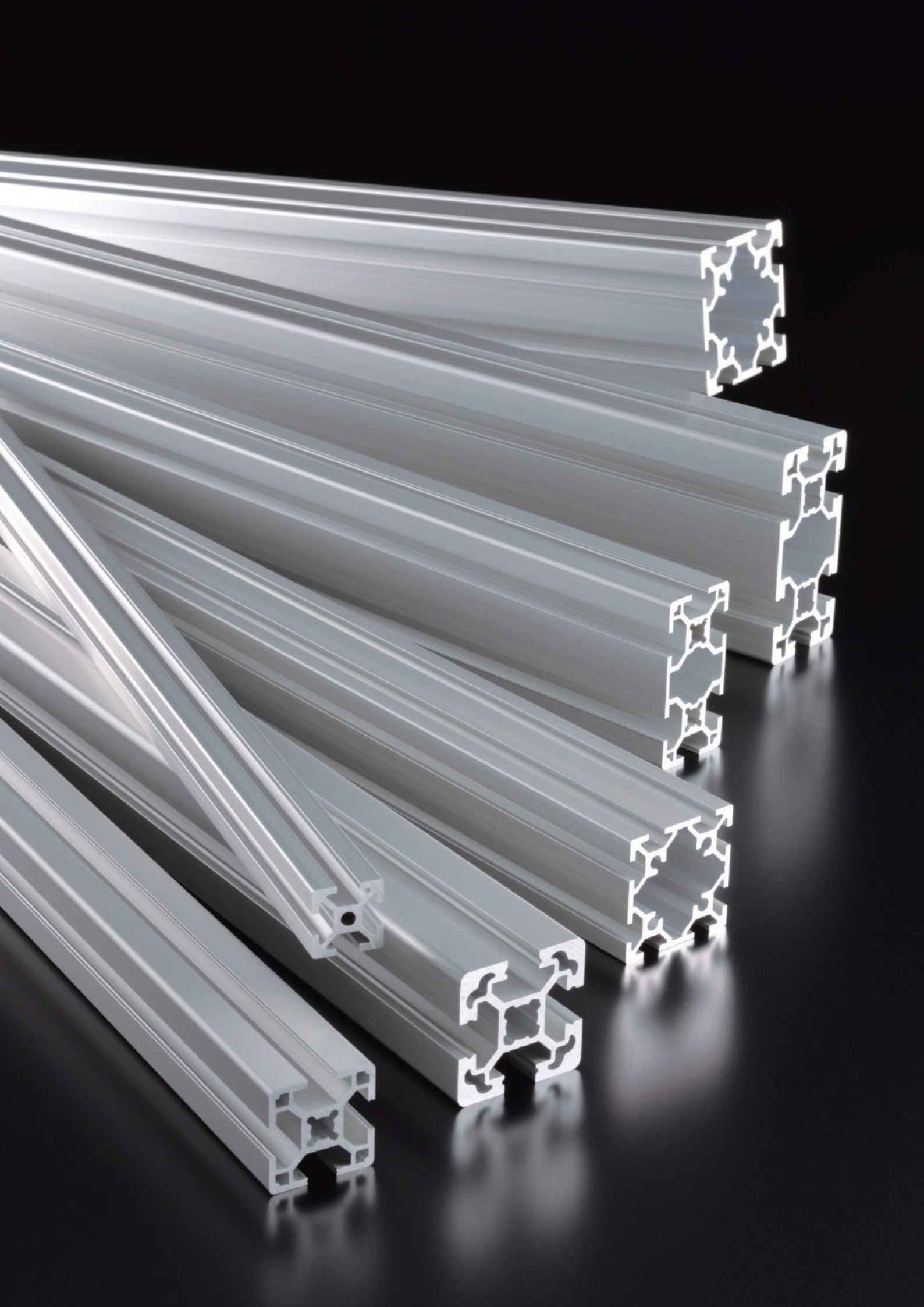


SF

Standard Frame

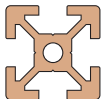
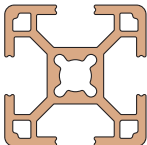
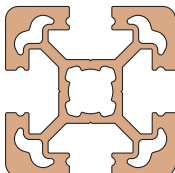
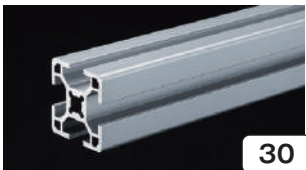
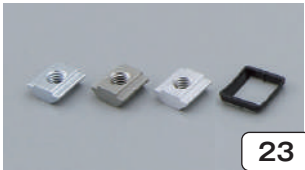
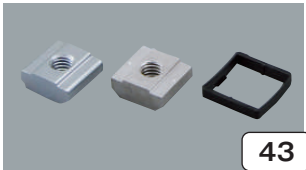
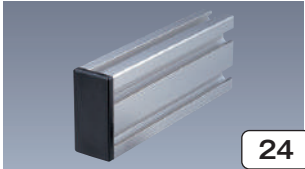
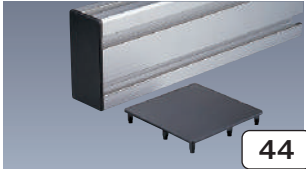
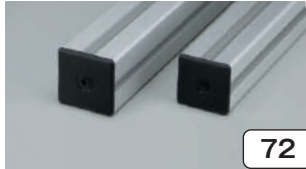
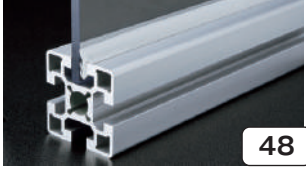
AZ

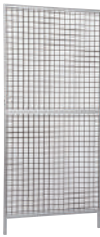
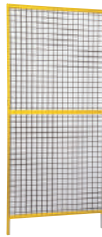
Safety Fence



Reach maximum potential
with the right materials in
the right place.



SF Aluminum Frames and Parts at a Glance			
Category	SF20  Outside Diameter 20 mm The most compact of our square frames	SF30  Outside Diameter 30 mm Intermediate frame popular for coverings	SF40·45  Outside Diameter 40·45 mm Make strong connections with the largest size SF bolts and nuts
01 Frame	 14	 30	 52
02 Bracket	 16	 32	 55
03 Nut	 23	 43	 70
04 Cap	 24	 44	 72
05 Foot Component	 25	 45	 73
06 Accessory	 26	 47	 75
07 Door Part	 27	 48	 76

Introduction		SF features and applications 3~		
SF Common Parts	    	79~		
AZ Safety Fence	 	113~		
Technical Data			SF 103~	AZ 153~

SF
Standard Frame

General-purpose aluminum frame for diverse applications

Case Study

- Housing for automated machines such as automatic assemblers
- Device covers

It is possible to mount a wide range of parts in any position by fastening with bolts and nuts using T-grooves.



Joint Type



Uses friction fastening with bolts, nuts, and various brackets.

Example Frame Performance

[SF2-40・40]

Geometrical Moment of Inertia

: $I_x = 10.73 \times 10^4 \text{ mm}^4$

: $I_y = 10.73 \times 10^4 \text{ mm}^4$

Unit Mass

: 1.65kg/m



Standard frames are widely used for covers and booths

SF is used in many different settings because of its high versatility. From equipment such as automatic machines, line coverings, and mounts, to worktables and chuters, it is an international standard. Square type aluminum frames are used both in places that handle heavy objects as well as places where more moderate loads are applied.



Automotive parts manufacturing factory

(Aisin Tohoku Co., Ltd.)

Sing Magazine
No. 26 (January 2014)

Equipment height is set at 1,350mm so that workers of any height can see the whole area. SF is also used here as a covering.



Automatic machines manufacturing factory

(TOYAMA MACHINERIES CO., Ltd.)

Sing Magazine
No. 26 (January 2014)

SF is highly versatile, so it plays an active role in many different applications, such as coverings for automatic machines as well as the components inside.



Office furniture manufacturing factory
(TAKANO CO., LTD. Shimojima Factory)

Sing Magazine
No. 37 (February 2018)

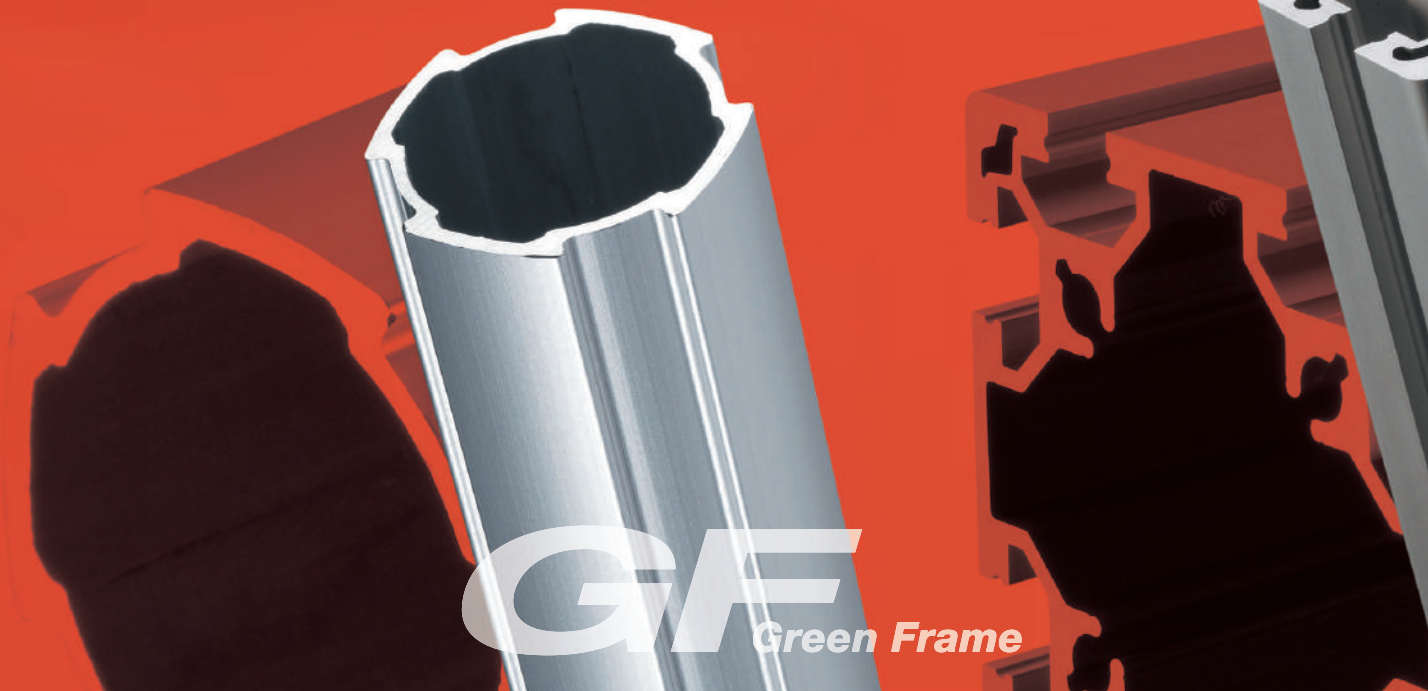
Work is supplied using a chuter assembled with SF in order to perform automatic assembly with a two-armed robot.

Only with Aluminum

Material and Shape

SUS Corporation's aluminum frames have excellent corrosion resistance and durability made possible by the extruded materials and anodized surface treatment.

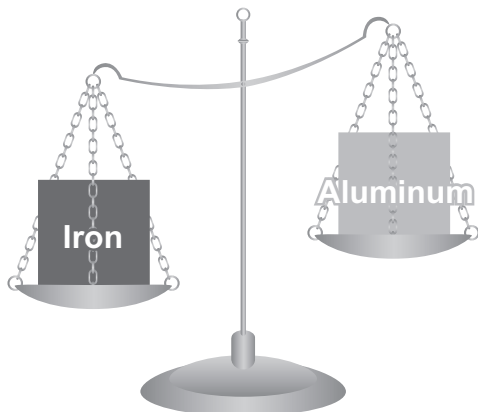
Scalability and connections that require no special training give GF frames a clear advantage over other materials like welded steel. Not only that, but the shape of the cross-section and the joint system can meet the challenges of almost any situation. Applications using GF are being invented and reinvented over and over again all over the world.



Lightweight

1/3 the Mass of Iron

Taking aluminum's relative density into account, SUS developed a lightweight, yet rigid frame with a carefully designed cross-sectional shape. This innovation reduces the overall weight of equipment and enables improvements. By using these frames for moveable racks, chuters, and trolleys, the burden on workers can be greatly reduced and line changes can be carried out with ease even after installation.

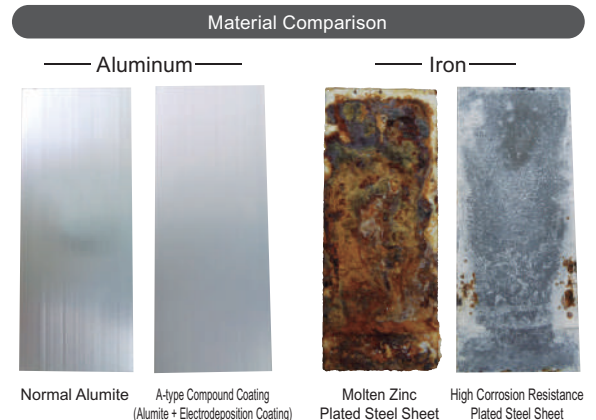


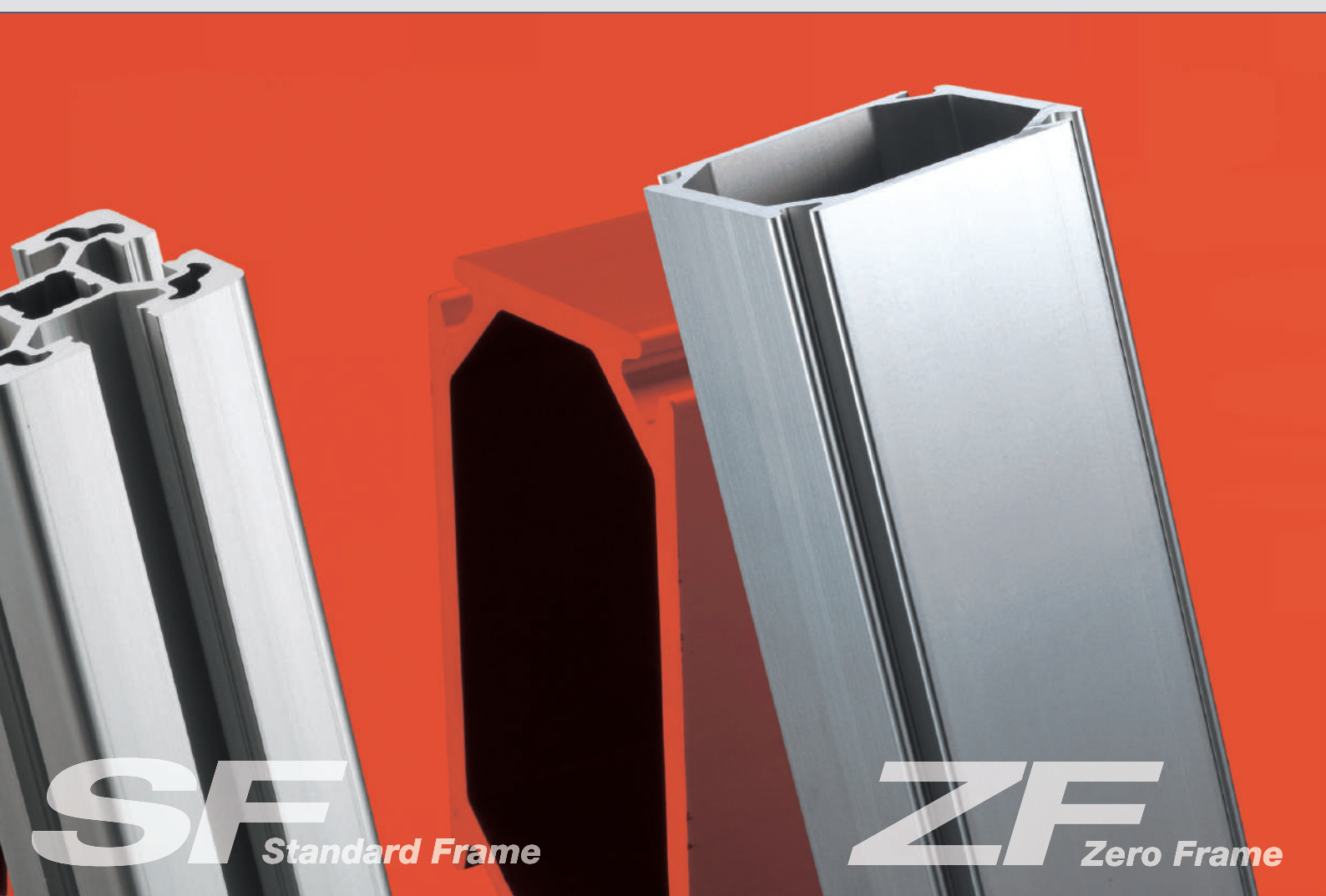
Strong vs. Corrosion

High Corrosion Resistance

The anodized layer of nine μm or more on the frames provides excellent resistance to corrosion and weather. The aluminum on the surface of the frame reacts with oxygen to form an oxide layer which does not peel off like paint and actually suppresses the buildup of foreign particles. Because the surface does not easily scratch or stain, the aluminum frames contribute to a more hygienic operating environment while maintaining a sleek aesthetic.

Corrosion Test Comparing Aluminum and Iron (Salt Water Spray Test: 1000 Hours)





Environmentally Friendly

Environmental Protection and Responsibility

Aluminum enjoys a particularly high degree of recyclability compared to other metals. Recently, it has gained attention as a resource that can reduce environmental impact. The electricity needed to refine recycled metals is only 3% of that needed to refine new ones. To take advantage of this excellent resource, SUS uses aluminum in more than just frames; we also use it in numerous parts such as brackets and connectors.

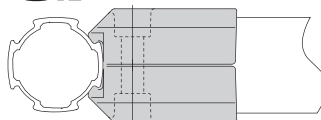


Secure Bolts

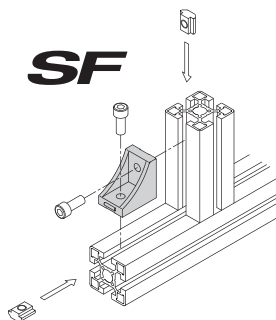
Easy to Assemble and Disassemble and Highly Reusable

Because bolts are used to fasten frames together, structures can be disassembled and reassembled as needed. GF structures can also be expanded to match the available work space or altered to suit new purposes. Relocating a unit becomes a simple task by breaking it down into a few smaller parts. Green Frame promotes the reuse of materials, minimizing waste.

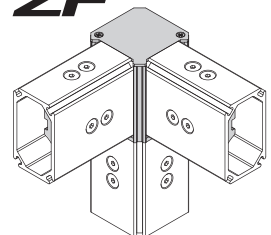
GF



SF



ZF



Quick Delivery of High Quality Aluminum Products Anywhere in the World

SUS is uncovering the new needs of developing markets. In order to overcome cost competition, many companies are actively expanding overseas, establishing sales channels and manufacturing bases. International trade has become commonplace, and the same level of quality and speed that SUS brings to Japan is being sought all over the world. In addition to our group of international bases, SUS Corporation has established sales agents around the globe to build a strong network not only in Japan, but throughout South-east Asia, Europe, and South America.



● Overseas group companies centered in Asia ● Overseas distributors expanding global development

North America

● SUS America, Inc.

● Machine-Techpos Mexico, sa. de. C.V.

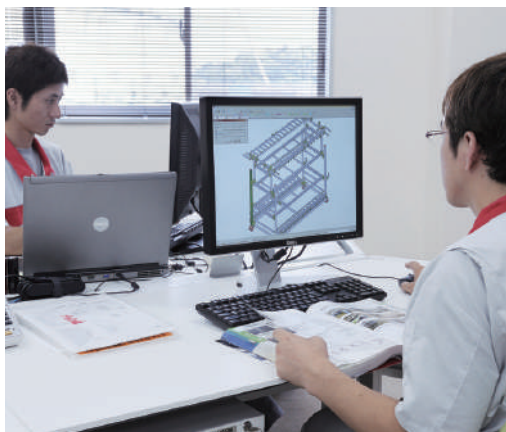
South America

STH Industria e Comercio Ltda

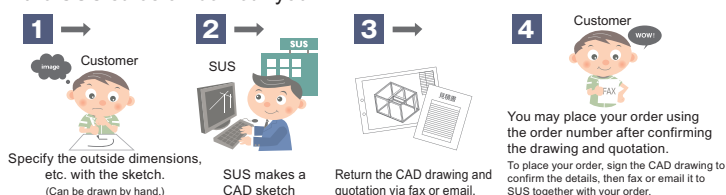


Service and Support

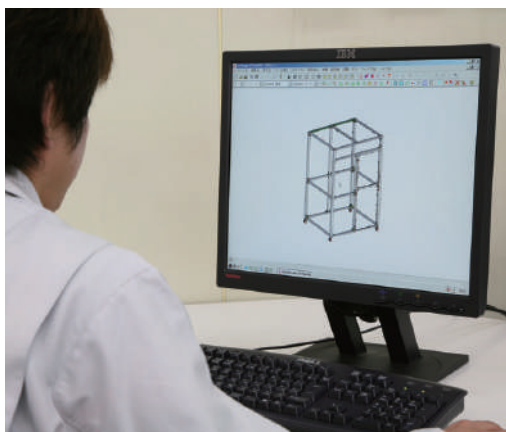
Design Support Service



SUS Corporation provides design support services to assist our customers. Just provide SUS with a simple sketch showing your structure's desired dimensions and we will create a CAD drawing, select the necessary parts, and submit a quotation— all at the same time. In addition to this service, SUS also offers a free 3D drawing software, Unit Design (below). This simple program lets anyone design their own structure in Green Frame or Standard Frame. For details, please contact the SUS sales office near you.



3D Drawing Software: Unit Design



This is SUS's original software for creating 3D assembly drawings of structures using SF and GF Series aluminum frames. You can download the software for free from our website. A library containing SF and GF information from the catalog is included in the software. Unit Design automatically generates parts lists and drawings from the 3D model. By making Unit Design more user-friendly than ever, anyone interested in the GF or SF Series can create their own structures, from designers to hobbyists.



<https://www.susamericainc.com/bin/unitdesign/>



Assembly and Delivery Service



SUS Corporation was one of the first companies in the industry to launch an assembly and shipping service. Our professional technical staff stationed at our manufacturing bases will respond promptly and precisely to your request. Please indicate "Assembly Required" in your request for quotation and order. SUS will reply to you with CAD drawings



and assembly estimates. We encourage you to make full use of our experience and skill as expert manufacturers.

Overseas Procurement Information



SUS Corporation has prepared a support system that quickly and thoroughly responds to your requests, even in factory automation environments different from those found in Japan. Numerous sales centers are located throughout Asia, including SUS's own extrusion plant and accessory parts factories in northern Thailand. Outside of southeast Asia, we also respond to requests in North America and Europe with prompt service. SUS continues to expand our business to meet rapidly increasing procurement needs worldwide.



STANDARD FRAME

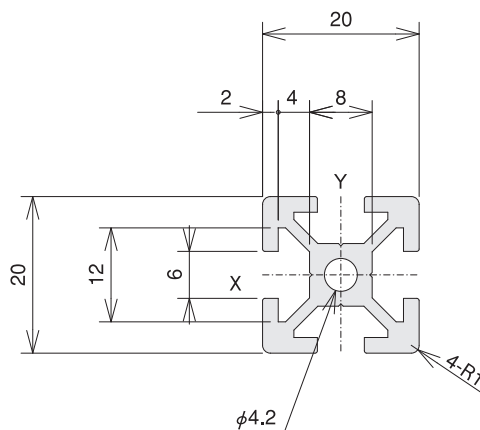
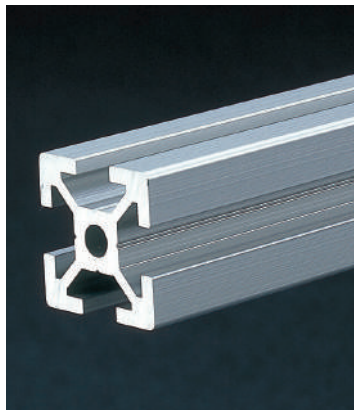
SF-20

SS size

Frame

SF
20

SF-20·20



Materials/Technical Data

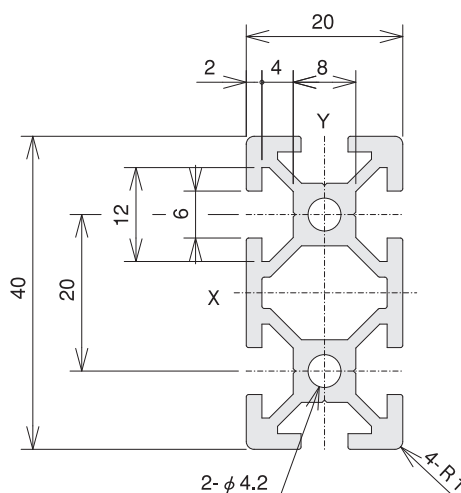
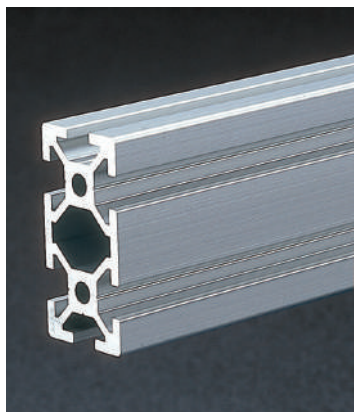
Material : A6N01SS-T5
Anodized Surface Treatment
Environment : **RoHS10** Compliant
Geometrical Moment of Inertia :
 $I_x = 0.74 \times 10^4 \text{ mm}^4$
 $I_y = 0.74 \times 10^4 \text{ mm}^4$
Section Modulus :
 $Z_x = 0.74 \times 10^3 \text{ mm}^3$
 $Z_y = 0.74 \times 10^3 \text{ mm}^3$
Unit Mass : 0.49kg/m
Resistance : $10^9 \sim 10^{10} \Omega$
(Antistatic Elimination Level)

Compatible Frame Cap (p.24)
Frame Cap 20 · 20 (Black) SFA-009

Name	SF-20·20 Standard Length (L=4000mm)	SF-20·20 L=50~4000
Item No.	SFF-202	SFF-204

SF
40.45

SF-20·40

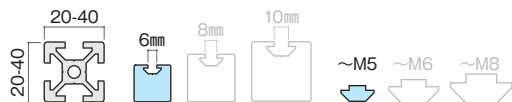


Materials/Technical Data

Material : A6N01SS-T5
Anodized Surface Treatment
Environment : **RoHS10** Compliant
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 : 0.87kg/m
Resistance : $10^9 \sim 10^{10} \Omega$
(Antistatic Elimination Level)

Compatible Frame Cap (p.24)
Frame Cap 20 · 40 (Black) SFA-010

Name	SF-20·40 Standard Length (L=4000mm)	SF-20·40 L=50~4000
Item No.	SFF-242	SFF-244



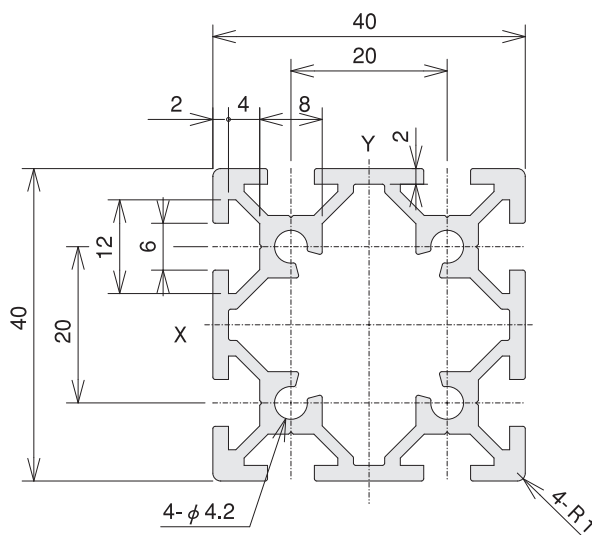
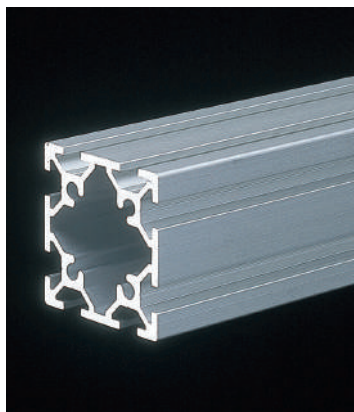
Additional
Processing List
→ P.95



Technical
Data
→ P.103

Frame

SF-40·40·2S



Materials/Technical Data

Material : A6N01SS-T5
Anodized Surface Treatment
Environment : **RoHS10** Compliant
Geometrical 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
Resistance : $10^9 \sim 10^{10} \Omega$
(Antistatic Elimination Level)

Compatible Frame Cap (p.24)

Frame Cap 40 · 40 · 2S (Black) SFA-014

Name	SF-40·40·2S Standard Length (L=4000mm)	SF-40·40·2S L=50~4000mm
Item No.	SFF-402W	SFF-404W

SF 20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF 30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF 40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF Common parts

Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



Assembled Delivery
Service
→ P.11

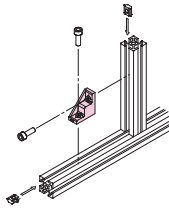


RoHS
→ P.162

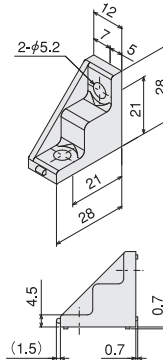
Bracket

Use threaded parts for installation of the side surface cover. (See p.28 for details.)

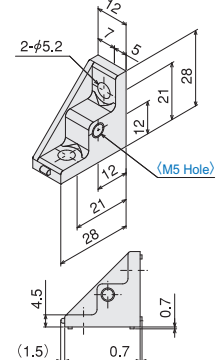
D Bracket SS



D Bracket SS



D Bracket SS with Tap



Name (Single Piece)	D Bracket SS (D Bracket SS with Tap)
Item No.	SFJ-016 (SFJ-017)
Name (Bolt+Nut Kit)	D Bracket SS Kit (Stainless) (D Bracket SS with Tap Kit (Stainless))
Item No.	SFK-016S (SFK-017S)

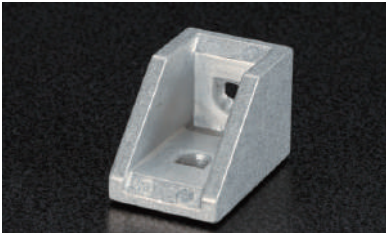
Kit Contents

- D Bracket SS (with tapping) ×1
- Hexagon Socket Head Bolt (M5×10)×2
- T-nut SS (M5)×2

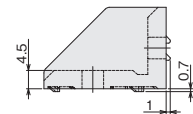
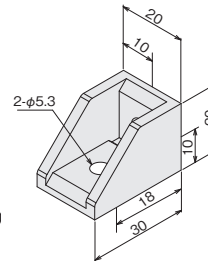
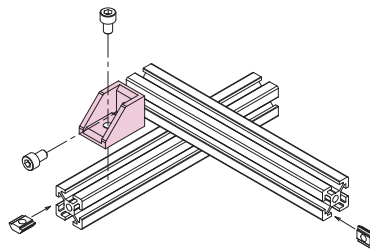
Materials/Technical Data

Material : Aluminum Die Cast
with Rotation Stopper
Mass : 11g (single piece)
Environment : **RoHS10** Compliant

D Bracket Cross SS



● Frames can be mounted perpendicularly.



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

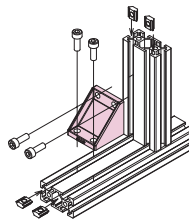
Kit Contents

- D Bracket Cross SS×1
- Hexagon Socket Head Bolt (M5×10)×2
- T-nut SS (M5)×2
- *The SS Kit (Stainless) has stainless steel bolts and nuts.

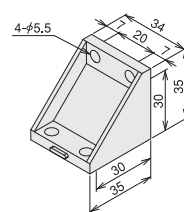
Materials/Technical Data

Material : Aluminum Die Cast
Mass : 13g (single piece)
Environment : **RoHS10** Compliant

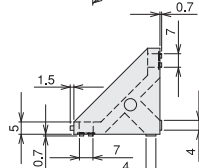
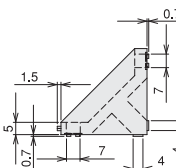
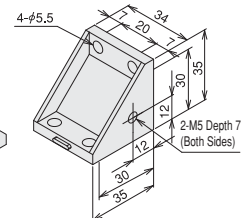
D Bracket 2040



D Bracket 2040



D Bracket 2040 with Tap



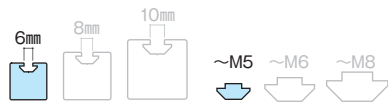
Name (Single Piece)	D Bracket 2040 (D Bracket 2040 with Tap)
Item No.	SFJ-020 (SFJ-020T)
Name (Bolt+Nut Kit)	D Bracket 2040 Kit (Stainless) (D Bracket 2040 with Tap Kit (Stainless))
Item No.	SFK-020S (SFK-020P)

Kit Contents

- D Bracket 2040 (with tapping) ×1
- Hexagon Socket Head Bolt (M5×10)×4
- T-nut SS (M5)×4

Materials/Technical Data

Material : Aluminum Die Cast
with Rotation Stopper
Mass : 34g (single piece)
Environment : **RoHS10** Compliant



Additional
Processing List
→ P.95

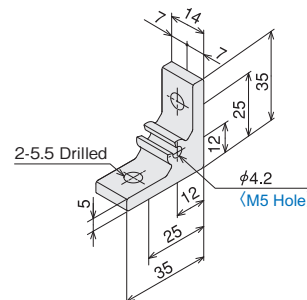
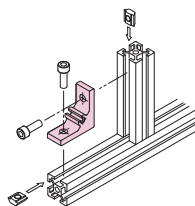


Technical
Data
→ P.103

Bracket

Use threaded parts for installation of the side surface cover. (See p.28 for details.)

Hard Bracket SS



Name (Single Piece)	Hard Bracket SS (Hard Bracket SS with Tap)
Item No.	SFJ-N01 (SFJ-N01T)
Name (Bolt+Nut Kit)	Hard Bracket SS Kit (Stainless) (Hard Bracket SS with Tap Kit (Stainless))
Item No.	SFK-N01S (SFK-N01P)

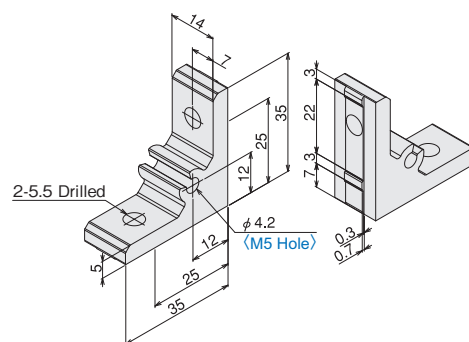
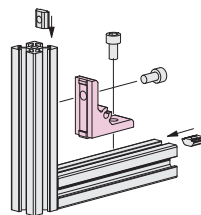
Kit Contents

- Hard Bracket SS (with tapping) ×1
- Hexagon Socket Head Bolt (M5×10) ×2
- T-nut SS (M5) ×2

Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Perpendicular Machined Finish
Mass : 15g (single piece)
Environment : RoHS10 Compliant

Hard Bracket SS with Stopper



Name (Single Piece)	Hard Bracket SS with Stopper (Hard Bracket SS with Stopper and Tap)
Item No.	SFJ-N58 (SFJ-N58T)
Name (Bolt+Nut Kit)	Hard Bracket SS with Stopper Kit (Stainless) (Hard Bracket SS with Stopper and Tap (Stainless))
Item No.	SFK-N58S (SFK-N58P)

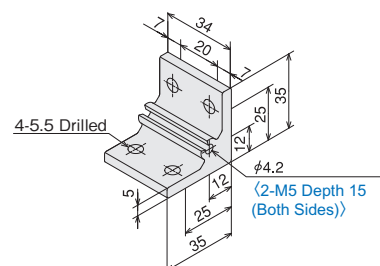
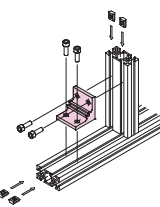
Kit Contents

- Hard Bracket SS with Stopper (with tapping) ×1
- Hexagon Socket Head Bolt (M5×10) ×2
- T-nut SS (M5) ×2

Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Perpendicular Machined Finish
with Rotation Stopper
Mass : 15g (single piece)
Environment : RoHS10 Compliant

Hard Bracket SS2040



Name (Single Piece)	Hard Bracket SS2040 (Hard Bracket SS2040 with Tap)
Item No.	SFJ-N02 (SFJ-N02T)
Name (Bolt+Nut Kit)	Hard Bracket SS2040 Kit (Stainless) (Hard Bracket SS2040 with Tap Kit (Stainless))
Item No.	SFK-N02S (SFK-N02P)

Kit Contents

- Hard Bracket SS2040 (with tapping) ×1
- Hexagon Socket Head Bolt (M5×10) ×4
- T-nut SS (M5) ×4

Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Perpendicular Machined Finish
Mass : 37g (single piece)
Environment : RoHS10 Compliant



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



Assembled Delivery
Service
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RoHS
→ P.162

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

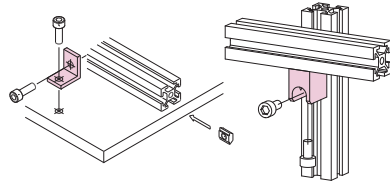
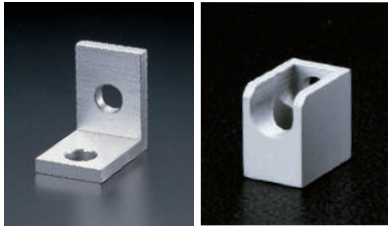
SF Additional
Processing

SF
Technical Data

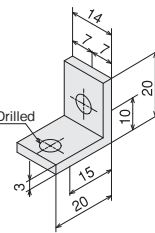
Bracket

SF
20

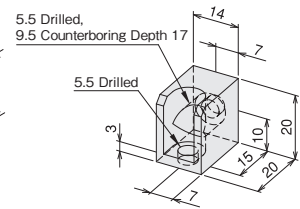
Angle Bracket SS/Angle Bracket Hard SS



Angle Bracket SS



Angle Bracket Hard SS



Kit Contents

- Angle Bracket SS (hard) ×1
- Hexagon Socket Head Bolt (M5×8)×2
- T-nut SS (M5)×2

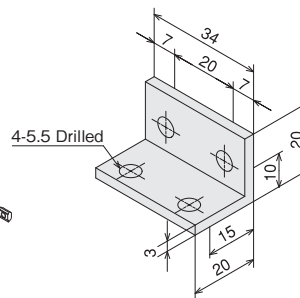
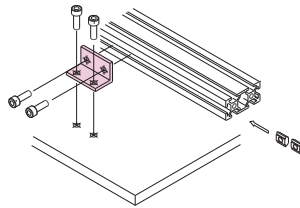
Materials/Technical Data

	Angle Bracket SS	Angle Bracket Hard SS
Material	Aluminum Extrusion Anodized Surface Treatment	Aluminum Extrusion Anodized Surface Treatment
Mass	4g (single piece)	9g (single piece)
Environment	RoHS10 Compliant	

SF
30

Name (Single Piece)	Angle Bracket SS	Angle Bracket Hard SS
Item No.	SFJ-A01	SFJ-A14
Name (Bolt+Nut Kit)	Angle Bracket SS Kit (Stainless)	Angle Bracket Hard SS Kit (Stainless)
Item No.	SFK-A01S	SFK-A14S

Angle Bracket SS2040



Kit Contents

- Angle Bracket SS2040×1
- Hexagon Socket Head Bolt (M5×8)×4
- T-nut SS (M5)×4

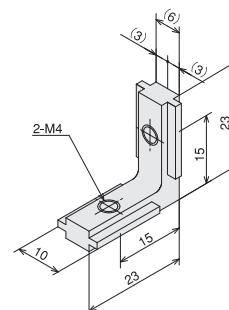
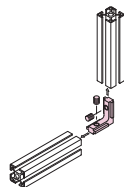
Materials/Technical Data

Material	Aluminum Extrusion Anodized Surface Treatment
Mass	9g (single piece)
Environment	RoHS10 Compliant

SF
40.45

Name (Single Piece)	Angle Bracket SS2040
Item No.	SFJ-A02
Name (Bolt+Nut Kit)	Angle Bracket SS2040 Kit (Stainless)
Item No.	SFK-A02S

S Blind Bracket SS



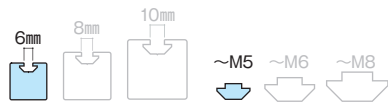
How to Install

1. Temporarily attach S Blind Bracket to the frame.
2. Insert the S Blind Bracket attached in Step 1 to the slot in the paired frame.
3. Adjust the position and tighten the bolts with a wrench.

Name	S Blind Bracket SS
Item No.	SFK-600S

Materials/Technical Data

Material	Stainless Steel (Includes 2 stainless steel set screws M4×5)
Mass	6g
Environment	RoHS10 Compliant



Additional
Processing List
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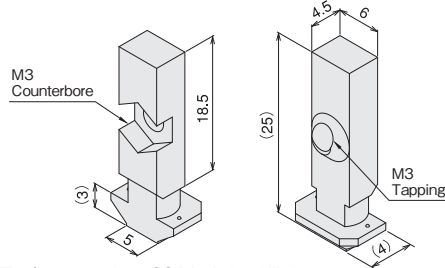
Technical
Data
→ P.103

Bracket

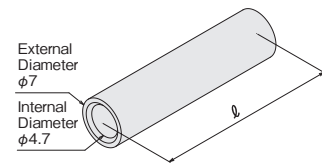
QC Joint SS



QC Joint SS (common parts)



SS Round Bracket



Name	QC Joint SS Kit	QC Joint SS40 Kit
Item No.	SFK-Q20	SFK-Q21

Kit Contents

Kit Name	QC Joint	Round Bracket	Bolt
QC Joint SS Kit	QC Joint SS ×1 Set	SS Round Bracket 20×1	Hexagon Socket Head Bolt (M3×15) Stainless Steel×1
QC Joint SS 40 Kit		SS Round Bracket 40×1	Hexagon Socket Head Bolt (M3×35) Stainless Steel×1

Materials/Technical Data

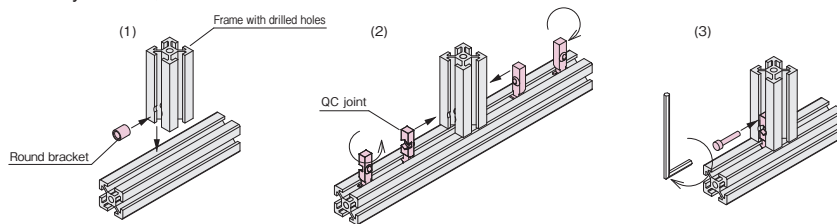
	QC Joint SS	Round Bracket
Material	: Stainless steel Conductive	Stainless steel
Mass	: 12g (SS kit)	16g (SS40 kit)
Environment	: RoHS10 Compliant	

QC Joint SS

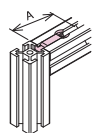
Features

Because the two frames are joined together with a pulling force, they easily achieve a right angle while preventing gaps. It is not necessary to insert nuts beforehand. This expedites assembly time while still providing a strong connection with a single bolt.

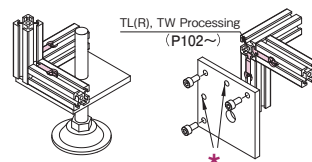
Assembly Process



On frames that have been processed for QC joints, one section of the slot cannot be used.



Series	A dimensions(mm)
SF20Series	19.5



*Use caution when using the plate from items like the level adjuster kit. Because the QC joint and the mounting holes marked with * overlap, tap the vertical frame and fix the plate at three points.

QC Joint Kit Compatibility Chart

Slot Type	Frame Name	Frame Processing Symbols				
		QCS	QCW	QCC	QCV	QCY
1 row × 1 row	SF-20•20	SS Kit × 1	SS Kit × 2	SS Kit × 2	Not compatible	
1 row × 2 rows	SF-20•40	SS Kit × 2	SS Kit × 4	SS Kit × 2 / SS 40 Kit × 1	SS40 Kit × 1	SS40 Kit × 2
2 rows × 2 rows	SF-40•40•2S	SS40 Kit × 2	SS40 Kit × 4	SS 40 Kit × 4		

SF 20

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 30

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF Common parts

Door Part

Foot Component

Bolt Nut

SF Additional Processing

SF Technical Data



Drawing Support
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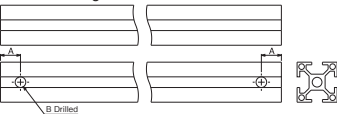


RoHS
→ P.162

Bracket

■QC Joint Frame Hole Processing Symbols

(Dimensions for the Location of QC Joint Round Fittings Insertion Hole)



	A Dimensions	B Dimensions
SF-20 Series	9.8	7.1
SF-30 Series	14.8	11.1
SF-40 Series	20	13.1
SF-45 Series	19.5	13.1

Processing Symbols Slot Type	QCS	QCW	QCC	QCV	QCY
1 Row × 1 Row					
1 Row × 2 Rows					
2 Rows × 2 Rows					

SF 20

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 30

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF Common parts

Door Part

Foot Component

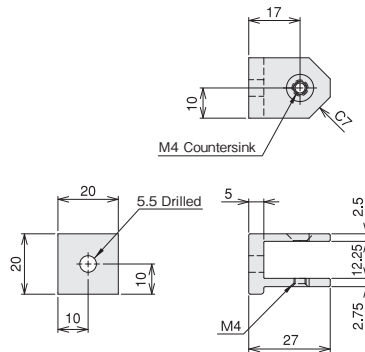
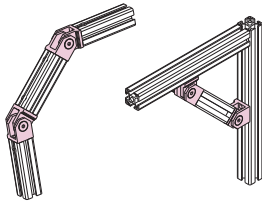
Bolt Nut

SF Additional Processing

SF Technical Data

Bracket

Turn Bracket 20



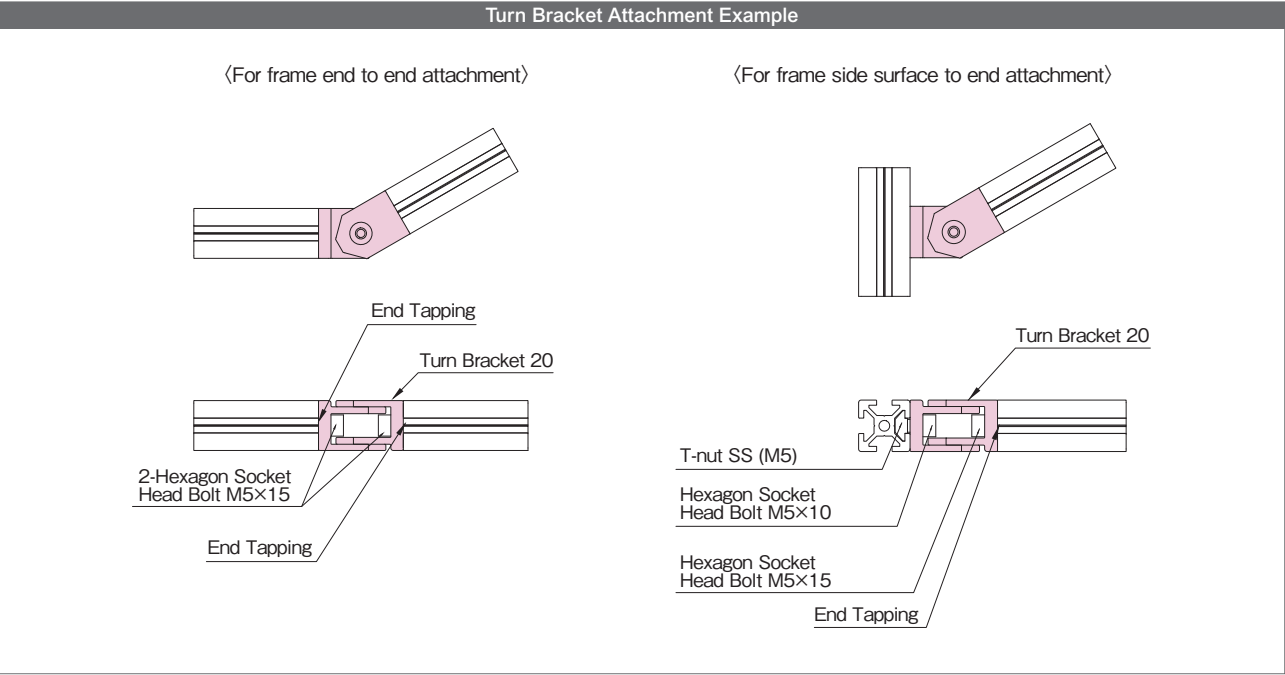
Name	Turn Bracket 20 (2 bolt set)
Item No.	SFK-44A

(Accessories) Cross Recessed Head Countersink Bolt M4×6 Stainless Steel × 1 Bolt

■ **Compatible Frames**
 End Face Mounting: SF 20・20 only
Side Face Mounting: Can be used if paired with T-nut (M5)

■ **Materials/Technical Data**
Material : Aluminum Extrusion
Anodized Surface Treatment
Mass : 25.6g/Set
Environment : **RoHS10** Compliant

*Recommended Tightening Torque:
1.9 N・m (M3 equivalent)



SF
20

Frame
Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

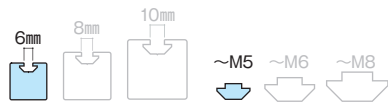
Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data



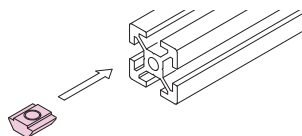
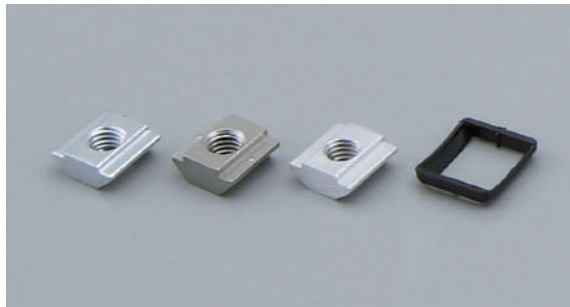
Additional
Processing List
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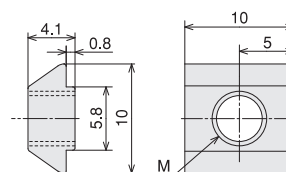
Technical
Data
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Nut (for slot width 6mm)

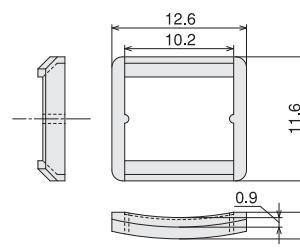
T Nut SS / Anti-Skid Cap SS



T Nut SS



Anti-Skid Cap SS
(for T Nut SS)

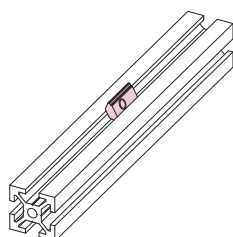


Name	T Nut SS (M5) (S T Nut SS (M5))	T Nut SS (M4) (S T Nut SS (M4))	T Nut SS (M3) (S T Nut SS (M3))
Item No.	SFB-013 (SFN-TX5)	SFB-012 (SFN-TX4)	SFB-011 (SFN-TX3)
Name	Anti-Skid Cap SS (50pcs/pack)		
Item No.	SFA-905		

Materials/Technical Data

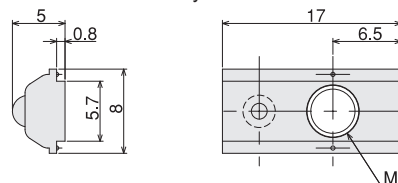
	T Nut SS	S T Nut SS	Anti-Skid Cap SS
Material	: S10C equivalent	Stainless Steel Conductive	PA
Mass	: 2g	2g	0.09g each
Environment	: RoHS10 Compliant		

S Easy Nut SS / Easy Nut SS CN / Easy Nut SS

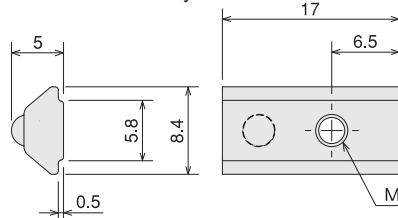


*Insert into the slot even after
assembly with one touch. Anti-skid.

S Easy Nut SS



Easy Nut SS



Name	Easy Nut SS (M5) CN	S Easy Nut SS (M4)	S Easy Nut SS (M3)
Item No.	SFB-PN39	SFN-EX4	SFN-EX3

Materials/Technical Data

	S Easy Nut SS	Easy Nut SS CN	Easy Nut SS
Material	: (Main Unit) Stainless Steel (Attaching Part) Stainless Steel	S10C equivalent Electroless nickel plating Stainless Steel	S10C equivalent Stainless Steel
Mass	: 3g	3g	3g
Environment	: RoHS10 Compliant		

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data



Drawing Support
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Design Support
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Service
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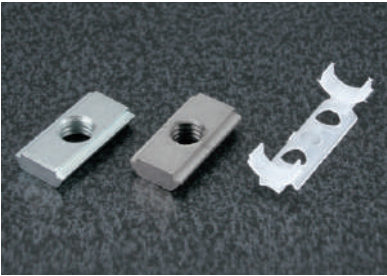


RoHS
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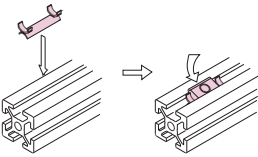
Nut (for slot width 6mm)

- SF 20
- Frame
- Bracket
- Nut
- Cap
- Foot Component
- Accessory
- Door Part

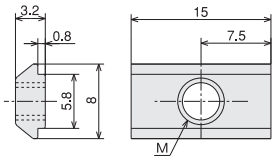
S After Nut SS / After Nut Support SS



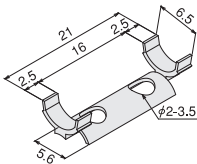
*Made anti-skid by using in combination with After Nut Support



After Nut SS



After Nut Support SS



- SF 30
- Frame
- Bracket
- Nut
- Cap
- Foot Component
- Accessory
- Door Part

Name	*1 S After Nut SS (M5)	S After Nut SS (M4)	S After Nut SS (M3)
Item No.	SFB-SH5	SFN-AX4	SFN-AX3

Name	After Nut Support SS (50pcs/pack)
Item No.	SFA-9A1

*1: S After Nut SS (M5) is not a conductive type

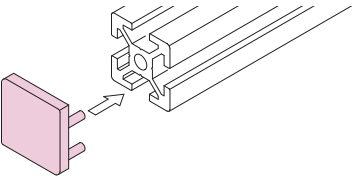
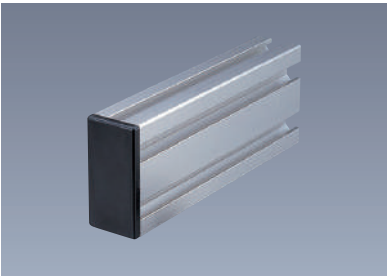
Materials/Technical Data

	S After Nut SS	After Nut Support SS
Material	: Stainless Steel Conductive	PP Resin
Mass	: 2g	0.10g each
Environment	: RoHS10 Compliant	

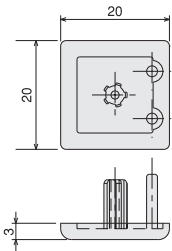
Cap

- SF 40.45
- Frame
- Bracket
- Nut
- Cap
- Foot Component
- Accessory
- Door Part

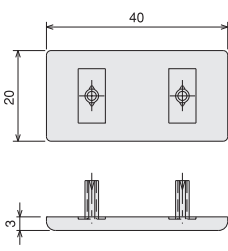
Frame Cap



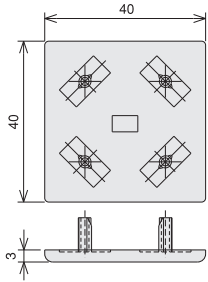
Frame Cap 20•20
Mass / 1.3g



Frame Cap 20•40
Mass / 2.3g



Frame Cap 40•40•2S
Mass / 5.1g



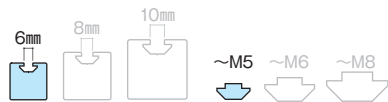
- SF Common parts
- Door Part
- Foot Component
- Bolt Nut

- SF Additional Processing
- SF Technical Data

Name	Frame Cap 20•20 (Black)	Frame Cap 20•40 (Black)	Frame Cap 40•40•2S (Black)
Item No.	SFA-009	SFA-010	SFA-014

Materials/Technical Data

Material	: PA
Mass	: In Diagram
Environment	: RoHS10 Compliant



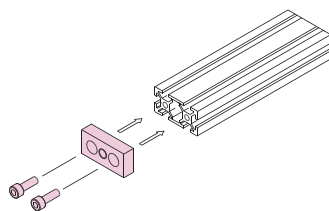
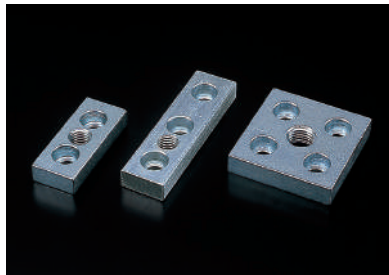
Additional
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Foot

Foot Base



Common Specifications

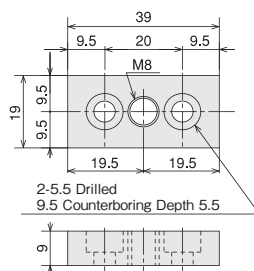
Material : SUS304(Stainless)

Environment : **RoHS10** Compliant

*The (Stainless) kit has stainless steel bolts and nuts.

*The surface facing the frame requires tapping. See p.102 for additional processing.

Foot Base 20•40

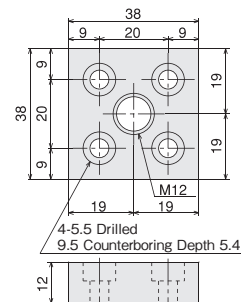


Mass : 40g

Kit Contents : Foot Base 2040 ×1

Hexagon Socket Head Bolt(M5×15) ×2

Foot Base 40•40•2S



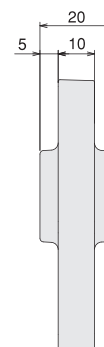
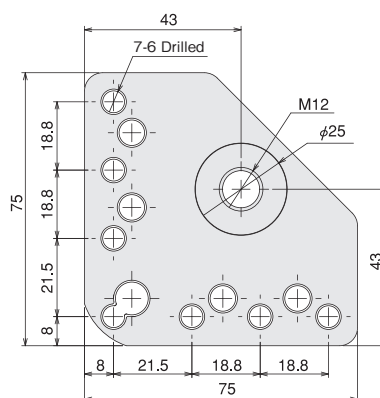
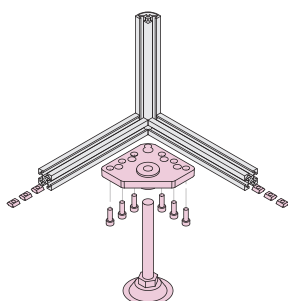
Mass : 104g

Kit Contents : Foot Base 40402S ×1

Hexagon Socket Head Bolt(M5×20) ×4

Name	Foot Base 2040 (Stainless)	Foot Base 40402S (Stainless)
Item No.	SFK-55AS	SFK-51AS

Adjuster Plate DC SS



Materials/Technical Data

Material : Aluminum Die Cast

Mass : 120g (single piece)

323g (kit)

319g (stainless kit)

Environment : **RoHS10** Compliant

Name	Adjuster Plate DC SS-S	
Item No.	SFK-925	
Name	Adjuster Plate DC SS Kit	Adjuster Plate DC SS Kit (Stainless)
Item No.	SFK-929	SFK-929S

Kit Contents

Adjuster Plate DC SS Kit

●Adjuster Plate DC SS-S×1

●Adjuster B M12×1

●T Nut SS (M5)×6

●Hexagon Socket Head Bolt (M5×15)×6

*The (Stainless) kit has stainless steel adjuster, bolts, and nuts.

SF 20

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 30

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF Common parts

Door Part

Foot Component

Bolt Nut

SF Additional Processing

SF Technical Data



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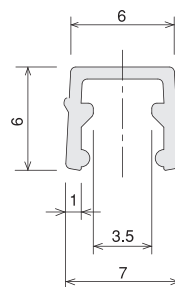
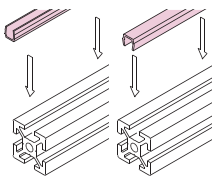


RoHS
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Accessory

SF
20

Slot Cap SS

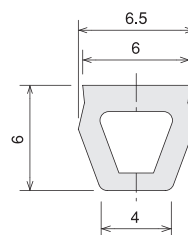
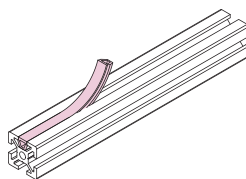


Name	(Light Gray)	Slot Cap SS (L=2000mm) (Yellow)	(Red)
Item No.	SFA-103G	SFA-103Y	SFA-103R

Materials/Technical Data	
Material	: PE
Mass	: 14g/m
Environment	: RoHS10 Compliant

SF
30

Slot Seal SS

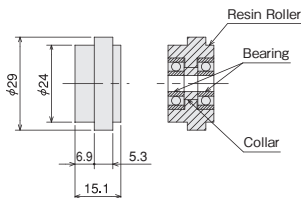


Name	Slot Seal SS (L=5000mm)
Item No.	SFA-170

Materials/Technical Data	
Material	: Elastomer
Mass	: 21g/m
Environment	: RoHS10 Compliant

SF
40.45

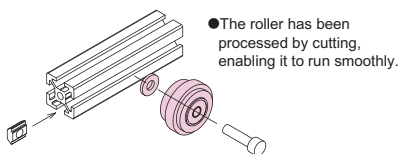
Slot Roller SS



- **Kit Contents**
- Slot Roller SS x1
 - Flat Washer (M5) Stainless Steel x1

Materials/Technical Data	
Material	: PA6 (Resin Roller) S45C (Collar) Copper (Bearing)
Mass	: 18g
Max Load	: 5kg each
Environment	: RoHS10 Compliant

*Attachment bolt size M5
(Prepare bolts and nuts separately)
*Recommended tightening torque 7.4N·m

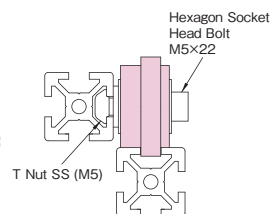
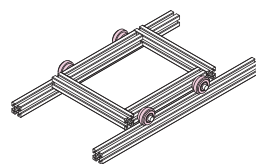


●The roller has been processed by cutting, enabling it to run smoothly.

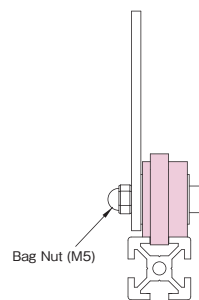
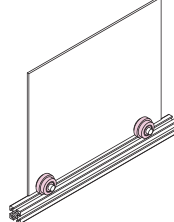
Name	Slot Roller SS
Item No.	SFK-805

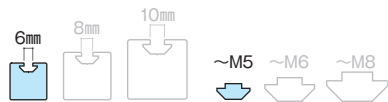
Example Using Slot Roller

〈As a sliding table〉



〈As a door roller〉





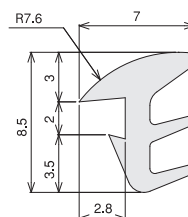
Additional
Processing List
→ P.95



Technical
Data
→ P.103

Door Part

Panel Clamp 2030



● For panel thickness 3mm

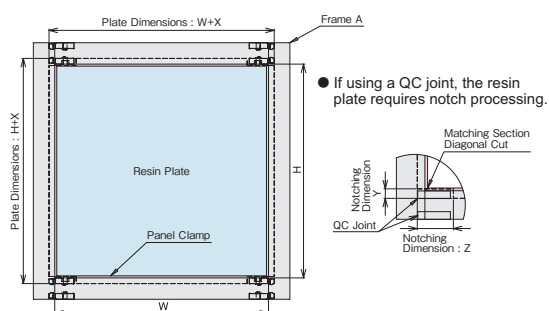
Name	Panel Clamp 2030 (L=5000mm) (Light Gray)
Item No.	SFA-121

Materials/Technical Data

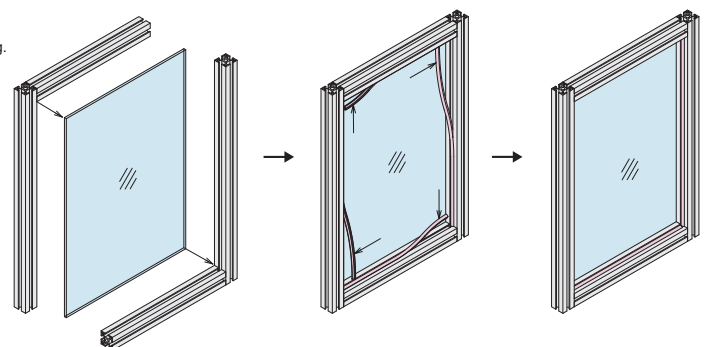
Material : CSM60 $\pm$ 5*(Synthetic Rubber)
Mass : 216g each
Environment : **RoHS6** Compliant

How to Attach the Panel Clamp

〈Installation Dimensions / Part Selection Guide〉



Frame A	Panel Clamp	Resin Plate Thickness	QC Joint	X	Y	Z
SF-20 Series	Panel Clamp 2030/20	3mm or 5mm	QC Joint SS	10	6	25.5
SF-30 Series	Panel Clamp 2030/20	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	



● When assembling the framework, insert the resin panel into the slot.

● Push the panel clamp into the gap between the resin panel and the frame groove.

● The cover can be fixed in place neatly, preventing the resin panel from rattling.

SF
20

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF
Common parts

Door Part

Foot Component

Bolt Nut

SF Additional Processing

SF Technical Data



Drawing Support
Software
→ P.10



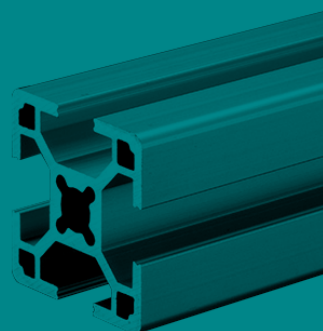
Design Support
Service
→ P.10



Assembled Delivery
Service
→ P.11



RoHS
→ P.162



STANDARD FRAME

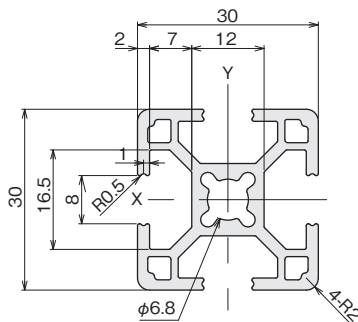
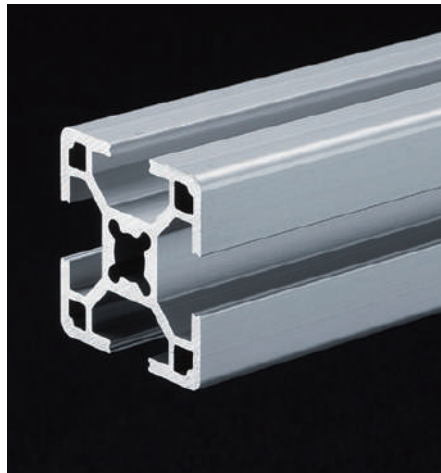
SF-30

S size

Frame

SF
20

SF2-30•30



Materials/Technical Data

Material : A6N01SS-T5
Anodized Surface Treatment
Environment : **RoHS10** Compliant
Geometrical Moment of Inertia :
 $I_x = 2.87 \times 10^4 \text{ mm}^4$
 $I_y = 2.87 \times 10^4 \text{ mm}^4$
Section Modulus :
 $Z_x = 1.91 \times 10^3 \text{ mm}^3$
 $Z_y = 1.91 \times 10^3 \text{ mm}^3$
Unit Mass : 0.84kg/m
Resistance : $10^9 \sim 10^9 \Omega$
(Antistatic Elimination Level)

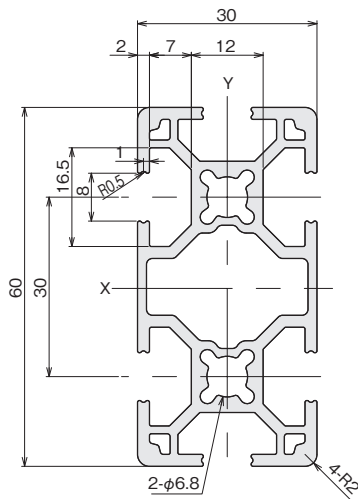
Compatible Frame Cap (p.44)

Frame Cap N 3030 (Black) **SFA-033B**
Frame Caps Lock Type N 3030 (Black) **SFK-05LB**

Name	SF2-30•30 Standard Length (L=4000mm)	SF2-30•30 L=50~4000
Item No.	SFF-322	SFF-324

SF
40.45

SF2-30•60



Materials/Technical Data

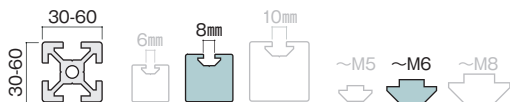
Material : A6N01SS-T5
Anodized Surface Treatment
Environment : **RoHS10** Compliant
Geometrical Moment of Inertia :
 $I_x = 20.97 \times 10^4 \text{ mm}^4$
 $I_y = 5.42 \times 10^4 \text{ mm}^4$
Section Modulus :
 $Z_x = 6.99 \times 10^3 \text{ mm}^3$
 $Z_y = 3.61 \times 10^3 \text{ mm}^3$
Unit Mass : 1.50kg/m
Resistance : $10^9 \sim 10^9 \Omega$
(Antistatic Elimination Level)

Compatible Frame Cap (p.44)

Frame Cap 3060 (Black) **SFA-005**
Frame Caps Lock Type 3060 (Black) **SFK-04L**

Name	SF2-30•60 Standard Length (L=4000mm)	SF2-30•60 L=50~4000
Item No.	SFF-332	SFF-334





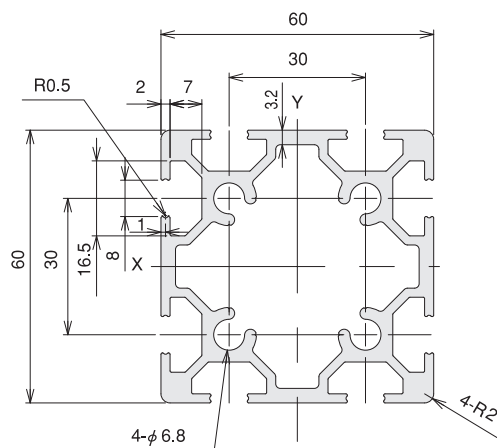
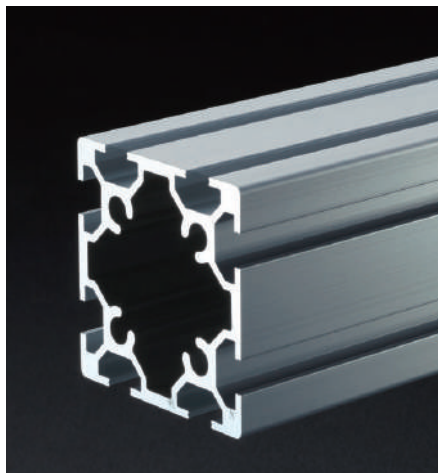
Additional
Processing List
→ P.95



Technical
Data
→ P.103

Frame

SF2-60·60·2S



Name	SF2-60·60·2S Standard Length (L=4000mm)	SF2-60·60·2S L=50~4000
Item No.	SFF-6A2	SFF-6A4

Materials/Technical Data

Material : A6N01SS-T5
Anodized Surface Treatment
Environment : **RoHS10** Compliant
Geometrical Moment of Inertia :
 $I_x = 41.41 \times 10^4 \text{ mm}^4$
 $I_y = 41.41 \times 10^4 \text{ mm}^4$
Section Modulus :
 $Z_x = 13.8 \times 10^3 \text{ mm}^3$
 $Z_y = 13.8 \times 10^3 \text{ mm}^3$
Unit Mass : 2.62 kg/m
Resistance : $10^9 \sim 10^{10} \Omega$
(Antistatic Elimination Level)

Compatible Frame Cap (p.44)

Frame Cap 60602S (Black) **SFA-011**

SF 20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF 30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF 40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF Common parts

Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data



Drawing Support
Software
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Design Support
Service
→ P.10



Assembled Delivery
Service
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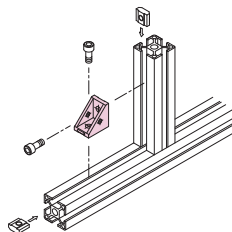


RoHS
→ P.162

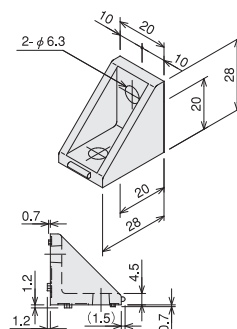
Bracket

Use threaded parts for installation of the side surface cover. (See p.49 for details.)

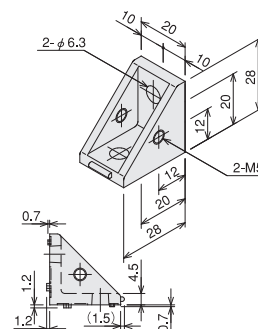
D Bracket S



D Bracket S



D Bracket S with Tap



Name (Single Piece)	D Bracket S (D Bracket S With Tap)
Item No.	SFJ-018 (SFJ-019)
Name (Bolt+Nut Kit)	D Bracket S Kit (Stainless) (D Bracket S With Tap Kit (Stainless))
Item No.	SFK-018S (SFK-019S)

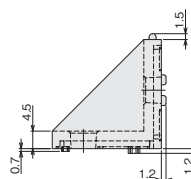
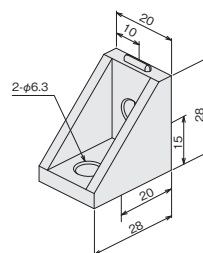
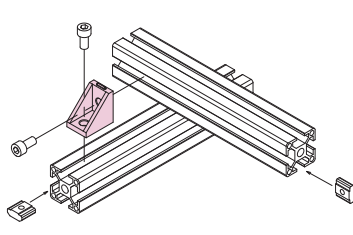
Kit Contents

- D Bracket S (with tapping) ×1
- Hexagon Socket Head Bolt (M6×12) ×2
- T Nut S (M6) ×2

Materials/Technical Data

Material : Aluminum Die Cast
With Rotation Stopper
Mass : 13g (single piece)
Environment : **RoHS10** Compliant

D Bracket Cross S



● Frames can be mounted perpendicularly.

Name (Single Piece)	D Bracket Cross S
Item No.	SFJ-045
Name (Bolt+Nut Kit)	D Bracket Cross S Kit (Stainless)
Item No.	SFK-045S

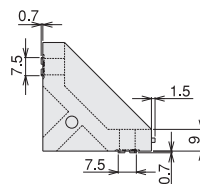
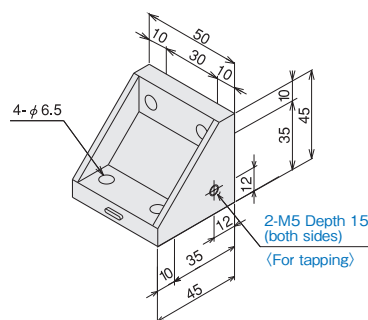
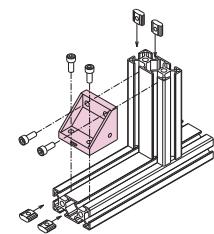
Kit Contents

- D Bracket Cross S ×1
 - Hexagon Socket Head Bolt (M6×12) ×2
 - T Nut S (M6) ×2
- *The S Kit (Stainless) has stainless steel bolts and nuts.

Materials/Technical Data

Material : Aluminum Die Cast
Mass : 14g (single piece)
Environment : **RoHS10** Compliant

D Bracket 3060



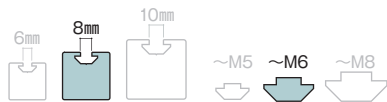
Name (Single Piece)	D Bracket 3060 (D Bracket 3060 With Tap)
Item No.	SFJ-021 (SFJ-021P)
Name (Bolt+Nut Kit)	D Bracket 3060 Kit (Stainless) (D Bracket 3060 With Tap kit (Stainless))
Item No.	SFK-021S (SFK-021P)

Kit Contents

- D Bracket 3060 (with tapping) ×1
 - Hexagon Socket Head Bolt (M6×15) ×4
 - T Nut S (M6) ×4
- *When attaching the side cover with (with tapping), (for panel: t=3) use truss screws M5×6, (for panel: t=5) use truss screws M5×8.

Materials/Technical Data

Material : Aluminum Die Cast
With Rotation Stopper
Mass : 100g (single piece)
Environment : **RoHS10** Compliant



Additional
Processing List
→ P.95

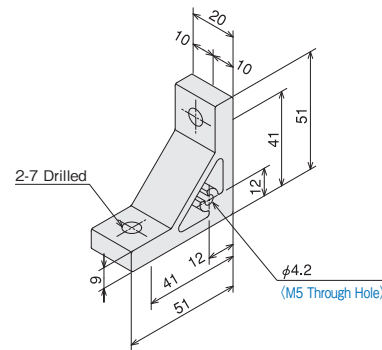
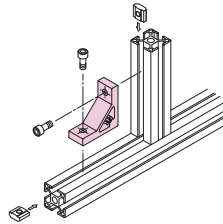
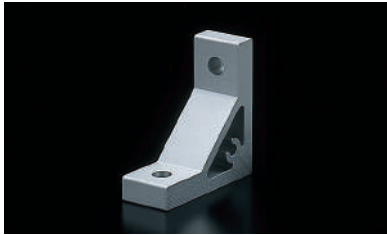


Technical
Data
→ P.103

Bracket

Use threaded parts for installation of the side surface cover. (See P.49 for details.)

Hard Bracket S



Name (Single Piece)	Hard Bracket S (Hard Bracket S With Tap)
Item No.	SFJ-N03 (SFJ-N03T)
Name (Bolt+Nut Kit)	Hard Bracket S Kit (Stainless) (Hard Bracket S With Tap Kit (Stainless))
Item No.	SFK-N03S (SFK-N03P)

Kit Contents

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

*The S Kit (Stainless) has stainless steel bolts and nuts.

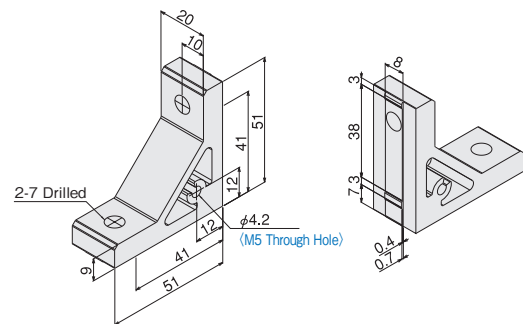
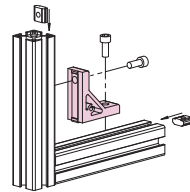
Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Perpendicular Machined Finish

Mass : 44g (single piece)

Environment : RoHS10 Compliant

Hard Bracket S with Stopper



Name (Single Piece)	Hard Bracket S with Stopper (Hard Bracket S With Stopper and Tap)
Item No.	SFJ-N61 (SFJ-N61T)
Name (Bolt+Nut Kit)	Hard Bracket S with Stopper Kit (Stainless) (Hard Bracket S With Stopper and Tap Kit (Stainless))
Item No.	SFK-N61S (SFK-N61P)

Kit Contents

- Hard Bracket S with Stopper (with tapping) × 1
- Hexagon Socket Head Bolt (M6×15) × 2
- T Nut S (M6) × 2

*The S with Stopper Kit (Stainless) has stainless steel bolts and nuts.

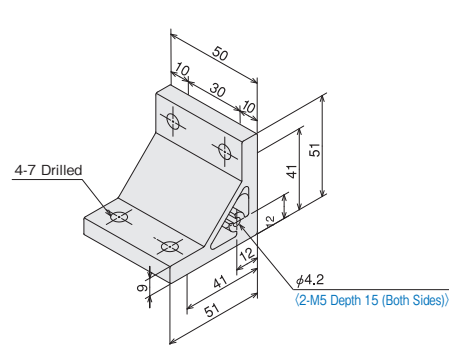
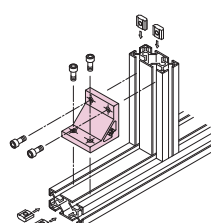
Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Perpendicular Machined Finish
With Rotation Stopper

Mass : 45g (single piece)

Environment : RoHS10 Compliant

Hard Bracket S 3060



Name (Single Piece)	Hard Bracket S 3060 (Hard Bracket S3060 With Tap)
Item No.	SFJ-N04 (SFJ-N04T)
Name (Bolt+Nut Kit)	Hard Bracket S 3060 Kit (Stainless) (Hard Bracket S3060 With Tap Kit (Stainless))
Item No.	SFK-N04S (SFK-N04P)

Kit Contents

- Hard Bracket S3060 (with tapping) × 1
- Hexagon Socket Head Bolt (M6×15) × 4
- T Nut S (M6) × 4

*The S3060 Kit (Stainless) has stainless steel bolts and nuts.

Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Perpendicular Machined Finish

Mass : 111g (single piece)

Environment : RoHS10 Compliant



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



Assembled Delivery
Service
→ P.11



RoHS
→ P.162

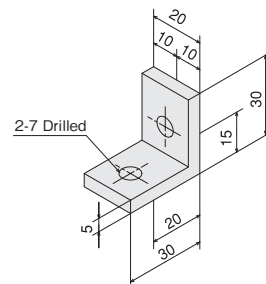
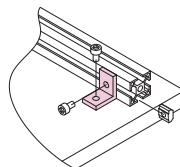
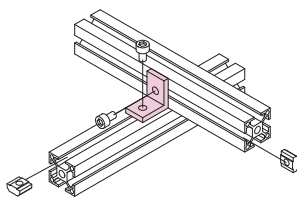
Bracket

SF
20

Angle Bracket S



- Use these to secure cross joints and to anchor the bases of frames.



Name (Single Piece)	Angle Bracket S
Item No.	SFJ-A03
Name (Bolt+Nut Kit)	Angle Bracket S Kit (Stainless)
Item No.	SFK-A03S

Kit Contents

- Angle Bracket S ×1
 - Hexagon Socket Head Bolt (M6×12) ×2
 - T Nut S (M6) ×2
- *The S Kit (Stainless) has stainless steel bolts and nuts.

Materials/Technical Data

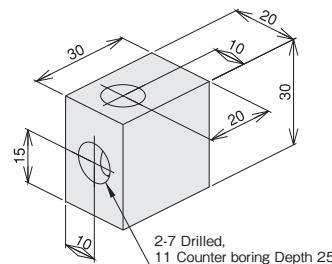
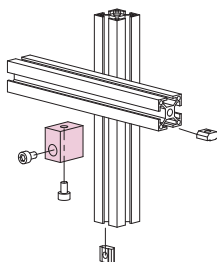
Material : Aluminum Extrusion
Anodized Surface Treatment
Mass : 1.4g (single piece)
Environment : **RoHS10** Compliant

SF
30

Angle Bracket Hard S



- Use these for points bearing vertical loads.



Name (Single Piece)	Angle Bracket Hard S
Item No.	SFJ-A15
Name (Bolt+Nut Kit)	Angle Bracket Hard S Kit (Stainless)
Item No.	SFK-A15S

Kit Contents

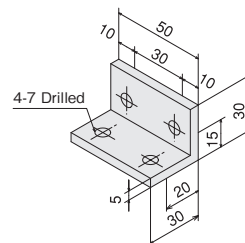
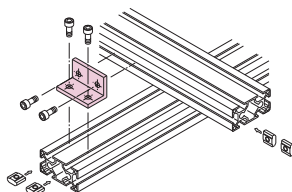
- Angle Bracket Hard S ×1
 - Hexagon Socket Head Bolt (M6×12) ×2
 - T Nut S (M6) ×2
- *The S Kit (Stainless) has stainless steel bolts and nuts.

Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Mass : 41.2g (single piece)
Environment : **RoHS10** Compliant

SF
40.45

Angle Bracket S 3060



Name (Single Piece)	Angle Bracket S 3060
Item No.	SFJ-A04
Name (Bolt+Nut Kit)	Angle Bracket S 3060 Kit (Stainless)
Item No.	SFK-A04S

Kit Contents

- Angle Bracket S3060 ×1
 - Hexagon Socket Head Bolt (M6×12) ×4
 - T Nut S (M6) ×4
- *The S 3060 Kit (Stainless) has stainless steel bolts and nuts.

Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Mass : 34g (single piece)
Environment : **RoHS10** Compliant



Additional
Processing List
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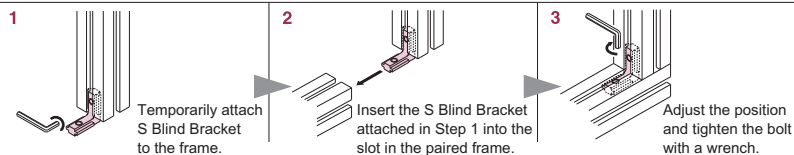
Technical
Data
→ P.103

Bracket

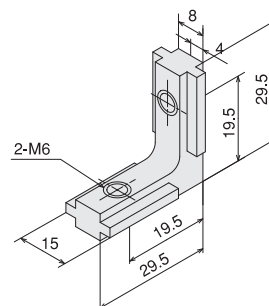
S Blind Bracket S



How to Install



Name	S Blind Bracket S
Item No.	SFK-601S



Materials/Technical Data

Material : Stainless Steel
(Includes set screw recess (M6×8) stainless steel x2)
Mass : 26g
Environment : **RoHS10** Compliant

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



Assembled Delivery
Service
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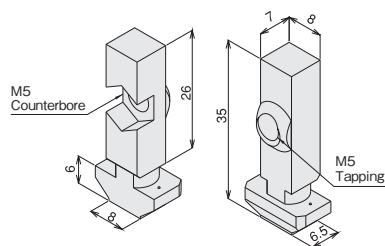
RoHS
→ P.162

Bracket

QC Joint S kit

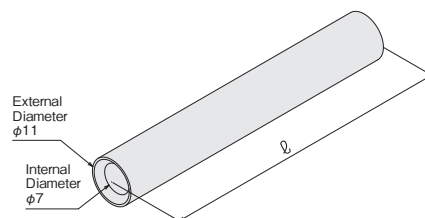


QC Joint S (common parts)



*The frame must have QC joint holes drilled.

S Round Brackets



	S Kit	S60 Kit
ℓ	12	42

Name	QC Joint S kit	QC Joint S60 Kit
Item No.	SFK-Q30	SFK-Q32

Kit Contents

Kit Name	QC Joint	Round Bracket	Bolt
QC Joint S Kit	QC Joint S ×1 Set	S Round Bracket 30×1	Hexagon Socket Head Bolt (M5×22) Stainless Steel×1
QC Joint S60 Kit		S Round Bracket 60×1	Hexagon Socket Head Bolt (M5×50) Stainless Steel×1

Materials/Technical Data

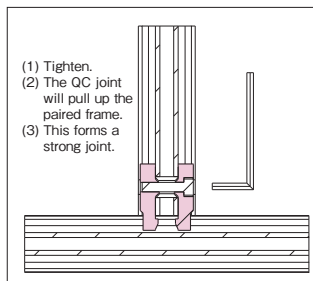
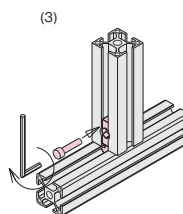
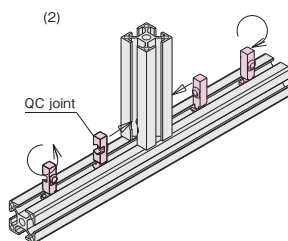
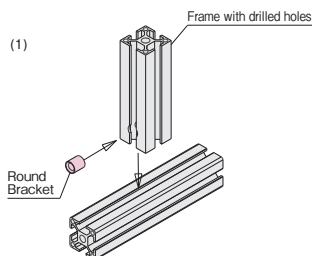
	QC Joint S	S Round Bracket
Material	: Stainless steel Conductive	Stainless steel
Mass	: 45g (S Kit)	63g (S60 Kit)
Environment	: RoHS10 Compliant	

QC Joint S

Features

Because the two frames are joined together with a pulling force, they easily achieve a right angle while preventing gaps. It is not necessary to insert nuts beforehand. This expedites assembly time while still providing a strong connection with a single bolt.

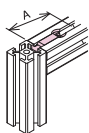
Assembly Process



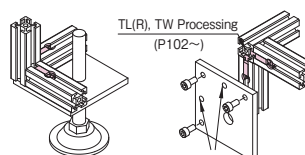
Notes for using QC joints

(1) On frames that have been processed for QC joints, a portion of the frame slot cannot be used.

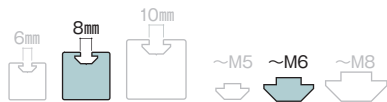
(2) Use caution when using in combination with plates from a level adjuster kit, etc.



Series	A dimensions(mm)
SF-30 Series	27



The QC joint and the mounting holes marked with * overlap, so tap the vertical frame and fix the plate in place at 3 points.



Additional
Processing List
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Data
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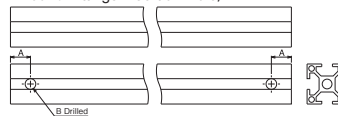
Bracket

QC Joint Kit Compatibility Chart

Slot Type	Frame Name	Frame Processing Symbols				
		QCS	QCW	QCC	QCV	QCY
1 Row × 1 Row	SF2-30•30	S Kit × 1	S Kit × 2	S Kit × 2	Not compatible	
1 Row × 2 Rows	SF2-30•60	S Kit × 2	S Kit × 4	S Kit × 2 / S60 Kit × 1	S60 Kit × 1	S60 Kit × 2
2 Rows × 2 Rows	SF2-60•60•2S	S60 Kit × 2	S60 Kit × 4		Not compatible	

QC Joint Frame Hole Processing Symbols

(Dimensions for the Location of QC Joint Round Fittings Insertion Hole)



	A Dimensions	B Dimensions
SF-20 Series	9.8	7.1
SF-30 Series	14.8	11.1
SF-40 Series	20	13.1
SF-45 Series	19.5	13.1

Processing Symbols Slot Type	QCS	QCW	QCC	QCV	QCY
1 Row × 1 Row					
1 Row × 2 Rows					
2 Rows × 2 Rows					

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



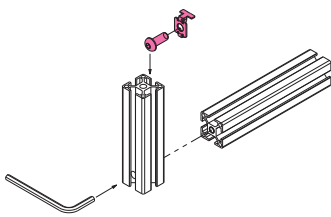
Assembled Delivery
Service
→ P.11



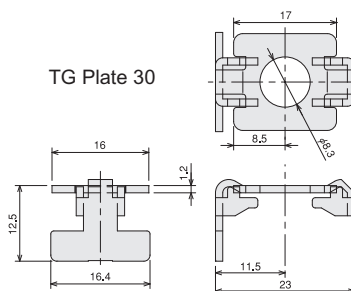
RoHS
→ P.162

Bracket

TG Joint 30 Kit



TG Plate 30



Materials/Technical Data

Material : SPCC (TG Plate 30)

Mass : 13g

Environment : **RoHS10** Compliant

Name	TG Joint 30 Kit
Item No.	SFK-206

*The frame must have holes drilled for TG Joints. (See below)

Kit Contents

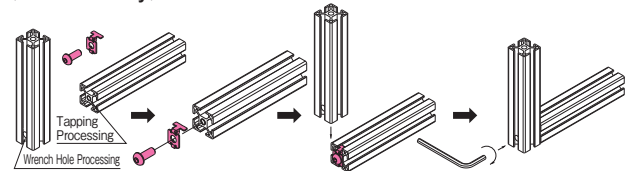
● TG Plate 30 × 1

● Hexagon Socket Button Bolt (M8×20) × 1

*Recommended Tightening Torque:
10.8 N·m (M6 equivalent)

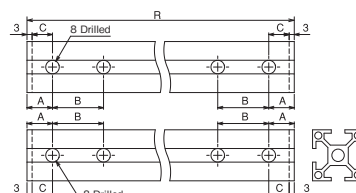
Symbols for processing holes in frames with TG Joints

〈TG Assembly〉



〈TG Joint Tapping Hole Position Dimensions〉

	A Dimension	B Dimension	C Dimension
SF30 Series	15	30	A-3 (12)
SF60-60-1S	30	—	—
SF50-1S Series	25	50	—



- ◆ **TG Joint** Tap the end of one frame, then temporarily attach the TG joint fittings. Next, fully tighten the bolts starting with the wrench hole on the other frame. Because the two frames are joined together with a pulling force, they easily achieve a right angle while preventing gaps. The outside joints will not protrude, creating a sleek appearance.

When using various TG joints, indicate the TG processing No. on the frame that you will drill wrench holes into. For TG joints, you must also indicate surface tapping on the frame on the other side that you will connect to. (See p.102~)

◆ 〈Specifications within frame cap outer dimensions〉 Option

Use the option on the right when you want to keep the frame cap within the outer dimensions (frame and surface position).
*Indicate the length without the frame cap (actual length used).

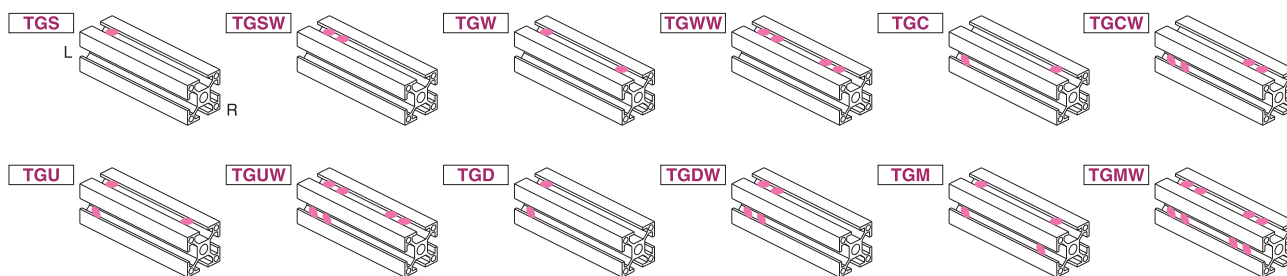
Item No. or Name	Length (mm)	Processing Symbols
Example Order SFF-304	ℓ=800	TGW

3 (A dimensions-3mm : Both End Surfaces)
3R (A dimensions-3mm : Only Right Side)
3L (A dimensions-3mm : Only Left Side)



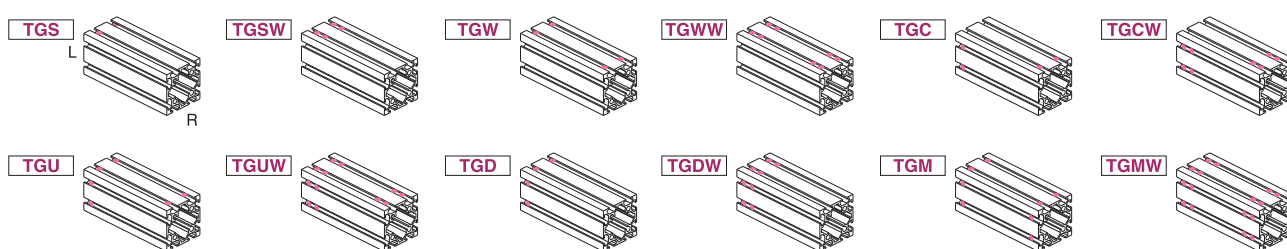
Slot Type 1 Row × 1 Row

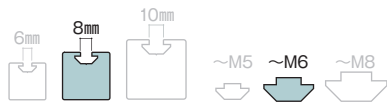
◆ Target Frame ... **SF2-30-30**



Slot Type 2 Rows × 2 Rows

◆ Target Frame ... **SF2-60-60-2S**





Additional
Processing List
→ P.95



Technical
Data
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Bracket

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

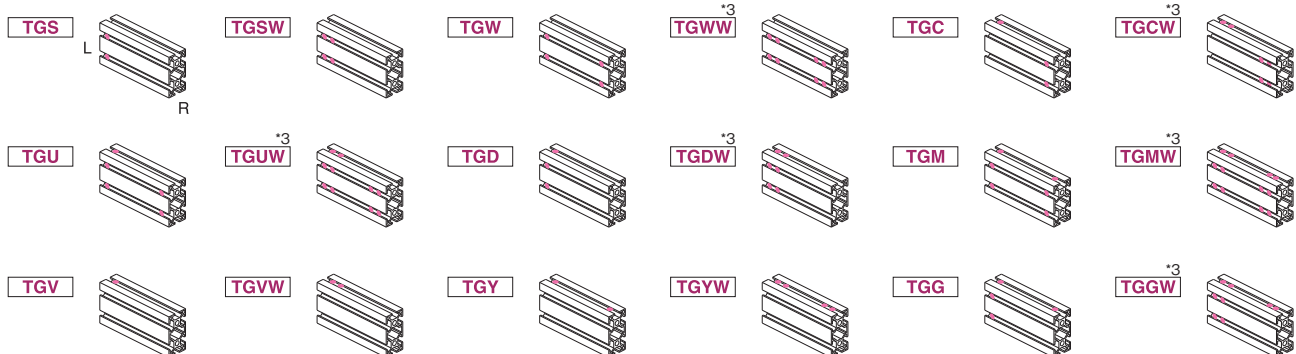
SF Additional
Processing

SF
Technical Data



Slot Type 1 Row × 2 Rows

◆ Target Frame ... SF2-30-60



Drawing Support
Software
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Design Support
Service
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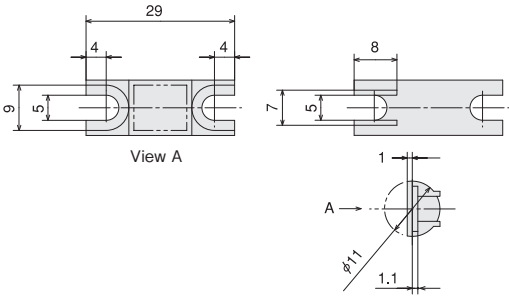
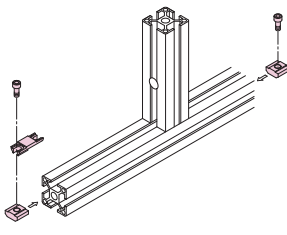
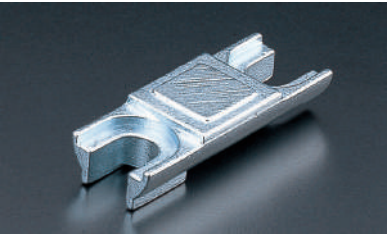
Assembled Delivery
Service
→ P.11



RoHS
→ P.162

Bracket

S Double Joint 30 Kit



Name	S Double Joint 30 Kit
Item No.	SFK-301S

*The frame must have holes drilled for S double joints. (See below)

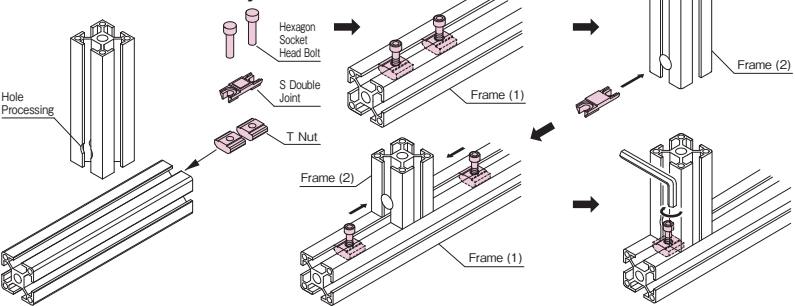
- **Kit Contents**
- S Double Joint 30 × 1
 - S T Nut S (M5) × 2
 - Hexagon Socket Head Bolt (M5×22) Stainless Steel × 2

■ **Materials/Technical Data**

Material	: Stainless Steel
Mass	: 16g
Environment	: RoHS10 Compliant

■ S Double Joint Frame Hole Processing Symbols

〈S Double Joint Assembly Content〉



〈S Double Joint Hole Position Dimensions〉

	A Dimension	B Dimension
SF30 Series	15	11.1
SF40 Series	20	13.1
SF45 Series	20	15.1
SF60-60-1S	20	15.1
SF80-80/1S/H	20	15.1

◆ S Double Joint Drill holes to insert S double joint fittings on frame (2), then insert nuts into frame (1) and fix it in place with bolts from both sides of the joint fittings.

Item No. or Name	Length (mm)	Processing Symbols
SFF-304	ℓ=800	WJS

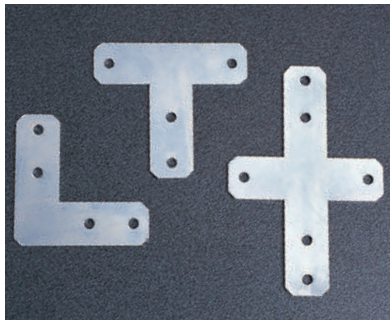
Frame		1 Row × 1 Row	1 Row × 2 Rows
Processing Symbols		SF2-30×30	SF2-30×60
WJS			
WJW			
WJC			

*Except 1F/2H Type

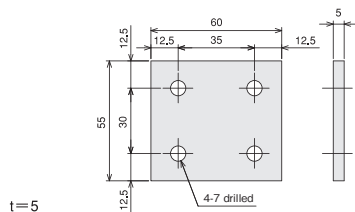


Bracket

S Plate Bracket



S Plate Bracket SG

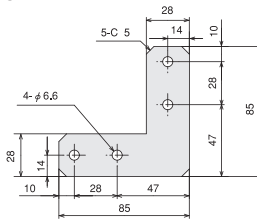


Name	S Plate Bracket SG	S Plate Bracket SG Kit
Item No.	SFJ-122S	SFK-122S

Kit Contents

- S Plate Bracket SG×1
- Hexagon Socket Head Bolt (M6x12) Stainless Steel×4
- ST Nut S (M6)×4

Plate Bracket S-L



Name	S Plate Bracket S-L	S Plate Bracket S-L Kit
Item No.	SFJ-104S	SFK-104S

Kit Contents

- S Plate Bracket S-L×1
- Hexagon Socket Head Bolt (M6x10) Stainless Steel×4
- ST Nut S (M6)×4

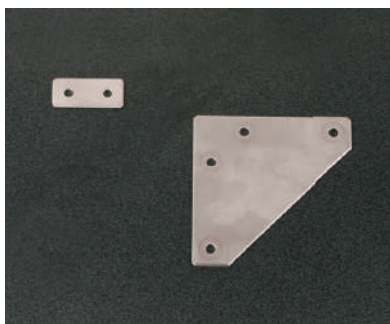
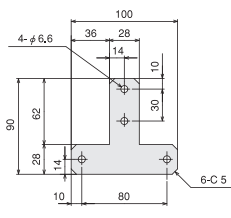


Plate Bracket S-T

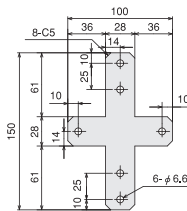


Name	S Plate Bracket S-T	S Plate Bracket S-T Kit
Item No.	SFJ-103S	SFK-103S

Kit Contents

- S Plate Bracket S-T×1
- Hexagon Socket Head Bolt (M6x10) Stainless Steel×4
- ST Nut S (M6)×4

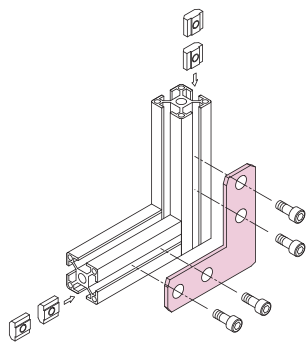
Plate Bracket S-+



Name	S Plate Bracket S-+	S Plate Bracket S-+ Kit
Item No.	SFJ-105S	SFK-105S

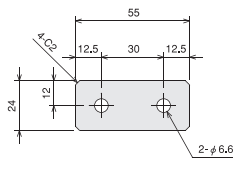
Kit Contents

- S Plate Bracket S-+×1
- Hexagon Socket Head Bolt (M6x10) Stainless Steel×6
- ST Nut S (M6)×6


Materials/Technical Data

Name	Mass(g)	Material	Environment
S Plate Bracket SG	125	SUS304	RoHS10 Compliant
S Plate Bracket S-L	87		
S Plate Bracket S-T	96		
S Plate Bracket S-+	135		
S Plate Bracket S-H2	29.6		
S Corner Extend Plate S	155.8		

S Plate Bracket S-H2

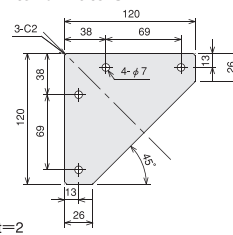


Name	S Plate Bracket S-H2	S Plate Bracket S-H2 Kit
Item No.	SFJ-125S	SFK-125S

Kit Contents

- S Plate Bracket S-H2×1
- Hexagon Socket Head Bolt (M6x10) Stainless Steel×2
- ST Nut S (M6)×2

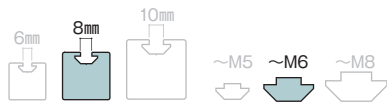
S Corner Extend Plate S



Name	S Corner Extend Plate S	S Corner Extend Plate S Kit
Item No.	SFJ-137S	SFK-137S

Kit Contents

- S Corner Extend Plate S×1
- Hexagon Socket Head Bolt (M6x10) Stainless Steel×4
- ST Nut S (M6)×4



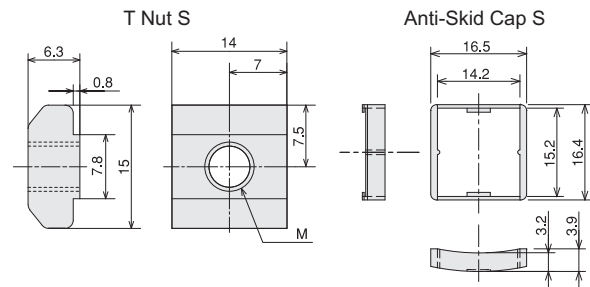
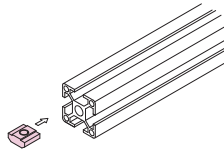
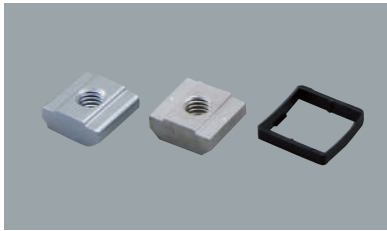
Additional
Processing List
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Technical
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Nut (for slot width 8mm)

T Nut S / Anti-Skid Cap S (50pcs/pack)

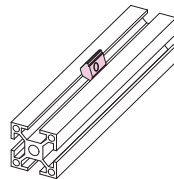


Name	T Nut S (M6) (ST Nut S (M6))	T Nut S (M5) (ST Nut S (M5))	T Nut S (M4) (ST Nut S (M4))	T Nut S (M3) (ST Nut S (M3))
Item No.	SFB-002 (SFN-TS6)	SFB-001 (SFN-TS5)	SFB-006 (SFN-TS4)	SFB-005 (SFN-TS3)
Name	Anti-Skid Cap S (50pcs/pack)			
Item No.	SFA-906			

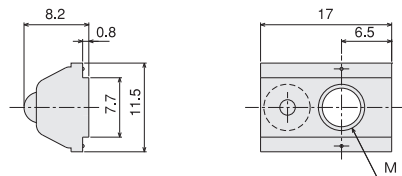
Materials/Technical Data

	T Nut S	S T Nute S	Anti-Skid Cap S
Material	: S10C equivalent	Stainless Steel Conductive	PA black
Mass	: 8g	8g	0.2g each
Environment	: RoHS10 Compliant		

S Easy Nut S (After)



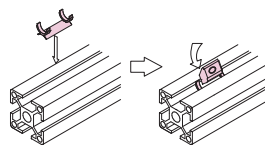
*Insert afterwards with one touch.
Anti-skid.



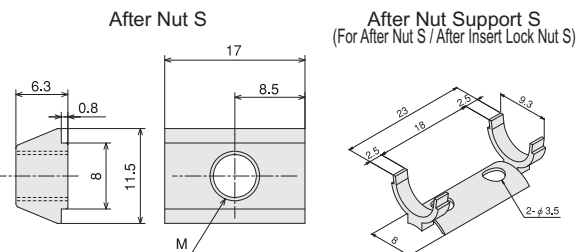
Materials/Technical Data

Material (Main Unit)	: Stainless Steel Conductive
(Attaching Part)	: Stainless Steel
Mass	: 6.6g
Environment	: RoHS10 Compliant

S After Nut S (After) / After Nut Support S (50pcs / pack)



*Made anti-skid by using in
combination with After Nut Support



Name	S After Nut S (M6)	S After Nut S (M5)	S After Nut S (M4)	S After Nut S (M3)
Item No.	SFN-AS6	SFN-AS5	SFN-AS4	SFN-AS3
Name	After Nut Support S (50pcs/pack)			
Item No.	SFA-9A2			

Materials/Technical Data

	S After Nut S	After Nut Support S
Material	: Stainless Steel Conductive	PP
Mass	: 7g	0.2g each
Environment	: RoHS10 Compliant	



Drawing Support
Software
→ P.10



Design Support
Service
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Assembled Delivery
Service
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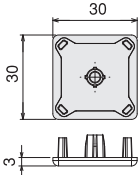
RoHS
→ P.162

Cap

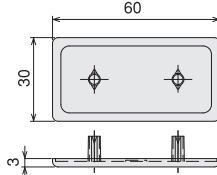
Frame Cap



Frame Cap N3030
Mass / 2.6g

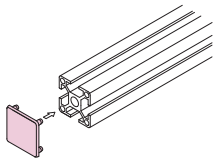
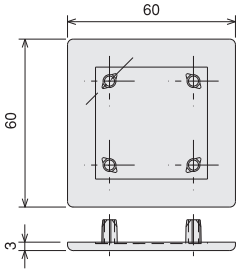


Frame Cap 3060
Mass / 4.8g



*Use 2 for
SF-30 × 120 frames

Frame Cap 60602S
Mass / 12.6g



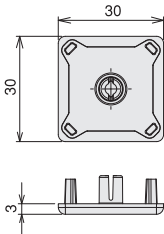
Name	Frame Cap N 3030 (Black)	Frame Cap 3060 (Black)	Frame Cap 60602S (Black)
Item No.	SFA-033B	SFA-005	SFA-011

■Materials/Technical Data
Material : PA
Mass : In Diagram
Environment : **RoHS10** Compliant

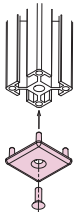
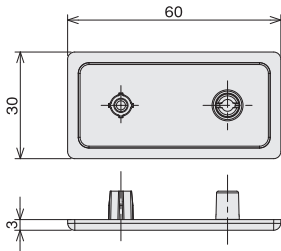
Frame Cap Lock Type



Frame Cap Lock Type
N 3030



Frame Cap Lock Type
3060

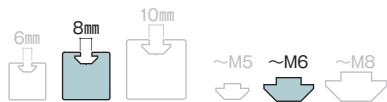


The bolts included make it possible
to secure without tapping the frame.

Name	Frame Cap Lock Type N 3030 (Black)	Frame Cap Lock Type 3060 (Black)
Item No.	SFK-05LB	SFK-04L

Comes with cross head recessed countersink screw (M4×12) chromate black x1

■Materials/Technical Data
Material : PA(Cap)
Mass : 4.0g(3030), 5.9g(3060)
Environment : **RoHS10** Compliant



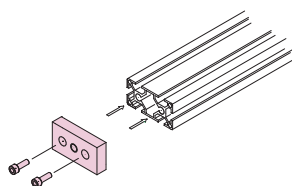
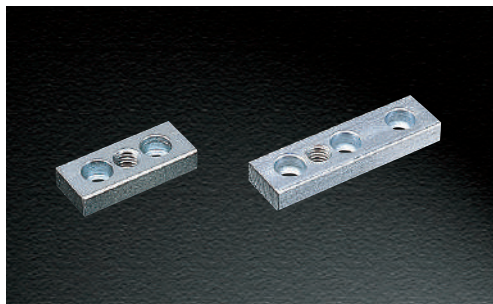
Additional
Processing List
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Foot

Foot Base



*The surface facing the frame requires tapping.
See p.102 for additional processing.

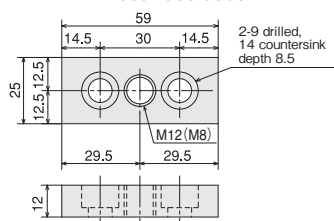
Common Specifications

Material : SUS304(Stainless)

Environment : **RoHS10** Compliant

*The kit (stainless) has stainless steel bolts and nuts.

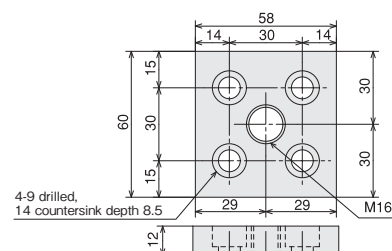
Foot Base 3060



Mass : 130g

Kit Contents : Foot Base 3060 x1
Hexagon Socket Head Bolt (M8x20) x2

Foot Base 60602S

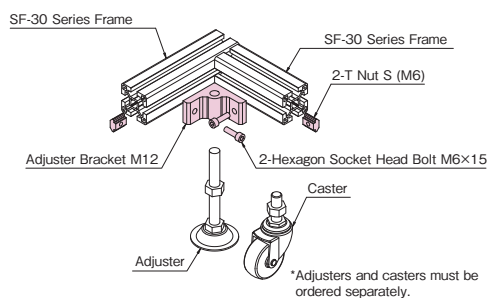


Mass : 259g

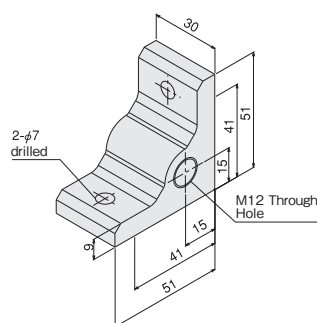
Kit Contents : Foot Base 60602S x1
Hexagon Socket Head Bolt (M8x20) x4

Name	Foot Base 3060 (M12) (Stainless)	Foot Base 60602S (Stainless)
Item No.	SFK-56AS	SFK-58AS

Adjuster Bracket M12 S



*Adjusters and casters must be ordered separately.



■ **Kit Contents**

- Adjuster Bracket M12x1
- T Nut S (M6)x2
- Hexagon Socket Head Bolt (M6x15)x2

Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Mass : 80g (single piece)
107g (kit)
Environment : **RoHS10** Compliant

Name (Single Piece)	Adjuster Bracket M12
Item No.	SFJ-7E1
Name (Bolt+Nut Kit)	Adjuster Bracket M12 S Kit
Item No.	SFK-7E1



Drawing Support
Software
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Design Support
Service
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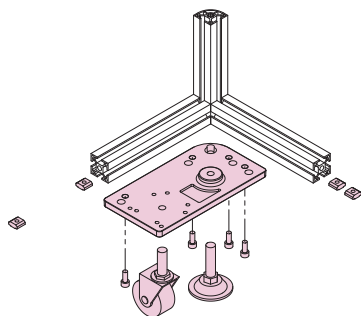
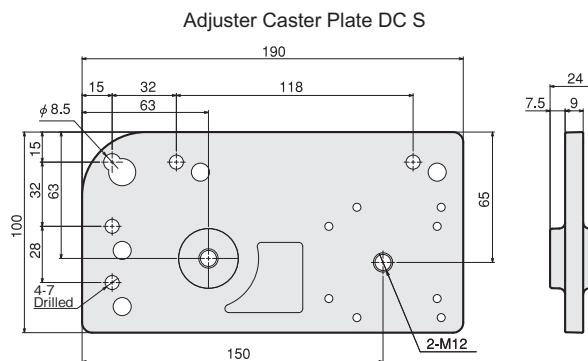
Assembled Delivery
Service
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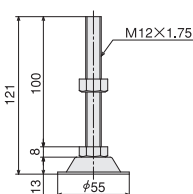
RoHS
→ P.162

Foot

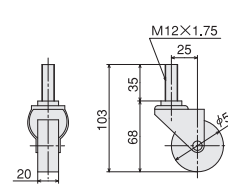
Adjuster Caster Plate DC S



Adjuster B M12 (stainless)



Caster A (stainless)



Name (Single Piece)	Adjuster Caster Plate DC S
Item No.	SFK-913
Name (Kit)	Adjuster Caster Plate DC S Kit (Stainless)
Item No.	SFK-920

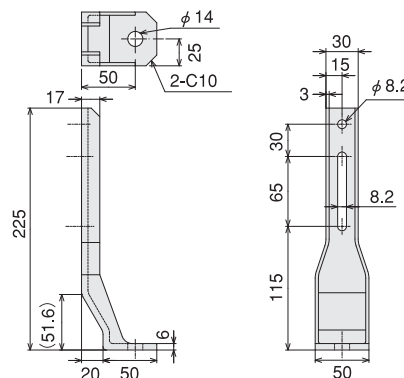
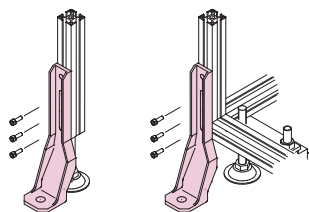
Kit Contents

- Adjuster Caster Plate DC S×1
 - Caster A×1
 - Adjuster B M12×1
 - T Nut S (M6)×4
 - Hexagon Socket Head Bolt (M6×16)×4
 - Hexagon nut M12×1
- *The DC S Kit (stainless) has stainless specifications for T-nuts, bolts, and caster adjusters.

Materials/Technical Data

Material : Aluminum Die Cast
Mass : 440g (1957g/kit)
Environment : **RoHS10** Compliant

Anchor Bracket



Name (Single Piece)	Anchor Bracket
Item No.	SFJ-70S
Name (Bolt+Nut Kit)	Anchor Bracket S Kit
Item No.	SFK-70S

Kit Contents

- Anchor Bracket×1
- ST Nut S (M6)×3
- Hexagon Socket Head Bolt (M6×14) stainless×3
- Flat Washer (M6) stainless×3

Materials/Technical Data

Material : Stainless
Mass : 598g (single piece)
Environment : **RoHS10** Compliant



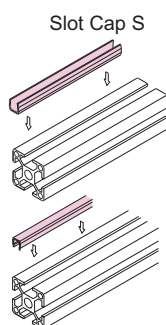
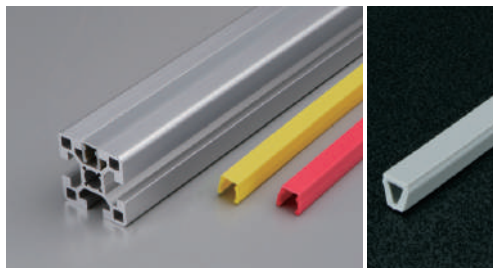
Additional
Processing List
→ P.95



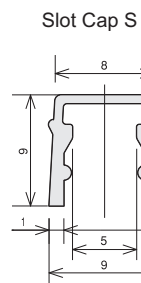
Technical
Data
→ P.103

Accessory

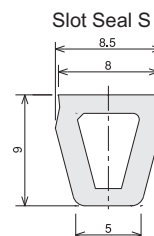
Slot Cap S / Slot Seal S



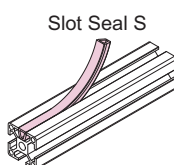
Slot Cap S



Slot Cap S



Slot Seal S



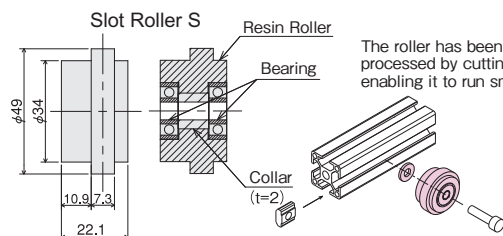
Slot Seal S

Name	(Light Gray)	Slot Cap S (L=2000mm)	(Yellow)	(Red)
Item No.	SFA-104G	SFA-104Y	SFA-104R	
Name	Slot Seal S (L=5000mm)			
Item No.	SFA-171			

Materials/Technical Data

	Slot Cap S	Slot Seal S
Material	PE	Elastomer
Unit Mass	25g/m	45g/m
Environment	RoHS10 Compliant	

Slot Roller S



Slot Roller S

Resin Roller

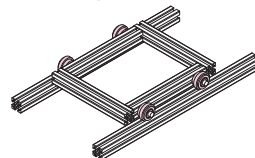
Bearing

Collar (t=2)

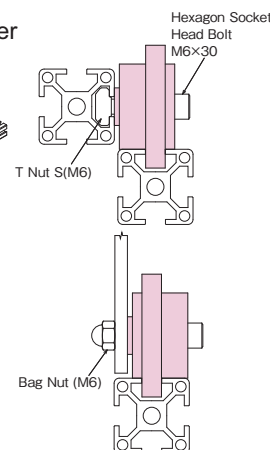
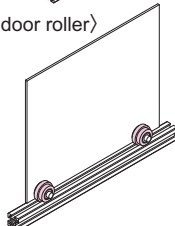
The roller has been processed by cutting, enabling it to run smoothly.

Example Using Slot Roller

(As a sliding table)



(As a door roller)



Name	Slot Roller S
Item No.	SFK-806

Kit Contents

- Slot Roller S×1
- Bearing×2
- Collar×1
- Flat Washer (M6) stainless×1

Materials/Technical Data

Material	PA6(Resin Roller) Copper(Bearing) S45C(Collar)
Mass	45g
Max Load	12kg each
Environment	RoHS10 Compliant

*Attachment bolt size M6

*Recommended tightening torque 9.0N·m



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



Assembled Delivery
Service
→ P.11



RoHS
→ P.162

SF
20

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF
Common parts

Door Part

Foot Component

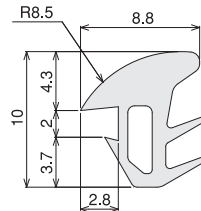
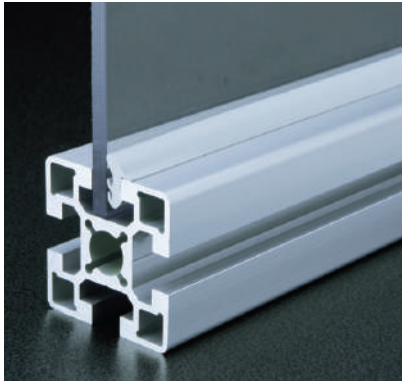
Bolt Nut

SF Additional
Processing

SF
Technical Data

Door Part

Panel Clamp



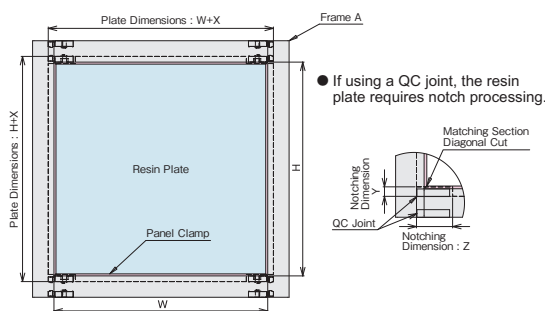
Name	Panel Clamp 30 (L=5000mm) (Light Gray)
Item No.	SFA-125

■ Materials/Technical Data

Material : CSM60 $\pm$ 5° (Synthetic Rubber)
Mass : 51.4g each
Environment : **RoHS6** Compliant

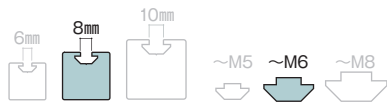
How to Attach the Panel Clamp

〈Installation Dimensions / Part Selection Guide〉



Frame A	Panel Clamp	Resin Plate Thickness	QC Joint	X	Y	Z
SF-30 Series	Panel Clamp 2030/30	3mm or 5mm	QC Joint S	16	9	36

- When assembling the framework, insert the resin panel into the slot.
- Push the panel clamp into the gap between the resin panel and the frame groove.
- The cover can be fixed in place neatly, preventing the resin from rattling.



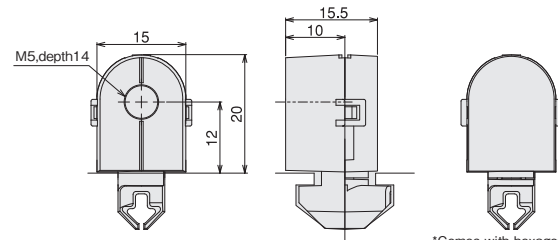
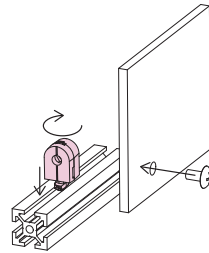
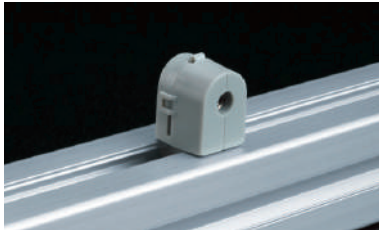
Additional
Processing List
→ P.95



Technical
Data
→ P.103

Door Part

Cover Holder S with Cap



*Comes with hexagon nut M5 (stainless steel) x1

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

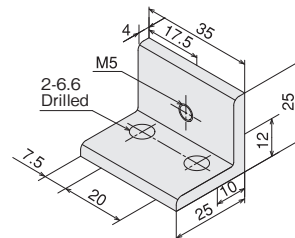
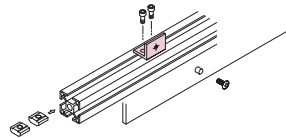
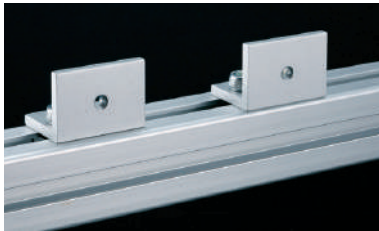
SF
Technical Data

Name	Cover Holder S with Cap
Item No.	SFA-KH6

Materials/Technical Data

Material : PA
Mass : 4g
Environment : RoHS10 Compliant

Cover Support S



Materials/Technical Data

Material : A6063
Anodized Surface Treatment
Mass : 17g
Environment : RoHS10 Compliant

*Can be specially ordered with black anodized treatment.

Kit Contents

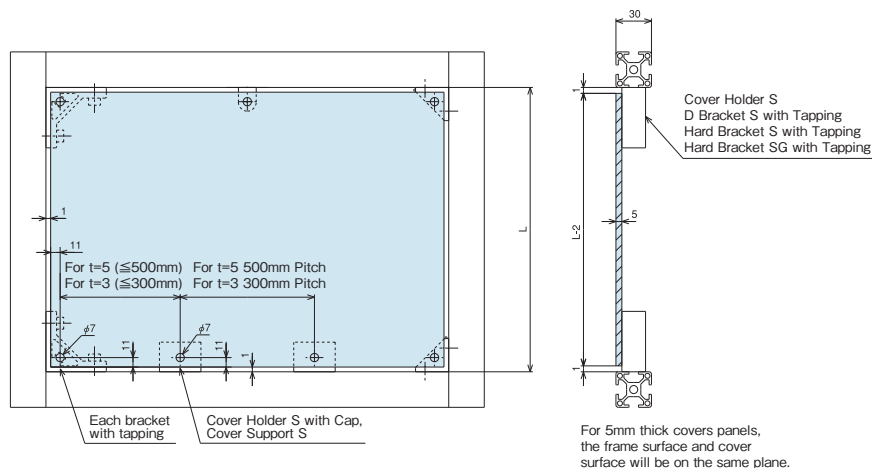
- Cover Support S(or L6) ×1
- Hexagon Socket Head Bolt (M6×12) ×2
- T Nut S (M6) ×2
- Truss Screw (M5×10) ×1

*The S Kit (stainless) has stainless steel bolts and nuts.

Name (Single Piece)	Cover Support S
Item No.	SFJ-K02
Name (Bolt・Nut Kit)	Cover Support S Kit (Stainless)
Item No.	SFK-K02S

How to Attach the Cover

〈Cover Holder S with Cap, Cover Support S, Resin Plate Dimension Guide〉



For 5mm thick covers panels, the frame surface and cover surface will be on the same plane.



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



Assembled Delivery
Service
→ P.11

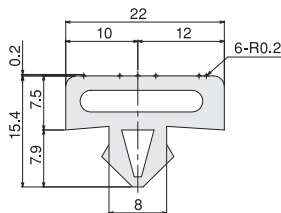


RoHS
→ P.162

Door Part

SF
20

Seal Cover

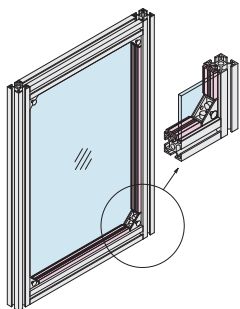
SF
30

Materials/Technical Data

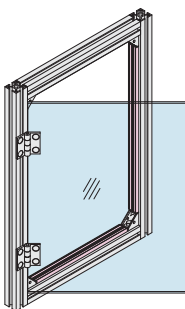
Material : CSM60 $\pm$ 5' (Synthetic Rubber)
(Light Gray)
Mass : 293g each
Environment : **RoHS6** Compliant

Name	Seal Cover S (L=2500mm) (Light Gray)
Item No.	SFA-133

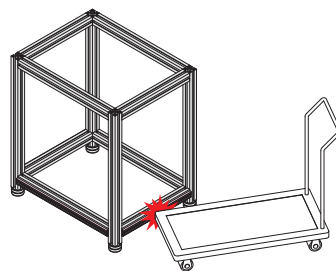
How to Use the Seal Cover



Can fill the gap between the resin panel and the frame.



Can be used as a stopper when using resin doors.



Can also be used to protect aluminum frames.

SF
40.45SF
Common parts

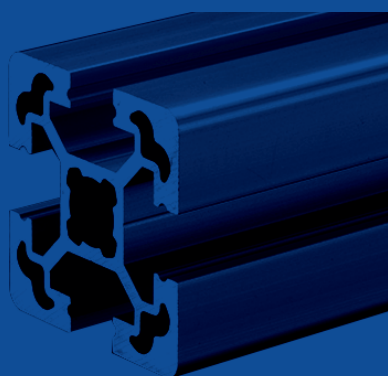
Door Part

Foot Component

Bolt Nut

SF Additional Processing

SF Technical Data



STANDARD FRAME

SF-40·45

L size

Frame

SF
20

SF2-40·40



Frame



Bracket



Nut



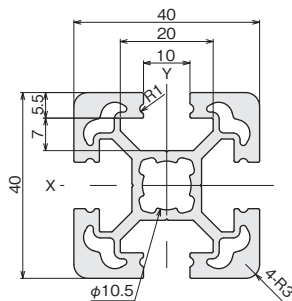
Cap

Foot
Component

Accessory



Door Part

SF
30

Frame



Bracket



Nut



Cap

Foot
Component

Accessory



Door Part

Name	SF2-40·40 Standard Length (L=4000mm)	SF2-40·40 L=50~4000mm
Item No.	SFF-422	SFF-424

Materials/Technical Data

Material : A6N01SS-T5
Anodized Surface Treatment
Environment : **RoHS10** Compliant
Geometrical Moment of Inertia :
 $I_x = 10.73 \times 10^4 \text{ mm}^4$
 $I_y = 10.73 \times 10^4 \text{ mm}^4$
Section Modulus :
 $Z_x = 5.37 \times 10^3 \text{ mm}^3$
 $Z_y = 5.37 \times 10^3 \text{ mm}^3$
Unit Mass : 1.65kg/m
Resistance : $10^9 \sim 10^9$
(Antistatic Elimination Level)

Compatible Frame Cap (p.72)

Frame Cap N 4040 (Black) **SFA-034B**
Frame Cap Lock Type N 4040 (Light Gray) **SFK-06LB**

SF
40.45

Frame



Bracket



Nut



Cap

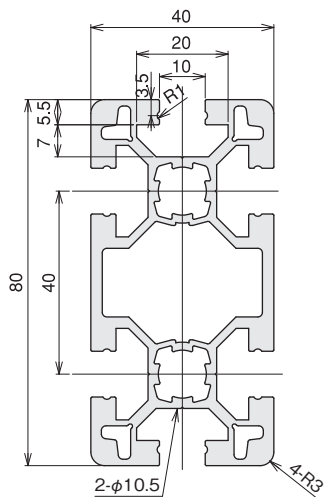
Foot
Component

Accessory



Door Part

SF2-40·80



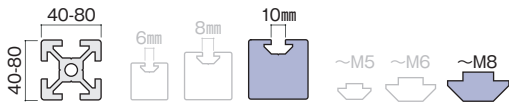
Materials/Technical Data

Material : A6N01SS-T5
Anodized Surface Treatment
Environment : **RoHS10** Compliant
Geometrical Moment of Inertia :
 $I_x = 72.40 \times 10^4 \text{ mm}^4$
 $I_y = 19.92 \times 10^4 \text{ mm}^4$
Section Modulus :
 $Z_x = 18.10 \times 10^3 \text{ mm}^3$
 $Z_y = 9.96 \times 10^3 \text{ mm}^3$
Unit Mass : 2.80kg/m
Resistance : $10^9 \sim 10^9$
(Antistatic Elimination Level)

Compatible Frame Cap (p.72)

Frame Cap N 4080 (Black) **SFA-007**
Frame Cap Lock Type N 4080 (Black) **SFK-062**

Name	SF2-40·80 Standard Length (L=4000mm)	SF2-40·80 L=50~4000mm
Item No.	SFF-432	SFF-434



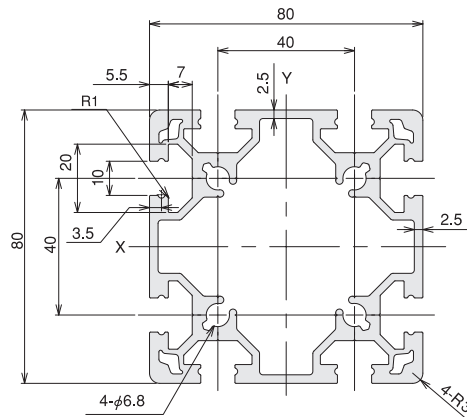
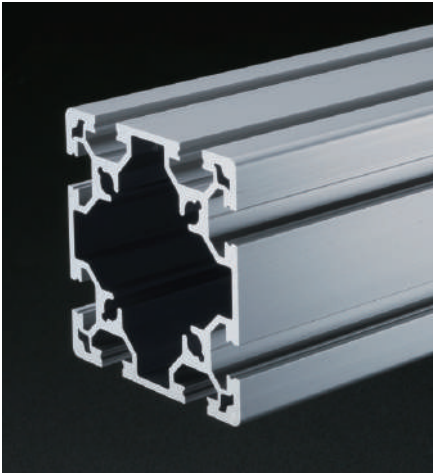
Additional
Processing List
→ P.95



Technical
Data
→ P.103

Frame

SF2-80·80



Materials/Technical Data

Material : A6N01SS-T5
Anodized Surface Treatment
Environment : **RoHS10** Compliant
Geometrical Moment of Inertia :
 $I_x = 129.9 \times 10^4 \text{ mm}^4$
 $I_y = 129.9 \times 10^4 \text{ mm}^4$
Section Modulus :
 $Z_x = 32.48 \times 10^3 \text{ mm}^3$
 $Z_y = 32.48 \times 10^3 \text{ mm}^3$
Unit Mass : 4.46 kg/m
Resistance : $10^9 \sim 10^{10} \Omega$
(Antistatic Elimination Level)

Compatible Frame Cap (p.72)
Frame Cap 8080 (Black) SFA-008

SF 20

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 30

Frame

Bracket

Nut

Cap

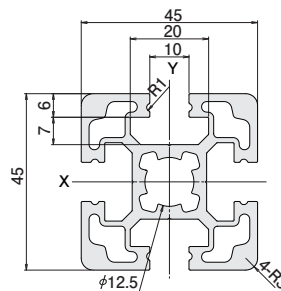
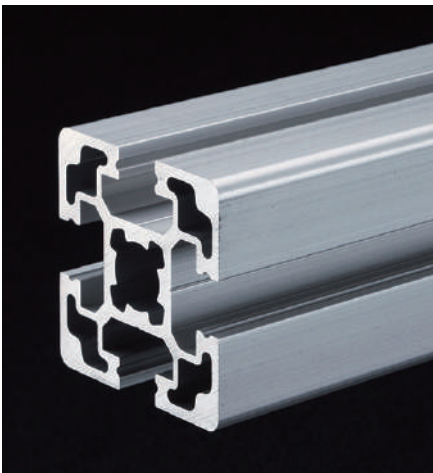
Foot Component

Accessory

Door Part

Name	SF2-80·80 Standard Length (L=4000mm)	SF2-80·80 L=50~4000mm
Item No.	SFF-832	SFF-834

SF2-45·45



Materials/Technical Data

Material : A6N01SS-T5
Anodized Surface Treatment
Environment : **RoHS10** Compliant
Geometrical Moment of Inertia :
 $I_x = 15.66 \times 10^4 \text{ mm}^4$
 $I_y = 15.66 \times 10^4 \text{ mm}^4$
Section Modulus :
 $Z_x = 6.96 \times 10^3 \text{ mm}^3$
 $Z_y = 6.96 \times 10^3 \text{ mm}^3$
Unit Mass : 1.98 kg/m
Resistance : $10^9 \sim 10^{10} \Omega$
(Antistatic Elimination Level)

Compatible Frame Cap (p.72)
Frame Cap N 4545 (Black) SFA-035B
Frame Cap Lock Type N 4545 (Black) SFK-07LB

SF 40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF Common parts

Door Part

Foot Component

Bolt Nut

SF Additional
Processing

SF
Technical Data

Name	SF2-45·45 Standard Length (L=4000mm)	SF2-45·45 L=50~4000mm
Item No.	SFF-442	SFF-444



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



Assembled Delivery
Service
→ P.11



RoHS
→ P.162

Frame

SF
20

SF2-45·90



Frame



Bracket



Nut



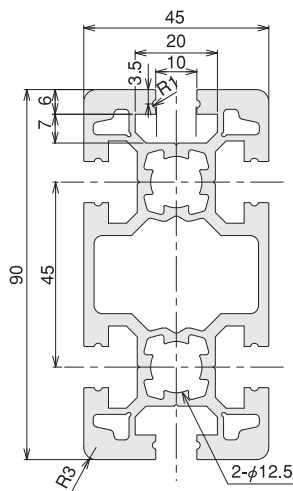
Cap

Foot
Component

Accessory



Door Part



Materials/Technical Data

Material : A6N01SS-T5
Anodized Surface Treatment
Environment : **RoHS10** Compliant
Geometrical Moment of Inertia :
 $I_x = 129.24 \times 10^4 \text{ mm}^4$
 $I_y = 33.32 \times 10^4 \text{ mm}^4$
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
Resistance : $10^9 \sim 10^{10} \Omega$
(Antistatic Elimination Level)

Name	SF2-45·90 Standard Length (L=4000mm)	SF2-45·90 L=50~4000mm
Item No.	SFF-472	SFF-474

Compatible Frame Cap (p.72)

Frame Cap 4590 (Black) **SFA-004**
Frame Cap Lock Type 4590 (Black) **SFK-063**

SF
40.45

SF2-90·90



Frame



Bracket



Nut



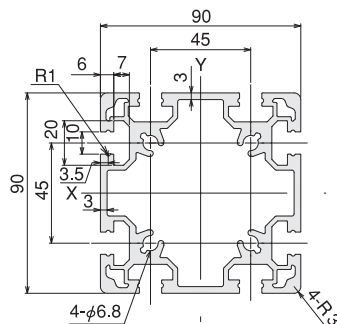
Cap

Foot
Component

Accessory



Door Part



Materials/Technical Data

Material : A6N01SS-T5
Anodized Surface Treatment
Environment : **RoHS10** Compliant
Geometrical Moment of Inertia :
 $I_x = 210.49 \times 10^4 \text{ mm}^4$
 $I_y = 210.49 \times 10^4 \text{ mm}^4$
Section Modulus :
 $Z_x = 46.76 \times 10^3 \text{ mm}^3$
 $Z_y = 46.76 \times 10^3 \text{ mm}^3$
Unit Mass : 5.70kg/m
Resistance : $10^9 \sim 10^{10} \Omega$
(Antistatic Elimination Level)

Name	SF2-90·90 Standard Length (L=4000mm)	SF2-90·90 L=50~4000mm
Item No.	SFF-922	SFF-924

Compatible Frame Cap (p.72)

Frame Cap 9090 (Black) **SFA-016**

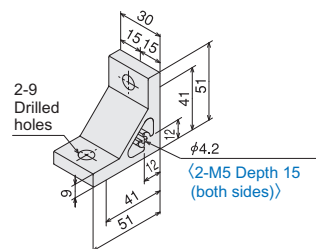
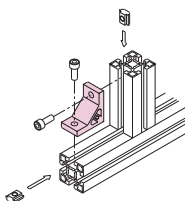




Bracket

Use threaded parts for installation of the side surface cover. (See p.76 for details.)

Hard Bracket L



Name (Single Piece)	Hard Bracket L (Hard Bracket L With Tap)
Item No.	SFJ-N05 (SFJ-N05T)
Name (Bolt+Nut Kit)	Hard Bracket L Kit (Stainless) (Hard Bracket L With Tap Kit (Stainless))
Item No.	SFK-N05S (SFK-N05P)

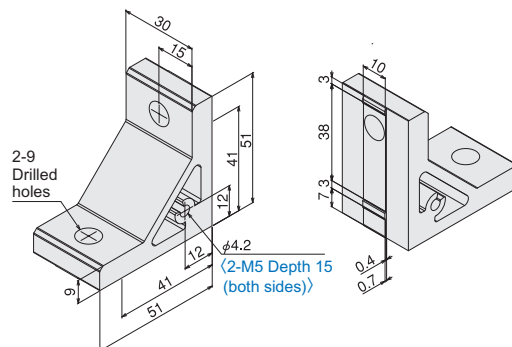
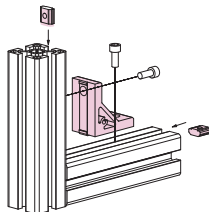
Kit Contents

- Hard Bracket L (with tapping) ×1
 - Hexagon Socket Head Bolt (M8×20)×2
 - T Nut L (M8)×2
- *The L Kit (Stainless) has stainless steel bolts and nuts.

Materials/Technical Data

Material	Aluminum Extrusion Anodized Surface Treatment Perpendicular Machined Finish
Mass	: 66g (single piece)
Environment	: RoHS10 Compliant

Hard Bracket L With Stopper



Name (Single Piece)	Hard Bracket L With Stopper (Hard Bracket L With Stopper and Tap)
Item No.	SFJ-N64 (SFJ-N64T)
Name (Bolt+Nut Kit)	Hard Bracket L With Stopper Kit (Stainless) (Hard Bracket L With Stopper and Tap Kit (Stainless))
Item No.	SFK-N64S (SFK-N64P)

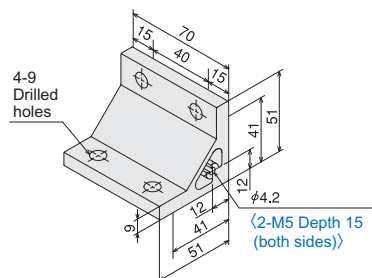
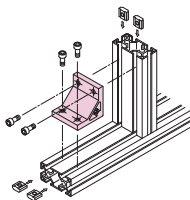
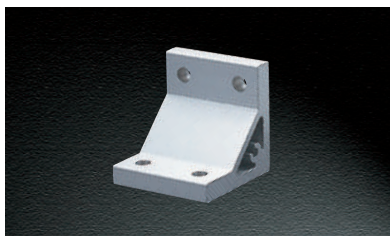
Kit Contents

- Hard Bracket L With Stopper (with tapping) ×1
 - Hexagon Socket Head Bolt (M8×20)×2
 - T Nut L (M8)×2
- *The Kit (Stainless) has stainless steel bolts and nuts.

Materials/Technical Data

Material	Aluminum Extrusion Anodized Surface Treatment Perpendicular Machined Finish With Rotation Stopper
Mass	: 67g (single piece)
Environment	: RoHS10 Compliant

Hard Bracket L4080



Name (Single Piece)	Hard Bracket L4080 (Hard Bracket L4080 With Tap)
Item No.	SFJ-N06 (SFJ-N06T)
Name (Bolt+Nut Kit)	Hard Bracket L4080 Kit (Stainless) (Hard Bracket L4080 With Tap Kit (Stainless))
Item No.	SFK-N06S (SFK-N06P)

Kit Contents

- Hard Bracket L4080 (with tapping) ×1
 - Hexagon Socket Head Bolt (M8×20) ×4
 - T Nut L (M8) ×4
- *The Kit (Stainless) has stainless steel bolts and nuts.

Materials/Technical Data

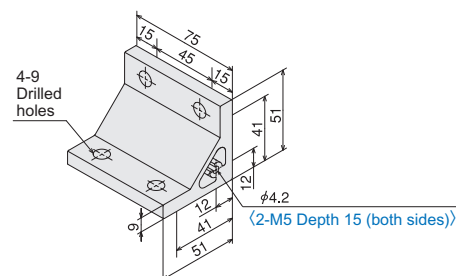
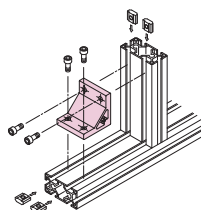
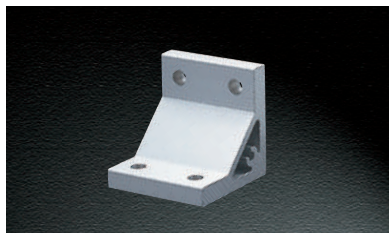
Material	Aluminum Extrusion Anodized Surface Treatment Perpendicular Machined Finish
Mass	: 154g (single piece)
Environment	: RoHS10 Compliant



Bracket

Use threaded parts for installation of the side surface cover. (See p.76 for details.)

Hard Bracket L4590



Name (Single Piece)	Hard Bracket L4590 (Hard Bracket L4590 With Tap)
Item No.	SFJ-N08 (SFJ-N08T)
Name (Bolt+Nut Kit)	Hard Bracket L4590 Kit (Stainless) (Hard Bracket L4590 With Tap Kit (Stainless))
Item No.	SFK-N08S (SFK-N08P)

Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Perpendicular Machined Finish

Mass : 168g (single piece)

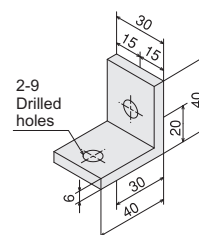
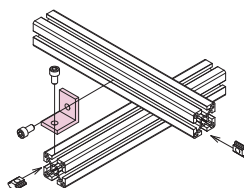
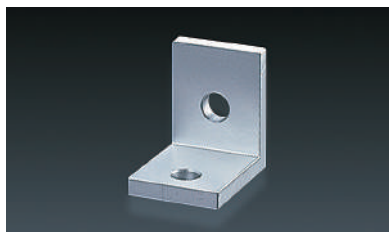
Environment : **RoHS10** Compliant

Kit Contents

- Hard Bracket L4590 (with tapping) ×1
- Hexagon Socket Head Bolt (M8×20) ×4
- T Nut L (M8) ×4

*The Kit (Stainless) has stainless steel bolts and nuts.

Angle Bracket L40



Name (Single Piece)	Angle Bracket L40
Item No.	SFJ-A05

Name (Bolt+Nut Kit)	Angle Bracket L40 Kit (Stainless)
Item No.	SFK-A05S

Materials/Technical Data

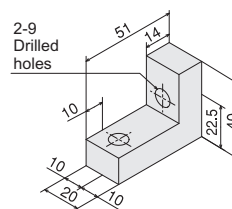
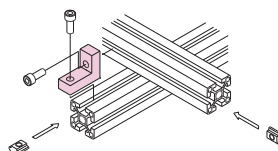
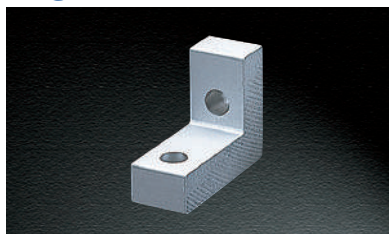
Material : Aluminum Extrusion
Anodized Surface Treatment
Mass : 34g (single piece)
Environment : **RoHS10** Compliant

Kit Contents

- Angle Bracket L40 × 1
- Hexagon Socket Head Bolt (M8×15) × 2
- T Nut L (M8) × 2

*The Kit (Stainless) has stainless steel bolts and nuts.

Angle Bracket L45



Name (Single Piece)	Angle Bracket L45
Item No.	SFJ-007
Name (Bolt+Nut Kit)	Angle Bracket L45 Kit (Stainless)
Item No.	SFK-007S

■ Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Mass : 52g (single piece)
Environment : **RoHS10** Compliant

■ Kit Contents

- Angle Bracket L45 × 1
- Hexagon Socket Button Bolt (M8×25) × 2
- T Nut | (M8) × 2

*The Kit (Stainless) has stainless steel bolts and nuts.

*Recommended Tightening Torque:
10.8 N·m (M6 equivalent)



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Design Support Service
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Assembled Delivery Service
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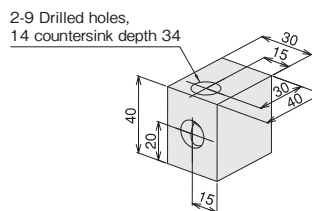
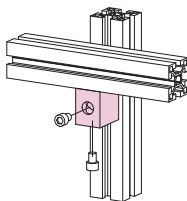


RoHS
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Bracket

SF
20

Angle Bracket Hard L40



Name (Single Piece)	Angle Bracket Hard L40
Item No.	SFJ-A16
Name (Bolt+Nut Kit)	Angle Bracket Hard L40 Kit (Stainless)
Item No.	SFK-A16S

Kit Contents

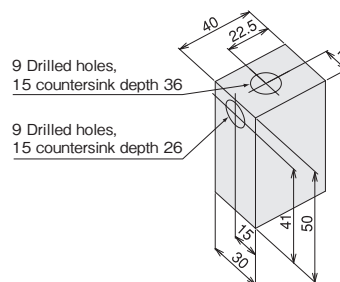
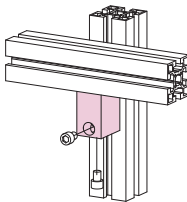
- Angle Bracket Hard L40 ×1
 - Hexagon Socket Head Bolt (M8×15) ×2
 - T Nut L (M8) ×2
- *The Kit (Stainless) has stainless steel bolts and nuts.

Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Mass : 103g (single piece)
Environment : RoHS10 Compliant

SF
30

Angle Bracket Hard L45



Name (Single Piece)	Angle Bracket Hard L45
Item No.	SFJ-A17
Name (Bolt+Nut Kit)	Angle Bracket Hard L45 Kit (Stainless)
Item No.	SFK-A17S

Kit Contents

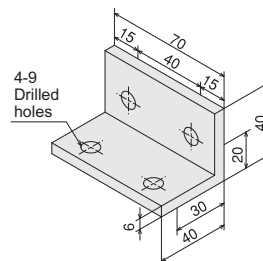
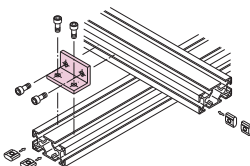
- Angle Bracket Hard L45 ×1
 - Hexagon Socket Head Bolt (M8×25) ×2
 - T Nut L (M8) ×2
- *The Kit (Stainless) has stainless steel bolts and nuts.

Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Mass : 135g (single piece)
Environment : RoHS10 Compliant

SF
40.45

Angle Bracket L4080



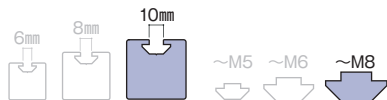
Name (Single Piece)	Angle Bracket L4080
Item No.	SFJ-A06
Name (Bolt+Nut Kit)	Angle Bracket L4080 Kit (Stainless)
Item No.	SFK-A06S

Kit Contents

- Angle Bracket L4080 ×1
 - Hexagon Socket Head Bolt (M8×15) ×4
 - T Nut L (M8) ×4
- *The Kit (Stainless) has stainless steel bolts and nuts.

Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Mass : 78g (single piece)
Environment : RoHS10 Compliant



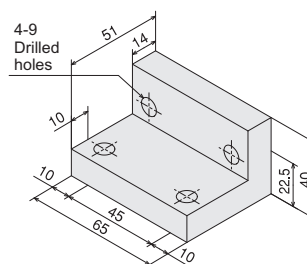
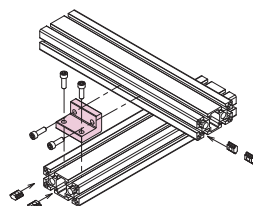
Additional
Processing List
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Technical
Data
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Bracket

Angle Bracket L4590



Name (Single Piece)	Angle Bracket L4590
Item No.	SFJ-A08
Name (Bolt+Nut Kit)	Angle Bracket L4590 Kit (Stainless)
Item No.	SFK-A08S

Kit Contents

- Angle Bracket Hard L4590 ×1
 - Hexagon Socket Head Bolt (M8×25) ×4
 - T Nut L (M8) ×4
- *The Kit (Stainless) has stainless steel bolts and nuts.

Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Mass : 182g (single piece)
Environment : RoHS10 Compliant

*Recommended Tightening Torque:
10.8 N·m (M6 equivalent)

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

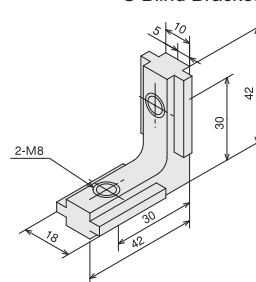
SF Additional
Processing

SF
Technical Data

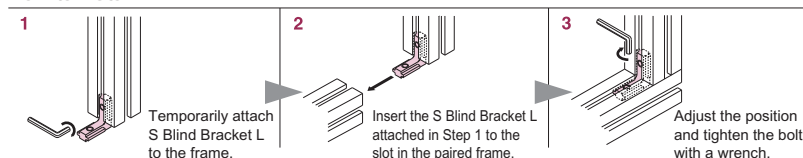
S Blind Bracket L



S Blind Bracket L



How to Install



Name	S Blind Bracket L
Item No.	SFK-602S

Materials/Technical Data

Material : Stainless Steel
(Includes set screw recess (M8×10) stainless steel x2)
Mass : 70g
Environment : RoHS10 Compliant



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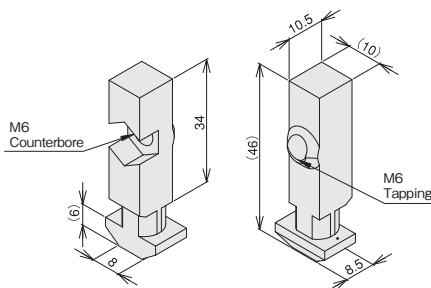
RoHS
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Bracket

QC Joint L

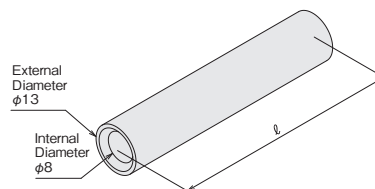


QC Joint L (common parts)



*The frame must have QC joint holes drilled.

L Round Bracket



	L40 Kit	L45 Kit	L80 Kit	L90 Kit
l	15	19	55	64

Name	QC Joint L40 Kit	QC Joint L45 Kit	QC Joint L80 Kit	QC Joint L90 Kit
Item No.	SFK-Q40	SFK-Q41	SFK-Q43	SFK-Q44

Kit Contents

Kit Name	QC Joint	Round Bracket	Bolt
QC Joint L40 Kit	QC Joint L ×1Set	L Round Bracket 40×1	Hexagon Socket Head Bolt (M6×30) Stainless steel×1
QC Joint L45 Kit		L Round Bracket 45×1	Hexagon Socket Head Bolt (M6×35) Stainless steel×1
QC Joint L80 Kit		L Round Bracket 80×1	Hexagon Socket Head Bolt (M6×70) Stainless steel×1
QC Joint L90 Kit		L Round Bracket 90×1	Hexagon Socket Head Bolt (M6×80) Stainless steel×1

Materials/Technical Data

	QC Joint L	L Round Bracket
Material	: Stainless steel conductive	Stainless steel
Mass	: L40 kit 88g L45 kit 92g L80 kit 119g L90 kit 129g	
Environment	: RoHS10 Compliant	

QC Joint L

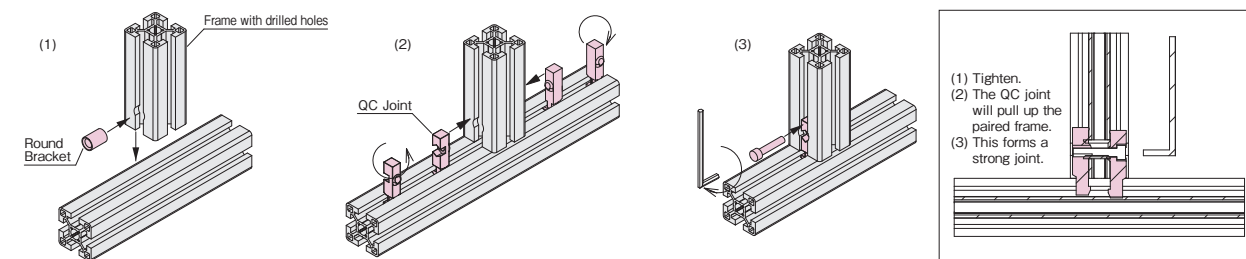
Features

Insert the QC joint into the frame slot <can be inserted after>, align it with the other frame that has the QC round fitting attached and fasten it in place with bolts.

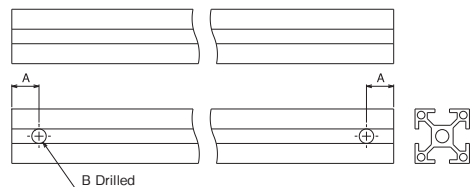
Because the two frames are joined together with a pulling force, they easily achieve a right angle while preventing gaps. The outside joints will not protrude, creating a sleek appearance.

It is not necessary to put the nuts into the frame in advance, thus reducing work hours.

Assembly Process



Dimensions for the Location of QC Joint Round Fittings Insertion Hole

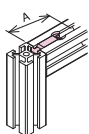


Series	A Dimension	B Dimension
SF20 Series	9.8	7.1
SF30 Series	14.8	11.1
SF40 Series	20	13.1
SF45 Series	19.5	13.1

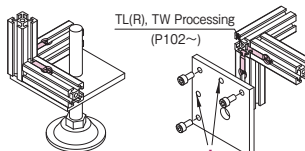
Notes for using QC joints

(1) On frames that have been processed for QC joints, a portion of the slot on the frame cannot be used.

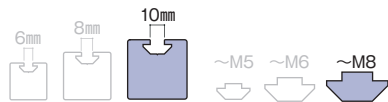
(2) Use with caution with the following when using in combination with plates from a level adjuster kit, etc.



Series	A dimensions (mm)
SF40·45 Series	35



The QC joint and the mounting holes marked with * overlap, so tap the vertical frame and fix the plate in place at 3 points.



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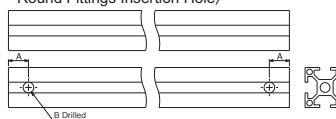
Bracket

QC Joint Kit Compatibility Chart

Slot Type	Frame Name	Processing Symbols				
		QCS	QCW	QCC	QCV	QCY
1 Row × 1 Row	SF2-40•40	L40 Kit × 1	L40 Kit × 2	L40 Kit × 2	Not compatible	
	SF2-45•45	L45 Kit × 1	L45 Kit × 2	L45 Kit × 2		
1 Row × 2 Rows	SF2-40•80	L40 Kit × 2	L40 Kit × 4	L40 Kit × 2 / L80 Kit × 1	L80 Kit × 1	L80 Kit × 2
	SF2-45•90	L45 Kit × 2	L45 Kit × 4	L45 Kit × 2 / L90 Kit × 1	L90 Kit × 1	L90 Kit × 2
2 Rows × 2 Rows	SF2-80•80	L80 Kit × 2	L80 Kit × 4	L80 Kit × 4	Not compatible	
	SF2-90•90	L90 Kit × 2	L90 Kit × 4	L90 Kit × 4		

QC Joint Frame Hole Processing Symbols

(Dimensions for the Location of QC Joint Round Fittings Insertion Hole)



	A Dimensions	B Dimensions
SF-20 Series	9.8	7.1
SF-30 Series	14.8	11.1
SF-40 Series	20	13.1
SF-45 Series	19.5	13.1

Processing Symbols Slot Type	QCS	QCW	QCC	QCV	QCY
1 Row × 1 Row				/	
1 Row × 2 Rows					
2 Rows × 2 Rows				/	

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data



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Design Support
Service
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Service
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Bracket

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

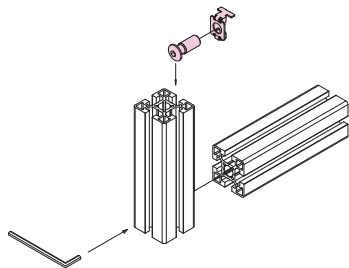
Door Part

SF
Common parts

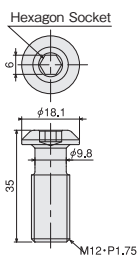
Door Part

Foot
ComponentBolt
NutSF Additional
ProcessingSF
Technical Data

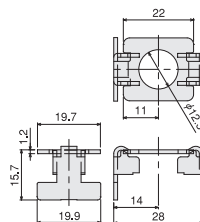
TG Joint 4045 / 80 Kit



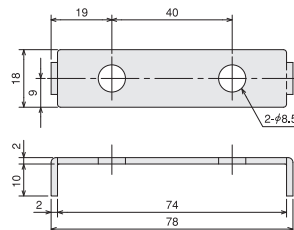
TG Bolts M12



TG Plate 4045



TG Plate 80



TG Plate 4045

- **Kit Contents**
 (TG Joint Kit 4045)
 ● TG Plate 4045 ×1
 ● TG Bolt M12 ×1

TG Plate 80

- **Kit Contents**
 (TG Joint Kit 80)
 ● TG Plate 80 ×1
 ● Hexagon Socket Button Bolt (M8×20) ×2

Materials/Technical Data

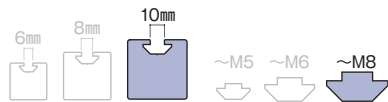
	TG Bolts M12	TG Plate 4045 / 80
Material	SCM435	SPCC
Mass	35g (kit 4045)	43g (kit 80)
Environment	RoHS10 Compliant	

*Recommended Tightening Torque: 24.9 N·m (M8 equivalent)

*TG Plate L50, TG Plate 60, and TG Plate 80 do not support specifications within the frame cap's outer dimensions.

Name	TG Joint Kit	
	4045	80
Item No.	SFK-207	SFK-307

*The frame must have TG joint holes drilled. (See next page)



Additional
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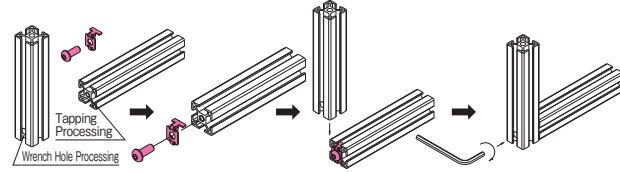


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Bracket

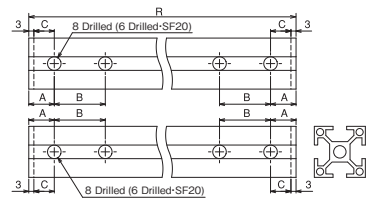
■ Symbols for processing holes in frames with TG Joints

〈TG Assembly Content〉



〈TG Joint Tapping Hole Position Dimensions〉

	A Dimension	B Dimension	C Dimension
SF20 Series	10	20	A-3(7)
SF30 Series	15	30	A-3(12)
SF40 Series	20	40	A-3(17)
SF45 Series	22.5	45	A-3(19.5)



- ◆ **TG Joint** Tap the end of one frame, then temporarily attach the TG joint fittings. Next, fully tighten the bolts starting with the wrench hole on the outer frame.
Because the two frames are joined together with a pulling force, they easily achieve a right angle while preventing gaps. The outside joints will not protrude, creating a sleek appearance.

When using various TG joints, indicate the TG processing No. on the frame that you will drill wrench holes into.
For TG joints, you must also indicate surface tapping on the frame on the other side that you will connect to. (See p.102)

◆ 〈Specifications within frame cap outer dimensions〉 Option

Use the option on the right when you want to keep the frame cap within the outer dimensions (frame and surface position).

*Indicate the length without the frame cap (actual length used).

*TG Plate L50, TG Plate 60, and TG Plate 80 do not support specifications within the frame cap's outer dimensions.

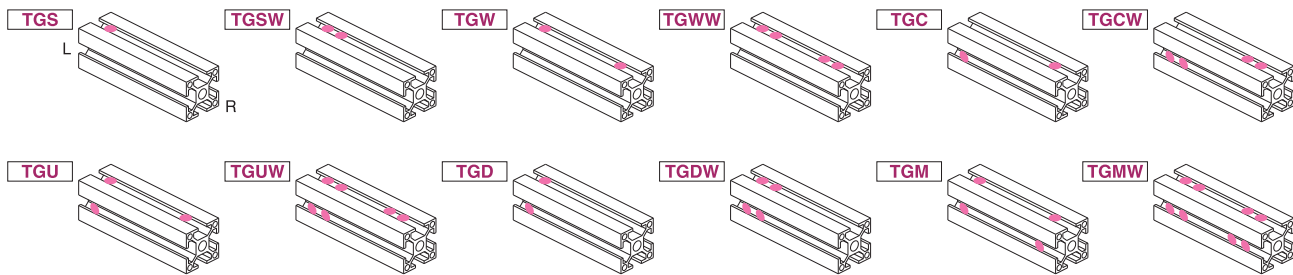
Item No. or Product Name Length (mm) Processing Symbols

Example Order **SFF-404** **ℓ=800** **TGW** **3 3R 3L** (A dimensions 3mm : Both End Surfaces)
(A dimensions 3mm : Only Right Side)
(A dimensions 3mm : Only Left Side)



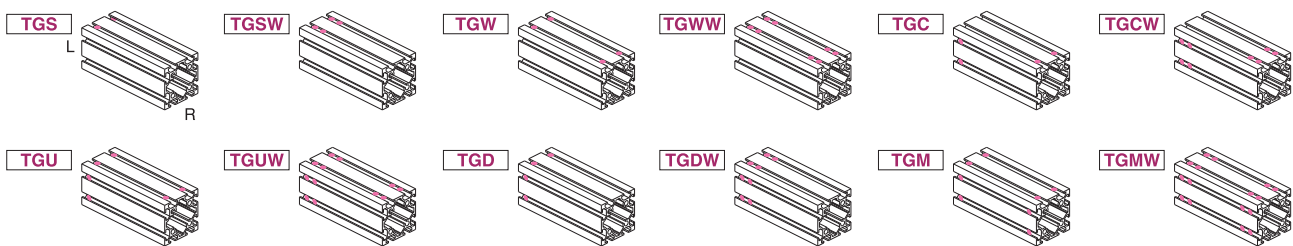
Slot Type 1 Row × 1 Row

◆ Target Frame ... **SF2-40-40** **SF2-45-45**



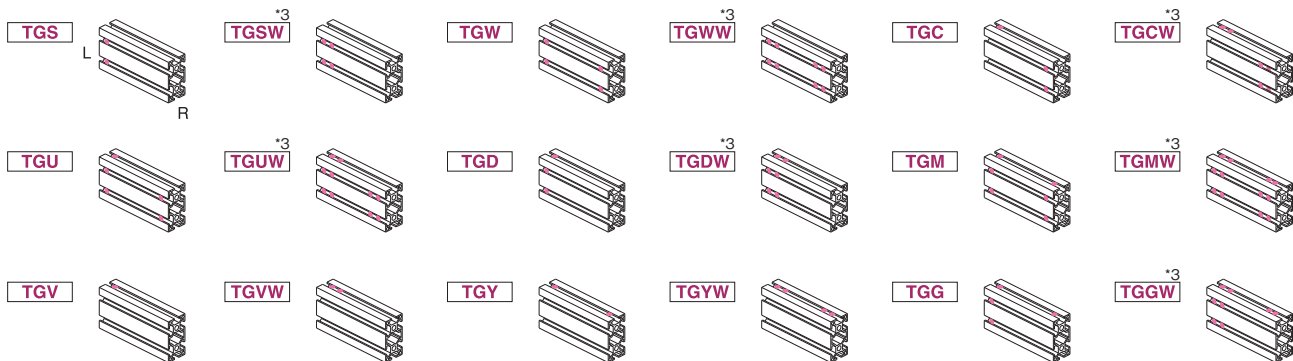
Slot Type 2 Rows × 2 Rows

◆ Target Frame ... **SF2-80-80-2S**



Slot Type 1 Row × 2 Rows

◆ Target Frame ... **SF2-40-80** **SF2-45-90**



*3 Other than SF2 45-90 (including 1F), SF45-90, SFK 45-90, SF-2-50-100-1S (With the exception of SF2 40-80, SF 40-80)

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data



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Design Support
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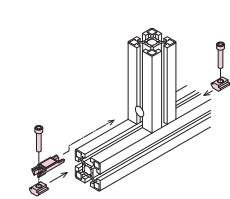
Assembled Delivery
Service
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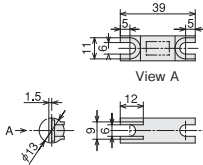
Bracket

S Double Joint 40 / 45 Kit

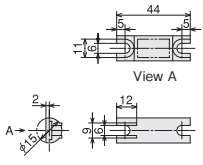


*The frame must have S double joint holes drilled. (See next page)

S Double Joint 40 Kit



S Double Joint 45 Kit



Name	S Double Joint Kit	
	40	45
Item No.	SFK-304S	SFK-302S

- Kit Contents
- Each S Double Joint ×1
 - Hexagon Socket Head Bolt (M6×30) Stainless Steel ×2
 - ST Nut L (M6) ×2

Materials/Technical Data	
Material	: Stainless Steel
Mass	: 61g(Kit40) : 73g(Kit45)
Environment	: RoHS10 Compliant

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

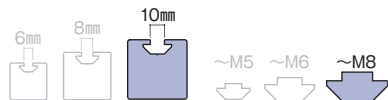
Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data



Additional
Processing List
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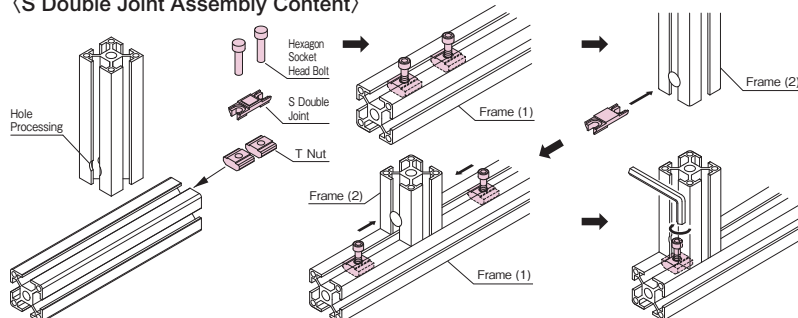


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Data
→ P.103

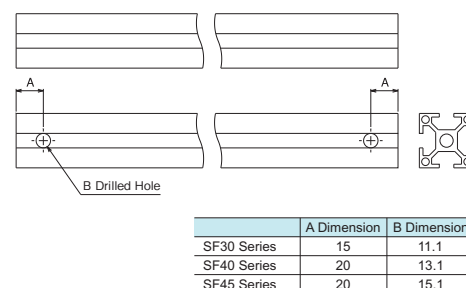
Bracket

■ S Double Joint Frame Hole Processing Symbols

〈S Double Joint Assembly Content〉



〈S Double Joint Hole Position Dimensions〉



- ◆ S Double Joint Drill holes to insert S double joint fittings on Frame (2), then insert nuts into Frame (1) and fix it in place with bolts from both sides of the joint fittings. Because the two frames are joined together with a pulling force, they easily achieve a right angle while preventing gaps. The outside joints will not protrude, creating a sleek appearance.

Item No. or Product Name	Length (mm)	Processing Symbols
Example Order SFF-404	ℓ=800	WJS

■ S Double Joint Processing List

Slot Type		1 Row × 1 Row	1 Row × 2 Rows	2 Rows × 2 Rows
SF40 series	S Double Joint Kit 40	SF2-40・40	SF2-40・80	
	S Double Joint Kit 45	SF2-45・45	SF2-45・90	
SF45 series	S Double Joint Kit 80			SF2-80・80

■ Processing Symbols

WJS				
WJW				
WJC				

*Except 1F・2H Type

*Except 1F Type

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



Assembled Delivery
Service
→ P.11

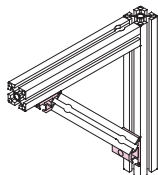


RoHS
→ P.162

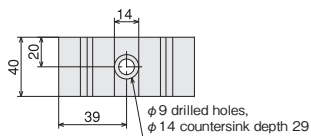
Bracket

SF
20

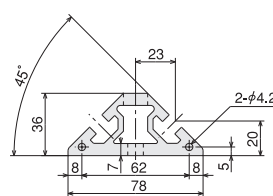
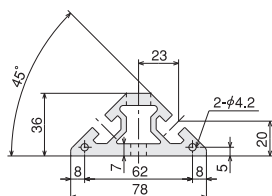
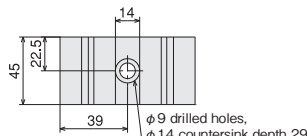
Truss Joint L40 / L45



Truss Joint L40



Truss Joint L45



*Slot dimensions conform to SF 40 · 40, SF 45 · 45.

Compatible Frames
(Reinforced Frame)
SF-40·40
SF-45·45
(Paired Frame)
SF-45·45 Series
(Slot width 10mm)
Suitable for everything

Materials/Technical Data

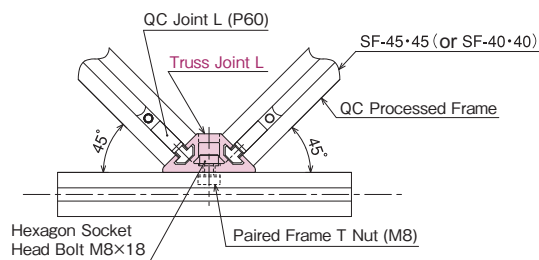
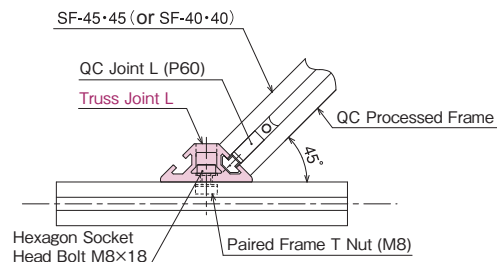
Material : Aluminum Extrusion
Anodized Surface Treatment
Mass : 104g (L40)
117g (L45)
Environment : RoHS10 Compliant

Name	Truss Joint L40	Truss Joint L45
Item No.	SFJ-J03	SFJ-J04

Truss Joint Assembly Example

〈Truss Joint〉

This is ideal for reinforcing at 45° or adding a truss structure.

SF
40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF

Common parts

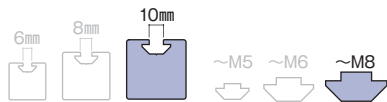
Door Part

Foot Component

Bolt Nut

SF Additional Processing

SF Technical Data



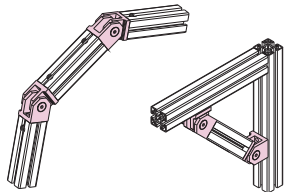
Additional
Processing List
→ P.95



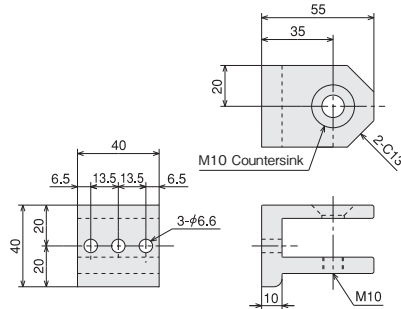
Technical
Data
→ P.103

Bracket

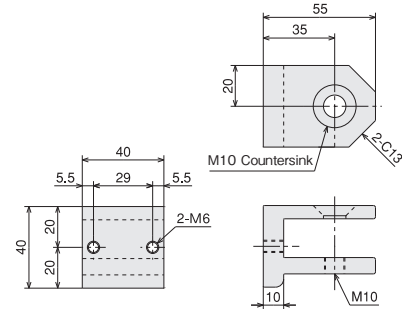
Turn Bracket 40 A / 40 B



Turn Bracket 40 A



Turn Bracket 40 B



Name	Turn Bracket 40 A	Turn Bracket 40 B
Item No.	SFK-42A	SFK-42B

*When using Turn Bracket 40 B, you must use the S double joint to connect to the frame. (See below)

■ Compatible Frames
(End Attachment)
SF2-40-40
(Side Face Mounting)
Conforms with all SF 40 Series



*Each 40A/40B comes with a hexagon socket flat head countersink bolt (M10X16)

Materials/Technical Data

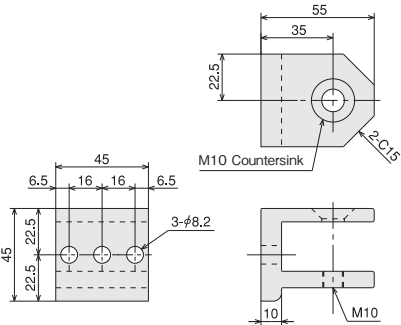
Material : Aluminum Extrusion
Anodized Surface Treatment
Mass : 97g (40A) / 98g (40 B)
Environment : **RoHS10** Compliant

*Recommended Tightening Torque:
24.9 N·m (M8 equivalent)

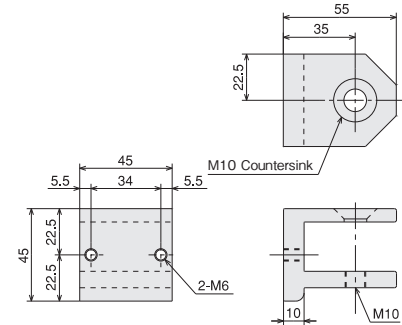
Turn Bracket 45 A / 45 B



Turn Bracket 45 A



Turn Bracket 45 B



Hexagon Socket Head Countersink Bolt (M10X16) × 1

Name	Turn Bracket 45 A	Turn Bracket 45 B
Item No.	SFK-43A	SFK-43B

*When using Turn Bracket 45 B, you must use the S double joint to connect to the frame. (See below)

■ Compatible Frames
(End Attachment)
SF2-45-45
(Side Face Mounting)
Conforms with all SF 45 series



*Hexagon Socket Head Countersink Bolt
(M10X16) × 1

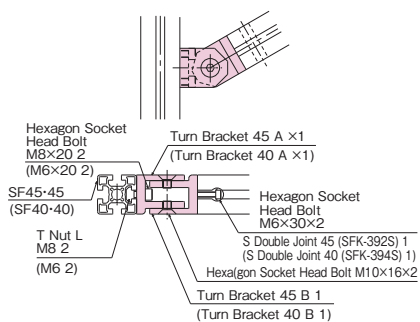
Materials/Technical Data

Material : Aluminum Extrusion
Anodized Surface Treatment
Mass : 113g (45A) / 116g (45 B)
Environment : **RoHS10** Compliant

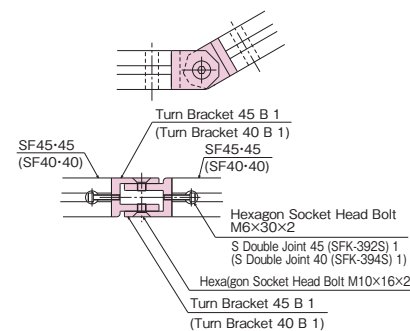
*Recommended Tightening Torque:
24.9 N·m (M8 equivalent)

Turn Bracket Attachment Example

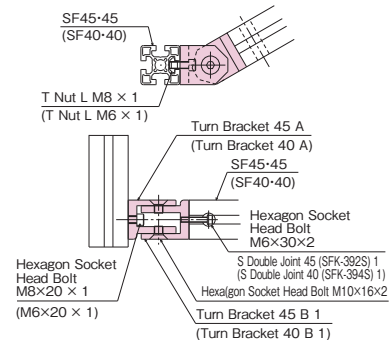
〈For frame side surface to end attachment〉



〈For frame end to end attachment〉



〈For frame side surface to end attachment〉



See p.64 for more information on S double joints. This product cannot be used as the fulcrum for moving parts.



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



Assembled Delivery
Service
→ P.11

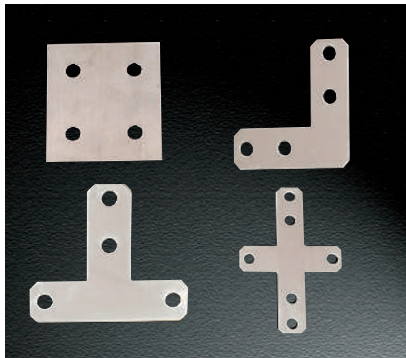


RoHS
→ P.162

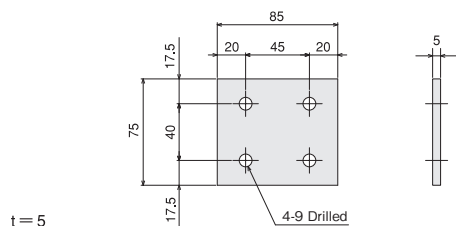
Bracket

SF
20

S Plate Bracket L



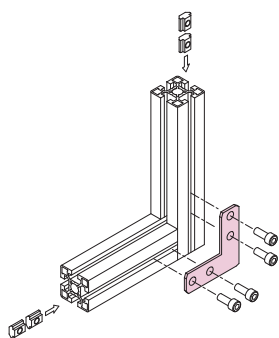
S Plate Bracket LG



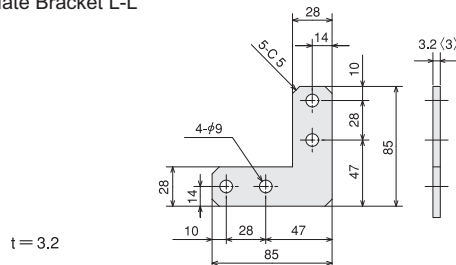
■ Kit Contents

- S Plate Bracket LG×1
- Hexagon Socket Head 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

SF
30

S Plate Bracket L-L



■ Kit Contents

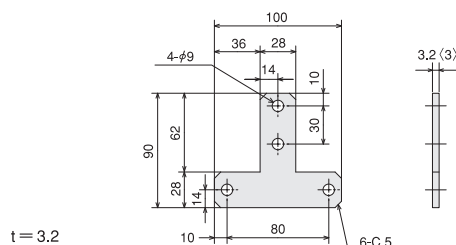
- S Plate Bracket L-L×1
- Hexagon Socket Head Bolt (M8×15) Stainless×4
- ST Nut L (M8)×4

Name	S Plate Bracket L-L	S Plate Bracket L-L Kit
Item No.	SFJ-106S	SFK-106S

■ Materials/Technical Data

Name	Mass(g)	Material	Environment
S Plate Bracket LG	237	SUS304	RoHS10 Compliant
S Plate Bracket L-L	89		
S Plate Bracket L-T	103		
S Plate Bracket L-+	84		

S Plate Bracket L-T

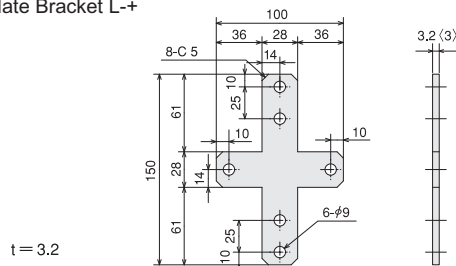


■ Kit Contents

- S Plate Bracket L-T×1
- Hexagon Socket Head Bolt (M8×15) Stainless×4
- ST Nut L (M8)×4

Name	S Plate Bracket L-T	S Plate Bracket L-T Kit
Item No.	SFJ-107S	SFK-107S

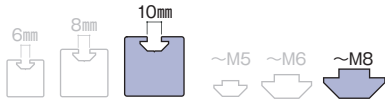
S Plate Bracket L-+



■ Kit Contents

- S Plate Bracket L-+×1
- Hexagon Socket Head Bolt (M8×15) Stainless×6
- ST Nut L (M8)×6

Name	S Plate Bracket L-+	S Plate Bracket L-+ Kit
Item No.	SFJ-108S	SFK-108S



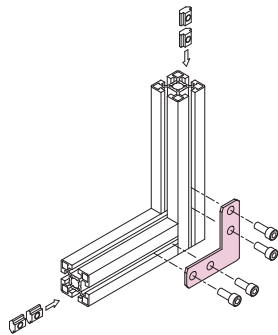
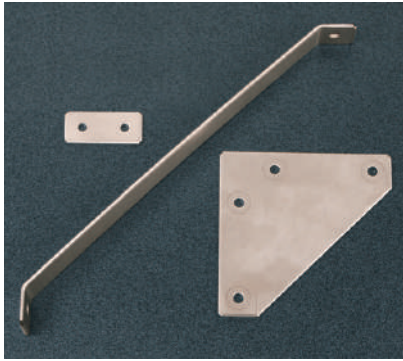
Additional
Processing List
→ P.95



Technical
Data
→ P.103

Bracket

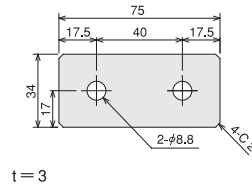
S Plate Bracket L



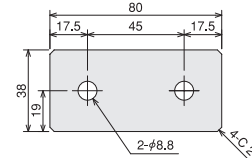
Materials/Technical Data

Name	Mass(g)	Material	Environment
S Plate Bracket L40-H2	58	SUS304	RoHS10 Compliant
S Plate Bracket L45-H2	70		
S Corner Extend Bracket L	571		
S Corner Extend Plate L	374		

S Plate Bracket L40-H2



S Plate Bracket L45-H2

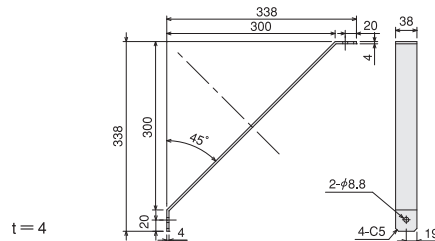


Kit Contents

- S Plate Bracket L40 (L45)-H2 Kit
- S Plate Bracket L40-H2 (or L45-H2) ×1
- Hexagon Socket Head Bolt (M8×15) Stainless×2
- ST Nut L (M8)×2

Name	S Plate Bracket L40-H2	S Plate Bracket L45-H2	S Plate Bracket L40-H2 Kit	S Plate Bracket L45-H2 Kit
Item No.	SFJ-126S	SFJ-127S	SFK-126S	SFK-127S

S Corner Extend Bracket L

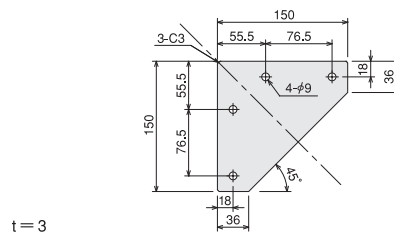


Kit Contents

- S Corner Extend Bracket L×1
- Hexagon Socket Head Bolt (M8×15) Stainless×2
- ST Nut L (M8)×2

Name	S Corner Extend Bracket L	S Corner Extend Bracket L Kit
Item No.	SFJ-133S	SFK-133S

S Corner Extend Plate L



Kit Contents

- S Corner Extend Plate L×1
- Hexagon Socket Head Bolt (M8×15) Stainless×4
- ST Nut L (M8)×4

Name	S Corner Extend Plate L	S Corner Extend Plate L Kit
Item No.	SFJ-138S	SFK-138S

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



Assembled Delivery
Service
→ P.11

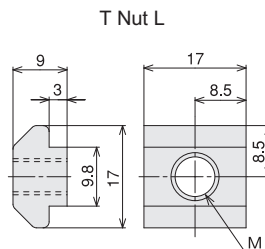
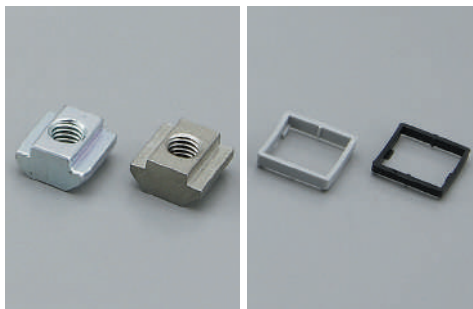


RoHS
→ P.162

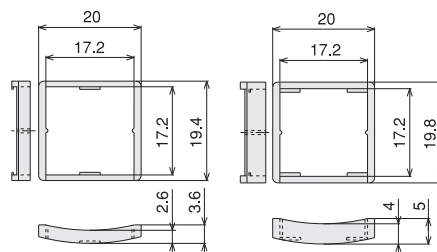
Nut (for slot width 10mm)

SF
20

T Nut L / Anti-skid Cap L40 / L45

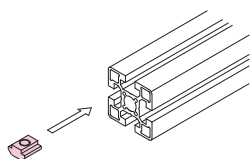


Anti-skid Cap



Anti-skid Cap L40

Anti-skid Cap L45

SF
30

Compatible Frames



Conforms with T-nuts/aluminum nuts L SF 40/45 series (Slot width 10mm)
Conforms with Anti-skid Cap L40 SF-40 Series
Conforms with Anti-skid Cap L45 SF-45 Series

Name	T Nut L (M8) (S T Nut L (M8))	T Nut L (M6) (S T Nut L (M6))	T Nut L (M5) (S T Nut L (M5))	T Nut L (M4) (S T 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 (50pcs/pack)	Anti-skid Cap L45 (50pcs/pack)
Item No.	SFA-907	SFA-908

Materials/Technical Data

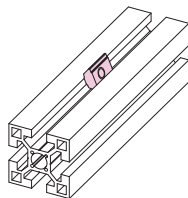
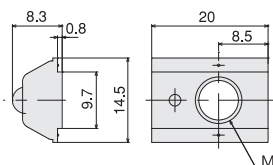
	T Nut L	S T Nut L	Anti-skid Cap
Material	: S10C equivalent	Stainless steel Conductive	PA Black (L40) PA Gray (L45)
Mass	: 14g	14g	0.3g each (L40) 0.5g each (L45)
Environment	: RoHS10 Compliant		

SF
40.45

S Easy Nut L (after insert)



S Easy Nut L

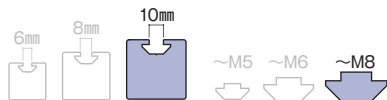


*Insert after assembly with one touch.
Anti-skid.

Name	S Easy Nut L (M8)	S Easy Nut L (M6)	S Easy Nut L (M5)	S Easy Nut L (M4)	S Easy Nut L (M3)
Item No.	SFN-EL8	SFN-EL6	SFN-EL5	SFN-EL4	SFN-EL3

Materials/Technical Data

Material	: (Main Unit) Stainless steel Conductive (Attaching Part) Stainless Steel
Mass	: 8.2g(M8) 9.1g(M6) 9.3g(M5) 9.8g(M4) 9.9g(M3)
Environment	: RoHS10 Compliant



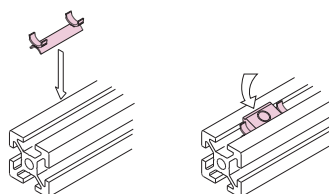
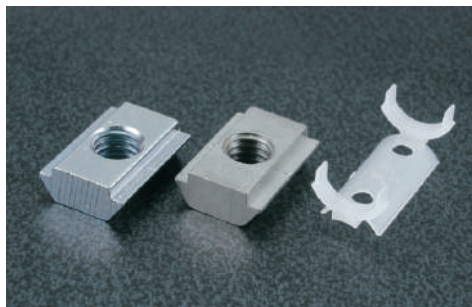
Additional
Processing List
→ P.95



Technical
Data
→ P.103

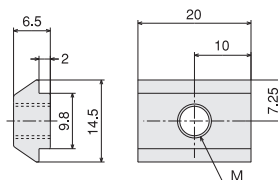
Nut (for slot width 10mm)

S After Nut L / After Nut Support L

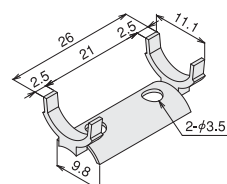


*Made anti-skid by using in combination
with After Nut Support

S After Nut L



After Nut Support L
(For after nuts/after insert lock nuts)

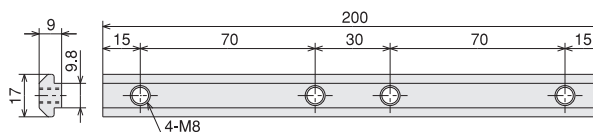
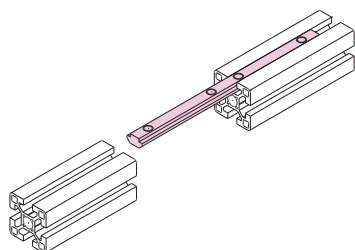
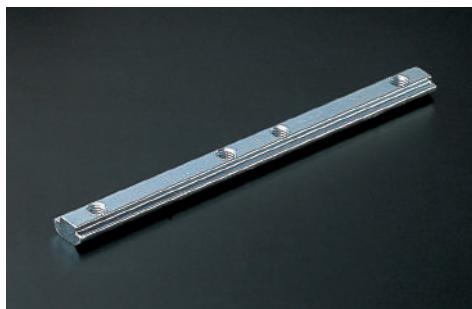


Name	S After Nut L (M8)	S After Nut L (M6)	S After Nut L (M5)	S After Nut L (M4)
Item No.	SFN-AL8	SFN-AL6	SFN-AL5	SFN-AL4
Name	After Nut Support L (50pcs/pack)			
Item No.	SFA-9A3			

Materials/Technical Data

	S After Nut L	After Nut Support L
Material	Stainless steel	PP
	Conductive	
Mass	10g	0.3g each
Environment	RoHS10 Compliant	

S Joint Bar L200



Name	S Joint Bar L200
Item No.	SFJ-704

Materials/Technical Data

Material	Stainless steel
Mass	174g
Environment	RoHS10 Compliant



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



Assembled Delivery
Service
→ P.11



RoHS
→ P.162

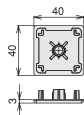
Cap

Frame Cap



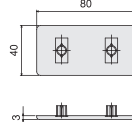
Frame Cap N4040

Mass 4.7g



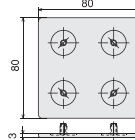
Frame Cap 4080

Mass 10.9g



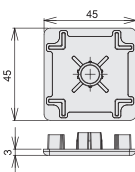
Frame Cap 8080

Mass 22.1g



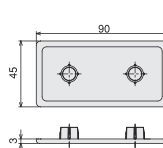
Frame Cap N4545

Mass 6.4g



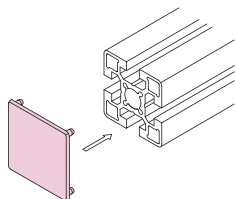
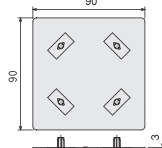
Frame Cap 4590

Mass 13.8g



Frame Cap 9090

Mass 28.2g



Name	Frame Cap N4040 (Black)	Frame Cap 4080 (Black)	Frame Cap 8080 (Black)
Item No.	SFA-034B	SFA-007	SFA-008

Name	Frame Cap N4545 (Black)	Frame Cap 4590 (Black)	Frame Cap 9090 (Black)
Item No.	SFA-035B	SFA-004	SFA-016

Materials/Technical Data

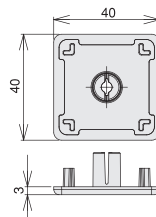
Material : PA
 Mass : In Diagram
 Environment : **RoHS10** Compliant

SF 40.45

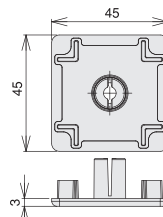
Frame Cap Lock Type N4040/N4545/4080/4590



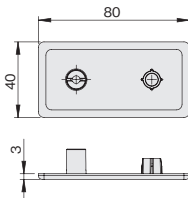
Frame Cap Lock Type N4040



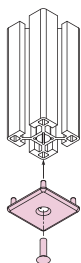
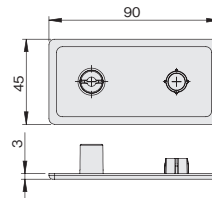
Frame Cap Lock Type N4545



Frame Cap Lock Type 4080



Frame Cap Lock Type 4590



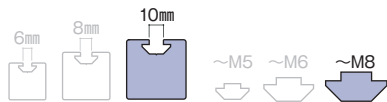
● The bolts included make it possible to lock without tapping the frame.

Name	Frame Cap Lock Type N4040 (Black)	Frame Cap Lock Type N4545 (Black)
Item No.	SFK-06LB	SFK-07LB
Comes with Cross Recessed Head Countersink Bolt (M5×16) chromate black ×1		Comes with Cross Recessed Head Countersink Bolt (M6×18) chromate black ×1

Name	Frame Cap Lock Type 4080 (Black)	Frame Cap Lock Type 4590 (Black)
Item No.	SFK-062	SFK-063
Comes with Cross Recessed Head Countersink Bolt (M5×16) chromate black ×1		Comes with Cross Recessed Head Countersink Bolt (M6×18) chromate black ×1

Materials/Technical Data

Material : PA (caps), steel or stainless steel (screws)
 Mass : 7g(4040) 11g(4545) 10.0g(4080) 15.6g(4590)
 Environment : **RoHS10** Compliant



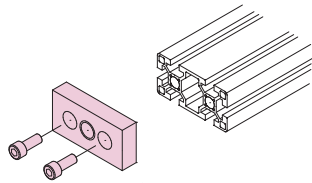
Additional
Processing List
→ P.95



Technical
Data
→ P.103

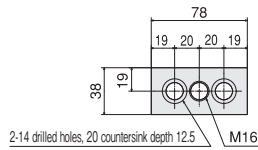
Foot

Foot Base



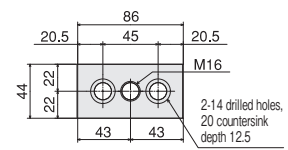
*The surface facing the frame requires tapping. See p.102 for additional processing.

Foot Base 4080



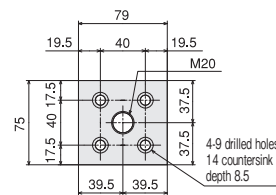
Mass : 276g
Kit Contents : Foot Base 4080 ×1
Hexagon Socket Head Bolt (M12×25) ×2

Foot Base 4590



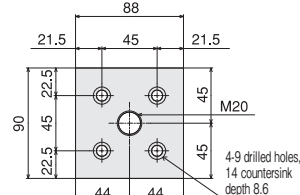
Mass : 374g
Kit Contents : Foot Base 4590 ×1
Hexagon Socket Head Bolt (M12×25) ×2

Foot Base 8080



Mass : 631g
Kit Contents : Foot Base 8080 ×1
Hexagon Socket Head Bolt (M8×25) ×4

Foot Base 9090



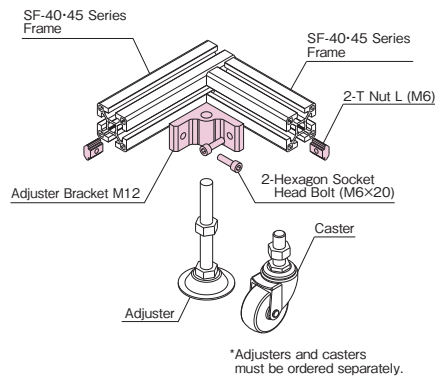
Mass : 869g
Kit Contents : Foot Base 9090 ×1
Hexagon Socket Head Bolt (M8×25) ×4

Name	Foot Base 4080 (Stainless)	Foot Base 4590 (Stainless)
Item No.	SFK-57AS	SFK-60AS
Name	Foot Base 8080 (Stainless)	Foot Base 9090 (Stainless)
Item No.	SFK-59AS	SFK-54AS

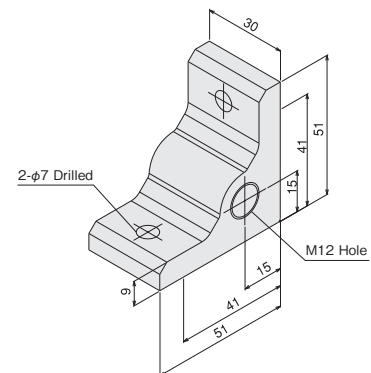
Common Specifications

Material : SUS304(Stainless) Environment : **RoHS10** Compliant
Thickness : 16mm
*The (stainless) kit has stainless steel bolts and nuts.

Adjuster Bracket M12 L



*Adjusters and casters must be ordered separately.



Name (Single Piece)	Adjuster Bracket M12
Item No.	SFJ-7E1
Name (Bolt+Nut Kit)	Adjuster Bracket M12 L Kit
Item No.	SFK-7E2

■ Kit Contents
●Adjuster Bracket M12 ×1
●T Nut L (M6) ×2
●Hexagon Socket Head Bolt (M6×20) ×2

Materials/Technical Data

Material : Aluminum Extrusion
Mass : 80g (single piece)
121g (kit)
Environment : **RoHS10** Compliant



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



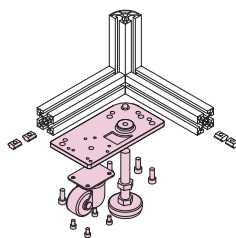
Assembled Delivery
Service
→ P.11



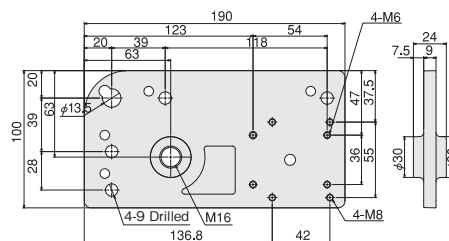
RoHS
→ P.162

Foot

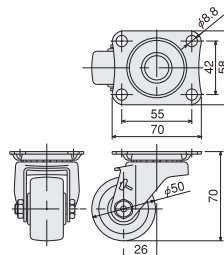
Adjuster Caster Plate DC L



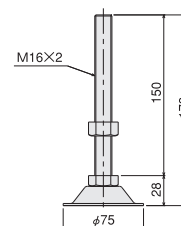
Adjuster Caster Plate DC L



Caster B (stainless)



Adjuster B M16 (stainless)



Name (Single Piece)	Adjuster Caster Plate DC L
Item No.	SFK-911
Name (Kit)	Adjuster Caster Plate DC L Kit (Stainless)
Item No.	SFK-919

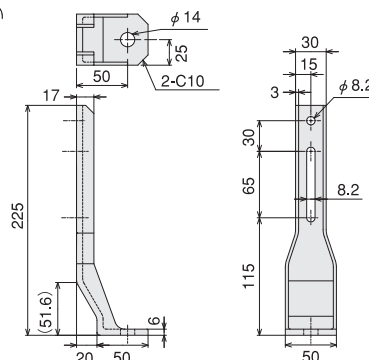
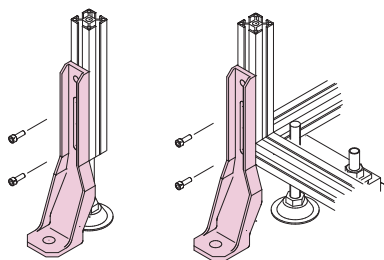
Kit Contents

- Adjuster Caster Plate DC L ×1
- Caster B (Stainless) ×1
- Adjuster B M16 (Stainless) ×1
- ST Nut L (M8) ×4
- Hexagon Socket Head Bolt (M8×10) (Stainless Steel) ×4
- Hexagon Socket Head Bolt (M8×20) (Stainless Steel) ×4

Materials/Technical Data

Material : Aluminum Die Cast
Mass : 440g
(Adjuster Caster Plate DC L)
Environment : **RoHS10** Compliant

Anchor Bracket



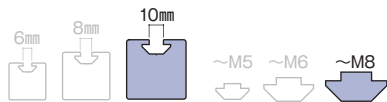
Name (Single Piece)	Anchor Bracket
Item No.	SFJ-70S
Name (Bolt+Nut Kit)	Anchor Bracket Kit
Item No.	SFK-71S

Kit Contents

- Anchor Bracket ×1
- ST Nut L (M8) ×3
- Hexagon Socket Head Bolt (M8×18) Stainless Steel ×3

Materials/Technical Data

Material : Stainless Steel
Mass : 598g (single piece)
Environment : **RoHS10** Compliant



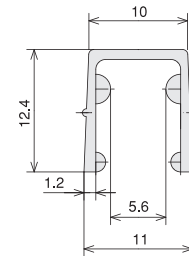
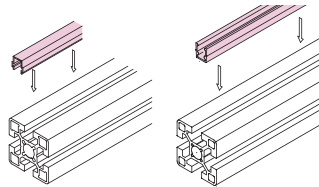
Additional
Processing List
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Technical
Data
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Accessory

Slot Cap L

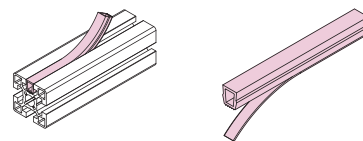


Name	(Light Gray)	Slot Cap L (L = 2000mm each)	(Yellow)	(Red)
Item No.	SFA-102G	SFA-102Y	SFA-102R	

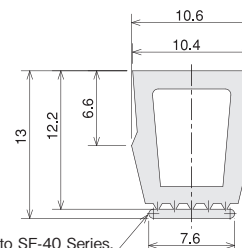
Materials/Technical Data

Material : PE
Unit Mass : 46g/m
Environment : **RoHS10** Compliant

Slot Seal L



*When attaching to SF-40 Series, remove the bottom portion first.



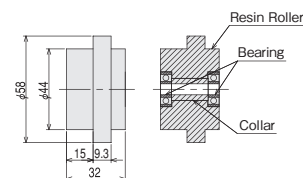
When attaching to SF-40 Series, remove the bottom portion.

Name	Slot Seal L (L = 5000mm each)
Item No.	SFA-172

Materials/Technical Data

Material : Elastomer
Unit Mass : 68g/m
Environment : **RoHS10** Compliant

Slot Roller L40



Kit Contents

- Slot Roller L40 ×1
- Bearing ×2
- Collar ×1
- Flat Washer (M6) Stainless Steel ×1

Materials/Technical Data

Material : PA6 (Resin Roller)
Copper (Bearing)
SC45C (Collar)
Mass : 87g
Environment : **RoHS10** Compliant
Max Load : 15kg each

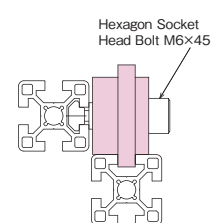
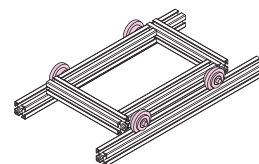
*Attachment bolt size M6
*Recommended tightening torque 6.0N·m

●The roller has been processed by cutting, enabling it to run smoothly.

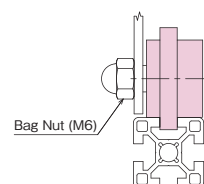
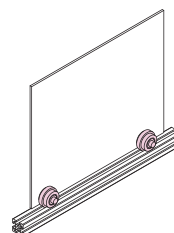
Name	Slot Roller L40
Item No.	SFK-807

Example Using Slot Roller L

〈As a sliding table〉



〈As a door roller〉



SF 20

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 30

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF Common parts

Door Part

Foot Component

Bolt Nut

SF Additional
Processing

SF
Technical Data



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



Assembled Delivery
Service
→ P.11

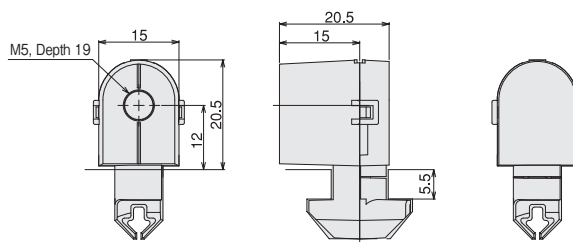
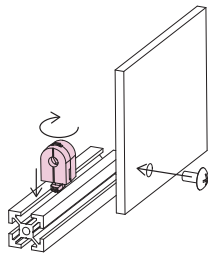


RoHS
→ P.162

Door Part

SF
20

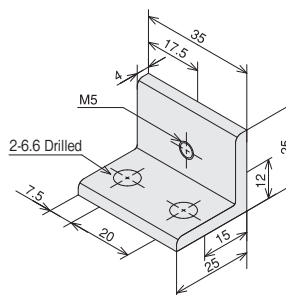
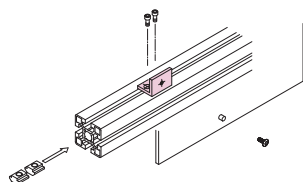
Cover Holder L With Cap



*Comes with hexagon nut M5 (stainless steel) x1

SF
30

Cover Support L6



Materials/Technical Data

Material : PA
Mass : 7g
Environment : **RoHS10** Compliant

SF
40.45

Cover Support L6

Name (Single Piece) Cover Support L6

Item No. **SFJ-K04**

Cover Support L6 Kit (Stainless)

Name (Bolt+Nut Kit) Cover Support L6 Kit (Stainless)

Item No. **SFK-K04S**

Kit Contents

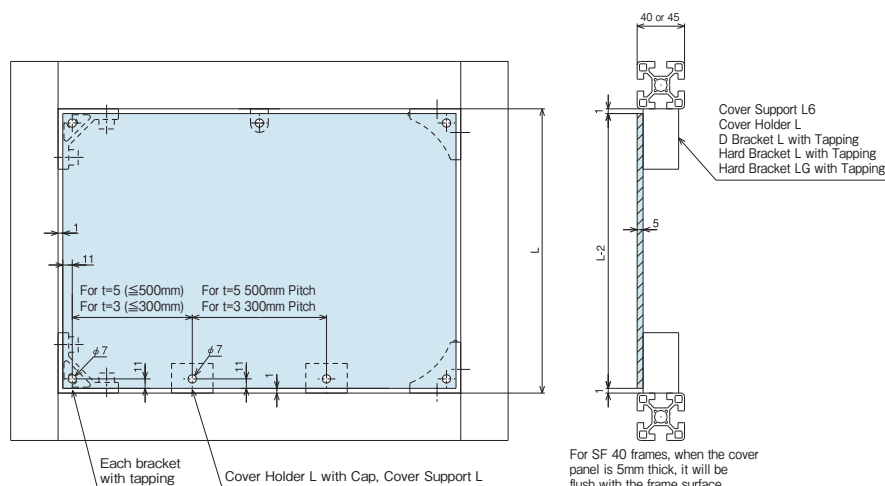
- Cover Support L6 x1
 - T Nut L (M6) x2
 - Truss Screw (M5x10) x1
 - Hexagon Socket Head Bolt (M6x15) x2
- *The L6 Kit (Stainless) has stainless steel bolts and nuts.

Materials/Technical Data

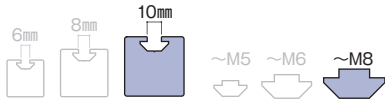
Material : A6063
Mass : 17g
Environment : **RoHS10** Compliant

How to Attach the Cover

〈Cover Holder L with Cap, Cover Support, Resin Plate Dimension Guide〉



For SF 40 frames, when the cover panel is 5mm thick, it will be flush with the frame surface.



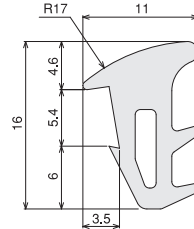
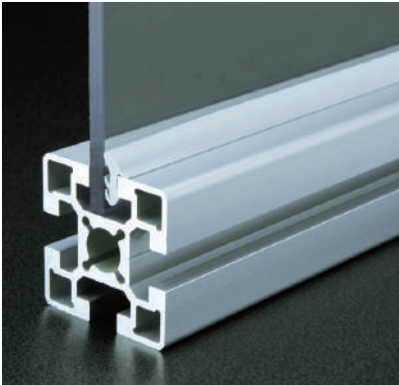
Additional
Processing List
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Technical
Data
→ P.103

Door Part

Panel Clamp 4045



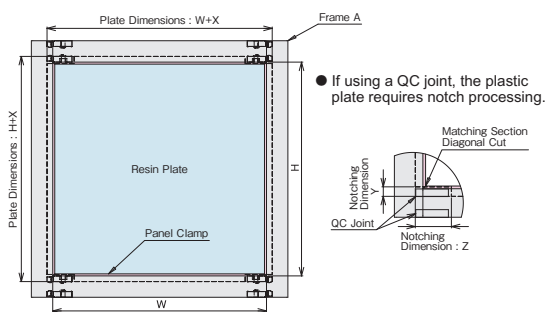
Name	Panel Clamp 4045 (for t3) (L=5000mm)
Item No.	SFA-126

Materials/Technical Data

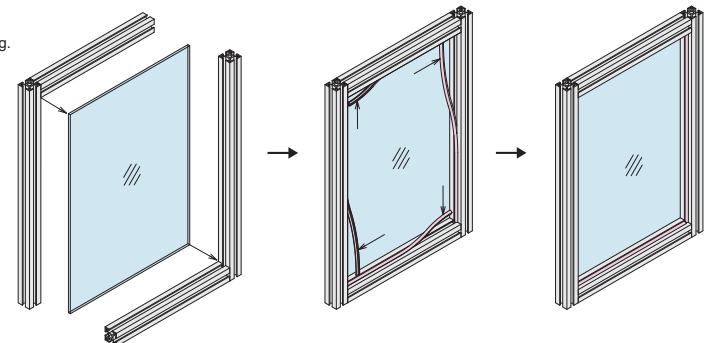
Material : CSM60 $\pm$ 5* (Synthetic Rubber) / light grey
Mass : 453g each
Environment : **RoHS6** Compliant

How to Attach the Panel Clamp

(Installation Dimensions / Part Selection Guide)



Frame A	Panel Clamp	Resin Plate Thickness	QC Joint	X	Y	Z
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	



● When assembling the framework, insert the resin panel into the slot.

● Push the panel clamp into the gap between the resin panel and the frame groove.

● The cover can be fixed in place neatly, preventing the resin from rattling.

SF
20

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF
Common parts

Door Part

Foot Component

Bolt Nut

SF Additional
Processing

SF
Technical Data



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



Assembled Delivery
Service
→ P.11

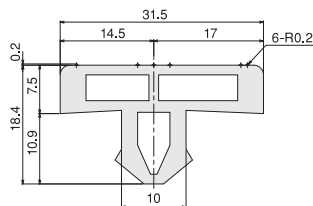


RoHS
→ P.162

Door Part

SF
20

Seal Cover L

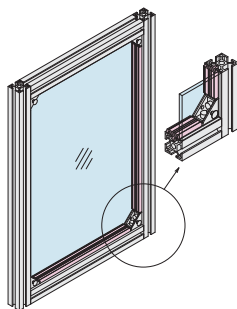
SF
30

Name	Seal Cover L (L=2500mm) (Light Gray)
Item No.	SFA-135

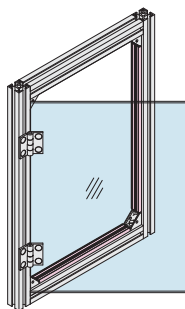
Materials/Technical Data

Material : CSM60 $\pm$ 5*(Synthetic Rubber)
 Mass : 433g each
 Environment : RoHS6 Compliant

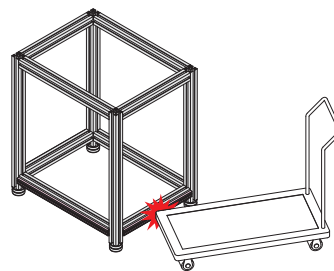
How to Use the Seal Cover



- Can fill the gap between the resin panels and the frame.



- Can be used as a stopper when using resin doors.



- Can also be used to protect aluminum frames.

SF
40.45SF
Common parts

Door Part

Foot
ComponentBolt
NutSF Additional
ProcessingSF
Technical Data

STANDARD FRAME

SF

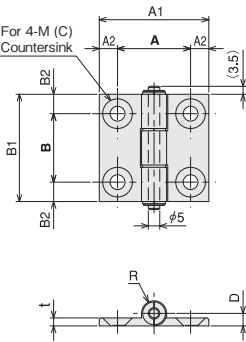
Common Parts

Door Part

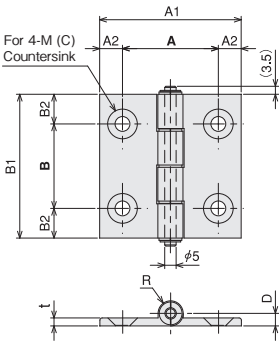
Flat Hinge



Flat Hinge SS, S Series



Flat Hinge L Series



Name	Item No.	A	B	A1	A2	B1	B2	(C)	D	t	R	Load Guide (N each)
Flat Hinge SS	SFA-2A1	21	25	36	7.5	47	11	5	5.6	4	5.6	49
Flat Hinge SS Kit (Stainless)	SFK-2A1S											
Flat Hinge S	SFA-2A2	32	30	48	8	63	8.5					73
Flat Hinge S Kit (Stainless)	SFK-2A2S											
Flat Hinge L40 (M6)	SFA-2A3	42	37	62	10	63	13	6	6.1	4.5	6.1	
Flat Hinge L40 (M6) Kit (Stainless)	SFK-2A3S											
Flat Hinge L45 (M6)	SFA-2A4	47	43	80	16.5		10					
Flat Hinge L45 (M6) Kit (Stainless)	SFK-2A4S											

Materials/Technical Data

Material : Aluminum Extrusion

Mass : 26.9g(SS)

 : 35.4g(S)

 : 58.7g(L40)

 : 72.5g(L45)

Environment : RoHS10 Compliant

- Kit Contents

Flat Hinge SS Kit

 - Flat Hinge SS × 1
 - Cross Recessed Head Countersink Bolt (M5×8) × 4
 - T Nuts SS (M5) × 4

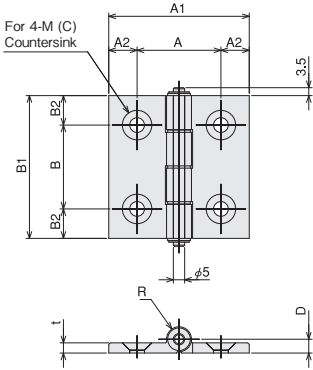
The Kit (Stainless) has stainless steel bolts and nuts.
- Flat Hinge S Kit

 - Flat Hinge S × 1
 - Cross Recessed Head Countersink Bolt (M6×12) × 4
 - T Nuts S (M6) × 4
- Flat Hinge L40(M6) Kit

 - Flat Hinge L40(M6) × 1
 - Cross Recessed Head Countersink Bolt (M6×15) × 4
 - T Nuts L (M6) × 4
- Flat Hinge L45(M6) Kit

 - Flat Hinge L45(M6) × 1
 - Cross Recessed Head Countersink Bolt (M6×15) × 4
 - T Nuts L (M6) × 4

Irregular Shape Frame Flat Hinge



Name	Item No.	A	B	A1	A2	B1	B2	(C)	D	t	R	Load Guide (N each)
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 (Stainless)	SFK-2A5S											
Flat Hinge L45-S	SFA-2A6	39			11.5							
Flat Hinge L45-S Kit (Stainless)	SFK-2A6S											

Materials/Technical Data

Material : Aluminum Extrusion

Mass : 58.7g(L40-S)

 : 58.7g(L45-S)

Environment : RoHS10 Compliant

- Kit Contents

Flat Hinge L40-S Kit

 - Flat Hinge L40-S × 1
 - Cross Recessed Head Countersink Bolt (M6×12) × 2
 - Cross Recessed Head Countersink Bolt (M6×15) × 2

The Kit (Stainless) has stainless steel bolts and nuts.
- Flat Hinge L45-S Kit

 - Flat Hinge L45-S × 1
 - Cross Recessed Head Countersink Bolt (M6×12) × 2
 - Cross Recessed Head Countersink Bolt (M6×15) × 2
- T Nuts L (M6) × 2

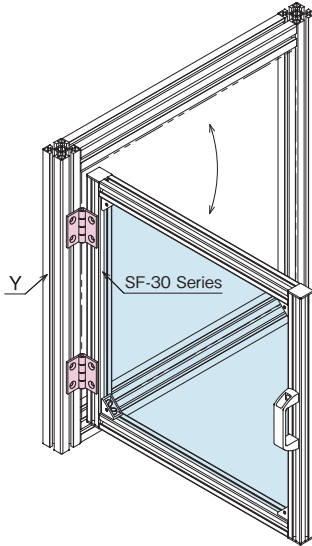
T Nuts S (M6) × 2



Door Part

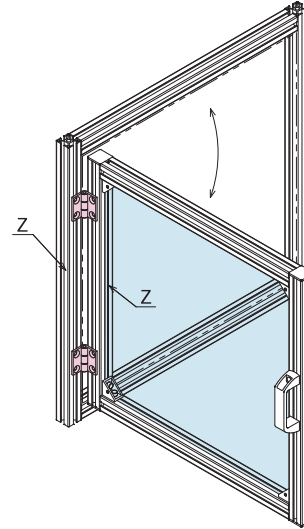
Flat Hinge Selection

- ☐ For when the door frame is SF 30 Series and the main unit frame is SF 40 or 45 Series



Y	Flat Hinge Name	Item No.
SF-40 Series	Flat Hinge L40-S	SFA-2A5
SF-45 Series	Flat Hinge L45-S	SFA-2A6

- ☐ For when the door frame and the main unit are both the same series



Z	Flat Hinge Name	Item No.
SF-20 Series	Flat Hinge SS	SFA-2A1
SF-30 Series	Flat Hinge S	SFA-2A2
SF-40 Series	Flat Hinge L40(M6)	SFA-2A3
SF-45 Series	Flat Hinge L45(M6)	SFA-2A4

SF 20

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 30

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF Common parts

Door Part

Foot Component

Bolt Nut

SF Additional Processing

SF Technical Data



STANDARD FRAME

SF

Common Parts

Door Part

Pull G



Pull G Type

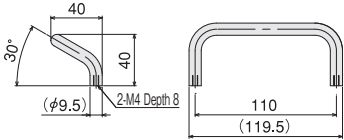
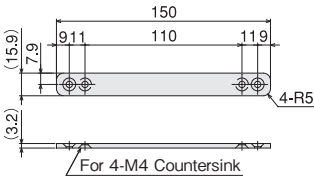


Plate for Pull G

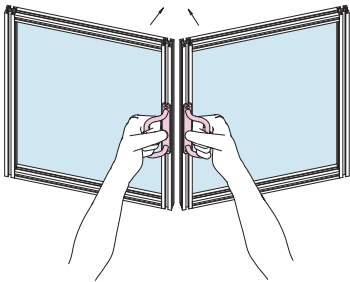


● The Pull G can be installed on the front surface with an attachment plate.

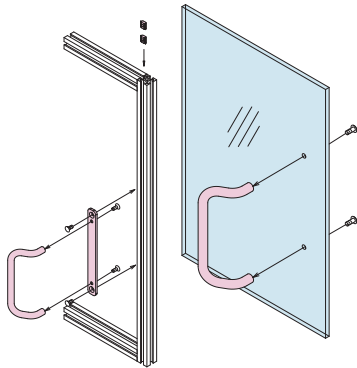
Name	Pull G Type	Plate for Pull G
Item No.	SFA-305	SFA-306

Materials/Technical Data	
Material	: Aluminum Anodized Treatment
Mass	: 35g (Pull G)
	: 20g (Plate for Pull G)
Environment	: RoHS10 Compliant

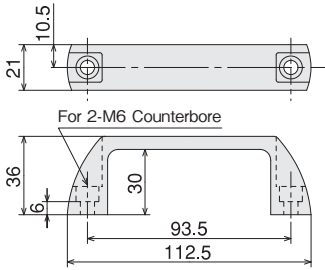
How to Install Pull G



● A double door can safely be opened and closed with the use of the Pull G.



Pull B



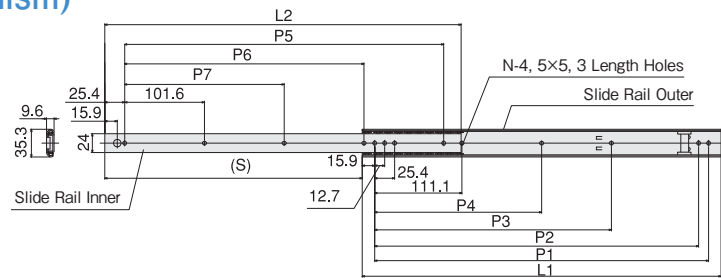
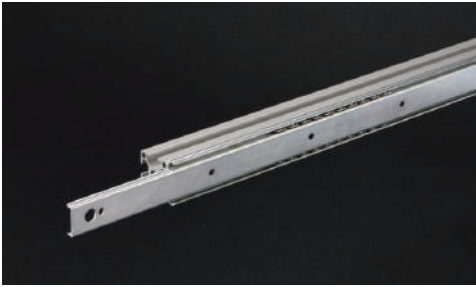
Name	Pull B Type
Item No.	SFA-308

Materials/Technical Data	
Material	: Glass Fiber Reinforced Nylon Black Attachment Bolt for M6
Mass	: 30g
Environment	: RoHS10 Compliant



Door Part

Slide Rail (With Holding Mechanism)



*When pulled out, the ball lock will engage easily.

	L1	L2	P1	P2	P3	P4	P5	P6	P7	(S)	N	Load Limit (N)	Mass (g)
Slide Rail 360 HD	355.6	352.6	323.8	311.1	200	111.1	304.8	203.2	101.6	277	11	284	356
Slide Rail 460 HD	457.2	454.2	425.4	412.7	301.6	212.7	406.4	304.8	203.2	328	13	421	468
Slide Rail 610 HD	609.6	606.6	577.8	565.1	454	288.9	558.8	457.2	279.4	430	13	441	621

Name	Slide Rail 360 HD	Slide Rail 460 HD	Slide Rail 610 HD
Item No.	SFA-T01	SFA-T02	SFA-T03

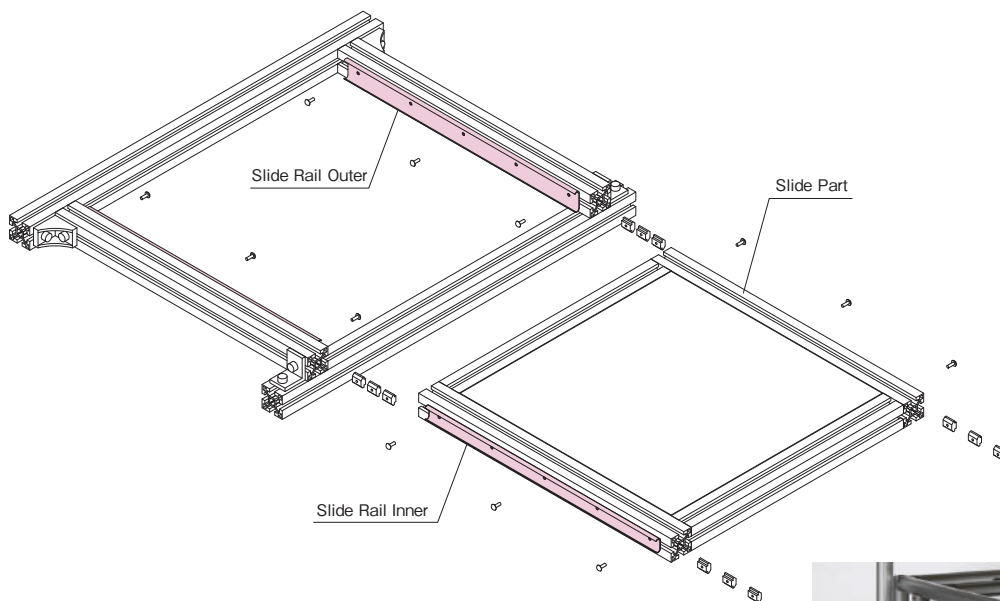
Materials/Technical Data

Material : SPCC

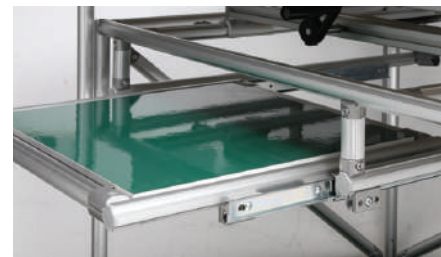
Mass : In the above table

Environment : RoHS10 Compliant

How to Install the Slide Rail



- *Prepare nuts and screws (truss screw M4) separately.
- *Plan on adjusting the side of the frame installed with the slide rail outer to the left and right.
- *We recommend that you use a frame 1 rank smaller than the slide rail outer attachment frame for the slide rail inner attachment frame.
- *The slide rail outer and slide rail inner cannot be separated.



Can be used with GF Series frames.

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data

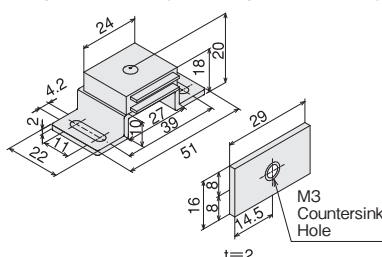


Door Part

Magnet Catch N



Magnet Catch N (Retaining Force: 29.4N)



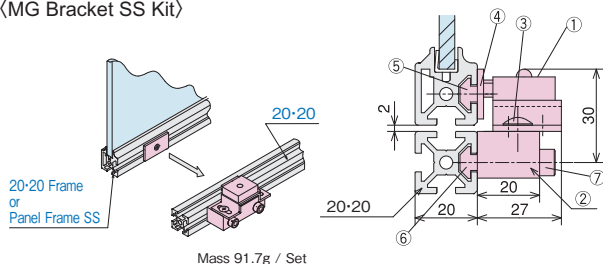
Name	Magnet Catch N	
Item No.	SFA-40A	

■ Materials/Technical Data

	Magnet Catch Housing	Magnet
Material	: Stainless Steel	Ferrite
	Dark Brown Painted	
Mass	: 35g (Magnet Catch N)	
Environment	: RoHS10 Compliant	

■ With door frame 20mm (including panel frame) Environment : RoHS10 Compliant

Door frame 20mm / Main unit frame 20mm
 〈MG Bracket SS Kit〉



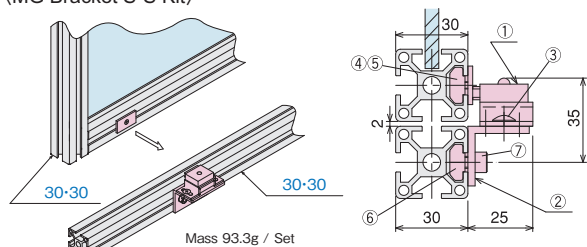
Kit Contents

- ①Magnet Catch N × 1
- ②MG Bracket SS × 1
- ③Truss Screw (M4 × 5) × 2
- ④Countersink Screw (M3 × 6) × 1
- ⑤T Nut SS (M3) × 1
- ⑥T Nut SS (M5) × 2
- ⑦Hexagon Socket Head Bolt (M5 × 25) × 2

Name	MG Bracket SS Kit
Item No.	SFK-4AA

■ With door frame 30mm Environment : **RoHS10** Compliant

Door frame 30mm / Main unit frame 30mm
 〈MG Bracket S-S Kit〉

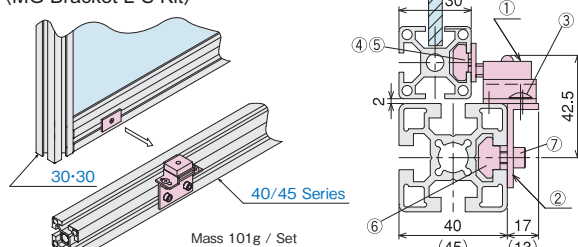


■ Kit Contents

- ①Magnet Catch N × 1
- ②MG Bracket S-S × 1
- ③Truss Screw (M4 × 5) × 2
- ④Countersink Screw (M3 × 8) × 1
- ⑤T Nut S (M3) × 1
- ⑥T Nut S (M5) × 2
- ⑦Hexagon Socket Head Bolt (M5 × 10) × 2

Name	MG Bracket S-S Kit	④Countersink Screw (M3 × 8) × 1 ⑤T Nut S (M3) × 1 ⑥T Nut S (M5) × 2
Item No.	SFK-4AH	⑦Hexagon Socket Head Bolt (M5 × 10) × 2

Door frame 30mm / Main unit frame 40mm / 45mm
 〈MG Bracket L-S Kit〉

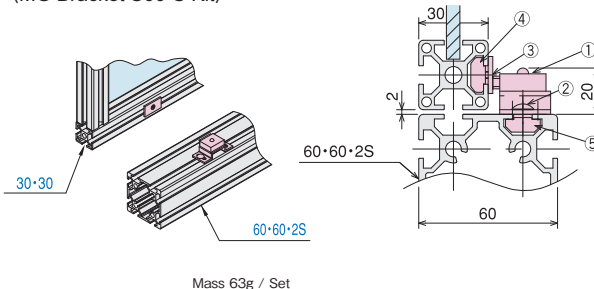


Kit Contents

- ① Magnet Catch N x 1
- ② MG Bracket L-S x 1
- ③ Truss Screw (M4 x 5) x 2
- ④ Countersink Screw (M3 x 8) x 1
- ⑤ T Nut S (M3) x 1
- ⑥ T Nut L (M5) x 2
- ⑦ Hexagon Socket Head Bolt (M5 x 14) x 2
- ⑧ Flat Washer M5 Large Type x 2

Name	MG Bracket L-S Kit	⑤T Nut S (M3) × 1 ⑥T Nut L (M5) × 2
Item No.	SFK-4AE	⑦Hexagon Socket Head Bolt (M5 × 14) × 2 ⑧Flat Washer M5 Large Type × 2

Door frame 30mm / Main unit frame 60mm (2 Row Slot Type)
 〈MG Bracket S60-S Kit〉

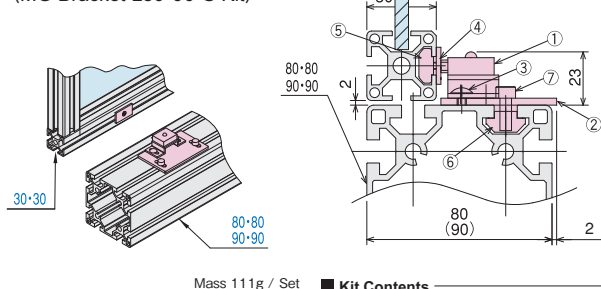


■ Kit Contents

- ① Magnet Catch N × 1
- ② Truss Screw (M4 × 10) × 2
- ③ Countersink Screw (M3 × 8) × 1
- ④ T Nut S (M3) × 1
- ⑤ T Nut S (M4) × 2

Name	MG Bracket S60-S Kit	②Truss Screw (M4 × 10) × 2 ③Countersink Screw (M3 × 8) × 1
Item No.	SFK-4AN	④T Nut S (M3) × 1 ⑤T Nut S (M4) × 2

Door frame 30mm / Main unit frame 80mm (2 Row Slot Type) / 90mm
 〈MG Bracket L80・90・S Kit〉



■ Kit Contents

- ① Magnet Catch N × 1
- ② MG Bracket L80 × 90 × 1
- ③ Truss Screw (M4 × 5) × 2
- ④ Countersink Screw (M3 × 8) × 1
- ⑤ T Nut S (M3) × 1
- ⑥ T Nut L (M3) × 2
- ⑦ Hexagon Socket Head Bolt (M5 × 14) × 2

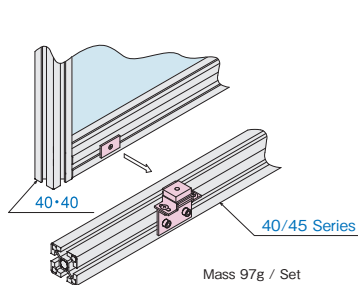
Name	MG Bracket L80*90-S Kit	④ Countersink Screw (M3 × 8) × 1
Item No.	SFK-4AL	⑤ T Nut S (M3) × 1
		⑥ T Nut L (M5) × 2
		⑦ Hexagon Socket Head Bolt (M5 × 14) × 2



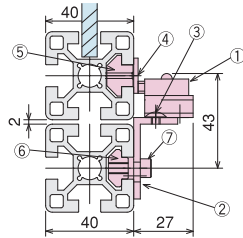
Door Part

■ With door frame 40mm Environment : RoHS10 Compliant

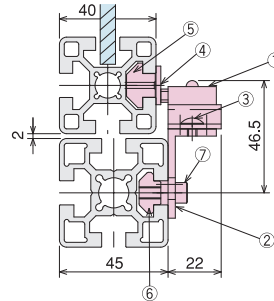
Door frame 40mm / Main unit frame 40mm (MG Bracket L-L40 Kit)



〈Main unit frame 40mm〉



〈Main unit frame 45mm〉

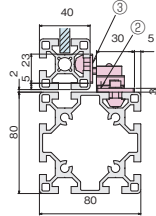
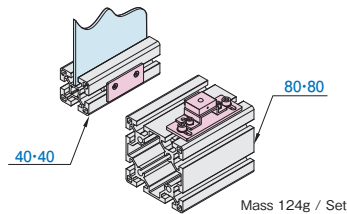


■ Kit Contents

- ① Magnet Catch N × 1
- ② MG Bracket L × 1
- ③ Truss Screw (M4 × 5) × 2
- ④ Countersink Screw (M3 × 10) × 1
- ⑤ Accessory Nut L M3 × 1
- ⑥ T Nut L (M5) × 2
- ⑦ Hexagon Socket Head Bolt (M5 × 15) × 2

Name	MG Bracket L-L40 Kit
Item No.	SFK-4AM

Door frame 40mm / Main unit frame 80mm (MG Bracket L80-40 Kit)



■ Kit Contents

- ① Magnet Catch N × 1
- ② MG Plate S50・S60-SS × 1
- ③ CC Magnet PlateA × 1
- ④ A Easy Nut L (M5) × 2
- ⑤ A Easy Nut L (M3) × 2
- ⑥ Hexagon Socket Head Bolt M4 × 5 (Stainless) × 2
- ⑦ Hexagon Socket Head Bolt M5 × 15 (Stainless) × 2
- ⑧ Hexagon Socket Head Countersink Bolt M3 × 12 (Stainless) × 2
- ⑨ Flat Washer M4 (Stainless Steel) Small Round Type × 2
- ⑩ Flat Washer M5 (Stainless Steel) Small Round Type × 2

Name	MG Bracket L80-40 Kit
Item No.	SFK-4AS

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

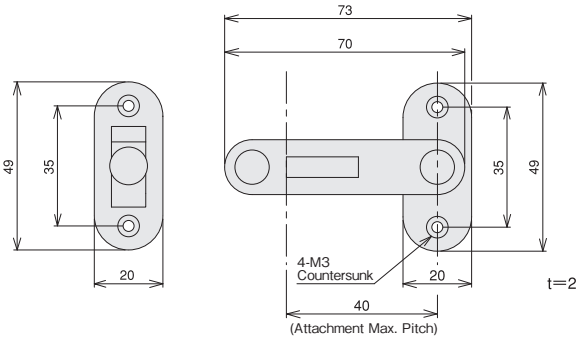
SF Additional
Processing

SF
Technical Data



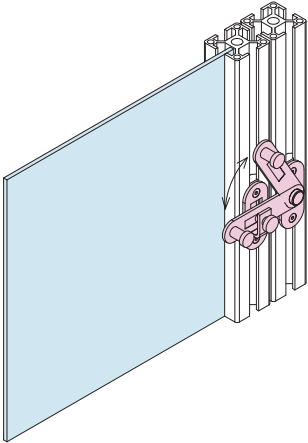
Door Part

Latch Lock 70mm

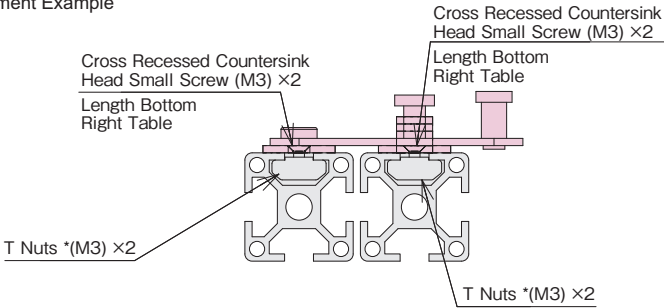


Name	Latch Lock 70mm (Stainless)
Item No.	SFA-3A1

Materials/Technical Data	
Material	: SUS304
Mass	: 53g
Environment	: RoHS10 Compliant



Attachment Example



*Select T-nuts based on the shape of the frame.
After-nuts can also be used.

Frame	Screw Length (mm)
☐ For 20mm	6
☐ For 30mm	8

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data

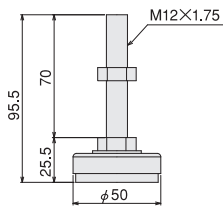


Foot

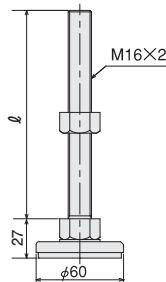
Adjuster A



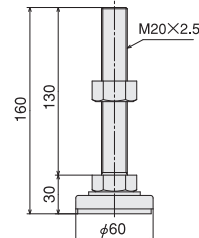
Adjuster A M12



Adjuster A M16



Adjuster A M20



Materials/Technical Data

Material : SS400 (Zn Black)
SPCC/SWCH
Base : Neoprene Rubber
Environment : **RoHS10** Compliant

SUS Original Adjuster A

Name	Adjuster A			
	M12-70	M16-140T	M16-70T	M20-130T
ℓ (mm)	70	140	70	130
Mass (g)	173	384	283	520
Max Load (N)	3500	5000	5000	5000
Item No.	SFA-607	SFK-935	SFK-936	SFK-938

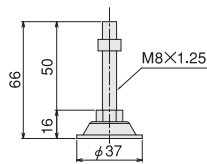
Adjuster A

Adjuster A		
M16	M16 Short	M20
143	70	130
386	290	536
5000	5000	5000
SFK-596	SFK-596S	SFK-599

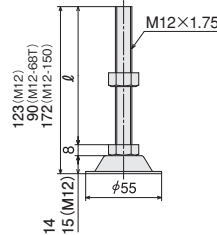
Adjuster B



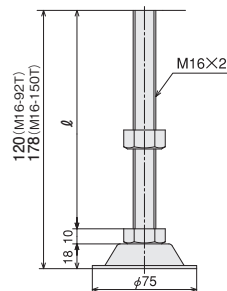
Adjuster B M8



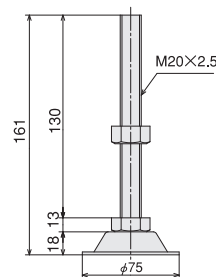
Adjuster B M12



Adjuster B M16



Adjuster B M20



Materials/Technical Data

Material : SS400
SUS304 (Stainless)
SPCC/SWCH
SPHC/SS400/SWRM
Environment : **RoHS10** Compliant

- Adds a cross recess to the bottom of the existing adjuster. Can be attached with an electric screwdriver.

■ Target
SFK-C84
SFK-933
SFK-933S



SUS Original Adjuster B

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
Mass (g)	129	153	155	276	346	349	499
Max Load (N)	3500	5000	3000	5600	5600	5600	8800
Item No.	SFK-C84	SFK-933	SFK-933S	SFK-C89	SFK-934	SFK-934S	SFK-937S

Adjuster B

Name	Adjuster B									
	M8-50	M8-50 (Stainless)	M12	M12 (Stainless)	M12-50	M12-50 (Stainless)	M12-150	M12-150 (Stainless)	BM16	BM16 (Stainless)
ℓ (mm)	50	50	100	100	50	50	150	150	150	150
Mass (g)	55	55	190	165	138	197	205	204	375	375
Max Load (N)	2000	2000	5000	3000	5000	5000	6000	5000	5600	5600
Item No.	SFA-613	SFA-613S	SFK-584	SFK-584U	SFA-604	SFA-604S	SFA-614	SFA-614S	SFK-589	SFK-589S



SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data

Foot

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

Small Adjuster M12



- Adds a cross recess to the bottom of the existing adjuster. Can be attached with an electric screwdriver.

Target

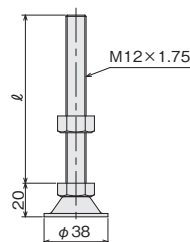
GFN-002

GFN-000

GFN-003S



Base


Materials/Technical Data

M12-60T

Material : SS400

M12-100T

Material : SS400

M12-100T(Stainless)/M12(Stainless)

Material : SUS304

Environment : **RoHS10** Compliant

SUS Original Small Adjuster

Name	Small Adjuster		
	M12-60T	M12-100T	M12-100T (Stainless)
ℓ (mm)	60	100	100
Mass (g)	101	132	134
Max Load (N)	2000	2000	1200
Item No.	GFN-002	GFN-000	GFN-003S

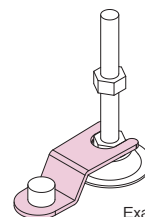
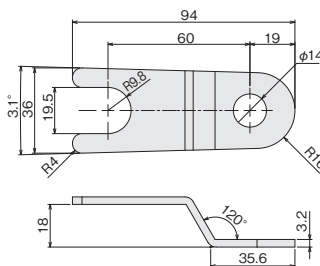
Small Adjuster

Name	Small Adjuster
	M12 (Stainless)
ℓ (mm)	100
Mass (g)	200
Max Load (N)	1200
Item No.	GFN-001

Adjuster Holding Bracket



- Dedicated fitting for holding down the M12 adjuster. Prevents movement caused by vibration or impact.



Example of Use

Name	Adjuster Holding Bracket
Item No.	GFA-B89

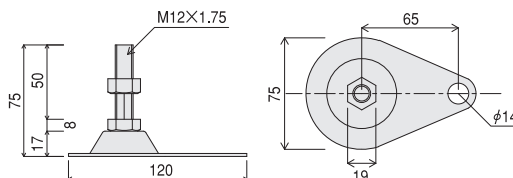
Materials/Technical Data

Material : SPCC

Mass : 70g

Environment : **RoHS10** Compliant

Floor Mounting Hole-Drilled Adjuster



Name	Adjuster B	
	M12-50A	M12-50A (Stainless)
ℓ (mm)	50	50
Mass (g)	195	197
Max Load (N)	5000	5000
Item No.	SFA-605	SFA-605S

Materials/Technical Data

Material : SS400

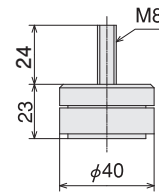
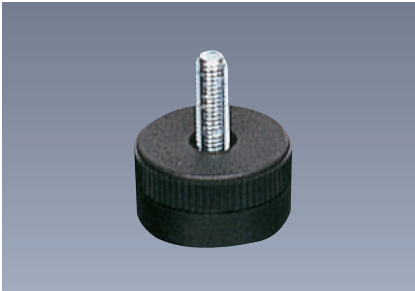
SUS304 (Stainless)

Environment : **RoHS10** Compliant



Foot

Foot M8



Name	Foot M8
Item No.	SFA-602

Materials/Technical Data

Material	: Low carbon steel rods
Base	: PA
Mass	: 35g
Max Load	: 800N
Environment	: RoHS10 Compliant

SF 20

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 30

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF Common parts

Door Part

Foot Component

Bolt Nut

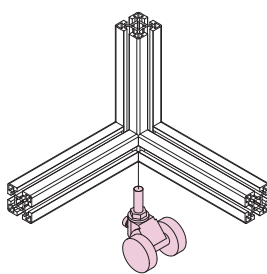
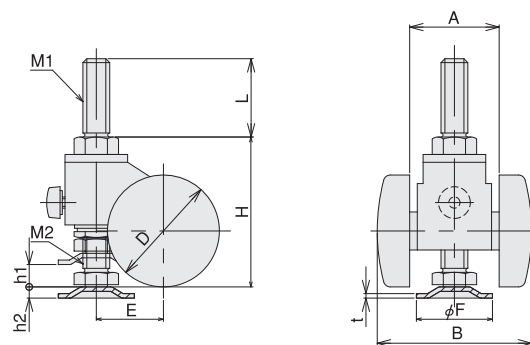
SF Additional
Processing

SF
Technical Data

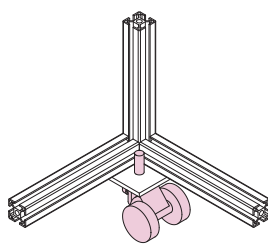
Caspad



- This product combines the caster and adjuster into one item. The elastomer type offers quiet, cushioned rolling. It is also highly resistant to oil and general wear.



● Attach to the frame



● Attach to the
adjuster plate

Dimensions

	D	H	h1	h2	E	F	A	B	L	t	M1	M2	Max Load (N)	Weight (g)
Caspad $\phi 50$ -M12 Nylon	50	67	10	5	30	34	40	69	35	2	M12	M12	588	260
Caspad $\phi 75$ -M16 Nylon	75	95	24	5	35	42	50	84	35	2	M16	M12	1176	400

Name	Caspad $\phi 50$ -M12 Nylon (Black)
Item No.	SFA-703
Name	Caspad $\phi 75$ -M16 Nylon (Black)
Item No.	SFA-704

Materials/Technical Data

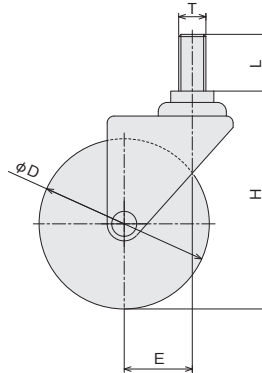
Material	: Main Unit : PA
	: Metal Part : SS400
	: Wheel : PA
Environment	: RoHS10 Compliant



Foot

Screw Fitting Caster

Environment : RoHS10 Compliant



■ SUS Original Screw Fitting Caster Size / Mass

D (mm)	T (mm)	Wheel Material	Main Unit Material	Item No. Without Brake	Item No. With Brake	Max Load	L (mm)	H (mm)	E (mm)	Mass (g)
φ50	M8	Rubber	Steel	GFN-665	GFN-666	300N	14	68	21	151 (182)
φ75	M12	Rubber	Steel	GFN-667	GFN-668	400N	25	95	28	245 (270)

■ Original Screw Fitting Caster Size / Mass

D (mm)	T (mm)	Wheel Material	Main Unit Material	Item No. Without Brake	Item No. With Brake	Max Load	L (mm)	H (mm)	E (mm)	Mass (g)
φ50	M8	Rubber	Steel	GFN-619	GFN-620	300N	14	67	20	152 (173)
	M12	Rubber	Steel	SFK-582	SFK-583	300N	35	68	21	190 (210)
		Nylon	Stainless Steel	SFK-582S	SFK-583S	400N	35	68	21	147 (175)
φ75	M12	Rubber	Steel	GFN-525	GFN-523	400N	25	96	30	282 (312)
		Urethane		GFN-537	GFN-541	500N	25	95	29	282 (312)
		Nylon		GFN-609	GFN-610	500N	25	95	29	188 (237)
		Conductive		GFN-526	GFN-524	240N	25	95	29	316 (352)
φ100	M16	Rubber	Steel	GFN-544	GFN-542	500N	40	126	32	650 (703)
		Urethane		GFN-613	GFN-614	600N	40	126	32	452 (520)
		Nylon		GFN-611	GFN-612	600N	40	126	32	413 (488)
		Conductive		GFN-545	GFN-543	300N	40	126	32	634 (703)

● (Blue text) indicates mass with brakes. ● Use a thin spanner to attach.

Caster Material



Urethane

Nylon

Conductive

Caster Material Features

	Elasticity	Wear Resistant	Oil Resistant	Water Resistant	Chemical Resistant	Heat Resistant
Rubber	◎	○	×	○	○	○
Urethane	○	◎	◎	△	○	○
Nylon	×	◎	◎	◎	◎	○
Conductive (Rubber)	◎	○	×	○	○	○

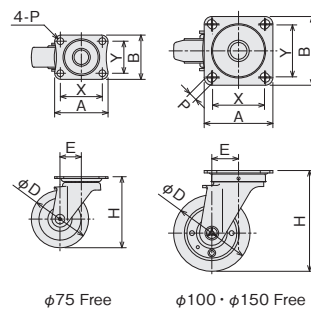


Foot

Free Fix Caster



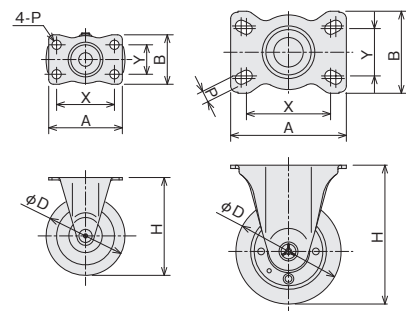
Free Caster



φ75 Free

φ100 · φ150 Free

Fixed Caster



φ75 Fixed

φ100 · φ150 Fixed

Environment : **RoHS10** Compliant

SF
20

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF
Common parts

Door Part

Foot Component

Bolt Nut

SF Additional
Processing

SF
Technical Data

Size / Mass

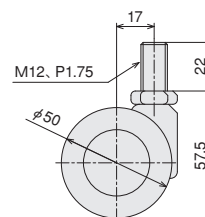
D (mm)	Wheel Material	Main Unit Material	Free Item No.		Fixed	Max Load	X (mm)	Y (mm)	A (mm)	B (mm)	H (mm)	P (mm)	E (mm)	Mass (g)
			Without Brake	With Brake										
φ75	Rubber	Steel	GFN-539	GFN-532	GFN-550	600N	55	42	70	58 (60)	93	8.8	28	610
	Urethane		GFN-540	GFN-533	GFN-551	800N								630
														306
	Conductive		GFN-538	GFN-531	GFN-552	360N								610
														630
														306
φ100	Rubber	Steel	GFN-504	GFN-500	GFN-502	1200N	68	68	90	90	132	11	35	1054
	Urethane		GFN-511	GFN-508	GFN-553	1000N								1054
														873
	Conductive		GFN-546	GFN-547	GFN-548	720N								1054
														1054
														873
φ150	Rubber	Steel	GFN-521	GFN-507	GFN-554	1600N	75	75	102 (106)	102 (111)	190	41	1810	
	Urethane		GFN-522	GFN-517	GFN-555	1400N							1840	
													1391	
	Conductive		GFN-510	GFN-516	GFN-556	960N							1810	
													1840	
													1467	

● Numbers in parentheses () indicated fixed caster dimensions.

● Mass Top: Without free brake
Middle: With free brake
Bottom: Fixed

Twin Wheel Caster (Threaded Shaft)

φ50 Twin Wheel Caster M12



Name	φ50 Twin Wheel Caster M12	φ50 Twin Wheel Caster M12 with Brake
Item No.	GFN-513	GFN-512

Materials/Technical Data

Material : PA
Max Load : 600N
Mass : 130g



STANDARD FRAME

SF

Common Parts

Bolt and Nut

Environment : RoHS10 Compliant

Hexagon Socket Head Cap Screw



Steel	Length (mm)										Trivalent Chromium Conversion Coating for Zinc Plating				
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-576	SFB-577	SFB-536	SFB-531A	
M4	SFB-54P	SFB-540	SFB-541	SFB-542	SFB-54Q				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-58P	SFB-580		SFB-581		SFB-589	SFB-582		SFB-583	SFB-584		
M10										SFB-929			SFB-92A	SFB-575	
M12										SFB-522		SFB-521	SFB-5U3		
Screw Size	40	45	50	55	60	70	80	85	90	110	115	120	125	130	
M3															
M4		SFB-545													
M5	SFB-55U1														
M6	SFB-565	SFB-574			SFB-56G										
M8	SFB-588	SFB-58A	SFB-59J	SFB-58H	SFB-58B		SFB-58C								
M10				SFB-52X			SFB-59C								
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-576S	SFB-577S	SFB-536S	SFB-53FS
M4	SFB-54PS	SFB-540S	SFB-541S	SFB-542S	SFB-54QS	SFB-578S		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-9D5	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-58GS	SFB-589S	SFB-582S	SFB-58DS	SFB-583S	SFB-584S		
M10						SFB-59GS					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-X42	SFB-53GS										
M4	SFB-5D2S	SFB-545S	SFB-54TS												
M5	SFB-55US	SFB-55PS	SFB-55WS	SFB-55QS	SFB-595S			SFB-55XS	SFB-55RS	SFB-55SS	SFB-55YS	SFB-55TS			
M6	SFB-565S	SFB-574S	SFB-56SS		SFB-56GS	SFB-56TS	SFB-56US			SFB-579S					SFB-56VS
M8	SFB-588S	SFB-58AS		SFB-58SS	SFB-58BS	SFB-58TS	SFB-58CS						SFB-58QS	SFB-58RS	
M10			SFB-596S				SFB-59CS				SFB-5D4S				SFB-58XS
M12							SFB-59DS			SFB-523S			SFB-59ES		

Steel (Black)		Length (mm)													
Screw Size		5	6	8	10	12	14	15	16	18	20	22	25	30	35
M3			SFB-B531	SFB-B532	SFB-B533	SFB-B534				SFB-B535				SFB-B536	
M4			SFB-B540	SFB-B541	SFB-B542					SFB-B546	SFB-B543	SFB-B54D	SFB-B544		
M5			SFB-B55E	SFB-B550	SFB-B551	SFB-B55C	SFB-B55A	SFB-B554		SFB-B55B	SFB-B555	SFB-B552	SFB-B553	SFB-B556	
M6			SFB-B56N	SFB-B56E	SFB-B561	SFB-B560	SFB-B56B	SFB-B562	SFB-B569	SFB-B56C	SFB-B563	SFB-B56A	SFB-B566	SFB-B564	
M8					SFB-B58H	SFB-B580		SFB-B581		SFB-B589	SFB-B582		SFB-B583	SFB-B584	
M12													SFB-B521		
Screw Size		40	45	50	55	60	70	80							
M3															
M4			SFB-B545												
M5															
M6	SFB-B565					SFB-B56G									
M8	SFB-B588	SFB-B58A				SFB-B58B		SFB-B58C							
M12															

Aluminum		Length (mm)				
Screw Size		8	10	12	15	20
M5	SFB-550L	SFB-551L				
M6				SFB-560L	SFB-562L	
M8					SFB-581L	SFB-582L

*Steel: White Trivalent Chromium Steel (black): Black Trivalent Chromium



Additional
Processing List
→ P.95



Technical
Data
→ P.103

Bolt Nut

Environment : **RoHS10** Compliant

■ Cross Slot Countersunk Bolt



Steel		Length (mm)												Trivalent Chromium Conversion Coating for Zinc Plating	
Screw Size		5	6	8	10	12	15	16	18	20	22	25	30	35	45
M3			SFB-530A	SFB-530	SFB-539	SFB-710									
M4			SFB-54A	SFB-54B	SFB-54E	SFB-54F									
M5				SFB-54G	SFB-559	SFB-557									
M6					SFB-54H	SFB-54J	SFB-54K								
Stainless		Length (mm)												Trivalent Chromium Conversion Coating for Zinc Plating	
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		SFB-711S	SFB-5G1S		
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						
Steel (Black)		Length (mm)												Trivalent Chromium Conversion Coating for Zinc Plating	
Screw Size		5	6	8	10	12	15	16	18	20	22	25	30	35	45
M4					SFB-B54E	SFB-B54F									
M5								SFB-B9P3							
M6									SFB-B571						

■ Hexagon Socket Countersunk Bolt



Steel	Length (mm)																Trivalent Chromium Conversion Coating for Zinc Plating					
Screw Size	6	8	10	12	15	16	18	20	25	30	35	40	45	50	55							
M3	SFB-5N3	SFB-53T	SFB-9L6	SFB-53A																		
M4	SFB-5N6	SFB-9L7	SFB-055																			
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-56T	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-5N3S	SFB-53TS	SFB-9L6S	SFB-53AS																		
M4	SFB-5N6S	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-9P9S	SFB-9N1S	SFB-9N2S		SFB-9R7S							
M10						SFB-920S																
Steel (Black)	Length (mm)																					
Screw Size	6	8	10	12	15	16	18	20	25	30	35	40	45	50	55							
M3				SFB-B53A																		
M4																						
M5		SFB-B917	SFB-B559	SFB-B927	SFB-B502			SFB-B55G														
M6		SFB-B56J	SFB-B914	SFB-B916	SFB-B915			SFB-B56D														
M8				SFB-B926	SFB-B918	SFB-B928		SFB-B58F														
M10						SFB-B920																

■ Truss Screw



Steel		Length (mm)											
Screw Size		5	6	8	10	12	14	15	18	20	30	35	
M3		SFB-53U	SFB-538										
M4		SFB-548	SFB-54U	SFB-54C	SFB-924	SFB-925		SFB-54L	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-557S	SFB-55LS	SFB-558S	SFB-55MS	SFB-558S	SFB-55NS					
M6					SFB-56KS	SFB-56LS							
Steel (Black)		Length (mm)											
Screw Size		5	6	8	10	12	14	15	18	20	30	35	
M4				SFB-B54C	SFB-B924	SFB-B925							
M5				SFB-B55L	SFB-B558	SFB-B55M		SFB-B55N					
M6					SFB-B56K	SFB-B56L							

■ Cross Recessed Round Wood Screw

Stainless		Length (mm)	
Screw Size		32	40
4.1		SFB-9C5	SFB-9B2

Steel		Length (mm)
Screw Size		22
4.1		SFB-9C4

■ Hexagon Socket Button Head Screw



Steel		Length (mm)										Trivalent Chromium Conversion Coating for Zinc Plating	
Screw Size		6	8	10	12	15	18	20	25	30	35		
M5		SFB-55T	SFB-55P	SFB-549		SFB-55D							
M6					SFB-56U			SFB-56F	SFB-567				
M8								SFB-585	SFB-586		SFB-587		
Stainless		Length (mm)										Trivalent Chromium Conversion Coating for Zinc Plating	
Screw Size		6	8	10	12	15	18	20	25	30	35		
M3		SFB-53WS	SFB-X14	SFB-X15	SFB-54NS								
M4			SFB-54WS	SFB-X17	SFB-590S						SFB-X30		
M5			SFB-9R6S	SFB-549S	SFB-5A0S	SFB-5A1S	SFB-5A2S			SFB-5A3S			
M6				SFB-56QS		SFB-56WS		SFB-56XS	SFB-567S	SFB-56RS			
M8						SFB-599S		SFB-58LS	SFB-586S		SFB-587S		
M10										SFB-591S			
M12											SFB-592S		

■ Hexagon Nut



Steel	Item No.
M5	SFB-961
M6	SFB-960
M8	SFB-959
M12	SFB-901

■ Toothed Washer

Stainless	Item No.
M3	SFB-9E1S
M4	SFB-9E2S
M5	SFB-9E3S
M6	SFB-9E4S
M8	SFB-9E5S



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



Assembled Delivery
Service
→ P.11



RoHS
→ P.162

STANDARD FRAME

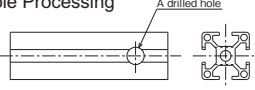
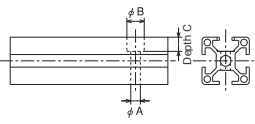
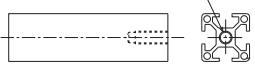
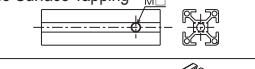
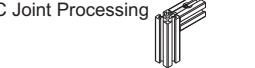
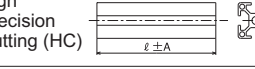
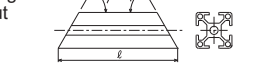
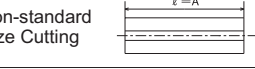
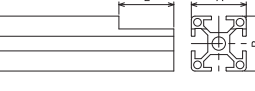
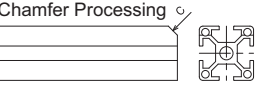
SF

**Additional
Processing**

Frame Processing List

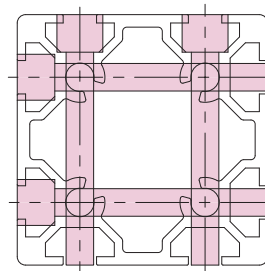
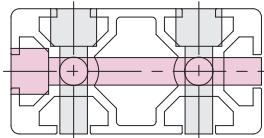
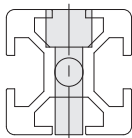
If you would like the processing listed below on the frame, include instructions with processing symbols (p.97~102) or diagrams.

*If there is no applicable processing symbol, please include instructions with diagrams or drawings.

Process Name	Process Content	Notes																
Hole Processing 	For A=8/11.1/13.1/15 For anything other than the above and A<20 For A≥20	See the processing symbols table on p.99~101 for TG Joint / S Double Joint / Tapping Bolt / KF Joint hole processing. Otherwise, please include instructions with diagrams. Please include instructions with diagrams.																
Countersink Processing 	<table><tr><td></td><td>A</td><td>B</td><td>C</td></tr><tr><td>SF 30 Series (For M6 Hexagon Socket Head Bolt)</td><td>6.6</td><td>11</td><td>9</td></tr><tr><td>SF 40~45 Series (For M8 Hexagon Socket Head Bolt)</td><td>9</td><td>14</td><td>12.5 (13)</td></tr><tr><td>SF 20 Series (For M5 Hexagon Socket Head Bolt)</td><td>5.5</td><td>9.5</td><td>6</td></tr></table> Any other countersink boring		A	B	C	SF 30 Series (For M6 Hexagon Socket Head Bolt)	6.6	11	9	SF 40~45 Series (For M8 Hexagon Socket Head Bolt)	9	14	12.5 (13)	SF 20 Series (For M5 Hexagon Socket Head Bolt)	5.5	9.5	6	 Please include instructions with diagrams.
	A	B	C															
SF 30 Series (For M6 Hexagon Socket Head Bolt)	6.6	11	9															
SF 40~45 Series (For M8 Hexagon Socket Head Bolt)	9	14	12.5 (13)															
SF 20 Series (For M5 Hexagon Socket Head Bolt)	5.5	9.5	6															
End Surface Tapping 	M5 Depth 15 • M8 Depth 24* • M12 Depth 36* M12 Helisert 1.5D M14 Depth 42	See p.102 *Can be processed up to a depth of 50mm. Please include instructions with diagrams. *If you do tapping on the SF2 end surface at your facility, we recommend using a spiral tap.																
Side Surface Tapping 	Frame Side Surface Tapping	Please include instructions with diagrams.																
QC Joint Processing 	QC Joint Hole Processing	See p.97~98																
High Precision Cutting (HC) 	A=0.5 A=0.2~0.4 (ℓ ≤1000mm)	Standard Cutting Dimensional Tolerance Please include instructions with diagrams.																
Diagonal Cut 	X=45° 45° < X < 90° (Increments of 0.5°) X < 45°	Please include instructions with process symbols. Otherwise, please include instructions with diagrams. Please include instructions with diagrams. *We cannot support side length ≥180.																
Non-standard Size Cutting 	30 mm ≤ A < 50mm dimension cutting	We can support instructions for cutting with dimensions of less than 50mm. *Same for XF and BF. We can support GF less than 100mm.																
Notch Processing 	<table><tr><td>A×B≤900mm</td><td>L≤100mm</td></tr><tr><td></td><td>100mm<L≤200mm</td></tr><tr><td>900mm<A×B≤2700mm</td><td>L≤100mm</td></tr><tr><td></td><td>100mm<L≤200mm</td></tr><tr><td>2700mm<A×B</td><td>L≤100mm</td></tr><tr><td></td><td>100mm<L≤200mm</td></tr></table>	A×B≤900mm	L≤100mm		100mm<L≤200mm	900mm<A×B≤2700mm	L≤100mm		100mm<L≤200mm	2700mm<A×B	L≤100mm		100mm<L≤200mm	 Please include instructions with diagrams.				
A×B≤900mm	L≤100mm																	
	100mm<L≤200mm																	
900mm<A×B≤2700mm	L≤100mm																	
	100mm<L≤200mm																	
2700mm<A×B	L≤100mm																	
	100mm<L≤200mm																	
C Chamfer Processing 	C 0.5 or less C 0.6~C 5 C 5.1~C 10 C 10.1 or more	 Please include instructions with diagrams.																

Caution when doing countersink processing

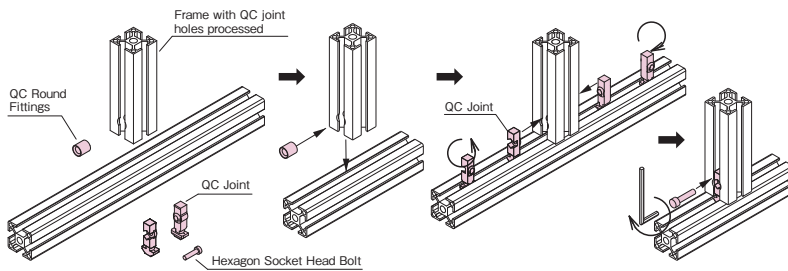
- We do not recommend fastening in a way that crushes the hollow portion as shown with the red countersink in the drawing.





QC Joint Frame Hole Processing Symbols

〈QC Joint Assembly Content〉



〈Dimensions for the Location of QC Joint Round Fittings Insertion Hole〉

	A	B
	A Dimensions	B Dimensions
SF-20 Series	9.8	7.1
SF-30 Series	14.8	11.1
SF-40 Series	20	13.1
SF-45 Series	19.5	13.1

- ◆QC Joint Insert the QC joint into the frame slot <can be inserted after>, align it with the other frame that has the QC round fitting attached and fasten it in place with bolts.
Because the two frames are joined together with a pulling force, they easily achieve a right angle while preventing gaps.
The outside joints will not protrude, creating a sleek appearance.
It is not necessary to put the nuts into the frame in advance, thus reducing work hours.

- When using the various QC joints on p.19/36/60, please give instructions with the following QC joint process symbols.
- Pay attention to the attachment orientation as QC joints cannot be inserted to surfaces without slots.



Item No. or Product Name	Length (mm)	Processing Symbols
SFF-404	ℓ=800	QCS

■ QC Jointing Process Symbols

Processing Symbols	QCS	QCW	QCC	QCV	QCY
Slot Type					
1 Row × 1 Row					
1 Row × 2 Rows					
2 Rows × 2 Rows					

SF 20

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 30

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF Common parts

Door Part

Foot Component

Bolt Nut

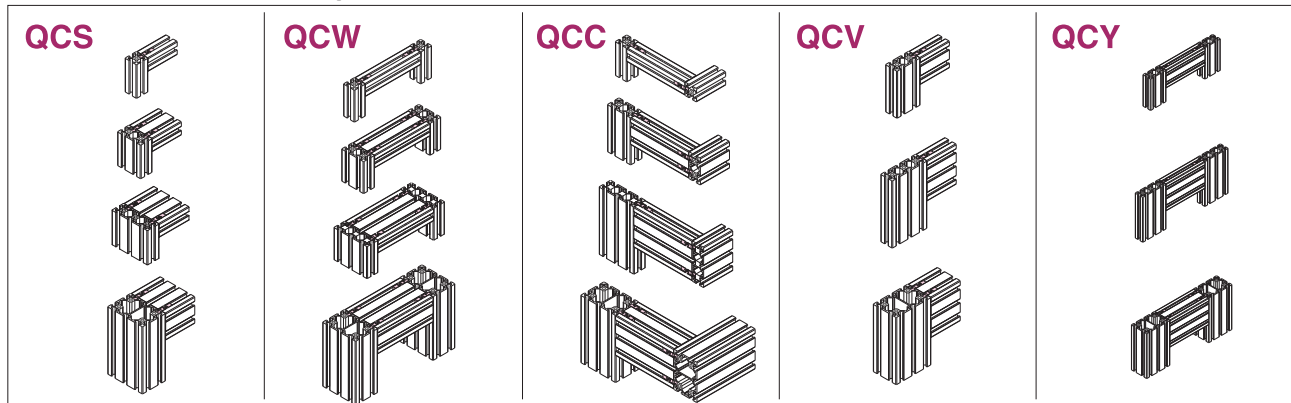
SF Additional Processing

SF Technical Data



QC Joint

QC Joint Reference Example

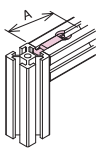


QC Joint Kit Compatibility Chart

Slot Type	Frame Name	QCS	QCW	QCC	QCV	QCY
1 Row × 1 Row	SF-20・20	SS Kit ×1	SS Kit ×2	SS Kit ×2	Not compatible	
	SF2-30・30	S Kit ×1	S Kit ×2	S Kit ×2		
	SF2-40・40	L40 Kit ×1	L40 Kit ×2	L40 Kit ×2		
	SF2-45・45	L45 Kit ×1	L45 Kit ×2	L45 Kit ×2		
1 Row × 2 Rows	SF-20・40	SS Kit ×2	SS Kit ×4	SS Kit ×2 / SS40 Kit ×1	SS40 Kit ×1	SS40 Kit ×2
	SF2-30・60	S Kit ×2	S Kit ×4	S Kit ×2 / S60 Kit ×1	S60 Kit ×1	S60 Kit ×2
	SF2-40・80	L40 Kit ×2	L40 Kit ×4	L40 Kit ×2 / L80 Kit ×1	L80 Kit ×1	L80 Kit ×2
	SF2-45・90	L45 Kit ×2	L45 Kit ×4	L45 Kit ×2 / L90 Kit ×1	L90 Kit ×1	L90 Kit ×2
2 Rows × 2 Rows	SF-40・40・2S	SS40 Kit ×2	SS40 Kit ×4	SS40 Kit ×4	Not compatible	
	SF2-60・60・2S	S60 Kit ×2	S60 Kit ×4			
	SF2-80・80	L80 Kit ×2	L80 Kit ×4			
	SF2-90・90	L90 Kit ×2	L90 Kit ×4	L90 Kit ×4		

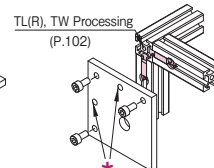
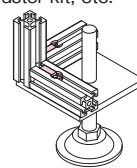
Notes for using QC joints

*On frames that have been processed for QC joints, a portion of the slots on the frame cannot be used.



Series	A Dimensions (mm)
SF20 Series	19.5
SF30 Series	27
SF40・45 Series	35

*Be aware of the following when using in combination with plates from a level adjuster kit, etc.

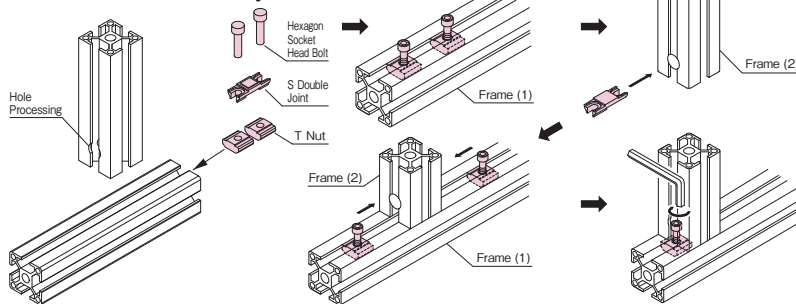


The QC joint and the mounting holes marked with * overlap, so tap the vertical frame and fix the plate in place at 3 points.

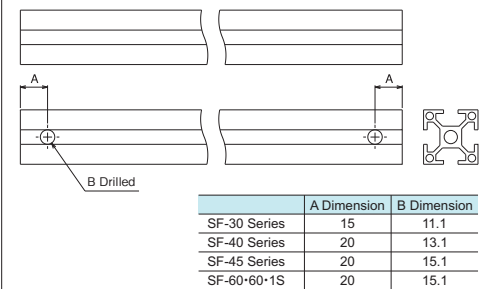


S Double Joint Frame Hole Processing Symbols

〈S Double Joint Assembly Content〉



〈S Double Joint Hole Position Dimensions〉



- ◆ S Double Joint Drill holes to insert S double joint fittings on frame (2), then insert nuts into frame (1) and fix it in place with bolts from both sides of the joint fittings.
Because the two frames are joined together with a pulling force, they easily achieve a right angle while preventing gaps.
The outside joints will not protrude, creating a sleek appearance.

When using the various S double joints on p.40/64, please give instructions with the S double joint hole process symbols on the frame, as shown below.

Item No. or Product Name Length (mm) Processing Symbols

Order
Example

SFF-404

ℓ=800

WJS

S Double Joint Processing List

Slot Type		1 Row × 1 Row	1 Row × 2 Rows	2 Rows × 2 Rows
SF-30 Series	S Double Joint Kit 30	SF2-30・30	SF2-30・60	
SF-40 Series	S Double Joint Kit 40	SF2-40・40	SF2-40・80	
SF-45 Series	S Double Joint Kit 45	SF2-45・45	SF2-45・90	
	S Double Joint Kit 80			SF2-80・80

Processing Symbols

WJS				
WJW				
WJC				

SF 20

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 30

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF Common parts

Door Part

Foot Component

Bolt Nut

SF Additional Processing

SF Technical Data



S Double Joint Reference

- SF 20
- Frame
- Bracket
- Nut
- Cap
- Foot Component
- Accessory
- Door Part

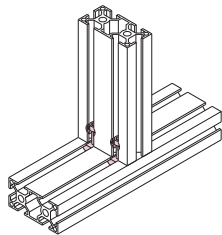
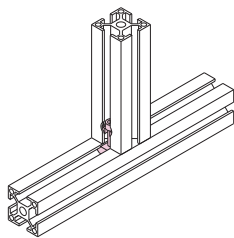
- SF 30
- Frame
- Bracket
- Nut
- Cap
- Foot Component
- Accessory
- Door Part

- SF 40.45
- Frame
- Bracket
- Nut
- Cap
- Foot Component
- Accessory
- Door Part

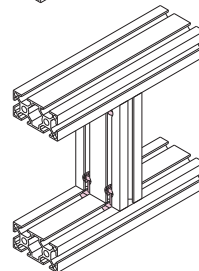
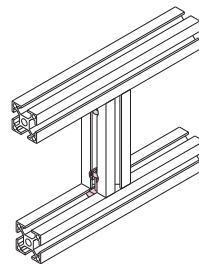
- SF Common parts
- Door Part
- Foot Component
- Bolt Nut

- SF Additional Processing
- SF Technical Data

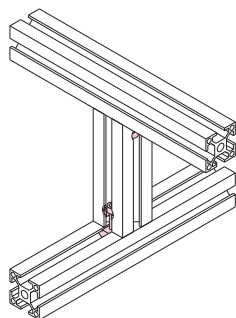
WJS



WJW



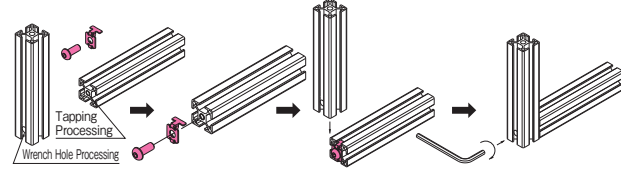
WJC





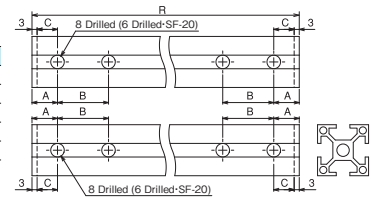
Symbols for Processing Holes in Frames with TG Joints

〈TG Assembly Content〉



〈TG Joint Tapping Hole Position Dimensions〉

	A Dimension	B Dimension	C Dimension
*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	—	—



- ◆ **TG Joint** Tap the end of one frame, then temporarily attach the TG joint fittings. Next, fully tighten the bolts starting with the wrench hole on the other frame.
Because the two frames are joined together with a pulling force, they easily achieve a right angle while preventing gaps. The outside joints will not protrude, creating a sleek appearance.

When using various TG joints, indicate the TG process symbols for the wrench holes that will be drilled.
For TG joints, you must also indicate surface tapping on the frame on the other side that you will connect to. (See p.102)

◆ Option 〈Specifications within frame cap outer dimensions〉

Use the option on the right when you want to keep the frame cap within the outer dimensions (frame and surface position).

*Indicate the length without the frame cap (actual length used).

*TG Plate L50, TG Plate 60, and TG Plate 80 do not support specifications within the frame cap's outer dimensions.

Item No. or Product Name

Length (mm)

Processing Symbols

Order Example

SFF-304

ℓ=800

TGW

3
3R
3L

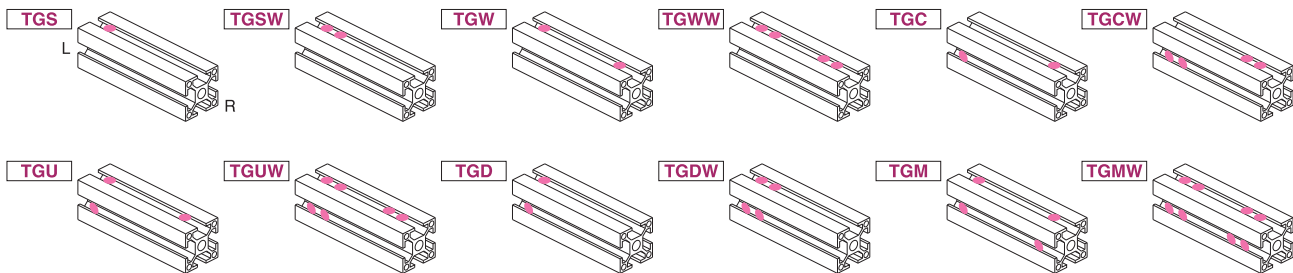
(A dimensions -3mm: Both End Surfaces)
(A dimensions -3mm: Only Right Side)
(A dimensions -3mm: Only Left Side)

■ TG Joint Process List



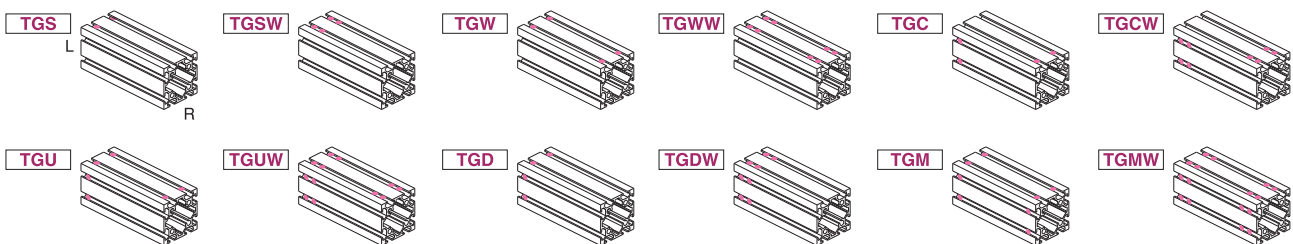
Slot Type 1 Row × 1 Row

◆ Target Frame ... SF2-30-30 SF2-40-40 SF2-45-45^{*2}



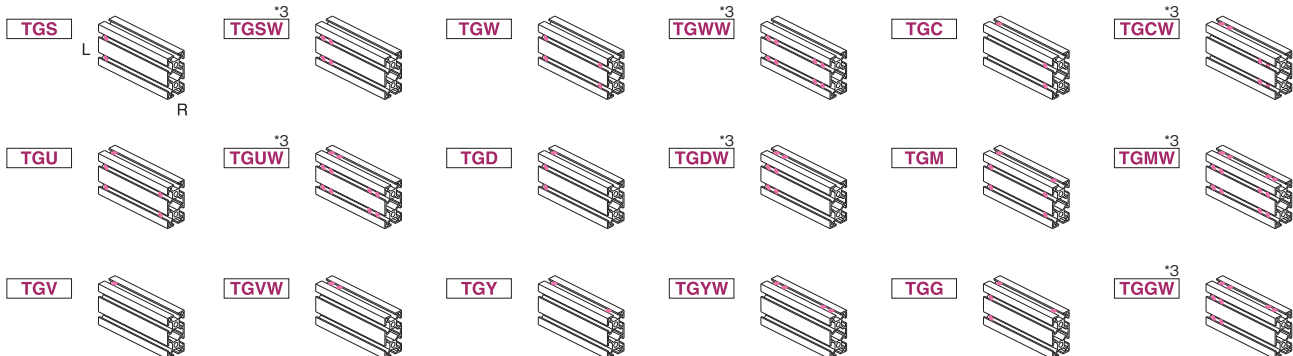
Slot Type 2 Rows × 2 Rows

◆ Target Frame ... SF-40-40-2S SF2-60-60-2S SF2-80-80



Slot Type 1 Row × 2 Rows

◆ Target Frame ... SF2-30-60 SF2-40-80 SF2-45-90



*2 TG Joint only

*3 Other than SF2-45-90 (including 1F), SF-45-90, SFK-45-90 (however SF2-40-80, SF-40-80, and SFK-40-80 are TG joint only)

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
Common parts

Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data



SF Additional Processing

Tapping on the Cut Surface of the Frame

*You can also place an order with diagrams or drawings explaining the processing instructions.

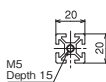
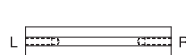
*We support non-standard depths. Please inquire for more details.

*L/R instructions are for use together with TG joint/S double joint/KF joint hole processing.

If you do not use them together, then L and R will be the same.

SF20 Series

SF-20•20



Item No. or Product Name Length (mm) Tapping Processing

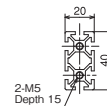
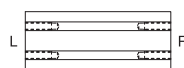
Order Example

SF-20•20

ℓ=800

TL or TR (If processing on both sides TW)

SF-20•40



Item No. or Product Name Length (mm) Tapping Processing

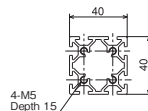
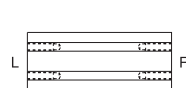
Order Example

SF-20•40

ℓ=800

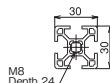
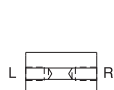
TL or TR (If processing on both sides TW)

SF-40•40•2S

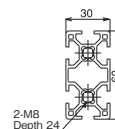
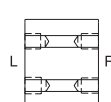


SF30 Series

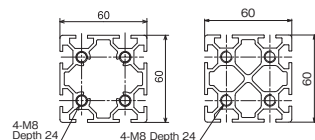
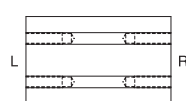
SF2-30•30



SF2-30•60

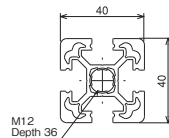
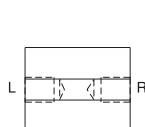


SF2-60•60•2S

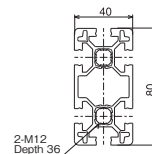
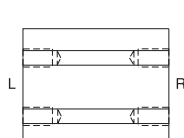


SF40 Series

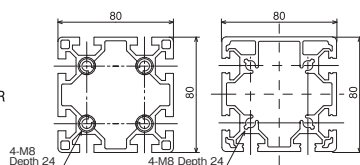
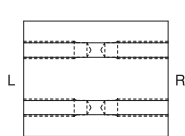
SF2-40•40



SF2-40•80

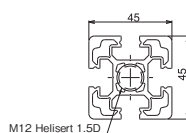
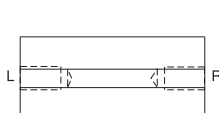


SF2-80•80

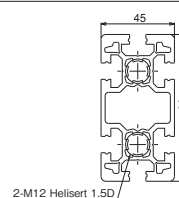
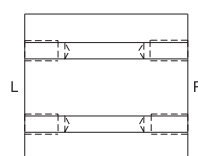


SF45 Series

SF2-45•45



SF2-45•90



STANDARD FRAME

SF

**Technical
Data**

Aluminum Frame Data

Material	Test Point Thickness (mm)	Tensile Strength	Load Bearing	Hardness
A6N01SS-T5	6 or lower	245N/mm ² or more	205N/mm ² or more	—
	Between 6 and 12	225N/mm ² or more	175N/mm ² or more	
A6063SS-T5	12 or lower	150N/mm ² or more	110N/mm ² or more	Vickers Hardness 58 or higher
	Between 12 and 25	145N/mm ² or more	105N/mm ² or more	

(According to JIS H4100 : 2006)

Product Name	Geometrical Moment of Inertia (X10 ⁴ mm ⁴)		Section Modulus (X10 ³ mm ³)		Ix X E	Iy X E	Cross Section Area (mm ²)	Unit Mass (kg/m)
	Ix	Iy	Zx	Zy	X10 ⁹ N·mm ²	X10 ⁹ N·mm ³		
SF-20·20	0.74	0.74	0.74	0.74	0.51	0.51	182	0.49
SF-20·40	5.12	1.36	2.56	1.36	3.53	0.94	324	0.87
SF-40·40·2S	8.89	8.89	4.45	4.45	6.13	6.13	478	1.29
SF2-30·30	2.87	2.87	1.91	1.91	1.98	1.98	311	0.84
SF2-30·60	20.97	5.42	6.99	3.61	14.47	3.74	555	1.50
SF2-60·60·2S	41.41	41.41	13.8	13.8	28.57	28.57	969	2.62
SF2-40·40	10.73	10.73	5.37	5.37	7.40	7.40	611	1.65
SF2-40·80	72.40	19.92	18.10	9.96	49.96	13.74	1036	2.80
SF2-80·80	129.90	129.90	32.48	32.48	89.63	89.63	1652	4.46
SF2-45·45	15.66	15.66	6.96	6.96	10.81	10.81	734	1.98
SF2-45·90	129.24	33.32	28.72	14.81	89.18	22.99	1434	3.87
SF2-90·90	210.49	210.49	46.76	46.76	145.24	145.24	2111	5.70

Reference: Steel Frame Data

Equal-angle Steel I-beam Steel Frame	I × E ×10 ⁹ N·mm ²	Unit Mass kg/m	Square Steel Steel Frame	I × E ×10 ⁹ N·mm ²	Unit Mass kg/m
L30×30×t3	2.92	1.32	□50×50×t2.3	32.72	3.34
L40×40×t5	11.15	2.95	□50×50×t3.2	41.98	4.50
L50×50×t6	22.84	3.77	□60×60×t2.3	58.24	4.06
L65×65×t6	60.51	5.91	□75×75×t2.3	117.50	5.14
L75×75×t6	94.87	6.85			

I×E= Geometrical Moment of Inertia mm⁴ × Longitudinal Modulus N/mm²
*Logitudinal Modulus E = 69000N/mm² (6N01/6063)
●Frame Selection Guide
Ix × E (Aluminum Frame) ≥ I × E (Steel Frame)
Iy × E (Aluminum Frame) ≥ I × E (Steel Frame)

SF 20

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 30

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF 40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF Common parts

Door Part

Foot Component

Bolt Nut

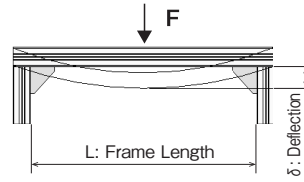
SF Additional Processing

SF Technical Data

Frame Recommended Load

Conditions: Indicates the recommended load when both ends of the frame are supported and a concentrated load F is applied in the direction of the arrow.

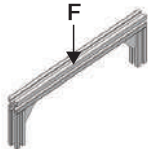
Recommended Load: Load where the deflection δ becomes 1/1000 of a frame length L . Displacement load of both the supporting brackets are not considered.



Formula
◆ Recommended Load for Usage
$$\delta = \frac{FL^3}{48EI}$$

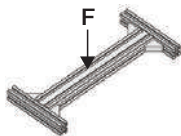
◆ Critical Load
$$\sigma = \frac{FL}{4Z}$$

■ SF-20・20 SFF-204



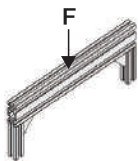
Frame Length (mm)	Allowable Deflection (mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	90	1200
1000	1	24	600
1500	1.5	10	400
2000	2	6	300

■ SF-20・40 SFF-244



〈Horizontal〉

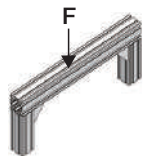
Frame Length (mm)	Allowable Deflection (mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	180	2200
1000	1	45	1100
1500	1.5	20	740
2000	2	10	550



〈Vertical〉

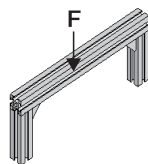
Frame Length (mm)	Allowable Deflection (mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	680	4100
1000	1	170	2000
1500	1.5	75	1300
2000	2	40	1000

■ SF-40・40・2S SFF-404W



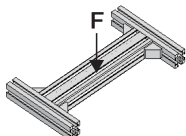
Frame Length (mm)	Allowable Deflection (mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	1100	7200
1000	1	290	3600
1500	1.5	130	2400
2000	2	70	1800

■ SF2-30・30 SFF-324



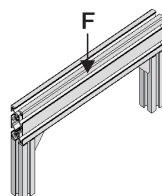
Frame Length (mm)	Allowable Deflection (mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	380	3100
1000	1	95	1500
1500	1.5	40	1000
2000	2	20	770

■ SF2-30・60 SFF-334



〈Horizontal〉

Frame Length (mm)	Allowable Deflection (mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	710	5800
1000	1	170	2900
1500	1.5	75	1950
2000	2	40	1450



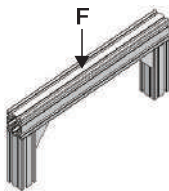
〈Vertical〉

Frame Length (mm)	Allowable Deflection (mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	2790	11300
1000	1	690	5600
1500	1.5	310	3700
2000	2	170	2800

Frame Recommended Load

SF
20

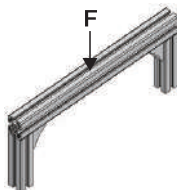
■ SF2-60・60・2S SFF-6A4



Frame Length (mm)	Allowable Deflection(mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	5500	22600
1000	1	1350	11300
1500	1.5	600	7500
2000	2	340	5650

SF
30

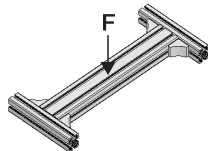
■ SF2-40・40 SFF-424



Frame Length (mm)	Allowable Deflection(mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	1400	8600
1000	1	350	4300
1500	1.5	150	2800
2000	2	80	2100

SF
40.45

■ SF2-40・80 SFF-434



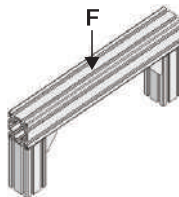
〈Horizontal〉

Frame Length (mm)	Allowable Deflection(mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	2650	16300
1000	1	660	8100
1500	1.5	290	5440
2000	2	160	4050

〈Vertical〉

Frame Length (mm)	Allowable Deflection(mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	9700	29600
1000	1	2400	14800
1500	1.5	1080	9800
2000	2	600	7400

■ SF2-80・80 SFF-834



Frame Length (mm)	Allowable Deflection(mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	17400	53200
1000	1	4300	26600
1500	1.5	1900	17700
2000	2	1000	13300

SF

Common parts

Door Part

Foot Component

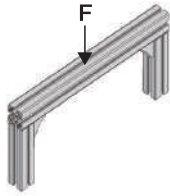
Bolt Nut

SF Additional Processing

SF Technical Data

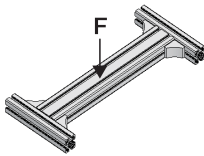


■ SF2-45・45 SFF-444



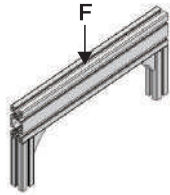
Frame Length (mm)	Allowable Deflection(mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	2000	11000
1000	1	500	5500
1500	1.5	200	3700
2000	2	120	2700

■ SF2-45・90 SFF-474



〈Horizontal〉

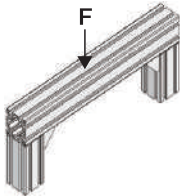
Frame Length (mm)	Allowable Deflection(mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	4400	24000
1000	1	1100	12000
1500	1.5	450	8000
2000	2	250	6000



〈Vertical〉

Frame Length (mm)	Allowable Deflection(mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	17300	47100
1000	1	4300	23500
1500	1.5	1900	15700
2000	2	1000	11700

■ SF2-90・90 SFF-924



Frame Length (mm)	Allowable Deflection(mm) 1/1000	Recommended Load for Usage (N)	Critical Load (N)
500	0.5	27500	76600
1000	1	6800	38000
1500	1.5	3000	25500
2000	2	1700	19000

SF
20

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot
Component

Accessory

Door Part

SF

Common parts

Door Part

Foot
Component

Bolt
Nut

SF Additional
Processing

SF
Technical Data



SF Bracket & Joint Allowable Load Guide

Joint with the frame (allowable limit for fixed cantilever). 50% of the calculated value from experiment results.

(Slide: N, Moment: N·m)

D Bracket							
Frame Size	Proper Tightening Torque	Displacement	Moment ①	Moment ②	Moment ③	Moment ④	Moment ⑤
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	1000	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

(Slide: N, Moment: N·m)

Hard Bracket							
Frame Size	Proper Tightening Torque	Displacement	Moment ①	Moment ②	Moment ③	Moment ④	Moment ⑤
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

(Slide: N, Moment: N·m)

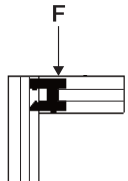
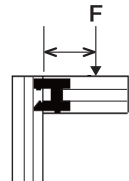
TG Joint			
Frame Size	Proper Tightening Torque	Displacement	Moment Load
30	10.8 N·m	500	40.0
40	24.9 N·m	500	50.0
45	24.9 N·m	500	50.0
60·1S	10.8 N·m	2210	57.0
80·2S	24.9 N·m	2440	240.0

(Slide: N, Moment: N·m)

Blind Bracket			
Frame Size	Proper Tightening Torque	Displacement	Moment Load
20	1.5 N·m	105	1.3
30	5.1 N·m	500	6.0
40	12 N·m	500	14.0
45	12 N·m	500	13.8



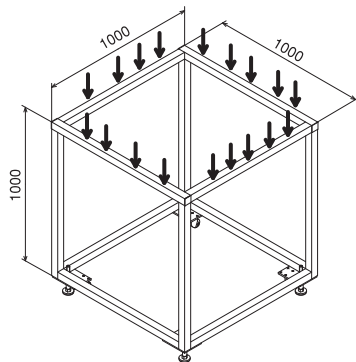
(Slide: N, Moment: N·m)

QC Joint			
Frame Size	Proper Tightening Torque	Displacement	Moment Load
30	7.4 N·m	126	12.0
40	10.8 N·m	361	39.5
45	10.8 N·m	510	48.8
60·2S	7.4 N·m	290	162.6
80·2S	10.8 N·m	560	281.1
90·2S	10.8 N·m	620	273.9

Unit Allowable Load Guide

Uniformly Distributed Load

When the load is distributed uniformly on the frame

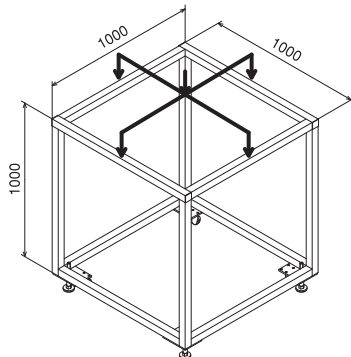


Conditions: Calculated based on a flat 1000mm × 1000mm plane from which the frame deflects 1mm at the center.

Product Name	Evenly Distributed Load Allowance (N)		Concentrated Load Allowance (N)	
	Horizontal	Vertical	Horizontal	Vertical
SF-20·20	180		112	
SF-20·40	330	1244	207	777
SF-40·40·2S	2454		1534	
SF2-30·30	738		461	
SF2-30·60	1400	5380	875	3363
SF2-40·40	2910		1818	
SF2-40·80	5499	19986	3437	12491
SF2-45·45	4359		2724	
SF2-45·90	9504	36865	5940	23041

Concentrated Load

When the load is concentrated in the center of the frame



SF
20

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF
30

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF
40.45

Frame

Bracket

Nut

Cap

Foot Component

Accessory

Door Part

SF
Common parts

Door Part

Foot Component

Bolt Nut

SF Additional
Processing

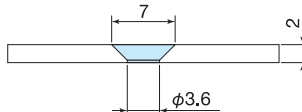
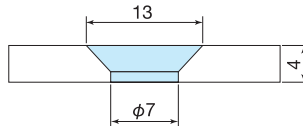
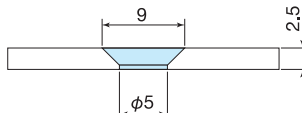
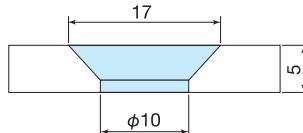
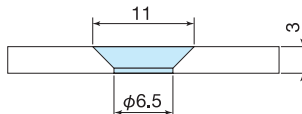
SF
Technical Data



Panel Processing Dimensions

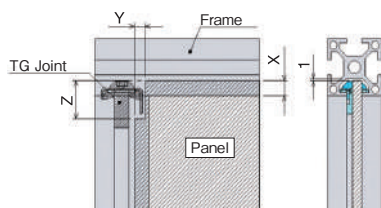
Panel Size	Processing	Applicable Panel Thickness
M3	3.6 Drilled hole $\phi 7$ Countersink	2mm or more
M4	5 Drilled hole $\phi 9$ Countersink	2.5mm or more
M5	6 Drilled hole $\phi 11$ Countersink	3mm or more
M6	7 Drilled hole $\phi 13$ Countersink	4mm or more
M8	10 Drilled hole $\phi 17$ Countersink	5mm or more

*Numbers above are the processing diameters used by SUS.

M3 3.6 Drilled hole $\phi 7$ CountersinkM6 7 Drilled hole $\phi 13$ CountersinkM4 5 Drilled hole $\phi 9$ CountersinkM8 10 Drilled hole $\phi 17$ CountersinkM5 6 Drilled hole $\phi 11$ Countersink

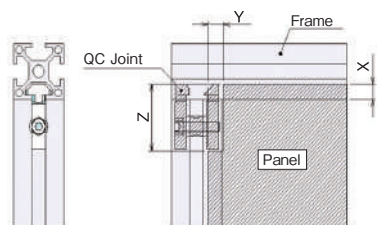
Panel Notching Dimensions When Using Panel Clamp With Joint or Bracket

1. When Using TG Joint With Panel Clamp



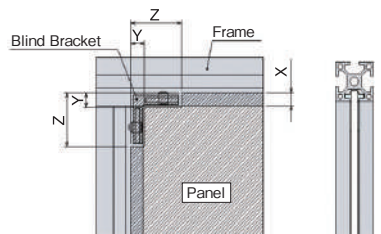
Frame	Panel Clamp	Panel Thickness	Joint	Panel Insertion Dimensions (One Side)	Y	Z
SF30	Panel Clamp 2030	3 or 5	TG Joint 30	8	6	20
SF60	Panel Clamp 4045	3 or 5	TG Joint 60	8	12	20
SF40	Panel Clamp 4045	3 or 5	TG Joint 40-45	11.5	9	23
SF45	Panel Clamp 4045	3 or 5	TG Joint 40-45	12	9	23

2. When Using QC Joint With Panel Clamp



Frame	Panel Clamp	Panel Thickness	Joint	Panel Insertion Dimensions (One Side)	Y	Z
SF20	Panel Clamp 2030	3	QC Joint SS	5	6	25.5
SF30	Panel Clamp 2030/30	3 or 5	QC Joint S	8	9	36
SF40	Panel Clamp 4045	3 or 5	QC Joint L	11.5	12	47.5
SF45	Panel Clamp 4045	3 or 5	QC Joint L	12	13	47.5

3. When Using Blind Bracket With Panel Clamp



Frame	Panel Clamp	Panel Thickness	Joint	Panel Insertion Dimensions (One Side)	Y	Z
SF20	Panel Clamp 2030	3	S Blind Bracket SS	5	6	25.5
SF30	Panel Clamp 2030/30	3 or 5	S Blind Bracket S	8	9	36
SF40	Panel Clamp 4045	3 or 5	S Blind Bracket L	11.5	12.5	44
SF45	Panel Clamp 4045	3 or 5	S Blind Bracket L	12	13	44



Additional
Processing List
→ P.95



Technical
Data
→ P.103

SF 20

Frame 

Bracket 

Nut 

Cap 

Foot
Component 

Accessory 

Door Part 

SF 30

Frame 

Bracket 

Nut 

Cap 

Foot
Component 

Accessory 

Door Part 

SF 40.45

Frame 

Bracket 

Nut 

Cap 

Foot
Component 

Accessory 

Door Part 

SF Common parts

Door Part 

Foot
Component 

Bolt
Nut 

SF Additional
Processing

SF
Technical Data



Drawing Support
Software
→ P.10



Design Support
Service
→ P.10



Assembled Delivery
Service
→ P.11



RoHS
→ P.162

AZ

Safety Fence





**AZ
40**

Safety Fence

Door Fence

Frame

Accessory

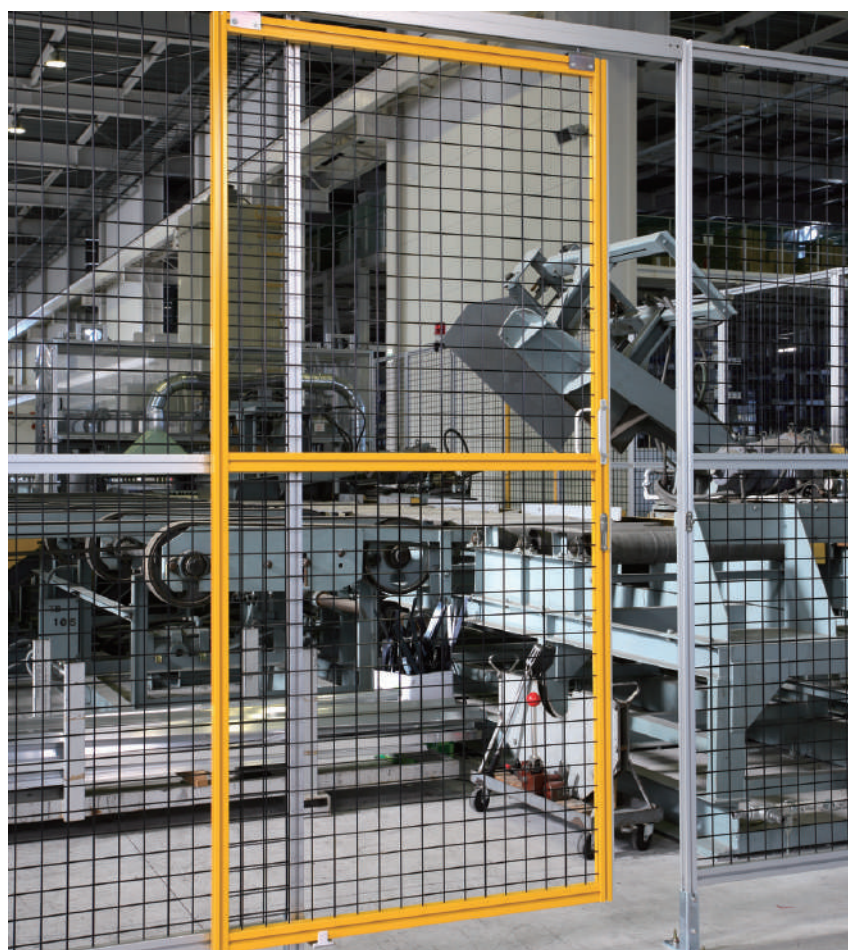
**AZ
30**

Safety Fence

Door Fence

Frame

Accessory



AZ
Common parts

Door Parts

AZ
Technical Data

SAFETY FENCE
AZ40

Safety Fence

●Assembled before shipment.

AZ
40

H2150 Type for 3mm

Safety Fence

Door Fence

Frame

Accessory

AZ
30

Safety Fence

Door Fence

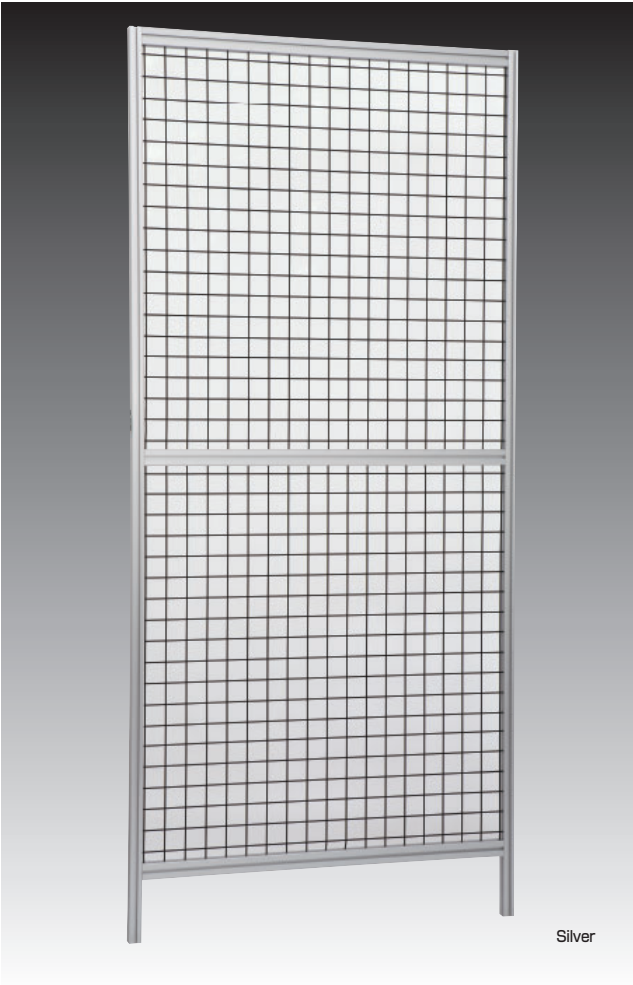
Frame

Accessory

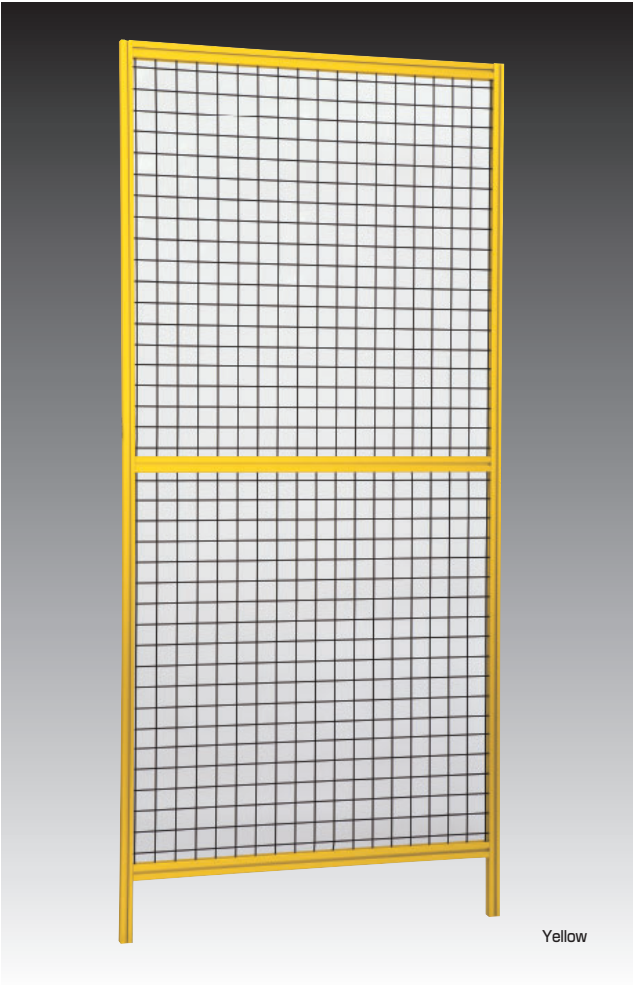
AZ
Common parts

Door Parts

AZ
Technical Data



Silver

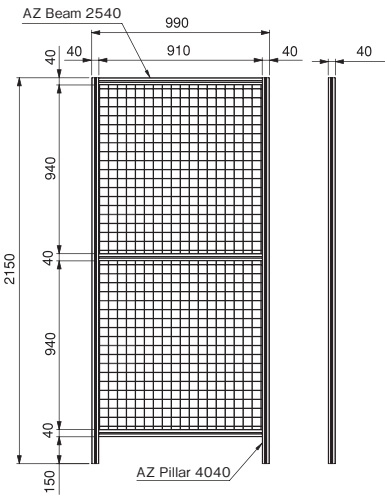


Yellow

Top Panel / Bottom Panel			B/B	C/C
Panel Choices		Top	Mesh (Steel) Pitch 30 Wire Diameter:φ3.2 Black Baked Finish / Welded Mesh	PET Transparent t3
		Bottom		
Name			40 Safety Fence H2150 BB	40 Safety Fence H2150 CC
Silver	Standard Width (990mm)	Item No.	AZM-4AC	AZM-4AE
	Special Order Width	Item No.	AZM-4AD	AZM-4AF
Yellow	Standard Width (990mm)	Item No.	AZM-4ACY	AZM-4AEY
	Special Order Width	Item No.	AZM-4ADY	AZM-4AFY
Standard Width Mass (kg)			14.1	13.3
Possible Width Dimensions (mm)			300~960	300~2000

●The frame cap, anchor bracket, and connecting plate must be ordered separately.

■ Dimensions



*These are not frame cutting dimensions.

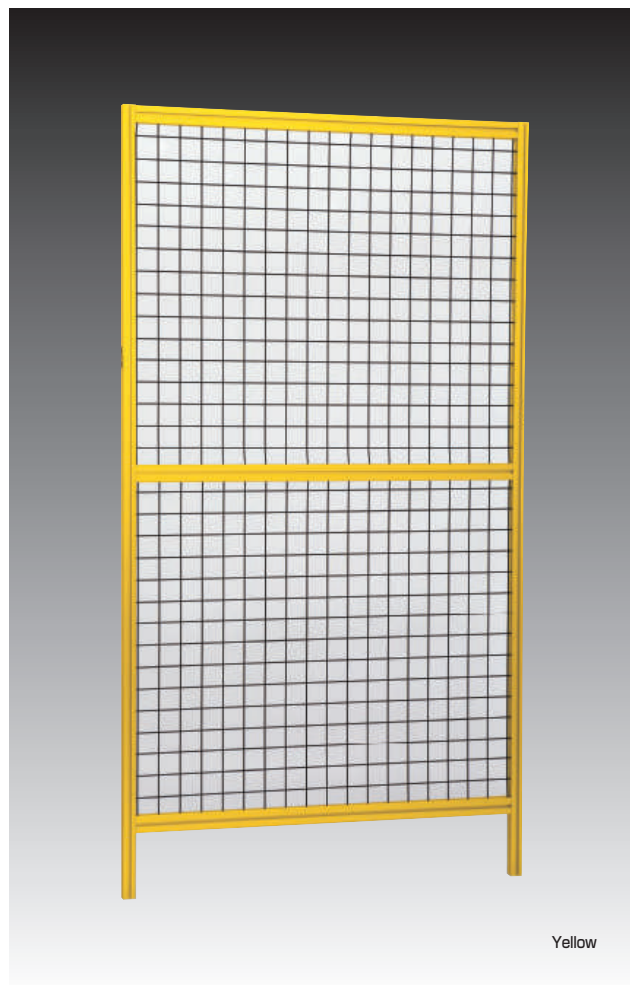
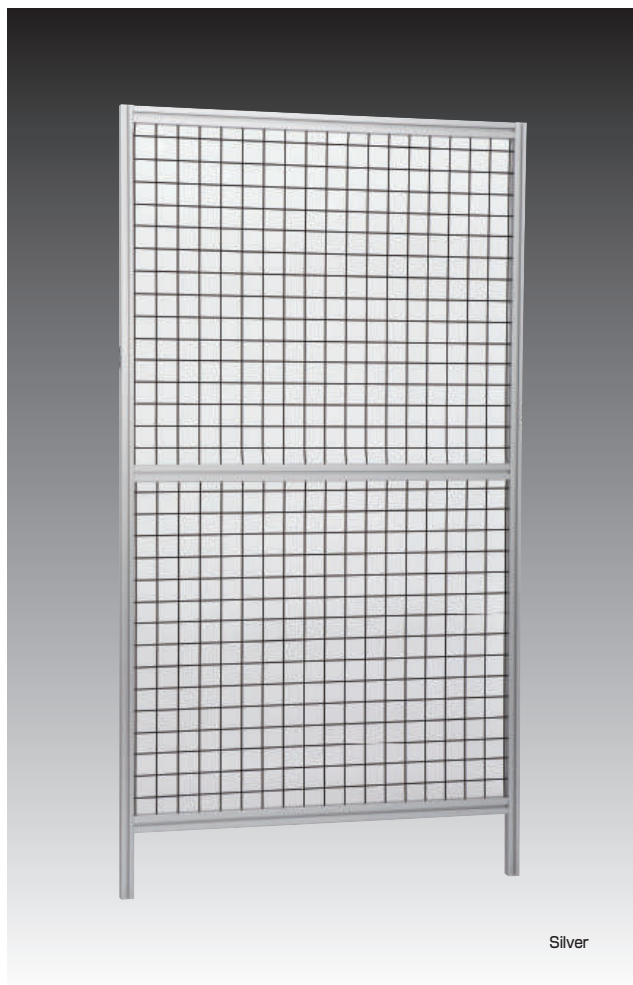
■Materials/Technical Data

Frame Materials : A6063
Environment : RoHS10 Compliant
Frame Color : Silver Anodized Surface Treatment
Yellow Baked Finish (Munsell Value: 2.5Y8/13 equivalent color)

Safety Fence

● Assembled before shipment.

H1800 Type for 3mm



AZ
40

Safety Fence

Door Fence

Frame

Accessory

AZ
30

Safety Fence

Door Fence

Frame

Accessory

AZ
Common parts

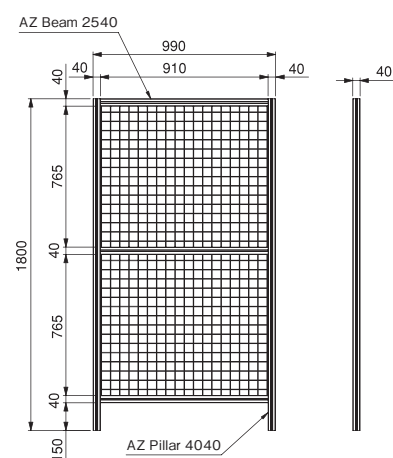
Door Parts

AZ
Technical Data

Top Panel / Bottom Panel			B/B	C/C
Panel Choices			Top Mesh (Steel) Pitch 30 Wire Diameter: $\phi 3.2$ Black Baked Finish / Welded Mesh	PET Transparent t3
			Bottom 	
Name			40 Safety Fence H1800 BB	40 Safety Fence H1800 CC
Silver	Standard Width (990mm)	Item No.	AZM-4BC	AZM-4BE
	Special Order Width	Item No.	AZM-4BD	AZM-4BF
Yellow	Standard Width (990mm)	Item No.	AZM-4BCY	AZM-4BEY
	Special Order Width	Item No.	AZM-4BDY	AZM-4BFY
Standard Width Mass (kg)			11.9	11.3
Possible Width Dimensions (mm)			300~990	300~2000

● The frame cap, anchor bracket, and connecting plate must be ordered separately.

Dimensions



*These are not frame cutting dimensions.

Materials/Technical Data

Frame Materials : A6063
Environment : **RoHS10** Compliant
Frame Color : Silver Anodized Surface Treatment
Yellow Baked Finish (Munsell Value: 2.5Y8/13 equivalent color)

Door Fence

●Assembled before shipment.

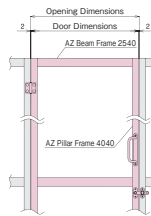
**AZ
40**

Hinged Door H2150 Type for 3mm (Left)



Hinged Door Configuration Details

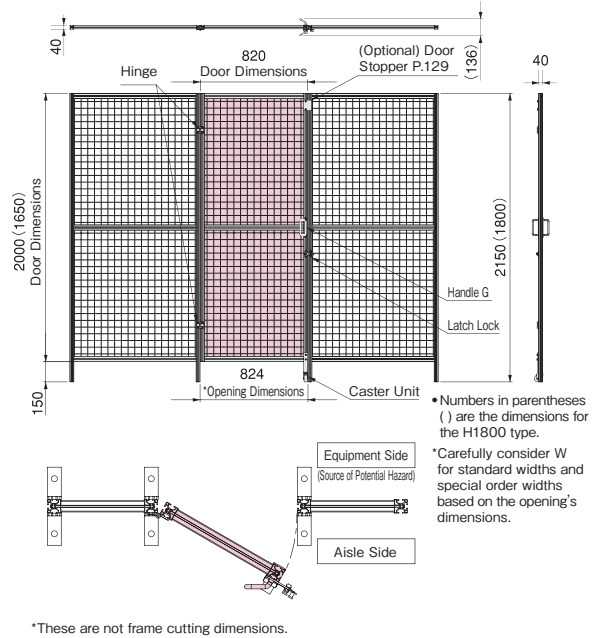
- Hinged Door Main Unit
- Hinge
- Handle G
- Caster Unit
- Latch Lock



Materials/Technical Data

Frame Materials : A6063
 Environment : **RoHS10** Compliant
 Frame Color : Silver Anodized Surface Treatment
 Yellow Baked Finish
 (Munsell Value: 2.5Y8/13 equivalent color)

Dimensions



Top Panel / Bottom Panel			B/B	C/C
Panel Choices		Top	Mesh (Steel) Pitch 30 Wire Diameter:φ3.2 Black Baked Finish / Welded Mesh 	PET Transparent t3 
		Bottom		
Name			40 Hinged Door H2150L-BB	40 Hinged Door H2150L-CC
Silver	Standard Width (824mm)	Item No.	AZM-4DC	AZM-4DE
	Special Order Width	Item No.	AZM-4DD	AZM-4DF
Yellow	Standard Width (824mm)	Item No.	AZM-4DCY	AZM-4DEY
	Special Order Width	Item No.	AZM-4DDY	AZM-4DFY
Standard Width Mass (kg)			12.8	12.2
Possible Width Dimensions (mm)			300~964	300~2000

●The frame cap, anchor bracket, and connecting plate must be ordered separately.

Hinged Door H1800 Type for 3mm (Left)

Top Panel / Bottom Panel			B/B	C/C
Panel Choices		Top	Mesh (Steel) Pitch 30 Wire Diameter:φ3.2 Black Baked Finish / Welded Mesh 	PET Transparent t3 
		Bottom		
Name			40 Hinged Door H1800L-BB	40 Hinged Door H1800L-CC
Silver	Standard Width (824mm)	Item No.	AZM-4FC	AZM-4FE
	Special Order Width	Item No.	AZM-4FD	AZM-4FF
Yellow	Standard Width (824mm)	Item No.	AZM-4FCY	AZM-4FEY
	Special Order Width	Item No.	AZM-4FDY	AZM-4FFY
Standard Width Mass (kg)			10.9	10.5
Possible Width Dimensions (mm)			300~994	300~2000

●The frame cap, anchor bracket, and connecting plate must be ordered separately.

Door Fence

● Assembled before shipment.

Hinged Door H2150 Type for 3mm (Right)

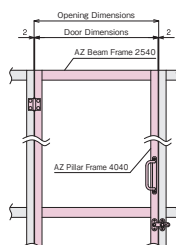


Hinged Door Configuration Details

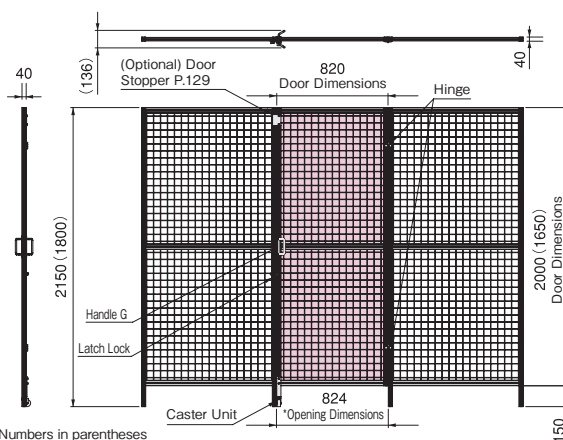
- Hinged Door Main Unit
- Hinge
- Handle G
- Caster Unit
- Latch Lock

■ Materials/Technical Data

Frame Materials : A6063
Environment : **RoHS10** Compliant
Frame Color : Silver Anodized Surface Treatment
Yellow Baked Finish
(Munsell Value: 2.5Y8/13 equivalent color)

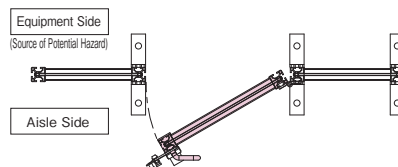


■ Dimensions



• Numbers in parentheses () are the dimensions for the H1800 type.

*Carefully consider W for standard widths and special order widths based on the opening's dimensions.



*These are not frame cutting dimensions.

Top Panel / Bottom Panel			B/B	C/C
Panel Choices	Top		Mesh (Steel) Pitch 30 Wire Diameter:φ3.2 Black Baked Finish / Welded Mesh	PET Transparent t3
	Bottom			
Name			40 Hinged Door H2150R-BB	40 Hinged Door H2150R-CC
Silver	Standard Width (824mm)	Item No.	AZM-4EC	AZM-4EE
	Special Order Width	Item No.	AZM-4ED	AZM-4EF
Yellow	Standard Width (824mm)	Item No.	AZM-4ECY	AZM-4EEY
	Special Order Width	Item No.	AZM-4EDY	AZM-4EFY
Standard Width Mass (kg)			12.8	12.2
Possible Width Dimensions (mm)			300~964	300~2000

● The frame cap, anchor bracket, and connecting plate must be ordered separately.

Hinged Door H1800 Type for 3mm (Right)

Top Panel / Bottom Panel			B/B	C/C
Panel Choices	Top		Mesh (Steel) Pitch 30 Wire Diameter:φ3.2 Black Baked Finish / Welded Mesh	PET Transparent t3
	Bottom			
Name			40 Hinged Door H1800R-BB	40 Hinged Door H1800R-CC
Silver	Standard Width (824mm)	Item No.	AZM-4GC	AZM-4GE
	Special Order Width	Item No.	AZM-4GD	AZM-4GF
Yellow	Standard Width (824mm)	Item No.	AZM-4GCY	AZM-4GEY
	Special Order Width	Item No.	AZM-4GDY	AZM-4GFY
Standard Width Mass (kg)			10.9	10.5
Possible Width Dimensions (mm)			300~994	300~2000

● The frame cap, anchor bracket, and connecting plate must be ordered separately.

Door Fence

●Assembled before shipment.

AZ
40

Sliding Door H2150 Type for 3mm (Left)



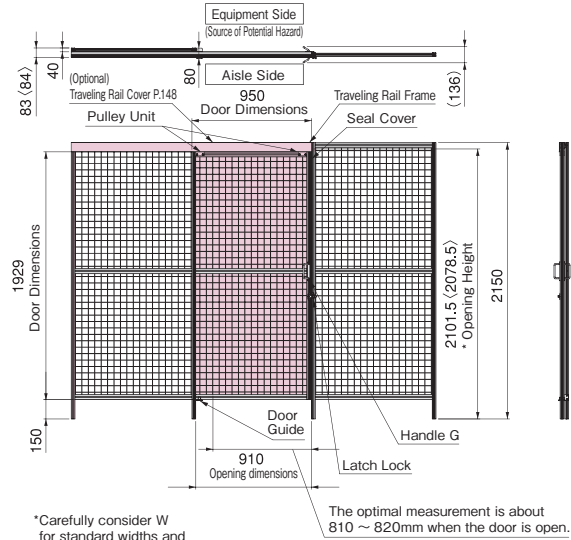
Sliding Door Configuration Details

- Sliding Door Main Unit
- Traveling Rail
- Pulley Unit
- Traveling Rail Anchoring Bracket
- Door Stopper
- Handle G
- Door Guide
- Latch Lock
- Seal Cover LT
- Bolts/Nuts for Rail Mounting
- Connecting Bracket for Sliding Door

Materials/Technical Data

Frame Materials : A6063
Frame Color : Silver Anodized Surface Treatment
Yellow Baked Finish
(Munsell Value: 2.5Y8/13 equivalent color)

Dimensions



*Carefully consider W for standard widths and special order widths based on the opening's dimensions.

•Numbers in parentheses () are the dimensions when the traveling rail cover is attached.

*These are not frame cutting dimensions.

Top Panel / Bottom Panel			B/B	C/C
Panel Choices		Top	Mesh (Steel) Pitch 30 Wire Diameter:φ3.2 Black Baked Finish / Welded Mesh	PET Transparent t3
		Bottom		
Name			40 Sliding Door H2150L-BB	40 Sliding Door H2150L-CC
Silver	Standard Width (910mm)	Item No.	AZM-4KC	AZM-4KE
	Special Order Width	Item No.	AZM-4KD	AZM-4KF
Yellow	Standard Width (910mm)	Item No.	AZM-4KCY	AZM-4KEY
	Special Order Width	Item No.	AZM-4KDY	AZM-4KFY
Standard Width Mass (kg)			17.5	16.8
Possible Width Dimensions (mm)			300~920	300~2000

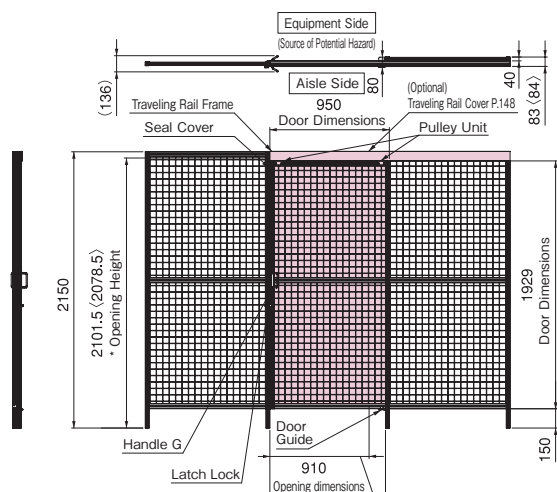
●The frame cap, anchor bracket, and connecting plate must be ordered separately.

Door Fence

● Assembled before shipment.

Sliding Door H2150 Type for 3mm (Right)

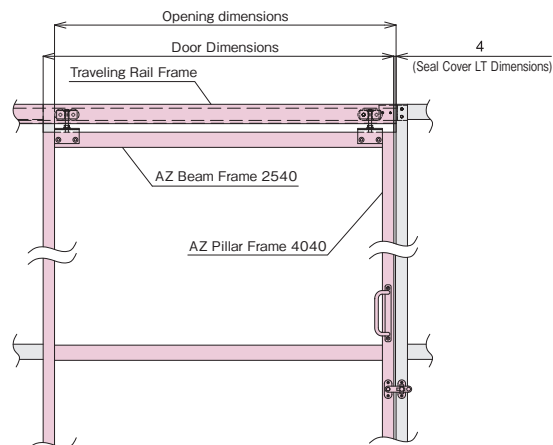
■ Dimensions



• Numbers in parentheses () are the dimensions when the traveling rail cover is attached.

* Carefully consider W for standard widths and special order widths based on the opening's dimensions.

The optimal measurement is about 810 ~ 820mm when the door is open.



Top Panel / Bottom Panel			B/B	C/C
Panel Choices	Top		Mesh (Steel) Pitch 30 Wire Diameter:φ3.2 Black Baked Finish / Welded Mesh	PET Transparent t3
	Bottom			
Name			40 Sliding Door H2150R-BB	40 Sliding Door H2150R-CC
Silver	Standard Width (910mm)	Item No.	AZM-4MC	AZM-4ME
	Special Order Width	Item No.	AZM-4MD	AZM-4MF
Yellow	Standard Width (910mm)	Item No.	AZM-4MCY	AZM-4MEY
	Special Order Width	Item No.	AZM-4MDY	AZM-4MFY
Standard Width Mass (kg)			17.5	16.8
Possible Width Dimensions (mm)			300~920	300~2000

● The frame cap, anchor bracket, and connecting plate must be ordered separately.

AZ
40

Safety Fence

Door Fence

Frame

Accessory

AZ
30

Safety Fence

Door Fence

Frame

Accessory

AZ
Common parts

Door Parts

AZ
Technical Data

Safety Fence

**AZ
40**

How to Connect

Connect to the part of the safety fence that will become the corner.

*Install the connecting plates in at least 2 places (frame top and frame center), and connect the bottom with 2 anchor brackets.

Safety Fence

Door Fence

Frame

Accessory

**AZ
30**

Safety Fence

Door Fence

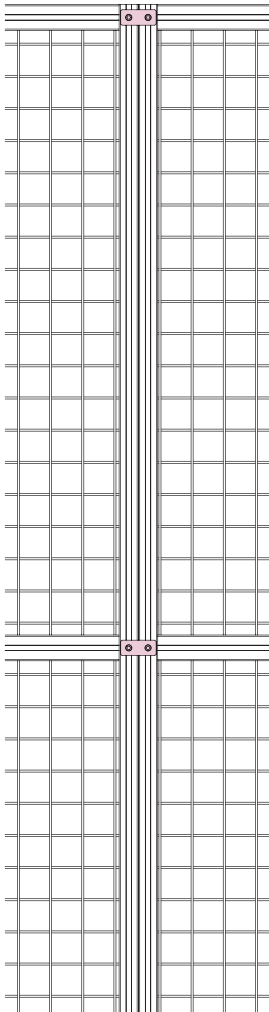
Frame

Accessory

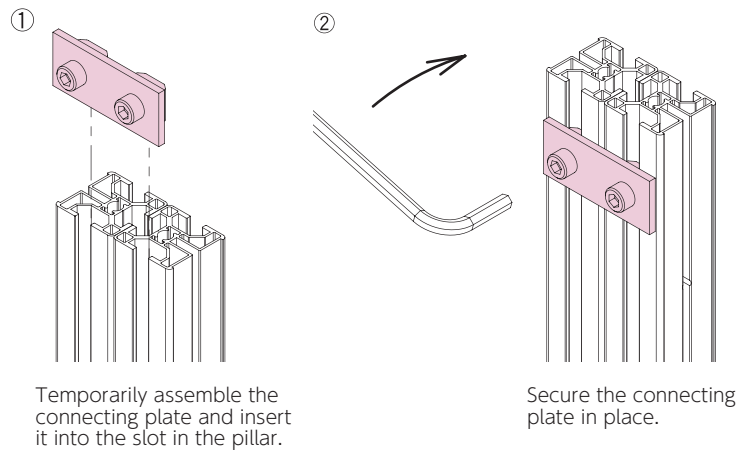
**AZ
Common parts**

Door Parts

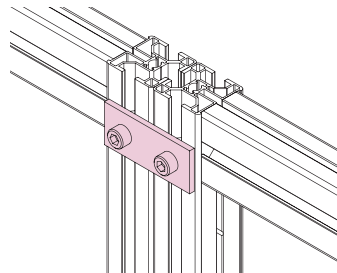
AZ
Technical Data



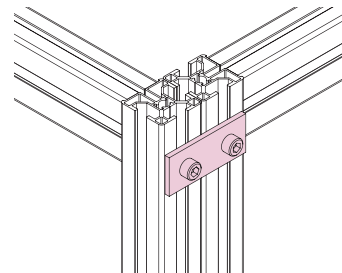
Connection Process



Straight Connection

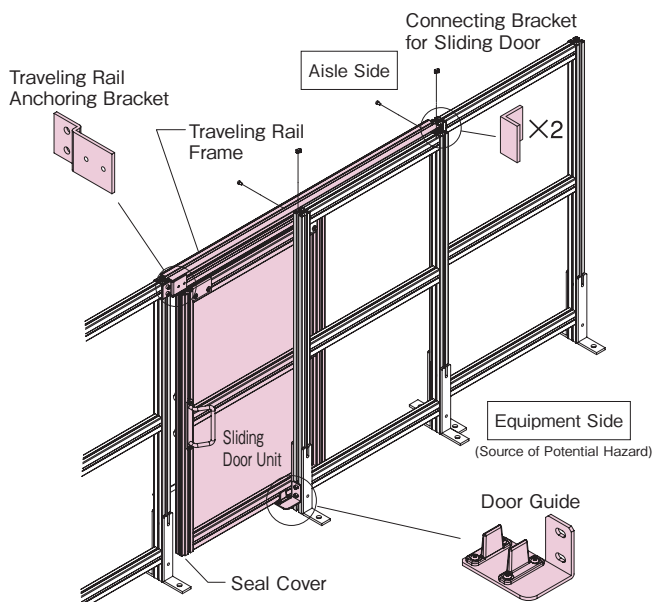


90° Connection

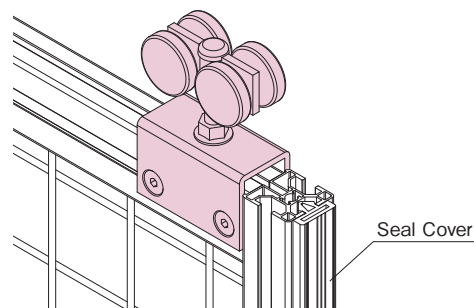


Door Fence

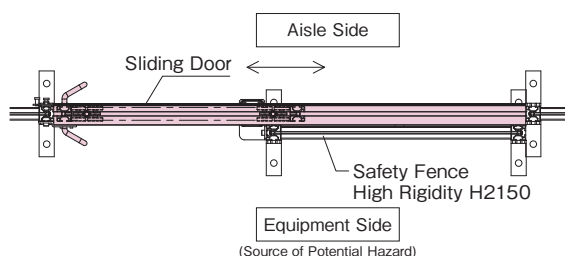
How to Connect the Sliding Door



Pulley Unit



Connection Configuration (Top view)



- The frame cap, anchor bracket, and connecting plate must be ordered separately.

AZ
40

Safety Fence

Door Fence

Frame

Accessory

AZ
30

Safety Fence

Door Fence

Frame

Accessory

AZ
Common parts

Door Parts

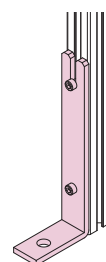
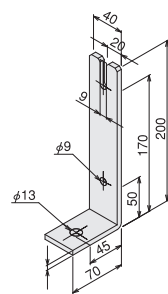
AZ
Technical Data

Anchor Bracket L Type-1 40 Kit



Materials : SS400
Environment : **RoHS10** Compliant
Mass : 503g

- AZ Piller 4040
- AZ Piller 4040t5
(Including yellow)

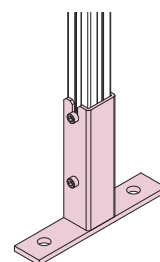
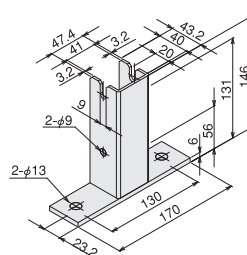


- For Anchor Bracket L Model x1 (Type 40)
- Hexagon Socket Head Bolt
- ST Nut L
- Anti-skid Cap L

Name	Anchor Bracket L Type-1 40 Kit
Item No.	AZK-400

Materials : SS400/SPCC
Environment : **RoHS10** Compliant
Mass : 852g

- AZ Piller 4040
- AZ Piller 4040t5
(Including yellow)

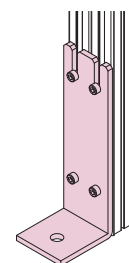
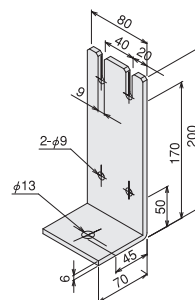


- For Anchor Bracket C Model x1 (Type 40)
- Hexagon Socket Head Bolt
- ST Nut L
- Anti-skid Cap L

Name	Anchor Bracket C Type-1 40 Kit
Item No.	AZK-402

Materials : SS400
Environment : **RoHS10** Compliant
Mass : 1016g

- AZ Piller 4040
- AZ Piller 4040t5
(Including yellow)

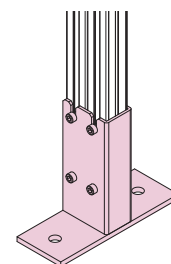
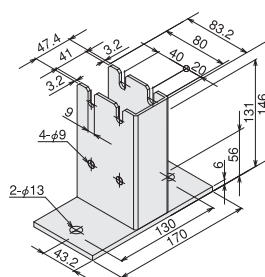


- For Anchor Bracket L Model x2 (Type 40)
- Hexagon Socket Head Bolt
- ST Nut L
- Anti-skid Cap L

Name	Anchor Bracket L Type-2 40 Kit
Item No.	AZK-401

Materials : SS400/SPCC
Environment : **RoHS10** Compliant
Mass : 1565g

- AZ Piller 4040
- AZ Piller 4040t5
(Including yellow)



- For Anchor Bracket C Model x2 (Type 40)
- Hexagon Socket Head Bolt
- ST Nut L
- Anti-skid Cap L

Name	Anchor Bracket C Type-2 40 Kit
Item No.	AZK-403

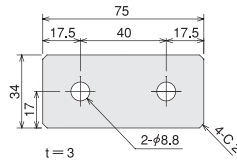
Accessory

AZ
40

Connecting Bracket Kit

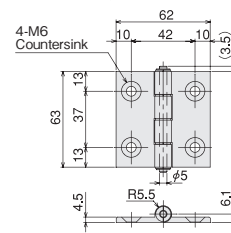


S Plate Bracket L40-H2



Materials/Technical Data	
Materials	: SUS304
Environment	: RoHS10 Compliant
Mass	: 58g

Flat Hinge L40(M6)



Materials/Technical Data	
Materials	: Aluminum Extrusion
Environment	: RoHS10 Compliant
Mass	: 58.7g

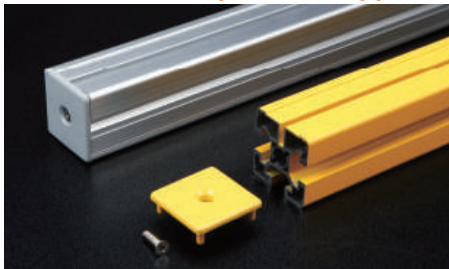
Name	S Plate Bracket L40-H2 Kit	Flat Hinge L40(M6) Kit
Item No.	SFK-126S	SFK-2A3
Kit Contents	· S Plate Bracket L40-H2 Kit · Hexagon Socket Head Bolt · ST Nut L	· Flat Hinge L40(M6) · Cross Recessed Flat Head Screw · T Nut L

Compatible Frames

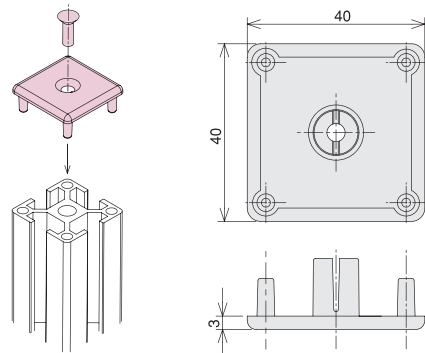
- AZ Piller 4040
- AZ Piller 4040t5 (Including yellow)

AZ
30

AZ Frame Cap Lock Type



Materials/Technical Data	
Materials	: PA (Cap) : Stainless Steel (Screw)
Environment	: RoHS10 Compliant
Mass	: 7.3g
Compatible Frames	
· AZ Piller 4040 · AZ Piller 4040t5 (Including yellow)	

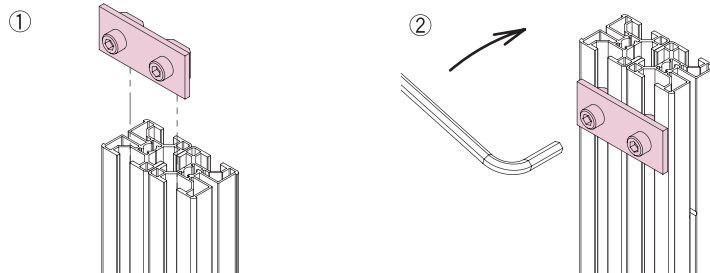


Name	AZ Frame Cap Lock Type 4040	
	(Light Gray)	(Yellow)
Item No.	SFK-02LG	SFK-02LY

Kit Contents

- Frame Cap
- Cross Recessed Flat Head Screw (Stainless Steel)

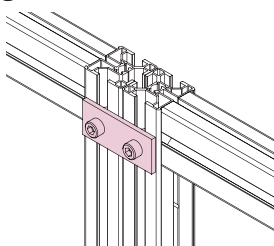
Connection Process



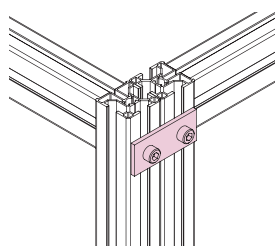
Temporarily assemble the connecting plate and insert it into the slot in the pillar.

Secure the connecting plate in place.

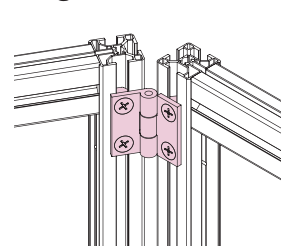
Straight Connection



90° Connection



Free Angle Connection

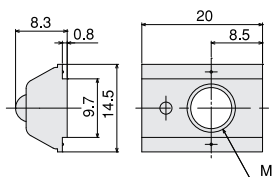


Accessory

Nuts for Attaching Parts



S Easy Nut L



Materials/Technical Data

Materials : Stainless Steel
: Conductive
Environment : **RoHS10** Compliant
Mass : 8.2g (M8)
9.1g (M6)
9.3g (M5)
10g (M4)

Compatible Frames

· AZ Pillar 4040
· AZ Pillar 4040t5
· AZ Pillar 4040 Connection
(Including yellow)

Name	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

Supporting Bolt

Hexagon Socket Head Bolt (Galvanized Trivalent Chromate)

Galvanized Trivalent Chromate **RoHS10** 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

40 Door Stopper Kit

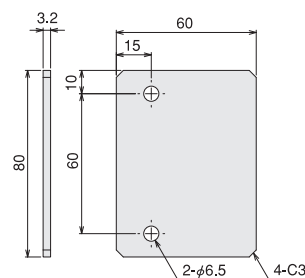
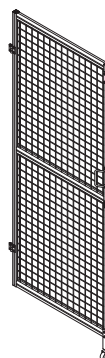


Materials/Technical Data

Materials : SPCC
Environment : **RoHS10** Compliant
Mass : 149g

Compatible Frames

· AZ Pillar 4040
· AZ Pillar 4040t5
· AZ Pillar 4040
Connecting
(Including yellow)

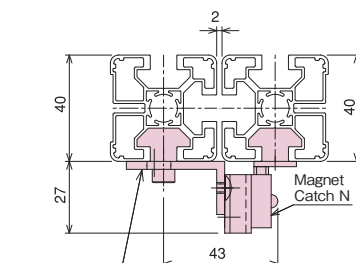
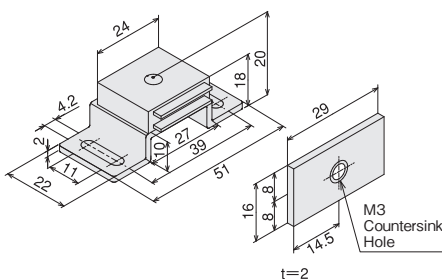
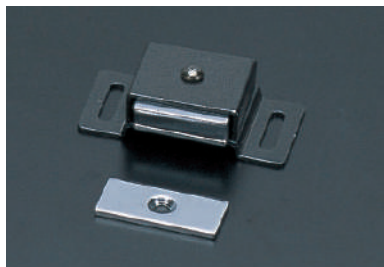


Kit Contents

● Stopper Plate ● Easy Nut
● Hexagon Socket Head Bolt

Name	40 Door Stopper Kit
Item No.	AZK-40C

Hinged Door Magnet Catch Kit (MG Bracket L-L40 Kit)



*The suspended sliding door is held by the door stop mechanism on the traveling rail. Therefore, it does not require a magnet catch.

Kit Contents

● Magnet Catch N ● MG Bracket L ● Truss Screw
● Countersunk Screw ● Accessory Nut L M3
● T Nut L M5 ● Hexagon Socket Head Bolt

Name	MG Bracket L-L40 Kit
Item No.	SFK-4AM

Materials/Technical Data

Materials : Magnet Catch Housing : Stainless Steel Dark Brown Painted
Magnet : Ferrite
MG Bracket : Aluminum
T Nut : S10C Galvanized Trivalent Chromate Equivalent
Environment : **RoHS10** Compliant
Mass : 97g

Compatible Frames

· AZ Pillar 4040
· AZ Pillar 4040t5
· AZ Pillar 4040
Connecting
(Including yellow)

SAFETY FENCE
AZ 30

Safety Fence

●Assembled before shipment.

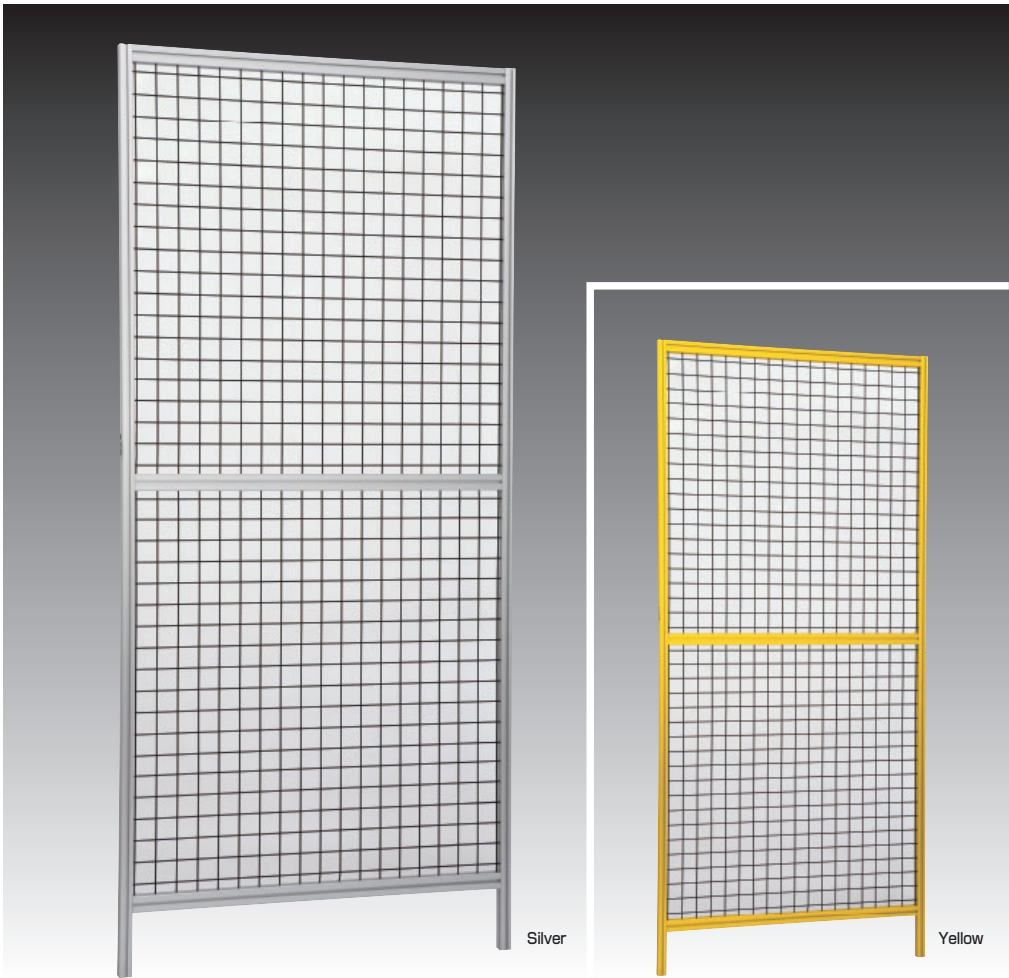
- AZ40
- Safety Fence
- Door Fence
- Frame
- Accessory

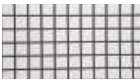
- AZ30
- Safety Fence
- Door Fence
- Frame
- Accessory

- AZCommon parts
- Door Parts

- AZTechnical Data

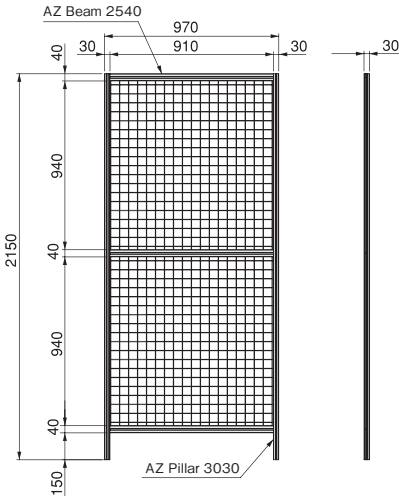
H2150 Type



Top Panel / Bottom Panel			B/B	C/C
Panel Choices			Top Mesh (Steel) Pitch 30 Wire Diameter:φ3.2 Black Baked Finish / Welded Mesh	PET Transparent t3
			Bottom 	
Name			30 Safety Fence H2150 BB	30 Safety Fence H2150 CC
Silver	Standard Width (970mm)	Item No.	AZM-3AC	AZM-3AE
	Special Order Width	Item No.	AZM-3AD	AZM-3AF
Yellow	Standard Width (970mm)	Item No.	AZM-3ACY	AZM-3AEY
	Special Order Width	Item No.	AZM-3ADY	AZM-3AFY
Standard Width Mass (kg)			12.4	11.6
Possible Width Dimensions (mm)			300~940	300~1500

●The frame cap, anchor bracket, and connecting plate must be ordered separately.

■ Dimensions



*These are not frame cutting dimensions.

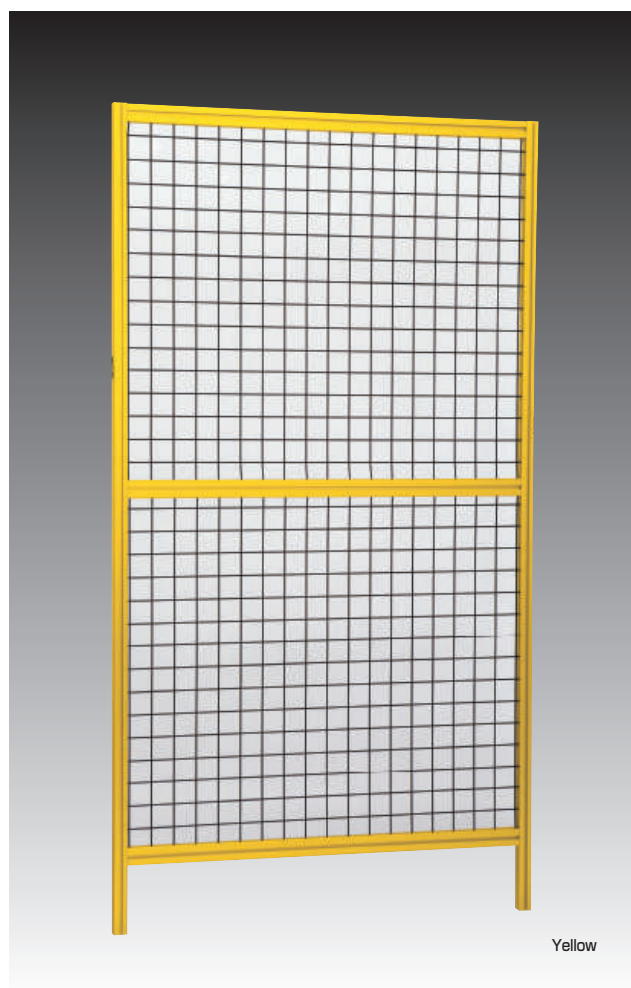
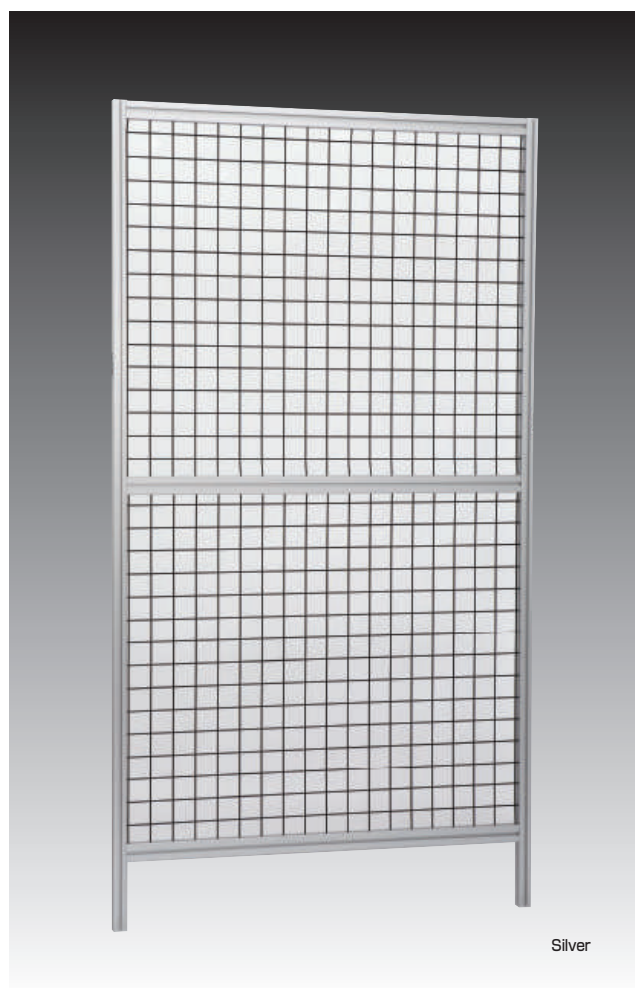
■Materials/Technical Data

Frame Materials : A6063
Environment : RoHS10 Compliant
Frame Color : Silver Anodized Surface Treatment
Yellow Baked Finish (Munsell Value: 2.5Y8/13 equivalent color)

Safety Fence

● Assembled before shipment.

H1800 Type



AZ
40

Safety Fence

Door Fence

Frame

Accessory

AZ
30

Safety Fence

Door Fence

Frame

Accessory

AZ
Common parts

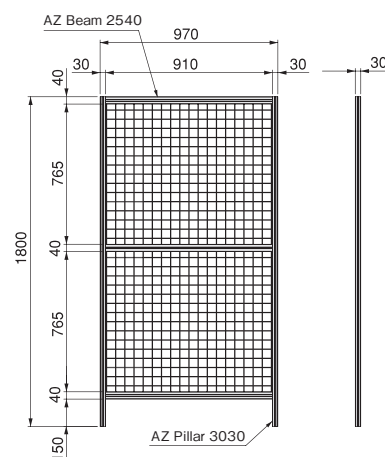
Door Parts

AZ
Technical Data

Top Panel / Bottom Panel			B/B	C/C
Panel Choices			Top Mesh (Steel) Pitch 30 Wire Diameter: $\phi 3.2$ Black Baked Finish / Welded Mesh	PET Transparent t3
			Bottom 	
Name			30 Safety Fence H1800 BB	30 Safety Fence H1800 CC
Silver	Standard Width (970mm)	Item No.	AZM-3BC	AZM-3BE
	Special Order Width	Item No.	AZM-3BD	AZM-3BF
Yellow	Standard Width (970mm)	Item No.	AZM-3BCY	AZM-3BEY
	Special Order Width	Item No.	AZM-3BDY	AZM-3BFY
Standard Width Mass (kg)			10.5	9.9
Possible Width Dimensions (mm)			300~970	300~1500

● The frame cap, anchor bracket, and connecting plate must be ordered separately.

■ Dimensions



*These are not frame cutting dimensions.

■ Materials/Technical Data

Frame Materials : A6063
Environment : RoHS10 Compliant
Frame Color : Silver Anodized Surface Treatment
Yellow Baked Finish (Munsell Value: 2.5Y8/13 equivalent color)

Door Fence

●Assembled before shipment.

AZ
40

Hinged Door H2150 Type (Left)



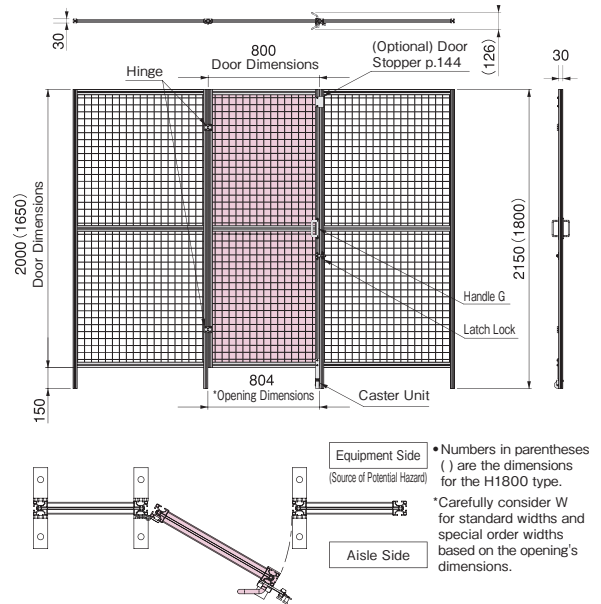
Hinged Door Configuration Details

- Hinged Door Main Unit
- Hinge
- Handle G
- Caster Unit
- Latch Lock

Materials/Technical Data

Frame Materials : A6063
 Environment : **RoHS10** Compliant
 Frame Color : Silver Anodized Surface Treatment
 Yellow Baked Finish
 (Munsell Value: 2.5Y8/13 equivalent color)

Dimensions



*These are not frame cutting dimensions.

Top Panel / Bottom Panel			B/B	C/C
Panel Choices			Top Mesh (Steel) Pitch 30 Wire Diameter:φ3.2 Black Baked Finish / Welded Mesh	PET Transparent t3
			Bottom	
Name			30 Hinged Door H2150L-BB	30 Hinged Door H2150L-CC
Silver	Standard Width (804mm)	Item No.	AZM-3DC	AZM-3DE
	Special Order Width	Item No.	AZM-3DD	AZM-3DF
Yellow	Standard Width (804mm)	Item No.	AZM-3DCY	AZM-3DEY
	Special Order Width	Item No.	AZM-3DDY	AZM-3DFY
Standard Width Mass (kg)			11.2	10.6
Possible Width Dimensions (mm)			300~944	300~1500

●The frame cap, anchor bracket, and connecting plate must be ordered separately.

Hinged Door H1800Type (Left)

Top Panel / Bottom Panel			B/B	C/C
Panel Choices			Top Mesh (Steel) Pitch 30 Wire Diameter:φ3.2 Black Baked Finish / Welded Mesh	PET Transparent t3
			Bottom	
Name			30 Hinged Door H1800L-BB	30 Hinged Door H1800L-CC
Silver	Standard Width (804mm)	Item No.	AZM-3FC	AZM-3FE
	Special Order Width	Item No.	AZM-3FD	AZM-3FF
Yellow	Standard Width (804mm)	Item No.	AZM-3FCY	AZM-3FEY
	Special Order Width	Item No.	AZM-3FDY	AZM-3FFY
Standard Width Mass (kg)			9.5	9.1
Possible Width Dimensions (mm)			300~974	300~1500

●The frame cap, anchor bracket, and connecting plate must be ordered separately.

● Assembled before shipment.

Hinged Door H2150 Type (Right)



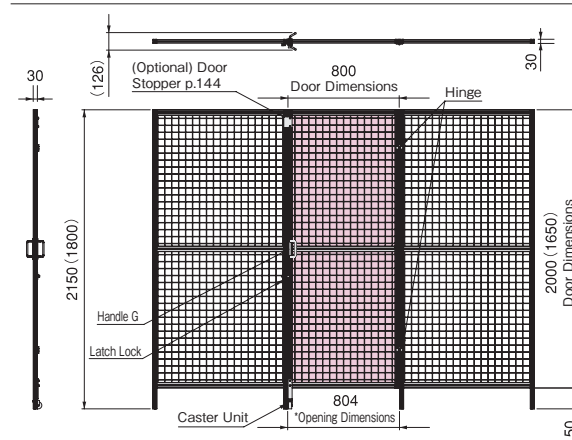
Hinged Door Configuration Details

- Hinged Door Main Unit
- Hinge
- Handle G
- Caster Unit
- Latch Lock

Materials/Technical Data

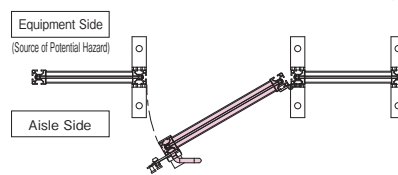
Frame Materials : A6063
Environment : **RoHS10** Compliant
Frame Color : Silver Anodized Surface Treatment
Yellow Baked Finish
(Munsell Value: 2.5Y8/13 equivalent color)

Dimensions



• Numbers in parentheses () are the dimensions for the H1800 type.

*Carefully consider W for standard widths and special order widths based on the opening's dimensions.



*These are not frame cutting dimensions.

Top Panel / Bottom Panel			B/B	C/C
Panel Choices		Top	Mesh (Steel) Pitch 30 Wire Diameter:φ3.2 Black Baked Finish / Welded Mesh 	PET Transparent t3 
		Bottom		
Name			30 Hinged Door H2150R-BB	30 Hinged Door H2150R-CC
Silver	Standard Width (804mm)	Item No.	AZM-3EC	AZM-3EE
	Special Order Width	Item No.	AZM-3ED	AZM-3EF
Yellow	Standard Width (804mm)	Item No.	AZM-3ECY	AZM-3EEY
	Special Order Width	Item No.	AZM-3EDY	AZM-3EFY
Standard Width Mass (kg)			11.2	10.6
Possible Width Dimensions (mm)			300~944	300~1500

● The frame cap, anchor bracket, and connecting plate must be ordered separately.

Hinged Door H1800Type (Right)

Top Panel / Bottom Panel			B/B	C/C
Panel Choices		Top	Mesh (Steel) Pitch 30 Wire Diameter:φ3.2 Black Baked Finish / Welded Mesh 	PET Transparent t3 
		Bottom		
Name			30 Hinged Door H1800R-BB	30 Hinged Door H1800R-CC
Silver	Standard Width (804mm)	Item No.	AZM-3GC	AZM-3GE
	Special Order Width	Item No.	AZM-3GD	AZM-3GF
Yellow	Standard Width (804mm)	Item No.	AZM-3GCY	AZM-3GEY
	Special Order Width	Item No.	AZM-3GDY	AZM-3GFY
Standard Width Mass (kg)			9.5	9.1
Possible Width Dimensions (mm)			300~974	300~1500

● The frame cap, anchor bracket, and connecting plate must be ordered separately.

Door Fence

●Assembled before shipment.

AZ
40

Sliding Door H2150 Type (Left)



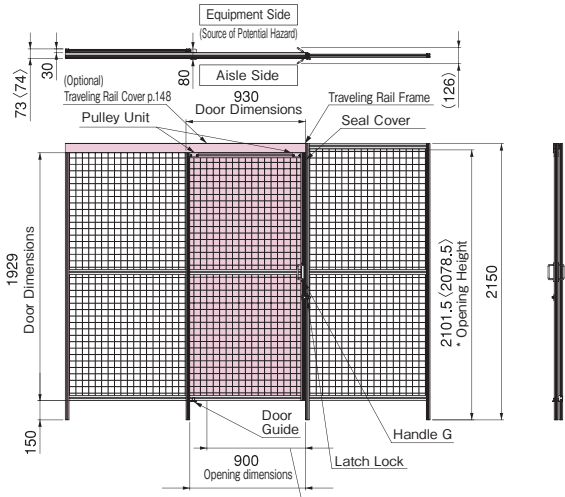
Sliding Door Configuration Details

- Sliding Door Main Unit
- Traveling Rail
- Pulley Unit
- Traveling Rail Anchoring Bracket
- Door Stopper
- Handle G
- Door Guide
- Latch Lock
- Seal Cover S
- Bolts/Nuts for Rail Mounting
- Connecting Bracket for Sliding Door

Materials/Technical Data

Frame Materials : A6063
Frame Color : Silver Anodized Surface Treatment
Yellow Baked Finish
(Munsell Value: 2.5Y8/13 equivalent color)

■ Dimensions



*Carefully consider W for standard widths and special order widths based on the opening's dimensions.

*These are not frame cutting dimensions.

•Numbers in parentheses () are the dimensions when the traveling rail cover is attached.

Top Panel / Bottom Panel			B/B	C/C
Panel Choices	Top		Mesh (Steel) Pitch 30 Wire Diameter:φ3.2 Black Baked Finish / Welded Mesh	PET Transparent t3
	Bottom			
Name			30 Sliding Door H2150L-BB	30 Sliding Door H2150L-CC
Silver	Standard Width (900mm)	Item No.	AZM-3KC	AZM-3KE
	Special Order Width	Item No.	AZM-3KD	AZM-3KF
Yellow	Standard Width (900mm)	Item No.	AZM-3KCY	AZM-3KEY
	Special Order Width	Item No.	AZM-3KDY	AZM-3KFY
Standard Width Mass (kg)			15.7	15.0
Possible Width Dimensions (mm)			300~910	300~1500

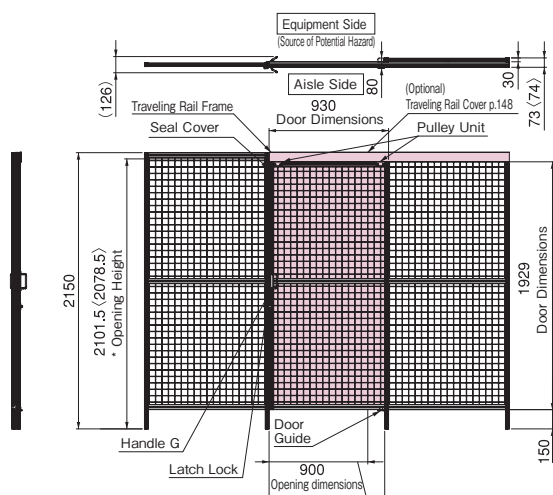
●The frame cap, anchor bracket, and connecting plate must be ordered separately.

Door Fence

● Assembled before shipment.

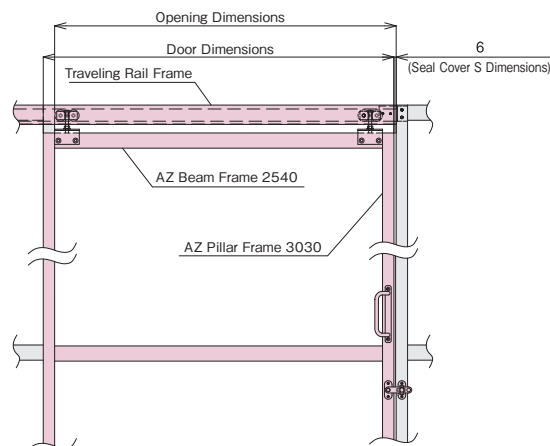
Sliding Door H2150 Type (Right)

■ Dimensions



• Numbers in parentheses () are the dimensions when the traveling rail cover is attached.

* Carefully consider W for standard widths and special order widths based on the opening's dimensions.



Top Panel / Bottom Panel			B/B	C/C
Panel Choices	Top		Mesh (Steel) Pitch 30 Wire Diameter:φ3.2 Black Baked Finish / Welded Mesh	PET Transparent t3
	Bottom			
Name			30 Sliding Door H2150R-BB	30 Sliding Door H2150R-CC
Silver	Standard Width (900mm)	Item No.	AZM-3MC	AZM-3ME
	Special Order Width	Item No.	AZM-3MD	AZM-3MF
Yellow	Standard Width (900mm)	Item No.	AZM-3MCY	AZM-3MEY
	Special Order Width	Item No.	AZM-3MDY	AZM-3MFY
Standard Width Mass (kg)			15.7	15.0
Possible Width Dimensions (mm)			300~910	300~1500

● The frame cap, anchor bracket, and connecting plate must be ordered separately.

AZ
40

Safety Fence

Door Fence

Frame

Accessory

AZ
30

Safety Fence

Door Fence

Frame

Accessory

AZ
Common parts

Door Parts

AZ
Technical Data

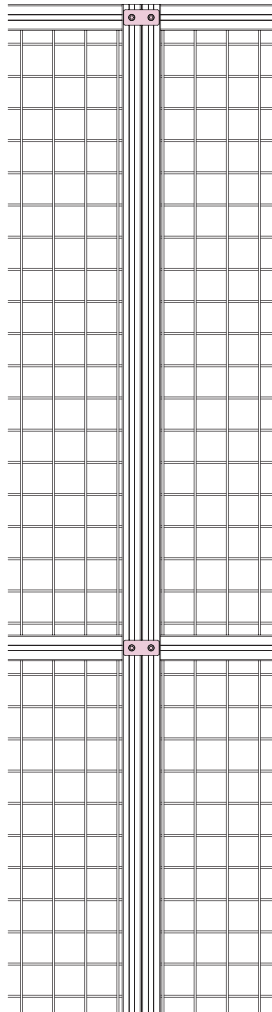
Safety Fence

AZ
40

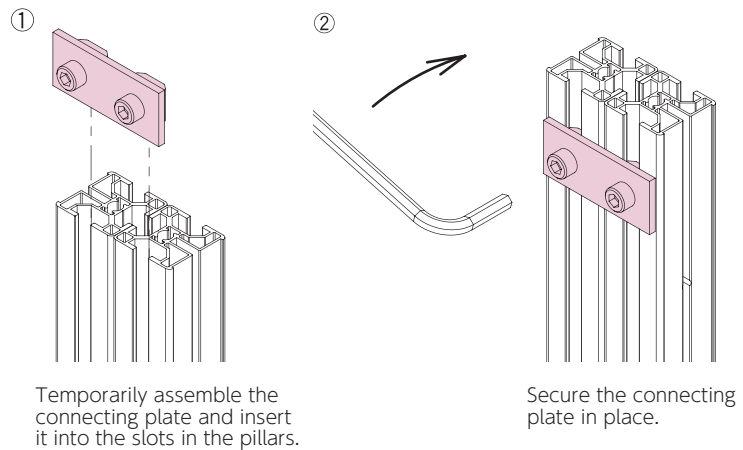
How to Connect

Connect to the part of the safety fence that will become the corner.

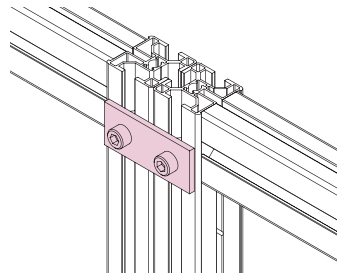
*Install the connecting plates in at least 2 places (frame top and frame center), and connect the bottom with 2 anchor brackets.



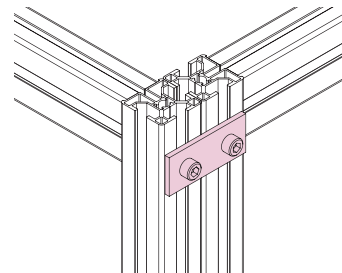
Connection Process



Straight Connection



90° Connection



AZ
30

Safety Fence

Door Fence

Frame

Accessory

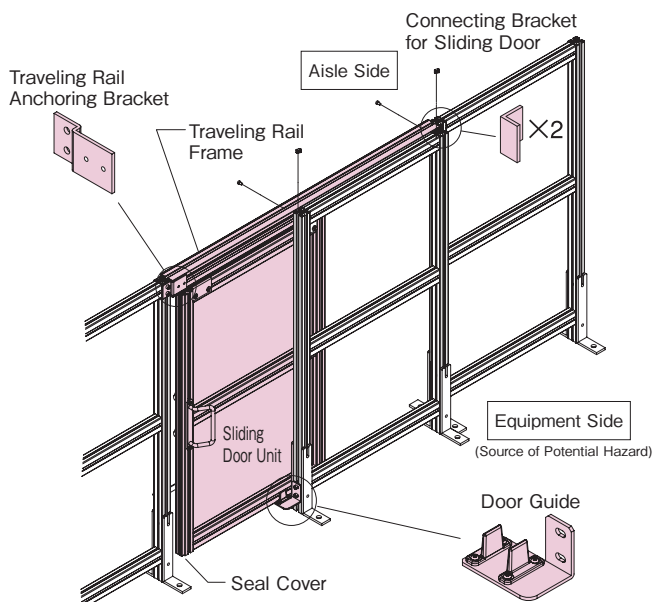
AZ
Common parts

Door Parts

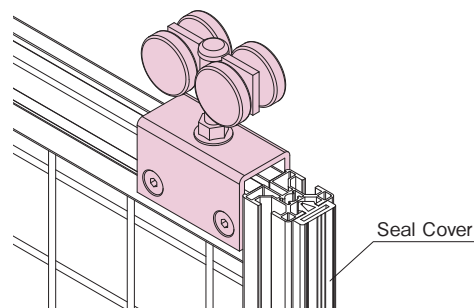
AZ
Technical Data

Door Fence

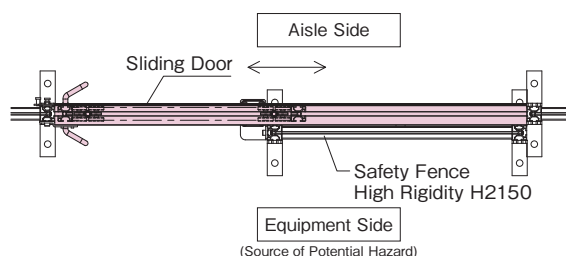
How to Connect the Sliding Door



Pulley Unit



Connection Configuration (Top view)



- The frame cap, anchor bracket, and connecting plate must be ordered separately.

AZ
40

Safety Fence

Door Fence

Frame

Accessory

AZ
30

Safety Fence

Door Fence

Frame

Accessory

AZ
Common parts

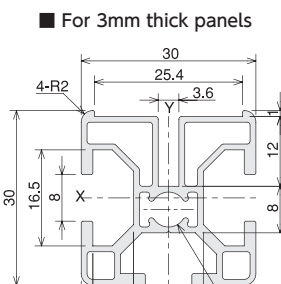
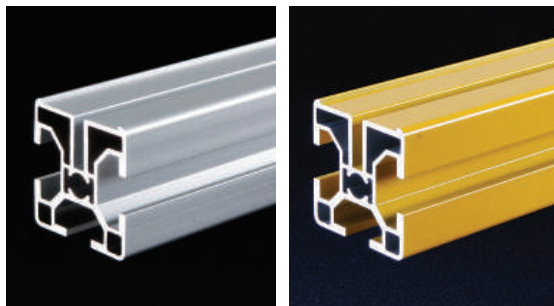
Door Parts

AZ
Technical Data

Frame

AZ
40

AZ Pillar 3030 / AZ Pillar 3030 Yellow



Materials/Technical Data

Materials : A6063
 : Silver Anodized Surface Treatment
 : Yellow Baked Finish
 (Munsell Value: 2.5YB/13 equivalent color)

Environment : RoHS10 Compliant

Geometrical Moment of Inertia
 $I_x = 2.16 \times 10^4 \text{ mm}^4$
 $I_y = 2.21 \times 10^4 \text{ mm}^4$

Section Modulus
 $Z_x = 1.40 \times 10^3 \text{ mm}^3$
 $Z_y = 1.47 \times 10^3 \text{ mm}^3$

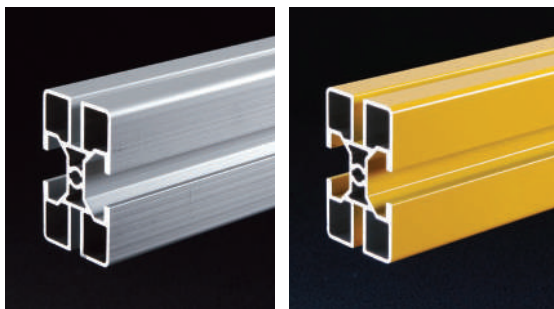
Unit Mass : 0.66kg/m

Name	AZ Pillar 3030 L=50~4000mm	AZ Pillar 3030 Yellow L=50~4000mm
Item No.	AZF-304	AZF-304Y

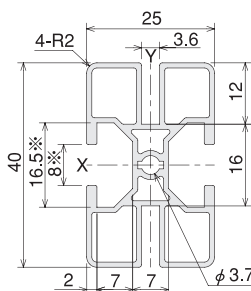
*Special processing is required. (See p.158) *A tapping bolt is required for connection with AZ Beam 2540. (See page on the right.)

AZ
30

AZ Beam 2540 / AZ Beam 2540 Yellow



For both 30 Series / 40 Series
 ■ For 3mm thick panels



Materials/Technical Data

Materials : A6063
 : Silver Anodized Surface Treatment
 : Yellow Baked Finish
 (Munsell Value: 2.5YB/13 equivalent color)

Environment : RoHS10 Compliant

Geometrical Moment of Inertia
 $I_x = 3.74 \times 10^4 \text{ mm}^4$
 $I_y = 1.57 \times 10^4 \text{ mm}^4$

Section Modulus
 $Z_x = 1.87 \times 10^3 \text{ mm}^3$
 $Z_y = 1.26 \times 10^3 \text{ mm}^3$

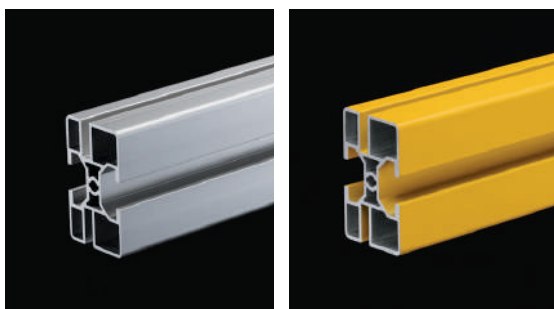
Unit Mass : 0.69kg/m

Name	AZ Beam 2540 L=50~4000mm	AZ Beam 2540 Yellow L=50~4000mm
Item No.	AZF-014	AZF-014Y

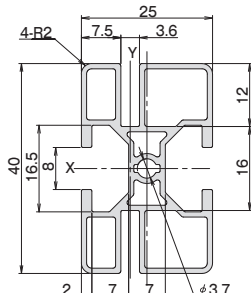
*Special processing is required. (See p.158) *A tapping bolt is required for connection with AZ Pillar 3030. (See page on the right.)

AZ
Common parts

AZ Beam 2540 For Wire Mesh / AZ Beam 2540 Yellow For Wire Mesh



For both 30 Series / 40 Series
 ■ For Wire Mesh



Materials/Technical Data

Materials : A6063
 : Silver Anodized Surface Treatment
 : Yellow Baked Finish
 (Munsell Value: 2.5YB/13 equivalent color)

Environment : RoHS10 Compliant

Geometrical Moment of Inertia
 $I_x = 3.74 \times 10^4 \text{ mm}^4$
 $I_y = 1.61 \times 10^4 \text{ mm}^4$

Section Modulus
 $Z_x = 1.87 \times 10^3 \text{ mm}^3$
 $Z_y = 1.24 \times 10^3 \text{ mm}^3$

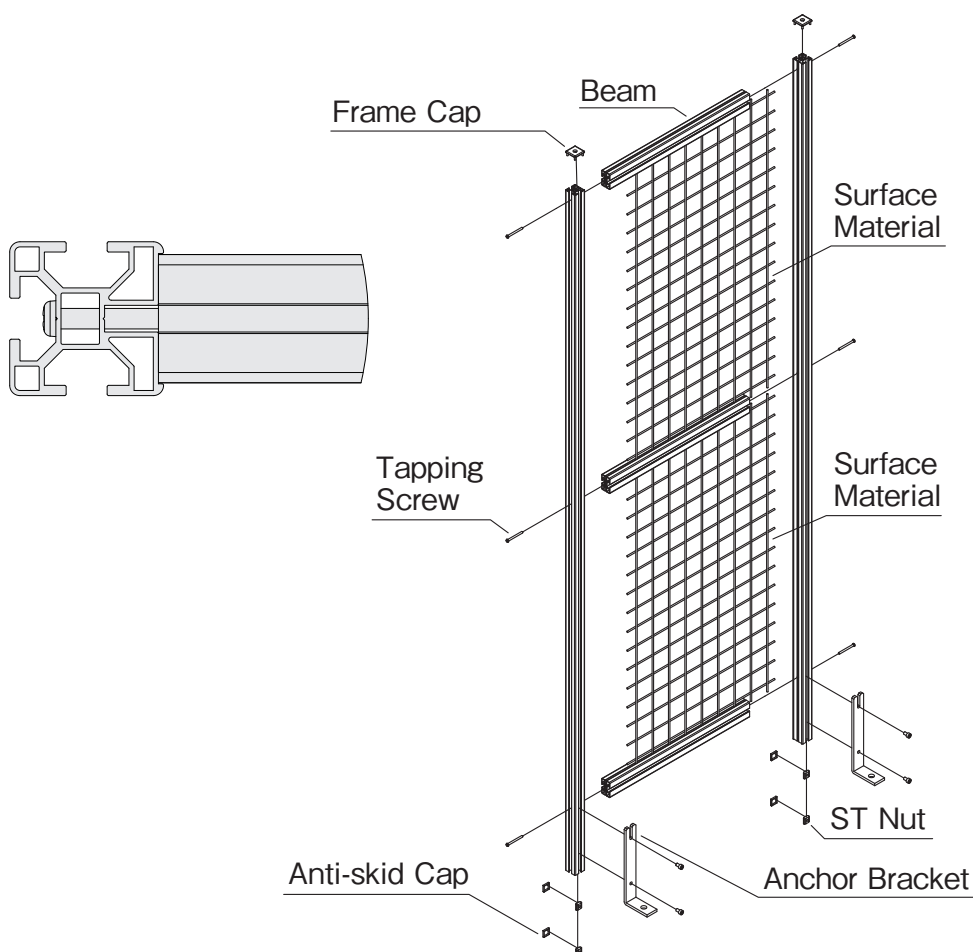
Unit Mass : 0.69kg/m

Name	AZ Beam 2540 For Wire Mesh L=50~4000mm	AZ Beam 2540 Yellow For Wire Mesh L=50~4000mm
Item No.	AZF-054	AZF-054Y

*Special processing is required. (See p.158) *A tapping bolt is required for connection with AZ Pillar 3030. (See page on the right.)

Frame

■ How to Assemble Beams and Pillars



AZ Frame Assembly Tapping Bolts

Name	Pan Head Screw 5 4×45 (Stainless Steel)
Item No.	SFB-9D1S

■Places Used

AZ Pillar 3030 and AZ Beam 2540 assembled together
 AZ Pillar 4040 and AZ Beam 2540 assembled together
 AZ Pillar 4040 Connecting Frame and AZ Beam 2540 assembled together

■Environment

RoHS10 Compliant

AZ
40

Safety Fence

Door Fence

Frame

Accessory

AZ
30

Safety Fence

Door Fence

Frame

Accessory

AZ
Common parts

Door Parts

AZ
Technical Data

Accessory

AZ
40

Anchor Bracket L Type-1 30 Kit

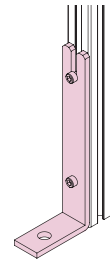
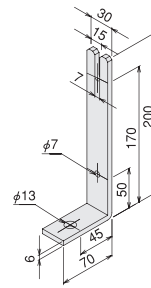


Materials/Technical Data

Materials : SS400
Environment : **RoHS10** Compliant
Mass : 357g

Compatible Frames

· AZ Pillar 3030
(Including yellow)



Kit Contents

- For Anchor Bracket L Model x1 (Type 30)
- Hexagon Socket Head Bolt
- ST Nut S
- Anti-skid Cap

Name	Anchor Bracket L Type-1 30 Kit
Item No.	AZK-300

AZ
30

Anchor Bracket C Type-1 30 Kit

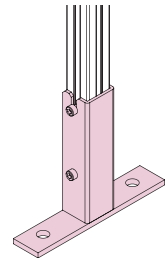
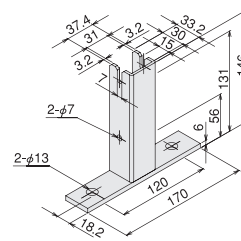


Materials/Technical Data

Materials : SS400/SPCC
Environment : **RoHS10** Compliant
Mass : 621g

Compatible Frames

· AZ Pillar 3030
(Including yellow)



Kit Contents

- For Anchor Bracket C Model x1 (Type 30)
- Hexagon Socket Head Bolt
- ST Nut S
- Anti-skid Cap

Name	Anchor Bracket C Type-1 30 Kit
Item No.	AZK-302

AZ
Common parts

Anchor Bracket L Type-2 30 Kit

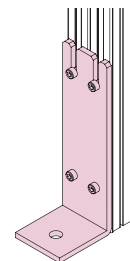
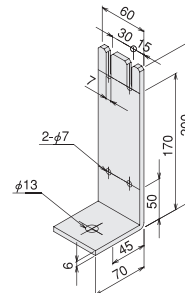


Materials/Technical Data

Materials : SS400
Environment : **RoHS10** Compliant
Mass : 744g

Compatible Frames

· AZ Pillar 3030
(Including yellow)
· AZ Pillar 3060
(Including yellow)



Kit Contents

- For Anchor Bracket L Model x2 (Type 30)
- Hexagon Socket Head Bolt
- ST Nut S
- Anti-skid Cap

Name	Anchor Bracket L Type-2 30 Kit
Item No.	AZK-301

Anchor Bracket C Type-2 30 Kit

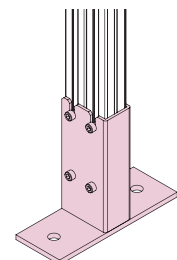
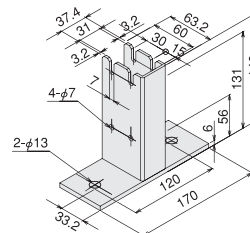


Materials/Technical Data

Materials : SS400/SPCC
Environment : **RoHS10** Compliant
Mass : 1122g

Compatible Frames

· AZ Pillar 3030
(Including yellow)
· AZ Pillar 3060
(Including yellow)



Kit Contents

- For Anchor Bracket C Model x2 (Type 30)
- Hexagon Socket Head Bolt
- ST Nut S
- Anti-skid Cap

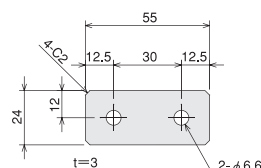
Name	Anchor Bracket C Type-2 30 Kit
Item No.	AZK-303

Accessory

Connecting Bracket Kit



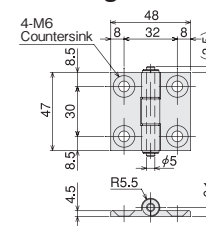
S Plate Bracket S-H2



■ Materials/Technical Data

Materials : SUS304
Environment : **RoHS10** Compliant
Mass : 29.6g

Flat Hinge S(30)



■ Materials/Technical Data

Materials : Aluminum Extrusion
Environment : **RoHS10** Compliant
Mass : 35.4g

Name	S Plate Bracket S-H2 Kit	Flat Hinge S (30) Kit
Item No.	SFK-125S	SFK-2A2
Kit Contents	· S Plate Bracket S-H2 · Hexagon Socket Head Bolt · ST Nut S	· Flat Hinge S · Cross Recessed Flat Head Screw · T Nut S

■ Compatible Frames

- AZ Pillar 3030
- AZ Pillar 3060 (Including yellow)

AZ Frame Cap Lock Type

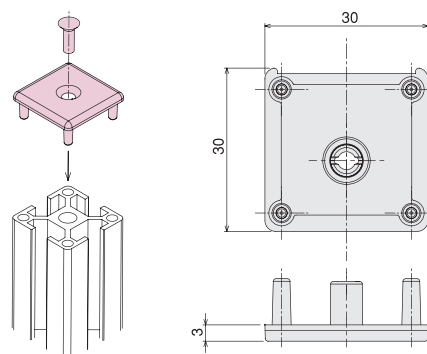


■ Materials/Technical Data

Materials : PA (Cap)
: Stainless Steel (Screw)
Environment : **RoHS10** Compliant
Mass : 3.7g

■ Compatible Frames

- AZ Pillar 3030
- AZ Pillar 3060 (Including yellow)
- (Use 2pcs for AZ Pillar 3060)

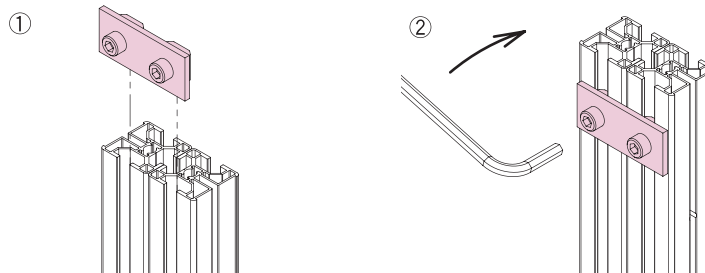


Name	AZ Frame Cap Lock Type 3030	
	(Light Gray)	(Yellow)
Item No.	AZK-304G	AZK-304Y

■ Kit Contents

- Frame Cap
- Cross Recessed Flat Head Screw (Stainless Steel)

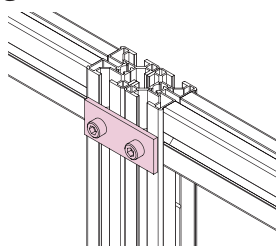
Connection Process



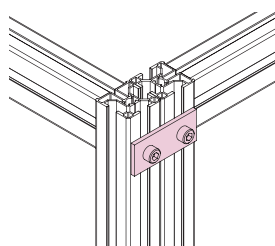
Temporarily assemble the connecting plate and insert it into the slots in the pillars.

Secure the connecting plate in place.

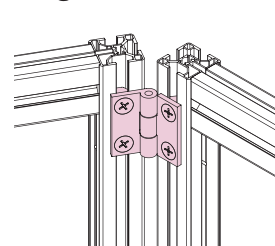
Straight Connection



90° Connection



Free Angle Connection



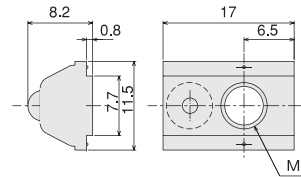
Accessory

AZ
40

Nuts for Attaching Parts



S Easy Nut S



Materials/Technical Data

Materials : Stainless Steel
: Conductive
Environment : **RoHS10** Compliant
Mass : 6.6g

Compatible Frames

· AZ Pillar 3030
· AZ Beam 2540
· AZ Pillar 3060 (Including yellow)

Name	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

AZ
30

Hexagon Socket Head Bolt

Material : Steel (White Trivalent Chromium) Environment : **RoHS10** 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

30 Door Stopper Kit

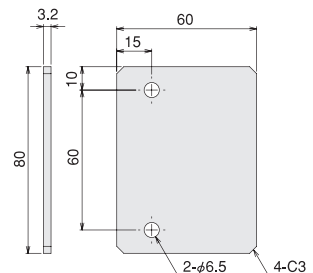
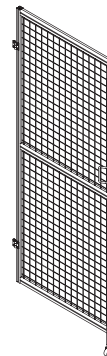


Materials/Technical Data

Materials : SPCC
Environment : **RoHS10** Compliant
Mass : 145g

Compatible Frames

· AZ Pillar 3030
· AZ Pillar 3060
(Including yellow)

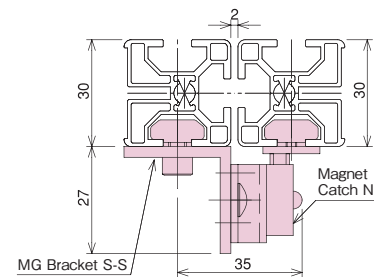
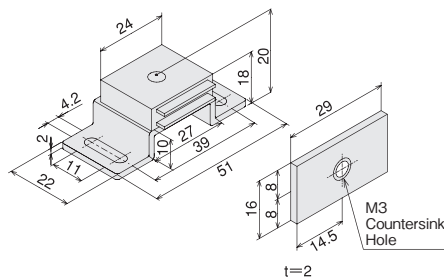
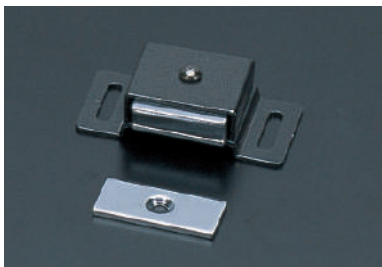


Name	30 Door Stopper Kit
Item No.	AZK-30D

Kit Contents

● Stopper Plate ● Easy Nut
● Hexagon Socket Head Bolt

Hinged Door Magnet Catch Kit (MG Bracket S-S Kit)



*The suspended sliding door is held by the door stop mechanism on the traveling rail. Therefore, it does not require a magnet catch.

Kit Contents

● Magnet Catch N ● MG Bracket S-S ● Truss Screw
● Countersunk Screw ● T Nut S M3
● T Nut S M5 ● Hexagon Socket Head Bolt

Name	MG Bracket S-S Kit
Item No.	SFK-4AH

Materials/Technical Data

Materials : Magnet Catch Housing : Stainless Steel Dark Brown Painted
Magnet : Ferrite
MG Bracket : Aluminum
T Nut : Steel
Environment : **RoHS10** Compliant
Mass : 93g

Compatible Frames

· AZ Pillar 3030
· AZ Pillar 3060
(Including yellow)

SAFETY FENCE

AZ

Common Parts

Hinged Door Parts

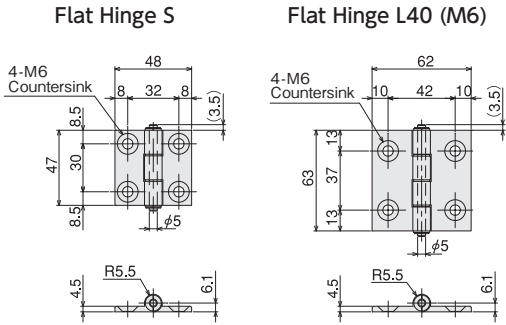
AZ 40
Safety Fence
Door Fence
Frame
Accessory

Flat Hinge



- Materials/Technical Data
- Materials : Aluminum Extrusion
Environment : **RoHS10** Compliant
Mass : 34g (30) · 58.7g (40)
- Compatible Frames
- AZ Pillar 3030 / 3060 (30)
 - AZ Pillar 4040 (40) (Including yellow)
- Kit Contents
- Flat Hinge
 - T Nut
 - Cross Recessed Flat Head Screw

Name	Flat Hinge S Kit (30)	Flat Hinge L40(M6) Kit (40)
Item No.	SFK-2A2	SFK-2A3



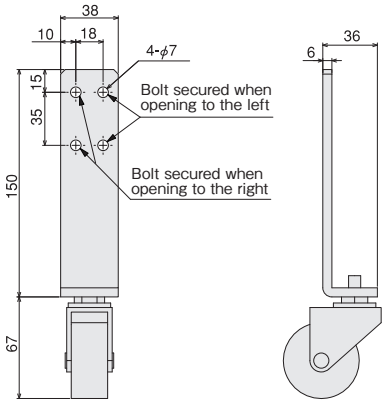
AZ 30
Safety Fence
Door Fence
Frame
Accessory

Door Caster Kit



- Materials/Technical Data
- Materials : Rubber (Caster)
SS400 (Bracket)
Environment : **RoHS10** Compliant
Mass : 494g (30) · 498g (40)
- Compatible Frames
- AZ Pillar 3030 / 3060 (30)
 - AZ Pillar 4040 (40) (Including yellow)
- Kit Contents
- Caster M8
 - Bracket
 - Easy Nut
 - Hexagon Socket Head Bolt

Name	30 Door Caster Kit	40 Door Caster Kit
Item No.	AZK-30E	AZK-40D



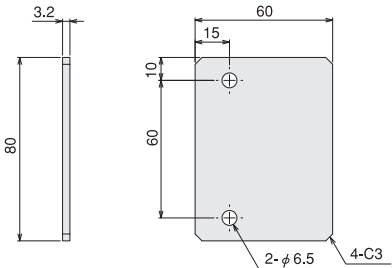
AZ Common parts
Door Parts
AZ Technical Data

Door Stopper Kit

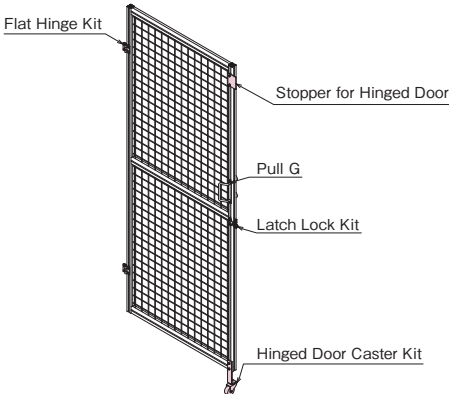


- Materials/Technical Data
- Materials : SPCC
Environment : **RoHS10** Compliant
Mass : 145g (30) · 149g (40)
- Compatible Frames
- AZ Pillar 3030 / 3060 (30)
 - AZ Pillar 4040 (40) (Including yellow)
- Kit Contents
- Stopper Plate
 - Easy Nut
 - Hexagon Socket Head Bolt

Name	30 Door Stopper Kit	40 Door Stopper Kit
Item No.	AZK-30D	AZK-40C



Hinged Door Diagram



Pull G Type



Materials/Technical Data

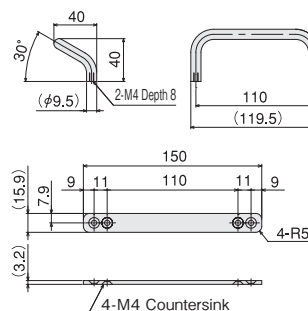
Materials : Aluminum (Pull · Plate)
Environment : **RoHS10** Compliant
Mass : 87g (30) · 89g (40)

Compatible Frames

· AZ Pillar 3030 / 3060 (30)
· AZ Pillar 4040 (40)
(Including yellow)

Kit Contents

· Pull G Type · Pull G Type Attachment Plate
· Easy Nut · Hexagon Socket Head Bolt



Name	Pull G Kit (30)	Pull G Kit (40)
Item No.	AZK-30B	AZK-40A

Latch Lock Kit



Materials/Technical Data

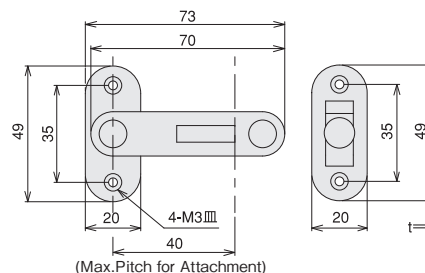
Materials : SUS304
Environment : **RoHS10** Compliant
Mass : 97g (30) · 101g (40)

Compatible Frames

· AZ Pillar 3030 / 3060 (30)
· AZ Pillar 4040 (40)
(Including yellow)

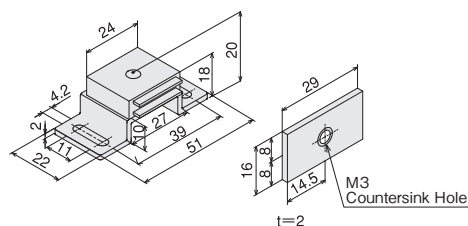
Kit Contents

· Latch Lock · Easy Nut
· Cross Recessed Flat Head Screw



Name	Latch Lock Kit (30)	Latch Lock Kit (40)
Item No.	AZK-30C	AZK-40B

Hinged Door Magnet Catch Kit (MG Bracket S-S Kit / MG Bracket L-L40 Kit)



Kit Contents

● Magnet Catch N ● MG Bracket S-S/L ● Truss Screw
● Countersunk Screw ● Accessory Nut L M3
● T Nut ● Hexagon Socket Head Bolt

Materials/Technical Data

Materials : Magnet Catch Housing : Stainless Steel Dark Brown Painted
Magnet : Ferrite
MG Bracket : Aluminum
T Nut : S10C Equivalent

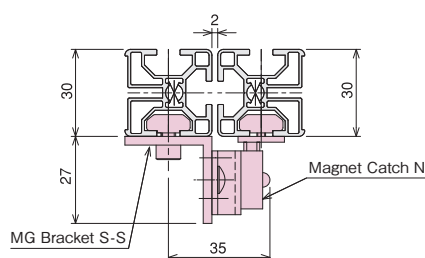
Environment : **RoHS10** Compliant
Mass : 35g (Magnet Catch)

Compatible Frames

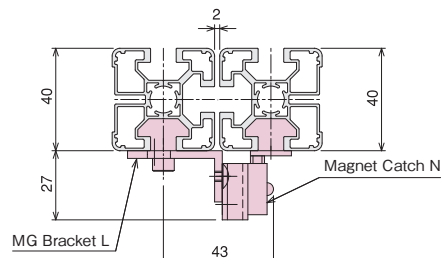
· AZ Pillar 3030/3060(S-S Kit)
· AZ Pillar 4040(L-L40 Kit)
(Including yellow)

Name	MG Bracket S-S Kit	MG Bracket L-L40 Kit
Item No.	SFK-4AH	SFK-4AM

MG Bracket S-S Kit Attachment Diagram



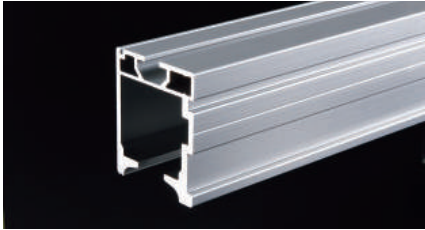
MG Bracket L-L Kit Attachment Diagram



Sliding Door Parts

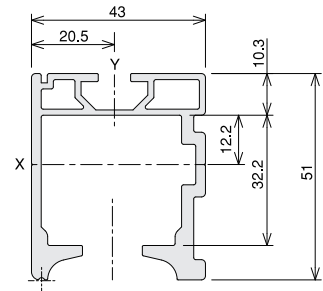
AZ
40

Traveling Rail Frame



Materials/Technical Data

Materials : A6N01SS-TS
 : Anodized Surface Treatment
Environment : **RoHS10** Compliant
Geometrical Moment of Inertia
 $I_x = 15.54 \times 10^4 \text{ mm}^4$
 $I_y = 14.42 \times 10^4 \text{ mm}^4$
Section Modulus
 $Z_x = 5.98 \times 10^3 \text{ mm}^3$
 $Z_y = 6.54 \times 10^3 \text{ mm}^3$
Unit Mass : 1.41 kg/m



Name	Traveling Rail Frame L=50~4000mm
Item No.	SFF-T94

*Special processing is required. (See p.160) *A traveling rail attachment bolt and nut kit is required to attach the traveling rail frame. (See below.) *The shape of the T slot is the same as the AZ Pillar 3030.

Bolt and Nut Kit for Traveling Rail

Environment : **RoHS10** Compliant

Name	Bolt and Nut Kit for Traveling Rail (30) L=50~4000mm	Bolt and Nut Kit for Traveling Rail (40) L=50~4000mm
Item No.	AZK-308	AZK-407

Compatible Frames

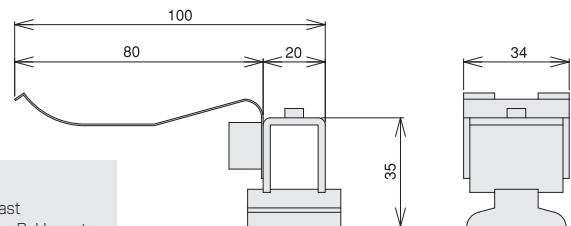
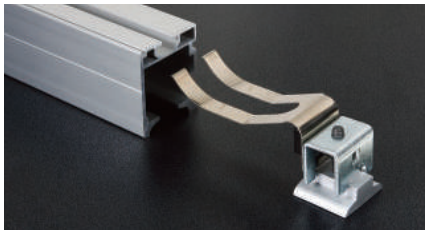
Traveling Rail Frame and AZ Frame Assembly

Kit Contents

· Duracon Washer
 · Hexagon Socket Low Head Cap Bolt · Easy Nut · Free Nut

AZ
30

Traveling Rail Door Stopper Kit



Materials/Technical Data

Materials : SPHC / Zinc Die Cast
 SUS304 / Neoprene Rubber, etc.
Environment : **RoHS10** Compliant
Mass : 90g

Compatible Frames

Traveling Rail Frame

Kit Contents

· SD15 Door Stopper with Stopper
 · Hexagon Socket Head Bolt

Name	Traveling Rail Door Stopper Kit
Item No.	SFA-G03

Traveling Rail Cover

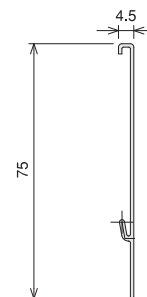


Materials/Technical Data

Materials : A6063
 Anodized Surface Treatment
Environment : **RoHS10** Compliant
Mass : 0.24kg/m

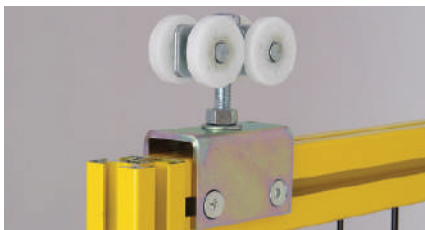
Compatible Frames

Traveling Rail Frame



Name	Traveling Rail Cover L=50~4000mm
Item No.	SFF-TA4

Pulley Unit Kit



Materials/Technical Data

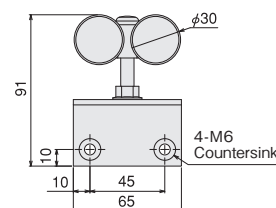
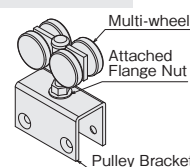
Materials : SPCC (Bracket)
 SPCC/POM/SWRM, etc. (Multi-wheel)
Environment : **RoHS6** Compliant
Mass : 323g

Compatible Frames

AZ Beam 2540 (Including yellow)

Kit Contents

· SD15 Multi-wheel
 · Pulley Bracket
 · Easy nut
 · Hexagon Socket Head Countersunk Bolt



Tighten the screw just enough so that it touches the frame.

Before assembling the suspended sliding door, partially insert 4 T-nuts on both the front side and the back side in preparation.

Name	Pulley Unit Kit
Item No.	AZK-001

Traveling Rail Bracket Kit (30)



Materials/Technical Data

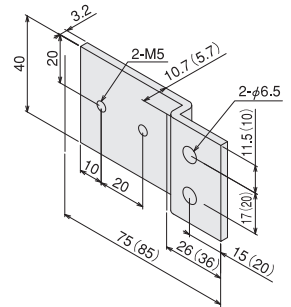
Materials : SPCC (Bracket)
Environment : **RoHS10** Compliant
Mass : 101g (30) · 118g (40)

Compatible Frames

Assembly with AZ Pillar 3030/3060 (for 30)
or AZ Pillar 4040 (for 40) and Traveling Rail

Kit Contents

- Traveling Rail Bracket
- T Nut
- Hexagon Socket Head Bolt
- Anti-skid Cap



For 40 in parentheses ()

Door Guide Kit



Materials/Technical Data

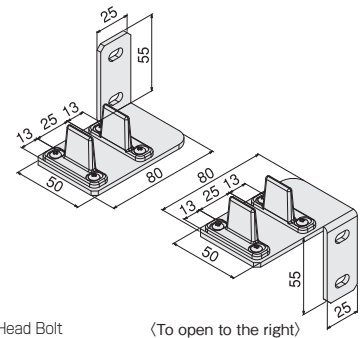
Materials : SPCC (Bracket) · Nylon (Guide)
Environment : **RoHS10** Compliant
Mass : 166g (30) · 169g (40)

Compatible Frames

- AZ Pillar 3030/3060 (30)
- AZ Pillar 4040 (40)

Kit Contents

- Door Guide 11
- Guide Bracket
- Truss Screw
- Easy Nut
- Hexagon Socket Head Bolt



Slide Door Connection Bracket Kit

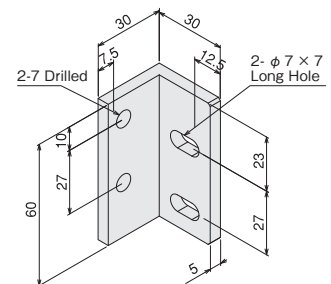


Materials/Technical Data

Materials : Aluminum Extrusion
Environment : **RoHS10** Compliant
Mass : 101g (30) · 108g (40)

Kit Contents

- Traveling Rail Bracket
- L Brackets
- Easy Nut
- Flat Washer
- Hexagon Socket Head Bolt



Seal Cover



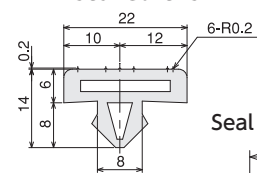
Materials/Technical Data

Materials : CSM60±5*(Synthetic Rubber) (Seal Cover S · Light Gray)
Environment : Silicon Rubber (Seal Cover LT · Light Gray)
Mass : 293g (30) · 45g (40)

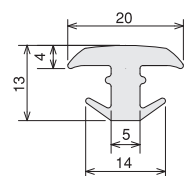
Compatible Frames

- AZ Pillar 3030/3060 (30)
- AZ Pillar 4040 (40)

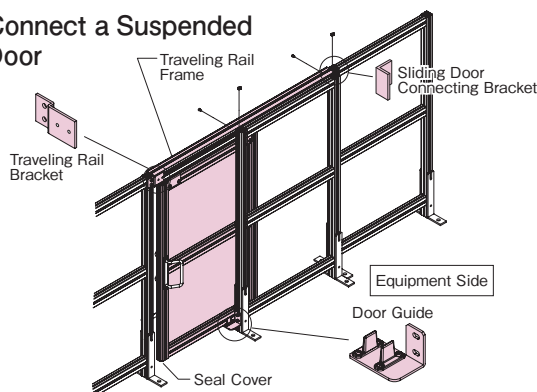
Seal Cover S



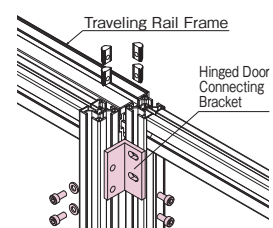
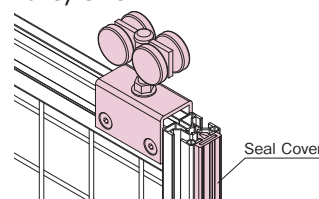
Seal Cover LT



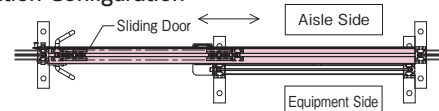
How to Connect a Suspended Sliding Door



Pulley Unit



Connection Configuration



AZ
40

Safety Fence

Door Fence

Frame

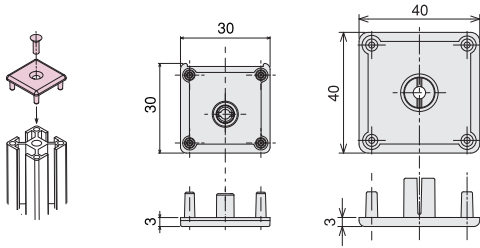
Accessory

AZ Frame Cap Lock Type



- Materials/Technical Data
- Materials : PA (Caps)
Stainless Steel (Screws)
- Environment : **RoHS10** Compliant
- Mass : 3.7g (30) 7.3g (40)
- Compatible Frames
- AZ Pillar 3030
 - AZ Pillar 4040

- Kit Contents
- Frame Cap
 - Cross Recessed Head Countersink Screws (stainless steel)



Name	AZ Frame Cap Lock Type 3030 (Light Gray) (Yellow)		AZ Frame Cap Lock Type 4040 (Light Gray) (Yellow)	
Item No.	AZK-304G	AZK-304Y	SFK-02LG	SFK-02LY

AZ
30

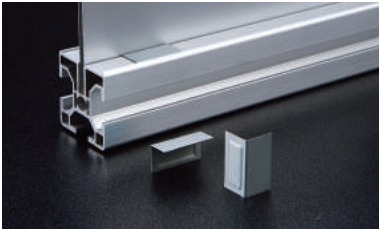
Safety Fence

Door Fence

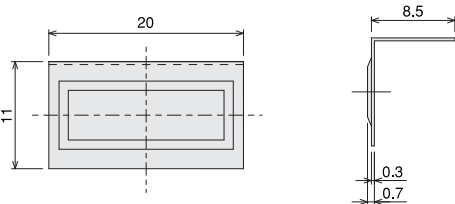
Frame

Accessory

Panel Fix Piece (For Plastic Panel)



- Materials/Technical Data
- Materials : SECC
(Electro-Galvanized Steel Sheet)
- Environment : **RoHS10** Compliant
- Mass : 0.9g



*Use the panel fix pieces by attaching them to both sides of the panel on the top and bottom. (4 per panel)

*Not required for wire mesh.

Name	Panel Fix Piece (For Plastic Panel)
Item No.	AZP-001

AZ
Common parts

Door Parts

AZ
Technical Data

Pillar Angle Kit 30 / Kit 40



Materials/Technical Data

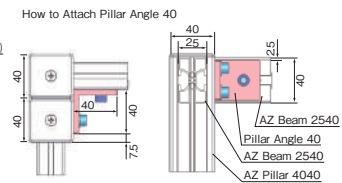
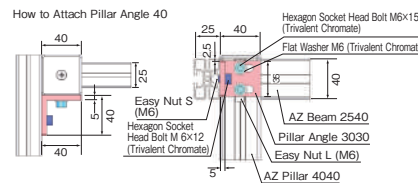
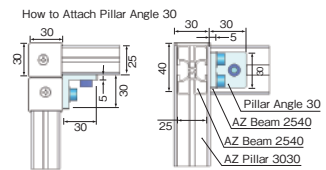
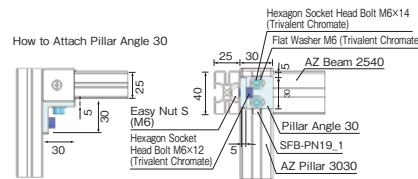
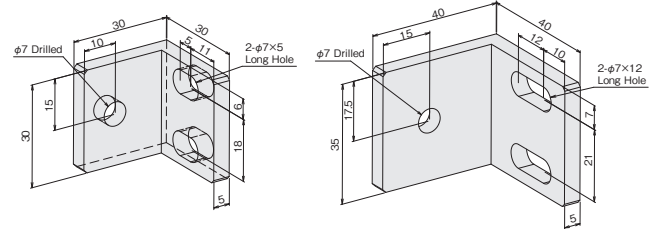
Materials : Aluminum Extrusion
Environment : **RoHS10** Compliant
Mass : 19.74g (30)
31.58g (40)

Kit Contents

- (Pillar Angle Kit 30)
 · Pillar Angle 30 × 1
 · Hexagon Socket Head Bolt M6 × 14 (Stainless) × 2
 · Flat Washer M6 (Stainless) × 2
 · Hexagon Socket Head Bolt M6 × 12 (Stainless) × 1
 · S Easy Nut S (M6) × 3

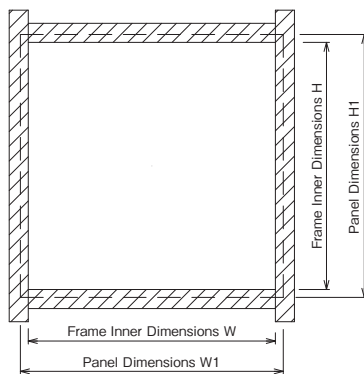
- (Pillar Angle Kit 40)
 · Pillar Angle 40 × 1
 · Hexagon Socket Head Bolt M6 × 16 (Stainless) × 2
 · Flat Washer M6 (Stainless) × 2
 · Hexagon Socket Head Bolt M6 × 12 (Stainless) × 1
 · S Easy Nut S (M6) × 1
 · S Easy Nut L (M6) × 2

Name	Pillar Angle Kit 30	Pillar Angle Kit 40
Item No.	AZK-30M	AZK-40M



Steel/Resin Panel Dimensions Guide

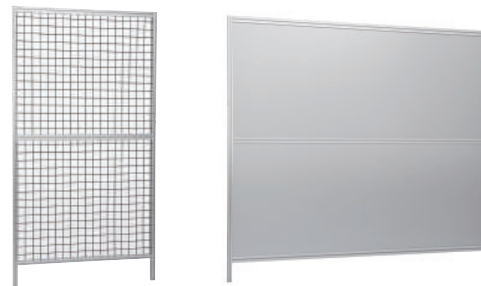
How to Calculate Panel Dimensions



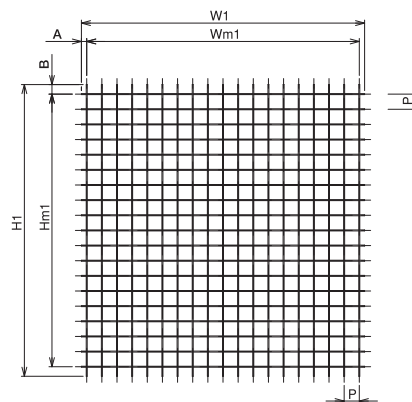
How to Calculate Panel Dimensions

Panel Type	Wire Mesh	Resin Panel
Height H1	H+23	H+21
Width W1	W+25	W+23

*Common to both 30 and 40 Series.



Wire Mesh Detailed Dimensions



How to Find A and B Dimensions

Minimum required dimension for A is 12mm
 $W1 - (12 \times 2) = Wm1$
 $Wm1/P = n \rightarrow n$ is an integer
 $A = (W1 - P \times n) / 2$

Minimum required dimension for B is 12mm
 $H1 - (12 \times 2) = Hm1$
 $Hm1/P = n \rightarrow n$ is an integer
 $B = (H1 - P \times n) / 2$

AZ
40

Safety Fence

Door Fence

Frame

Accessory

AZ
30

Safety Fence

Door Fence

Frame

Accessory

AZ
Common parts

Door Parts

AZ
Technical Data

SAFETY FENCE

AZ

Technical Data

AZ40 Strength Data

AZ
40

Safety Fence

Door Fence

Frame

Accessory

AZ
30

Safety Fence

Door Fence

Frame

Accessory

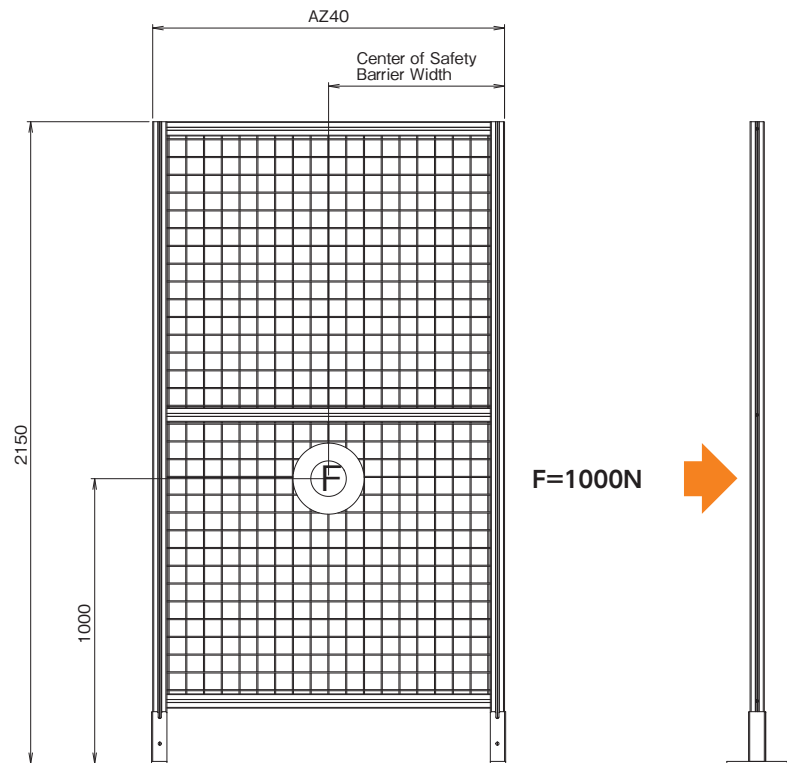
AZ
Common parts

Door
Parts

AZ
Technical Data

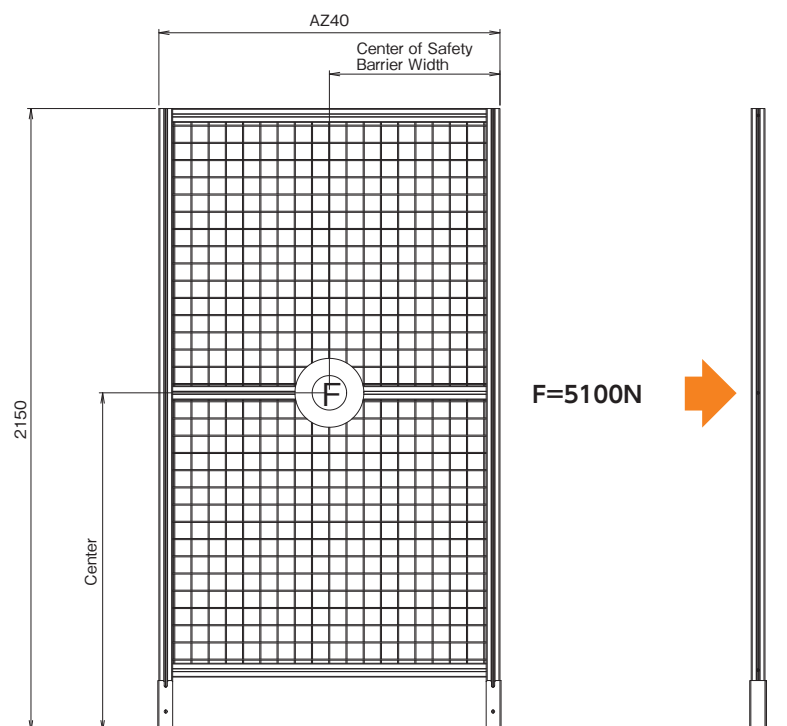
Horizontal Strength

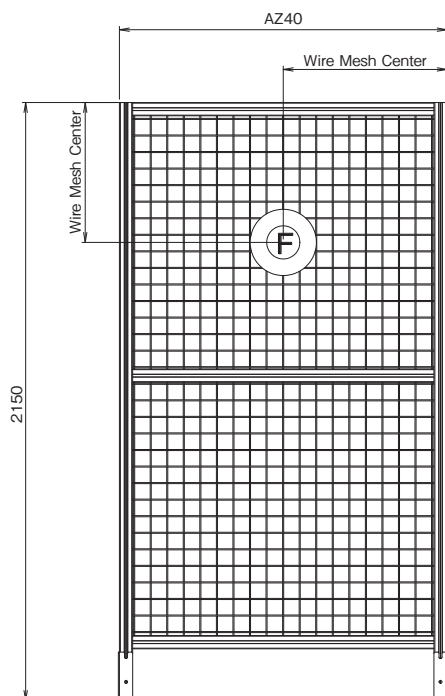
When a load of 1000N is applied from 1000mm above the floor, the safety fence must not collapse.



Beam Frame Strength

When a load of 5100N is applied to the center of the safety barrier, the pillar frame must not break.



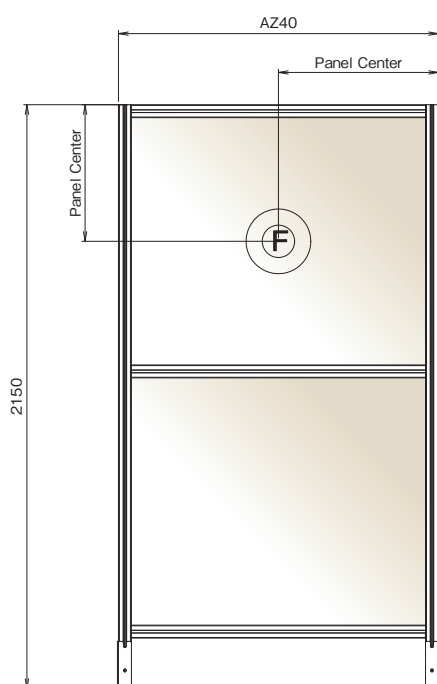


$F=1300N$



Wire Mesh Retention Power

When a load of 1300N is applied to the center of the wire mesh, the wire mesh must not come off.



$F=2000N$



Panel Retention Power

When a load of 2000N is applied to the center of the panel, the panel must not come off.

AZ
40

Safety Fence

Door Fence

Frame

Accessory

AZ
30

Safety Fence

Door Fence

Frame

Accessory

AZ
Common parts

Door
Parts

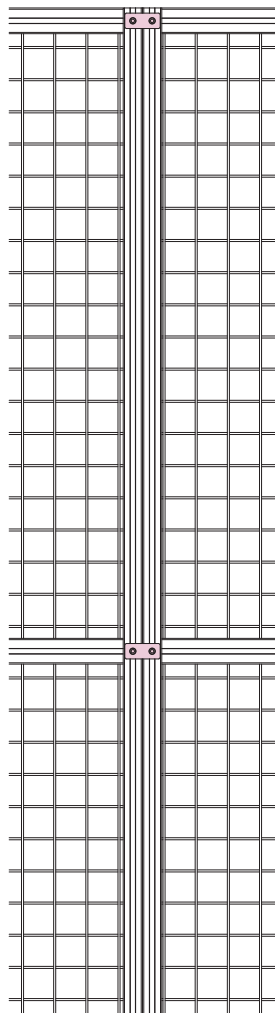
AZ
Technical Data

How to Connect AZ40/AZ30

**AZ
40**

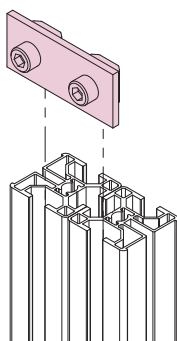
(1) Connect to the part of the safety fence that will become the corner (standard).

*Install the connecting plates in at least 2 places (frame top and frame center), and connect the bottom with 2 anchor brackets.



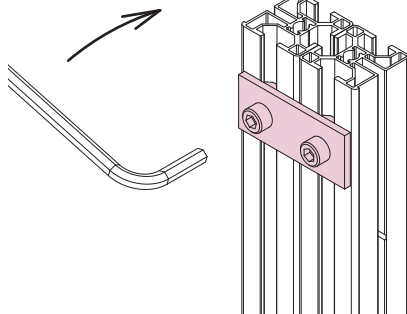
Connection Process

①



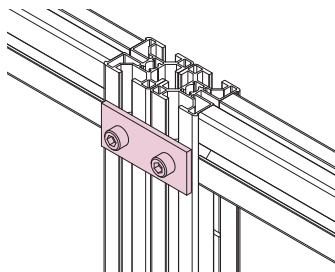
Temporarily assemble the connecting plate and insert it into the slots in the pillars.

②

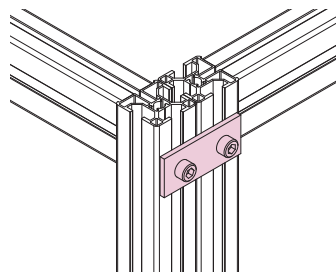


Secure the connecting plate in place.

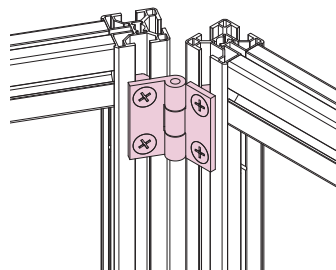
Straight Connection



90° Connection



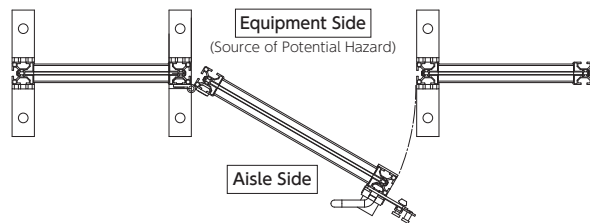
Free Angle Connection


**AZ
30**
**AZ
Common parts**
**Door
Parts**
**AZ
Technical Data**

(2) Attaching the Door

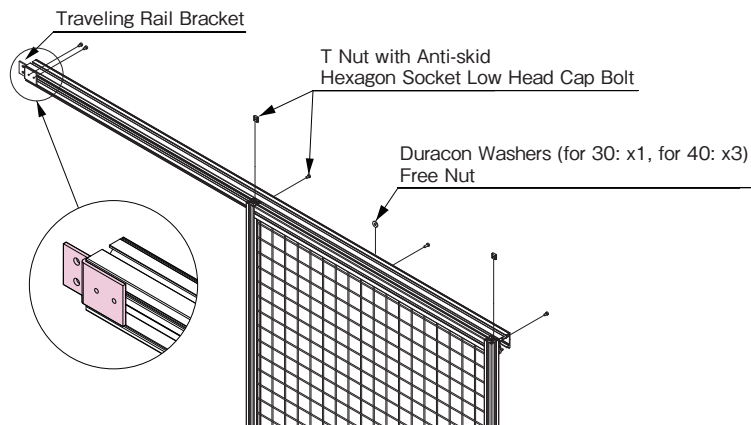
■ Hinged Door

- *Attach with flat type hinges.
- Fix the fittings on the latch lock receiving side.

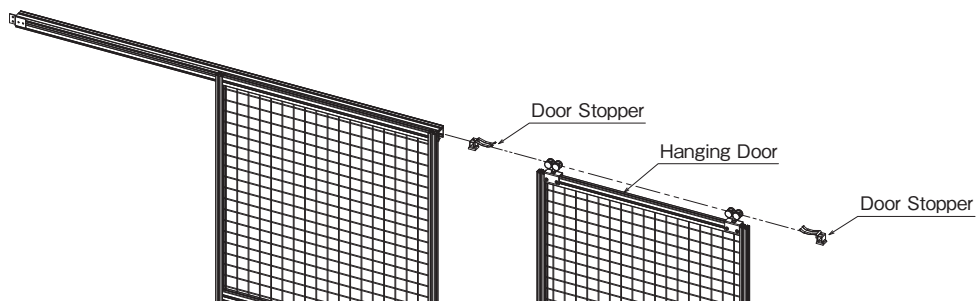


■ Sliding Door

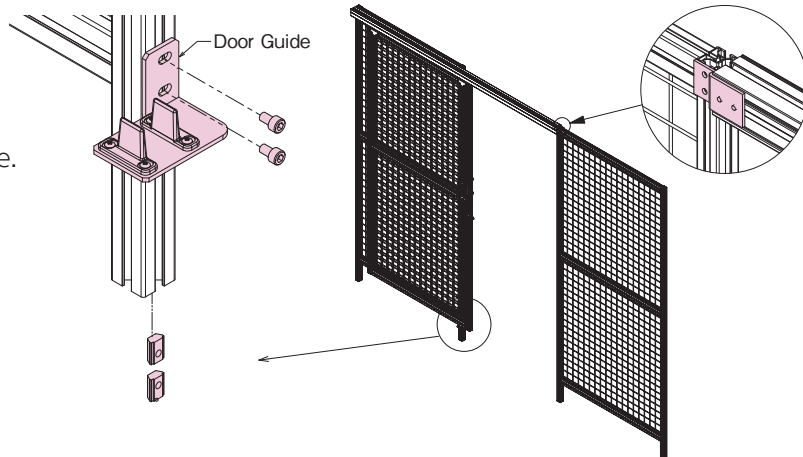
- 1) Attach the traveling rail frame to the safety fence.



- 2) Set the Door Stopper on the traveling rail frame, then set the door unit on the traveling rail frame. Set the door stopper on the opposite side.



- 3) Attach the door guide.



- 4) Set the fittings on the latch lock receiving side.

- 5) Attach to the adjacent safety fence with the traveling rail bracket.

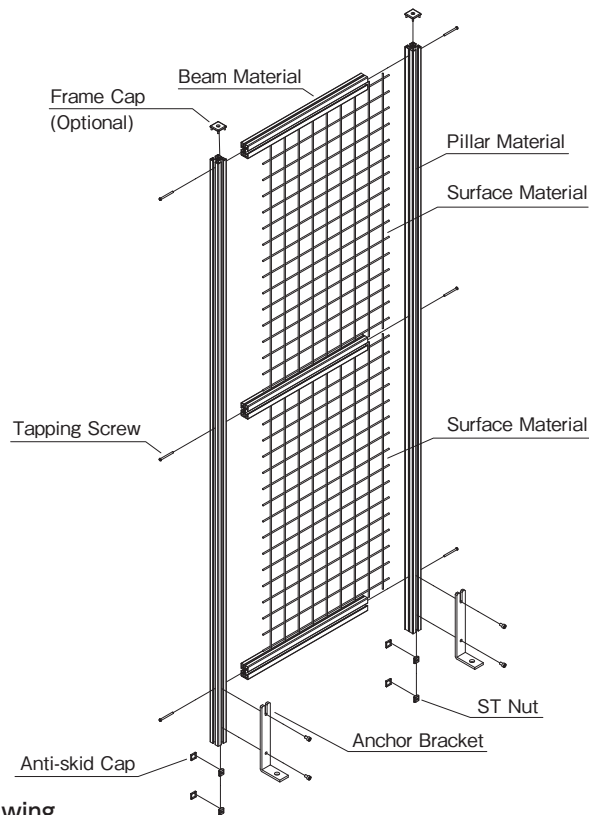
(3) Anchor in place with anchor bracket(s)

- *As a general rule, set up at least 1 anchor bracket for each pillar.
- *Anchor in place with M10 or M12 anchor bolts.
- *If the anchor is not set correctly, it can affect the strength of the safety fence. Please take care to set them correctly.

AZ40•AZ30 Strength Data

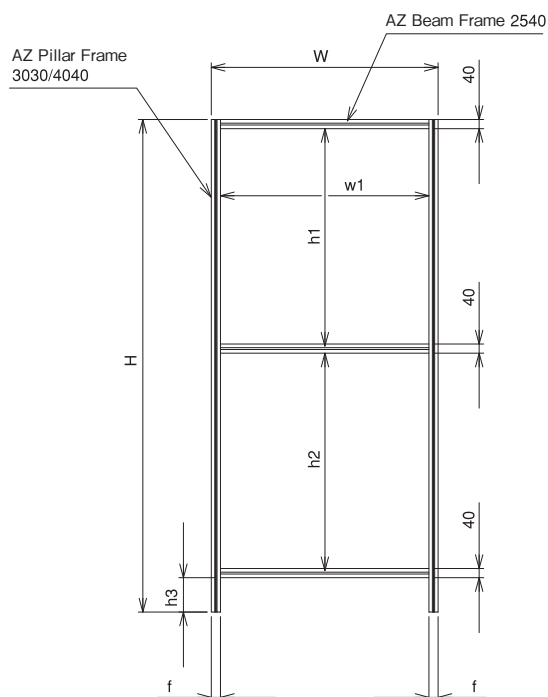
AZ
40

■ Single Fence Diagram



AZ
30

■ AZ Frame Processing Drawing



● AZ Beam Frame 2540 Dimensions

$$L_b = W - f - f + 2$$

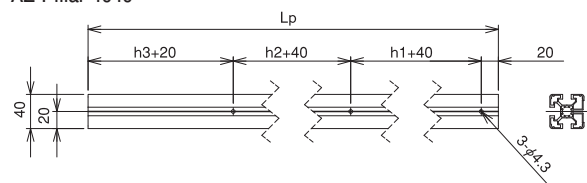
*f is for AZ Pillar Frame 3030.....30
for AZ Pillar Frame 4040.....40

● AZ Pillar Frame 3030/4040 Dimensions

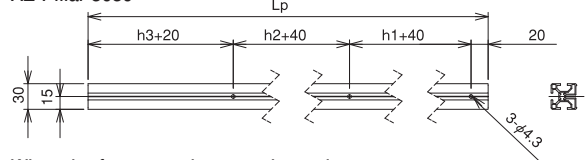
$$L_p = H$$

*See the diagram below for hole drilling

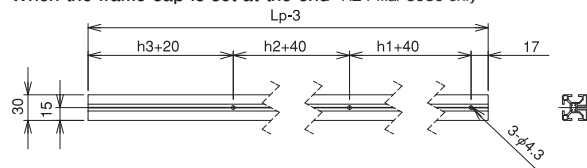
AZ Pillar 4040



AZ Pillar 3030



When the frame cap is set at the end *AZ Pillar 3030 only



⚠ Caution

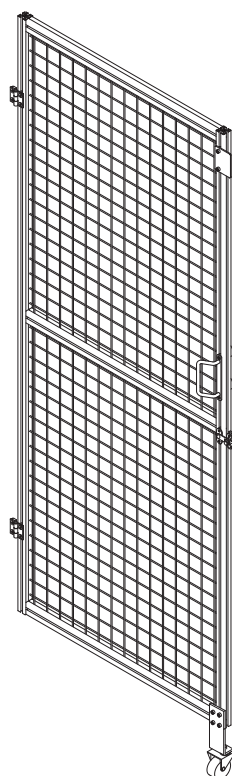
The guideline for the W dimension is about 300 to 2000 <1500> mm. The numbers in brackets <> are for Pillar Frame 3030 in cases where the H dimension h1 (h2) is 940mm or less, and the maximum is 2500mm.
(However, please inquire about setting it to 2150mm or more.)
When there is only one piece of surface material, calculate dimensions without h2.

How to Calculate Panel Dimensions

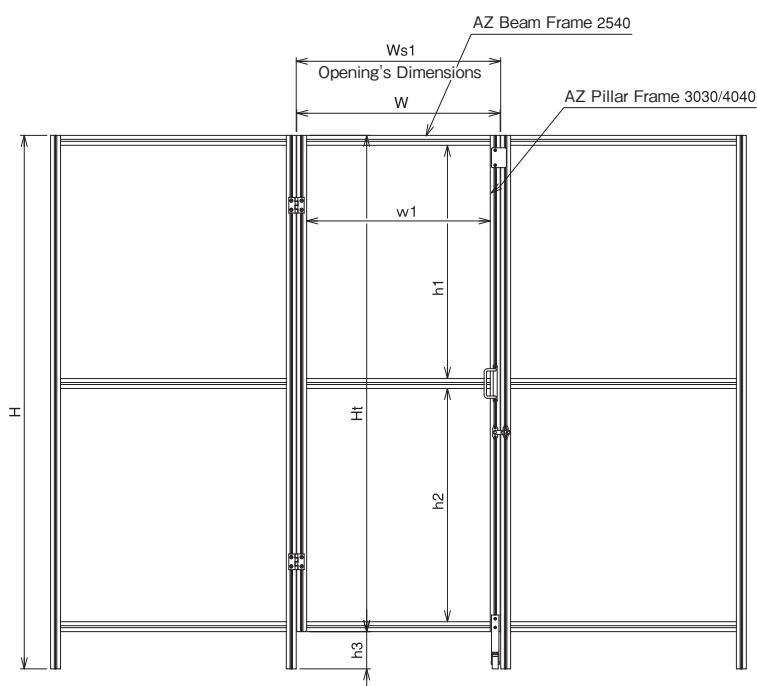
Panel Type	Wire Mesh	Resin Panel
Height h/h2	$h1 (h2) + 23$	$h1 (h2) + 21$
Width w1	$w1 + 25$	$w1 + 23$

AZ40/AZ30 Dimension Data

■ Hinged Door Diagram



■ AZ Frame Processing Drawing (Hinged Door)



● AZ Beam Frame 2540 Dimensions

$$L_b = W - f - f + 2$$

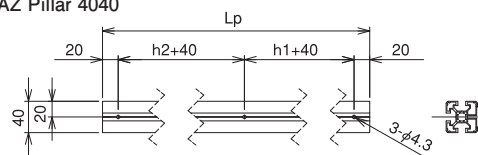
*f is for AZ Pillar Frame 3030.....30
for AZ Pillar Frame 4040.....40

● AZ Pillar Frame 3030/4040 Dimensions

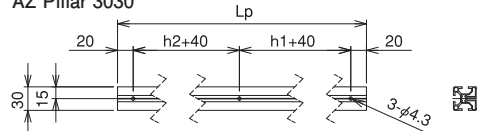
$$L_p = H - h_3$$

*See the diagram below for hole drilling

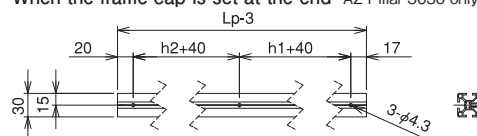
AZ Pillar 4040



AZ Pillar 3030



When the frame cap is set at the end *AZ Pillar 3030 only



▲ Caution

Refer to the catalog frame attachment guidelines for the door dimension W relative to opening dimension Ws1.
The door dimension guidelines are the same as the fence dimension guidelines.
Surface material processing dimensions are the same as fence processing dimensions.

*See p.158 regarding wire mesh/panel dimensions

AZ
40

Safety Fence

Door Fence

Frame

Accessory

AZ
30

Safety Fence

Door Fence

Frame

Accessory

AZ
Common parts

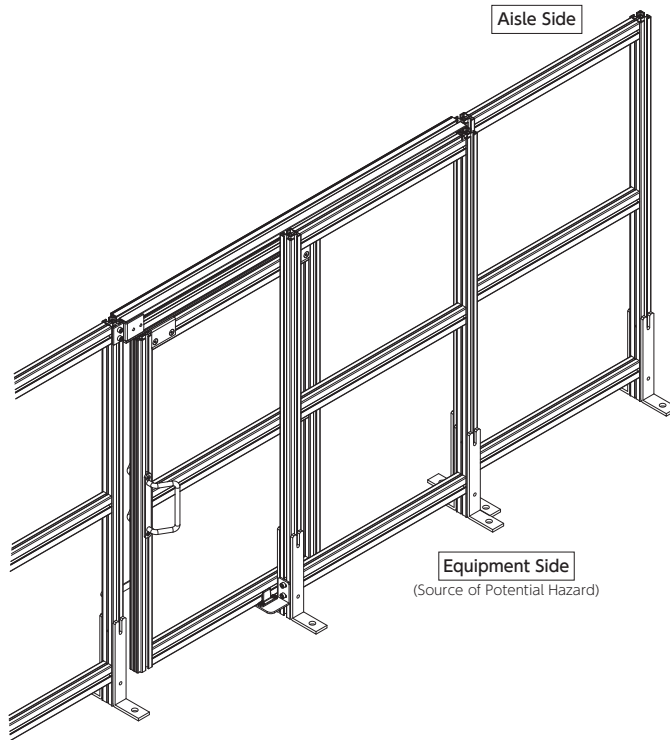
Door
Parts

AZ
Technical Data

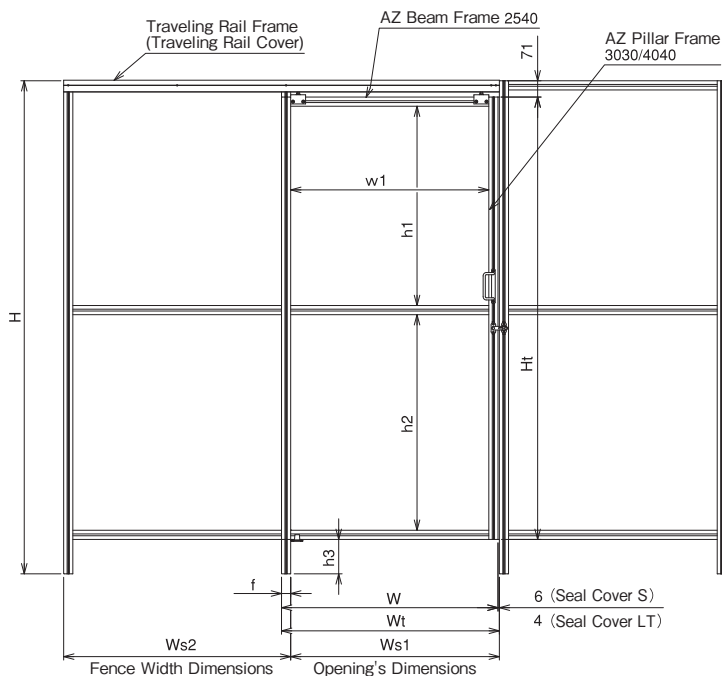
AZ40/AZ30 Dimension Data

**AZ
40**

Slide Door Configuration Diagram


**AZ
30**

AZ Frame Processing Drawing (Slide Door)



⚠ Caution

Use $W_{s1}-90$ as a guideline for the dimensions when the door is open.
($W_{s1}-80$ for maximum opening)
The door dimension guidelines are the same as the fence dimension guidelines.
Surface material processing dimensions are the same as fence processing dimensions.

*See p.158 regarding wire mesh/panel dimensions

● AZ Beam Frame 2540 Dimensions

$$L_b = W - f - f + 2$$

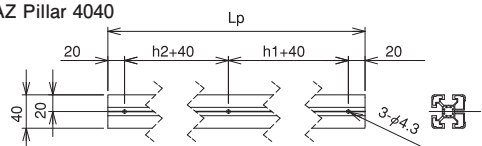
*f is for AZ Pillar Frame 3030.....30
for AZ Pillar Frame 4040.....40

● AZ Pillar Frame 3030/4040 Dimensions

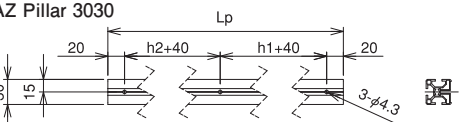
$$L_p = H - h_3 - 71$$

*See the diagram below for hole drilling

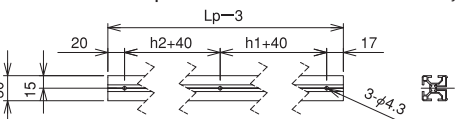
AZ Pillar 4040



AZ Pillar 3030



When the frame cap is set at the end *AZ Pillar 3030 only

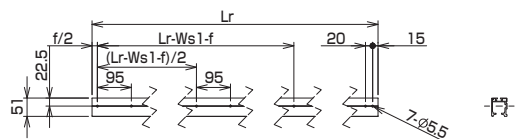


● Traveling Rail Frame/Traveling Rail Cover Dimensions

$$L_r = 2 \times W_{s1} - 52$$

*See the diagram below for traveling rail frame hole drilling

*Processing for opening on the right side



Safe Distance Data

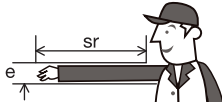
Safe Distance for Upper Limbs (With High Risk) (JIS B9707 ISO 13852)

Unit: mm

Danger Zone Height	Protective Structure Height									
	1000	1200	1400	1600	1800	2000	2200	2400	2500	2700
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	—	—	—	—	—	—	—	—

Safe distance for passing through the opening of the protective structure (for upper limbs)

Unit: mm

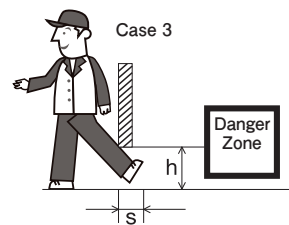
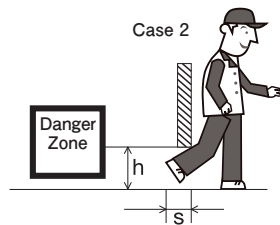
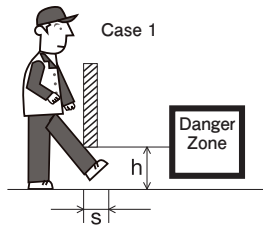
Body Part	Illustration	Open Part	Safe Distance sr		
			Rectangle	Square	Circle
Arm from shoulder to hand		$30 < e \leq 40$ ($20 < e \leq 30$)	≥ 850 (≥ 900)	≥ 200 (≥ 550)	≥ 120 (≥ 120)
		$40 < e \leq 120$ ($30 < e \leq 100$)	≥ 850 (≥ 900)	≥ 850 (≥ 900)	≥ 850 (≥ 900)

*Values in parentheses () are for people ages 3 to 14.

Safe Distance for Lower Limbs (JIS B9708 ISO 13853)

Unit: mm

Height to Protective Structure	Safe Distance S for Blocking		
	Case 1	Case 2	Case 3
$h \leq 200$	≤ 340	≤ 665	≤ 290
$200 < h \leq 400$	≤ 550	≤ 765	≤ 615
$400 < h \leq 600$	≤ 850	≤ 950	≤ 800
$600 < h \leq 800$	≤ 950	≤ 950	≤ 900
$800 < h \leq 1000$	≤ 1120	≤ 1195	≤ 1050



Minimum Gap to Prevent Crushing (JIS B9711 ISO 13854)

Unit: mm

Body Part	Body	Head	Leg	Foot	Toes	Arm	Wrist	Fingers
Minimum Gap	500	300	180	120	50	120	100	25

Green Procurement

1. Purpose

The purpose of this document is to clearly state prohibited substances designated by laws and ordinances as well as managed substances which are limited in their volume of use, and procure products and services with a lower environmental burden for materials that compose SUS Corporation products and for chemical substances included in these products.

2. Scope of Application

2.1 Scope of Application to Products

- 1) Products designed, manufactured, and sold by SUS Corporation.
- 2) Products commissioned for design and manufacturing to a third party and sold with the SUS Corporation trademark by SUS Corporation.
- 3) Products purchased from another corporation, incorporated into another product and sold as a finished product by SUS Corporation.
- 4) Products which have been commissioned for design and manufacturing by a third party to SUS Corporation.
(Excluding parts and materials designated by the third party.)

2.2 Scope of Application to Parts and Materials

This includes parts, materials, and other items used in products included in "2.1 Scope of Application of Products" above.
These parts and materials are as follows.

- 1) Semi-finished goods (assembly parts including functional units, modules, circuit board assemblies, etc.)
- 2) Parts (electric parts, component parts, screws, semiconductor devices, printed circuit boards, etc.)
- 3) Accessories for using devices (electric cables, harnesses, AC adapters, etc.)
- 4) Component materials of secondary materials (adhesive tape, solder material, bonding agent, etc.) used in the product
- 5) Documents such as instruction manuals
- 6) Packing materials, packing parts, etc. (bags, cushioning, sheets, wrapping, cardboard, tape, cable ties, labels, printer ink, paint, etc.)

3. For regulated substances which are subject to SUS Corporation green procurement standards, see the list on the SUS Corporation homepage.
<http://www.sus.co.jp/procurement/>

RoHS

RoHS, short for "2002/95/EC (Directive on the restriction of the use of certain hazardous substances in electrical equipment)", is a directive regarding the use of specified hazardous substances in electrical and electronic equipment promulgated by the European Union Council & Parliament directive on January 27, 2003.

In principle, RoHS prohibits the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE) (maximum permissible concentrations are 0.01% by weight for cadmium, and 0.1% by weight for the other 5 substances), and it was enforced in July 2006.

Several items concerning target products and application exclusions were revised by the June 8, 2011 European Union Council & Parliament directive "2011/65/EU (Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment <recast>).

Description on RoHS Compliance Products

According to the publication of revised RoHS directives, our products are, from July 22, 2019, targeted of 10 substances compared to the 6 substances before revision.

RoHS10 Compliance Products · · Products confirmed that revised RoHS directives are followed. Can continuously be used as RoHS compliance products after July 22, 2019.

RoHS6 Compliance Products · · · Conform to former RoHS directives (restricted 6 substances) only, or products that are investigated for conformity to revised RoHS directives.

REACH SVHC

REACH is a regulation on the registration, evaluation, authorization, and restriction of chemicals in the European Union (EU) which was voted on by the European Council in December 2006 and after being published in the official gazette, came into force in June 2007. The name of the regulation is an acronym for "Registration, Evaluation, Authorization, and Restriction of Chemicals". REACH mandates that manufacturers and importers register and evaluate their products when manufacturing or importing chemicals in the EU, and requires relevant authorities to make restrictions, such as giving permission for substances of very high concern (SVHC) or prohibiting substances of even greater risk. Entities that do not fulfill the obligations required by REACH cannot manufacture or launch chemicals within the EU. SVHCs are periodically added as "candidates for authorization", and ultimately it is expected that approximately 1,000 chemical substances will be covered by the year 2020.

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