



# GF Series Aluminium Pipe Structure Catalog '16 - '17



**GF**  
Green Frame  
Aluminium Pipe Structure Series

# Since 2001

Unlimited possibility

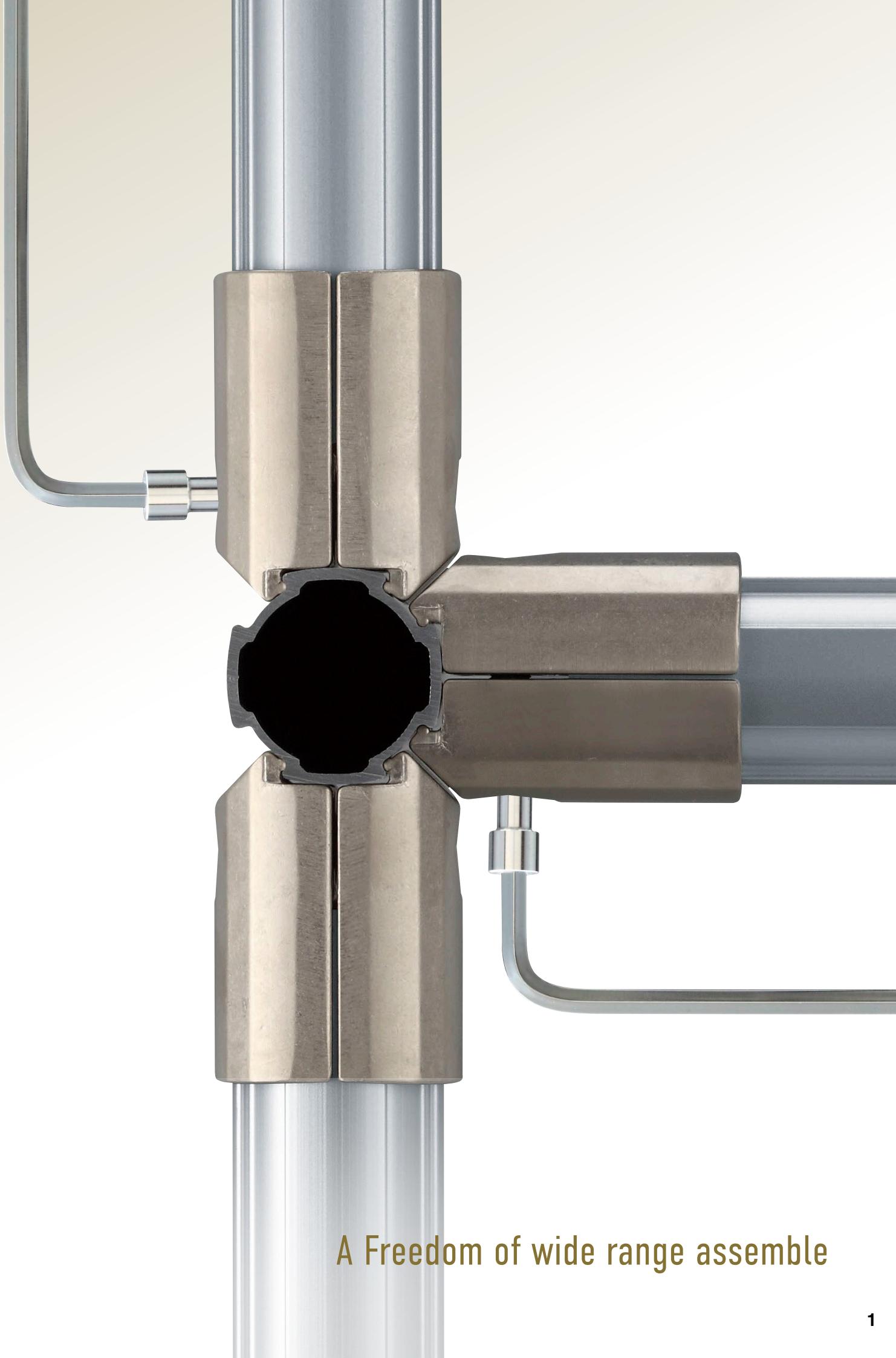
Everything starts from this shape



Since the first launch in 2001 with its application of work board, rack, and shooter etc. GF Aluminum Pipe Structural has expanded its field of use to include new application and industrial such as plant factory. The designed concept is to be lightweight and convenient as a simple fastening method. Typically, it requires a minimum of 4 bolts to fastening the T Grooved aluminum pipe with bracket. There are many cases, depends on application, that the strength performance of the frame is excessive. This new product will overturn the existing concept of obvious fastening with its reasonable lightweight that anyone can easily do the assembly. We take that thought into account and come up with the cross-section design technique of SUS, finally we get the answer of GF section form. Not round and no groove. This form produces no waste as its material is an aluminum extrusion with high precision. Just hold the protrusion then tighten with single bolt. This revolutionary way of fastening system becomes practical. This unrivaled form is widely spread into indefinite possibility of GF.

This connector color is for the special edition only.  
The standard type comes with a different color.

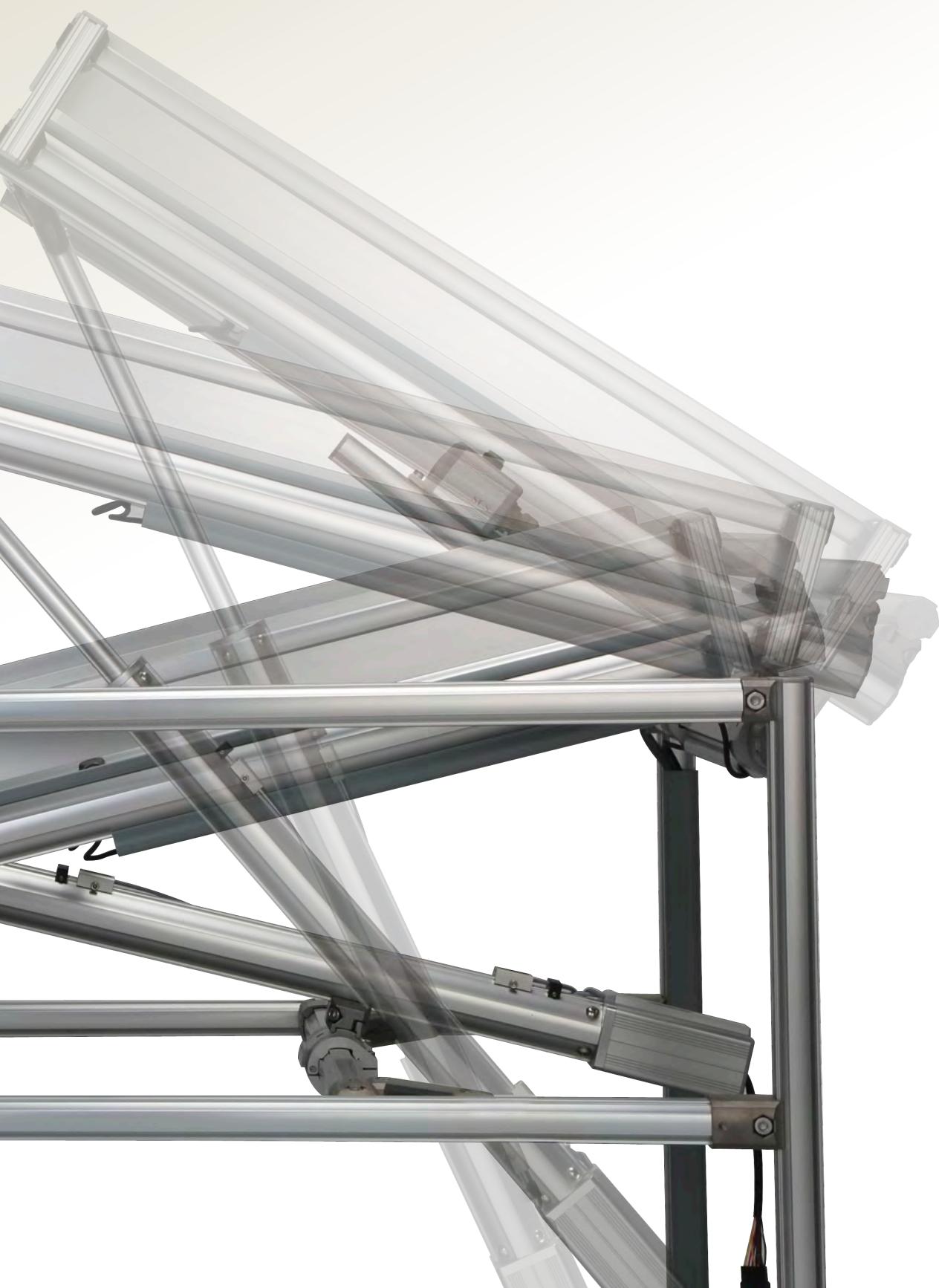




A Freedom of wide range assemble

# Versatile, Agile and Motion





# Get to know GF

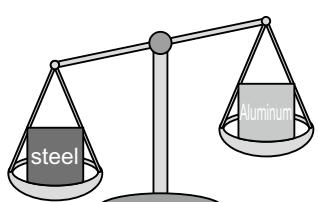
Advantage of using this shape and Aluminum as a material

GF aluminum pipe structural made from aluminum extrusion material with anodized treatment, which is good for corrosion resistance and durability. During the corrosion resistance test, we prepared joint part or connector and applied with water or in a high humidity room. Frame was developed by using the unique cross-section technique from SUS to get both lightweight and rigidity. Its application is not only working board or shooter but it can apply widely to cleanroom, plant factory, or furniture etc. To tightening need just one bolt and wrench. It is so simply and quick, anyone can do as they thought.

**Lightweight**

**Aluminum has about 1/3 of the mass to steel**

Pursue the lightweight by using the section form which removed unuse material include density. All kind of parts or connector also made from aluminum to contribute the overall lightweight after built. As the rack and shooter is movable, it can reduce the load to the worker which increase efficiency.



**No Rust**

■ A comparison of corrosion test between aluminum and steel (Salts spray test 1000 hours)

Material comparison

— Aluminum —

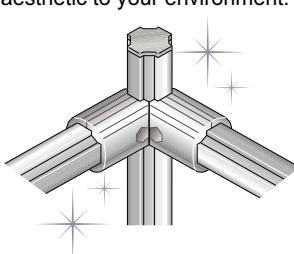


Normal Alumite      A type compound coating  
(Alumite + Electrostatic painting)

— Steel —



Zinc molten Plated Steel Sheet      High Corrosion Resistance Plated Steel Sheet





## Environmental Friendly

### Environmental conservation and resource effectiveness

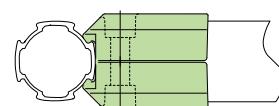
Recently Aluminum has drawn attention as an environment friendly material with a very high percentage of recycle compared to other metal. The amount of electricity uses during refining the recycle ingot is only 3% compares to new ingot. As frame, connector also made from aluminum, this product is considered to be friendly to earth and environment because of effectiveness to its resource.



## High Reusability

### Easy bolt fastening for assemble and dissemble

GF is not only easy to assemble using only 1 bolt and wrench, but it is also simple to disassemble. The combination of extraordinary connector and frame answer to the demand of workspace, and freely to rearrange or expand. The component can be reused. This will help minimize the scrap part.



### Speed Assembly



**Possible to connect to 4 direction with high accuracy  
Anyone can quickly and easily build it**

The structure is simple by using connector to hold 4 direction of frame protuding and tighten with single bolt. All kinds of connector has been designed to match with this joining system, so it is easy and fast assembly.



**There are 3 frame size that easily produce**

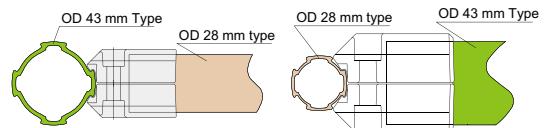
Frame shape is formed by a high cross-section technology for aluminum extrusion, and provide an accuracy for connection. With this unique fastening system, it is no need for special tool or techniques. After set it up, making warp or slope to finish it. By doing this will get a beautiful right angle and pararel.

### Variety of Parts



**Optimum Joint Parts for any shape or application  
Functions and Mechanism realization upon the idea.**

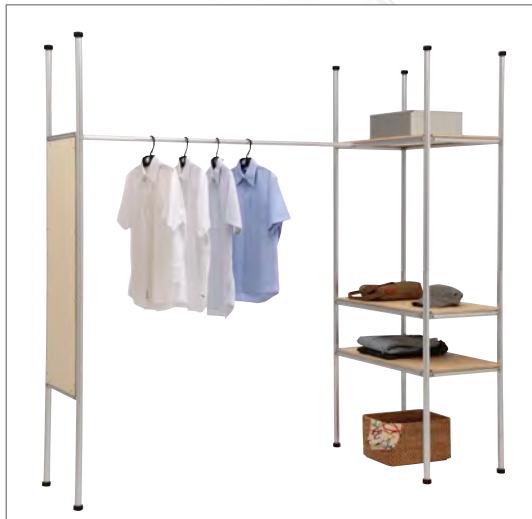
There are 3 types of frame size. Even the frame may have different outside dimension but it's still can connect freely. The variety of line up has been considered using various of connector that designed to have angle adjustability, portability and strength.



**Utilize expansion items to improve usability of the worker**

Assorted item to expand the application such as lighting or cable, storage holder for work tools etc. After built, it has an easy to install or remove and the structure allows to expand function freely

## High degree of design freedom



This item is match to any space from production line to office or accommodation.

Frame cutting is possible from 1mm. Making your own original design that match to the size of object or man movement. This frame system is suit to many field in any production.

## Correspondance to the application



## The structure of standard part combination variety of application module

Lightweight GF with easy assembly is best for application system of construction. In SUS we make module for basic movement, which reduce man-day for design and assembly. The standard parts can smoothly build even application that has different specification on each work.



This connector color is for the special edition only.  
The standard type comes with a different color.

# GF acrossed the ocean, acrossed the business.

Trust from Global company, This shape is World Standard

Oversea production plant continues doing improvement activity GF is aiming on the field and usage such as Food and Service industrial requires hygienic and appearance. GF is versatile and has high expanability of SUS, which satisfy the rapid grow market within domestic and oversea.



● Group company in Asia

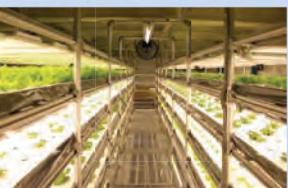
● Oversea Agency

## North America

● Lean Factory America, LLC

## South America

### Agriculture



### Pharmaceutical and cosmetic industry



### Construction Industry



# GF Aluminum Pipe Structural Overall Contents

	<b>GF-N 28</b> Outside Dimension mm Type	<b>GF-G 43</b> Outside Dimension mm Type	<b>GF-S 19</b> Outside Dimension mm Type
Frame	 → P.32~	 → P.96~	 → P.106~
Connector	 → P.36~	 → P.99~	 → P.108~

Accessory Part				<b>GF-N</b> → P.83~ <b>GF-G</b> → P.103 <b>GF-S</b> → P.114~
Foot Component Part				<b>GF-N</b> → P.47~ <b>GF-G</b> → P.101~ <b>GF-S</b> → P.112~
Corocon				<b>GF-N</b> → P.72~ <b>GF-S</b> → P.114
Moving part				<b>GF-N</b> → P.59~ <b>GF-S</b> → P.113~
Panel • Board Installation part				<b>GF-N</b> → P.57~ <b>GF-G</b> → P.103
Jig		→ P.119	Unit	  → P.121~
Motion		→ P.126~		

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## ■ **GF Unit**

Working Board	P121
Trolley	P121
Rack	P124
Shooter	P124

## ■ **GF Motion**

Module	P126
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## ■ **Technical Data**

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Connector Strength Data	P142
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■ <b>GF-G</b> (Outside Dimension 43 mm)	
Frame	P96
Connector	P99
Foot Component	P101
Panel Board	P103
Accessory	P103

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■ <b>GF-S</b> (Outside Dimension 19 mm)	
Frame	P106
Connector	P108
Foot Component	P112
Moving part	P113
Corocon	P114
Accessory	P114

■ <b>GF Jig</b>	P119
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## CASE STUDIES Automobile Manufacture

### NISSAN MOTOR CO., LTD. Yokohama Plant (Photos in 2015)





# CASE STUDIES Automobile Parts Manufacture

## HAMANA PLASTIC CO., LTD. (Photos in 2016)

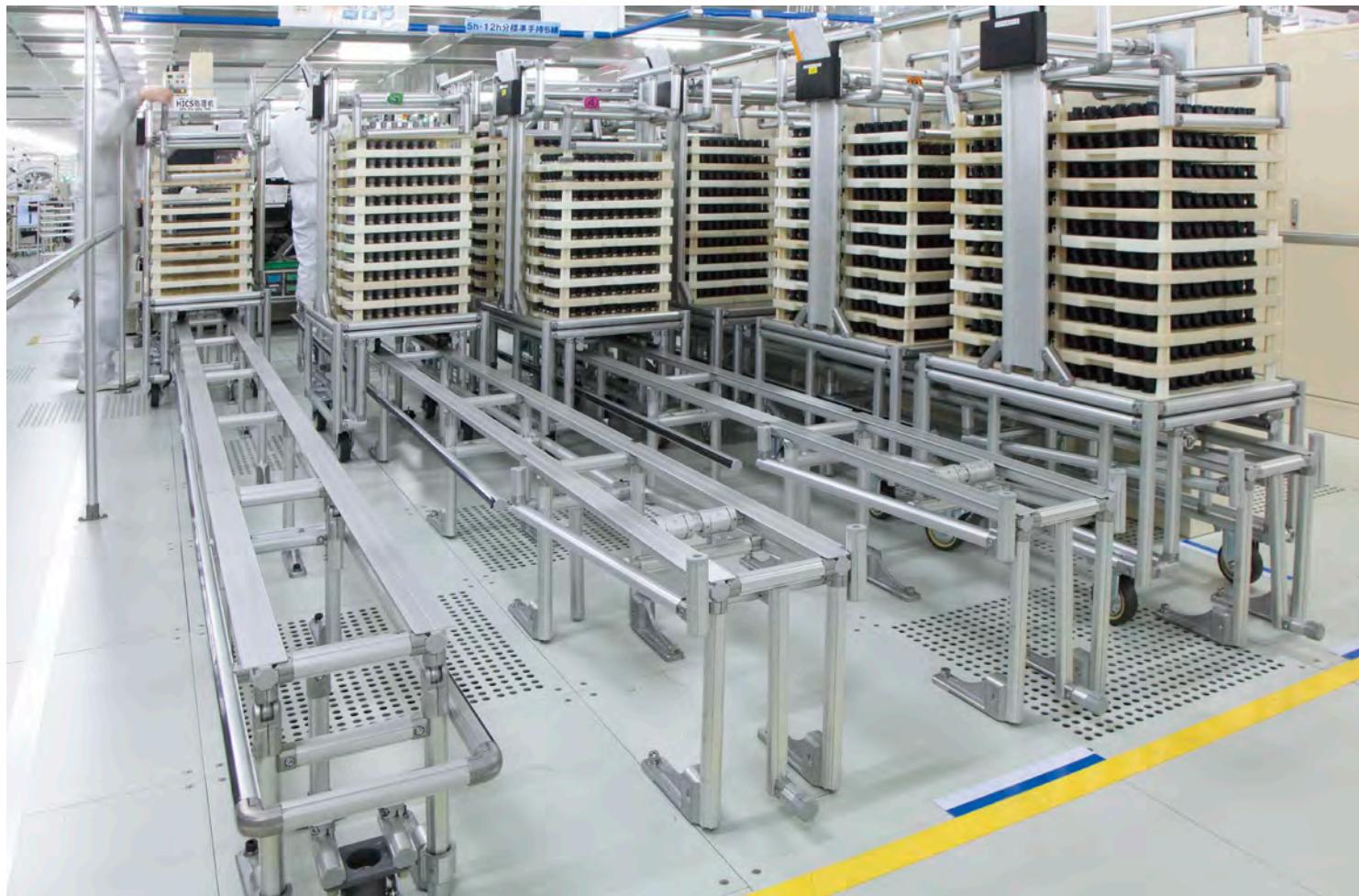


## AISHIN TOHOKU CO., LTD. (Photos in 2013)



**CASE STUDIES** Automobile Parts Manufacture

**DENSO HOKKAIDO CORPORATION** (Photos in 2014)



**DENSO FUKUSHIMA CORPORATION** (Photos





in 2016)



**CASE STUDIES** Automobile Parts Manufacture

**SANOH INDUSTRIAL CO., LTD. Koga Factory** (Photos in 2013)



**MURAKAMI CORPORATION**  
**Fujieda Plant** (Photo in 2013)



# CASE STUDIES Electrical Equipment

## ASTI CORPORATION Miyakoda Factory (Photos in 2015)



# CASE STUDIES Electrical Equipment

## RB CONTROLS CO., LTD. Logistics Center (Photos in 2016)



## CASE STUDIES Electrical Appliance

### APPLIANCES COMPANY, PANASONIC CORPORATION Beauty And Living Business Division (Hikone area) (Photos in 2014)



## CASE STUDIES Electrical Component

### OMRON ASO CO., LTD (Photos in 2013)



## APPLIANCES COMPANY, PANASONIC CORPORATION Air-Conditioner Company (Photos in 2014)



## CASE STUDIES Plant Factory

SHIKOKU INSTRUMENTATION CO., LTD. (Photos in 2016)



## KANSAI TEKKO CO., LTD. (Photos in 2011)

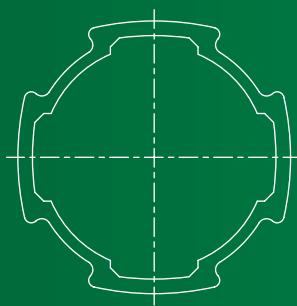


**CASE STUDIES** Confectionery Manufacture

**BIJUU CO., LTD.** (Photos in 2010)







GREEN FRAME  
**GF-N**  
Outside Dimension **28** mm Type

GREEN FRAME  
**GF-N** 28 mm Type

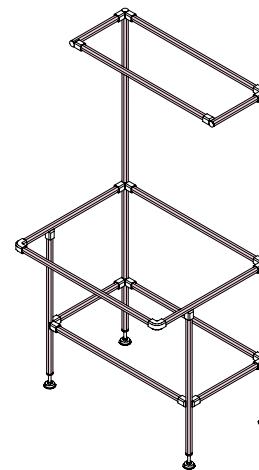
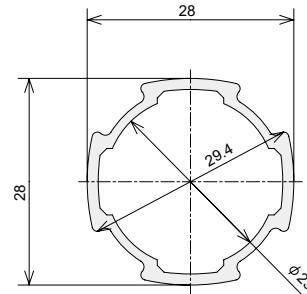


## GF-N Frame

Common Specification

Material: Aluminum Extrude Resistance Value :  $10^9 \sim 10^{11} \Omega$  (Antistatic Level)  
Silver Alumite Treatment Environment : RoHS Compliant

### Green Frame/Green Frame Yellow



- GF Series Standard Frame 28 mm type is a universal type for both functional and strength

Name	Green Frame	Green Frame	Green Frame Yellow
L=100~4000 mm	L=2000 mm	L=100~4000 mm	
Item No.	GFF-000	GF2-000	GFF-000Y

■ Fixed size (5pcs./pack) ※For fixed size, please order by number of pack

Name	Green Frame 5 pcs./pack (Silver)			
	Scale (effective length <sup>※1</sup> L=4000 mm)×5 pcs.	3000 mm×5 pcs.	2000 mm×5 pcs.	1000 mm×5 pcs.
Item No.	<b>GFK-F00</b>	<b>GFK-F06</b>	<b>GFK-F04</b>	<b>GFK-F02</b>

■ Technical Data	
Section secondary momentum :	$I_x = 1.16 \times 10^4 \text{ mm}^4$
Section coefficient :	$Z_x = 0.83 \times 10^3 \text{ mm}^3$
Mass Unit :	0.37 kg/m

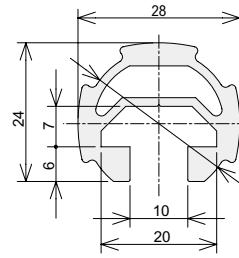
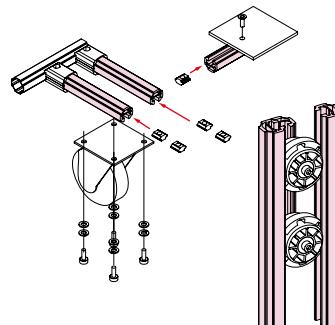
- Less than 100 mm (until 30 mm) possible to cut
- Cut size unit of 0.1 mm is capable (Cutting tolerance is  $\pm 0.5 \text{ mm}$ )
- Non Alumite also Available (Only Silver)

#### ■ Compatible Frame Cap (P83)

Inner Cap	GFA-400
Inner Cap Hard	GFA-412
Inner Cap Conductive	GFA-411
Outer Cap	GFA-401
Metal End Cap	GFA-414



### Green Frame L Slot/Green Frame L Slot Yellow



#### ■ Technical Data

Section secondary momentum :	$I_x = 1.19 \times 10^4 \text{ mm}^4$
Section coefficient :	$Z_x = 0.96 \times 10^3 \text{ mm}^3$
Mass Unit :	0.68 kg/m
• Less than 100 mm (until 30 mm) possible to cut	

- Cut size unit of 0.1 mm is capable (Cutting tolerance is  $\pm 0.5 \text{ mm}$ )
- Available Frame size (Silver:-6000 mm • Yellow:-5000 mm)
- Non Alumite also Available (Only Silver)

Name	Green Frame L Slot	Green Frame L Slot Yellow
L=100~4000 mm	L=100~4000 mm	
Item No.	GFF-004	GFF-004Y

#### ■ Special ST Nut (with non slip cap) (P119)

ST Nut L M8	SFK-T11S	ST Nut L M5	SFK-T09S
ST Nut L M6	SFK-T10S	ST Nut L M4	SFK-T08S



#### ■ Frame Cap (P83,84)

GF L Slot Inner Cap	GFA-405
GF L Slot Inner Cap Hard	GFA-413
Outer Cap	GFA-401

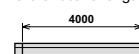


In case of specific size (cut from factory)

Item No. or Product Name Length Volume

**GFF-000**  $\ell = 800$  5 pcs.

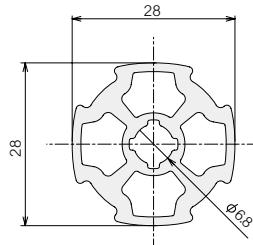
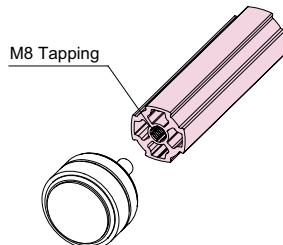
※1 The scale shows the effective length



→ P.165

## GF-N Frame

### Green Frame T



- Flex Strength about 1.5 time of 28 mm type
- Capable to have tapping at the end (M8)

Name	Green Frame T
	L=100~4000 mm
Item No.	GFF-017

**■ Technical Data**  
 Section secondary momentum :  $I_x=1.72 \times 10^4 \text{ mm}^4$   
 $I_y=1.72 \times 10^4 \text{ mm}^4$   
 Section coefficient :  $Z_{xx}=1.23 \times 10^3 \text{ mm}^3$   
 $Z_{yy}=1.23 \times 10^3 \text{ mm}^3$   
 Mass Unit : 0.79 kg/m

- Less than 100 mm (until 30) possible to cut
- Cut size unit of 0.1 mm is capable (Cutting tolerance is  $\pm 0.5 \text{ mm}$ )
- Special Frame Length of (~6000 mm) is available
- Non alumite treatment also available

#### Suitable frame for tapping at the end : Green Frame T

TL		M8 Depth 24
TW		2-M8 Depth 24

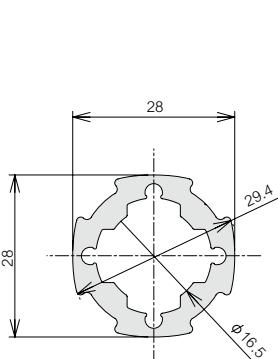
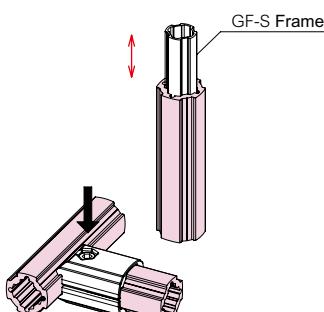
Order example GFF-017 Green FrameT t=800 TL 3pcs.

**■ Compatible Cap (P84)**  
 GF T Inner Cap  
 Outer Cap

GFA-410  
GFA-401



### Green Frame Hard



- In case of continuous impact to the fastening point, fit to the frame on grip side of connector
- Flex Strength about 1.7 time of 28 mm type
- GF-S (19 mm type) Frame (P106) Other way of use; Insert and then slide.

Name	Green Frame Hard
	L=100~4000 mm
Item No.	GFF-019

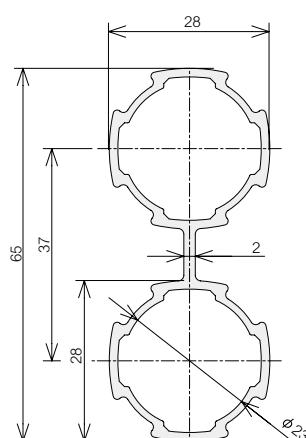
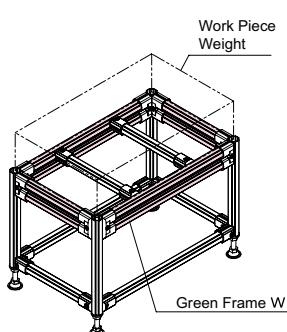
**■ Technical Data**  
 Section secondary momentum :  $I_x=2.01 \times 10^4 \text{ mm}^4$   
 $I_y=2.01 \times 10^4 \text{ mm}^4$   
 Section coefficient :  $Z_{xx}=1.44 \times 10^3 \text{ mm}^3$   
 $Z_{yy}=1.44 \times 10^3 \text{ mm}^3$   
 Mass Unit : 0.76 kg/m

- Less than 100 mm (until 30) possible to cut
- Cut size unit of 0.1 mm is capable (Cutting tolerance is  $\pm 0.5 \text{ mm}$ )
- Available Frame size (~6000 mm)
- Non alumite treatment also available

**■ Compatible Frame Cap (P83)**  
 Outer Cap  
 GFA-401



### Green Frame W



- Good for area require higher strength  
When use in vertical 28 mm type can give flex strength around 10 times

Name	Green Frame W
	L=100~4000 mm
Item No.	GFF-003

**■ Technical Data**  
 Section secondary momentum :  $I_x=11.66 \times 10^4 \text{ mm}^4$   
 $I_y=2.31 \times 10^4 \text{ mm}^4$   
 Cutting tolerance is  $Z_{xx}=3.59 \times 10^3 \text{ mm}^3$   
 $Z_{yy}=1.65 \times 10^3 \text{ mm}^3$   
 Mass Unit : 0.79 kg/m

- Less than 100 mm (to 30 mm) possible to cut
- Cut size unit of 0.1 mm is capable (Cutting tolerance is  $\pm 0.5 \text{ mm}$ )
- Available Frame size (~6000 mm)
- Non alumite treatment also available

**■ Compatible Frame Cap (P83)**  
 Inner Cap  
 Inner Cap Hard  
 Inner Cap Conductive  
 Metal End Cap

GFA-400  
GFA-412  
GFA-411  
GFA-414



## Frame

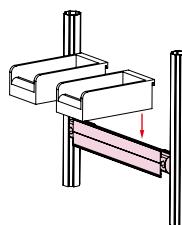
- Connector
- Foot Component
- Panel Board
- Moving Part
- Corocon
- Door Part
- Accessory

GREEN FRAME  
**GF-N** 28 mm Type



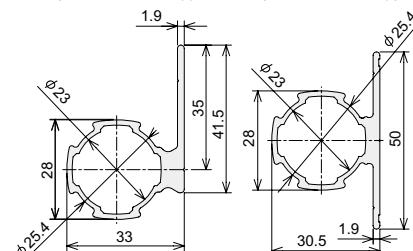
## GF-N Frame

### Green Frame F35/F50



GREEN FRAME F35

GREEN FRAME F50



- On the flat area is capable to install part container (P90) or use as a name plate.

Name	Green Frame F35	Green Frame F50
L=100~4000 mm	L=100~4000 mm	
Item No.	GFF-014	GFF-005

#### ■ Technical Data

##### Section Secondary Momentum:

GREEN FRAME F35      GREEN FRAME F50  
 $I_x = 3.37 \times 10^4 \text{mm}^4$        $I_x = 3.04 \times 10^4 \text{mm}^4$   
 $I_y = 3.02 \times 10^4 \text{mm}^4$        $I_y = 3.56 \times 10^4 \text{mm}^4$

##### Section Coefficient:

$Z_x = 1.10 \times 10^3 \text{mm}^3$        $Z_x = 1.22 \times 10^3 \text{mm}^3$   
 $Z_y = 1.38 \times 10^3 \text{mm}^3$        $Z_y = 1.24 \times 10^3 \text{mm}^3$

Mass Unit: 0.67 kg/m 0.65 kg/m

- Less than 100 mm (until 30 mm) possible to cut
- Cut size unit of 0.1 mm is capable (Cutting tolerance is  $\pm 0.5$  mm)
- Non Alumite available
- Making R (R3) at hub corner

#### ■ 4-R3 processing

CR3



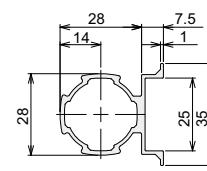
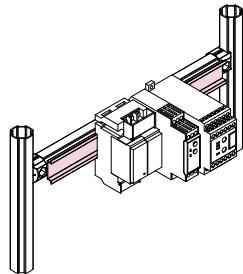
Order example: GFF-014 Green Frame F35 L=800 CR3 3pcs.

#### ■ Compatible Frame Cap (P83.84)

Inner Cap      GFA-400  
 Inner Cap Hard      GFA-412  
 Inner Cap Conductive      GFA-411  
 Metal End Cap      GFA-414



### Green Frame DIN



- DIN rail is attached to Green Frame
- Easy to attach devices to the DIN rail

Name	Green Frame DIN
L=100~4000 mm	
Item No.	GFF-031

#### ■ Technical Data

##### Section Secondary Momentum :

$I_x = 2.36 \times 10^4 \text{mm}^4$        $I_y = 1.88 \times 10^4 \text{mm}^4$

##### Section Coefficient :

$Z_x = 1.35 \times 10^3 \text{mm}^3$        $Z_y = 0.98 \times 10^3 \text{mm}^3$

Mass Unit : 0.53 kg/m

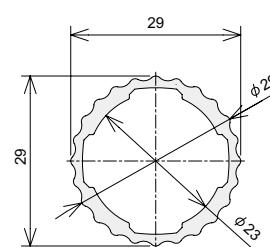
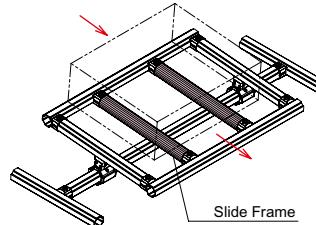
- Less than 100 mm (until 30 mm) possible to cut
- Cut size unit of 0.1 mm is capable (Cutting tolerance is  $\pm 0.5$  mm)
- Non Alumite available
- Making R (R3) at hub corner

#### ■ 4-R3 processing

CR2



### Green Frame Slide



- Suitable when prefer to slide work or container on frame.

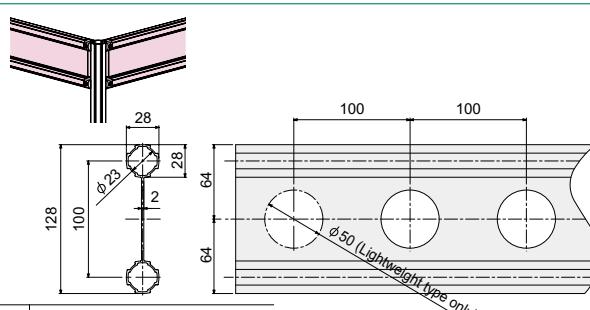
Name	Green Frame Slide
L=100~4000 mm	
Item No.	GFF-006

#### ■ Compatible Frame Cap (P83.84)

Inner Cap      GFA-400  
 Inner Cap Hard      GFA-412  
 Inner Cap Conductive      GFA-411  
 Outer Cap      GFA-401  
 Metal End Cap      GFA-414



### Green Frame P100



- Capable of use as a beam for Large booth.

Name	Green Frame P100	Green Frame P100 (Lightweight Type)
L=100~4000 mm	L=100~4000 mm	
Item No.	GFF-001	GFF-002

#### ■ Technical Data

##### Section Secondary Momentum :

High Rigidity Type      Lightweight Type  
 $I_x = 76.81 \times 10^4 \text{mm}^4$        $I_x = 74.72 \times 10^4 \text{mm}^4$   
 $I_y = 2.32 \times 10^4 \text{mm}^4$        $I_y = 2.31 \times 10^4 \text{mm}^4$

##### Section Coefficient :

$Z_x = 12.00 \times 10^3 \text{mm}^3$        $Z_x = 11.68 \times 10^3 \text{mm}^3$   
 $Z_y = 1.65 \times 10^3 \text{mm}^3$        $Z_y = 1.65 \times 10^3 \text{mm}^3$

Mass Unit : 1.13 kg/m 1.02 kg/m

- Less than 100 mm (until 30 mm) possible to cut
- Cut size unit of 0.1 mm is capable (Cutting tolerance is  $\pm 0.5$  mm)
- Non Alumite available

#### ■ Compatible Frame Cap (P83.84)

Inner Cap      GFA-400  
 Inner Cap Hard      GFA-412  
 Inner Cap Conductive      GFA-411  
 Metal End Cap      GFA-414

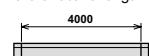


In case of specific size (cut from factory)

Item No. or Product Name Length Volume

**GFF-014 l=800 5 pcs.**

\*1 The scale shows the effective length

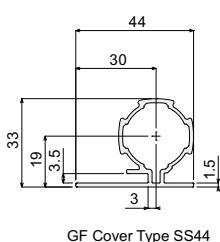


→ P.165

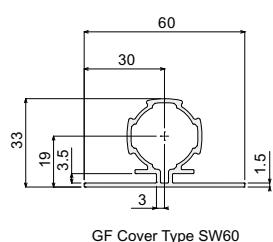
## GF Cover Type



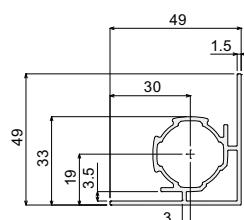
- This cover frame is as easy to assemble as the GF series, with the appearance of an assembled corner frame. It can be used as a high performance partition or device cover.
- The framework can be easily assembled just by combining the 4 types of single panel frames and 5 types of double panel frames, then inserting the panels.



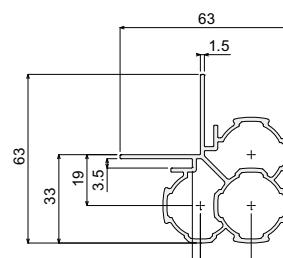
GF Cover Type SS44



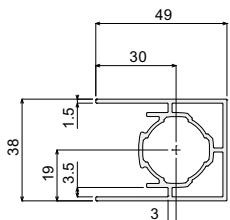
GF Cover Type SW60



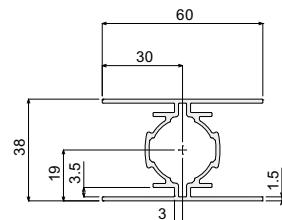
GF Cover Type SL49



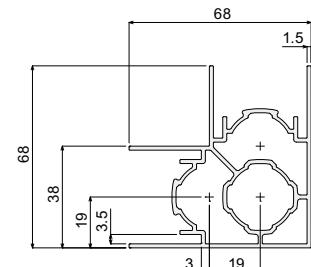
GF Cover Type SL63



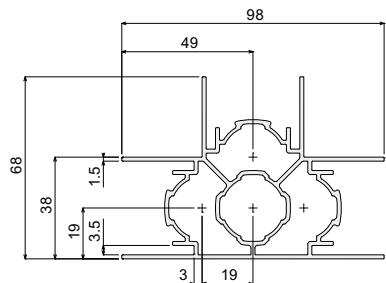
GF Cover Type DS49



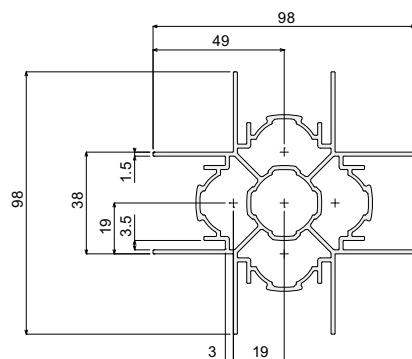
GF Cover Type DW60



GF Cover Type DL68



GF Cover Type DT98



GF Cover Type DX98

**■ Material/Technical Data**  
**Material :** Aluminum Extrusion  
**Mass Unit :** 0.58kg/m (SS44) 0.97kg/m (DS49)  
 0.67kg/m (SW60) 0.97kg/m (DW60)  
 0.82kg/m (SL49) 1.66kg/m (DL68)  
 1.14kg/m (SL63) 2.04kg/m (DT98)  
 2.46kg/m (DX98)

Environment : RoHS Compliant

### Frame

- Connector
- Foot Component
- Panel Board
- Moving Part
- Corocon
- Door Part
- Accessory

Name	GF Cover Type L=100~4000 mm								
	SS44	SW60	SL49	SL63	DS49	DW60	DL68	DT98	DX98
Item No.	GFF-020	GFF-021	GFF-022	GFF-023	GFF-024	GFF-025	GFF-026	GFF-027	GFF-028



## GF-N Connector

### Multi Connector Outer

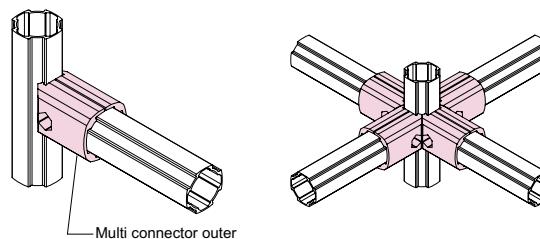
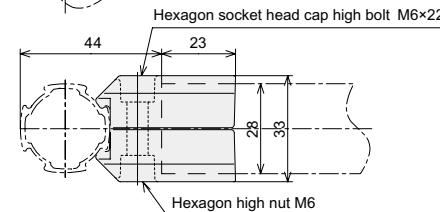
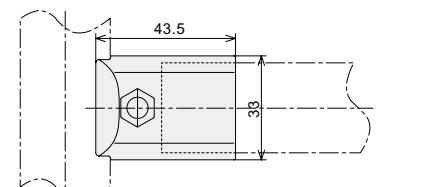


- 90° coupling works only with multi connector.
- To fastening the joint of the frame requires only 1 bolt and a wrench.

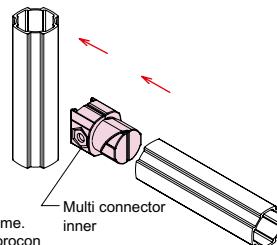
**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut part:** Steel  
**Weight :** 61 g  
**Environment :** RoHS Compliant

Name	Multi Connector Outer
Item No.	GFJ-000

- GF-G (43 mm type) Grip is also possible even in the Frame

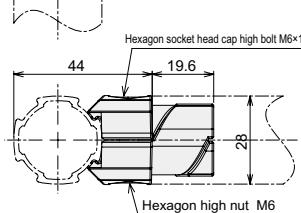
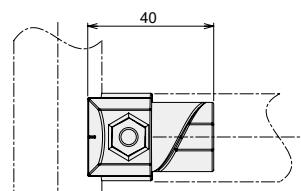


### Multi Connector Inner



- This connector has the same size to outside dimension of frame.
- It's good for the path area of work or container when using corocon or when concern about the appearance.

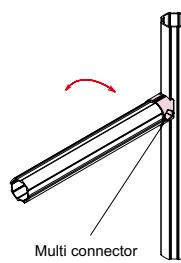
Name	Multi Connector Inner
Item No.	GFJ-200



**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt/Nut part :** Steel  
**Weight :** 54 g  
**Environment :** RoHS Compliant

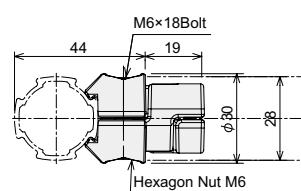
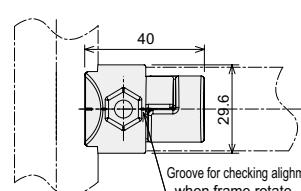
- GF-G (43 mm type) Grip is also possible even in the Frame

### Multi Connector R Inner



- Rotate any frame to fix.

Name	Multi Connector R Inner
Item No.	GFJ-207



**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt/Nut part :** Steel  
**Weight :** 54 g  
**Environment :** RoHS Compliant

- GF-G (43mm type) Grip is also possible even in the Frame



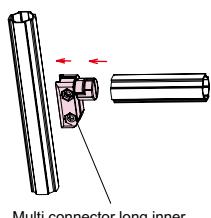
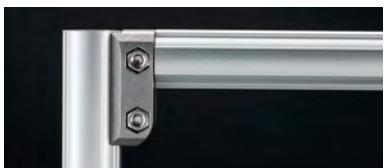
#### Order Method

Item No. or Product Name  
**GFJ-000** No. of Piece  
   pcs.

→ P.165

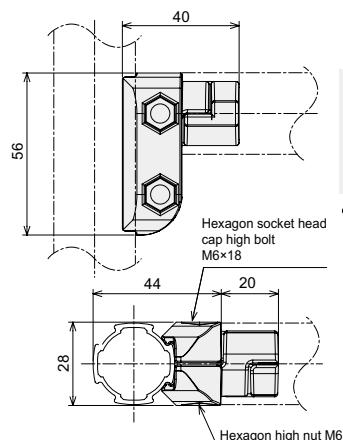
## GF-N Connector

### Multi Connector Long Inner

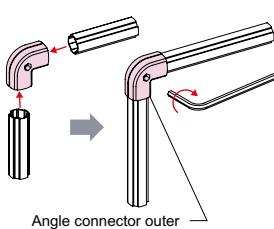


- This connector has a higher slide load compared to the Multi Connector Inner Type (p.36).

Name	Multi Connector Long Inner
Item No.	GFJ-215

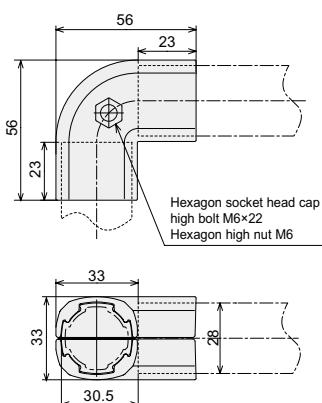


### Angle Connector Outer

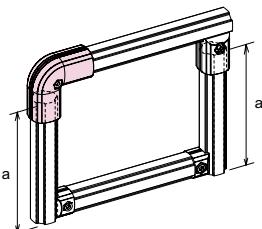


- 90° L type is used for joining the corner area.

Name	Angle Connector Outer
Item No.	GFJ-005

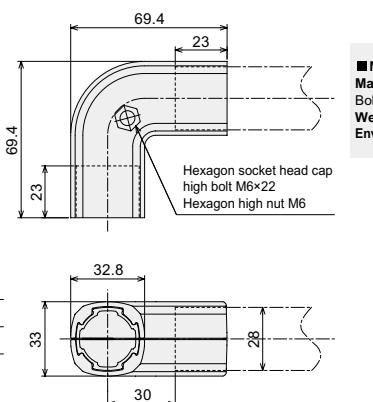


### Angle Connector E Outer

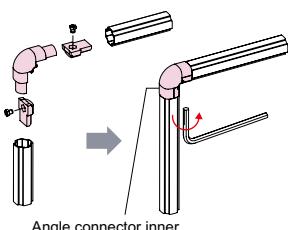


- Remain frame length as the way it is, and use multi connector outer type to replace from the connecting joint.

Name	Angle Connector E Outer
Item No.	GFJ-010

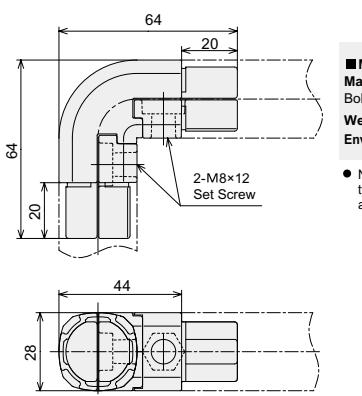


### Angle Connector Inner



- 90° L type is used for joining the corner area with the same size to outside dimension of frame.

Name	Angle Connector Inner
Item No.	GFJ-204



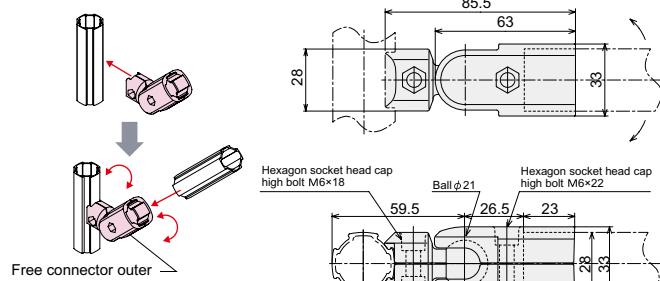


## GF-N Connector

### Free Connector Outer

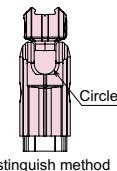


- Freely to set the angle to install the frame
- Tighten the both to fix the angle



**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut part :** Steel  
**Weight :** 125 g  
**Environment :** RoHS Compliant

- GF-G (43 mm type) Grip also is possible even in the frame

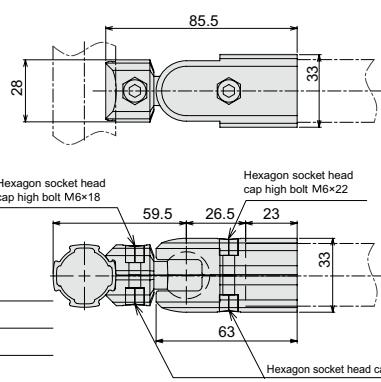
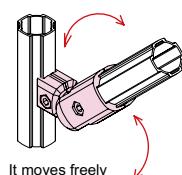


Distinguish method

### Free Connector V-M Outer

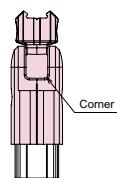


- Freely to set the angle to install the frame
- After tighten the both, still move freely



**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut part :** Steel  
**Weight :** 127 g  
**Environment :** RoHS Compliant

- GF-G (43 mm type) Grip also is possible even in the frame

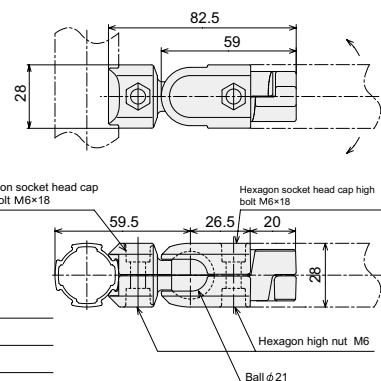
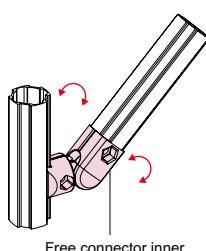


Distinguish method

### Free Connector Inner

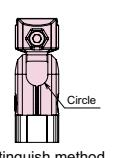


- Freely to set the installation angle with connector that has the same size to outside dimension of frame



**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut part :** Steel  
**Weight :** 110 g  
**Environment :** RoHS Compliant

- GF-G (43 mm type) Grip also is possible even in the frame

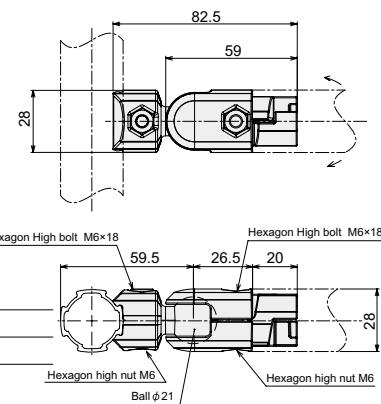
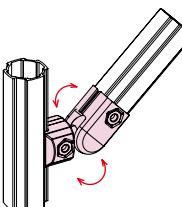


Distinguish method

### Free Connector V-M Inner

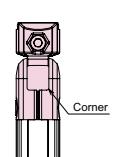


- Freely to set the angle to install the frame
- After tighten the both, still move freely



**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut part :** Steel  
**Weight :** 108 g  
**Environment :** RoHS Compliant

- GF-G (43 mm type) Grip also is possible even in the frame



Distinguish method



#### Order Method

Item No. or Product Name

No. of Piece

GFJ-002

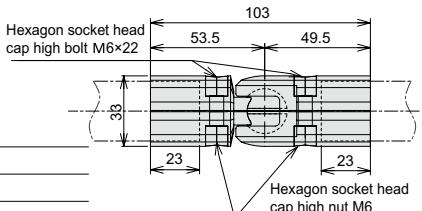
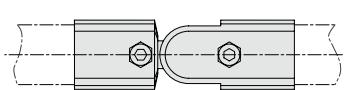
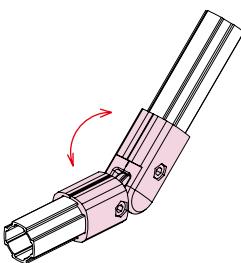
□□pcs.



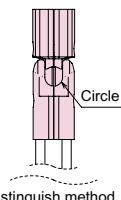
→ P.165

## GF-N Connector

### Free Connector H-F Outer



■ Material/Technical Data  
**Material** : Aluminum Diecast  
**Bolt / Nut part** : Steel  
**Weight** : 110 g  
**Environment** : RoHS Compliant

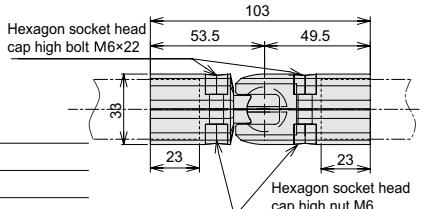
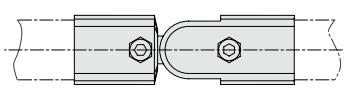
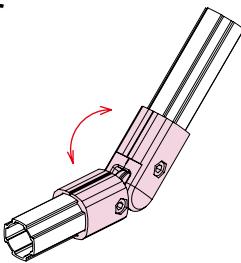


Distinguish method

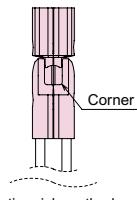
- Freely to set the angle to install the frame
- Fix the angle by tighten the bolt

Name	Free Connector H-F Outer
Item No.	<b>GFJ-B00</b>

### Free Connector H-M Outer



■ Material/Technical Data  
**Material** : Aluminum Diecast  
**Bolt / Nut part** : Steel  
**Weight** : 155 g  
**Environment** : RoHS Compliant

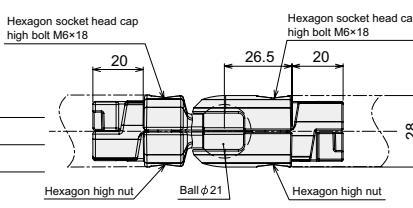
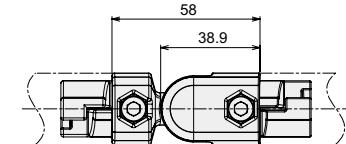
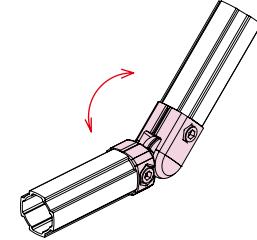


Distinguish method

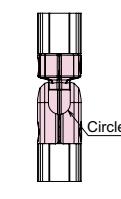
- Free angle connection to each end frame
- After tighten the both, still move freely

Name	Free Connector H-M Outer
Item No.	<b>GFJ-A81</b>

### Free Connector H-F Inner



■ Material/Technical Data  
**Material** : Aluminum Diecast  
**Bolt / Nut part** : Steel  
**Weight** : 124 g  
**Environment** : RoHS Compliant

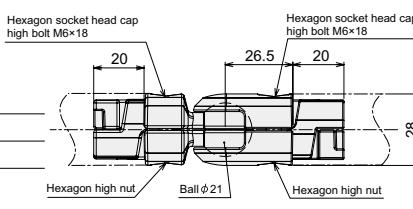
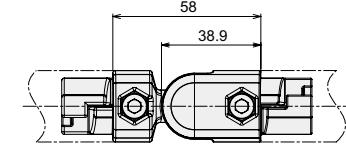
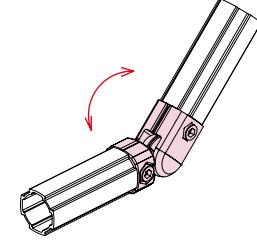


Distinguish method

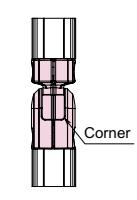
- Free angle connection to each end frame
- Fix the angle by tighten the bolt

Name	Free Connector H-F Inner
Item No.	<b>GFJ-B04</b>

### Free Connector H-M Inner



■ Material/Technical Data  
**Material** : Aluminum Diecast  
**Bolt / Nut part** : Steel  
**Weight** : 122 g  
**Environment** : RoHS Compliant



Distinguish method

- Free angle connection to each end frame
- After tighten the both, still move freely

Name	Free Connector H-M Inner
Item No.	<b>GFJ-B06</b>

Frame

Connector

Foot Component

Panel Board

Moving Part

Corocon

Door Part

Accessory

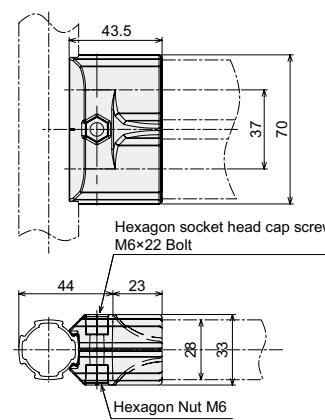
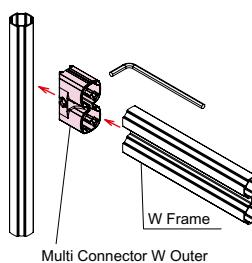


## GF-N Connector

### Multi Connector W Outer



- Coupling connector for Green Frame W (P33)



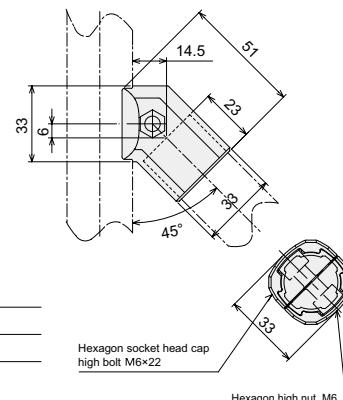
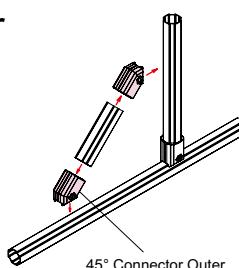
**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut part :** Steel  
**Weight :** 127 g  
**Environment :** RoHS Compliant

- GF-G (43 mm type) Grip also is possible even in the frame.

### 45-Degree Connector Outer



- Use 45° to connect



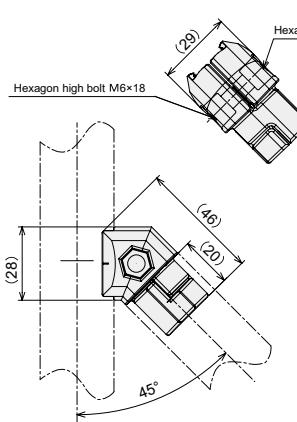
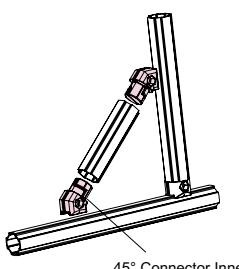
**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut part :** Steel  
**Weight :** 61 g  
**Environment :** RoHS Compliant

- GF-G (43 mm type) Grip also is possible even in the frame.

### 45-Degree Connector Inner



- Use 45° connector that has the same outside dimension to the frame



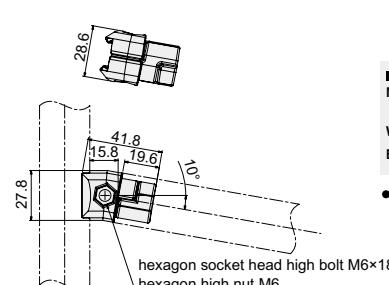
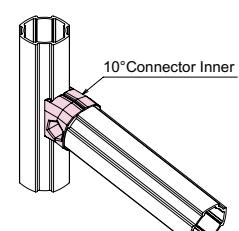
**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut part :** Steel  
**Weight :** 55 g  
**Environment :** RoHS Compliant

- GF-G (43 mm type) Grip also is possible even in the frame.

### 10-Degree Connector Inner



- 10°angles can be formed with this connector
- Effective for forming angles used in shooter applications



**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut part :** Steel  
**Weight :** 52 g  
**Environment :** RoHS Compliant

- It is also possible to have a grip for the GF-G (43mm type) frame.

Name	10-Degree Connector Inner
Item No.	<b>GFJ-212</b>



#### Order Method

Item No. or Product Name    No. of Piece

**GFJ-012**      **pcs.**

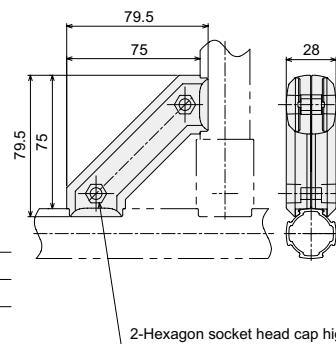
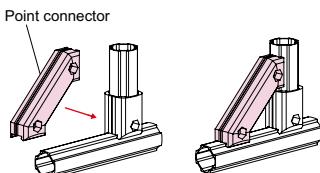
→ P.165

## GF-N Connector

### Point Connector



- Use 90° connector to reinforce the joining point



■ Material/Technical Data  
**Material :** Aluminum Diecast  
**Bolt / Nut part :** Steel  
**Weight :** 123 g  
**Environment :** RoHS Compliant

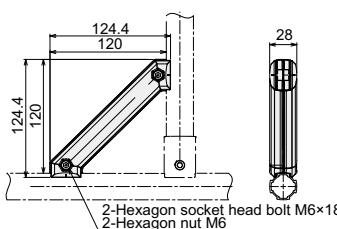
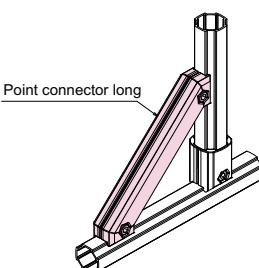
● GF-G (43 mm type) Capable to use with the frame. In case of using Multi connector inner type G. (P99)

Name	Point Connector
Item No.	GFJ-A15

### Point Connector Long



- Large type Point Connector able to provide greater reinforcement to structures
- Used with Multi Connector Outer Type (GFJ-014)



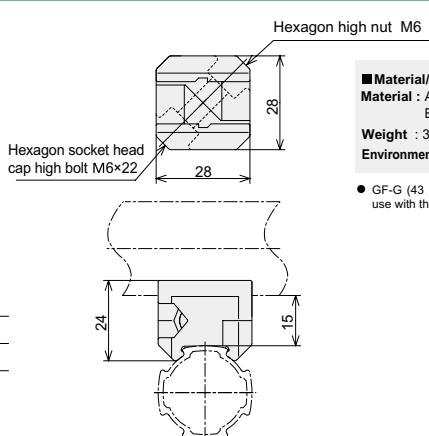
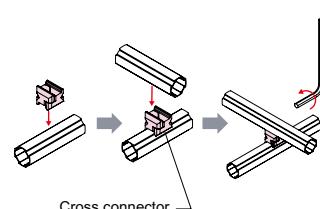
■ Material/Technical Data  
**Material :** Aluminum Diecast  
**Bolt / Nut part :** Steel  
**Weight :** 169 g  
**Environment :** RoHS Compliant

Name	Point Connector Long
Item No.	GFJ-B80

### Cross Connector



- Use this when cross joint the frame



■ Material/Technical Data  
**Material :** Aluminum Diecast  
**Bolt / Nut part :** Steel  
**Weight :** 38 g  
**Environment :** RoHS Compliant

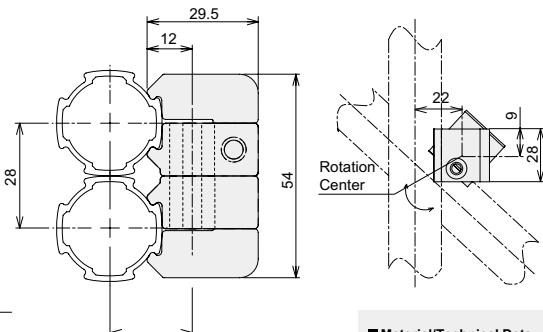
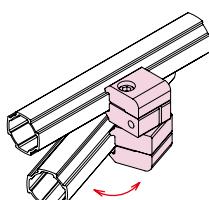
● GF-G (43 mm type) Capable to use with the frame.

Name	Cross Connector
Item No.	GFJ-A11

### Cross Connector Rotate Type



- This connector uses for cross join the frame in any angle



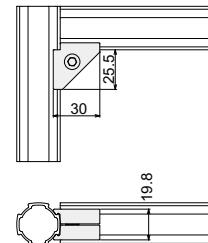
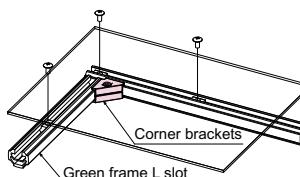
■ Material/Technical Data  
**Material :** Aluminum Extrusion  
**Bolt / Nut part :** Steel  
**Weight :** 132 g  
**Environment :** RoHS Compliant

Name	Cross Connector Rotate Type
Item No.	GFJ-B08



## GF-N Connector

### Corner Bracket



**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut part :** Steel  
**Weight :** 23 g  
**Environment :** RoHS Compliant

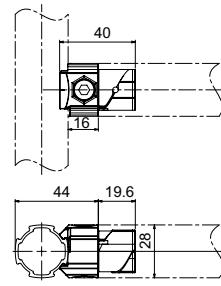
- Connect frames at 90° by attaching to the inside of frames
- Allows for no side length

Name	Corner Bracket
Item No.	GFJ-032

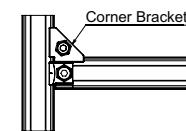
### Multi Connector Inner 2



- NEW**
- This connector has a grip shape that is the same as the protrusion of the frame added to the side. A connector can be mounted on the side as well.
  - Can also be gripped on the GF-G (43 mm) frame.



[Example of Use]



**■ Material/Technical Data**  
**Material :** Body: Aluminum Diecast  
**Bolt/Nut:** Aluminum  
**Weight :** 46 g  
**Environment :** RoHS Compliant

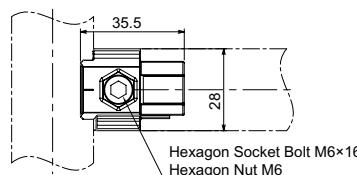
**■ Strength Data**  
**Sliding Load :** 700(N)  
**Moment Load (vertical) :** 9(N·m)  
**Moment Load (horizontal) :** 6(N·m)  
**Tightening Torque :** 11(N·m)

Name	Multi Connector Inner 2
Item No.	GFJ-252

### L Slot Connector Inner



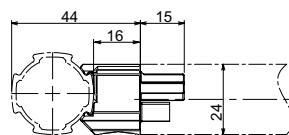
- NEW**
- This inner connector can be used at the same size as the external diameter of the Green Frame L-slot.
  - It has a grip shape that is the same as the protrusions of the frame on the side, so a connector can be mounted on the side as well.
  - Can also be gripped on the GF-G (43 mm) type.



**■ Material/Technical Data**  
**Material :** Body: Aluminum Diecast  
**Bolt/Nut:** Iron  
**Weight :** 46 g  
**Environment :** RoHS Compliant

**■ Strength Data**  
**Sliding Load :** 350(N)  
**Pull-Out Load :** 350(N)  
**Moment Load (vertical) :** 3(N·m)  
**Moment Load (horizontal) :** 4(N·m)  
**Specified Torque :** 10.8(N·m)

Name	L Slot Connector Inner
Item No.	GFJ-255



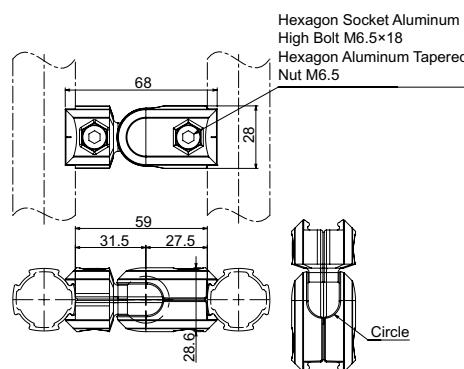
\*If strength is required, use in combination with a corner bracket

### Free Connector Side F



- NEW**
- The frame protrusions can be gripped on both sides of the connector.
  - The frame mounting angle can be set freely.
  - Tighten the bolt to fix the angle.
  - Can also be gripped on the GF-G (43 mm type) frame.

Fixed



**■ Material/Technical Data**  
**Material :** Body: Aluminum Diecast  
**Bolt/Nut:** Aluminum  
**Weight :** 85 g  
**Environment :** RoHS Compliant

**■ Strength Data**  
**Sliding Load :** 800(N)  
**Tightening Torque :** 11(N·m)

Name	Free Connector Side F
Item No.	GFJ-C77



## Order Method

Item No. or Product Name

No. of Piece

GFJ-032

□□pcs.

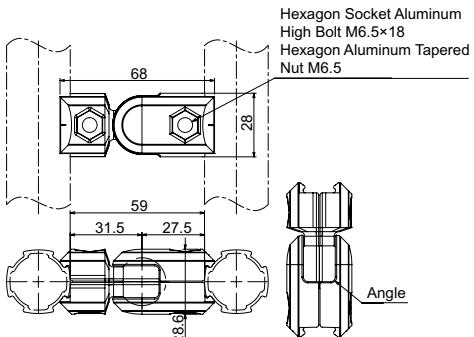
RoHS → P.165

## GF-N Connector

### Free Connector Side M



- The frame protrusions can be gripped on both sides of the connector.
- The frame mounting angle can be set freely.
- Can still move after the bolt is tightened.
- Can also be gripped on the GF-G (43 mm type) frame.



**■ Material/Technical Data**  
**Material :** Body: Aluminum Diecast  
**Bolt/Nut :** Aluminum  
**Weight :** 84 g  
**Environment :** RoHS Compliant

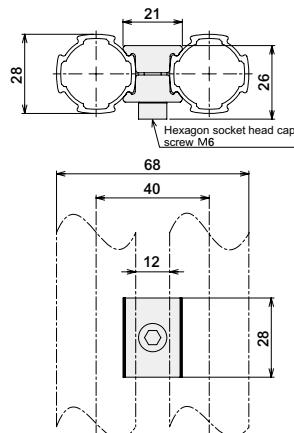
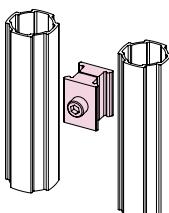
**■ Strength Data**  
**Sliding Load :** 800(N)  
**Tightening Torque :** 11(N·m)

Name	Free Connector Side M
Item No.	GFJ-C79

### Double Connector C Kit



- Capable to join the frame in parallel



**■ Material/Technical Data**  
**Material :** Aluminum Extrusion  
**Bolt / Nut part :** Steel  
**Weight :** 26.2 g  
**Environment :** RoHS Compliant

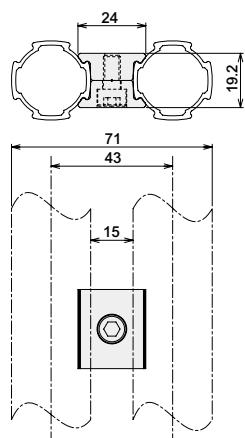
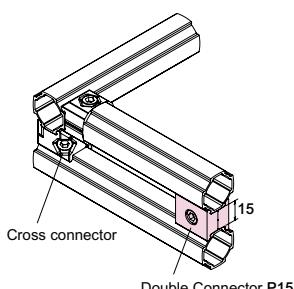
- GF-G (43 mm type) Grip also is possible even in the frame.

Name	Double Connector C Kit
Item No.	GFJ-A45

### Double Connector P15



- Double connector can be used with cross connector



**■ Material/Technical Data**  
**Material :** Aluminum Extrusion  
**Bolt / Nut part :** Steel  
**Weight :** 28.5 g  
**Environment :** RoHS Compliant

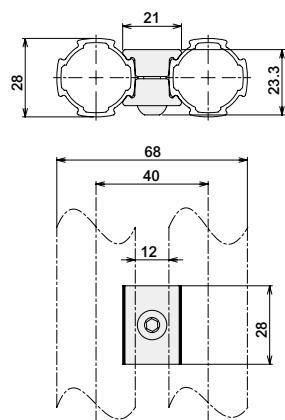
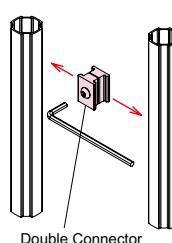
- GF-G (43 mm type) Grip also is possible even in the frame.

Name	Double Connector P15
Item No.	GFJ-A95

### Double Connector



- Use when want connector and bolt head fit in frame OD



**■ Material/Technical Data**  
**Material :** Aluminum Extrusion  
**Bolt / Nut part :** Steel  
**Weight :** 24.8 g  
**Environment :** RoHS Compliant

- GF-G (43 mm type) Grip also is possible even in the frame.
- Use double connector when has to keep repeating install and remove use C kit.

Name	Double Connector
Item No.	GFJ-A42



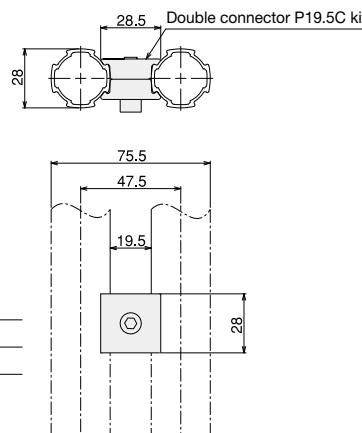
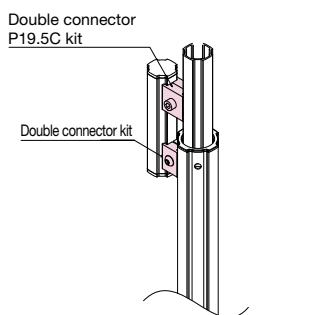
## GF-N Connector

### Double Connector P19.5 C Kit



- Pitch is larger than other types of Double Connectors
- Can make telescoping motion if combined with Double Connector C Kit and Green Frame N and G

Name	Double Connector P19.5 C Kit
Item No.	GJF-B32



■ Material/Technical Data  
**Material :** Aluminium Extrusion  
**Bolt / Nut part :** Steel  
**Weight :** 38 g  
**Environment :** RoHS Compliant

- It is also possible to have a grip for the GF-G (43mm type) frame.

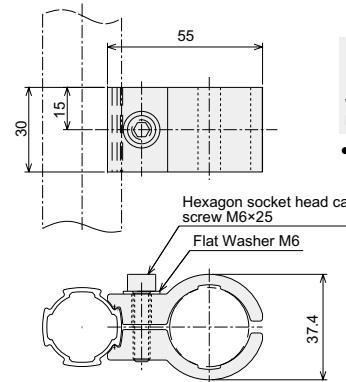
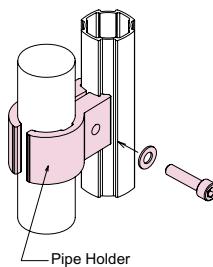
GF  
28 mm

### Pipe Holder



- Connect Universal Pipe ( $\phi 27 \text{ mm} \sim \phi 30 \text{ mm}$ ) with the frame in parallel

Name	Pipe Holder
Item No.	GFA-001



■ Material/Technical Data  
**Material :** Aluminium Extrusion  
**Bolt / Nut part :** Steel  
**Weight :** 68 g  
**Environment :** RoHS Compliant

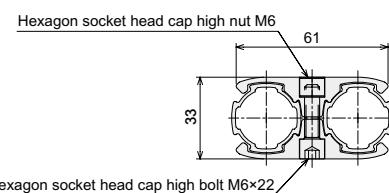
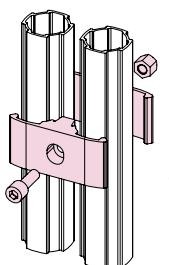
- GF-G (43 mm type) Grip also is possible even in the frame.

### Parallel Holder

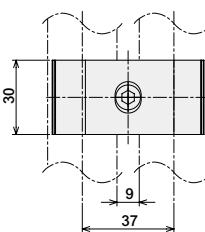


- Use this connector to join frame together in parallel

Name	Parallel Holder
Item No.	GFJ-A47



■ Material/Technical Data  
**Material :** Aluminium Extrusion  
**Bolt / Nut part :** Steel  
**Weight :** 65 g  
**Environment :** RoHS Compliant

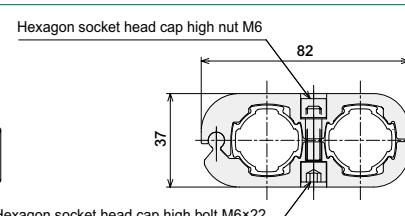
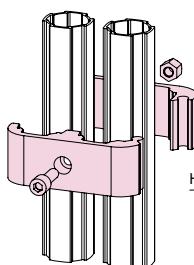


### Parallel Holder HS

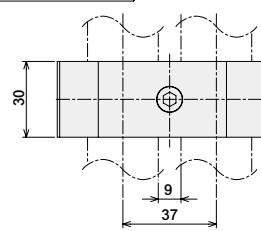


- High strength parallel holder type

Name	Parallel Holder HS
Item No.	GJF-A49



■ Material/Technical Data  
**Material :** Aluminium Extrusion  
**Bolt / Nut part :** Steel  
**Weight :** 144 g  
**Environment :** RoHS Compliant



#### Order Method

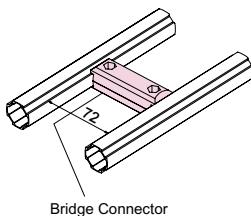
Item No. or Product Name    No. of Piece  
**GFJ-B32**      **pcs.**

## GF-N Connector

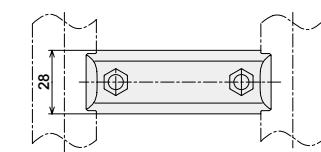
### Bridge Connector



- Use to reinforce between the frame



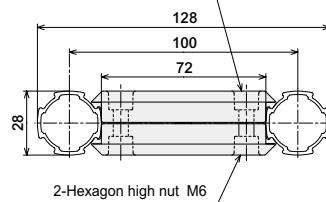
2-Hexagon socket head cap high bolt M6×18



■ Material/Technical Data  
**Material :** Aluminum Diecast  
**Bolt / Nut part :** Steel  
**Weight :** 112 g  
**Environment :** RoHS Compliant

- GF-G (43 mm type) Grip also is possible even in the frame.

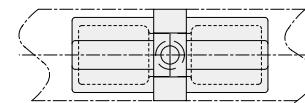
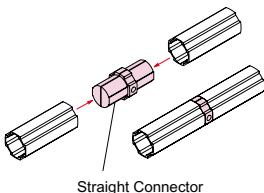
Name	Bridge Connector
Item No.	<b>GFJ-A00</b>



### Straight Connector

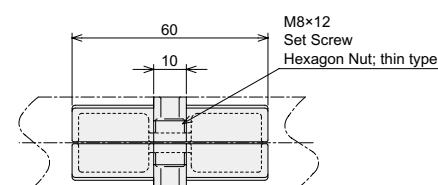


- Use when connect together with the end frame



■ Material/Technical Data  
**Material :** Stainless  
**Bolt / Nut part :** Steel  
**Weight :** 113 g  
**Environment :** RoHS Compliant

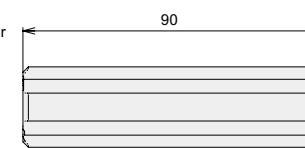
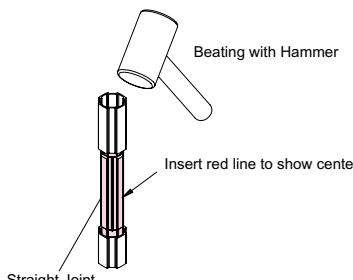
Name	Straight Connector
Item No.	<b>GFJ-A17</b>



### Straight Joint



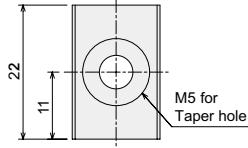
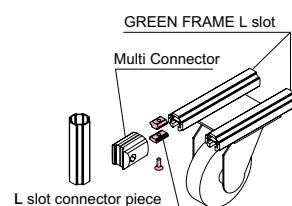
- Use to connect the frame where the load is not applied to the pulling direction



■ Material/Technical Data  
**Material :** Aluminum Extrusion  
**Weight :** 29 g  
**Environment :** RoHS Compliant

Name	Straight Joint
Item No.	<b>GFJ-A46</b>

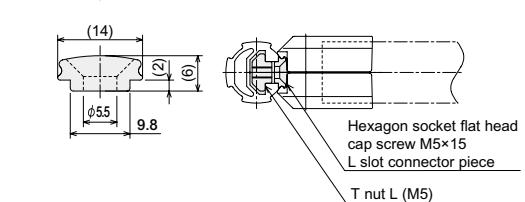
### L-Slot Connector Piece



■ Material/Technical Data  
**Material :** Aluminum Extrusion  
**Bolt / Nut part :** Steel  
**Weight :** 20 g  
**Environment :** RoHS Compliant

- Use GF-SF connector (P95) when connect GF frame and SF frame.

Name	L-Slot Connector Piece
Item No.	<b>GFA-601</b>



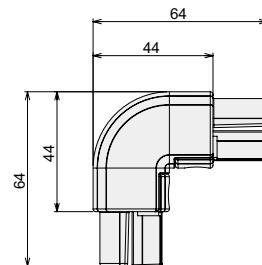
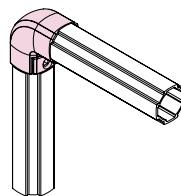


## GF-N Connector

### Angle Connector DX



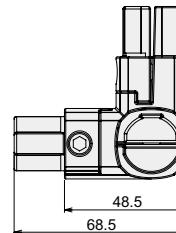
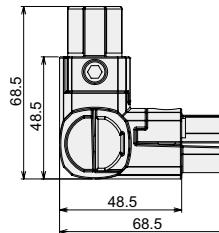
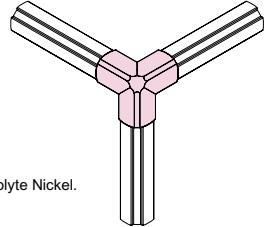
- It is a high sensitive connector finishing with non electrolyte Nickel.



**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
 Non electrolyte  
 Nickel Plating  
 Finish  
**Weight :** 136 g  
**Environment :** RoHS Compliant

Name	Angle Connector DX
Item No.	GFJ-235

### Angle Connector DX (3way type)



**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
 Non electrolyte  
 Nickel Plating  
 Finish  
**Weight :** 226 g  
**Environment :** RoHS Compliant

Name	Angle Connector DX (3way type)
Item No.	GFJ-238



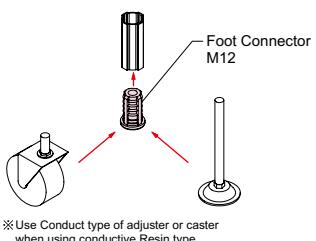
#### Order Method

Item No. or Product Name    No. of Piece  
**GFJ-235**      **pcs.**

→ P.165

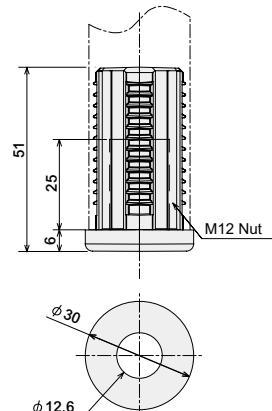
## GF-N Foot Component

### Foot Connector M12/Foot Connector M12 Conductive



- Using M12 adjuster or shaft screw caster to install.

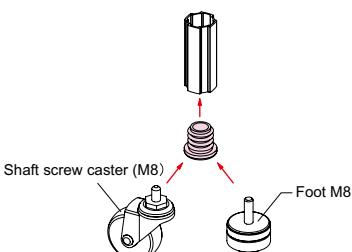
Name	Foot Connector M12	Foot Connector M12 Conductive
Item No.	GFN-E02	GFN-E17



**Material/Technical Data**  
**Resin type**  
**Material** : Polyamide 6  
**Weight** : 24 g  
**Environment** : RoHS Compliant  
**Aim to Resistance value** :  $10^{8\sim 11}\Omega$   
**(Antistatic level)**  
**Load Capacity** : 1250 N  
  
**Conductive Resin type**  
**Material** : Conductive Polypropylene  
**Weight** : 21 g  
**Environment** : RoHS Compliant  
**Aim to Resistance value** :  $10^{4\sim 5}\Omega$   
**(Conductivity level)**  
**Load Capacity** : 500 N

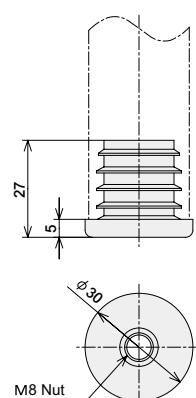
- Recommend to use the installation method of fixed or free caster in Green Frame L Slot when applied a strong impact to foot connector when moving or to caster when moving trolley (P53).

### Foot Connector M8



- Using M8 adjuster or shaft screw caster to install.

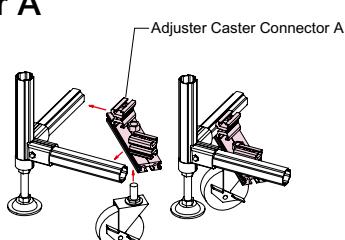
Name	Foot Connector M8
Item No.	GFN-E01



**Material/Technical Data**  
**Material** : ABS Resin  
**Weight** : 12 g  
**Environment** : RoHS Compliant  
**Load Capacity** : 1200 N

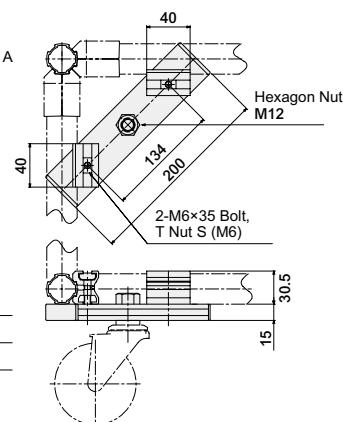
- Recommend to use the installation method of fixed or free caster in Green Frame L Slot when applied a strong impact to foot connector when moving or to caster when moving trolley (P53).

### Adjuster Caster Connector A



- It's a connector to install caster when installed adjuster to frame.

Name	Adjuster Caster Connector A
Item No.	GFN-C08

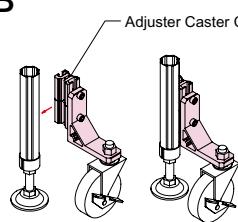


**Material/Technical Data**  
**Resin type**  
**Material** : Aluminum Extrusion  
**Weight** : 269 g  
**Environment** : RoHS Compliant  
**Load Capacity** : 1900 N

**Product included**  
 Hexagon Nut M12 (Trivalent Chrome Plating)×1  
 T Nut S (M6)×2  
 Hexagon socket head cap screw M6×35 (Trivalent Chrome Plating)×2  
 T slot frame cap 1540 (Black)×2

- Not include adjuster, caster.
- Compatible caster:  
M12 Each type of shaft screw caster
- Compatible adjuster:  
M12 Each type of adjuster

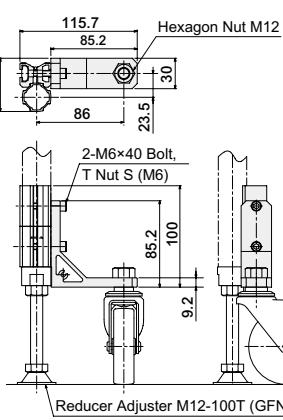
### Adjuster Caster Connector B



※ Using M12 reducer adjuster

- It's a connector to install caster when installed adjuster to frame.

Name	Adjuster Caster Connector B
Item No.	GFN-C09



**Material/Technical Data**  
**Material** : Aluminum extrude  
**Weight** : 223 g  
**Environment** : RoHS Compliant  
**Load Capacity** : 900 N

**Product included**  
 Hexagon Nut M12 (Trivalent Chrome Plating)×1  
 T Nut S (M6)×2  
 Hexagon socket head cap screw M6×40 (Trivalent Chrome Plating)×2

- Not include adjuster, caster.
- Compatible caster:  
M12 Each type of shaft screw caster
- Compatible adjuster:  
Reducer Adjuster M12-100 (GFN-000)

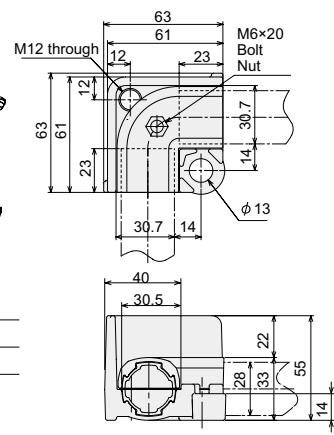
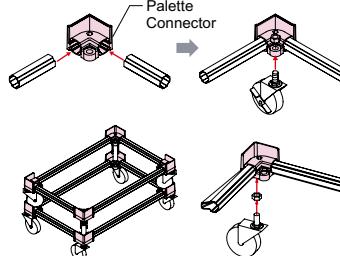


## GF-N Foot Component

### Palette Connector



- Apply at the corner of Palette Trolley
- Same size trolley can store by piling up.



**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Weight :** 193 g  
**Environment :** RoHS Compliant  
**Load Capacity :** 3250 N

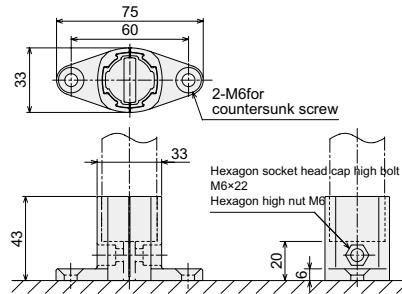
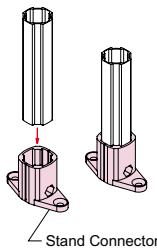
**■ Product included**  
**Hexagon Nut M12**  
 (Trivalent Chrome Plating)×1

- Compatible caster:  
M12 Type of Shaft screw caster

### Stand Connector



- Apply when connect frame to the floor or wall.



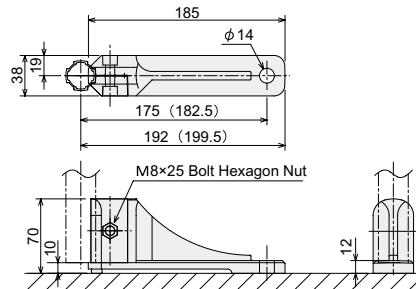
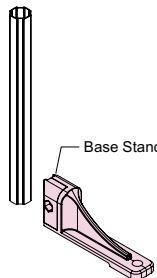
**■ Material/Technical Data**  
**Material :** Stainless  
**Weight :** 183 g  
**Environment :** RoHS Compliant

Name	Stand Connector
Item No.	GFJ-A36

### Base Stand



- Apply as a foot for a stand such as partition.



**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt/Nut :** Steel  
**Weight :** 411 g  
**Environment :** RoHS Compliant

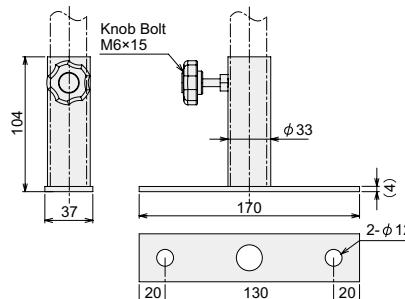
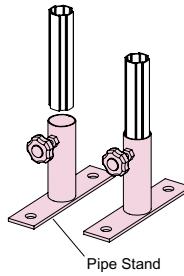
- GF-GCan use with Frame

Name	Base Stand
Item No.	GFN-E08

### Pipe Stand A



- Apply to fix frame to the floor.



**■ Material/Technical Data**  
**Material :** SPHC/SPCC  
**Weight :** 285 g

Name	Pipe Stand A
Item No.	GFN-E15



#### Order Method

Item No. or Product Name    No. of Piece

**GFJ-A13**    **□□pcs.**

→ P.165

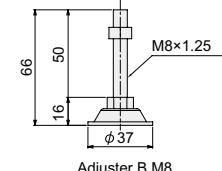
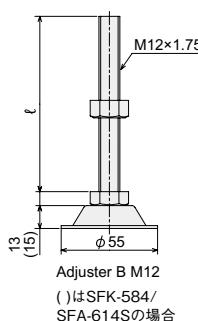
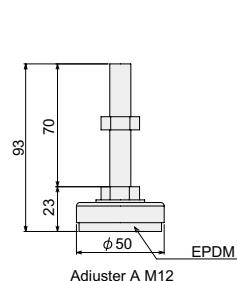
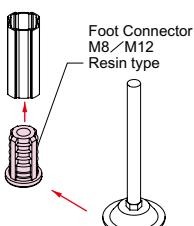
## GF-N Foot Component

### Adjuster



■ SUS Original Adjuster

Name	Adjuster B		
	M12-68T	M12-100T	M12-100T (Stainless)
Item No.	SFK-C84	SFK-933	SFK-933S
ℓ (mm)	68	100	100
Weight (g)	129	153	155
Load Capacity (N)	3500	5000	3000



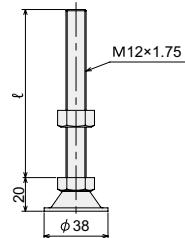
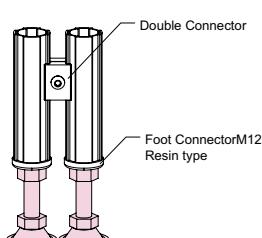
■ Adjuster

Name	Adjuster A		Adjuster B				
	M12-70	M8-50	M8-50 (Stainless)	M12	M12 (Stainless)	M12-150	M12-150 (Stainless)
Item No.	SFA-607	SFA-613	SFA-613S	SFK-584	SFK-584U	SFA-614	SFA-614S
ℓ (mm)	70	50	50	100	100	150	150
Weight (g)	173	55	55	169	165	205	204
Load Capacity (N)	3500	2000	2000	5000	3000	6000	6000

**■ Material/Technical Data**  
 M12-68T  
 Material : SS400  
 M12-100T/M12  
 Material : SS400  
 M12-100T (Stainless)/  
 M12 (Stainless)  
 Material : SUS304  
 M12-150  
 Material : SWRM/SS400/SPHC  
 M12-150 (Stainless)  
 Material : SUS304  
 M12-70  
 Material : SPCC/SWCH/EPDM  
 M8-50  
 Material : SPCC/SWRM  
 M8-50 (Stainless)  
 Material : SUS304

Environment : RoHS Compliant (Adjuster B)

### Small Diameter Adjuster M12



● This Adjuster can apply to the Frame connected with Double Connector

■ SUS Original Small Size Adjuster

Name	Small Diameter Adjuster			M12 (Stainless)
	M12-60T	M12-100T	M12-100T (Stainless)	
Item No.	GFN-002	GFN-000	GFN-003S	GFN-001
ℓ (mm)	60	100	100	100
Weight (g)	101	132	134	200
Load Capacity (N)	2000	2000	1200	1200

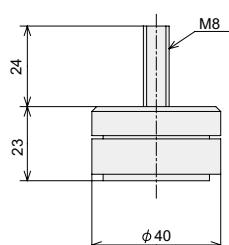
**■ Material/Technical Data**  
 M12-60  
 Material : SS400  
 M12-100  
 Material : SS400  
 M12-100 (Stainless)/  
 M12 (Stainless)  
 Material : SUS304

Environment : RoHS Compliant

### Foot M8



Name	Foot M8
Item No.	SFA-602



**■ Material/Technical Data**  
 Material :  
 Thread : Steel  
 Base : Polyamide  
 Weight : 35 g  
 Environment : RoHS Compliant  
 Load Capacity : 800 N

Foot Component

Panel Board

Moving Part

Corocon

Door Part

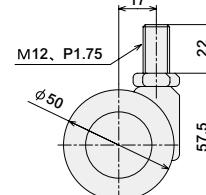
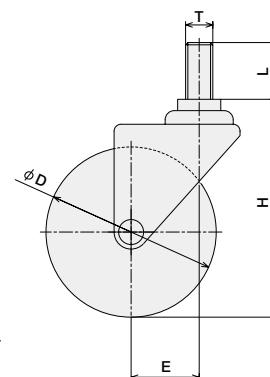
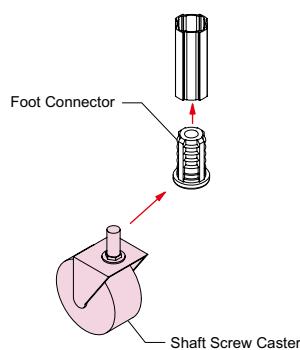
Accessory



## GF-N Foot Component

Environment: RoHS Compliant

### Caster Screw Fitting Type $\phi 50$ Rubber, Nylon/ $\phi 75$ Rubber, Nylon, Conductive



$\phi 50$ M12 Only Caster has double wheel  
Wheel: Nylon

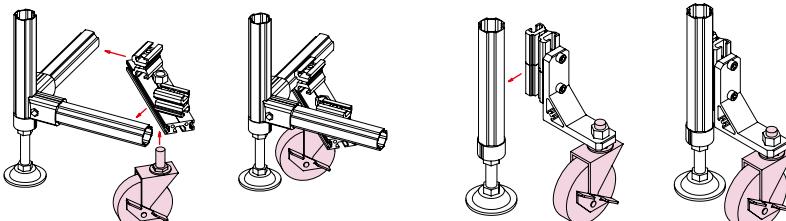
- This Caster is for installation of Foot Connector or Adjuster Caster Connector etc.

#### ■ Shaft Screw Caster Size, Weight

D (mm)	T (mm)	Wheel Material	Body Material		No Brake	With Brake	Load Capacity	L (mm)	H (mm)	E (mm)	Weight (g)	Foot Connector capable to install/Adjuster Caster Connector
$\phi 50$	M8	Rubber	Steel	Item No.	<b>GFN-619</b>	<b>GFN-620</b>	300 N	14	67	20	152 (173)	Foot Connector M8 ( <b>GFN-E01</b> ) Green Frame T ( <b>GFF-017</b> ) M8 Tapping
		Rubber	Steel	Item No.	<b>GFN-665</b>	<b>GFN-666</b>	300 N	14	68	21	151 (182)	
	M12	Nylon	—	Item No.	<b>GFN-513</b>	<b>GFN-512</b>	600 N	22	57.5	17	130 (130)	
		Rubber	Steel	Item No.	<b>GFN-667</b>	<b>GFN-668</b>	400 N	25	95	28	245 (270)	
$\phi 75$	M12	Rubber	Steel	Item No.	<b>GFN-525</b>	<b>GFN-523</b>	400 N	25	96	30	282 (312)	Foot Connector M12 ( <b>GFN-E02</b> ) Foot Connector M12 (Conductive Resin Type) ( <b>GFN-E17</b> ) Adjuster Caster Connector A ( <b>GFN-C08</b> ) Adjuster Caster Connector B ( <b>GFN-C09</b> ) Palette Connector ( <b>GFJ-A13</b> )
		Nylon	Steel	Item No.	<b>GFN-609</b>	<b>GFN-610</b>	500 N	25	95	29	188 (237)	
		Conductive	Steel	Item No.		<b>GFN-524</b>	240 N	25	95	29	316 (352)	

- (Blue Number) is a weight including brake
- Use thin spanner for installation →P119

Example of installation using Adjuster Caster Connector.



Caster Material



Special Caster Material

	Elasticity	Abrasion Resistance	Oil Resistance	Water Resistance	Chemical Resistance	Heat Resistance
Rubber	◎	○	×	○	○	○
Nylon	×	◎	◎	◎	◎	○
Conductive (Rubber)	◎	○	×	○	○	○



#### Order Method

Item No. or Product Name

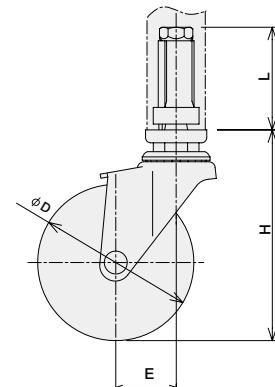
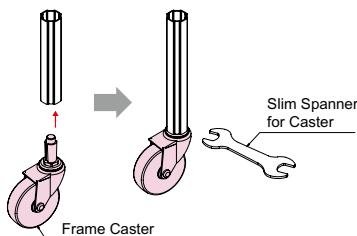
No. of Piece

**GFN-619** □□pcs.

→ P.165

## GF-N Foot Component

### Frame Caster $\phi 75$ Conductive with Brake



- Insert to the Frame directly and tighten with thin spanner, resin will be crimped to the Frame to lock.

#### ■ Size, Weight

D (mm)	Wheel Material	Body Material		With Brake	Spanner Size	Load Capacity	L (mm)	H (mm)	E (mm)	Weight (g)	This Frame capable to install
$\phi 75$	Conductive	Steel Resin	Item No.	GFN-528	19	240 N	47	101	29	352	Green Frame (GFF-000) Green Frame F35 (GFF-014) Green Frame F50 (GFF-005) Green Frame W (GFF-003) Green Frame Slide (GFF-006) Green Frame P100 (GFF-001)

- Use thin spanner for installation. → P119

### Frame Caster Fixed $\phi 50$ Rubber/ $\phi 75$ Rubber



**■ Material/Technical Data**  
**Material :** SPHC  
**Wheel :** Rubber  
**Environment :** RoHS Compliant  
**Load Capacity :** 300 N

- Insert to the Frame directly and tighten with thin spanner, resin will be crimped to the Frame to lock.

- Use spanner to install (P119)
- Use stubby wrench 5 mm to lock wheel to the frame
- Detail of installation please refers to (P159)

Name	Frame Caster Fixed $\phi 50$ Rubber
Item No.	GFN-621
Weight	193g
Name	Frame Caster Fixed $\phi 75$ Rubber
Item No.	GFN-622
Weight	268g

Frame

Connector

Foot Component

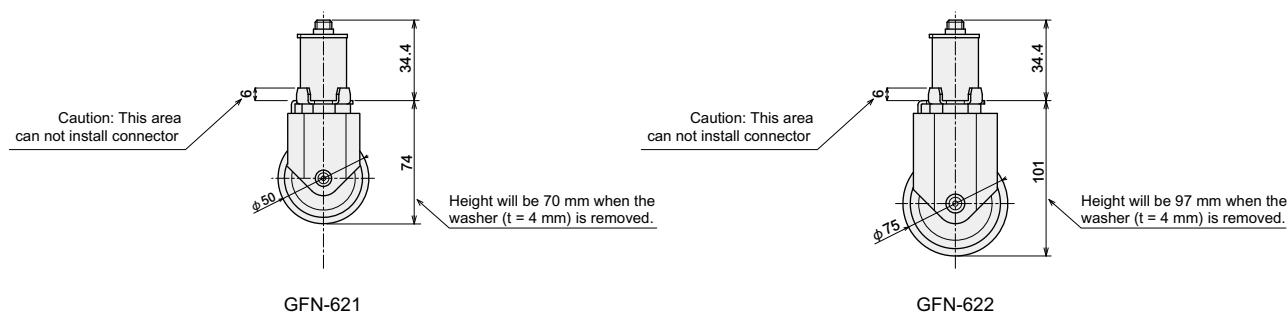
Panel Board

Moving Part

Corocon

Door Part

Accessory



Drawing Support Software  
→ P.10



Design Support Service  
→ P.10



Assembled Delivery Service  
→ P.11



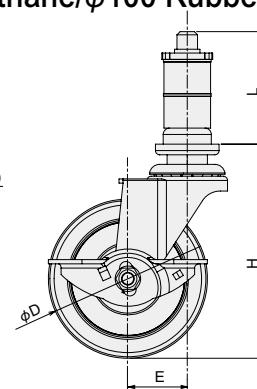
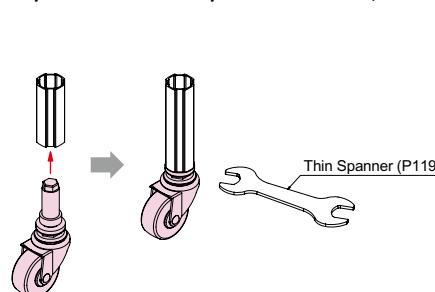
Application Seminar  
→ P.11



Environment: RoHS Compliant

## GF-N Foot Component

### Frame Caster N Frame $\phi 50$ Rubber/ $\phi 65$ Rubber/ $\phi 75$ Rubber, Urethane/ $\phi 100$ Rubber



- Insert to the Frame directly and tighten with thin spanner, resin will be crimped to the Frame to lock.

Size, Weight

D (mm)	Wheel Material	Body Material		No Brake	With Brake	Spanner Size	Load Capacity	L (mm)	H (mm)	E (mm)	Weight (g)	This Frame capable to install	
$\phi 50$	Rubber	Steel Rubber	Item No.	GFN-627	GFN-628	21	300 N	38.5	70	21	190 (220)	Green Frame (GFF-000) Green Frame F35 (GFF-014) Green Frame F50 (GFF-005) Green Frame W (GFF-003) Green Frame Slide (GFF-006) Green Frame P100 (GFF-001)	
$\phi 65$	Rubber		Item No.	GFN-566	GFN-567	21	300 N	38.5	87.5	24	240 (270)		
$\phi 75$	Urethane		Item No.	GFN-629	GFN-630	21	300 N	38.5	97	28	270 (300)		
			Item No.	GFN-580	GFN-581		400 N	38.5	97	28	230 (260)		
	Urethane (For high load)		Item No.		GFN-660	21	600 N	58.5	98.5	28	(460)		
$\phi 100$			Item No.	GFN-582	GFN-583		500 N	58.5	127.5	30	590 (650)		

● (Blue Number) is weight including brake. ● Use thin spanner to install. →P119

● For GF-G (43 mm) →P102



## Order Method

Item No. or Product Name  
**GFN-627** No. of Piece  
**□□pcs.**

→P.165

## GF-N Foot Component

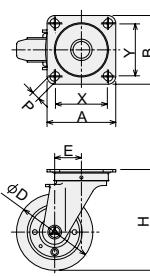
### Free Caster $\phi 100/\phi 150$ Fixed Caster $\phi 100/\phi 150$

Environment: RoHS Compliant



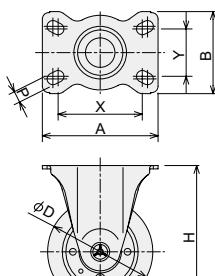
- Install T Nut and Bolt to Green Frame L Slot

Adjustable Caster



$\phi 100 \cdot \phi 150$  Adjustable

Fix Caster



$\phi 100 \cdot \phi 150$  Fix

#### Size, Weight

D (mm)	T (mm)	Body Material		Adjustable		Fix	Load Capacity	X (mm)	Y (mm)	A (mm)	B (mm)	H (mm)	P (mm)	E (mm)	Weight (g)	This Frame capable to install	
				No Brake	With Brake												
$\phi 100$	Rubber	Steel	Item No.	GFN-504	GFN-500	GFN-502	1200 N	68	68	90	90	132	35	11	1054	Green Frame L Slot (GFF-004)	
	Urethane		Item No.	GFN-511	GFN-508	GFN-553	1000 N								1054	873	
	Rubber		Item No.	GFN-521	GFN-507	GFN-554	1600 N	75	75	102 (106)	102 (111)	190	41		1810	1840	
	Urethane		Item No.	GFN-522	GFN-517	GFN-555	1400 N								1391	1810	1840

• ( ) is dimension for Fix Caster

• **Weight** Top : Adjustable no brake  
Middle : Adjustable with brake  
Bottom : Fix

• To install in Green Frame L Slot requires

$\phi 100/\phi 150$

ST Nut-L M8 (SFK-T11S)

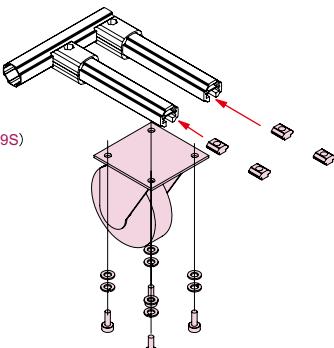
Hexagon socket head cap screw M8X18 (SFB-589S)

Flat Washer M8 Small round (SFB-903S)

Spring Washer M8 (SFB-934S)

4 pcs each/1 wheel

Not included



**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit  
GF Motion

Technical Data

Frame

Connector

**Foot  
Component**

Panel Board

Moving Part

Corocon

Door Part

Accessory



Drawing Support Software  
→ P.10



Design Support Service  
→ P.10



Assembled Delivery Service  
→ P.11



Application Seminar  
→ P.11

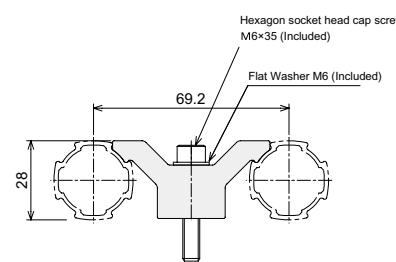
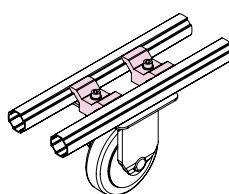


## GF-N Foot Component

### Caster Fix



- To install the caster, do not need to turn over the structure.



**■ Material/Technical Data**  
**Material :** Aluminum Extrude  
**Weight :** 64 g  
**Environment :** RoHS Compliant

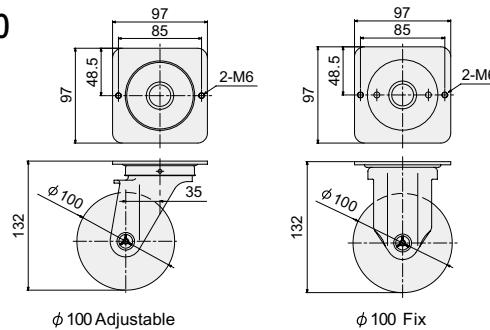
**■ Product included**  
Hexagon socket head cap screw M6×35 (Trivalent Chromium Plating)  
Flat Washer M6 (Trivalent Chromium Plating)

Name	Caster Fix
Item No.	GFN-C10

### Fixed Caster φ100 Free Caster φ100

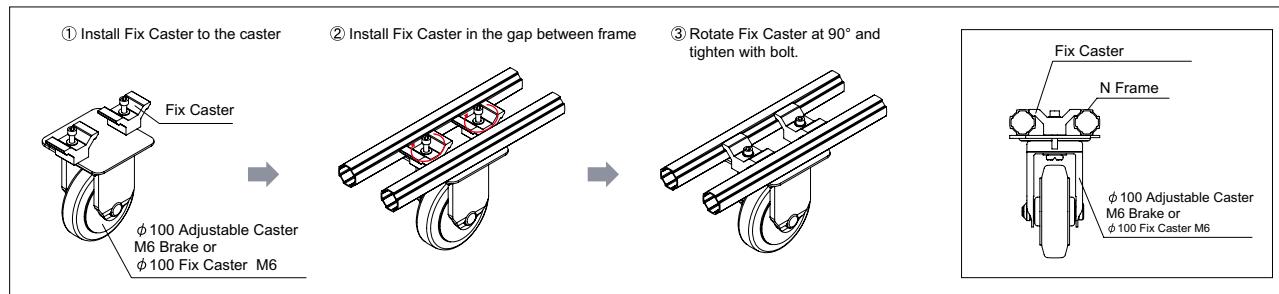


- Caster special used for Fix caster.



**■ Material/Technical Data**  
**Material :** Steel  
**Wheel :** Rubber  
**Environment :** RoHS Compliant

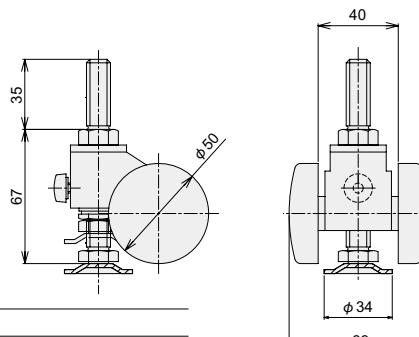
Name	Fixed Caster φ100 Rubber M6	Free Caster φ100 Rubber M6 with Brake	Free Caster φ100 Rubber M6
Item No.	GFN-503	GFN-501	GFN-557
Weight (g)	930	1260	1120
Load Capacity (N)	930 N	1200 N	1200 N



### Caspad φ 50-M12



- Caster and Adjuster is integral product.



**■ Material/Technical Data**  
**Material :** Wheel : Nylon  
Adjuster Bolt : SS400 Unichrome Equivalent  
**Weight :** 260 g  
**Environment :** RoHS Compliant  
**Load Capacity :** 588 N

Name	Caspad φ 50 - M12
Item No.	SFA-703



#### Order Method

Item No. or Product Name

No. of Piece

GFN-C10 □□pcs.



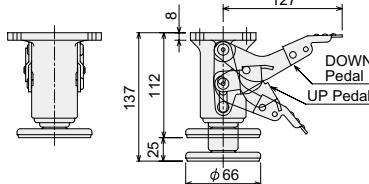
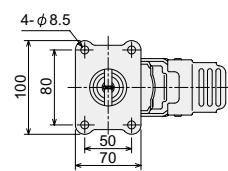
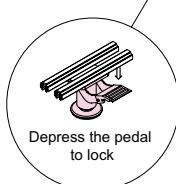
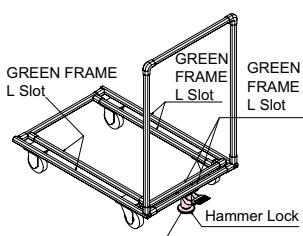
→ P.165

## GF-N Foot Component

### Hammer Lock 100



- Depress the pedal to lock the movement.
- Install at GREEN FRAME L Slot.
- Compatible to Fix and Adjustable Caster  $\phi$  100.
- Pressing force when locked : 392 N



**■ Material/Technical Data**  
Material : Resin or Steel  
Weight : 770 g  
Environment : RoHS Compliant

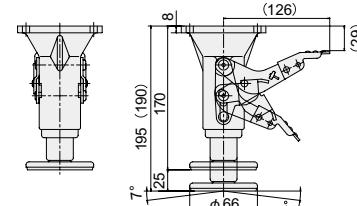
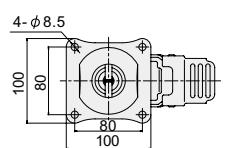
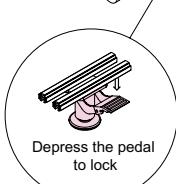
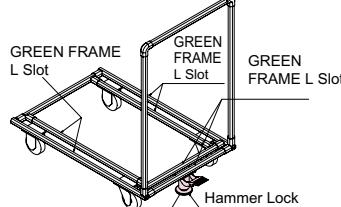
- In case of installation to GREEN FRAME L Slot  
ST Nut-L M8 (SFK-T11S)  
Hexagon socket head cap screw M8×20 (SFB-582S)  
Flat Washer M8 (SFB-903S)  
please prepare 4 pcs each of above.
- Please see the left picture how to assemble frame when install.
- Weight load on caster.
- For installation please refers to P159.

Name	Hammer Lock 100
Item No.	<b>GFN-F00</b>

### Hammer Lock 150



- Depress the pedal to lock the movement.
- Install at GREEN FRAME L Slot.
- Compatible to Fix and Adjustable Caster  $\phi$  150.
- Pressing force when locked : 392 N



**■ Material/Technical Data**  
Material : Resin or Steel  
Weight : 850 g  
Environment : RoHS Compliant

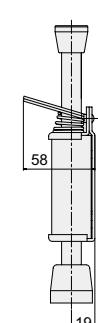
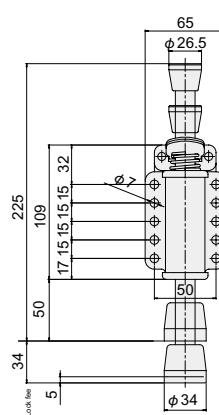
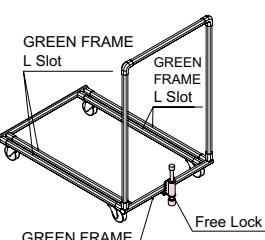
- In case of installation to GREEN FRAME L Slot  
ST Nut-L M8 (SFK-T11S).  
Hexagon socket head cap screw M8×20 (SFB-582S)  
Flat Washer M8 (SFB-903S)  
please prepare 4 pcs each of above.
- Please see the left picture how to assemble frame.
- Weight load on caster.
- For installation please refers to P159.

Name	Hammer Lock 150
Item No.	<b>GFN-F01</b>

### Free Lock 75/100 Kit



- Depress the pedal to lock the movement.
- Compatible to Caster  $\phi$  75 • 100.
- Pressing force when locked : 392 N



**■ Material/Technical Data**  
Material : Steel or Rubber  
Weight : 528 g

**■ Product included**  
Free Lock Connector×1  
Hexagon socket head cap screw M6×35  
(Trivalent Chrome)×2  
Flat Washer M6 (ISO)×2  
ST Nut-S (M6)×2

- Weight load on caster.
- For installation please refers to P159.

Name	Free Lock 75/100 Kit
Item No.	<b>GFN-F02</b>

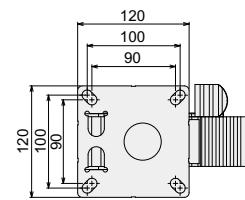
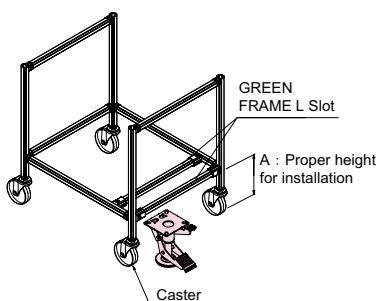


## GF-N Foot Component

### Floor Lock

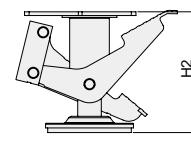
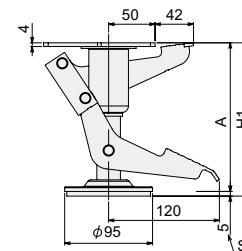


• This lock can apply to Frame Caster or Shaft Screw Caster.



**■ Material/Technical Data**  
**Material :** 1.61 kg (FL-125)  
 1.64 kg (FL-150)  
 1.67 kg (FL-200)  
**Environment :** RoHS Compliant

- Please keep the proper height of installation.
- For installation please refers to P159.



Name	Floor Lock		
	FL-125	FL-150	FL-200
Item No.	<b>GFN-606</b>	<b>GFN-607</b>	<b>GFN-608</b>
A (mm) : proper height for installation	160	205	243
H1 (mm)	165	210	248
H2 (mm)	130	175	213
Load Capacity (N)	2,000	3,000	3,500

**GF**  
**28** mm



### Order Method

Item No. or Product Name    No. of Piece  
**GFN-606**      pcs.

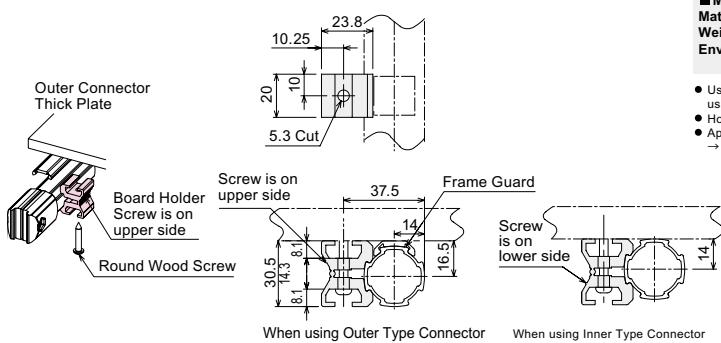
→ P.165

## GF-N Panel / Board Part

### Board Holder



- Use this part install working board to the frame
- This support both connection of Outer Connector or Inter connector subjected to the installment direction.



- When using Inner Type Connector
- In case of Inner Type Connector , fixed surface by change direction of top turn it up side down
  - Can not use Nut (M6)

Name	Board Holder
Item No.	<b>GFJ-A22</b>

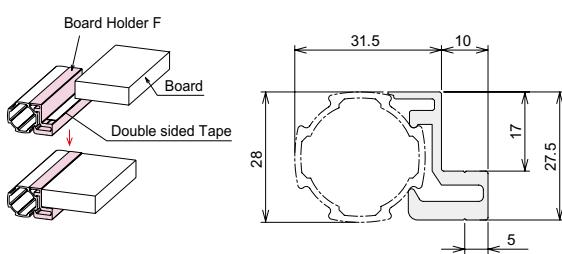
■ Related Part  
Frame Guard (**GFA-800G**)  
Round Wood Screw 4.1 x 32 (**SFB-9C5**)



### Board Holder F



- Capable to install Board of t=17 mm at the same height of the frame
- Just hang on to the frame  
Also if apply the double sided tape to the board, then no need to use any tool to install

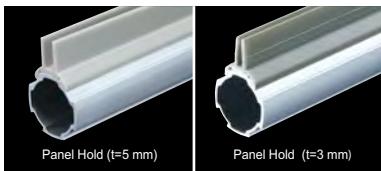


■ Material/Technical Data  
Material : Aluminum Extrude  
Weight : 447 g/m  
Environment : RoHS Compliant

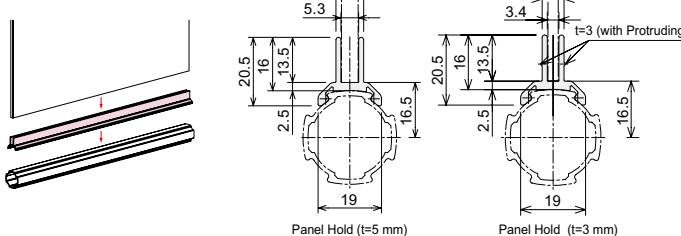
- ※ Surrounded on 4 side.  
• How to install Board → P160  
• Approx. size of Board Panel → P132

Name	Board Holder F (Cut size part)
Item No.	<b>GFF-A01</b>

### Panel Hold (for t=5 / t=3)



- Use this part to install resin plate
- One touch to install to the frame, no process requires to resin plate



■ Material/Technical Data  
Material : Polypropylene  
Weight : t=5 83 g/m  
t=3 81 g/m  
Environment : RoHS Compliant

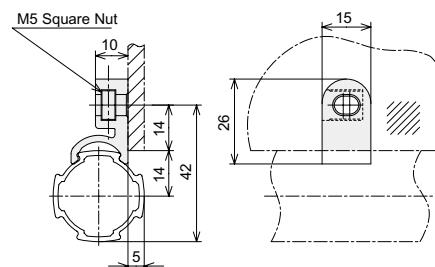
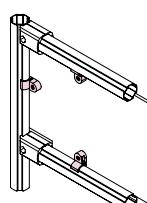
- Approx. size of Panel and Panel Hold (for t=5 / t=3) → P133

Name	Panel Hold (for t=5)	Panel Hold (for t=3)
Item No.	<b>GFA-802G</b>	<b>GFA-803G</b>



## GF-N Panel / Board Part

### Plate Connector



**■ Material/Technical Data**  
**Material :** Polypropylene  
**Weight :** 6.0 g  
**Environment :** RoHS Compliant

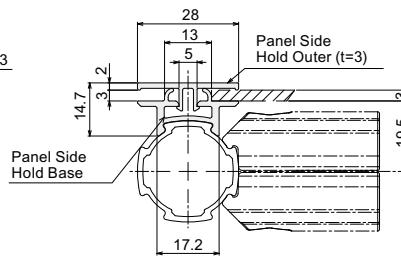
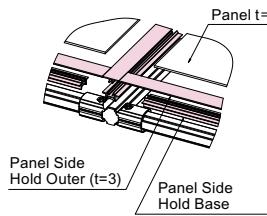
**■ Product Included**  
M5 Square Nut

● Approx. size of machining and Panel dimension → P133

- Use this part to install resin plate
- One touch installation to the frame
- Place Truss Screw on the hole of resin plate to lock

Name	Plate Connector
Item No.	<b>GFJ-A19</b>

### Panel Side Hold



**■ Material/Technical Data**  
**Material :** Polypropylene  
**Weight :** 100 g/2m  
(Panel Side Hold Outer (3))  
165 g/2m  
(Panel Side Hold Base)  
**Environment :** RoHS Compliant

● Approx. size of Panel and Panel Side Hold

- This part is for mounting resinous plates.
- Panels can be mounted on the front of the frame.
- Can be mounted to the frame with one touch, and the resinous plate does not need to be machined.

Name	Panel Side Hold Outer t3	Panel Side Hold Base
	Scale L=2000   Cut size part L= 2000~199	Scale L=2000   Cut size part L=2000~199
Item No.	<b>GFA-809</b>	<b>GFA-808</b>



#### Order Method

Item No. or Product Name

**GFJ-A19**

No. of Piece

**pcs.**



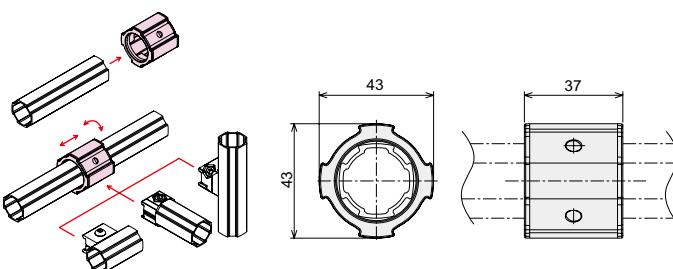
→ P.165

## GF-N Moving Part

### Hinge Connector



- This connector is good for rotate or slide movement.



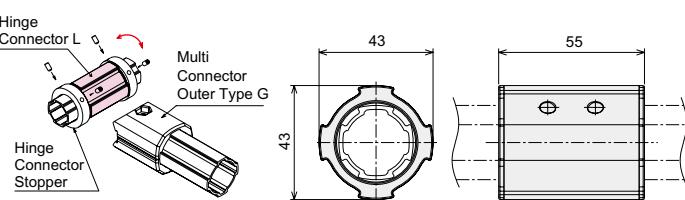
■ Material/Technical Data  
**Material :**  
 Body Part : Aluminum Extrusion  
 Slide Bush : Nylon 6  
**Weight :** 31 g  
**Environment :** RoHS Compliant

Name	Hinge Connector
Item No.	<b>GFJ-A04</b>

### Hinge Connector L



- Multi Connector Outer Type G (43 mm) is possible for grip Hinge Connector.



■ Material/Technical Data  
**Material :**  
 Body Part : Aluminum Extrusion  
 Slide Bush : Nylon 6  
**Weight :** 45 g  
**Environment :** RoHS Compliant

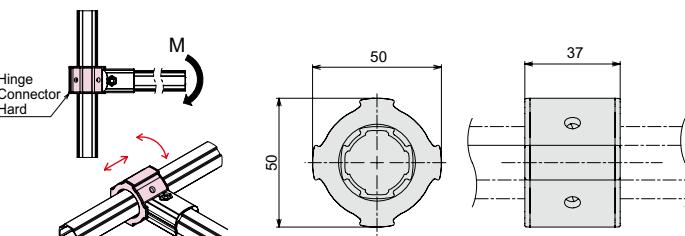
Name	Hinge Connector L
Item No.	<b>GFJ-A07</b>

※Product name of Hinge Connector G has changed to Hinge Connector L.

### Hinge Connector Hard



- This Hinge Connector is helping to increase the strength of momentum load (more than 2 time of hinge connector, refers to P149).



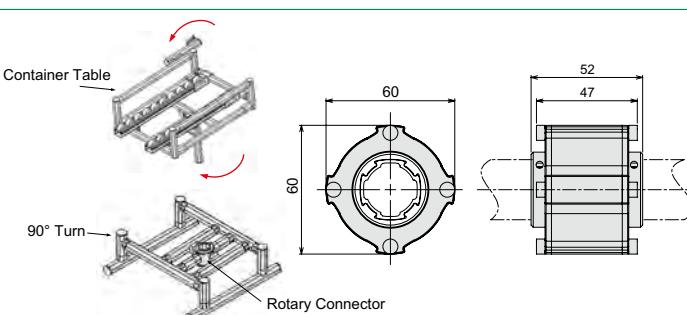
■ Material/Technical Data  
**Material :**  
 Body Part : Aluminum Extrusion  
 Slide Bush : Nylon 6  
**Weight :** 62 g  
**Environment :** RoHS Compliant

Name	Hinge Connector Hard
Item No.	<b>GFJ-A88</b>

### Rotary Connector



- This Part has bearing embedded to get a better rotate.



■ Material/Technical Data  
**Material :**  
 Body Part : Aluminum Extrusion  
 Cap : Aluminum Diecast  
 Bearing : SUJ2  
**Weight :** 130 g  

- Permitted Revolution : 13000 rpm

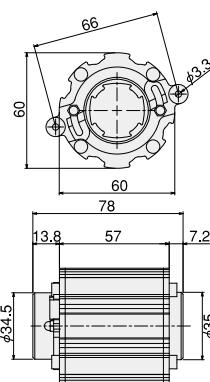
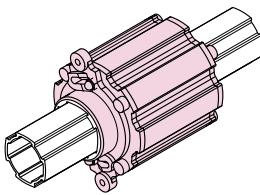
Name	Rotary Connector
Item No.	<b>GFJ-A94</b>

- Frame  
 Connector  
 Foot Component  
**Panel Board**  
**Moving Part**  
 Corocon  
 Door Part  
 Accessory



## GF-N Moving Part

### One Way Clutch

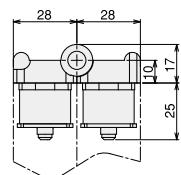
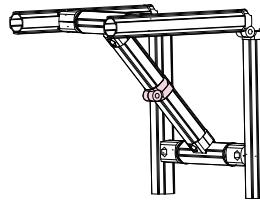


**■ Material/Technical Data**  
**Material :** Body : Extruded Aluminum  
 Cap : Aluminum Diecast  
 Bearing : Stainless  
 Spacer,Nut:Stainless  
 Bolt : Steel  
**Weight :** 288 g  
**Environment :** RoHS Compliant

- Rotates one-way only (switching the release plate off allows rotation both ways) Eight grips allow for attaching connectors to its surface

Name	One Way Clutch
Item No.	<b>GFJ-C19</b>

### Folding Connector

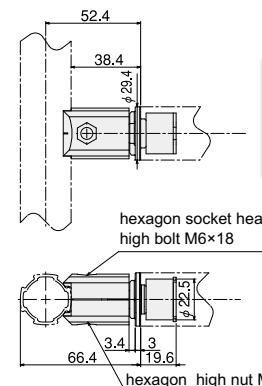
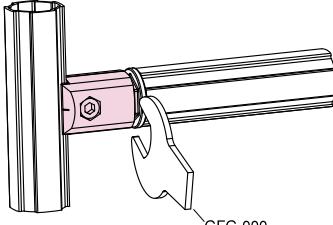


**■ Material/Technical Data**  
**Material :** Body : Aluminium Diecast  
 Pin : Steel  
 Fixed Area : Rubber,Steel  
**Weight :** 87 g  
**Environment :** RoHS Compliant

- Can be folded and used for folding tables or chairs, as well as in karakuri functions

Name	Folding Connector
Item No.	<b>GFJ-247</b>

### Pin Connector



**■ Material/Technical Data**  
**Material :** Body : Aluminium Dicast  
 Bolt,Nut,Bearing Part : Steel  
 Fixed Area : Rubber,Steel  
**Weight :** 99 g

- Frames attached this connector rotate

Name	Pin Connector
Item No.	<b>GFJ-B58</b>



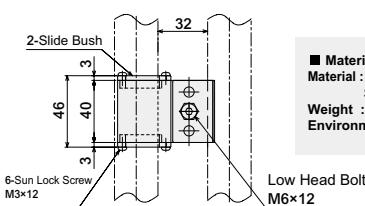
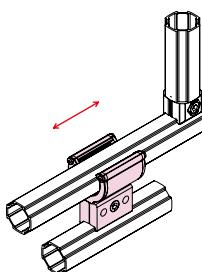
#### Order Method

Item No. or Product Name No. of Piece.

**GFJ-C19 □□ pcs.**

## GF-N Moving Part

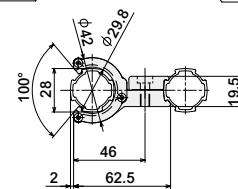
### GF Slider F-F



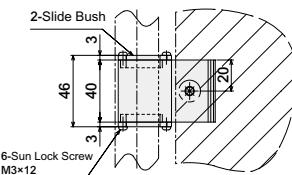
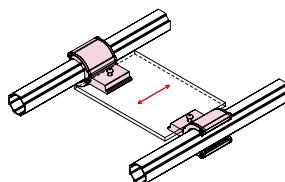
■ Material/Technical Data  
**Material :** Body : Aluminum Extrude  
 Slide Bush : Polycetal  
**Weight :** 130 g  
**Environment :** RoHS Compliant

● Use for sliding frame.

Name	GF Slider F-F
Item No.	<b>GFJ-A38</b>



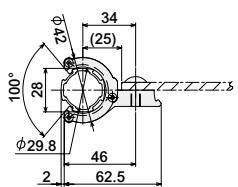
### GF Slider P-F



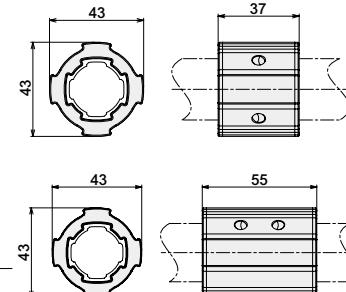
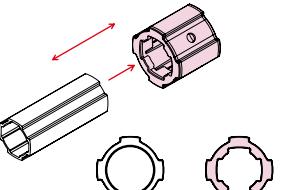
■ Material/Technical Data  
**Material :** Body : Aluminum Extrude  
 Slide Bush : Polycetal  
**Weight :** 106 g  
**Environment :** RoHS Compliant

● Use for sliding panel.

Name	GF Slider P-F
Item No.	<b>GFJ-A41</b>



### Slide Connector



■ Material/Technical Data  
**Material :** Body : Aluminum Extrude  
 Slide Bush : Resin  
**Weight :** 35 g  
 48 g (L)  
**Environment :** RoHS Compliant

● Slide part. No need to rotate. Slide will get a smaller clearance compared to Hinge Connector.

Name	Slide Connector	Slide Connector L
Item No.	<b>GFJ-B28</b>	<b>GFJ-B29</b>

- Frame
- Connector
- Foot Component
- Panel Board
- Moving Part**
- Corocon
- Door Part
- Accessory



Drawing Support Software  
→ P.10



Design Support Service  
→ P.10



Assembled Delivery Service  
→ P.11



Application Seminar  
→ P.11

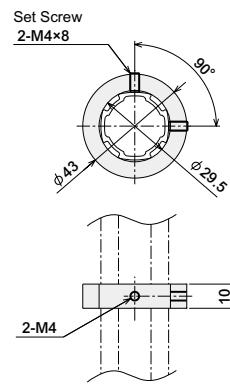
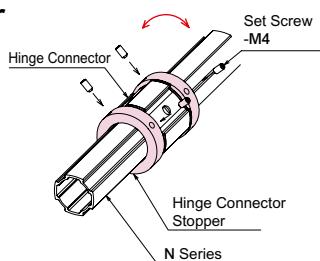


## GF-N Moving Part

### Hinge Connector Stopper



- Hinge Connector Stopper.

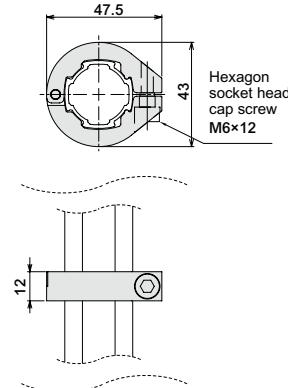
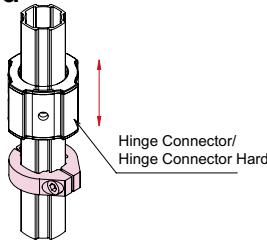


**■ Material/Technical Data**  
**Material :** Aluminum Extrude  
**Weight :** 21 g  
**Environment :** RoHS Compliant

### Hinge Connector Stopper Hard



- Load Capacity (750 N) is 2 time of Hinge Connector Stopper.

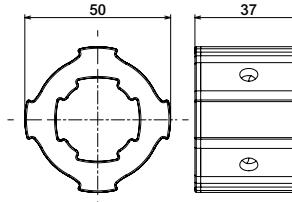


**■ Material/Technical Data**  
**Material :** Body Part: Aluminum Diecast  
**Pin :** Stainless  
**Bolt Nut :** Steel  
**Weight :** 33 g  
**Environment :** RoHS Compliant

### Slide Connector Hard



- This part slides without turning.  
 It is more than 2 times as strong against moment load as the slide connector.



**■ Material/Technical Data**  
**Material :** Body: Aluminum Extrusion  
 Slide Bush: POM  
**Weight :** 70 g  
**Environment :** RoHS Compliant  
**■ Strength Data**  
 Moment Load : 64 (N·m)  
 \*Load bearing capacity at rest

Name	Slide Connector Hard
Item No.	GFJ-C44



#### Order Method

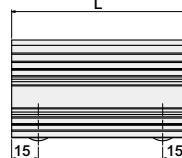
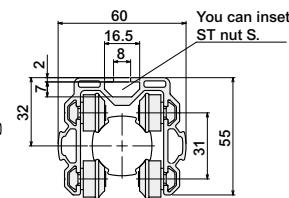
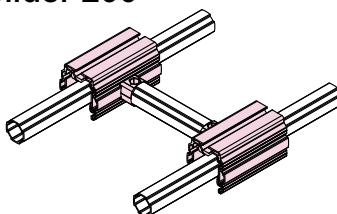
Item No. or Product Name No. of Piece.

GFJ-A09 □□ pcs.

RoHS → P.165

## GF-N Moving Part

### Linear Slider 100/Linear Slider 200 Linear Slider 300

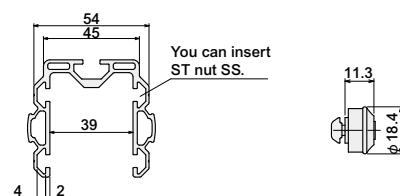
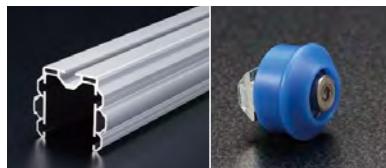


- Slides smoothly with 4 bearing rollers

Name	Linear Slider 100	Linear Slider 200	Linear Slider 300
Item No.	GFW-440	GFW-441	GFW-442

**■ Material/Technical Data**  
**Material :** Body : Extruded Aluminum  
 Roller : NC Nylon  
 Bearing : Steel  
 Bolt,Nut : Stainless  
**Weight :** 105 g (100)  
 403 g (200)  
 562 g (300)  
**Environment :** RoHS Compliant

### Linear Frame/Linear Roller



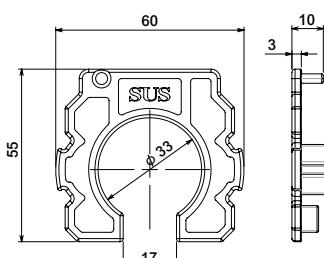
- Custom length Linear Slide Frame  
Estimated Load Capacity = 10N/pc
- Roller for Linear Slide Frame  
Estimated Load Capacity = 10N/pc

**■ Material/Technical Data**  
**Material :** Body : Extruded Aluminum  
**Weight :** Roller 10 g  
 Frame 1.45kg/m  
**Environment :** RoHS Compliant

- A stubby wrench is necessary for assembly (short body type).

Name	Linear Frame L=100~4000mm	Linear Roller
Item No.	GFF-M05	GFW-437

### Linear Slider Cap



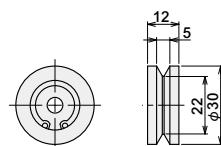
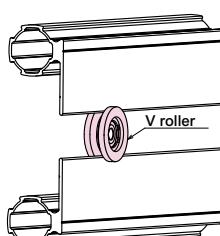
- This is an end protector cap for linear sliders.  
Tapping screws are used to fix it in place.

**■ Material/Technical Data**  
**Material :** Body : Resin  
 Bolts : Iron  
**Weight :** 8 g  
**Environment :** RoHS Compliant

**■ Kit Contents (1 piece set)**  
 Cap×1  
 Cross Socket Flathead Tapping Screw 3.5×12×1

Name	Linear Slider Cap
Item No.	GFW-468

### V Roller Mounting Kit



- Placed between flat plates of Green Frame F35 / F50 etc.  
as a linear motion guide Estimated Load Capacity = 10N

**■ Material/Technical Data**  
**Material :** Body : Polycetal  
 Bearing : SUJ2  
 Spacer : Stainless  
**Weight :** 43 g  
**Environment :** RoHS Compliant

**■ Kit Contents**  
 Bearing Spacer \* 1pc  
 V Roller(Unit) \* 1pc  
 Hexagon Socket Bolt M6\*25\*1pc  
 ST Nut L(M6)\*1pc

Name	V Roller Mounting Kit
Item No.	GFK-949

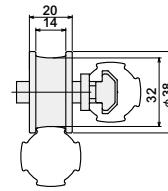
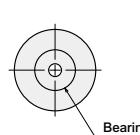
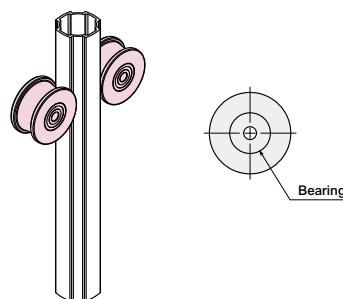


## GF-N Moving Part

### GF Roller Mounting Kit



- Rolls on the groove of Green Frame

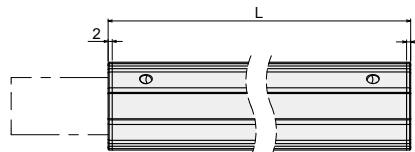
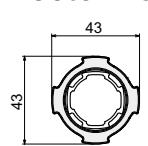
**■ Material/Technical Data**

**Material :** Body : Polyacetal  
Bearing,Bolt : Steel  
Spacer,Nut : Stainless

**Weight :** 63 g**Environment :** RoHS Compliant**■ Kit Contents**

Bearing Spacer \* 1pc  
GF Roller(Unit) \* 1pc  
Hexagon Socket Bolt M6\*40\*1pc  
ST Nut L(M6)\*1pc

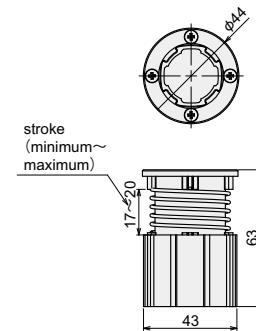
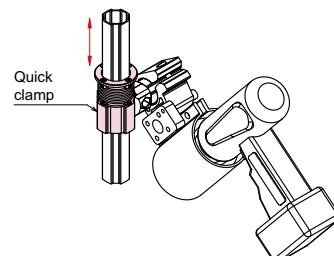
### Hinge Connector 100/Hinge Connector 150



Name	Hinge Connector 100mm	Hinge Connector 150mm
Item No.	<b>GJF-B60</b>	<b>GJF-B62</b>

**■ Material/Technical Data**  
**Material :** Body : Extruded Aluminum  
Slide Bush : Nylon 6  
**Weight :** 78 g (100)  
115 g (150)  
**Environment :** RoHS Compliant

### Quick Clamper



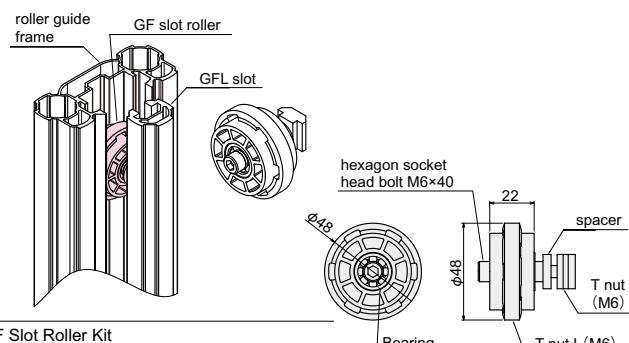
- Holds objects at any height
- Locked by its own weight and can be released by detaching cap

Name	Quick Clamper
Item No.	<b>GJF-C20</b>

**■ Material/Technical Data**  
**Material :** Body : Extruded Aluminum  
Spring : Stainless  
Resin Roller : PPS  
Plate : Aluminum  
Bolt : Stainless  
**Weight :** 80 g  
**Environment :** RoHS Compliant

- Keep shock load or moment load from being placed on the quick clamper.
- Install the quick clamper so that the angle deviation from the Green Frame is within ±1°.
- Load Capacity : 100N

### GF Slot Roller Kit



Name	GF Slot Roller Kit
Item No.	<b>GFK-N07</b>

**■ Material/Technical Data**  
**Material :** Body : Resin Product  
Spacer Part : Aluminum  
**Weight :** 70 g  
**Environment :** RoHS Compliant

**■ Kit Contents**  
GF Slot Roller \* 1pc  
Bearing Spacer \* 1pc  
Hexagon Socket Bolt M6\*40 \* 1pc  
Bearing \* 1pc  
Roller Color \* 1pc  
T Nut L(M6) \* 1pc

- Beware of orientation when mounting.



#### Order Method

Item No. or Product Name No. of Piece.

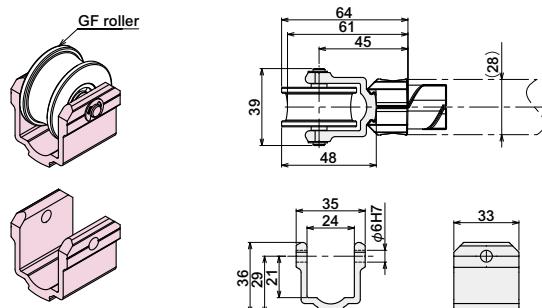
**GFK-948** □□ pcs.

## GF-N Moving Part

### GF Roller Bracket Kit



● Bracket for GF Roller



Name	GF Roller Bracket Kit	GF Roller Bracket Kit (with GF Roller)
Item No.	<b>GFK-950</b>	<b>GFK-951</b>

■ Material/Technical Data  
**Material :**Extruded Aluminium  
Pin,E Ring : Steel  
Roller Part : Polycetal, Steel  
Bracket Part : Extruded Aluminium  
**Weight :** 39 g(GFK-950)  
70 g(GFK-951)  
**Environment :** RoHS Compliant

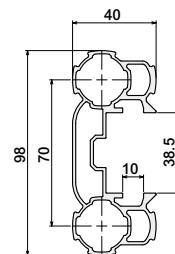
■ Kit Contents  
GF Roller Bracket(Unit) \*1pc  
φ61H9 Shaft\*1pc  
E Ring \*2pcs

● When mounting optional rollers, use rollers less than φ40, 24mm width.

### Roller Guide Frame

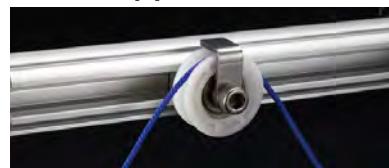


● Guide Frame for GF Slot Roller

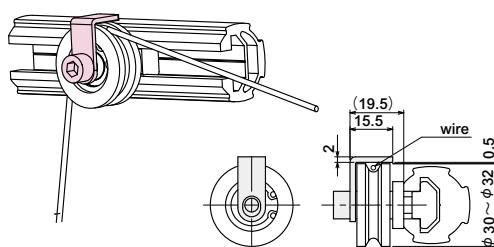


■ Technical Data  
Section secondary momentum:  
I<sub>x</sub> = 11.47×10<sup>4</sup>mm<sup>4</sup>  
I<sub>y</sub> = 63.51×10<sup>4</sup>mm<sup>4</sup>  
Section coefficient:  
Z<sub>x</sub> = 5.59×10<sup>3</sup>mm<sup>3</sup>  
Z<sub>y</sub> = 12.96×10<sup>3</sup>mm<sup>3</sup>  
Mass Unit: 1.86 kg/m

### Wire Support Kit



● Prevents the wire from detaching from the idler

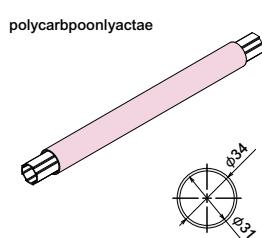


■ Material/Technical Data  
**Material :**Body,Washer,  
Nut : Stainless  
Bolt : Steel  
**Weight :** 28 g  
**Environment :** RoHS Compliant

■ Kit Contents  
Wire Support \*1pc  
Washer \*1pc  
Hexagon Socket Bolt M6\*30 \*1pc  
ST Nut L(M6) \*1pc

■ Compatible Idler  
Plastic Idler Kit (GFK-910)  
Steel Idler Kit (GFK-911)

### φ34 PC Pipe



■ Material/Technical Data  
**Material :**PC  
**Weight :** 190 g/m  
**Environment :** RoHS Compliant

Name	φ34 PC Pipe L=100~4000mm
Item No.	<b>GFA-821</b>

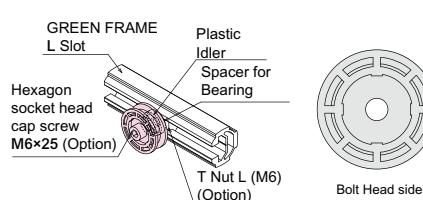


## GF-N Moving Part

### Plastic Idler



- Plastic Idler of Wire  $\phi 2$ ,  $\phi 1$  diameter will be type  $\phi 32$
- Approx. weight : 30~N



**■ Material/Technical Data**  
**Material :** Body : Resin  
 Bearing : Steel  
 Spacer : Aluminum Extrude  
**Weight :** 13 g (Single)  
 21 g (Kit)  
**Environment :** RoHS Compliant

**■ Kit Details**  
 Spacer for Bearing×1  
 Plastic Idler (Single)×1

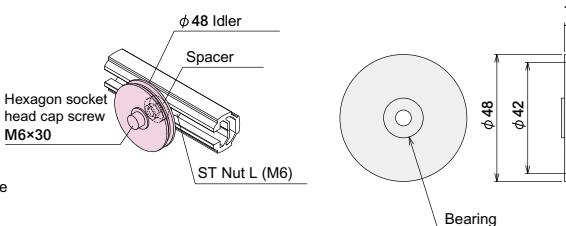
- Caution: Confirm direction before install
- Bolt and nut is not included in the Kit Purchase Separately.

Name	Plastic Idler Kit	Plastic Idler
Item No.	GFK-910	GFA-A30

### $\phi 48$ Idler



- $\phi 1$ , Iron Idler of Wire  $\phi 2$ ,  $\phi 48$  the diameter will be type
- Approx. weight : 300~N
- Please use GFA-A54 spacer for  $\phi 48$  single idler



**■ Material/Technical Data**  
**Material :** Body : Steel  
 Bearing : Steel  
 Spacer : Aluminum Extrude  
**Weight :** 100 g (Single)  
 129 g (Kit)  
**Environment :** RoHS Compliant

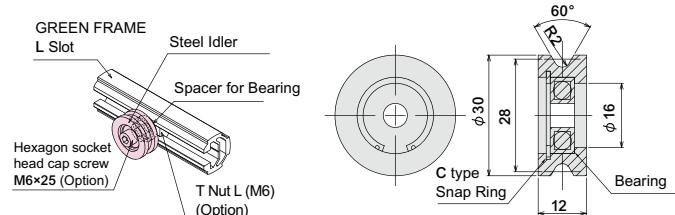
**■ Kit Details**  
 Spacer (GFA-A71)×1  
 $\phi 48$  Idler (Single)×1  
 Hexagon socket head cap screw M6x30×1  
 ST Nut L (M6)×1

Name	$\phi 48$ Idler Fixed Kit	$\phi 48$ Idler
Item No.	GFK-916	GFW-263

### Steel Idler



- Steel Idler of Wire  $\phi 2$



**■ Material/Technical Data**  
**Material :** Body : Steel  
 Bearing : Steel  
 Snap ring : Stainless  
 Spacer : Aluminum Extrude  
**Weight :** 50 g (Single)  
 53 g (Kit)  
**Environment :** RoHS Compliant

**■ Kit Details**  
 Spacer for Bearing×1  
 Steel Idler (Single)×1

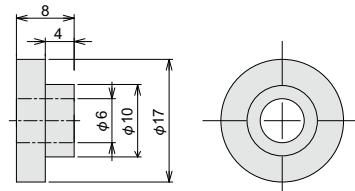
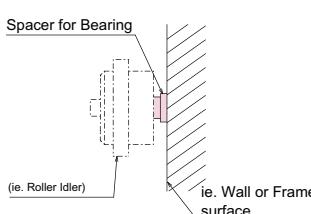
- Bolt and nut is not included in the kit. Purchase Separately.

Name	Steel Idler Kit	Steel Idler
Item No.	GFK-911	GFW-239

### Spacer for Bearing



- use with Idler or Slot Roller



**■ Material/Technical Data**  
**Material :** Stainless  
**Weight :** 10 g  
**Environment :** RoHS Compliant

Name	Spacer for Bearing
Item No.	GFA-A71



#### Order Method

Item No. or Product Name No. of Piece.

**GFK-910** □□ pcs.



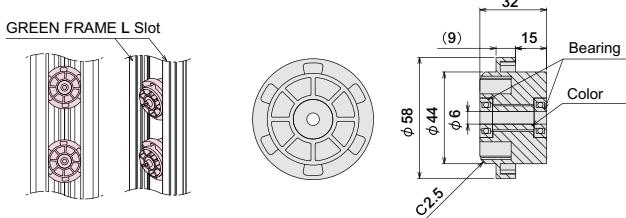
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## GF-N Moving Part

### Slot Roller L40 Light



- The Roller is using groove of GREEN FRAME L Slot or SF FRAME L Slot as a rail.



Name	Slot Roller L40 Light Mounting Kit
Item No.	SFK-809

**■ Material/Technical Data**  
**Material :** Body : Nylon 6  
 Bearing : Bearing Steel  
 Spacer : Aluminum Extrude  
**Weight :** 69 g  
**Environment :** RoHS Compliant  
**■ Kit Details**  
 Bearing Spacer ×1  
 Slot Roller L40 Light ×1  

- Load capacity : 15kg/pcs
- Applied torque : 6 N·m
- Bolt and nut is not included in the Kit. Purchase Separately.

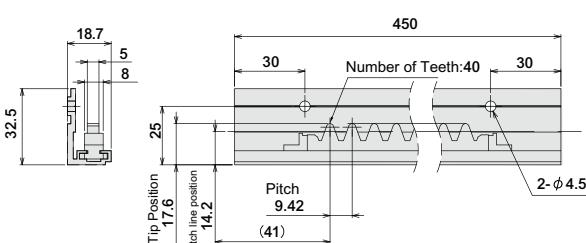
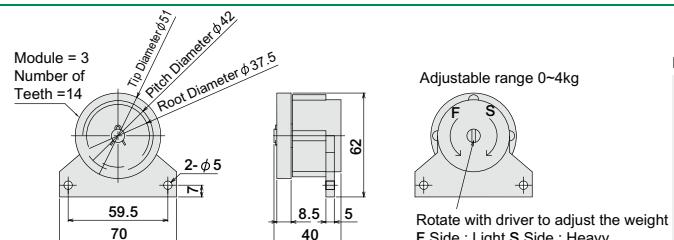
### Brake Device / Brake Rack



- A certain amount of brake applies according to a rotation in the certain direction  
To prevent sudden down or up



- Please use as a rack for brake device



Name	Brake Assembly Kit
Item No.	GFK-914

#### Brake Device

**■ Material/Technical Data**  
**Material :** Body and Gear : Resin  
 Bearing : Steel  
 Spacer : Aluminum Extrude  
**Weight :** 173 g  
**■ Product included**  
 Spacer for Brake Device ×1  
 S Easy Nut L (M5)×2  
 Hexagon socket head cap screw M5-20  
 (Stainless)×2  
 Hexagon socket head cap screw M5-12  
 (Stainless)×2  
 Brake Device 08×1  

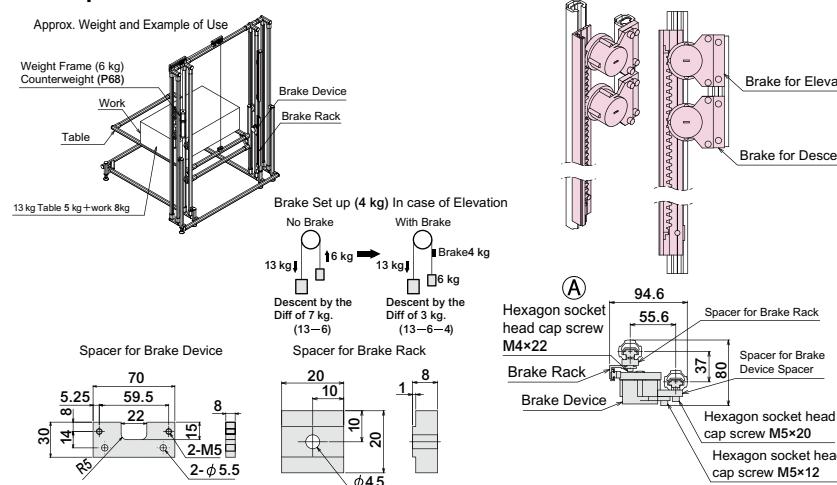
- Possible to change brake to any direction
- Possible to adjust braking force
- This product works with Brake rack

#### Brake Rack

**■ Material/Technical Data**  
**Material :** Frame : Aluminum Extrude  
 Rack : Resin  
**Weight :** 233 g  
**■ Product included**  
 Spacer for Brake Rack ×2  
 Brake Rack ×1  
 S Easy Nut L (M4)×2  
 Hexagon socket head cap screw M4-22  
 (Stainless)×2

Name	Brake Rack Kit
Item No.	GFK-915

### Example of installation of brake device



※For both direction, downward and upward, need 2 devices. One is use as "Elevation Brake" to go upward and the other as "Descent Brake" for downward (For 1 direction need 1 device)

- Frame
- Connector
- Foot Component
- Panel Board
- Moving Part
- Corocon
- Door Part
- Accessory



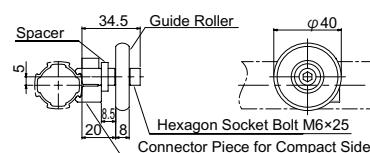
## GF-N Moving Part

### Guide Roller GF Mounting Kit



- This is a guide roller with bearings.
- By being mounted on the shooter, this roller is able to align the work and carry it smoothly to the shooter.

GF Mounting Kit



## ■ Material/Technical Data

**Material :** Guide Roller : Resin  
Spacer : Stainless Steel  
Bolt : Iron  
Connector Piece : Aluminum Extrusion

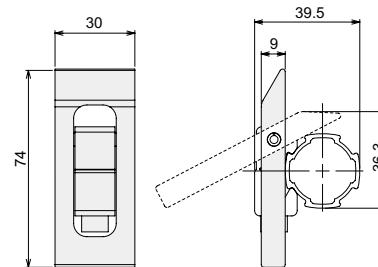
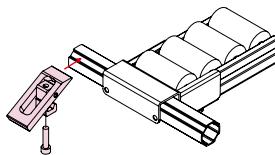
**Weight :** GF : 41 g

## ■ Kit Details

GF: guide roller unit, spacer, hexagon socket bolt M6 x 25, connector piece for compact side 1 each

Name	Guide Roller GF Mounting Kit
Item No.	GFK-N16

### Conveyor Anti Back



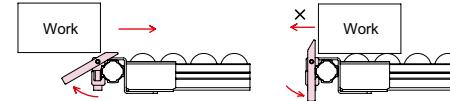
## ■ Material/Technical Data

**Material :** Body : Aluminum Extrude  
Bolt : Steel  
Fulcrum Pin : Stainless

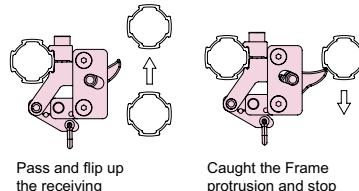
**Weight :** 52.1 g**Environment :** RoHS Compliant

- When work flow from one direction, this structure will lock the movement not to go opposite direction
- Load Capacity : 200 N

Name	Conveyor Anti Back
Item No.	GFK-N05



### Elevator Lock



## ■ Material/Technical Data

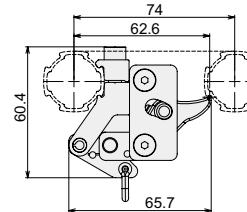
**Material :** Body : Aluminum Extrude  
Stainless

Receiving : Nylon6

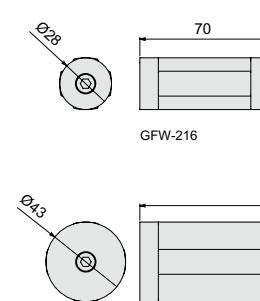
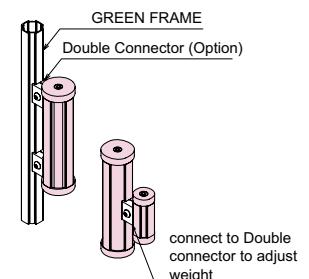
**Weight :** 134 g**Environment :** RoHS Compliant

- This part keeps the position of the table when rise and descent vertically.
- To control wire and possible to unlock
- Load Capacity : 200 N

Name	Elevator Lock
Item No.	GFK-N06



### Weight Frame



## ■ Material/Technical Data

**Material :** Aluminum Extrude  
Core : Steel  
Receiving : Nylon6

**Weight :** 200 g (0.2 kg)

500 g (0.5 kg)

1000 g (1 kg)

2000 g (2 kg)

**Environment :** RoHS Compliant

- Counterweight in GF Frame Shape
- Double Connector allows Frame or Weight Frame connect together.

Name	Weight Frame			
	0.2 kg	0.5 kg	1.0 kg	2.0 kg
Item No.	GFW-216	GFW-219	GFW-220	GFW-222
L (mm)	70	83	156	302

GFW-219/GFW-220/GFW-222



## Order Method

Item No. or Product Name No. of Piece.

**GFK-N16** □□ pcs.

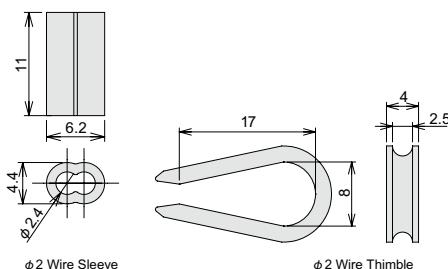
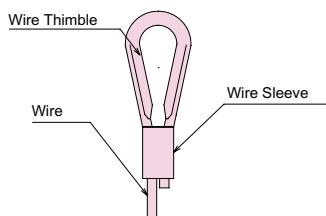
→ P.165

## GF-N Moving Part

### $\phi$ 2Wire $\phi$ 2Wire Sleeve $\phi$ 2Wire Thimble



- $\phi$  2 Wire Crimping part ( $\phi$ 2 Wire Sleeve (30 pcs./pack))
- Protection part of wire connection ( $\phi$  2 Wire Thimble)

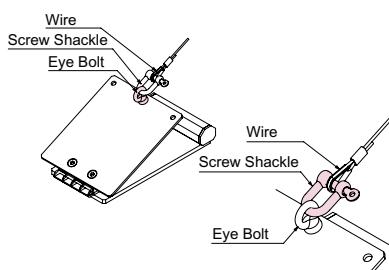


Name	$\phi$ 2 Wire 10m	$\phi$ 2 Wire 20m	$\phi$ 2 Wire Sleeve (30 pcs./pack)	$\phi$ 2 Wire Thimble
Item No.	GFW-250	GFW-251	GFW-224	GFW-225

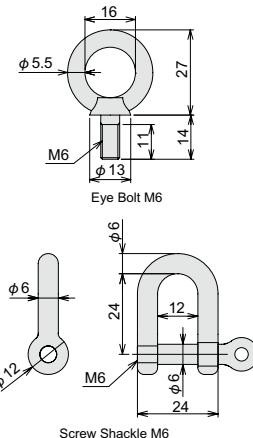
**■Material/Technical Data**  
**Material :** Stainless    Aluminum    Stainless  
**Weight :** 20 g/m    1 g    1 g  
**Environment :** RoHS Compliant

- $\phi$  2 Do not apply tensile strength more than 50 Kg to the wire
- Cut off wire end/Wire Length from factory is slightly longer than the length above
- Using Wire Cutter or Swaging tool to cut wire or crimp sleeve

### Eye Bolt M6/Screw Shackle M6

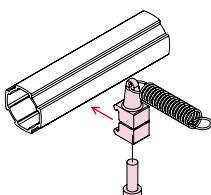


Name	Eye Bolt M6	Screw Shackle M6
Item No.	GFW-247	GFW-246



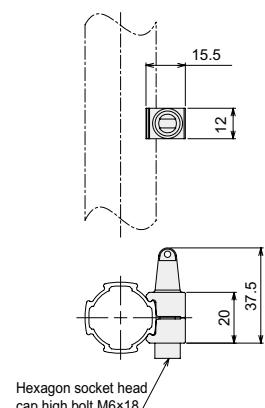
**■Material/Technical Data**  
**Material :** Stainless  
**Weight :** 16 g (Eye Bolt M6)  
23 g (Screw Shackle M6)  
**Environment :** RoHS Compliant

### Spring Post Connector



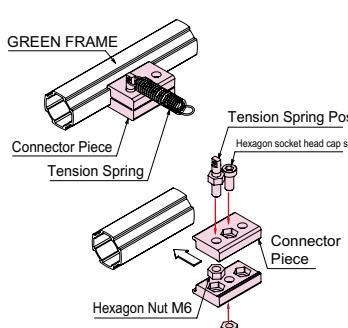
- Spring Post Connector, installed to Spring post and Frame, is an integral part in a compact size.

Name	Spring Post Connector
Item No.	GFJ-B10

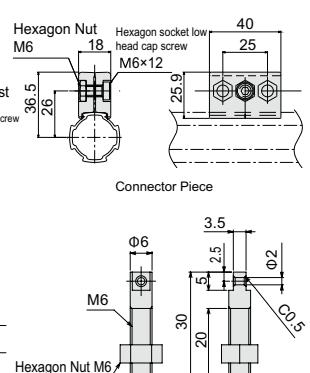


**■Material/Technical Data**  
**Material :** Hook : Stainless  
Fix : Aluminum Extrude  
Bolt : Steel  
**Weight :** 24 g  
**Environment :** RoHS Compliant

### Tension Spring Post

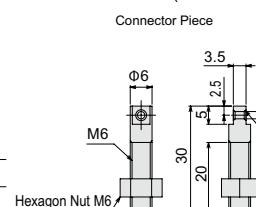


Name	Tension Spring Post Kit	Tension Spring Post
Item No.	GFK-913	GFW-240



**■Material/Technical Data**  
**Material :** Post Tension Spring : Steel  
Connector Piece : Aluminum Diecast Hexagon Nut : Steel  
**Weight :** 16 g (M6) 53 g (Kit)

**■Kit Details**  
Connector Piece L (Single)×2  
Tension Spring Post×1  
Hexagon Nut M6 (1Type)  
Trivalent Chromium Plating×2  
Hexagon Nut M6 (3Type)  
Trivalent Chromium Plating×1  
Hexagon socket low head cap screw M6×12  
Trivalent Chromium Plating×1



Tension Spring Post

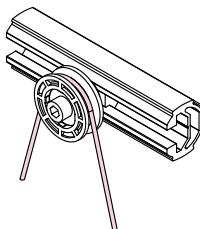


## GF-N Moving Part

φ2 Fishing Gut Wire 5m  
φ2 Fishing Gut Wire 20m



• Gut wire provides greater toughness while bent



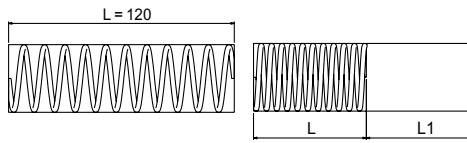
■ Material/Technical Data  
Material : Polyester fiber

Name	φ2 Fishing Gut Wire 5m	φ2 Fishing Gut Wire 20m
Item No.	GFW-422	GFW-424

## Compression Spring (120-1.0/1.2/1.5)



• A GF-N Frame with an external dimension of 28 mm can be passed through the center of this compression spring.  
Can be combined to absorb shock, position, or lock.



L : Fully Compressed Length  
L1 : Maximum Shrinkage

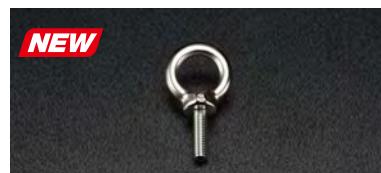
■ Material/Technical Data  
Material : Iron  
Environment : RoHS Compliant

Name	Compression Spring	Compression Spring	Compression Spring
	120-1.0	120-1.2	120-1.5
Item No.	GFW-458	GFW-459	GFW-460

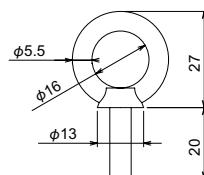
### ■ Spring Specifications

Name	Item No.	Load Rate (N/mm)	Maximum Load (N)	Fully Compressed Length (mm)	Maximum Shrinkage (mm)	Wire Diameter (φ)	Outer Diameter (φ)	Inner Diameter (φ)	Weight (g)
120-1.0	GFW-458	1.0	83.6	36.4	83.6				58
120-1.2	GFW-459	1.2	106.5	31.2	88.8	2.6	36	30.8	50
120-1.5	GFW-460	1.5	141	26	94				41

## Long Eye Bolt M6×20 (Stainless)



• This long eye bolt has a longer screw part than Eye Bolt M6 (GFW-247). It can be mounted on the weight frame.



■ Material/Technical Data  
Material : Stainless  
Weight : 20g  
Environment : RoHS Compliant

Name	Long Eye Bolt M6×20 (Stainless)	
Item No.	GFW-455	



### Order Method

Item No. or Product Name No. of Piece.

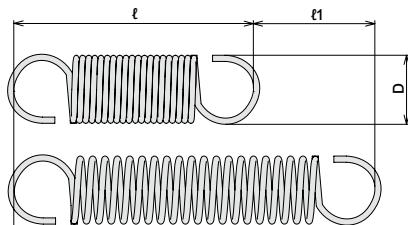
**GFW-422 □□ pcs.**

→ P.165

# GF-N Moving Part

GF-N  
28 mm

## Tension Spring



Name	Light load (Guideline for Spring Constant 0.1 N/mm) (Guideline for maximum load 10~21N)			Middle load (Guideline for Spring Constant 0.3~0.45 N/mm) (Guideline for maximum load 20~45N)			Heavy load (Guideline for Spring Constant 0.7~0.9 N/mm) (Guideline for maximum load 28~73N)		
	Tension Spring Light S	Tension Spring Light M	Tension Spring Light L	Tension Spring Middle S	Tension Spring Middle M	Tension Spring Middle L	Tension Spring Hard S	Tension Spring Hard M	Tension Spring Hard L
Item No.	GFW-252	GFW-253	GFW-254	GFW-255	GFW-256	GFW-257	GFW-258	GFW-259	GFW-260

■ Spring Specification Table

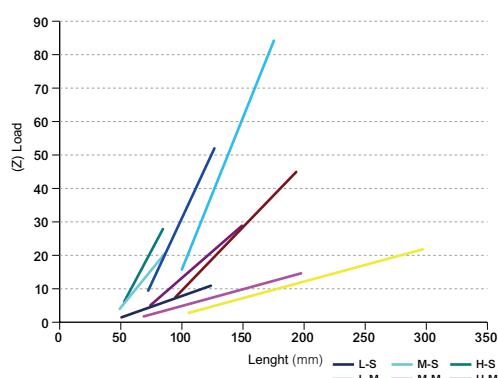
Name	D	l	Wire Diameter (mm)	In case of dynamic load		l + l1	Initial Tension (N)	Spring Constant (N/mm)	Weight (g)	Material
				Maximum Elongation amount (mm)	maximum load (N)					
Light Load	Light S	10	51	0.8	73.9	10.88	124.9	1.47	0.127	SWP-A
	Light M	14	70	1	128.5	14.67	198.5	1.8	0.1	
	Light L	16	106	1.2	192.2	21.85	298.2	2.88	0.099	
	Middle S	8	50	0.9	36.2	20.41	86.2	3.95	0.455	
	Middle M	12.5	75	1.2	75.3	28.96	150.3	4.93	0.319	
	Middle L	18	95	1.6	99.8	45.16	194.8	7.4	0.378	
	Hard S	8	54	1	30.3	28.08	84.3	6.2	0.723	
Middle Load	Hard M	16	73	1.6	54	51.83	127	9.6	0.782	29
	Hard L	16	100	1.8	64	73.9	173.9	15.8	0.91	62

● Maximum elongation (Fmax(mm)) refers below when excess maximum elongation amount, it will cause of deform or damage. ● If use in the environment that has temperature more than 40°C , the load value may decay. (1N ≈ 0.102kgf)

● Initial Tension : load of tension spring at the first stretch   ● Spring Constant :  $\frac{\text{Load (N)}}{\text{Elongation amount (mm)}}$

## Guideline to choose tension spring

### Tension Spring load and total length



### Selection of Condition

- 1.Slightly shorter than installed dimension
- 2.In a load condition is within the maximum of elongation
- 3.Assumption load is under maximum load
- 4.Calculated load by below formula is smaller than assumption load

$$\text{Load (N)} = \text{Initial Tension (N)} + (\text{Elongation amount} \times \text{Spring Constant})$$

### Example of Selection

Install Dimension (Before Movement) length 80 mm

Pull at 20 N

Slightly shorter

Middle M (75 mm) • Hard M (73 mm)

Dimension of Load Condition (After movement) 110 mm

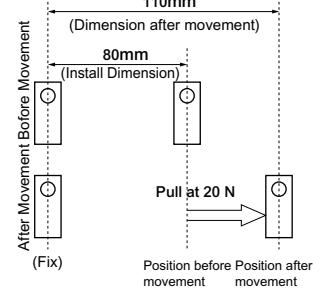
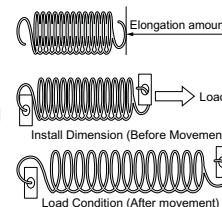
Elongation Judgement  
Maximum Elongation amount

Middle M : 110 mm - 75 mm = 35 mm < 75.3 OK  
Hard M : 110 mm - 73 mm = 37 mm < 54 OK

Load Judgement

Initial Tension Elongation amount Spring Constant  
Middle M : 4.93 + (35 × 0.319) = 16.095 N < 20 N OK  
Hard M : 9.6 + (37 × 0.782) = 38.534 N > 20 N NG

Therefore Middle M Type Chose spring



Frame

Connector

Foot Component

Panel Board

Moving Part

Corocon

Door Part

Accessory

3D Drawing Support Software  
→ P.10

Design Support Service  
→ P.10

Assembled Delivery Service  
→ P.11

Application Seminar  
→ P.11

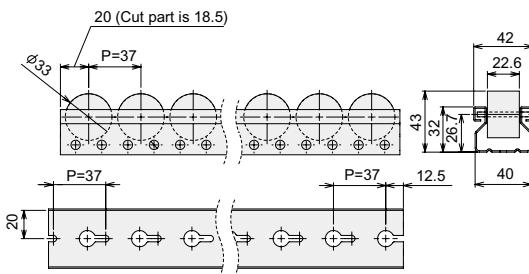


## GF-N Corocon

### Corocon 3323P37



- Wheel make from High Density Polyethylene
- Wheel pitch of Corocon is 37 mm which provide an excellent cost performance



**■ Material/Technical Data**  
**Material :** Frame : Steel  
**Wheel :** High Density Polyethylene  
**Pin :** Steel  
**Weight :** 1.4 kg/m  
**Environment :** RoHS Compliant

- Cut part in unit of 37 mm
- Corocon Economy Type has changed spec and its name to 「Corocon3323P37」

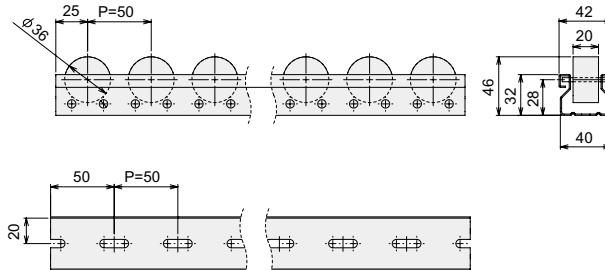


**■ Compatible corocon hook (P77~)**  
Corocon Hook A (GFC-247)  
Corocon Hook B (GFC-248)  
Corocon Hook C (GFC-249)  
Corocon Hook D (GFC-250)  
Corocon Hook (Aluminum) (GFC-200)

### Corocon 3620P50



- Wheel make from High Density Polyethylene
- Wheel pitch is corocon 50 mm



**■ Material/Technical Data**  
**Material :** Frame : Steel  
**Wheel :** Polypropylene  
**Pin :** Stainless  
**Weight :** 1.23 kg/m  
**Environment :** RoHS Product

- Please order Cut part in unit of 50 mm
- At this time use the name as "Corocon" but the name will change when expand the line up

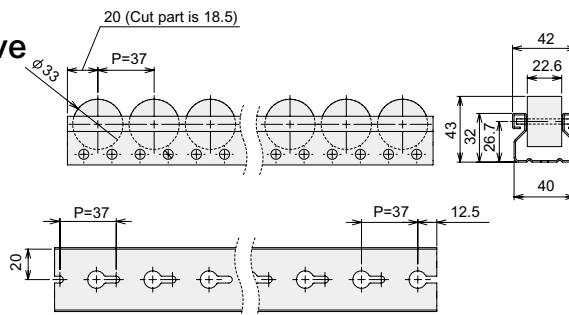


**■ Compatible corocon hook (P77~)**  
Corocon Hook A (GFC-247)  
Corocon Hook B (GFC-248)  
Corocon Hook C (GFC-249)  
Corocon Hook D (GFC-250)  
Corocon Hook (Aluminum) (GFC-200)

### Corocon 3323P37 Conductive



- Corocon 3323P37 Conductivity type



**■ Material/Technical Data**  
**Material :** Frame : Steel  
**Wheel :** Conductive Polypropylene  
**Pin :** Steel  
**Weight :** 1.4 kg/m  
**Environment :** RoHS Compliant  
**Approx. resistance :**  $10^4\text{--}10^6\Omega$   
(Conductivity level)

- Cut part in unit of 37 mm
- Both end on Hook use either corocon conductive hook A or corocon conductive hook B



**■ Compatible corocon hook (P77)**  
Corocon Hook C (GFC-249)  
Corocon Hook D (GFC-250)

Name	Corocon 3323P37 Conductive
	L=3000mm
Item No.	<b>GFC-032</b>



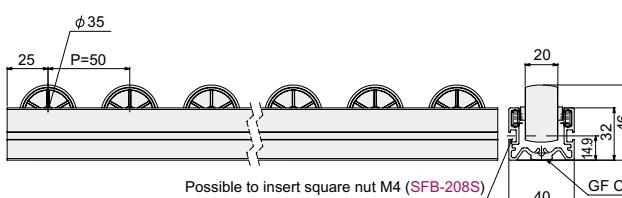
#### Order Method

Item No. or Product Name No. of Piece.

**GFC-027** □□ pcs.

## GF-N Corocon

### Aluminum Corocon 3520P50



**■ Material/Technical Data**  
**Material :** Frame : Aluminum Extrude  
 Wheel : High Density Polyethylene  
 Pin : Stainless  
**Weight :** 1.00kg/m  
**Environment :** RoHS Compliant  
 ● Please order cut part in unit of 50 mm

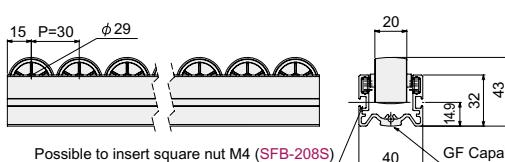
- Increase the slide performance and quiet
- As its structure fits for handling the resin pin, so it's hard for metallic powder to escape
- Wheel pitch is 50 mm corocon

Name	Aluminum Corocon 3520P50
	L=3000mm
Item No.	<b>GFC-046</b>

**■ Compatible Corocon Hook (P77~)**  
 Corocon Hook A (GFC-247)  
 Corocon Hook B (GFC-248)  
 Corocon Hook C (GFC-249)  
 Corocon Hook D (GFC-250)  
 Hook for Aluminum Corocon (Aluminum) (GFC-229)



### Aluminum Corocon 2920P30



**■ Material/Technical Data**  
**Material :** Frame : Aluminum Extrude  
 Wheel : High Density Polyethylene  
 Pin : Stainless  
**Weight :** 1.08kg/m  
**Environment :** RoHS Compliant  
 ● Please order cut part in unit of 30 mm

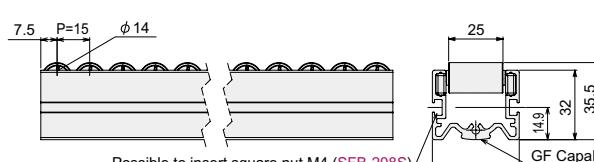
- This corocon enhances the slide performance and quiet
- As its structure fits for handling the resin pin, so it's hard for metallic powder to escape
- Wheel pitch is 30 mm corocon

Name	Aluminum Corocon 2920P30
	L=3000mm
Item No.	<b>GFC-042</b>

**■ Compatible Corocon Hook (P77~)**  
 Corocon Hook A (GFC-247)  
 Corocon Hook B (GFC-248)  
 Corocon Hook C (GFC-249)  
 Corocon Hook D (GFC-250)  
 Hook for Aluminum Corocon (Aluminum) (GFC-229)



### Aluminum Corocon 1425P15

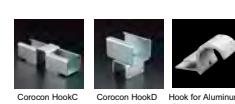


**■ Material/Technical Data**  
**Material :** Frame : Aluminum Extrude  
 Wheel : High Density Polyethylene  
 Pin : Stainless  
**Weight :** 1.10kg/m  
**Environment :** RoHS Compliant  
 ● Please order cut part in unit of 15 mm

- This corocon enhances the slide performance and quiet
- As its structure fits for handling the resin pin, so it's hard for metallic powder to escape
- Wheel pitch is 15 mm corocon

Name	Aluminum Corocon 1425P15
	L=3000mm
Item No.	<b>GFC-038</b>

**■ Compatible Corocon Hook (P77~)**  
 Corocon Hook C (GFC-249)  
 Corocon Hook D (GFC-250)  
 Hook for Aluminum Corocon (Aluminum) (GFC-229)



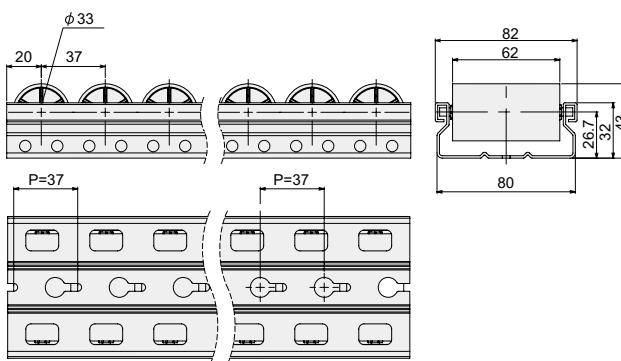


## GF-N Corocon

### Corocon Wide



- Corocon Wide Type
- Wheel pitch is 37 mm corocon

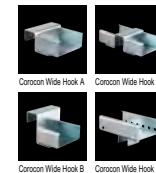


**■ Material/Technical Data**  
**Material :** Frame : Chrome Free Melting Gravanzied Steel  
 Wheel : High Density Polyethylene  
 Pin : SPCC  
**Weight :** 2.15kg/m  
**Environment :** RoHS Compliant

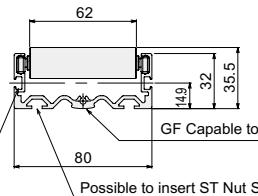
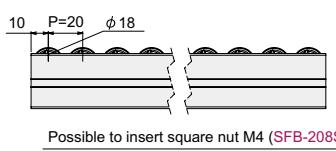
● Please order cut part in unit of 37 mm

Name	Corocon Wide
	L=3000mm
Item No.	<b>GFC-022</b>

**■ Compatible Corocon Hook (P79~)**  
 Corocon Wide Hook A ([GFC-218](#))  
 Corocon Wide Hook B ([GFC-219](#))  
 Corocon Wide Hook C ([GFC-220](#))  
 Corocon Wide Hook D ([GFC-221](#))



### Aluminum Corocon Wide 1862P20



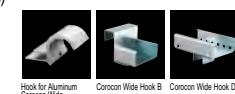
**■ Material/Technical Data**  
**Material :** Frame : Aluminum Extrude  
 Wheel : High Density Polyethylene  
 Pin : Stainless  
**Weight :** 2.21kg/m  
**Environment :** RoHS Compliant

● Please order cut part in unit of 20 mm

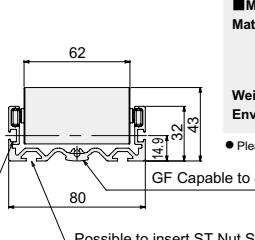
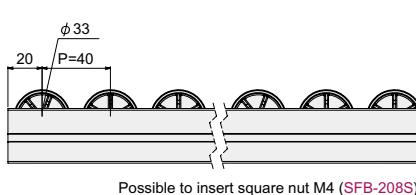
- Corocon Wide enhance the slide performance and quiet
- As its structure tis for handling the resin pin, so it hard for metalic powder to escape

Name	Aluminum Corocon Wide 1862P20
	L=3000mm
Item No.	<b>GFC-060</b>

**■ Compatible Corocon Hook (P79~)**  
 Corocon Wide Hook B ([GFC-219](#))  
 Corocon Wide Hook D ([GFC-221](#))  
 Hook for Aluminum Corocon Wide (Aluminum) ([GFC-230](#))



### Aluminum Corocon Wide 3362P40



**■ Material/Technical Data**  
**Material :** Frame : Aluminum Extrude  
 Wheel : High Density Polyethylene  
 Pin : Stainless  
**Weight :** 2.07kg/m  
**Environment :** RoHS Compliant

● Please order cut part in unit of 40 mm

- Corocon Wide enhance the slide performance and quiet
- As its structure tis for handling the resin pin, so it hard for metalic powder to escape

Name	Aluminum Corocon Wide 3362P40
	L=3000mm
Item No.	<b>GFC-062</b>

**■ Compatible Corocon Hook (P79~)**  
 Corocon Wide Hook A ([GFC-218](#))  
 Corocon Wide Hook B ([GFC-219](#))  
 Corocon Wide Hook C ([GFC-220](#))  
 Corocon Wide Hook D ([GFC-221](#))  
 Hook for Aluminum Corocon Wide (Aluminum) ([GFC-230](#))



#### Order Method

Item No. or Product Name No. of Piece.

**GFC-022** □□ pcs.

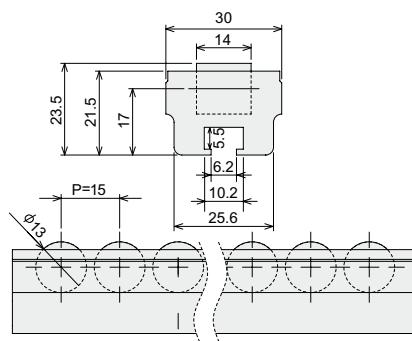
→ P.165

## GF-N Corocon

### Mini Corocon



• Wheel pitch is corocon that compatible to small type work of 15 mm



■ Material/Technical Data  
**Material :** Frame : Aluminum Extrude  
**Wheel :** ABS  
**Weight :** 0.63 kg/m  
**Environment :** RoHS Compliant

● Please order cut part in unit of 15 mm

Name	Mini Corocon	
	L=1000mm	L=2000mm
Item No.	<b>GFC-004</b>	<b>GFC-005</b>

■ Compatible corocon hook (P80)  
 for small pitch Corocon Hook End (GFC-217)  
 for small pitch Corocon Hook middle (GFC-201)

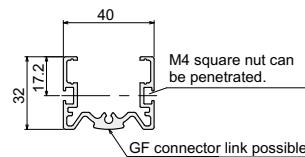
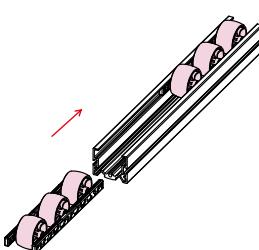


for small pitch Corocon for small pitch Corocon  
Hook End End Hook Middle

### Aluminum Corocon Frame



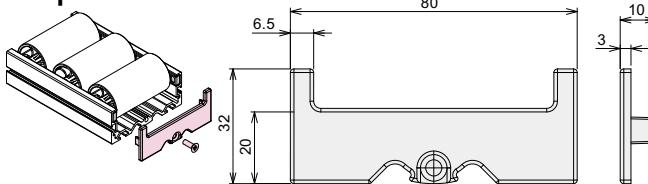
• Corocon Wide Conductive Type



■ Material/Technical Data  
**Material :** Extruded Aluminum  
**Weight :** 0.74 kg/m  
**Environment :** RoHS Compliant

Name	Aluminum Corocon Frame L=100~3000mm
Item No.	<b>GFC-050</b>

### Aluminum Corocon Wide Cap



■ Material/Technical Data  
**Material :** Resin  
**Weight :** 6 kg/m  
**Environment :** RoHS Compliant

■ Material/Technical Data  
 Aluminum Corocon Wide 1862P20 (GFC-060)  
 Aluminum Corocon Wide 3362P40 (GFC-062)

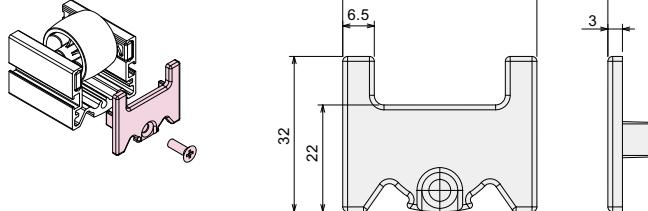


Aluminum Corocon  
Wide 1862P20      Aluminum Corocon  
Wide 3362P40

Name	Aluminum Corocon Wide Cap
Item No.	<b>GFK-A05</b>

■ Compatible corocon (P74)  
 Aluminum Corocon Wide 1862P20 (GFC-060)  
 Aluminum Corocon Wide 3362P40 (GFC-062)

### Aluminum Corocon Cap



■ Material/Technical Data  
**Material :** Resin  
**Weight :** 4 kg/m  
**Environment :** RoHS Compliant

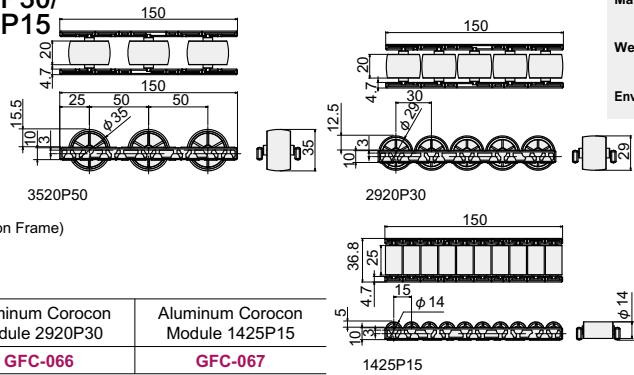
■ Material/Technical Data  
 Aluminum Corocon Capx1  
 Cross Recessed Flat Head  
 Tapping screw M4×12(Stainless)x1

Name	Aluminum Corocon Cap
Item No.	<b>GFK-A04</b>



## GF-N Corocon

Aluminum Corocon Module 3520P50/  
Aluminum Corocon Module 2920P30/  
Aluminum Corocon Module 1425P15

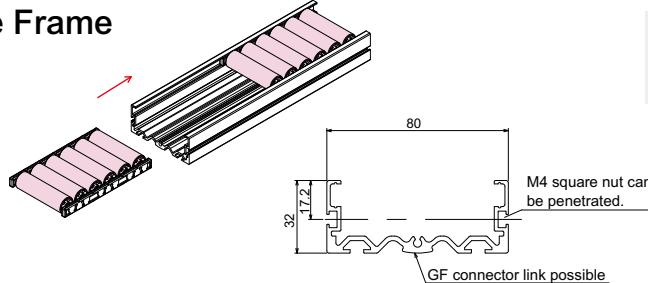


**■ Material/Technical Data**  
**Material :** Support : Polycetal  
 Wheel : High Density Polyethylene  
 Pin : Stainless  
**Weight :** 3520P50:48g  
 2920P30:44g  
 1425P15:53g  
**Environment :** RoHS Compliant

- Components for Corocon (inserted into the Aluminum Corocon Frame)
- Easy to change to new modules while under maintenance

Name	Aluminum Corocon Module 3520P50	Aluminum Corocon Module 2920P30	Aluminum Corocon Module 1425P15
Item No.	<b>GFC-065</b>	<b>GFC-066</b>	<b>GFC-067</b>

## Aluminum Corocon Wide Frame

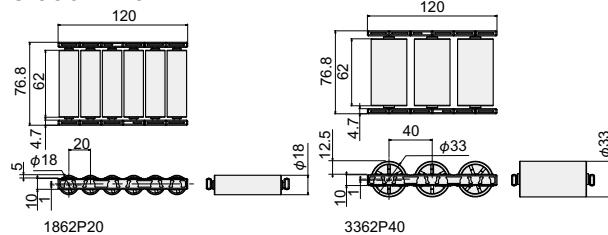


**■ Material/Technical Data**  
**Material :** Extruded Aluminium  
**Weight :** 1.17 kg/m  
**Environment :** RoHS Compliant

- Body frame for Aluminum Corocon Wide Module

Name	Aluminum Corocon Wide Frame L=100~3000mm
Item No.	<b>GFC-059</b>

## Aluminum Corocon Wide Module 1862P20/ Aluminum Corocon Wide Module 3362P40



**■ Material/Technical Data**  
**Material :** Support : Polycetal  
 Wheel : High Density Polyethylene  
 Pin : Stainless  
 Extruded Aluminium(Wide Frame)  
**Weight :** 126g(1862P20)  
 106g(3362P40)  
**Environment :** RoHS Compliant

- Components for Corocon (inserted into the Aluminum Corocon Frame)
- Easy to change to new modules while under maintenance

Name	Aluminum Corocon Wide Module 1862P20	Aluminum Corocon Wide Module 3362P40
Item No.	<b>GFC-068</b>	<b>GFC-069</b>



### Order Method

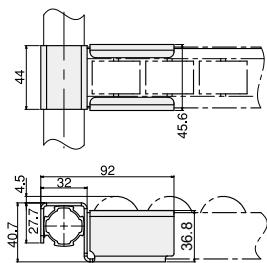
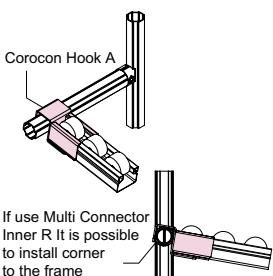
Item No. or Product Name No. of Piece.

**GFC-065** □□ pcs.

→ P.165

## GF-N Corocon

### Corocon Hook A



■ Material/Technical Data  
Material : SPHC  
Weight : 170g  
Environment : RoHS Compliant

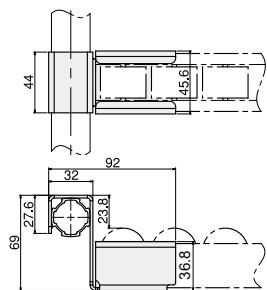
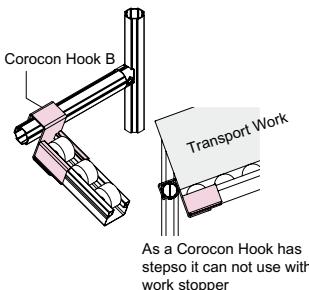
- This product has trivalent Unichrome plating, the color tone may slightly differ due to its nature but there is no effect to the quality



Name	Corocon Hook A
Item No.	GFC-247

■ Target Corocon (P72~)  
Corocon 3323P37 (GFC-027)  
Corocon 3620P50 (GFC-001)  
Aluminum Corocon 3520P50 (GFC-046)  
Aluminum Corocon 2920P30 (GFC-042)

### Corocon Hook B



■ Material/Technical Data  
Material : SPHC  
Weight : 191g  
Environment : RoHS Compliant

- This product has trivalent Unichrome plating, the color tone may slightly differ due to its nature but there is no effect to the quality

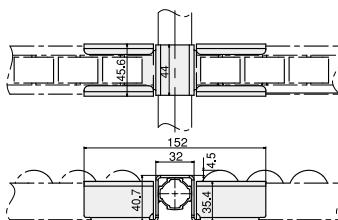
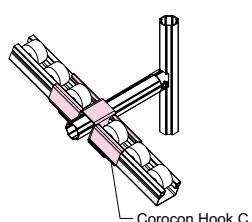


- Frame with a hook can combine with stopper

Name	Corocon Hook B
Item No.	GFC-248

■ Target Corocon (P72~)  
Corocon 3323P37 (GFC-027)  
Corocon 3620P50 (GFC-001)  
Aluminum Corocon 3520P50 (GFC-046)  
Aluminum Corocon 2920P30 (GFC-042)

### Corocon Hook C



■ Material/Technical Data  
Material : SPHC  
Weight : 281g  
Environment : RoHS Compliant

- This product has trivalent Unichrome plating, the color tone may slightly differ due to its nature but there is no effect to the quality

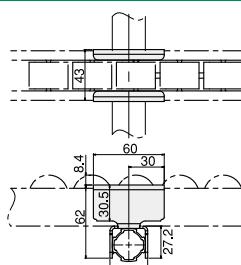
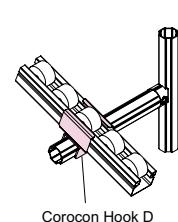


- Apply Corocon by hold between Green Frame

Name	Corocon Hook C
Item No.	GFC-249

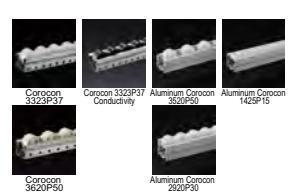
■ Target Corocon (P72~)  
Corocon 3323P37 (GFC-027)  
Corocon 3620P50 (GFC-001)  
Corocon 3323P37 Conductivity (GFC-032)  
Aluminum Corocon 3520P50 (GFC-046)  
Aluminum Corocon 2920P30 (GFC-042)

### Corocon Hook D



■ Material/Technical Data  
Material : SPHC  
Weight : 119g  
Environment : RoHS Compliant

- This product has trivalent Unichrome plating, the color tone may slightly differ due to its nature but there is no effect to the quality



- This hook connect to Support Frame passing the bottom of Corocon

Name	Corocon Hook D
Item No.	GFC-250

■ Target Corocon (P72~)  
Corocon 3323P37 (GFC-027)  
Corocon 3620P50 (GFC-001)  
Corocon 3323P37 Conductivity (GFC-032)  
Aluminum Corocon 3520P50 (GFC-042)  
Aluminum Corocon 2920P30 (GFC-038)  
Aluminum Corocon 1425P15 (GFC-046)

- Frame  
Connector  
Foot Component  
Panel Board  
Moving Part  
Corocon  
Door Part  
Accessory

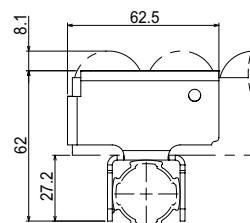
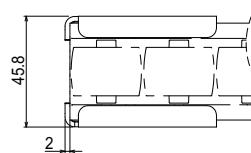


## GF-N Corocon

### Corocon Hook E



• This hook is installed on top of the Green Frame. It is bent to prevent it falling out, so a roller conveyor can be mounted all the way to the end of the hook.



■ Material/Technical Data  
Material : SPHC  
Weight : 123 g  
Environment : RoHS Compliant

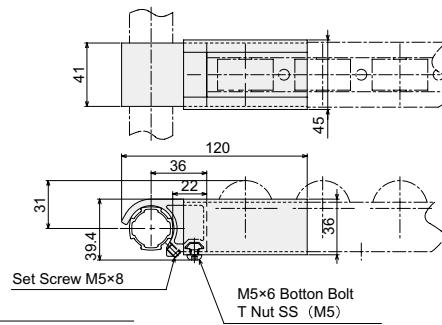
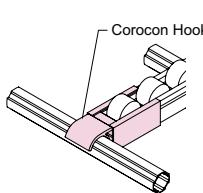


Corocon 3323P37      Corocon 3620P50  
Aluminum Corocon 3520P50      Aluminum Corocon 2920P30

### Corocon Hook



• Corocon Hook Aluminum Type



■ Material/Technical Data  
Material : Aluminum Extrude  
Weight : 107 g  
Environment : RoHS Compliant

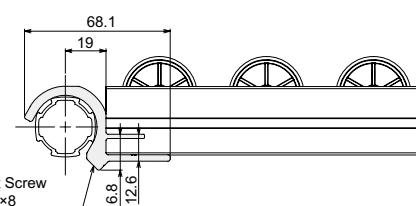
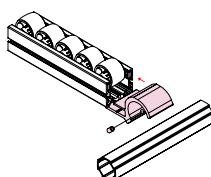


Corocon 3323P37      Corocon 3620P50

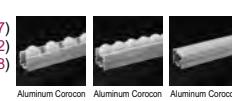
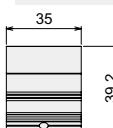
### Aluminum Corocon Hook (Aluminum Type)



• Hook for Aluminum Corocon Aluminum Type



■ Material/Technical Data  
Material : Aluminum Extrude  
Weight : 56 g  
Environment : RoHS Compliant



Aluminum Corocon 3520P50      Aluminum Corocon 2920P30      Aluminum Corocon 1425P15

Name	Aluminum Corocon Hook (Aluminum Type)
Item No.	<b>GFC-229</b>

#### ■ Target Corocon (P73)

Aluminum Corocon 3520P50 (**GFC-027**)  
Aluminum Corocon 2920P30 (**GFC-042**)  
Aluminum Corocon 1425P15 (**GFC-038**)



#### Order Method

Item No. or Product Name    No. of Piece.

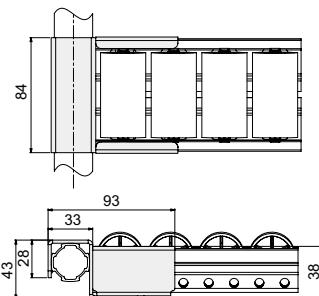
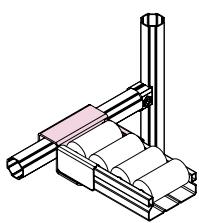
**GFC-255**    □□ pcs.

## GF-N Corocon

### Corocon Wide Hook A

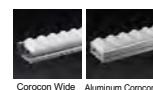


● Hook for Corocon Wide A



■ Material/Technical Data  
Material : SPHC  
Weight : 316 g  
Environment : RoHS Compliant

- This product has Trivalent Unichrome Plating, the color may slightly different due to its nature but there is no effect to the quality

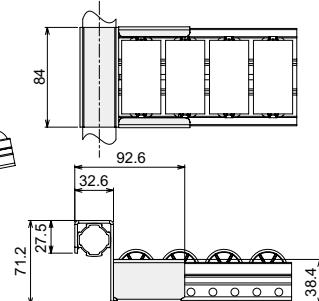
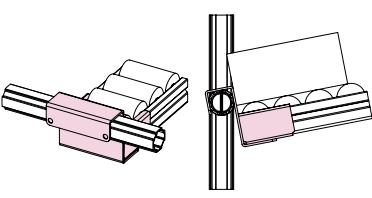


Corocon Wide      Aluminum Corocon Wide 3362P40

### Corocon Wide Hook B



● Hook for Corocon Wide B



■ Material/Technical Data  
Material : SPHC  
Weight : 358 g  
Environment : RoHS Compliant

- This product has Trivalent Unichrome Plating, the color may slightly different due to its nature but there is no effect to the quality

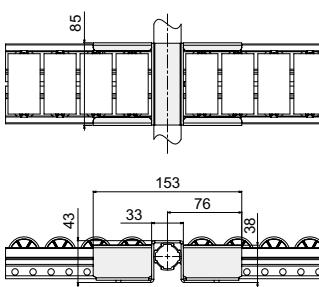
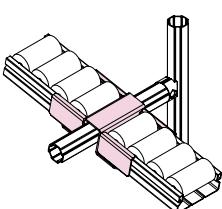


Corocon Wide      Aluminum Corocon Wide 1862P20      Aluminum Corocon Wide 3362P40

### Corocon Wide Hook C

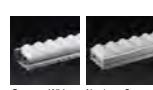


● Hook for Corocon Wide C



■ Material/Technical Data  
Material : SPHC  
Weight : 506 g  
Environment : RoHS Compliant

- This product has Trivalent Unichrome Plating, the color may slightly different due to its nature but there is no effect to the quality

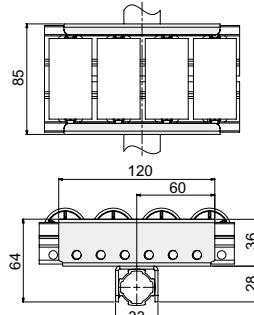
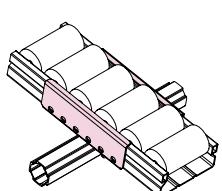


Corocon Wide      Aluminum Corocon Wide 3362P40

### Corocon Wide Hook D

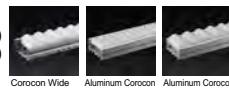


● Hook for Corocon Wide D



■ Material/Technical Data  
Material : SPHC  
Weight : 295 g  
Environment : RoHS Compliant

- This product has Trivalent Unichrome Plating, the color may slightly different due to its nature but there is no effect to the quality



Corocon Wide      Aluminum Corocon Wide 1862P20      Aluminum Corocon Wide 3362P40

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

GF Motion

Technical Data

Frame

Connector

Foot Component

Panel Board

Moving Part

Corocon

Door Part

Accessory

Name	Corocon Wide Hook D
Item No.	GFC-221

■ Target Corocon (P74)  
Corocon Wide (GFC-022)  
Aluminum Corocon Wide 1862P20 (GFC-060)  
Aluminum Corocon Wide 3362P40 (GFC-062)



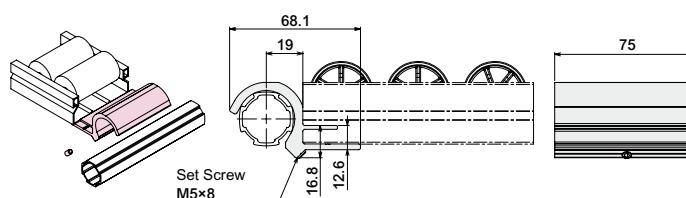


## GF-N Corocon

### Aluminum Corocon Wide Hook (Aluminum Type)



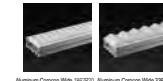
• Hook for Aluminum Corocon Wide of Aluminum type.



**■ Material/Technical Data**  
Material : Aluminum Extrude  
Weight : 119 g  
Environment : RoHS Compliant

Name	Aluminum Corocon Wide Hook (Aluminum Type)
Item No.	GFC-230

**■ Target Corocon (P74)**  
Aluminum Corocon Wide 1862P20 (GFC-060)  
Aluminum Corocon Wide 3362P40 (GFC-062)

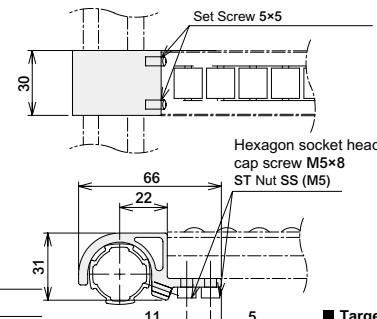
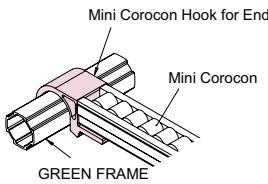


Aluminum Corocon Wide 1862P20 Aluminum Corocon Wide 3362P40

### Mini Corocon Hook for End



• It is a hook to install at the end of Mini corocon.



**■ Material/Technical Data**  
Material : Aluminum Extrude  
Nut, Bolt : Stainless  
Weight : 48 g

**■ Product included**  
ST Nut SS (M5)×2  
Hexagon socket head cap screw M5x8 (Stainless)×2  
Set Screw M5X5 (Stainless)×2  
Small pitch Corocon Hook end×1

Name	Mini Corocon Hook for End
Item No.	GFC-217

**■ Target Corocon (P75)**  
Small pitch Corocon (GFC-004)

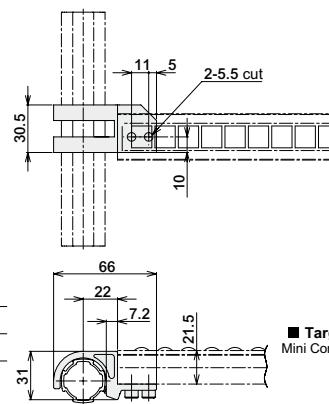
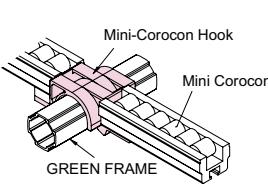


Mini Corocon

### Mini Corocon Hook



• Connect Corocon by holding in between Green Frame.



**■ Material/Technical Data**  
Material : Aluminum Extrude  
Nut, Bolt : Stainless  
Weight : 48 g  
Environment : RoHS Compliant

**■ Product included**  
ST Nut SS (M5)×2  
Hexagon socket head cap screw M5x8 (Stainless)×2  
Set Screw M5X5 (Stainless)×2  
Small pitch Corocon Hook (Price)×1

Name	Mini Corocon Hook
Item No.	GFC-201

**■ Target Corocon (P75)**  
Mini Corocon (GFC-004)



Mini Corocon



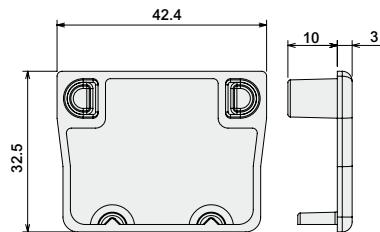
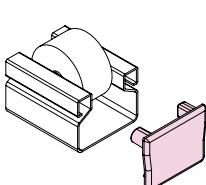
#### Order Method

Item No. or Product Name No. of Piece.

**GFC-230** □□ pcs.

## GF-N Corocon

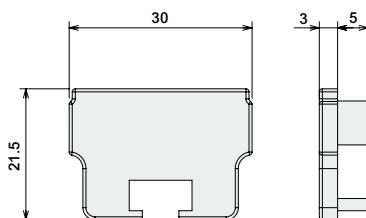
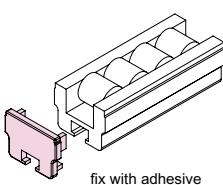
### Corocon End Cap



■ Material/Technical Data  
Material : Nylon  
Weight : 5 g  
Environment : RoHS Compliant

Name	Corocon End Cap
Item No.	GFC-226

### Mini Corocon End Cap



■ Material/Technical Data  
Material : Resin  
Weight : 2 g  
Environment : RoHS Compliant

- Use when cut small pitch corocon at customer site.

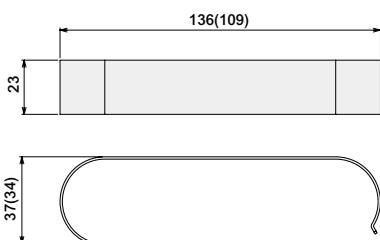
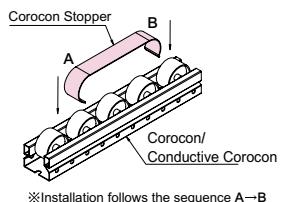
Name	Mini Corocon End Cap
Item No.	GFC-A03

■ Target Corocon (P75)  
Mini Corocon (GFC-004)



Mini corocon

### Corocon Stopper



■ Material/Technical Data  
Material : SUS304-CP  
Weight : 35 g  
Environment : RoHS Compliant

( ) is for Corocon Stopper P37



Corocon 3620P50



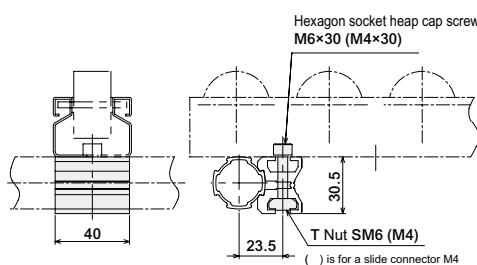
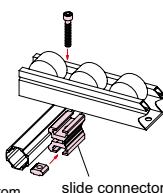
Corocon 3323P37 Corocon 3323P37 Conductivity

- To control the sliding of the work and reduce speed.

Name	Corocon Stopper	Corocon Stopper P37
Item No.	GFC-A02	GFC-A12

■ Target Corocon (P72)  
GFC-A02  
Corocon 3620P50 (GFC-001)  
GFC-A12  
Corocon 3323P37 (GFC-027)  
Corocon 3323P37 Conductive (GFC-032)

### Slider Connector



■ Material/Technical Data  
Material : Aluminum Extrude  
Weight : 51 g (for M6)  
63 g (for M4)  
Environment : RoHS Compliant

■ Product Included  
slide connector M6 for ST Nut S M6  
(with slide stopper)×1

hexagon socket head cap screw M6×30 (Trivalent Chrome Plate)×1  
install part for slider×1

slider connector M4 for ST Nut S M4  
(with slide stopper)×1

hexagon socket head cap screw with flange M4×30×1  
install part for slider×1

- Use Cross Connector to join with Support Frame of Aluminum Corocon.

Name	Slider Connector (M6)	Slider Connector (M4)
Item No.	GFJ-A24	GFJ-B02

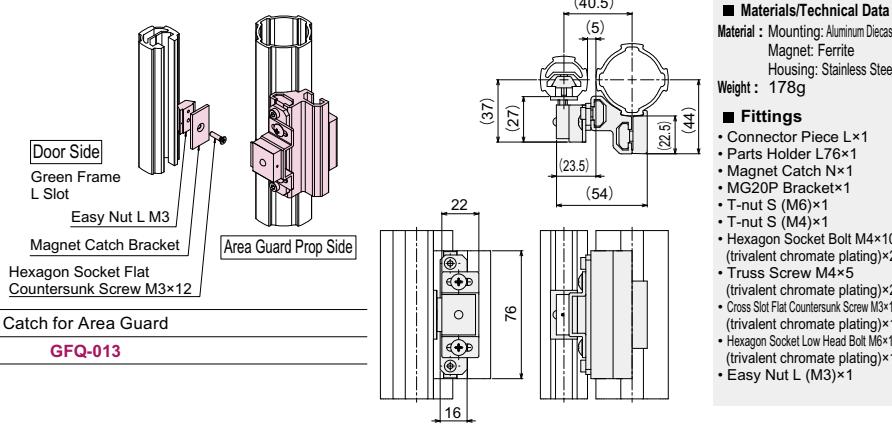


## GF-N Door Parts

### Catch for Area Guard



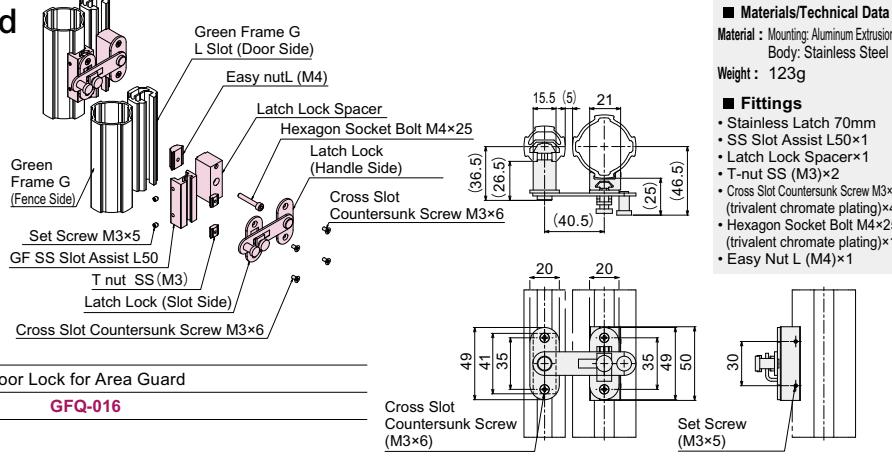
● Use this for affixing area guard doors, etc.



### Door Lock for Area Guard

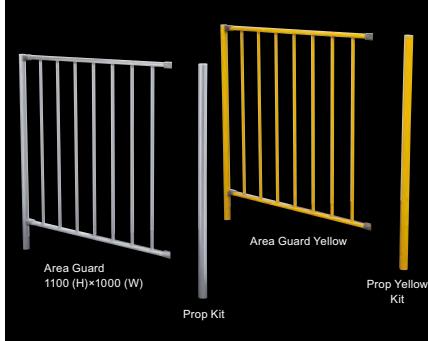


● Use this for affixing area guard doors, etc.



### Area Guard

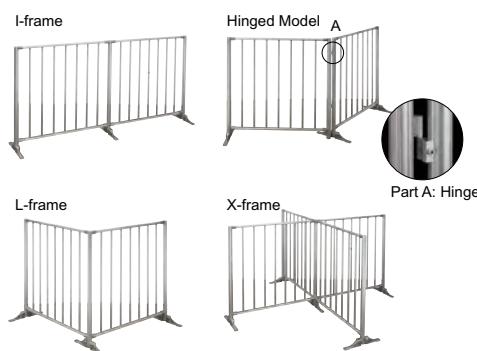
Area Guard 1100 (H)×1000 (W)



Area Guard 1100 (H)×500 (W)



Area Guard Door 952.5 (H)×800 (W)



#### Order Method

Item No. or Product Name No. of Piece.

**GFQ-013** □□ pcs.



→ P.165

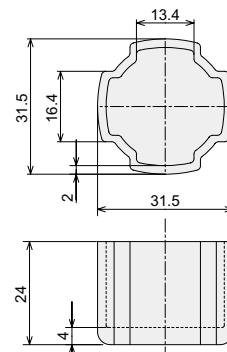
## GF-N Accessory

**GF-N**  
28 mm

### Outer Cap



Name	Outer Cap
Item No.	GFA-401

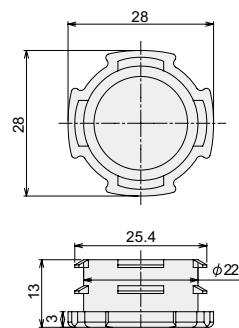


■ Material/Technical Data  
**Material** : Low Density Polyethylene  
**Weight** : 8.00 g  
**Environment** : RoHS Compliant

### Inner Cap Hard



Name	Inner Cap Hard
Item No.	GFA-412

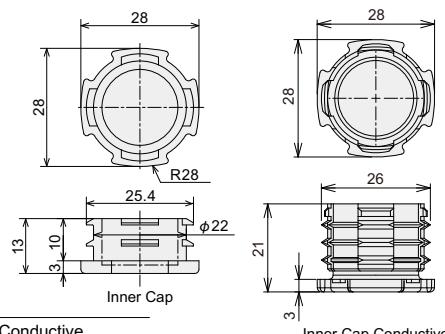


■ Material/Technical Data  
**Material** : Nylon6  
**Weight** : 4 g  
**Environment** : RoHS Compliant

### Inner Cap / Inner Cap Conductive



Name	Inner Cap	Inner Cap Conductive
Item No.	GFA-400	GFA-411



■ Material/Technical Data  
**Inner Cap**  
**Material** : Polyethylene  
**Weight** : 3 g  
**Environment** : RoHS Compliant

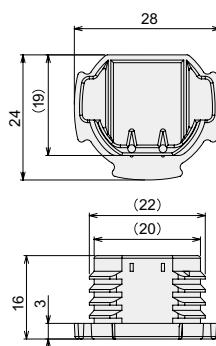
■ Inner Cap Conductive  
**Material** : Conductive Polypropylene  
**Weight** : 4 g  
**Environment** : RoHS Compliant

- Frame
- Connector
- Foot Component
- Panel Board
- Moving Part
- Corocon
- Door Part
- Accessory

### GF L Slot Inner Cap Hard



Name	GF L Slot Inner Cap Hard
Item No.	GFA-413



■ Material/Technical Data  
**Material** : Nylon6  
**Weight** : 3 g  
**Environment** : RoHS Compliant

■ Compatible Frame  
Green Frame Slot (GFF-004)



Drawing Support Software  
→ P.10



Design Support Service  
→ P.10



Assembled Delivery Service  
→ P.11



Application Seminar  
→ P.11

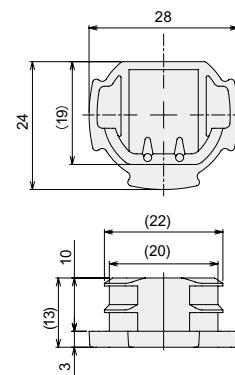


## GF-N Accessory

### GF L Slot Inner Cap



Name	GF L Slot Inner Cap
Item No.	GFA-405



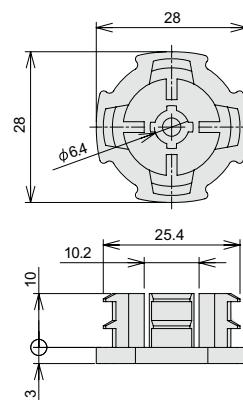
■ Material/Technical Data  
**Material** : Low Density Nylon  
**Weight** : 2 g  
**Environment** : RoHS Compliant

■ Compatible Frame  
 Green Frame Slot (GFF-004)

### GF T Inner Cap



Name	GF T Inner Cap
Item No.	GFA-410



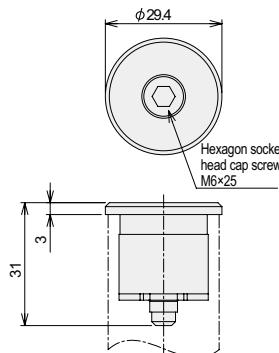
■ Material/Technical Data  
**Material** : Low Density Polyethylene  
**Weight** : 3 g  
**Environment** : RoHS Compliant

■ Compatible Frame  
 Green Frame T (GFF-017)

### Metal End Cap



Name	Metal End Cap
Item No.	GFA-414



■ Material/Technical Data  
**Material** : Steel + SUS304 + Rubber  
**Weight** : 46 g  
**Environment** : RoHS Compliant

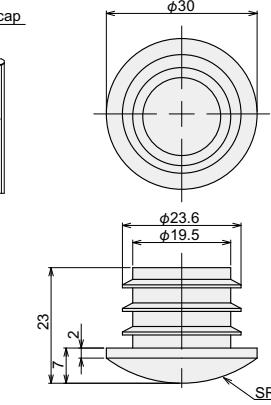
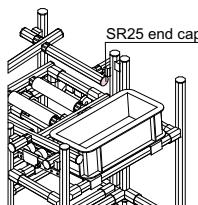
■ Compatible Frame  
 Green Frame (GFF-000) Green FrameW (GFF-003)  
 Green FrameF35 (GFF-014) Green FrameF50 (GFF-005)  
 Green Frame Slide (GFF-006) Green FrameP100 (GFF-001 • GFF-002)

### SR25 End Cap



• For preventing totes from stopping at the entryway

Name	SR25 End Cap
Item No.	GFA-404



■ Material/Technical Data  
**Material** : Nylon  
**Weight** : 3 g  
**Environment** : RoHS Compliant



#### Order Method

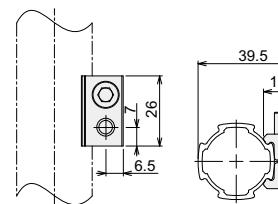
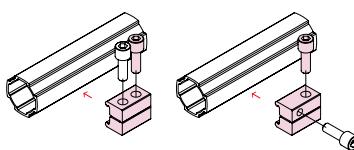
Item No. or Product Name No. of Piece.

**GFA-405** □□ pcs.

→ P.165

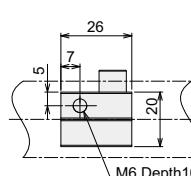
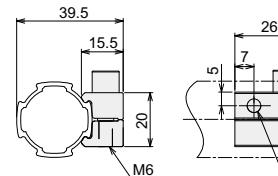
## GF-N Accessory

### Connector Piece Compact



■ Material/Technical Data  
**Material :** Aluminum Extrude  
**Weight :** 21 g  
 21 g (Side)  
**Environment :** RoHS Compliant

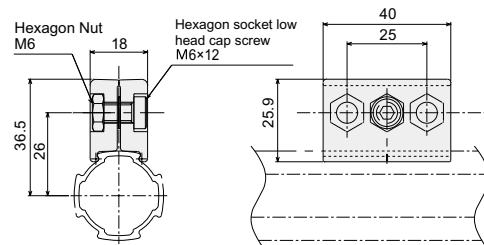
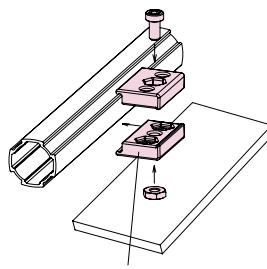
• GF-G (43mm type) Frame also possible to grip



- Installation Part for components and equipments using M6 Bolt

Name	Connector Piece Compact	Connector Piece Compact (Side)
Item No.	<b>GFJ-B09</b>	<b>GFJ-B18</b>

### Connector Piece



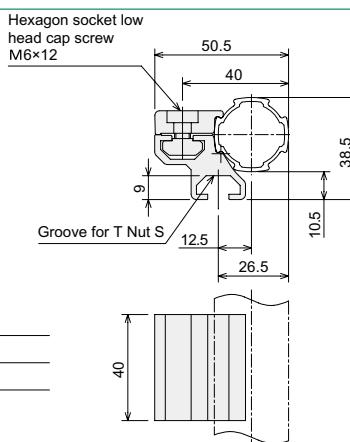
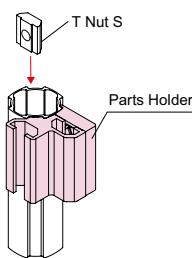
■ Material/Technical Data  
**Material :** Aluminum Diecast  
 Bolt / Nut : Steel  
 Bolt / Nut : Stainless (Grey Paint)  
**Weight :** 40 g  
 39 g (Grey Paint)  
**Environment :** RoHS Compliant

• GF-G (43mm type) Frame also possible to grip

- Installation Part for components and equipments M6 Nut M6 must be purchase separately

Name	Connector Piece
Item No.	<b>GFJ-A31</b>

### Parts Holder



■ Material/Technical Data  
**Material :** Aluminum Extrude  
**Weight :** 58.0 g  
**Environment :** RoHS Compliant  
**Product Included**  
 • Hexagon socket low head cap screw M6x12 (UniChrome)×1  
 • T Nut S (M6)×1  

• GF-G (43mm type) Frame also possible to grip

- This part uses special ST Nut S (P119) to install component and equipment. ST Nut S must be purchased separately

Name	Parts Holder
Item No.	<b>GFA-000</b>



Drawing Support Software  
→ P.10



Design Support Service  
→ P.10



Assembled Delivery Service  
→ P.11

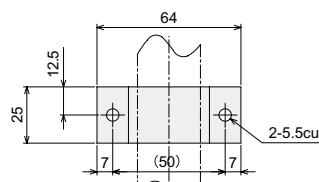
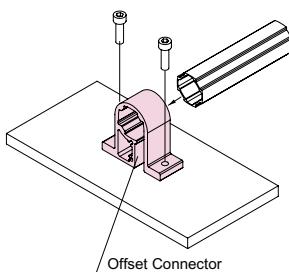


Application Seminar  
→ P.11



## GF-N Accessory

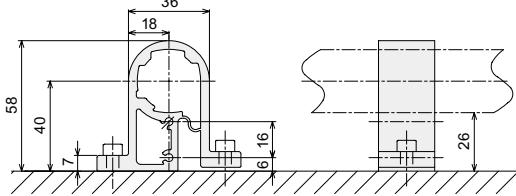
### Offset Connector



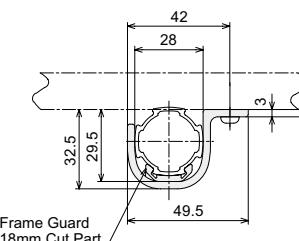
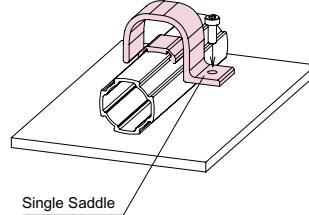
**■ Material/Technical Data**  
**Material :** Aluminum Extrude  
**Weight :** 59.0 g  
**Environment :** RoHS Compliant

- Use this part to install Green Frame to a wall in the off-set condition

Name	Offset Connector
Item No.	GFJ-A35



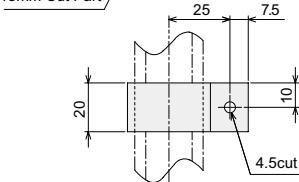
### Single Saddle



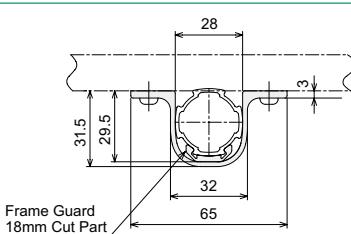
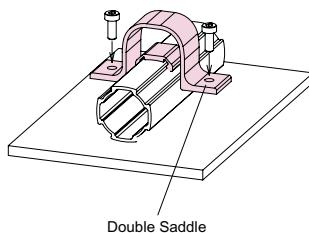
**■ Material/Technical Data**  
**Material :** Aluminum Extrude  
**Weight :** 15.0 g  
**Environment :** RoHS Compliant

- Use this part to fix Green Frame on a wall or plate

Name	Single Saddle
Item No.	GFJ-A25



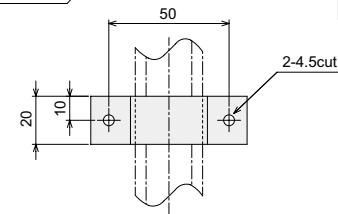
### Double Saddle



**■ Material/Technical Data**  
**Material :** Aluminum Extrude  
**Weight :** 14.0 g  
**Environment :** RoHS Compliant

- Use this part to fix Green Frame on a wall or plate

Name	Double Saddle
Item No.	GFJ-A27



#### Order Method

Item No. or Product Name No. of Piece.

**GFJ-A35** □□ pcs.

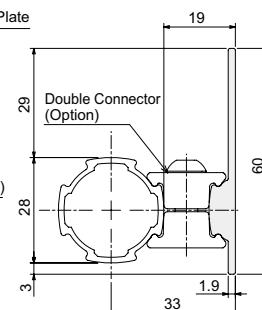
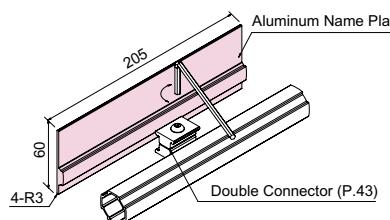
→ P.165





## GF-N Accessory

### Aluminum Name Plate



- This name plate is for installation to the Double Connector or Cross Connector.

Name	Aluminum Name Plate	Aluminum Name Plate
Item No.	GFA-A12	GFF-018

**■Material/Technical Data**  
**Material** : Aluminum Extrude  
**Weight** : 101 g  
**Environment** : RoHS Compliant

- Aluminum Plate (GFA-A12) has R3 finished surface. When order a specific Size (GFF-018), Please also specify R3 chamfer with machining symbol separately.
- Double Connector (P43) • Cross Connector (P41) must be purchased separately.

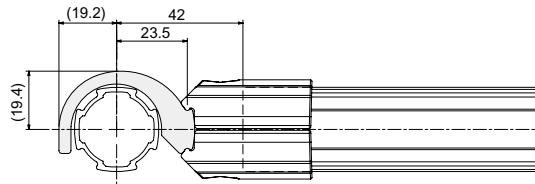
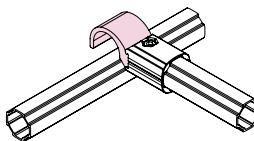
#### ■ 4 corner R chamfer Target Frame : Aluminum Name Plate Cut part



[Order example](#) GFF-018 Aluminum Name Plate ℓ=800 CR3 3 pcs.

**GF  
28 mm**

### Hook Connector R



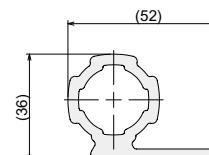
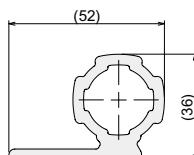
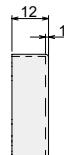
- This part use to hook at the frame to stop.
- Can hook in any angle.

Name	Hook Connector R
Item No.	GFJ-A32

**■Material/Technical Data**  
**Material** : Aluminum Extrude  
**Weight** : 31.0 g  
**Environment** : RoHS Compliant

- Please purchase connector separately

### Green Frame F35 End Cover



- For protecting the end face of frames

Name	Green Frame F35L End Cover (Gray)	Green Frame F35R End Cover (Gray)
Item No.	GFA-430	GFA-431

**■Material/Technical Data**  
**Material** : Flexible PVC  
**Weight** : 6 g  
**Environment** : RoHS Compliant



#### Order Method

Item No. or Product Name No. of Piece.

**GFA-A12** □□ pcs.

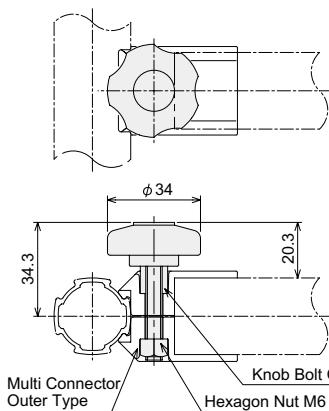
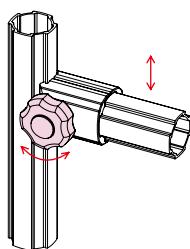
## GF-N Accessory

### Connector Knob Bolt



- It's easy to install the connector or shifting the position without any tools

Name	Connector Knob Bolt
Item No.	GFA-A03



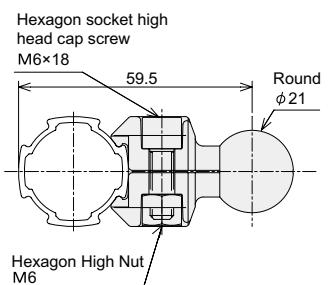
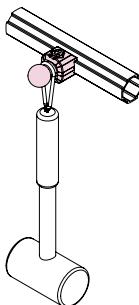
- Material/Technical Data
  - Material : Bolt, Color : Stainless  
Knob : Nylon 6 • Polypropylene
  - Weight : 21 g
- Product Included
  - Knob Bolt color×1
  - Super Knob 5 corner (White)×1
  - Hexagon Bolt M6×35 (Stainless)×1
  - Hexagon Nut M6 (1type) (Stainless)×1
- Please purchase Connector separately

### Free Connector Fix Side



- Use as a suspension hook

Name	Free Connector Fix Side
Item No.	GFJ-A52



- Material/Technical Data
  - Material : Body: Aluminum Diecast  
Bolt / Nut : Steel
  - Weight : 48 g
  - Environment : RoHS Compliant
- GF-G (43 mm type) Frame is possible for grip

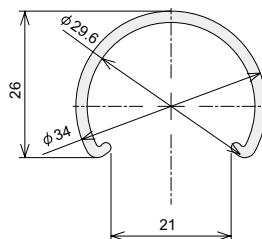
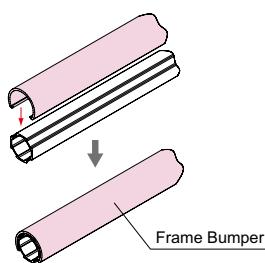


### Frame Bumper



- To protect the damage to the Frame

Name	Frame Bumper	
	(White) L=2000mm	(Yellow) L=2000mm
Item No.	GFA-804G	GFA-804Y

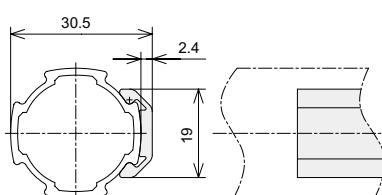
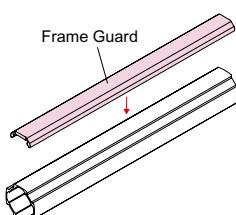


- Material/Technical Data
  - Material : Low Density Polyethylene
  - Weight : 200 g/2000 mm
  - Environment : RoHS Compliant

### Frame Guard



- To protect the damage to the Frame when there is a convex portion of the frame sticking out.
- There are 5 colors its possible to separate the area or application by color



- Material/Technical Data
  - Material : Polypropylene
  - Weight : 94 g/2000 mm
  - Environment : RoHS Compliant
- Use Nipper or Cutter for cutting

Name	Frame Guard L=2000mm					
	Gray	Blue	Ivory	Green	Yellow	Red
Item No.	GFA-800G	GFA-800L	GFA-800V	GFA-800M	GFA-800Y	GFA-800R

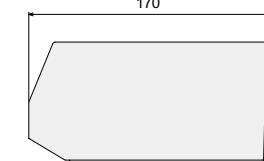
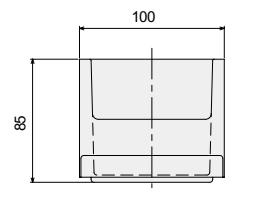
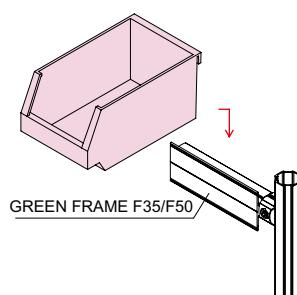


## GF-N Accessory

### Parts Container



- Use part connector to hook on to (GREEN FRAME F35/F50 P34)



**■ Material/Technical Data**  
**Material :** Polypropylene  
**Weight :** 100 g  
**Environment :** RoHS Compliant

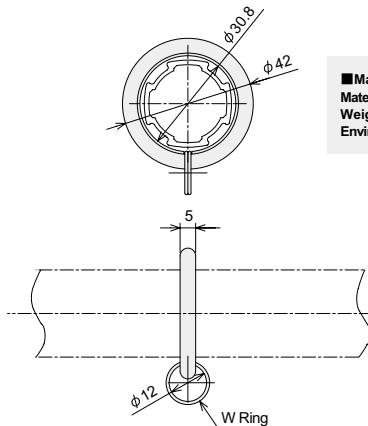
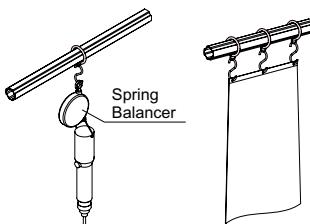
Name	Parts Container
Item No.	<b>GFA-A07</b>

### GF 28 mm

### Ring Runner



- Use as a rail of the Frame  
Apply with an electric driver or curtain



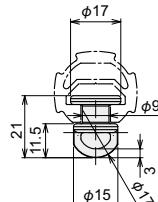
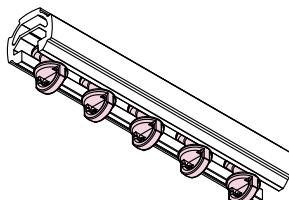
**■ Material/Technical Data**  
**Material :** Steel/Polyacetal  
**Weight :** 17.0 g  
**Environment :** RoHS Compliant

Name	Ring Runner
Item No.	<b>GFA-A06</b>

### Slot Runner



- For attaching curtains etc.
- Estimated Load Capacity : 30N



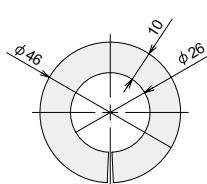
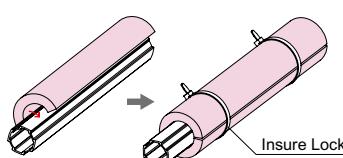
**■ Material/Technical Data**  
**Material :** Polycetal  
**Weight :** 3 g  
**Environment :** RoHS Compliant

Name	Slot Runner
Item No.	<b>GFA-A70</b>

### Frame Cushion



- It uses as frame stopper to absorb the impact when container etc. hit the frame



**■ Material/Technical Data**  
**Material :** Expanded Polyethylene  
**Weight :** 150 g/2000 mm  
**Environment :** RoHS Compliant

Name	Frame Cushion (2000 mm)
Item No.	<b>GFA-819</b>



#### Order Method

Item No. or Product Name No. of Piece.

**GFA-A07** □□ pcs.

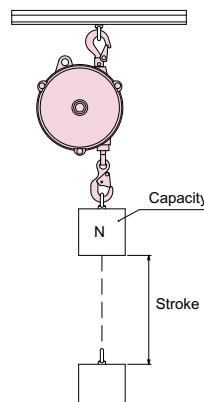
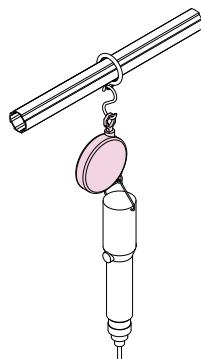
→ P.165

## GF-N Accessory

## Spring Balancer

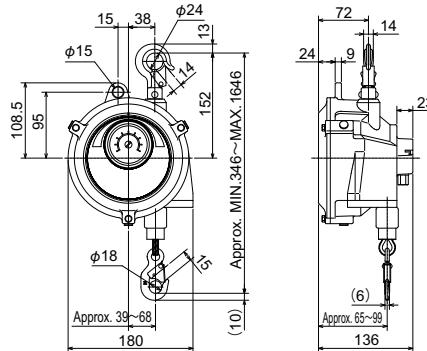


- Pull to extend the wire, let go and it will spring back into place.
  - Use for hanging impact drivers and other tools.
  - Can also be used as a braking device for mechanical lift tables.



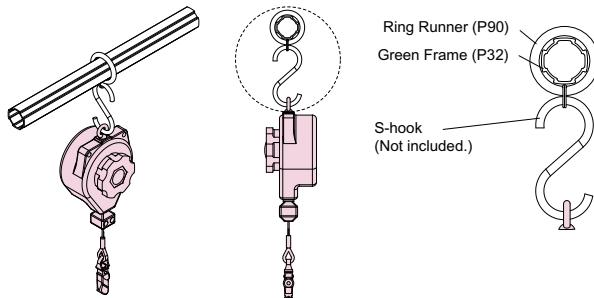
■ Specifications		Environment: RoHS Compliant
Name	Spring Balancer	
Model	EWF-9	
Item No.	<b>GFA-A60</b>	
Capacity (kg)	4.5~9.0	
Stroke (mm)	1300	
Weight (kg)	3.5	

**Environment:** RoHS Compliant

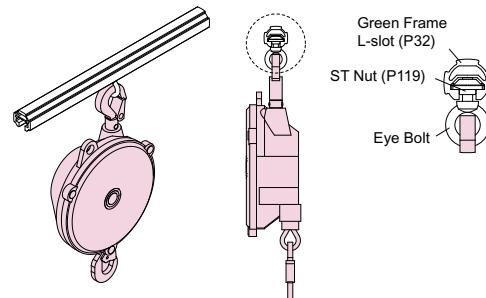


## How to mount on the GF Frame

Mount using a ring runner (P90)



Mount using a Green Frame L-slot (P32).



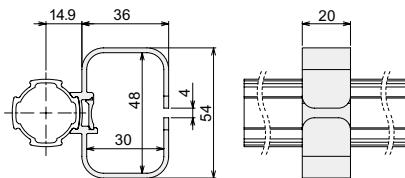
Accessory





## GF-N Accessory

### Cable Ring



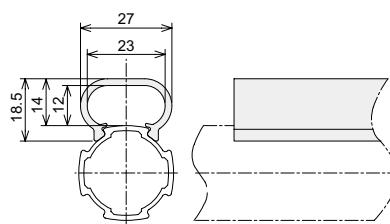
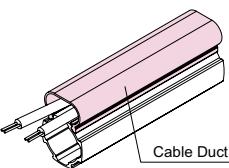
- Guide to install cable at the claw area of the Green Frame

Name	Cable Ring GFN (Middle) (Yellow) (10 pcs./Pack)
Item No.	<b>C1R-G3Y</b>

■ Material/Technical Data  
Material : Polypropylene  
Weight : medium : 9 g  
Flamability Grade : V0 (Except for Translucent)

- GF-G (43 mm type)  
Possible to grip on a Frame

### Cable Duct

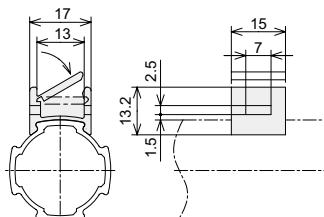
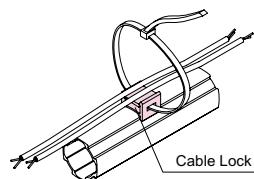


- This Cable Duct is capable to install on the convex area of the green frame.

Name	Cable Duct L=2000mm
Item No.	<b>GFA-801</b>

■ Material/Technical Data  
Material : Polypropylene  
Weight : 176 g/pcs  
Environment : RoHS Compliant

### Cable Lock



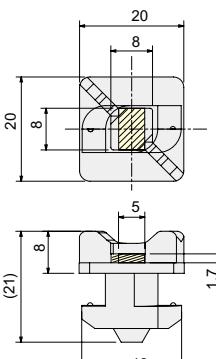
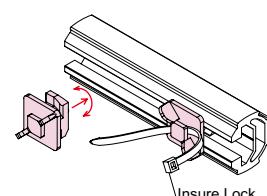
- This part is to bundle the cable using insure lock when install to the convex area of the frame.

Name	Cable Lock
Item No.	<b>GFE-010</b>

■ Material/Technical Data  
Material : Polypropylene  
Weight : 2 g  
Environment : RoHS Compliant

- The customer prepares insure lock

### Cable Clamp



- Inset this part in the groove of the Green Frame L Slot and rotate to tie insert the cable.

Name	Cable Clamp L (Light Gray) (50 pcs./Pack)
Item No.	<b>C1P-012C</b>

■ Material/Technical Data  
Material : Nylon  
Weight : 3 g  
Environment : RoHS Compliant

- The customer prepares insure lock

■ The shade area is position and dimension of mounting hole for cable tie

※ Capable for Band width less than 5 mm, Thickness less than 1.7 mm



#### Order Method

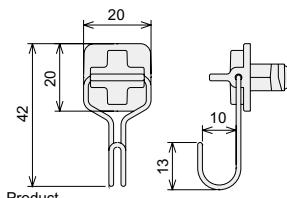
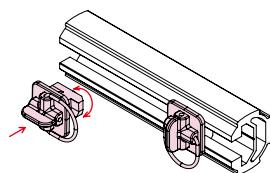
Item No. or Product Name No. of Piece.

**C1R-G3Y □□ pcs.**

→ P.165

## GF-N Accessory

### Slot Hook L(J)



- Insert this hook into the groove in Green Frame L Slot and rotate

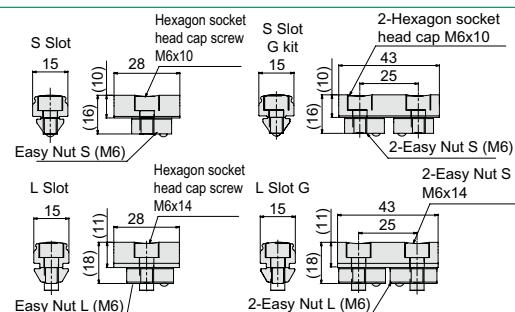
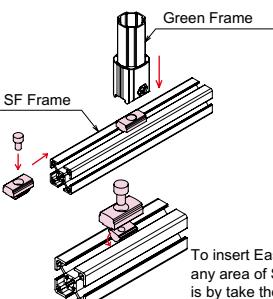
Name	Slot Hook L (J)
Item No.	SFK-K33J

■Material/Technical Data  
 Material : Body : Nylon  
 Hook : Stainless  
 Weight : 5 g  
 Environment : RoHS Compliant

■Product included  
 Slot Hook L  
 Bracket for Slot Hook x1  
 Slot Hook (L) x1

- Load Capacity : 1.5 kg

### GF-SF Connector



- Use to connect Green Frame and SF Frame (Aluminum Structural Corner Type)

Name	GF-SF Connector Kit			
	S Slot Kit	L Slot Kit	S Slot G Kit	L Slot G Kit
Item No.	GFA-603	GFA-607	GFA-605	GFA-609

■Material/Technical Data

Material : Aluminum Extrude  
 Weight : 19 g (S slot kit)  
 33 g (S slot G kit)  
 Environment : RoHS Compliant

25 g (L slot kit)

44 g (L slot G kit)

- For SF Frame, please see in "Aluminum Structural Catalog"

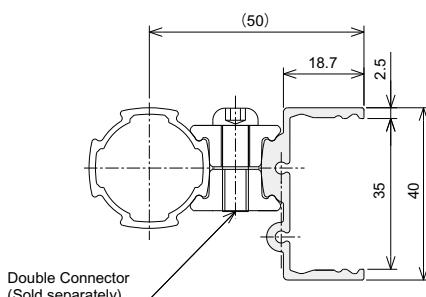
■ Connectable Frame/Composition Contents

	GF Frame	SF Frame	Composition Contents
S slot	GF N series (size 28 mm)	SF-30 series (Groove width 8 mm)	GF-SF Connector S lot x1 Hexagon socket head cap (M6x10) x1 Easy Nut S (M6)x1
L slot	GF N series (size 28 mm)	SF-40-45 series (Groove width 10 mm)	GF-SF Connector L lot x1 Hexagon socket head cap (M6x14) x1 Easy Nut L (M6)x1
S slot G kit	GF G series (size 43 mm)	SF-30 series (Groove width 8 mm)	GF-SF Connector S lot G x1 Hexagon socket head cap (M6x10) x2 Easy Nut S (M6)x2
L slot G kit	GF G series (size 43 mm)	SF-40-45 series (Groove width 10 mm)	GF-SF Connector L lot G x1 Hexagon socket head cap (M6x14) x2 Easy Nut L (M6)x2

### Picking JW Duct Base



- This is the picking ramp JW series mounting bracket manufactured by Aioi Systems Co., Ltd.

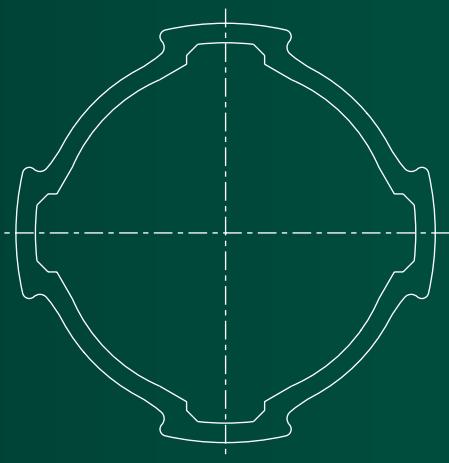


■Material/Technical Data  
 Material : Aluminum Extrude  
 Weight : 0.55 kg/m  
 Environment : RoHS Compliant

- Please purchase the double connector separately. (P43)

Name	Picking JW Duct Base L=100~4000mm
Item No.	GFF-A00





GREEN FRAME  
**GF-G**  
Outside Dimension **43** mm Type

GREEN FRAME  
**GF-G 43** mm Type

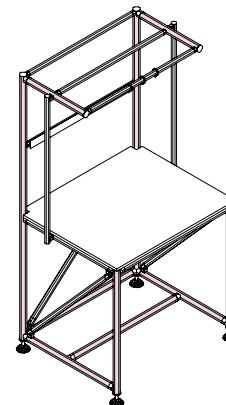
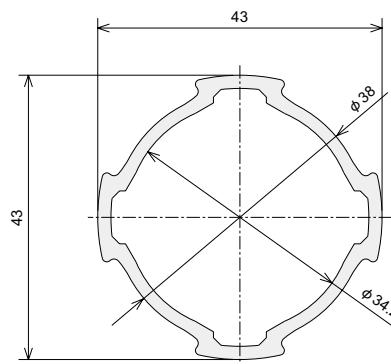


## GF-G Frame

### Green Frame G



- Frame size 43 mm



Name	Green Frame G	Green Frame G Yellow
	L=100~4000mm	L=100~4000mm
Item No.	GFF-200	GFF-200Y

■ Technical Data	
Section secondary moment : $ix=5.07 \times 10^4 \text{ mm}^4$	Capable to cut less than 100 mm (until 30 mm)
$ly=5.07 \times 10^4 \text{ mm}^4$	Cut size order can be done in unit of 0.1 mm (Cut tolerance is 0.5 mm)
Section coefficient : $Zx=2.36 \times 10^3 \text{ mm}^3$	Available without Alumite (only for Silver)
$Zy=2.36 \times 10^3 \text{ mm}^3$	
Weight per Unit : 0.74 kg/m	

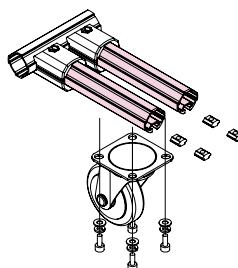
- Capable to cut less than 100 mm (until 30 mm)
- Cut size order can be done in unit of 0.1 mm (Cut tolerance is 0.5 mm)
- Available without Alumite (only for Silver)

■ Compatible Frame cap (P103)  
Inner cap G GFA-402

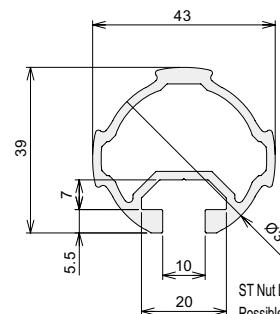


Inner cap G

### Green Frame G L Slot



- Frame with groove (L slot) size 43 mm
- Insert ST Nut L (P119) to install many type of part as a fixed piece



■ Technical Data	
Section secondary moment : $ix=5.79 \times 10^4 \text{ mm}^4$	Capable to cut less than 100 mm (until 30 mm)
$ly=5.21 \times 10^4 \text{ mm}^4$	Cut size order can be done in unit of 0.1 mm (Cut tolerance is 0.5 mm)
Section coefficient : $Zx=2.43 \times 10^3 \text{ mm}^3$	Available without Alumite (only for Silver)
$Zy=2.69 \times 10^3 \text{ mm}^3$	
Weight per Unit : 0.98 kg/m	

- Capable to cut less than 100 mm (until 30 mm)
- Cut size order can be done in unit of 0.1 mm (Cut tolerance is 0.5 mm)
- Available without Alumite (only for Silver)

■ Dedicated ST Nut (with slide stopper cap) (P119)  
ST Nut L M8 SFK-T11S      ST Nut L M5 SFK-T09S  
ST Nut L M6 SFK-T10S      ST Nut L M4 SFK-T08S



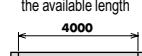
■ Compatible Frame cap (P103)  
GF-G L Slot Inner Cap GFA-409



GF-G L Slot  
Inner cap

Name	Green Frame G L Slot
	L=100~4000mm
Item No.	GFF-205

※ Specified length show  
the available length



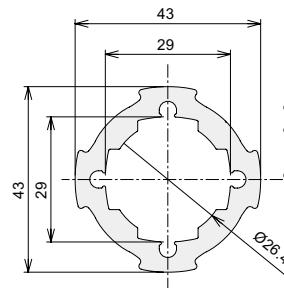
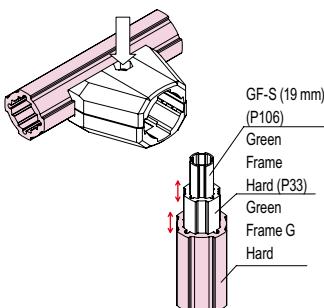
In case of Specific size (cut from factory)

Item No. or Product Name Length No. of Piece  
GFF-200 ℓ=800 5 pcs.

RoHS → P.165

## GF-G Frame

### Green Frame G Hard

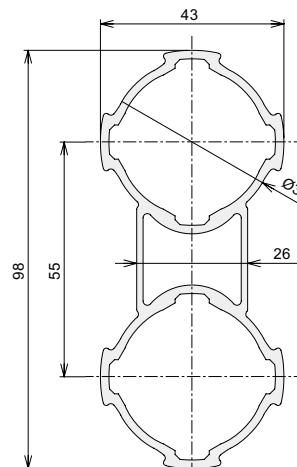
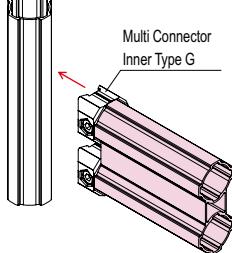


- Technical Data**
- Section secondary moment :**  $I_x = 9.18 \times 10^4 \text{ mm}^4$   
 $I_y = 9.18 \times 10^4 \text{ mm}^4$
- Section coefficient :**  $Z_x = 4.27 \times 10^4 \text{ mm}^3$   
 $Z_y = 4.27 \times 10^4 \text{ mm}^3$
- Weight per Unit :** 1.57 kg/m
- Capable cut less than 100 mm (until 30 mm)
  - Cut size order can be done in unit of 0.1 mm (Cut tolerance is 0.5 mm)
  - Available without Alumite (only for Silver)

- This suitable for a frame on connector grip side when there is continuous impact to the joining point
- Flex strength is 2 times of the 43 mm type
- Insert GF-N (28 mm type) frame (P32) and slide to use

Name	Green Frame G Hard L=100~4000mm
Item No.	<b>GFF-209</b>

### Green Frame GW



- Technical Data**
- Section secondary moment :**  $I_x = 52.42 \times 10^4 \text{ mm}^4$   
 $I_y = 11.47 \times 10^4 \text{ mm}^4$
- Section coefficient :**  $Z_x = 10.07 \times 10^4 \text{ mm}^3$   
 $Z_y = 5.33 \times 10^4 \text{ mm}^3$
- Weight per Unit :** 1.74 kg/m
- Capable cut less than 100 mm (until 30 mm)
  - Cut size order can be done in unit of 0.1 mm (Cut tolerance is 0.5 mm)
  - Available without Alumite

(only for Silver)

Name	Green Frame GW
Item No.	L=100~4000mm

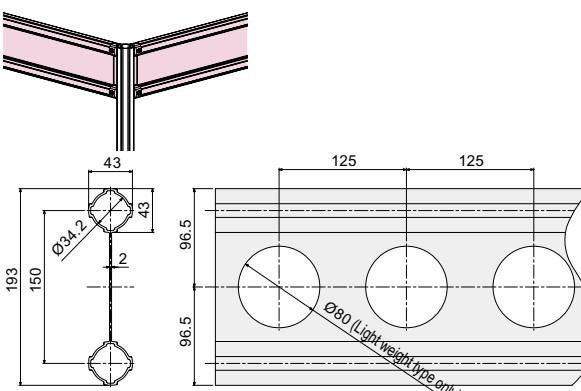
**■ Compatible Frame Cap (P103)**  
 Inner cap G **GFA-402**



### Green Frame G P150



- Use as Large size Booth



- Technical Data**
- Section secondary moment :**
- |   |   |
|---|---|
| High Rigid Type                         | Light Weight Type                       |
| $I_x = 340.49 \times 10^4 \text{ mm}^4$ | $I_x = 331.95 \times 10^4 \text{ mm}^4$ |
| $I_y = 10.15 \times 10^4 \text{ mm}^4$  | $I_y = 10.15 \times 10^4 \text{ mm}^4$  |
- Section coefficient :**
- |  |                                       |
|--|---------------------------------------|
| $Z_x = 35.28 \times 10^4 \text{ mm}^3$ | $Z_x = 30.4 \times 10^4 \text{ mm}^3$ |
| $Z_y = 4.72 \times 10^4 \text{ mm}^3$  | $Z_y = 4.72 \times 10^4 \text{ mm}^3$ |
- Weight per Unit :** 2.07 kg/m 1.85 kg/m
- Capable cut less than 100 mm (until 30 mm)
  - Cut size order can be done in unit of 0.1 mm (Cut tolerance is 0.5 mm)
  - Available without Alumite

Name	Green Frame G P150	Green Frame G P150 (Lightweight Type)
	L=100~4000mm	L=100~4000mm
Item No.	<b>GFF-201</b>	<b>GFF-202</b>

**■ Compatible Frame Cap (P103)**  
 Inner cap G **GFA-402**

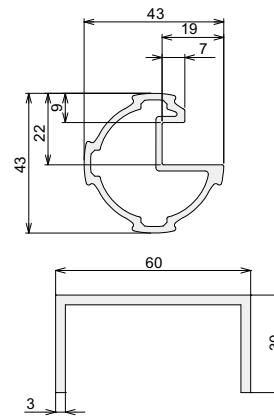
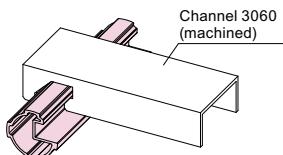


• For available length (refer on the left)

GREEN FRAME

**GF-G 43** mm Type**GF-G Frame**

Common Specification

Material: Aluminum Extrude Resistance Value : Silver :  $10^{9 \sim 11} \Omega$  (Antistatic Level)  
Alumite Treatment Environment : RoHS Compliant**Green Frame G Rack Beam/Channel 3060**

- This frame for installing shelf boards has an external dimension of 43 mm.

- Channel 3060 is machined for use as a shelf board.

Name	Green Frame G Rack Beam	Channel 3060 t=3
	L=100~4000mm	L=50~4000mm
Item No.	GFF-206	SFF-A484

**■ Technical Data****Green Frame G Rack Beam**Section secondary moment :  $I_x=5.29 \times 10^4 \text{mm}^4$   
 $I_y=4.56 \times 10^4 \text{mm}^4$ Section coefficient :  $Z_x=2.46 \times 10^3 \text{mm}^3$   
 $Z_y=2.07 \times 10^3 \text{mm}^3$ 

Weight per Unit : 0.86kg/m

**Channel 3060**Section secondary moment :  $I_x=18.56 \times 10^4 \text{mm}^4$   
 $I_y=2.91 \times 10^4 \text{mm}^4$ Section coefficient :  $Z_x=6.19 \times 10^3 \text{mm}^3$   
 $Z_y=1.36 \times 10^3 \text{mm}^3$ 

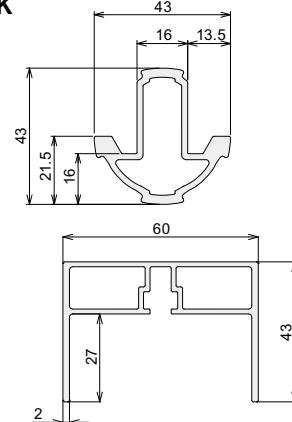
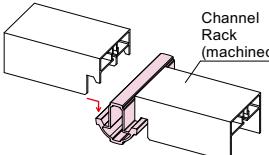
Weight per Unit : 0.92kg/m

- Cutting less than 100 mm (minimum of 30 mm) is also supported.
- Cutting can be specified in units of 0.1 mm. (Cutting allowance of 0.5 mm)
- Can be specially ordered free of anodized aluminum.
- The dimension of Channel 3060 is the frame core plus +64 mm.

CPW



Order Example SFF-A484 L=800 CPW 3pcs.

**Green Frame G Rack Beam W/Channel Rack**

- This frame for installing shelf boards on both sides has an external dimension of 43 mm.

- Channel racks are machined for use as shelf boards.

Name	Green Frame G Rack Beam W	Channel Rack
	L=100~4000mm	L=50~4000mm
Item No.	GFF-208	SFF-A654

**■ Technical Data****Green Frame G Rack Beam W**Section secondary moment :  $I_x=5.22 \times 10^4 \text{mm}^4$   
 $I_y=4.83 \times 10^4 \text{mm}^4$ Section coefficient :  $Z_x=2.22 \times 10^3 \text{mm}^3$   
 $Z_y=2.25 \times 10^3 \text{mm}^3$ 

Weight per Unit : 0.97kg/m

**Channel Rack**Section secondary moment :  $I_x=5.31 \times 10^4 \text{mm}^4$   
 $I_y=19.05 \times 10^4 \text{mm}^4$ Section coefficient :  $Z_x=1.83 \times 10^3 \text{mm}^3$   
 $Z_y=6.35 \times 10^3 \text{mm}^3$ 

Weight per Unit : 1.02kg/m

- Cutting less than 100 mm (minimum of 30 mm) is also supported.
- Cutting can be specified in units of 0.1 mm. (Cutting allowance of 0.5 mm)
- Can be specially ordered free of anodized aluminum.
- The dimension of the Channel Rack is the frame core -18 mm. (APW)  
For just one side (APS), calculate this is as the frame core -9 mm.

APS



APW



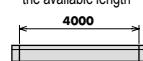
Order Example SFF-A654 L=800 APW 3pcs.



In case of Specific size (cut from factory)

Item No. or Product Name Length No. of Piece  
**GFF-206** ℓ=800 5 pcs.

※ Specified length show the available length



→ P.165



Approx.  
Frame Size  
→ P.129



Frame Strength  
Data  
→ P.138



Connector  
Strength Data  
→ P.152



Compatible Fra  
Connector Tab  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

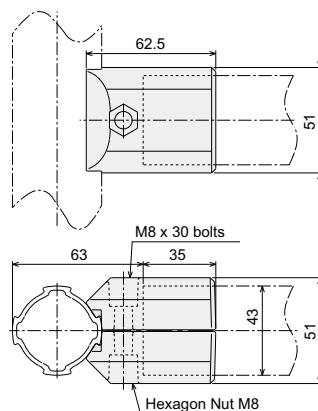
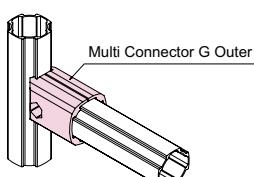
GF Unit

GF Motion

Technical Data

## GF-G Connector

### Multi Connector G Outer

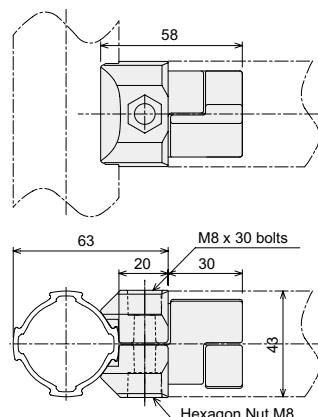
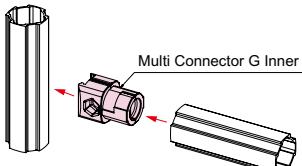


**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut :** Steel  
**Weight :** 195 g  
**Environment :** RoHS Compliant  
**● Also capable to connect GF-N Frame (28 mm) on the grip side (in case of joining neighboring connector at 90°C, please use multi connector outer G-N)**

- By using only multi connector G type, make it easily to join the 90° of 43 mm type.
- No longer have to worry about type selection
- Using only 1 bolt and wrench to complete connecting the frame

Name	Multi Connector G Outer
Item No.	<b>GFJ-014</b>

### Multi Connector G Inner

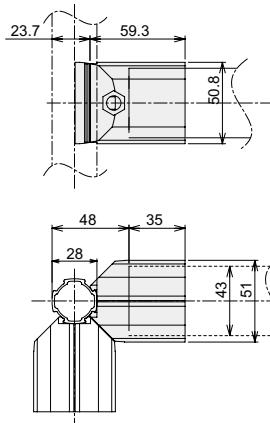
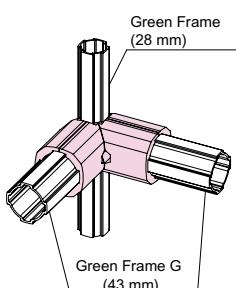


**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut :** Steel  
**Weight :** 158 g  
**Environment :** RoHS Compliant  
**● Also capable to connect GF-N Frame (28 mm) on the grip side (When connect at 90° to neighbor connector, please use multi connector inner G-N)**

- This type is capable to join frame which has the same outer dimension
- Apply this if concern about the appearance

Name	Multi Connector G Inner
Item No.	<b>GFJ-209</b>

### Multi Connector G-N Outer

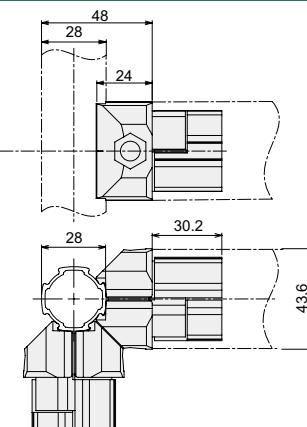
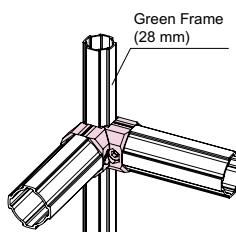


**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut :** Steel  
**Weight :** 177 g  
**Environment :** RoHS Compliant

- Apply this when connect GF-G (OD 43 mm type) frame to the neighbor frame of GF-N (OD 28 mm type) at 90°

Name	Multi Connector G-N Outer
Item No.	<b>GFJ-022</b>

### Multi Connector G-N Inner



**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut :** Steel  
**Weight :** 148 g  
**Environment :** RoHS Compliant

- Apply this when connect GF-G (OD 43 mm type) frame to the neighbor frame of GF-N (OD 28 mm type) at 90°

Name	Multi Connector G-N Inner
Item No.	<b>GFJ-224</b>

Frame

Connector

Foot Component

Panel Board

Moving Part

Corocon

Door Part

Accessory



Drawing Support Software  
→ P.10



Design Support Service  
→ P.10



Assembled delivery Service  
→ P.11



Application Seminar  
→ P.11

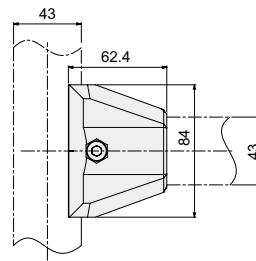
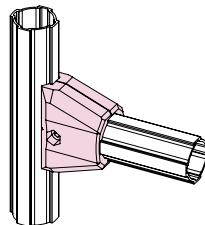


## GF-G Connector

### Multi Connector GM Outer



- This connector is for increase the strength of moment load

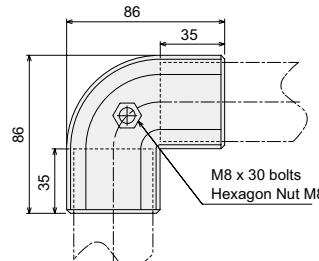
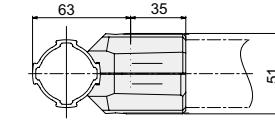
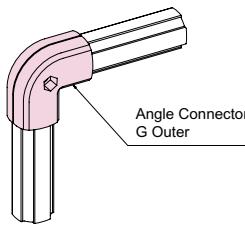


**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut :** Steel  
**Weight :** 311 g  
**Environment :** RoHS Compliant

### Angle Connector G Outer



- Apply at the 90° L type corner

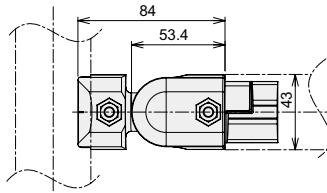
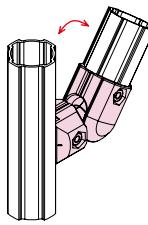


**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut :** Steel  
**Weight :** 330 g  
**Environment :** RoHS Compliant

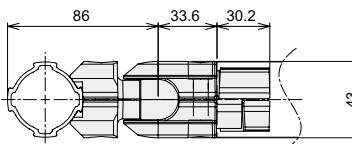
### Free Connector G Inner



- This Connector is capable for free angle installmant
- Lock the angle by tighten the bolt



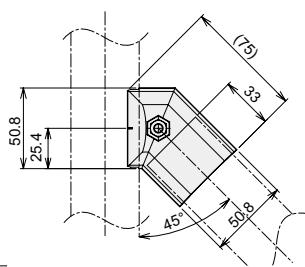
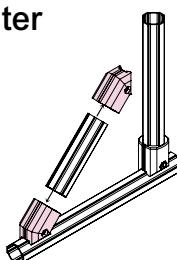
**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut :** Steel  
**Weight :** 337 g  
**Environment :** RoHS Compliant



### 45-Degree Connector G Outer



- This Connector is for connecting at 45°



**■ Material/Technical Data**  
**Material :** Aluminum Diecast  
**Bolt / Nut :** Steel  
**Weight :** 221 g  
**Environment :** RoHS Compliant

- Capable to connect GF-N Frame to the grip side

Name	45-Degree Connector G Outer
Item No.	<b>GFJ-024</b>



#### Order Method

Item No. or Product Name

No. of Piece

**GFJ-028**   pcs.



Approx.  
Frame Size  
→ P.129



Connector  
Strength Data  
→ P.152



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

GF Motion

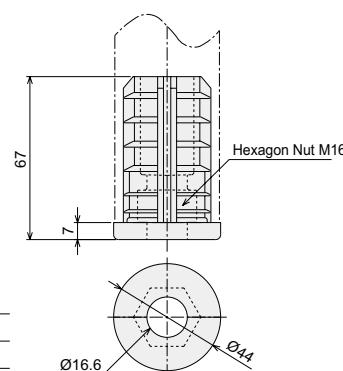
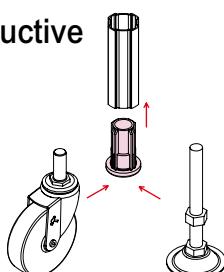
Technical Data

## GF-G Foot Components

### Foot Connector M 16 G / Conductive



● Use to install M 16 Adjuster or Shaft screw Caster



**■ Material/Technical Data**  
**Material :** Nylon  
**Conductive Polypylene (Conductivity)**  
**Weight :** 68 g  
**76 g (Conductivity)**  
**Environment :** RoHS Compliant

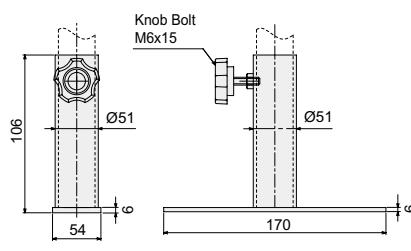
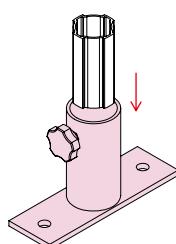
● Conductive Foot Connector M 16 G uses with Adjuster or Caster of conductive type

※ Please refer to P.101~ for Caster and Adjuster

### Pipe Stand G

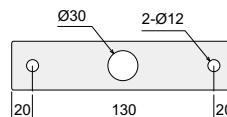


● Use to fix frame to the ground etc.

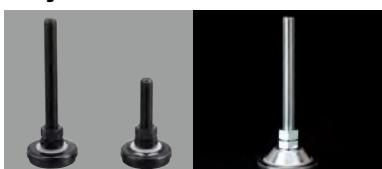


**■ Material/Technical Data**  
**Material :** SPCC  
**Weight :** 788 g

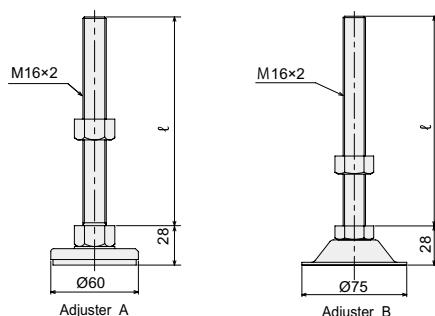
**■ Product Included**  
Knob Bolt M6 x 15



### Adjuster



#### SUS Original Adjuster



**■ Material/Technical Data**  
**Material :** Adjuster A : SS400  
Adjuster B : SS400  
Adjuster B (Stainless) : SUS304  
**Environment :** RoHS Compliant  
(Adjuster B)

Frame

Connector

Foot Component

Panel Board

Moving Part

Corocon

Door Part

Accessory

#### Adjuster

Name	Adjuster A		Adjuster B		
	M16-140T	M16-70T	M16-92T	M16-150T	M16-150T (Stainless)
Item No.	<b>SFK-935</b>	<b>SFK-936</b>	<b>SFK-C89</b>	<b>SFK-934</b>	<b>SFK-934S</b>
ℓ (mm)	140	70	92	150	150
Weight (g)	384	283	276	346	349
Load Capacity (N)	5000	5000	5600	5600	5600

GREEN FRAME

**GF-G 43 mm Type**

19 mm

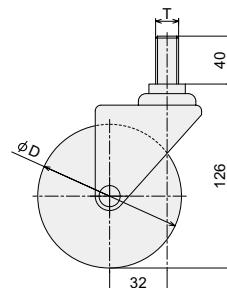
28 mm

43 mm

**GF-G Foot Components****Caster Screw Fitting Type  $\phi 100$  Rubber**

● This caster uses with Foot Connector

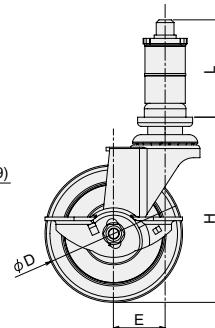
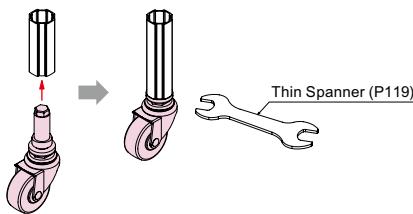
■ Size/Weight



Environment: RoHS Compliant

D (mm)	T (mm)	Wheel Material	Body Material		No Brake	With Brake	Load Capacity	Weight (g)	Foot Connector installation range
φ100	M16	Rubber	Steel	Item No.	<b>GFN-544</b>	<b>GFN-542</b>	500 N	650 (703)	Foot Connector M 16 G ( <b>GFN-E05</b> ) Foot Connector M 16 G Conductive ( <b>GFN-E21</b> )

● (Number in blue) is weight with Brake. ● Apply thin spanner when install → P119 ※Refer to P. 53 for Free and Fix Caster

**Frame Caster G Frame  $\phi 100$  Rubber  
Frame Caster G Frame  $\phi 125$  Rubber**

Environment: RoHS Compliant

D (mm)	Wheel Material	Body Material		No Brake	With Brake	Spanner	Load Capacity	L (mm)	H (mm)	E (mm)	Weight (g)	Frame Installation Range
φ100	Rubber	Steel Rubber	Item No.	<b>GFN-590</b>	<b>GFN-591</b>	21	500 N	57	129	30	660 (720)	Green Frame G ( <b>GFF-200</b> ) Green Frame GW ( <b>GFF-207</b> ) Green Frame G P150 ( <b>GFF-201</b> )
φ125			Item No.	<b>GFN-598</b>	<b>GFN-599</b>		600 N	57	155	39	680 (740)	

● (Number in blue) is weight with Brake. ● Apply thin spanner when install → P119



## Order Method

Item No. or Product Name

**GFN-544**

No. of Piece

**□□pcs.**

→ P.165

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

GF Motion

Technical Data

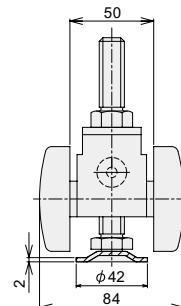
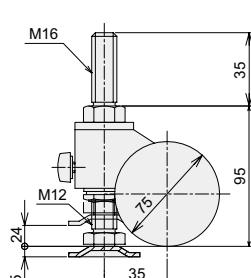
## GF-G Foot Components and Board Part

### Caspad $\phi 75\text{-M16}$



- This product is an integral product of Caster and Adjuster

Name	Caspad $\phi 75\text{-M16}$
Item No.	SFA-704



**■ Material/Technical Data**  
**Material:** Adjuster Bolt : SS400 Substantial Unichrome  
Caster : Nylon  
**Weight :** 400 g  
**Environment :** RoHS Compliant

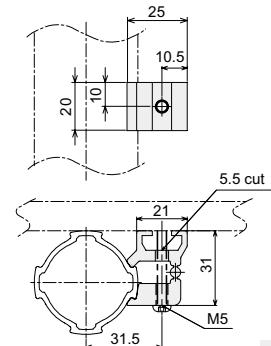
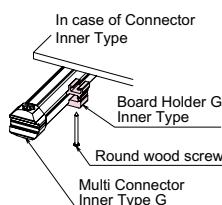
### Board Holder G



- This part uses for install working board etc. to the frame
- Approx. dimension of Board Panel and Board Installment Method → P.160

Cross Recessed Round Head Wood Screw 4.1 x 40 (SFB-9B2)

Name	Board Holder G
	Inner
Item No.	GFJ-A34



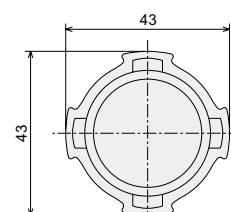
**■ Material/Technical Data**  
**Material:** Aluminum Extrude  
**Weight :** 19 g  
**Environment :** RoHS Compliant

## GF-G Accessory

### Inner Cap G



Name	Inner Cap G
Item No.	GFA-402



**■ Material/Technical Data**  
**Material:** Polyethylene (Light Grey)  
**Weight :** 7.0 g  
**Environment :** RoHS Compliant

Frame

Connector

Foot Component

Panel Board

Moving Part

Corocon

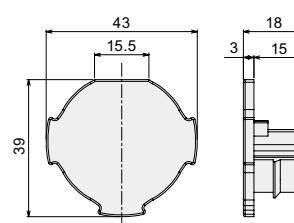
Door Part

Accessory

### GF-G L Slot Cap



Name	GF-G L Slot Cap
Item No.	GFA-409



**■ Material/Technical Data**  
**Material:** Low Density Polyethylene  
**Weight :** 5 g  
**Environment :** RoHS Compliant



Drawing Support Software  
→ P.10



Design Support Service  
→ P.10

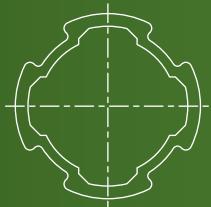


Assembled delivery Service  
→ P.11



Application Seminar  
→ P.11



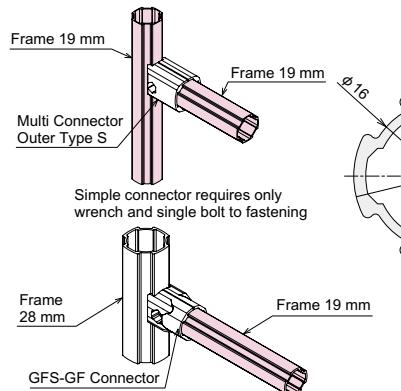


GREEN FRAME

**GF-S**

Outside Dimension **19** mm Type

GREEN FRAME

**GF-S 19 mm Type****Green Frame****Green Frame S**

Common Specification

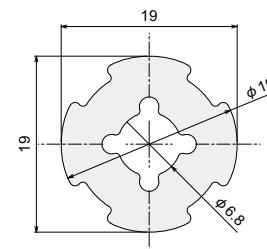
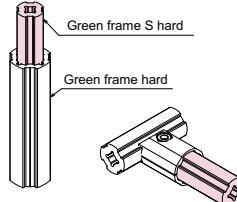
Material: Aluminum Extrude  
Silver : Alumite Treatment  
Yellow : Paint (Munsell 2.5Y8/3 Substantial)Resistance Value : Silver :  $10^9 \sim 11 \Omega$  (Antistatic Level)  
Environment : RoHS Compliant**■ Technical Data****Section Secondary Moment :**  
 $I_x=0.27 \times 10^4 \text{ mm}^4$   
 $I_y=0.27 \times 10^4 \text{ mm}^4$ **Section Coefficient:**  
 $Z_x=0.28 \times 10^3 \text{ mm}^3$   
 $Z_y=0.28 \times 10^3 \text{ mm}^3$ **Weight :** 0.20 kg/m

- Capable to cut less than 100 mm (until 30 mm)
- Cut size order can be done in unit of 0.1 mm. (Cut tolerance is 0.5 mm)
- Available without Alumite. (only for Silver)

Name	Green Frame S L=100~4000mm	Green Frame S Yellow L=100~4000mm
Item No.	<b>GFF-400</b>	<b>GFF-400Y</b>

**■ Compatible Frame Cap (P114)**

Inner Cap S

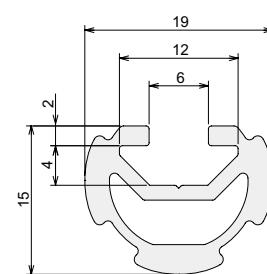
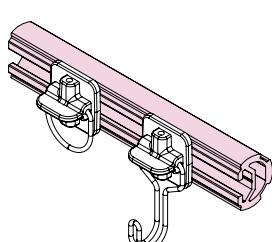
**Green Frame S Hard**

- High-strength S size frame
- M8 Tap can be processed at the end face (certain adjusters and foot components can be attached easily)

Name	Green Frame S Hard L=100~4000mm
Item No.	<b>GFF-404</b>

**■ Compatible Frame Cap (P115)**

GFS Hard Inner Cap

**Green Frame S SS Slot**
**■ Technical Data**  
**Section Secondary Moment :**  
 $I_x=0.198 \times 10^4 \text{ mm}^4$   
 $I_y=0.382 \times 10^4 \text{ mm}^4$   
**Section Coefficient:**  
 $Z_x=0.21 \times 10^3 \text{ mm}^3$   
 $Z_y=0.40 \times 10^3 \text{ mm}^3$   
**Weight :** 0.30 kg/m

- Capable to cut more than 30 but less than 100 mm
- Cut size order can be done in unit of 0.1 mm. (Cut tolerance is 0.5 mm)
- Available without Alumite. (only for Silver.)

Name	Green Frame S SS Slot
	L=100~4000mm
Item No.	<b>GFF-401</b>

**■ ST Nut (with Slide Stopper Cap) (P119)**ST Nut M5 **SFK-T03S**ST Nut LSSM3 **SFK-T01S****■ Compatible Frame Cap (P115)**

SS slot Inner Cap

**GFA-408**

In case of specific size (cut from factory)

Item No. or Product Name Length No. of Piece  
**GFF-400** **ℓ=800** **5pcs.**

※ Specified length show the available length.





Approx.  
Frame  
Size  
→ P.129



Frame  
Strength Data  
→ P.140



Connector  
Strength Data  
→ P.154



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

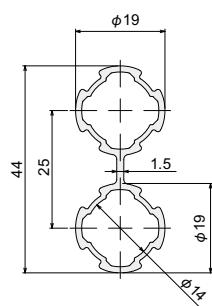
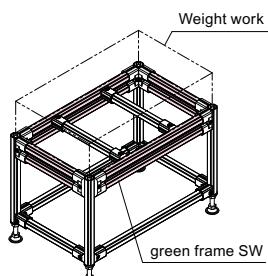
GF Unit

GF Motion

Technical  
Data

## Green Frame

### Green Frame S W



**■ Technical Data**  
**Section Secondary Moment :**  
 $I_x=2.87 \times 10^4 \text{mm}^4$   
 $I_y=0.53 \times 10^4 \text{mm}^4$   
**Section Coefficient:**  
 $Z_x=1.30 \times 10^3 \text{mm}^3$   
 $Z_y=0.56 \times 10^3 \text{mm}^3$   
**Mass Unit :** 0.41 kg/m

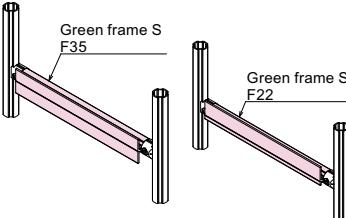
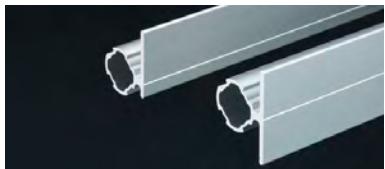
Name	Green Frame S W L=100~4000mm
Item No.	<b>GFF-406</b>

**■ Compatible Frame Cap (P114)**  
**GFA-403**



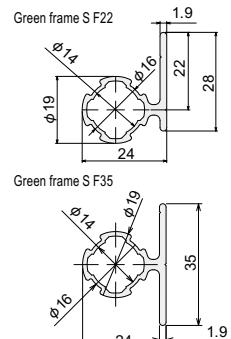
Inner Cap S

### Green Frame S F22/Green Frame S F35



- Parts container can be attached to the flat plate
- The flat area can be used as a "Name Plate"

Name	Green Frame S F22 L=100~4000mm	Green Frame S F35 L=100~4000mm
Item No.	<b>GFF-403</b>	<b>GFF-402</b>



**■ Technical Data**  
**F22**  
**Section Secondary Moment :**  
 $I_x=0.86 \times 10^4 \text{mm}^4$   
 $I_y=0.81 \times 10^4 \text{mm}^4$   
**Section Coefficient:**  
 $Z_x=0.69 \times 10^3 \text{mm}^3$   
 $Z_y=0.52 \times 10^3 \text{mm}^3$   
**Mass Unit :** 0.36 kg/m

**F35**  
**Section Secondary Moment :**  
 $I_x=0.93 \times 10^4 \text{mm}^4$   
 $I_y=0.92 \times 10^4 \text{mm}^4$   
**Section Coefficient:**  
 $Z_x=0.53 \times 10^3 \text{mm}^3$   
 $Z_y=0.56 \times 10^3 \text{mm}^3$   
**Mass Unit :** 0.40 kg/m

**■ 4-R3 processing**  
**CR3**      **4-R3**      **2-R3**      **2-C0.5**

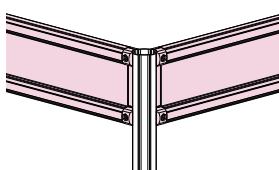
**Order example** GFF-403 Green Frame S F22 L=800 CR3 3pcs.

**■ Compatible Frame Cap (P114,115)**  
**GFA-403**



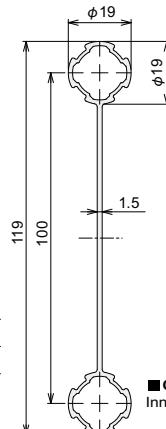
Inner Cap S      End Cover S

### Green Frame S P100



- Added as a partition or for more reinforcement

Name	Green Frame S P100 L=100~4000mm
Item No.	<b>GFF-405</b>



**■ Technical Data**  
**Section Secondary Moment :**  
 $I_x=44.58 \times 10^4 \text{mm}^4$   
 $I_y=0.53 \times 10^4 \text{mm}^4$   
**Section Coefficient:**  
 $Z_x=7.49 \times 10^3 \text{mm}^3$   
 $Z_y=0.56 \times 10^3 \text{mm}^3$   
**Mass Unit :** 0.69 kg/m

**■ Compatible Frame Cap (P114)**  
**GFA-403**



Inner Cap S

Frame

Connector

Foot Component

Moving Part

Corocon

Accessory



Drawing Support Software  
→ P.10



Design Support Service  
→ P.10

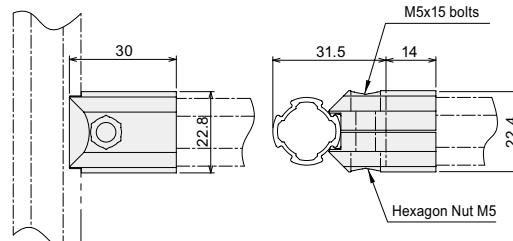
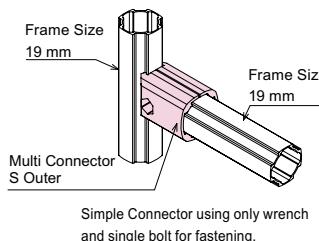


Assembled Delivery Service  
→ P.11



Application Seminar  
→ P.11

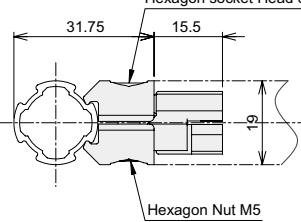
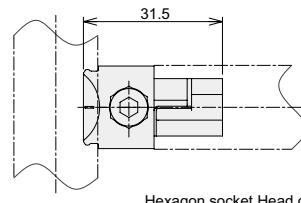
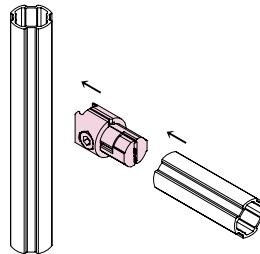
GREEN FRAME

**GF-S 19 mm Type****GF-S Connector****Multi Connector S Outer**

- This connect allows to connect between the same GF-S Frame.

Name	Multi Connector S Outer
Item No.	<b>GFJ-018</b>

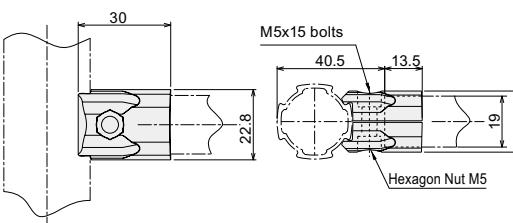
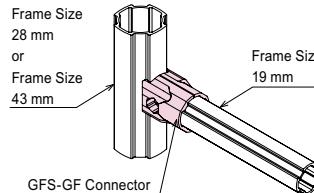
■ Material/Technical Data  
 Material : Aluminum Diecast  
 Weight : 20 g  
 Environment : RoHS Compliant

**Multi Connector S Inner**

- This connect allows to connect between the same size Frame.

Name	Multi Connector S Inner
Item No.	<b>GFJ-211</b>

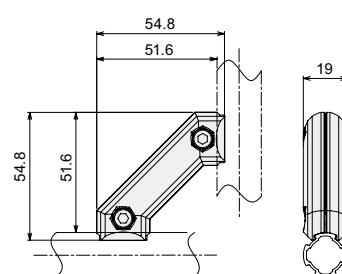
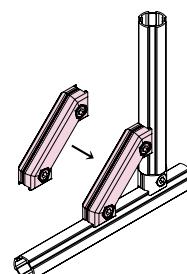
■ Material/Technical Data  
 Material : Stainless  
 Weight : 40 g  
 Environment : RoHS Compliant

**GFS-GF Connector**

- This Connector is to join GF-S (19 mm) Frame and GF-N (28 mm) / GF-G (43 mm) Frame.

Name	GFS-GF Connector
Item No.	<b>GFJ-020</b>

■ Material/Technical Data  
 Material : Aluminum Diecast  
 Bolt,Nut : Steel  
 Weight : 25.0 g  
 Environment : RoHS Compliant

**Point Connector S**

- Support Connector for Green Frame S to join at 90°.

■ Material/Technical Data  
 Material : Aluminum Diecast  
 Bolt,Nut : Steel  
 Weight : 40.0 g  
 Environment : RoHS Compliant

Name	Point Connector S
Item No.	<b>GFJ-A72</b>

**Order Method**

Item No. or Product Name    No. of Piece  
**GFJ-018**                    pcs.

→ P.165



Approx.  
Frame Size  
→ P.129



Connector  
Strength Data  
→ P.154



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

GF Motion

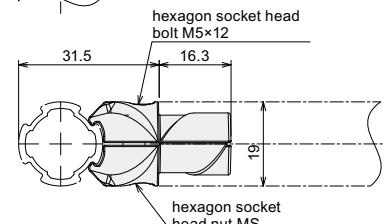
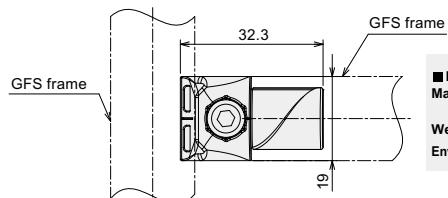
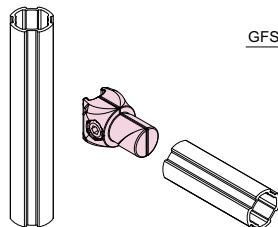
Technical Data

## GF-S Connector

### Multi Connector SR Inner



- Changes the angle on the frame's surface

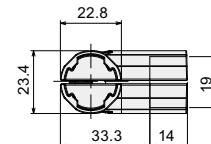
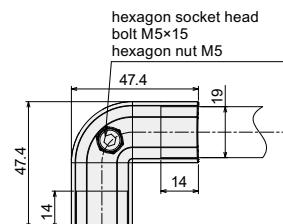
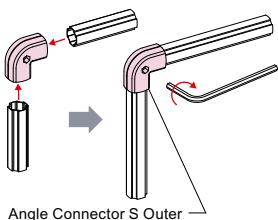


■ Material/Technical Data  
Material : Aluminum Diecast  
Bolt,Nut : Steel  
Weight : 19 g  
Environment : RoHS Compliant

### Angle Connector S Outer



- Connect frames at a right angle

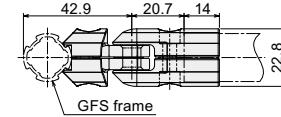
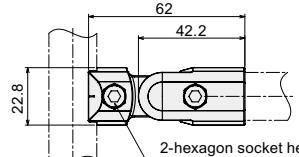
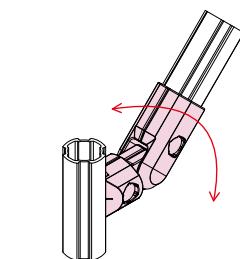


■ Material/Technical Data  
Material : Aluminum Diecast  
Bolt,Nut : Steel  
Weight : 40 g  
Environment : RoHS Compliant

### Link Connector S V



- After connected and tightened with a bolt, it allows for movement similar to a human joint



■ Material/Technical Data  
Material : Aluminum Diecast  
Bolt,Nut : Steel  
Weight : 47 g  
Environment : RoHS Compliant

Frame

Connector

Foot Component

Moving Part

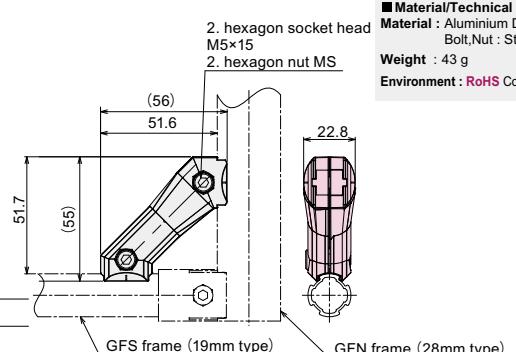
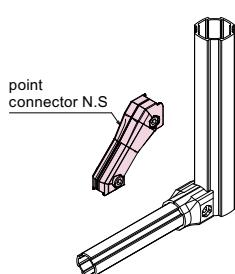
Corocon

Accessory

### Point Connector N-S



- Reinforces the connection point between GF-S (19mm) and GF-N (28mm)



■ Material/Technical Data  
Material : Aluminum Diecast  
Bolt,Nut : Steel  
Weight : 43 g  
Environment : RoHS Compliant

Name	Point Connector N-S
Item No.	GFJ-B89



Drawing Support Software  
→ P.10



Design Support Service  
→ P.10



Assembled Delivery Service  
→ P.11



Application Seminar  
→ P.11

GREEN FRAME

**GF-S 19 mm Type**

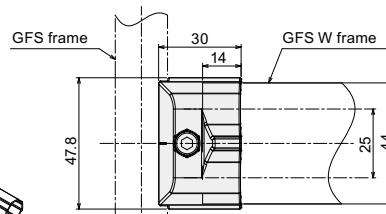
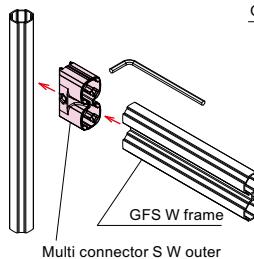
19 mm

28 mm

43 mm

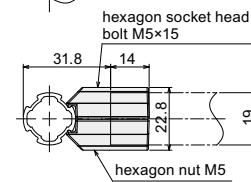
**GF-S Connector****Multi Connector S W Outer**

- Connector for Green Frame S W

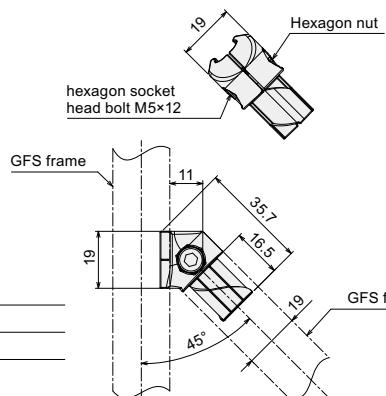
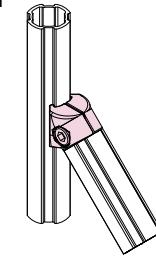


**■Material/Technical Data**  
**Material :** Aluminium Diecast  
**Bolt,Nut :** Steel  
**Weight :** 39 g  
**Environment :** RoHS Compliant

Name	Multi Connector S W Outer
Item No.	<b>GFJ-044</b>

**45-Degree Connector S Inner**

- Connect at 45°
- Enhances appearance due to no gap between the connector and the frame surface

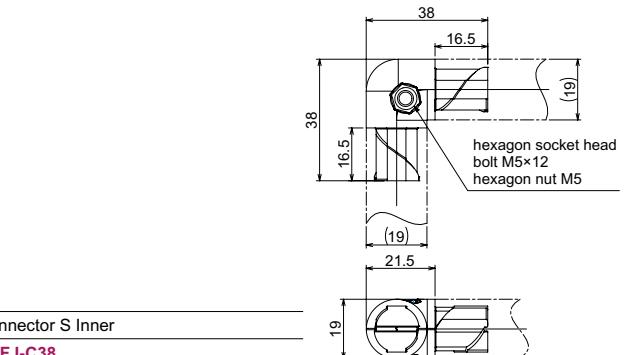


**■Material/Technical Data**  
**Material :** Aluminium Diecast  
**Bolt,Nut :** Steel  
**Weight :** 19 g  
**Environment :** RoHS Compliant

Name	45-Degree Connector S Inner
Item No.	<b>GFJ-248</b>

**Angle Connector S Inner**

- The 90° L-frame corner can be linked with the same size as the outer dimension of the frame.
- It is effective for mounting to frames which are not compatible with outer connectors.

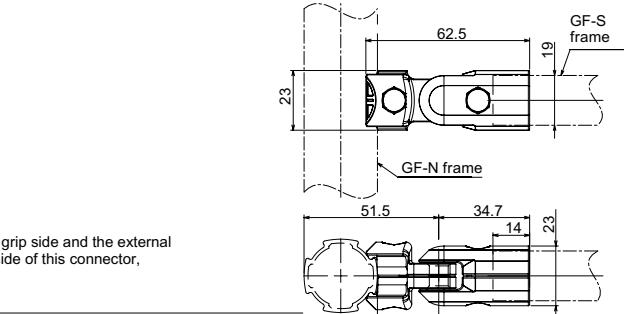


**■Material/Technical Data**  
**Material :** Aluminium Diecast  
**Bolt,Nut :** Steel  
**Weight :** 29 g  
**Environment :** RoHS Compliant  
**■Strength Data**  
**Sliding Load :** 140(N)  
**Moment Load (vertical) :** 3.5(N·m)  
**Moment Load (horizontal) :** 1.6(N·m)

Name	Angle Connector S Inner
Item No.	<b>GFJ-C38</b>

**Link Connector N-S**

- The outer dimension 28 mm GF-N frame can be mounted on the grip side and the external dimension 19 mm GF-S frame can be mounted on the insertion side of this connector, which can be fixed to the frame at any angle.
- Apply grease before using to perform repeated operations.



**■Material/Technical Data**  
**Material :** Aluminium Diecast  
**Bolt,Nut :** Steel  
**Weight :** 64 g  
**Environment :** RoHS Compliant  
**■Strength Data**  
**Slide Load :** 280(N)  
**Sliding Load :** 300(N)

Name	Link Connector N-S
Item No.	<b>GFJ-C39</b>

**Order Method**

Item No. or Product Name    No. of Piece  
**GFJ-044**     **pcs.**

→ P.165



Approx.  
Frame Size  
→ P.129



Connector  
Strength Data  
→ P.154



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

GF Motion

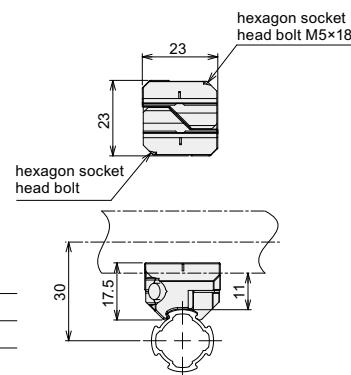
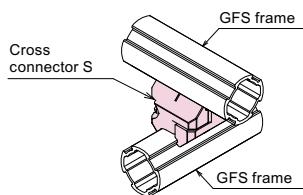
Technical Data

## GF-S Connector

### Cross Connector S



- Connect frames perpendicularly

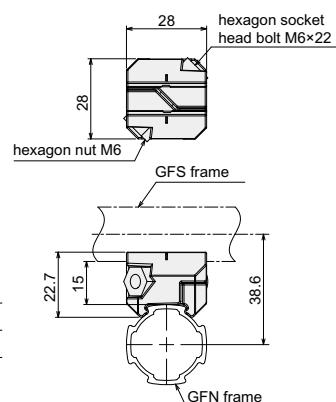
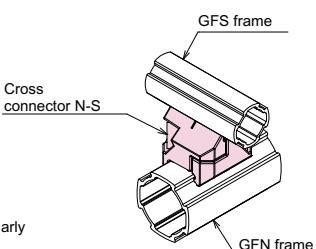


■ Material/Technical Data  
Material : Aluminum Diecast  
Bolt,Nut : Steel  
Weight : 18 g  
Environment : RoHS Compliant

### Cross Connector N-S



- Connects GF-S (19mm) and GF-N (28mm) perpendicularly

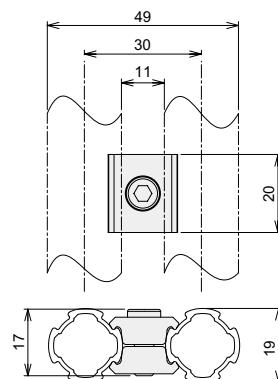
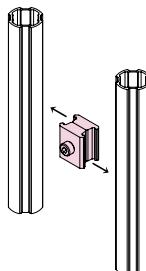


■ Material/Technical Data  
Material : Aluminum Diecast  
Bolt,Nut : Steel  
Weight : 35 g  
Environment : RoHS Compliant

### Double Connector S



- This connector is to join the Green Frame S side by side.

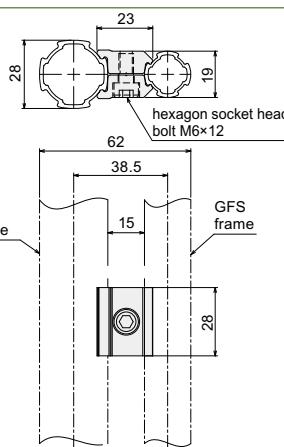
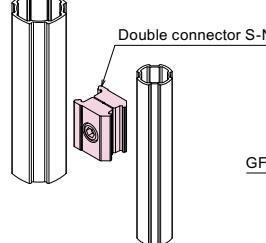


■ Material/Technical Data  
Material : Aluminum Extrude  
Weight : 12.0 g  
Environment : RoHS Compliant

### Double Connector N-S



- To connect parallel GF-S (19mm) and GF-N (28mm) frames



■ Material/Technical Data  
Material : Extruded Aluminium  
Bolt,Nut : Steel  
Weight : 27 g  
Environment : RoHS Compliant

Name	Double Connector N-S
Item No.	<b>GFJ-B50</b>

Frame

Connector

Foot Component

Moving Part

Corocon

Accessory



Drawing Support Software  
→ P.10



Design Support Service  
→ P.10

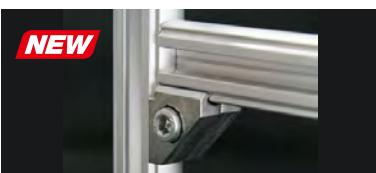


Assembled Delivery Service  
→ P.11



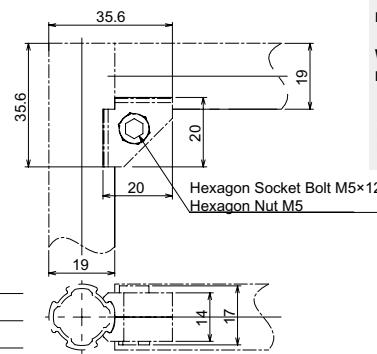
Application Seminar  
→ P.11

GREEN FRAME

**GF-S 19 mm Type****GF-S Connector****Corner Bracket S**

- This bracket for the GF-S (19 mm) grips the side of the frame and links at 90°. It can be fit inside the frame external dimension even when an inner connector cannot be used.

Name	Corner Bracket S
Item No.	GFJ-C53



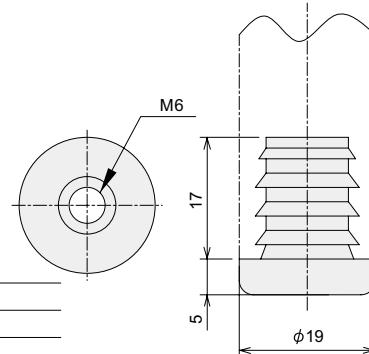
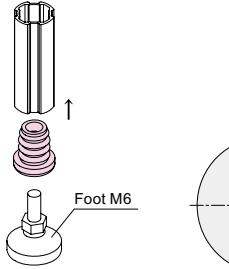
**■ Material/Technical Data**  
**Material :** Aluminium Diecast  
**Bolt,Nut :** Steel  
**Weight :** 11 g  
**Environment :** RoHS Compliant

**■ Strength Data**  
**Slide Load :** 360(N)  
**Moment Load (vertical) :** 4.5(N·m)  
**Moment Load (horizontal) :** 1.2(N·m)

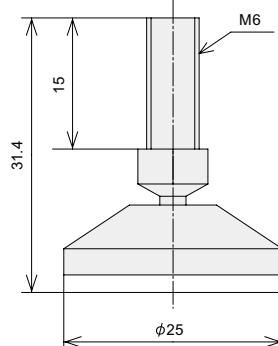
**GF-S Foot Components Part****Foot Connector S**

- Apply when install Adjuster to Frame

Name	Foot Connector S
Item No.	GFN-E07



**■ Material/Technical Data**  
**Material :** Nylon  
**Weight :** 4 g  
**Environment :** RoHS Compliant

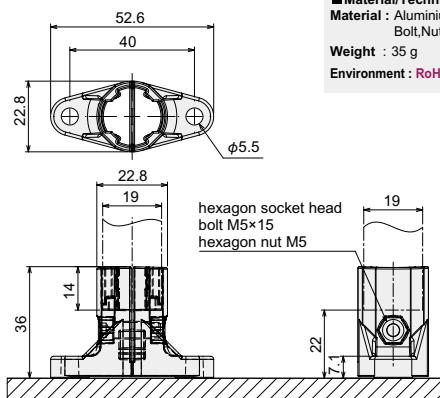
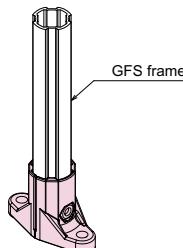
**Foot M6**

**■ Material/Technical Data**  
**Material :** Shaft Area : Soft Wire Steel  
**Bottom area :** Nylon  
**Weight :** 11 g  
**Load Capacity :** 300 N  
**Environment :** RoHS Compliant

**Stand Connector S**

- For fixing frames to a wall or a floor

Name	Stand Connector S
Item No.	GFJ-B45



**■ Material/Technical Data**  
**Material :** Aluminium Diecast  
**Bolt,Nut :** Steel  
**Weight :** 35 g  
**Environment :** RoHS Compliant

**Order Method**

Item No. or Product Name    No. of Piece  
**GFJ-C53**      pcs.

→ P.165



Approx.  
Frame Size  
→ P.129



Connector  
Strength Data  
→ P.154



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

GF Motion

Technical Data

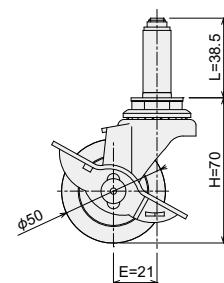
## GF-S Foot Components Part

### Frame Caster S Frame $\phi 50$ Rubber



- Insert this directly into the frame and tighten it with a thin spanner to crimp the rubber part to the frame and fix it in place.

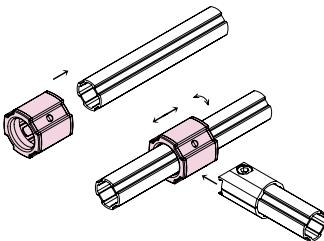
Name	Frame Caster S Frame $\phi 50$ Rubber	Frame Caster S Frame $\phi 50$ Rubber with Brake
Brake	No Brake	With Brake
Weight	171 g	201 g
Item No.	<b>GFN-647</b>	<b>GFN-648</b>



- Material/Technical Data  
**Material** : Steel Rubber  
**Load Capacity** : 120 N  
**Environment** : RoHS Compliant  
• A #21 spanner is necessary for mounting.

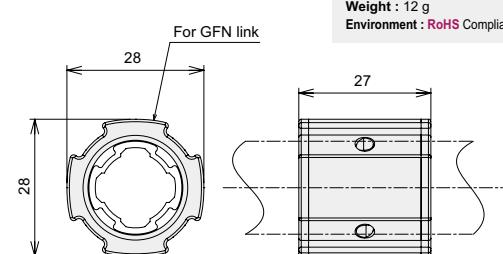
## GF-S Moving Part

### Hinge Connector S



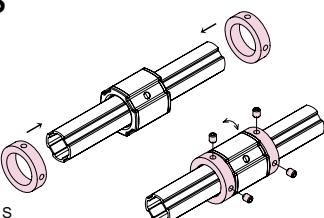
- Its allow the movement of rotation or slide

Name	Hinge Connector S
Item No.	<b>GFJ-A64</b>



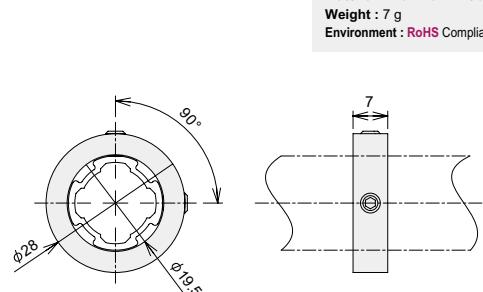
- Material/Technical Data  
**Material** : Body : Aluminum Extrude  
Slide Bush : Polyacetal  
**Weight** : 12 g  
**Environment** : RoHS Compliant

### Hinge Connector Stopper S



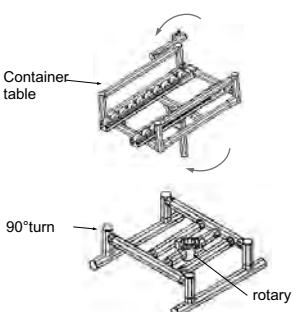
- Use as a stopper for rotation or slide of Hinge Connector S

Name	Hinge Connector Stopper S
Item No.	<b>GFJ-A67</b>



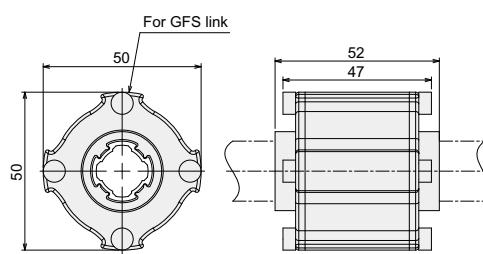
- Material/Technical Data  
**Material** : Aluminum Extrude  
**Weight** : 7 g  
**Environment** : RoHS Compliant

### Rotary Connector S



- Rotates on the frame's axis with a bearing inside

Name	Rotary Connector S
Item No.	<b>GFJ-B83</b>



- Material/Technical Data  
**Material** : Body : Extruded Aluminum  
Cap Part : Aluminum Diecast  
Bearing Part : SUJ2  
**Weight** : 115.0 g  
**Environment** : RoHS Compliant

Frame

Connector

Foot Component

Moving Part

Corocon

Accessory



Drawing Support Software  
→ P.10



Design Support Service  
→ P.10



Assembled Delivery Service  
→ P.11



Application Seminar  
→ P.11

GREEN FRAME

**GF-S 19 mm Type**

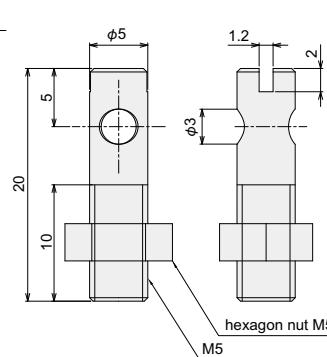
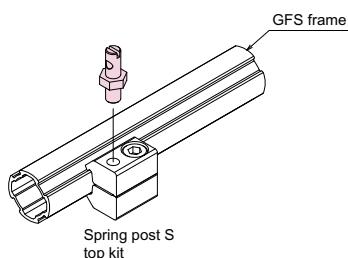
19 mm

28 mm

43 mm

**GF-S Moving Part****Spring Post S Top Kit**

- For attaching a spring to a frame

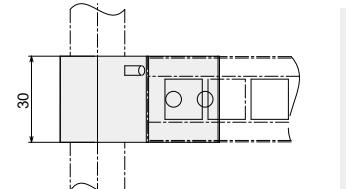
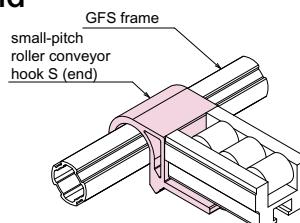


**■ Material/Technical Data**  
**Material :** Stainless  
**Weight :** 3.2 g  
**Environment :** RoHS Compliant

**■ Kit Contents**  
 Spring Post \*1pc  
 Hexagon Nut M5 \*1pc  
 Connector Piece \*1pc

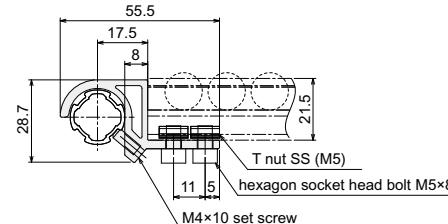
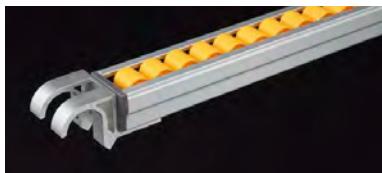
**GF-S Corocon****Mini Corocon Hook S for End**

- Small Pitch Corocon Hook for Green Frame S

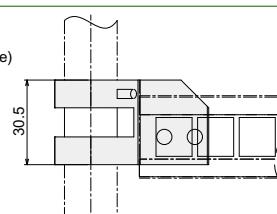
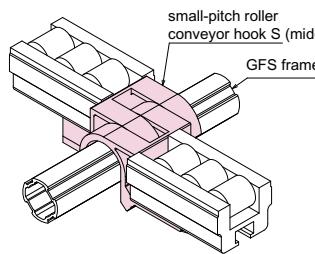


**■ Material/Technical Data**  
**Material :** Extruded Aluminum  
**Bolt,Nut :** Stainless  
**Mass Unit :** 33 g  
**Environment :** RoHS Compliant

**■ Kit Contents**  
 ST Nut SS(M5) for Small Pitch Corocon Hook for End \*2pcs  
 Hexagon Socket Bolt M5\*6 \*2pcs  
 Set Screw M4\*10 \*1pc

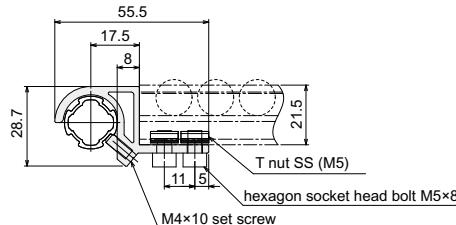
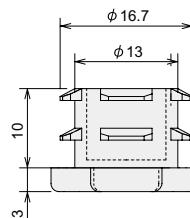
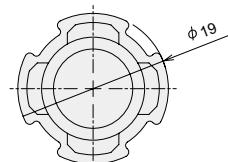
**Mini Corocon Hook S**

- Used at relay points



**■ Material/Technical Data**  
**Material :** Extruded Aluminum  
**Bolt,Nut :** Stainless  
**Mass Unit :** 28 g  
**Environment :** RoHS Compliant

**■ Kit Contents**  
 ST Nut SS(M5) for Small Pitch Corocon Hook for End \*2pcs  
 Hexagon Socket Bolt M5\*6 \*2pcs  
 Set Screw M4\*10 \*1pc

**GF-S Accessory****Inner Cap S**

**■ Material/Technical Data**  
**Material :** Polyethylene  
**Weight :** 1.3 g  
**Environment :** RoHS Compliant

Name	Inner Cap S
Item No.	GFA-403

**Order Method**

Item No. or Product Name    No. of Piece  
**GFK-953**     **pcs.**

→ P.165

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

GF Motion

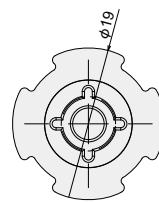
Technical Data

## GF-S Accessory

### GFS Hard Inner Cap

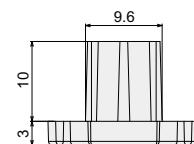


- Inner Cap for Green Frame S Hard



■ Material/Technical Data  
**Material :** Low Density Polyethylene  
**Weight :** 0.9 g  
**Environment :** RoHS Compliant

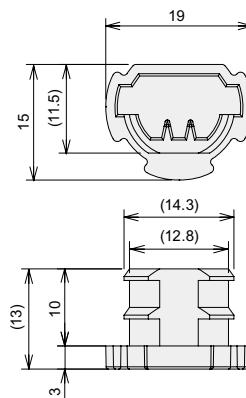
Name	GFS Hard Inner Cap
Item No.	<b>GFA-443</b>



### SS Slot Inner Cap



Name	SS Slot Inner Cap
Item No.	<b>GFA-408</b>

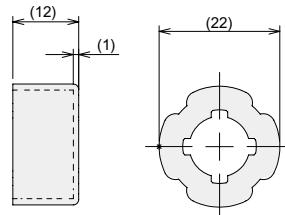
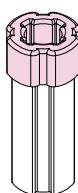


■ Material/Technical Data  
**Material :** Low Density Polyethylene  
**Weight :** 0.8 g  
**Environment :** RoHS Compliant

### GFS End Cover



- For protecting the end face of a frame



■ Material/Technical Data  
**Material :** Flexible PVC  
**Weight :** 3.1 g  
**Environment :** RoHS Compliant

Name	GFS End Cover (Gray)	GFS End Cover (Red)
Item No.	<b>GFA-437G</b>	<b>GFA-437R</b>

Frame

Connector

Foot Component

Moving Part

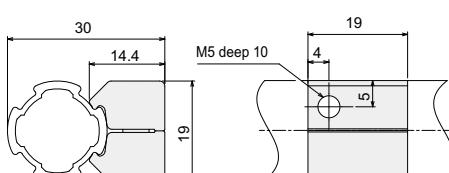
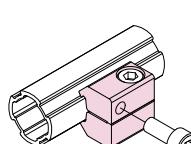
Corocon

Accessory

### Connector Piece S Side



- Contains M5 hole
- For attaching certain parts or tools to the frame



■ Material/Technical Data  
**Material :** Extruded Aluminium Bolt,Nut : Steel  
**Weight :** 13 g  
**Environment :** RoHS Compliant

Name	Connector Piece S Side
Item No.	<b>GFJ-B71</b>

Drawing Support Software  
→ P.10

Design Support Service  
→ P.10

Assembled Delivery Service  
→ P.11

Application Seminar  
→ P.11

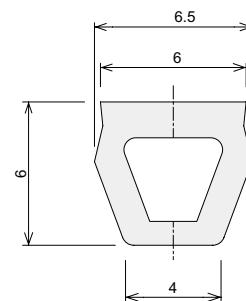
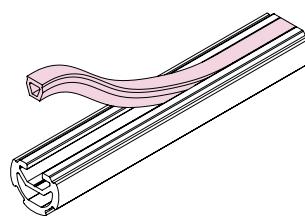


## GF-S Accessory

### Slot Seal SS



● This part is for cover the groove of Green Frame S SS Slot

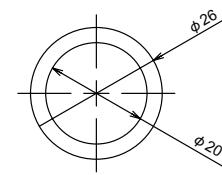


■ Material/Technical Data  
Material : Elastomer  
Weight : 21.0 g/m  
Environment : RoHS Compliant

### $\phi$ 26 PVC Pipe



● This pipe is used to construct simple rolling conveyors that convey work and protecting parts of frame that interfere with each other by covering the frame.



■ Material/Technical Data  
Material : PVC  
Weight : 298 g/m  
Environment : RoHS Compliant

Name	$\phi$ 26 PVC Pipe L=100~4000mm
Item No.	GFA-A89



#### Order Method

Item No. or Product Name    No. of Piece  
**SFA-170**      pcs.

→ P.165

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

GF  
Motion

Technical  
Data

Frame

Connector

Foot  
Component

Moving Part

Corocon

Accessory



Drawing Support Software  
→ P.10



Design Support Service  
→ P.10



Assembled Delivery Service  
→ P.11



Application Seminar  
→ P.11

GREEN FRAME

**GF Jig**

## GF Jig

### Handy Torque Cutter



- Handy Cutter for Green Frame

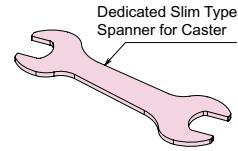
**■ Material/Technical Data**  
**Weight :** 605 g  
**Environment :** RoHS Compliant

### Spanner Slim Type for Caster



- This tool is for installation shaft screw Caster and frame caster

**■ Material/Technical Data**  
**Weight :** 81 g (A)  
92 g (B)  
**Environment :** RoHS Compliant



Name	Handy Torque Cutter
Item No.	<b>GFG-032</b>

Name	Spanner A Slim Type for Caster φ50 φ75	Spanner B Slim Type for Caster φ100 φ150
Item No.	<b>GFG-000</b>	<b>GFG-001</b>

### Stubby Wrench 5mm



- Wrench for a small place

Name	Stubby Wrench 5mm
Item No.	<b>BFA-003</b>

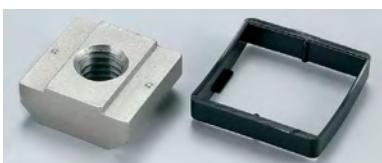
### Anti-Skid Cap (50pcs/pack) for ST Nut



**■ Material/Technical Data**  
**Material :** Polyamide  
**1pcs weight :** SS 0.09 g  
S 0.2 g  
L40 0.3 g  
**Environment :** RoHS Compliant

Name	Anti-Skid Cap SS (50pcs/pack)	Anti-Skid Cap S (50pcs/pack)	Anti-Skid Cap L40 (50pcs/pack)
Item No.	<b>SFA-905</b>	<b>SFA-906</b>	<b>SFA-907</b>

### ST Nut



**■ Material/Technical Data**  
**Material :** Stainless  
with conductive function  
Polyamide (Slide Stopper Cap)  
**Weight :** 2.10 g (SS) 8.20 g (S) 14.2 g (L)  
**Environment :** RoHS Compliant

- Special Nut (with Slide Stopper ) use for Green Frame L Slot / Green Frame GL slot / Green Frame SS Slot / Part Holder / SS Slot Assist / Board Holder etc.

#### Groove Width 6 mm (Green Frame S SS Slot / SS Slot Assist)

Name	ST Nut SS M5 (with Anti-Skid Cap)	ST Nut SS M4 (with Anti-Skid Cap)	ST Nut SS M3 (with Anti-Skid Cap)
Item No.	<b>SFK-T03S</b>	<b>SFK-T02S</b>	<b>SFK-T01S</b>

#### Groove Width 8 mm (Board Holder / Part Holder) \* Board Holder can not use M6

Name	ST Nut S M6 (with Anti-Skid Cap)	ST Nut S M5 (with Anti-Skid Cap)	ST Nut S M4 (with Anti-Skid Cap)	ST Nut S M3 (with Anti-Skid Cap)
Item No.	<b>SFK-T07S</b>	<b>SFK-T06S</b>	<b>SFK-T05S</b>	<b>SFK-T04S</b>

#### Groove Width 10 mm (Green Frame L Slot / Green Frame G L Slot)

Name	ST Nut L M8 (with Anti-Skid Cap)	ST Nut L M6 (with Anti-Skid Cap)	ST Nut L M5 (with Anti-Skid Cap)	ST Nut L M4 (with Anti-Skid Cap)
Item No.	<b>SFK-T11S</b>	<b>SFK-T10S</b>	<b>SFK-T09S</b>	<b>SFK-T08S</b>



Work Table → P.138～



Trolley → P.146～



Partition → P.152～



Rack → P.153～



Shooter → P.154～

Clean Bench → P.155～  
Clean Booth

Part Container Stand → P.155～

GREEN FRAME  
**GF Unit****Work Table****GF-N**  
28 mm**GF-G**  
43 mm**GF-S**  
19 mm

GF Jig

Panel Board

GF Unit

GF Sample Application

Home Use

Technical Data

Dealer Delivery Environment

Index

Work Table

Trolley

Partition

Rack

Shooter

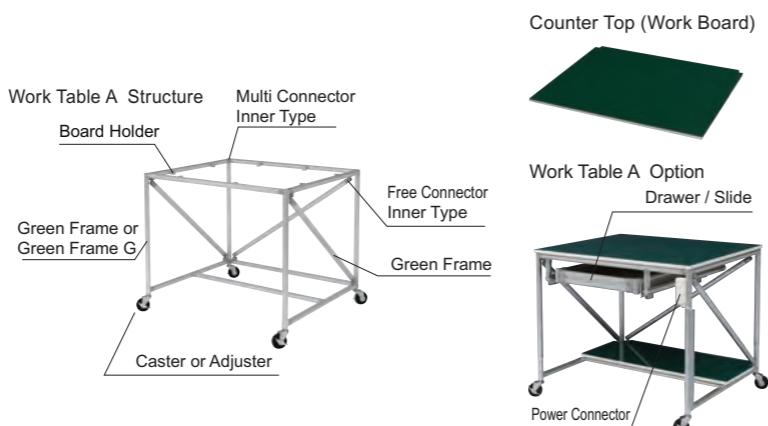
Clean Bench  
Clean Booth

Part Container Stand

Cover Frame

## Work Table

## Work Table A



## Work Board A for Sitting Work

Load Capacity / 100 kg		
■ Components	Frame : Green Frame	
Connector :	Multi Connector Inner Type	
Counter Top :	Free Connector Inner Type	
Bottom :	Work Board t= 16.5 (Particle Board + Rubber Mat)	
	Board Holder	
	Foot Connector M12 resin type +Adjuster M12	

● Picture shows W900 Type  
● Requirement for conductive spec, please contact

Name	Work Board A for Sitting Work (H=740)
W (mm)	750 900 1200
Item No.	GFM-001 GFM-002 GFM-003
Drawing No.	BKKAGF1300733 BKKAGF1300734 BKKAGF1300735

## Work Board A Rigid Type for Sitting Work

Load Capacity / 130 kg		
■ Components	Frame : Green Frame G	
Connector :	Multi Connector Inner Type G	
Counter Top :	Free Connector Inner Type	
Bottom :	Work Board t= 16.5 (Particle Board + Rubber Mat)	
	Board Holder	
	Foot Connector M12 resin type +Adjuster B M16	

● Picture shows W1200 Type  
● Requirement for conductive spec, please contact

Name	Work Board A Rigid Type for Sitting Work (H=740)
W (mm)	750 900 1200
Item No.	GFM-201 GFM-202 GFM-203
Drawing No.	BKKAGF1300736 BKKAGF1300737 BKKAGF1300738

## Work Board A for Standing Work

Load Capacity / 100 kg		
■ Components	Frame : Green Frame	
Connector :	Multi Connector Inner Type	
Counter Top :	Free Connector Inner Type	
Bottom :	Work Board t= 16.5 (Particle Board + Rubber Mat)	
	Board Holder	
	Foot Connector M12 resin type +Adjuster M12	

● Picture shows W900 Type  
● Requirement for conductive spec, please contact

Name	Work Board A for Standing Work (H=900)
W (mm)	750 900 1200
Item No.	GFM-004 GFM-005 GFM-006
Drawing No.	BKKAGF1300739 BKKAGF1300740 BKKAGF1300741

## Work Board A Rigid Type for Standing Work

Load Capacity / 130 kg		
■ Components	Frame : Green Frame G	
Connector :	Multi Connector Inner Type G	
Counter Top :	Free Connector Inner Type	
Bottom :	Work Board t= 16.5 (Particle Board + Rubber Mat)	
	Board Holder	
	Foot Connector M12 resin type +Adjuster B M16	

● Picture shows W1200 Type  
● Requirement for conductive spec, please contact

Name	Work Board A Rigid Type for Standing Work (H=900)
W (mm)	750 900 1200
Item No.	GFM-204 GFM-205 GFM-206
Drawing No.	BKKAGF1300742 BKKAGF1300743 BKKAGF1300744

## Work Board A for Moving Work

Load Capacity / 100 kg		
■ Components	Frame : Green Frame	
Connector :	Multi Connector Inner Type	
Counter Top :	Free Connector Inner Type	
Bottom :	Work Board t= 16.5 (Particle Board + Rubber Mat)	
	Board Holder	
	Frame Caster ø 75 x 2 + with brake x 2	

● Picture shows W900 Type  
● Requirement for conductive spec, please contact

Name	Work Board A for Moving Work (H=840)
W (mm)	750 900 1200
Item No.	GFM-007 GFM-008 GFM-009
Drawing No.	BKKAGF1300745 BKKAGF1300746 BKKAGF1300747

## Work Board A Rigid Type for Moving Work

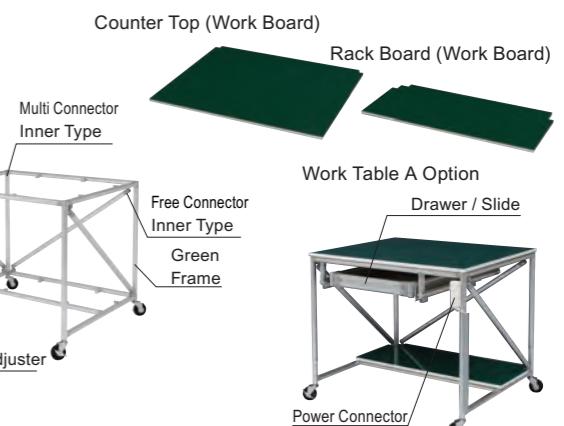
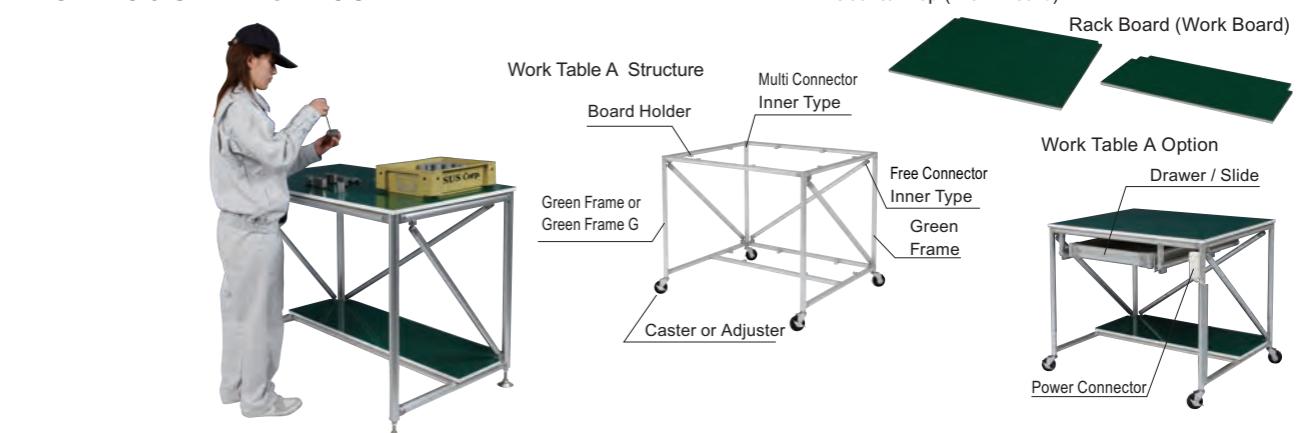
Load Capacity / 130 kg		
■ Components	Frame : Green Frame G	
Connector :	Multi Connector Inner Type G	
Counter Top :	Free Connector Inner Type	
Bottom :	Work Board t= 16.5 (Particle Board + Rubber Mat)	
	Board Holder	
	Foot Connector M16 G + ø 100 Caster M 16 x 2 + with brake x 2	

● Picture shows W1200 Type  
● Requirement for conductive spec, please contact

Name	Work Board A Rigid Type for Moving Work (H=840)
W (mm)	750 900 1200
Item No.	GFM-207 GFM-208 GFM-209
Drawing No.	BKKAGF1300748 BKKAGF1300749 BKKAGF1300750

## Work Table

## Work Table A with Rack



## Work Board A with Rack for Sitting Work

Load Capacity / 100 kg		
■ Components	Frame : Green Frame	
Connector :	Multi Connector Inner Type	
Counter Top/Rack Board :	Free Connector Inner Type	
Bottom :	Work Board t= 16.5 (Particle Board + Rubber Mat)	
	Board Holder	
	Foot Connector M12 resin type +Adjuster M12	

● Picture shows W900 Type  
● Requirement for conductive spec, please contact

Name	Work Board A with Rack for Sitting Work (H=740)
W (mm)	750 900 1200
Item No.	GFM-010 GFM-011 GFM-012
Drawing No.	BKKAGF1300751 BKKAGF1300752 BKKAGF1300753

## Work Board A with Rack / Rigid Type for Sitting Work

Load Capacity / 130 kg		
■ Components	Frame : Green Frame G	
Connector :	Multi Connector Inner Type G	
Counter Top/Rack Board :	Free Connector Inner Type	
Bottom :	Work Board t= 16.5 (Particle Board + Rubber Mat)	
	Board Holder	
	Foot Connector M16 G + Adjuster B M16	

● Picture shows W1200 Type  
● Requirement for conductive spec, please contact

Name	Work Board A with Rack / Rigid Type for Sitting Work (H=740)
W (mm)	750 900 1200
Item No.	GFM-210 GFM-211 GFM-212
Drawing No.	BKKAGF1300754 BKKAGF1300755 BKKAGF1300756

## Work Board A with Rack Normal for Standing Work

Load Capacity / 100 kg		
■ Components	Frame : Green Frame	
Connector :	Multi Connector Inner Type	
Counter Top :	Free Connector Inner Type	
Bottom :	Work Board t= 16.5 (Particle Board + Rubber Mat)	
	Board Holder	
	Foot Connector M12 resin type +Adjuster M12	

● Picture shows W900 Type  
● Requirement for conductive spec, please contact

Name	Work Board A with Rack Normal for Standing Work (H=900)
W (mm)	750 900 1200
Item No.	GFM-013 GFM-014 GFM-015
Drawing No.	BKKAGF1300757 BKKAGF1300758 BKKAGF1300759

## Work Board A with Rack / Rigid Type for Standing Work

Load Capacity / 130 kg		
■ Components	Frame : Green Frame G	
Connector :	Multi Connector Inner Type G	
Counter Top :	Free Connector Inner Type	
Bottom :	Work Board t= 16.5 (Particle Board + Rubber Mat)	
	Board Holder	
	Foot Connector M16 G + Adjuster B M16	

● Picture shows W1200 Type  
● Requirement for conductive spec, please contact

Name	Work Board A with Rack / Rigid Type for Standing Work (H=900)
W (mm)	750 900 1200
Item No.	GFM-213 GFM-214 GFM-215
Drawing No.	BKKAGF1300760 BKKAGF1300761 BKKAGF1300762

Order method for GF Unit

Item No. or Name **GFM-001** No. of Set **□□Set** (Component Delivery)

Order method for Assembled part delivery

Item No. or Name **GFM-001** No. of Set **□□Set** Assembled Delivery **□□ / □□**

For delivery date adjustment will be responded when receive order

- Drawing Support Software → P.20
- Design Support Service → P.20
- Assembled Delivery Service → P.21
- Application Seminar → P.22

GF-N  
28 mmGF-G  
43 mmGF-S  
19 mm

GF Jig

Panel Board

GF Sample Application  
Home Use

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Work Table

Trolley

Partition

Rack

Shooter

Clean Bench

Clean Booth

Part Container Stand

Cover Frame

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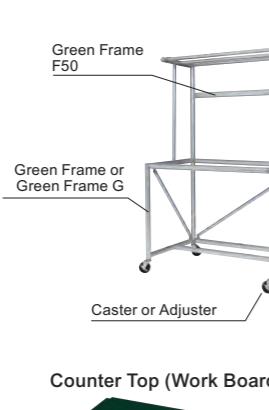
## Work Table

## Work Table B



Optimum system for cell production

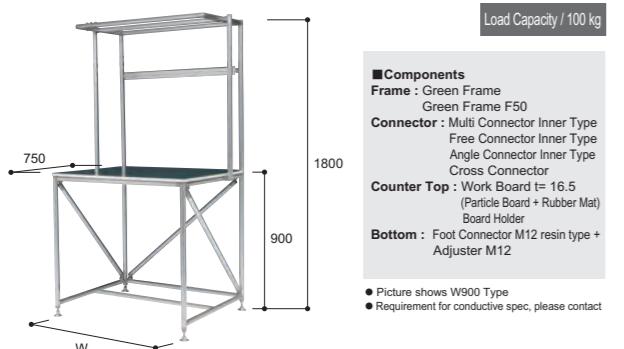
Work Table B Structure



Work Table B Option

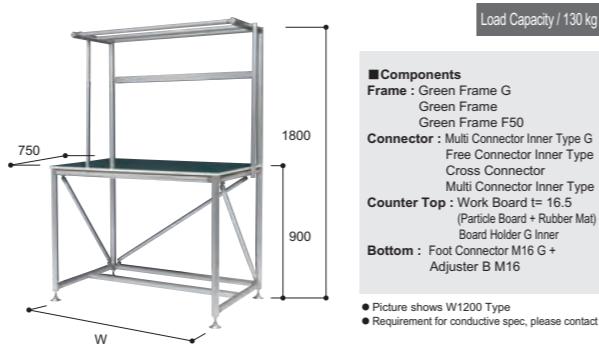


## Work Board B for Standing Work



Name	Work Board B for Standing Work		
W (mm)	750	900	1200
Item No.	GFM-019	GFM-020	GFM-021
Drawing No.	BKKAGF1300769	BKKAGF1300770	BKKAGF1300771

## Work Board B Rigid Type for Standing Work



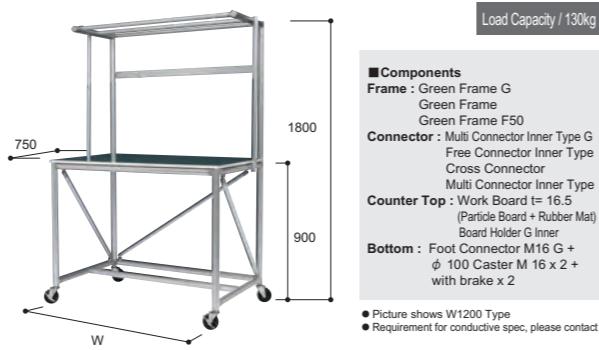
Name	Work Board B Rigid Type for Standing Work		
W (mm)	750	900	1200
Item No.	GFM-219	GFM-220	GFM-221
Drawing No.	BKKAGF1300772	BKKAGF1300773	BKKAGF1300774

## Work Board B for Moving Work



Name	Work Board B for Moving Work		
W(mm)	750	900	1200
Item No.	GFM-022	GFM-023	GFM-024
Drawing No.	BKKAGF1300775	BKKAGF1300776	BKKAGF1300777

## Work Board B Rigid Type for Moving Work



Name	Work Board B Rigid Type for Moving Work		
W(mm)	750	900	1200
Item No.	GFM-222	GFM-223	GFM-224
Drawing No.	BKKAGF1300778	BKKAGF1300779	BKKAGF1300780

Order method for GF Unit  
Item No. or Name **GFM-019** No. of Set **□□Set** (Component Delivery)

Order method for Assembled part delivery  
Item No. or Name **GFM-019** No. of Set **□□Set** **Assembled Delivery**  
Stated below **Delivery prefer date** **□□ / □□**  
For delivery date adjustment will be responded when receive order

## Work Table

## Work Table B with Rack



Work Table B Structure

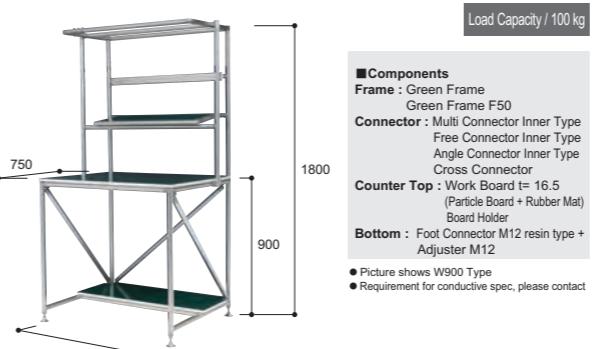


Work Table B Option



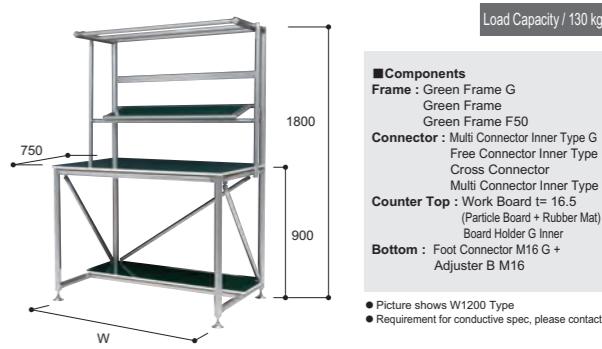
Counter Top (Work Board) Rack Board (Work Board) Inclined Rack (Work Board)

## Work Board B with Rack for Standing Work



Name	Work Board B with Rack for Standing Work		
W (mm)	750	900	1200
Item No.	GFM-025	GFM-026	GFM-027
Drawing No.	BKKAGF1300781	BKKAGF1300782	BKKAGF1300783

## Work Board B with Rack Rigid Type for Standing Work



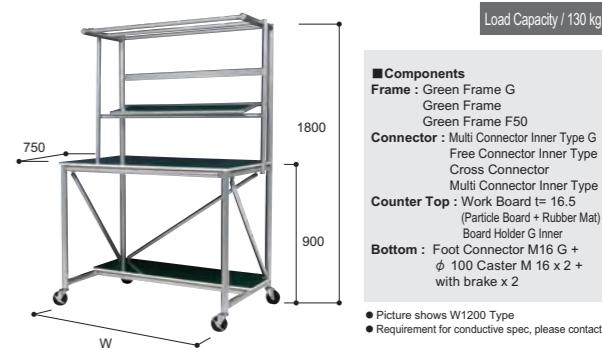
Name	Work Board B with Rack Rigid Type for Standing Work		
W (mm)	750	900	1200
Item No.	GFM-225	GFM-226	GFM-227
Drawing No.	BKKAGF1300784	BKKAGF1300785	BKKAGF1300786

## Work Board B with Rack for Moving Work



Name	Work Board B with Rack for Moving Work		
W (mm)	750	900	1200
Item No.	GFM-028	GFM-029	GFM-030
Drawing No.	BKKAGF1300787	BKKAGF1300788	BKKAGF1300789

## Work Board B with Rack Rigid Type for Moving Work



Name	Work Board B with Rack Rigid Type for Moving Work		
W (mm)	750	900	1200
Item No.	GFM-228	GFM-229	GFM-230
Drawing No.	BKKAGF1300790	BKKAGF1300791	BKKAGF1300792



GREEN FRAME  
**GF Unit**

## Work Table

### Board Leveller Kit



■ Material/Technical Data  
Environment : RoHS Compliant  
Weight : 4,580 g/set

- This helps changing height of work board easily without any tool when operator changed shift in the Cell Production.

Example of Use



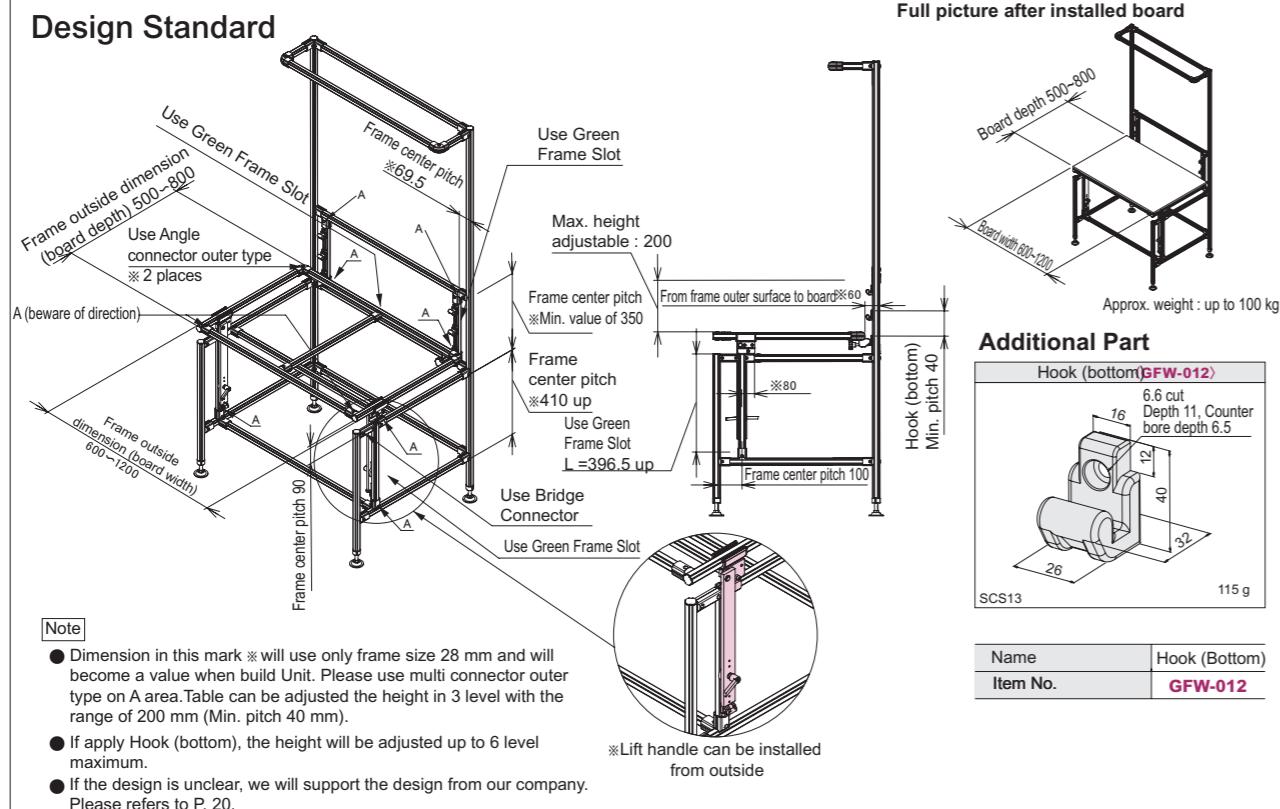
Name	Board Leveller Kit
Item No.	<b>GFK-900</b>

### How to Use



Unlock the handle (3 places) under the table to adjust the height of the table. (Height adjustment 200 mm)

### Design Standard



Order method for GF Unit

Item No. or Product Name

No. of Set

Set

(Component Delivery)

GREEN FRAME  
**GF Unit**

Trolley  
Partition  
Rack  
Shooter  
Clean Bench  
Clean Booth  
Part Container Stand

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

Panel Board

GF Unit

GF Sample Application

Home Use

Technical Data

Dealer Delivery Environment

Index

Work Table

Trolley

Partition

Rack

Shooter

Clean Bench

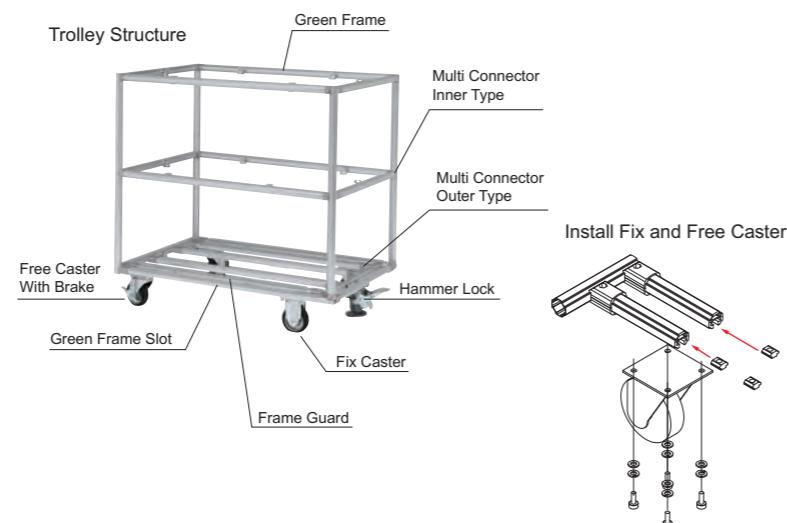
Clean Booth

Part Container Stand

Cover Frame

## Trolley

## Trolley A



## Trolley A Work Board



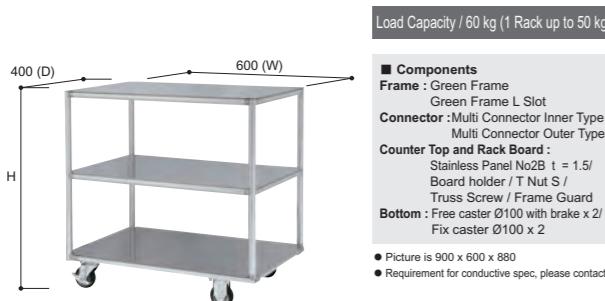
## Trolley A Work Board Hammer Lock Type



Name	Trolley A Work Board		
H (mm)	600	810	WxDxH (mm)
Item No.	GFM-401	GFM-402	<b>GFM-403</b>
Drawing No.	BKKAGF1300799	BKKAGF1300800	BKKAGF1300801

Name	Trolley A Work Board Hammer Lock Type		
H (mm)	600	810	WxDxH (mm)
Item No.	GFM-407	GFM-408	<b>GFM-409</b>
Drawing No.	BKKAGF1300802	BKKAGF1300803	BKKAGF1300804

## Trolley A Stainless Panel



Name	Trolley A Stainless Panel		
H (mm)	600	810	WxDxH (mm)
Item No.	GFM-404	GFM-405	<b>GFM-406</b>
Drawing No.	BKKAGF1300805	BKKAGF1300806	BKKAGF1300807

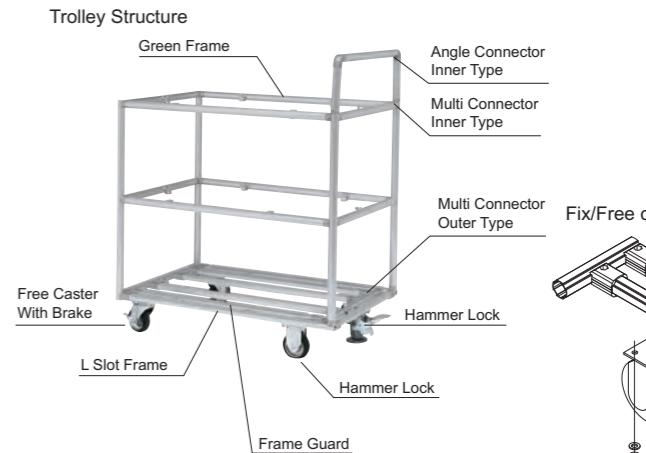
Name	Trolley A Stainless Panel Hammer Lock Type		
H (mm)	600	810	WxDxH (mm)
Item No.	GFM-410	GFM-411	<b>GFM-412</b>
Drawing No.	BKKAGF1300808	BKKAGF1300809	BKKAGF1300810

Order method for GF Unit  
Item No. or Product Name **GFM-401**     Set (Component Delivery)

How to order Assembled Delivery  
Item No. or Name **GFM-401**    No. of Set  Set    Stated below  Assembled Delivery  /   
For delivery date adjustment will be responded when receive order

## Trolley

## Trolley B



## Trolley B Work Board



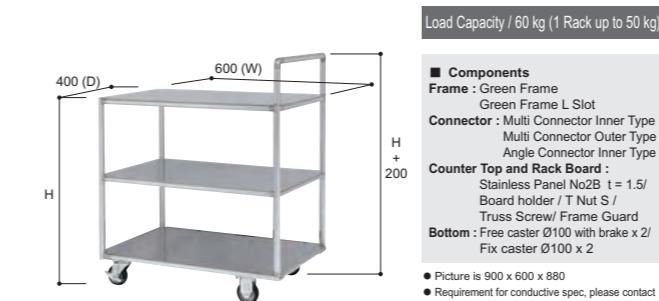
## Trolley A Work Board Hammer Lock Type



Name	Trolley B Work Board		
H (mm)	600	810	WxDxH (mm)
Item No.	GFM-413	GFM-414	<b>GFM-415</b>
Drawing No.	BKKAGF1300811	BKKAGF1300812	BKKAGF1300813

Name	Trolley B Work Board Hammer Lock Type		
H (mm)	600	810	WxDxH (mm)
Item No.	GFM-419	GFM-420	<b>GFM-421</b>
Drawing No.	BKKAGF1300814	BKKAGF1300815	BKKAGF1300816

## Trolley B Stainless Panel

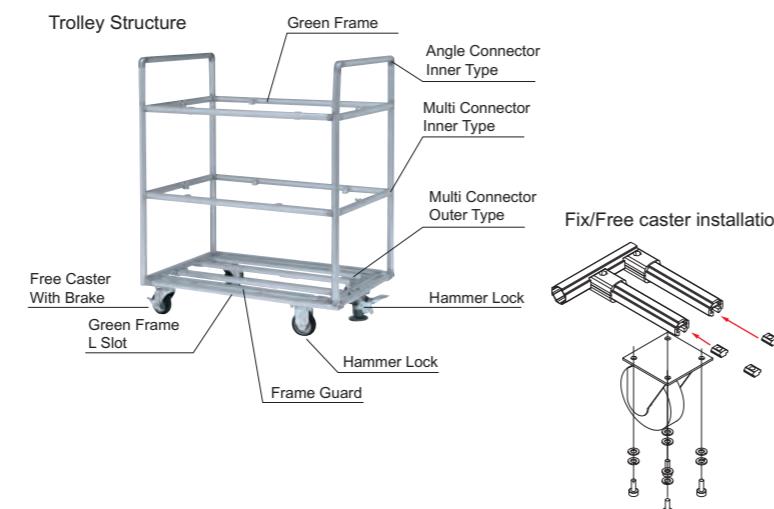


Name	Trolley B Stainless Panel		
H (mm)	600	810	WxDxH (mm)
Item No.	GFM-416	GFM-417	<b>GFM-418</b>
Drawing No.	BKKAGF1300817	BKKAGF1300818	BKKAGF1300819

Name	Trolley B Stainless Panel Hammer Lock Type		
H (mm)	600	810	WxDxH (mm)
Item No.	GFM-422	GFM-423	<b>GFM-424</b>
Drawing No.	BKKAGF1300820	BKKAGF1300821	BKKAGF1300822

## Trolley

## Trolley C



## Trolley C Work Board



Load Capacity / 60 kg (1 Rack up to 50 kg)

**Components**  
**Frame** : Green Frame  
**Connector** : Multi Connector Inner Type  
**Counter Top and Rack Board** :  
 Work Board t = 16.5  
 (Particle board + rubber mat)  
 Board holder, frame guard  
**Bottom** : Free caster Ø100 with brake x 2/  
 Fix caster Ø100 x 2  
 Hammer Lock 100  
 ● Picture is 900 x 600 x 880  
 ● Requirement for conductive spec, please contact

## Trolley C Work Board Hammer Lock Type



Load Capacity / 60 kg (1 Rack up to 50 kg)

**Components**  
**Frame** : Green Frame  
**Connector** : Multi Connector Inner Type  
**Counter Top and Rack Board** :  
 Hammer Lock 100  
**Bottom** : Free caster Ø100 with brake x 2/  
 Fix caster Ø100 x 2  
 Hammer Lock 100  
 ● Picture is 900 x 600 x 880  
 ● Requirement for conductive spec, please contact

Name	Trolley C Work Board		
H (mm)	800	1010	WxDxH (mm)
Item No.	GFM-425	GFM-426	GFM-427
Drawing No.	BKKAGF1300823	BKKAGF1300824	BKKAGF1300825

Name	Trolley C Work Board Hammer Lock Type		
H (mm)	800	1010	WxDxH (mm)
Item No.	GFM-431	GFM-432	GFM-433
Drawing No.	BKKAGF1300826	BKKAGF1300827	BKKAGF1300828

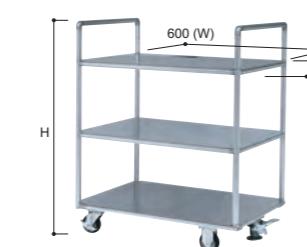
## Trolley C Stainless Panel



Load Capacity / 60 kg (1 Rack up to 50 kg)

**Components**  
**Frame** : Green Frame  
**Connector** : Multi Connector Inner Type  
**Counter Top and Rack Board** :  
 Stainless Panel No 2B t = 1.5 /  
 Board holder / T Nut S /  
 Truss Screw / Frame Guard  
**Bottom** : Free caster Ø100 with brake x 2/  
 Fix caster Ø100 x 2  
 Hammer Lock 100  
 ● Picture is 900 x 600 x 880  
 ● Requirement for conductive spec, please contact

## Trolley C Stainless Panel Hammer Lock Type



Load Capacity / 60 kg (1 Rack up to 50 kg)

**Components**  
**Frame** : Green Frame  
**Connector** : Multi Connector Inner Type  
**Counter Top and Rack Board** :  
 Hammer Lock 100  
**Bottom** : Free caster Ø100 with brake x 2/  
 Fix caster Ø100 x 2  
 Hammer Lock 100  
 ● Picture is 900 x 600 x 880  
 ● Requirement for conductive spec, please contact

Name	Trolley C Stainless Panel		
H (mm)	800	1010	WxDxH (mm)
Item No.	GFM-428	GFM-429	GFM-430
Drawing No.	BKKAGF1300829	BKKAGF1300830	BKKAGF1300831

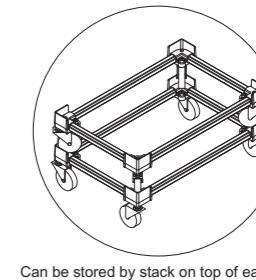
Name	Trolley C Stainless Panel Hammer Lock Type		
H (mm)	800	1010	WxDxH (mm)
Item No.	GFM-434	GFM-435	GFM-436
Drawing No.	BKKAGF1300832	BKKAGF1300833	BKKAGF1300834

	Order method for GF Unit
Item No. or Product Name <b>GFM-425</b>	No. of Set <input type="checkbox"/> <b>Set</b>
(Component Delivery)	

How to order Assembled Delivery			
Item No. or Name <b>GFM-425</b>	No. of Set <input type="checkbox"/> <b>Set</b>	Assembled Delivery	Delivery prefer date <input type="checkbox"/> / <input type="checkbox"/>
For delivery date adjustment will be responded when receive order			

## Trolley

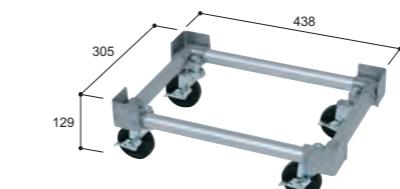
## Box Roller



Can be stored by stack on top of each other.

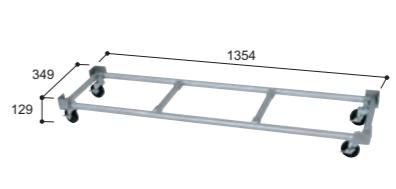
Load Capacity / 3250 N

## Box Roller A



**Components**  
**Frame** : Green Frame  
**Connector** : Palette Connector  
**Bottom** : Caster Ø75 with brake x 4  
 ● Requirement for conductive spec, please contact

## Box Roller B



**Components**  
**Frame** : Green Frame  
**Connector** : Palette Connector  
**Outer Connector**  
**Bottom** : Caster Ø75 with brake x 4  
 ● Requirement for conductive spec, please contact

## Trolley for Lengthy Cargo



Load Capacity / 60 kg. (However, transverse moment load 4.5 kg/N)

## Trolley for Lengthy Cargo



**Components**  
**Frame** : Green Frame  
**Connector** : Multi Connector Inner Type  
**Counter Top and Rack Board** :  
 Stainless Panel No 2B t = 1.5 /  
 Board holder / T Nut S /  
 Truss Screw / Frame Guard  
**Bottom** : Free caster Ø100 with brake x 2/  
 Fix caster Ø100 x 2  
 Hammer Lock 100  
 ● Requirement for conductive spec, please contact

## Trolley for Lengthy Cargo Hammer Lock Type



**Components**  
**Frame** : Green Frame  
**Connector** : Multi Connector Inner Type  
**Counter Top and Rack Board** :  
 Hammer Lock 100  
**Bottom** : Free caster Ø100 with brake x 2/  
 Fix caster Ø100 x 2  
 Hammer Lock 100  
 ● Requirement for conductive spec, please contact

Name	Trolley for Lengthy Cargo		
Item No.	<b>GFM-439</b>		
Drawing No.	BKKAGF1300837		

Name	Trolley for Lengthy Cargo Hammer Lock Type		
Item No.	<b>GFM-440</b>		
Drawing No.	BKKAGF1300838		

## Trolley

## Flip-Up Trolley



## Flip-Up Trolley



**Component**  
**Frame**: Green Frame  
Green Frame L Slot  
**Connector**: Multi Connector Inner Type/  
Multi Connector Outer Type/  
Torque Hinge  
**Base Board**: Aluminum checkered steel  
plate l=3/Board Holder/  
Frame Guard  
**Bottom**: Free caster  $\phi$  100 with  
brake x2/Fix caster  
 $\phi$  100 x 2  
  
● Requirement for conductive spec,  
please contact.

Name	Flip-Up Trolley
Item No.	GFM-441
Drawing No.	BKKAGF1300839

## Flip-Up Trolley Hammer Lock Type



**Component**  
**Frame**: Green Frame  
Green Frame L Slot  
**Connector**: Multi Connector Inner Type/  
Multi Connector Outer Type/  
Torque Hinge  
**Base Board**: Aluminum checkered steel  
plate l=3/Board Holder/  
Frame Guard  
**Bottom**: Free caster  $\phi$  100 with  
brake x2/Fix caster  
 $\phi$  100 x 2  
Hammer Lock 100  
  
● Requirement for conductive spec,  
please contact.

Name	Flip-Up Trolley Hammer Lock Type
Item No.	GFM-442
Drawing No.	BKKAGF1300840

## Cage Trolley



## Cage Trolley



**Component**  
**Frame**: Green Frame  
Green Frame L Slot  
**Connector**: Multi Connector Inner Type/  
Multi Connector Outer Type/  
Bridge Connector/  
Angle Connector Inner Type/  
Fixed Hinge/Aluminum  
Flat Bar/Hinge Connector/  
Hook Connector R  
**Base Board**: Aluminum checkered steel  
plate l=3/Board Holder/  
Frame Guard  
**Bottom**: Free Caster  $\phi$  75 with  
brake x4  
  
● Requirement for conductive spec,  
please contact.

Name	Cage Trolley
Item No.	GFM-443
Drawing No.	BKKAGF1300841

Order method for GF Unit  
Item No. or Product Name No. of Set  
**GFM-441**   Set (Component Delivery)

## How to order Assembled Delivery

Item No. or Product Name No. of Set State below  
**GFM-441**   Set Assembled Delivery   /

For delivery date adjustment will be responded when receive order.

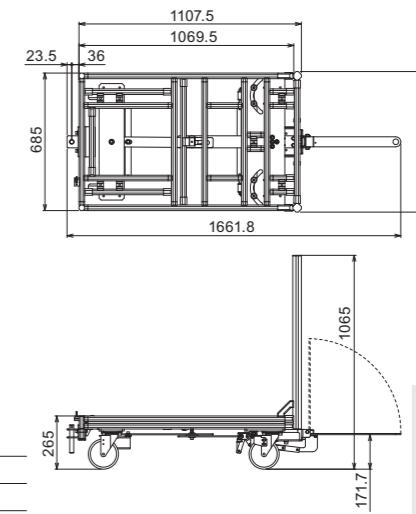
## Trolley

## NEW 4WS Trolley

- By moving the front and rear wheel together will achieve a small radius rotation.
- When connected together, the connecting trolley will all rotate in the same orbit, which will reduce the space of passage way.
- When takes it apart from connecting, the front is fixed and the back is free, so it is handy to operate as a hand trolley.

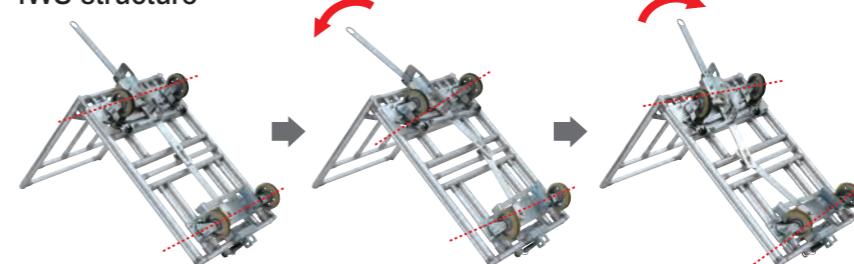


Name	4WS Trolley
Item No.	GFW-363



**Specification**  
**Weight**: Spec.  
**Size**: 710x1200x270 (H) mm  
(Height of Push bar : 1060 mm)  
**Load Capacity**: 200 kg  
**Tow Speed**: lower than 10 km/h  
**Turning radius**: R750  
**Weight**: 45 kg

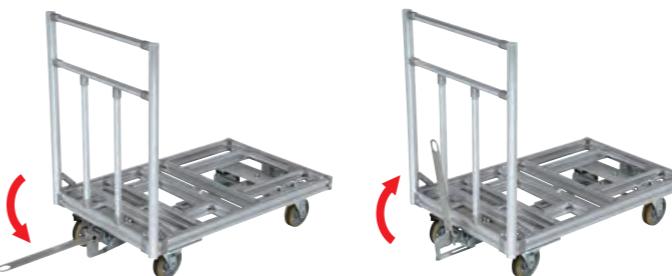
## 4WS structure



- When Towing bracket is tilted, the front and rear wheel will move together is this "V" shape.

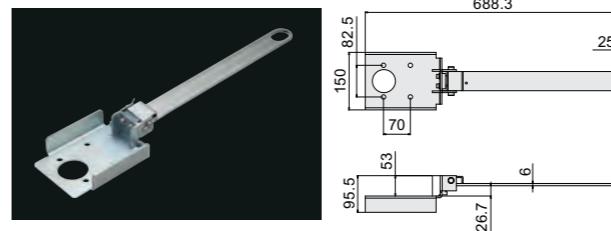
In case of 2WS trolley (normal trolley) will have difference between track followed by front and back inner wheel when turning.  
AGV will have to go round but, for 4WS will run on the same passage way to AGV, it has more space effectiveness.

## Switch from 4WS Trolley to be push trolley



- Switch to 4WS mode by push down the towing lever, and release the lever and bring up right will switch to push trolley mode.

## Towing Bracket



Name	Towing Bracket
Item No.	GFW-365

## Towing Receiving Bracket



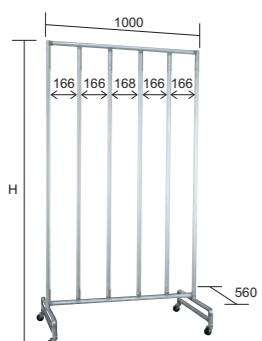
Name	Towing Receiving Bracket
Item No.	GFW-366

## Partition

## Mobile Partition



• Can be stored with bottom part layered on top of each other.

Mobile Partition  
Gratings Type

**Component**  
Frame : Green Frame  
Connector : Multi Connector Inner Type/Angle  
Connector Inner Type  
Bottom : Frame Caster ø 50 with  
Brake

• Picture shows H1800  
• Requirement for conductive spec, please contact

Name	Mobile Partition Gratings Type	
H (mm)	1800	1000
Item No.	GFM-801	GFM-802
Drawing No.	BKKAGF1300842	BKKAGF1300843

## Mobile Partition Aluminum Composite Panel Type



**Component**  
Frame : Green Frame  
Connector : Multi Connector Inner Type/Angle  
Connector Inner Type  
Bottom : Frame Caster ø 50 with  
Brake  
Panel : Aluminum Composite Panel t=3

• Picture shows H1800  
• Requirement for conductive spec, please contact

Name	Mobile Partition Aluminum Composite Panel Type	
H (mm)	1800	1000
Item No.	GFM-803	GFM-804
Drawing No.	BKKAGF1300844	BKKAGF1300845

Mobile Partition PET Transparent /  
Aluminum Composite Plate Type

**Component**  
Frame : Green Frame  
Connector : Multi Connector Inner Type/Angle  
Connector Inner Type  
Bottom : Frame Caster ø 50 with  
Brake  
Panel : PET Clear t=3  
Aluminum Composite Panel t=3

• Requirement for conductive spec, please contact

Name	Mobile Partition PET Transparent / Aluminum Composite Plate Type	
H (mm)	1800	1000
Item No.	GFM-805	GFM-806
Drawing No.	BKKAGF1300846	

Mobile Partition  
PET Transparent

**Component**  
Frame : Green Frame  
Connector : Multi Connector Inner Type/Angle  
Connector Inner Type  
Bottom : Frame Caster ø 50 with  
Brake  
Panel : PET Clear t=3

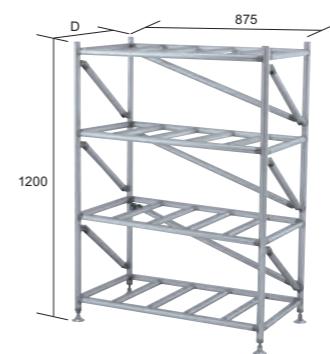
• Requirement for conductive spec, please contact

Name	Mobile Partition PET Transparent	
H (mm)	1000	1000
Item No.	GFM-806	GFM-806
Drawing No.	BKKAGF1300847	

## Rack



## Rack H1200



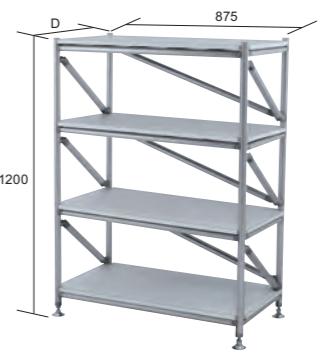
Load Capacity/80 kg  
(Rack 1 level up to 40 kg)

**Component**  
Frame : Green Frame  
Connector : Multi Connector Inner Type/  
Free Connector Inner Type  
Bottom : Foot Connector M12  
Resin Type/  
Adjuster M12

• Picture shows D450  
• Requirement for conductive spec,  
please contact

Name	Rack H1200	
D (mm)	300	450
Item No.	GFM-A00	GFM-A01
Drawing No.	BKKAGF1300848	BKKAGF1300849

## Rack Melamine Board Deck H1200



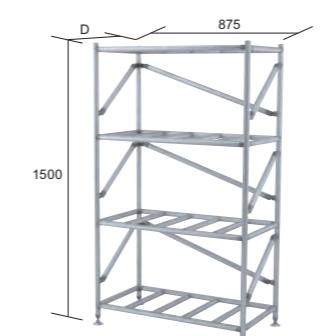
Load Capacity/80 kg  
(Rack 1 level up to 40 kg)

**Component**  
Frame : Green Frame  
Connector : Multi Connector Inner Type/  
Free Connector Inner Type  
Rack Board : Melamine Board t=17  
Bottom : Foot Connector M12  
Resin Type/  
Adjuster M12

• Picture shows D450  
• Requirement for conductive spec,  
please contact

Name	Rack Melamine Board Deck H1200	
D (mm)	300	450
Item No.	GFM-A02	GFM-A03
Drawing No.	BKKAGF1300850	BKKAGF1300851

## Rack H1500



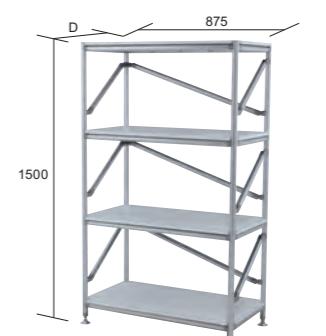
Load Capacity/80 kg  
(Rack 1 level up to 40 kg)

**Component**  
Frame : Green Frame  
Connector : Multi Connector Inner Type/  
Free Connector Inner Type  
Bottom : Foot Connector M12  
Resin Type/  
Adjuster M12

• Picture shows D450  
• Requirement for conductive spec,  
please contact

Name	Rack H1500	
D (mm)	300	450
Item No.	GFM-A04	GFM-A05
Drawing No.	BKKAGF1300852	BKKAGF1300853

## Rack Melamine Board Deck H1500



Load Capacity/80 kg  
(Rack 1 level up to 40 kg)

**Component**  
Frame : Green Frame  
Connector : Multi Connector Inner Type/  
Free Connector Inner Type  
Rack Board : Melamine Board t=17  
Bottom : Foot Connector M12  
Resin Type/  
Adjuster M12

• Picture shows D450  
• Requirement for conductive spec,  
please contact

Name	Rack Melamine Board Deck H1500	
D (mm)	300	450
Item No.	GFM-A06	GFM-A07
Drawing No.	BKKAGF1300854	BKKAGF1300855

Order method for GF Unit  
Item No. or Product Name No. of Set  
**GJF-B09**  Set (Component Delivery)

How to order Assembled Delivery  
Item No. or Product Name No. of Set State below Delivery prefer Date  
**GFM-801**  Set Assembled Delivery    
For delivery date adjustment will be responded when receive order

Order method for GF Unit  
Item No. or Product Name No. of Set  
**GFM-A00**  Set (Component Delivery)

How to order Assembled Delivery  
Item No. or Product Name No. of Set State below Delivery prefer Date  
**GFM-A00**  Set Assembled Delivery    
For delivery date adjustment will be responded when receive order

GF-N  
28 mmGF-G  
43 mmGF-S  
19 mm

Panel Board

GF Unit

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Rack

Shooter

Clean Bench Clean Booth

Part Container Stand

Cover Frame

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## Shooter



Shooter 1 Line 1 Tier



**Component**  
Frame : Green Frame  
Connector : Multi Connector Outer Type/  
Angle Connector Outer Type  
Bottom : Foot Connector M12  
Resin Type/  
Caster ø75 with  
Brake x 4  
Slide Part : Cocoron/Corocon Hook

● Requirement for conductive spec,  
please contact.

Shooter 1 Line 2 Tiers (Asymmetric)



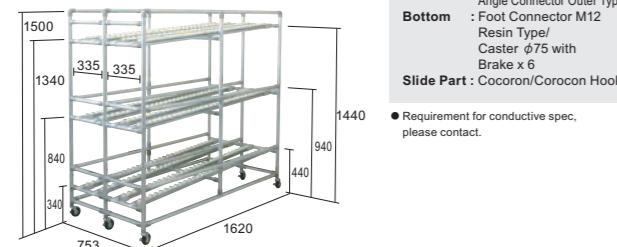
**Component**  
Frame : Green Frame  
Connector : Multi Connector Outer Type/  
Angle Connector Outer Type  
Bottom : Foot Connector M12  
Resin Type/  
Caster ø75 with  
Brake x 4  
Slide Part : Cocoron/Corocon Hook

● Requirement for conductive spec,  
please contact.

Name	Shooter 1 Line 1 Tier
Item No.	<b>GFM-C00</b>
Drawing No.	BKKAGF1300856

Name	Shooter 1 Line 2 Tiers (Asymmetric)
Item No.	<b>GFM-C01</b>
Drawing No.	BKKAGF1300857

Shooter 2 Line 3 Tiers



**Component**  
Frame : Green Frame  
Connector : Multi Connector Outer Type/  
Angle Connector Outer Type  
Bottom : Foot Connector M12  
Resin Type/  
Caster ø75 with  
Brake x 6  
Slide Part : Cocoron/Corocon Hook

● Requirement for conductive spec,  
please contact.

Shooter 3 Line 3 Tiers



**Component**  
Frame : Multi Connector Outer Type/  
Angle Connector Outer Type  
Bottom : Foot Connector M12  
Resin Type/  
Caster ø75 with  
Brake x 8  
Slide Part : Cocoron/Corocon Hook

● Requirement for conductive spec,  
please contact.

Name	Shooter 2 Line 3 Tiers
Item No.	<b>GFM-C02</b>
Drawing No.	BKKAGF1300858

Name	Shooter 3 Line 3 Tiers
Item No.	<b>GFM-C03</b>
Drawing No.	BKKAGF1300859

## Clean Bench / Clean Booth



Simple Clean Bench



**Component**  
Frame : Green Frame  
Connector : Multi Connector Outer Type/  
Point Connector/  
Stand Connector  
Clean Fan : Clean Fan Unit 3 m

- Panels are not included.
- Requirement for conductive spec,  
please contact.

Name	Simple Clean Bench
Item No.	<b>GFM-E00</b>
Drawing No.	BKKAGF1300860

Simple Clean Booth



**Component**  
Frame : Green Frame  
Green Frame L Slot  
Green Frame F50  
Connector : Multi Connector Inner Type/  
Point Connector/  
Stand Connector  
Clean Fan : Clean Fan Unit 10 m

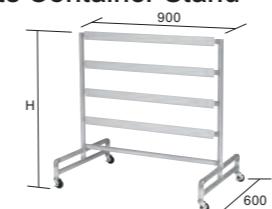
- Panels and Plastic Curtain are not included.
- Please contact for Detail.
- Requirement for conductive spec,  
please contact.

Name	Simple Clean Booth
Item No.	<b>GFM-G00</b>
Drawing No.	BKKAGF1300861

## Parts Container Stand



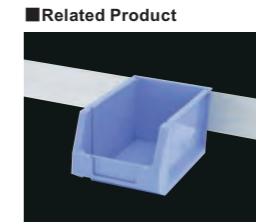
Parts Container Stand



**Component**  
Frame : Green Frame  
Green Frame F50  
Connector : Multi Connector Inner Type/  
Angle Connector Inner Type  
Bottom : Frame Caster ø75 with  
Brake x 4

- Picture shows H900 Type.
- Requirement for conductive spec,  
please contact.

Name	Parts Container Stand		
H (mm)	600	900	1200
No. of Level	2 level	4 level	6 level
Item No.	<b>GFM-J00</b>	<b>GFM-J01</b>	<b>GFM-J02</b>
Drawing No.	BKKAGF1300862	BKKAGF1300863	BKKAGF1300864



Related Product

Part Container  
→ P.93GF-N  
28 mmGF-G  
43 mmGF-S  
19 mm

GF Jig

Panel Board

GF Unit

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Clean Booth

Part Container Stand

Cover Frame



Order method for GF Unit  
Item No. or Product Name    No. of Set  
**GFM-E00**      **Set**

(Component Delivery)

How to order Assembled Delivery  
Item No. or Product Name    No. of Set    State below

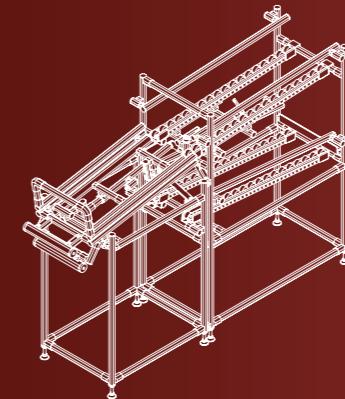
**GFM-E00**      **Set**    **Assembled Delivery**   

Delivery prefer Date  
□□/□□

For delivery date adjustment will be responded when receive order

→ P.93

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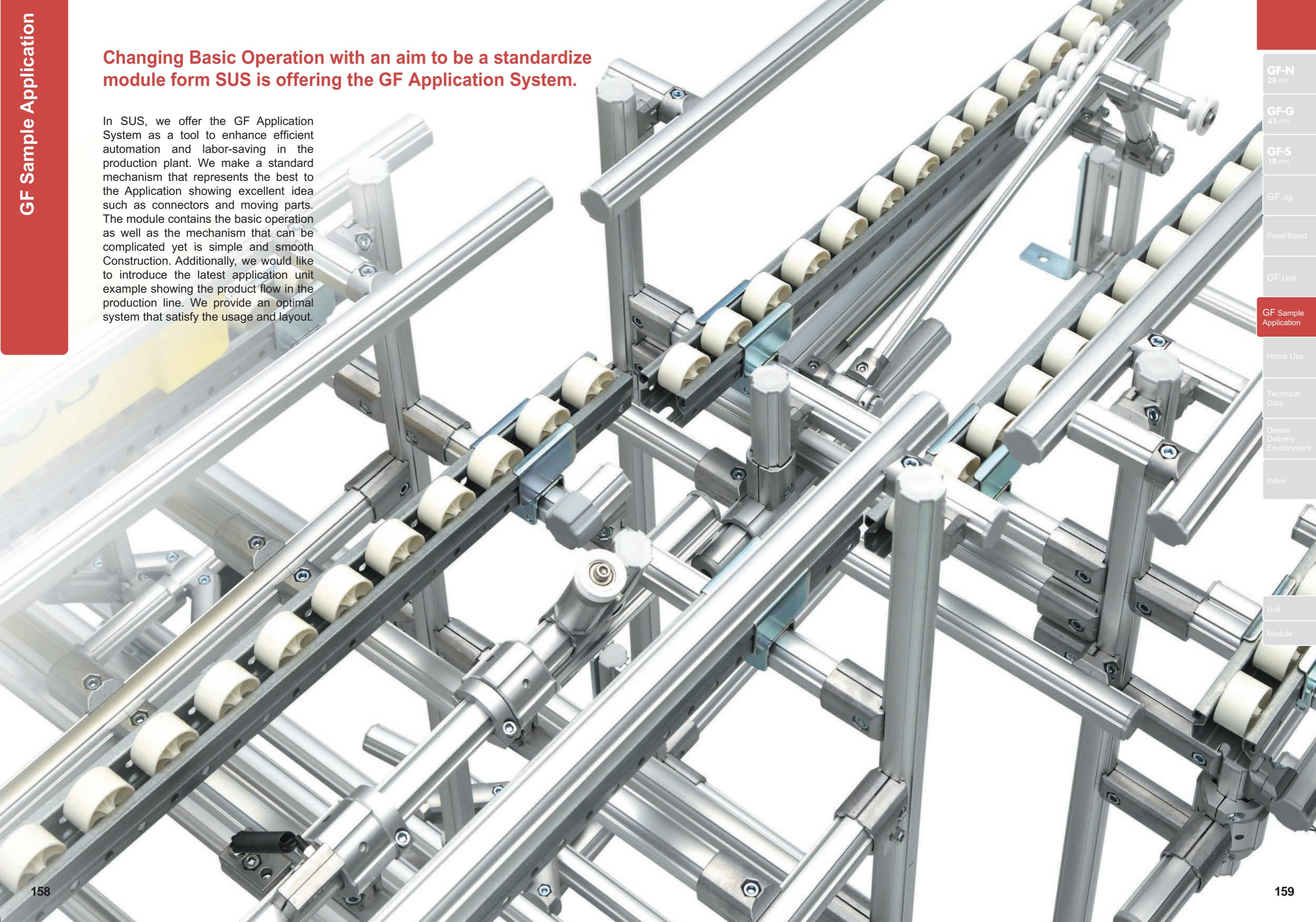


GREEN FRAME

# GF Sample Application

## Changing Basic Operation with an aim to be a standardize module form SUS is offering the GF Application System.

In SUS, we offer the GF Application System as a tool to enhance efficient automation and labor-saving in the production plant. We make a standard mechanism that represents the best to the Application showing excellent idea such as connectors and moving parts. The module contains the basic operation as well as the mechanism that can be complicated yet is simple and smooth Construction. Additionally, we would like to introduce the latest application unit example showing the product flow in the production line. We provide an optimal system that satisfy the usage and layout.

GF-N  
28 mmGF-G  
43 mmGF-S  
19 mm

GF Jig

Panel Board

GF Unit

GF Sample Application

Home Use

Technical Data

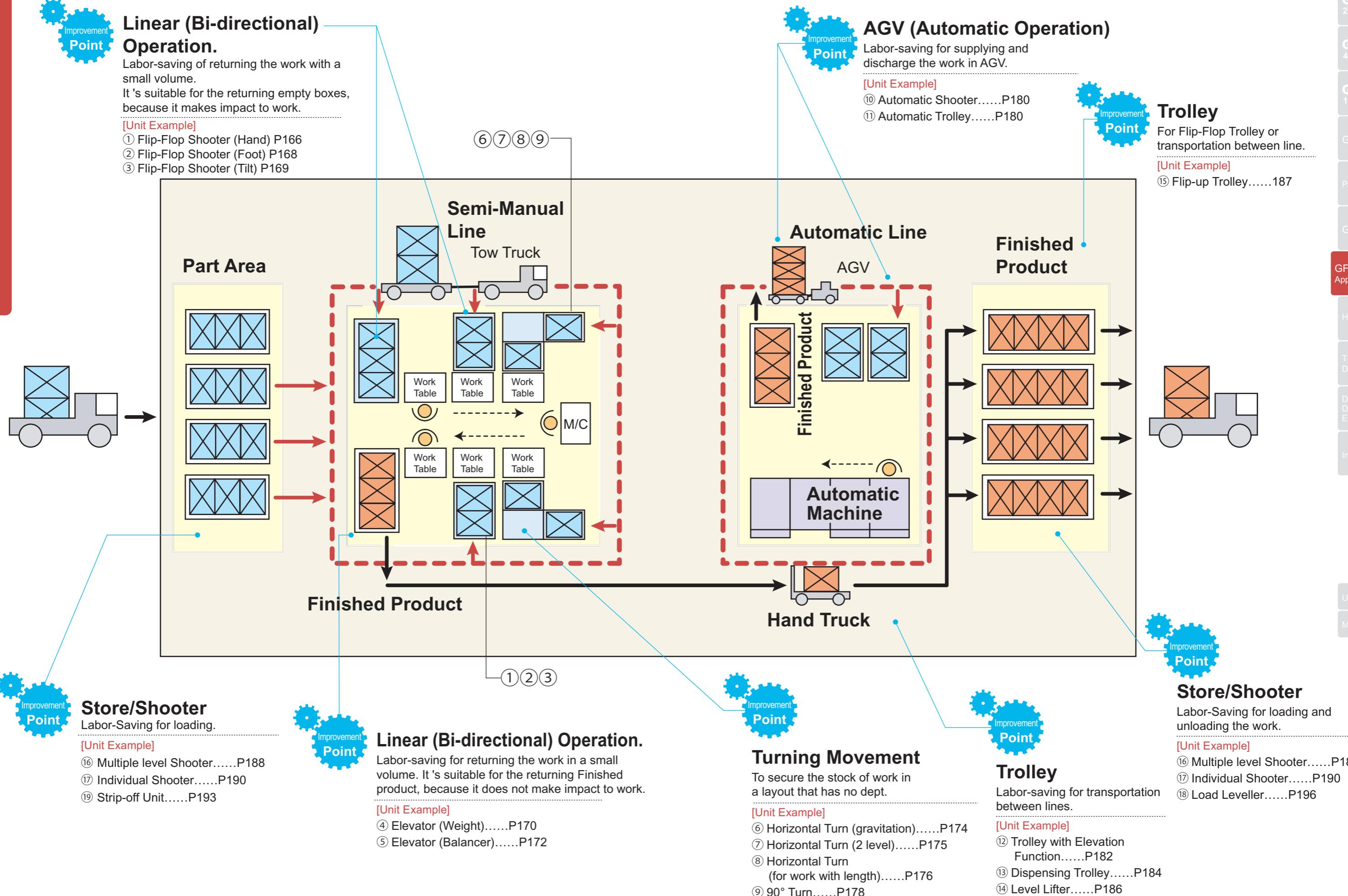
Dealer Delivery Environment

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Unit

Module

# An Optimum example of GF Application Unit suitable for product flow in production line.



# Application System Contents

It is a versatile unit system that built from a standard part and module.  
These 19 examples classified from an operation or usage.

## Application Unit Example

Application Unit Example		
Linear (Bi-directional) Operation	① Flip-Flop Shooter (Hand)	P166
	② Flip-Flop Shooter (Foot)	P168
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	⑤ Elevator (Balancer)	P172
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	⑦ Horizontal Turn (2 level)	P175
	⑧ Horizontal Turn (for work with length)	P176
	⑨ 90° Turn	P178
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	⑪ Automatic Trolley	P180
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	⑬ Dispensing Trolley	P184
	⑭ Level Lifter	P186
	⑮ Flip-up Trolley	P187
Store/Shooter	⑯ Multiple level Shooter	P188
	⑰ Individual Shooter	P190
	⑱ Load Leveller	P192
	⑲ Strip-off Unit	P193



Shuttle Shooter



Elevator



Horizontal Turn/90° Turn



Automatic Shooter/Automatic Trolley



Dispensing Trolley



Level Lifter



Multi Level Shooter

This package is a basic operation module using in the Application.

When you line up each module, you can see from one operation to be multi operation.

## Application Module

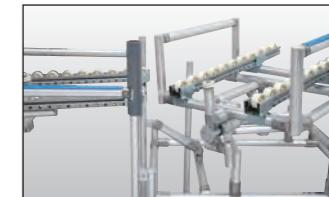
Application Module		
Linear Flip-Flop	Flip-Flop Table	P196
	Flip-Flop Table (Tilt Type)	P197
	Elevation Table (with roller)	P198
	Strut Stopper	P200
	90° Turn	P202
Turning Movement	Stopper (Rotate)	P204
	Horizontal Turn	P206
	Intermittent stopper (Built-in Spring)	P208
Intermittent	Intermittent stopper (Rotate Type)	P210
	Intermittent stopper (Both side)	P212
	Intermittent stopper (Seesaw)	P214
	Full detection sensor	P216
	Elevation guide (roller guide frame)	P218
Elevation	Elevation guide (Slot roller L 40 light)	P222
	Anti-Back for conveyor	P224
Other	Elevation Lock	P224
	Shock Absorber	P224
	Lever	P224
	Foot Pedal	P225
	Discharge Module	P225



Shuttle Table



Strut Stopper



90° Turn/Stopper (Rotate)



Horizontal Turn



Intermittent Stopper (Built-in spring type)



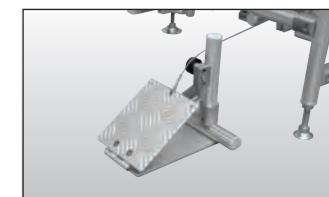
Intermittent Stopper (seesaw)



Elevation Guide



Lever



Foot Paddle

GREEN FRAME  
**GF Sample  
Application**

Application Unit  
Example

# Application Unit Example

## ① Flip-Flop Shooter Unit (Hand)

Take the work out from the container and return the empty box. Manually tilt and return the table to supply or discharge the container.



Picture and Drawing are not the same.  
The Picture is a Unit with a combination  
of Flip-Flop Table (Stay) + Intermittent  
stopper (Both side)

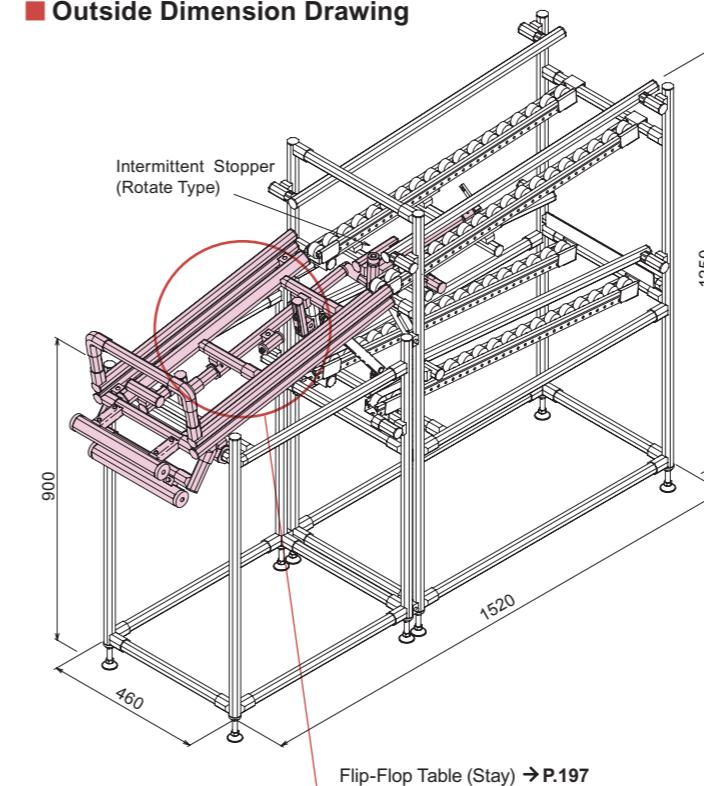


1 Take the work out of the container on table.

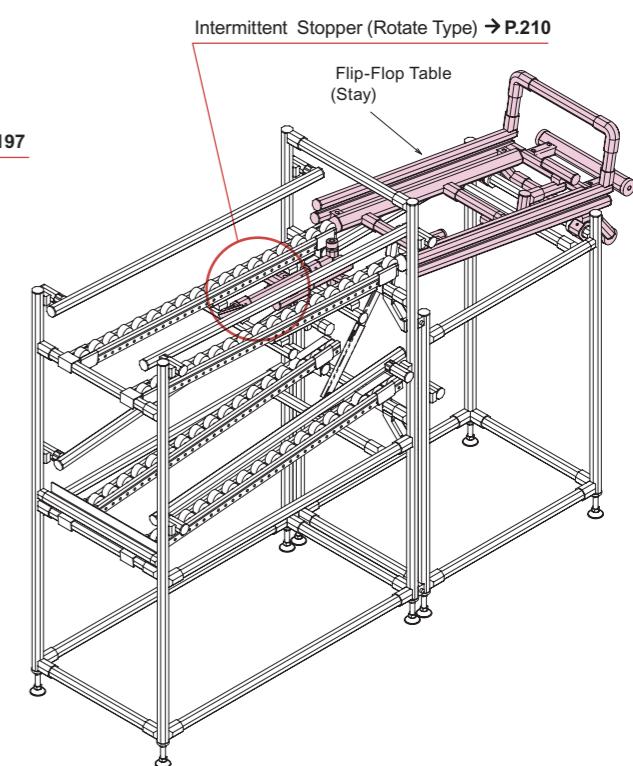
2 Tilt the table to discharge the empty box.

3 When return the table, the next container will be supplied. Then the Intermittent stopper will block the 2nd container not to be shoted.

### ■ Outside Dimension Drawing



Container Size : 363 mm x 270 mm x 133 mm  
Approx. Weight for Work : ~5 kg



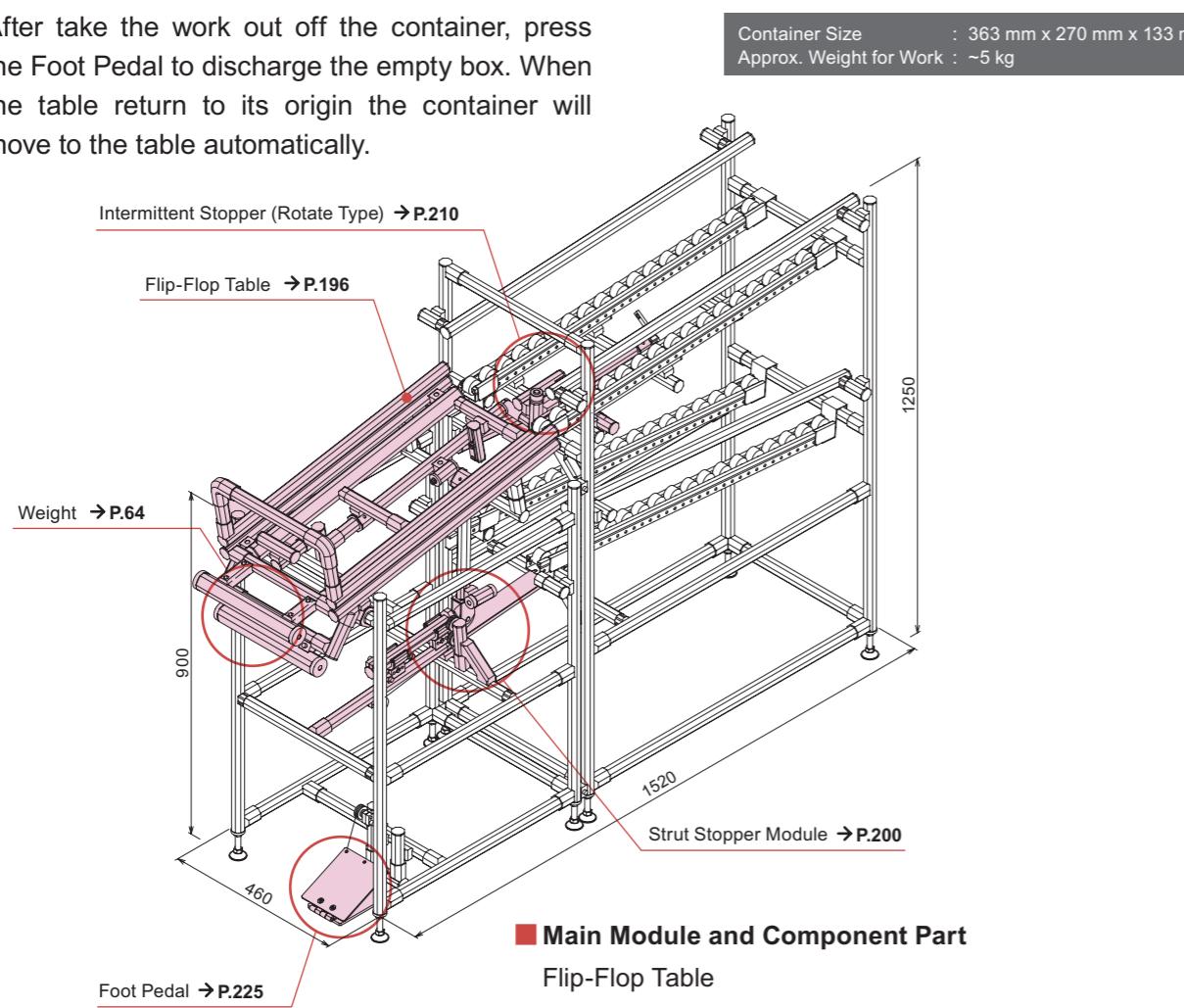
### ■ Main Module and Component part

Flip-Flop Table (Stay)  
Intermittent Stopper (Rotate Type)  
Frame Set  
Corocon Set  
Other related Connector Set

# Application Unit Example

## ② Flip-Flop Shooter Unit (Foot)

After take the work out off the container, press the Foot Pedal to discharge the empty box. When the table return to its origin the container will move to the table automatically.

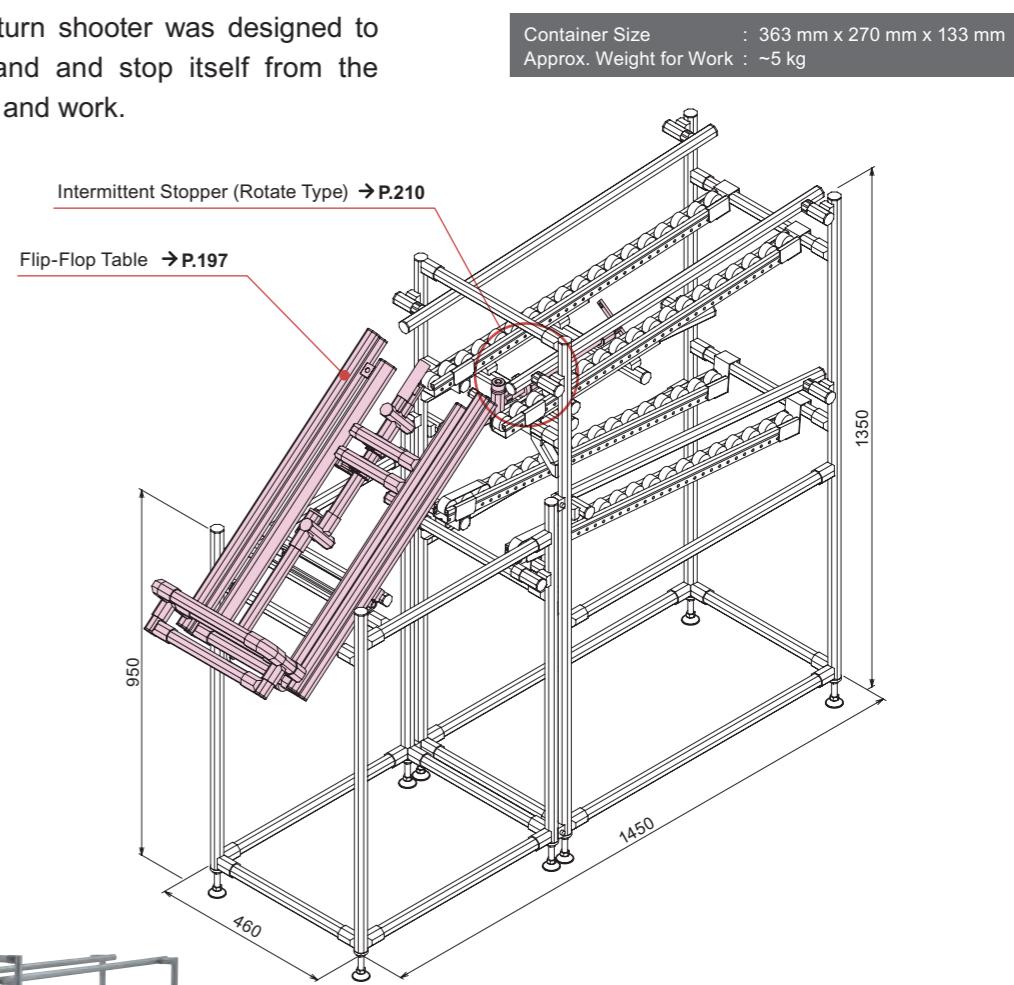


### Main Module and Component Part

- Flip-Flop Table
- Strut Stopper
- Intermittent Stopper (Rotate Type)
- Foot Pedal
- Frame Set
- Corocon Set
- Other related Connector Set

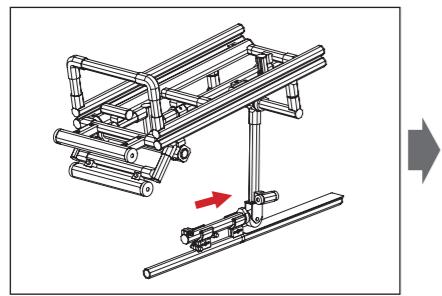
## ③ Flip-Flop Shooter Unit (Tilt)

This empty box return shooter was designed to have the table stand and stop itself from the weight of container and work.

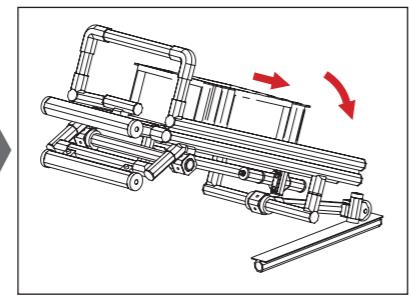


### Main Module and Component Part

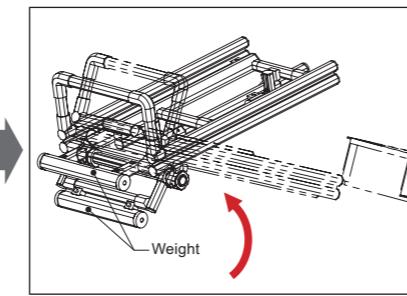
- Flip-Flop Table (Tilt Type)
- Intermittent Stopper (Rotate Type)
- Frame Set
- Corocon Set
- Other related Connector Set



- 1 When press the Foot Pedal, it will press the strut frame of the table.



- 2 Table will be released from the support and tilt to discharge container.



- 3 After discharged the container, table will return to its origin position by the weight for the next container to be on.

- 1 Tilt the table manually to discharge the empty box.

- 2 When return the table, the next container will be supplied.

- 3 If tilt the table further to be like in a standing position, it can lock the table and container in position.

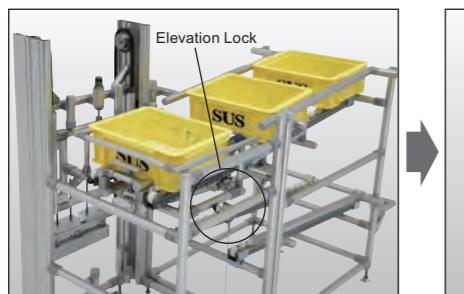
# Application Unit Example

## ④ Elevator Unit (Weight)

When the container filled with work, the unit will descent horizontally to discharge, and after the table return to its origin position, next container will be automatically supplied.



**NEW** With this new module of "Elevation Guide (Roller Guide Frame)", there is no longer need to adjust the elevation rail, which can be a smooth construction.



1 When press the foot pedal to release the elevation lock, the table will descent.

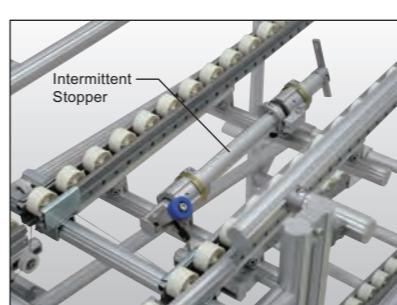
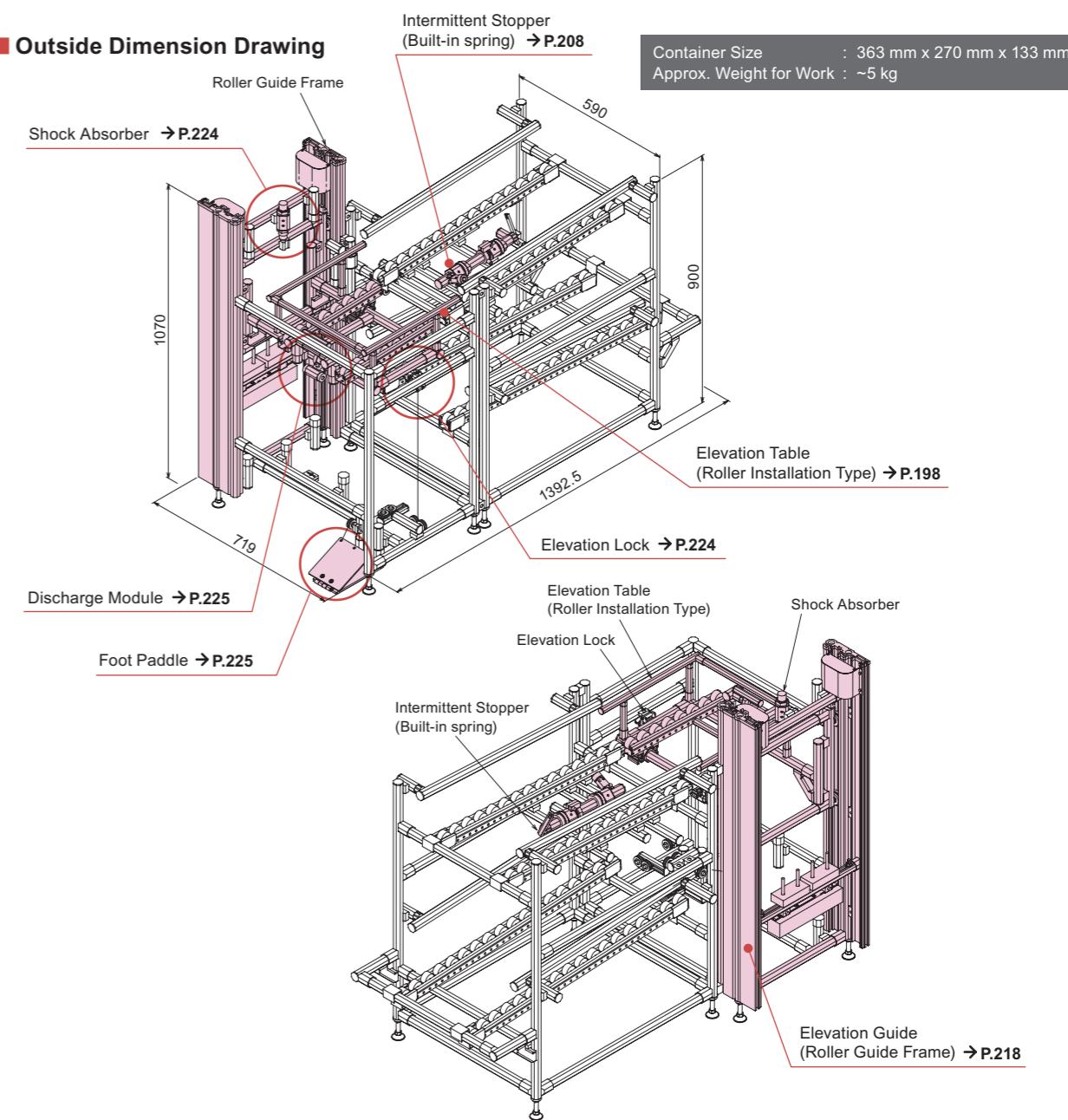


2 When the table come all the way down, the discharge module will eject the container to discharge.



3 Table will elevate by the weight that was set at the Elevation Guide Module.

### ■ Outside Dimension Drawing



4 After the table return to its origin position, the intermittent stopper will release the next container automatically to supply to the table.

### ■ Main Module and Component Part

Elevation Guide (Roller Guide Frame)  
Intermittent Stopper (Built-in spring)  
Elevation Table (Roller Installation Type)  
Shock Absorber  
Discharge Module  
Foot Pedal  
Elevation Lock  
Frame Set  
Corocon Set  
Other related Connector Set

GF-N  
28 mmGF-G  
43 mmGF-S  
19 mm

GF Jig

Panel Board

GF Unit

GF Sample Application

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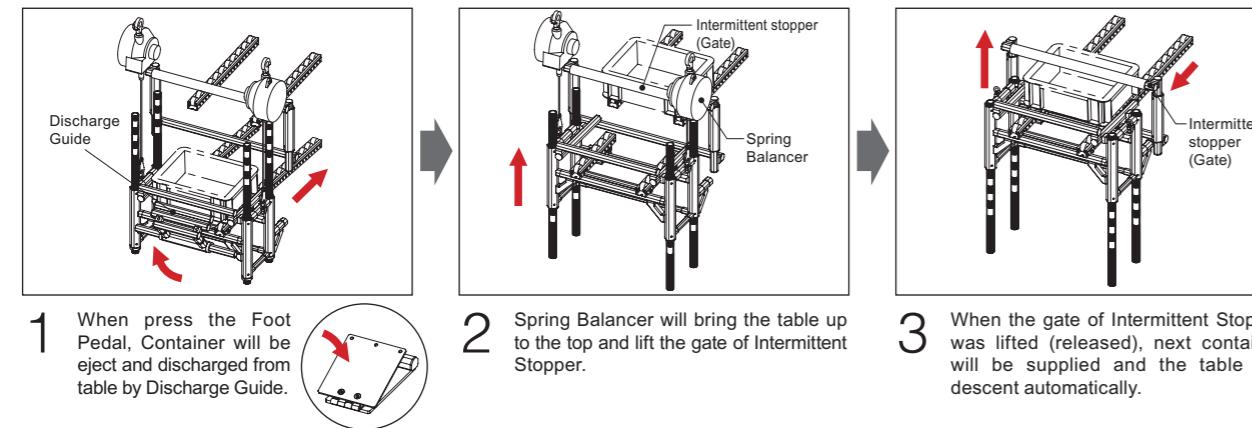
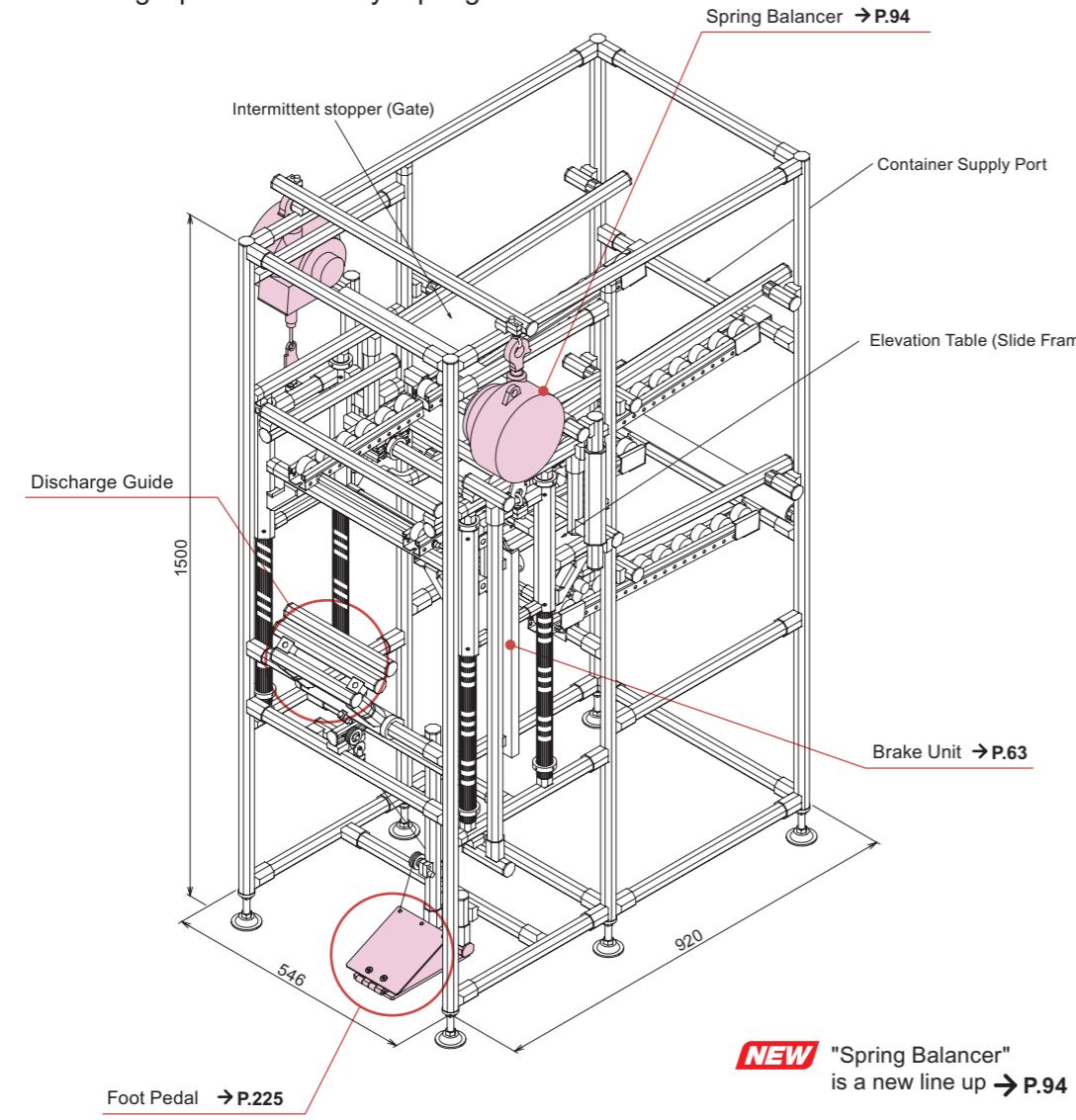
Unit

Module

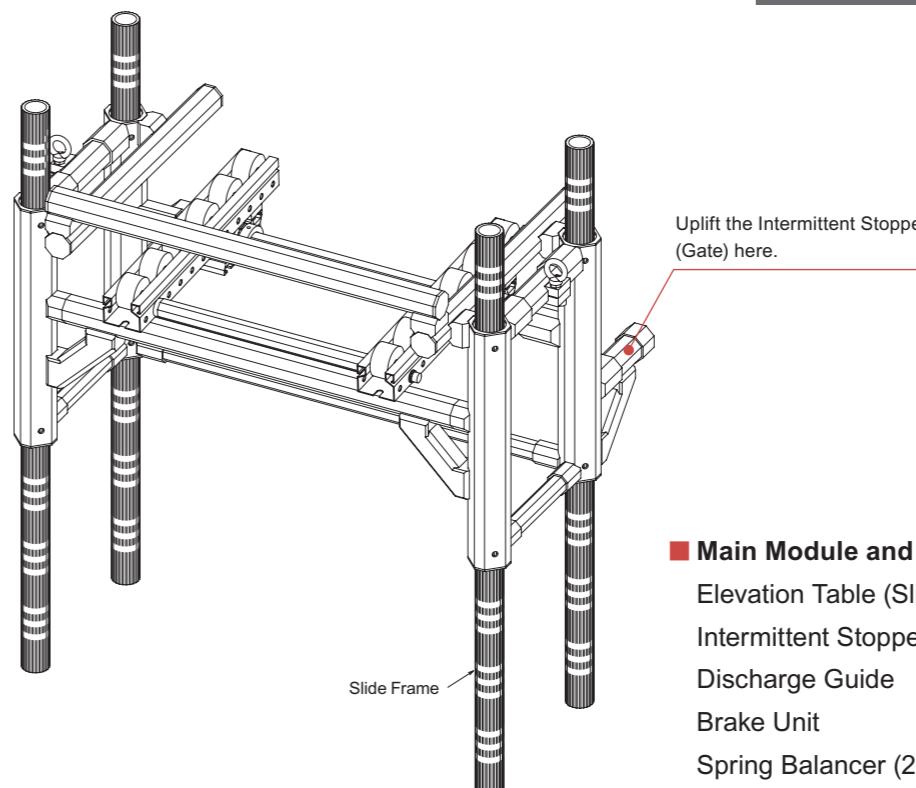
# Application Unit Example

## ⑤ Elevator Unit (Balancer)

Using Slide Frame to keep the container in horizontal while descending. After that, the Spring Balancer will work and bring the table up and bring it down again after receive the next container. Descending speed control by Spring Balancer.



### ■ Module Example : Elevation Table (Slide Frame)



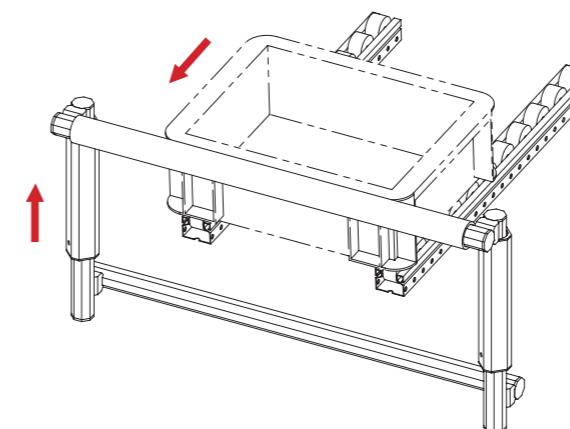
Insert 4 pcs of "Green Frame Slide" into "Green Frame G" to create slide up and down.

Container Size : 363 mm x 270 mm x 133 mm  
Approx. Weight for Work : ~5 kg

### ■ Main Module and Component Part

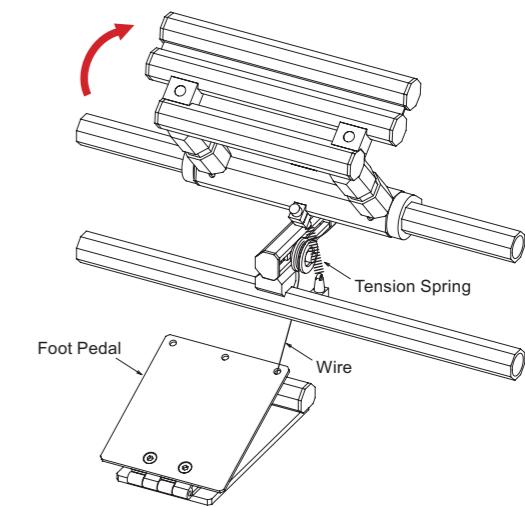
Elevation Table (Slide Frame)  
Intermittent Stopper (Gate)  
Discharge Guide  
Brake Unit  
Spring Balancer (2 pcs)  
Foot Pedal  
Frame Set  
Corocon Set  
Other related Connector Set

### ■ Module Example : Intermittent Stopper (Gate)



When table is rising from the bottom, at the same time it will lift the Gate of Intermittent Stopper.

### ■ Module Example : Discharge Guide



If press the Foot Pedal, it will rotate and eject container from the table.

GF-N  
28 mm

GF-G  
43 mm

GF-S  
19 mm

GF Jig

Panel Board

GF Unit

GF Sample Application

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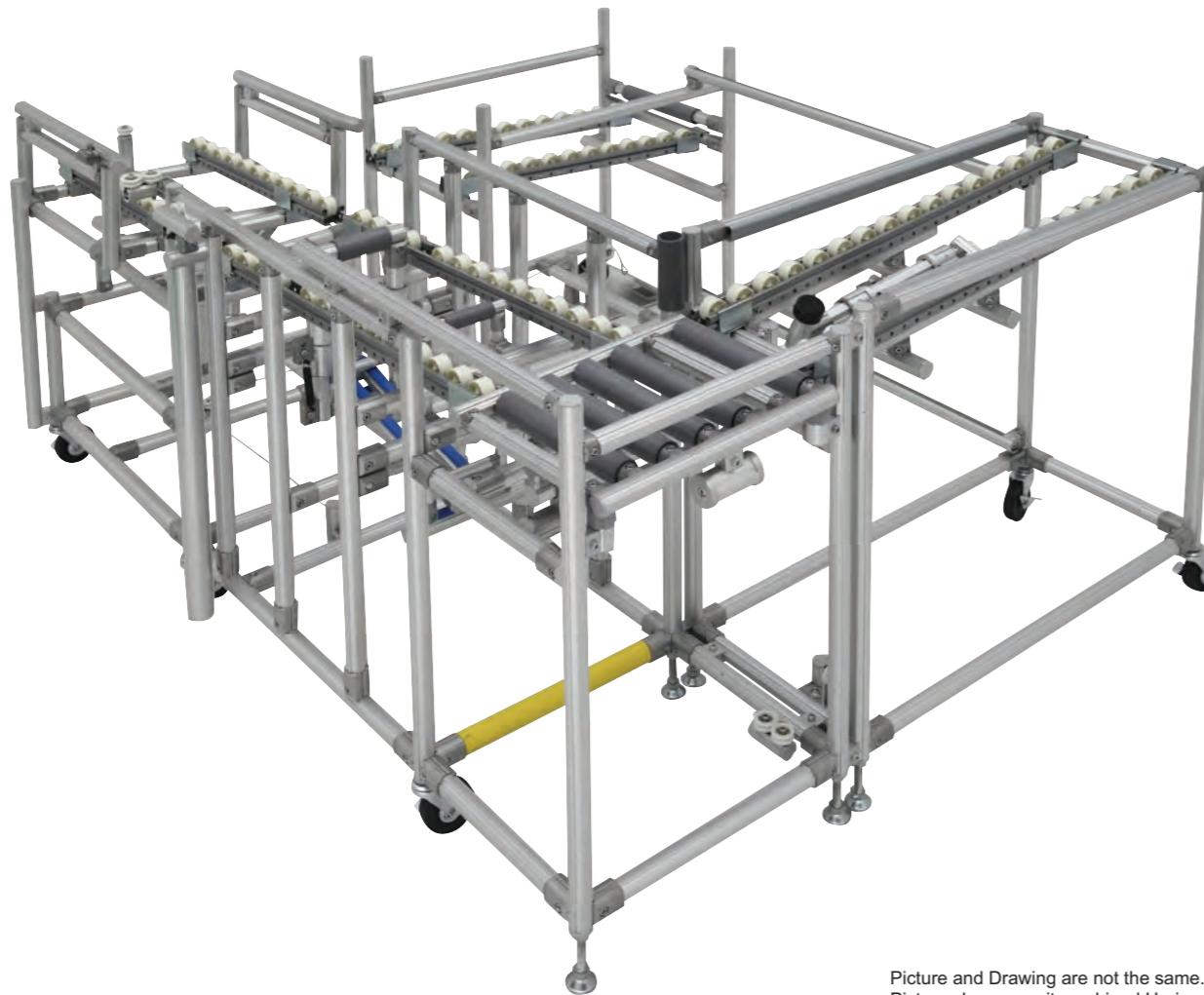
Unit

Module

# Application Unit Example

## ⑥ Horizontal Turn Unit (Gravity)

This unit helps to change direction to be at 90° direction without turning the direction of container. Suitable when want to keep number of stock or work (Container) with the layout that doesn't have much depth space.



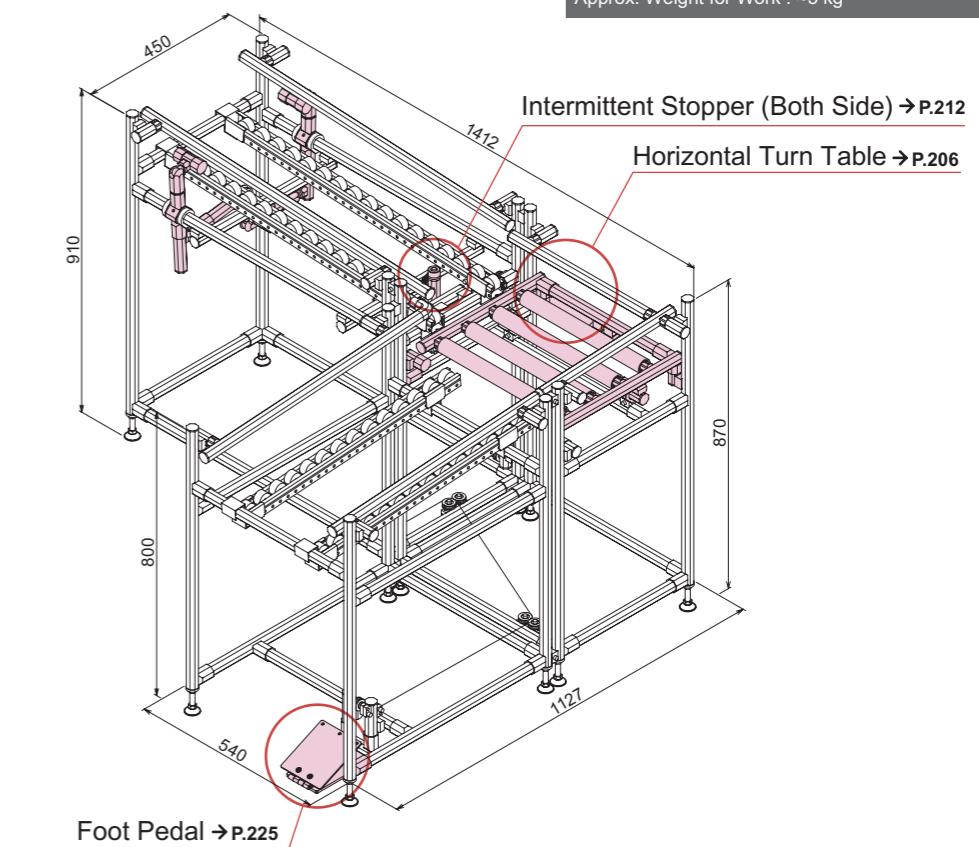
Picture and Drawing are not the same.  
Picture shows a unit combined Horizontal Turn and 90° Turn.



- When press the Foot Pedal, the Intermittent Stopper will release container to flow to the Horizontal Turn Table.
  - When container is on Horizontal Turn Table, the table will tilt using from the weight of container.
  - Changing flow direction to be at 90° direction without rotate container.

## ■ Outside Dimension Drawing

Container Size : 363 mm x 270 mm x 133 mm  
Approx. Weight for Work : ~5 kg



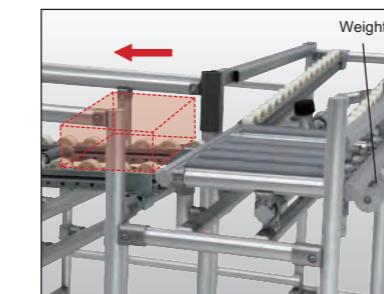
## Application Example

## ⑦ Horizontal Turn (2 level Type)

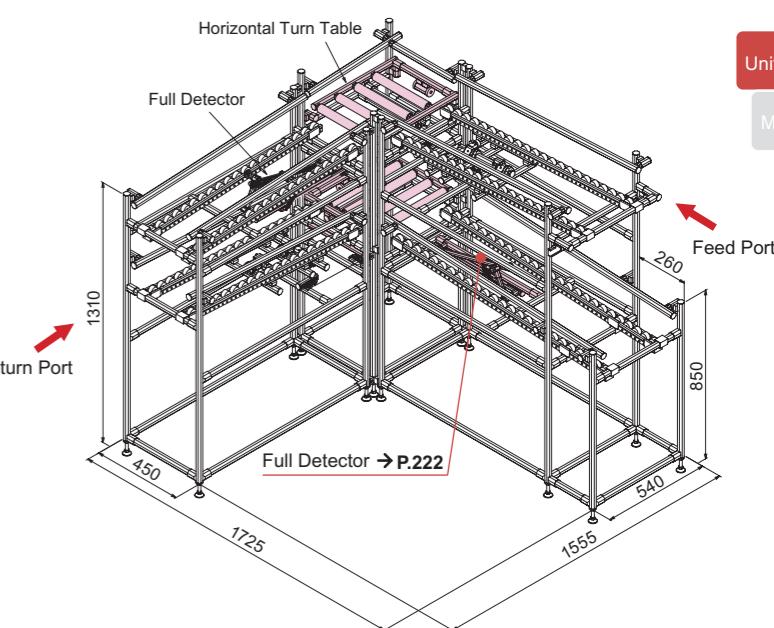
This suitable when would like to return the empty box etc, after take the work out of container that supplied from Horizontal Turn Table of 2 level type.

## ■ Main Module and Component Page

- Horizontal Turn Table
- Intermittent Stopper (Both Sides)
- Foot Pedal
- Frame Set
- Corocon Set
- Other related Connector Set



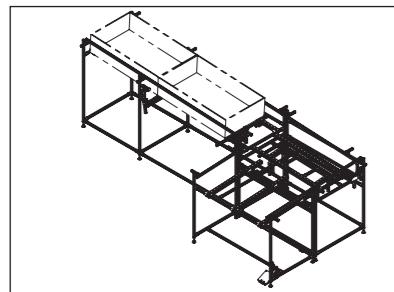
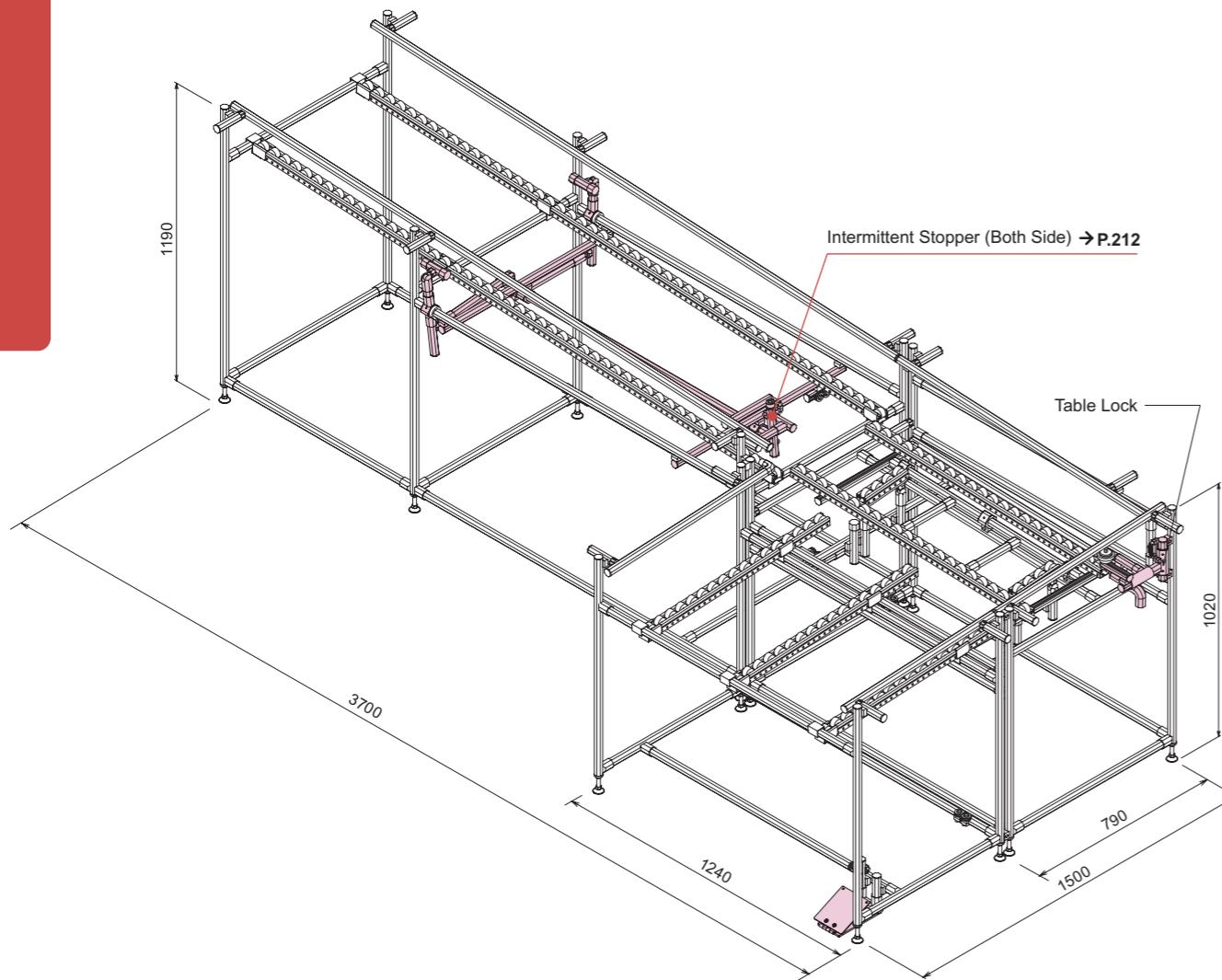
- 4** The Weight will bring the table back to origin position after discharged containing



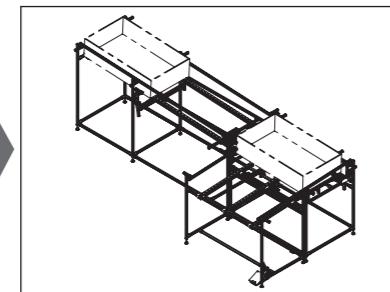
# Application Unit Example

## ⑧ Horizontal Turn (For Long Work)

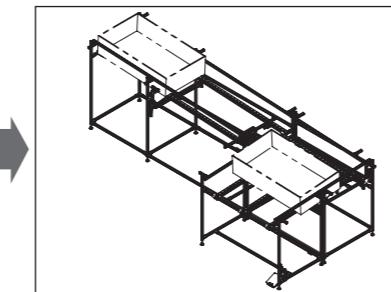
This Horizontal Turn unit is for a long work piece, using Corocon to change direction smoothly. By lock the table, the Horizontal Turn Table will not tilt until container fully sit on it.



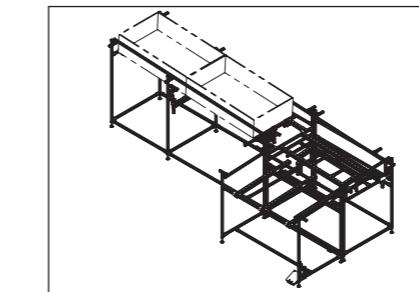
1 When press the Foot Pedal, Intermittent Stopper will release container to flow to Horizontal Turn Table.



2 When container fully sit on the Horizontal Turn Table, Table Lock is pressed to remove the table support pillar to tilt.



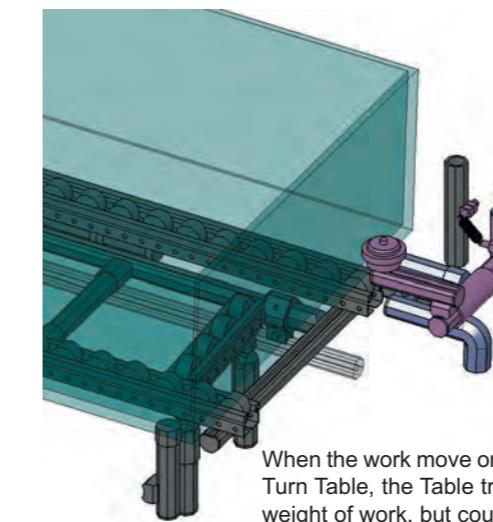
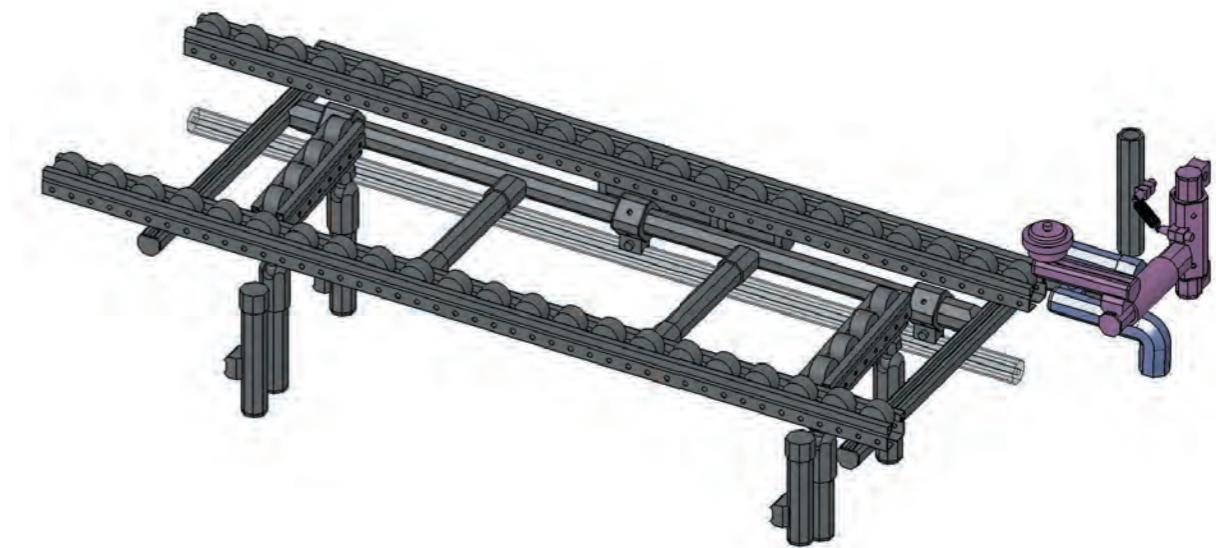
3 After the Table tilted, container will slide and change to 90° direction using Corocon hidden underneath.



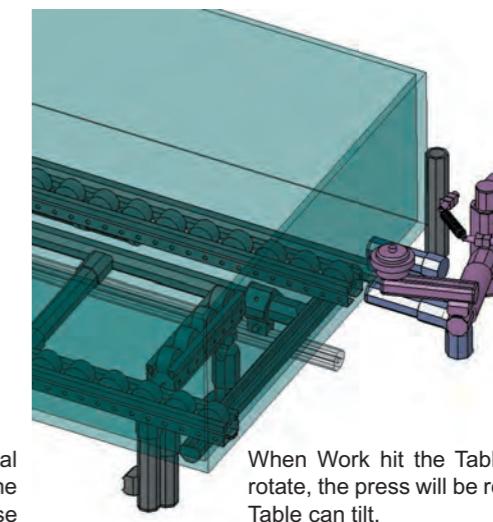
4 After discharge container, the tilt of Horizontal Turn Table will release and return to its origin.

### ■Module Example : Table Lock System

Container Size : 1050 mm x 620 mm x 250 mm  
Approx. Weight for Work : ~7 kg



When the work move on to the Horizontal Turn Table, the Table try to tilt due to the weight of work, but could not tilt because it press to Table Lock.



When Work hit the Table Lock and rotate, the press will be removed and Table can tilt.

### ■Main Module and Component Part

Turn Table  
Intermittent Stopper (Both Side)  
Foot Pedal  
Frame Set  
Corocon Set  
Other related Connector Set

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

Panel Board

GF Unit

GF Sample Application

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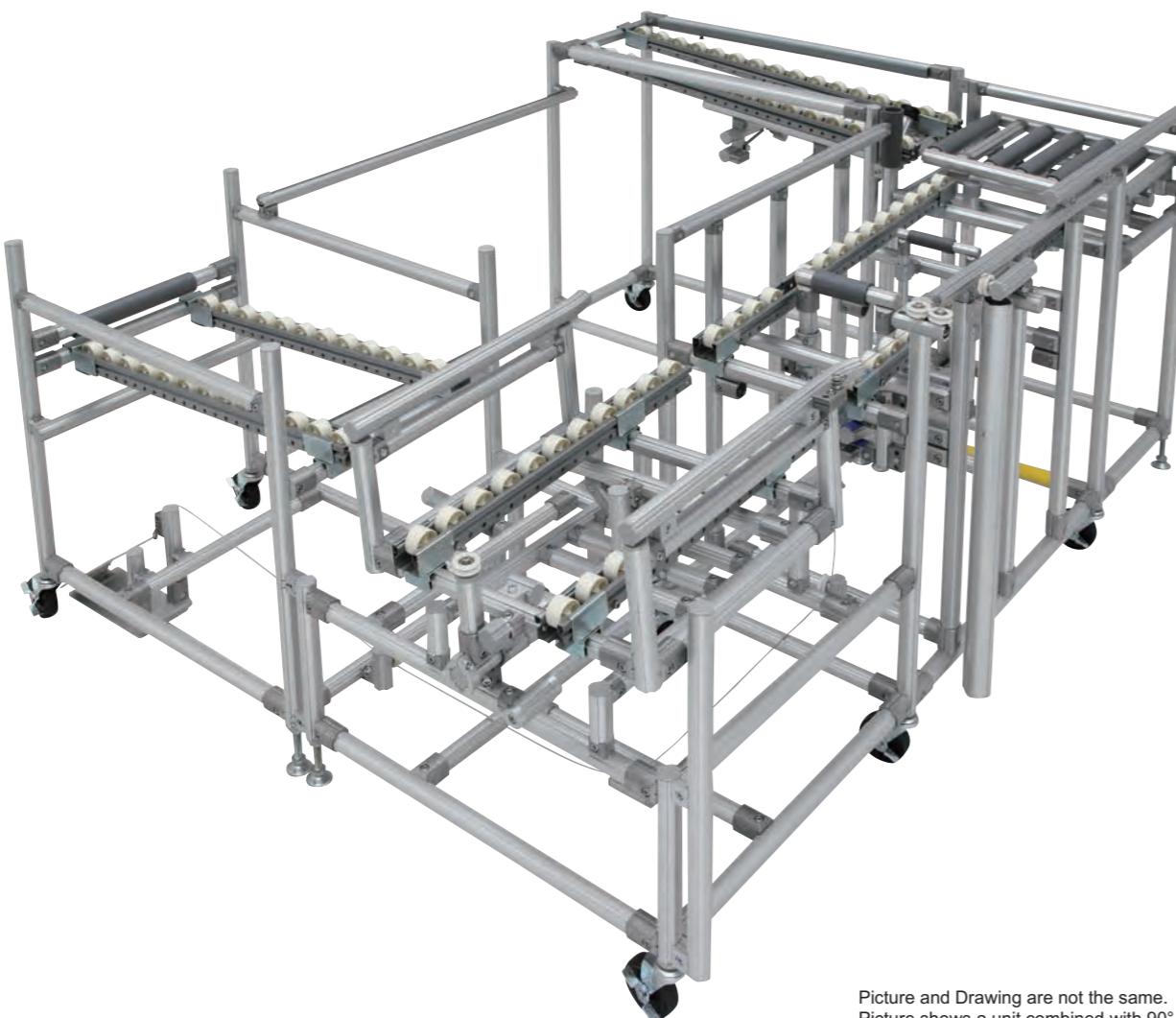
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Unit

Module

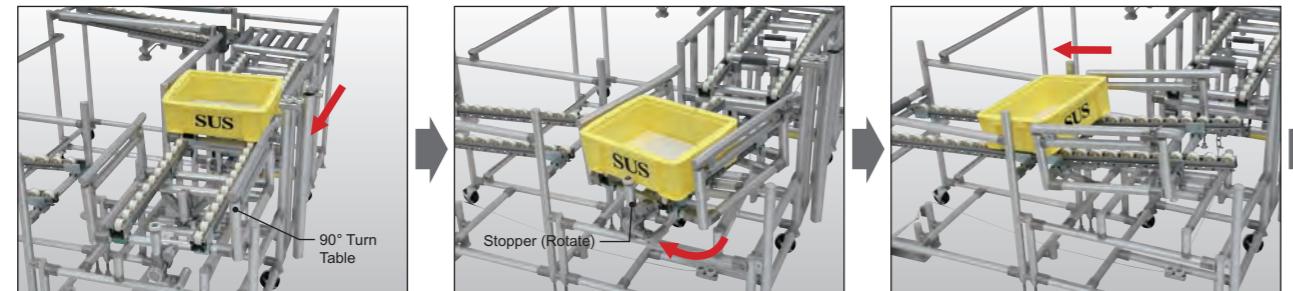
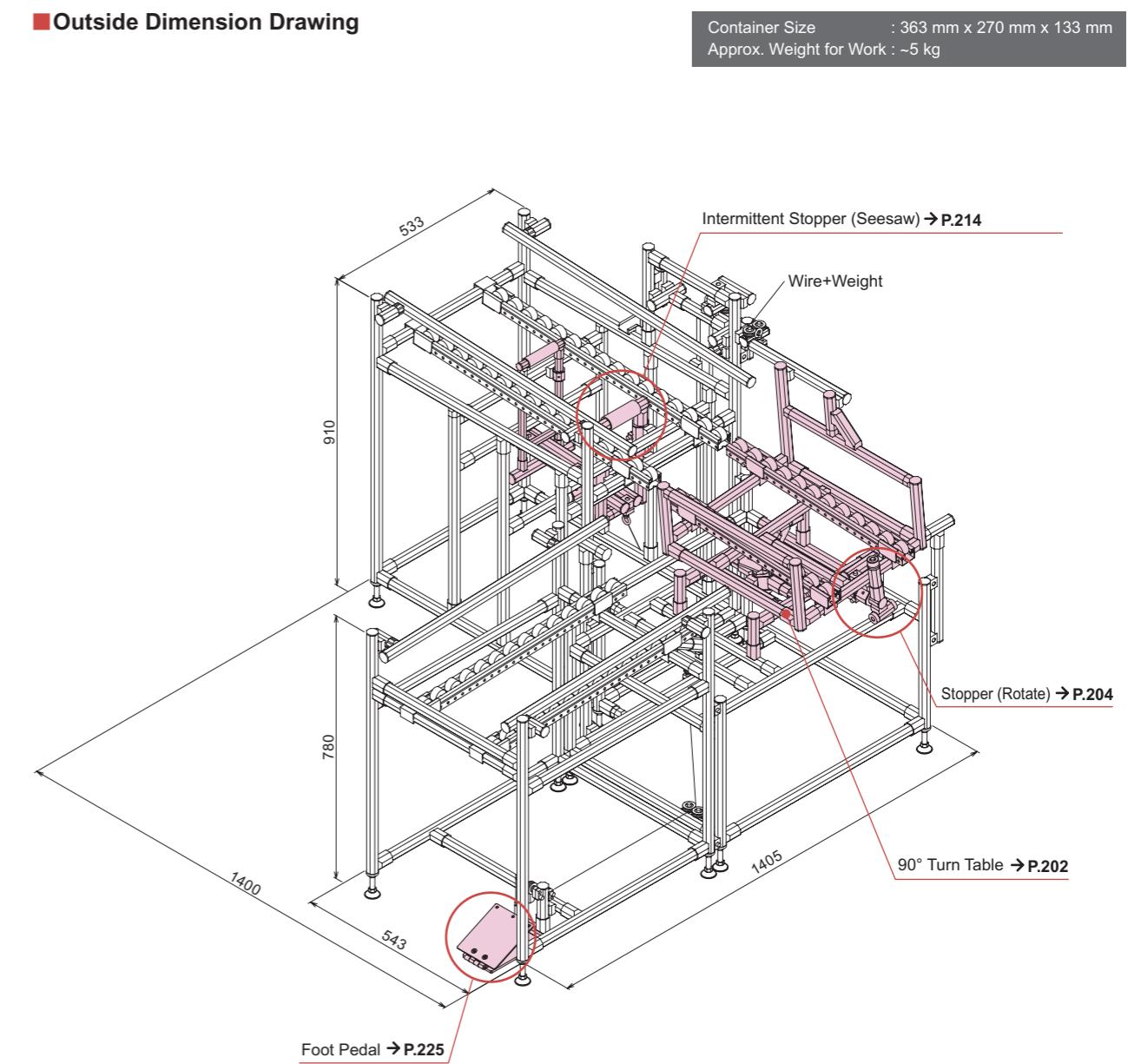
## ⑨ 90° Turn Unit

This unit will change container direction by rotate 90° toward the forward direction. Head of Container (Work) will flow facing forward.

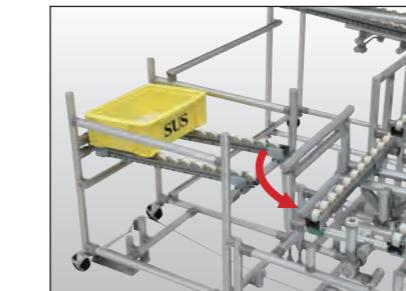


Picture and Drawing are not the same.  
Picture shows a unit combined with 90° Turn and Horizontal Turn.

### ■ Outside Dimension Drawing



- When press the Foot Pedal, Intermittent Stopper will release container to flow to 90° Turn Table.
- Table will rotate 90° by the weight of container.
- After Table rotated, Stopper (Rotate) Module will release, and container will be discharged.



- The weight will bring the Table back to its origin position.

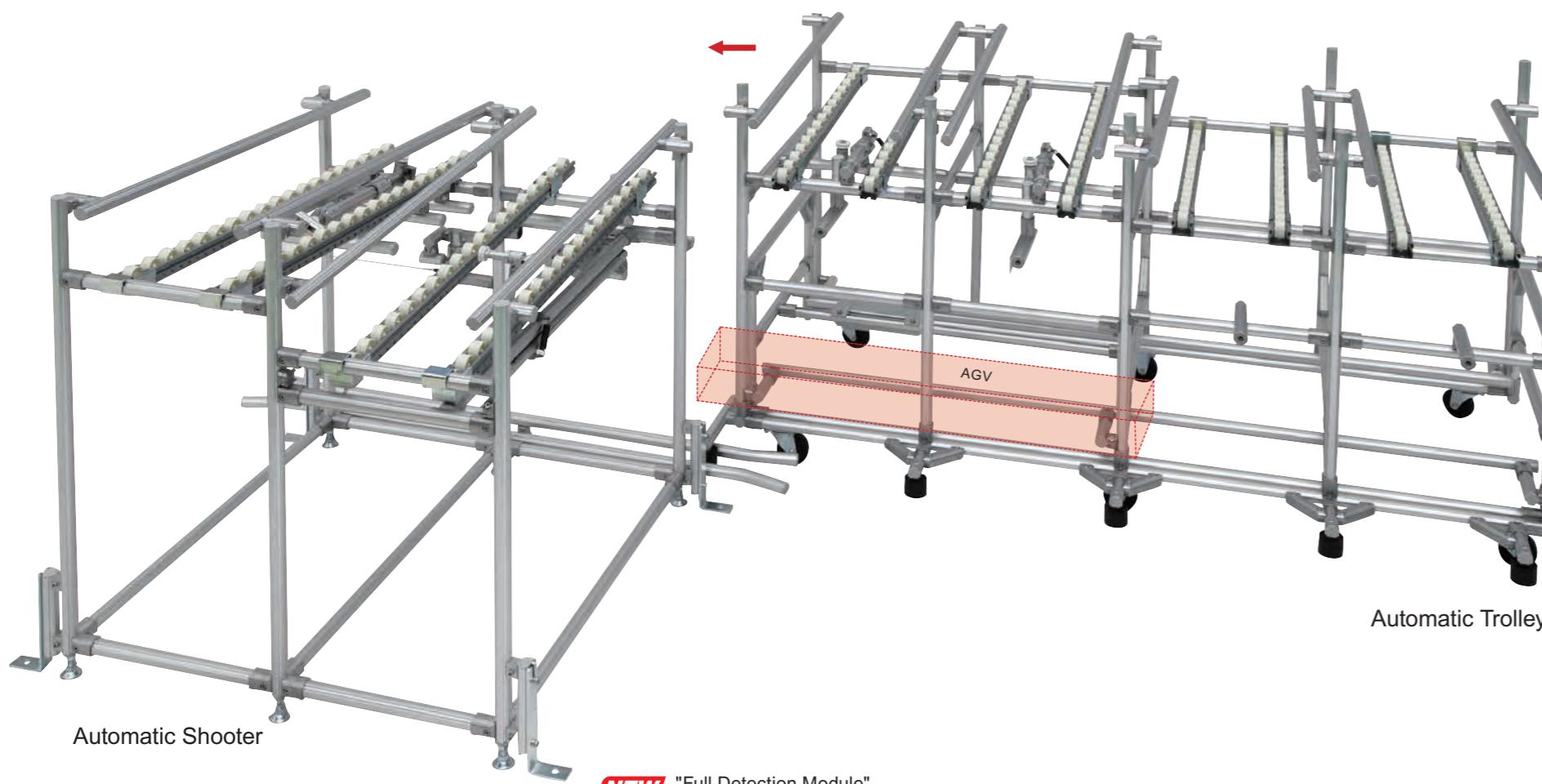
### ■ Main Module and Component Part

90° Turn Table  
Stopper (Rotate)  
Intermittent Stopper (Both Side)  
Foot Pedal  
Frame Set  
Corocon Set  
Other related Connector Set

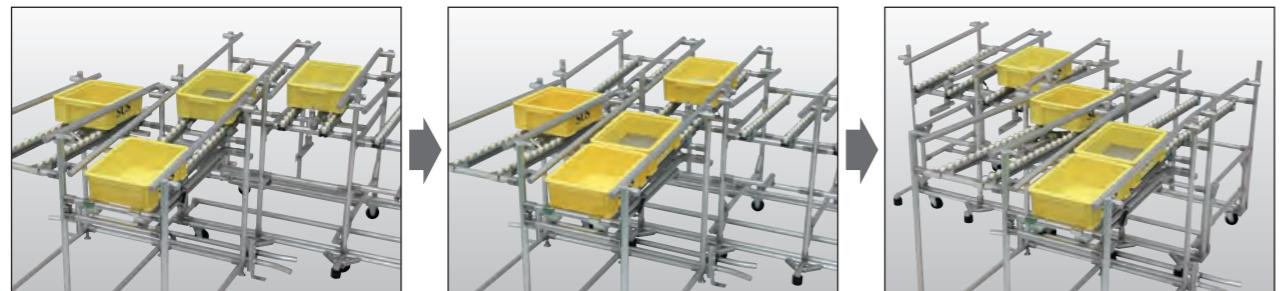
# Application Unit Example

## ⑩ Automatic Shooter Unit / ⑪ Automatic Trolley Unit

This is an automatic container delivery between Trolley that connected to AGV (No man transportation truck) and Rack. If Rack is full, it will detect automatically and load function not to feed container.



**NEW** "Full Detection Module"  
Connect to Intermittent Stopper on Automatic Trolley side and move, it will detect the status of container if it full or empty, and control delivery. → P.246



1 Automatic Trolley that connected to AGV will approach to Automatic Shooter.

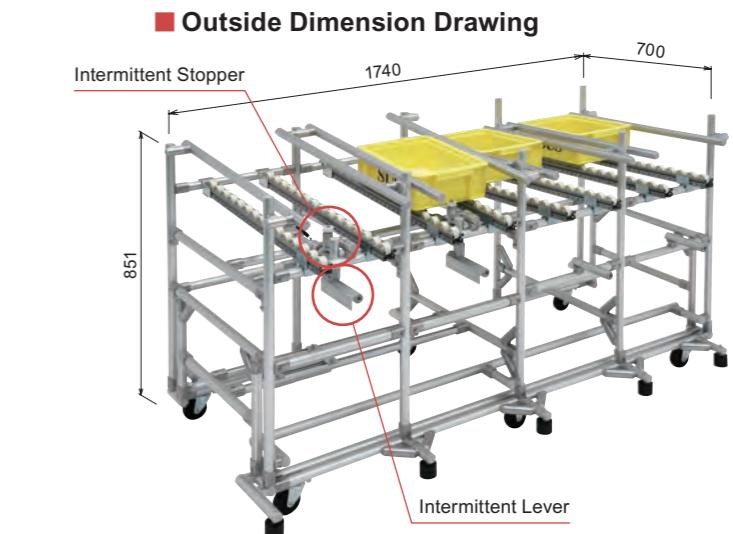
2 After AGV stop at the position for container delivery, container will be transfer automatically from Automatic Trolley to Automatic Shooter.

3 If Automatic Shooter is full, Full Detection Module will detect and stop Automatic Shooter to transfer.



4 After Automatic Trolley moves forward, and AGV stopped at the container delivery position, Intermittent Stopper Module on Automatic Shooter side will be release to discharge container in to Automatic Trolley.

Container Size : 363 mm x 270 mm x 133 mm  
Approx. Weight for Work : ~5kg



### Automatic Trolley

#### Main Module and Component Part

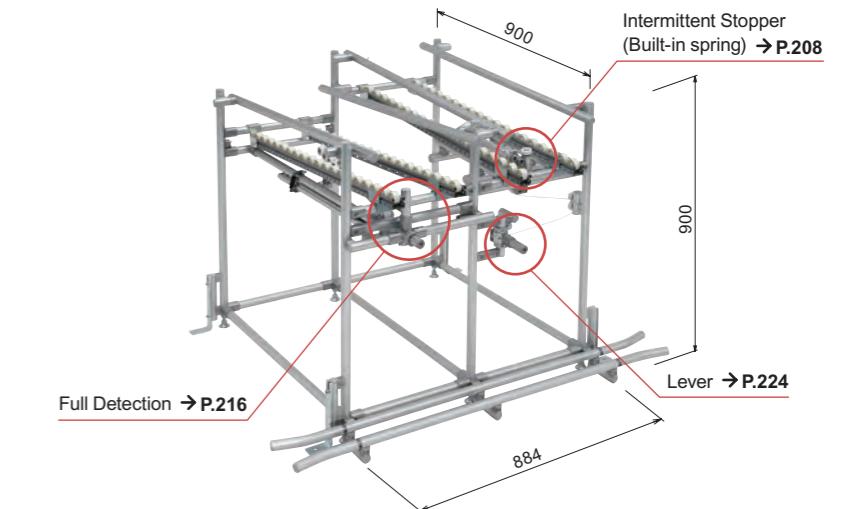
Intermittent Stopper x2

Intermittent Lever x2

Frame Set

Corocon Set

Other related Connector Set



### Automatic Shooter

#### Main Module and Component Part

Intermittent Stopper (Built-in spring)

Full Detection

Lever

Frame Set

Corocon Set

Other related Connector Set

GF-N  
28 mm

GF-G  
43 mm

GF-S  
19 mm

GF Jig

Panel Board

GF Sample Application

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Unit

Module

# Application Unit Example

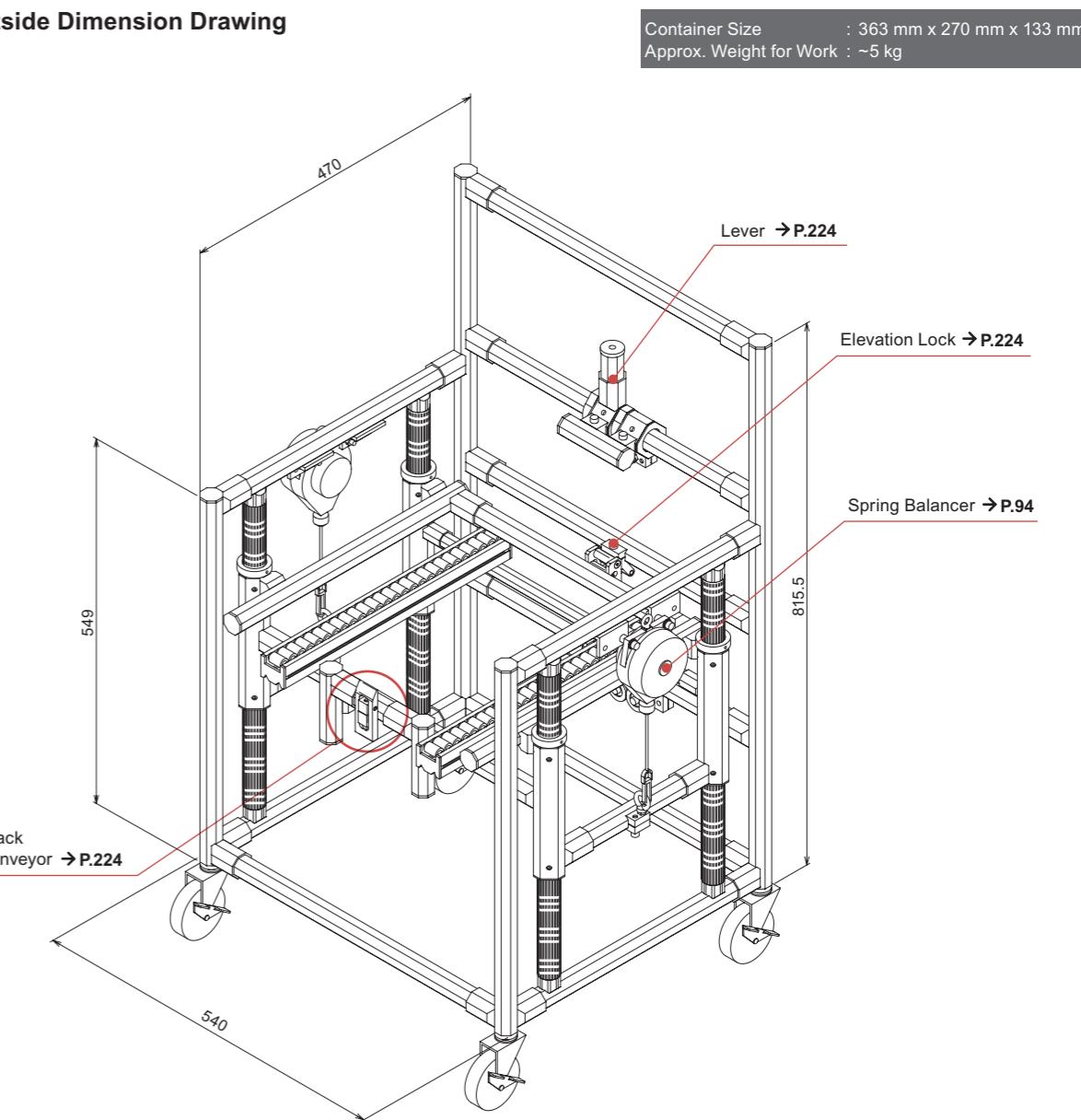
## ⑫ Trolley with Elevation Function Unit

This Trolley is suitable for the work that need to load container from the high level, and unload to the lower level. Using the Lever to control the Elevation of the table.



**NEW** "Elevation Lock" is an Item connected to operation module such as Foot Pedal, to lock and unlock the elevation of Table. → P.224  
This also can load new product of "Aluminum Corocon". → P.72

### ■ Outside Dimension Drawing



4 Pull the Lever again, it will unlock the Elevation Lock and Table will go back up.

### ■ Main Module and Component Part

Lever  
Elevation Lock x2  
Spring Balancer x2  
Anti-Back For Conveyor  
Frame Set  
Corocon Set  
Other related Connector Set

# Application Unit Example

## ⑬ Dispensing Trolley Unit

Dispense container (work) from the trolley by press the pedal. When release the pedal, Corocon part will incline and container (work) will easily transfer from trolley on to rack. At the same time, the Anti-Back function for conveyor will stop container falling off the trolley.

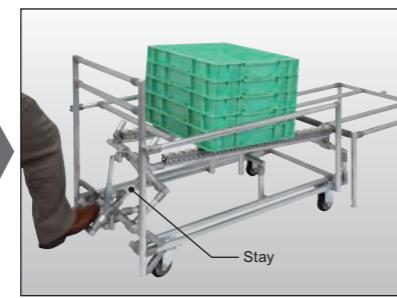


Picture and Drawing are not the same.

**NEW** "Anti-Back for Conveyor" is an item to bring in the container (work) and lock, using the simple and compact components. → P.224



1 Bring container that sit on the Trolley to the front of Rack.

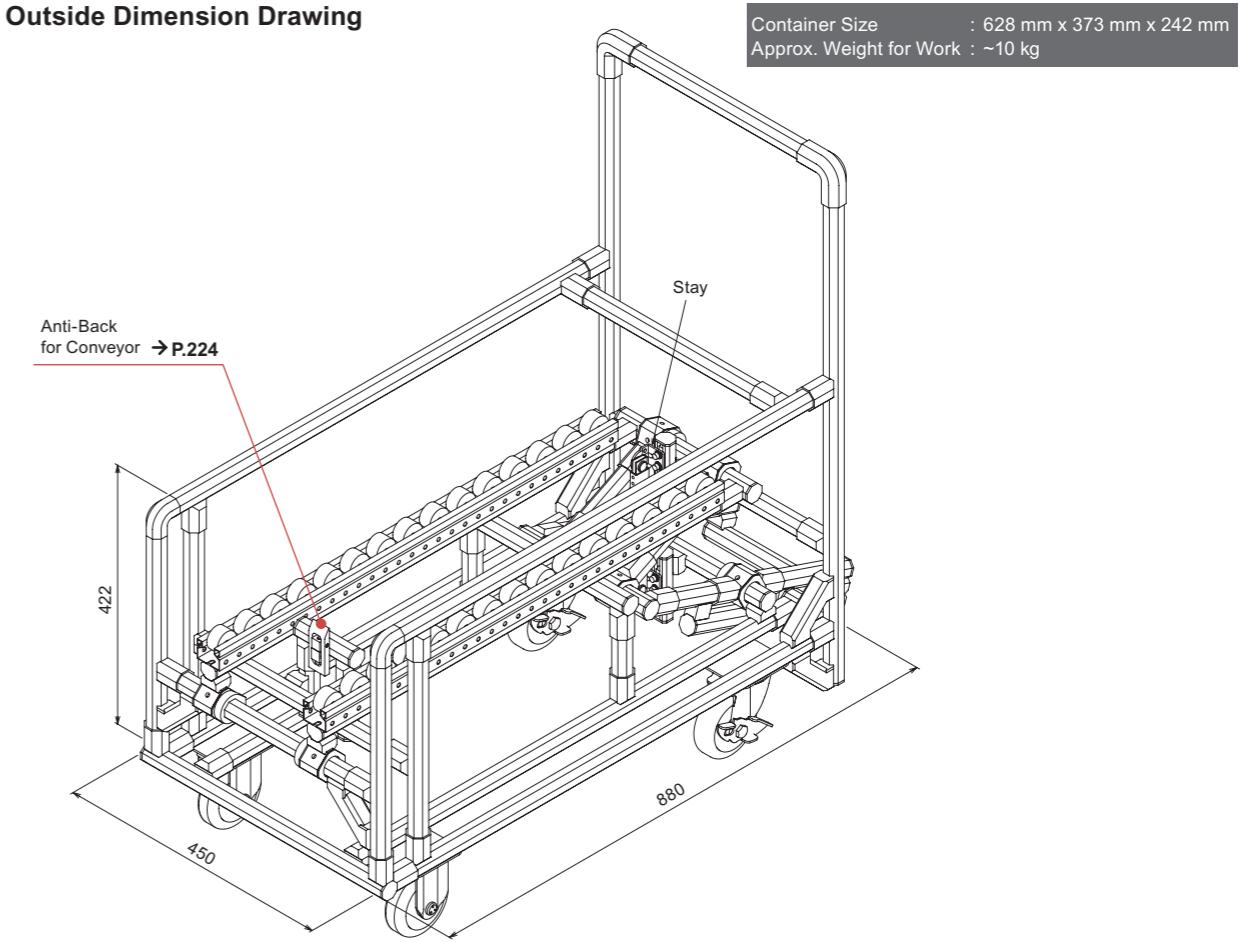


2 Press the pedal, Corocon part will lift up and tilt to let go the container. Even remove foot out of the Stay function, Corocon remain in tilt.



3 After move container on to a rack and return the pedal, Corocon part tilts back to the position waiting for a new feed container.

### ■ Outside Dimension Drawing

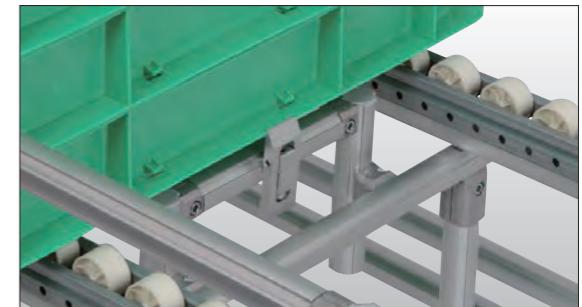


Container Size : 628 mm x 373 mm x 242 mm  
Approx. Weight for Work : ~10 kg

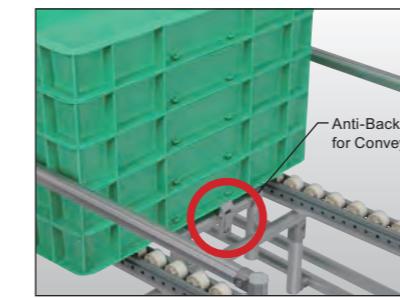
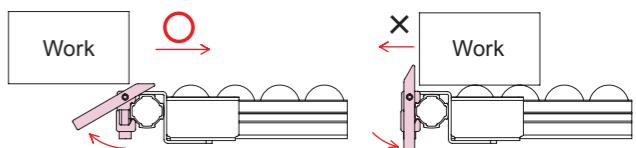
### ■ Main Module and Component Part

Anti-Back Conveyor  
Stay  
Frame Set  
Corocon Set  
Other related Connector Set

### ■ Structure of Anti-Back for Conveyor



It is a structure that allow work to go through in one direction only, not allow to return opposite side.



4 Container inside the trolley is locked with Anti-Back even during transfer.

GF-N  
28 mm

GF-G  
43 mm

GF-S  
19 mm

GF Jig

Panel Board

GF Unit

GF Sample Application

Home Use

Technical Data

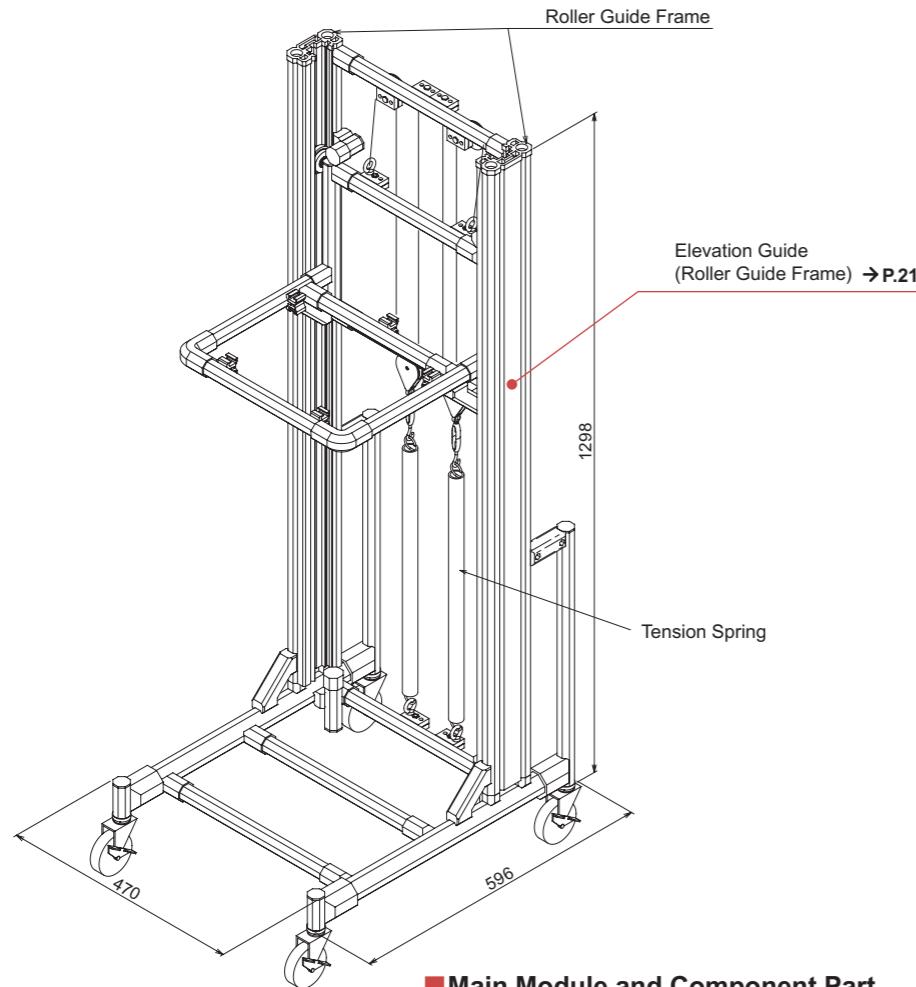
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### ⑭ Level Lifter Unit

This unit allows to load and unload containers in the certain height. There is no need to stoop down to do the work.

Container Size : 363 mm x 270 mm x 133 mm  
Approx. Weight for Work : 15 kg



#### ■ Main Module and Component Part

Elevation Guide (Roller Guide Frame)  
Frame Set  
Other related Connector Set

※ Tension Spring will change subjected to the size and weight of work.

### ⑮ Flip-Up Trolley Unit

After taking out all the work from the top rack, flip it open will help taking the work on the lower rack easier. As you can lay the work without touching each other, so it is good as a trolley to move finished product or as a transfer trolley between production line.

Container Size : 700 mm x 500 mm x 50 mm  
Approx. Weight for Work : 2 kg/1 level



#### ■ Main Module and Component Part

Frame Set  
Other related Connector Set



1 Put Container on the table and table will descend by a certain weight. The top edge of container will be around the same height to the position of the table earlier.

2 The weight increase from a load of 2nd container. The table will descend in a certain weight again, but the height of the top edge container is not much different.

3 After continue loading more weight of container, the height of container is still not much different. Same to when unload the container.



1 Remove all the work out from a rack to be empty, then flip it up over the head.

2 After flip up the rack, frame will slide and lock in flip-up position.

3 Repeat step 1 and 2 to continue working. Even though you have to flip it up many times, but its light weight of Aluminum Frame makes it friendly to work with.

# GF Sample Application

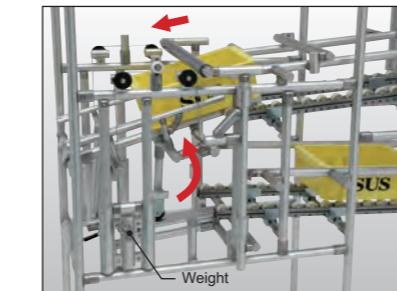
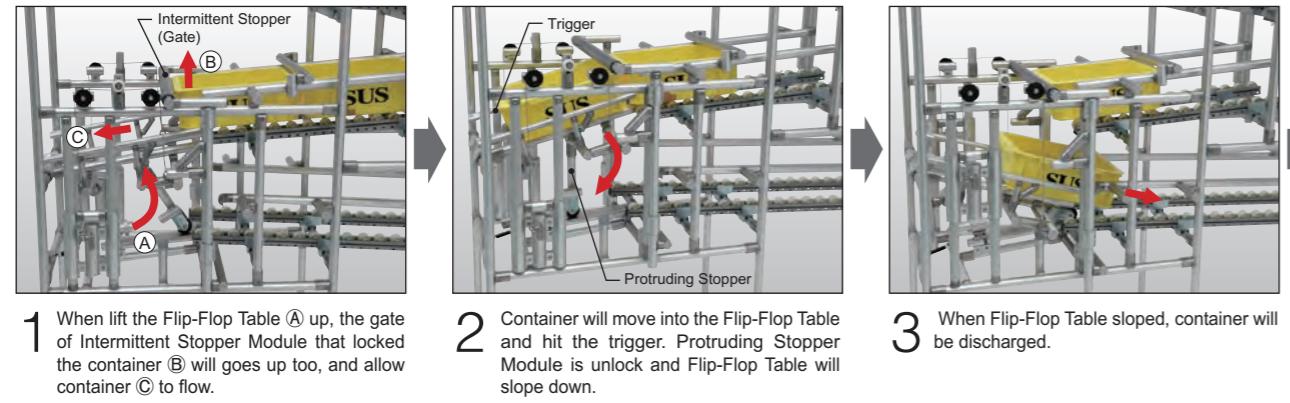
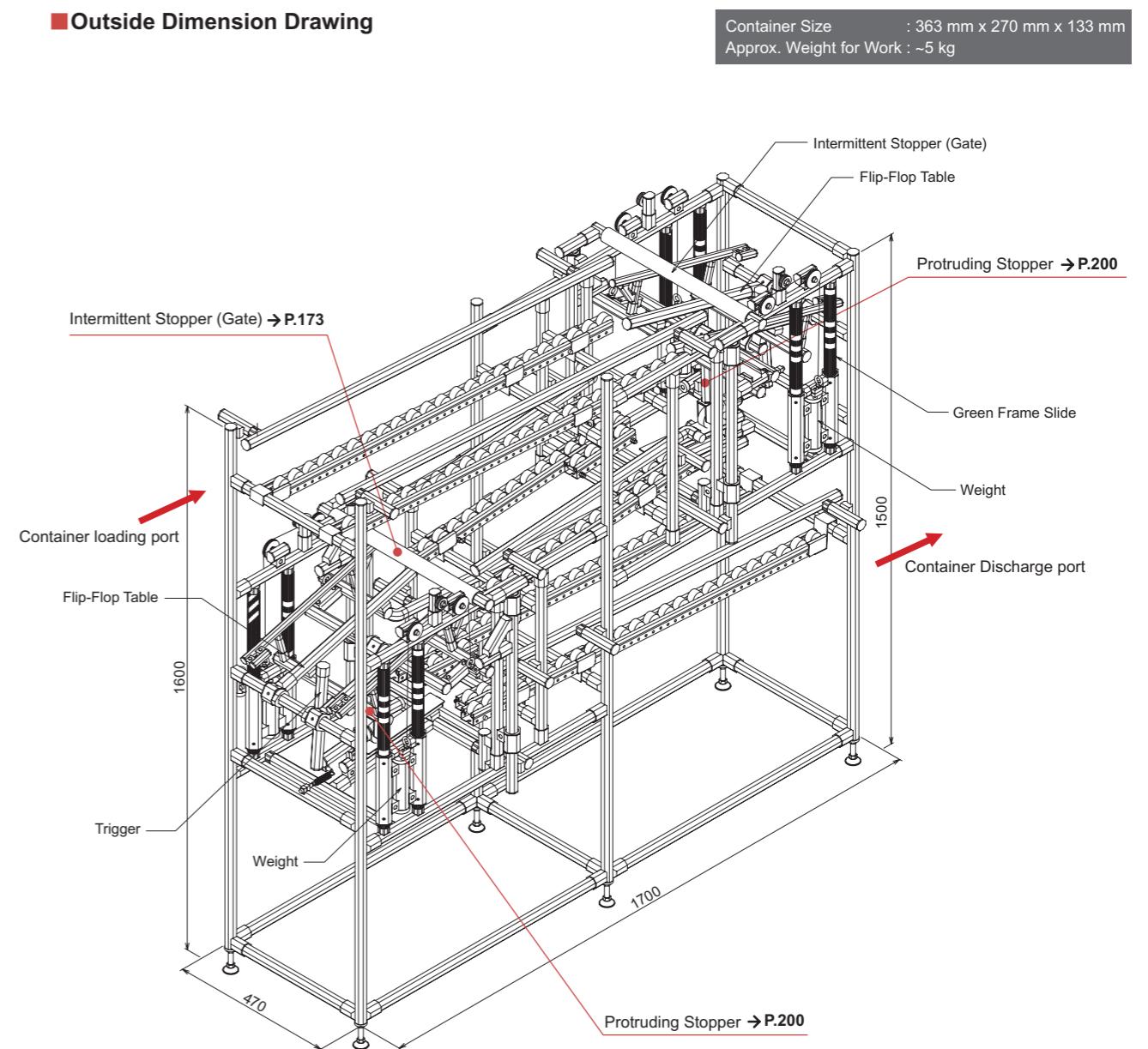
## Application Unit Example

### ⑯ Multi Level Shooter Unit

This is a multi level of Flip-Flop Shooter. After loading container into the Flip-Flop Table, the protruding stopper module will be automatically unlocked, table slope and allow the container to flow to the lower level. Repeat this operation 2 times can make a multi level of Flip-Flop Shooter.



#### ■ Outside Dimension Drawing

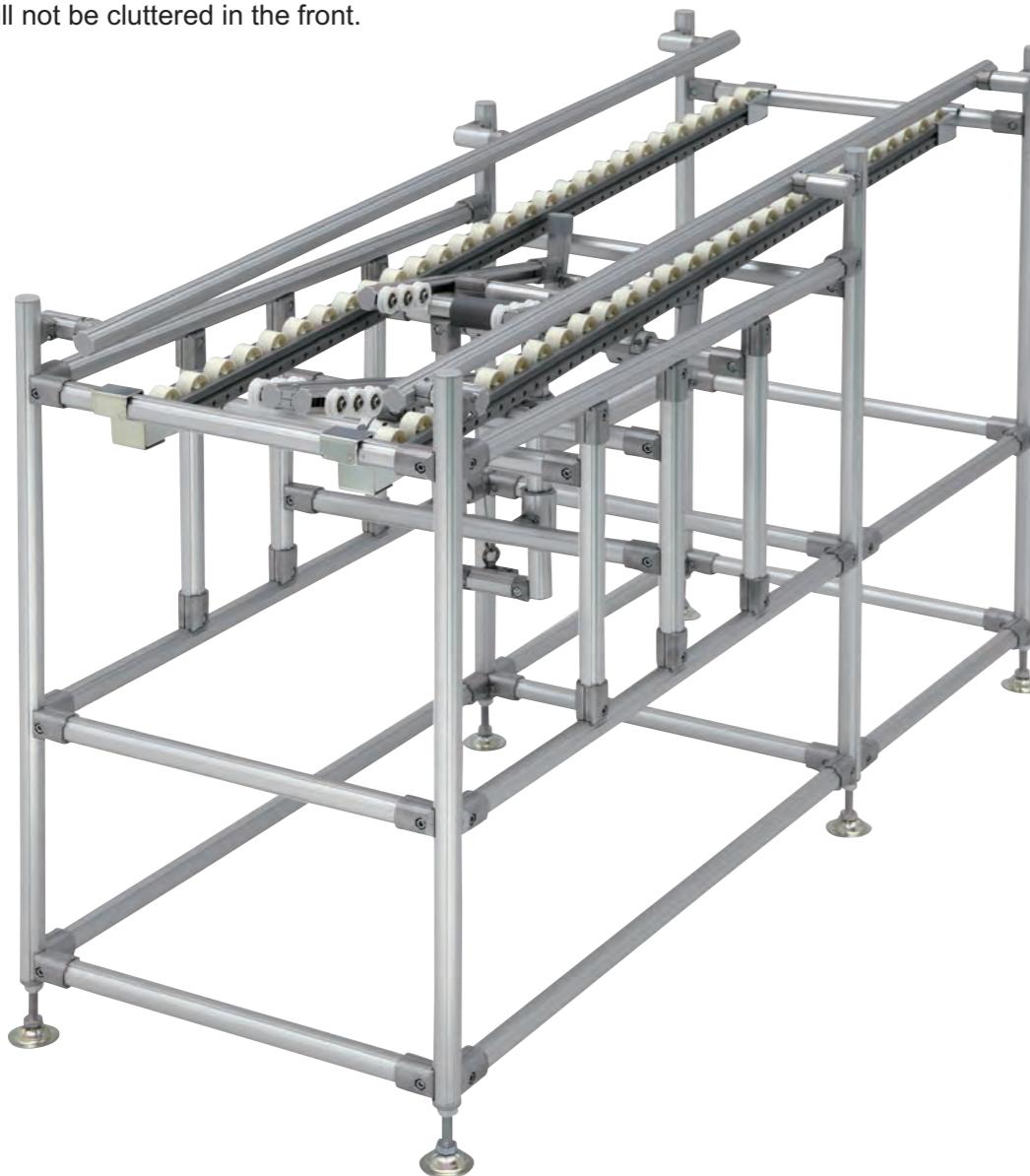


- Main Module and Component Part**
- Flip-Flop Table x2
  - Intermittent Stopper (Gate) x2
  - Protruding Stopper x2
  - Frame Set
  - Corocon Set
  - Other related Connector Set

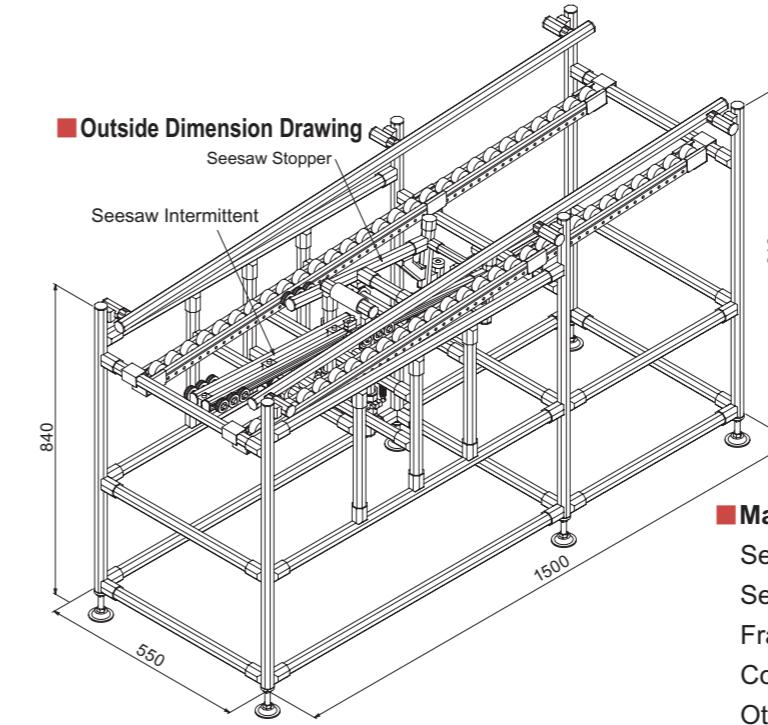
# Application Unit Example

## ⑯ Individual Shooter Unit

When take the front container away, the shooter will feed container from the back one at the time then it will not be cluttered in the front.

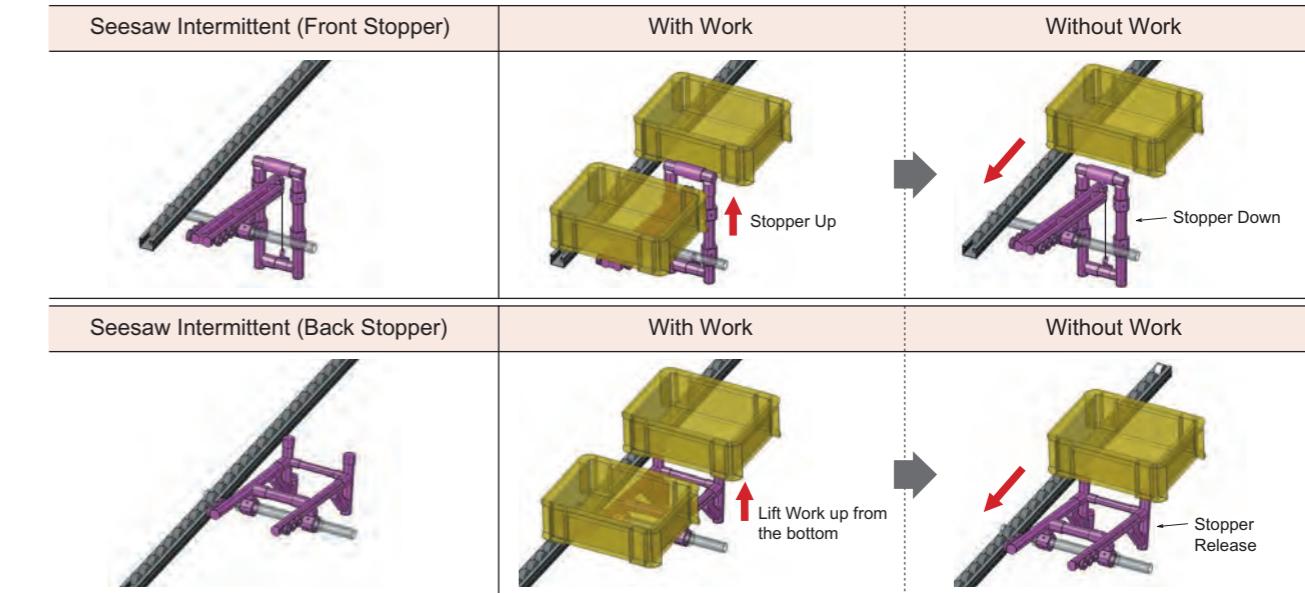


- 1 There are many container keep coming to be on a shooter.
- 2 when take container out, the stopper in the front will open and start allow the following container to flow. Here is where the back stopper will stop the next container to flow.
- 3 After container comes to the front, back stopper will release the following container to move forward.
- 4 The Back Stopper will stop the following container and leave a gap between front container.



- Main Module and Component Part**
- Seesaw Intermittent
  - Seesaw Stopper
  - Frame Set
  - Corocon Set
  - Other related Connector Set

### Structure of Seesaw Intermittent and Seesaw Stopper only

GF-N  
28 mmGF-G  
43 mmGF-S  
19 mm

GF Jig

Panel Board

GF Unit

GF Sample Application

Home Use

Technical Data

Dealer Delivery Environment

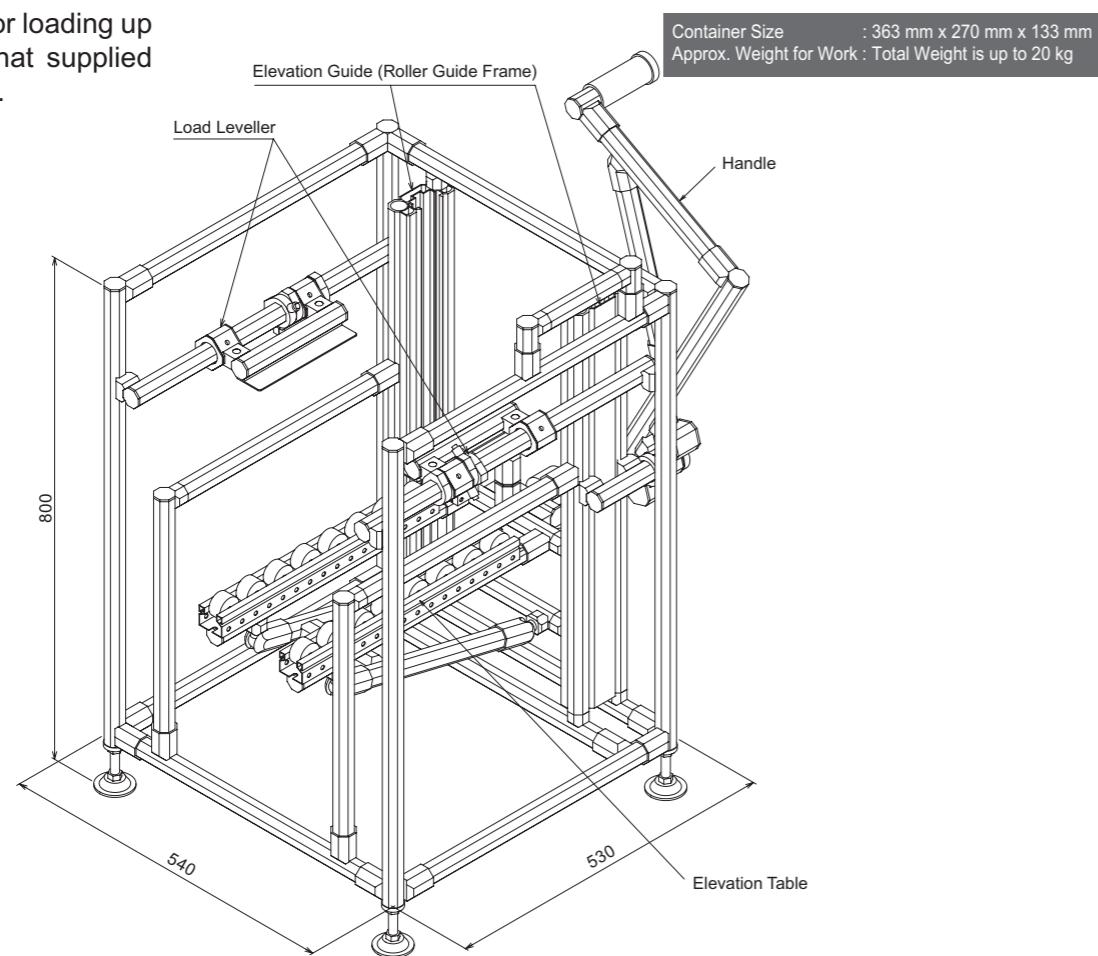
Index

Unit

Module

### ⑯ Load Leveller Unit

It is a unit for loading up container that supplied to the table.



#### ■ Main Module and Component Part

- Load Leveller
- Elevation Guide (Roller Guide Frame)
- Handle
- Elevation Table
- Frame Set
- Other related Connector Set

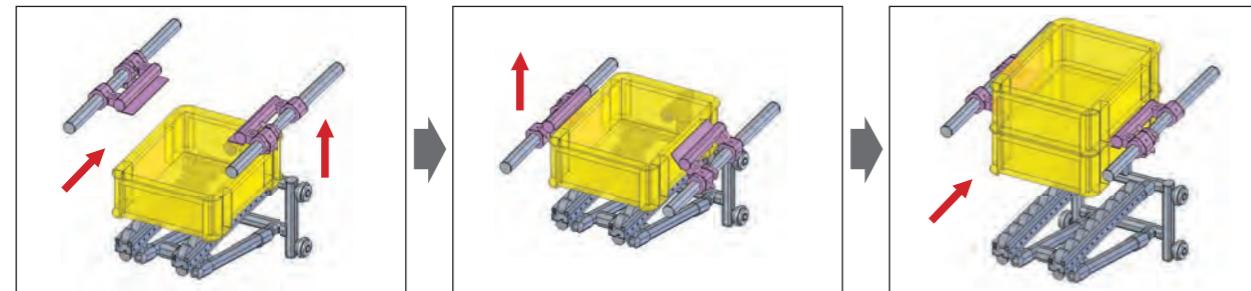
### ⑰ Strip-off Unit

This unit allows to take the container out from the lower level. It is a idea system for First-In - First-Out.



#### ■ Main Module and Component Part

- Strip-Off
- Elevation Guide (Slot Roller L 40 Light)
- Handle
- Frame Set
- Corocon Set
- Other related Connector Set



- 1 Using Handle to lift up the container flowed from the Table.
- 2 Load Leveller Module will hold the brim of container and keep container in the rise position.
- 3 Using handle to lift up the next container and stop in the loading up condition same with the mechanism in 2.



- 1 Pile up the container.
- 2 Push the handle down forward and table will goes up to lift the container in the lower level. At the same time the bracket hold the container will spring up.
- 3 When return the handle, the lowest container will be discharged from the table, and the bracket stays in the position of holding the next container.

GREEN FRAME  
**GF Sample Application**

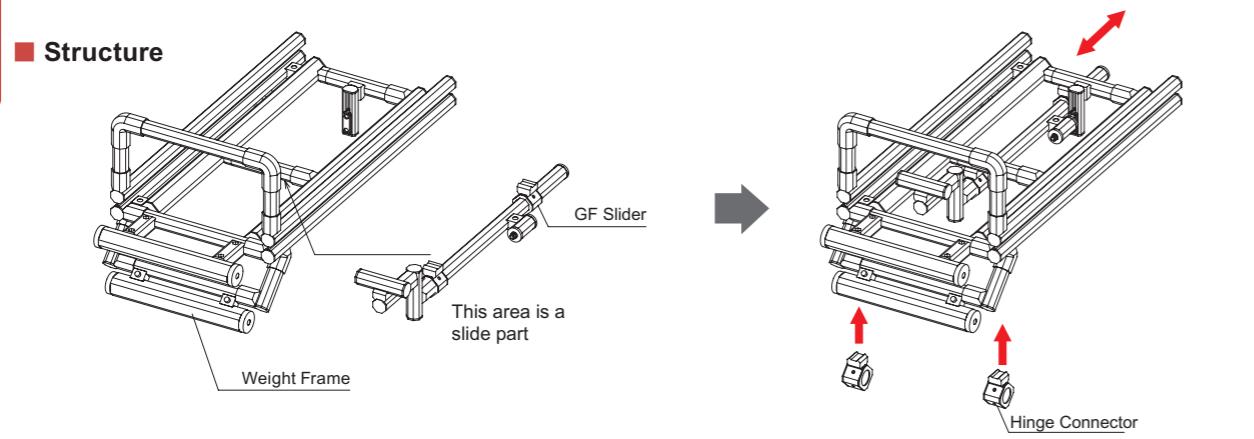
Sample Application Module

## Module

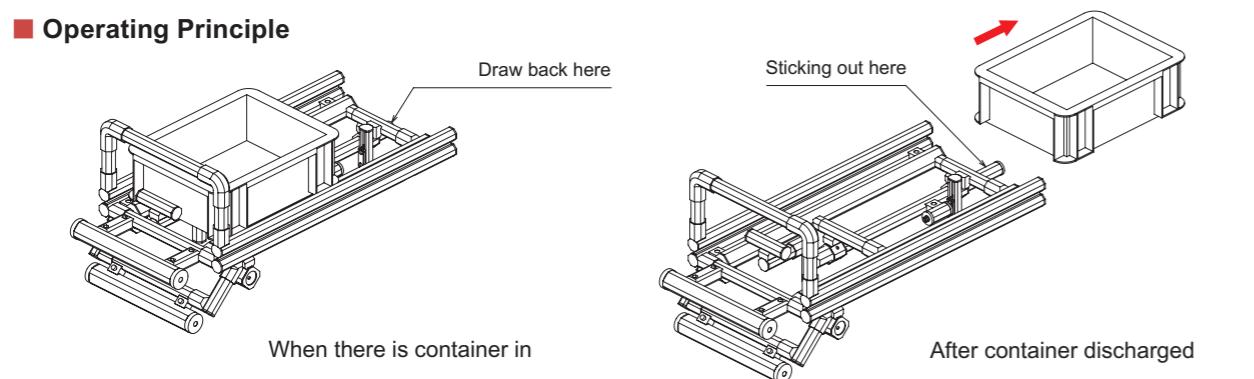
## Flip-Flop Table



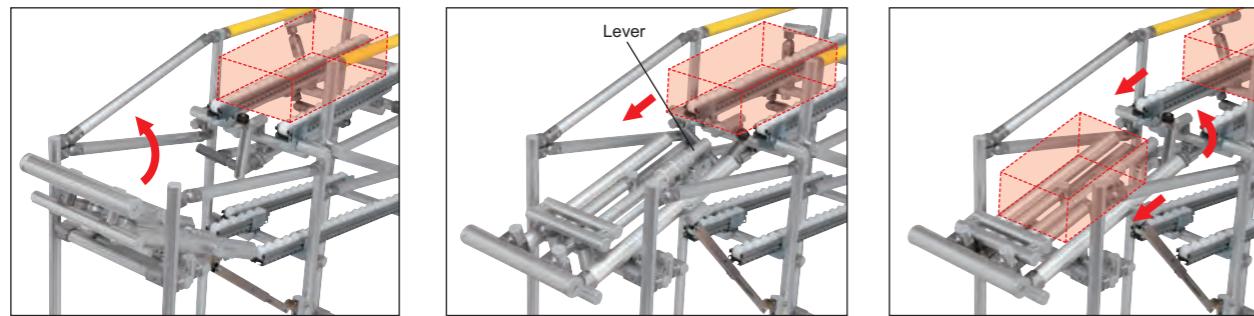
## ■ Structure



## ■ Operating Principle



→ Link this operation to Intermittent Stopper (P208-214) to intake container.

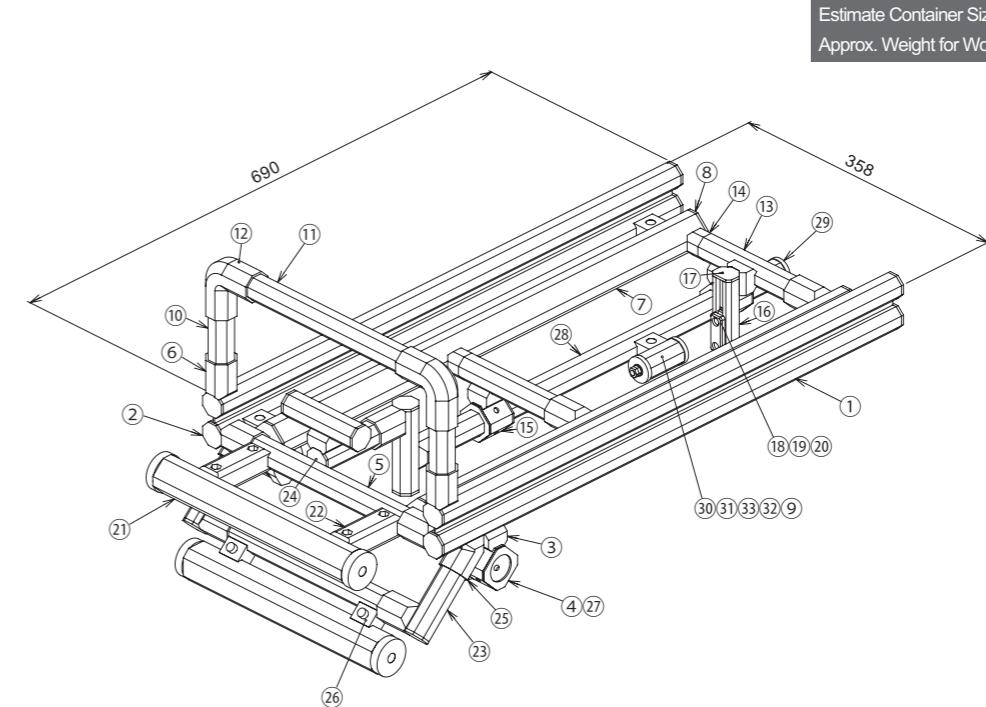


1 Lift up Flip-Flop Table after discharged container.

2 Container intake by lever that rotate Intermittent Stopper.

3 Lever will draw back after container intake to Flip-Flop Table, and Intermittent Stopper will return to its origin position.

## ■ Flip-Flop Module Example



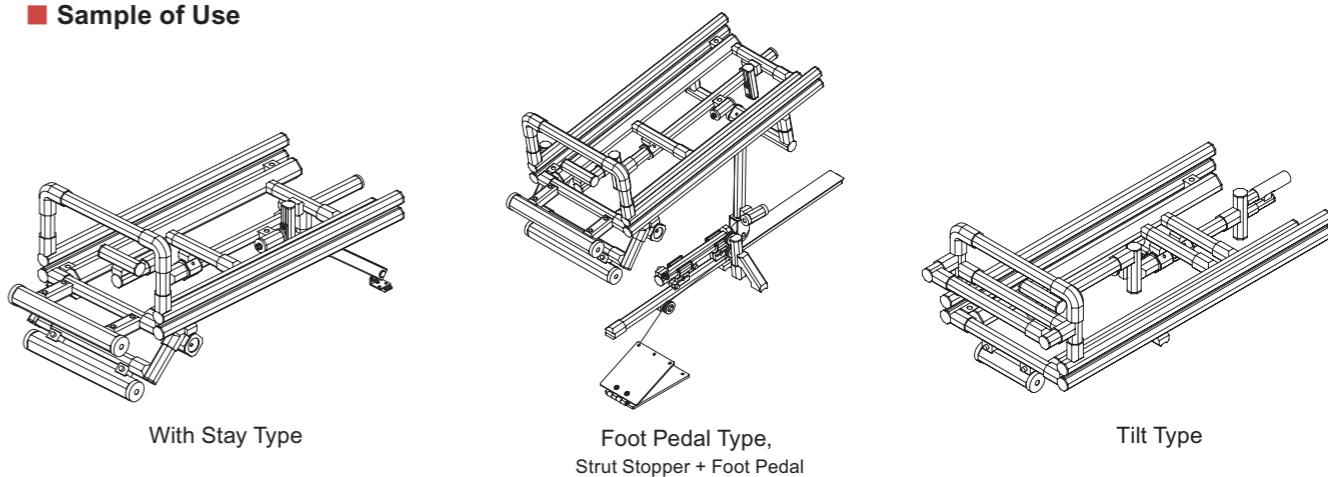
Estimate Container Size : 363 mm x 270 mm x 133 mm  
Approx. Weight for Work : ~ 5 kg

## ■ Component Part

Part No.	Item No.	Part Name	Dimension	Quantity
①	GFF-003	Green Frame W	684	2
②	GFA-400	Inner Cap		10
③	GFJ-A11	Cross Connector		6
④	GFF-A88	Hinge Connector Hard		2
⑤	GFF-017	Green Frame T	270	2
⑥	GFF-000	Multi Connector Outer Type		10
⑦	GFF-200	Green Frame G	631	2
⑧	GFA-402	Inner Cap G		4
⑨	GFJ-A95	Double Connector P15		5
⑩	GFF-000	Green Frame	100	3
⑪	GFF-000	Green Frame	270	1
⑫	GFJ-010	Angle Connector Outer Type E		2
⑬	GFF-000	Green Frame	154	2
⑭	GFJ-200	Multi Connector Inner Type		2
⑮	GFJ-B28	Slide Connector		2
⑯	GFF-004	Green Frame L slot	90	1
⑰	GFA-405	GF L slot inner cap		2

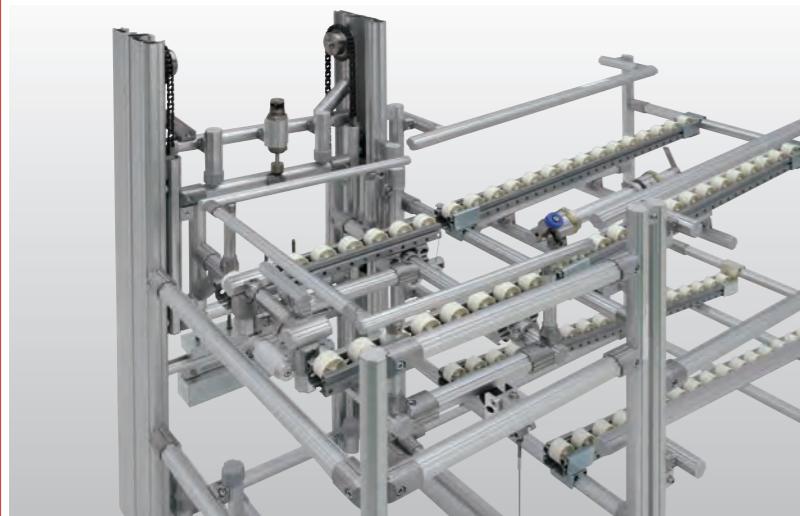
\* please adjust weight suitable to condition

## ■ Sample of Use



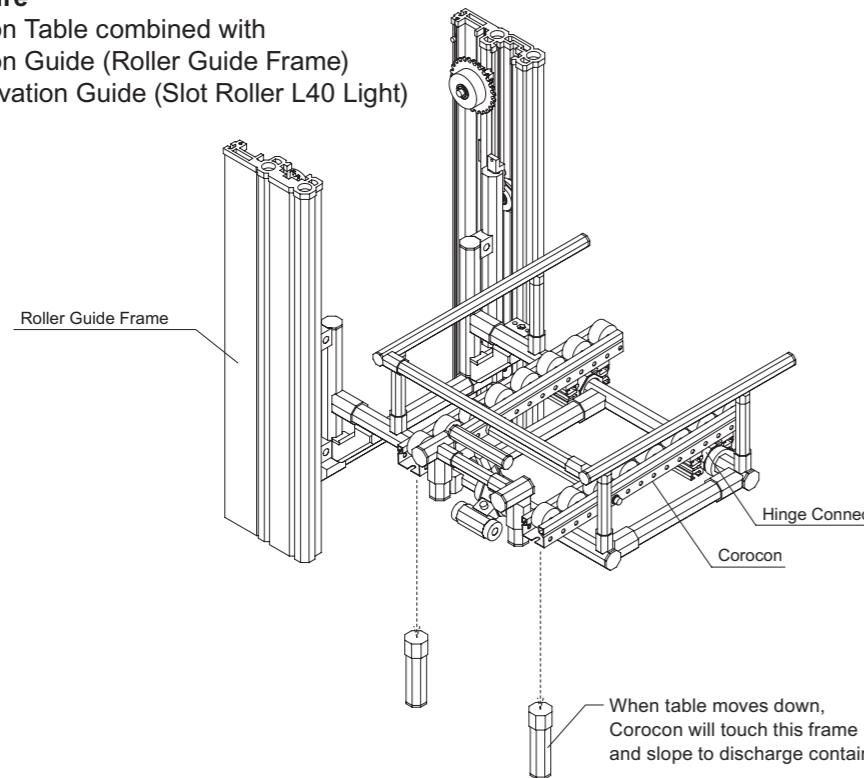
# Module

## Elevation Table (Roller Installation Type)

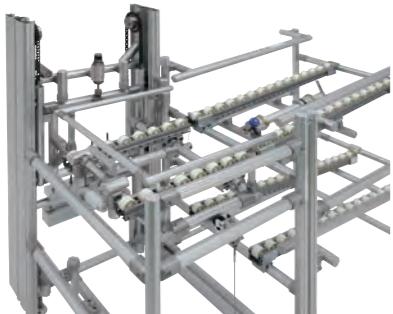


### ■ Structure

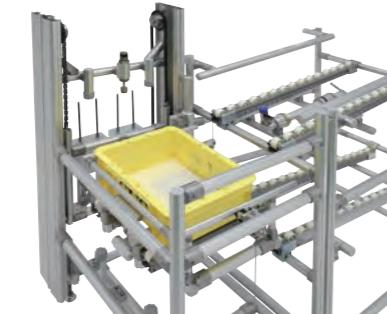
Elevation Table combined with Elevation Guide (Roller Guide Frame) and Elevation Guide (Slot Roller L40 Light)



### ■ Operating Principle



**1** When the Elevation Table is empty, the Weight will bring the Table up to the top and stop there.

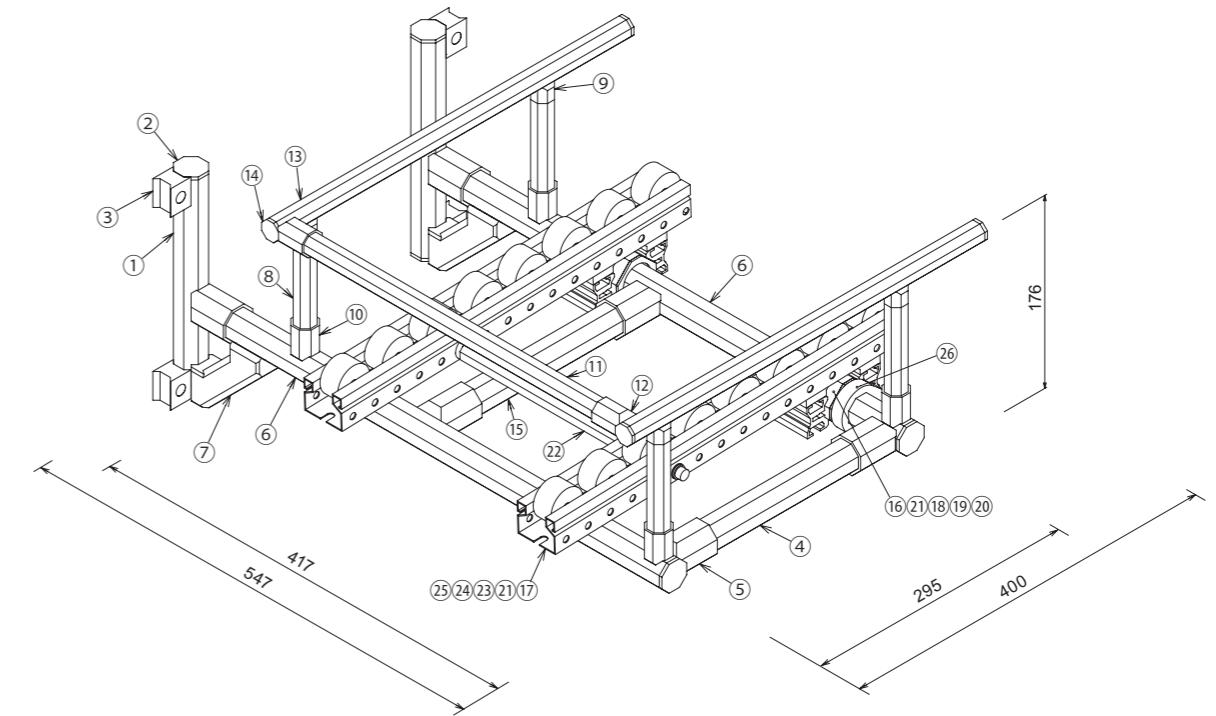


**2** When container intake, Elevation Table is descending while holding container in horizontal position.



**3** When Elevation Table comes all the way down, Corocon part will slope to discharge container.

### ■ Sample of Elevation Table Module (Roller Installation Type)



Estimate Container Size : 363 mm x 270 mm x133 mm  
Approx. Weight for Work : ~5 kg

GF-N Moving Part  
→ P.58

GF-N  
28 mm

GF-G  
43 mm

GF-S  
19 mm

GF Jig

Panel Board

GF Unit

GF Sample Application

Home Use

Technical Data

Dealer Delivery Environment

Index

Unit

Module

### ■ Component Part

Part No.	Item No.	Part Name	Dimension	Quantity
①	GFF-000	Green Frame	210	2
②	GFA-400	Inner Cap	6	
③	GFJ-A95	Double Connector P15	4	
④	GFF-017	Green Frame T	207.2	1
⑤	GFJ-000	Multi Connector Outer Type	6	
⑥	GFF-000	Green Frame	511	2
⑦	GFJ-A15	Point Connector	2	
⑧	GFF-400	Green Frame S	100	4
⑨	GFJ-211	Multi Connector Inner Type	4	
⑩	GFJ-020	GFS-GF Connector	4	
⑪	GFF-400	Green Frame S	354	1
⑫	GFJ-018	Multi Connector Outer Type S	2	
⑬	GFF-400	Green Frame S	394	2

Part No.	Item No.	Part Name	Dimension	Quantity
⑭	GFA-403	Inner cap S	4	
⑮	GFF-000	Green Frame	207.2	1
⑯	GFJ-A07	Hinge Connector L	2	
⑰	GFC-003	Corocon (Cutting Product)	395	2
⑱	GFJ-A03	Connector Piece L (Single)	2	
⑲	GFJ-A24	Slider Connector	4	
⑳	SFB-565	Hexagon socket head cap screw M6x40 (Trivalent Chrome Plating)	4	
㉑	SFB-902	Flat Washer M6 (Trivalent Chrome Plating)	6	
㉒	GFF-400	Green Frame S	188	1
㉓	GFN-E07	Foot Connector S	2	
㉔	SFB-56TS	Hexagon socket head cap screw M6x70 (stainless)	2	
㉕	SFB-9T6	Spring Washer M6 (Trivalent Chrome Plating)	2	
㉖	GFJ-A61	Hinge Connector Stopper Hard	2	

# Module

## Strut Stopper



■ It is a system of lock and unlock Elevation Table at the top by kicking support frame with Foot Pedal.

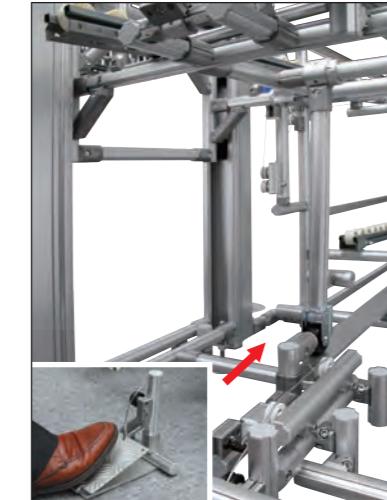
### Application Unit Example

⑯ Multi Level Shooter → P.188

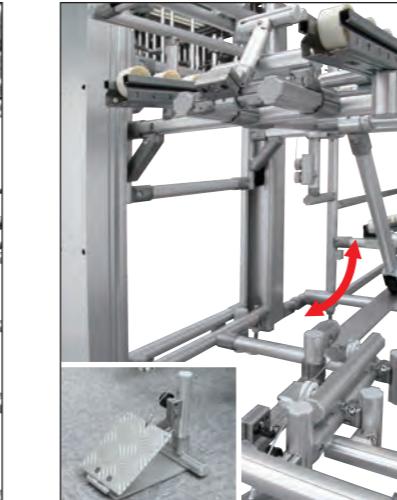
### Operating Principle



1 Frame of strut stopper will lock due to its function when there is container set on the table, and will stop Elevation Table coming down.

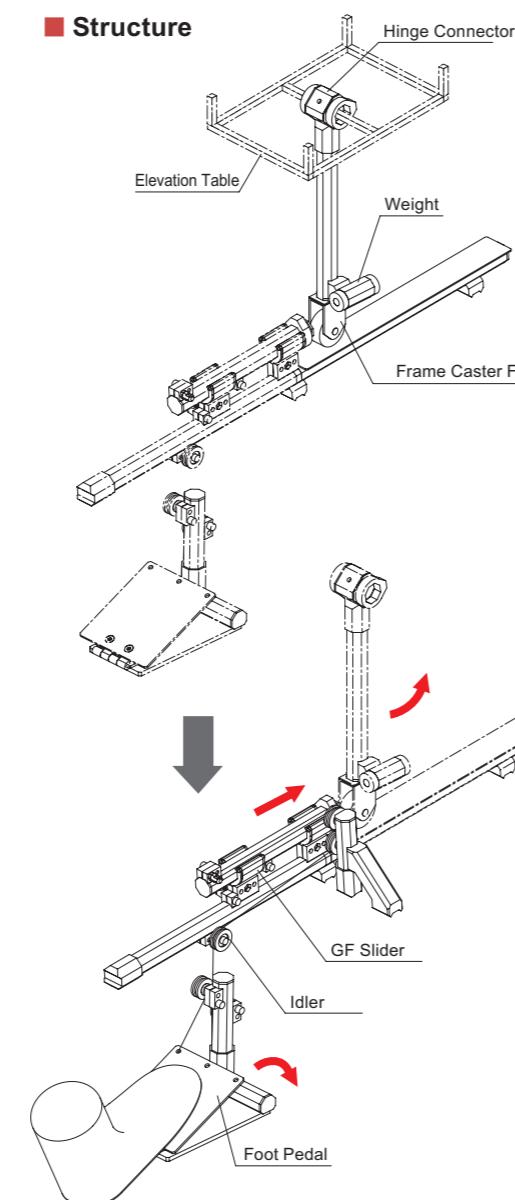


2 When press the Foot Pedal, Frame of strut stopper will be pressed, Elevation Table is unlock and move down.

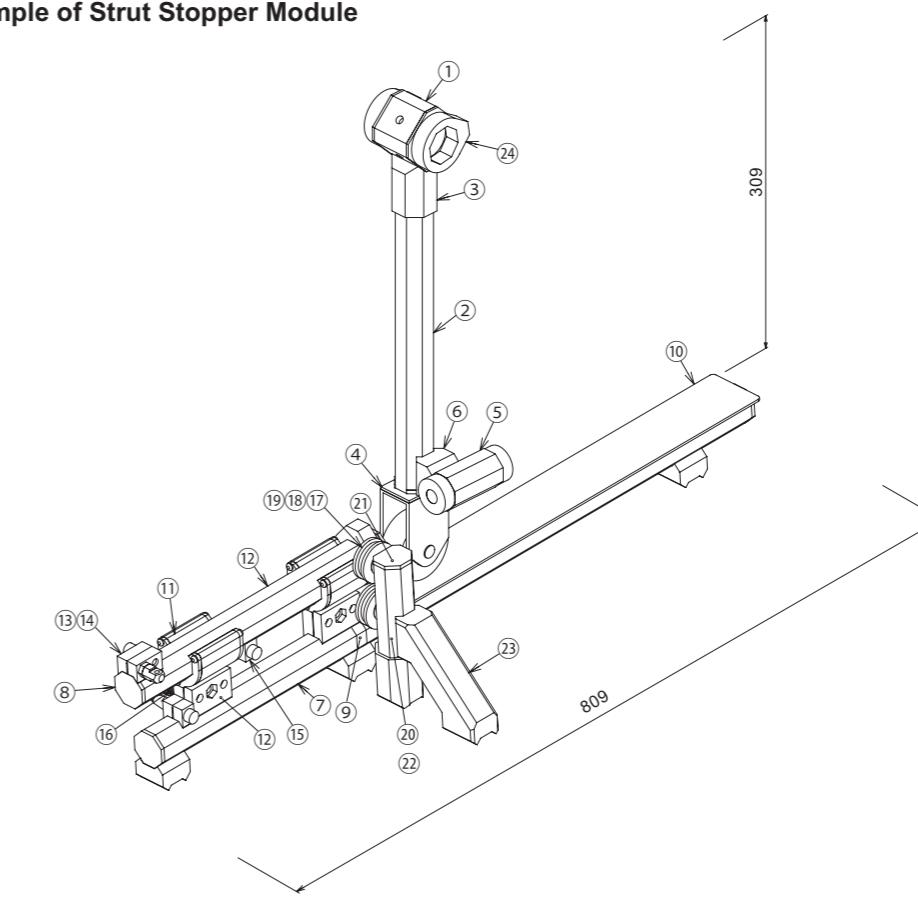


3 After discharged container, the Weight will bring Elevation Table up and strut stopper will back to lock position in step 1.

### Structure



### Sample of Strut Stopper Module



### Component Part

Part No.	Item No.	Part Name	Dimension	Quantity
①	GFF-A88	Hinge Connector Hard		1
②	GFF-000	Green Frame	260	1
③	GFJ-000	Multi Connector outer Type		2
④	GFN-549	Φ 50 Frame Caster Fix		1
⑤	GFW-216	Weight Frame 0.2 kg.		1
⑥	GFJ-A11	Cross Connector		4
⑦	GFF-000	Green Frame	200	1
⑧	GFA-400	Inner Cap		4
⑨	GFJ-A17	Straight Connector		1
⑩	GFF-005	Green Frame F50 processing CR3	400	1
⑪	GFJ-A38	GF Slider F-F		2
⑫	GFF-000	Green Frame	250	1

※ Foot Pedal, Wire are not included.

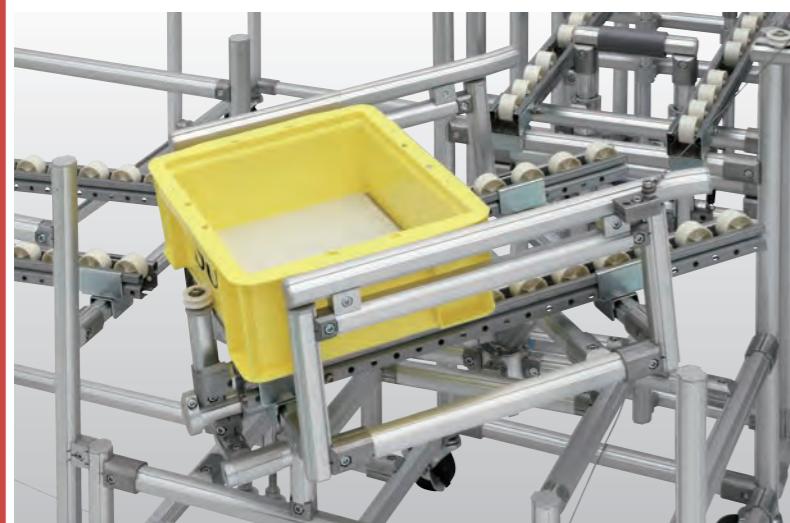
Part No.	Item No.	Part Name	Dimension	Quantity
⑬	GFJ-B09	Connector Piece Compact		1
⑭	GFZ	Roller Chain Bolt (SRC-35 X 25-R)		1
⑮	GFJ-B10	Post Spring Connector		2
⑯	GFW-256	Tension Spring Middle M (Single)		1
⑰	GFK-910	Resin Idler Installation Kit		2
⑱	SFB-566	Hexagon Socket Head Cap Screw M6x25 (Trivalent Chrome Plating)		2
⑲	SFK-T10	T Nut L (M6) with Slide Stop 40		2
⑳	GFF-004	Green Frame L Slot	100	1
㉑	GFA-405	GF-L Slot Inner Cap		1
㉒	GFA-601	L Slot Connector Piece		1
㉓	GFJ-A15	Point Connector		1
㉔	GFJ-A61	Hinge Connector Stopper Hard		3

Unit

Module

## Module

## 90° Turn

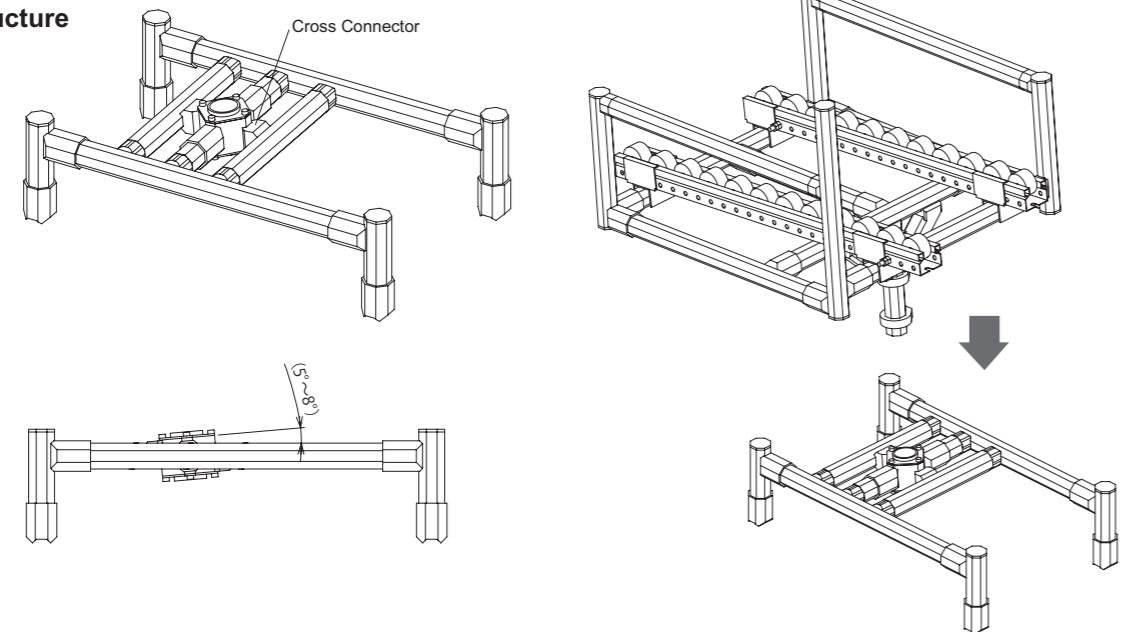


■ It is a 90° turn system with the front of container still facing forwarding.

## Application Unit Example

## ⑨ 90° Turn Unit

## ■ Structure



## ■ Operating Principle



1

Turn Table has been installed with tilt of 5° in each direction of side and depth and being pulled by the Weight.



2

Turn Table will start rotate automatically when container comes in. At this time, Container will be locked by Stopper (Rotate) Module.



3

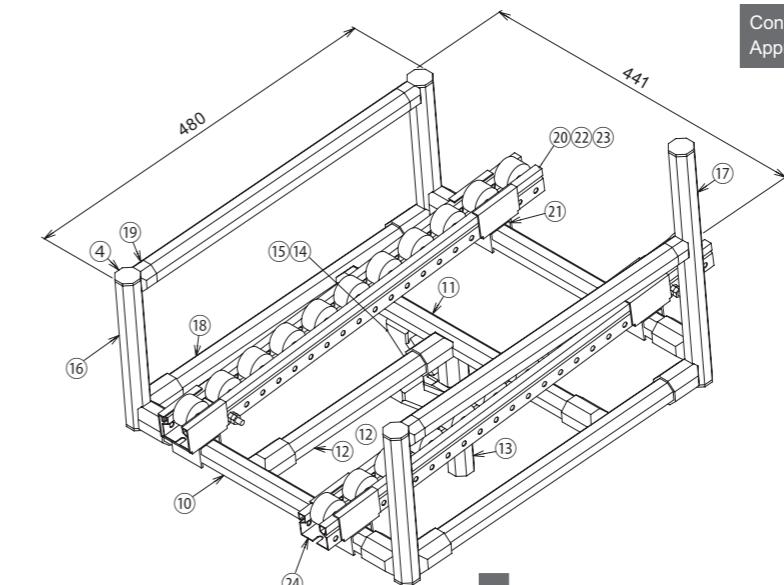
After 90° rotated, Stopper Module (rotate) will unlock to discharge container.



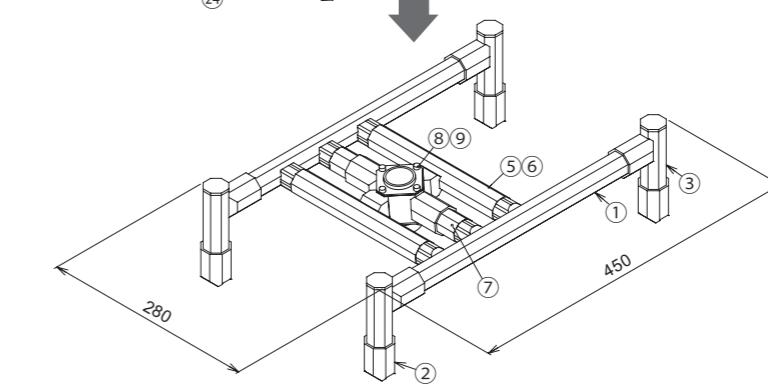
4

After container discharged, the Weight will pull Turn Table to return to its origin position.

## ■ Example of 90° Turn Module



Container Size : 363 mm x 270 mm x 133 mm  
Approx. Weight for Work : ~5 kg



## ■ Component Part

Part No.	Item No.	Part Name	Dimension	Quantity
①	GFF-000	Green Frame	362	2
②	GFJ-000	Multi Connector Outer Type		23
③	GFF-000	Green Frame	100	4
④	GFA-400	Inner Cap		12
⑤	GFF-000	Green Frame	192	2
⑥	GFJ-207	Multi Connector Inner Type R		6
⑦	GFF-000	Green Frame	50	2
⑧	GFJ-A94	Rotary Connector		1
⑨	GFJ-A11	Cross Connector		2
⑩	GFF-000	Green Frame	353	2
⑪	GFF-017	Green Frame T	353	1
⑫	GFF-017	Green Frame T	250	1

Part No.	Item No.	Part Name	Dimension	Quantity
⑬	GFF-017	Green Frame T	150	1
⑭	GFJ-A15	Point Connector		3
⑮	GFJ-A61	Hinge Connector Stopper Hard		2
⑯	GFF-000	Green Frame	200	3
⑰	GFF-000	Green Frame	320	1
⑱	GFF-000	Green Frame	392	4
⑲	GFJ-200	Multi Connector Inner Type		4
⑳	GFC-003	Corocon (Cutting)	550	1
㉑	GFC-211	Corocon Hook D		4
㉒	SFB-56G	Hexagon Socket Head Cap Screw M6x60 (Trivalent Chrome Plating)		2
㉓	SFB-960	Hexagon Nut M6 (1 Type) (Trivalent Chrome Plating)		4
㉔	GFC-003	Corocon (Cutting)	600	1

# Module

## Stopper (Rotate)

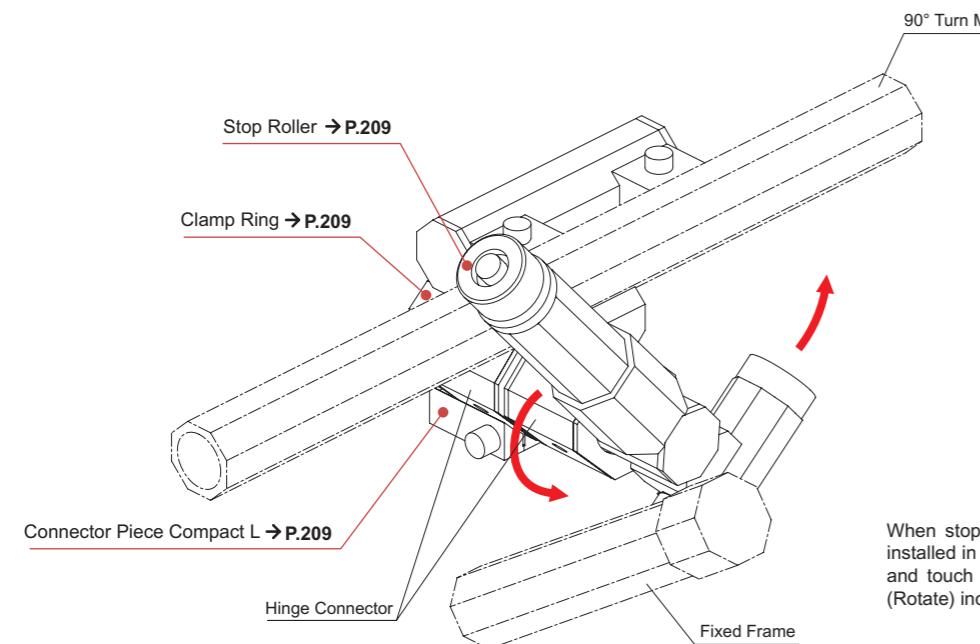


■ It is a stopper which has 90° Turn Module installed to control container holding and discharge.

### Application Unit Example

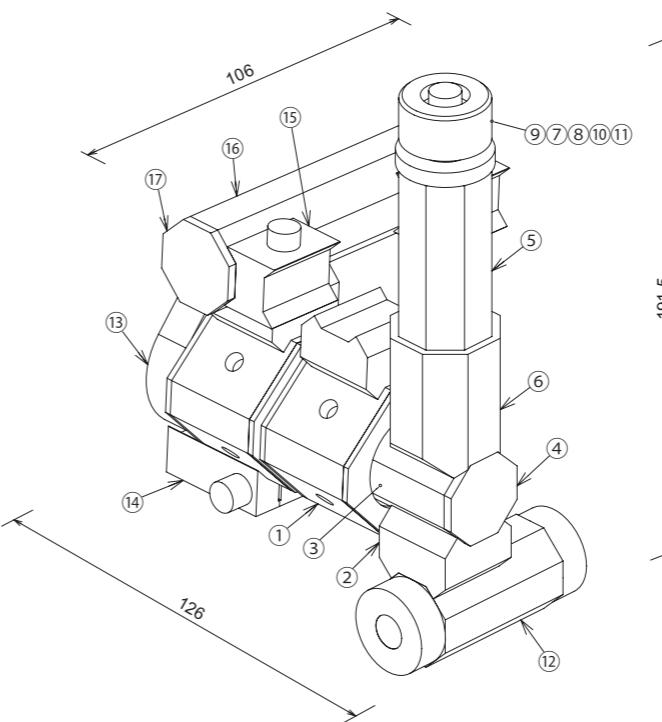
⑨ 90° Turn Unit

### ■ Structure



When stopper (Rotate), which was installed in 90° Turn Module, rotates and touch a Fixed Frame, Stopper (Rotate) inclines and unlock .

### ■ Sample of Stopper Module (Rotate)



### ■ Component Part

Part No.	Item No.	Part Name	Dimension	Quantity
①	GFJ-A88	Hinge Connector Hard		2
②	GFJ-A11	Cross Connector		3
③	GFF-017	Green Frame T	120	1
④	GFA-410	GFT Inner Cap		2
⑤	GFF-000	Green Frame	80	1
⑥	GFJ-000	Multi Connector Outer Type		1
⑦	GFN-E01	Foot Connector M8		1
⑧	SFZ	Hexagon Socket Head Cap Screw M6x55 Stainless		1
⑨	GFW-295	Stop Roller		1

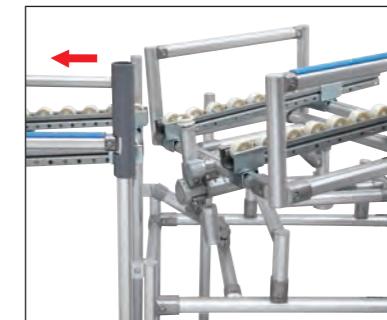
Part No.	Item No.	Part Name	Dimension	Quantity
⑩	GFA-A29	Spacer for Bearing		1
⑪	SFB-960	Hexagon Nut M6 (1 Type) (Trivalent Chrome Plating)		2
⑫	GFW-216	Weight Frame 0.2 kg.		1
⑬	GFW-296	Clamp Ring		1
⑭	GFW-316	Connector Piece Compact L		1
⑮	GFJ-A45	Double Connector C Kit		2
⑯	GFF-000	Green Frame	100	1
⑰	GFA-400	Inner Cap		2

● This module example refers to the installation size of 90° Turn Module in P232.

### ■ Operating Principle



1 Table will rotate if there is container comes into turn table.



2 Stopper Module (Rotate) will lock the container while table is rotating.



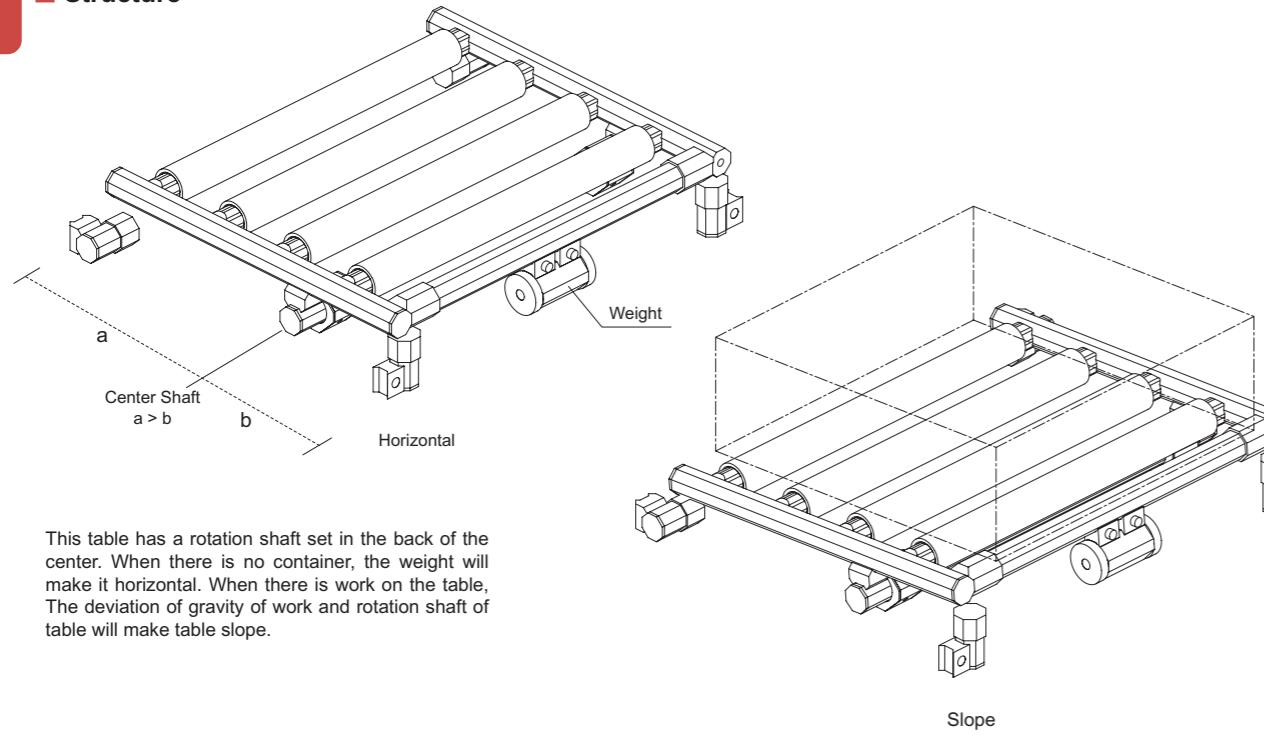
3 Stopper Module (Rotate) will fully unlock after table finished Rotate, then container will be discharged.

# Module

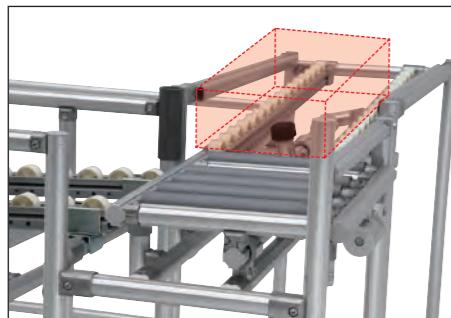
## Horizontal Turn



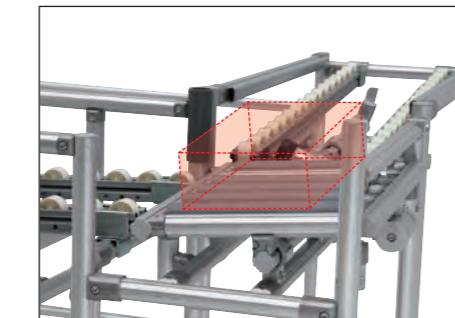
### Structure



**Operating Principle**



1 Set Turn Table at condition of no container to be the same level as Corocon above by using weight.



2 When container comes in, rotation shaft, that was installed on the side a little bit upper than the center, will tilt the Turn Table to the lower side. Then the Weight will bring it back to its origin after container being discharged.

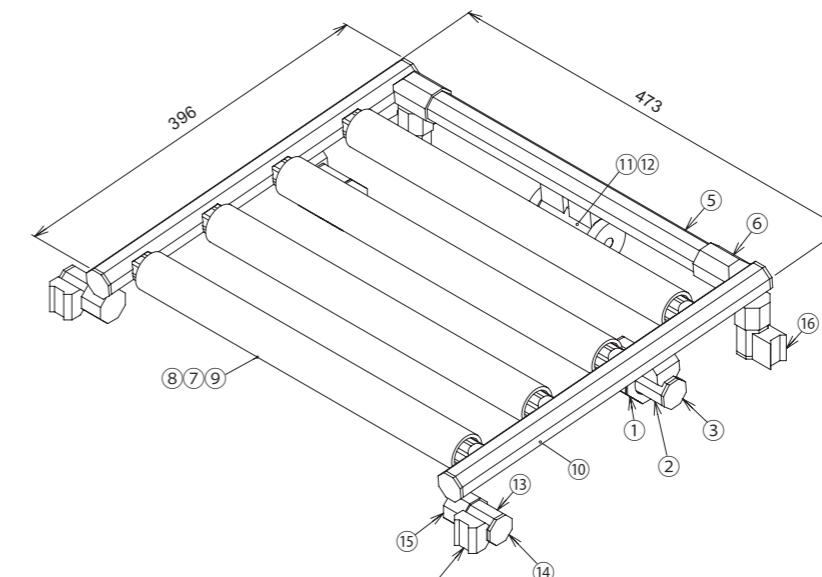
When there is container intake, this system will change direction of container at 90°.

### Application Unit Example

- ⑥ Horizontal Turn Unit (Gravitation) → P.174
- ⑦ Horizontal Turn Unit (2 levels type) → P.175

### Sample of Stopper Module (Rotate)

Estimate Container Size : 363 mm x 270 mm x 133 mm  
Approx. Weight for Work : ~5 kg



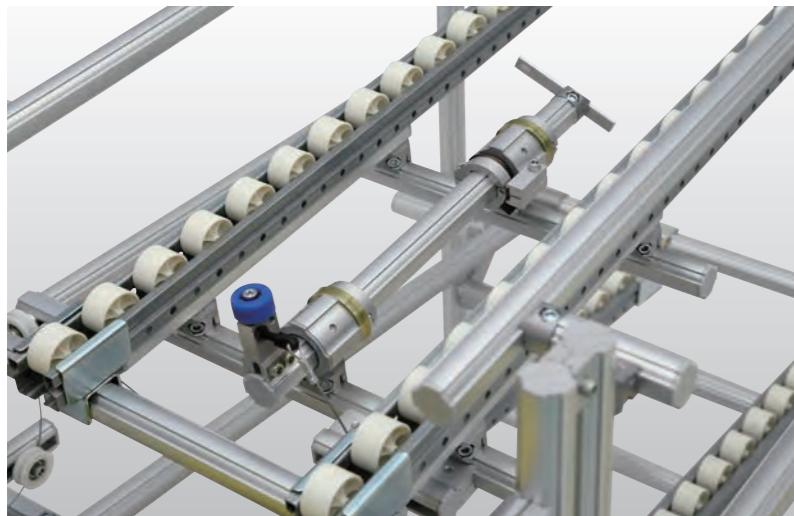
### Component Part

Part No.	Item No.	Part Name	Dimension	Quantity
①	GFF-A88	Hinge Connector Hard	2	
②	GFF-017	Green Frame T	480	1
③	GFA-410	GFT Inner Cap		6
④	GFJ-A11	Cross Connector		4
⑤	GFF-000	Green Frame	385	1
⑥	GFJ-000	Multi Connector Outer Type		2
⑦	GFF-006	Green Frame Slide	385	4
⑧	GFJ-207	Multi Connector Inner Type		8

Part No.	Item No.	Part Name	Dimension	Quantity
⑨	GFZ	Resin Pipe	4	
⑩	GFF-017	Green Frame T	390	2
⑪	GFW-219	Weight Frame 0.5 kg		1
⑫	GFJ-A45	Double Connector C Kit		2
⑬	GFF-000	Green Frame	50	4
⑭	GFA-400	Inner Cap		4
⑮	GFA-401-T	Outer Cap		4
⑯	GFJ-A95	Double Connector P15		2

# Module

## Intermittent Stopper (Built-in Spring)

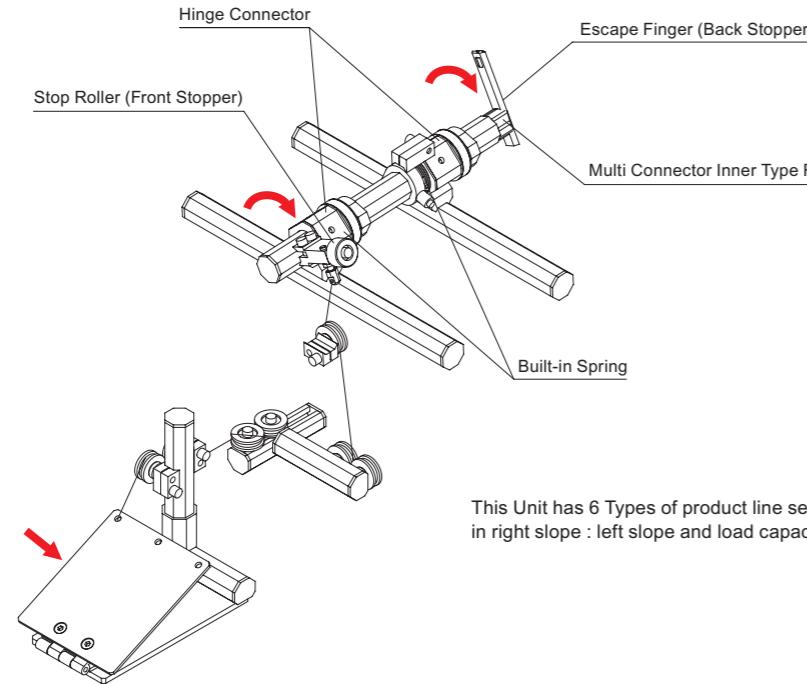


■ It is an Intermittent Stopper with built-in spring. Just Install this unit with cross connector to the shooter, then an intermittent system become realistic.

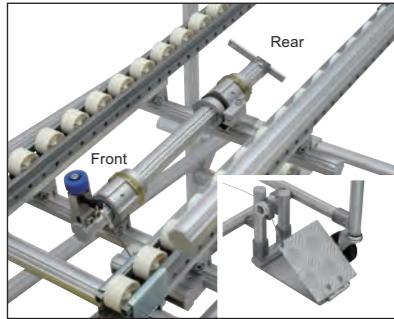
### Application Unit Example

- ④ Elevator (Weight) → P.170
- ⑩ Automatic Shooter → P.180

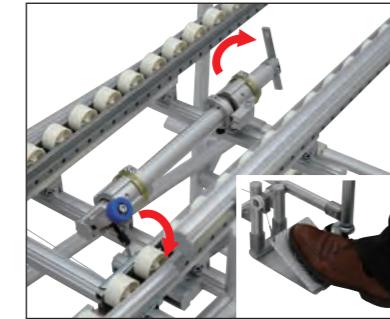
### ■ Structure



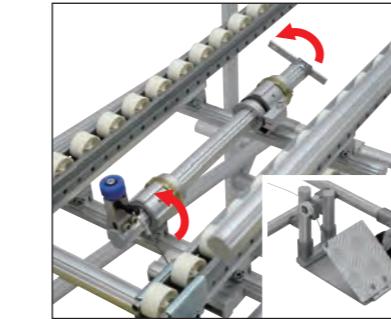
### ■ Operating Principle



1 Container is in a stop condition subjected to the Intermittent Stopper.

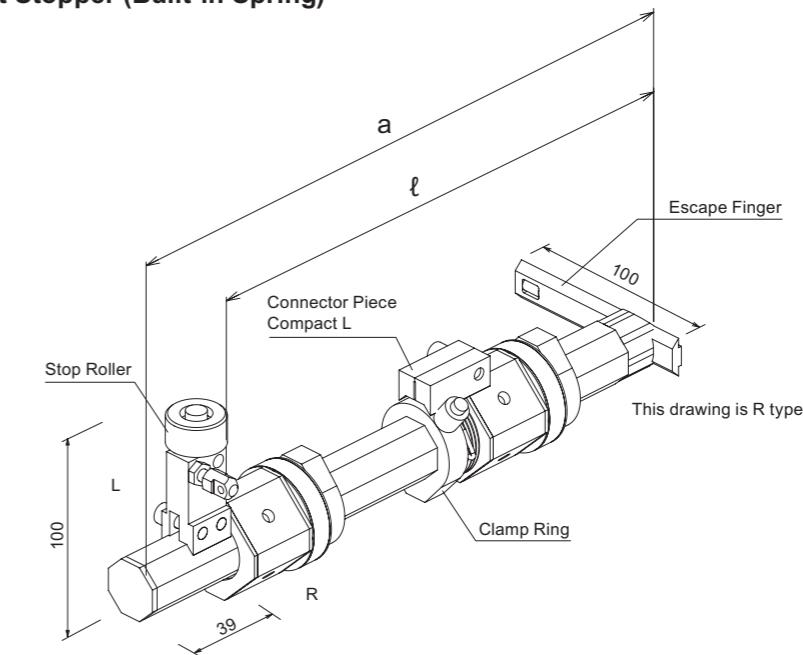


2 When press the Foot Pedal, front stopper will rotate to unlock. Then the first container is discharged while the back stopper will stop the next container.



3 When you release your foot, intermittent stopper will return to position by spring force. At this time Back Stopper will be unlocked and allows the next container to flow.

## ■ Intermittent Stopper (Built-in Spring)



### ■ Item

Name	Part No.	Item No.
Intermittent Stopper (Built-in Spring)	For small load (For empty box)	L GFK-925 R GFK-926
	For medium load (Total weight of work : 70 kg) (1 piece of work : ~20 kg)	L GFK-919 R GFK-920
For heavy load (Total weight of work : 100 kg) (1 piece of work : ~20 kg)	L GFK-917	
	R GFK-918	

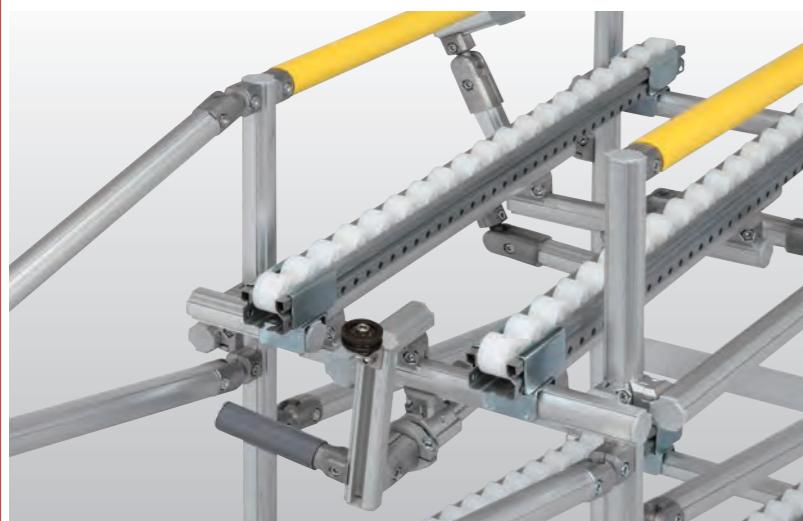
- L : Slot Roller tilts to the left R : Slot Roller tilts to the right.
- When place an order, please identify the length of a.  $800 \text{ mm} \geq a \geq 200 \text{ mm}$   GFK-925 a=450 mm
- $\ell$  dimension (a-55 mm) is approximate size of container.
- Foot Pedal, Idler, Wire etc. are not included.

### ■ Selling Part

Name	Item No.
Stop Roller	GFW-295
Connector Piece Compact L	Left GFW-316
	Right GFW-317
Clamp Ring	GFW-296
Escape Finger	GFW-294

## Module

## Intermittent Stopper (Rotate Type)

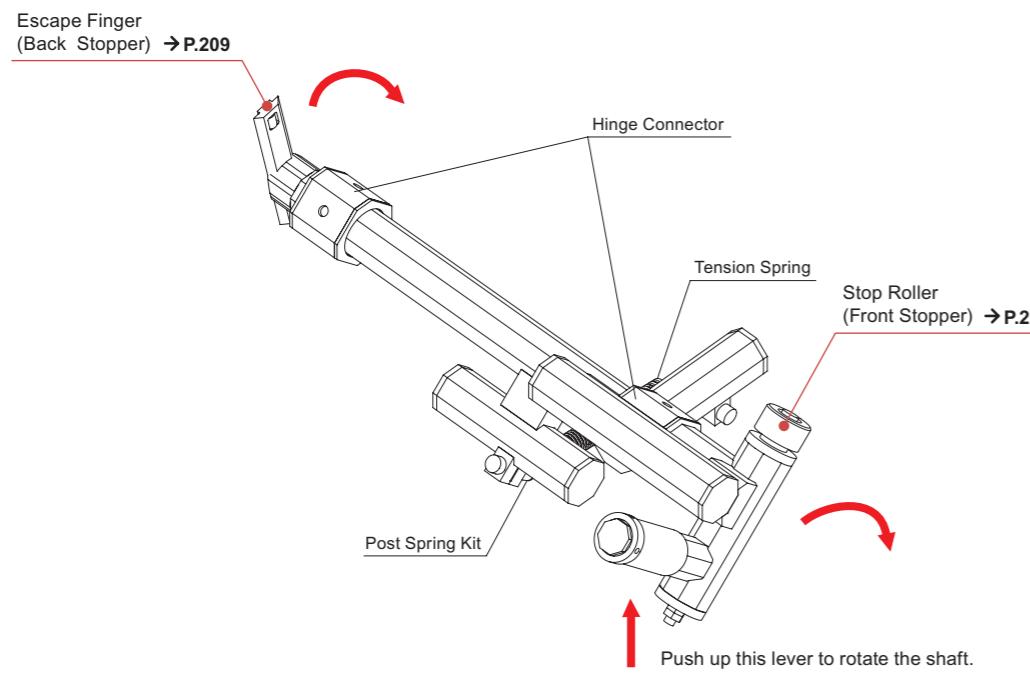


■ It is a rotate type of intermittent stopper that can be built with standard item parts. Same as a built-in spring, you can put in the unit such as shooter and have a function to control container.

## Application Unit Example

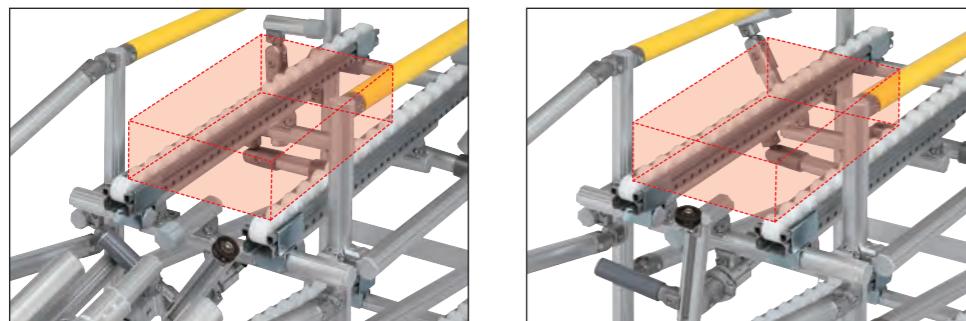
- ① Intermittent Shooter (Hand) → P.166
- ② Intermittent Shooter (Foot) → P.168
- ③ Intermittent Shooter (Tilt) → P.169

## ■ Structure



## ■ Operating Principle

Link it with Flip-Flop Table to control container one at a time.

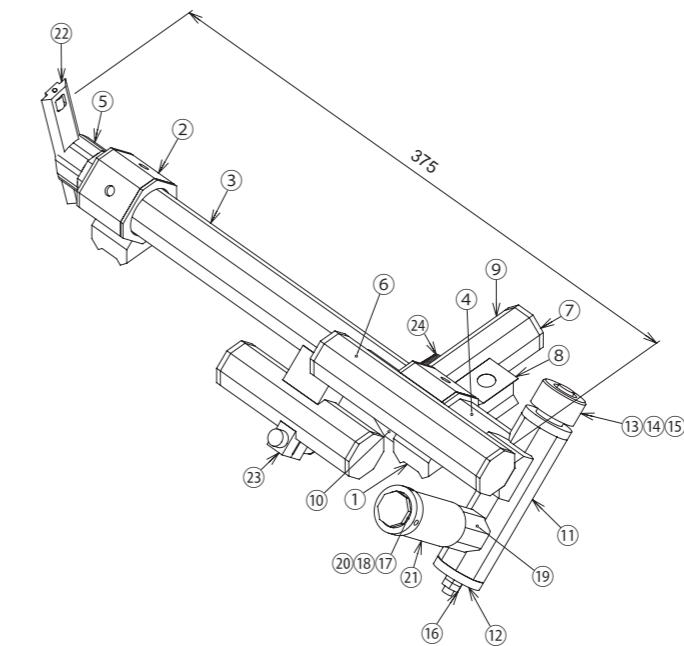


1 Lever of flip-flop table will touch intermittent stopper and rotate. After that lock is released and container flow. At this moment, the back stopper will lock the next container, so that only one piece of container is released.

2 When container is intake into the flip-flop table, lever in step 1 moves in and then intermittent stopper will return to its origin position.

## ■ Intermittent Stopper Module (Rotate Type) Example

Estimate container size : W=363 mm

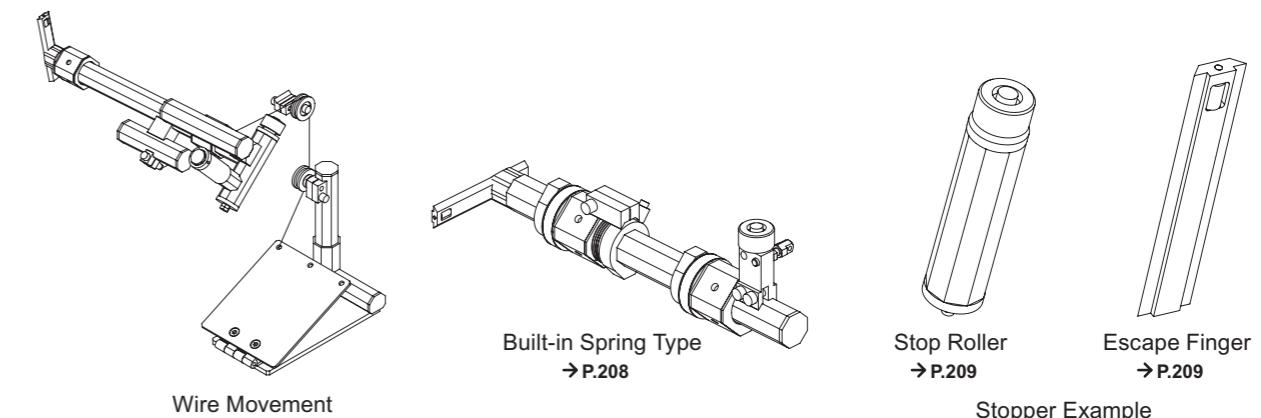


## ■ Component Part

Part No.	Item No.	Part Name	Dimension	Quantity
①	GFJ-A11	Cross Connector	3	
②	GFJ-A04-T	Hinge Connector	2	
③	GFF-000	Green Frame	309	1
④	GFJ-000	Multi Connector Outer Type	1	
⑤	GFJ-207	Multi Connector Inner Type	1	
⑥	GFF-000	Green Frame	130	1
⑦	GFA-400	Inner Cap	5	
⑧	GFJ-A95	Double Connector P15	3	
⑨	GFF-000	Green Frame	100	2
⑩	GFA-401-T	Outer Cap	1	
⑪	GFF-000	Green Frame	95	1
⑫	GFN-E01	Foot Connector M8		2

Part No.	Item No.	Part Name	Dimension	Quantity
⑬	GFW-295	Stop Roller	1	
⑭	GFA-A29	Spacer for Bearing	1	
⑮	SFB-56VS	Hexagon Socket Head Cap Screw M6x130 (Stainless)	1	
⑯	SFB-966	Hexagon Nut M6 (3 kinds) (Trivalent Chrome Plating)	2	
⑰	GFF-400	Green Frame S	71	1
⑱	GFA-403	Inner Cap S	1	
⑲	GFJ-020	GFS-GF Connector	1	
⑳	GFJ-A67	Hinge Connector Stop S	1	
㉑	GFZ	Resin Pipe VP20 L=50	1	
㉒	GFW-294	Escape Finger	1	
㉓	GFJ-B10	Spring Post Connector	2	
㉔	GFW-253	Tension Spring Light M	1	

## ■ Application Example



Stop Roller  
→ P.209      Escape Finger  
→ P.209

Stopper Example

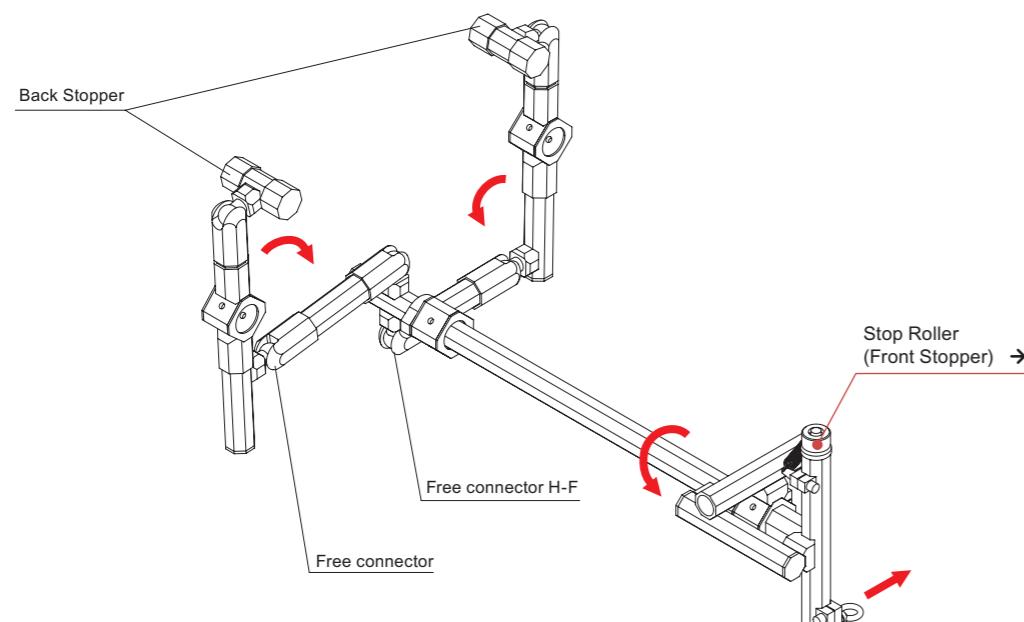
# Module

## Intermittent Stopper (Both Side)



### Structure

The system of the back Stopper of intermittent stopper (rotate type) changed to be a push system from both sides.



### Operating Principle



1 Back Stopper (both side) is in the open position when there is container intake on a Flip-Flop Table.

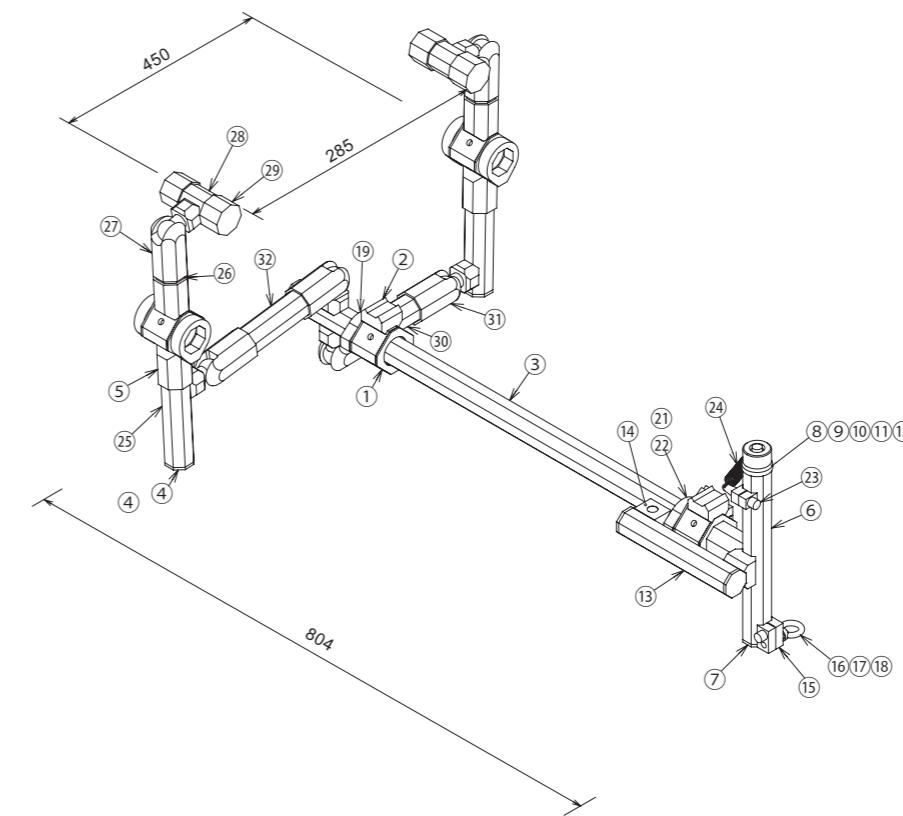


2 The Intermittent Stopper that linked to the movement of Flip-Flop Table, will rotate and the front stopper will unlock and discharge container. Additionally, the next container will be pushed by the back stopper.



3 After container fully intake on a Flip-Flop Table, the back stopper (Both Side) will open again like in the step 1, and allow container to move forward.

### Intermittent Stopper Module (Both Side) Example



### Component Part

Part No.	Item No.	Part Name	Dimension	Quantity
①	GFJ-A88	Hinge Connector Hard		4
②	GFJ-A11	Cross Connector		7
③	GFF-017	Green Frame T	600	1
④	GFA-410	GFT Inner Cap		3
⑤	GFF-000	Multi Connector Outer Type		5
⑥	GFF-000	Green Frame	200	1
⑦	GFA-400	Inner Cap		7
⑧	GFN-E01	Foot Connector M8		1
⑨	GFW-295	Stop Roller		1
⑩	GFA-A29	Spacer for Bearing (626)		1
⑪	SFB-56SS	Hexagon Socket Head Cap Screw M6x50 (Stainless)		1
⑫	SFB-966	Hexagon Nut M6 (3 kinds) (Trivalent Chrome Plating)		3
⑬	GFF-000	Green Frame	144	1
⑭	GFJ-A95	Double Connector P15		1
⑮	GFJ-B09	Connector Piece Compact		1
⑯	GFW-247	Eyebolt M6 (Stainless)		1

Part No.	Item No.	Part Name	Dimension	Quantity
⑰	GFW-225	Ø2 Wire Thimble		1
⑱	GFW-246	Spring Shackle M6 (Stainless)		1
⑲	GFJ-A61	Hinge Connector Stopper Hard		5
⑳	GFF-000	Green Frame	444.5	1
㉑	GFW-316	Connector Piece Compact L		1
㉒	GFW-296	Clamp Ring		1
㉓	GFJ-B10	Post Spring Connector		2
㉔	GFW-256	Tension Spring Middle M		1
㉕	GFF-017	Green Frame T	120	2
㉖	GFF-000	Green Frame	50	2
㉗	GFJ-002	Free Connector Outer Type		2
㉘	GFF-000	Green Frame	70	2
㉙	GFA-401-T	Outer Cap		4
㉚	GFF-000	Green Frame	100	1
㉛	GFJ-B01	Free Connector Outer Type V-M		4
㉜	GFF-000	Green Frame	120	1

# Module

## Intermittent Stopper (Seesaw)

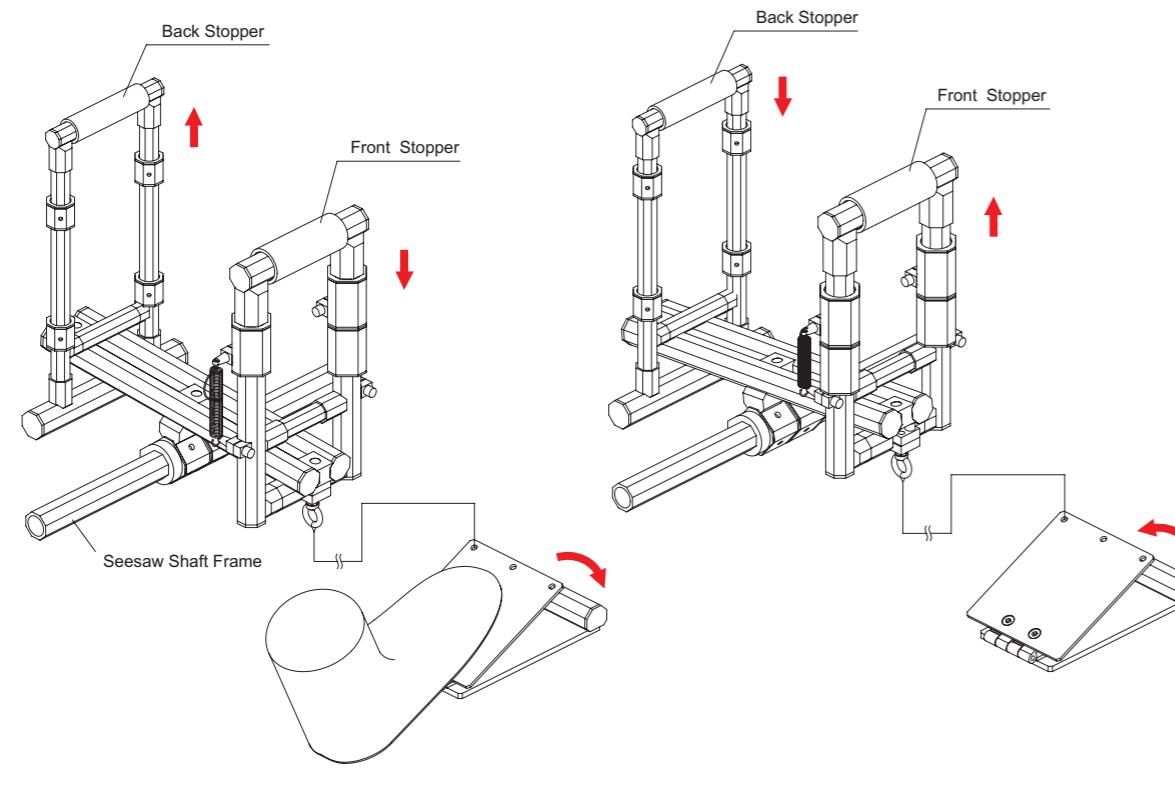


■ This Intermittent Stopper applied from a principle of seesaw.

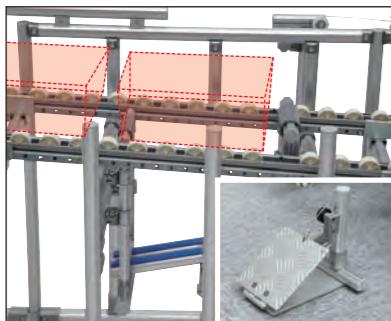
### Application Unit Example

⑨ 90° Turn Unit → P.178

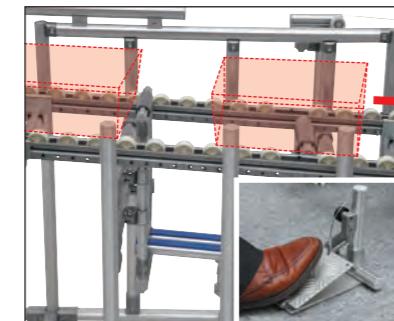
### ■ Structure



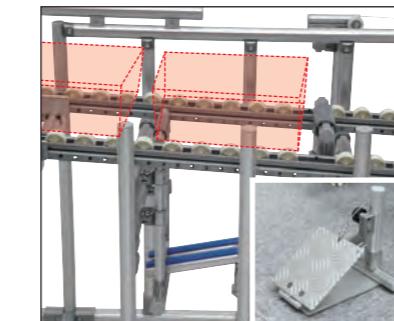
### ■ Operating Principle



1 Before press the Foot Pedal front stopper is in the up position to lock container. (Back stopper is down and doesn't lock the next container).

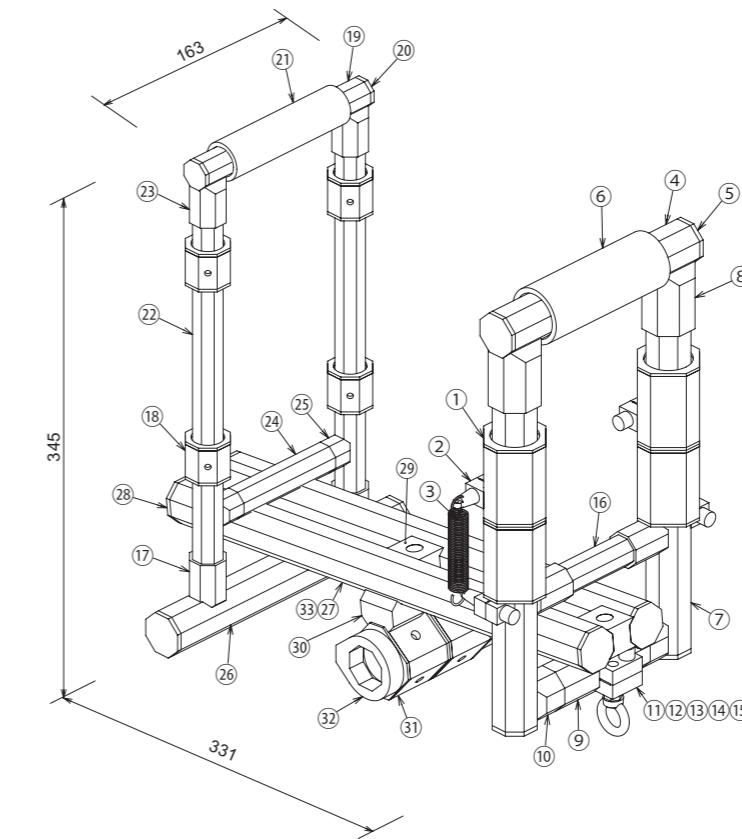


2 When press the Foot Pedal, front stopper will down and unlock container to flow. At this moment, the back stopper will up to lock the next container.



3 When release foot pedal, the Intermittent Stopper will return to step 1 to allow the next container intake.

### ■ Sample of Intermittent Stopper Module (Seesaw)



Estimate Container Size : w=270 mm

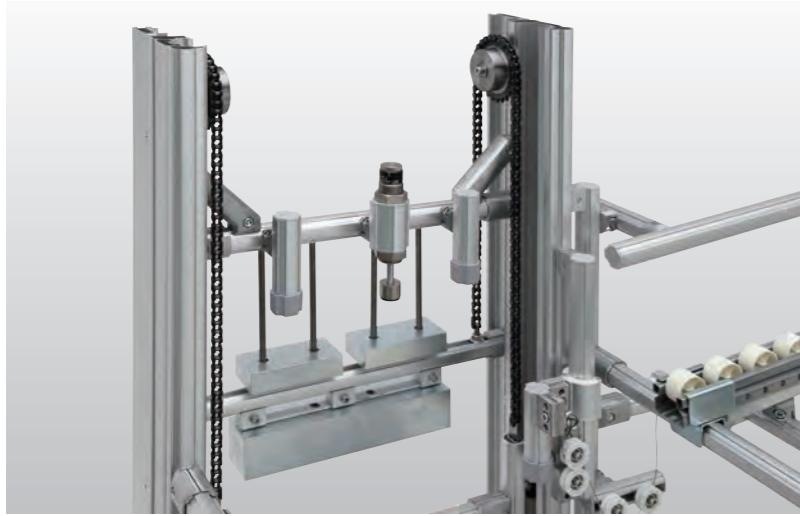
### ■ Component Part

Part No.	Item No.	Part Name	Dimension	Quantity
①	GFJ-A07	Hinge Connector L		4
②	GFJ-B10	Post Spring Connector		4
③	GFW-256	Tension Spring Middle M		2
④	GFF-000	Green Frame	162	1
⑤	GFA-400	Inner Cap		6
⑥	GFZ	Resin Pipe VP30 L=100		1
⑦	GFF-000	Green Frame	253	2
⑧	GFJ-000	Multi Connector Outer Type		2
⑨	GFF-000	Green Frame	75	1
⑩	GFJ-200	Multi Connector Inner Type		2
⑪	GFJ-B09	Connector Piece Compact		1
⑫	GFW-247	Eyebolt M6 (Stainless)		1
⑬	SFB-966	Hexagon Nut M6 (3 Type) (Trivalent Chrome Plating)		1
⑭	GFW-225	Ø2 Wire Thimble		1
⑮	GFW-246	Spring Shackle M6 (Stainless)		1
⑯	GFF-400	Green Frame S	83	1
⑰	GFJ-020	GFS-GF Connector		4
⑱	GFJ-A64	Hinge Connector S	0	4
⑲	GFF-400	Green Frame S	142	1
⑳	GFA-403	Inner Cap S	0	2
㉑	GFZ	Resin Pipe VP20 L=100	0	1
㉒	GFF-400	Green Frame S	270	2
㉓	GFJ-018	Multi Connector Outer Type S	0	2
㉔	GFF-400	Green Frame S	80.5	1
㉕	GFJ-211	Multi Connector Inner Type S	0	2
㉖	GFF-000	Green Frame	200	1
㉗	GFF-017	Green Frame T	360	2
㉘	GFA-410	GFT Inner Cap	0	4
㉙	GFJ-A95	Double Connector P15	0	3
㉚	GFJ-A11	Cross Connector	0	2
㉛	GFJ-A88	Hinge Connector Hard	0	2
㉜	GFJ-A61	Hinge Connector Stopper Hard	0	2
㉝	GFA-804G	GF Bumper White L=2000	0	1

※ Foot Pedal, Idler, Wire etc. are not included. Connector for installing Hinge Connector L & S must be purchase separately.



## Elevation Guide (Roller Guide Frame)

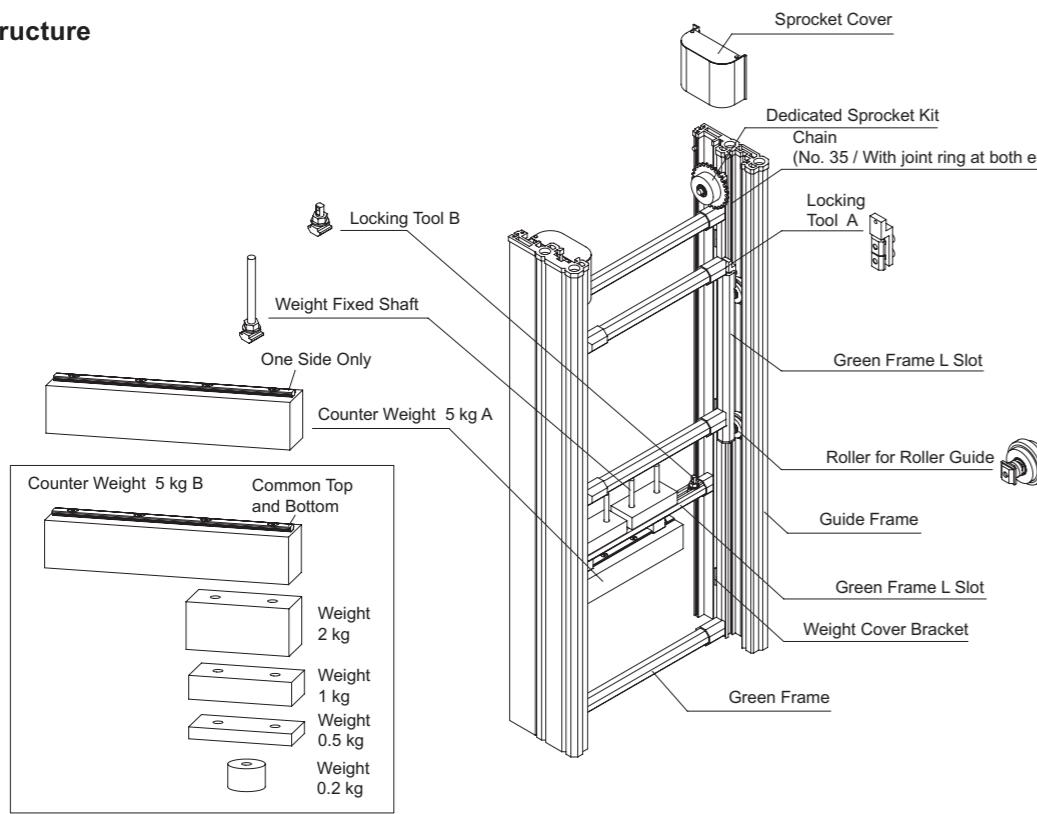


- Each moving rail is an extra- multi function module. With this new developed Roller Guide Frame is no longer require for rail adjustment on elevation or horizontal movement

## Application Unit Example

- ④ Elevator (weight) → P.17
  - ⑯ Level Lifter → P.18
  - ⑰ Load Leveller Unit → P.19

## ■ Structure



## ■ Operating Principle

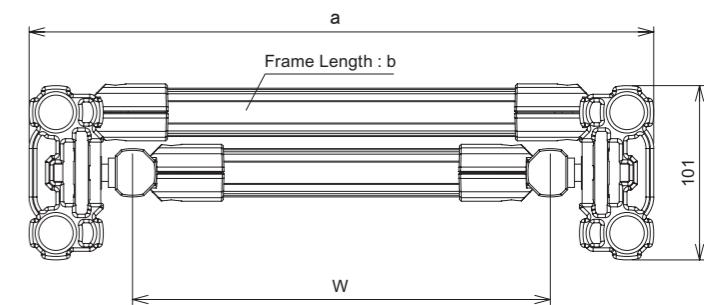
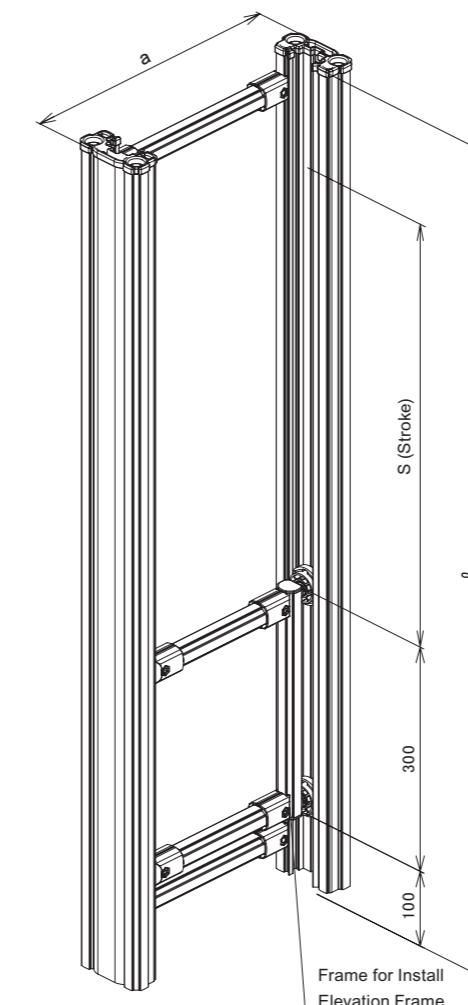


- 1 After using Foot Pedal to release the Elevation Lock of Elevation Table, table moves down along to roller and guide frame.

- 2** Elevation table moves all the way down and discharged container, then the moves back up by the Weight.

- 3** After Elevation Table returns to its original position, it will unlock Intermittent Stop, then container will automatically intake.

## **Roller Guide Frame Kit**



$W = a - 117 \text{ mm}$     $b = a - 112 \text{ mm}$   
 $a$  = minimum dimension : 360 mm   maximum dimension : 900 mm

## ■Kit Detail

- e Frame x2  
e L Slot (for elevation table installation) x2  
Kit x4  
e (for left / right connection) x2  
ector Outer Type x8

Name	Roller Guide Frame		
	600st Kit	800st Kit	1000st Kit
Item No.	GFM-K01	GFM-K02	GFM-K03
S (Stroke)	600	800	1000
ℓ (Height)	1102	1302	1502

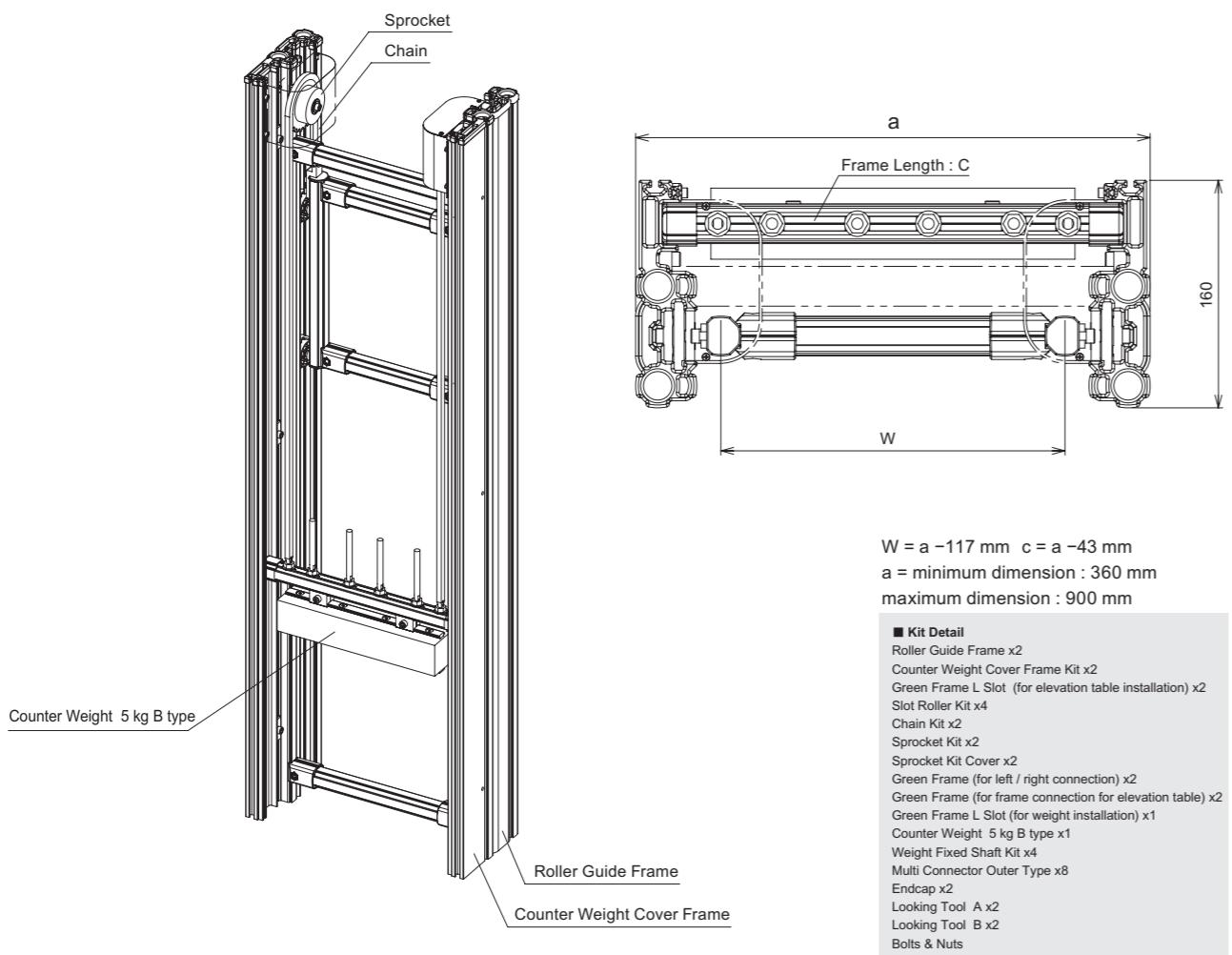
- Roller Guide Frame
  - Please identify a dimension when place order.

This is a component delivery. For assembled delivery please contact.

# Module

## Elevation Guide (Roller Guide Frame)

### Kit with Roller Guide Frame Counter Weight



Name	With Roller Guide Frame Counter Weight		
	600 st Kit	800 st Kit	1000 st Kit
Item No.	<b>GFM-K04</b>	<b>GFM-K05</b>	<b>GFM-K06</b>
S (stroke)	600	800	1000
ℓ (Height)	1202	1402	1602

- Please identify a dimension when place order.
- This is a component delivery. For assembled delivery please contact.
- Standard 5 kg Weight is included. Additional Weight, please refer to next page.

### ■ Roller Guide Frame (Single)

Item No.	Part Name
<b>GFF-M01</b>	Roller Guide Frame ℓ=400~4000
<b>GFK-M01</b>	Counter Weight Cover Frame Kit ℓ=400~4000 (with fastener piece - bolt)
<b>GFK-N07</b>	GF Slot Roller Kit
<b>GFK-N08</b>	Sprocket Kit
<b>GFW-298</b>	Looking Tool A
<b>GFW-299</b>	Looking Tool B
<b>GFW-312</b>	Sprocket Cover R Kit
<b>GFW-313</b>	Sprocket Cover L Kit
<b>GFW-314</b>	Roller Guide Frame End Cap Set (2 pcs.)
<b>GFW-315</b>	End Cap Set with Roller Guide Frame Counter Weight (2 pcs.)

### ■ Weight

Item No.	Part Name
<b>GFW-305</b>	Counter Weight 5 kg A Type (GF protruding on one side only)
<b>GFW-306</b>	Counter Weight 5 kg B Type (GF protruding on both end (top & bottom))
<b>GFW-300</b>	Weight 1 kg
<b>GFW-301</b>	Weight 2 kg
<b>GFW-302</b>	Weight 0.5 kg
<b>GFW-303</b>	Weight 0.2 kg
<b>GFW-304</b>	Weight Fixed Shaft

### ■ Chain

Item No.	Part Name
<b>GFK-M02</b>	Chain Kit (RS-35) ℓ=300~3000

- Please install both ends with Both End Joint Ring and Locking Tool A & B.
- We will make and deliver goods with dimension that close to your request as much as possible.

GF-N  
28 mmGF-G  
43 mmGF-S  
19 mm

GF Jig

Panel Board

GF Unit

GF Sample Application

Home Use

Technical Data

Dealer Delivery Environment

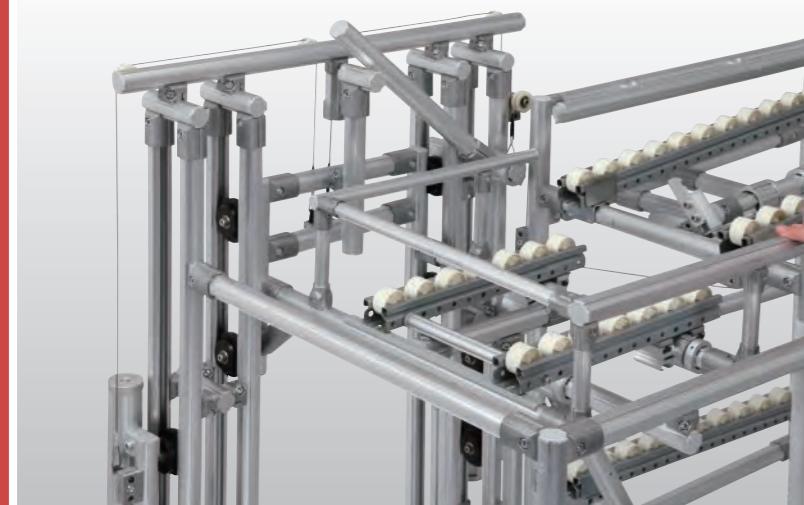
Index

Unit

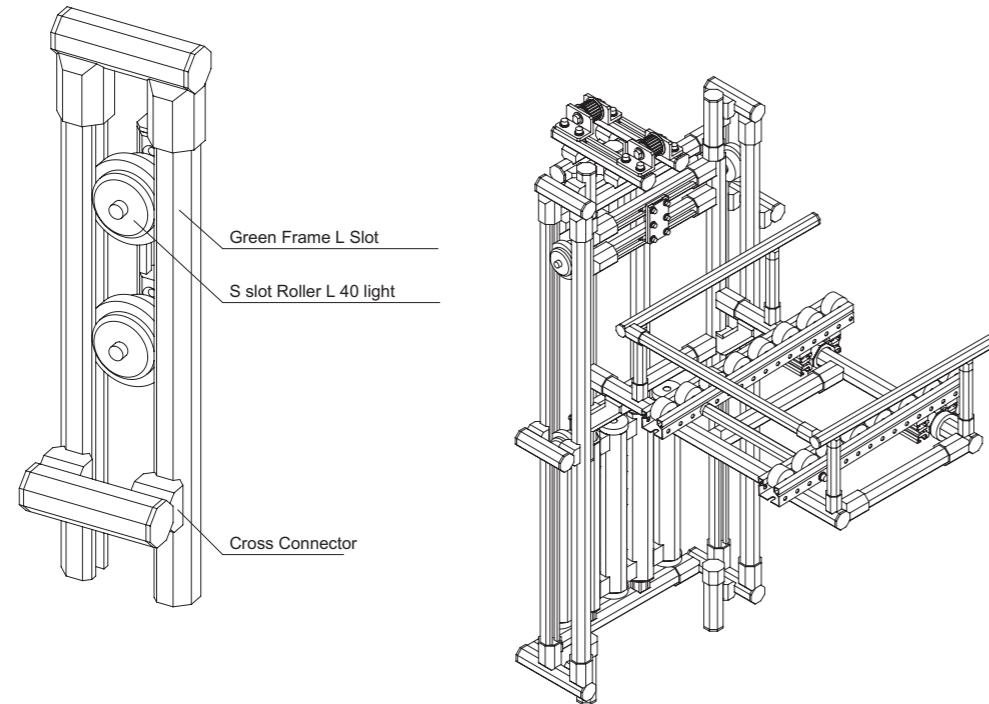
Module

# Module

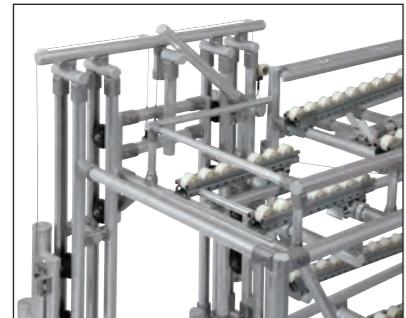
## Elevation Guide (Slot Roller L40 Light)



### Structure



### Operating principle



1 The weight on the Elevation Guide will keep the table stationary at the top when there is no container.

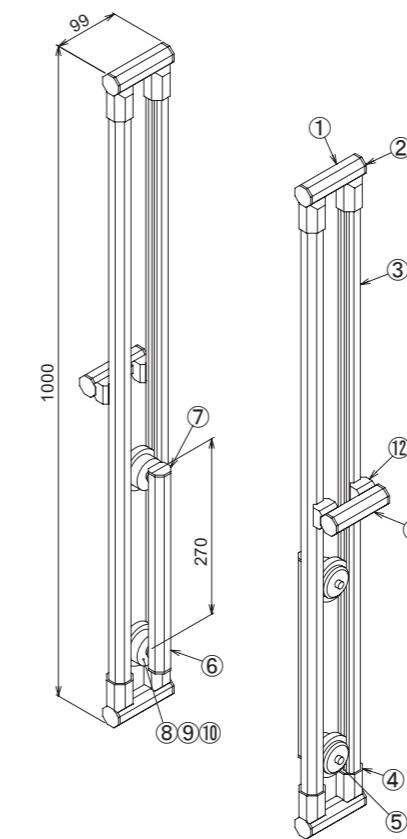


2 When the container intake, Roller that installed in between Green Frame L slot will help Elevation Table moves down smoothly in horizontal position.



3 After Elevation table descends to the bottom and discharged container the weight will bring it back up.

### Sample of Elevation Guide (Slot Roller L 40 Light) Module



### Component Part

Part No.	Item No.	Part Name	Dimension	Quantity
①	GFF-000	Green Frame	93	4
②	GFA-400	Inner Cap	12	
③	GFF-004	Green Frame L Slot	912	4
④	GFJ-000	Multi Connector Outer Type	8	
⑤	GFA-601	L Slot Connector Piece	8	
⑥	GFF-004	Green Frame L Slot	300	2

Part No.	Item No.	Part Name	Dimension	Quantity
⑦	GFA-405	GF L Slot Inner Cap	4	
⑧	SFK-809	Slot Roller 40 Light Installation Kit	4	
⑨	SFB-56SS	Hexagon Socket Head Cap Screw M6x40 (Stainless)	4	
⑩	SFK-T10	T Nut L (M6) with slide stop 40	4	
⑪	GFF-000	Green Frame	88.5	2
⑫	GFJ-A11	Cross Connector		4

# Module

## Anti-Back for Conveyor



### ■ Component Part

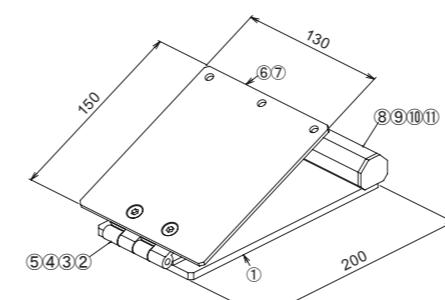
Item No.	Part Name
GFK-N05	Anti-Back for Conveyor

### ■ Application Unit Example

- ⑫ Trolley with elevation function → P.182  
⑬ Dispensing Trolley → P.184

Please refers to GF-N Moving Part (P64) for more details.

## Foot Pedal



### ■ Component Part

Part No.	Item No.	Part Name	Dimension	Quantity
①	SFF-BA4	Flat Bar -100 T=6 Special	200	1
②	SFA-231	Fix Hinge		1
③	SFB-914S	Hexagon Socket Flat Head Cap Screw M6x10 (Stainless)		2
④	SFB-305	Fix Hinge L40 (M6) Plate Nut		2
⑤	SFB-916S	Hexagon Socket Flat Head Cap Screw M6x12 (Stainless)		2
⑥	SFY-MN3	Aluminum Checked Steel (A5052) 150x130 3t with alumite 150x130 Special		1
⑦	GFW-225	Ø2 Wire Thimble		1
⑧	GFF-004	Green Frame L Slot	100	1
⑨	GFA-405	GF L Slot Inner Cap		2
⑩	SFB-562S	Hexagon Socket Head Cap Screw M6x15 (Stainless)		2
⑪	SFK-T10	T Nut L (M6) with slide stop 40		2

## Elevation Lock



### ■ Component Part

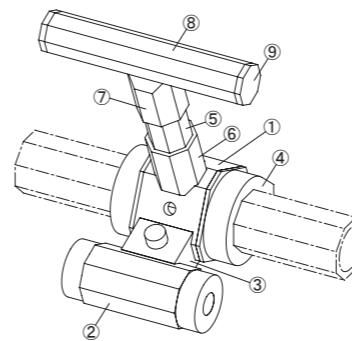
Item No.	Part Name
GFK-N06	Elevation Lock

### ■ Application Unit Example

- ④ Elevator (Weight) → P.170  
⑫ Trolley with elevation lock → P.182

Please refers to GF-N Moving Part (P64) for more details.

## Discharge Module



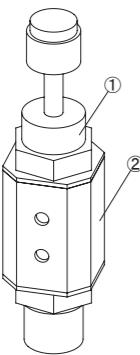
### ■ Component Part

Part No.	Item No.	Part Name	Dimension	Quantity
①	GFJ-A88	Hinge Connector Hard		1
②	GFW-216	Weight Frame 0.2 kg		1
③	GFJ-A45	Double Connector C Kit		1
④	GFJ-A61	Hinge Connector Stopper Hard		2
⑤	GFF-400	Green Frame S	50	1
⑥	GFJ-020	GFS-GF Connector		1
⑦	GFJ-018	Multi Connector Outer Type S		1
⑧	GFF-400	Green Frame S	100	1
⑨	GFA-403	Inner Cap S		2

### ■ Application Unit Example

- ④ Elevator (weight) → P.170

## Shock Absorber



### ■ Component Part

Part No.	Item No.	Part Name	Dimension	Quantity
①	GFZ	Shock Absorber(FA-2725FD-C)		1
②	GFJ-A07	Hinge Connector L		1

### ■ Application Unit Example

- ④ Elevator (Weight) → P.170

## Part for Sample Application

Please use variety of part for your application.



Hinge Connector → P.59



Rotary Connector → P.59



Linear Bush → P.60



Idler → P.62



Slot Roller → P.63



Antistatic Equipment → P.63



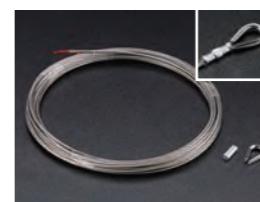
Weight Frame → P.64



Spring Post Connector → P.65



Tension Spring → P.66



Wires Type → P.65

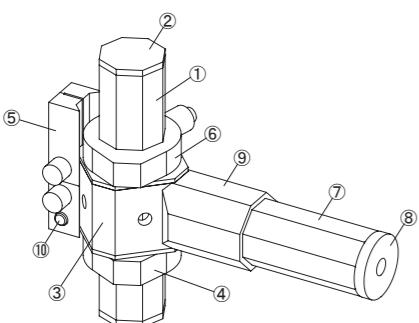


Wire Cutter & Swager → P.126



Power Unit → P.67

## Lever



### ■ Component Part

Part No.	Item No.	Part Name	Dimension	Quantity
①	GFF-000	Green Frame	124	1
②	GFA-400	Inner Cap		2
③	GFJ-A88	Hinge Connector Hard		1
④	GFJ-A61	Hinge Connector Stopper Hard		1
⑤	GFW-316	Connector Piece Compact L		1
⑥	GFW-296	Clamp Ring		1
⑦	GFF-000	Green Frame	80	1
⑧	GFN-E01	Foot Connector M8		1
⑨	GFJ-000	Multi Connector Outer Type		1
⑩	GFJ-B09	Connector Piece Compact		1
⑪	GFZ	Roller Chain Bolt (SRC-35X25-R)		1

### ■ Application Unit Example

- ⑩ Automatic Shooter → P.180

GREEN FRAME

# Technical Data



Connector  
Strength Data  
→ P.142



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

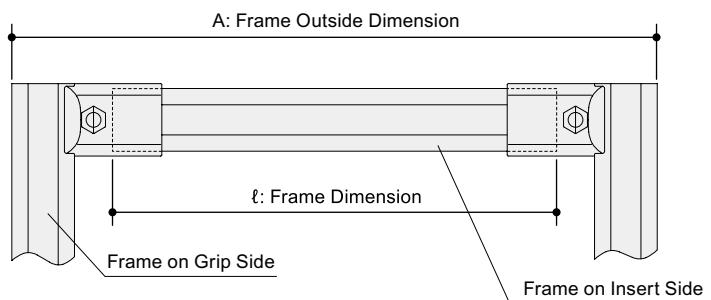
GF Jig

GF Unit

GF Motion

Technical Data

## Approximate Dimension of Frame



### GF-N Connector

Connector	• Multi Connector Outer Type • Multi Connector Outer Type W	• Multi Connector Inner Type • Multi Connector Inner Type R • Multi Connector Long Inner Type
Frame on Insert Side	• Green Frame • Green Frame L Slot • Green Frame T	• Green Frame W • Green Frame Hard • Green Frame Slide
Frame on Grip Side	GF-N	<p><math>l = A - (44 \times 2)</math></p>
	GF-G	<p><math>l = A - (59 \times 2)</math></p>

Connector	• Angle Connector Outer Type • Angle Connector Outer Type E	• Angle Connector Inner Type	• Angle Connector Outer Type DX • Angle Connector Outer Type DX 3 Way
Frame on Insert Side	• Green Frame • Green Frame L Slot • Green Frame T	• Green Frame W • Green Frame Hard • Green Frame Slide	• Green Frame F50 • Green Frame Slide • Green Frame P100
	<p><math>l = A - (30.5 \times 2)</math></p>	<p><math>l = A - (44 \times 2)</math></p>	<p><math>l = A - (44 \times 2)</math></p>

Connector	• Free Connector Outer Type • Free Connector Outer Type V-M	• Free Connector Outer Type • Free Connector Outer Type V-M
Frame on Insert Side	• Green Frame • Green Frame L Slot • Green Frame T	• Green Frame W • Green Frame Hard • Green Frame Slide
	<p><math>X</math> <math>Y</math> <math>31.5</math> <math>26.5</math> <math>l</math> <math>l = \sqrt{(X-31.5)^2 + (Y-31.5)^2} - 26.5 \times 2</math></p>	<p><math>X</math> <math>Y</math> <math>31.5</math> <math>26.5</math> <math>l</math> <math>l = \sqrt{(X-31.5)^2 + (Y-31.5)^2} - 26.5 \times 2</math></p>

# GF Technical Data

## Approximate Dimension of Frame

Connector	<ul style="list-style-type: none"> <li>• Free Connector Outer Type H-F</li> <li>• Free Connector Outer Type H-M</li> </ul>	<ul style="list-style-type: none"> <li>• Free Connector Inner Type H-F</li> <li>• Free Connector Inner Type H-M</li> </ul>
Frame on Insert Side	<ul style="list-style-type: none"> <li>• Green Frame</li> <li>• Green Frame L Slot</li> <li>• Green Frame T</li> </ul> <ul style="list-style-type: none"> <li>• Green Frame Hard</li> <li>• Green Frame Slide</li> </ul>	<ul style="list-style-type: none"> <li>• Green Frame</li> <li>• Green Frame W</li> <li>• Green Frame F35</li> </ul> <ul style="list-style-type: none"> <li>• Green Frame F50</li> <li>• Green Frame Slide</li> <li>• Green Frame P100</li> </ul>
Connector	45° Connector Outer Type	45° Connector Inner Type
Frame on Insert Side	<ul style="list-style-type: none"> <li>• Green Frame</li> <li>• Green Frame L Slot</li> <li>• Green Frame T</li> </ul> <ul style="list-style-type: none"> <li>• Green Frame Hard</li> <li>• Green Frame Slide</li> </ul>	<ul style="list-style-type: none"> <li>• Green Frame (Green Frame W)</li> <li>• Green Frame F35</li> </ul> <ul style="list-style-type: none"> <li>• Green Frame F50</li> <li>• Green Frame Slide (Green Frame P100)</li> </ul>

## GF-G Connector

Connector	<ul style="list-style-type: none"> <li>• Multi Connector Type G</li> <li>• Multi Connector Type GM</li> <li>• Multi Connector Type GH</li> </ul>	<ul style="list-style-type: none"> <li>• Multi Connector Type G</li> </ul>
Frame on Insert Side	<ul style="list-style-type: none"> <li>• Green Frame G</li> <li>• Green Frame G L Slot</li> <li>• Green Frame Hard</li> </ul> <ul style="list-style-type: none"> <li>• Green Frame G Rack Beam</li> <li>• Green Frame G Rack Beam W</li> </ul>	<ul style="list-style-type: none"> <li>• Green Frame G</li> <li>• Green Frame G W</li> <li>• Green Frame P150</li> </ul>
Frame on Grip Side		

Connector	<ul style="list-style-type: none"> <li>• Angle Connector Outer Type G</li> </ul>
Frame on Insert Side	<ul style="list-style-type: none"> <li>• Green Frame G</li> <li>• Green Frame G L Slot</li> <li>• Green Frame Hard G</li> </ul> <ul style="list-style-type: none"> <li>• Green Frame G Rack Beam</li> <li>• Green Frame G Rack Beam W</li> </ul>



Approx.  
Frame Size  
→ P.129



Connector  
Strength Data  
→ P.142



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

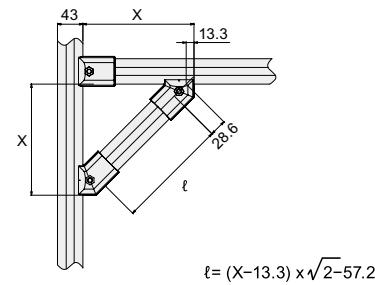
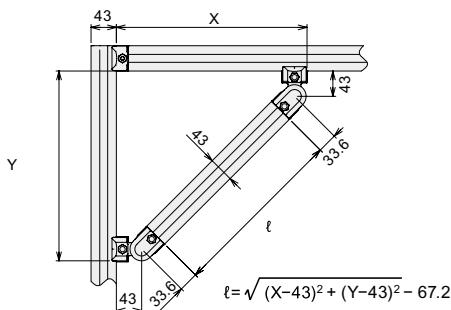
GF Unit

GF Motion

Technical  
Data

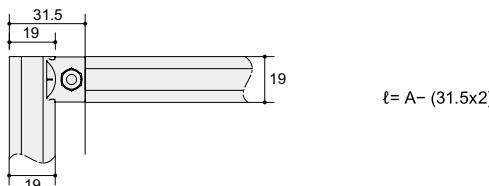
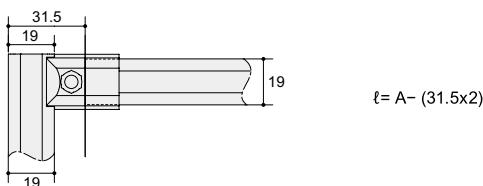
## Approximate Dimension of Frame

Connector	•Free Connector Inner Type G	•45° Connector Outer Type G
Green Frame	•Green Frame G •Green Frame G W •Green Frame P150	•Green Frame G •Green Frame G L Slot •Green Frame Hard G •Green Frame G Rack Beam •Green Frame G Rack Beam W

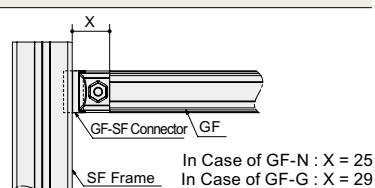


## GF-S Connector

Connector	•Multi Connector Outer Type S	•Multi Connector Inner Type •Multi Connector Inner Type S
Frame on Insert Side	•Green Frame S •Green Frame SS Slot	•Green Frame S



Connector	•GF-GFS Connector	•45° Connector Inner Type S
Frame on Insert Side	•Green Frame S •Green Frame SS Slot	•Green FrameS (Green FrameSW) •Green FrameS F35 (Green FrameS P100)
GF-N	40 28 19 28	l = A - (40x2)
GF-G	55 43 19	l = A - (55x2) l = (X-2.5) * sqrt(2) - 31.4



## Palette Connector

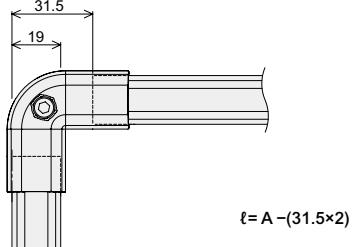
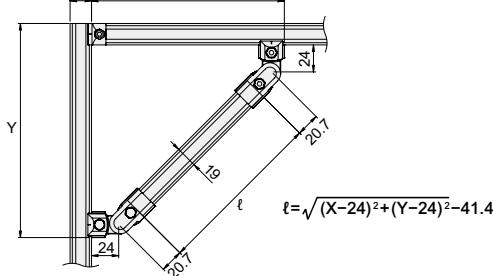
Connector	•Palette Connector
Frame on Insert Side	•Green Frame •Green Frame L Slot •Green Frame T •Green Frame W •Green Frame Hard •Green Frame Slide
	30.5 28 28 l = A - (30.5x2)

# GF Technical Data

## Approximate Dimension of Frame

### GF-S Connector

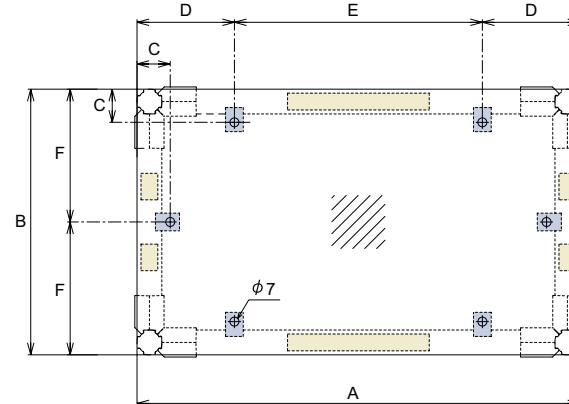
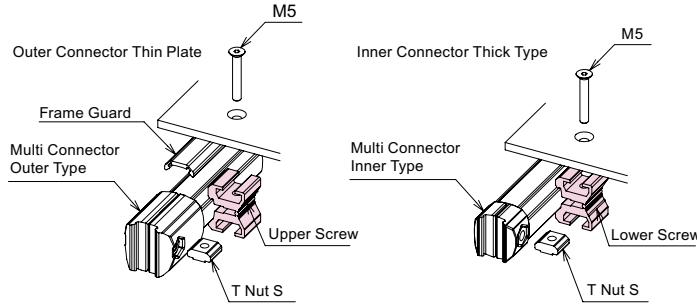
Connector	• Angle Connector (Outer) S	• Link Connector S V
Frame on Insert Side	• Green Frame S • Green Frame S SS Slot • Green Frame S Hard	• Green Frame S • Green Frame S SS Slot • Green Frame S Hard

## Approximate Dimension of Board Installation

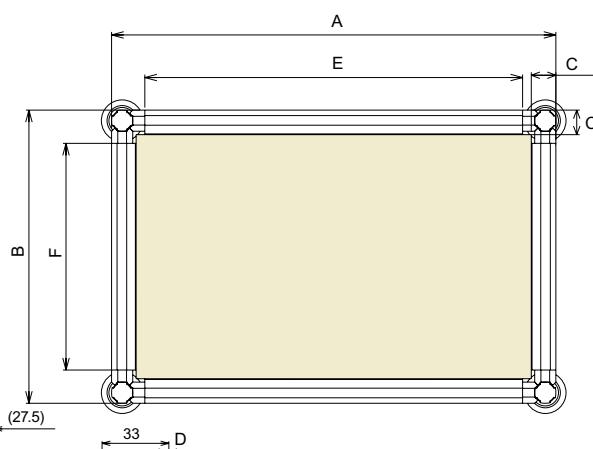
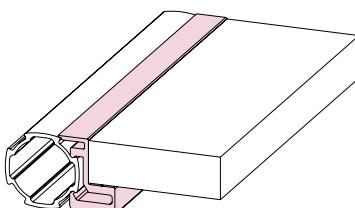
Please refer to P 160 for detail of Installation Method.

### Using Board Holder GF-N:P57 GF-G:P103

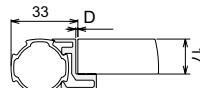
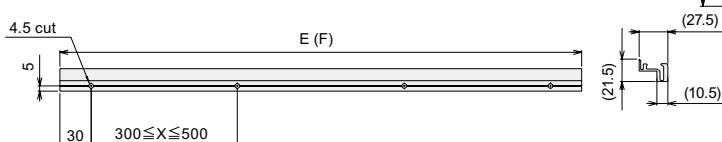


	Board Size	C	D	E	F
GF-N (28 mm)	A x B	37.5	more than 80 mm	less than 500 mm	more than 80 mm less than 200 mm
GF-G (43 mm)	A x B	53	more than 120 mm	less than 500 mm	more than 120 mm less than 200 mm
GF-S (19 mm)	A x B	27	more than 60 mm	less than 500 mm	more than 60 mm less than 200 mm

### Using Board Holder F P57



Approximate dimension is in case of drilling a screw on Board Holder F



Consolidated Connector	Board Size	C	D	E	F
Multi Connector Outer Type	(A-66) x (B-66)	33	1	A- (68x2)	B- (68x2)
Multi Connector Inner Type	(A-66) x (B-66)	33	1	A- (45x2)	B- (45x2)



Approx.  
Frame Size  
→ P.129



Connector  
Strength Data  
→ P.142



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

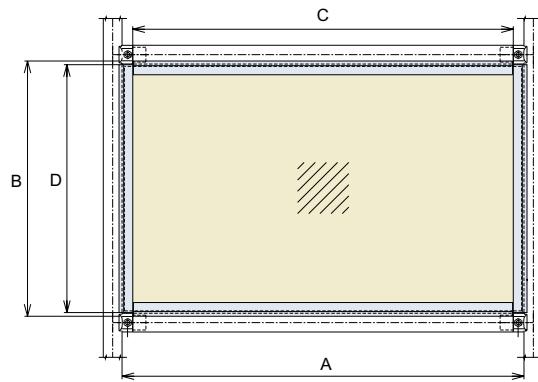
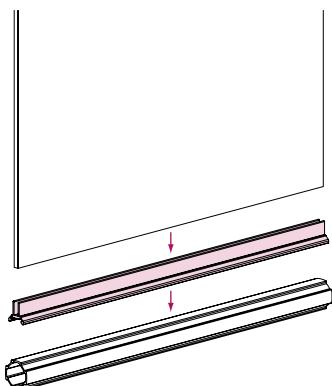
GF Motion

Technical  
Data

## Approximate Dimension of Panel Installation

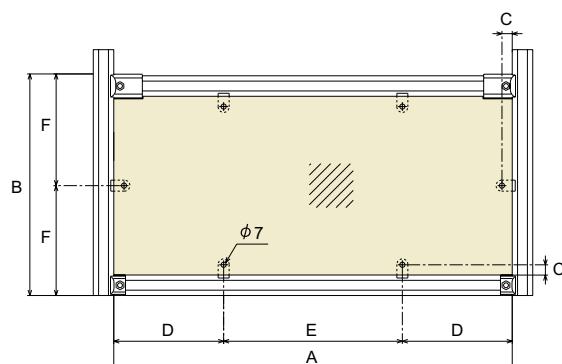
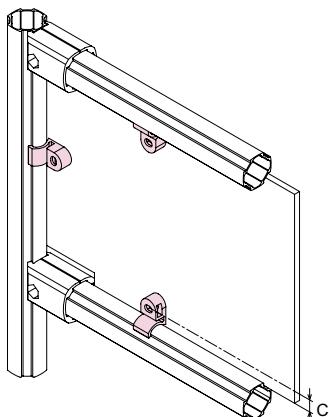
Please refer to P160 for detail of Installation Method.

### Using Panel Board GF-N : P57

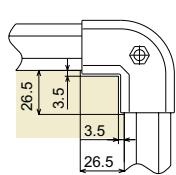
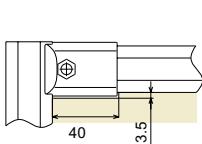


Frame	Connector	Board Size	Panel Board Size	
			C	D
GF-N (28 mm)	Multi Connector Outer Type	(A-7) × (B-7)	A-80	B-7
	Multi Connector Inner Type	(A-7) × (B-7)	A-34	B-2
GF-S (19 mm)	Multi Connector Outer Type S	(A-6) × (B-6)	A-55	B-6
	Multi Connector Inner Type S	(A-6) × (B-6)	A-27.4	B-2

### Using Plate Connector GF-N : P58

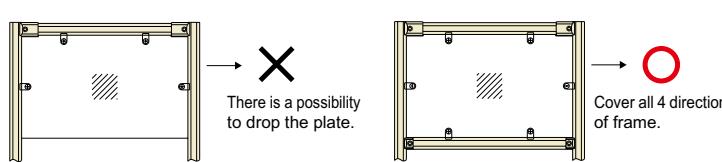


	Board Size	C	D	E	F
GF-N (28 mm)	A × B	14	more than 50 mm	less than 500 mm	more than 50 mm less than 200 mm
GF-G (43 mm)	A × B	14	more than 80 mm	less than 500 mm	more than 80 mm less than 200 mm
GF-S (19 mm)	A × B	14	more than 40 mm	less than 500 mm	more than 40 mm less than 200 mm



If use Multi Connector (Outer Type), then the process above is required

If use Multi Connector (Outer Type), then the process above is required



There is a possibility to drop the plate.



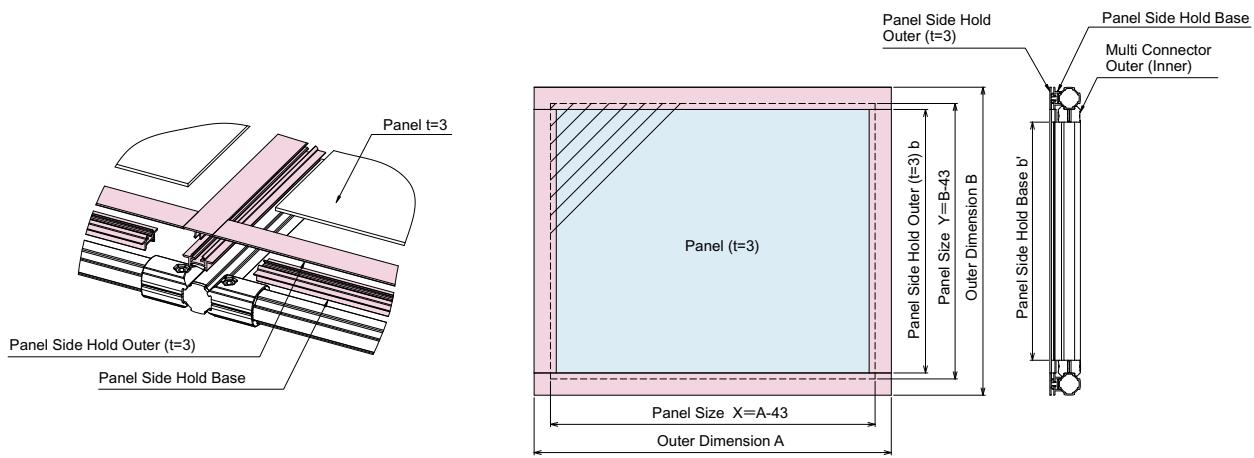
Cover all 4 direction of frame.

# GF Technical Data

## Approximate Dimension of Panel Installation

Please refer to P160 for detail of Installation Method.

### ■ Use a panel side hold. P58



Connector Types	Panel Side Hold Outer (t=3) (b)	Panel Side Hold Base (b')
Multi Connector Outer Type	b= B-57	b'= B-136
Multi Connector Inner Type	b= B-57	b'= B-90



Approx.  
Frame Size  
→ P.129



Connector  
Strength Data  
→ P.142



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

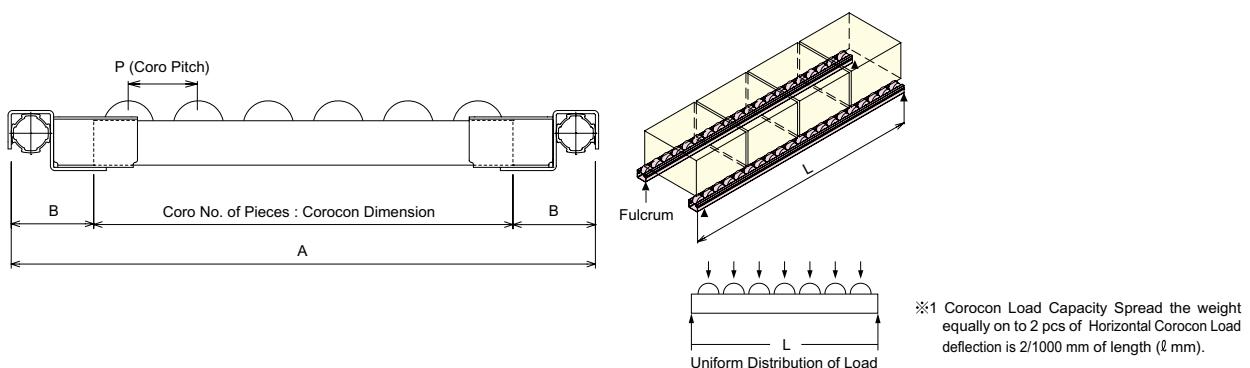
GF Jig

GF Unit

GF Motion

Technical Data

## Approximate Dimension of Corocon Installment / Corocon Load Capacity



Corocon	Corocon Hook	P: Cutting Unit (mm)	Corocon Length (mm)	B (mm)	F: Approx. Load Capacity of Corocon (N)*1			F2: Approx. Load/1 Corocon (kg)
					1000 mm	2000 mm	3000 mm	
Corocon 3323P37	Corocon Hook A/B	37	296~2960	31~59	700	220	100	10
	Corocon Hook (Aluminum)			50~85				10
Corocon Wide	Corocon Wide Hook A/B	37	296~2960	31~59	1200	360	170	20
Corocon 3620P50	Corocon Hook A/B	50	300~3000	31~59	710	240	110	10
	Corocon Hook (Aluminum)			50~85				10
Aluminum Corocon 3520P50	Corocon Hook A/B	50	150~3000	31~59	365	110	50	10
	Hook for Aluminum Corocon (Aluminum)			33				10
Aluminum Corocon 2920P30	Corocon Hook A/B	30	150~3000	31~59	365	110	50	10
	Hook for Aluminum Corocon (Aluminum)			33				10
Aluminum Corocon 1425P15	Corocon Hook A/B	15	150~3000	31~59	365	110	50	10
	Hook for Aluminum Corocon (Aluminum)			33				10
Aluminum Corocon Wide P20	Corocon Wide Hook A/B	20	120~3000	31~59	460	135	60	20
	Hook for Aluminum Corocon Wide (Aluminum)			33				20
Aluminum Corocon Wide P40	Corocon Wide Hook A/B	40	120~3000	31~59	460	135	60	20
	Hook for Aluminum Corocon Wide (Aluminum)			33				20
Small Pitch Corocon	For End of Small Pitch Corocon	15	300~2000	36~47	100	30	-	5

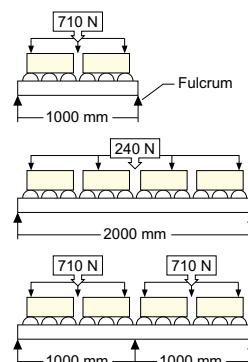
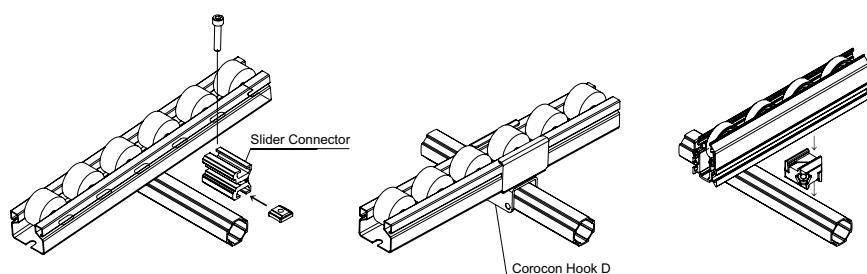
### Approximate Dimension of Corocon

If hanging value of Corocon Hook is more than 30 mm, the Corocon Length (Pxn) =A-2B.

### Corocon Strength

Please set reinforcement frame under Corocon including load on Corocon.

#### ● How to install Frame Assist



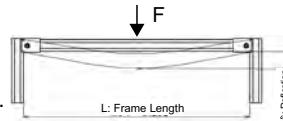
※Increase load by provide fulcrum in the middle of long plate.

GREEN FRAME

# GF Technical Data

## Frame Strength Data (GF-N)

**Condition:** 1. Fix both end of frame and add concentrated load as the direction of arrow.  
2. Frame length is an inside dimension including connector.



Calculating Formula

$$\blacklozenge \text{ Recommended Load} \\ \delta = \frac{FL^3}{48EI}$$

$$\blacklozenge \text{ Critical Load} \\ \delta = \frac{FL}{4Z}$$

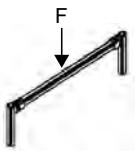
**Recommended Load:** Deflection in the middle of frame is 5/1000 of frame length.

**Critical Load:** It's a load when the Frame start to deform.

※ If it excess the recommended load, please keep it lower than 80% of critical load.

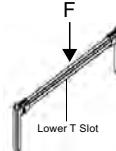
※ If the slide load of connector is smaller than recommended load and critical load, fill in the slide load of connector. (  in blue)

### ■ Green Frame GFF-000



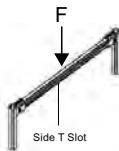
Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	779	1162
1000	5	195	581

### ■ Green Frame L Slot GFF-004



(Horizontal)

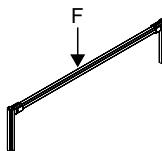
Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1300	1400
1000	5	334	994



(Vertical)

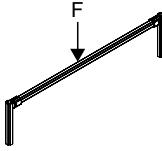
Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	799	1344
1000	5	200	672

### ■ Green Frame T GFF-017



Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1155	1600
1000	5	289	861

### ■ Green Frame Hard GFF-019



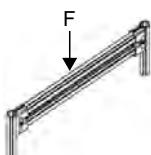
Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1350	1600
1000	5	338	1008

### ■ Green Frame W GFF-003



(Horizontal)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1552	2310
1000	5	388	1155



(Vertical)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	2000	2000
1000	5	1958	2000



Approx.  
Frame Size  
→ P.129



Connector  
Strength Data  
→ P.142



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

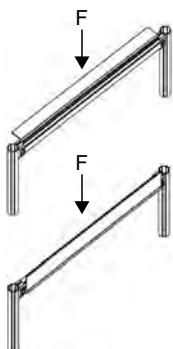
GF Unit

GF Motion

Technical  
Data

## Frame Strength Data (GF-N)

### ■ Green Frame F35 GFF-014



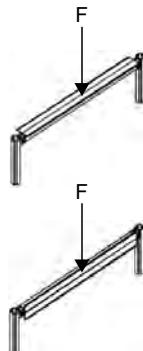
(Horizontal)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1600	1600
1000	5	283	770

(Vertical)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1600	1600
1000	5	507	868

### ■ Green Frame F50 GFF-005



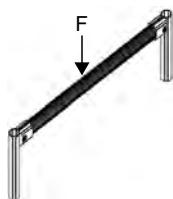
(Horizontal)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1540	1540
1000	5	511	770

(Vertical)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1600	1600
1000	5	430	966

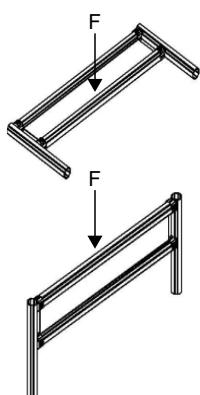
### ■ Green Frame Slide GFF-006



Frame Length (mm)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	987	1414
1000	5	247	707

### ■ Green Frame P100 GFF-001



(Horizontal)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1558	2310
1000	5	390	1155

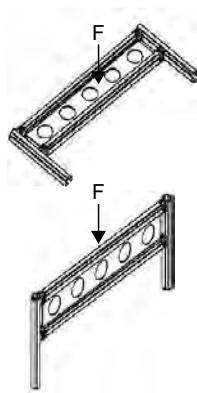
(Vertical)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	3200	3200
1000	5	3200	3200

# GF Technical Data

## Frame Strength Data (GF-N / G-G)

### ■ Green Frame P100 (Light Weight) **GFF-002**



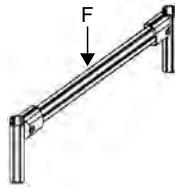
(Horizontal)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1552	2310
1000	5	388	1155

(Vertical)

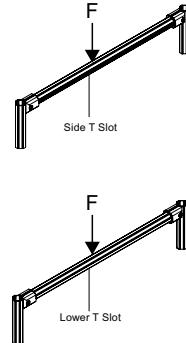
Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	3200	3200
1000	5	3200	3200

### ■ Green Frame G **GFF-200**



Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1800	1800
1000	5	851	1652

### ■ Green Frame G L Slot **GFF-205**



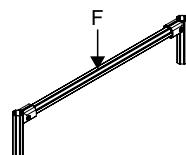
(Horizontal)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1800	1800
1000	5	972	1800

(Vertical)

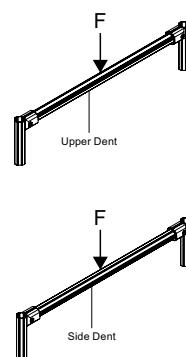
Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1800	1800
1000	5	875	1701

### ■ Green Frame G Hard **GFF-209**



Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1800	1800
1000	5	1542	1800

### ■ Green Frame G Rack Beam **GFF-206**



(Horizontal)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1800	1800
1000	5	766	1449

(Vertical)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1800	1800
1000	5	888	1722



Approx.  
Frame Size  
→ P.129



Connector  
Strength Data  
→ P.142



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

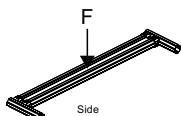
GF Unit

GF Motion

Technical  
Data

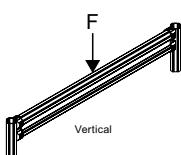
## Frame Strength Data (GF-G)

### ■ Green Frame GW GFF-207



(Horizontal)

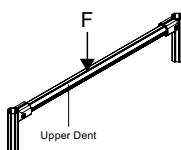
Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1800	1800
1000	5	1800	1800



(Vertical)

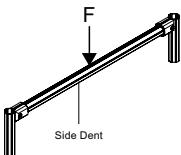
Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1800	1800
1000	5	1800	1800

### ■ Green Frame G Rack Beam W GFF-208



(Horizontal)

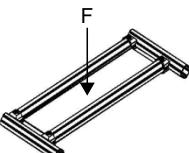
Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1800	1800
1000	5	811	1575



(Vertical)

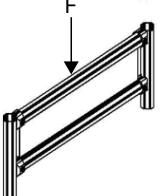
Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1800	1800
1000	5	877	1554

### ■ Green Frame G P150 GFF-201



(Horizontal)

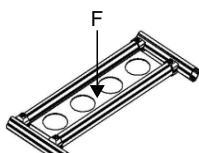
Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	3600	3600
1000	5	1705	3304



(Vertical)

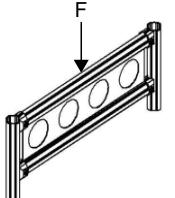
Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	3600	3600
1000	5	3600	3600

### ■ Green Frame G P150 Lightweight Type GFF-202



(Horizontal)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	3600	3600
1000	5	1705	3304



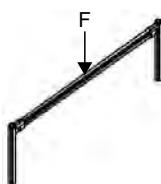
(Vertical)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	3600	3600
1000	5	3600	3600

# GF Technical Data

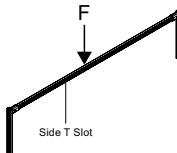
## Frame Strength Data (GF-S)

### ■ Green Frame S **GFF-400**

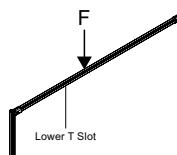


Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	175	200
1000	5	44	196

### ■ Green Frame S SS Slot **GFF-401**

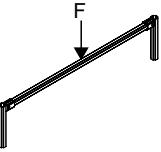


Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	257	300
1000	5	64	282



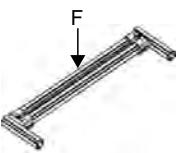
Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	133	252
1000	5	33	126

### ■ Green FrameS Hard **GFF-404**

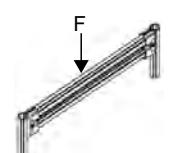


Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	343	560
1000	5	86	378

### ■ Green FrameS W **GFF-406**

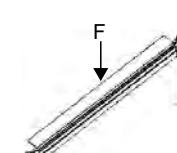


Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	356	784
1000	5	89	392

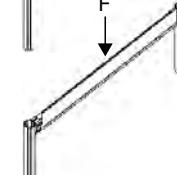


Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	1200	1200
1000	5	482	910

### ■ Green FrameS F22 **GFF-403**



Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	300	300
1000	5	136	300



Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	300	300
1000	5	144	300



Approx.  
Frame Size  
→ P.129



Connector  
Strength Data  
→ P.142



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

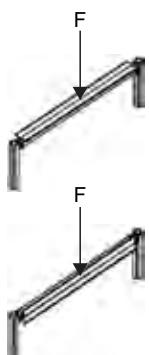
GF Unit

GF Motion

Technical  
Data

## Frame Strength Data (GF-S)

### ■ Green FrameS F35 GFF-402



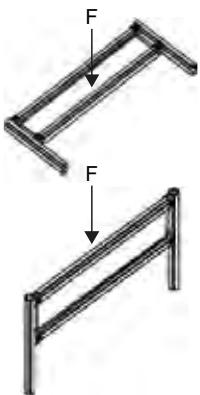
(Horizontal)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	300	300
1000	5	154	300

(Vertical)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	300	300
1000	5	156	300

### ■ Green Frame S P100 GFF-405



(Horizontal)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	356	600
1000	5	89	392

(Vertical)

Frame Length (mm)	Allowable Deflection (mm) 5/1000	Recommended Load (N)	Critical Load (N)
500	2.5	600	600
1000	5	600	600

# GF Technical Data

## Connector Strength Data (GF-N) Tightening Torque for Connector 15 N · m

Condition : Apply load where the arrow shows in the drawing.

**Slide Load** : Allowable Load on shift direction.

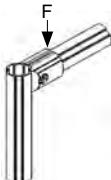
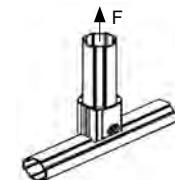
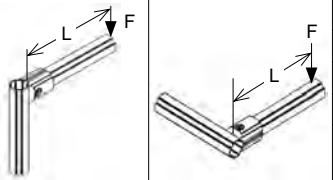
**Moment Load** : Allowable Moment for distance of length (L) from where connector is connected.

**Pull-out Load** : Allowable Load on pulling direction of Connector.

$$M \text{ (Moment)} = F \text{ (Force)} \times L \text{ (Length)}$$

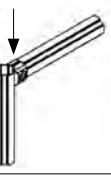
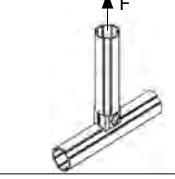
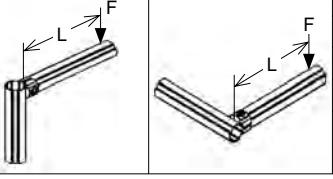
**Compression Load** : Allowable Load on direction of compression.

### ■ Multi Connector Outer Type GFJ-000

Slide Load (N)	800	Pull-out Load (N)	420
			
			

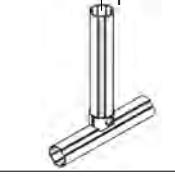
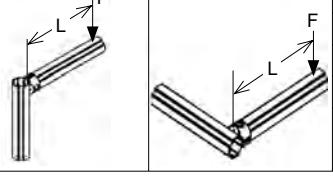
Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	110	55
		200	55	28
		300	37	18
		500	22	11
Allowable Moment (N · m)			11	5.5

### ■ Multi Connector Inner Type GFJ-200

Slide Load (N)	800	Pull-out Load (N)	420
			
			

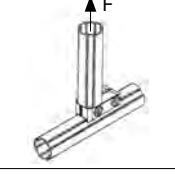
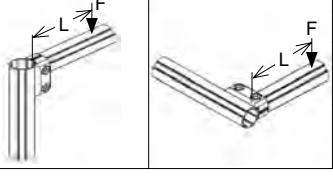
Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	90	60
		200	45	30
		300	30	20
		500	18	12
Allowable Moment (N · m)			9	6

### ■ Multi Conector (Inner) R GFJ-207

Slide Load (N)	800	Pull-out Load (N)	420
			
			

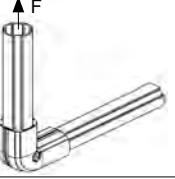
Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	90	60
		200	45	30
		300	30	20
		500	18	12
Allowable Moment (N · m)			9	6

### ■ Multi Connector Long Inner Type GFJ-215

Slide Load (N)	1500	Pull-out Load (N)	600
			
			

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	330	120
		200	165	60
		300	110	40
		500	66	24
Allowable Moment (N · m)			33	12

### ■ Angle Connector Outer Type GFJ-005

Pull-out Load (N)		170
		

Moment Load		Length L (mm)	Allowable Load(N)	
Vertical	Horizontal		Vertical	Horizontal
		100	400	200
		200	200	100
		300	133	67
		500	80	40
Allowable Moment (N · m)			40	20



Approx.  
Frame Size  
→ P.129



Frame  
Strength Data  
→ P.136



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

GF Motion

Technical Data

## Connector Strength Data (GF-N)

### ■ Angle Connector (Outer) E GFJ-010

Pull-out Load (N)	210

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	600	200
		200	300	100
		300	200	67
		500	120	40
Allowable Moment (N·m)			60	20

### ■ Angle Connector Inner Type GFJ-204

Pull-out Load (N)	280

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	130	65
		200	65	33
		300	43	22
		500	26	13
Allowable Moment (N·m)			13	6.5

### ■ Free Connector Outer Type GFJ-002/ Free Connector Outer Type V-M GFJ-B01

Slide Load (N)	700

### ■ Free Connector Inner Type GFJ-202/ Free Connector Inner Type V-M GFJ-B07

Slide Load (N)	800

### ■ Free Connector Outer Type H-F GFJ-B00/ Free Connector Outer Type H-M GFJ-A81

Slide Load (N)	700

### ■ Free Connector Inner Type H-F GFJ-B04/ Free Connector Inner Type H-M GFJ-B06

Slide Load (N)	800

### ■ Multi Connector (Outer) W GFJ-012

Slide Load (N)	1000

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	500	230
		200	250	115
		300	167	77
		500	100	46
Allowable Moment (N·m)			50	23

### ■ 45-Degree Connector Outer Type GFJ-007

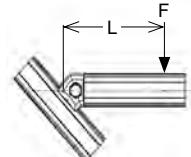
Slide Load (N)	700

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	165	
		200	83	
		300	55	
		500	33	
Allowable Moment (N·m)			16.5	

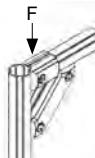
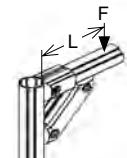
# GF Technical Data

## Connector Strength Data (GF-N)

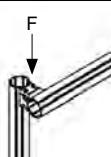
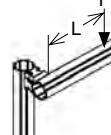
### ■ 45-Degree Connector Inner Type GFJ-220

Slide Load (N)	600	Pull-out Load(N)	275 <th>Moment Load</th> <th>Length L (mm)</th> <th>Allowable Load (N)</th>	Moment Load	Length L (mm)	Allowable Load (N)
					100	116
					200	58
					300	39
					500	23
				Allowable Moment (N · m)		11.6

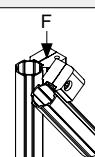
### ■ Point Connector (Drawing shows Multi Connector Outer Type) GFJ-A15

Slide Load (N)	1400	Moment Load	Length L (mm)	Allowable Load (N)
			Multi Connector Outer Type	Multi Connector Inner Type
			100	400
			200	200
			300	133
			500	80
		Allowable Moment (N · m)		40
				40

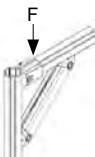
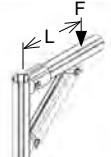
### ■ Cross Connector GFJ-A11

Slide Load (N)	900	Moment Load	Length L (mm)	Allowable Load (N)
		Vertical	Horizontal	Vertical
			100	100
			200	50
			300	33
			500	20
		Allowable Moment (N · m)		10
				6.5

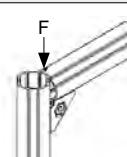
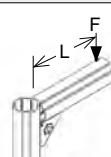
### ■ Cross Connector Rotate GFJ-B08

Slide Load (N)	250
	

### ■ Point Connector Long GFJ-B80

Slide Load (N)	1150	Moment Load	Length L (mm)	Allowable Load (N)
		Vertical	Horizontal	Multi Connector (Outer)
			100	950
			200	475
			300	317
			500	190
		Allowable Moment (N · m)		95
				95

### ■ Corner Bracket GFJ-032 Tightening Torque 10.8N · m

Slide Load (N)	650	Moment Load	Length L (mm)	Allowable Load (N)
		Vertical	Horizontal	Vertical
			100	160
			200	80
			300	53
			500	32
		Allowable Moment (N · m)		16
				7.5



Approx.  
Frame Size  
→ P.129



Frame  
Strength Data  
→ P.136



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

GF Motion

Technical Data

## Connector Strength Data (GF-N)

### ■ Double Connector C Kit GFJ-A45

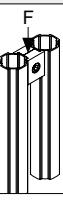
Slide Load (N)	300
Moment Load (N)	400
Allowable Moment (N·m)	8



Moment Load	Length L (mm)	Allowable Load (N)
Apply on the Side		Apply on the Side
	100	85
	200	43
	300	28
	500	17
Allowable Moment (N·m)		8.5

### ■ Double Connector P15 GFJ-A95

Slide Load (N)	300
Moment Load (N)	400
Allowable Moment (N·m)	8



Moment Load	Length L (mm)	Allowable Load (N)
Apply on the Side		Apply on the Side
	100	72
	200	36
	300	24
	500	14
Allowable Moment (N·m)		7.2

### ■ Double Connector P19.5 C Kit GFJ-B32

Slide Load (N)	300
Moment Load (N)	400
Allowable Moment (N·m)	8



Moment Load	Length L (mm)	Allowable Load (N)
Apply on the side		Apply on the side
	100	85
	200	43
	300	28
	500	17
Allowable Moment (N·m)		8.5

### ■ Double Connector GFJ-A42

Slide Load (N)	300
Moment Load (N)	400
Allowable Moment (N·m)	8



Moment Load	Length L (mm)	Allowable Load (N)
Apply on the Side		Apply on the Side
	100	85
	200	43
	300	28
	500	17
Allowable Moment (N·m)		8.5

### ■ Bridge Connector GFJ-A00

Slide Load (N)	900
Vertical	Horizontal



Moment Load	Length L (mm)	Allowable Load (N)
Apply on the Side		Apply on the Side
	100	85
	200	43
	300	28
	500	17
Allowable Moment (N·m)		8.5

### ■ Straight Connector GFJ-A17 ※Tightening Torque 12N·m

Pull-out Load (N)	500



Moment Load	Length L (mm)	Allowable Load (N)
Apply on the Side		Apply on the Side
	100	130
	200	65
	300	43
	500	26
Allowable Moment (N·m)		13

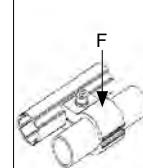
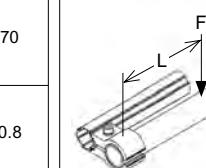
# GF Technical Data

## Connector Strength Data (GF-N)

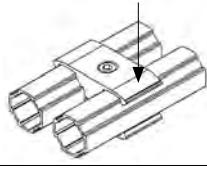
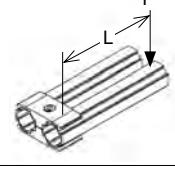
### Straight Joint GFJ-A46

Pull-out Load (N)	18	Moment Load	Length L (mm)	Allowable Load (N)
 ※Please do not use this direction. It is a Reference Value.		100	100	
		200	50	
		300	33	
		500	20	
		Allowable Moment (N·m)	10	

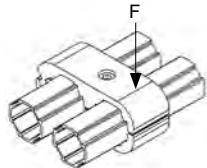
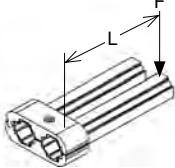
### ■ Pipe Holder GFA-001 ※Value when using Resin Pipe $\phi 28$ .

Slide Load (N)	280	Vertical	Horizontal	Vertical	Horizontal	Moment Load	Length L (mm)	Allowable Load (N)
			Allowable Load (N)	290	370	100	100	
			Allowable Moment (N·m)	23.2	30.8	200	50	
			Allowable Moment (N·m)	23.2	30.8	300	33	
			Allowable Moment (N·m)	23.2	30.8	500	20	
			Allowable Moment (N·m)	23.2	30.8	Allowable Moment (N·m)	10	

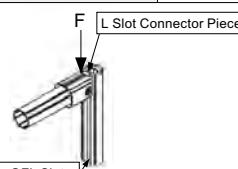
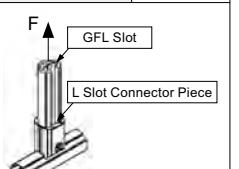
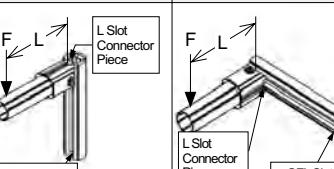
### ■ Parallel Holder GFJ-A47

Slide Load (N)	960	Moment Load (N·m)	500	Moment Load	Length L (mm)	Allowable Load (N)
			Apply on the Side	100	180	
			Allowable Moment (N·m)	200	90	
			Allowable Moment (N·m)	300	60	
			Allowable Moment (N·m)	500	36	
			Allowable Moment (N·m)	Allowable Moment (N·m)	18	

### ■ Parallel Holder HS GFJ-A49

Slide Load (N)	1370	Moment Load (N)	560	Moment Load	Length L (mm)	Allowable Load (N)
			Allowable Moment (N·m)	20	100	350
			Allowable Moment (N·m)	200	200	175
			Allowable Moment (N·m)	300	300	116
			Allowable Moment (N·m)	500	500	70
			Allowable Moment (N·m)	Allowable Moment (N·m)	35	

### ■ L Slot Connector Piece GFA-601 ※When using Multi Connector Outer Type. Tightening Torque for L Slot Connector Piece 5N·m

Slide Load (N)	200	Pull-out Load (N)	130	Moment Load	Length L (mm)	Allowable Load (N)
Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
			100	50	20	
			200	25	10	
			300	17	7	
			500	10	4	
			Allowable Moment (N·m)	5	2	



Approx.  
Frame Size  
→ P.129



Frame  
Strength Data  
→ P.136



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

GF Motion

Technical  
Data

## Connector Strength Data (GF-N)

### ■ Stand Connector GFJ-A36

Slide Load (N)	600
Pull-out Load (N)	240

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	700	500
		200	350	250
		300	233	167
		500	140	100
	Allowable Moment (N · m)		70	50

### ■ Foot Connector M12 Resin Type GFN-E02 (Resin Type) GFN-E17 (Conductive Resin Type)

Compression Load (N)	Resin	1250
	Conductive Resin	500

Pull-out Load (N)	Resin	120
	Conductive Resin	120

Moment Load	Length L (mm)	Allowable Load (N)	
		Resin	Conductive Resin
	100	620	600
	200	310	300
	300	207	200
	500	124	120
Allowable Moment (N · m)		62	60

# GF Technical Data

## Connector Strength Data (GF-N)

### ■ Foot Connector M8 GFN-E01

Compression Load (N)	1200
Pull-out Load (N)	39

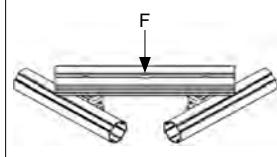


Pull-out Load (N)	39

Moment Load	Length L (mm)	Allowable Load (N)
	100	50
	200	25
	300	17
	500	10
Allowable Moment (N·m)		5

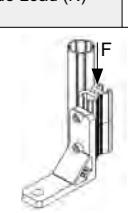
### ■ Adjuster Caster Connector A GFN-C08

Load Capacity (N)	1900



### ■ Adjuster Caster Connector B GFN-C09

Slide Load (N)	900



Moment Load	Length L (mm)	Allowable Load (N)
	100	470
	200	235
	300	157
	500	94
Allowable Moment (N·m)		47

### ■ Palette Connector GFJ-A13

Load Capacity (N)	3250

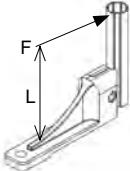
\*In case of using Steel Plate and apply load in the middle.

### ■ Pipe Stand A GFN-E15

Moment of Frame	Moment Load		Length L (mm)	Allowable Load (N)
	Frame	Single		
			100	850
			200	1250
			300	833
			500	500
Allowable Moment (N·m)			250	85

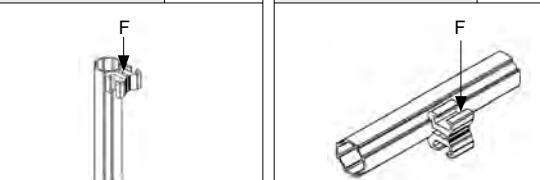
### ■ Base Stand GFN-E08

Moment Load	Length L (mm)	Allowable Load (N)
	100	400
	200	200
	300	133
	500	80
Allowable Moment (N·m)		40



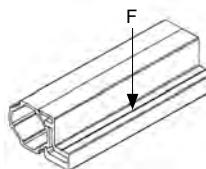
### ■ Board Holder GFJ-A22

Slide Load (N)	Moment Load (N)	Allowable Moment (N·m)
250	260	13



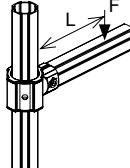
### ■ Board Holder F GFF-A01

Load Capacity (N)	400



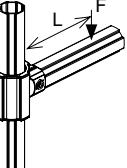
### ■ Hinge Connector GFJ-A04

Moment Load	Length L (mm)	Allowable Load (N)
	100	180
	200	90
	300	60
	500	36
Allowable Moment (N·m)		18



### ■ Hinge Connector L GFJ-A07

Moment Load	Length L (mm)	Allowable Load (N)
	100	180
	200	90
	300	60
	500	36
Allowable Moment (N·m)		18





Approx.  
Frame Size  
→ P.129



Frame  
Strength Data  
→ P.136



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

GF Motion

Technical Data

## Connector Strength Data (GF-N)

### ■ Hinge Connector Hard GFJ-A88

Moment Load	Length L (mm)	Allowable Load (N)
	100	640
	200	320
	300	213
	500	128
Allowable Moment (N · m)		64

### ■ Rotary Connector GFJ-A94

Radial	450	Thrust	750
		Specifications when using the Hinge Connector Stopper Hard	

### ■ GF Slider F-F GFJ-A38

Slide Properties (Using 2 pcs) (N)	10	Slide Properties (Bottom Load)	40	Slide Properties (Top Load)	20

### ■ GF Slider P-F GFJ-A41

Moment Load (N)	110
Allowable Moment (N · m)	2.2

### ■ Hinge Connector Stopper GFJ-A09

Slide Load (N)	350

### ■ Hinge Connector Stopper Hard GFJ-A61

Slide Load (N)	750

### ■ Resin Idler GFA-A30

Load Capacity (N)	30

### ■ Steel Idler GFW-239

Load Capacity (N)	200

### ■ ø48 Idler GFW-263

Load Capacity (N)	300

### ■ Slot Roller L40 Light SFA-809

Load Capacity (N)	150

### ■ Conveyor Anti Back GFK-N05

Load Capacity (N)	200

### ■ Elevation Lock GFK-N06

Load Capacity (N)	200

### ■ V Roller Mounting Kit GFK-949

Load Tolerance (N)	10

### ■ GF Roller Mounting Kit GFK-948

Load Tolerance (N)	150

### ■ Pin Connector GFJ-B58

Slide Load (N)	800

### ■ Linear Slider GFW-440

Load Tolerance (N)	50

# GF Technical Data

## Connector Strength Data (GF-N)

### ■ One Way Clutch GFJ-C19

Moment Load (N)	300
Available Moment (N · m)	9

### ■ Folding Connector GFJ-247

Available Moment (N · m)	9

### ■ Connector Piece Compact GFJ-B09

Slide Load (N)	260
Moment Load (N)	500
Allowable Moment (N · m)	5.75

### ■ Connector Piece Compact (Side) GFJ-B18

Slide Load (N)	260
Moment Load (N)	500
Allowable Moment (N · m)	5.75

### ■ Connector Piece GFJ-A31 ※Tightening Torque 10.8 (N · m)

Slide Load (N)	410
Moment Load (N)	500
Allowable Moment (N · m)	6

### ■ Part Holder GFA-000 ※Tightening Torque 10.8 (N · m)

Slide Load (N)	230
Moment Load (N)	260
Allowable Moment (N · m)	8

### ■ Single Saddle GFJ-A25

Allowable Moment Load (N · m)	1

### ■ Double Saddle GFJ-A27

Allowable Moment Load (N · m)	6.5

### ■ Off-set Connector GFJ-A35

Slide Load (N)	195

Both Ends Support  
Because GF strength is less than Off-set Connector,  
Allowable Load will refer to Frame Strength Data.

### ■ Impact Holder Kit H-Type GFK-803

Repeating Load (N)	440

Repeating Load : 60,000 cycles  
(Load 14N : Using Impact Weight in the test)

※Please check the fastening once every 10,000 cycles during the repeating use.If it's not been used over 2 weeks, please check the fastening before use.

### ■ Impact Holder Kit V-Type GFK-802

Repeating Load (N)	400

Repeating Load : 60,000 cycles  
(Load 14N : Using Impact Weight in the test)

※Please check the fastening once every 10,000 cycles during the repeating use.If it's not been used over 2 weeks, please check the fastening before use.

### ■ Free Connector Fix Side GFJ-A52

Moment Load (N)	400

### ■ Ring Runner GFA-A06

Load Capacity (N)	10



Approx.  
Frame Size  
→ P.129



Frame  
Strength Data  
→ P.136



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

GF Motion

Technical  
Data

## Connector Strength Data (GF-N)

### ■ GF-SF Connector Kit for S Slot GFA-603

Slide Load (N)	583

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	101	41
		200	51	21
		300	33	14
		500	20	8
Allowable Moment (N · m)		Allowable Moment (N · m)	10.1	4.1

### ■ GF-SF Connector Kit for L Slot GFA-607

Slide Load (N)	852

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	115	49
		200	58	25
		300	38	16
		500	23	10
Allowable Moment (N · m)		Allowable Moment (N · m)	11.5	4.9

### ■ GF-SF Connector Kit for S Slot G type GFA-605

Slide Load (N)	1331

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	317	54
		200	159	27
		300	106	18
		500	63	11
Allowable Moment (N · m)		Allowable Moment (N · m)	31.7	5.4

### ■ GF-SF Connector Kit for L Slot G type GFA-609

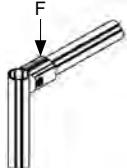
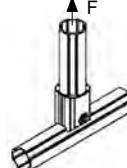
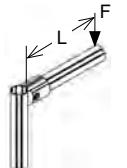
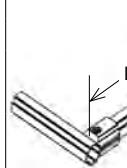
Slide Load (N)	1562

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	281	55
		200	141	28
		300	94	18
		500	56	11
Allowable Moment (N · m)		Allowable Moment (N · m)	28.1	5.5

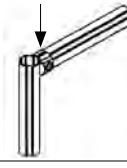
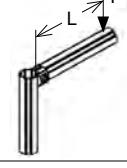
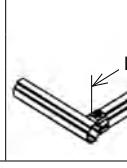
# GF Technical Data

## Connector Strength Data (GF-G) Tightening Torque for Connector 25 N·m

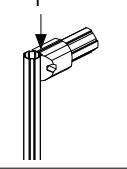
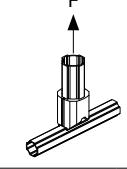
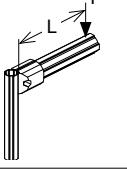
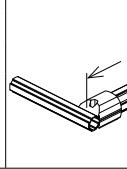
### ■ Multi Connector (Outer) G GFJ-014

Slide Load (N)	2500	Pull-out Load (N)	690	Moment Load		Length L (mm)	Allowable Load (N)
				Vertical	Horizontal	Vertical	Horizontal
						100	660 150
						200	330 75
						300	220 50
						500	132 30
						Allowable Moment (N·m)	66 15

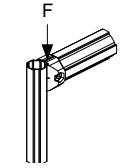
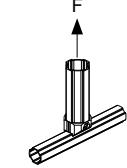
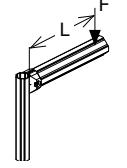
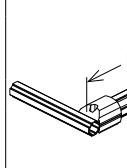
### ■ Multi Connector (Inner) G GFJ-209

Slide Load (N)	1700	Pull-out Load (N)	1000	Moment Load		Length L (mm)	Allowable Load (N)
				Vertical	Horizontal	Vertical	Horizontal
						100	500 300
						200	250 150
						300	167 100
						500	100 60
						Allowable Moment (N·m)	50 30

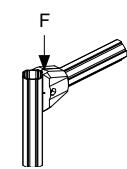
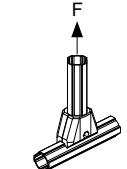
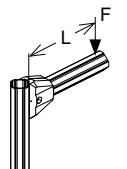
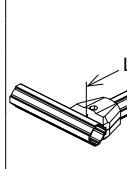
### ■ Multi Connector Outer Type G-N GFJ-022

Slide Load (N)	1100	Pull-out Load (N)	561	Moment Load		Length L (mm)	Allowable Load (N)
				Vertical	Horizontal	Vertical	Horizontal
						100	540 110
						200	270 55
						300	180 37
						500	108 22
						Allowable Moment (N·m)	54 11

### ■ Multi Connector Inner Type G-N GFJ-224

Slide Load (N)	1200	Pull-out Load (N)	839	Moment Load		Length L (mm)	Allowable Load (N)
				Vertical	Horizontal	Vertical	Horizontal
						100	410 130
						200	205 65
						300	137 43
						500	82 26
						Allowable Moment (N·m)	41 13

### ■ Multi Connector Outer Type GM GFJ-028

Slide Load (N)	1150	Pull-out Load (N)	530	Moment Load		Length L (mm)	Allowable Load (N)
				Vertical	Horizontal	Vertical	Horizontal
						100	2400 350
						200	1200 175
						300	799 117
						500	480 70
						Allowable Moment (N·m)	240 35



Approx.  
Frame Size  
→ P.129



Frame  
Strength Data  
→ P.136



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

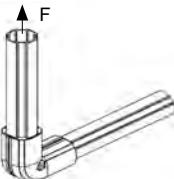
GF Unit

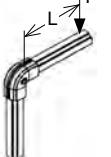
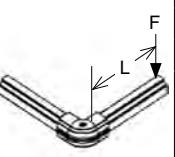
GF Motion

Technical Data

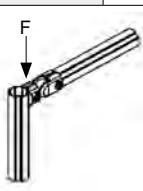
## Connector Strength Data (GF-G)

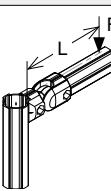
### ■ Angle Connector (Outer) G GFJ-016

Pull-out Load (N)	260
	

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	1700	90
		200	850	45
		300	567	30
		500	340	18
Allowable Moment (N · m)		Allowable Moment (N · m)	170	9

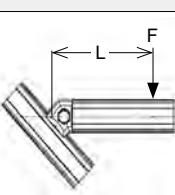
### ■ Free Connector Inner Type G GFJ-228

Slide Load (N)	1000
	

Moment Load	Length L (mm)	Allowable Load (N)
	100	100
	200	50
	300	33
	500	20
Allowable Moment (N · m)		10

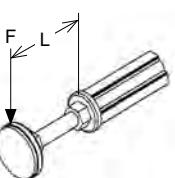
### ■ 45-Degree Connector Outer Type G GFJ-024

Slide Load (N)	900
	

Moment Load	Length L (mm)	Allowable Load (N)
	100	440
	200	220
	300	147
	500	88
Allowable Moment (N · m)		44

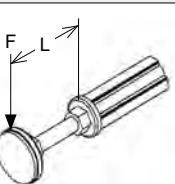
### ■ Foot Connector M16G GFN-E05

Compression Load (N)	5800
	

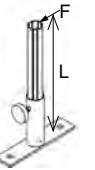
Moment Load	Length L (mm)	Allowable Load (N)
	100	55
	200	28
	300	18
	500	11
Allowable Moment (N · m)		5.5

### ■ Foot Connector M16G Conductive GFN-E21

Compression Load (N)	1000
	

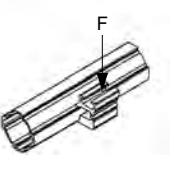
Moment Load	Length L (mm)	Allowable Load (N)
	100	38
	200	19
	300	13
	500	8
Allowable Moment (N · m)		3.8

### ■ Pipe Stand G GFN-E20

Pull-out Load (N)	224
	

### ■ BBoard Holder G (Inner) GFJ-A34

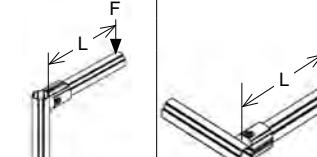
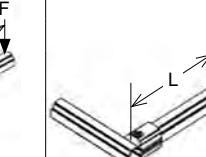
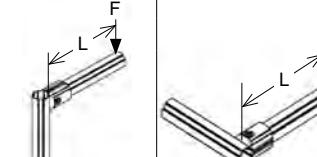
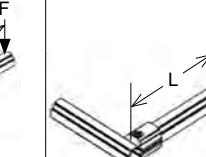
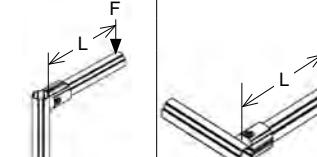
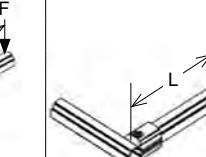
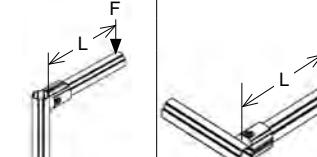
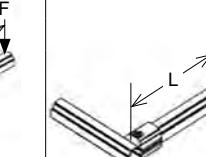
Slide Load (N)	90
	

Allowable Moment (N · m)	6
	

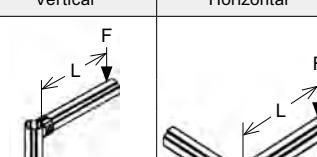
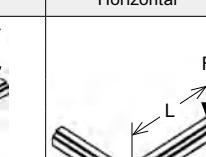
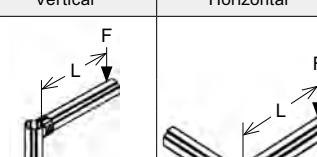
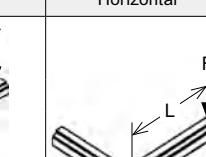
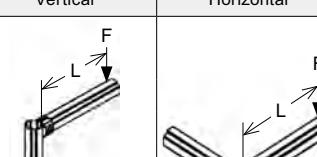
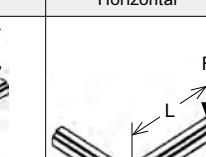
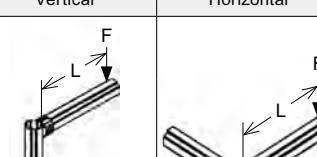
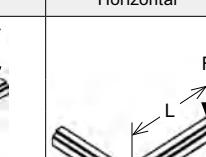
# GF Technical Data

## Connector Strength Data (GF-S) Tightening Torque for Connector 7.4 N·m

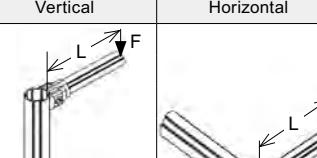
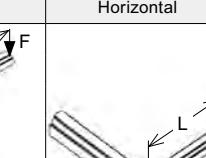
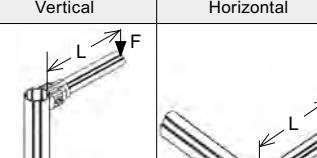
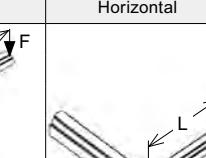
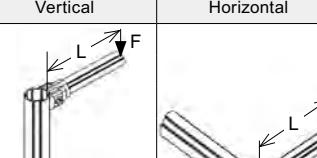
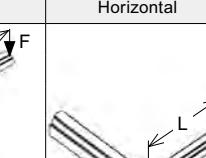
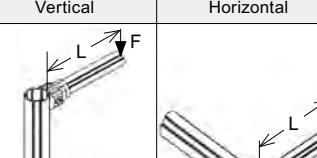
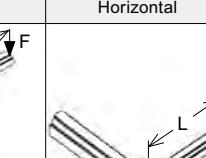
### ■ Multi Connector (Outer) S GFJ-018

Slide Load (N)	280	Pull-out Load (N)	400 <th data-cs="2" data-kind="parent">Moment Load</th> <th data-kind="ghost"></th> <th data-kind="parent" data-rs="2">Length L (mm)</th> <th data-cs="2" data-kind="parent">Allowable Load (N)</th> <th data-kind="ghost"></th>	Moment Load		Length L (mm)	Allowable Load (N)	
				Vertical	Horizontal	Vertical	Horizontal	
						100	30	12
						200	15	6
						300	10	4
						500	6	2
						Allowable Moment (N·m)	3	1.2

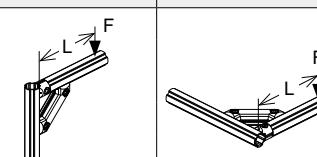
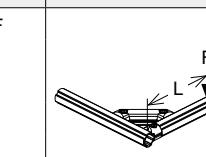
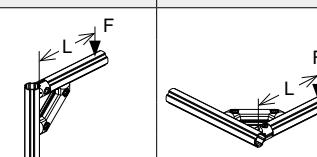
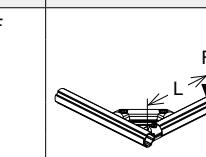
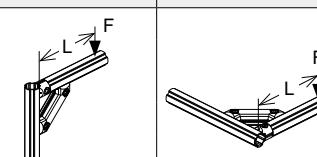
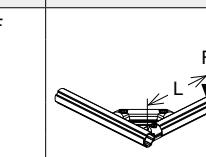
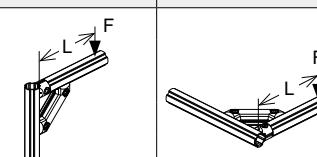
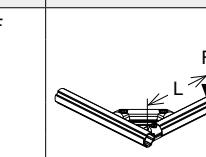
### ■ Multi Connector (Inner) S GFJ-211

Slide Load (N)	150	Pull-out Load (N)	210 <th data-cs="2" data-kind="parent">Moment Load</th> <th data-kind="ghost"></th> <th data-kind="parent" data-rs="2">Length L (mm)</th> <th data-cs="2" data-kind="parent">Allowable Load (N)</th> <th data-kind="ghost"></th>	Moment Load		Length L (mm)	Allowable Load (N)	
				Vertical	Horizontal	Vertical	Horizontal	
						100	60	18
						200	30	9
						300	20	6
						500	12	4
						Allowable Moment (N·m)	6	1.8

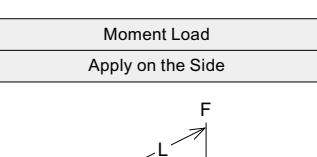
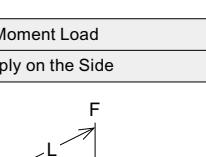
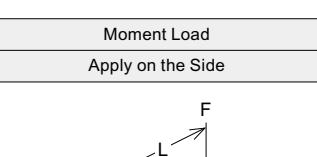
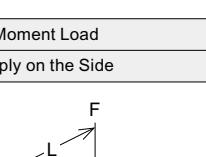
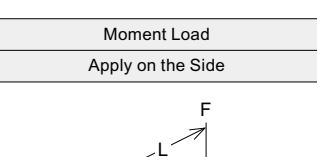
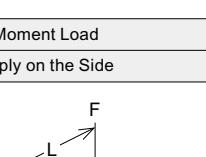
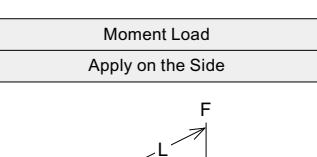
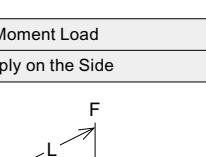
### ■ GFS-GF Connector GFJ-020

Slide Load (N)	280	Pull-out Load (N)	500 <th data-cs="2" data-kind="parent">Moment Load</th> <th data-kind="ghost"></th> <th data-kind="parent" data-rs="2">Length L (mm)</th> <th data-cs="2" data-kind="parent">Allowable Load (N)</th> <th data-kind="ghost"></th>	Moment Load		Length L (mm)	Allowable Load (N)	
				Vertical	Horizontal	Vertical	Horizontal	
						100	40	25
						200	20	13
						300	13	8
						500	8	5
						Allowable Moment (N·m)	4	2.5

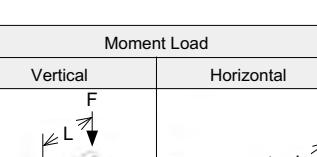
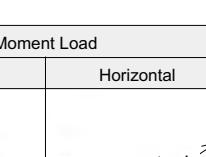
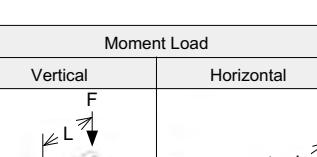
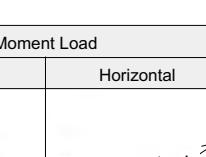
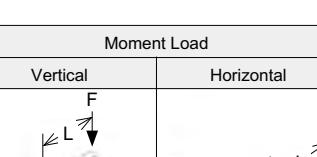
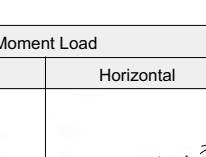
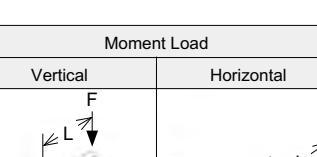
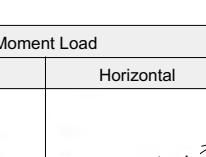
### ■ Point Connector S GFJ-A72

Slide Load (N)	535	Moment Load		Length L (mm)	Allowable Load (N)	
		Vertical	Horizontal		Vertical	Horizontal
				100	170	15
				200	85	7.5
				300	57	5
				500	34	3
				Allowable Moment (N·m)	17	1.5

### ■ Double Connector S GFJ-A55

Slide Load (N)	300	Moment Load (N)	90	Moment Load		Length L (mm)	Allowable Load (N)	
		Allowable Moment (N·m)	2				Apply on the Side	Apply on the Side
				100	20			
				200	10			
				300	6.6			
				500	4			
				Allowable Moment (N·m)	2			

### ■ Multi Connector (Inner) SR GFJ-244

Slide Load (N)	360	Pull-out Load (N)	300	Moment Load		Length L (mm)	Allowable Load (N)	
				Vertical	Horizontal		Vertical	Horizontal
				100	30	12		
				200	15	6		
				300	10	4		
				500	6	2		
				Allowable Moment (N·m)	3	1.2		



Approx.  
Frame Size  
→ P.129



Frame  
Strength Data  
→ P.136



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

GF Motion

Technical Data

## Connector Strength Data (GF-S)

### ■ Point Connector N-S GFJ-B89

Slide Load (N)	535

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	170	40
		200	85	20
		300	57	13
		500	34	8
Allowable Moment (N·m)		Allowable Moment (N·m)	17	4

### ■ Multi Connector (Outer) S W GFJ-044

Slide Load (N)	600

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	75	30
		200	38	15
		300	25	10
		500	15	6
Allowable Moment (N·m)		Allowable Moment (N·m)	7.5	3

### ■ Angle Connector (Outer) S GFJ-046

Pull-out Load (N)	130

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	90	50
		200	45	25
		300	30	17
		500	18	10
Allowable Moment (N·m)		Allowable Moment (N·m)	9	5

### ■ 45-Degree Connector (Inner) S GFJ-248

Slide Load (N)	330

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	30	
		200	15	
		300	10	
		500	6	
Allowable Moment (N·m)		Allowable Moment (N·m)	3	

### ■ Link Connector S V GFJ-041

Pull-out Load (N)	280

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	30	
		200	15	
		300	10	
		500	6	
Allowable Moment (N·m)		Allowable Moment (N·m)	3	

### ■ Cross Connector S GFJ-B55

Slide Load (N)	280

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	20	20
		200	10	10
		300	7	7
		500	4	4
Allowable Moment (N·m)		Allowable Moment (N·m)	2	2

# GF Technical Data

## Connector Strength Data (GF-S)

Tightening Torque for Connector 7.4 N · m

### ■ Cross Connector N-S GFJ-B26

Slide Load (N)	650

Moment Load		Length L (mm)	Allowable Load (N)	
Vertical	Horizontal		Vertical	Horizontal
		100	80	30
		200	40	15
		300	27	10
		500	16	6
Allowable Moment (N · m)			8	3

### ■ Hinge Connector S GFJ-A64

Moment Load	Length L (mm)	Allowable Load (N)
	100	52
	200	26
	300	17
	500	10.3
Allowable Moment (N · m)		5.15

### ■ Connector Piece S Top GFJ-B71

Slide Load (N)	260	Moment Load (N)	339
		Allowable Moment (N · m)	2

### ■ Double Connector N-S GFJ-B50

Slide Load (N)	240	Moment Load (N)	259
		Allowable Moment (N · m)	7

Moment Load	Length L (mm)	Allowable Load (N)
Apply on the side	Apply on the side	Apply on the side
	100	50
	200	25
	300	17
	500	10
Allowable Moment (N · m)		5

### ■ Stand Connector S GFJ-B45

Slide Load (N)	780	Pull-out Load (N)	470

Moment Load	Length L (mm)	Allowable Load (N)	
Vertical	Horizontal	Vertical	Horizontal
	100	112	57
	200	56	29
	300	37	19
	500	22	11
Allowable Moment (N · m)		11.2	5.7

### ■ Rotary Connector S GFJ-B83

Radial	100

Thrust	400

### ■ Hinge Connector Stopper S GFJ-A67

Slide Load (N)	400

### ■ Foot Connector S GFN-E07

Compression Load (N)	920	Pull-out Load (N)	80

Moment Load	Length L (mm)	Allowable Load (N)
	100	11
	200	6
	300	4
	500	2
Allowable Moment (N · m)		1.1



Approx.  
Frame Size  
→ P.129



Frame  
Strength Data  
→ P.136



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

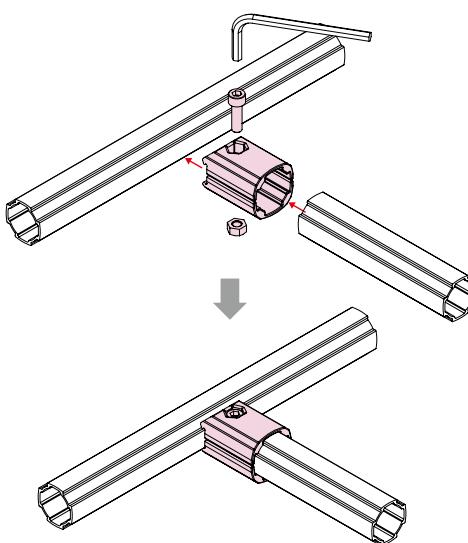
GF Jig

GF Unit

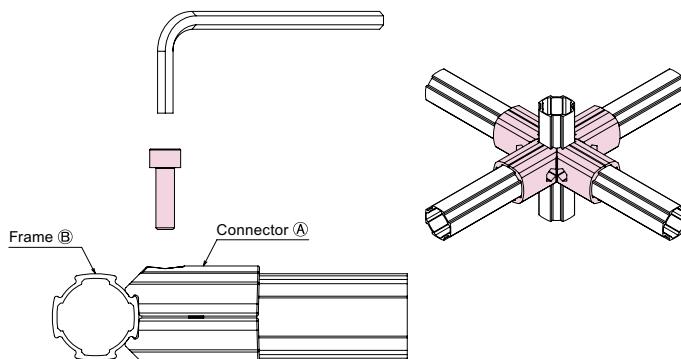
GF Motion

Technical  
Data

## GF Assembly Method



Unscrew the connector A and insert Green Frame like to clamp the protruding of Frame B, then tighten screw.

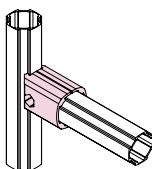


※ Practically it's not necessary to remove the bolt.

### 90° Connection

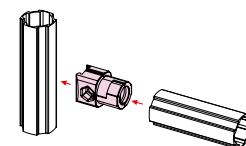
#### Multi Connector Outer

Multi Connector Outer	P36
Multi Connector W Outer	P40
Multi Connector G Outer	P99
Multi Connector G-N Outer	P99
Multi Connector GM Outer	P100
Multi Connector S Outer	P108
GFS-GF Connector	P108



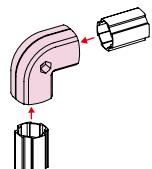
#### Multi Connector Inner

Multi Connector Inner	P36
Multi Connector R Inner	P36
Multi Connector Long Inner	P37
Multi Connector G Inner	P99
Multi Connector S Inner	P108



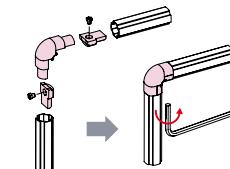
#### Angle Connector Outer

Angle Connector Outer	P37
Angle Connector E Outer	P37
Angle Connector G Outer	P100



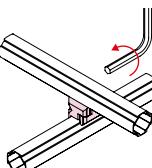
#### Angle Connector Inner

Angle Connector Inner	P37
Angle Connector DX	P46
Angle Connector DX (3 way type)	P46



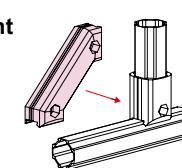
#### 90° Cross Connection

Cross Connector	P41
-----------------	-----



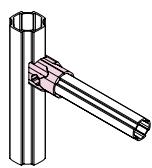
#### 90° Connection Reinforcement

Point Connector	P41
Point Connector S	P108



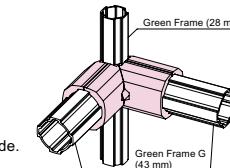
#### GF-N Frame and GF-S Frame Connection

GFS-GF Connector	P108
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#### Connect GF-G Frame to GF-N Frame

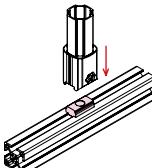
Multi Connector G-N Outer	P99
Multi Connector G-N Inner	P99



※ Use in case of the 90° Connection side-by-side.

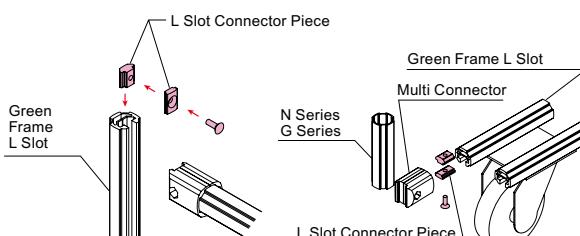
#### GF Frame and SF Frame Connection

GF-SF Connector	P93
-----------------	-----



#### Connect Frame in the groove of Green Frame L Slot and reinforce when using Multi Connector Outer Type.

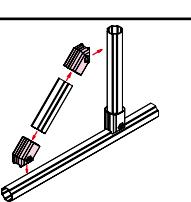
L Slot Connector Piece	P45
------------------------	-----



#### 45° Connection

##### 45-Degree Connector

45-Degree Connector Outer	P40
45-Degree Connector G Outer	P100
45-Degree Connector Inner	P40



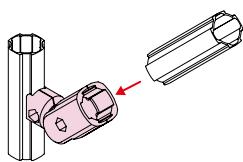
# GF Technical Data

## GF Assembly Method

### Free Angle Connection

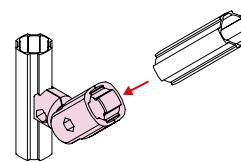
#### 3 Dimensions Free Angle (Fix when tighten the bolt)

Free Connector Outer P38  
Free Connector Inner P38  
Free Connector G Inner P100



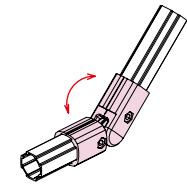
#### 3 Dimension Free Angle (Also fix when tighten the bolt)

Free Connector V-M Outer P38  
Free Connector V-M Inner P38



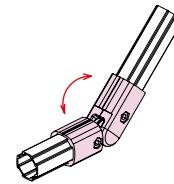
#### 2 Dimensions Free Angle (Fix when tighten the bolt)

Free Connector H-F Outer P39  
Free Connector H-F Inner P39



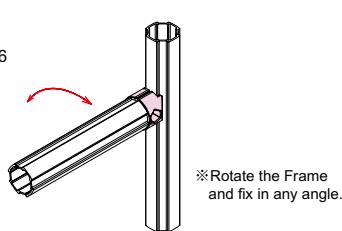
#### 2 Dimensions Free Angle (Also fix when tighten the bolt)

Free Connector H-M Outer P39  
Free Connector H-M Inner P39



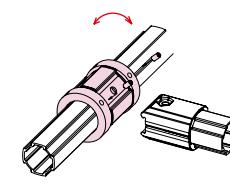
### Frame Angle Rotation

Multi Connector R Inner P36



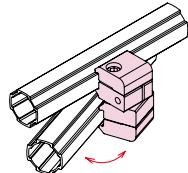
### Free Rotation

Hinge Connector P59  
Hinge Connector L P59  
Hinge Connector Hard P59  
Hinge Connector S P59  
Rotary Connector P59  
Hinge Connector Stopper P62  
Hinge Connector Stopper Hard P62  
Hinge Connector Stopper S P113

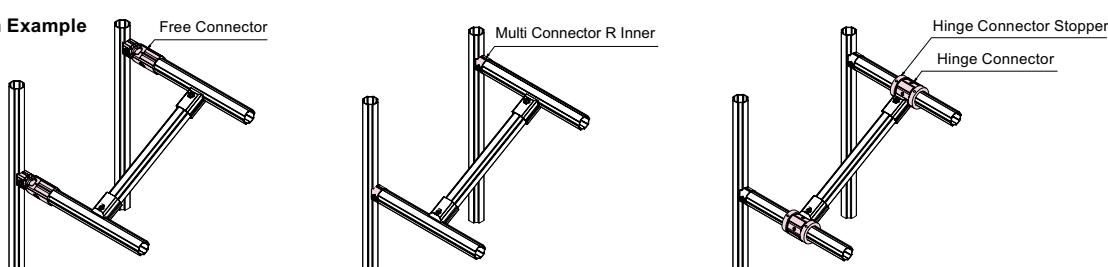


### Free Angle Cross (Parallel)

Cross Connector Rotate Type P41



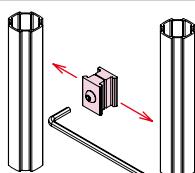
### Tilt Connection Example



### Parallel Connection

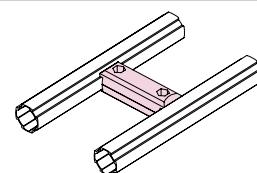
#### Double Connector

Double Connector P43  
Double Connector C Kit P43  
Double Connector P15 P43  
Double Connector S P111



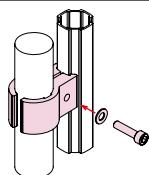
#### Bridge Connector

Bridge Connector P45



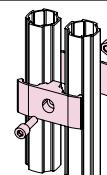
#### Pipe Holder

Pipe Holder P44



#### Parallel Holder

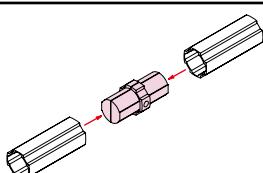
Parallel Holder P44  
Parallel Holder HS P44



### Tie Connection

#### Tie Connection

Straight Connector P45  
Straight Joint P45





Approx.  
Frame Size  
→ P.129



Connector  
Strength Data  
→ P.142



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

GF Motion

Technical Data

## GF Assembly Method (Foot Component)

### Foot Component Installation Method

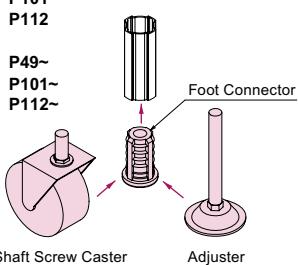
#### Foot Connector

Foot Connector M12  
Foot Connector M8  
Foot Connector M16 G  
Foot Connector S

P47  
P47  
P101  
P112

Adjuster/Caster for GF-N  
Adjuster/Caster for GF-G  
Foot for GF-S

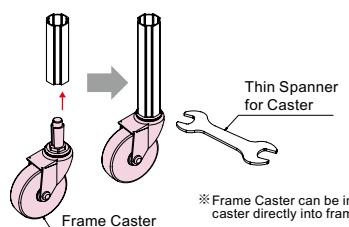
P49~  
P101~  
P112~



#### Frame Caster

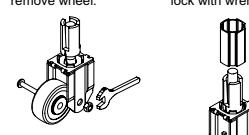
Each Type of Frame Caster  
Frame Caster Fixed  
Spanner Slim Type for Caster  
Stubby Wrench

P51/P52  
P51  
P119  
P119



① Using spanner to remove wheel.

② Insert Frame and lock with wrench



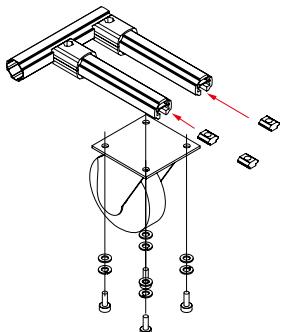
③ Using spanner to install wheel.  
Proper Torque for Nut :  
5N·m±20%  
(Please fasten in the range  
of 4~6N·m)



● If using stubby wrench,  
no need to remove  
wheel to install frame.

#### Free Caster Fixed Caster

Free/Fixed Caster P53



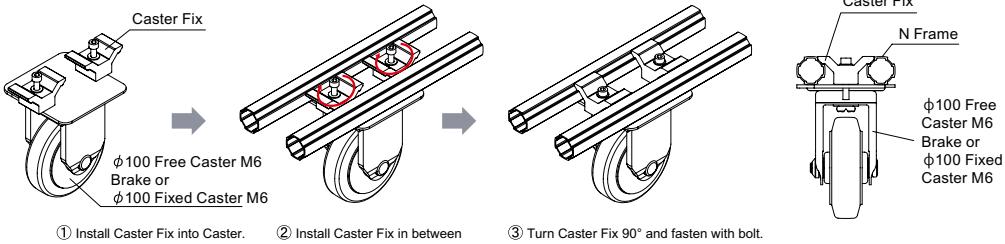
#### \*To Install Green Frame L Slot

φ75 T Nut L M8 (SFK-T11S) / Hexagon Socket Head Cap Screw M8 x15 (SFB-581S) / Flat Washer M8 Small Round Type (SFB-5M8S) 4 pcs each / 1 wheel

φ100/φ150 T Nut L M8 (SFK-T11S) Hexagon Socket Head Cap Screw M8 x18 (SFB-589S) / Flat Washer M8 (SFB-903S) / Spring Washer M8 (SFB-934S) 4 pcs each / 1 wheel are not included.

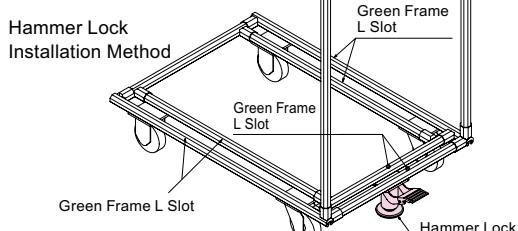
#### Caster Fix

Caster Fix  
Caster for Caster Fix P54  
P54

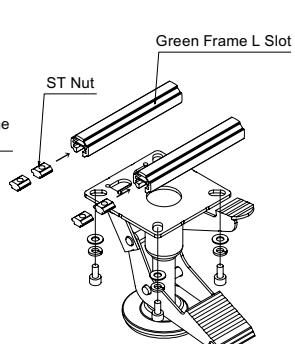
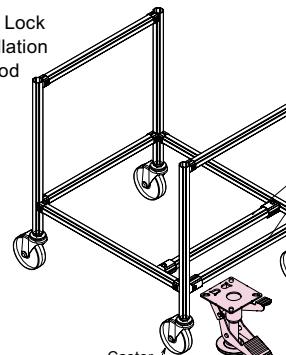


#### Hammer Lock / Free Lock / Floor Lock

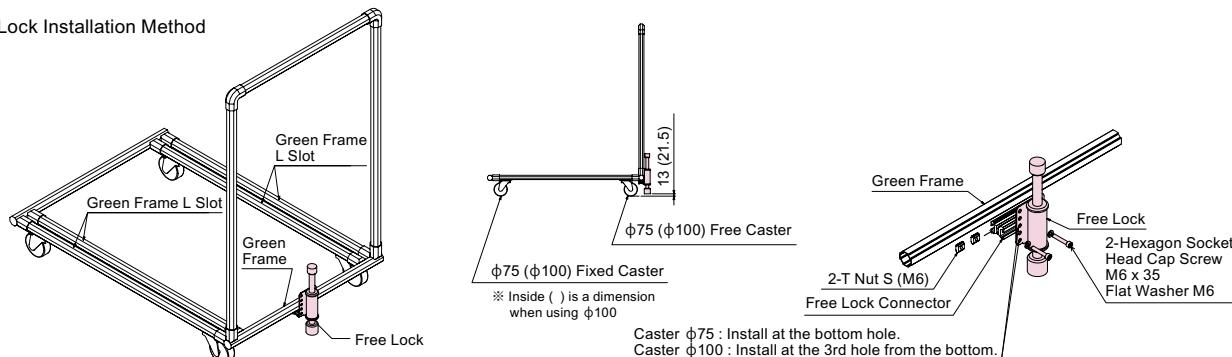
Hammer Lock P55  
Free Lock P55  
Floor Lock P56



#### Floor Lock Installation Method



#### Free Lock Installation Method



# GF Technical Data

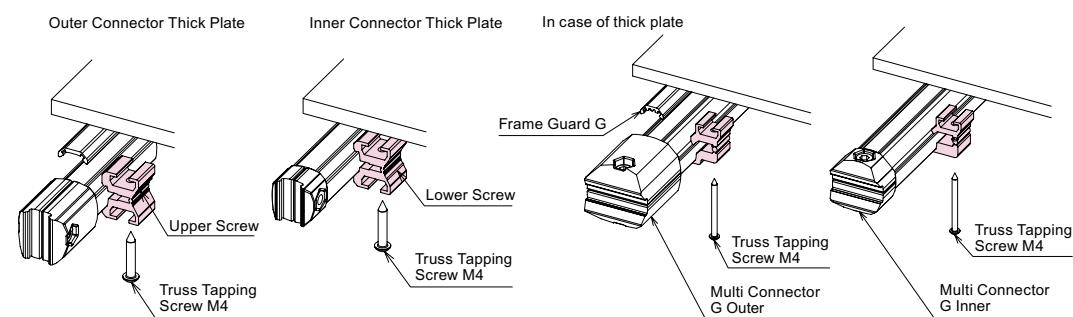
## GF Assembly Method (Board / Panel Installation)

Board Dimension / Process Dimension→P132  
Panel Dimension / Process Dimension→P133

### Board Installation Method

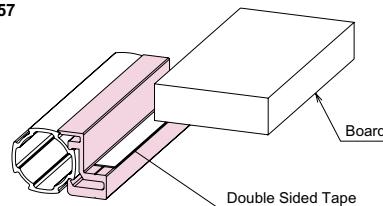
#### Board Holder

Board Holder P57  
Board Holder G P103



#### Board Holder F

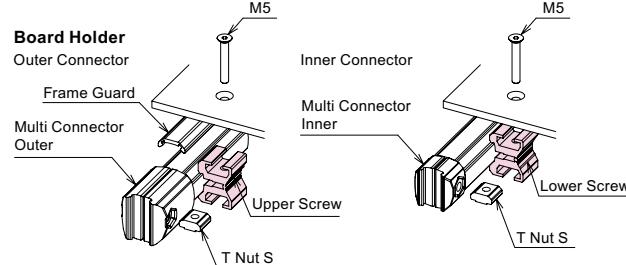
Board Holder F P57



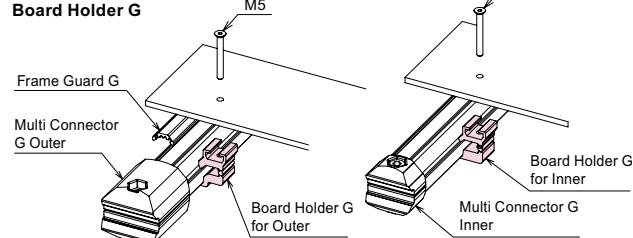
### Panel Installation Method

#### Board Holder

Board Holder P57  
Board Holder G P103

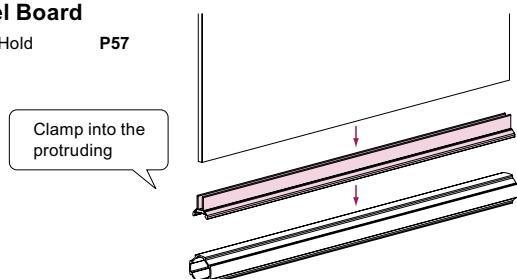


#### Board Holder G



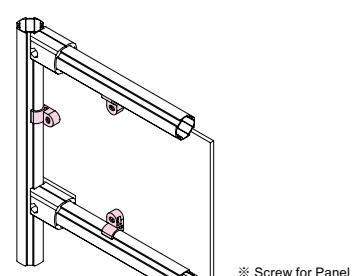
#### Panel Board

Panel Hold P57



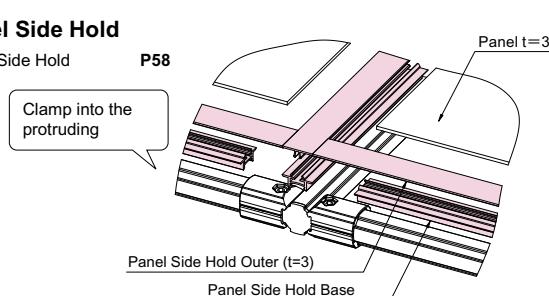
#### Plate Connector

Plate Connector P58



#### Panel Side Hold

Panel Side Hold P58





Approx.  
Frame Size  
→ P.129



Connector  
Strength Data  
→ P.142



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

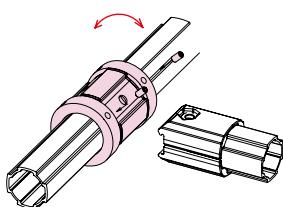
GF Motion

Technical  
Data

## GF Assembly Method (Moving Part)

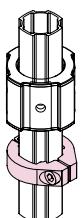
### Rotation

Hinge Connector	P59
Hinge Connector L	P59
Hinge Connector Hard	P59
Hinge Connector S	P113
Rotary Connector	P59



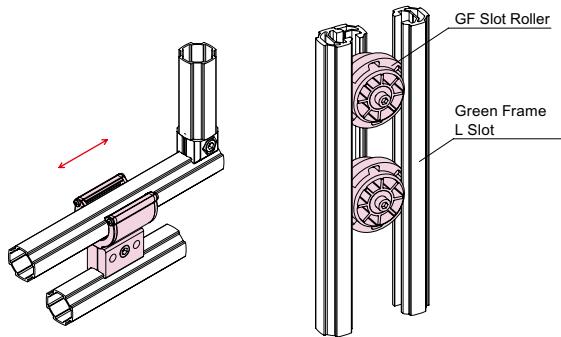
### Stopper

Hinge Connector Stopper	P62
Hinge Connector Stopper Hard	P62
Hinge Connector Stopper S	P113



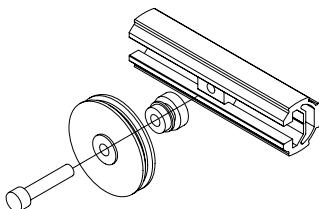
### Slide

GF Slider	P61
Slide Connector	P61
Hinge Connector	P59
Hinge Connector L	P59
Hinge Connector Hard	P59
Hinge Connector S	P113
GF Slot Roller	P64



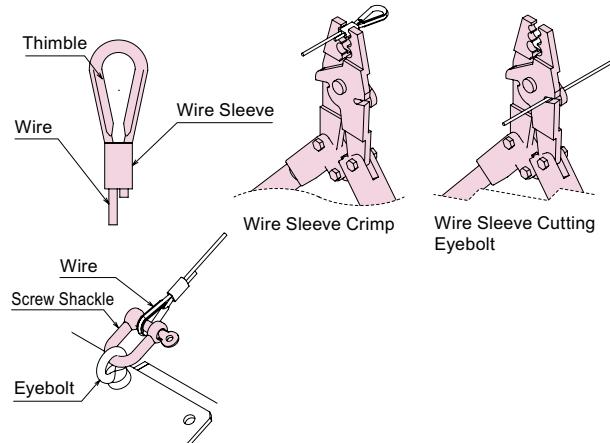
### Idler / Slot Roller Install Method

Idler	P66
Slot Roller	P67



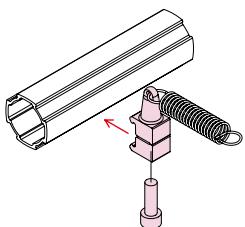
### Wire Component Installation Method

Wire Component Part	P69~
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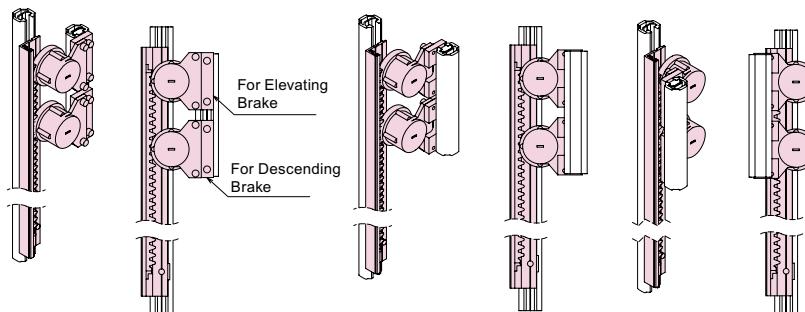
### Spring Installation Method

Spring Post Connector	P69
Tension Spring Post Kit	P69
Tension Spring	P71



### Antistatic Equipment

Antistatic Equipment Installation Kit	P67
Antistatic Rack Installation Kit	P67

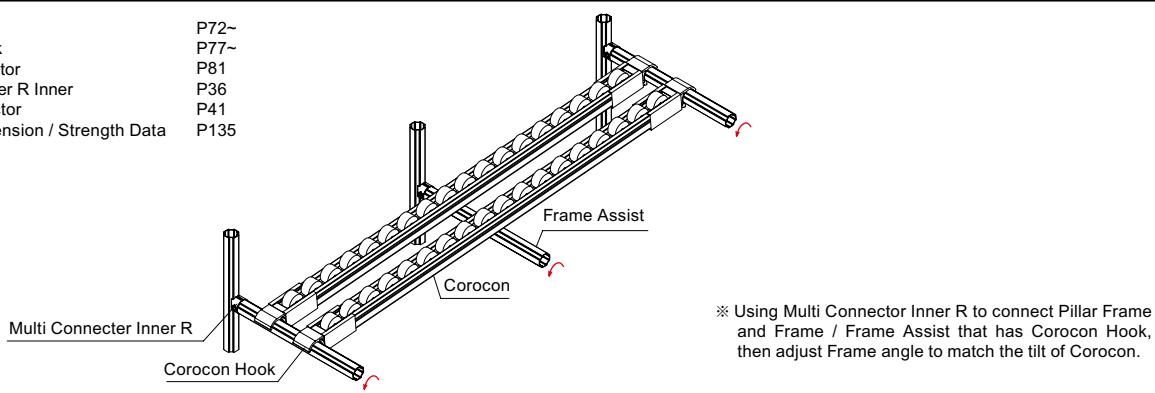


# GF Technical Data

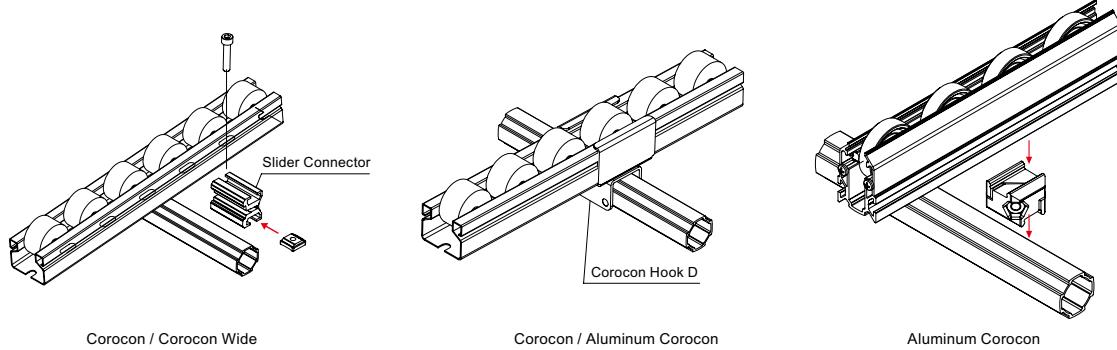
## GF Assembly Method (Corocon / Door / Part Installation)

### Corocon Install Method

Corocon	P72~
Corocon Hook	P77~
Slider Connector	P81
Multi Connector R Inner	P36
Cross Connector	P41
Corocon Dimension / Strength Data	P135

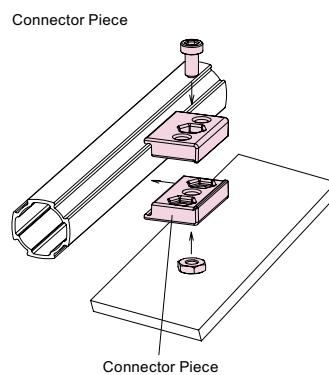
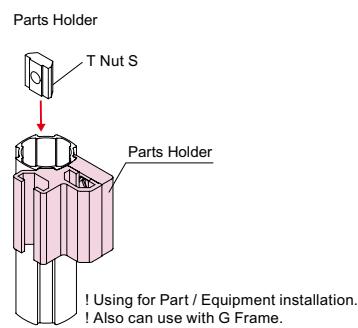


### Corocon Assist Frame Installation Method



### Parts Installation Method

Parts Holder	P85
Connector Piece	P85





Approx.  
Frame Size  
→ P.129



Connector  
Strength Data  
→ P.142



Compatible Frame  
Connector Table  
→ P.164

**GF-N**  
28 mm

**GF-G**  
43 mm

**GF-S**  
19 mm

GF Jig

GF Unit

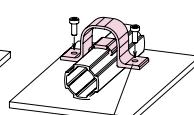
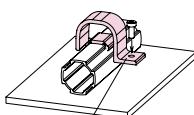
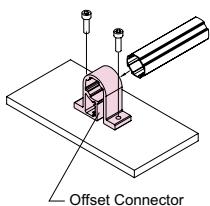
GF Motion

Technical  
Data

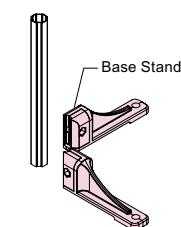
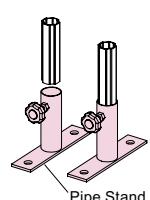
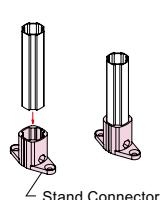
## GF Assembly Method (Fix to Wall and Floor / Impact Holder / Electric Component)

### How to fix to the wall / Floor

Offset Connector P86  
Single Saddle P86  
Double Saddle P86



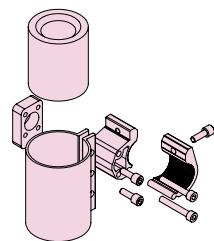
Stand Connector P48  
Pipe Stand A P48  
Pipe Stand G P101  
Base Stand P48



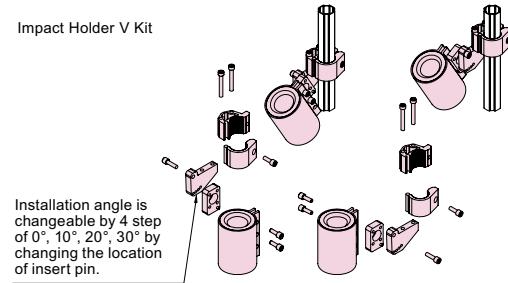
### Impact Holder Installation Method

Impact Holder H Kit P87  
Impact Holder V Kit P87

Impact Holder H Kit



Impact Holder V Kit

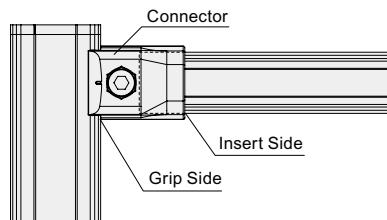


Installation angle is  
changeable by 4 step  
of 0°, 10°, 20°, 30° by  
changing the location  
of insert pin.

# GF Technical Data

## Compatible Frame/Connector Table

## Compatible Frame and Connector List



# Approach to Environment

## 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>).

## 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.

GF-N  
28 mm

GF-G  
43 mm

GF-S  
19 mm

GF Jig

GF Unit

GF Motion

Technical Data



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## Green Frame

The original aluminum tube system, Green Frame, was developed to help manufacturers in all industries become more competitive by supporting Kaizen activities and enabling Karakuri.

## moveXX

Move roll containers and other rolling objects, simply and without physical effort, with the Movexx line of compact and ultra user-friendly push/pull assistants.



## ASUTEC

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## delvo®

Nitto Kohki's "delvo" electric screwdrivers are high-quality tools for professional use, with special emphasis on precise torque control and long-term reliability. "delvo" gives you the ability to get it right, every time.



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Lean Factory's line of branded products, including powered conveyor media such as chains and belts, are functional and interchangeable equivalents to OEM supplied parts.





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**K.HARTWALL**  
**Green Frame**

**movexx**  
**ASUTEC**  
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### About Lean Factory America

Our mission is to supply best-in-class, manufacturing, assembly, and automation components, systems and services to the marketplace. These products aid in the elimination of waste, a cornerstone of lean manufacturing, by helping to eliminate errors, overproduction, inefficient processes, inventory, unnecessary transportation of product and unnecessary movement of personnel. Solutions are also highly configurable and customizable to provide customers with systems that are safe to both their personnel and products.

The result is increased manufacturing efficiency and profitability for the customer.

**Lean Factory America, LLC**

816 E. 3rd Street  
Tel: +1-888-674-2839  
[www.leanfactoryamerica.com](http://www.leanfactoryamerica.com)