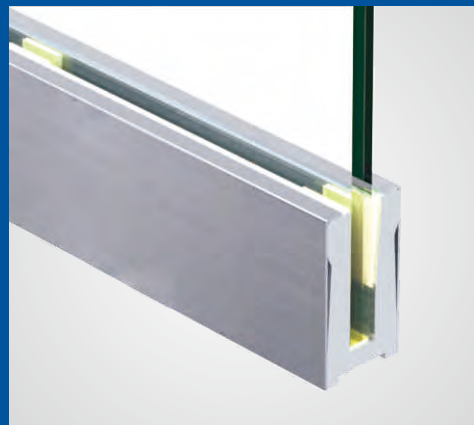
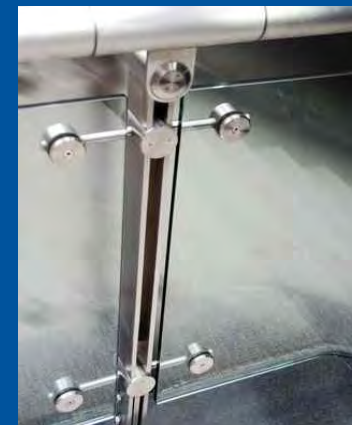




## Post Railing Systems Typical Product Catalogue



Post Railing Systems Typical Product Catalogue



## Content



<b>Balustrade Pillar Series</b>	06
Single-plate Pillar	07
Double-plate Pillar	15
Circular Tube Pillar	23
Square Tube Pillar	27
Rectangular Tube Pillar	29
Flagpole Pillar	31
Lighting Pillar	33
Installation Instructions	35



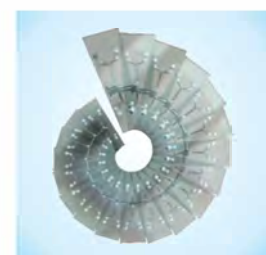
<b>Pillar Fitting Series</b>	39
Point-supported Balustrade Bracket	41
Fin-supported Balustrade Bracket	45
Glass Clamp	50



<b>Glass Support Series</b>	54
Glass Partition Support Fitting	55
Aluminum Alloy U Groove	58
Glass Connector	63



<b>Handrail Fitting Series</b>	64
Handrail Supporting Connected to Glass	65
Handrail Supporting Connected to Wall	68
End Cap	70
Connector	71
Elbow	72
Base Plate	74
Cover Plate	75



<b>Micro Cable Accessories</b>	77
Assembled Staircase	83
Canopy Beam	89
Metro Products	90
Sheet Metal Products	91
Common Used Pipe Specification	92
Common Fasteners Matching Table	93
Typical Projects	94

## Introduction for Product Material

### 一、 Selection of Stainless Steel Material

The followings are primary material properties

- Stainless steel hot-rolled sheet is mainly made of material 316L、304 which conform to standard ASTM A666;
- Stainless steel cold rolled sheet is mainly made of material 316L、304 which conform to standard ASTM A240/240M;
- Stainless steel decoration tube is mainly made of material 316L、304 which conform to standard ASTM A240/240M、ASTM A 269;
- Stainless steel industrial tube(or seamless tube is mainly made of material TP316L、304 which conform to standard ASTM A269;
- Stainless steel rod is mainly made of material 316、304 which conform to standard ASTM A276;
- Casted stainless steel is mainly made of material CF8M、CF8 which conform to standard ASTM A743/A743M;

Note: Please note the requirement of material when you place the order.

### 二、 The Chemical Composition of Stainless Steel

UNS	Chemical Composition %									
	C ≤	Mn ≤	P ≤	S ≤	Si ≤	Cr	Ni	Mo	N	Other Element
304	0.08	2.00	0.045	0.030	1.00	18.00 ~ 20.00	8.00 ~ 11.00	—	—	—
316	0.08	2.00	0.045	0.030	1.00	16.00 ~ 18.00	10.00 ~ 14.00	2.00 ~ 3.00	—	—
316L	0.03	2.00	0.045	0.030	1.00	16.00 ~ 18.00	10.00 ~ 14.00	2.00 ~ 3.00	—	—
TP316L	0.035	2.00	0.045	0.030	1.00	16.00 ~ 18.00	10.00 ~ 15.00	2.00 ~ 3.00	0.10 ~ 0.16	—
CF8	0.08	1.50	0.04	0.04	2.00	18.00 ~ 21.00	8.00 ~ 11.00	—	—	—
CF8M	0.08	1.50	0.04	0.04	2.00	18.00 ~ 21.00	9.00 ~ 12.00	2.00 ~ 3.00	—	—

# STAINLESS STEEL MAINTENANCE ELUCIDATION

## I Matters Need Attention When Storing and Installing

- ① Goods should be avoided being scratched and bruised when unloading;
- ② Goods should be stored in dry and ventilated place, and avoid being caught in the rain, being struck, or being corroded by corrosive medium;
- ③ Measures need to be taken to protect the surface of pillars and their accessories from being contaminated by cement mortar and dust. Pack the products with paper or cloth that can resist water and dust. Acidic or alkaline liquid is forbidden to contact with the goods;
- ④ Fix pillars onto ground with expansion bolt or through welding on embedded parts, and fix pillar accessories onto pillars with rivet or screws, or through welding on the pillars.
- ⑤ Insure there is no mounting pads and gaskets been neglected.
- ⑥ Coat expansion bolts with anaerobe in advance when screw nuts in case they get loosened;
- ⑦ Insure pillars are perpendicular to the ground when install them;
- ⑧ Add gaskets or cushion block between glass and hardware in case they contact directly.
- ⑨ Stainless steel products should be cleaned and maintained regularly, as they will get rusted in terrible environment.

## II Some usual contaminants of stainless steel and cleaning method

- ① Soap and some other weak detergents could be used for dusts and other contaminants which could be eliminated easily;
- ② Brand paper and pad pasting could be washed away with warm water and weak detergents, and ethyl alcohol and organic solvent such as diethyl ether and benzene could be used to eliminate binder.
- ③ Grease, oil and lubricating oil sticking onto surface of stainless steel could be eliminated by wiping up with soft cloth, and then cleaning up with neutral detergent, ammonia solution or special purpose detergent.
- ④ If there are decolorizer and other acid liquid stick onto surface, wash up immediately with water, and then with ammonia solution or neutral soda liquid, and at last with neutral detergent or warm water.
- ⑤ Rainbow-like stripes emerged on surface of stainless still are caused by excessive use of detergent or oil, and they could be washed up by warm water.
- ⑥ Rust caused by contaminants could be washed up with liquid contains 10% of nitric acid or with

special detergent.

- ⑦ Cement and mortar splashed onto stainless steel should be washed away before they get solidified, or it will be difficult to eliminate them with stainless steel intact.
- ⑧ Contaminants such as scum caused by using of tools, dusts produced by using of abrasive cut-off wheel, splashed slag created when oxyacetylene flaming, and carbon steel contaminant caused by long-time-contact with carbon steel, could be eliminated with special glue or liquid contains 10% of phosphoric acid, then ammonium hydroxide, and at last cold water; or with oxalic acid wets stainless steel for 15 minutes, then wash up with cold water, and dry at last.

## III Matters Need Attention in Daily Maintenance

- ① Wipe surface of stainless steel, especially mirror-finished stainless steel, with soft cloth to avoid damaging products. Wipe along the grain on the surface when it comes to drawbench-surface
- ② It should be avoided to use scrubbing solution with bleaching composition, steel-wire-ball or lapping tool to wash up stainless steel. Do not forget to clean up with water after washing up.
- ③ Be clear of regulations about disposition of chemical agent and regulations about environmental protection and health. Regulations about emissions of sewage and acid liquid, and disposition of plastic film should be specially noted.

## IV Maintenance Period

Stainless steel products should be cleaned once to twice one year. Different maintenance period could be adopted according to local environment the products applied.

Environment		Villages And Towns (Times per Year)	City (Times per Year)	Industrial District		Coastal District	
Location	Structure			General Environment (Times per Year)	Corrosion Environment (Times per Year)	General Environment (Times per Year)	Corrosion Environment (Times per Year)
Out-Door	without Contaminants Accumulated	1 ~ 2	1 ~ 2	2 ~ 3	3 ~ 4	2 ~ 3	3 ~ 4
	with Contaminants Accumulated	2 ~ 3	3 ~ 4	3 ~ 4	4 ~ 5	3 ~ 4	4 ~ 5
In-Door	without Contaminants Accumulated	1 ~ 2	2 ~ 3	3 ~ 4	4 ~ 5	3 ~ 4	4 ~ 5
	with Contaminants Accumulated	2 ~ 3	4 ~ 5	4 ~ 5	5 ~ 6	4 ~ 5	5 ~ 6





**Product Features:**

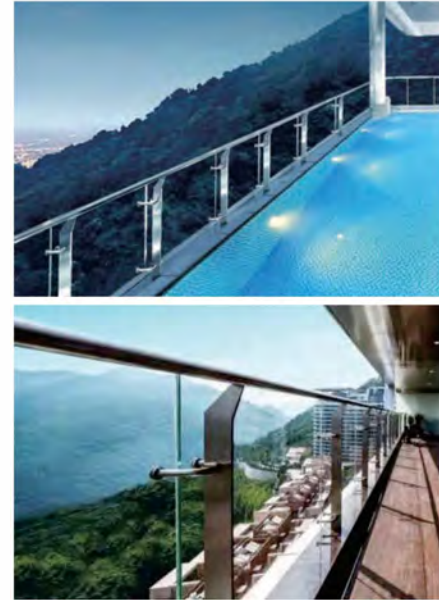
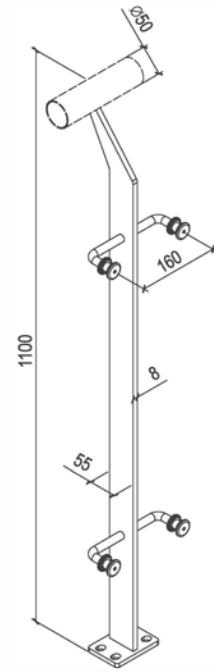
1. Adopt ASTM standard stainless steel material with good mechanical properties and corrosion resistance.
2. With high safety performance, simple design, strong permeability, overall beautiful and generous characteristics, it is the mainstream trend in the market.



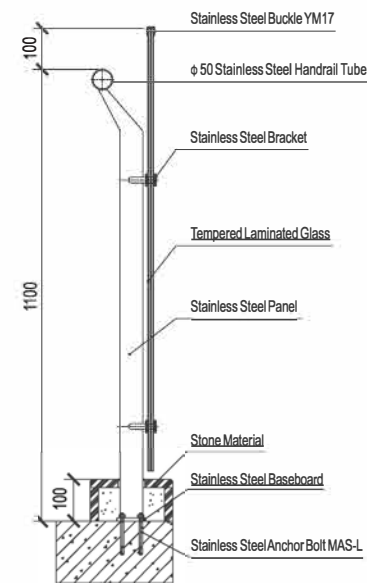
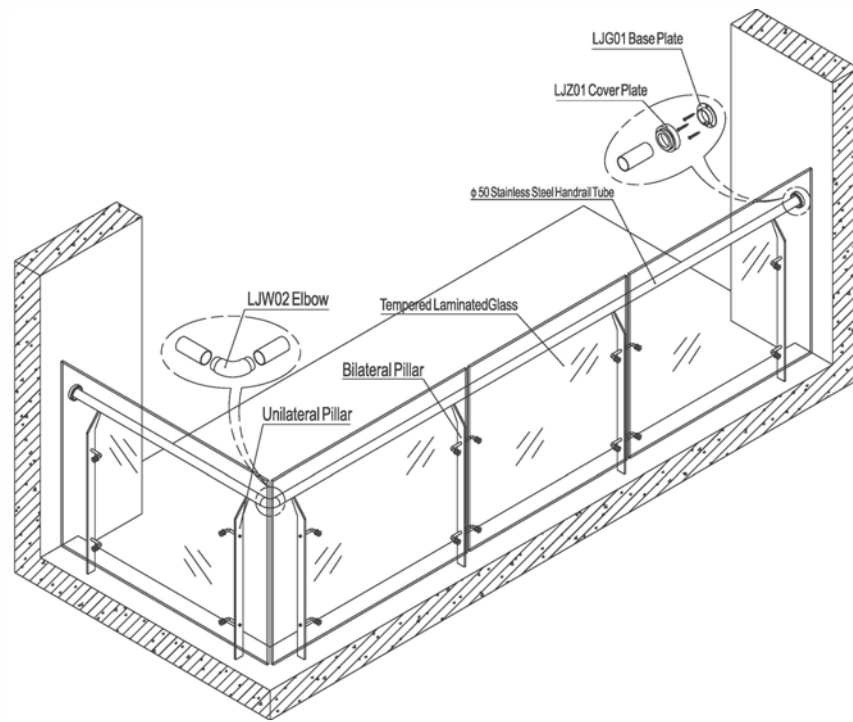
## Single-plate Pillar: HLBD2AB



Material: 304  
Surface Finish: Satin  
Glass Thickness: 12~17.5mm

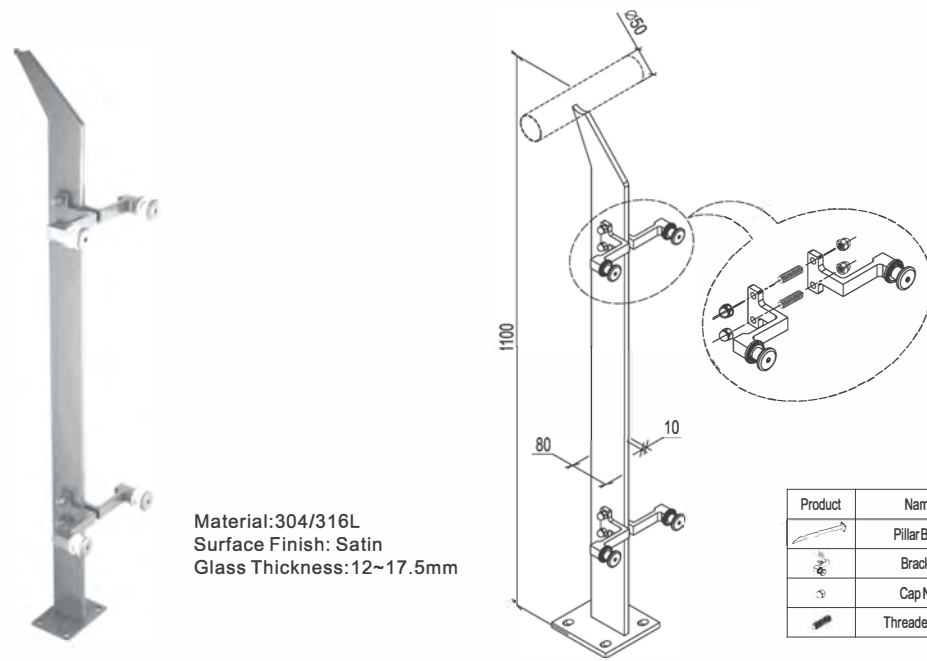


Bilateral Pillar: HLBD2AB1-1  
Unilateral Pillar: HLBD2AB2-1/HLBD2AB3-1





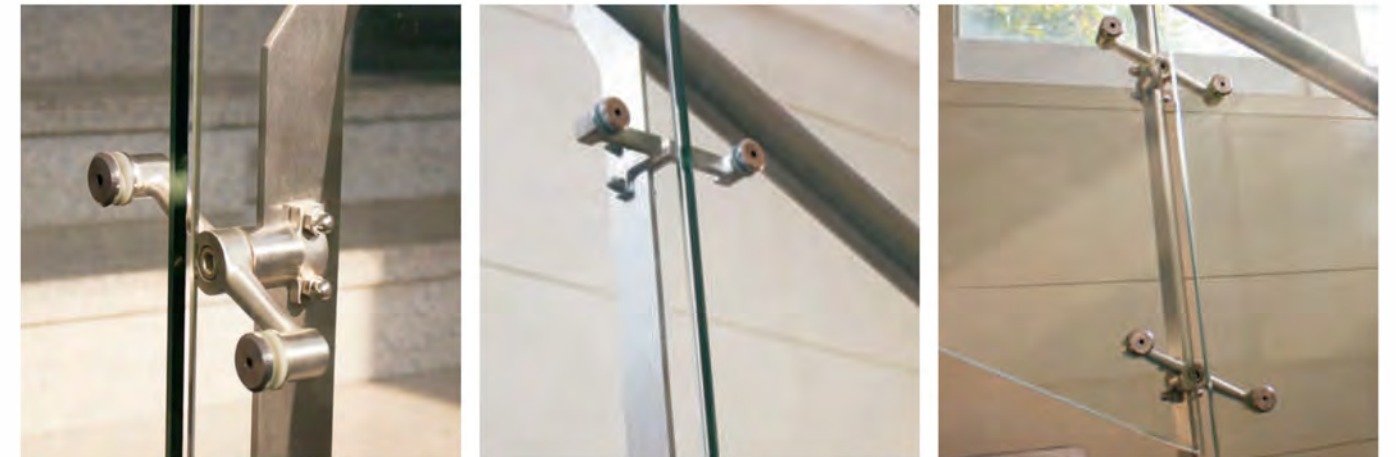
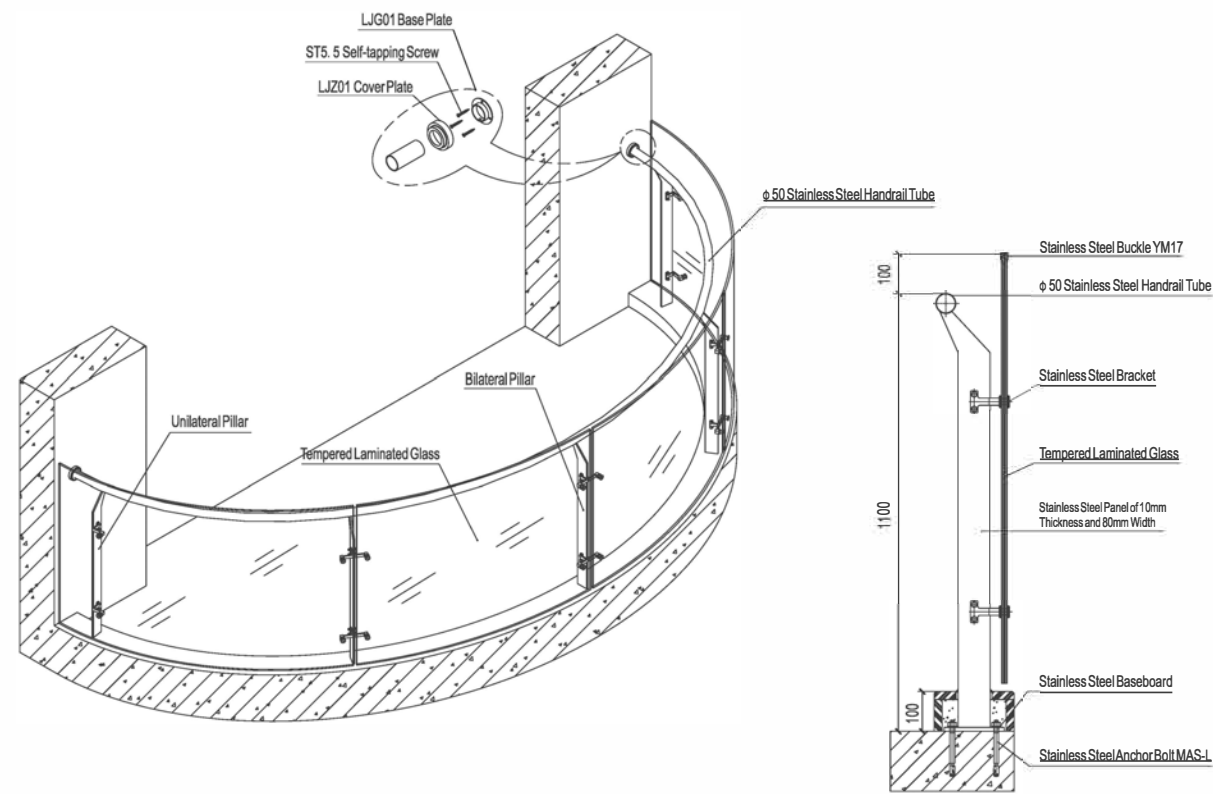
## Single-plate Pillar:HLBD2



Material: 304/316L  
Surface Finish: Satin  
Glass Thickness: 12~17.5mm

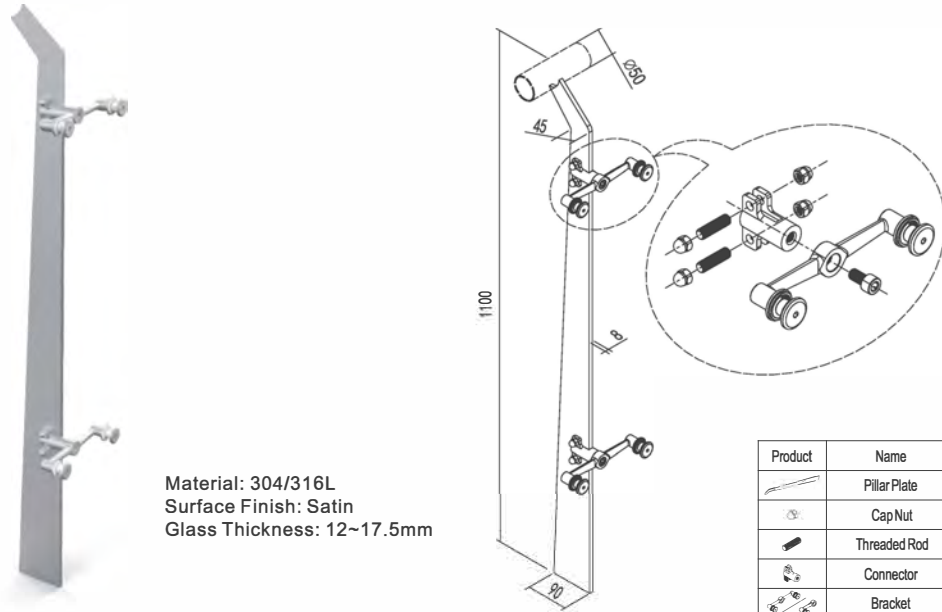
Product	Name	Type Code	Quantity
	Pillar Body	HLBD2-T	1
	Bracket	LT02	4
	Cap Nut	DIN 1587 M8	8
	Threaded Rod	GB/T 15389 M8*45	4

Bilateral Pillar: HLBD2-LT02M  
Unilateral Pillar: HLBD2-LT02





## Single-plate Pillar:HLBD12

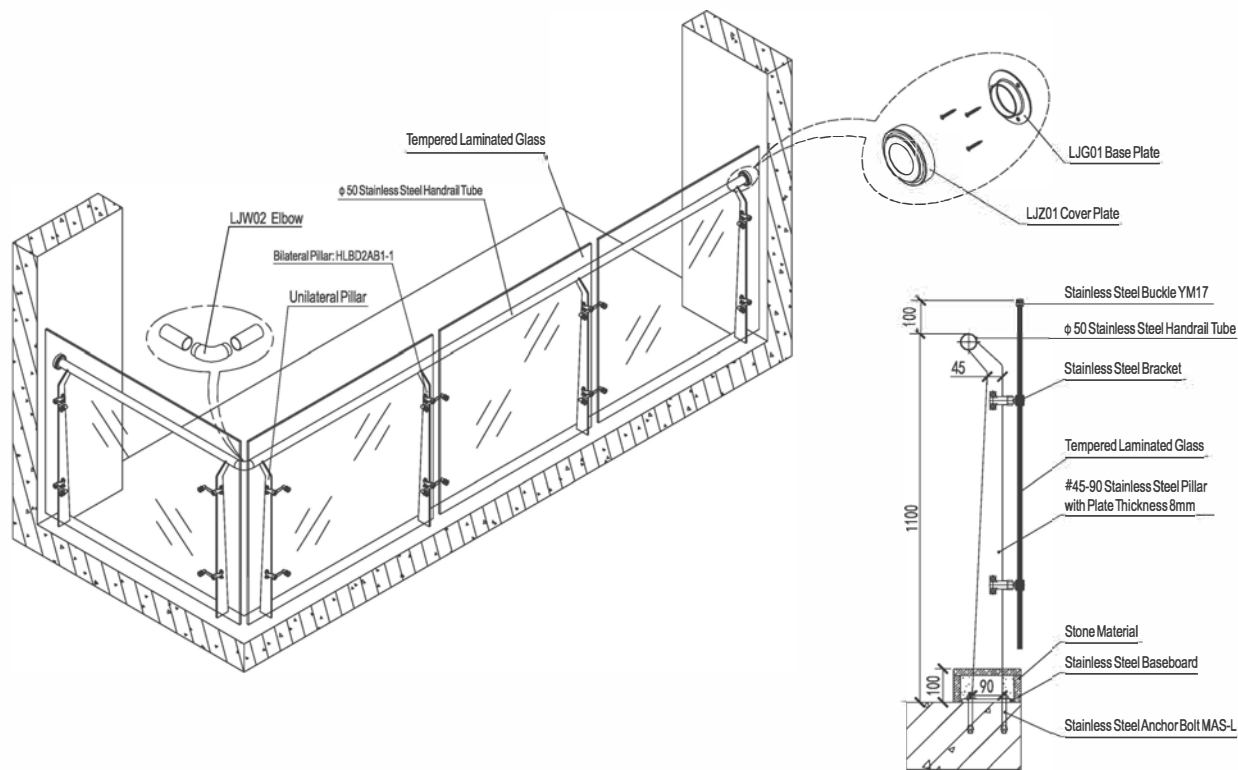


Material: 304/316L  
Surface Finish: Satin  
Glass Thickness: 12~17.5mm

Product	Name	Type Code	Quantity
	Pillar Plate	HLBD12-T	1
	Cap Nut	DIN 1587 M8	8
	Threaded Rod	GB/T 15389 M6*40	4
	Connector	L01C-8	2
	Bracket	T10M(H01)/T10(H01)	2
	Hexagon Socket Cap Screw	DIN912 M10*16	2

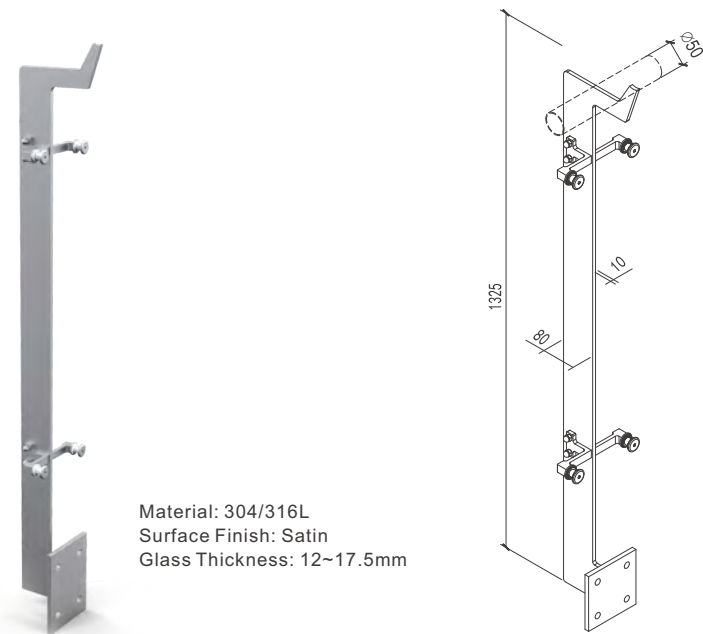
Bilateral Pillar: HLBD12-T10M(H01)  
Unilateral Pillar: HLBD12-T10(H01)

Note: The pillar doesn't contain baseboard.





### Single-plate Pillar:HLBD13

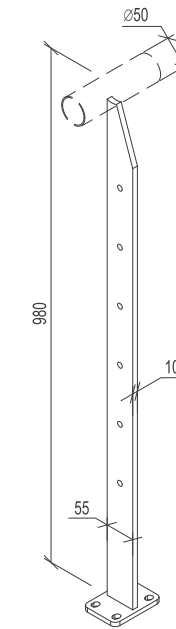
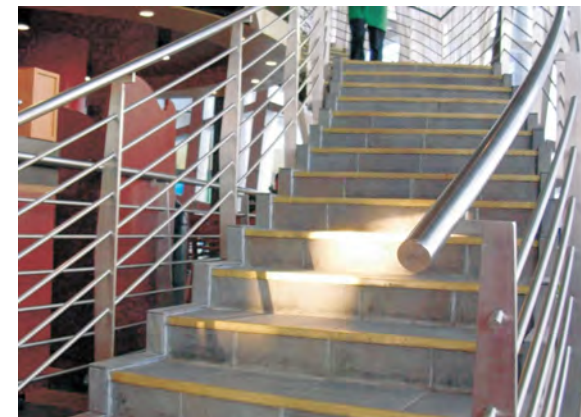


Material: 304/316L  
Surface Finish: Satin  
Glass Thickness: 12~17.5mm

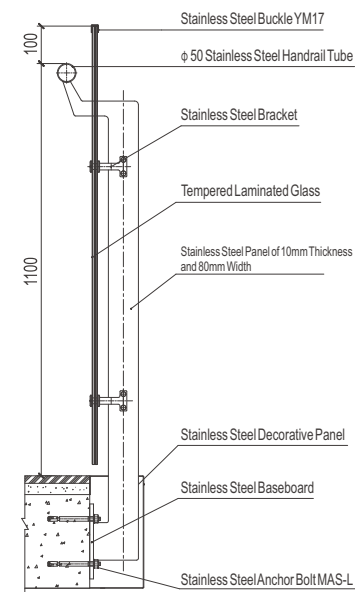
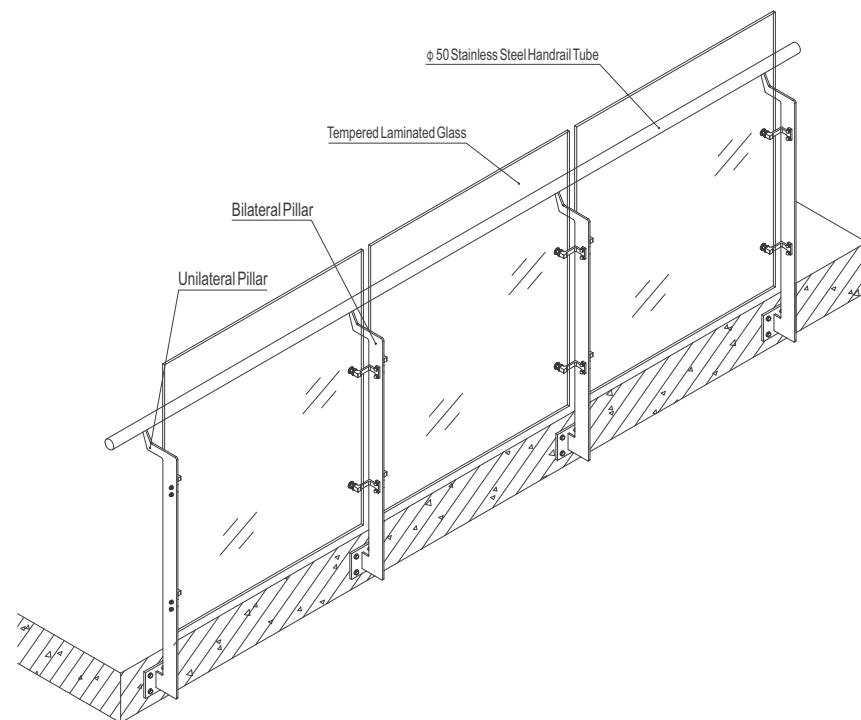
Bilateral Pillar: HLBD13-LT02M  
Unilateral Pillar: HLBD13-LT02



### Single-plate Pillar:HLGD1

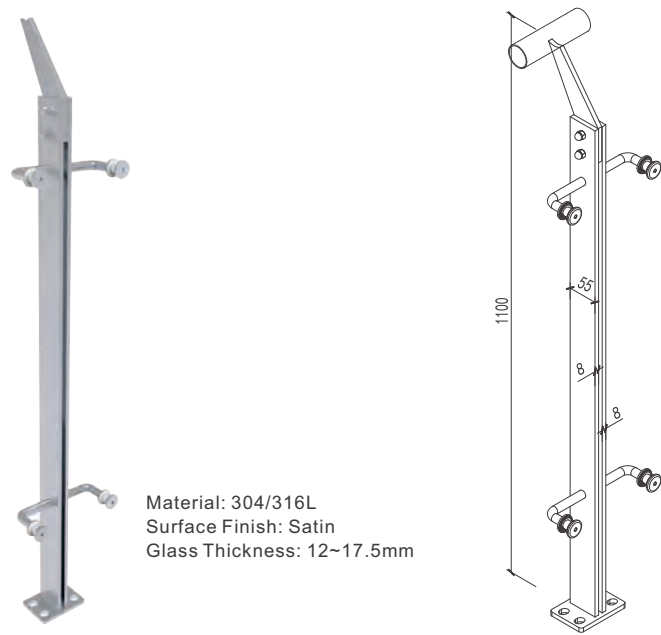


Material:304/316L  
Surface Finish: Satin  
Troughed Rod Diameter:  $\phi 10$



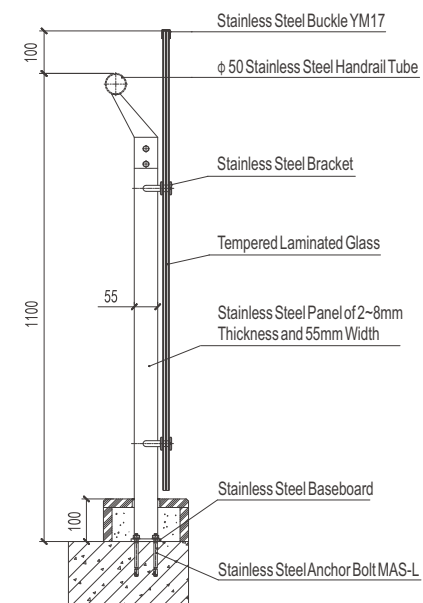
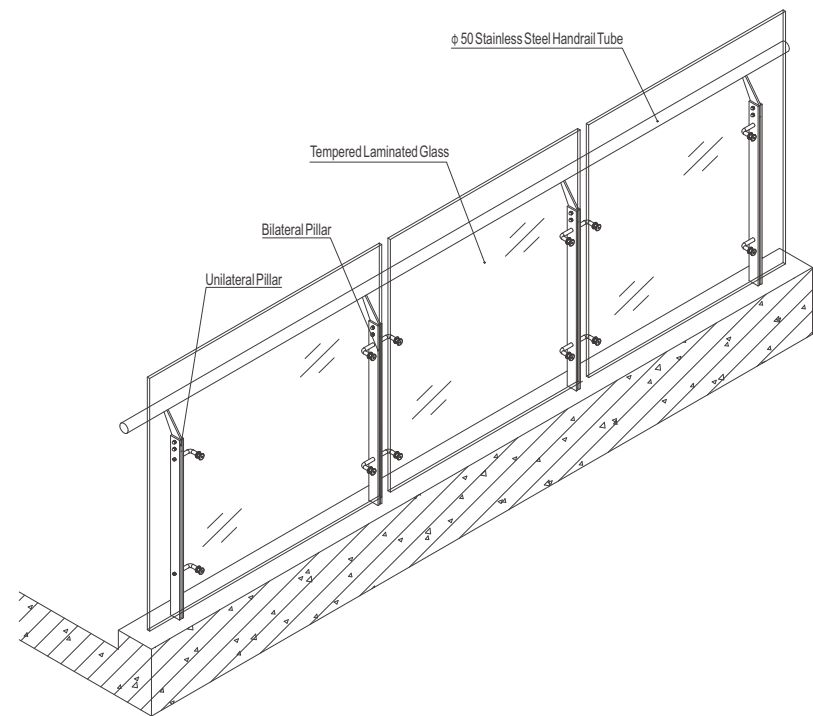


## Double-plate Pillar: HLBS15



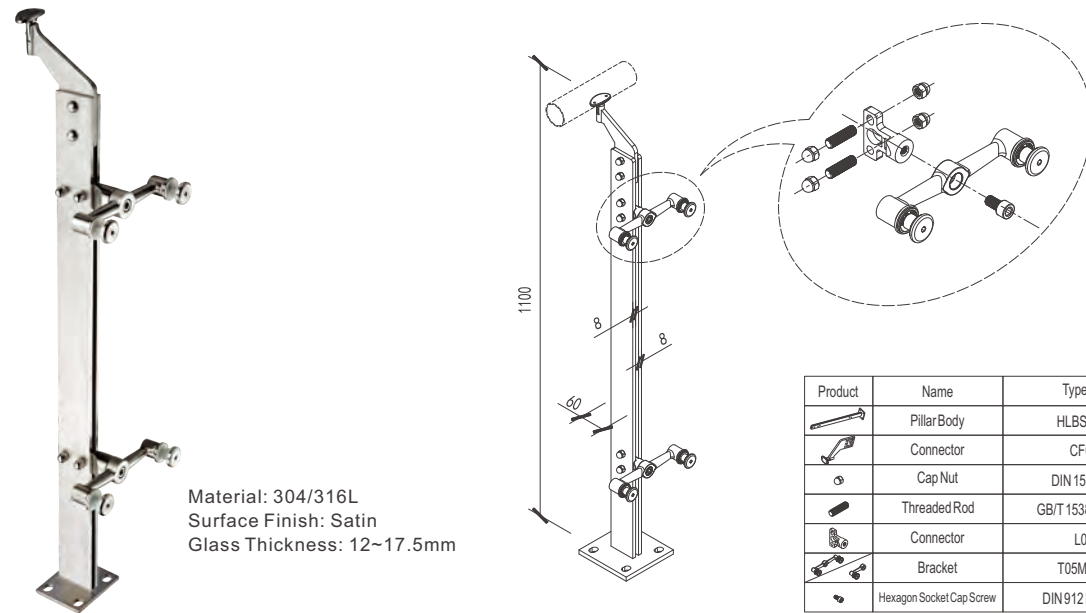
Material: 304/316L  
Surface Finish: Satin  
Glass Thickness: 12~17.5mm

Bilateral Pillar: HLBS15-M  
Unilateral Pillar: HLBS15-L/HLBS15-R





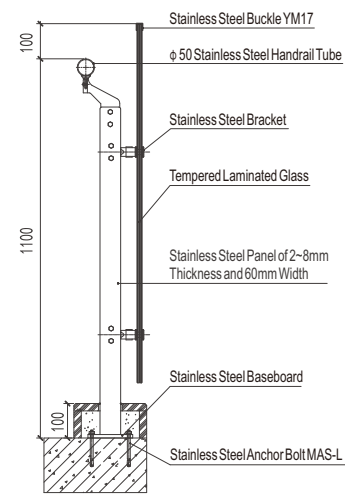
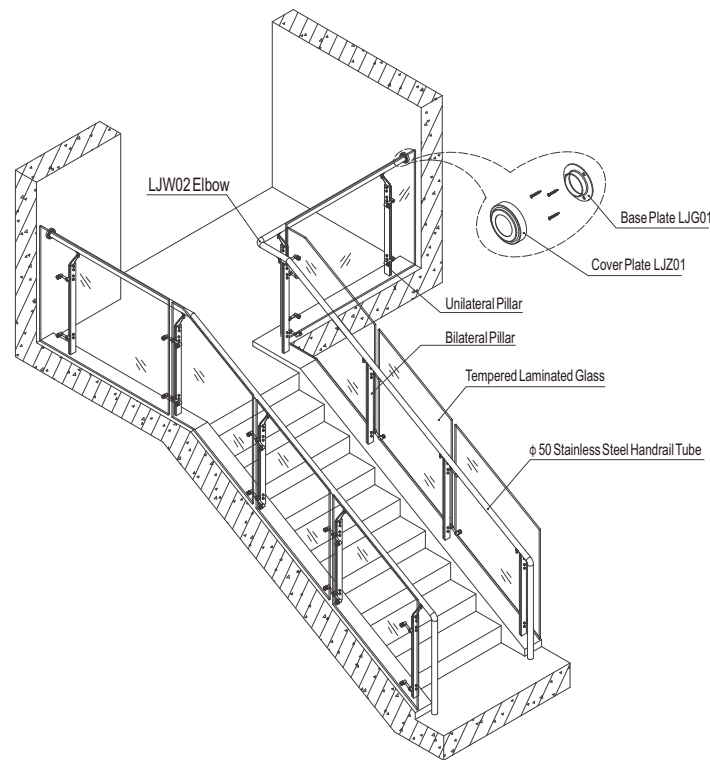
## Double-plate Pillar: HLBS16



Material: 304/316L  
Surface Finish: Satin  
Glass Thickness: 12~17.5mm

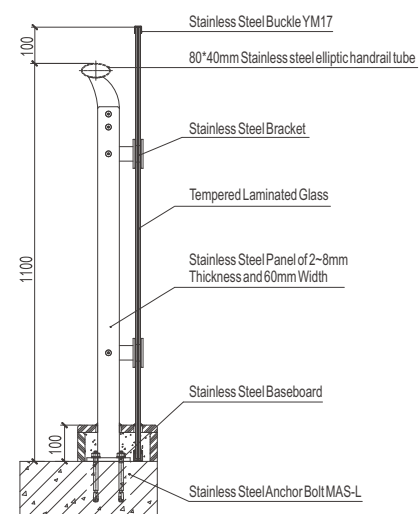
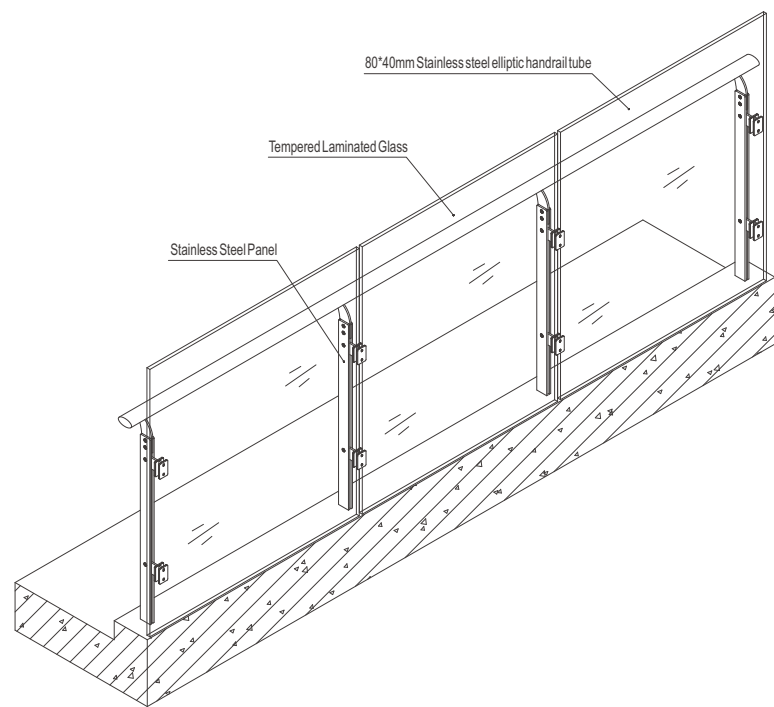
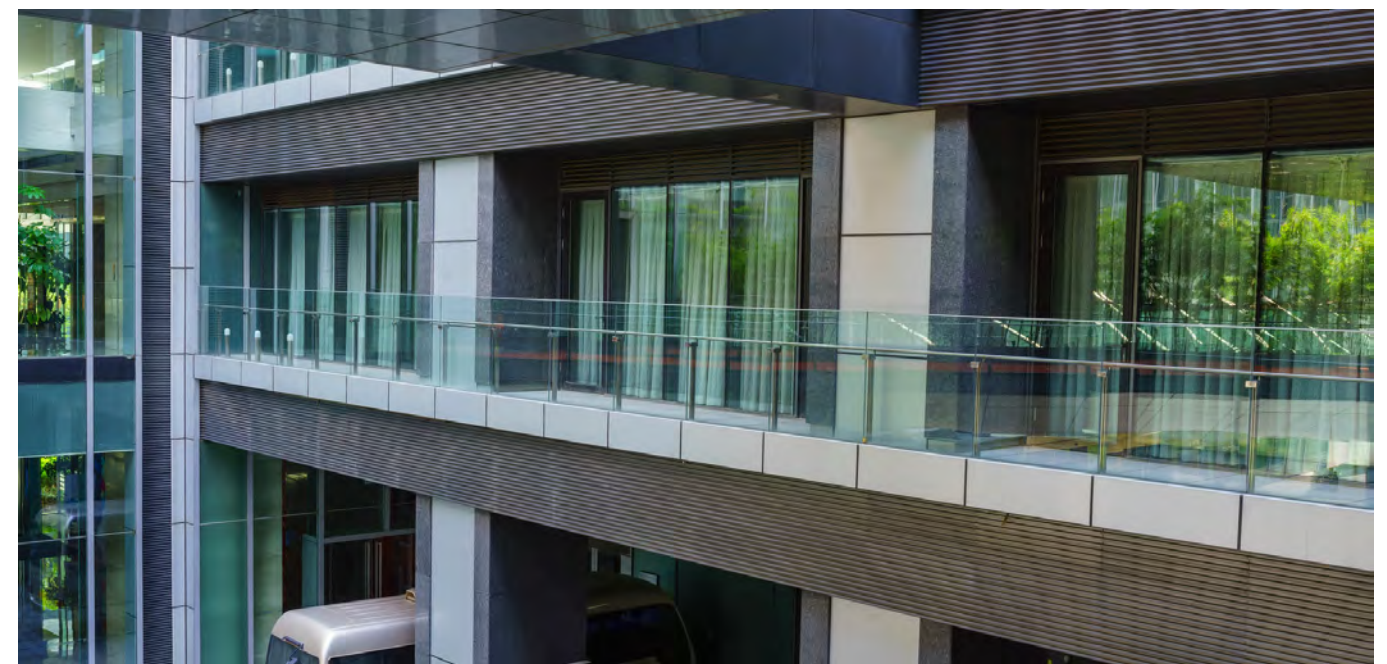
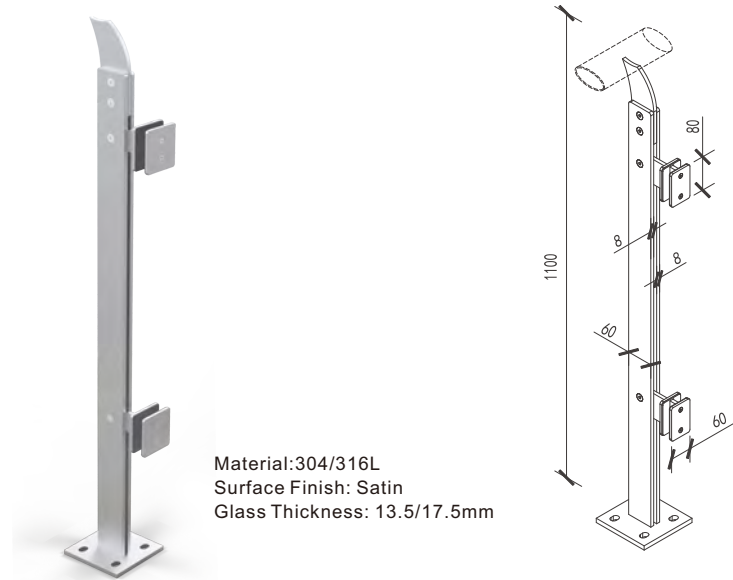
Product	Name	Type Code	Quantity
	Pillar Body	HLBS16-T	1
	Connector	CF04	1
	Cap Nut	DIN 1587 M8	12
	Threaded Rod	GB/T 15389 M8*45	6
	Connector	L03	2
	Bracket	T05M/T05	2
	Hexagon Socket Cap Screw	DIN912M10*16	2

Bilateral Pillar: HLBS16-T05M  
Unilateral Pillar: HLBS16-T05





## Double-plate Pillar: HLBS17

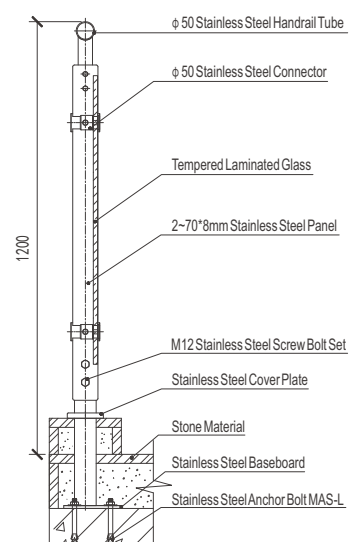
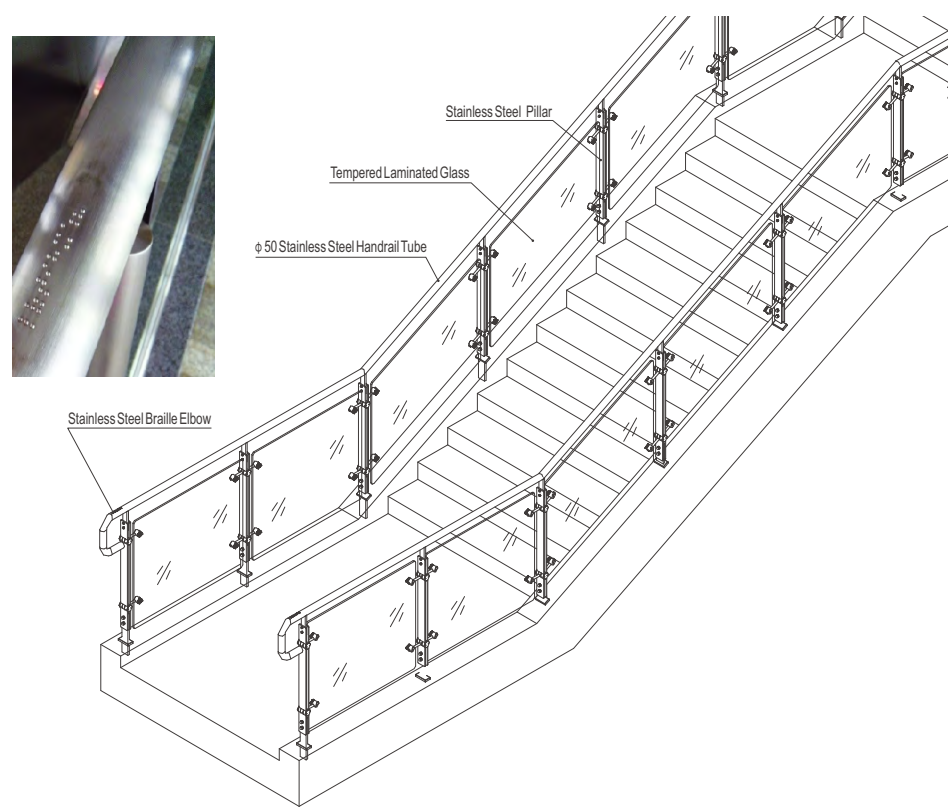
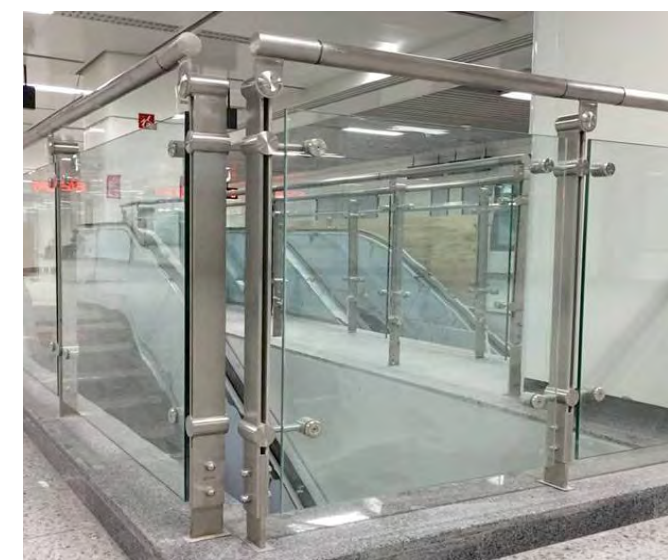
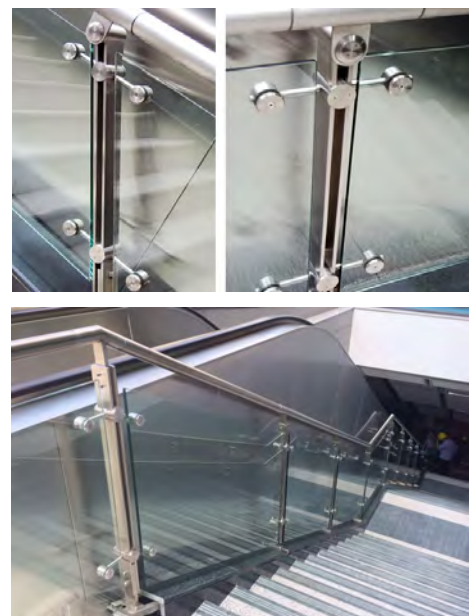
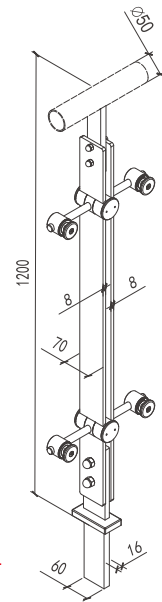




## Double-plate Pillar: HLBS18



Material: 304/316L  
 Surface Finish: Satin  
 Glass Thickness: 12~17.5mm  
 Note: The pillar doesn't contain baseboard.

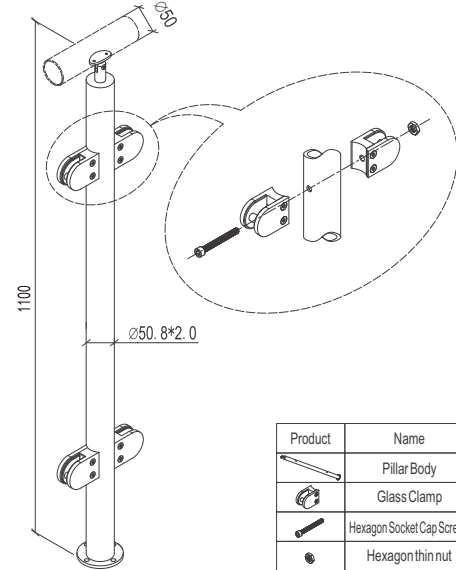




## Circular Tube Pillar:HLBY1



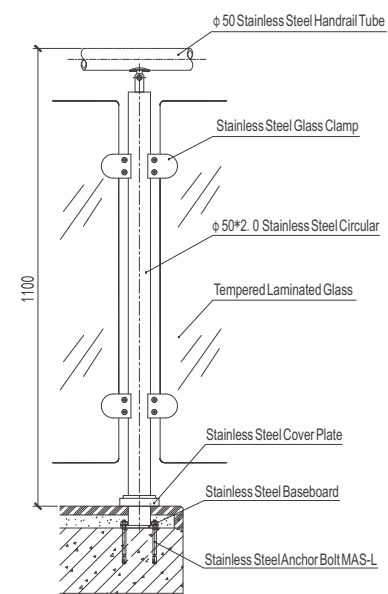
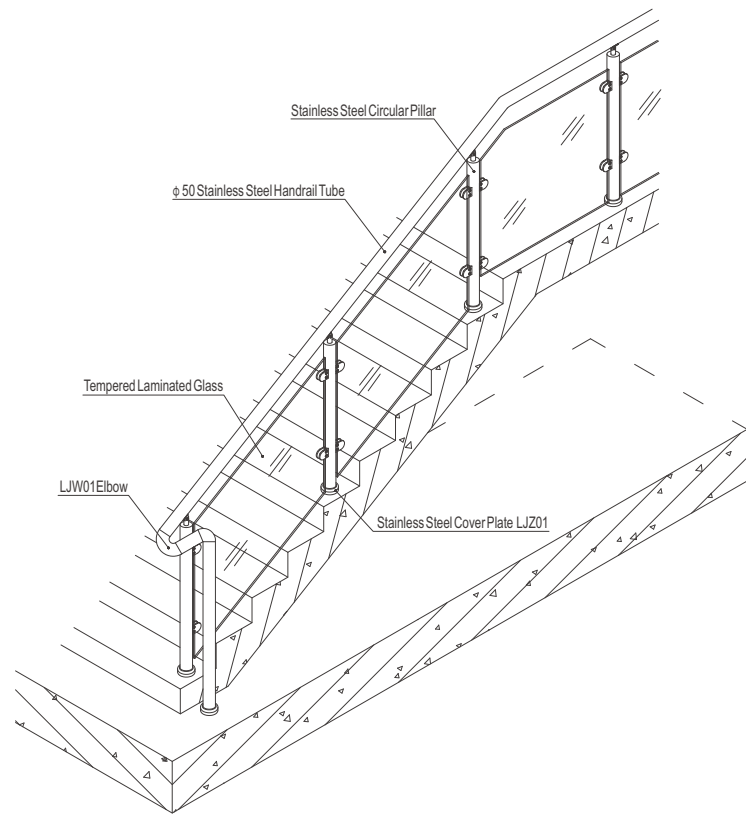
Material: 304/316L  
Surface Finish: Satin  
Glass Thickness: 12~17.5mm



Product	Name	Type Code	Quantity
	Pillar Body	HLBY1-B	1
	Glass Clamp	B04AF	4
	Hexagon Socket Cap Screws	DIN 912 M8*L	2
	Hexagon thin nut	GB/T 6172.1	2

Note: The pillar doesn't contain cover plate, but it can be matched additionally.

Bilateral Pillar: HLBY1-B04AFM  
Unilateral Pillar:HLBY1-B04AF

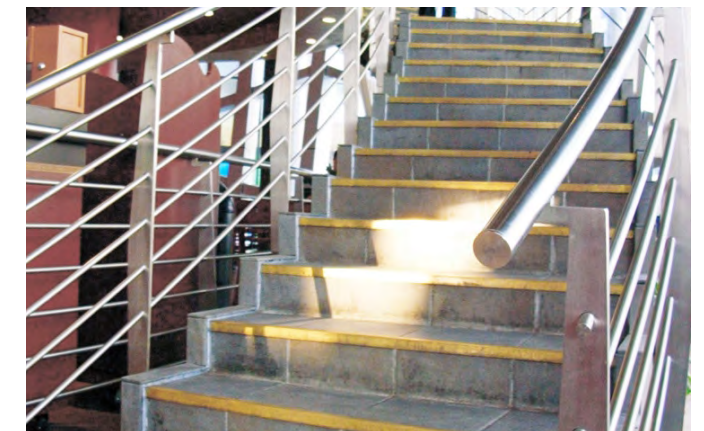
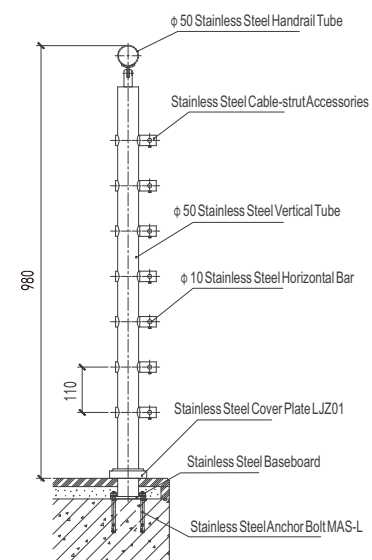
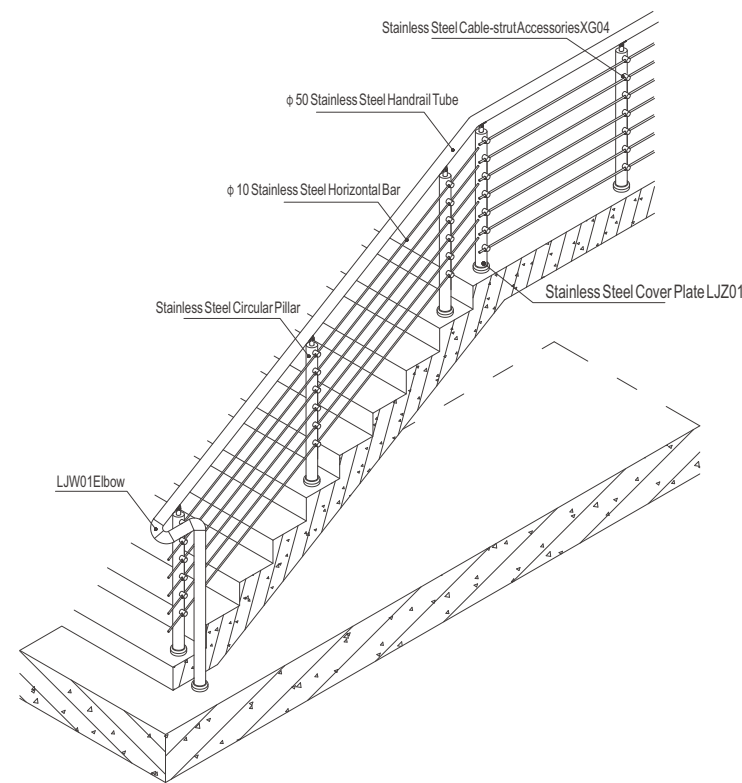
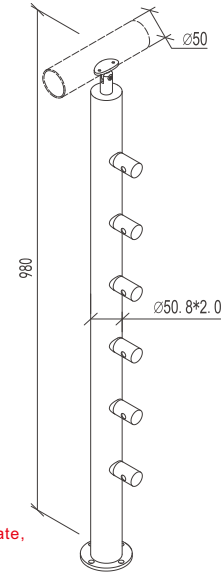




## Circular Tube Pillar:HLGY1



Material: 304/316L  
 Surface Finish: Satin  
 Note: The pillar doesn't contain cover plate,  
 but it can be matched additionally.

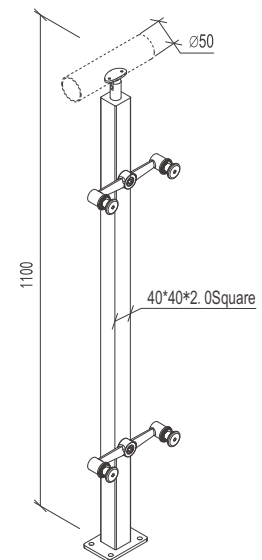




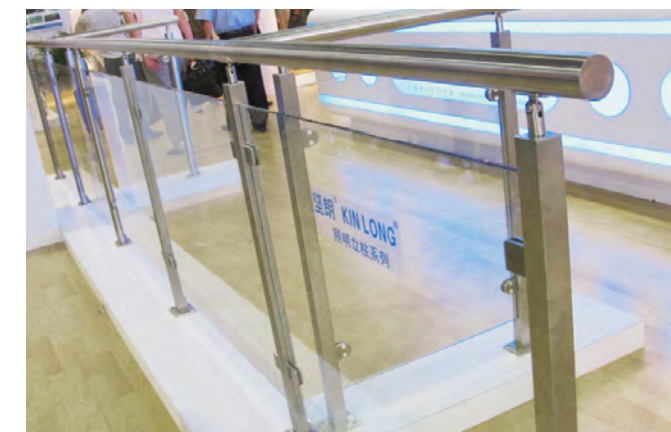
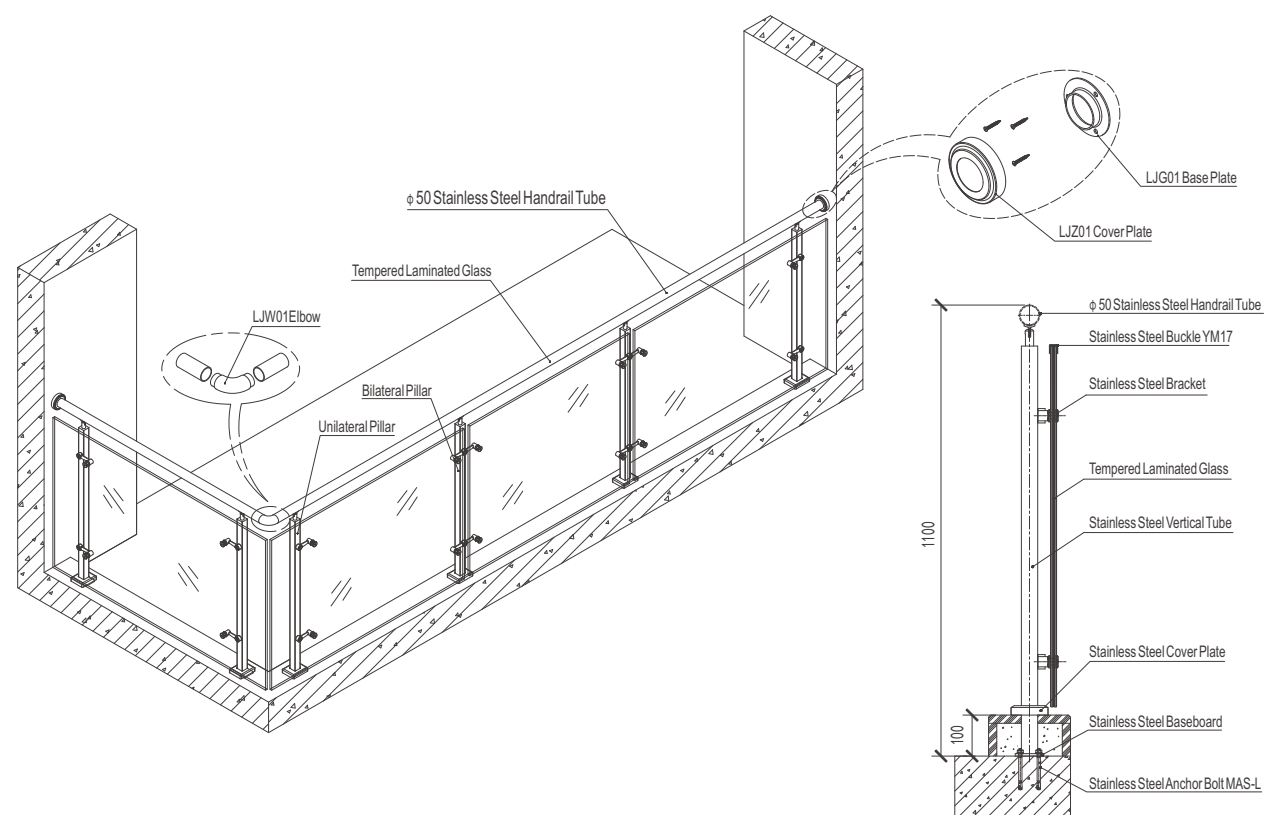
## Square Tube Pillar:HLBF1



Material:304/316L  
Surface Finish: Satin  
Glass Thickness: 12~17.5mm

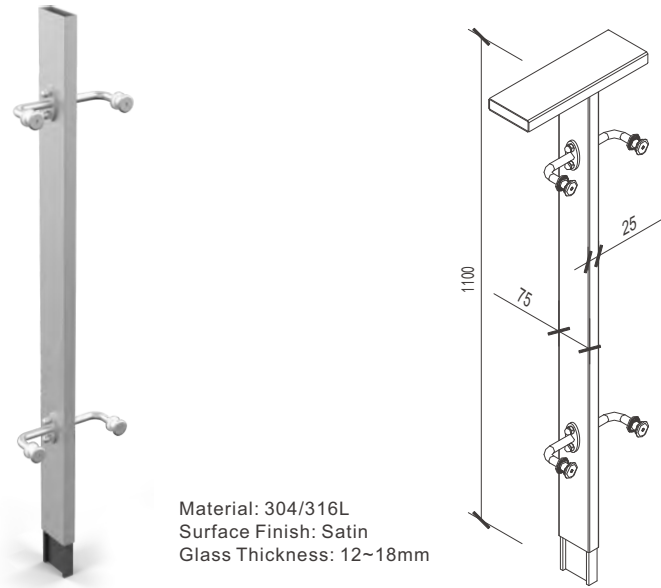


Bilateral Pillar: HLBF1-T05M  
Unilateral Pillar: HLBF1-T05



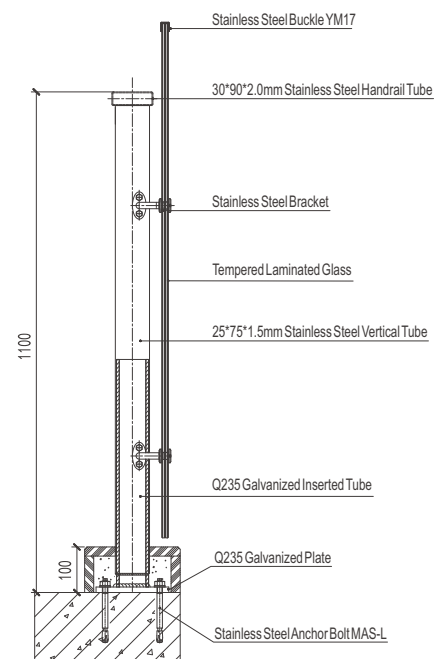
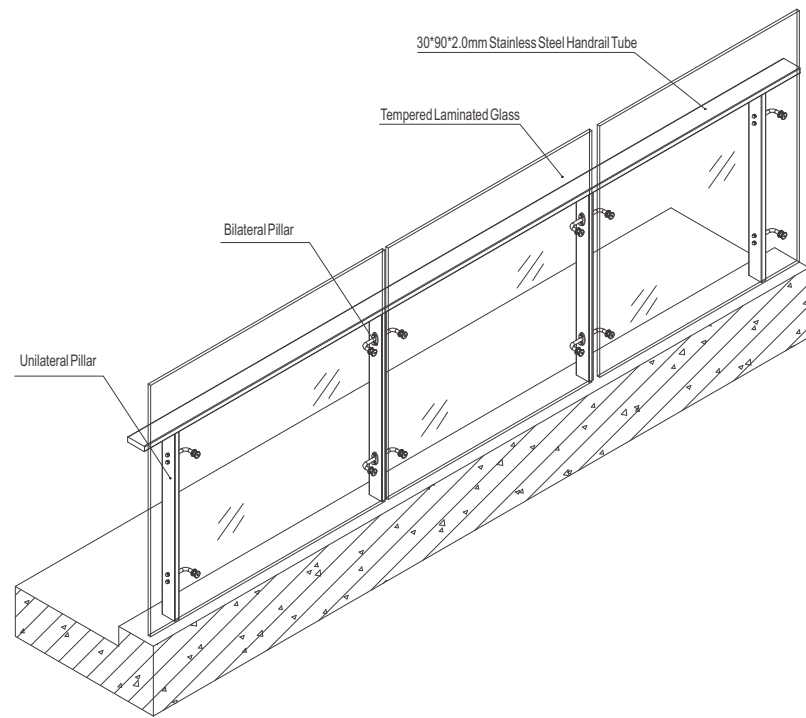


## Rectangular Tube Pillar: HLBJ5



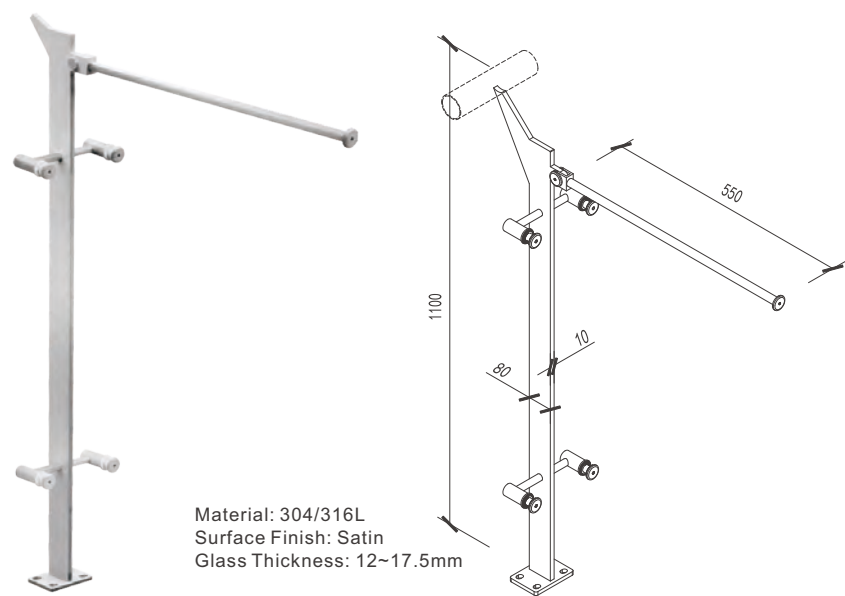
Material: 304/316L  
Surface Finish: Satin  
Glass Thickness: 12~18mm

Bilateral Pillar: HLBJ5-LT14M  
Unilateral Pillar: HLBJ5-LT14





## Flagpole Balustrade Pillar:HLQB1

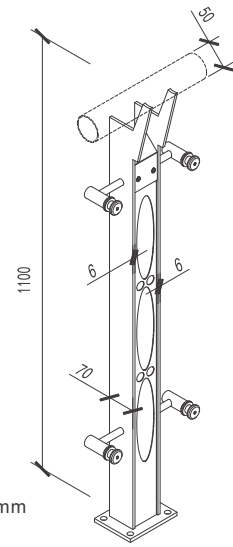


**Product Features:**  
Flagpole staircase pillar is commonly used in the place like shopping mall, atrium, etc;. The post railing fits together perfectly with flagpole which makes the appearance simple and generous. It is convenient to change AD flag.

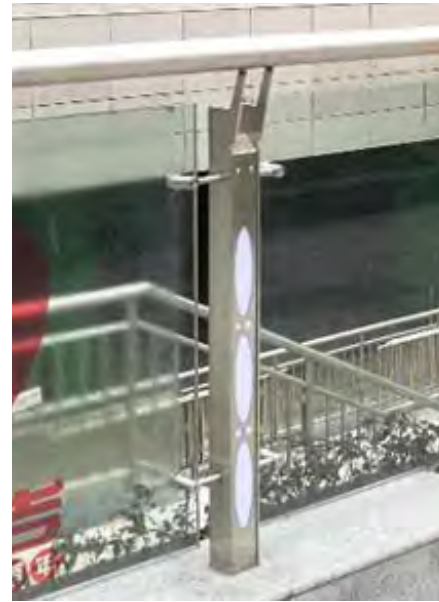




## Lighting Pillar: HLMD2



Material: 304/316L  
 Surface Finish: Satin  
 Glass Thickness: 12~17.5mm



Bilateral Pillar: HLMD2-LT01M  
 Unilateral Pillar: HLMD2-LT01

**Product Features:** The lighting balustrade pillar is commonly used in the place like shopping mall ,atrium, footbridge, etc; Constructional protection and light decoration come together cleverly. This series of products have a novel structure and concise appearance.





## Installation of Post Railing on Ground

### Step 1 :Setting-out Route and Drilling Hole

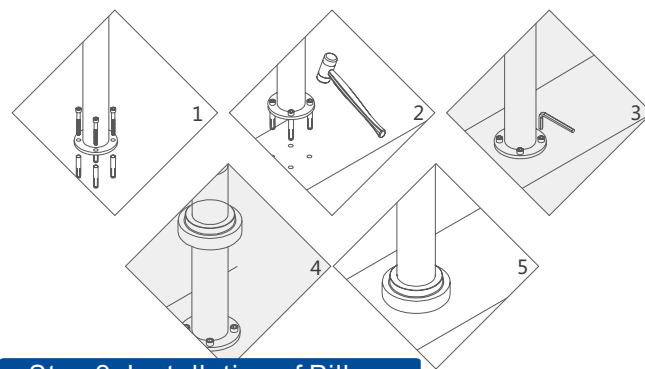
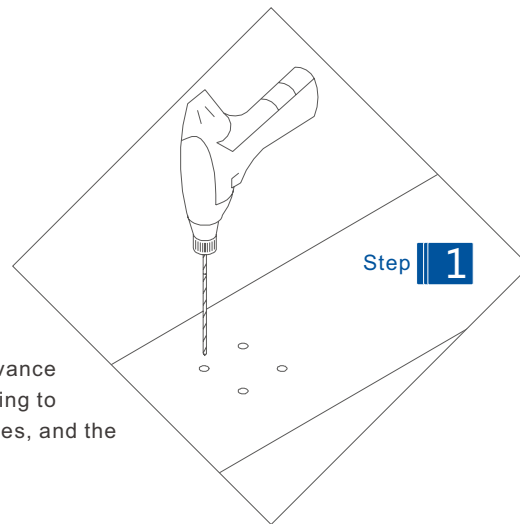
#### I . Fixation of Expansion Bolt

- Install on the floor
- Install on the structure panel

Flat the installation surface and then inspect the flatness with levelling instrument. Embedded parts should be installed in advance before installation, and then set out route and drill holes according to drawings. Setting out route should be aligned with drilling of holes, and the width between two pillar-center should not exceed 1200mm

#### II. Welding of Embedded Parts

According to drawing, the embedded parts should be installed when pouring concrete structure, and the embedded parts should be horizontally installed, besides, the width between two pillar-center should not exceed 1200mm.



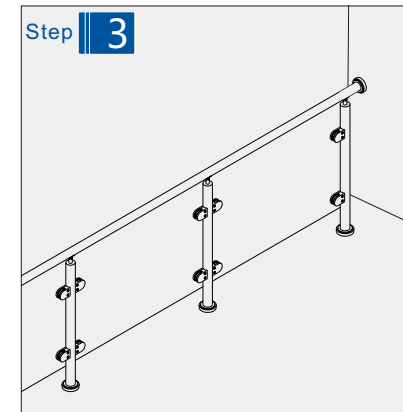
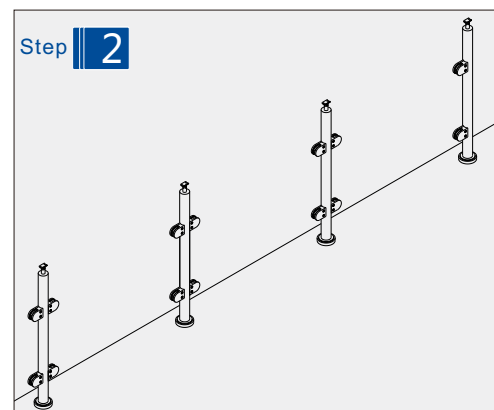
### Step 2: Installation of Pillars

#### I . Fixation of Expansion Bolt

- Flat the installation surface
- Cleaning up slag in the holes after drilling
- Align the hole in the bottom of pillar with the hole predrilled, insert expansion bolt and strike in, so the pillar could be stick to the ground
- Screw up the bolt so as to fix the pillar

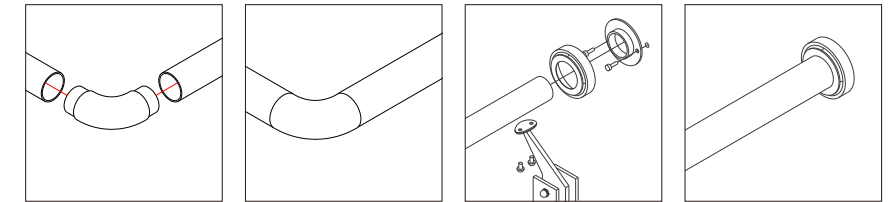
#### II. Welding of Embedded Parts

- Stretch wire straightly so as to determine the installation sites of pillar
- Add steel discs if the embedded parts are not horizontally installed, but this step is not necessary if the pillar is not adjustable
- The material of electrode should be the same as the one of pillar when welding



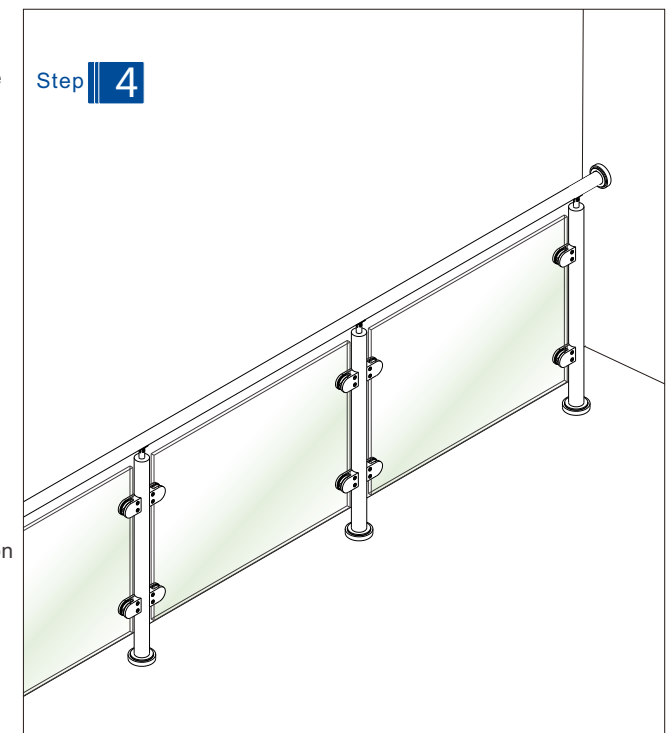
### Step 3: Installation of Handrail

- Measure the needed length of handrail ,and determine the fitting needed.
- Drill holes to screw in bolt, and fix handrail on the wall.
- Sleeve cover plate around the handrail, and sleeve the handrail around the base plate, then place the handrail onto the handrail supporter, adapt the handrail to supporter, and then connect them through welding or with bolt.
- Weld handrails with elbow at turning, and welding is adopted when connecting two pieces of handrail.
- Polish welded joints after welding.



### Step 4 :Glass Installation

- Dispatch the upper clamp on the pillar and take the dowel out.
- Place glass into bottom clamp and insert dowel the hole in glass and the hole in clamp coincident.
- Resume the upper clamp and insert dowel.



### Step 5:Cleaning

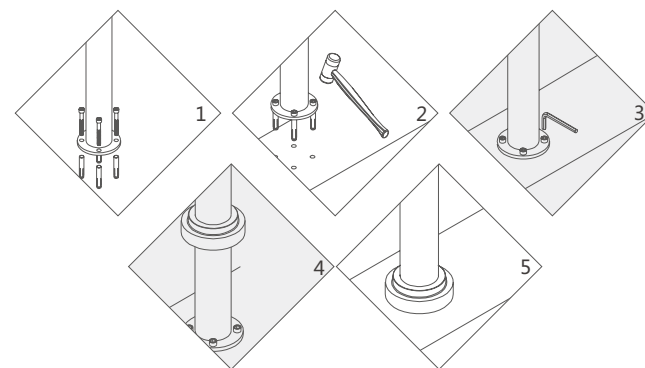
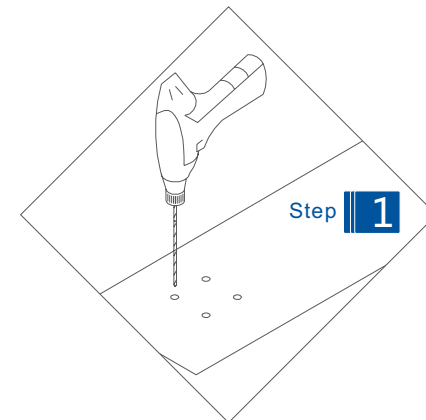
Wrap the post railing after cleaning until the construction work completes so as to avoid damages to it when constructing.



## Installation of Post Railing on Staircase

### Step 1 :Setting-out Route and Drilling Hole

1. Level installation surface on each step.
2. Cleaning up slag in the holes after drilling;
3. Align the hole in the bottom of pillar with the hole predrilled, insert expansion bolt and strike in, so the pillar could be stick to the ground.
4. Screw up the bolt so as to fix the pillar.



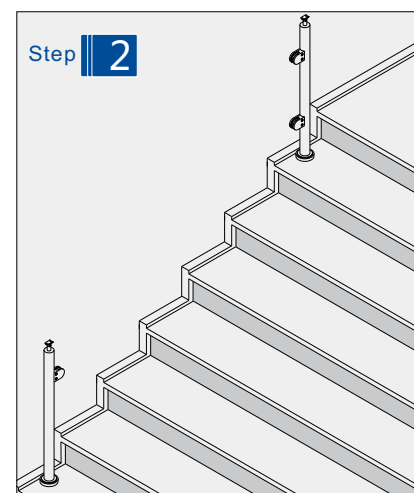
### Step 2: Installation of Pillars

#### I . Fixation of Expansion Bolt

- a. Flat the installation surface
- b. Cleaning up slag in the holes after drilling
- c. Align the hole in the bottom of pillar with the hole predrilled, insert expansion bolt and strike in, so the pillar could be stick to the ground.
- d. Screw up the bolt so as to fix the pillar.

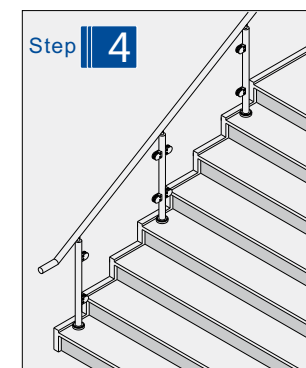
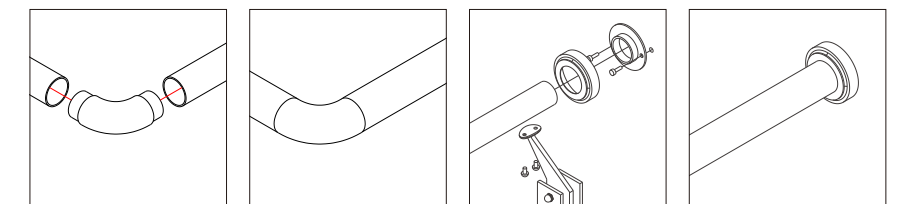
#### II. Welding of Embedded Parts

- a. Stretch wire straightly so as to determine the installation sites of pillar.
- b. Add steel discs if the embedded parts are not horizontally installed, but this step is not necessary if the pillar is not adjustable.
- c. The material of electrode should be the same as the one of pillar when welding.



### Step 3: Installation of Handrail

- a. Measure the needed length of handrail, and determine the fitting needed.
- b. Fix handrail onto pillar through welding or with screws, and then fix handrail and pillars on both sides.
- c. Connect handrails of each stair.



### Step 4 : Middle Pillars Installation

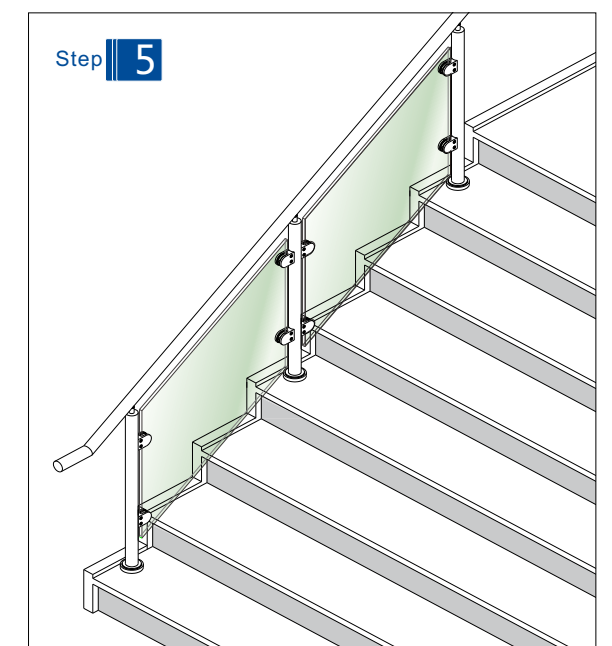
- a. Determine the installation sites of middle pillars by closing the pillars on handrails, and mark on the determined sites.
- b. Drill holes and fix pillars, then connect handrails.

### Step 5 :Glass Installation

- a. Determine the dimension of glass.
- b. Glass installation.

### Step 6:Cleaning

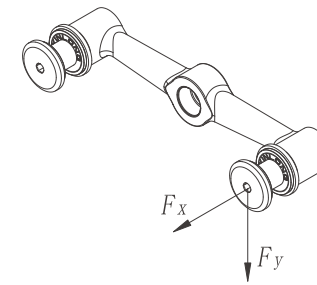
Wrap the post railing after cleaning until the construction work completes so as to avoid damages to it when constructing.



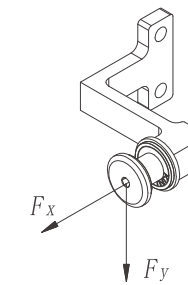




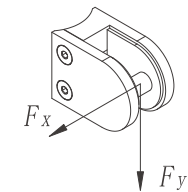
### Calculation of axial and radial load for model selection



$n_x=2$   
 $n_y=2$



$n_x=1$   
 $n_y=1$



$n_x=1$   
 $n_y=1$

#### 1、 The weight of the glass panel

$$G_k = B \cdot H \cdot T \cdot \rho \cdot g$$

- $G_k$ - The weight of glass panel (N) ;
- $B$  - The width of the glass (mm) ;
- $H$  - The height of the glass (mm) ;
- $T$  - The valid thickness of the glass (mm) ;
- $\rho$  - The density of glass ( $2.56 \cdot 10^{-6}$  kg/mm<sup>3</sup>) ;
- $g$  - Acceleration of gravity ( 10 N/Kg ) ;

#### 2、 Axial Force

$$F_x = q \cdot B \cdot H / n_x$$

- $F_x$  - The axial force for a single point (N) ;
- $q$  - Surface uniform load design value, mainly refers to the wind load (N/m<sup>2</sup>) ;
- $B$  - The width of the glass (mm) ;
- $H$  - The height of the glass (mm) ;
- $n_x$  - The quantity of bearing capacity points on x direction, see the above picture for details.

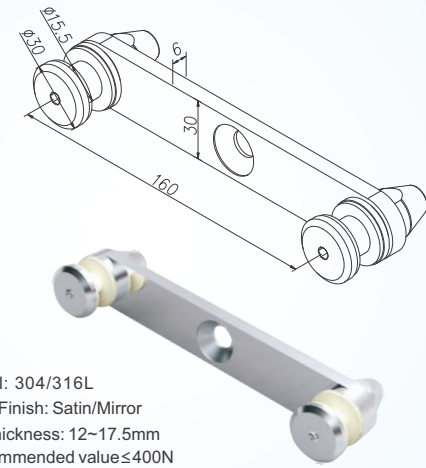
#### 3、 Radial Force

$$F_y = 1.2 G_k / n_y$$

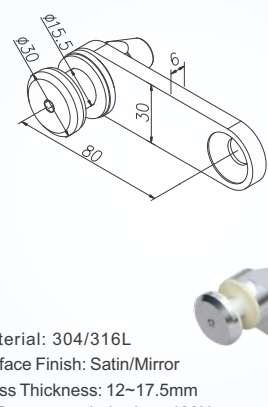
- $F_y$  - The radial force for a single point (N) ;
- $G_k$  - The weight of glass panel (N) ;
- $n_y$  - The quantity of bearing capacity points on y direction, see the above picture for details



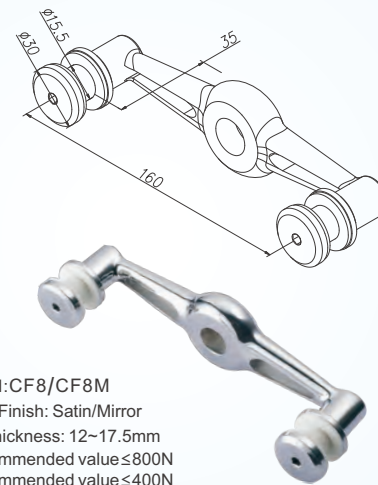
## Point-supported Balustrade Bracket



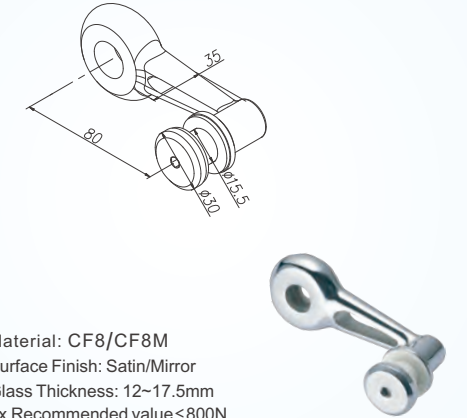
**T01M** Material: 304/316L  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Fx Recommended value  $\leq 400N$   
Fy Recommended value  $\leq 500N$



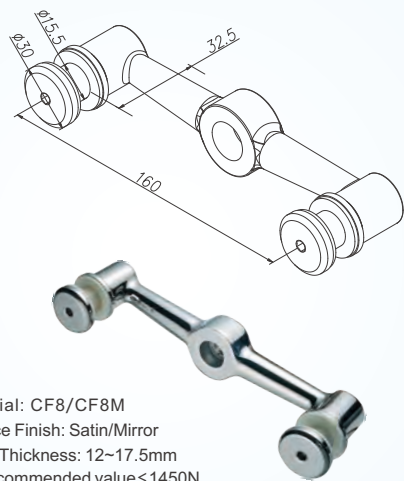
**T01** Material: 304/316L  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Fx Recommended value  $\leq 400N$   
Fy Recommended value  $\leq 500N$



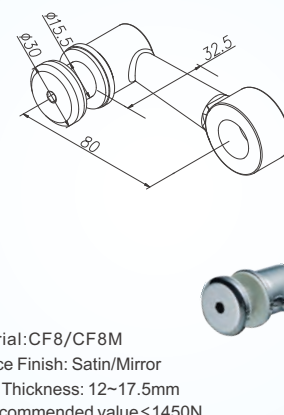
**T07M** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Fx Recommended value  $\leq 800N$   
Fy Recommended value  $\leq 400N$



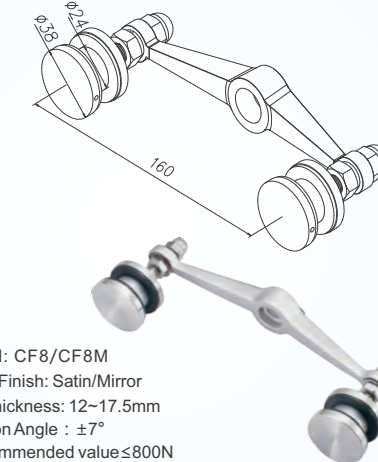
**T07** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Fx Recommended value  $\leq 800N$   
Fy Recommended value  $\leq 400N$



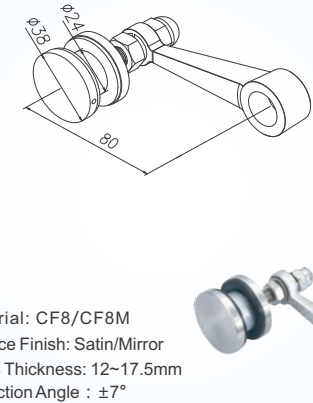
**T05M** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Fx Recommended value  $\leq 1450N$   
Fy Recommended value  $\leq 750N$



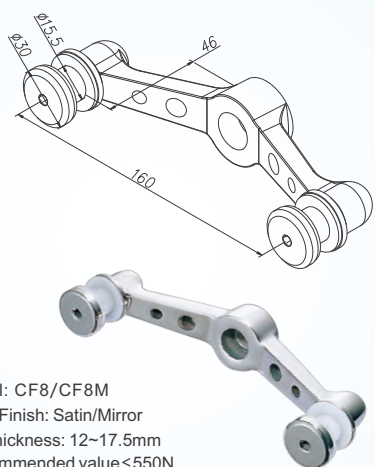
**T05** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Fx Recommended value  $\leq 1450N$   
Fy Recommended value  $\leq 750N$



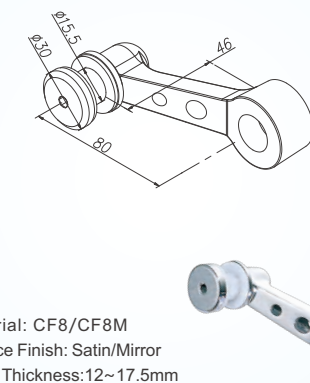
**T08M** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Deflection Angle :  $\pm 7^\circ$   
Fx Recommended value  $\leq 800N$   
Fy Recommended value  $\leq 500N$



**T08** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Deflection Angle :  $\pm 7^\circ$   
Fx Recommended value  $\leq 800N$   
Fy Recommended value  $\leq 500N$

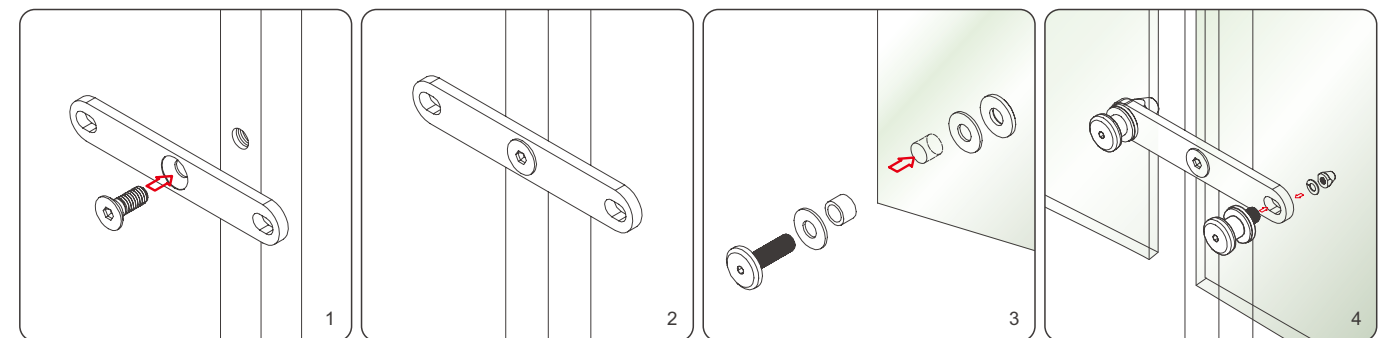


**T06M** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Fx Recommended value  $\leq 550N$   
Fy Recommended value  $\leq 500N$



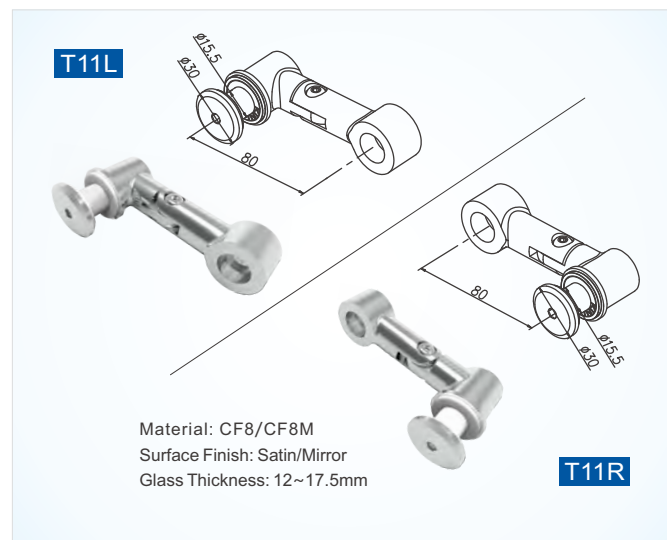
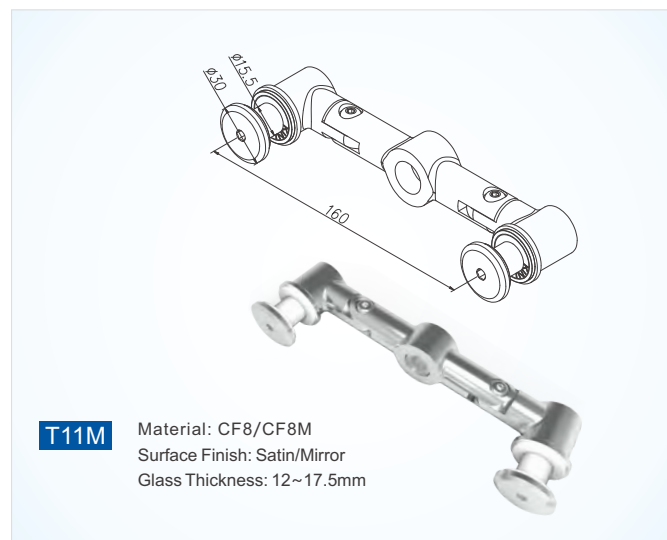
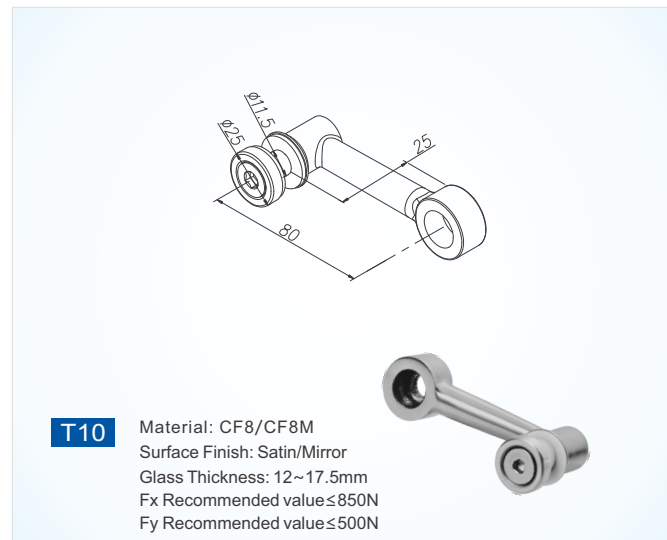
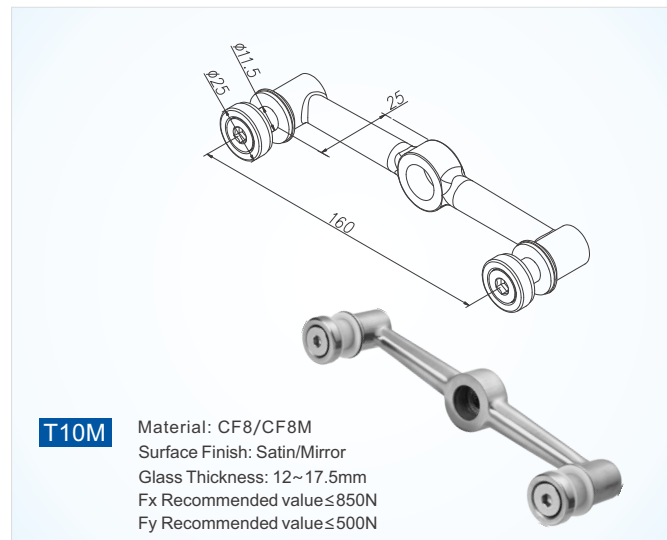
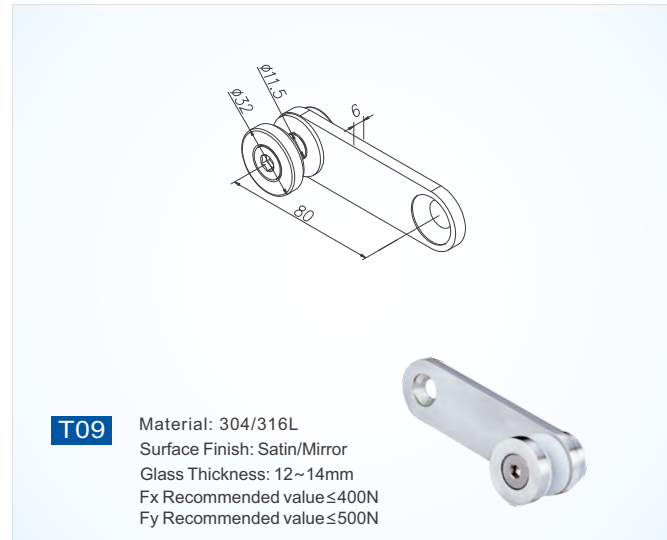
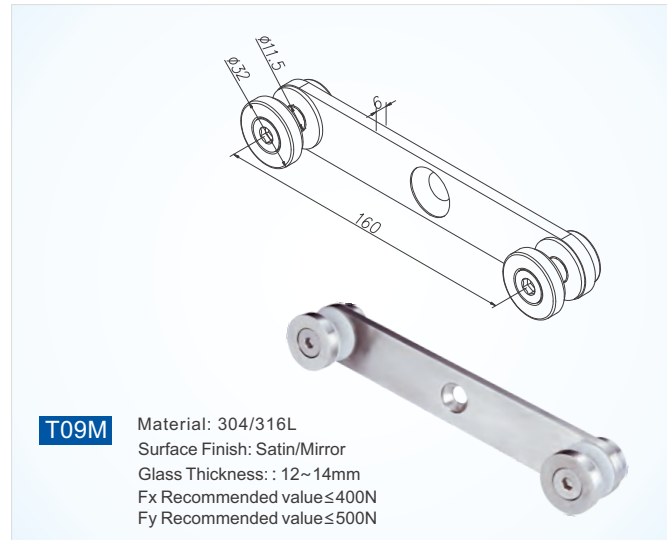
**T06** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Fx Recommended value  $\leq 550N$   
Fy Recommended value  $\leq 500N$

## Point-supported Balustrade Bracket

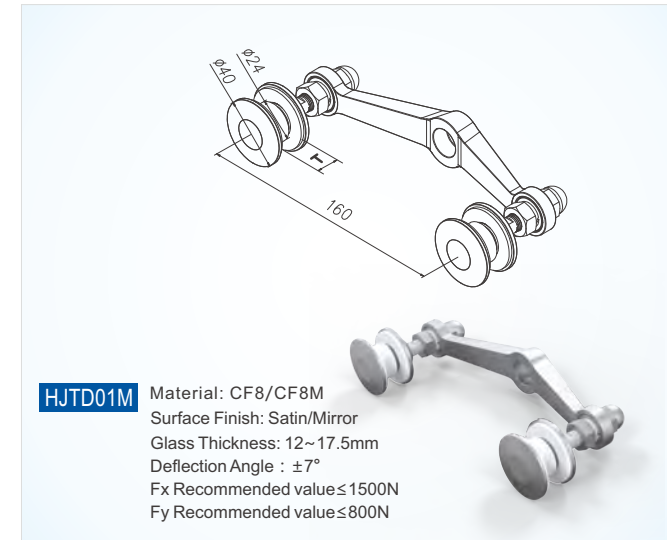




## Point-supported Balustrade Bracket

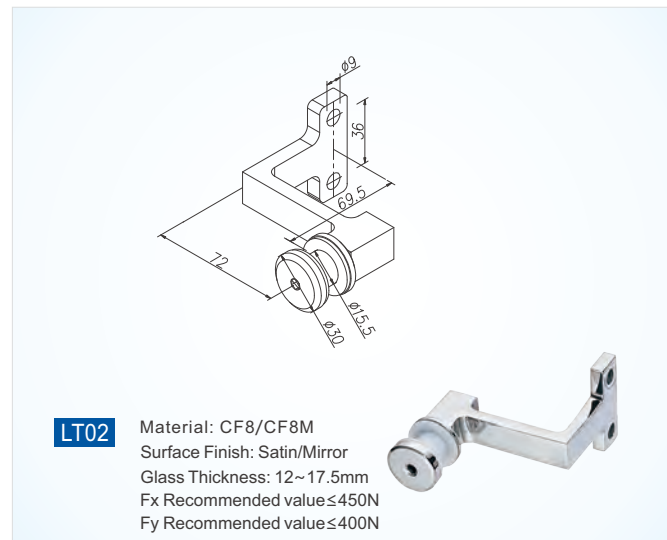
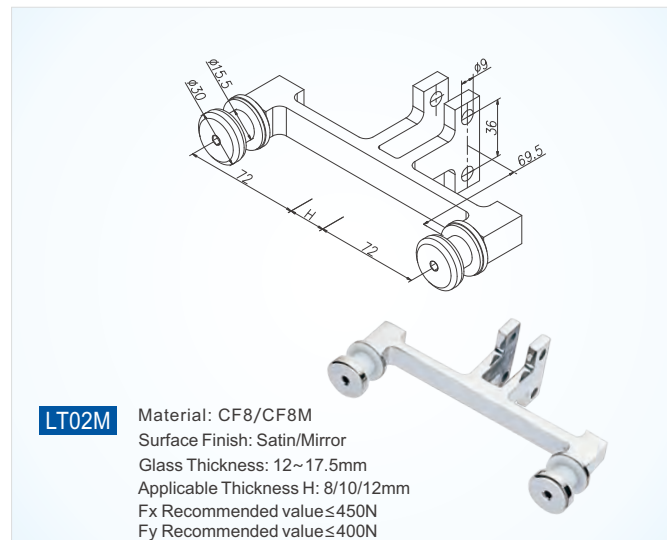
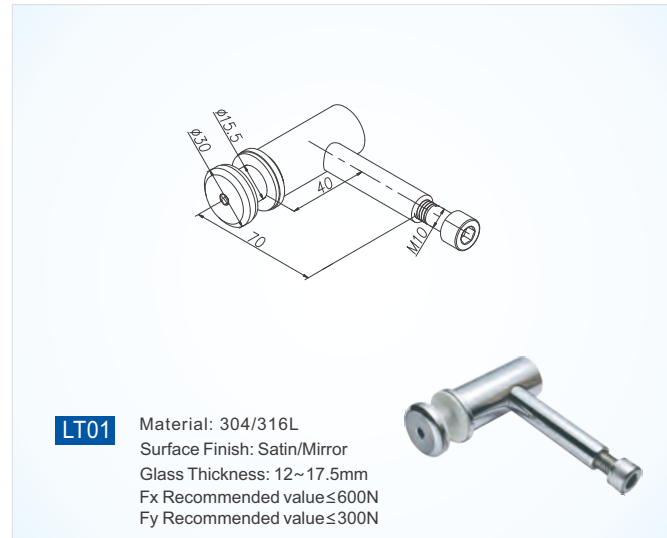
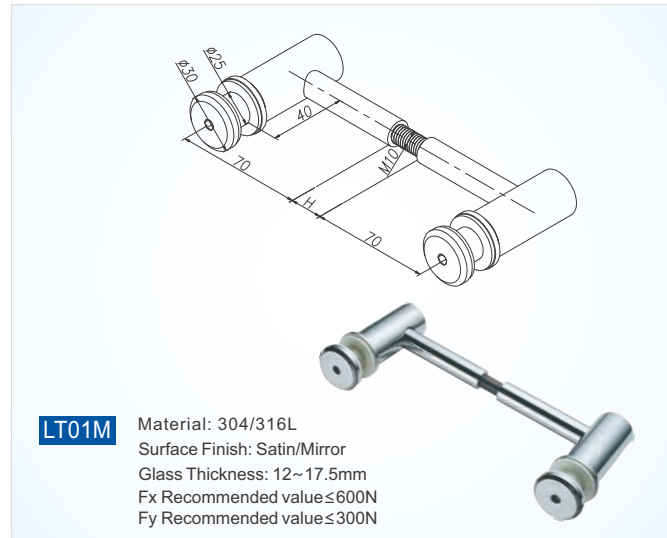


## Point-supported Balustrade Bracket

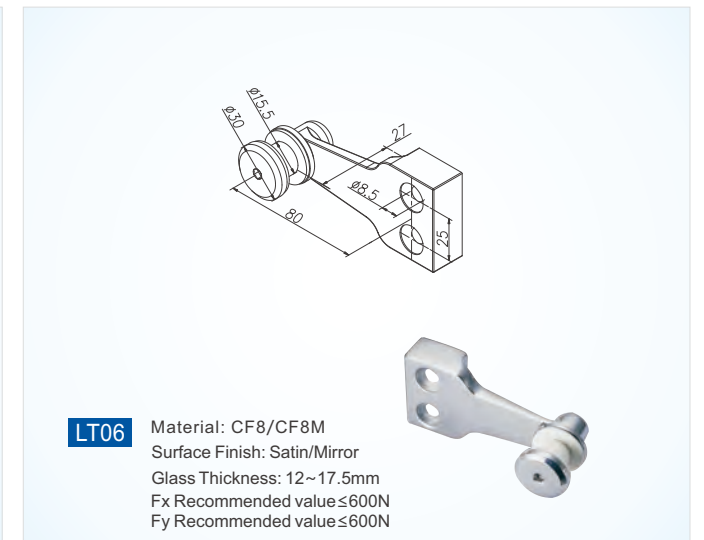
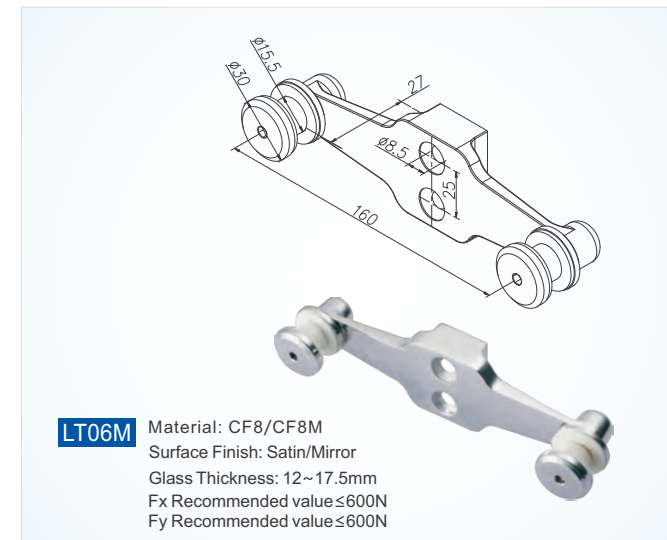
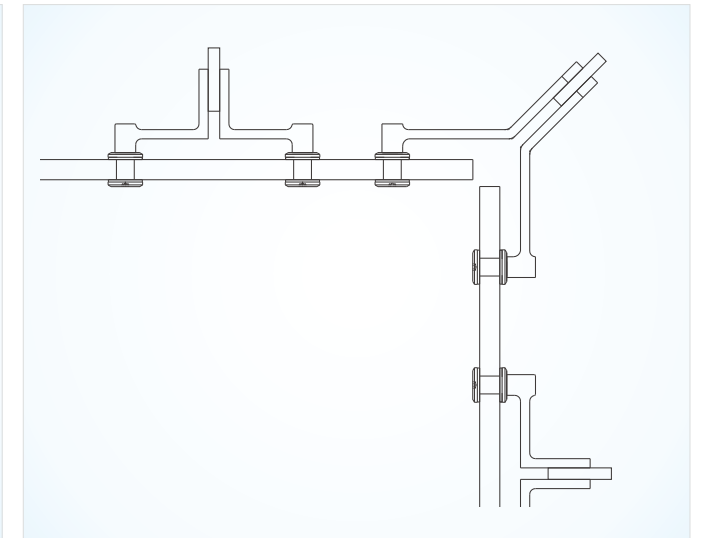




## Fin-supported Balustrade Bracket

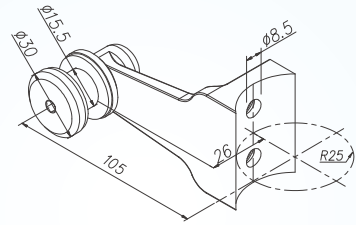


## Fin-supported Balustrade Bracket

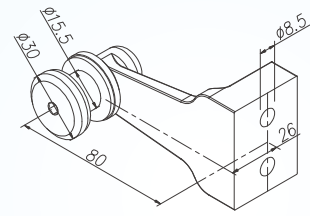




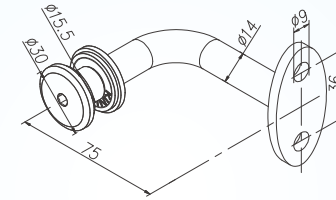
## Fin-supported Balustrade Bracket



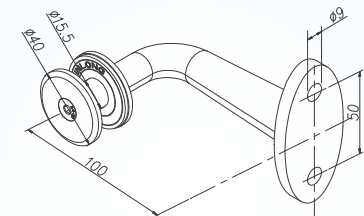
**LT08** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Fx Recommended value ≤ 600N  
Fy Recommended value ≤ 600N



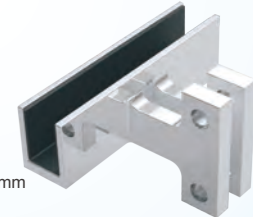
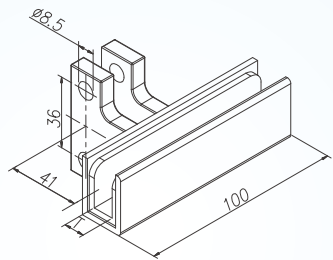
**LT09** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Fx Recommended value ≤ 600N  
Fy Recommended value ≤ 600N



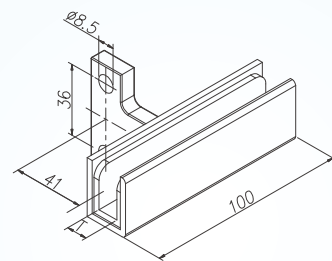
**LT14** Material: 304/316L  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Fx Recommended value ≤ 600N  
Fy Recommended value ≤ 500N



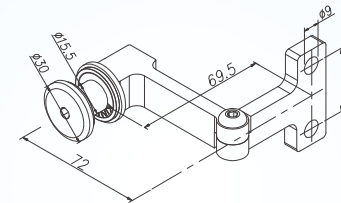
**LT15** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Fx Recommended value ≤ 2000N  
Fy Recommended value ≤ 800N



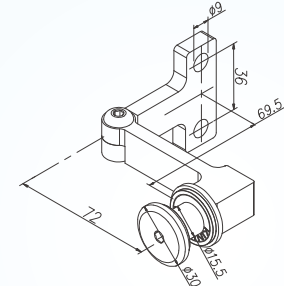
**LT10** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 10~12mm  
Applicable Thickness H: 8/10/12mm  
Fx Recommended value ≤ 500N  
Fy Recommended value ≤ 800N



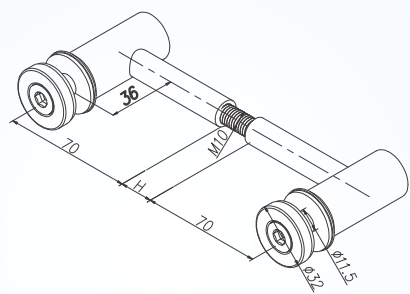
**LT11** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 10~12mm  
Fx Recommended value ≤ 500N  
Fy Recommended value ≤ 800N



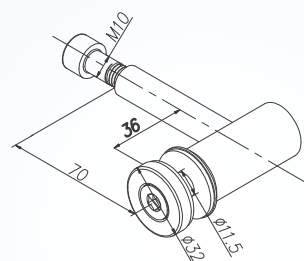
**LT16L** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm



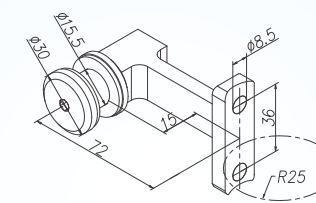
**LT16R** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm



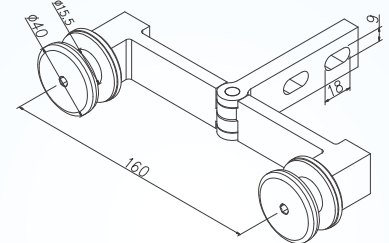
**LT12M** Material: 304/316L  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Fx Recommended value ≤ 600N  
Fy Recommended value ≤ 300N



**LT12** Material: 304/316L  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Fx Recommended value ≤ 600N  
Fy Recommended value ≤ 300N



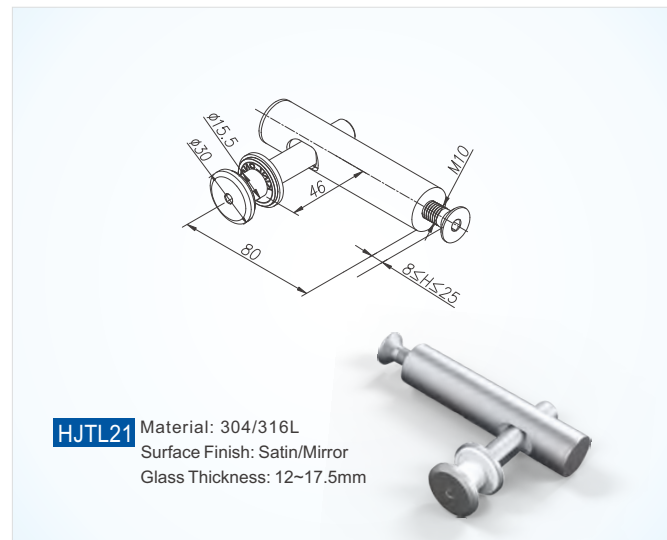
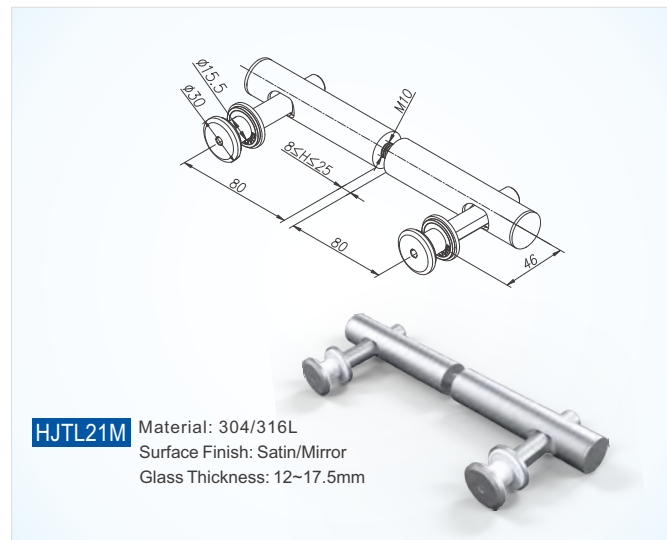
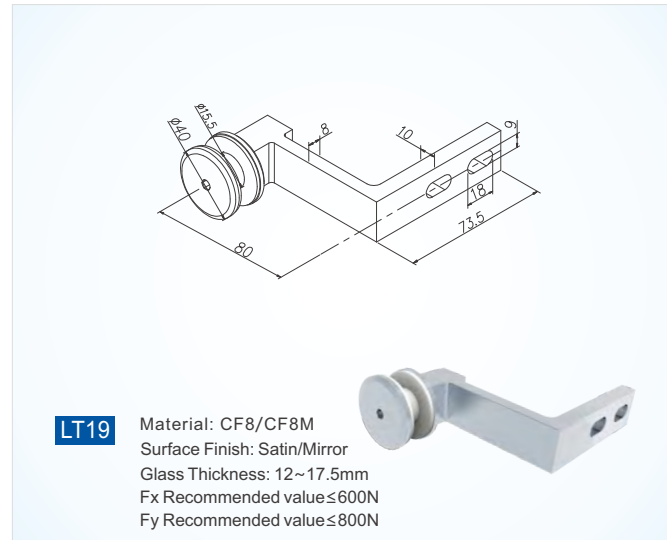
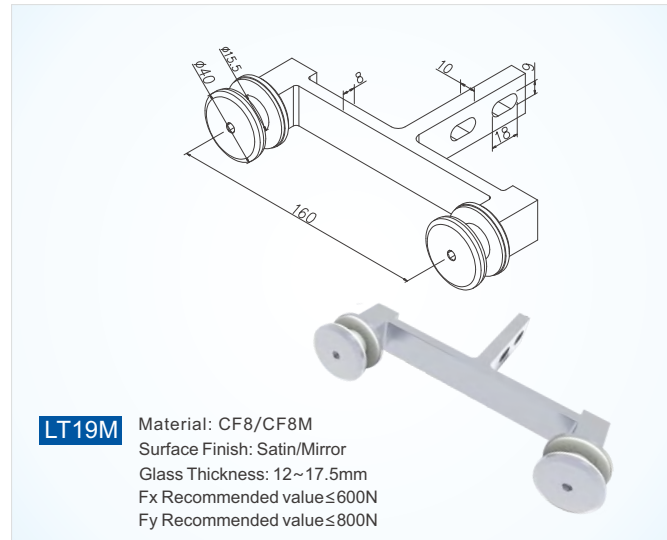
**LT17** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm  
Fx Recommended value ≤ 500N  
Fy Recommended value ≤ 400N



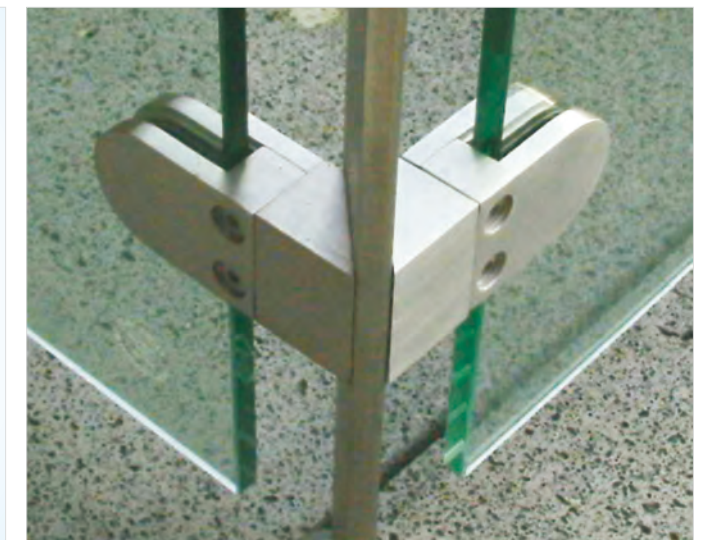
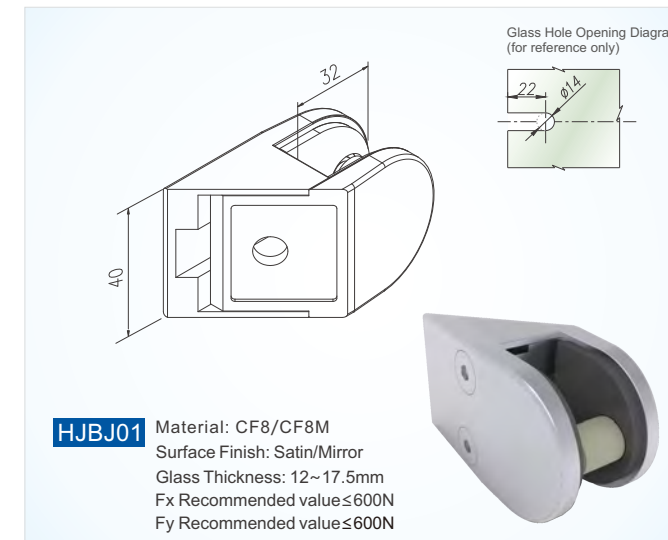
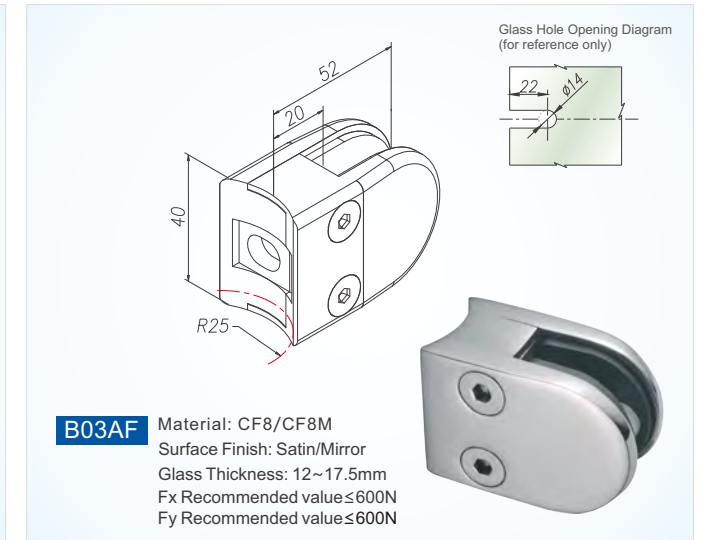
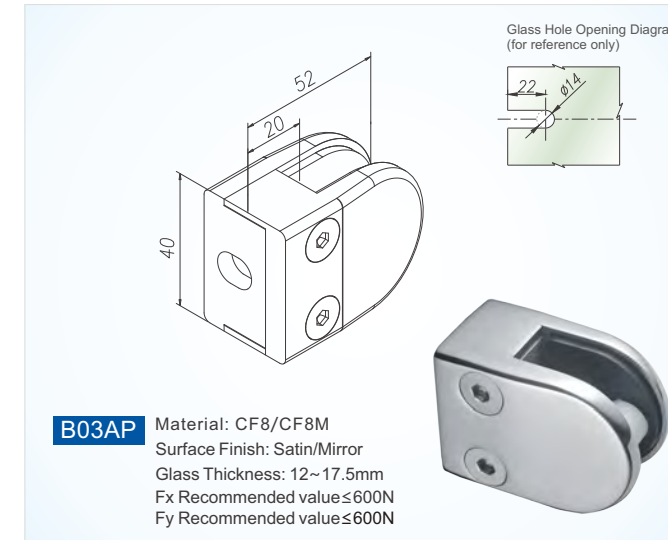
**LT18M** Material: CF8/CF8M  
Surface Finish: Satin/Mirror  
Glass Thickness: 12~17.5mm



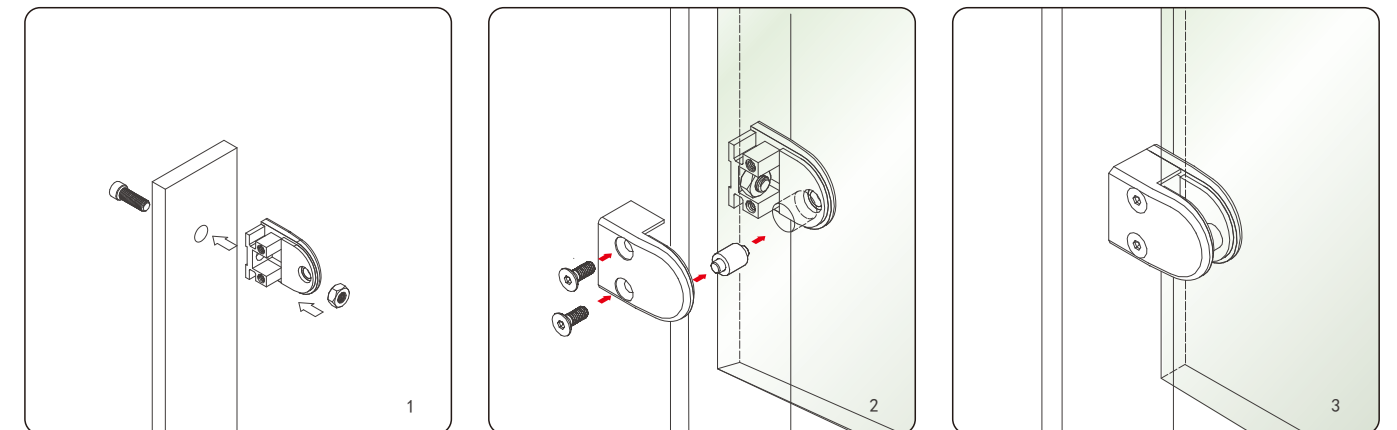
## Fin-supported Balustrade Bracket



## Glass Clamp

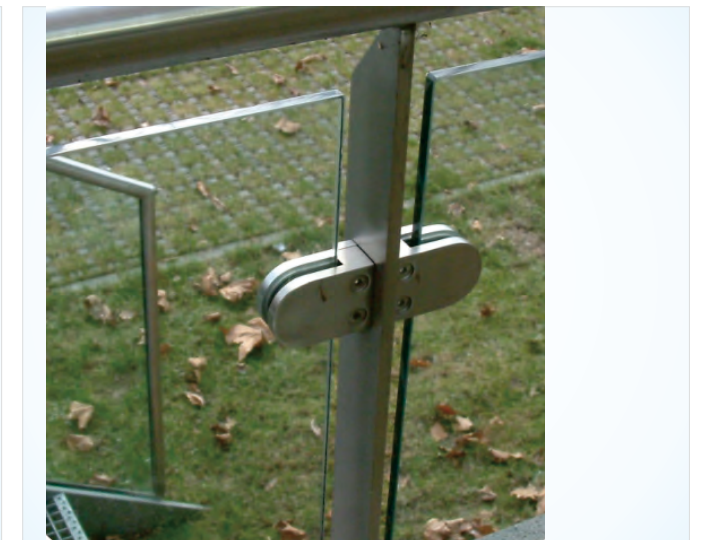
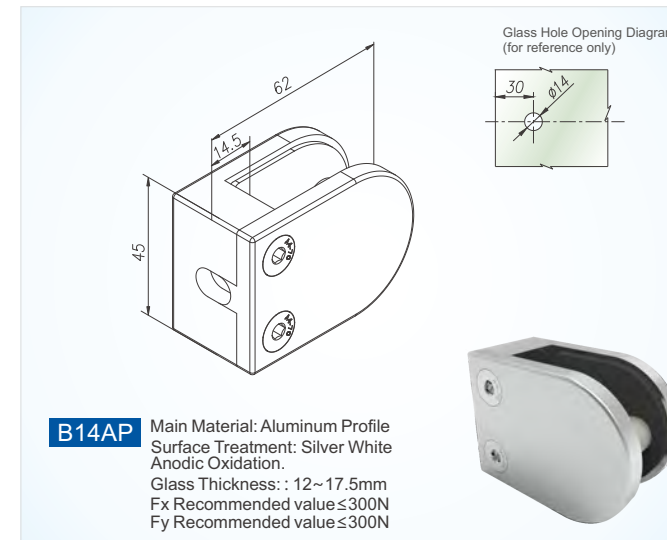
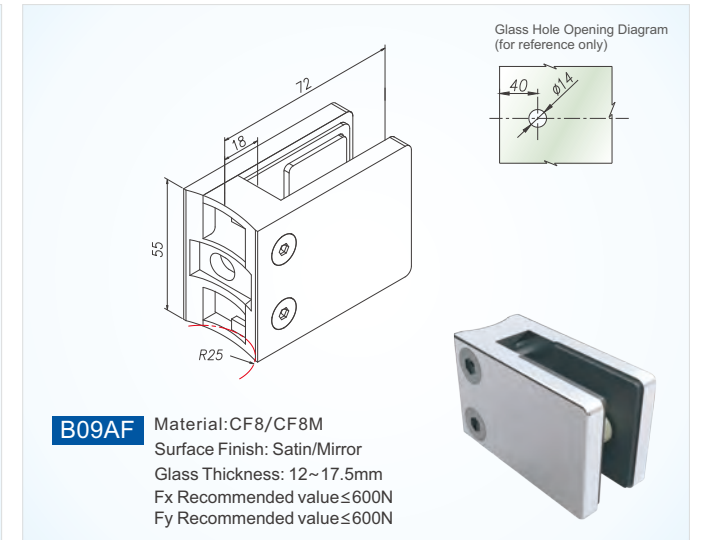
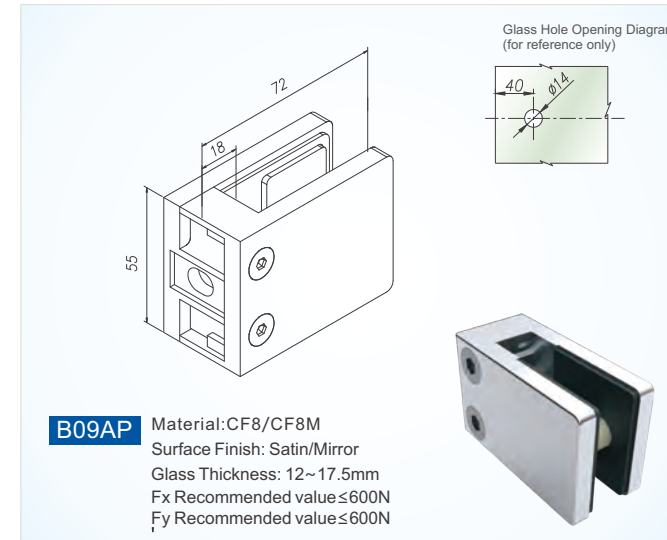
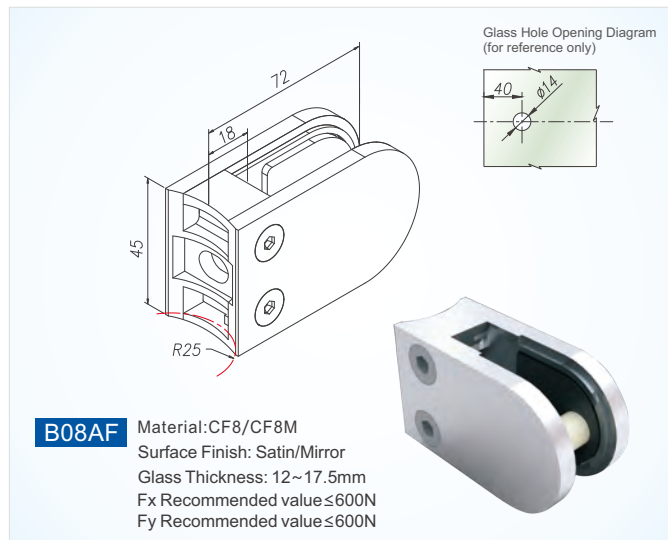
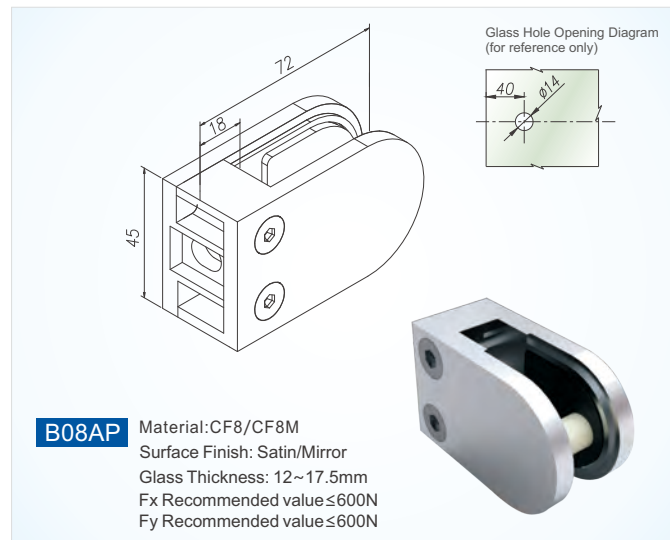
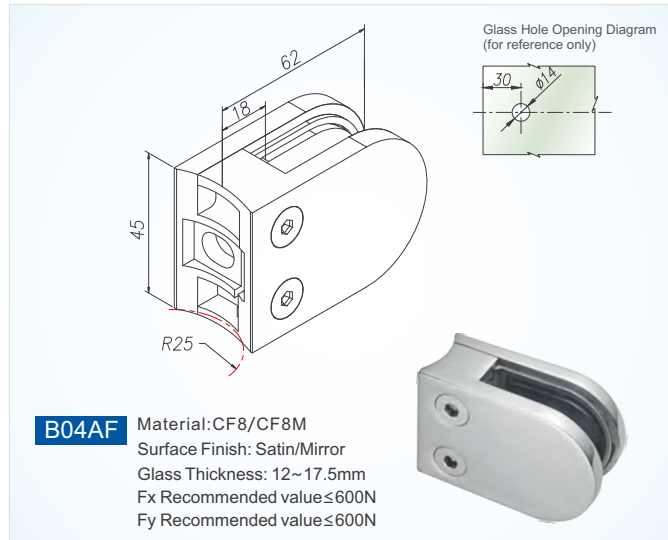
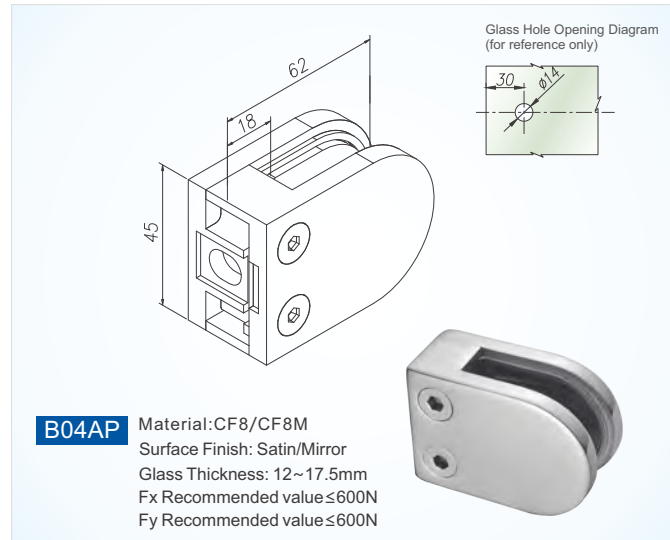


### Point-fixed Type Clamp Installation Instruction

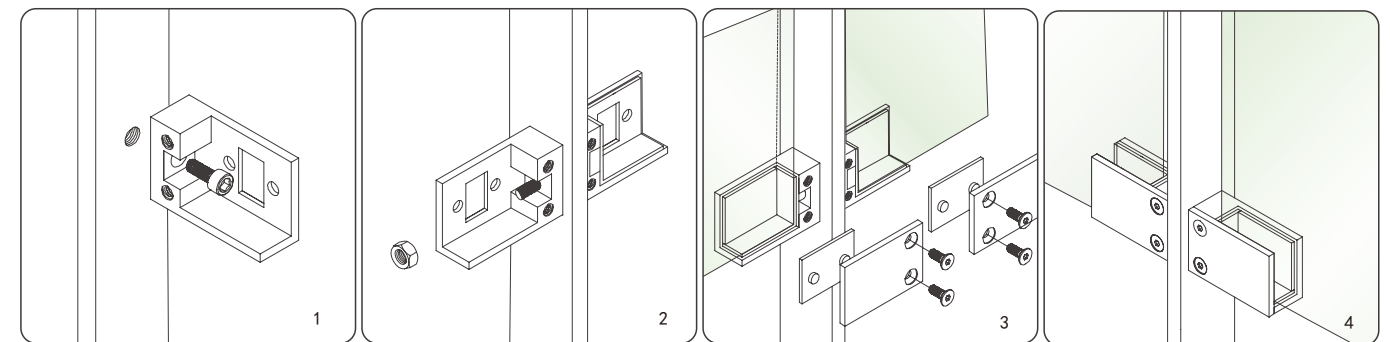




## Glass Clamp

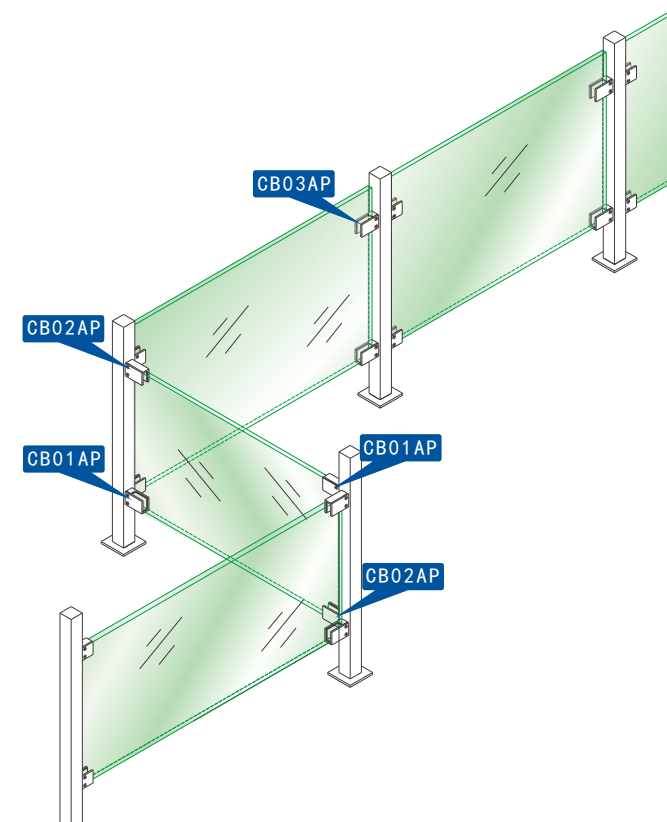
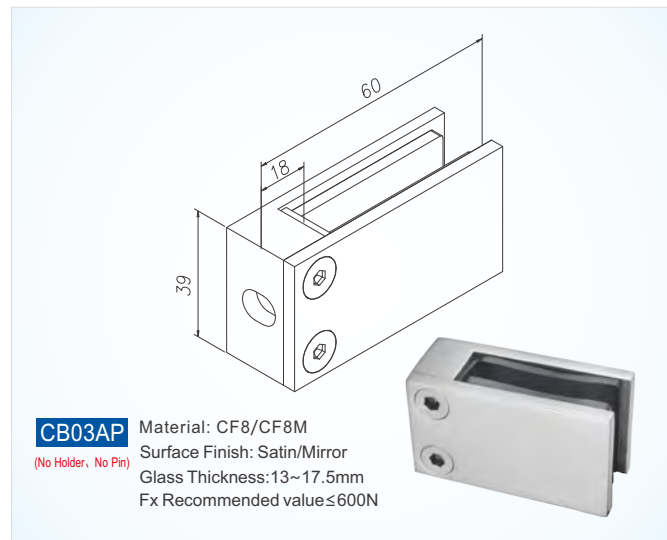
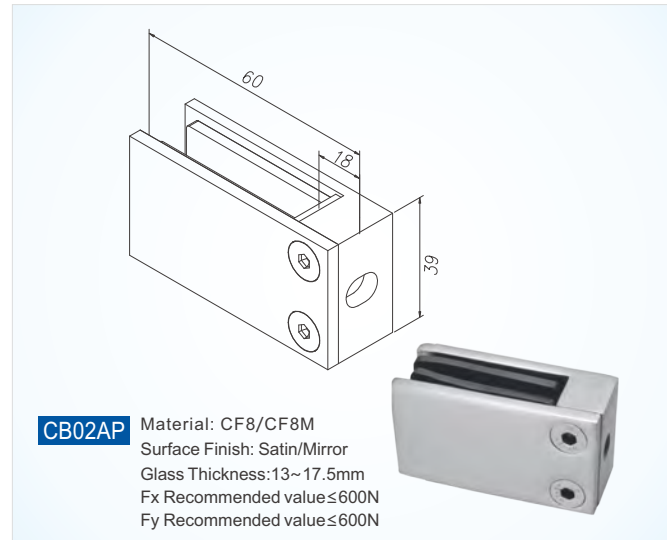
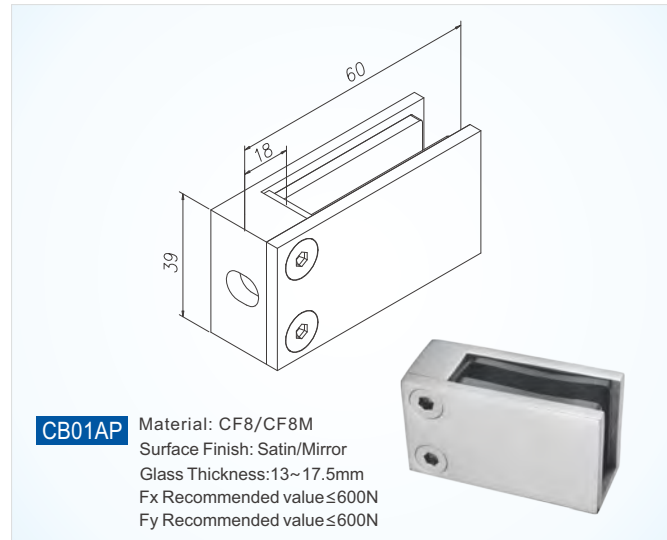


Supporting Type Clamp  
Installation Instruction

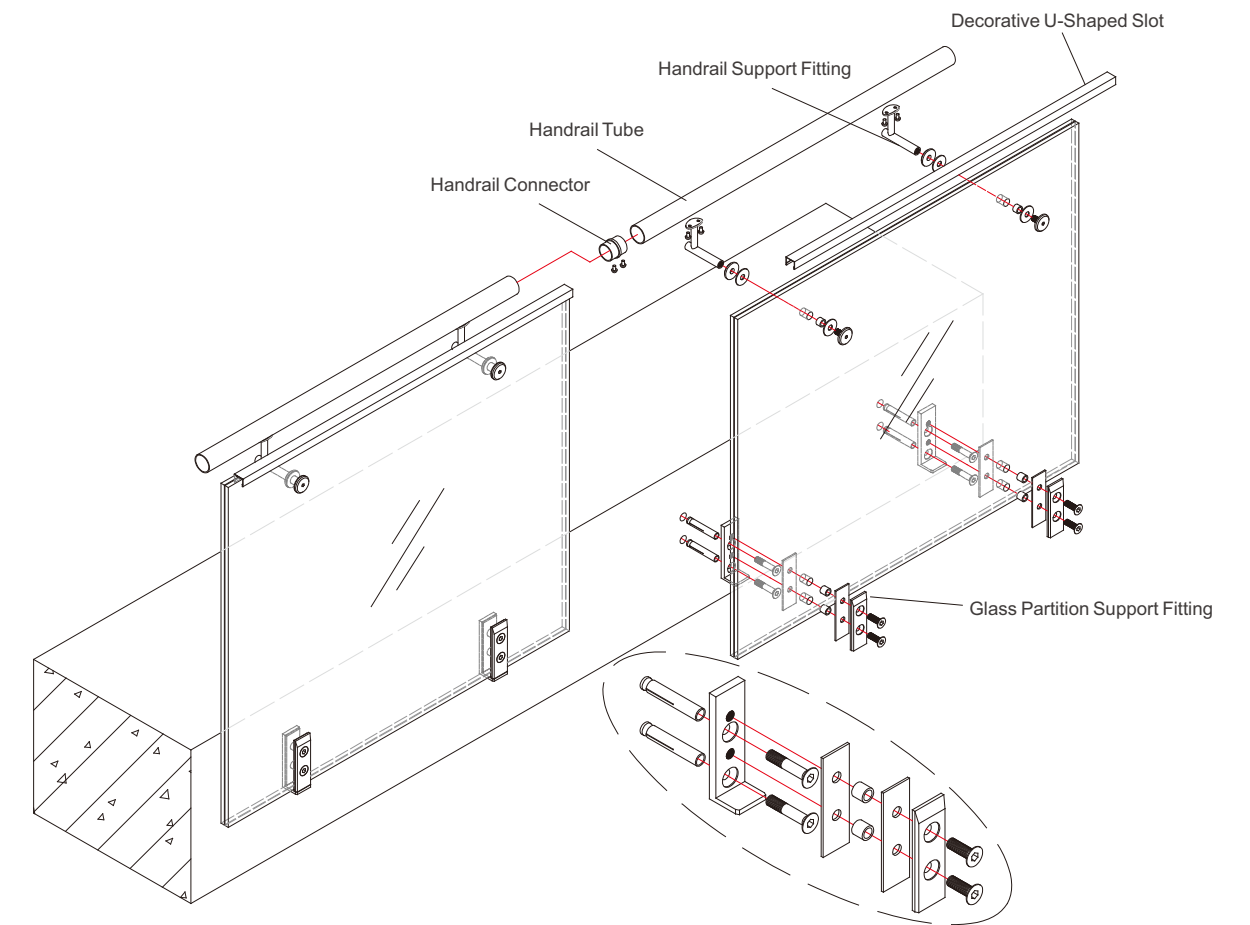




## Glass Clamp

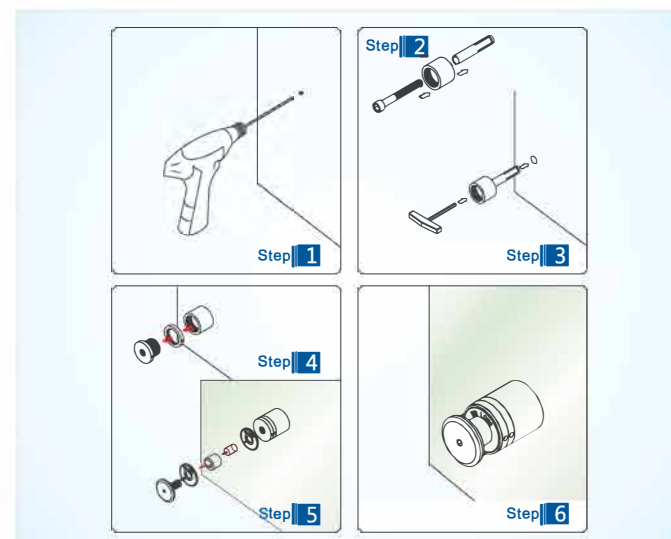
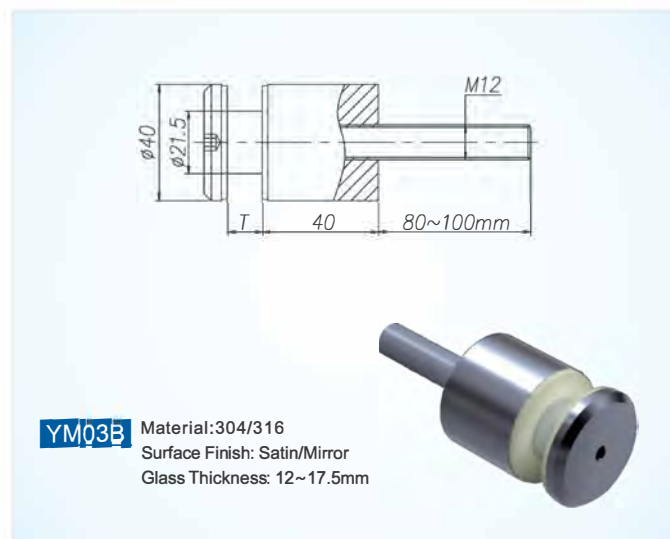
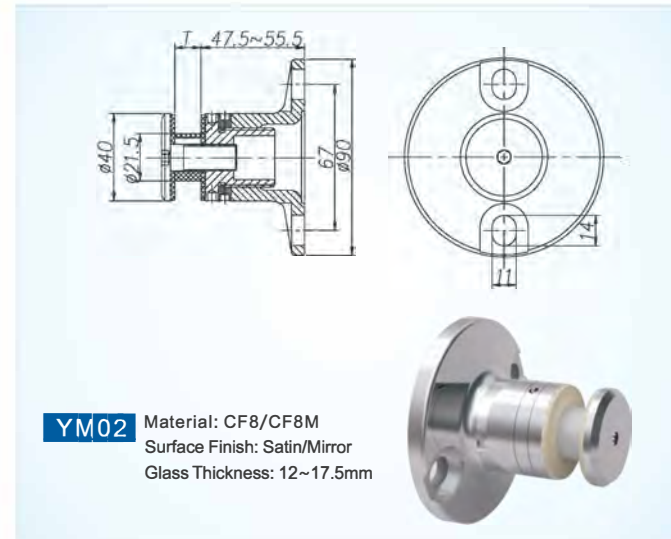
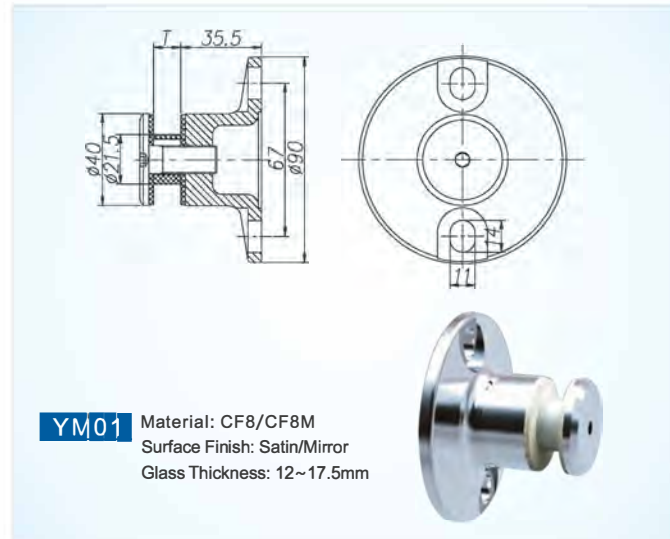


## Glass Support Fitting Series



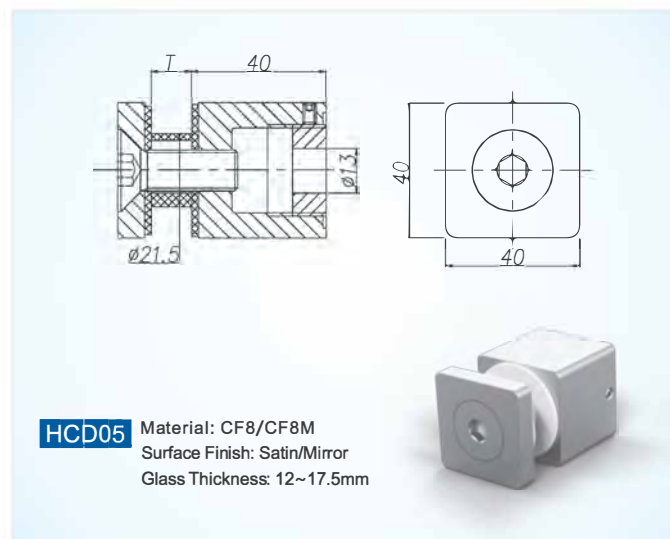


## Glass Partition Support Fitting



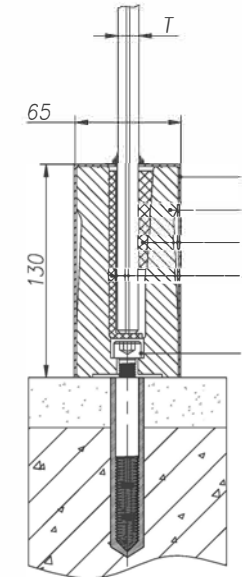
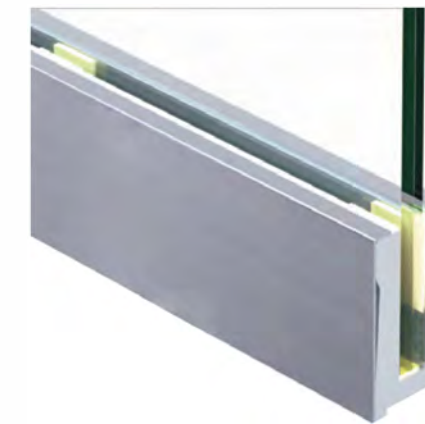


## Glass Partition Support Fitting



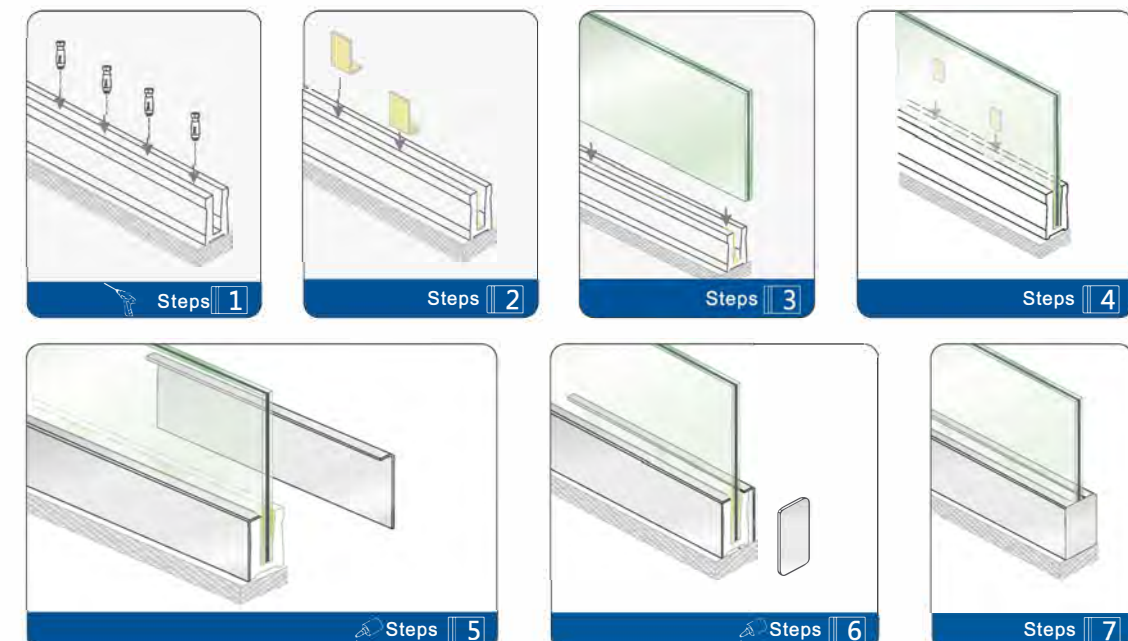
## Aluminum Alloy U Groove

YM18



- |   |   |  |  |   |   |
|---|---|--|--|---|---|
|   |   |  |  |   |   |
| <b>1</b><br>Cover Plate<br>Material: 304/316L<br>Surface Finish: Satin/Mirror<br>Length: L≤3000mm | <b>2</b><br>U groove<br>Material: 6063-T5<br>Glass Thickness: 13.5/17.5mm<br>Length: L≤6000mm | <b>3</b><br>Gasket<br>Material: ABS<br>Quantity: 4 pcs/m | <b>4</b><br>Gasket<br>Material: ABS<br>Quantity: 4 pcs/m | <b>5</b><br>Cylinder Head Screw Nut Rod<br>Material: 304+Q345B<br>Quantity: 4 pcs/m | <b>6</b><br>End cap<br>Material: 304/316L<br>Surface Finish: Satin/Mirror |
- Note: It doesn't contain chemical medication, please consult anchor product department for chemical medication (CAG-12)

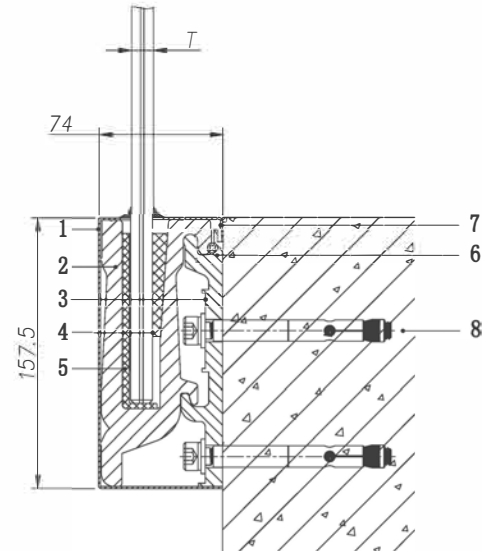
### Installation Method





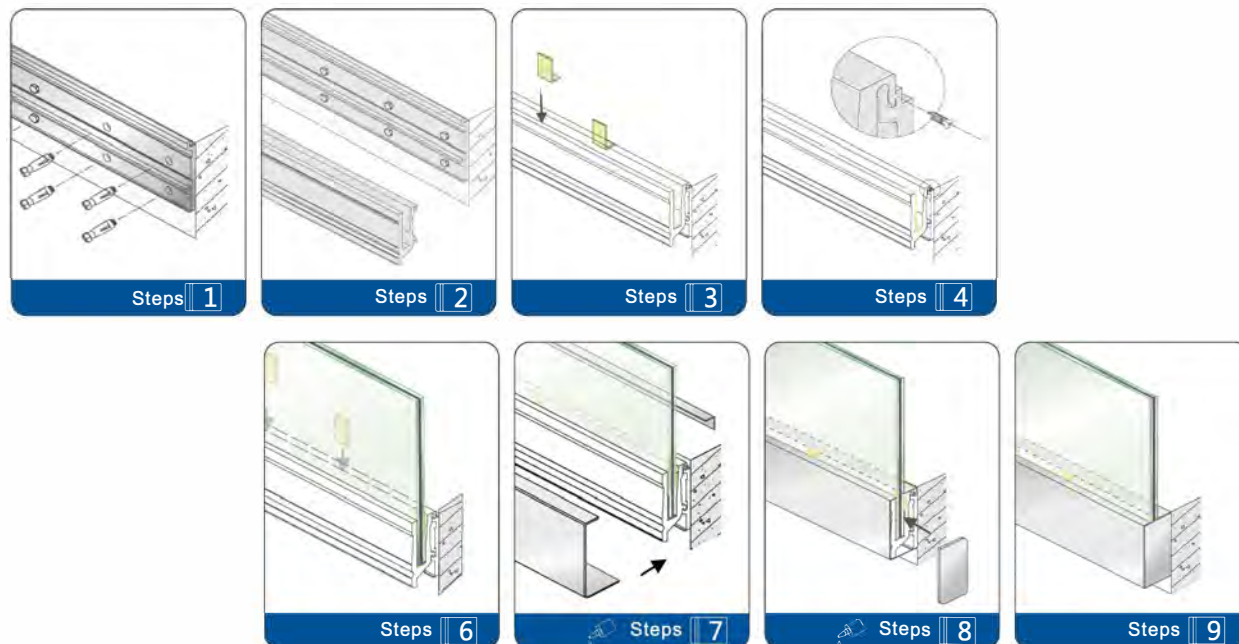
## Aluminum Alloy U Groove

YM19



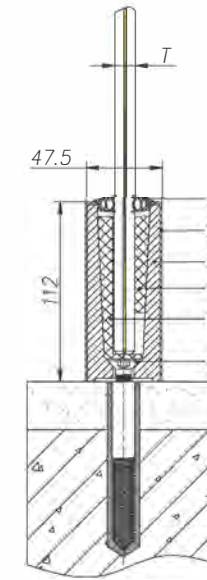
Front Decoration Panel Material: 304/316L Surface Finish: Satin/Mirror Length: Lx3000mm	U-groove Accessories Material: 6063-T5 Glass Thickness: 13.5/17.5mm Length: Lx6000mm	U-groove Base Plate Material: 6063-T5 Length: Lx6000mm	Shim Material: ABS Quantity: 4 pcs/m	Shim Material: ABS Quantity: 4 pcs/m	Self-tapping Screw	Back Decorative Panel Material: 304/316L Surface Finish: Satin/Mirror Length: Lx3000mm	Cylinder Head Screw Nut Rod Material: Stainless Steel Quantity: 8 pcs/m	End cap Material: 304/316L Surface Finish: Satin/Mirror

### Installation Method



## Aluminum Alloy U Groove

YM21A



Gasket Material: EPDM	Cover Plate Material: 304/316L Surface Finish: Satin/Mirror Length: Lx3000mm	U-groove Accessories Material: 6063-T5 Glass Thickness: 13.5/17.5/21.5mm Length: Lx6000mm	Shim Material: ABS Quantity: 4 pcs/m	Shim Material: ABS Quantity: 4 pcs/m	Countersunk Screw Nut Rod Material: 304+Q345B Quantity: 4 pcs/m	End cap Material: 304/316L Surface Finish: Satin/Mirror

Note: To avoid chemical reactions, please consult our product department for chemical treatment. (246-7)

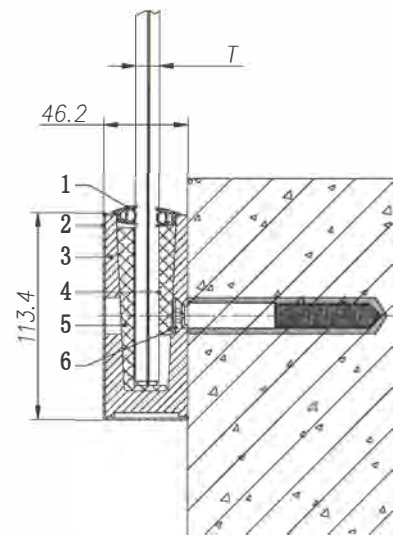
### Installation Method



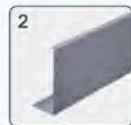


## Aluminum Alloy U Groove

YM21B



1  
Gasket  
Material: EPDM



2  
Front Decoration Panel  
Material: 304/316L  
Surface Finish: Satin/Mirror  
Length: L:3000mm



3  
U-groove Accessories  
Material: 6063-T5  
Glass Thickness: 13.5/17.5/21.5mm  
Length: L:6000mm



4  
Shim  
Material: ABS  
Quantity: 4 pcs/m



5  
Shim  
Material: ABS  
Quantity: 4 pcs/m



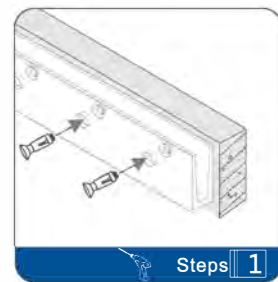
6  
Countersunk Screw Nut Rod  
Material: 304+Q345B  
Quantity: 4 pcs/m

Note: It doesn't contain chemical medication, please consult and/or product department for chemical medication (CAG-12)

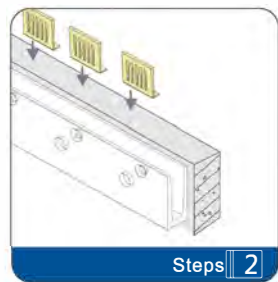


7  
End cap  
Material: 304/316L  
Surface Finish: Satin/Mirror

### Installation Method



Steps 1



Steps 2



Steps 3



Steps 4



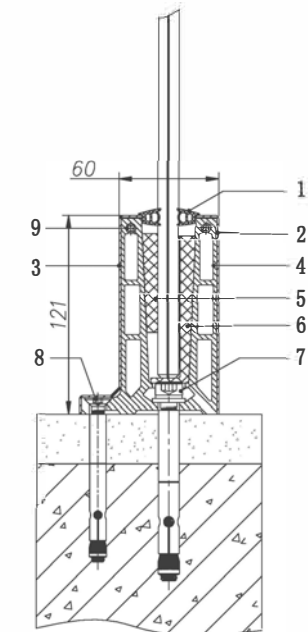
Steps 5



Steps 6

## Aluminum Alloy U Groove

HCU01



1  
Gasket  
Material: EPDM



2  
Back Decorative Panel  
Material: 304/316L  
Surface Finish: Satin/Mirror  
Length: L:3000mm



3  
Front Decoration Panel  
Material: 304/316L  
Surface Finish: Satin/Mirror  
Length: L:3000mm



4  
U-groove Accessories  
Material: 6063-T5  
Glass Thickness: 13.5/17.5/21.5mm  
Length: L:6000mm



5  
Gasket  
Material: ABS  
Quantity: 4 pcs/m



6  
Gasket  
Material: ABS  
Quantity: 4 pcs/m



7  
Cylinder Head Expansion Bolt  
Material: Stainless Steel  
Quantity: 4 pcs/m



8  
Cylinder Head Expansion Bolt  
Material: Stainless Steel  
Quantity: 4 pcs/m



9  
Self-tapping Screw



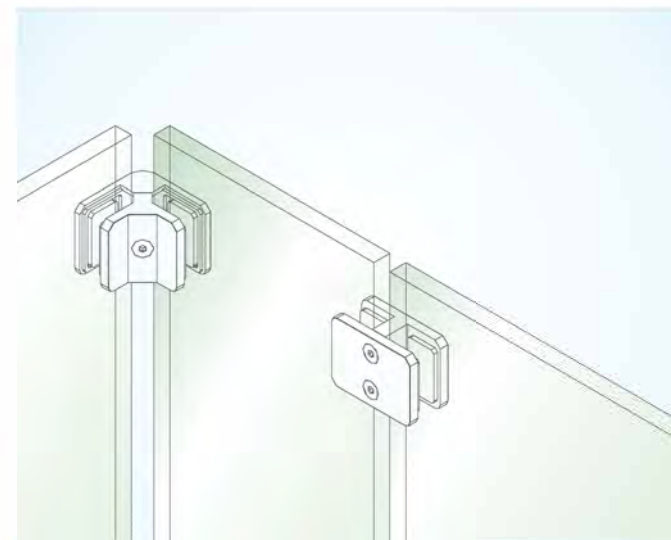
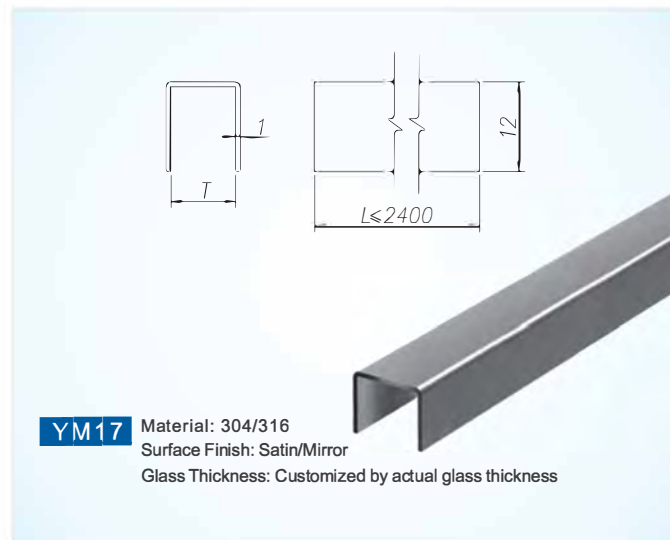
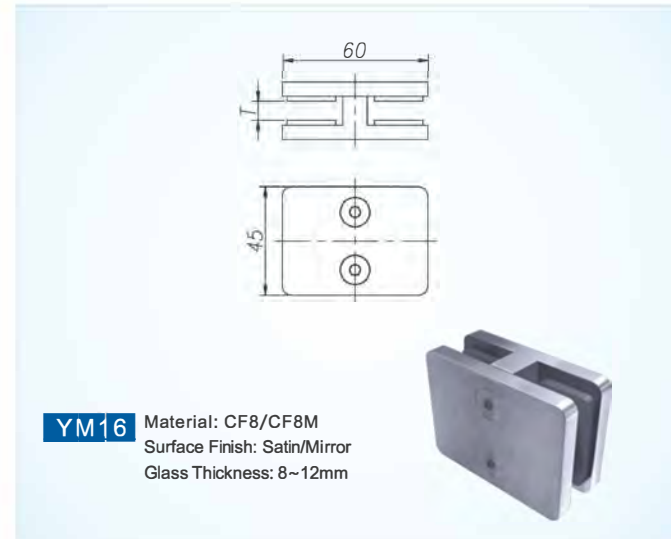
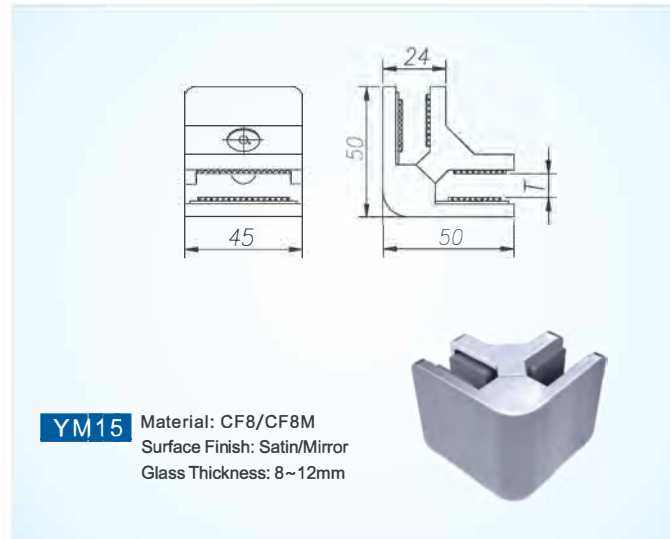
10  
Cap Liner 1  
Material: 304/316L  
Surface Finish: Satin/Mirror



11  
Cap Liner 2  
Material: 304/316L  
Surface Finish: Satin/Mirror



## Glass Connector

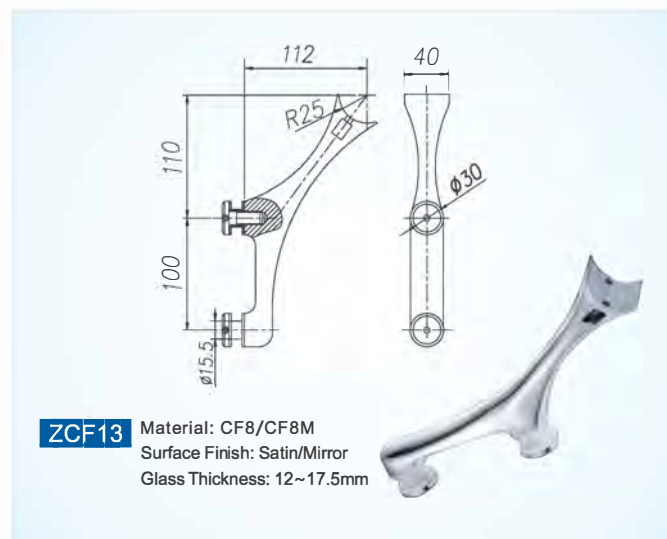
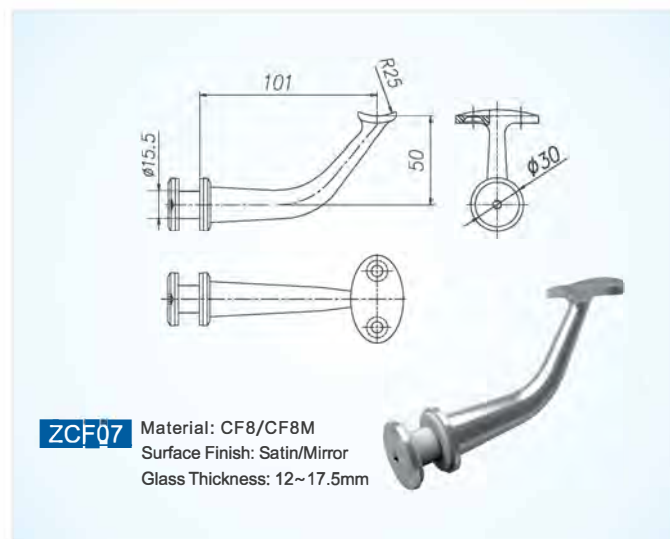
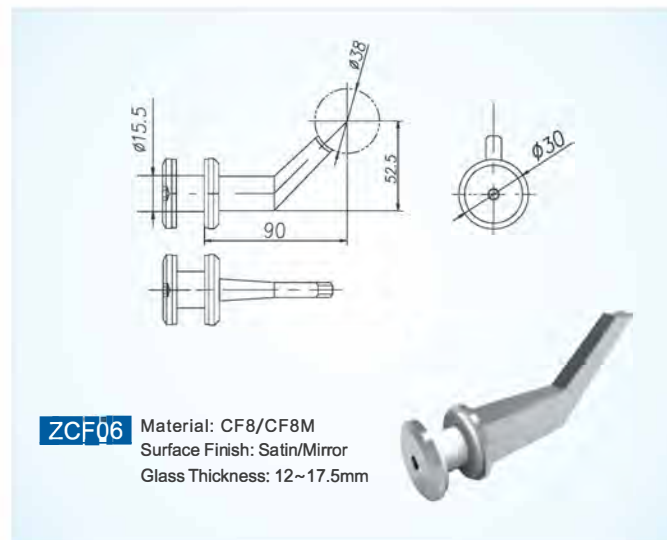
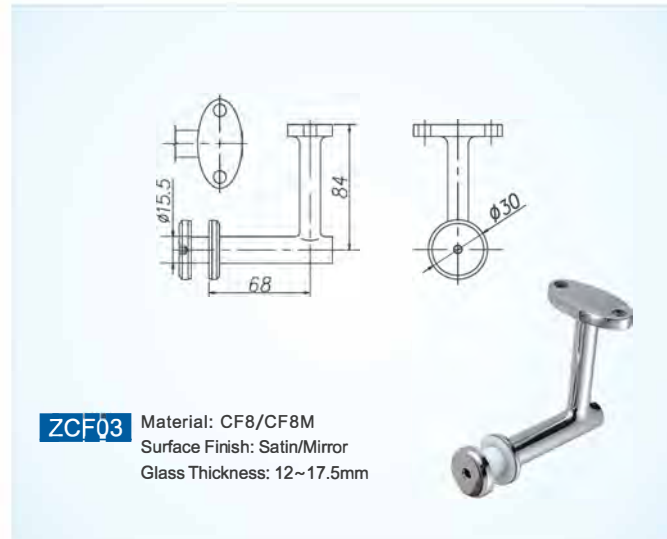
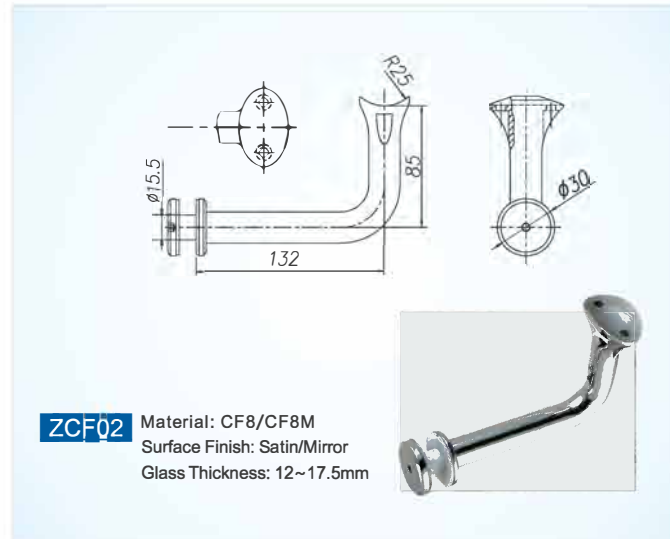


## Handrail Fitting Series

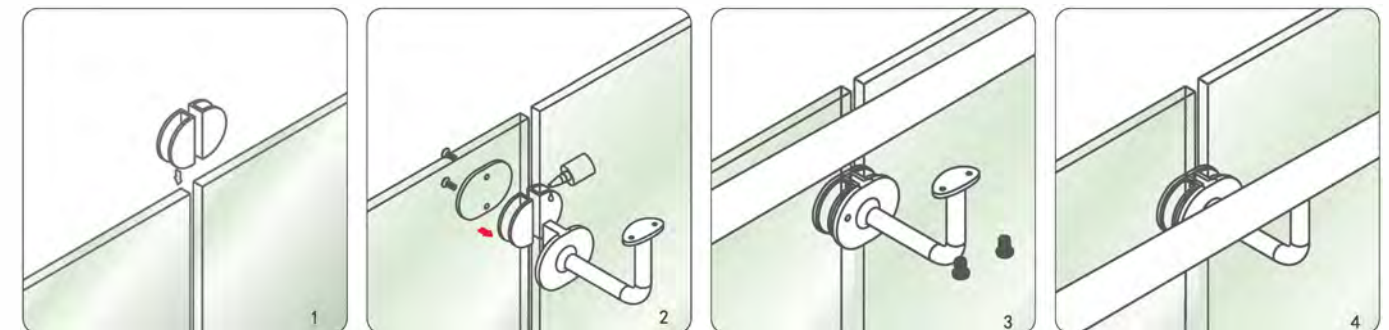
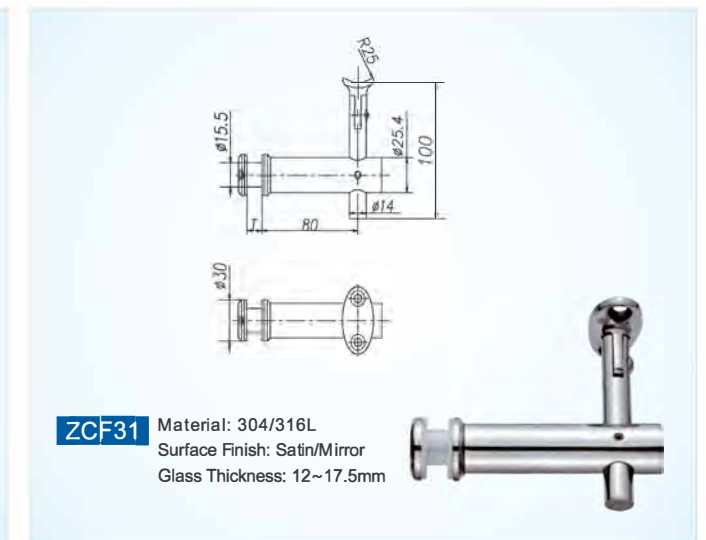
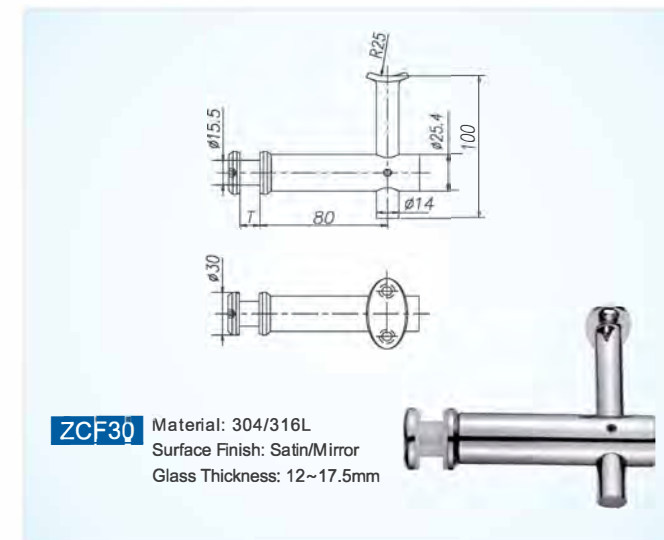
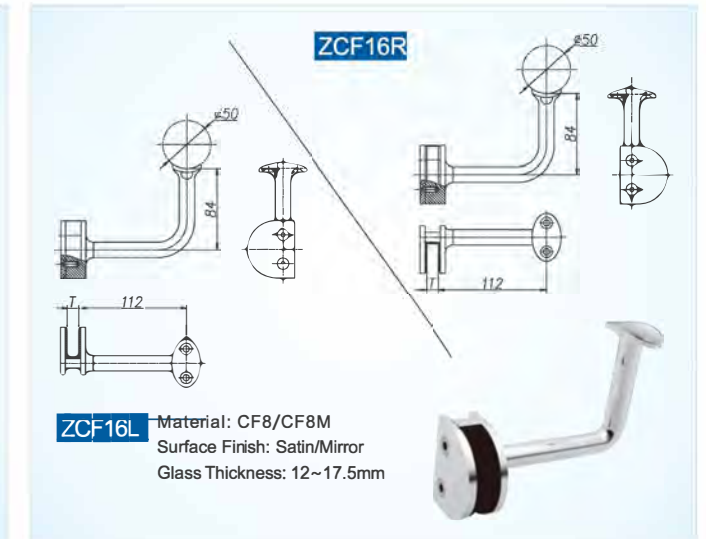




## Handrail Supporting Connected to Glass

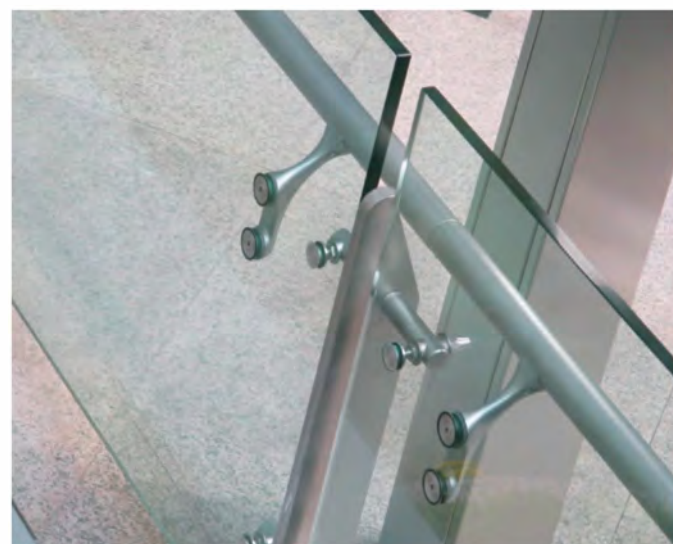
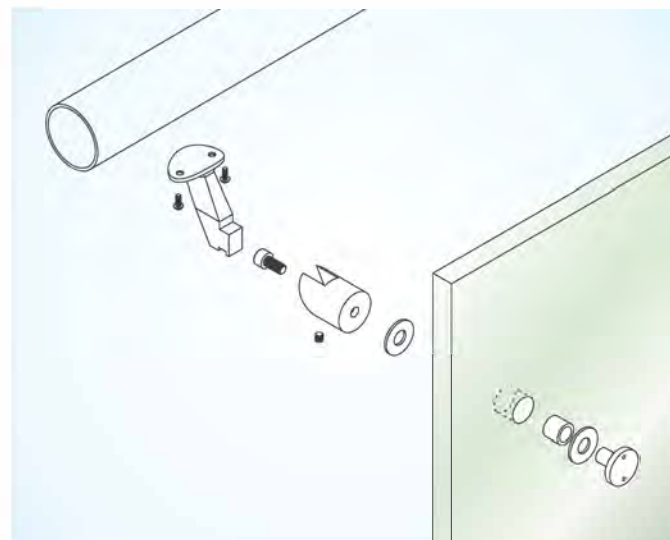
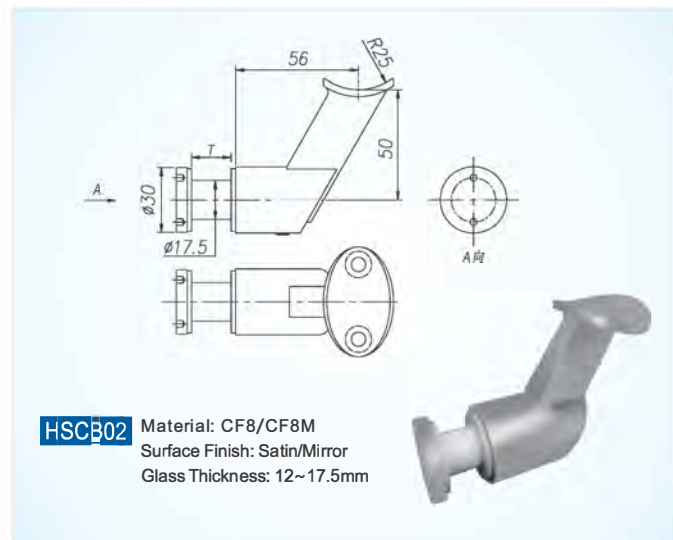
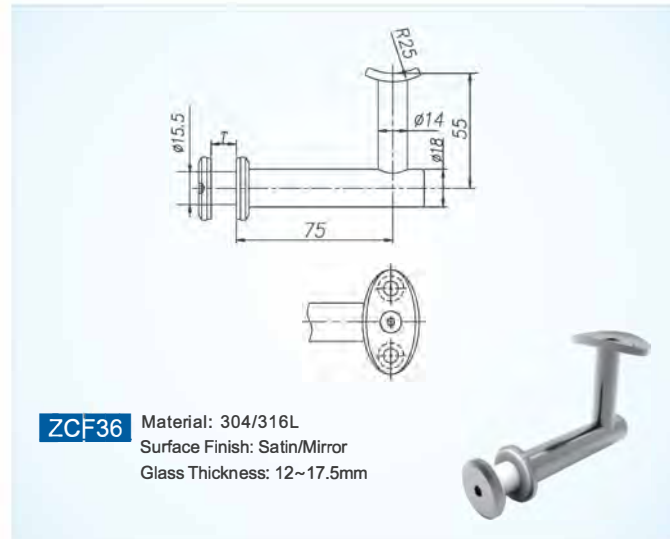
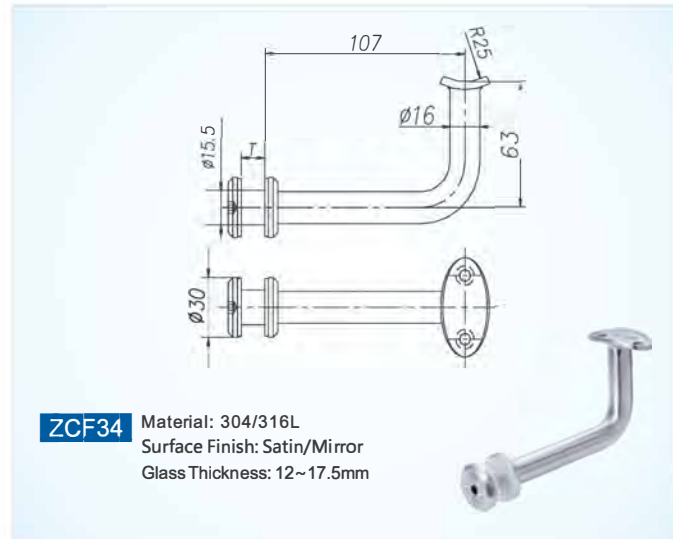


## Handrail Supporting Connected to Glass

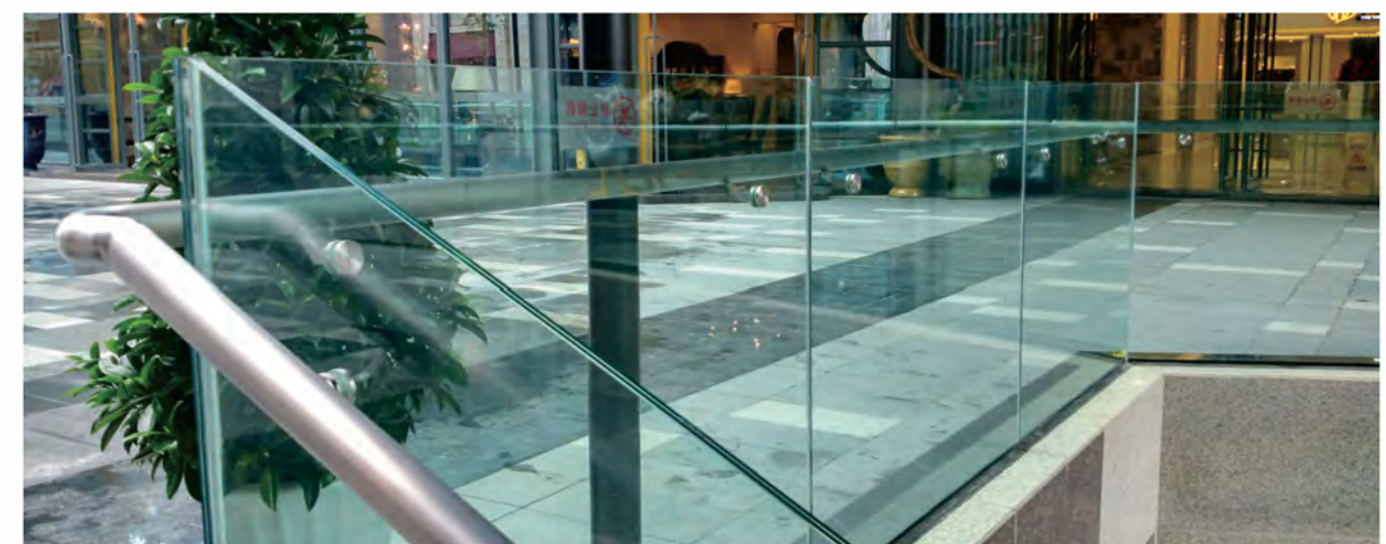
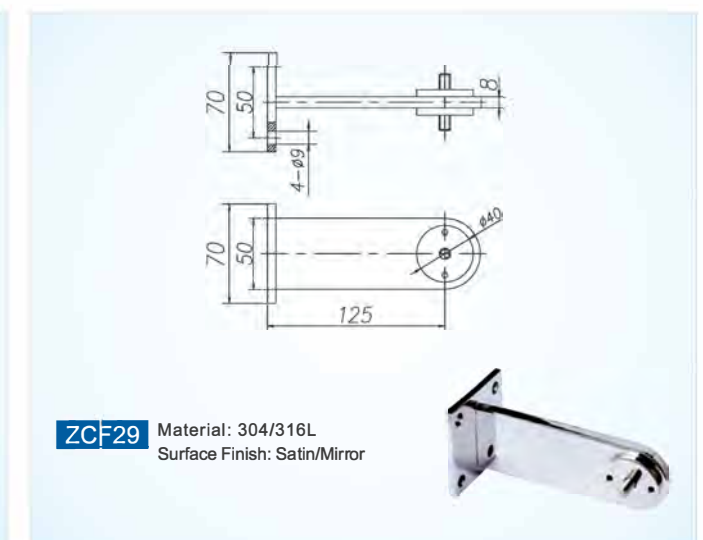
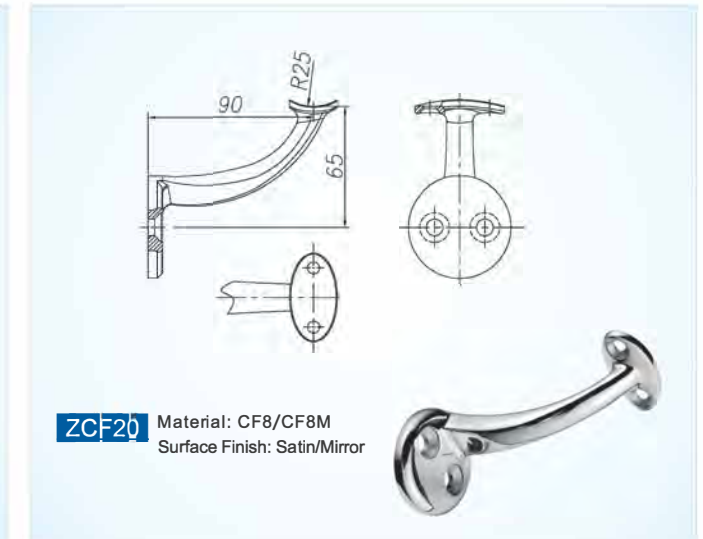
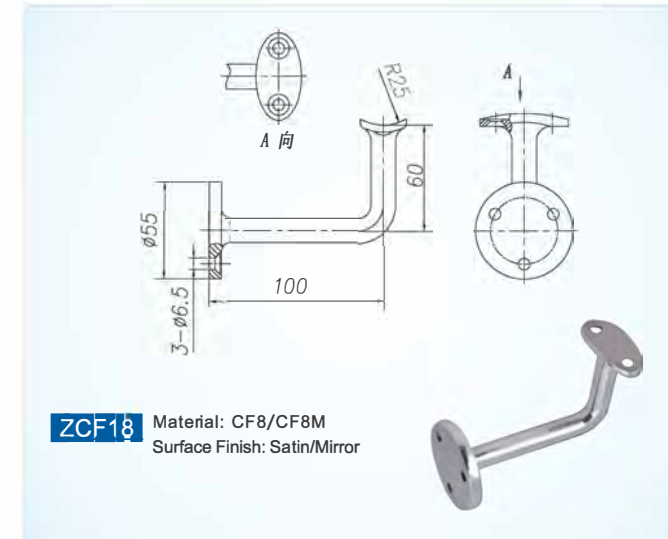




## Handrail Supporting Connected to Glass



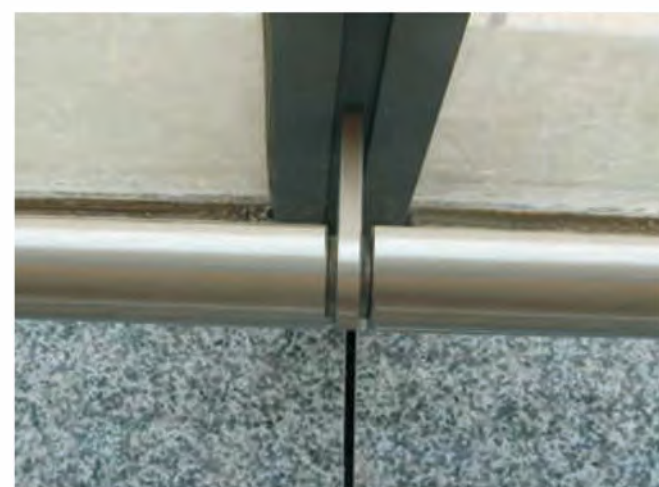
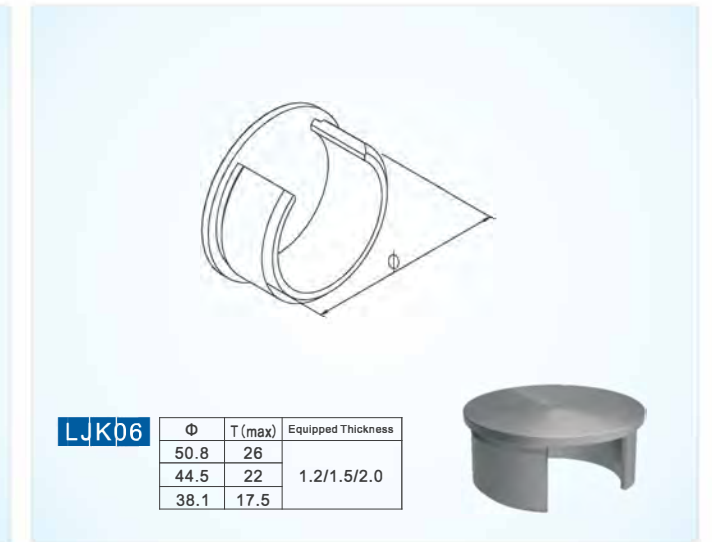
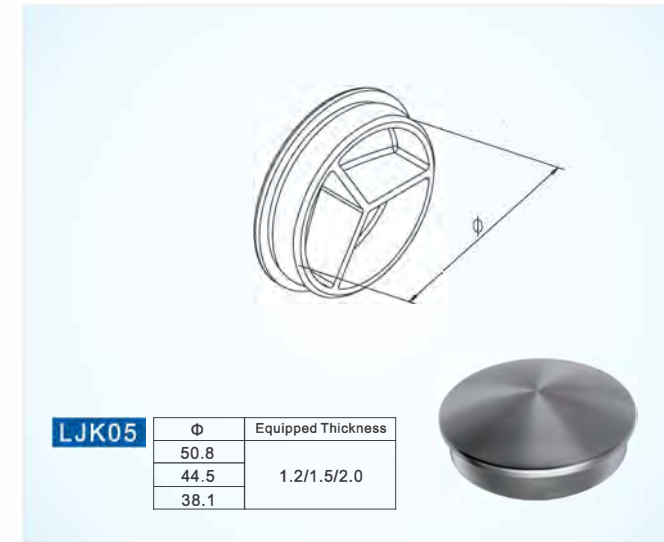
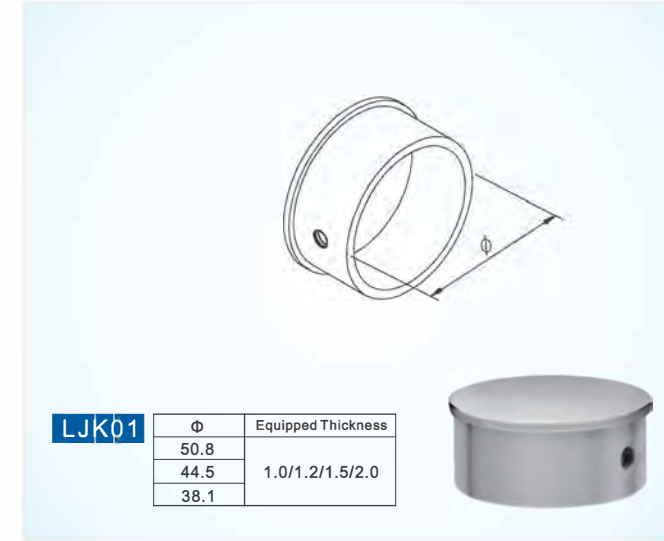
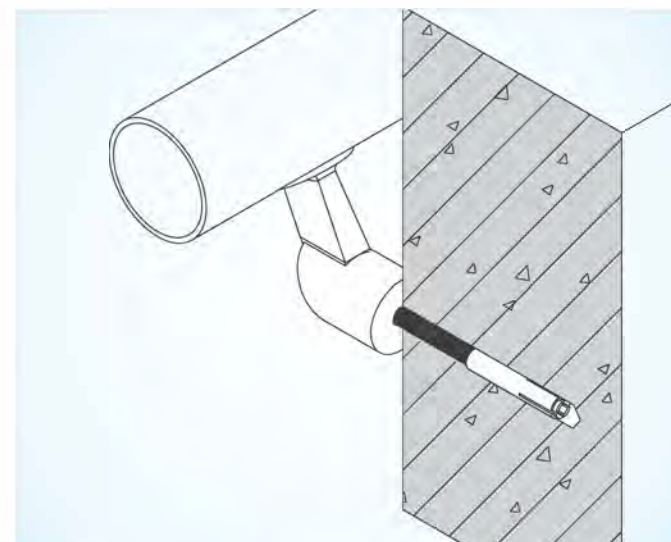
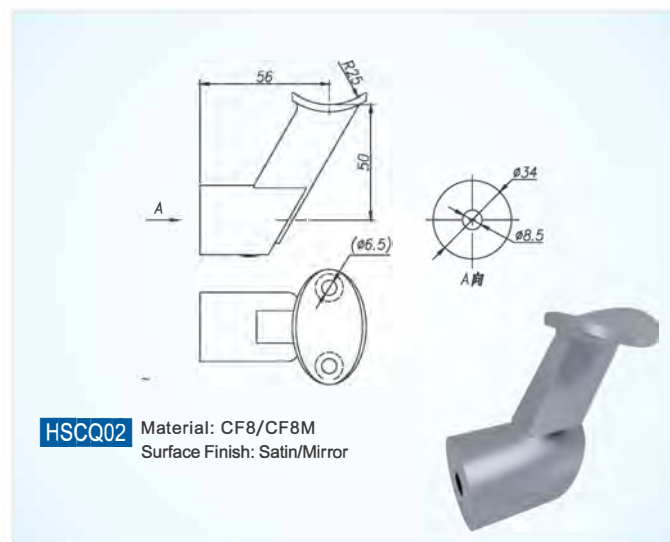
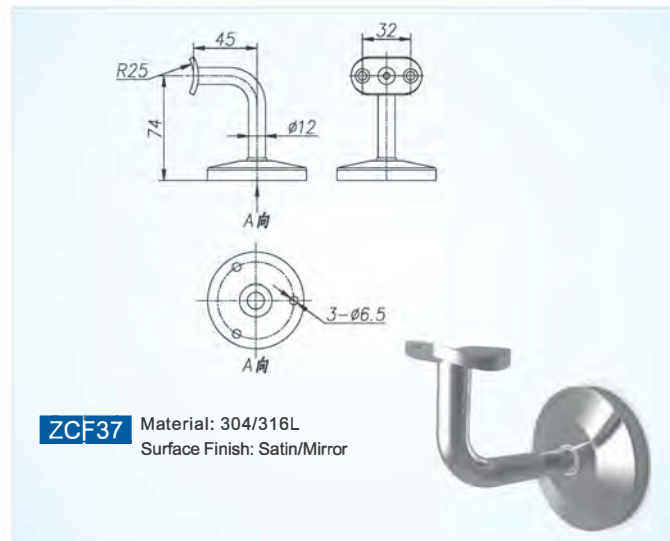
## Handrail Supporting Connected to Wall





## Handrail Supporting Connected to Wall

## End Cap





## Connector

**LJL01**

Φ	Equipped Thickness
50.8	1.0/1.2/1.5/2.0
44.5	
38.1	

**LJL02**

**LJL03**

Φ	Equipped Thickness
50.8	1.2/1.5/2.0
44.5	
38.1	

**LJL04**

Φ	T	Equipped Thickness
50.8	26	1.2/1.5/2.0
44.5		
38.1		

**LJL05**

**Connector Installation Instruction**

**End cap Installation Instruction**

## Elbow

**LJW01**

Φ
Φ60.3
Φ50.8
Φ44.5

**LJW02**

Φ	Equipped Thickness
Φ63.5	1.0/1.2/1.5/2.0
Φ60.3	
Φ50.8	
Φ44.5	
Φ38.1	

**LJW03**

Φ	Equipped Thickness
Φ63.5	1.0/1.2/1.5/2.0
Φ60.3	
Φ50.8	
Φ44.5	
Φ38.1	

**LJW04**

Φ	Equipped Thickness
Φ50.8	1.0/1.2/1.5/2.0

**LJW05**

Φ	Equipped Thickness
Φ50.8	1.0/1.2/1.5/2.0

**LJW06**

Φ	Equipped Thickness
Φ50.8	1.0/1.2/1.5/2.0

**LJW08**

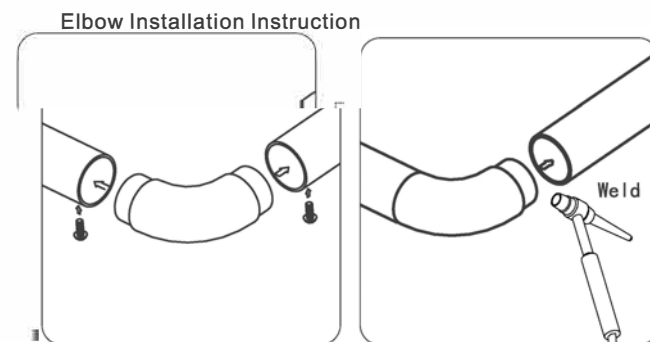
Φ	Equipped Thickness
Φ50.8	1.0/1.2/1.5/2.0

**LJW09**

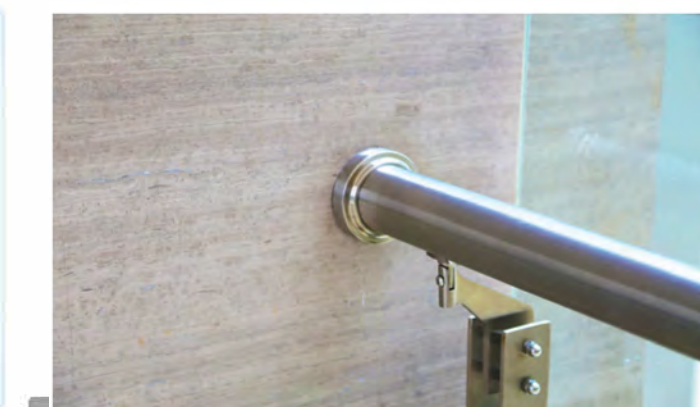
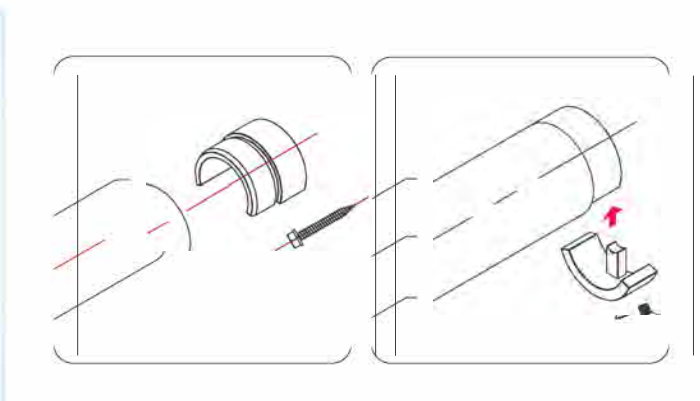
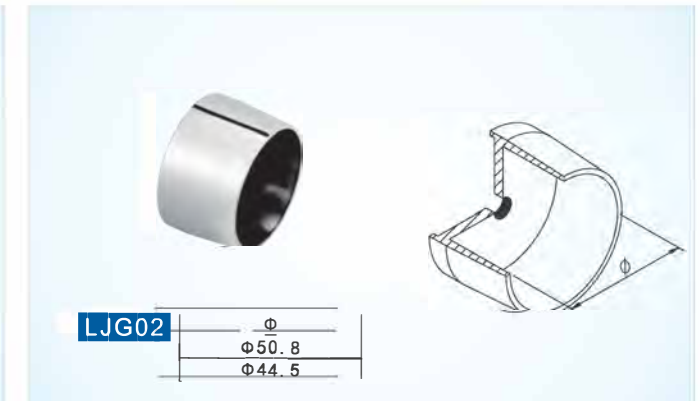
Φ	Equipped Thickness
Φ50.8	1.2/1.5/2.0



## Elbow



## Base Plate





## Cover Plate



### Base Plate and Cover Plate Installation Instruction



## Cable-strut Accessories



### Mechanical Performance of Stainless Steel Wire Rope

Structure	Nominal Diameter	Minimum Breaking Tension (KN)	Reference Weight (kg/100 m)
6×7+1WS (7×7)	$\phi$ 3.0	6.37	3.70
	$\phi$ 4.0	9.51	6.50
	$\phi$ 5.0	14.7	10.5
	$\phi$ 6.0	18.6	15.1
6×19+1WS (7×19)	$\phi$ 4.0	10.7	6.7
	$\phi$ 5.0	17.4	10.5
	$\phi$ 6.0	23.5	14.9

Note: Above content quoted from GB/T 9944 《stainless steel wire ropes》



## Micro Cable Accessories

Anchor

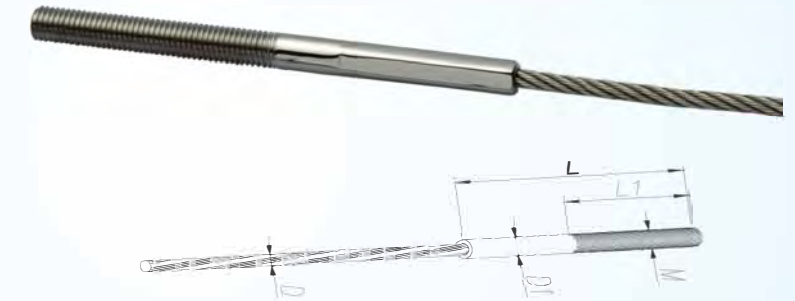


Diagram for Micro Cable Assembly



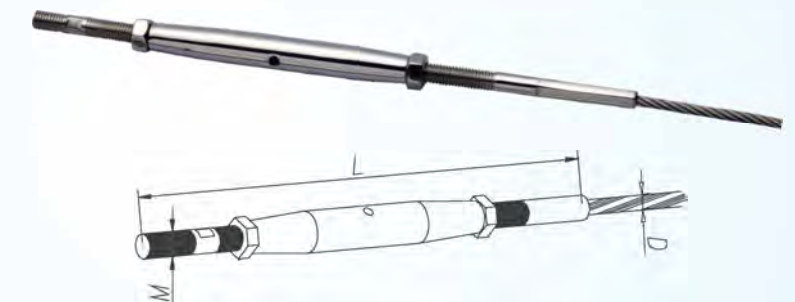
### A-W

D	D1	L	L1	M
Ø3	Ø6	63	28	M5
Ø4	Ø7.5	79	33	M6
Ø5	Ø8	92	39	M8
Ø6	Ø10	111	45	M10



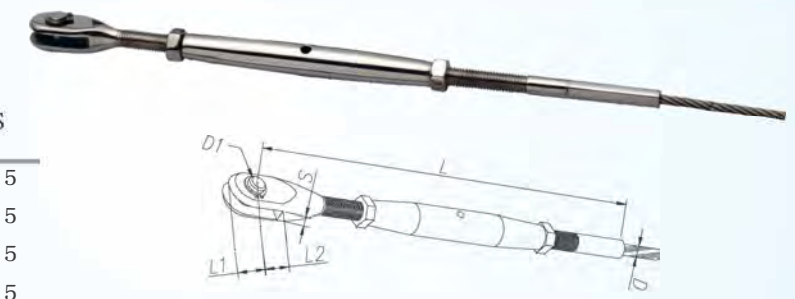
### A01-W Adjustable Anchor

D	L mm		M
	min	max	
Ø3	121	151	M5
Ø4	149	190	M6
Ø5	171	215	M8
Ø6	205	250	M10



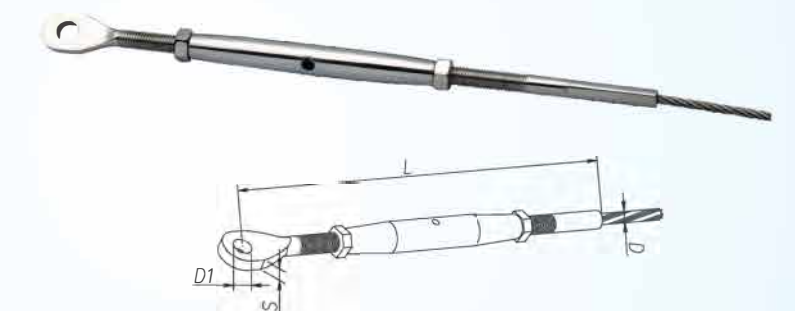
### A05-W Adjustable Anchor

D	L mm		D1	L1	L2	S
	min	max				
Ø3	126	156	Ø5	9.5	12	3.5
Ø4	151	191	Ø6	11	14	4.5
Ø5	172	212	Ø8	12.8	16	5.5
Ø6	206	256	Ø10	15	19	6.5



### A07-W Adjustable Anchor

D	L mm		D1	S
	min	max		
Ø3	126	156	Ø5.5	3
Ø4	151	191	Ø6.5	4
Ø5	172	212	Ø8.5	5
Ø6	206	256	Ø10.5	6

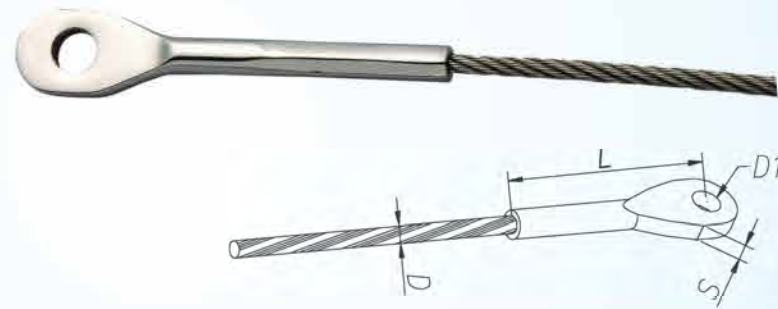




## Anchor

### D01-W

D	D1	L	S
Ø3	Ø5.5	57	3
Ø4	Ø6.5	62	4
Ø5	Ø8.5	75	5
Ø6	Ø10.5	86	6



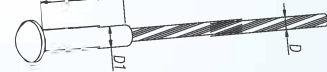
### B02-W

D	D1	L	L1	L2	S
Ø3	Ø5	57	9.5	12	3.5
Ø4	Ø6	62	11	14	4.5
Ø5	Ø8	75	12.8	16	5.5
Ø6	Ø10	86	15	19	6.5



### G-W

D	D1	L
Ø3	Ø6	31
Ø4	Ø8	45
Ø5	Ø8	45
Ø6	Ø10	54



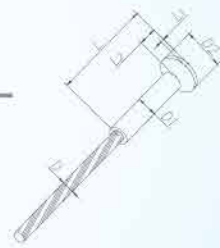
### LJ-6

D	D1	L	M
Ø12	Ø7	31	M5
Ø14	Ø8	35.4	M6
Ø18	Ø10	44.2	M8
Ø24	Ø15	56.3	M10



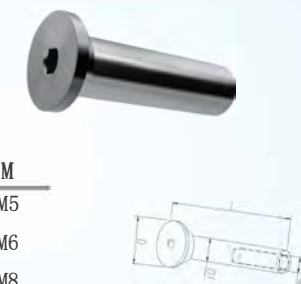
### T-W

D	D1	D2	L	L1	L2
Ø3	Ø6	Ø12	35	4	1.5
Ø4	Ø8	Ø14	50	5	2
Ø5	Ø8	Ø14	50	5	2
Ø6	Ø10	Ø18	60	6	2.5



### LJ-7

D	D1	L	M
Ø12	Ø7	35	M5
Ø14	Ø8	40	M6
Ø18	Ø10	50	M8
Ø24	Ø15	56	M10



## Micro Bar Accessories

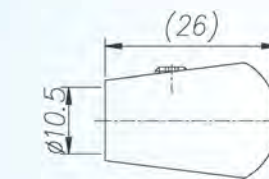
D | Ø3 Ø4 Ø5

Note: 5mm ≤ L ≤ 7mm

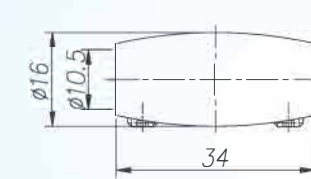
### A08-W



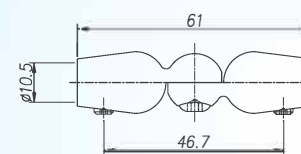
### XG01



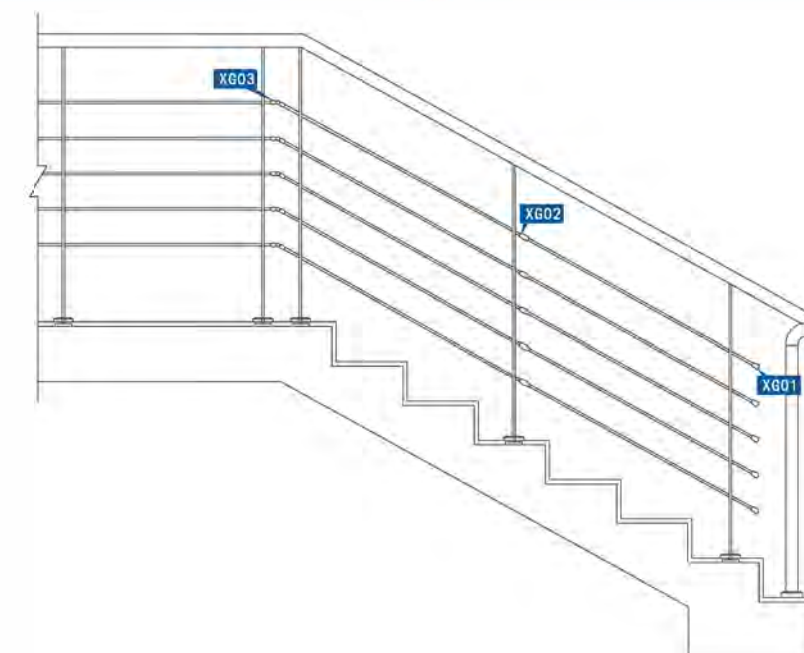
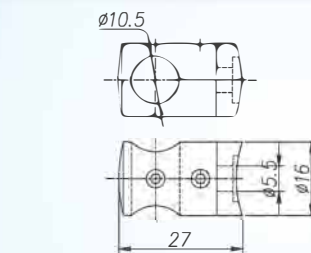
### XG02



### XG03

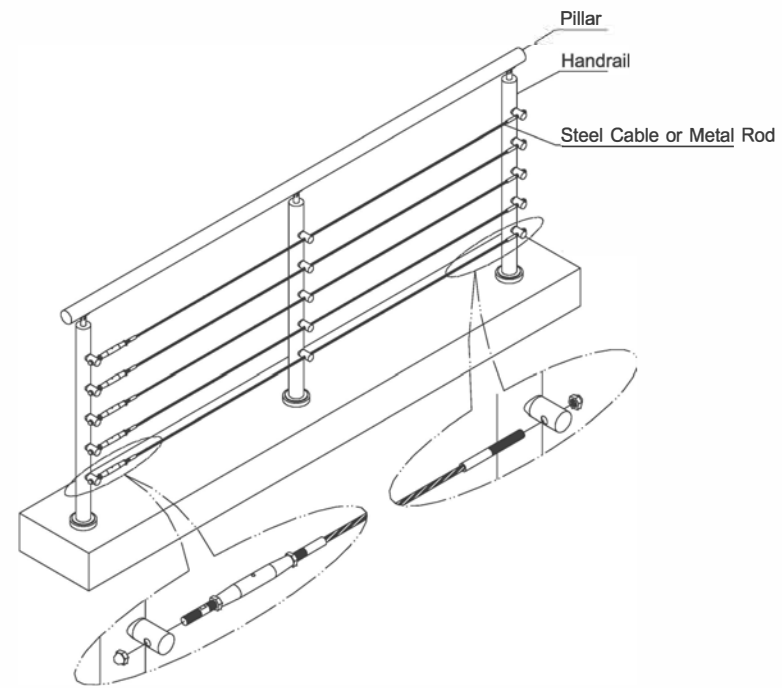


### XG04



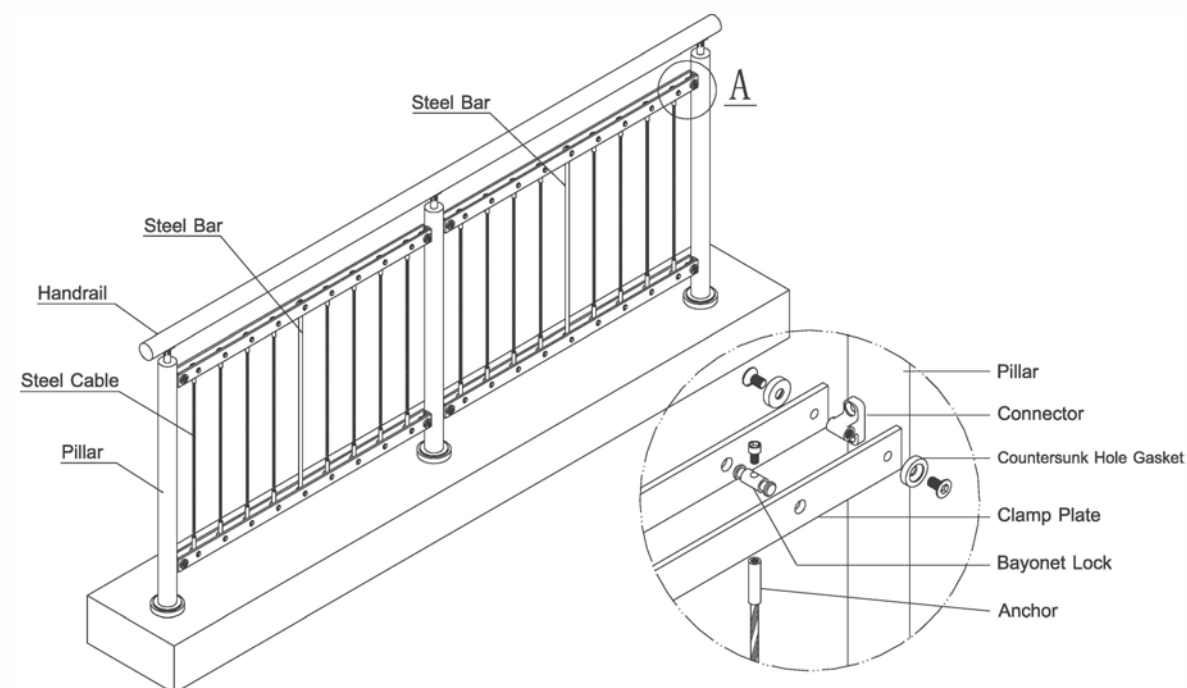


Installation Diagram of Micro Cable Post Railing System  
(Vertical Line)



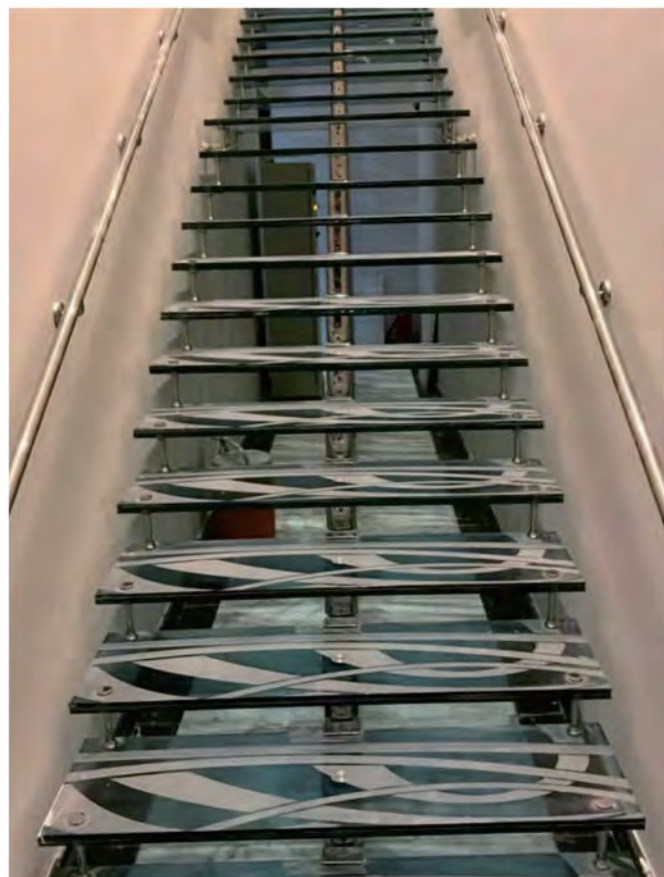
Note: The platform is not recommended to use the horizontal steel cable post railing system.  
This type of post railing is suggested to be used at the staircase and slope places.

Installation Diagram of Micro Cable Post Railing System  
(Vertical Line)

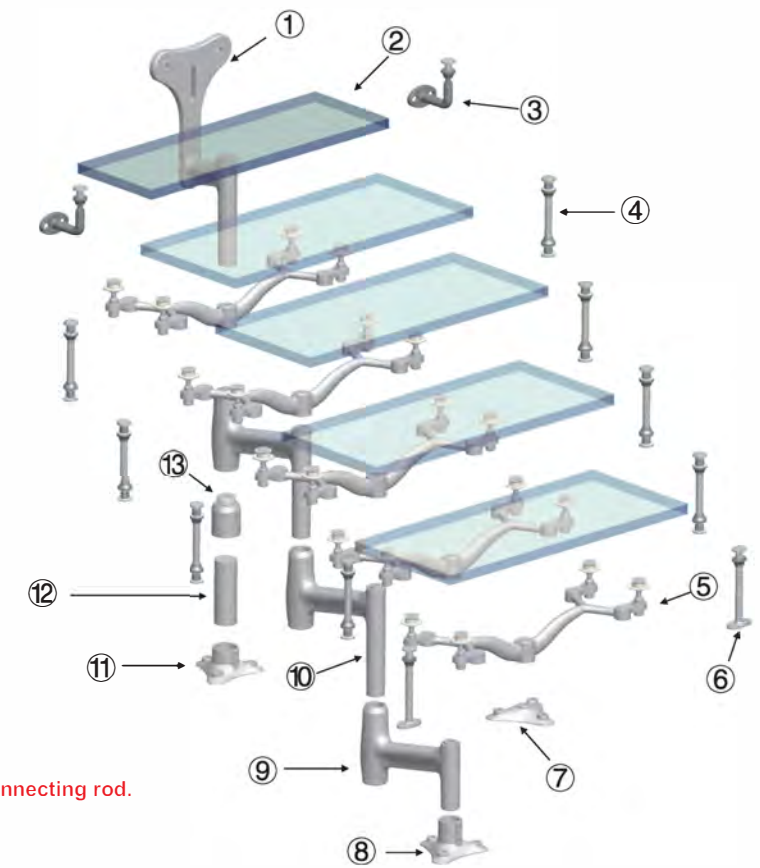




## Assembled Staircase Accessories Series



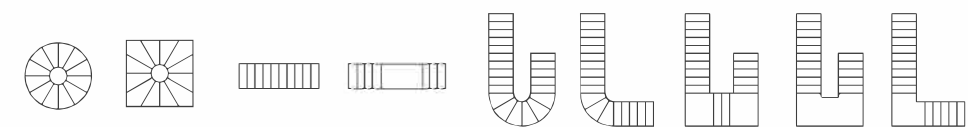
## Assembled Staircase N01



- ① N01-01 Upper Supporter
- ② Glass Step
- ③ N01-10 Wall Supporter
- ④ N01-08 Connecting Rod
- ⑤ N01-09 Step Supporter
- ⑥ N01-11 First Step Supporter.
- ⑦ N01-05 First Step Supporter
- ⑧ N01-04 Second Step Supporter
- ⑨ N01-03 Second Step Keel
- ⑩ N01-02 Keel
- ⑪ N01-06 Strengthened Supporter
- ⑫ Supporting Tubes
- ⑬ N01-07 Strengthened Supporting Cap

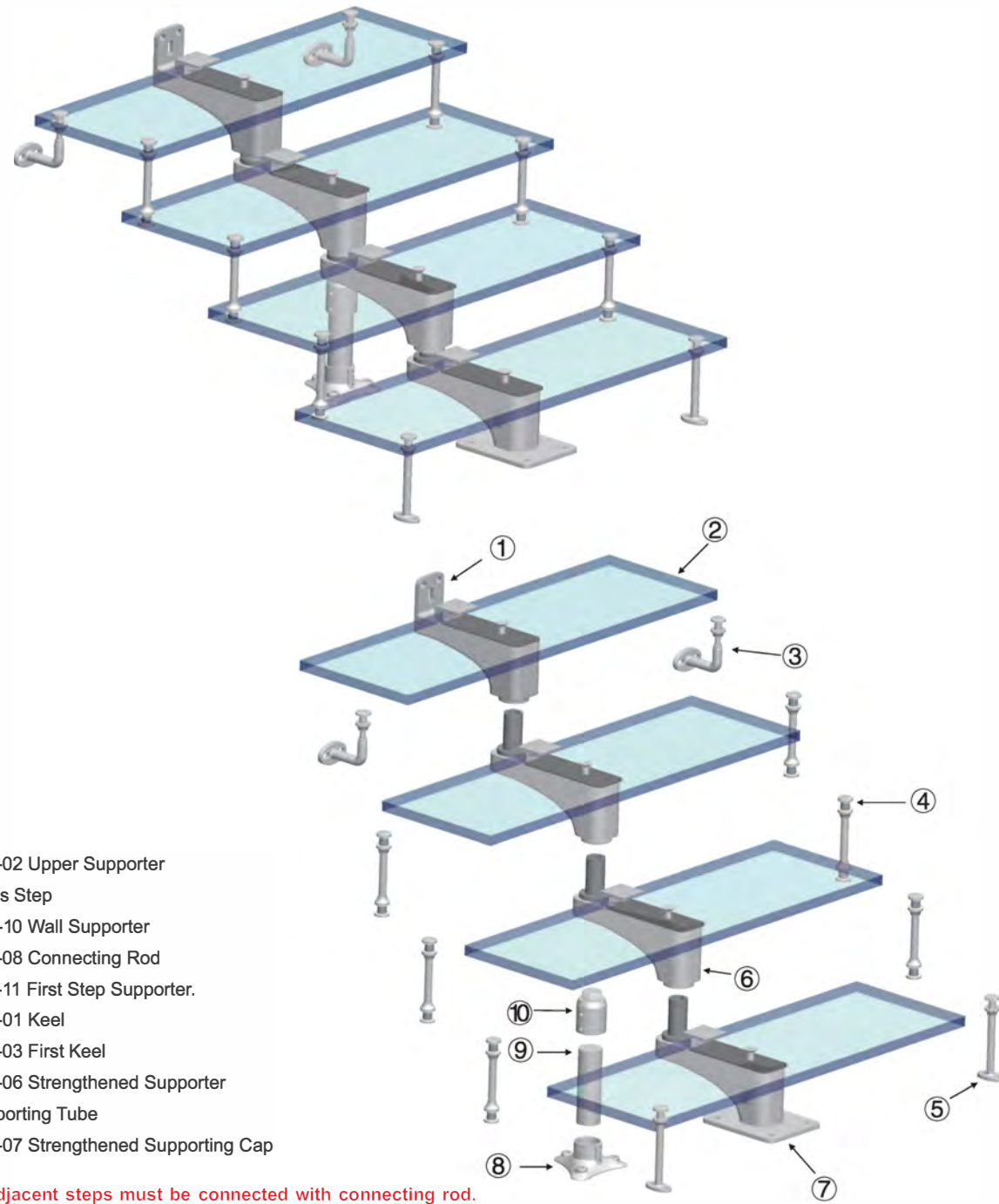
Note: Adjacent steps must be connected with connecting rod.

Reference style of #1 stair Installation.





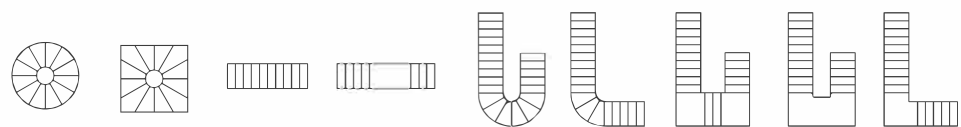
### Assembled Staircase N02



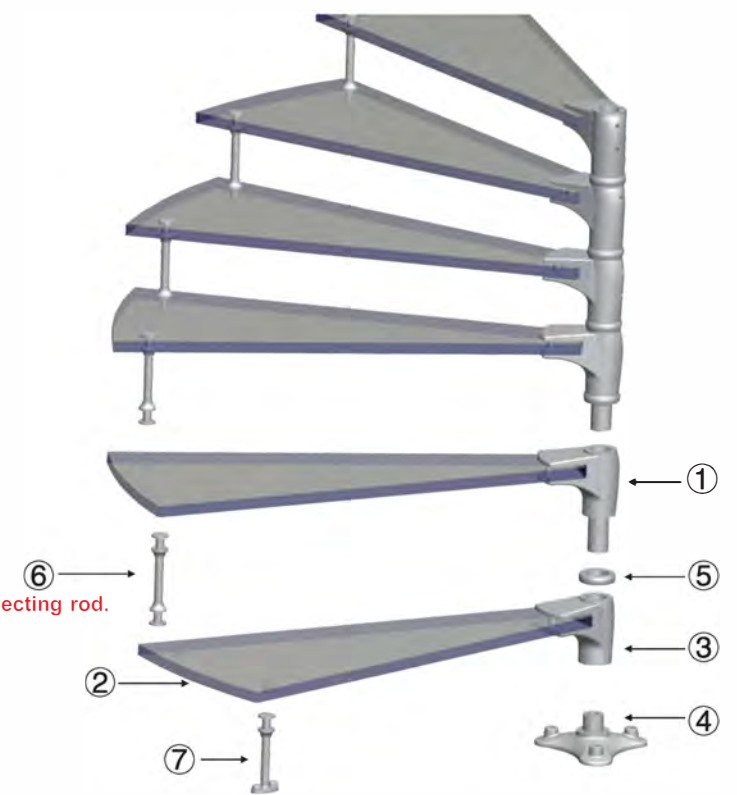
- ① N02-02 Upper Supporter
- ② Glass Step
- ③ N01-10 Wall Supporter
- ④ N01-08 Connecting Rod
- ⑤ N01-11 First Step Supporter.
- ⑥ N02-01 Keel
- ⑦ N02-03 First Keel
- ⑧ N01-06 Strengthened Supporter
- ⑨ Supporting Tube
- ⑩ N01-07 Strengthened Supporting Cap

Note: Adjacent steps must be connected with connecting rod.

Reference style of #1 stair installation.



### Assembled Staircase N03



- ① N03-01 Keel
- ② Glass Step
- ③ N03-02 First Keel
- ④ N03-03 First Supporter
- ⑤ N03-04 Flange Ring
- ⑥ N01-08 Connecting Rod
- ⑦ N01-11 First Step Supporter

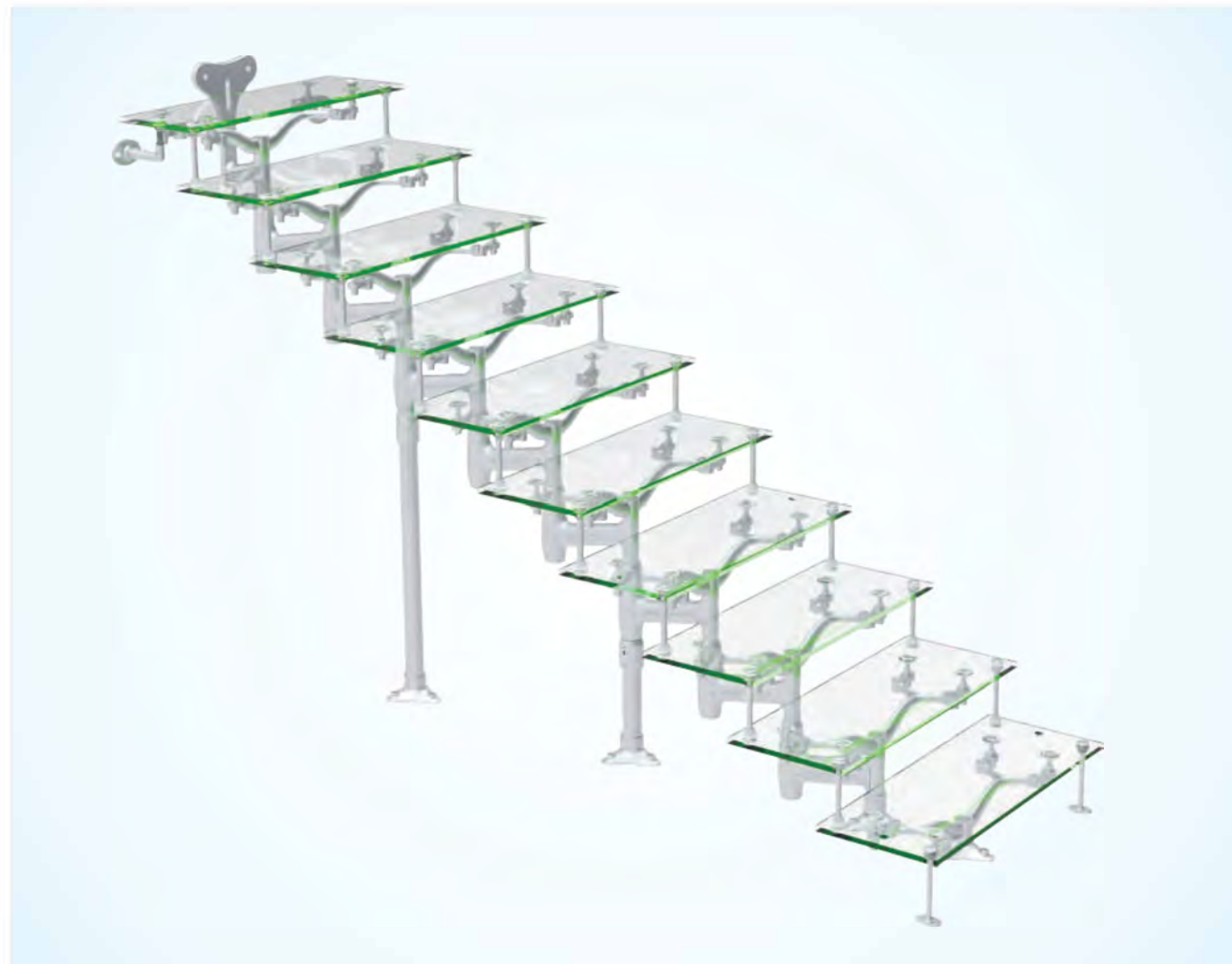
Note: Adjacent steps must be connected with connecting rod.

Reference style of #1 stair installation.





## Assembled Staircase Accessories

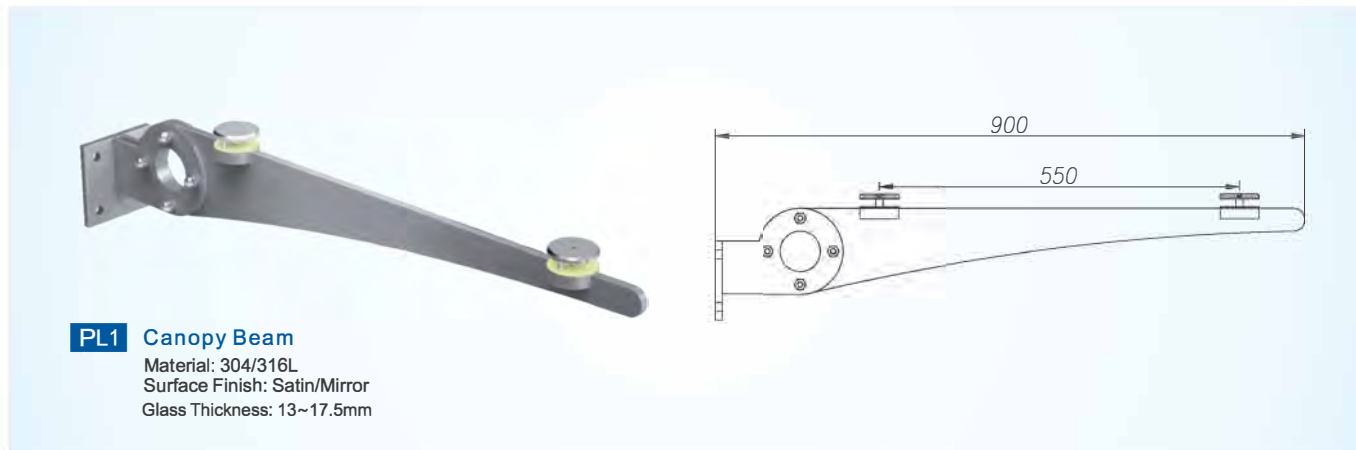
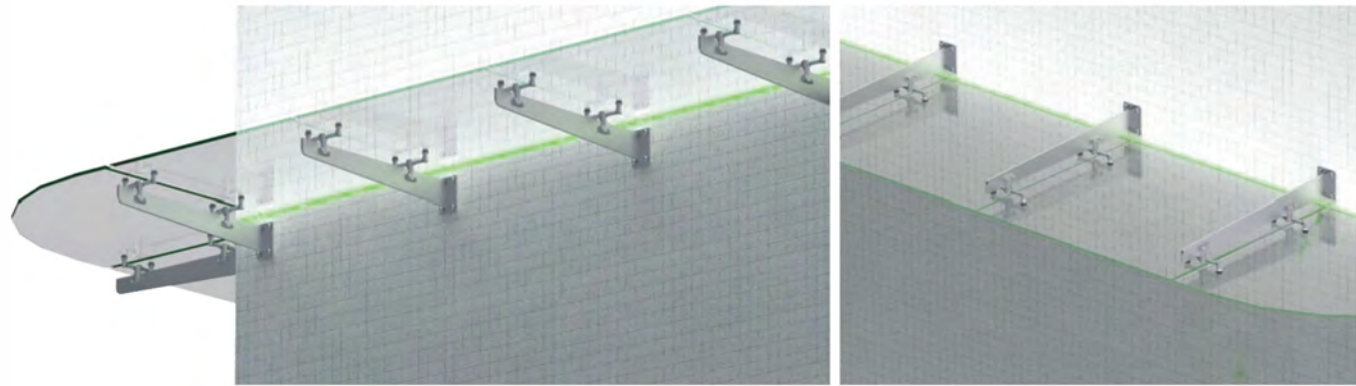


## Assembled Staircase Accessories

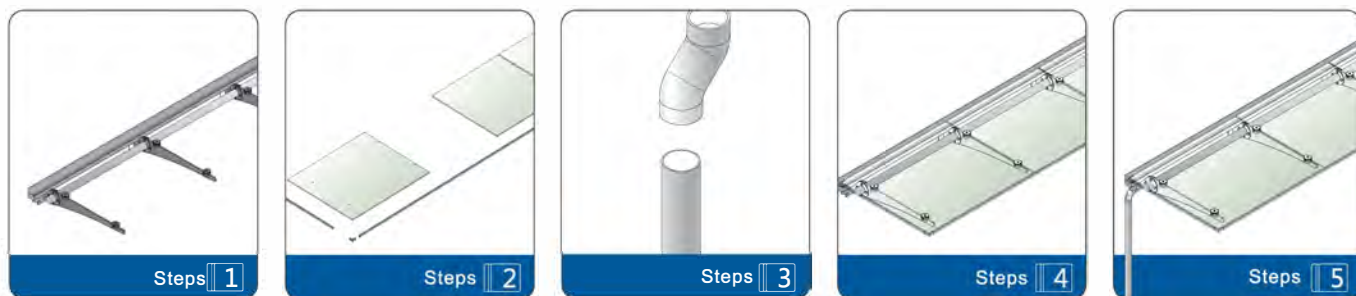
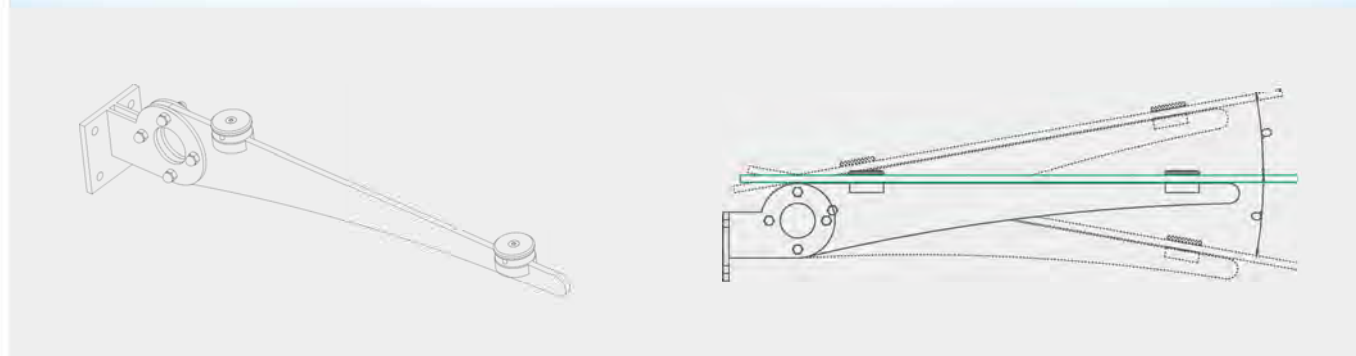




## Canopy Beam

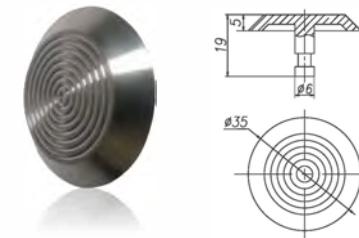


**PL1 Canopy Beam**  
 Material: 304/316L  
 Surface Finish: Satin/Mirror  
 Glass Thickness: 13~17.5mm

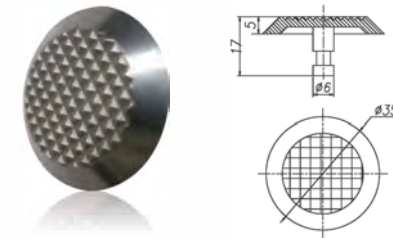


## Metro Products

**DTD01 Blind Nail**

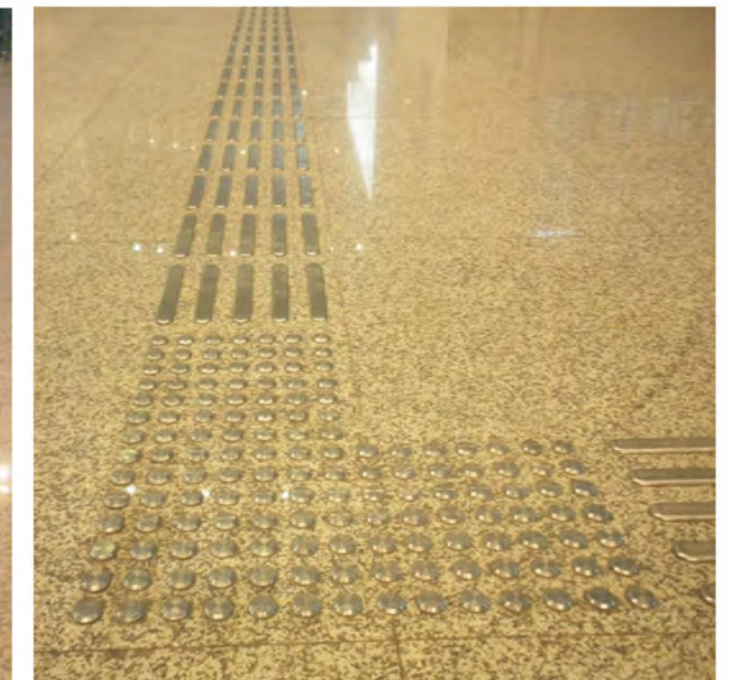
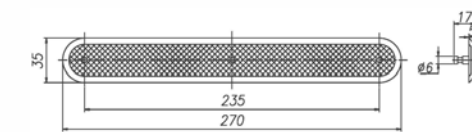


**DTD02 Blind Nail**



Material: CF8 / CF8M  
 Surface Finish: Satin

**DTT01 Blind Bar**



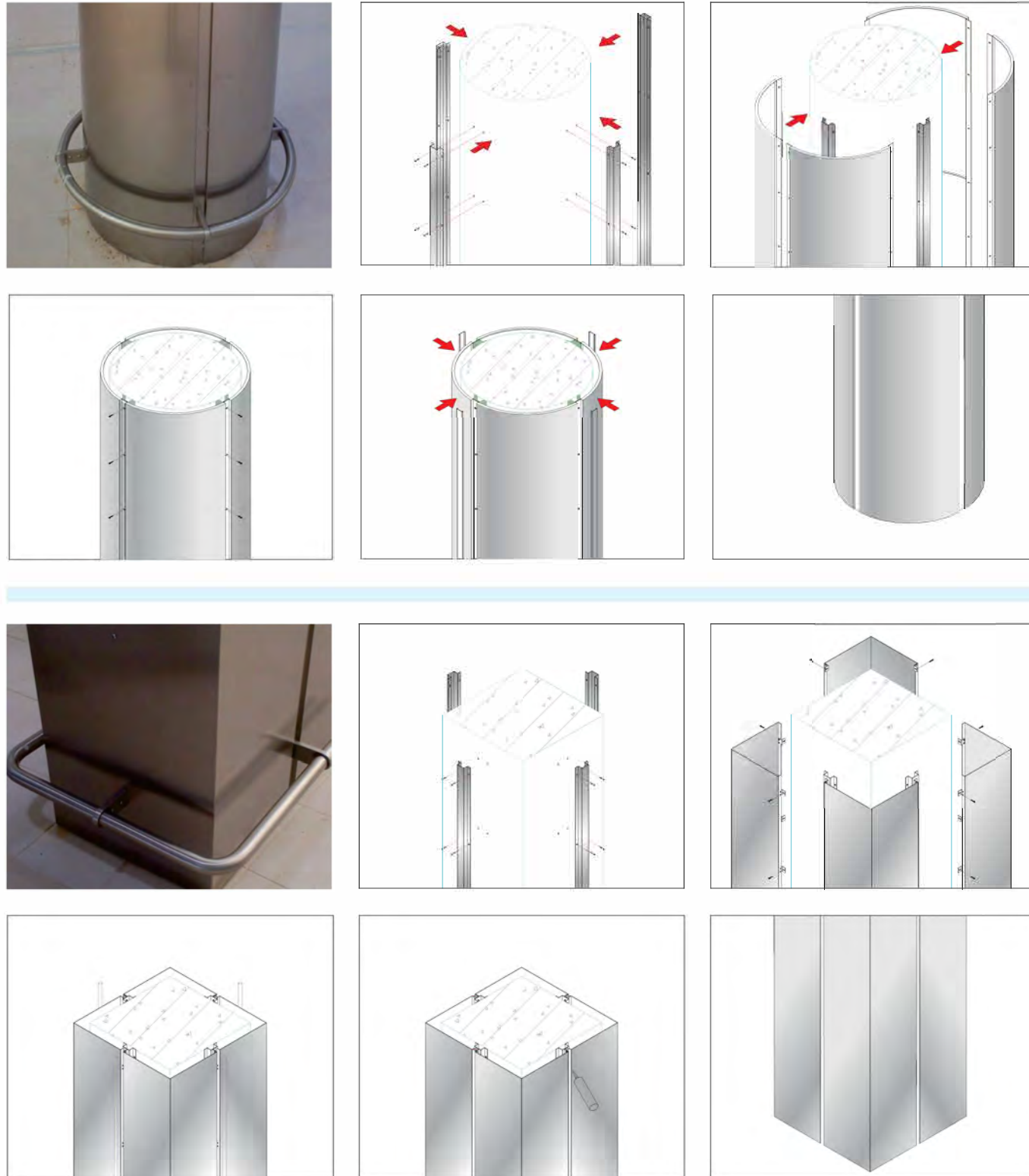


## Sheet Metal Products

Stainless Steel  
Column Covers

Material: 304/316L  
Surface Finish: Satin/Mirror  
Panel Thickness T: 1.2/1.5/2.0/2.5mm

**Note:** Sheet metal unfolding size is less than 1500mm and the length of the size is less than 3000mm. All products should be customized according to the project requirement.



## Commonly Used Pipe Specifications

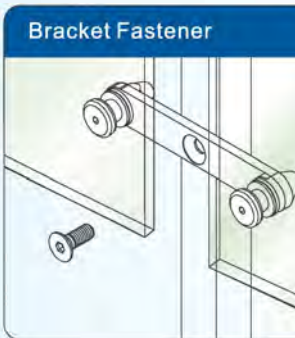


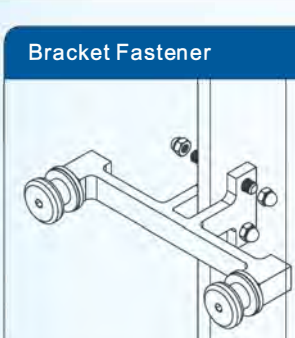
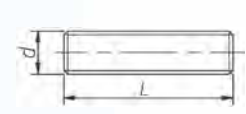
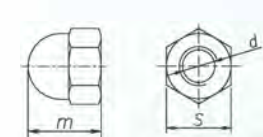

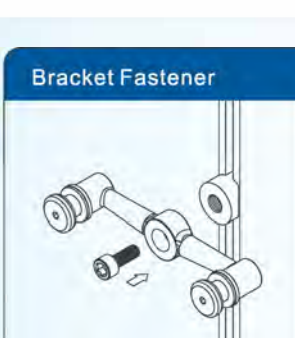



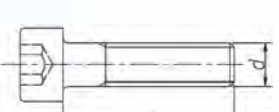
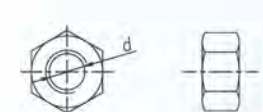



 <p><b>Circular Tube</b></p> <p><math>\phi</math></p> <table border="1"> <tr><td>10</td><td>15.9</td><td>25.4</td></tr> <tr><td>31.8</td><td>38.1</td><td>50.8</td></tr> <tr><td>60.3</td><td>63.5</td><td>76.2</td></tr> </table>	10	15.9	25.4	31.8	38.1	50.8	60.3	63.5	76.2	 <p><b>Elliptical Tube</b></p> <p><math>a \times b</math></p> <table border="1"> <tr><td>30*60</td><td>40*80</td></tr> <tr><td>46*100</td><td>50*120</td></tr> </table>	30*60	40*80	46*100	50*120	 <p><b>Flat Elliptical Tube</b></p> <p><math>a \times b</math></p> <table border="1"> <tr><td>30*60</td><td>40*75</td></tr> <tr><td>50*110</td><td></td></tr> </table>	30*60	40*75	50*110		
10	15.9	25.4																		
31.8	38.1	50.8																		
60.3	63.5	76.2																		
30*60	40*80																			
46*100	50*120																			
30*60	40*75																			
50*110																				
 <p><b>Square Tube</b></p> <p><math>a \times a</math></p> <table border="1"> <tr><td>20*20</td><td>25*25</td><td>30*30</td><td>40*40</td></tr> <tr><td>50*50</td><td>60*60</td><td>70*70</td><td>100*100</td></tr> </table>	20*20	25*25	30*30	40*40	50*50	60*60	70*70	100*100	 <p><b>Rectangular Tube</b></p> <p><math>a \times b</math></p> <table border="1"> <tr><td>10*20</td><td>10*50</td><td>15*50</td><td>20*50</td><td>25*75</td></tr> <tr><td>30*50</td><td>30*60</td><td>30*70</td><td>40*80</td><td>50*100</td></tr> </table>	10*20	10*50	15*50	20*50	25*75	30*50	30*60	30*70	40*80	50*100	 <p><b>Circular U Tube</b></p> <p><math>\phi</math> 48.3 50.8 63.5 76.2</p> <p><math>t \times h</math> 27*30 15*15 20*20 25*25</p> <p>19*32 23*25</p> <p>25*20</p> <p>Commonly Used Thickness: 1.2 / 1.5</p>
20*20	25*25	30*30	40*40																	
50*50	60*60	70*70	100*100																	
10*20	10*50	15*50	20*50	25*75																
30*50	30*60	30*70	40*80	50*100																
 <p><b>Elliptical U Tube</b></p> <p><math>a \times b</math> 40*80</p> <p><math>t \times h</math> 24*24</p> <p>Commonly Used Thickness: 1.0 / 1.2 / 1.5</p>	 <p><b>Square U Tube</b></p> <p><math>t \times h</math> 15*15 (40*40)</p> <p>Commonly Used Thickness: 1.0 / 1.2 / 1.5</p>	 <p><b>Rectangular U Tube</b></p> <p><math>a \times b</math> 40*60</p> <p><math>t \times h</math> 24*24</p> <p>Commonly Used Thickness: 1.2 / 1.5</p>																		

**Note:** Above specifications are for your reference only. Any other specification is required, please consult us.



## Common Fasteners Matching Table

<p><b>Bracket Fastener</b></p> 	<p><b>Hexagon Socket Countersunk Screw (DIN 7991)</b>                      Screw Nominal Length L: 12、16、20、25、30、35                      Mark Example: Screw DIN 7991 M10*12</p>  
<p><b>Bracket Fastener</b></p> 	<p><b>Threaded Bolt (GB/T 15389)</b>                      Mark Example: Threaded Bolt GB/T 15389 M8*40</p> <p><b>Cap Nut (DIN 1587)</b>                      Mark Example: Nut DIN1587 M8</p>   
<p><b>Bracket Fastener</b></p> 	<p><b>Hexagon Socket Cap Screw (DIN 912)</b>                      Screw Nominal Length L:10、12、16、20、25、30、35、40、45、50、55、60                      Mark Example: Screw DIN 912 M10*16</p>  
<p><b>Glass Clamp Fastener</b></p> 	<p><b>Hexagon Socket Cap Screw (DIN 912)</b>                      Mark Example: Screw DIN 912 M8*L</p> <p><b>Hexagon Thin Nut (GB/T 6172.1)</b>                      Mark Example: Nut GB/T 6172.1 M8</p>   

## Post Railing Project Cases

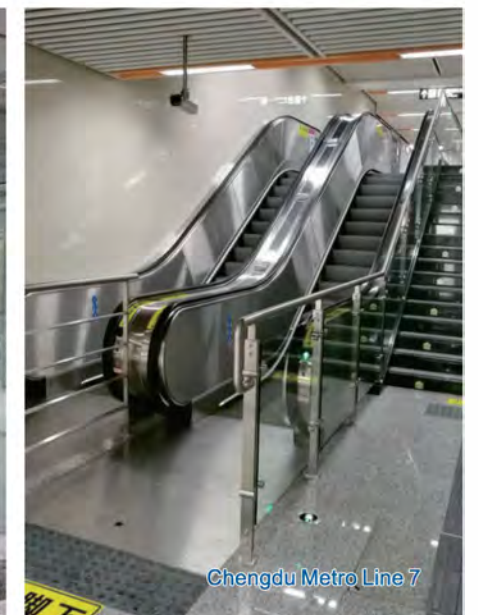
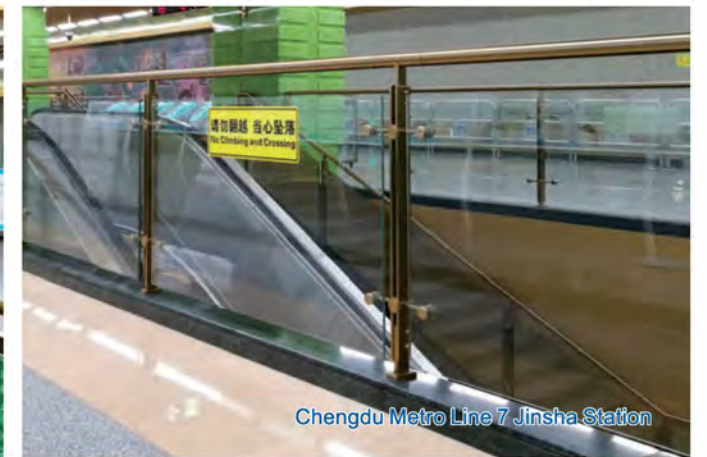
<p><b>Airport</b></p> <ul style="list-style-type: none"> <li>Beijing Capital International Airport</li> <li>Guangzhou Baiyun International Airport</li> <li>Tianjin Binhai International Airport</li> <li>Yunnan Kunming International Airport</li> <li>Shanxi Taiyuan International Airport</li> <li>Nanning Wuwei International airport</li> <li>Jiangxi Nanchang International</li> <li>Wuhan Tianhe International Airport</li> <li>Chongqing Jiangbei International Airport Terminal T3</li> <li>Taiwan Taoyuan International Airport</li> <li>Dubai International Airport</li> <li>Kenya International Airport</li> <li>Tokyo International Airport</li> <li>Doha International Airport</li> <li>Muscat International Airport</li> <li>Abu Dhabi Airport</li> <li>The Emirates Aviation Building</li> <li>Abu Dhabi International Airport</li> <li>Cairo International Airport Terminal 2,</li> <li>Abuja Nnamdi Azikiwe International Airport</li> <li>The Queen Alia International Airport</li> <li>Las Vegas casino International Airport</li> <li>Kuwait new international airport administrative building</li> <li>阿尔及利亚机场新航站楼项目</li> </ul>	<p><b>Subway Stationetic</b></p> <ul style="list-style-type: none"> <li>Chengdu Metro Line 1, 2, 7</li> <li>Fuzhou rail Transit Line 1</li> <li>Shenzhen Metro Line 11</li> <li>Wuxi Metro Line 2</li> <li>Xi'an Metro</li> <li>Shijiazhuang Metro</li> <li>Changzhou Railway Station</li> <li>Zhengzhou East Station</li> <li>Tianjin Railway Station</li> <li>Xi'an North Railway Station</li> <li>Hong Kong West Kowloon High-speed Railway Station</li> <li>Chengdu Second Ring Road Bus Rapid Transit System</li> </ul>	<p><b>Commercial/Syntheses</b></p> <ul style="list-style-type: none"> <li>Beijing Chaoyang Joy City</li> <li>Beijing Huazheng Building</li> <li>Beijing COFCO Plaza</li> <li>Wangfujing Department Store</li> <li>Shanghai jinhongqiao International Center</li> <li>Shanghai Yueyang Plaza</li> <li>Shanghai Shopping Center</li> <li>Guangzhou Zhujiang New Town</li> <li>Shenzhen Vanke One City</li> <li>Shenzhen Yitian Holiday Shopping Center</li> <li>Shenyang Heng Long square</li> <li>Shenyang Joy City</li> <li>Shenyang glory Plaza</li> <li>Shenyang Pengli Square</li> <li>Shenyang Henglong Middle Street</li> <li>Capitaland Raff City Chengdu</li> <li>Chengdu Maoye Center</li> <li>Yunnan Qujing Commercial Building</li> <li>Kuming Jialianhua Square</li> <li>Kunming Shuncheng Shopping Center</li> <li>Lanzhou New World Shopping Square</li> <li>Zhenzhou MIXC</li> <li>Wuhan IKEA</li> <li>Hangzhou MIXC</li> <li>Wuxi IKEA Shopping Center</li> <li>Qingdao Wanda Plaza</li> <li>Bulgarian Varna Shopping Center</li> <li>Singapore Binhai Bay Comprehensive Entertainment City</li> <li>Australian Top West Mansion</li> </ul>
	<p><b>Residential</b></p> <ul style="list-style-type: none"> <li>Hangzhou Ginkgo Biloba</li> <li>Hainan Island</li> <li>Zhuhai Renheng Peninsula Garden</li> <li>Yunnan Mountain bay</li> <li>Tianjin Jewelry Garden</li> <li>Xiamen Contemporary Heaven</li> <li>Xiamen Hangho Qishang</li> <li>Fuzhou East Lake · Yue Rong Bay</li> <li>Chengdu Central Iron Rose Art City</li> <li>Qinhuangdao Golden Dream Bay</li> <li>Beijing Longshan Hua Fu</li> <li>Guangzhou Time Bund</li> <li>Flower capital of Guiyang Forest City</li> <li>Zhongshan Xinghui Bay</li> </ul>	
<p><b>Gymnasium, convention and exhibition</b></p> <ul style="list-style-type: none"> <li>Tianjin Olympic Sports Center</li> <li>Shanghai Expo Center</li> <li>Oriental Pearl of Shanghai</li> <li>Oriental Pearl of Shanghai</li> <li>Ningbo International Financial Services Center</li> <li>Zhenjiang Sports Center</li> <li>Xi'an Bailing (Xi'an Horticultural Exposition)</li> <li>Shenzhen Pingshan Cultural Center</li> <li>Ningbo Cultural Center</li> <li>Ningbo International Financial Center</li> <li>Xiamen Straits Conference Center</li> <li>Wuxi World Trade Center</li> <li>Kunming Dianchi Exhibition Center</li> <li>The Observation Deck of Beijing Olympics sports park</li> <li>Hong Kong Asia International Expo</li> <li>Xiamen Jiageng Stadium</li> </ul>	<p><b>Office Building</b></p> <ul style="list-style-type: none"> <li>Fujian Radio and Television Center</li> <li>Kunming Party and Government Center</li> <li>Xi'an Radio and Television Center</li> <li>Guangzhou Mobile Branch</li> <li>Comprehensive Dispatching Building of Henan Electric Power Company</li> <li>Russian State Building</li> <li>Guangzhou Jinhai Mansion</li> <li>Wuhu Huadian Complex Building</li> <li>Beijing Petro China Building</li> <li>Wuxi World Trade Center</li> <li>National Development Bank</li> <li>Wuxi Radio and Television Media</li> <li>Office Building Of Zigong Yun Machine Group</li> </ul>	<p><b>Hotel</b></p> <ul style="list-style-type: none"> <li>Wenzhou a Wai Lou Resort Hotel</li> <li>Doha Grand Hyatt Hotel</li> <li>Xi'an Shengguang Hotel</li> <li>Sheraton Zhanjiang Minda Hotel</li> <li>Zhuhai Sheraton Hotel</li> <li>Beijing Zhongcheng Hotel</li> <li>Chengdu Maowen Hotel</li> <li>Ningbo Crown Plaza Hotel</li> <li>Hyatt Hotels</li> <li>Dall Hilton Hotel</li> <li>Hong Kong West Kowloon Hotel</li> </ul>



Airport



Station





Commercial Complex

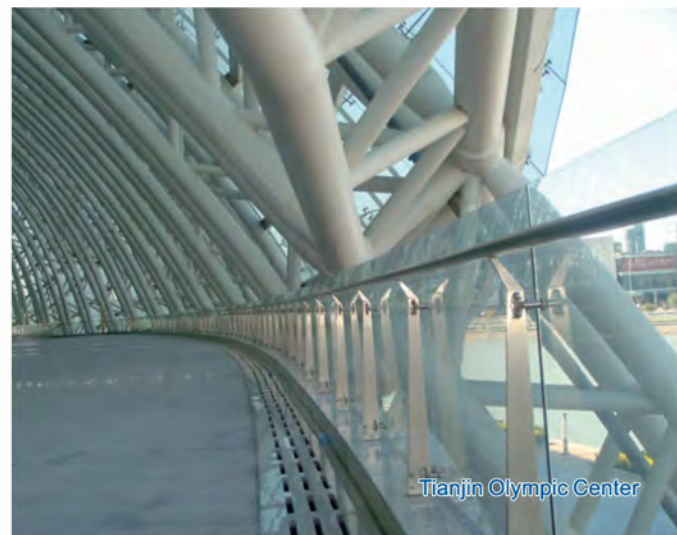


Commercial Complex





Public Building



Others





Others



Shanghai Diamond Building



Guangzhou Time Bund



Shanghai Disneyland Bridge



Zigong Transport Machine Group



Shanghai Disneyland Bridge

Others



Dali Binhai Junyuan



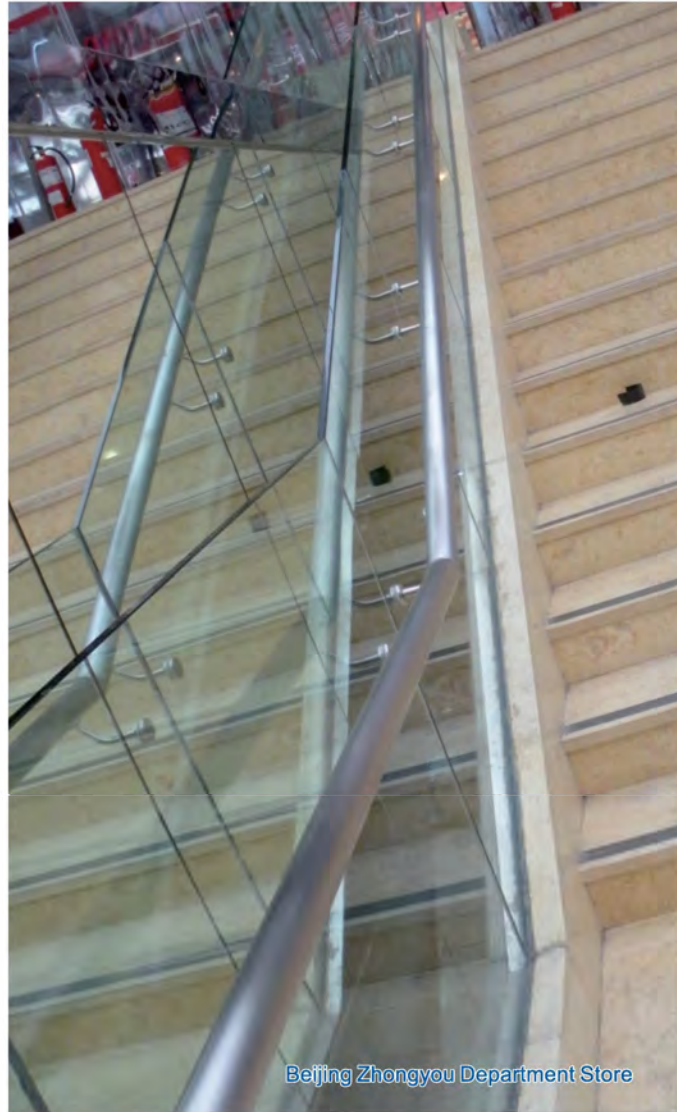
Beijing Petro China Building



Ningbo Crowne Holiday Hotel



Others



Beijing Zhongyou Department Store



Maowen Hotel



First Lobby of Zhongguancun



Hefei New Shopping Center

Others



A Wai Lou Resort Hotel



Ningbo International Financial Center



The Singapore Fengshu Commercial City

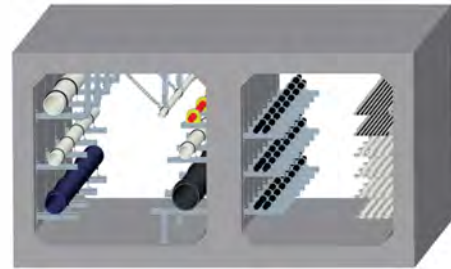


The Singapore Fengshu Commercial City

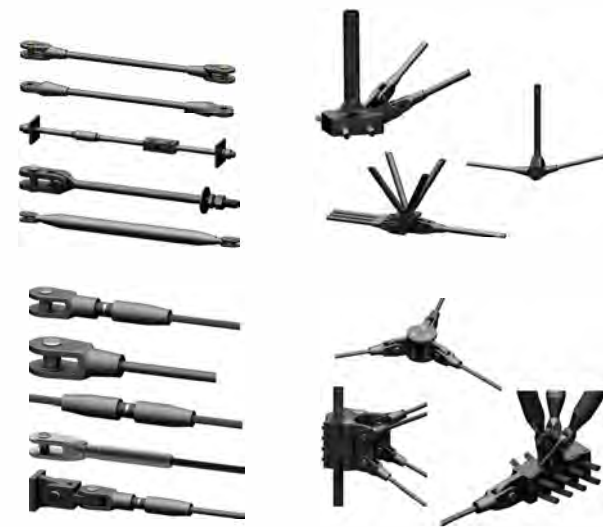


# PRODUCT WORLD

## PIPE GALLERY, PIPELINE, RAIL TRANSPORTATION PRODUCT



## CABLE PRODUCT SERIES FOR STRUCTURAL ENGINEERING



## CURTAIN WALL SYSTEM

POINT-FIXED GLASS WALL FITTINGS SERIES      CAST-IN CHANNEL ACCESSORY



ANCHORING PRODUCTS SERIES



FASTENING PRODUCTS SERIES      GTI AUTOMATIC WINDOW OPERATING SYSTEM



## DOOR & WINDOW HARDWARE SYSTEM

ALUMINUM DOOR & WINDOW HARDWARE      U-PVC GROOVE DOOR & WINDOW ACCESSORY



HOME DECORATION DOOR & WINDOW HARDWARE



NEWANTON SEALED INSULATION SYSTEM      CHUNGUANG SPACER SERIES



## INTERIOR DECORATION FITTING

DOOR CONTROL HARDWARE SERIES      LOCK HARDWARE SERIES



BATHROOM HARDWARE SERIES      S.S. RAILING SYSTEM



## IMPORT ARCHITECTURAL MATERIALS SERIES

AUSTRIA U GROOVE HARDWARE SERIES      ITALIAN FAPIM ALUMINUM DOORS & WINDOWS HARDWARE



SWISS GILGEN AUTOMATIC DOOR



## ARCHITECTURAL ACCESSORY PRODUCTS SERIES

TRENITE SAFETY PROTECTION PRODUCTS SERIES      TRENITE CONSTRUCTION TAPE SERIES



TRENITE INDUSTRY ASSISTIVE PRODUCTS SERIES      GIVEN TOOLS SUPPLIES SERIES



GIVEN PRECISION EQUIPMENT SERIES      PRECSIO ALUMINUM ALLOY LADDER SERIES



GIVEN OUTDOOR LIGHTING SERIES      FLEX POWER TOOLS SERIES



## SMART HOME SERIES

HBS SMART LOCK      GIVEN INTELLIGENCE LAUNDRY RACK SERIES



GEMVARY VIDEO INTERCOM SYSTEM

