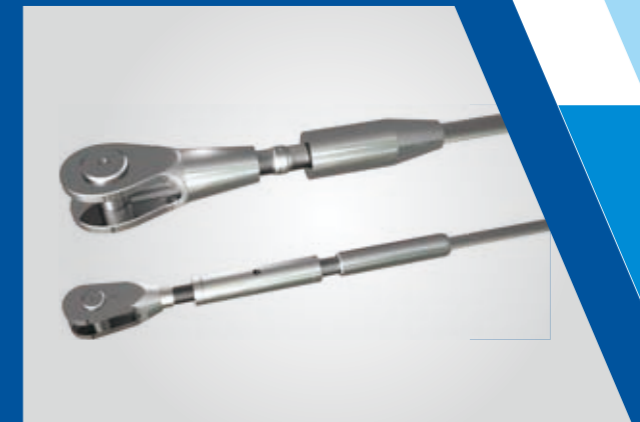


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KINLONG

KIN LONG
For Better Living

Point-Supported Glass Curtain Wall Typical Product Catalogue



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Surface Finish



Mirror



Satin



Sandblasting



Electroplating

Material & Standard

I . Material

1. The casting stainless steel products,

- Common Material: CF8,CF8M(ASTM A743/A743M)
- Optional Material: CD3MN(ASTM A890/A890M)
- Non-standard Material: Other requested casting stainless steel material which are similar to CF8,CF8M

2. The stainless steel products(sheet/tube/bar etc.):

- Common Material: 304,316(ASTM A276/A276M, ASTM A666, ASTM A269/A269M)
- Optional Material: 2205(ASTM A276/A276M, ASTM A666, ASTM A269/A269M)
- Non-standard Material: Other requested material which are similar to 304,316

3. Material Description:

Point-fixed glass curtain wall fittings, exposed as a bare outside products, are mainly made of the stainless steel with bright appearance and good corrosion resistance.KIN LONG is a supplier of high-end glass curtain wall fittings. Most of the products are made of high-end stainless steel.

The typical material are austenitic stainless steel 316,CF8M and duplex stainless steel 2205,CD3MN.

316 and 2205 are the stainless steel grades based on American standard which be applicable for profiles (sheet,tube,bar). Especially the material 316 is high-end and commonly used all over the world. It has excellent mechanical properties and corrosion resistance capacity to meet the demands of most projects. It is mostly common used material for point-fixed products currently, but it is not recommended to use in the worse environment area such as swimming pools, seaside. In these cases ,high duplex stainless steel 2205 can be selected.

Material stainless steel 2205 has the advantages compared with stainless steel 316 as following:

- 1) Yield strength is 2 times higher than common austenitic stainless steel. Having enough ductility and toughness to forming to. With the same bearing force, the accessories shape will smaller and more exquisite when take the duplex stainless steel .
- 2) Compared with the austenitic stainless steel, it has bigger yield strength, higher material utilization ratio, making for saving the material.
- 3) Compared with the austenitic stainless steel, which has the similar alloy content, its surface homogeneous corrosion, pitting corrosion and intergranular corrosion are super excellence and can apply to wicked surroundings.
- 4) Having the superior anti-stress corrosion cracking (SCC) ability, generally, it won't lead to stress corrosion cracking (the using temperature is lower than its critical temperature) when being in the chloride ion environment (seaside, natatorium).
- 5) Material 2205 coefficient of linear expansion is close to carbon steel and reinforced concrete. When taking as prestressing force rod, the thermal stress will not effect too much beyond action of thermal difference.
- 6) No needs preheating before welding. No need heating treatment after welding. It can weld with carbon steel.

Most of the point-fixed glass fittings select the precision casting process because of the diversity appearance. Due to the different manufacturing process between casting milling and rolling,KIN LONG selects the CF8M and CD3MN to produce spider with casting process , while the material 316 and 2205 can not be so prefect to present corrosion performance to use for casting process .

Corrosion resistance of stainless steel is mainly formed by surface passivation film and promoting the electrode potential from the iron-chromium alloy, therefore the production process of the stainless steel should include the heat treatment to make the alloy composition uniform. Any kind of scratch and damage on the surface should be avoided. To keep the corrosion resistance of stainless steel,please note the following :

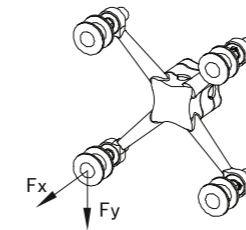
- Heat treatment should be carried out after casting according to requirements
- Stainless steel grades should be selected reasonably according to the environment
- Selecting the smooth surface treatment
- Taking product protection during the installation
- The design and application of the product should be avoided foulingand water accumulation.
- Regularly cleaning to avoid the dirty

II . Product Executive Standard

Products Series	Executive Standard
Clamp	Point-fixed Device for Construction Curtain Wall GB/T 37266-2018
Strut Bar	Stainless Steel Strut Bar DB44/T 1053-2012
Stainless Steel Tension Cable	Stainless Steel Tension Cable YB/T 4294-2012
Stainless Steel Strand	Stainless Steel Wire Strand GB/T 25821-2010
Stainless Steel Swaged Anchor	Swaged Fitting of Steel Strand for Curtain JG/T 201-2007
Stainless Steel Tension Rod	Steel Tension Rod Member for Building JG/T 389-2012
Suspension Clamp	The Suspending Clamp for Suspended Glass Curtain Wall JG 139-2017

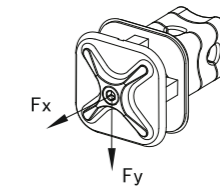
Common Calculation Formula

I .Calculation of radial and axial load for model selection



$$n_x=4$$

$$n_y=2$$



$$n_x=1$$

$$n_y=1$$

1. The Weight of The Glass Panel

$$G_k=T \times B \times H \times \rho$$

G_k —The weight of the glass panel(N);

T —The valid thickness of the glass(mm);

B — The width of the glass(m);

H —The height of the glass(m);

ρ — The gravity density of the glass(Default: 25.6);

2.Radial Force

$$F_y=1.2G_k/n_y$$

F_y —The radial force for a single point(N);

G_k —The weight of the glass panel(N);

n_y —y Number of force bearing point in y direction, see attached drawing for details;

3.Axial Force

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

F_x —The axial force for a single point(N);

q —Even distributed design value of the load on the glass panel,mainly supposed to be the wind load (N/m²) ;

B —The width of the glass(m);

H —The height of the glass(m);

n_x — x Number of force bearing point in x direction, see attached drawing for details;

II . Calculation for tightening torque of squeezing cable bolt (Deduced by *Mechanical Design Handbook*)

$$T=1.3fd/n$$

In formula T —Tightening torque of single bolt(N · mm)

f —The friction force that accessory load at the project node(N)

d —Nominal diameter of squeezing cable bolt(mm)

n —Number of squeezing cable bolt

Integrated Flat Cap Routel



Note: The ball head bolt is not removable since the base seat and the ball head bolt is integrated.

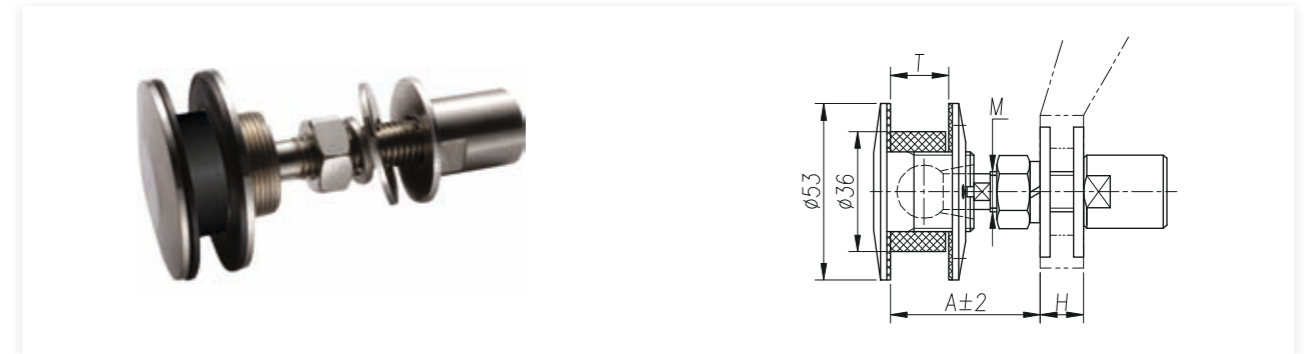
Size Model	A	M	T	H	The Available Rotation Angle	The Recommended Value of Load Capacity (N)	Main material: 316, 304		
							$F_x \leq$	$F_y \leq$	
ATF11X	45	M12	8-18	—	$\pm 5^\circ$	3000	1500		
ATF12X	53	M12	18-26	—	$\pm 5^\circ$	3000	1500		



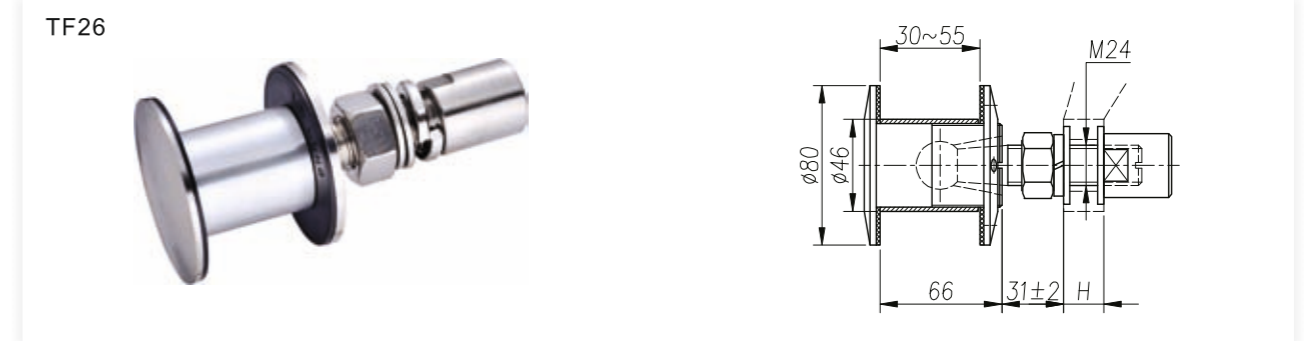
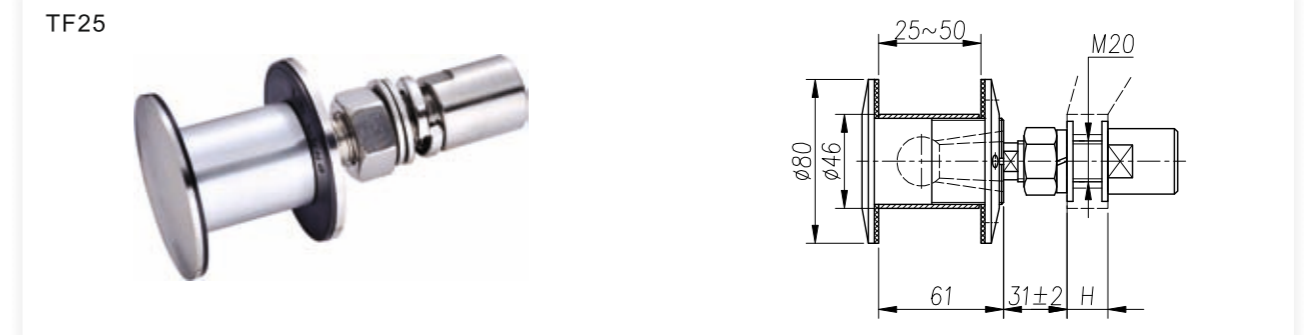
Note: The ball head bolt is not removable since the base seat and the ball head bolt is integrated.

Size Model	A	M	T	H	The Available Rotation Angle	The Recommended Value of Load Capacity (N)	Main material: 316, 304		
							$F_x \leq$	$F_y \leq$	
TF11X	60	M14	8-18	—	$\pm 5^\circ$	4500	2000		
TF12X	65	M14	18-26	—	$\pm 5^\circ$	4500	2000		

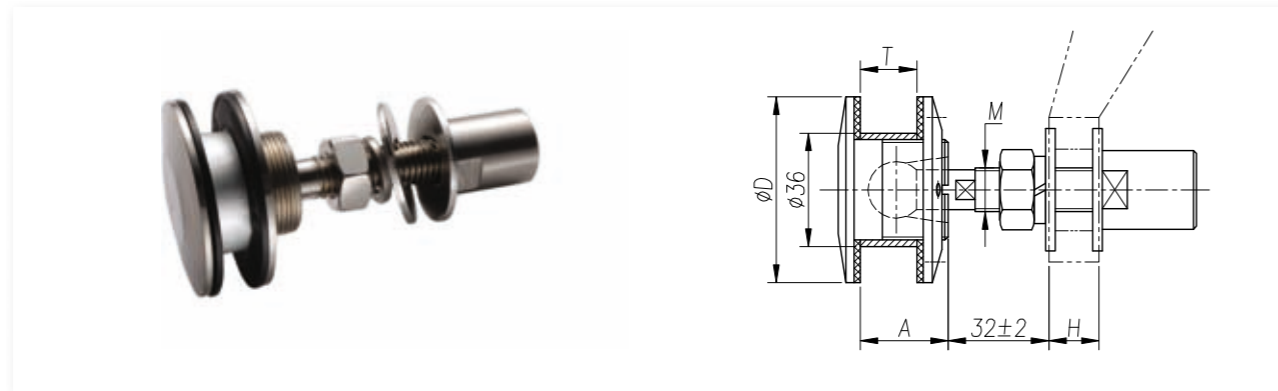
Flat Cap Routel



Size Model	A	M	T	H	The Available Rotation Angle	The Recommended Value of Load Capacity (N)	Main material: 316, 304		
							$F_x \leq$	$F_y \leq$	
ATF13	69	M14	26-40	—	$\pm 5^\circ$	3500	2000		
ATF14	78	M16	40-46	—	$\pm 5^\circ$	4000	2500		

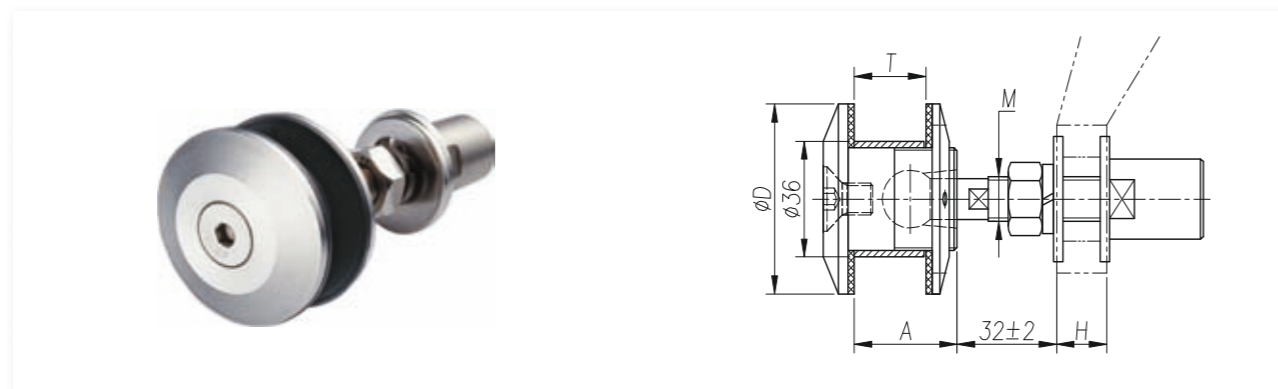


The Recommended Value of Load Capacity (N)	Model	Main material: 316, 304		The Available Rotation Angle	
		$F_x \leq$	$F_y \leq$		
	TF25	7000	3500	$\pm 5^\circ$	
	TF26	7500	5000	$\pm 5^\circ$	



Model	Size	A	D	M	T	H	The Available Rotation Angle	Main material: 316, 304	
								Fx ≤	Fy ≤
TF11A	28	59	M14	8-18	—	—	±10°	4500	2000
TF12A	36	59	M14	18-26	—	—	±10°	4500	2000
TF13(TF13A)	50	59	M16	26-40	—	—	±5°(±10°)	6000	2500
TF14(TF14A)	56	59	M18	30-46	—	—	±5°(±10°)	6500	2800
TF21(TF21A)	32	70	M16	8-22	—	—	±5°(±10°)	6000	2500
TF22(TF22A)	40	70	M16	22-30	—	—	±5°(±10°)	6000	2500
TF23(TF23A)	50	70	M16	30-40	—	—	±5°(±10°)	6000	2500
TF24(TF24A)	61	70	M18	30-50	—	—	±5°(±10°)	6500	2800
TF2E55	66	70	M18	25-55	—	—	±5°	6500	2800

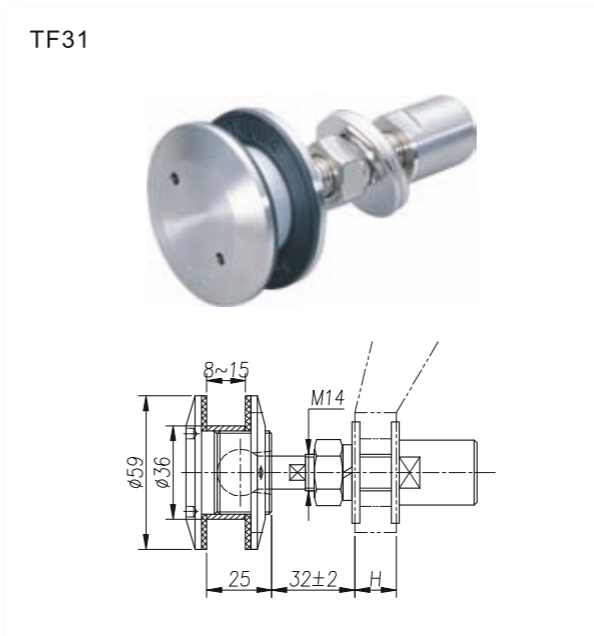
The Recommended Value of Load Capacity (N)



Note: Fastening glue is suggested to be used when installing the countersunk socket head cap screw of exterior installation route.

Model	Size	A	D	M	T	H	The Available Rotation Angle	Main material: 316, 304	
								Fx ≤	Fy ≤
TF32	33	59	M14	15-23	—	—	±5°	4500	2000
TF33	50	59	M16	23-40	—	—	±5°	6000	2500
TF34	56	59	M18	30-46	—	—	±5°	6500	2800
TF35	50	70	M16	30-40	—	—	±5°	6000	2500
TF36	61	70	M18	30-50	—	—	±5°	6500	2800

The Recommended Value of Load Capacity (N)

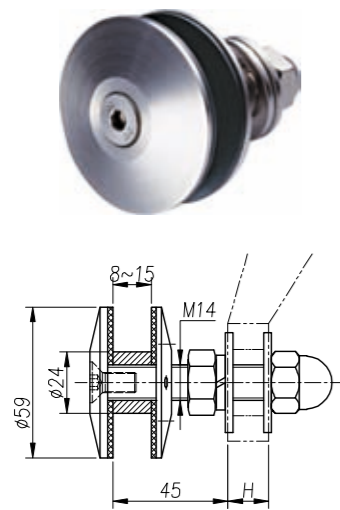


Note: Fastening glue is suggested to be used when installing the countersunk socket head cap screw of exterior installation route.

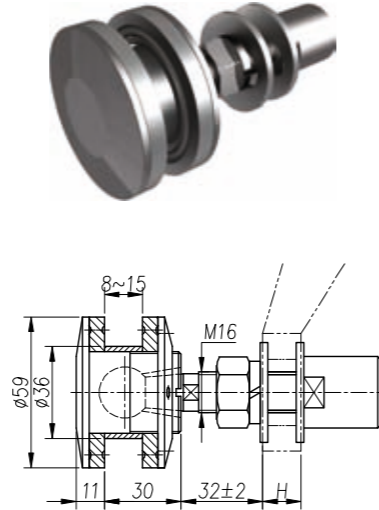
The Recommended Value of Load Capacity (N)	Model	Main material: 316, 304		The Available Rotation Angle
		Fx ≤	Fy ≤	
	TF31	4500	2000	±5°
	TF41	2500	1200	±5°
	TF42	2500	1200	—
	TF43	4500	2000	—

Flat Cap Impermeable Routel

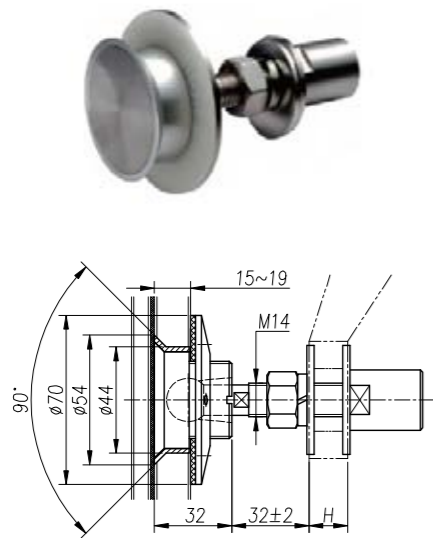
TF44



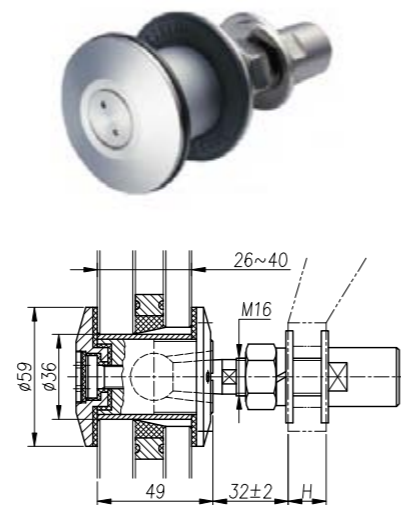
TF53



TF54



TF55



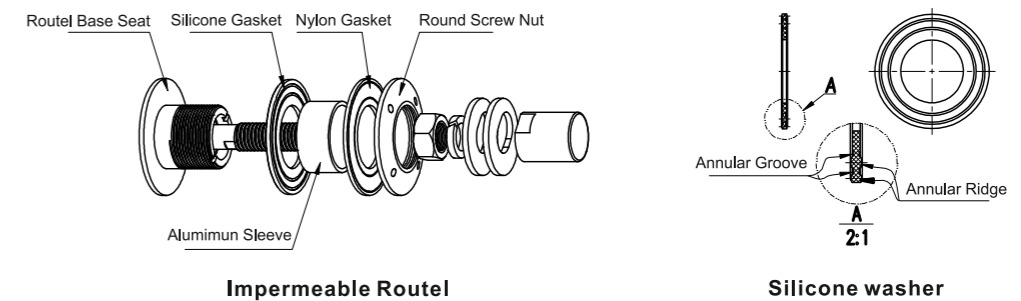
Note: Fastening glue is suggested to be used when installing the countersunk socket head cap screw of exterior installation routel.

The Recommended Value of Load Capacity(N)	Model	Main material:316, 304		
		Fx≤	Fy≤	
	TF44	4500	2000	—
	TF53	6000	2500	±5°
	TF54	4500	2000	±5°
	TF55	6000	2500	±5°

Product function:

1. The appearance and function are same as other standard routel.
2. The routel adopts soft and strong weather resistance silicone washer with special structure, no needs glue to realize the impermeable function.
3. Silicone washer has strong weather resistance and universal, which can be exchanged with the washer of other standard routel.
4. This product is our patent product.

Product structure:



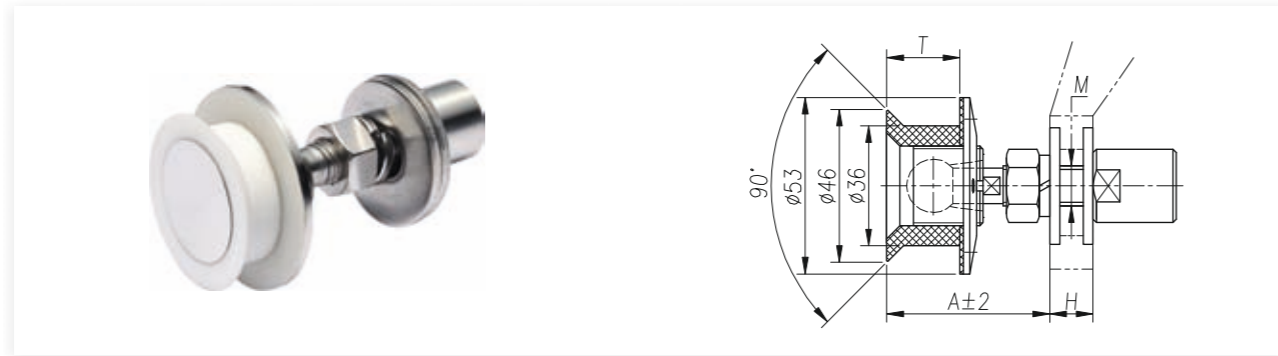
The fore part of impermeable routel is a special structural silicone washer. During the installation, the silicone washer will be out of shape by pushing and squeezing, then to realize seal and watertightness.

Product parameter

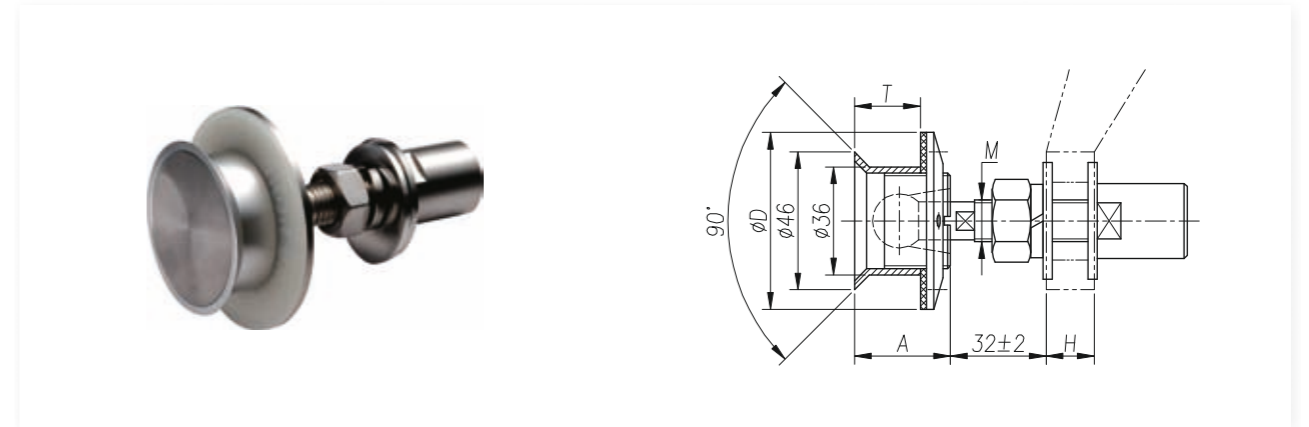


Model	Size	A	B	D	M	T	H	The Available Rotation Angle	The Recommended Value of Load Capacity(N)	Main material:316, 304	
										Fx≤	Fy≤
F-TF11X(F-TF11A)	27	32	59	M14	8-18	—	±5°(±10°)	The Recommended Value of Load Capacity(N)	4500	2000	
F-TF12A	35	32	59	M14	18-26	—	±10°		4500	2000	
F-TF12X	35	29	59	M14	18-26	—	±5°		4500	2000	
F-TF13(F-TF13A)	49	32	59	M16	26-40	—	±5°(±10°)		6000	2500	
F-TF14(F-TF14A)	55	32	59	M18	30-46	—	±5°(±10°)		6500	2800	
F-TF21(F-TF21A)	31	32	70	M16	8-22	—	±5°(±10°)		6000	2500	
F-TF22(F-TF22A)	39	32	70	M16	22-30	—	±5°(±10°)		6000	2500	
F-TF23(F-TF23A)	49	32	70	M16	30-40	—	±5°(±10°)		6000	2500	
F-TF24(F-TF24A)	60	32	70	M18	30-50	—	±5°(±10°)		6500	2800	
F-TF32	32	32	59	M14	15-23	—	±5°		4500	2000	
F-TF33	49	32	59	M16	23-40	—	±5°		6000	2500	
F-TF34	55	32	59	M18	30-46	—	±5°		6500	2800	
F-TF35	49	32	70	M16	30-40	—	±5°		6000	2500	
F-TF36	60	32	70	M18	30-50	—	±5°		6500	2800	

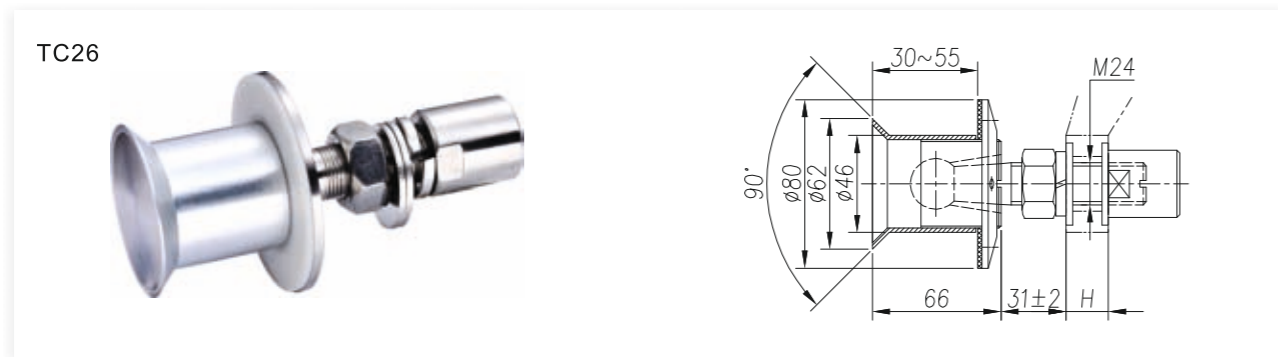
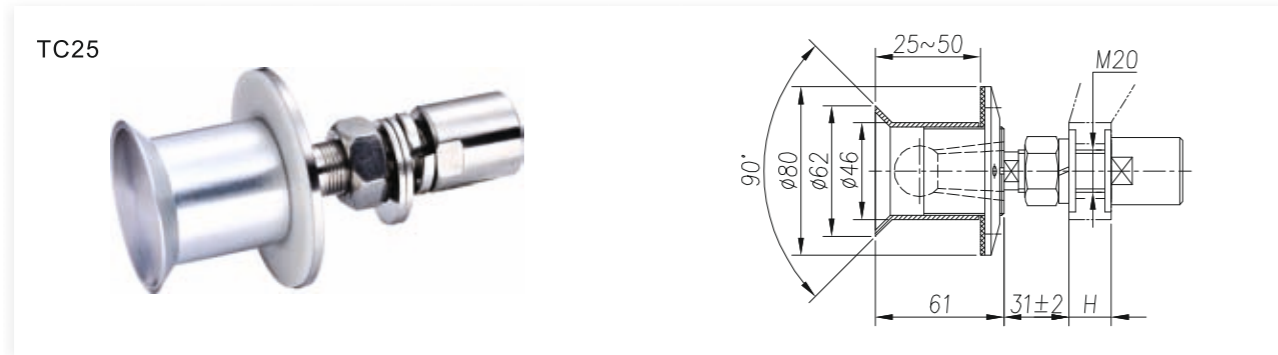
Countersunk Routel



Size Model	A	M	T	H	The Available Rotation Angle	The Recommended Value of Load Capacity(N)	Main material:316, 304	
							Fx≤	Fy≤
ATC11	49	M12	8-22	—	±5°		3000	1500
ATC12	56	M12	22-30	—	±5°		3000	1500
ATC13	69	M14	30-40	—	±5°		3500	2000
ATC14	78	M16	40-46	—	±5°		4000	2500

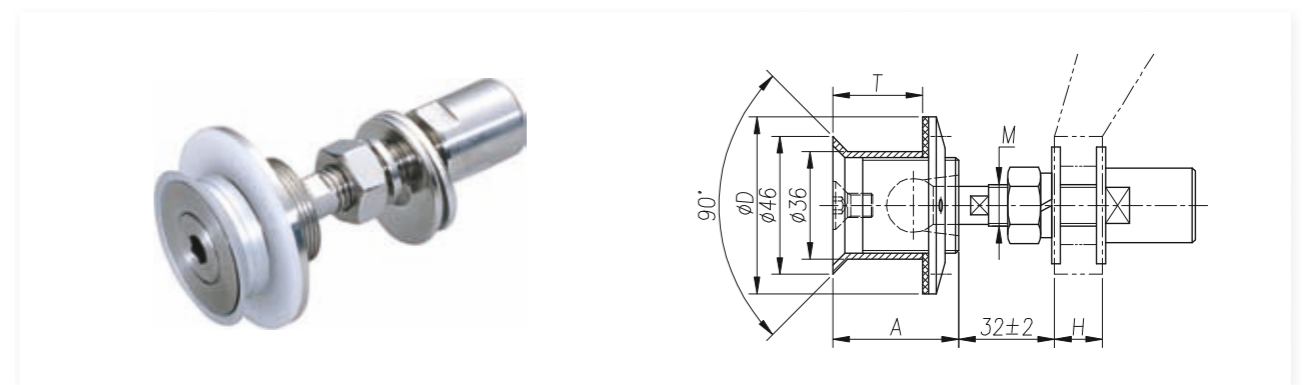


Size Model	A	D	M	T	H	The Available Rotation Angle	The Recommended Value of Load Capacity(N)	Main material:316, 304	
								Fx≤	Fy≤
TC11(TC11A)	32	59	M14	8-22	—	±5°(±10°)		4500	2000
TC12(TC12A)	40	59	M14	22-30	—	±5°(±10°)		4500	2000
TC13(TC13A)	50	59	M16	30-40	—	±5°(±10°)		6000	2500
TC14(TC14A)	56	59	M18	30-46	—	±5°(±10°)		6500	2800
TC21(TC21A)	32	70	M16	8-22	—	±5°(±10°)		6000	2500
TC22(TC22A)	40	70	M16	22-30	—	±5°(±10°)		6000	2500
TC23(TC23A)	50	70	M16	30-40	—	±5°(±10°)		6000	2500
TC24(TC24A)	56	70	M18	30-46	—	±5°(±10°)		6500	2800



Note: The thickness of a panel≥12mm for TC25 & TC26

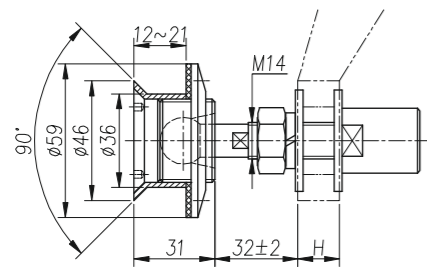
The Recommended Value of Load Capacity(N)	Model	Main material:316, 304		The Available Rotation Angle
		Fx≤	Fy≤	
		TC25	7000	3500
	TC26	7500	5000	±5°



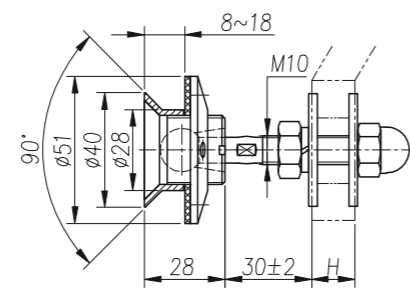
Note: Fastening glue is suggested to used when installing the countersunk socket head cap screw of exterior installation routel.

Size Model	A	D	M	T	H	The Available Rotation Angle	The Recommended Value of Load Capacity(N)	Main material:316, 304	
								Fx≤	Fy≤
TC32	42	59	M14	15-32	—	±5°		4500	2000
TC33	50	59	M16	30-40	—	±5°		6000	2500
TC34	56	59	M18	30-46	—	±5°		6500	2800
TC35	50	70	M16	30-40	—	±5°		6000	2500
TC36	56	70	M18	30-46	—	±5°		6500	2800

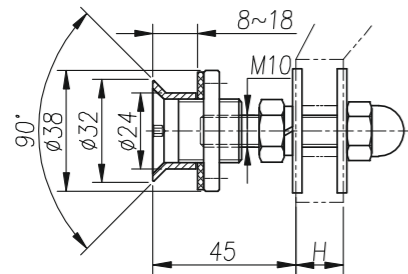
TC31



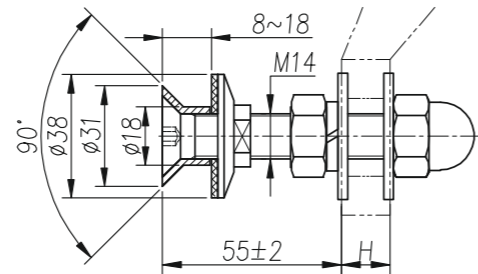
TC41



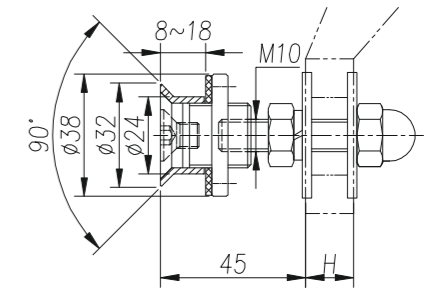
TC42



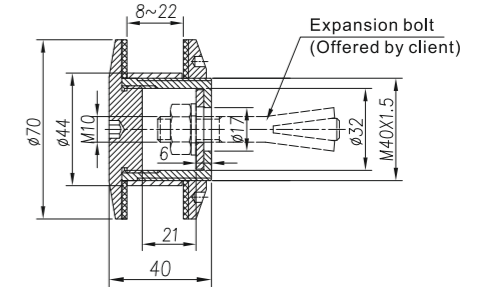
TC43



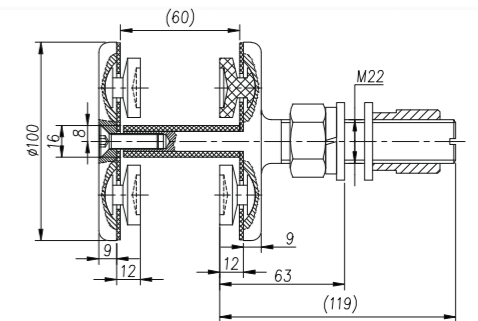
TC44



TF2A22WG

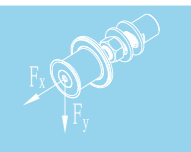


Customized Roulet
Project in Xiamen, China



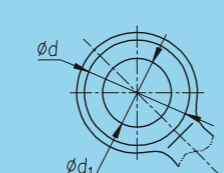
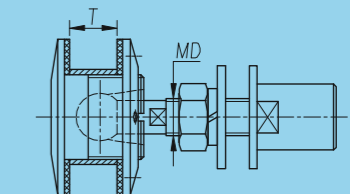
Note: Fastening glue is suggested to be used when installing the countersunk socket head cap screw of exterior installation route.

The Recommended Value of Load Capacity(N)	Model	Main material: 316, 304		The Available Rotation Angle
		$F_x \leq$	$F_y \leq$	
	TC44	2500	1200	—
	TF2A22WG	2500	1500	—

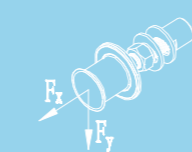


Selection description for aluminium spacer (sleeve) and eccentric washer

Specification of eccentric washer	Length L of aluminium spacer(sleeve)
$(d-1) \times (D+0.5)$ D=diameter of screw	$L=T-2$ (Keep one decimal)
Eg: If $T=17.52, d=40, D=14$, then the specification of eccentric washer is $(40-1) \times (14+0.5)$, that is 39×14.5 ; Aluminium spacer length $L=15.5$	

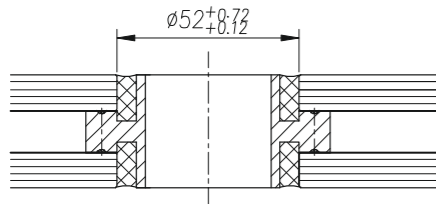



The Recommended Value of Load Capacity(N)	Model	Main material: 316, 304		The Available Rotation Angle
		$F_x \leq$	$F_y \leq$	
	TC31	4500	2000	$\pm 5^\circ$
	TC41	2500	1200	$\pm 5^\circ$
	TC42	2500	1200	—
	TC43	4500	2000	—

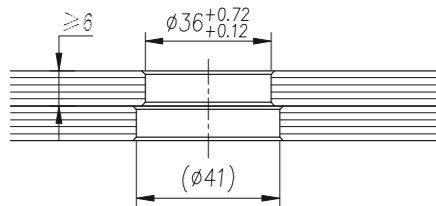


Glass Drilling and Alu. Sleeve

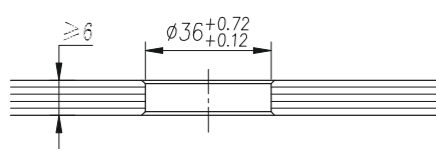
Suitable for: TF23, TF24, TF35, TF36



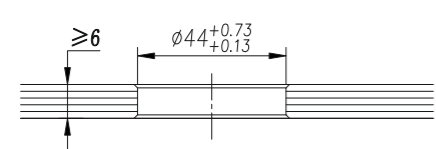
Suitable for :
ATF11X, ATF12X, TF11X, TF12X, TF13,
TF21~TF23, TF31~TF35, TF55



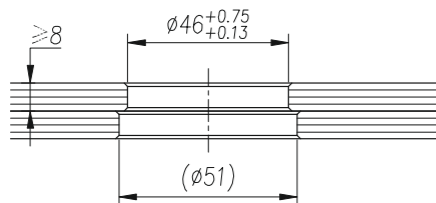
Suitable for:
ATF11X, ATF12X, TF11X, TF12X,
TF21, TF22, TF31, TF32



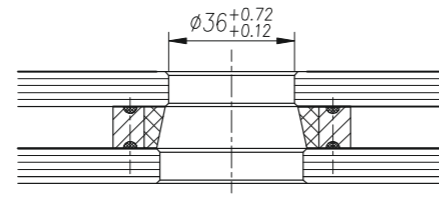
Suitable for: TF2A22WG



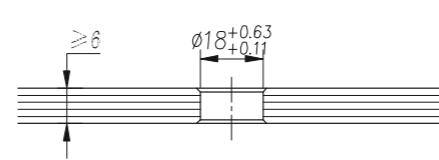
Suitable for: TF25, TF26



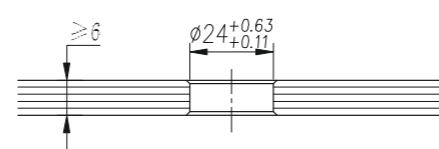
Suitable for: TF13, TF14, TF23, TF24,
TF33~TF36, TF55



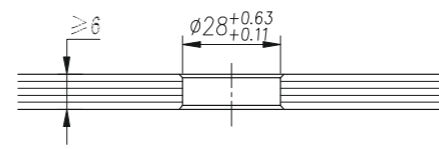
Suitable for : Tf43



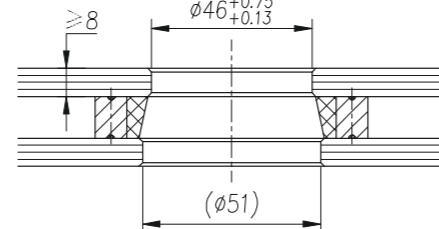
Suitable for : TF42, TF44



Suitable for: TF41

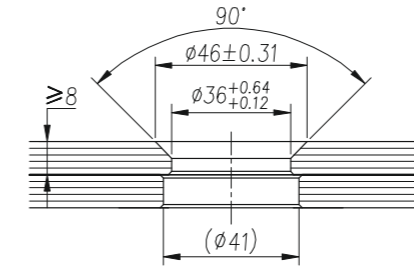


Suitable for: TF25, TF26

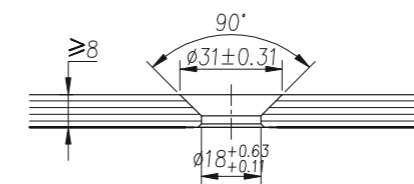


Note:
1. The above drilling dimension is only for reference;
2. Considering the potentially manufacturing error for laminated glass, different drilling diameter of the two panels is recommended.

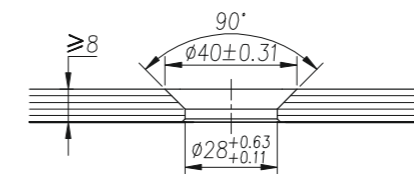
Suitable for: TC11~TC13, TC21~TC23
TC31~TC33, TC35, TC51



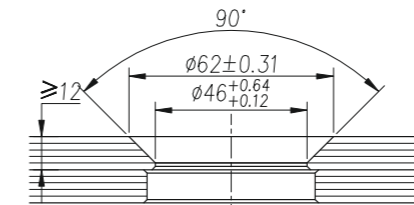
Suitable for: TC43



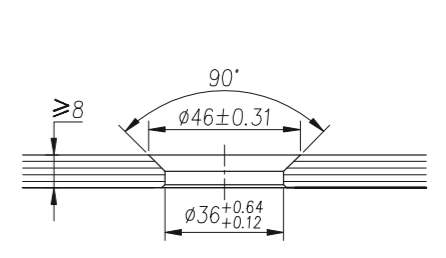
Suitable for:TC41



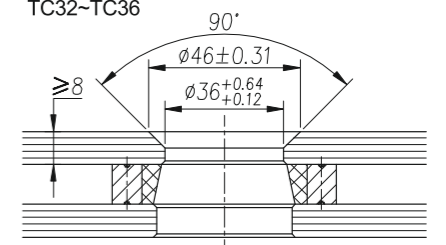
Suitable for:TC25, TC26



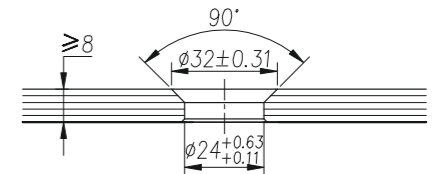
Suitable for: TC11, TC21, TC31, TC32
TC51, TC52



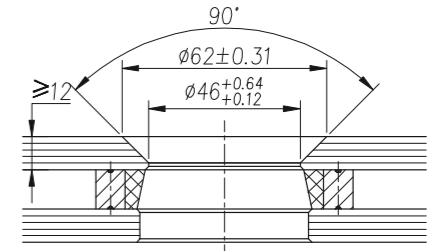
Suitable for:TC13, TC14, TC22~TC24,
TC32~TC36



Suitable for:TC42, TC44

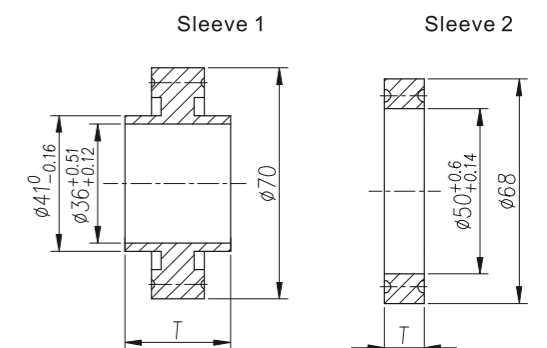


Suitable for: TC25, TC26



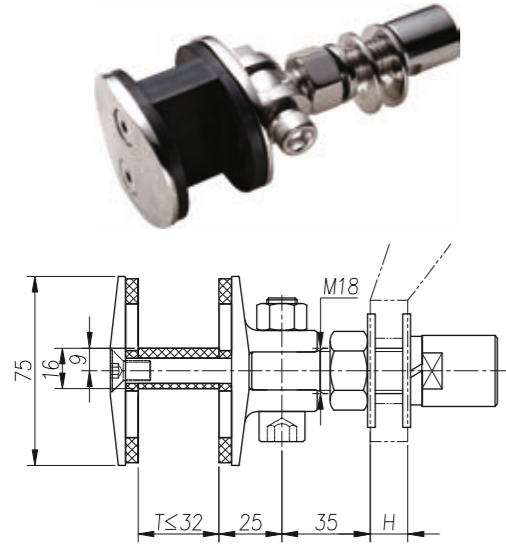
Note:
1. The above drilling dimension is only for reference;
2. Considering the potentially manufacturing error for laminated glass, different drilling diameter of the two panels is recommended.

Alu. Sleeve for double glazing

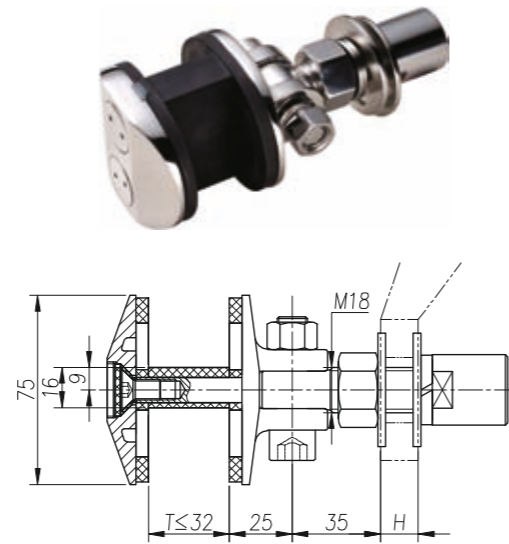


Splice Routel

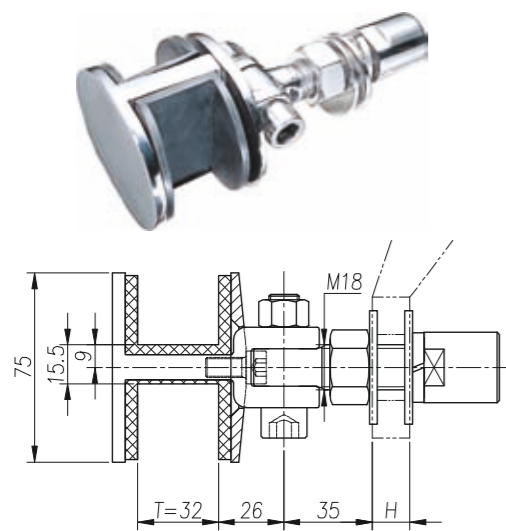
TJ11



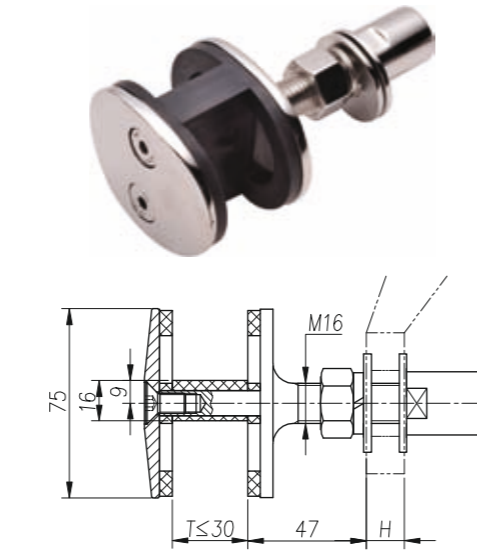
TJ12



TJ13

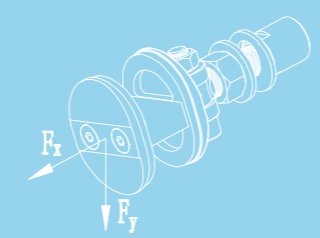


TJ15



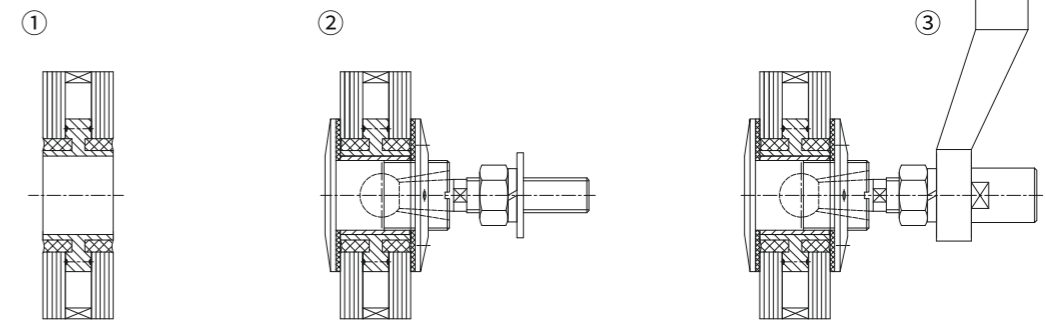
Note: Fastening glue is suggested to used when installing the countersunk socket head cap screw of exterior installation routel.

The Recommended Value of Load Capacity(N)	Model	Main material:CF8M、CF8	
		Fx≤	Fy≤
	TJ11	6000	2500
	TJ12	6000	2500
	TJ13	6000	2500
	TJ15	6000	2000

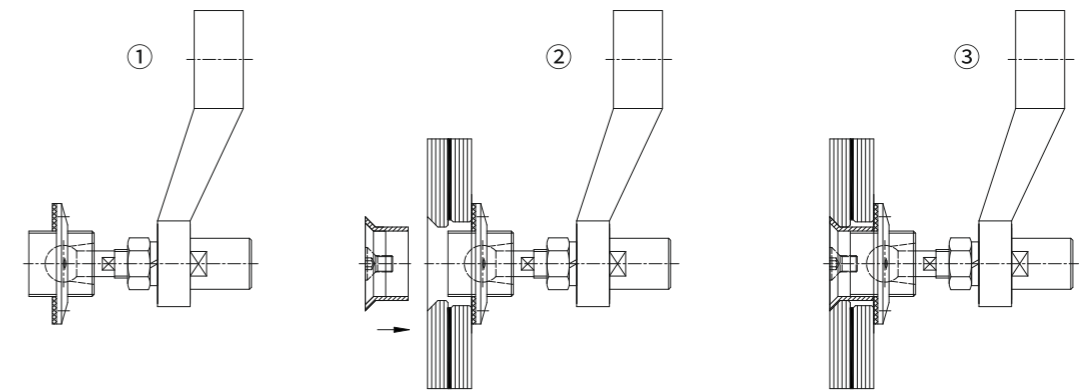


Installation diagram of routel

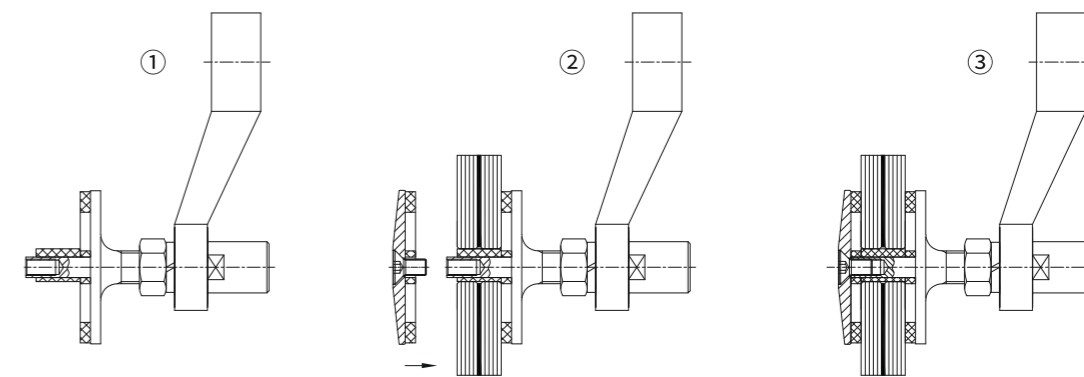
Interior installation



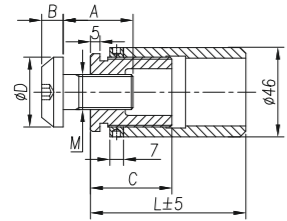
Exterior installation



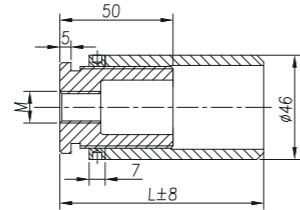
Splice installation



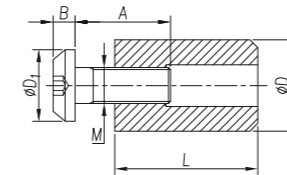
Connector



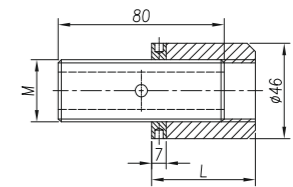
Model	Size	A	B	C	M	D	L	Note
Z11		30	12	45	M12	18	90	DIN912 Bolt
AZ15		36	11	42	M18	36	90	



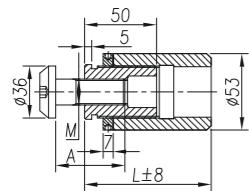
Model	Size	M	L
Z12		M14	90
Z13		M16	90
Z15W		M18	90



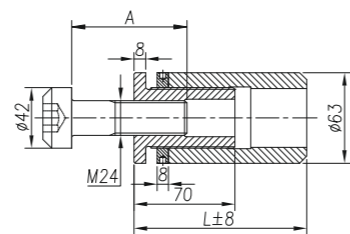
Model	Size	A	B	M	D	D_1	L
Z35		48	11	M18	46	36	72
Z36		54	11	M20	46	36	72
Z37		80	20	M24	63	42	72



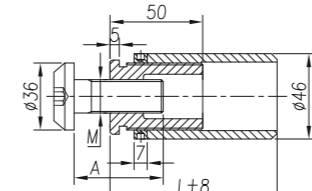
Model	Size	M	L
Z38		M30X1.5	50



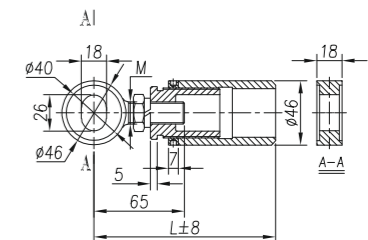
Model	Size	A	M	L
Z15(53)		48	M18	90
Z16(53)		54	M20	90



Model	Size	A	L
Z17		80	120
Z17L		100	120



Model	Size	A	M	L
Z15		48	M18	90
Z15L1		69	M18	90
Z16		54	M20	90
Z16L		74	M20	90

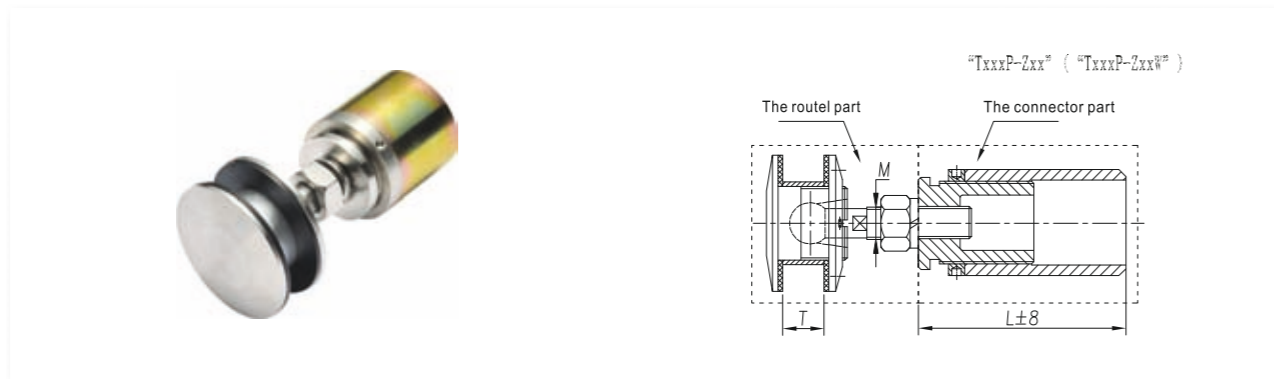


Model	Size	M	L
Z65		M16	130

Note: The surface treatment of basement is for anti-corrosion during storage and transportation, another anti-corrosion surface treatment is must after installation.

Note: The surface treatment of basement is for anti-corrosion during storage and transportation, another anti-corrosion surface treatment is must after installation.

P-Z Series

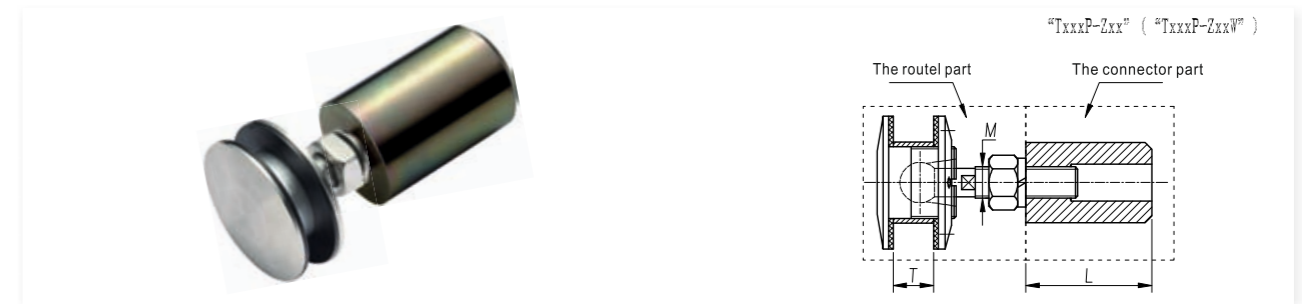


FP-Z	The routel part	T	M	The connector part	M	L	Fx≤(N)	Fy≤(N)	Model
	TF11XP	8-18	M14	Z12	M14	90	4500	2000	TF11XP-Z12
	TF12XP	18-26	M14	Z12	M14	90	4500	2000	TF12XP-Z12
	TF14P	30-46	M18	Z15W	M18	90	6500	2800	TF14P-Z15W
	TF21P	8-22	M16	Z13	M16	90	6000	2500	TF21P-Z13
	TF22P	22-30	M16	Z13	M16	90	6000	2500	TF22P-Z13
	TF23P	30-40	M16	Z13	M16	90	6000	2500	TF23P-Z13
	TF24P	30-50	M18	Z15W	M18	90	6500	2800	TF24P-Z15W
	TF31P	8-15	M14	Z12	M14	90	4500	2000	TF31P-Z12
	TF32P	15-23	M14	Z12	M14	90	4500	2000	TF32P-Z12
	TF33P	23-40	M16	Z13	M16	90	6000	2500	TF33P-Z13
	TF34P	30-46	M18	Z15W	M18	90	6500	2800	TF34P-Z15W
	TF35P	30-40	M16	Z13	M16	90	6000	2500	TF35P-Z13
	TF36P	30-50	M18	Z15W	M18	90	6500	2800	TF36P-Z15W

CP-Z	The routel part	T	M	The connector part	M	L	Fx≤(N)	Fy≤(N)	Model
	TC01P	8-22	M14	Z12	M14	90	4500	2000	TC11P-Z12
	TC12P	22-30	M14	Z12	M14	90	4500	2000	TC12P-Z12
	TC13P	30-40	M16	Z13	M16	90	6000	2500	TC13P-Z13
	TC14P	30-46	M18	Z15W	M18	90	6500	2800	TC14P-Z15W
	TC21P	8-22	M16	Z13	M16	90	6000	2500	TC21P-Z13
	TC22P	22-30	M16	Z13	M16	90	6000	2500	TC22P-Z13
	TC23P	30-40	M16	Z13	M16	90	6000	2500	TC23P-Z13
	TC24P	30-46	M18	Z15W	M18	90	6500	2800	TC24P-Z15W
	TC31P	12-21	M14	Z12	M14	90	4500	2000	TC31P-Z12
	TC32P	15-32	M14	Z12	M14	90	4500	2000	TC32P-Z12
	TC33P	30-40	M16	Z13	M16	90	6000	2500	TC33P-Z13
	TC34P	30-46	M18	Z15W	M18	90	6500	2800	TC34P-Z15W
	TC35P	30-40	M16	Z13	M16	90	6000	2500	TC35P-Z13
	TC36P	30-46	M18	Z15W	M18	90	6500	2800	TC36P-Z15W

JP-Z	The routel part	T	M	The connector part	M	L	Fx≤(N)	Fy≤(N)	Model
	TJ15P	0-30	M16	Z13	M16	90	6000	2000	TJ15P-Z13
	TJ16P	0-30	M16	Z13	M16	90	6000	2000	TJ16P-Z13
	TJ25P	0-30	M16	Z13	M16	90	6000	2000	TJ25P-Z13

- Note:
1. The standard length of connector is L=90mm.
 2. The surface treatment of basement is for anti-corrosion during storage and transportation, another anti-corrosion surface treatment is must after installation.



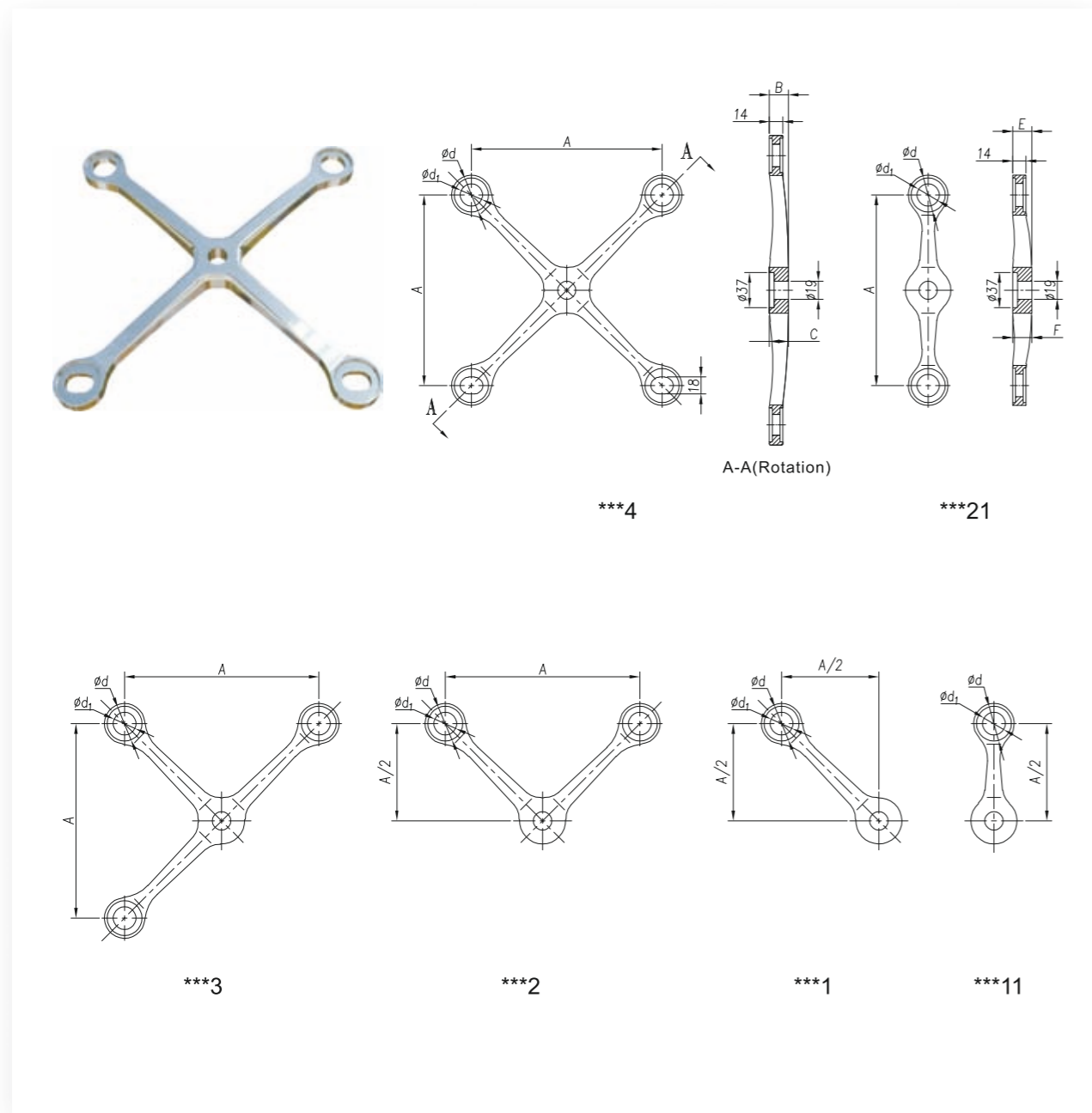
FP-Z	The routel part	T	M	The connector part	M	L	Fx≤(N)	Fy≤(N)	Model
	ATF11XP	8-18	M12	Z31	M12	72	3000	1500	ATF11XP-Z31
	ATF12XP	18-26	M12	Z31	M12	72	3000	1500	ATF12XP-Z31
	ATF13P	26-40	M14	Z32	M14	72	3500	2000	ATF13P-Z32
	ATF14P	40-46	M16	Z33	M16	72	4000	2500	ATF14P-Z33
	TF11XP	8-18	M14	Z32	M14	72	4500	2000	TF11XP-Z32
	TF12XP	18-26	M14	Z32	M14	72	4500	2000	TF12XP-Z32
	TF13P	26-40	M16	Z33	M16	72	6000	2500	TF13P-Z33
	TF14P	30-46	M18	Z35W	M18	72	6500	2800	TF14P-Z35W
	TF21P	8-22	M16	Z33	M16	72	6000	2500	TF21P-Z33
	TF22P	22-30	M16	Z33	M16	72	6000	2500	TF22P-Z33
	TF23P	30-40	M16	Z33	M16	72	6000	2500	TF23P-Z33
	TF24P	30-50	M18	Z35W	M18	72	6500	2800	TF24P-Z35W
	TF31P	8-15	M14	Z32	M14	72	4500	2000	TF31P-Z32
	TF32P	15-23	M14	Z32	M14	72	4500	2000	TF32P-Z32
	TF33P	23-40	M16	Z33	M16	72	6000	2500	TF33P-Z33
	TF34P	30-46	M18	Z35W	M18	72	6500	2800	TF34P-Z35W
	TF35P	30-40	M16	Z33	M16	72	6000	2500	TF35P-Z33
	TF36P	30-50	M18	Z35W	M18	72	6500	2800	TF36P-Z35W

CP-Z	The routel part	T	M	The connector part	M	L	Fx≤(N)	Fy≤(N)	Model
	ATC11P	8-22	M12	Z31	M12	72	3000	1500	ATC11P-Z31
	ATC12P	22-30	M12	Z31	M12	72	3000	1500	ATC12P-Z31
	ATC13P	30-40	M14	Z32	M14	72	3500	2000	ATC13P-Z32
	ATC14P	40-46	M16	Z33	M16	72	4000	2500	ATC14P-Z33
	TC01P	8-22	M14	Z32	M14	72	4500	2000	TC11P-Z32
	TC12P	22-30	M14	Z32	M14	72	4500	2000	TC12P-Z32
	TC13P	30-40	M16	Z33	M16	72	6000	2500	TC13P-Z33
	TC14P	30-46	M18	Z35W	M18	72	6500	2800	TC14P-Z35W
	TC21P	8-22	M16	Z33	M16	72	6000	2500	TC21P-Z33
	TC22P	22-30	M16	Z33	M16	72	6000	2500	TC22P-Z33
	TC23P	30-40	M16	Z33	M16	72	6000	2500	TC23P-Z33
	TC24P	30-46	M18	Z35W	M18	72	6500	2800	TC24P-Z35W
	TC31P	12-21	M14	Z32	M14	72	4500	2000	TC31P-Z32
	TC32P	15-32	M14	Z32	M14	72	4500	2000	TC32P-Z32
	TC33P	30-40	M16	Z33	M16	72	6000	2500	TC33P-Z33
	TC34P	30-46	M18	Z35W	M18	72	6500	2800	TC34P-Z35W
	TC35P	30-40	M16	Z33	M16	72	6000	2500	TC35P-Z33
	TC36P	30-46	M18	Z35W	M18	72	6500	2800	TC36P-Z35W

JP-Z	The routel part	T	M	The connector part	M	L	Fx≤(N)	Fy≤(N)	Model
	TJ15P	0-30	M16	Z33	M16	72	6000	2000	TJ15P-Z33
	TJ16P	0-30	M16	Z33	M16	72	6000	2000	TJ16P-Z33
	TJ25P	0-30	M16	Z33	M16	72	6000	2000	TJ25P-Z33

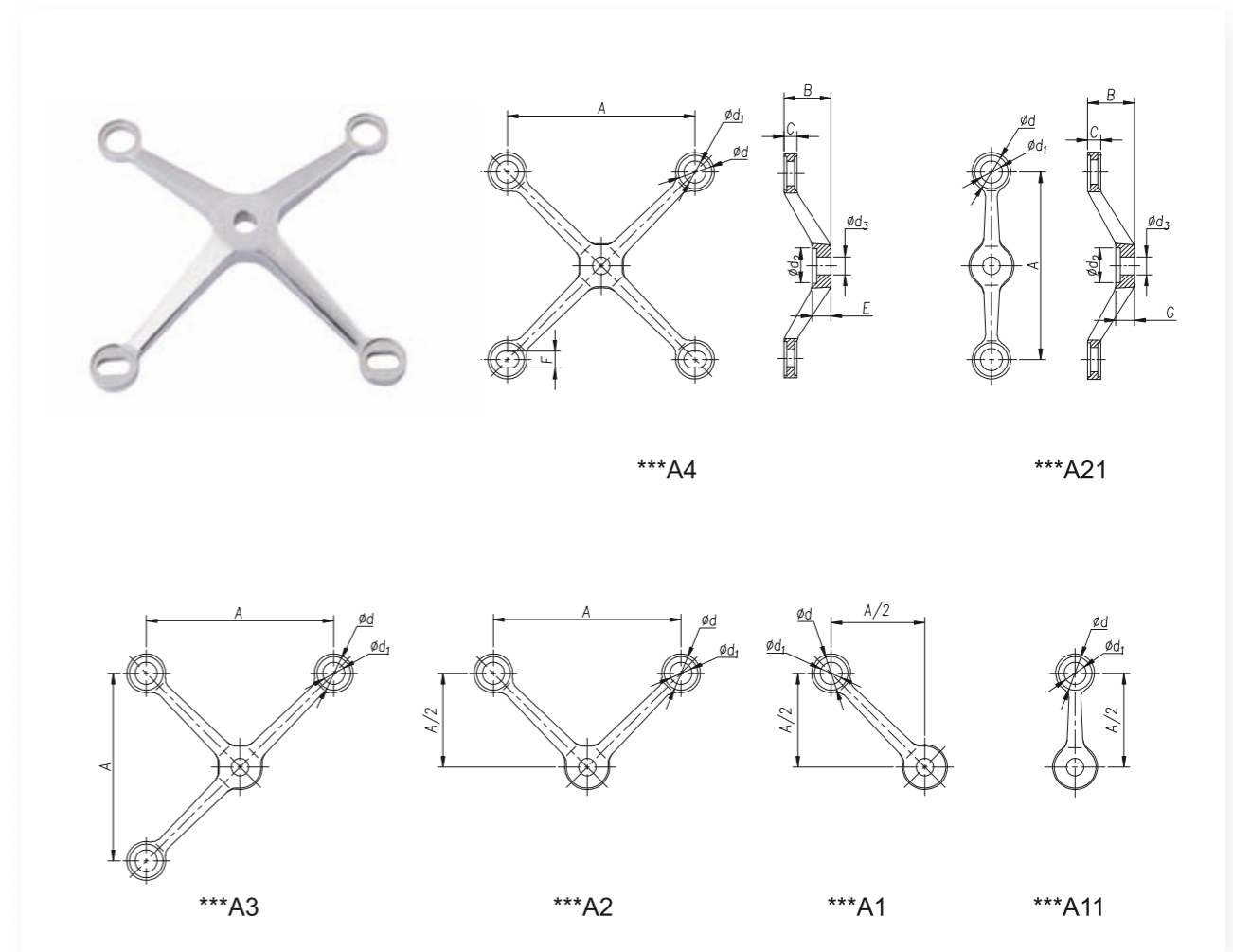
- Note:
1. The standard length of connector is L=72mm.
 2. The surface treatment of basement is for anti-corrosion during storage and transportation, another anti-corrosion surface treatment is must after installation.

Spider



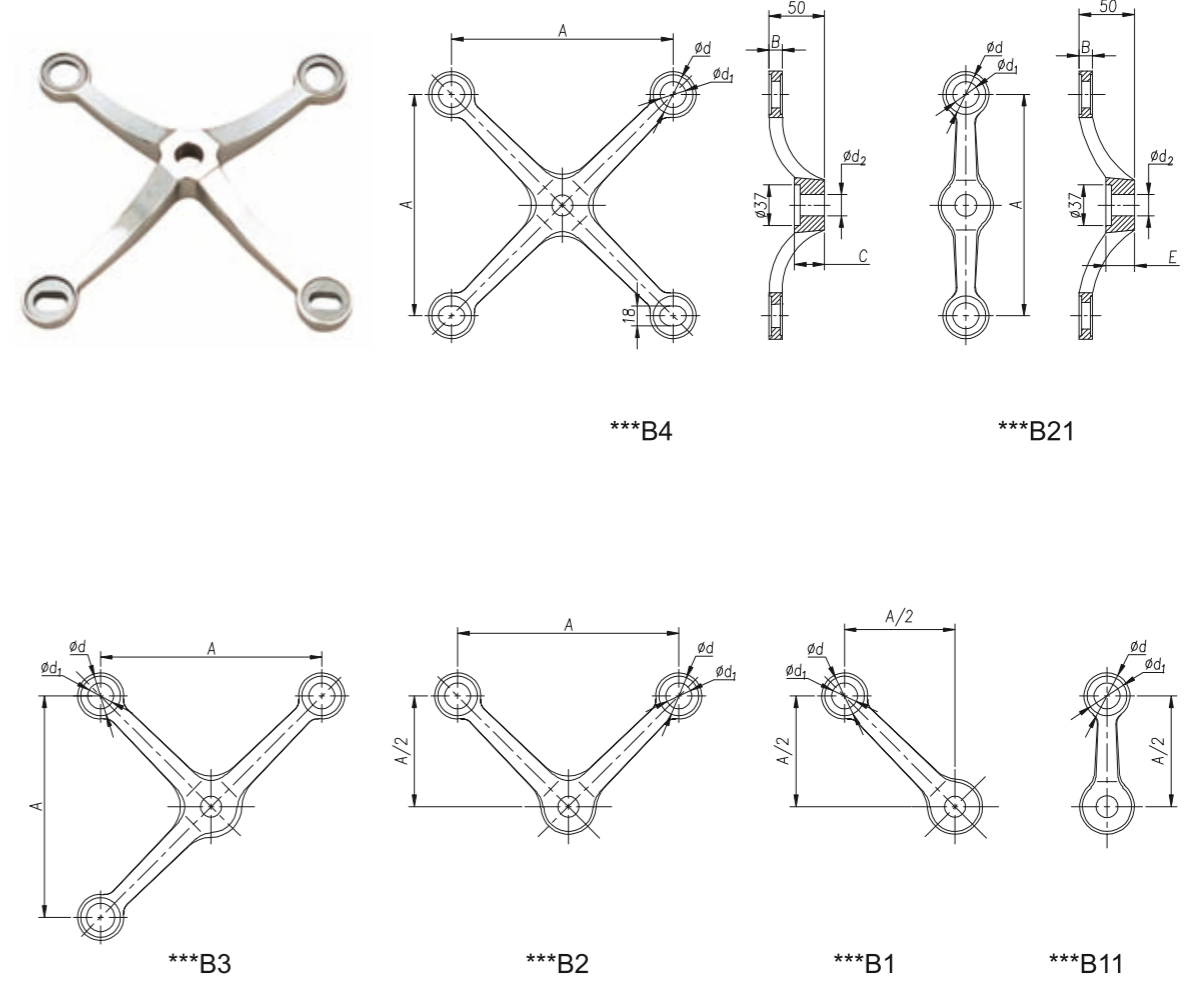
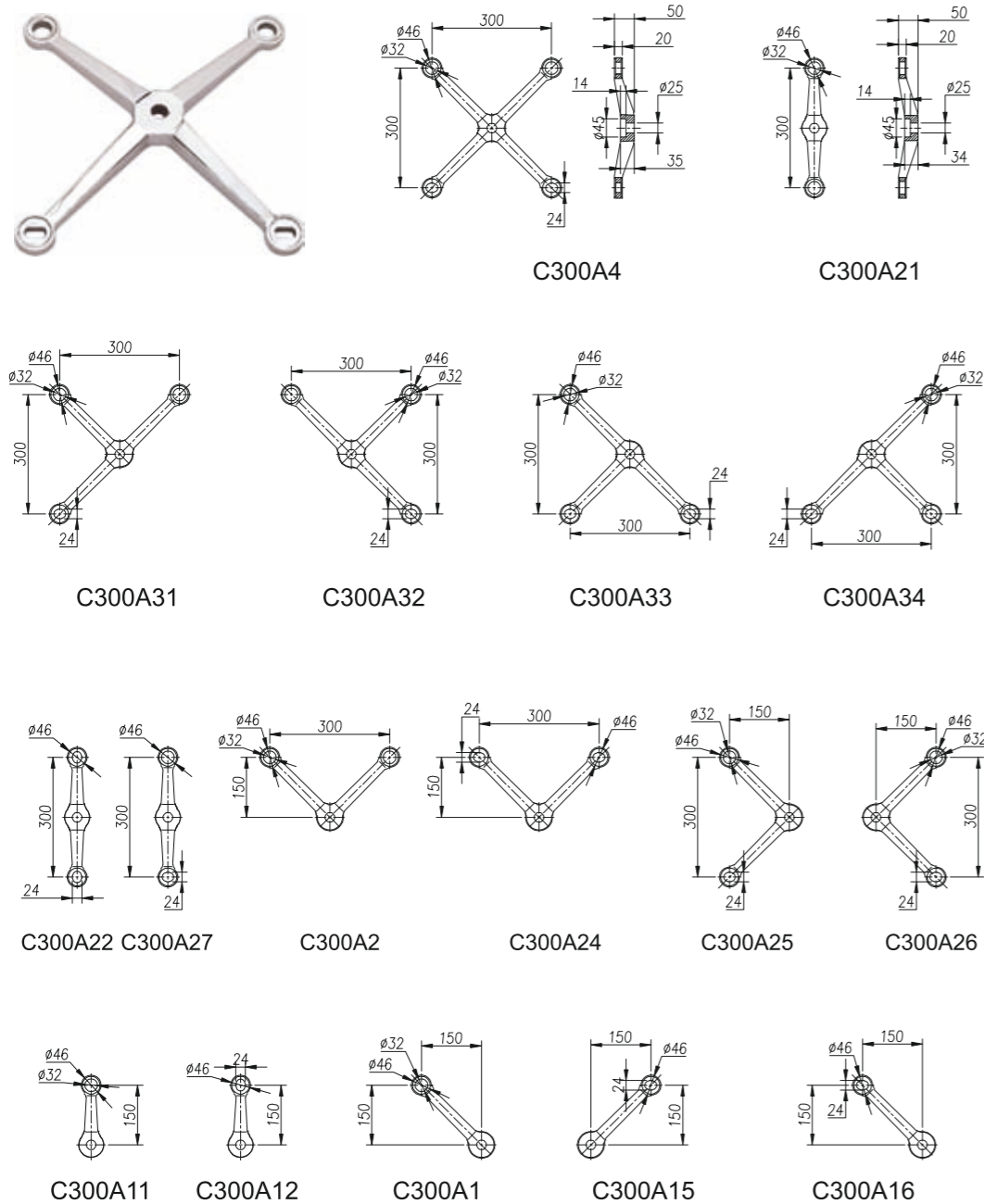
Note: Spider model is consisted of Series number + Arm Code, e.g. GZ250XFD4, GZ250XFD21 and so on.

Model	Size							The Recommended Value of Load Capacity(N)	Material: CF8M, CF8		Material: CD3MN	
	A	B	C	d	d ₁	E	F		F _x ≤	F _y ≤	F _x ≤	F _y ≤
GZ200XFB Series	200	20	20	36	24	20	20	2000	1000	2600	1300	
GZ220XFC Series	220	20	20	36	26	20	20	2000	1200	2600	1600	
GZ250XFD Series	250	24	24	40	26	24	24	2500	1500	3300	2000	



Note: The model of spider consists of series number+ arm code like A160A4, A160A21 and so on.

Model	Size	A	B	C	d	d ₁	d ₂	d ₃	E	F	G	The Recommended Value of Load Capacity(N)	Material: CF8M, CF8		Material: CD3MN	
													F _x ≤	F _y ≤	F _x ≤	F _y ≤
A160A Series	160	40	10	26	16	19	13	16	12.5	16	16	The Recommended Value of Load Capacity(N)	1500	800	—	—
A200A Series	200	40	12	36	24	37	19	20	18	18	18		2000	800	—	—
200A Series	200	50	14	36	24	37	19	20	18	20	20		2000	1000	2600	1300
A220A Series	220	50	12	36	26	37	19	21	18	19	19		2000	1000	—	—
220A Series	220	50	12	36	26	37	19	23	18	20	20		2000	1200	2600	1600
C220A Series	220	50	18	36	26	37	19	28	18	26	26		4000	2500	—	—
D220A Series	220	50	20	36	26	37	21	28	20	28	28		5000	3500	—	—
A250A Series	250	50	12	40	26	37	19	22	18	20	20		2000	1200	—	—
250A Series	250	50	14	40	26	37	19	25	18	22	22		2500	1500	3300	2000
C250A Series	250	50	17	40	26	37	19	27	18	27	27		4000	2500	—	—
D250A Series	250	50	20	40	26	37	21	30	20	30	30		5000	3500	—	—
A300A Series	300	50	16	40	26	37	21	28	18	28	28		2500	1500	—	—
300A Series	300	50	18	40	26	37	21	32	18	26	26	3000	2000	3900	2600	

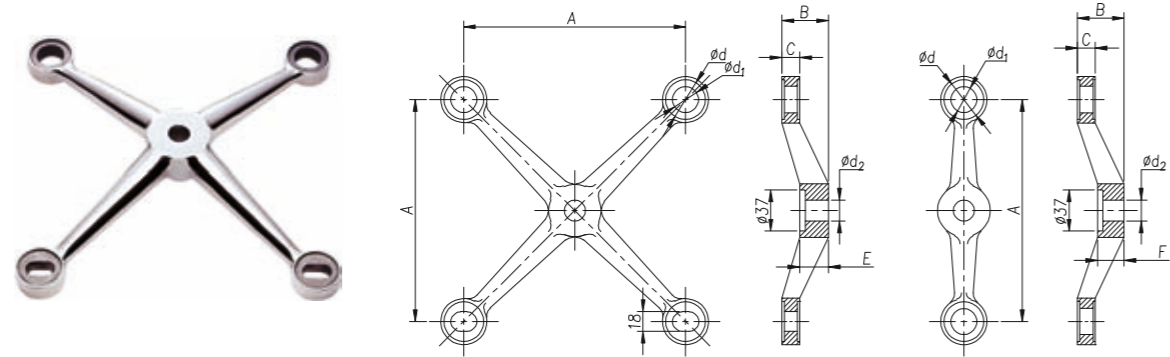


Note: The model of spider consists of series number+ arm code like 220B4,220B21 and so on.

The Recommended Value of Load Capacity(N)	Model	Material: CF8M, CF8		Material: CD3MN	
		Fx ≤	Fy ≤	Fx ≤	Fy ≤
	C300A Series	6000	4000	—	—

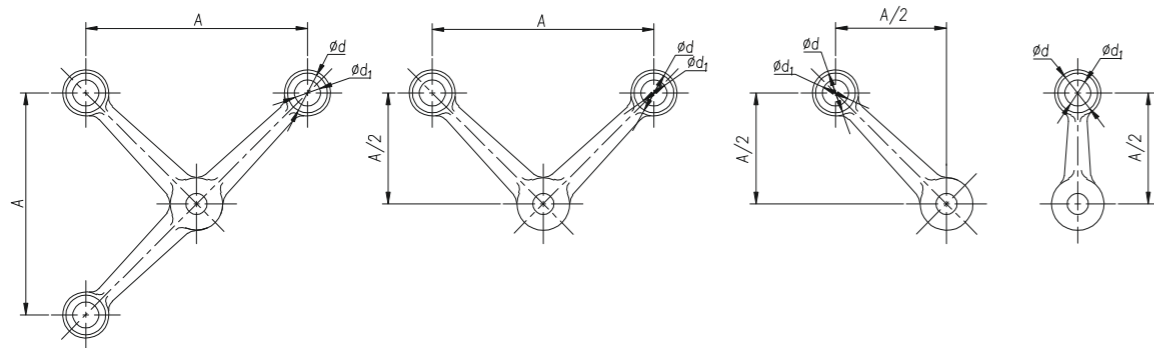
Note: When the radial load < 3500N, the eccentric washer can meet the requirement of load capacity. When the radial load > 3500N, The slot holes bear the loading.

Model	Size	A	B	C	d	d ₁	d ₂	E	The Recommended Value of Load Capacity(N)	Material: CF8M, CF8		Material: CD3MN	
										Fx ≤	Fy ≤	Fx ≤	Fy ≤
200B Series	200	12	27	36	24	19	26	2000	1000	2600	1300		
220B Series	220	13	27	36	24	19	27	2000	1200	2600	1600		
250B Series	250	16	26	40	26	19	24	2500	1500	3300	2000		
300B Series	300	18	32	40	26	21	26	3000	2000	3900	2600		



***C4

***C21



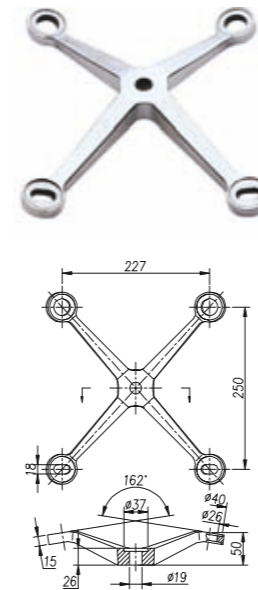
***C3

***C2

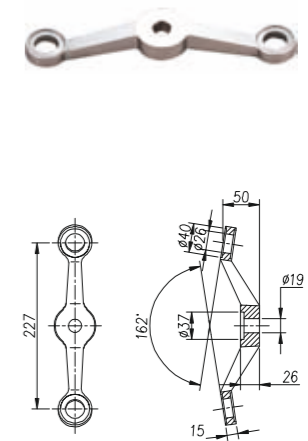
***C1

***C11

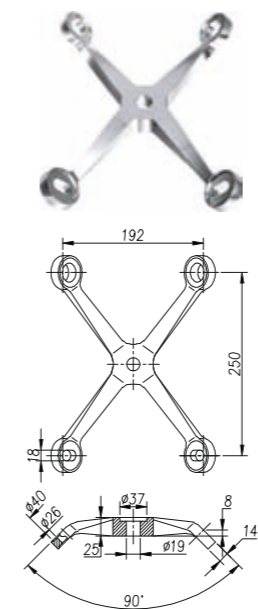
250AA4



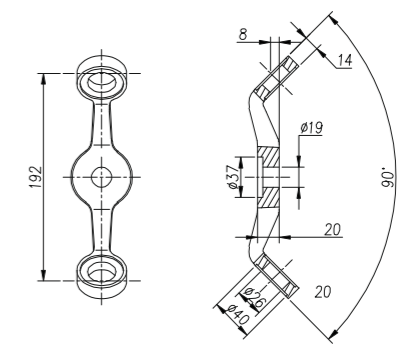
250AA21



250AC4



250AC21

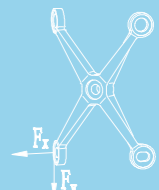


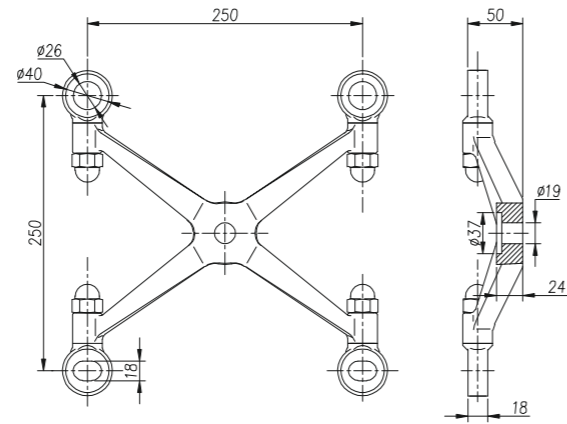
Note: The model of spider consists of series number+ arm code like 250C4,250C21 and so on.

Size Model	A	B	C	d	d ₁	d ₂	E	F	The Recommended Value of Load Capacity(N)	Material: CF8M, CF8		Material: CD3MN	
										F _x ≤	F _y ≤	F _x ≤	F _y ≤
200C Series	200	42	16	36	24	19	26	24	2000	1000	2600	1300	
250C Series	250	50	18	40	26	19	32	26	2500	1500	3300	2000	
300C Series	300	50	20	40	26	21	38	32	3000	2000	3900	2600	

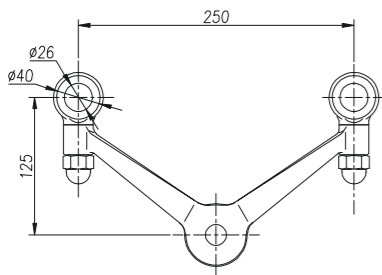


The Recommended Value of Load Capacity(N)	Model	Material: CF8M, CF8		Material: CD3MN	
		F _x ≤	F _y ≤	F _x ≤	F _y ≤
	250AA4	2500	1500	3300	2000
	250AA21	2500	1500	3300	2000
	250AC4	2500	1500	3300	2000
	250AC21	2500	1500	3300	2000

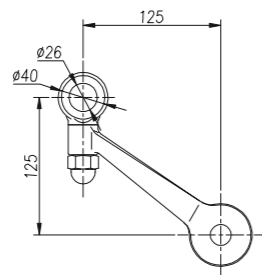




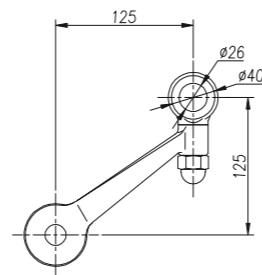
250K4



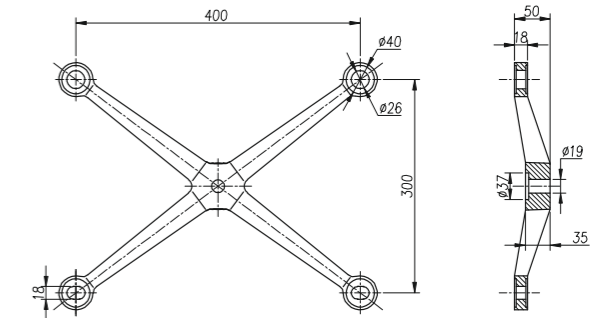
250K2



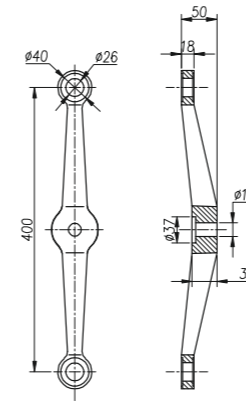
250K1



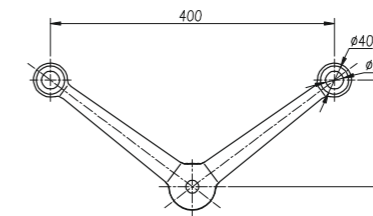
250K12



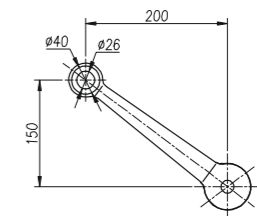
3040B4



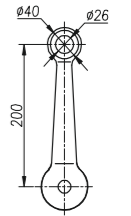
3040B21



3040B2



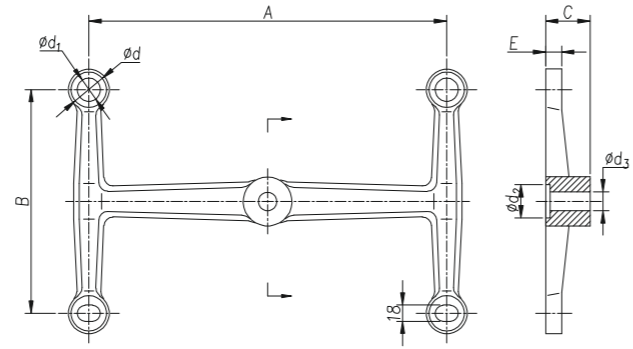
3040B1



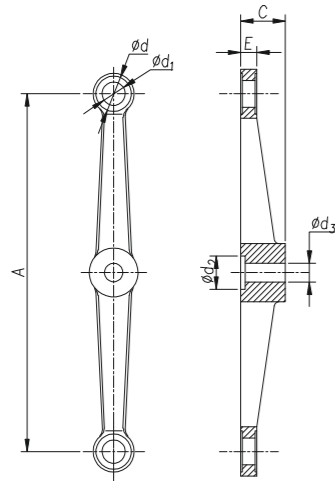
3040B11

The Recommended Value of Load Capacity(N)	Model	Main material: CF8M、CF8		Main material: CD3MN		
		Fx ≤	Fy ≤	Fx ≤	Fy ≤	
	250K Series	2500	1500	3300	2000	

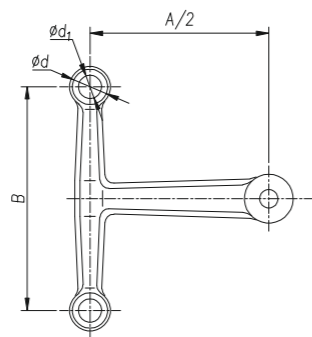
The Recommended Value of Load Capacity(N)	Model	Material: CF8M、CF8		Material: CD3MN		
		Fx ≤	Fy ≤	Fx ≤	Fy ≤	
	3040B Series	4000	2000	5000	2600	



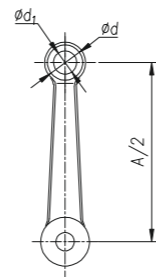
***4



***21



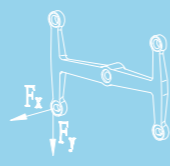
***25



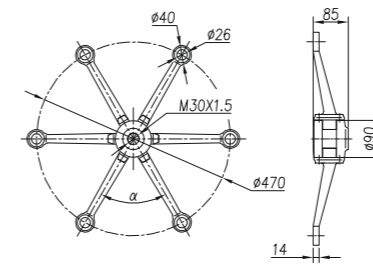
***11

Note: the model of spider consists of series number+arm code like 3060HA4, 3060HA21 and so on.

Model	Size									The Recommended Value of Load Capacity(N)	Material:CF8M,CF8		Material:CD3MN	
	A	B	C	d	d ₁	d ₂	d ₃	E	Fx≤		Fy≤	Fx≤	Fy≤	
GZ3060HTC Series	600	300	40	40	26	37	19	15	Customized according to the project					
3060HA Series	600	300	60	46	30	45	25	18	6500	2500	8000	3200		
4080HA Series	800	400	80	50	32	45	25	20	6500	3500	8000	4500		

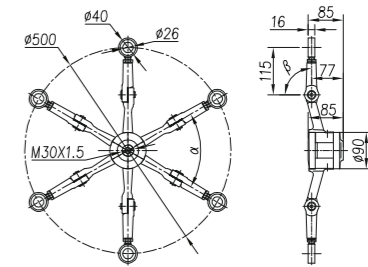


4706K



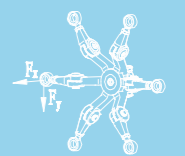
Note: 1. Minimum angle between two arms $\alpha \geq 44^\circ$

A5006K

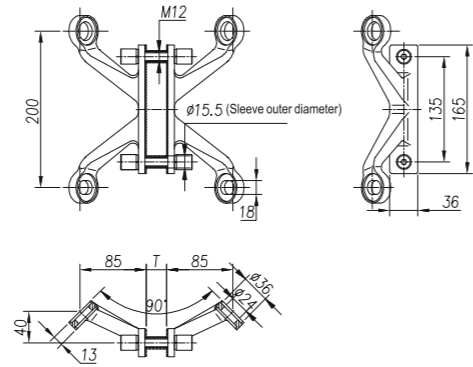


Note: 1. Minimum angle between two arms $\alpha \geq 36^\circ$;
2. The arm rotation angle: $55^\circ \leq \beta \leq 135^\circ$

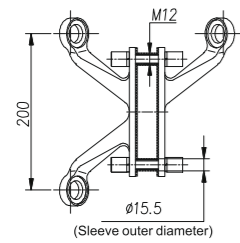
The Recommended Value of Load Capacity(N)	Model	Material: CF8M, CF8		Material: CD3MN	
		Fx≤	Fy≤	Fx≤	Fy≤
	4706K	4000	2000	—	—
	A5006K	1500	1000	—	—



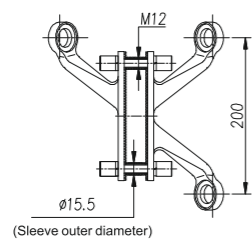
Fin Spider



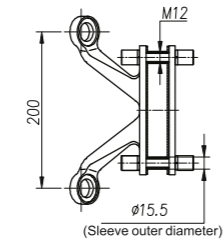
LZ200XFBJ4



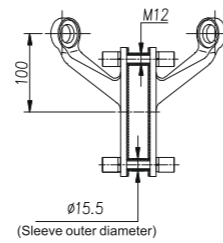
LZ200XFBJ31



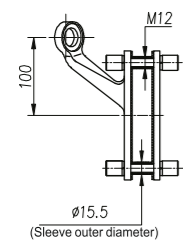
LZ200XFBJ32



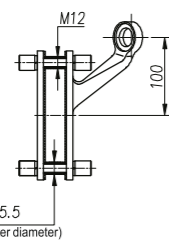
LZ200XFBJ25



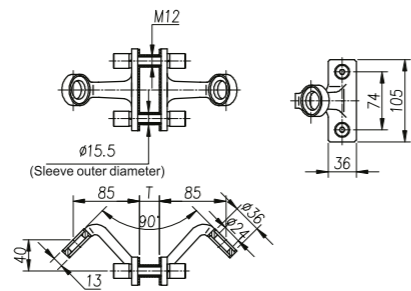
LZ200XFBJ2



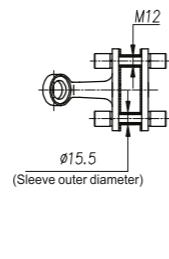
LZ200XFBJ1



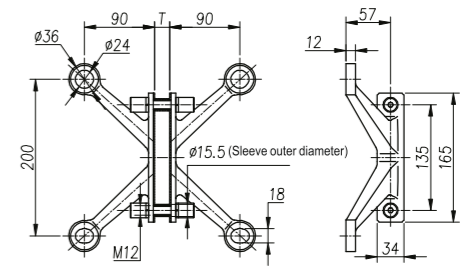
LZ200XFBJ12



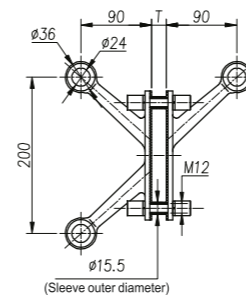
LZ200XFBJ21



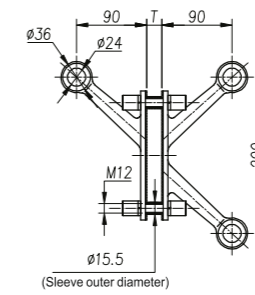
LZ200XFBJ11



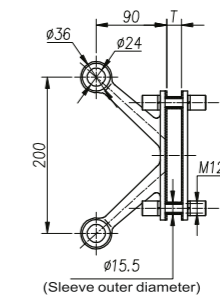
L200A4



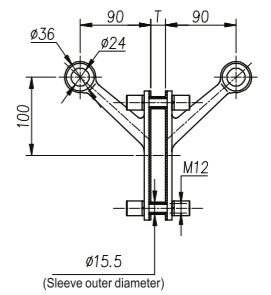
L200A31



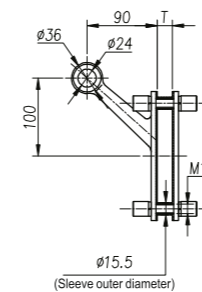
L200A32



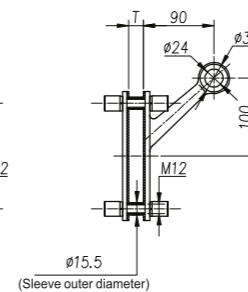
L200A25



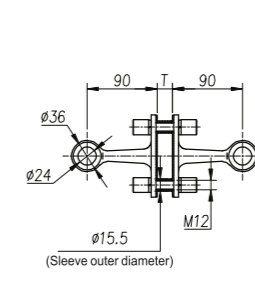
L200A2



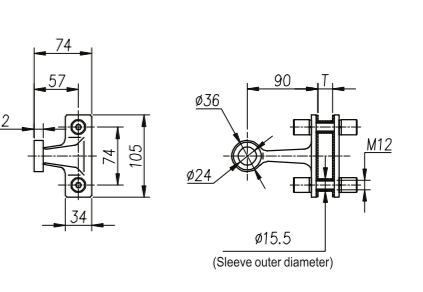
L200A1



L200A12



L200A21



L200A11

Note:

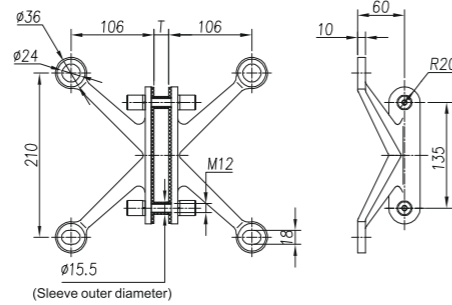
1. Please place the order with note of removing rubber washer or nylon sleeve while they are not needed. Please drill according to the bolt dimension.

The Recommended Value of Load Capacity(N)	Model	Main material:CF8M、CF8		Main material:CD3MN		
		Fx≤	Fy≤	Fx≤	Fy≤	
	LZ200XFBJ Series	2000	1000	—	—	

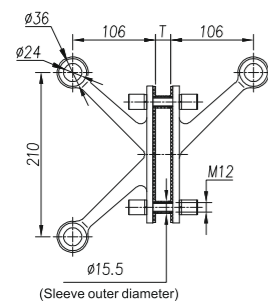
Note:

1. Please place the order with note of removing rubber washer or nylon sleeve while they are not needed. Please drill according to the bolt dimension.

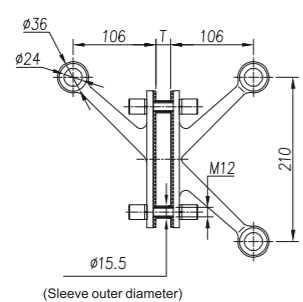
The Recommended Value of Load Capacity(N)	Model	Main material:CF8M、CF8		Main material:CD3MN		
		Fx≤	Fy≤	Fx≤	Fy≤	
	L200A Series	2000	1000	—	—	



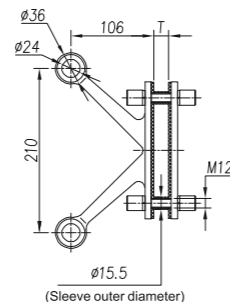
L210A4



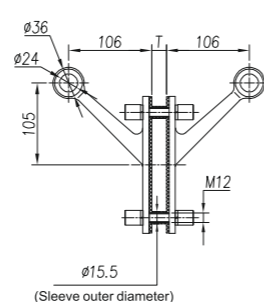
L210A31



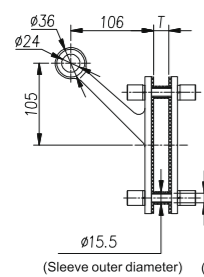
L210A32



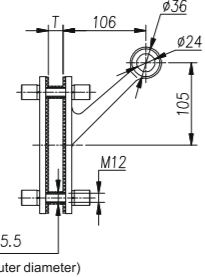
L210A25



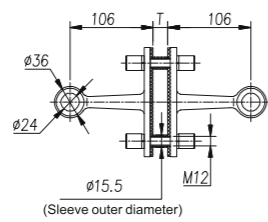
L210A2



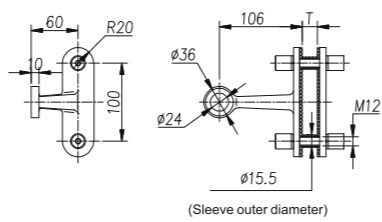
L210A1



L210A12



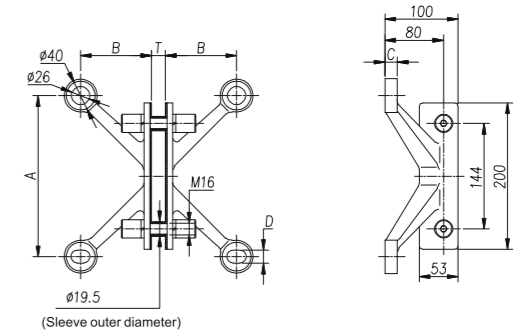
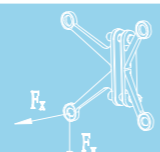
L210A21



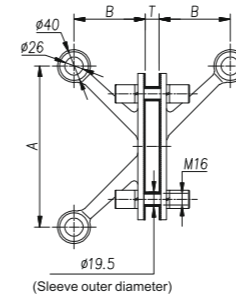
L210A11

Note:
1. Please place the order with note of removing rubber washer or nylon sleeve while they are not needed. Please drill according to the bolt dimension.

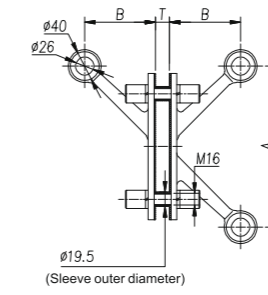
The Recommended Value of Load Capacity(N)	Model	Main material: CF8M, CF8		Main material: CD3MN	
		Fx ≤	Fy ≤	Fx ≤	Fy ≤
	L210A Series	2000	1000	2600	1300



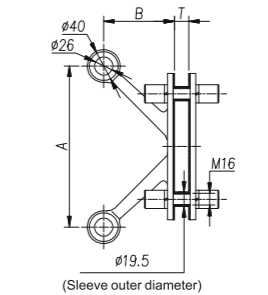
***A4



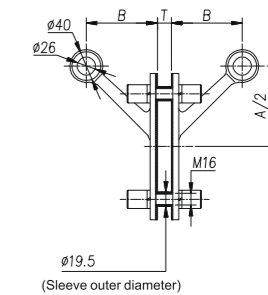
***A31



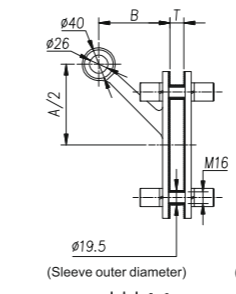
***A32



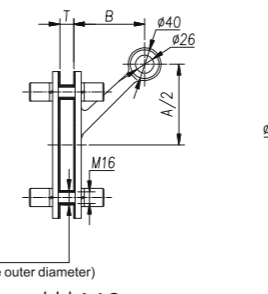
***A25



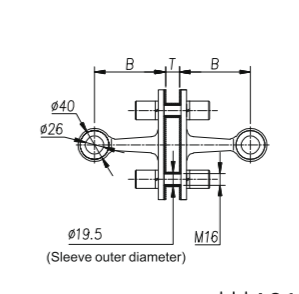
***A2



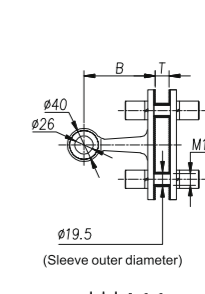
***A1



***A12



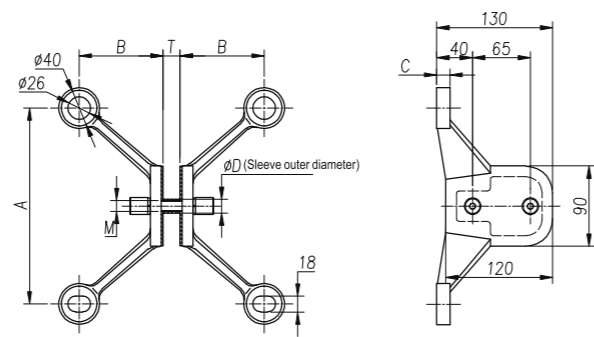
***A21



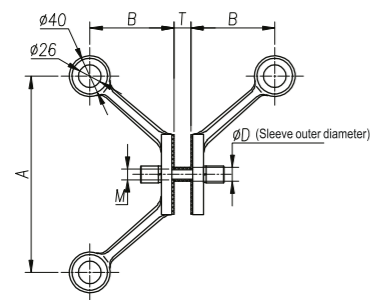
***A11

Note: 1. The model of spider consists of series number+ arm code like L220A4, L220A21 and so on.
2. Please place the order with note of removing rubber washer or nylon sleeve while they are not needed. Please drill according to the bolt dimension.

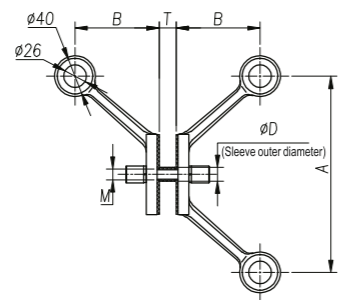
Model	Size	A	B	C	D	E	T	Main material:CF8M, CF8		Main material:CD3MN		The Recommended Value of Load Capacity(N)
								Fx ≤	Fy ≤	Fx ≤	Fy ≤	
L220A Series	220	97	17	18	15	—	—	2500	1500	3300	2000	
L250A Series	250	119	17	18	15	—	—	2500	1500	3300	2000	
CL220 Series	220	97	18	18	18	—	—	4000	2500	—	—	
CL250A Series	250	119	18	18	18	—	—	4000	2500	—	—	
DL220A Series	220	97	19	20	19	—	—	5000	3500	—	—	
DL250A Series	250	119	19	20	19	—	—	5000	3500	—	—	



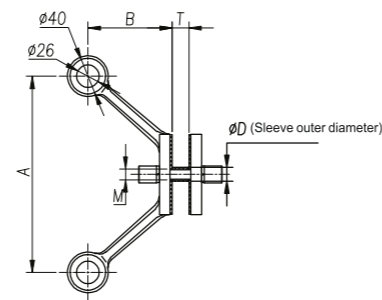
***B4



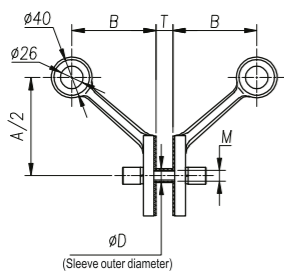
***B31



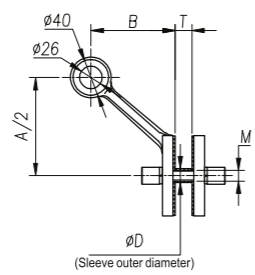
***B32



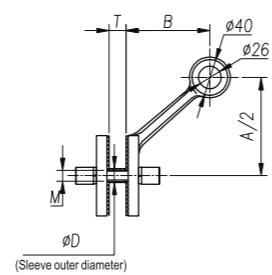
***B25



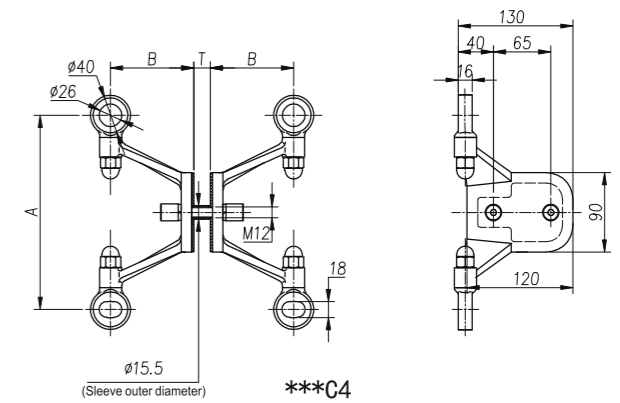
***B2



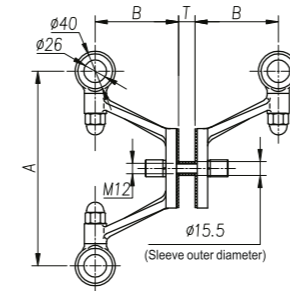
***B1



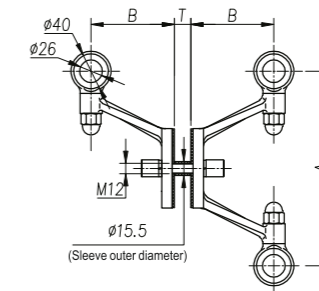
***B12



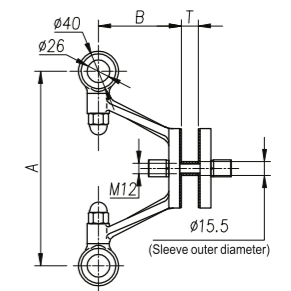
***C4



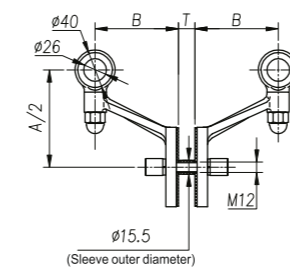
***C31



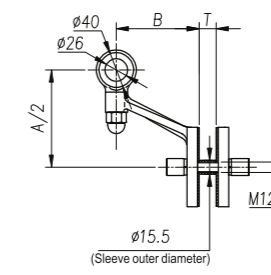
***C32



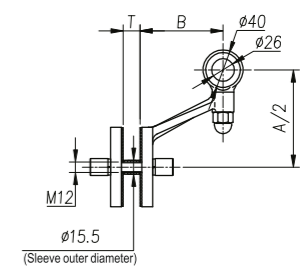
***C25



***C2



***C1



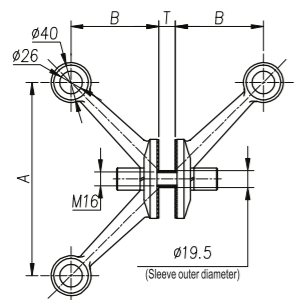
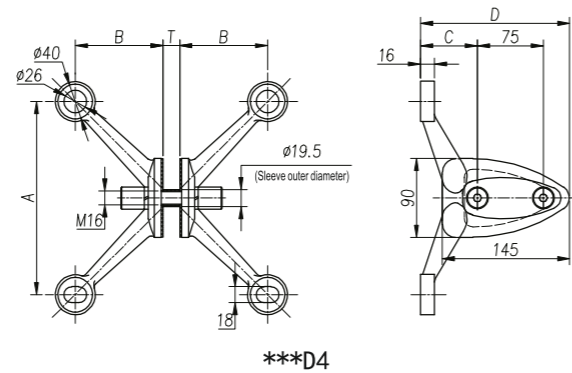
***C12

Note: 1. The model of spider consists of series number+ arm code like L250B4, L250B25 and so on.
 2. Please place the order with note of removing rubber washer or nylon sleeve while they are not needed. Please drill according to the bolt dimension.

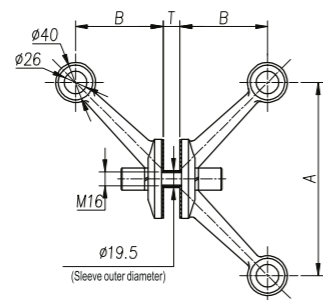
Model	Size						The Recommended Value of Load Capacity(N)	Main material: CF8M, CF8		Main material: CD3MN		
	A	B	C	D	M	T		Fx≤	Fy≤	Fx≤	Fy≤	
L220B Series	220	94	15	15.5	M12	—	2500	1500	3300	2000		
L250B Series	250	115	15	15.5	M12	—	2500	1500	3300	2000		
CL250B Series	250	115	18	19.5	M16	—	4000	2500	—	—		

Note: 1. The model of spider consists of series number+ arm code like L250C4, L250C25 and so on.
 2. Please place the order with note of removing rubber washer or nylon sleeve while they are not needed. Please drill according to the bolt dimension.

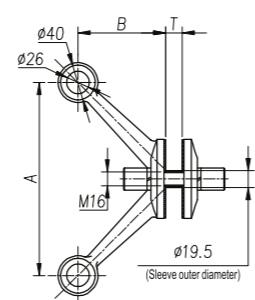
Model	Size			The Recommended Value of Load Capacity(N)	Main material:CF8M, CF8		Main material:CD3MN		
	A	B	T		Fx≤	Fy≤	Fx≤	Fy≤	
L220C Series	220	94	—	2500	1500	3300	2000		
L250C Series	250	115	—					1500	2000



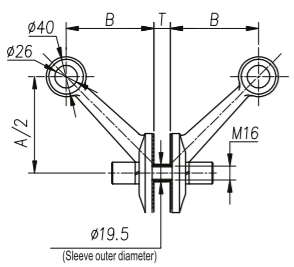
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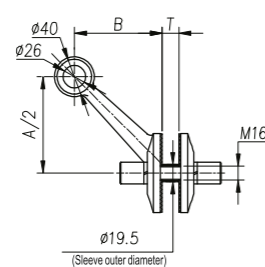
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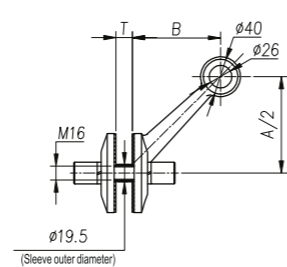
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***D2



***D1

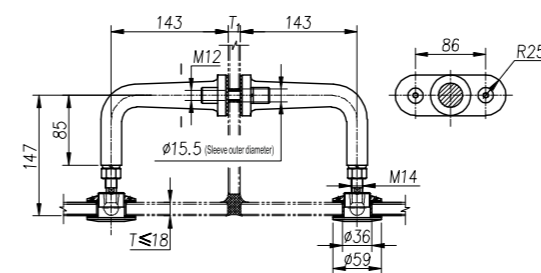


***D12

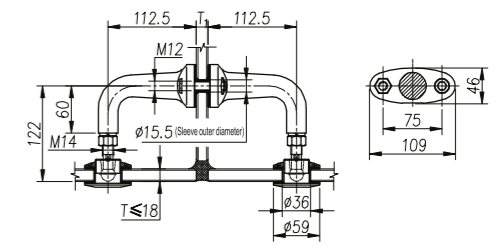
Note: 1. The model of spider consists of series number+ arm code, like L250D4, L250D25 and so on.
 2. Please place the order with note of removing rubber washer or nylon sleeve while they are not needed. Please drill according to the bolt dimension.

Model	Size					The Recommended Value of Load Capacity(N)	Main material:CF8M、CF8		Main material:CD3MN	
	A	B	C	D	T		Fx≤	Fy≤	Fx≤	Fy≤
L220D Series	220	100	65	170	—	2500	1500	3300	2000	
L250D Series	250	115	90	195	—	2500	1500	3300	2000	

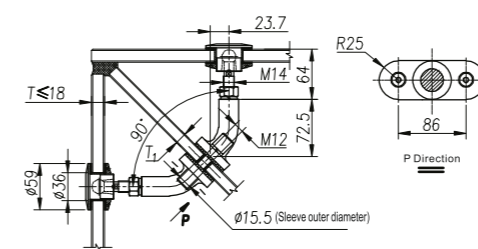
L300C



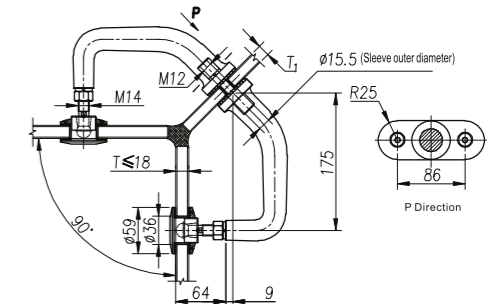
L240D



L300CY



L300CN

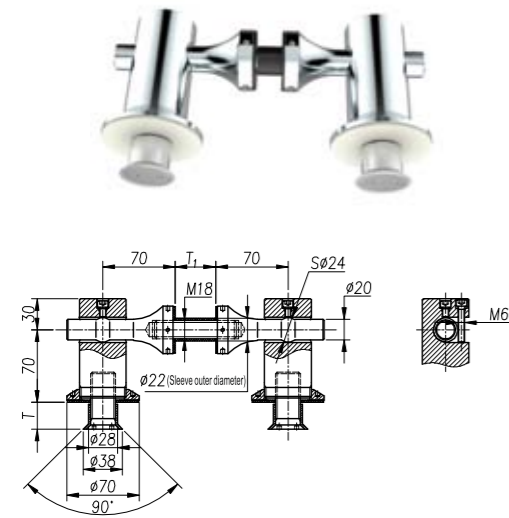


Note:
 1. Please place the order with note of removing rubber washer or nylon sleeve while they are not needed. Please drill according to the bolt dimension.

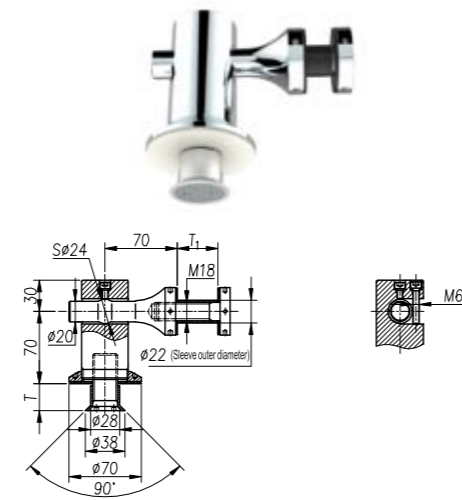
The Recommended Value of Load Capacity(N)	Model	Main material:CF8M、CF8		Main material:CD3MN	
		Fx≤	Fy≤	Fx≤	Fy≤
	L300C	3000	1500	3900	2000
	L240D	3500	1000	4500	1300
	L300CY	3000	1500	3900	2000
	L300CN				

Fin Glass Drilling Diagram

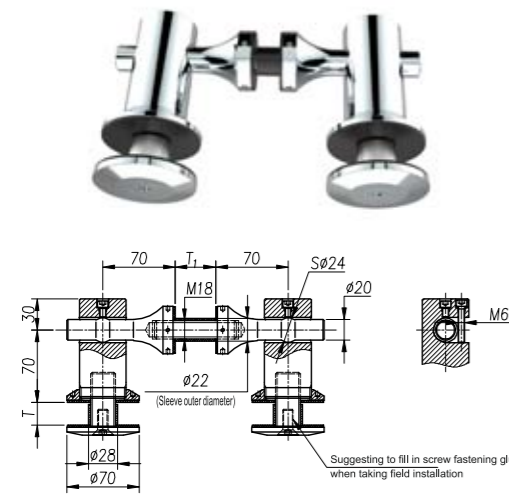
LZ160UYGC



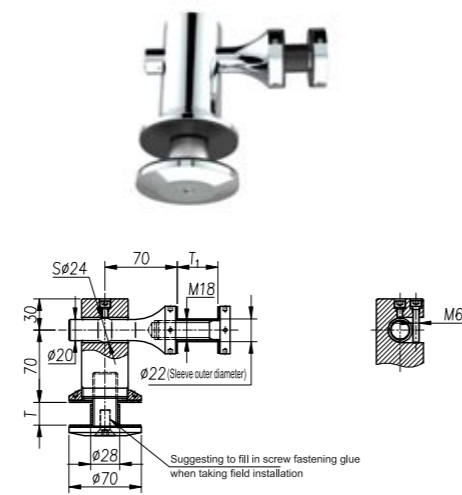
LZ160UYGC-D



LZ160UYGC-F

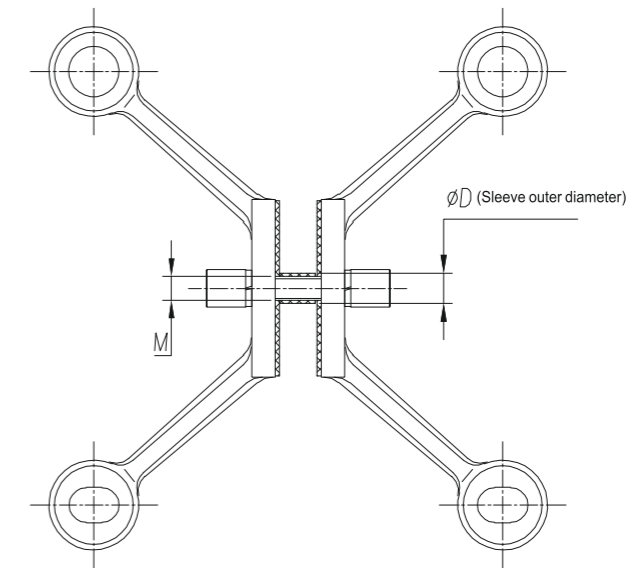


LZ160UYGC-FD

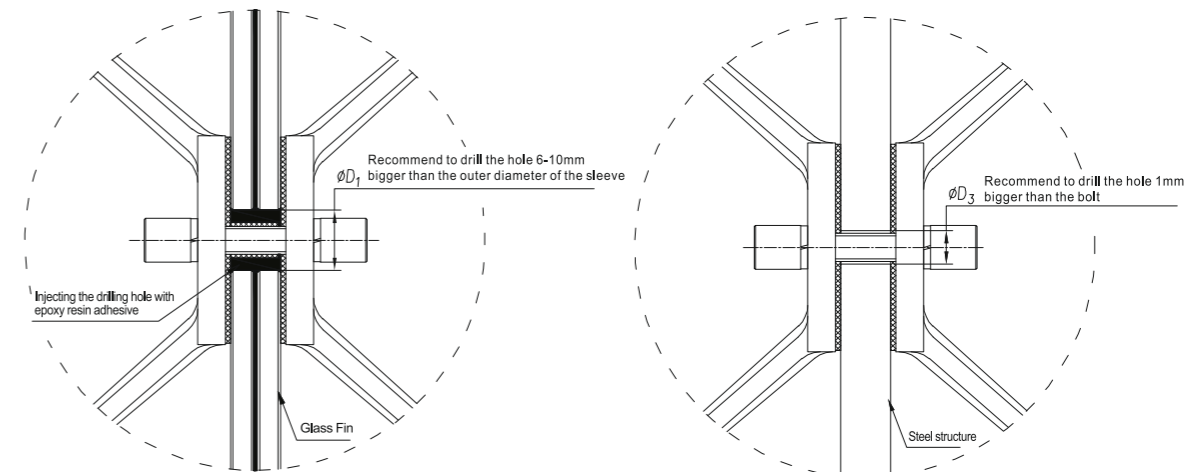


- Note:
1. Facade glass thickness for standard items is: $8 \leq T \leq 26$ mm;
 2. Please place the order with note of removing rubber washer or nylon sleeve while they are not needed. Please drill according to the bolt dimension.

The Recommended Value of Load Capacity(N)	Model	Main material:316、304	
		$F_x \leq$	$F_y \leq$
	LZ160UYGC	2000	1000
	LZ160UYGC-D		
	LZ160UYGC-F		
	LZ160UYGC-FD		



The diagram of fin spider



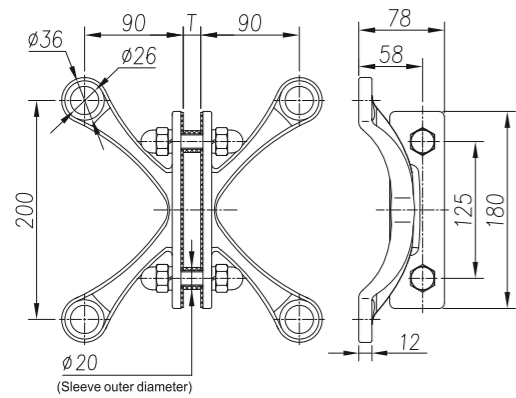
The clamping type of glass fin

The clamping type of steel structure

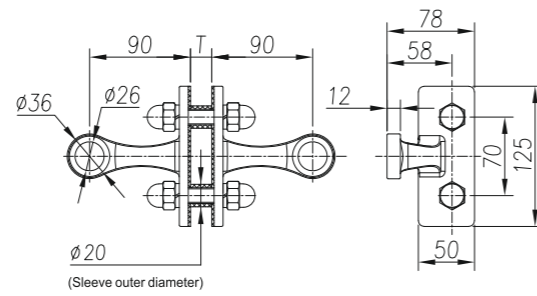
- Note:
1. When installing the glass fin suspending clamp to fin glass, big drilling is available and epoxy resin adhesive must be injected into the glass hole;
 2. When installing the glass fin suspending clamp to steel fin, no need nylon sleeve generally, the drilling diameter is 1mm bigger than the bolt diameter;
 3. The above glass drilling is for reference only.

Customized Product

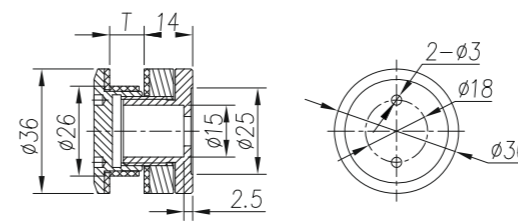
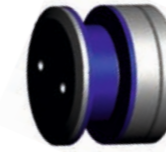
L200RA-190008



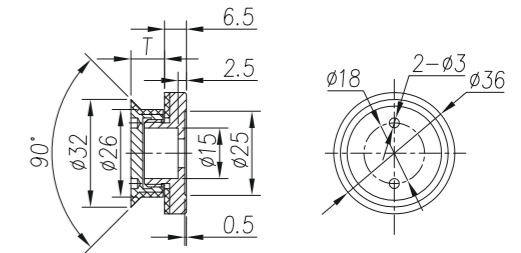
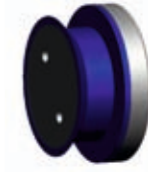
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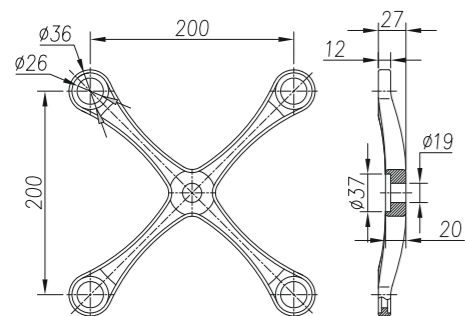
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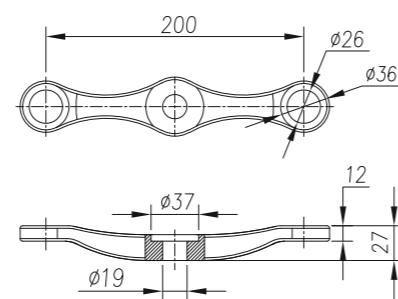
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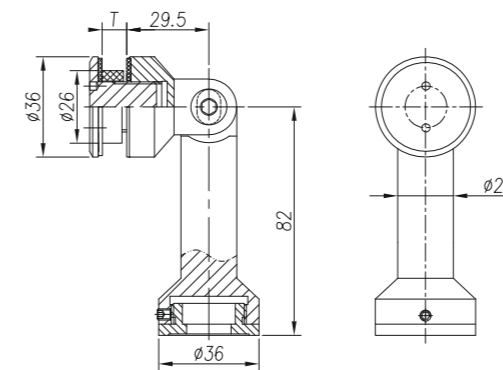
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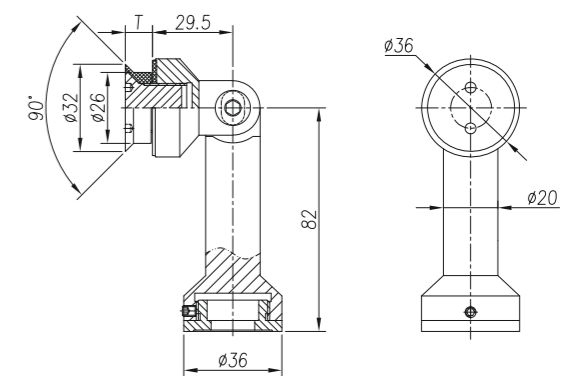
200RA-190004



FBPJ-190460

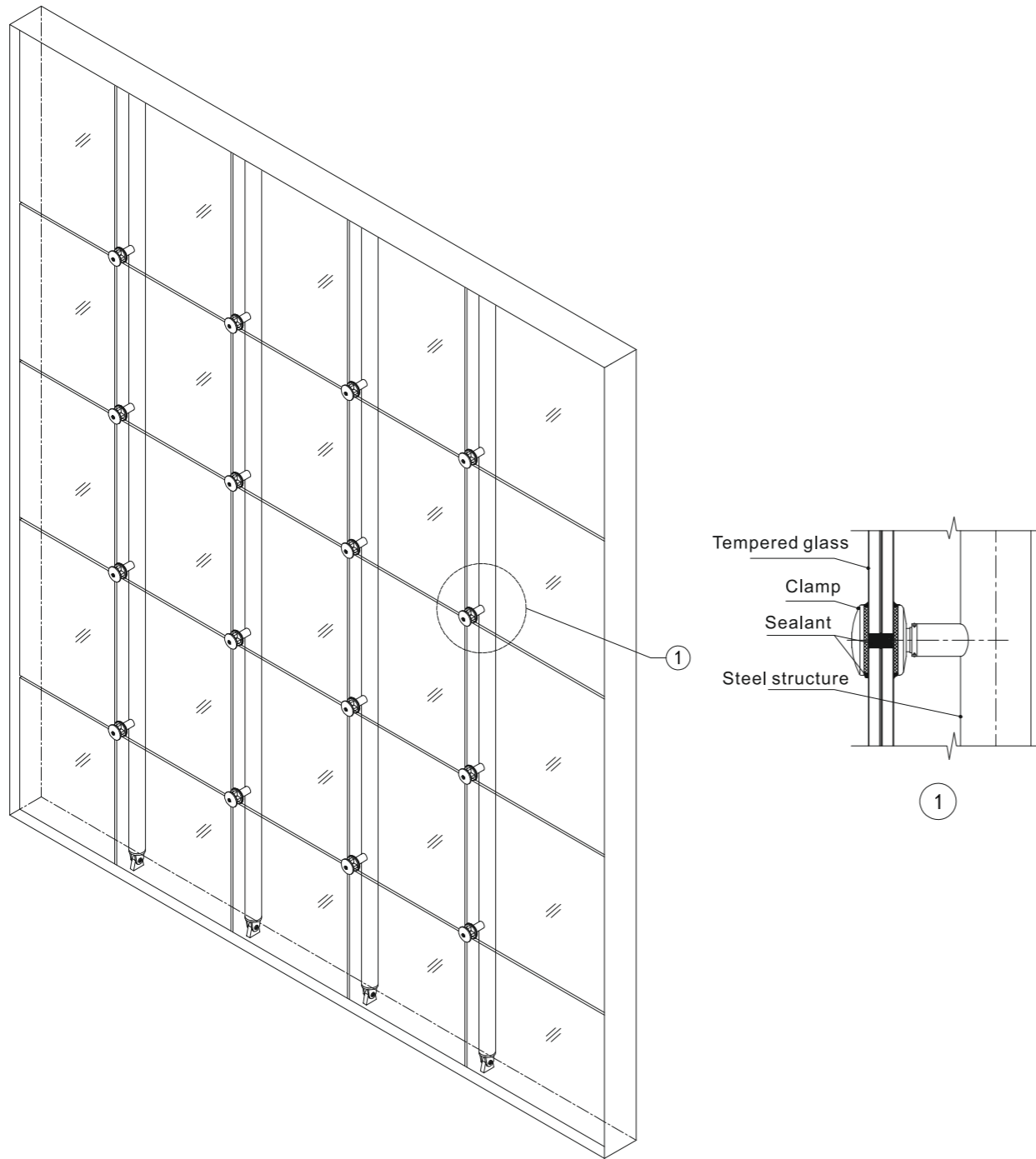


FBPJ-190454

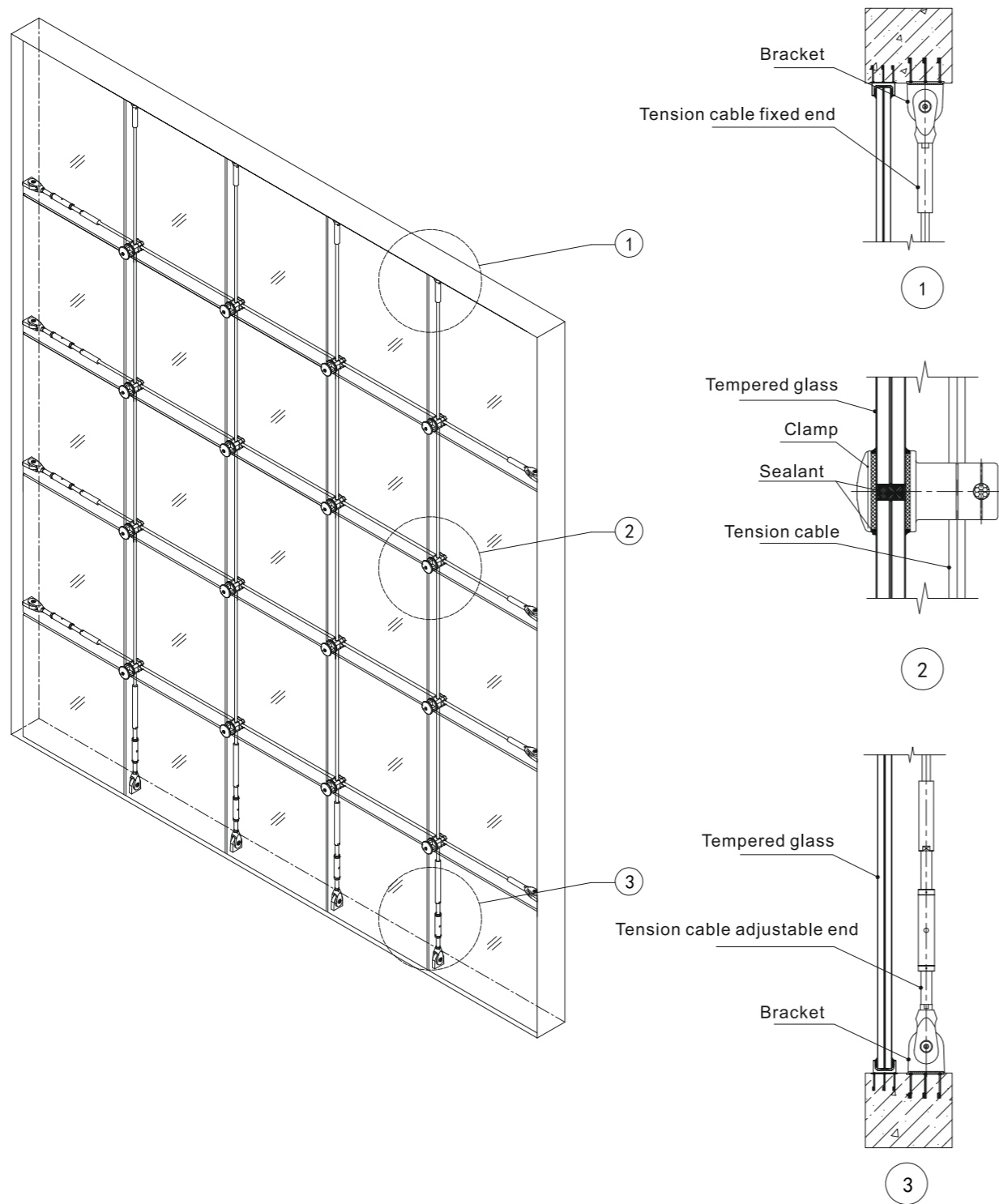


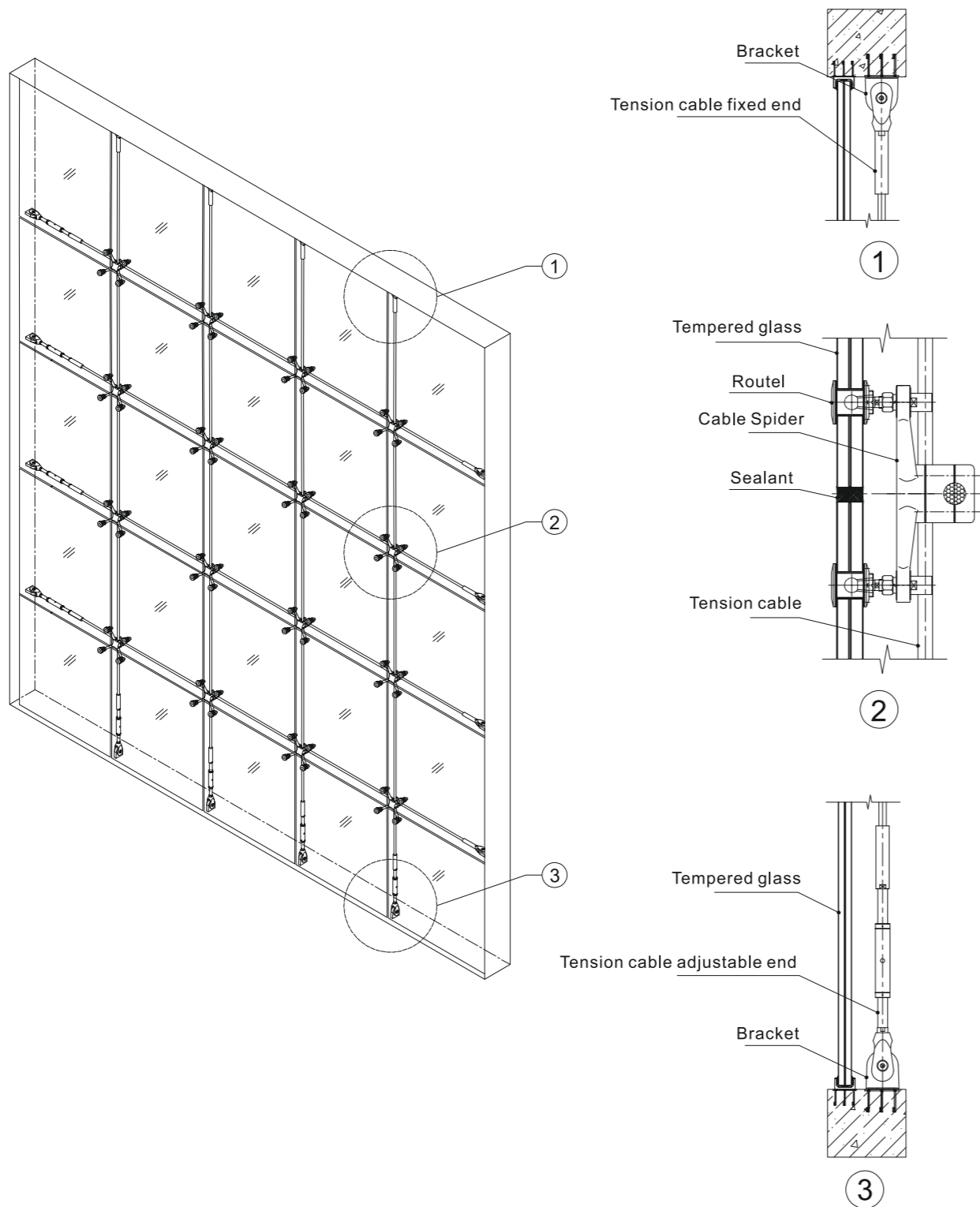
Note: Glass thickness T=10-12mm

Regular Curtain Wall System

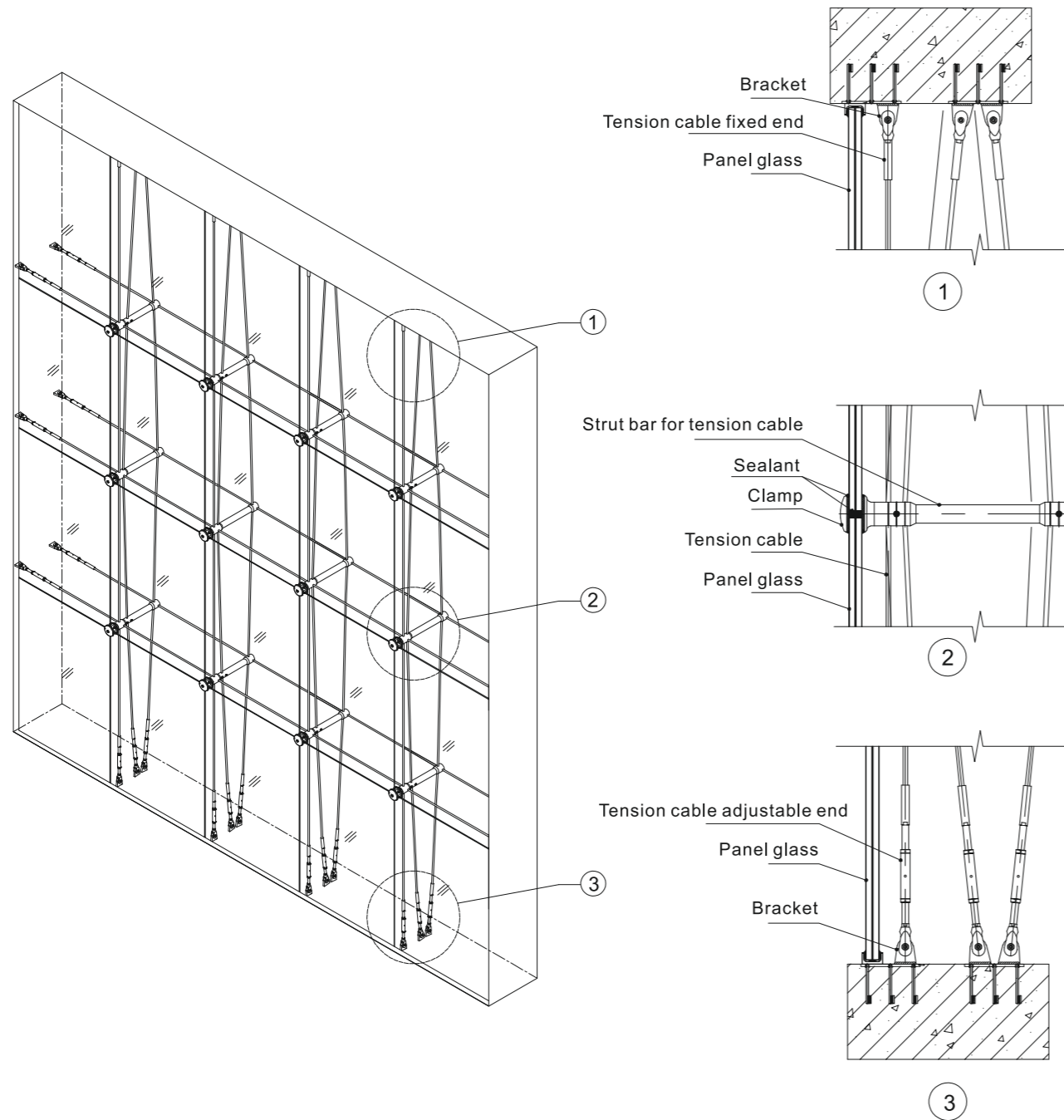


Single-layer Cable Net Glass Curtain Wall System

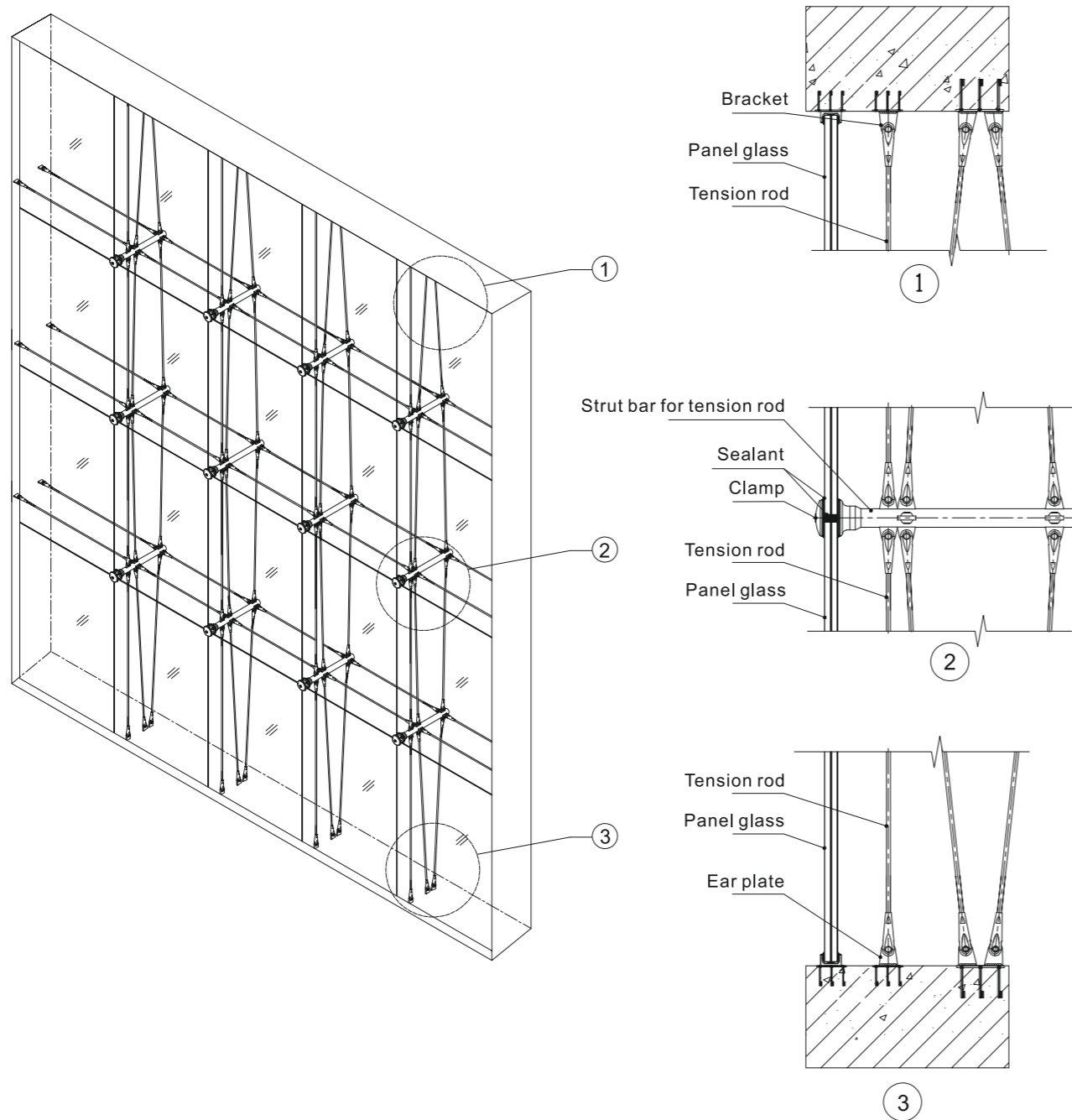




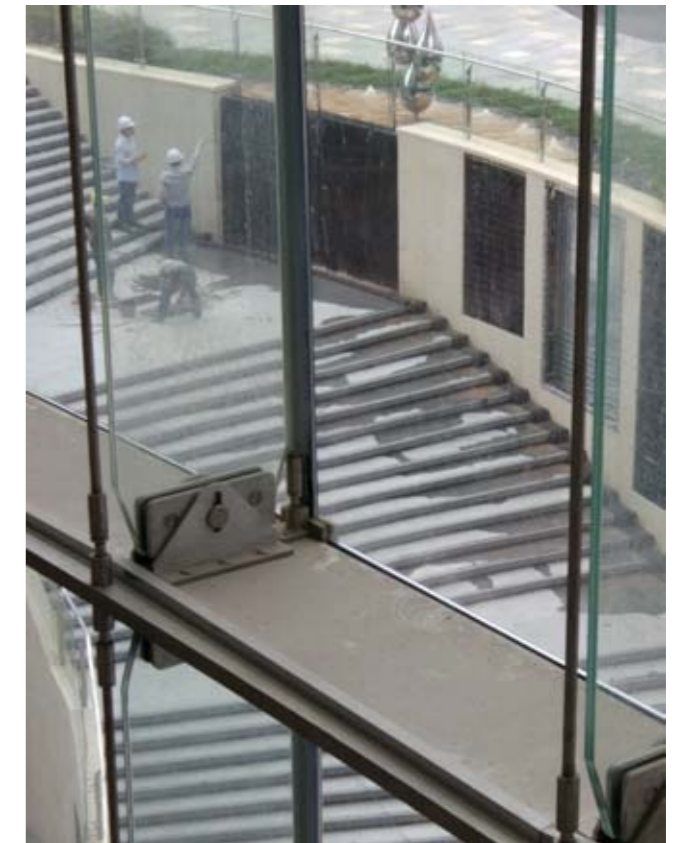
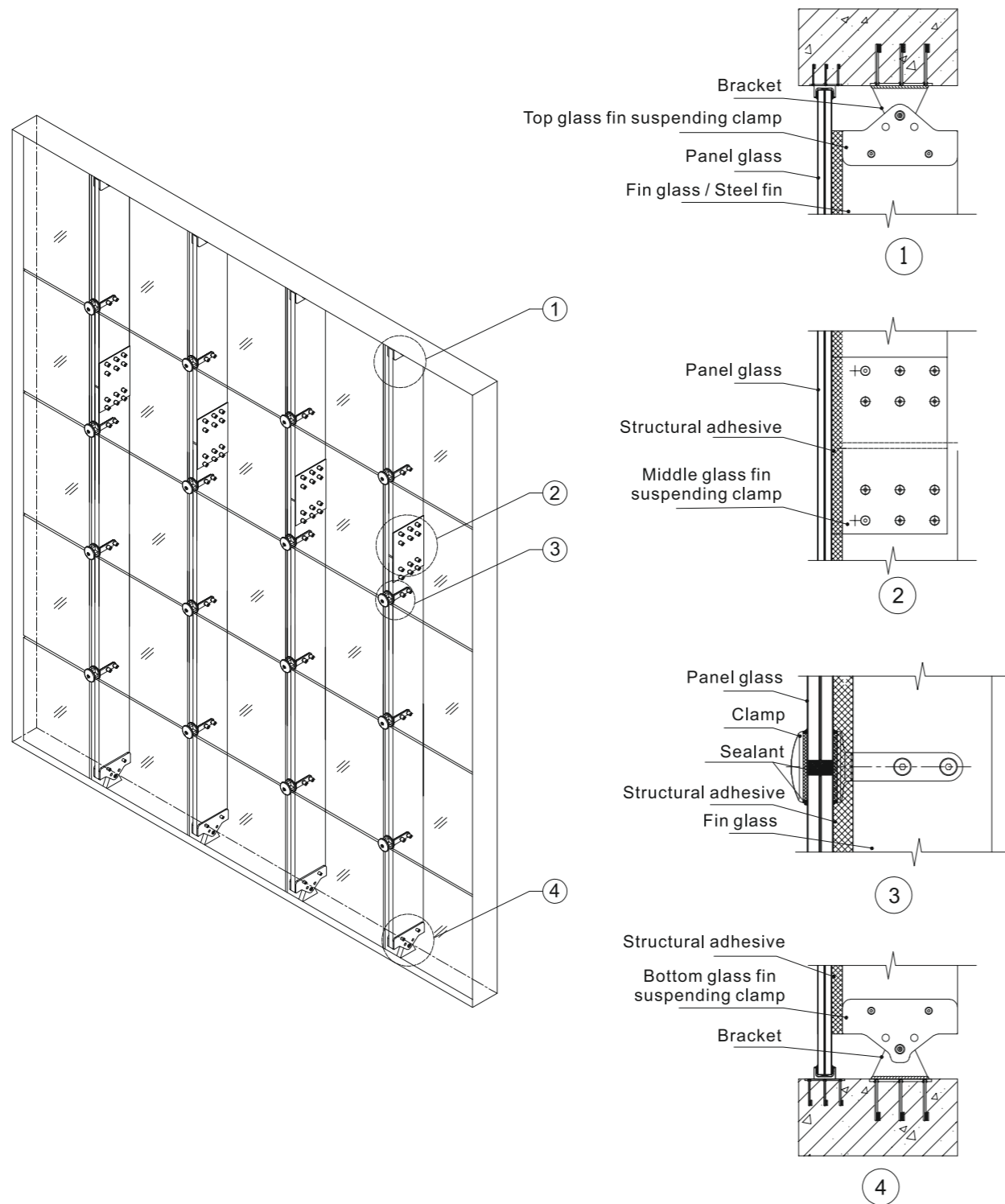
Cable Truss Glass Curtain Wall System



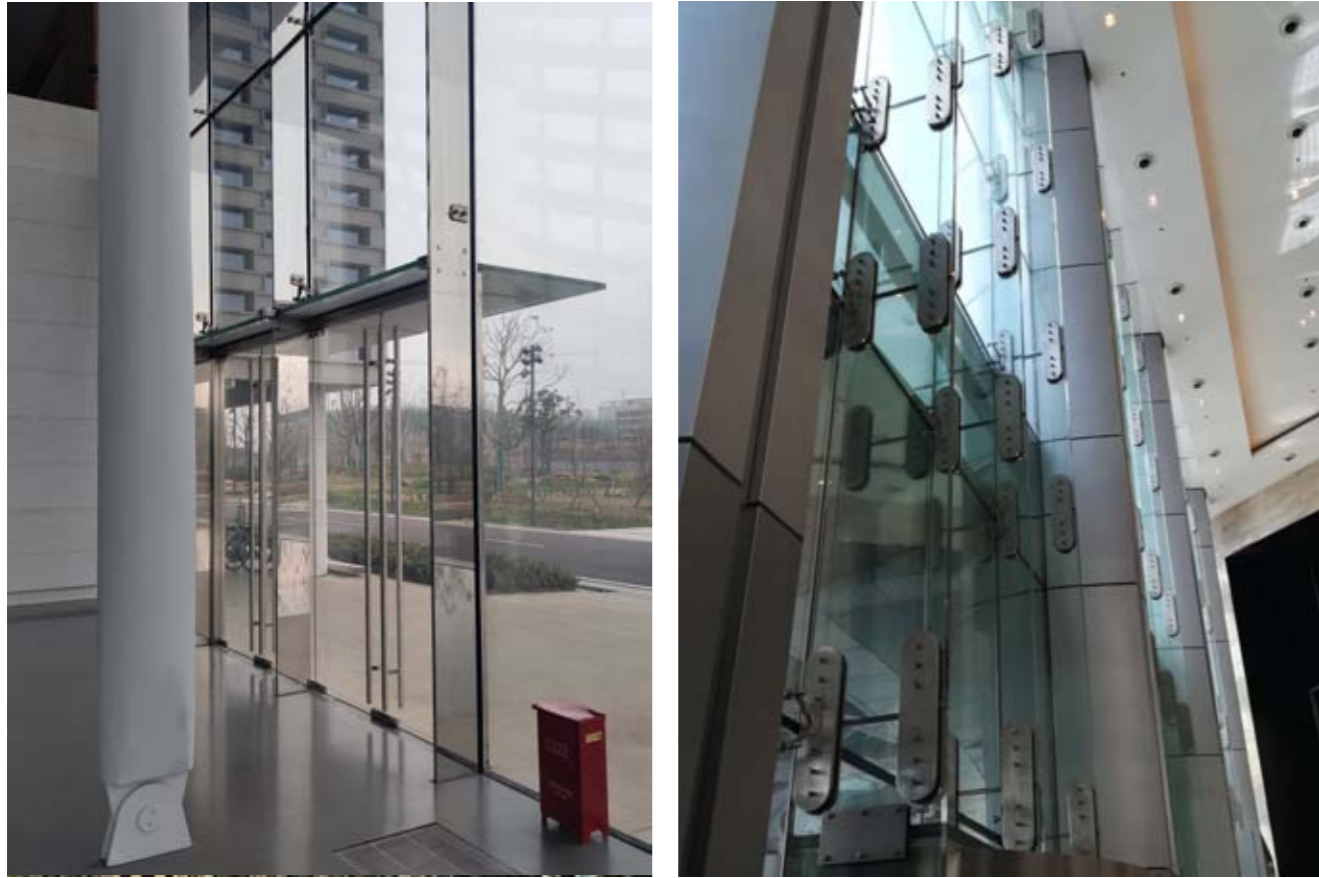
Rod Truss Glass Curtain Wall System



Steel Fin Glass Curtain Wall System



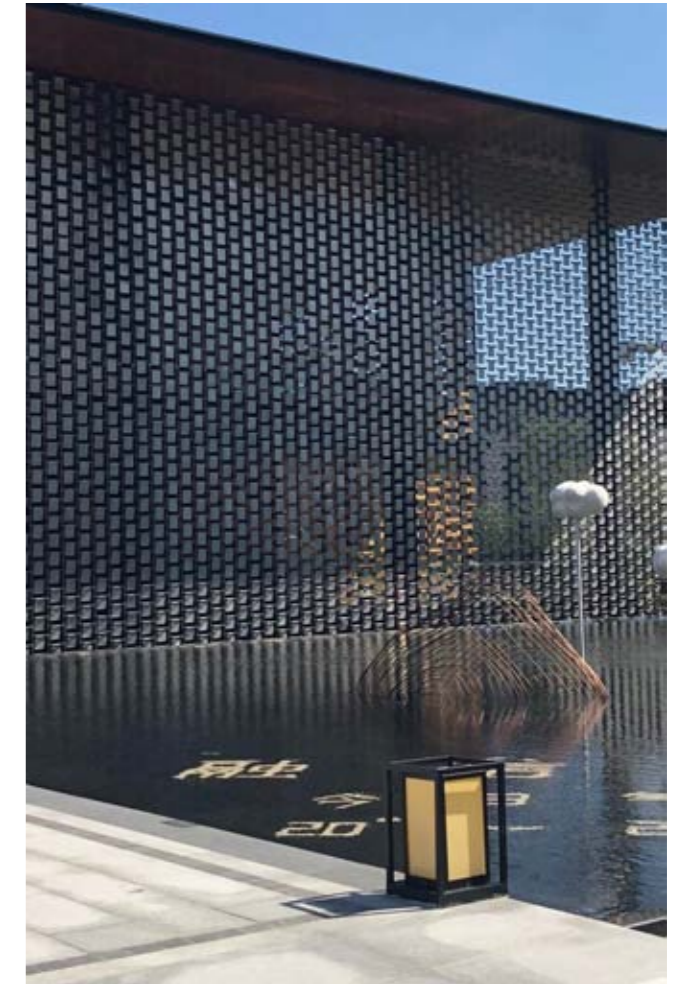
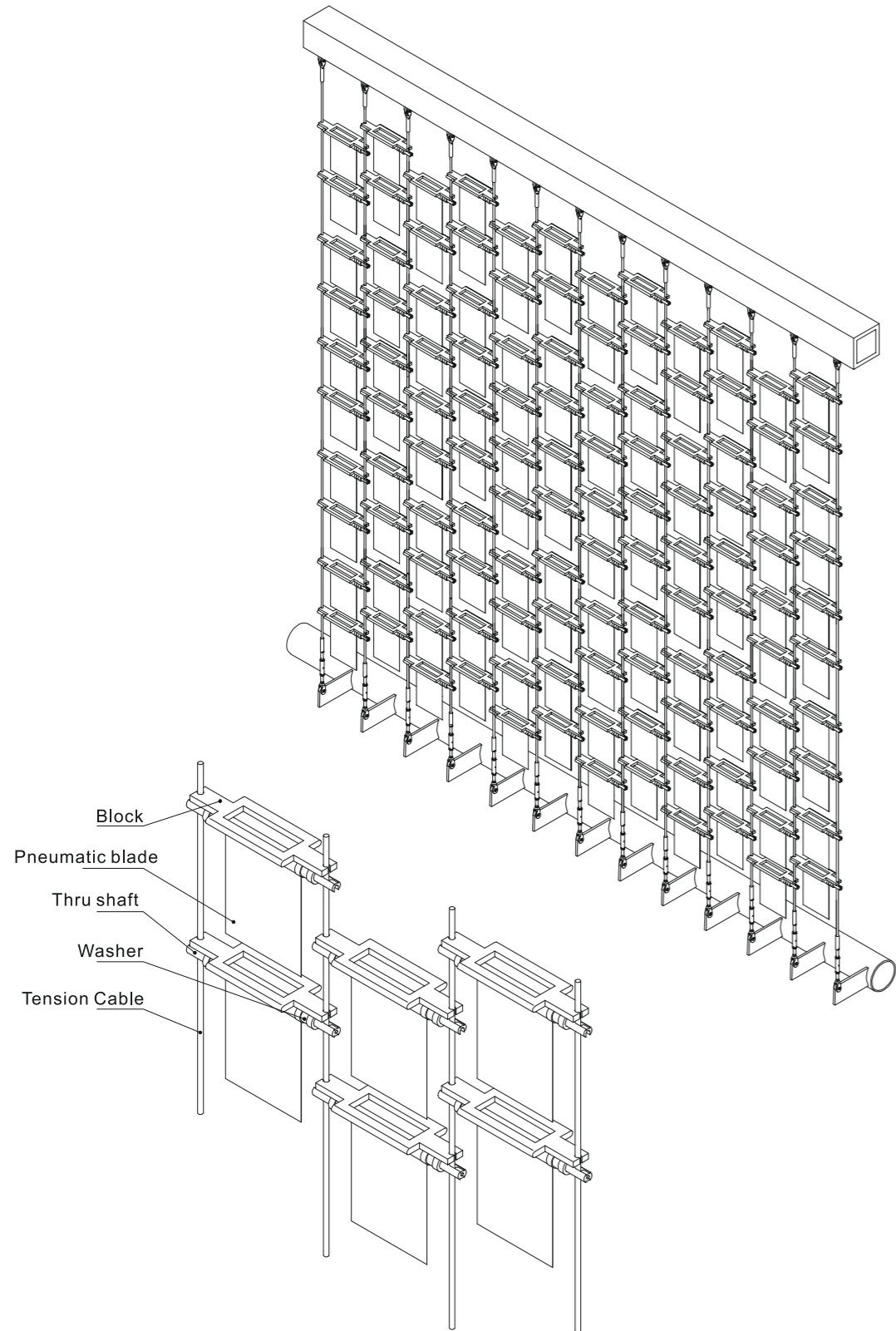
Steel Fin Glass Curtain Wall System

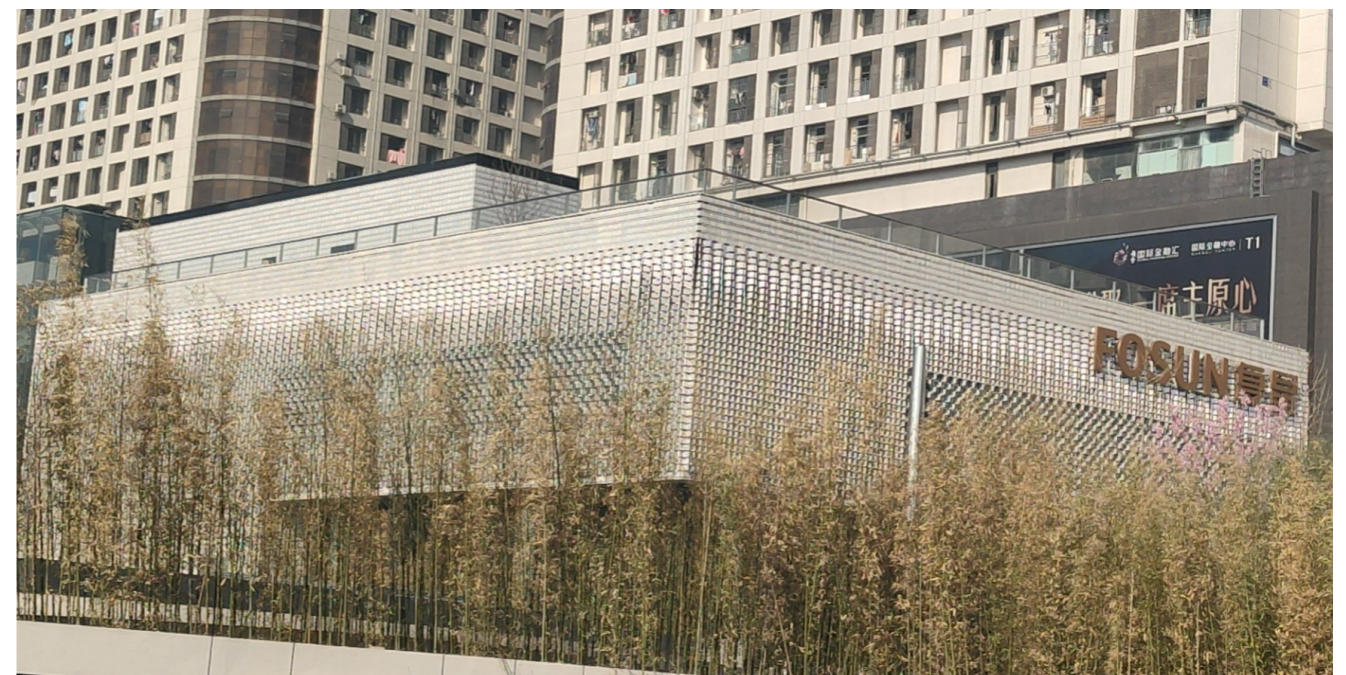
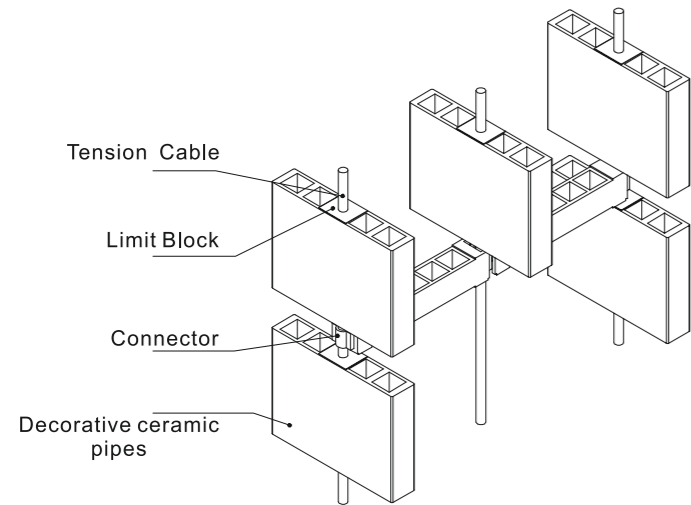
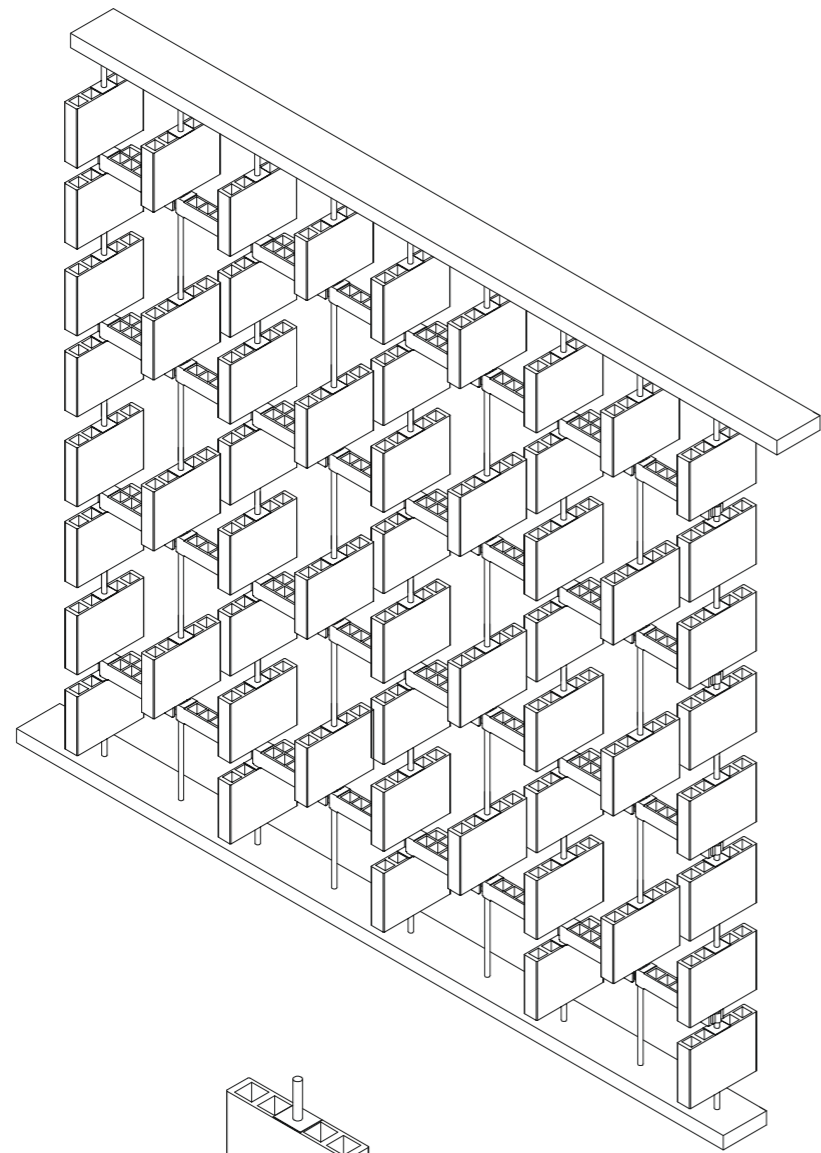


Steel Fin Glass Curtain Wall System



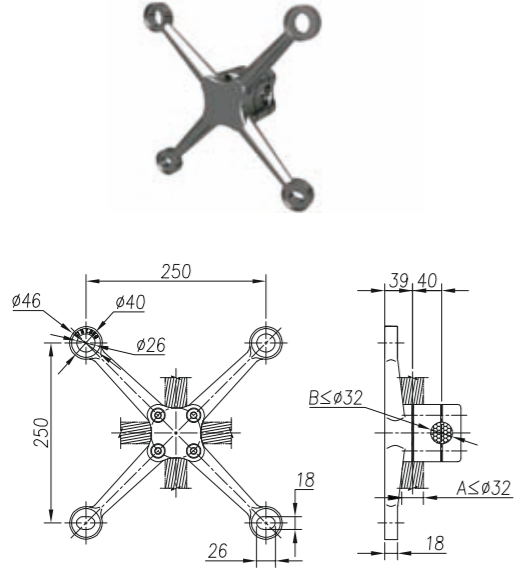
Decorated Curtain Wall System



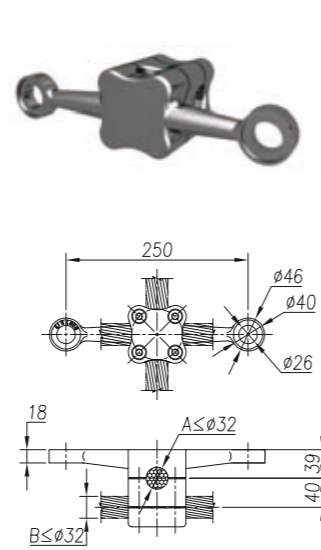


Cable Spider

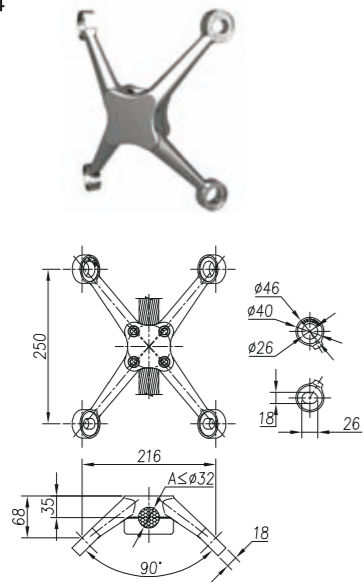
S250C4



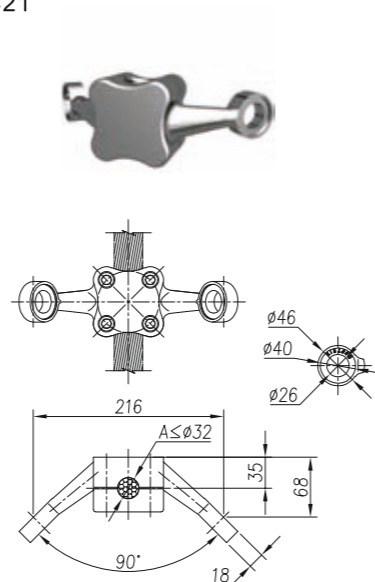
S250C21



S250CC4



S250CC21



The Recommended Value of Load Capacity(N)	Model	Material: CF8M、CF8		Material:CD3MN		
		Fx ≤	Fy ≤	Fx ≤	Fy ≤	
	S250C Series	2500	1500	3300	2000	
S250CC Series						

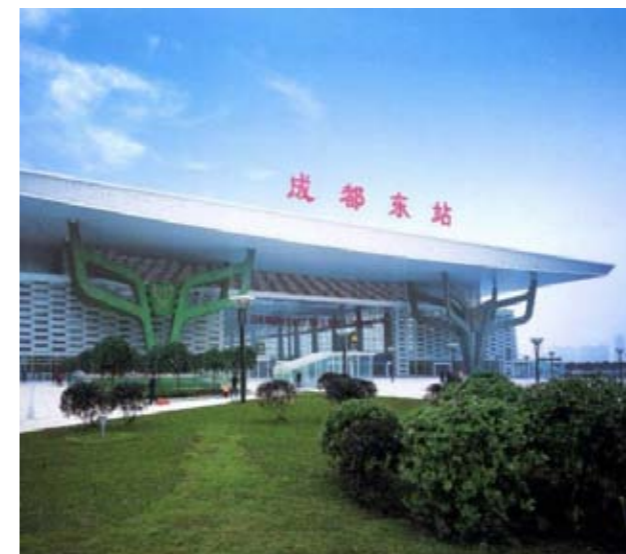
Clamp

I. Clamp supporting advantages:

1. Simpler structure, lower cost;
2. No need drilling hole, can avoid glass manufacture defects and reduce the drilling fee;
3. No hole sealing issue of double glazing.
4. Lots of washers type for different project options.
5. Clamp hole the panel close to the structure which reduce the bending effect from the dead load
6. Clients can choose or customize from many appearance types.

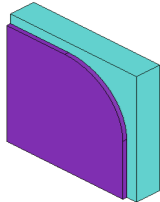
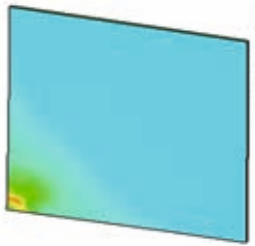
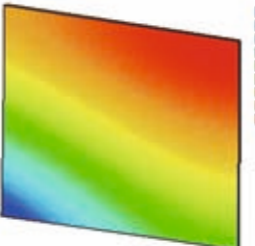
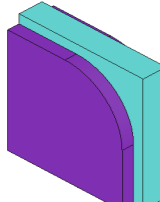
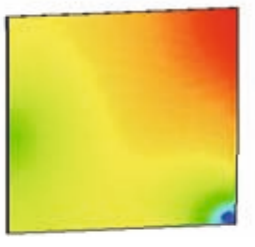
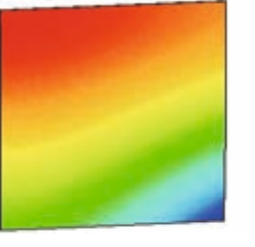
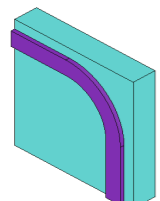
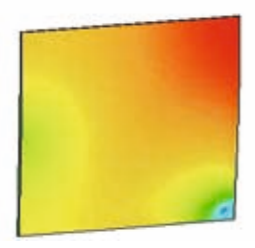
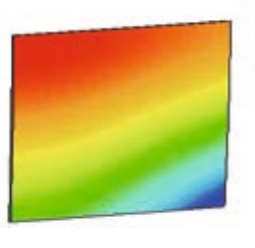
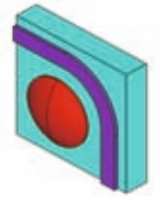
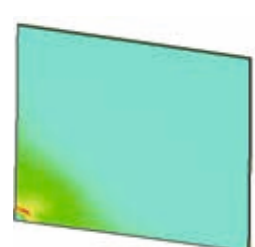

II. Clamp supporting disadvantages:

1. Dead load bear by the bottom of glass causing glass bending.
2. Supporting plates locate at the glue-line , so curtain wall glue-line need to be designed more wider;
3. Since clamp loading point is on the corner, glass calculation span can't be reduced.
4. Large dimension of hardware.
5. Having a long glue side and located at the glue-line, so it has a high construction requirement for silicone sealant.



III. The glass loading features under the clamp supporting

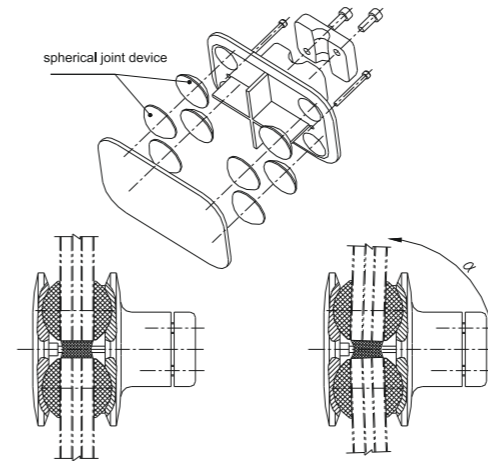
The glass loading, when it's under clamp supporting, has the relation with glass dimension, thickness, shape, etc. After the glass dimension confirmed, the glass loading will be more affected by clamp gasket. Common gasket supporting type and loading features as following:

Corner Supporting Manner	Stress (N/mm ²)	Deflection (mm)	Features
 <p>2mm rubber gasket</p>	 <p>maximum stress 55.702N/mm²</p>	 <p>maximum deflection 37.955mm</p>	The thinner the gasket, the greater the constraint on the rotation of the glass corner. The analysis result shows that the stress is large and the deflection is small.
 <p>6mm rubber gasket</p>	 <p>maximum stress 41.315N/mm²</p>	 <p>maximum deflection 46.326mm</p>	The thicker the gasket, the smaller the constraint on the rotation of the glass corner. The analysis result shows that the stress is small and the deflection is large.
 <p>2mm banded rubber gasket</p>	 <p>maximum stress 40.073 N/mm²</p>	 <p>maximum deflection 43.369mm</p>	The narrower (or smaller) gaskets have less constraint on the rotation of the glass corners. The analysis results are small stress and large deflection.
 <p>Nylon spherical hinge + 2mm banded rubber gasket</p>	 <p>maximum stress 46.427N/mm²</p>	 <p>maximum deflection 38.624mm</p>	The constraint of the spherical hinge on the corner of the glass is actually determined by the peripheral gasket (or glue joint). In this case, the analysis result is that the stress is large and the deflection is small. It has big difference with the simple spherical hinge support.

Analysis & Conclusion:

- In the above comparison, the glass specification is 1800mm*2000mm. Glass type is 12mm tempered glass. Wind stress is 2.0Kpa. Glass strength design value is 84 N/mm².
- From the comparison, the more rotating restrain capacity of corner supporting, the bigger glass stress but the smaller deflection. So put more restrain to the glass corner, the deflection will decrease. (or less glass thickness)
- The main purpose of this analysis is contrast different supporting glass force features. The result accuracy just can responsible for the model. And It may be small difference between other models. This analysis for reference only.

Lateral Spherical Joint Clamp (patent: 200820092149.7)



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(12) 实用新型专利说明书 专利号 ZL 200820092149.7

(45) 授权公告日 2009年1月14日 (11) 授权公告号 CN 20110326Y

(22) 申请日 2008.2.15 (74) 专利代理机构 广州华进联合专利商标代理有限公司 代理人 郑小琴

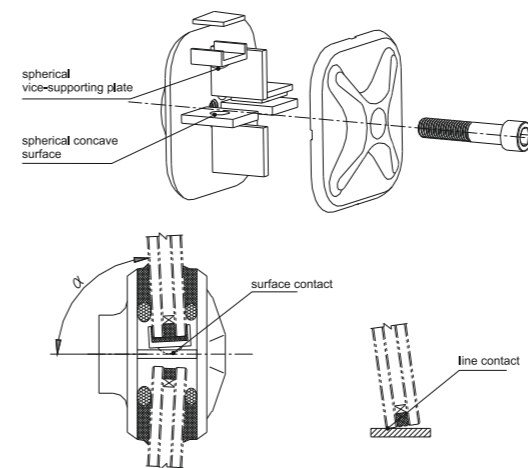
(73) 专利权人 东莞市景丽五金制品有限公司 地址 528415 广东省东莞市塘厦镇大坪工业区

(72) 发明人 白宝刚

(54) 实用新型名称 点胶式幕墙夹具

(57) 摘要 一种点胶式幕墙夹具, 至少包括: 外夹板, 设有多个成内凹的部分球面状的球胶孔; 内夹座, 与外夹板正对平行排列并通过螺栓螺接于内夹座和外夹板中连接成一体; 内夹座正对于外夹板上的球胶孔设有多个成内凹的部分球面状的球胶孔; 以及多个垫片, 成部分球体状, 一端为匹配于外夹座上的球胶孔或内夹座上的球胶孔的球胶面, 另一端为安装平面, 垫片置于球胶孔中, 幕墙面板夹持在多个垫片之间, 利用球形垫片的调整, 幕墙面板在一定的倾斜角度内可以微调, 既在安装过程中, 可根据各部件的相对位置在一定范围内调节安装角度, 安装易于实施且方便, 而且能够减小幕墙面板特别是玻璃幕墙面板受外力时产生的挠度, 提高抗震性能及缓冲占破坏性能。

Supporting Spherical Joint Clamp (patent: 200920204817.5)



(19) 中华人民共和国国家知识产权局 (12) 实用新型专利 (10) 授权公告号 CN 201902118 U (45) 授权公告日 2010.06.09

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(51) Int. Cl. B24B 2/06 (2006.01)

(54) 实用新型名称 点胶式幕墙夹具

(57) 摘要 一种点胶式幕墙夹具, 至少包括: 外夹板, 内夹座, 该内夹座与该外夹板平行地连接成一体; 托板, 固定于该外夹板与该内夹座之间, 以及副托板, 与该托板形成铰链并用夹承载上方的幕墙面板。本实用新型的点胶式幕墙夹具对幕墙面板实现了夹持连接, 副托板与托板之间形成铰链连接, 副托板承载幕墙面板, 幕墙面板在三维方向上在一定角度范围内可转动而幕墙面板在转动过程中, 幕墙面板面与副托板之间始终保持面接触, 即使承受重量不变, 不会产生点接触的应力集中, 承载稳定可靠, 安装性高。

IV. Clamp instructions:

1. Using taboo for gasket & glue

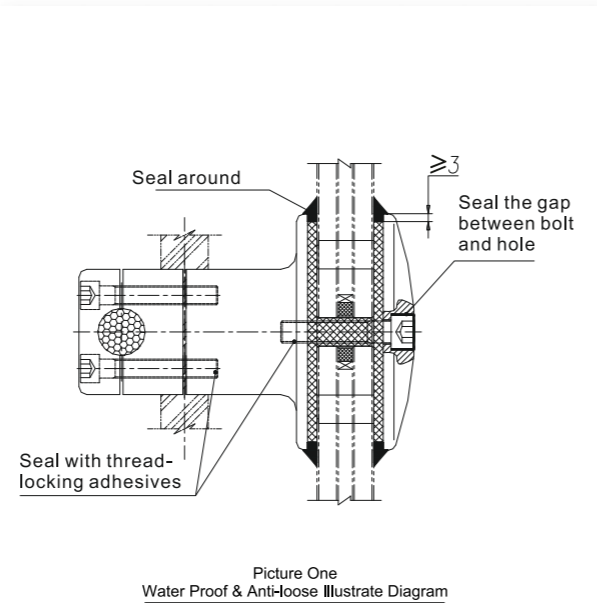
- (1) To avoid the sealant color changing to yellow (as below picture) and affect the appearance, so suggesting choose black sealant.
- (2) Before sealing, suggest to dye or compatibility test between the glue and gasket according to the manufacture standard.
- (3) Sealant suggesting use it with neutral silicone weather-proof attributes.
- (4) The glue area must be clean before sealing, and the exact requirement can consult the supplier.

2. Sealing measure

- (1) RG unilateral distance design should be $\geq 3\text{mm}$ between clamp edge and two glass facade sides.
- (2) Clear the glue area before sealing and glue continuously to provide good glue-line, guarantee the glue-line quality.

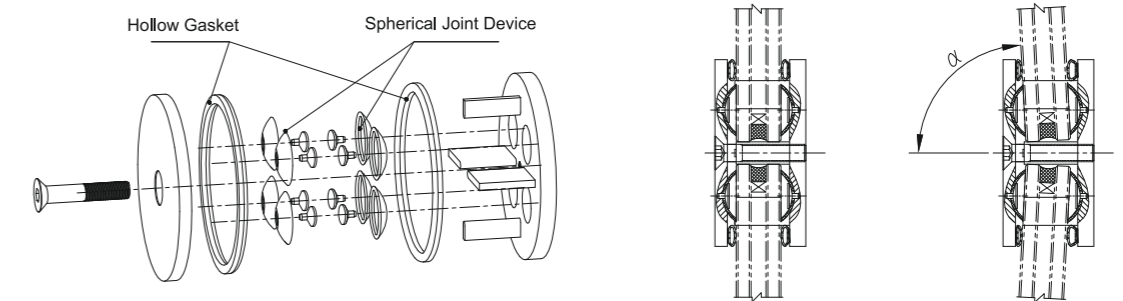
3. Anti-loose measure

Suggest to lock the screw with thread-locking adhesives to prevent clamp screw loose after long time vibration.



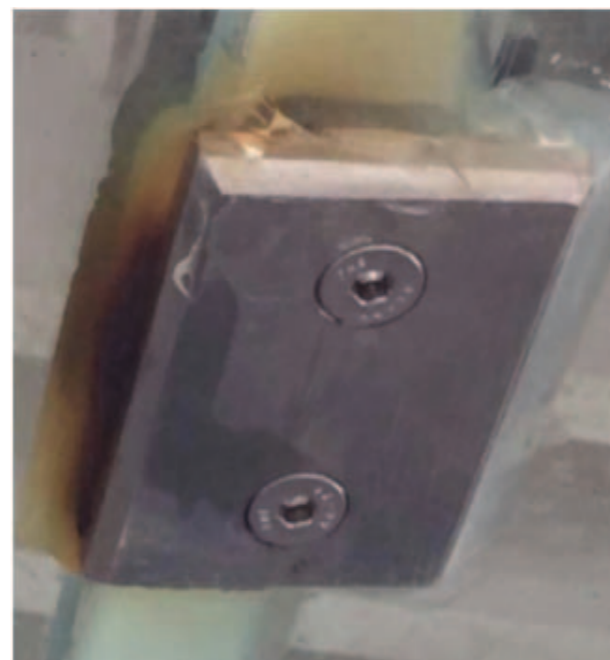
V. Clamp new technique

New spherical clamp

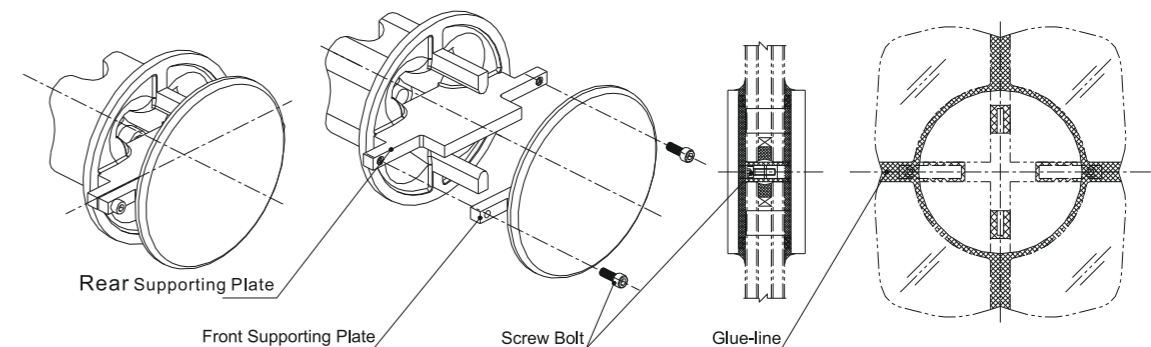


Product highlights:

- 1. Decrease the glass restriction effect of the edge gasket and sealing, give full play to spherical joint.
- 2. No need fill in foam stick before sealing and it can get the same wide sealant, which increases the installation efficiency.



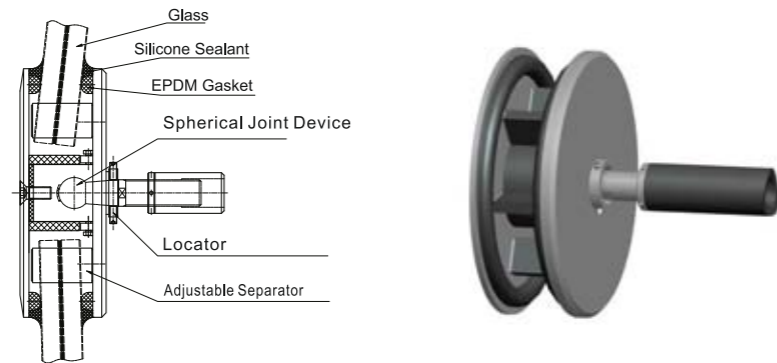
Screw concealed clamp



Product highlights:

- 1. The installation blot is invisible from indoor & outdoor, good appearance.
- 2. Can prevent clamp screw bolt become loose after long time vibration.
- 3. No screw hole sealing and can perfect solve the screw hole water leakage.

Clamp for Curved Glass



Features of the Clamp Special for Curved Glass

1. The EPDM thick gasket, formed by injection molding, is used at the outer edge of clamp, providing point support to glass corner and adaptation to the changing of angle between glass and clamp.
2. Removable and adjustable separators are easy for the installation of multi panels in different angle.
3. The spherical joint device inside the clamp is easy for adjusting the angle of clamp. The locator in the rear can locate the clamp after the angle adjustment, to avoid the interaction effect between glasses during installing or under stress.

Note: the adjustable separator and locator is the patent of KIN LONG, right reserved.

Project Cases:

Beijing Huaifang Sports Complex // Henan Provincial Tennis Stadium // Qingdao World Horticulture Expo Park
Nanjing Xiaohonghua Art Primary School // Yunnan Science and Technology Museum // Dali Taiye International Plaza
Nanjing Xianlin Wanda MAO // Quanzhou Public Cultural Center // Yangjiang Yingxin Plaza



▲ Nanjing Small Red Flower Art Primary School

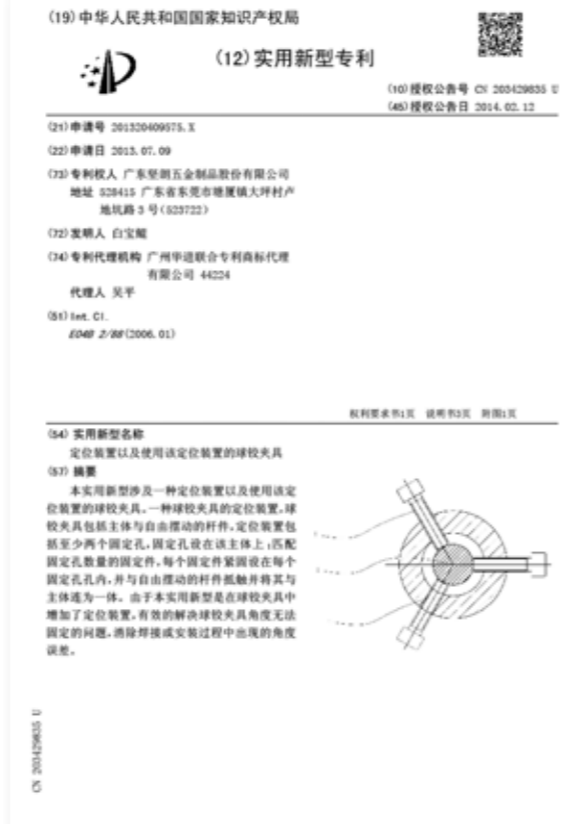


▲ Yangjiang Yingxin Plaza

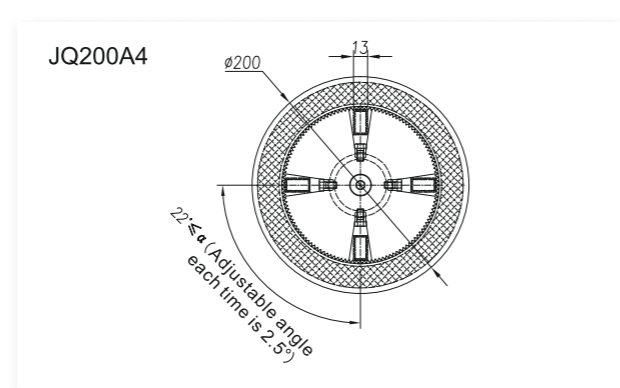
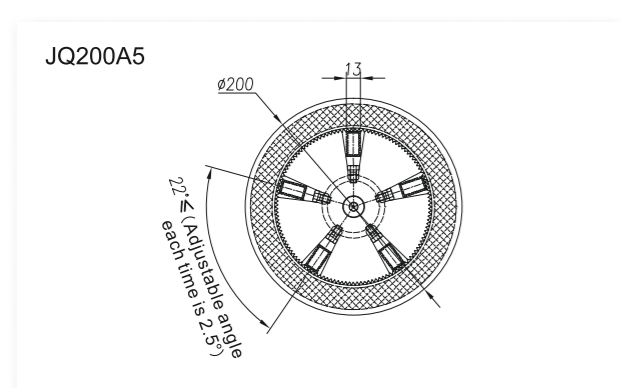
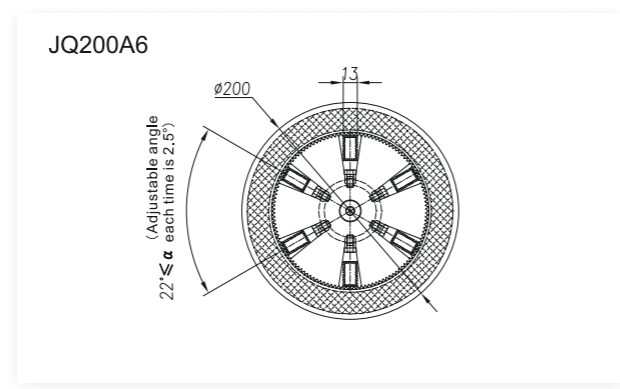
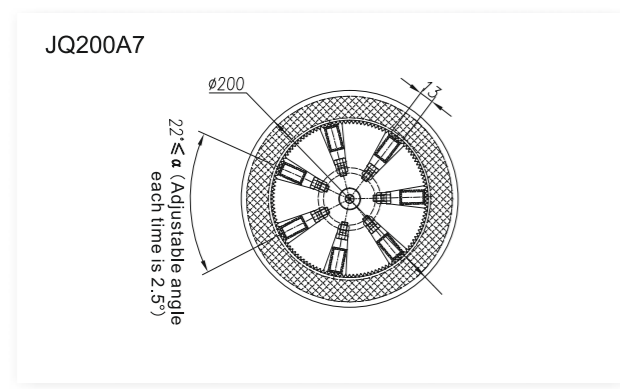
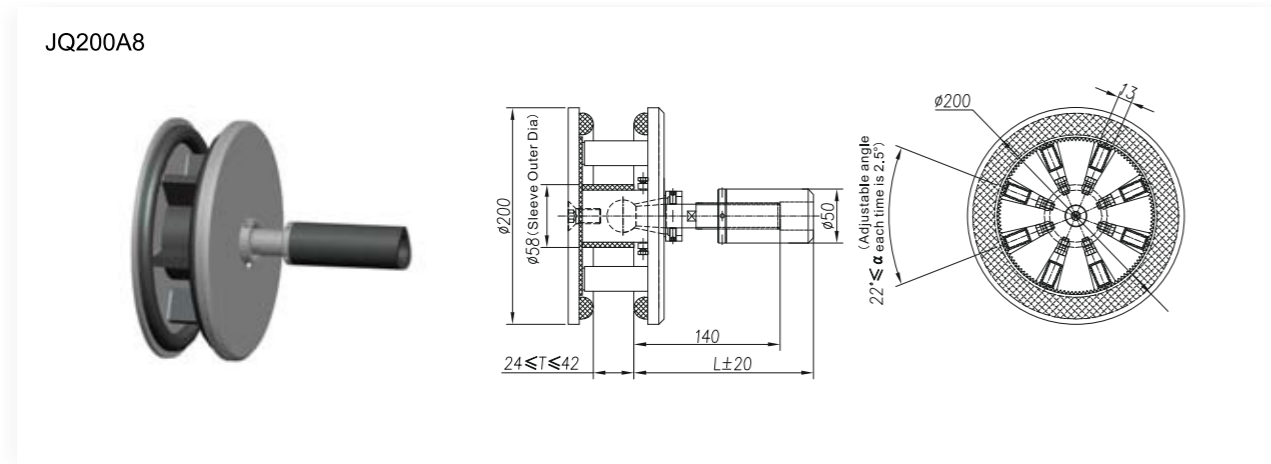
▼ Installation Section



▼ Installation Section

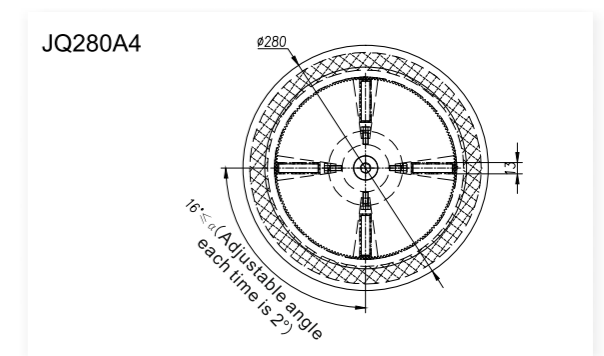
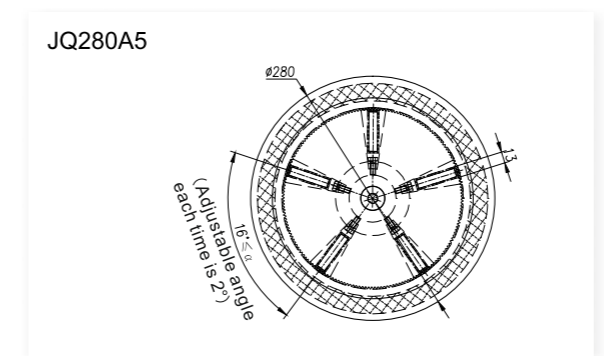
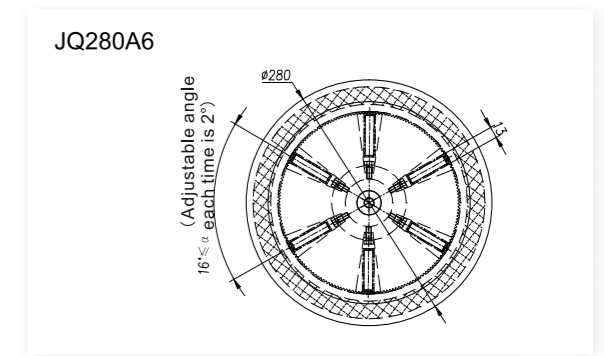
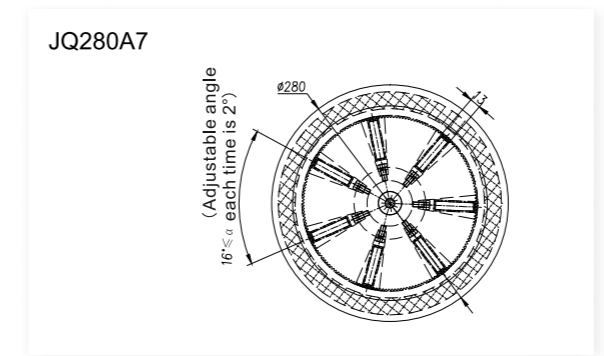
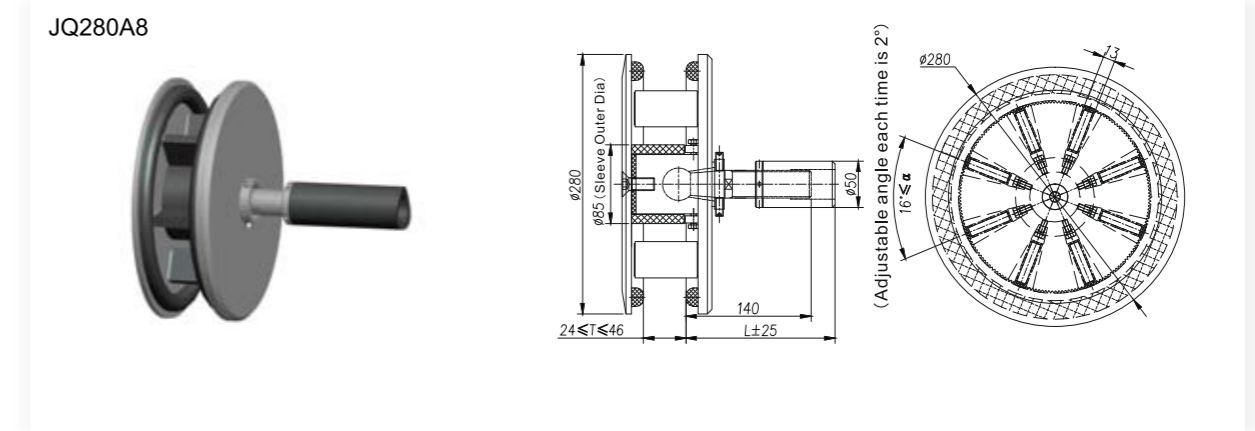


JQ200A Series



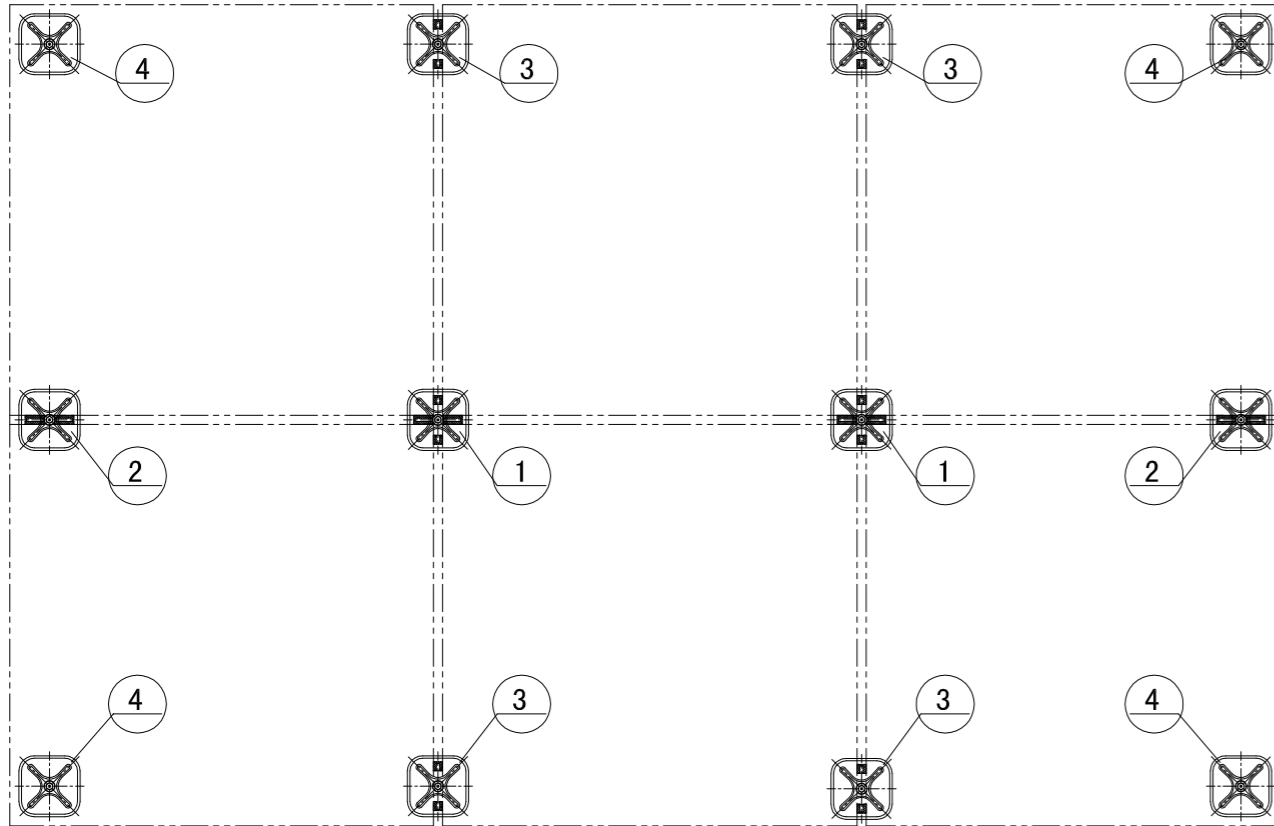
The Recommended Value of Load Capacity(N)	Material:CF8M, CF8		
	$F_x \leq$	Single Reinforcement Plate $F_{yd} \leq$	
	10000	1000	

JQ280A Series



The Recommended Value of Load Capacity(N)	Material:CF8M, CF8		
	$F_x \leq$	Single Reinforcement Plate $F_{yd} \leq$	
	10000	1000	

Clamp Numbering Rule



Curtainwall Node	①	②	③	④
Diagram				
Separator Quantity	4 pieces (two long and two short)	2 pieces (two long)	2 pieces (two short)	without rib plates
Product Code	Regular Number	Regular Number+WS	Regular Number+WH	Regular Number+W
Regular Number	J120B11	J120B11WS	J120B11WH	J120B11W

Note:

1. Regular number means the clamp has both vertical and horizontal separators, regular number +W/WS/WH means clamp without separators/ without vertical separator/ without horizontal separator.
2. Regular Number+W clamp needs glass drilling, different clamp may has different drilling, please consult KIN LONG for more details.

J100A Series Clamp (round shape)

J100A11

J100A71

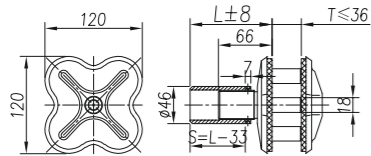
Model	Size	A	B	L ₁	L ₂
J100A31	φ20	φ20	64	30	
J100A32	φ32	φ32	84	40	

Model	Size	A	L ₁
J100A41	φ20	64	
J100A42	φ32	84	

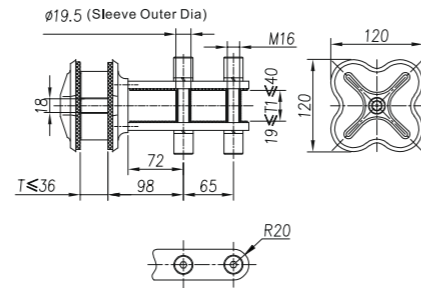
The Recommended Value of Load Capacity(N)	Material:CF8M、CF8	
	F _x ≤	F _y ≤
	16000	3000

J120A Series Clamp (flower shape)

J120A11

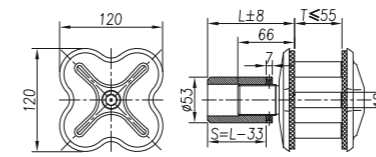


J120A71

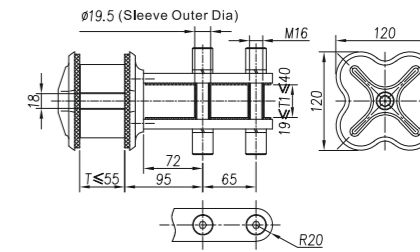


JH120A Series (flower shape)

JH120A11



JH120A71



Size Model	A	B	L ₁	L ₂
J120A31	φ20	φ20	67	30
J120A32	φ32	φ32	87	40

Size Model	A	L ₁
J120A41	φ20	67
J120A42	φ32	87

JH120A32

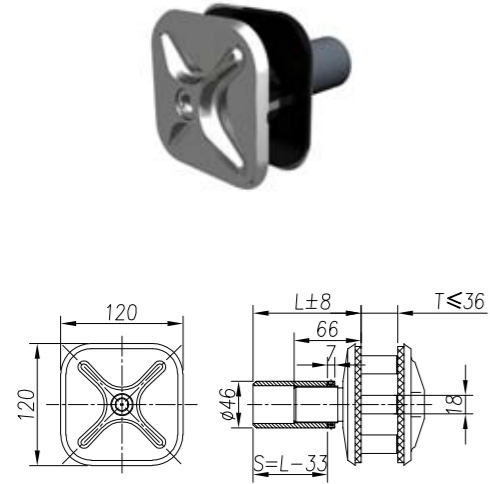
JH120A42

The Recommended Value of Load Capacity(N)	Material:CF8M, CF8		
	F _x ≤	F _y ≤	
	16000	3000	

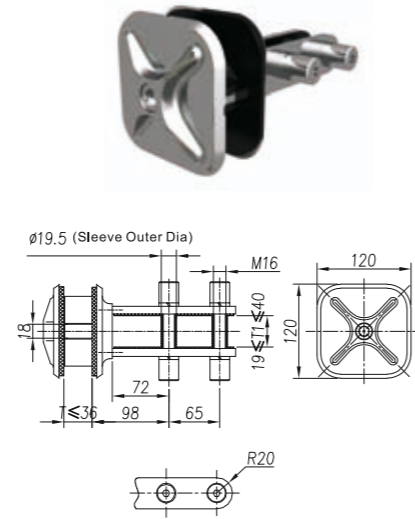
The Recommended Value of Load Capacity(N)	Material:CF8M, CF8		
	F _x ≤	F _y ≤	
	16000	5000	

J120B Series (square shape)

J120B11

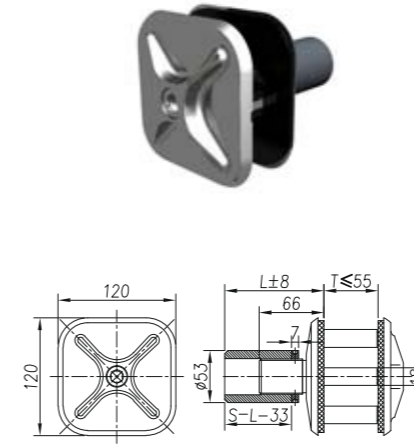


J120B71

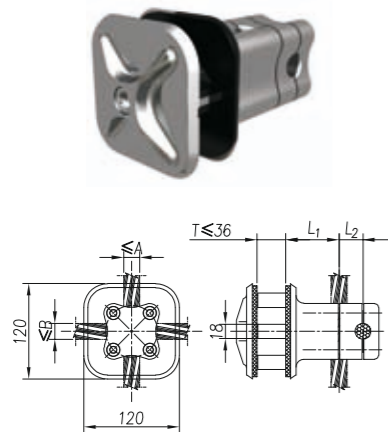
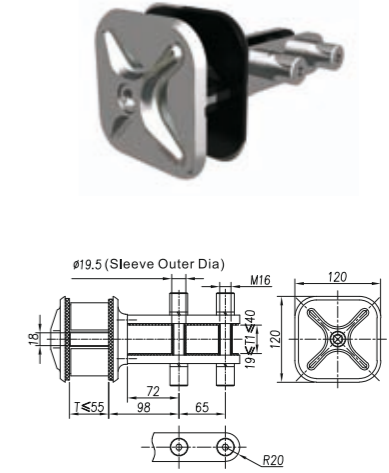


JH120B Series (square shape)

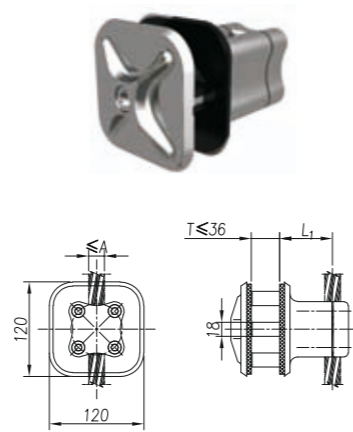
JH120B11



JH120B71

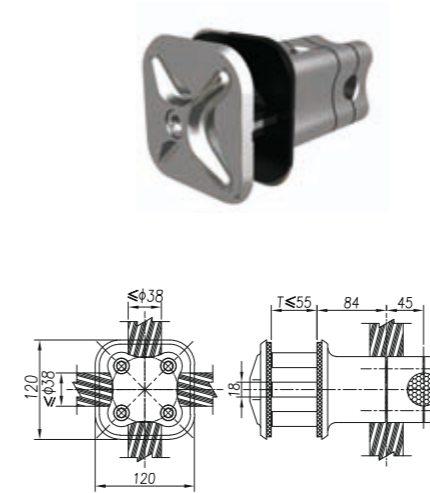


Model	Size	A	B	L ₁	L ₂
J120B31	φ20	φ20	67	30	
J120B32	φ32	φ32	87	40	

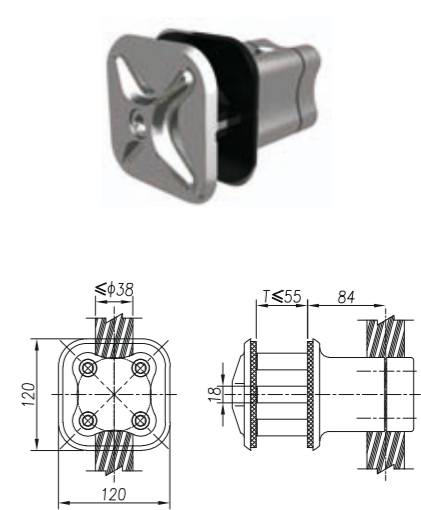


Model	Size	A	L ₁
J120B41	φ20	67	
J120B42	φ32	87	

JH120B32



JH120B42

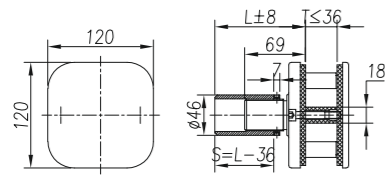


The Recommended Value of Load Capacity(N)	Material:CF8M、CF8		
	F _x ≤	F _y ≤	
	16000	3000	

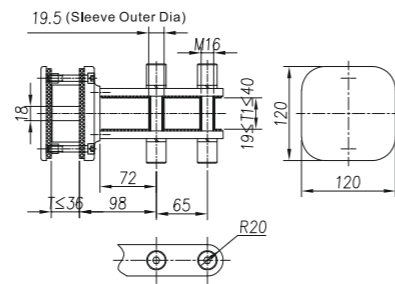
The Recommended Value of Load Capacity(N)	Material:CF8M、CF8		
	F _x ≤	F _y ≤	
	16000	5000	

J120C Series(square shape)

J120C11

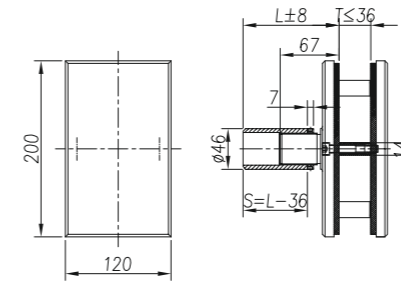


J120C71

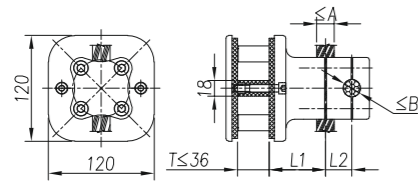
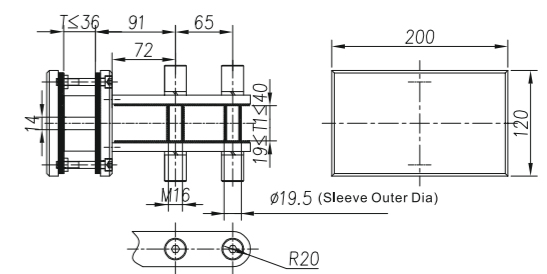


J120D Series (rectangle shape)

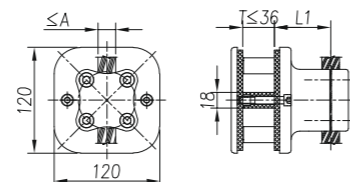
J120D11



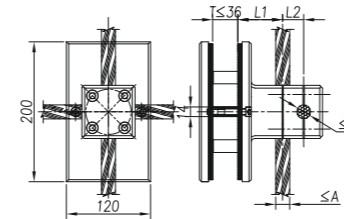
J120D71



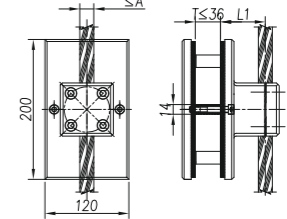
Model	Size	A	B	L ₁	L ₂
J120C31	φ20	φ20	64	30	
J120C32	φ32	φ32	84	40	



Model	Size	A	L ₁
J120C41	φ20	64	
J120C42	φ32	84	



Model	Size	A	B	L ₁	L ₂
J120D31	φ20	φ20	64	30	
J120D32	φ32	φ32	84	40	



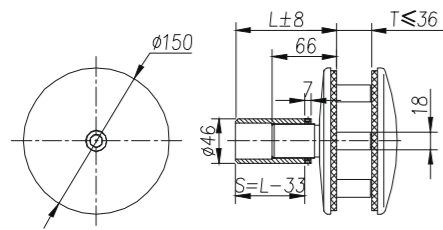
Model	Size	A	L ₁
J120D41	φ20	64	
J120D42	φ32	84	

The Recommended Value of Load Capacity(N)	Material:CF8M, CF8		
	F _x ≤	F _y ≤	
	16000	3000	

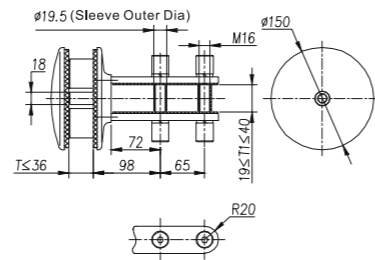
The Recommended Value of Load Capacity(N)	Material:CF8M, CF8		
	F _x ≤	F _y ≤	
	16000	4000	

J150A Series(round shape)

J150A11

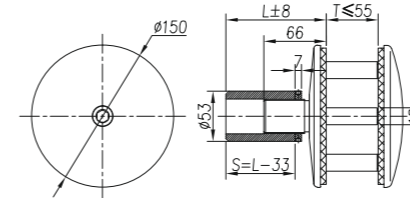
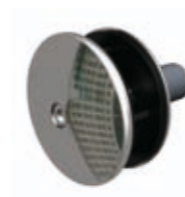


J150A71

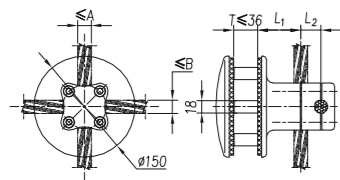
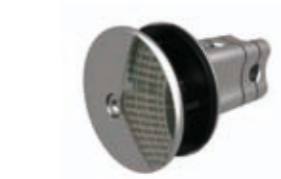
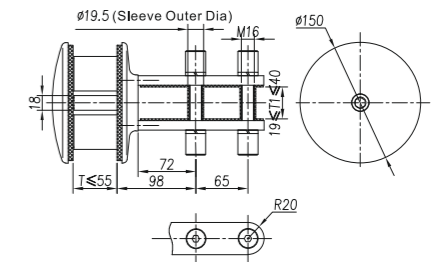


JH150A Series (round shape)

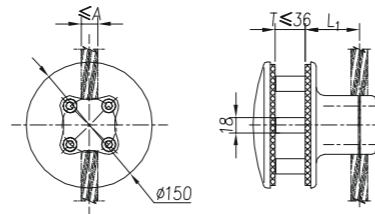
JH150A11



JH150A71

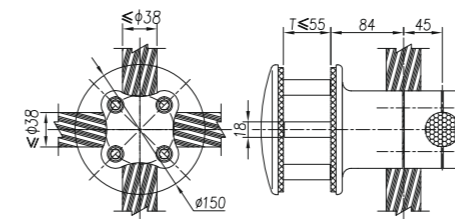


Model	Size	A	B	L ₁	L ₂
J150A31	Φ20	Φ20	64	30	
J150A32	Φ32	Φ32	84	40	

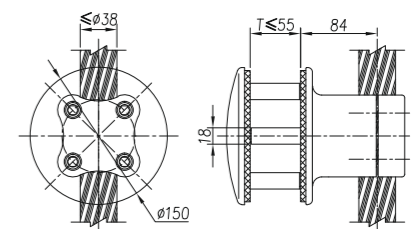


Model	Size	A	L ₁
J150A41	Φ20	64	
J150A42	Φ32	84	

JH150A32



JH150A42

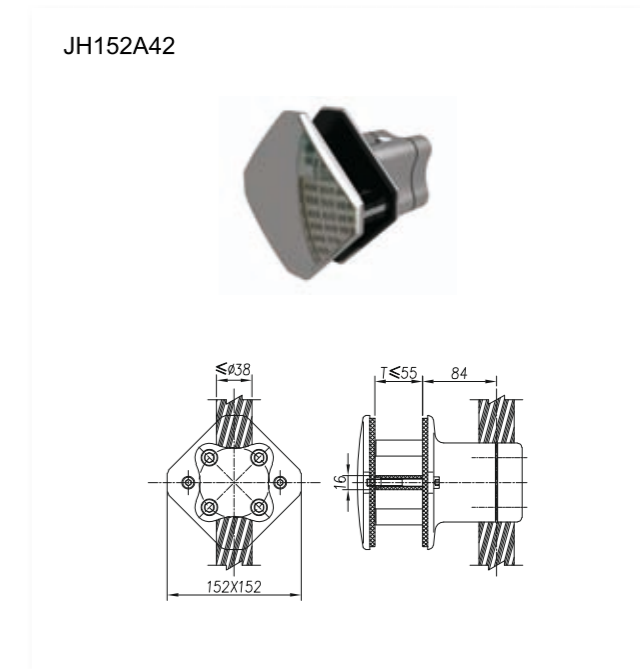
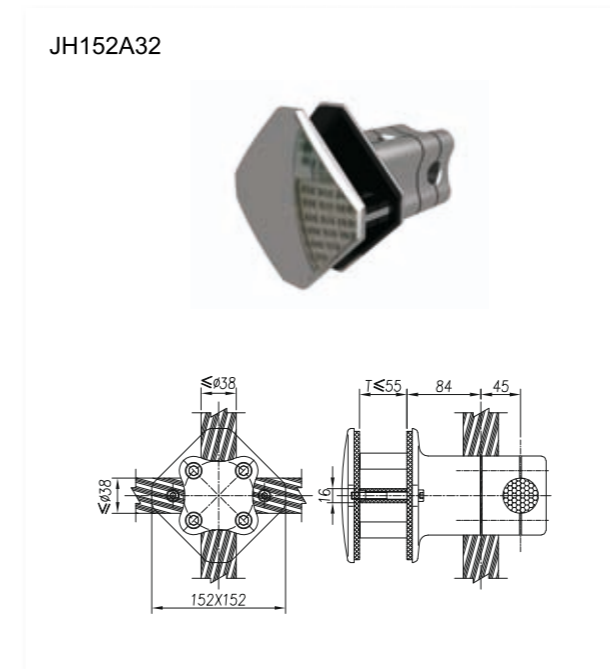
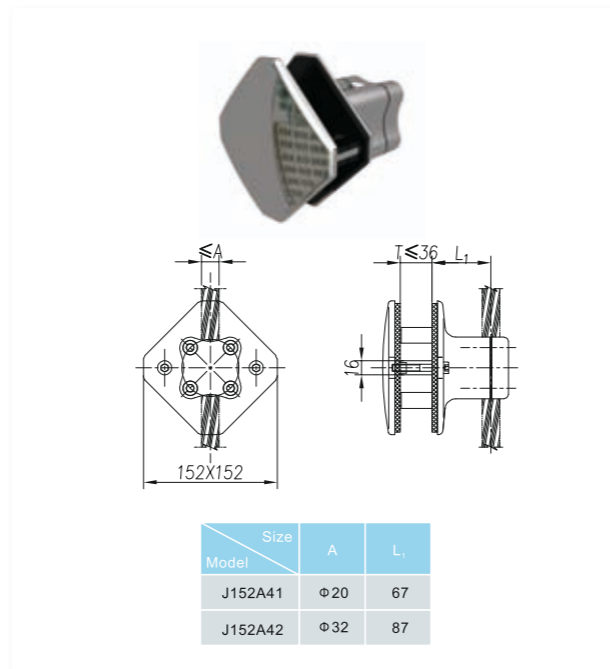
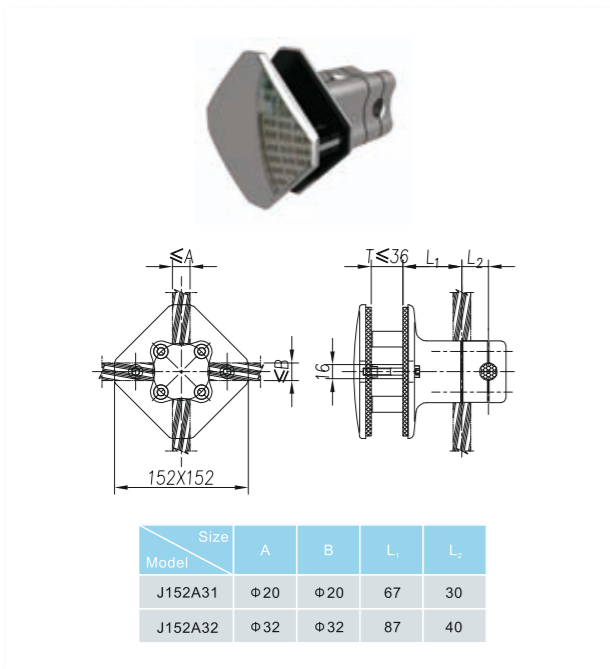
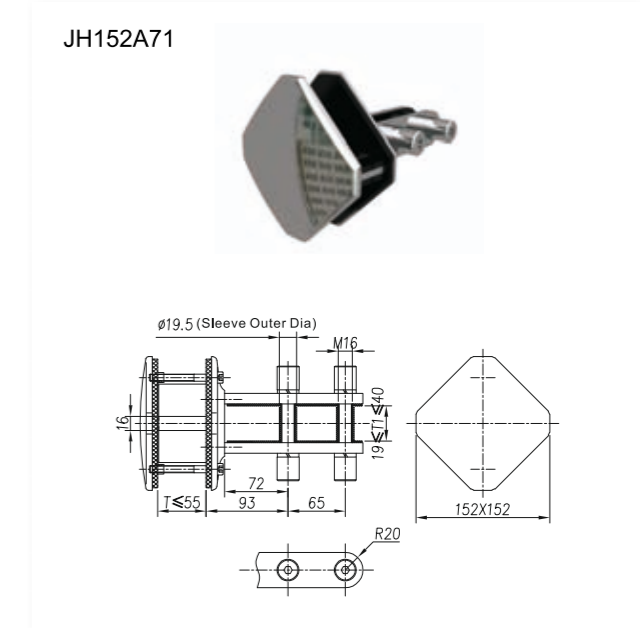
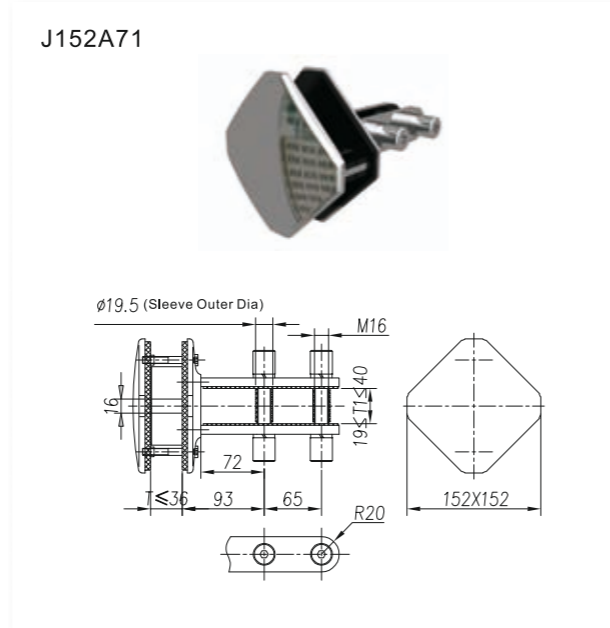
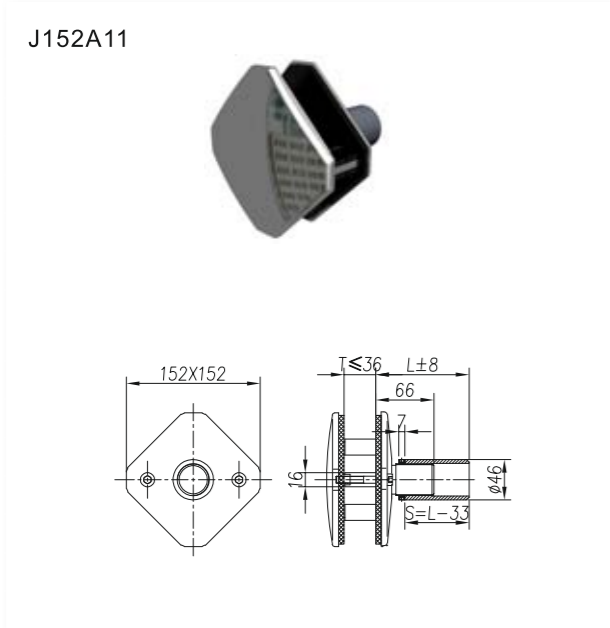


The Recommended Value of Load Capacity(N)	Material:CF8M、CF8		
	F _x ≤	F _y ≤	
	16000	4000	

The Recommended Value of Load Capacity(N)	Material:CF8M、CF8		
	F _x ≤	F _y ≤	
	16000	6000	

J152A Series(rhombus shape)

JH152A Series (rhombus shape)

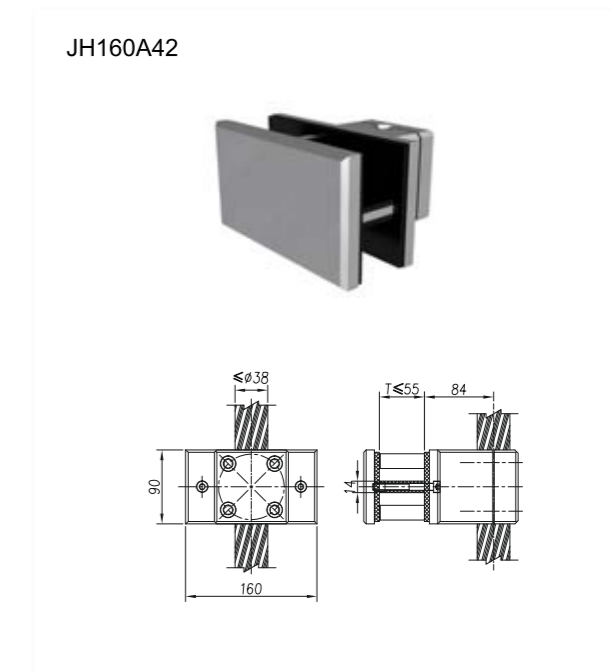
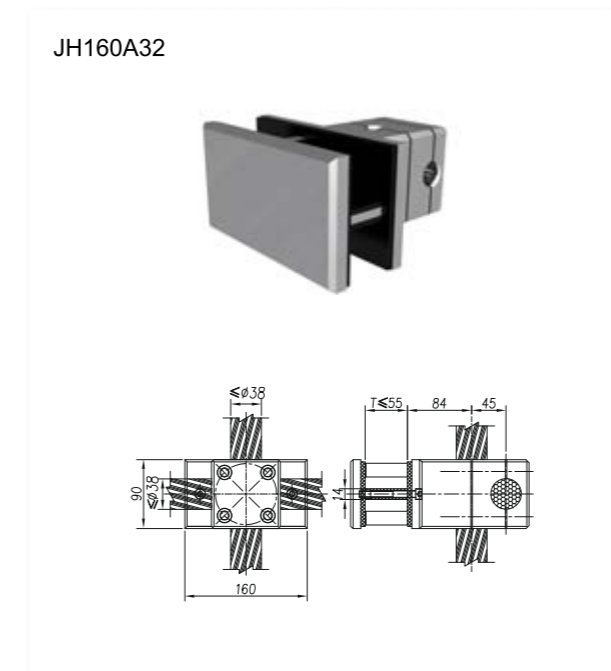
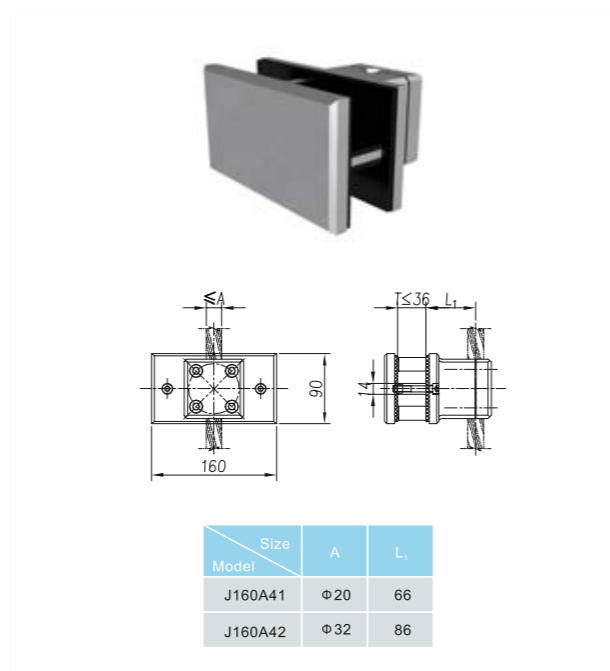
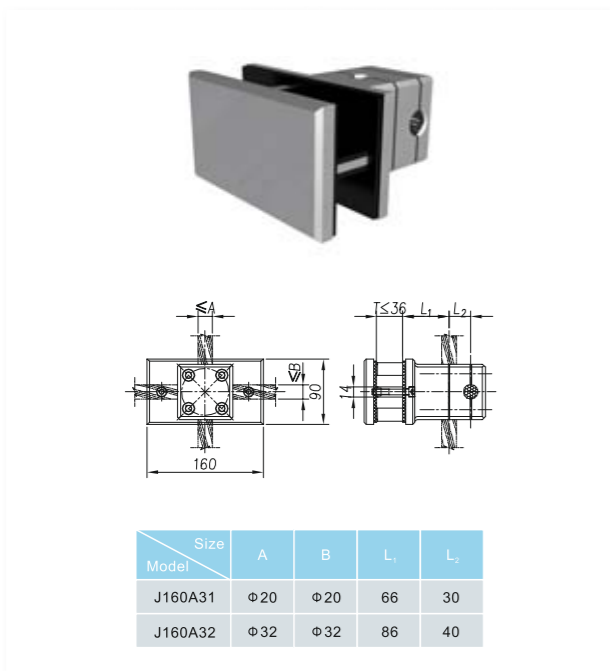
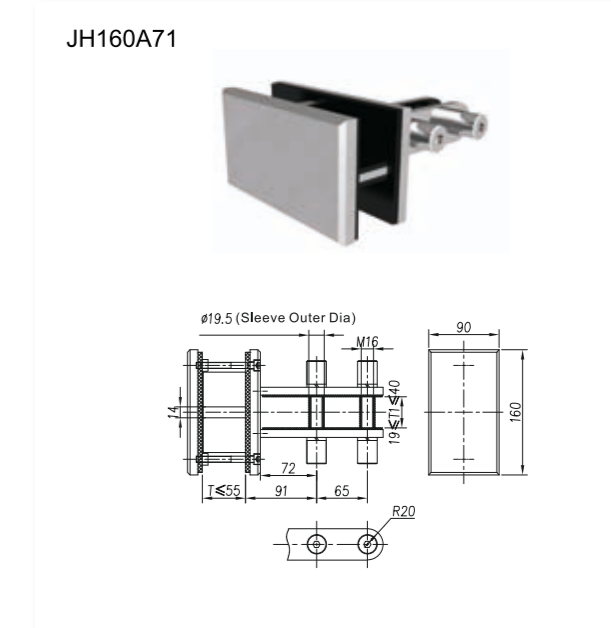
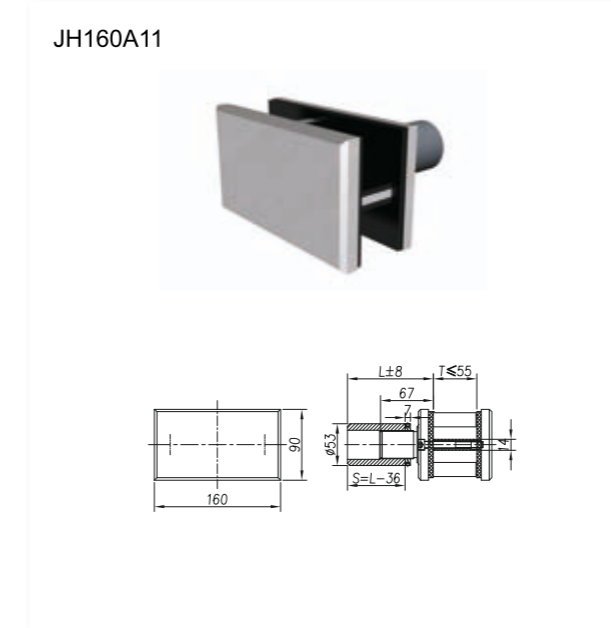
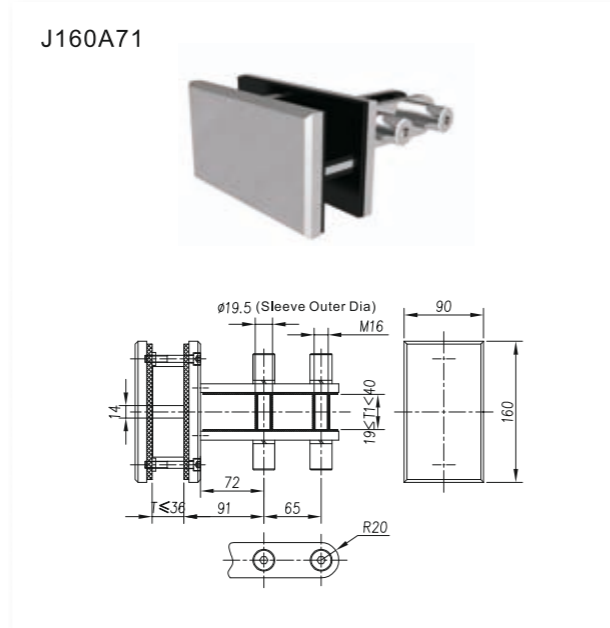
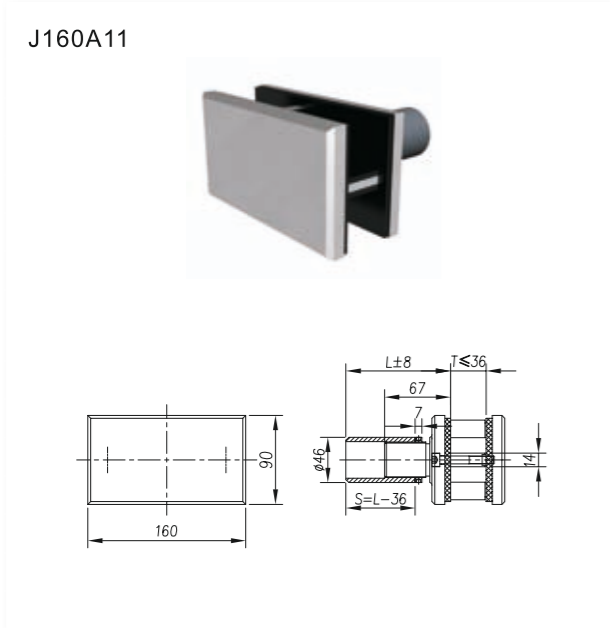


The Recommended Value of Load Capacity(N)	Material:CF8M、CF8		
	F _x ≤	F _y ≤	
	16000	4000	

The Recommended Value of Load Capacity(N)	Material:CF8M、CF8		
	F _x ≤	F _y ≤	
	16000	6000	

J160A Series(rectangle shape)

JH160A Series (rectangle shape)

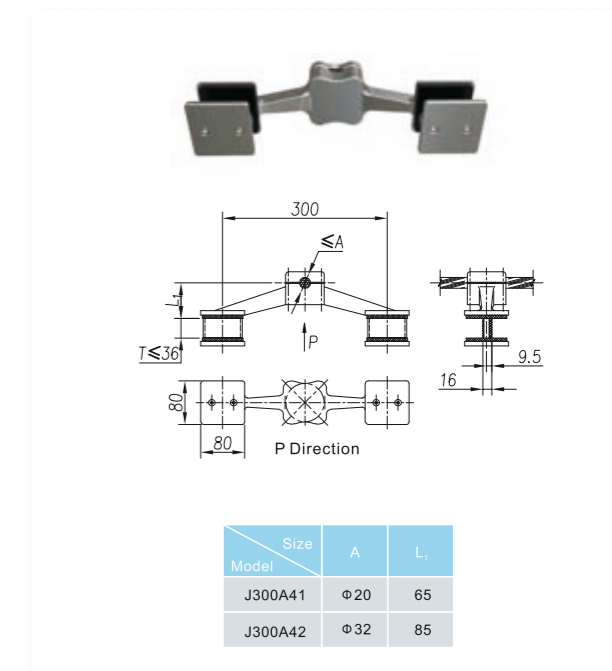
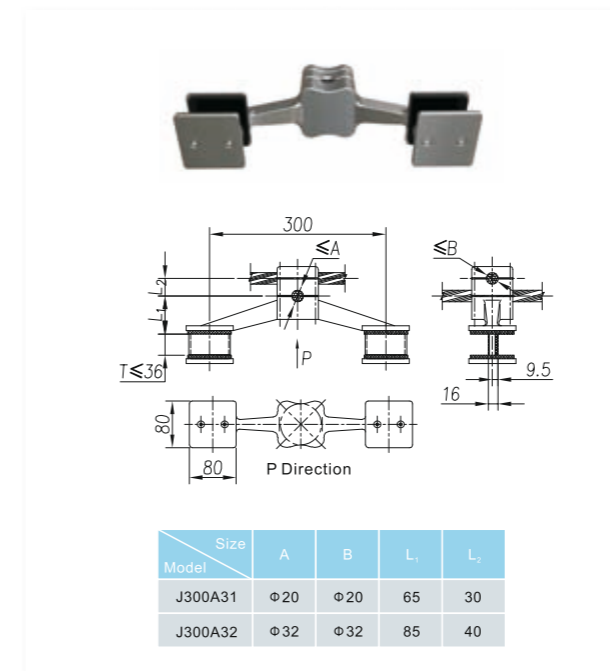
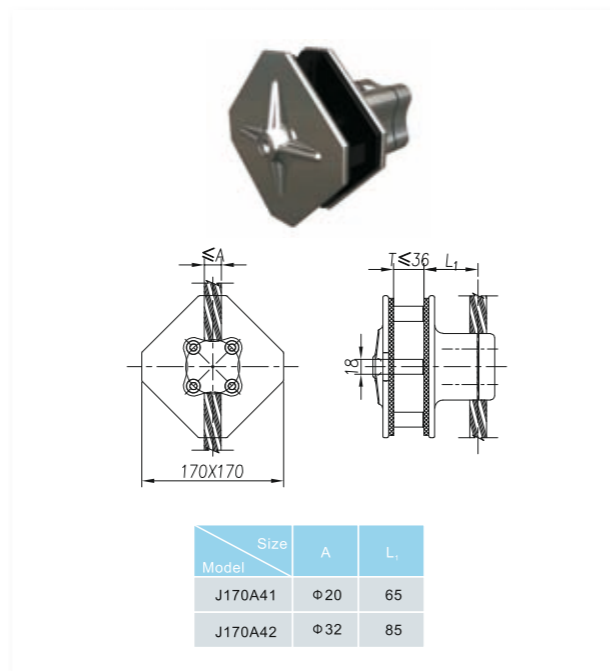
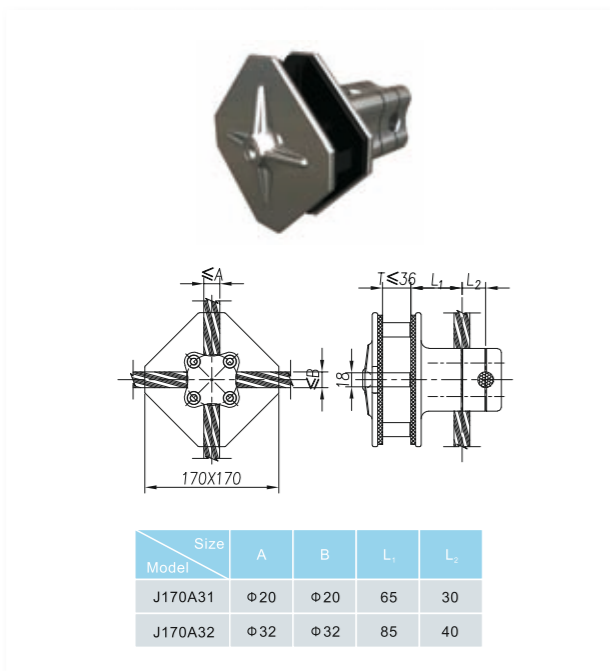
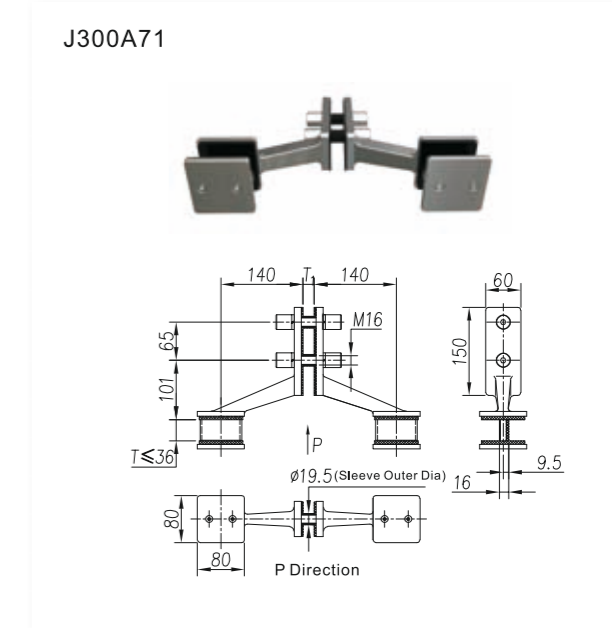
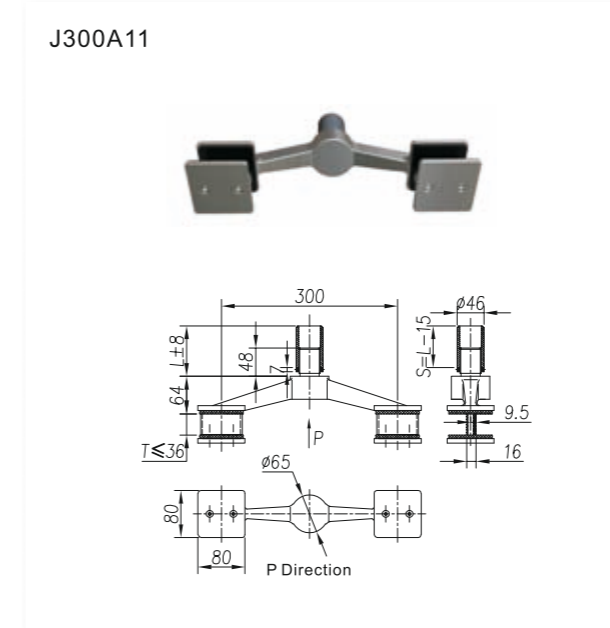
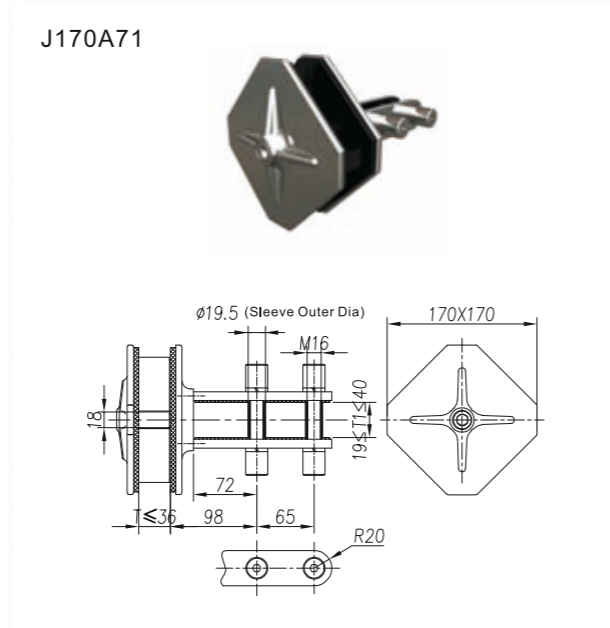
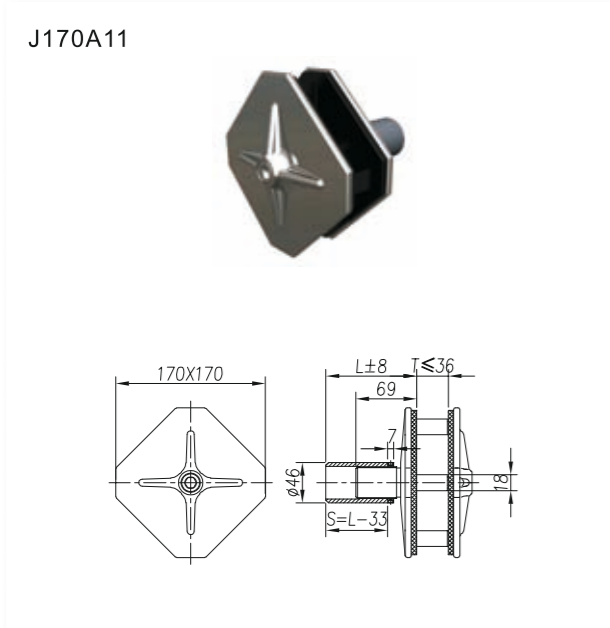


The Recommended Value of Load Capacity(N)	Material: CF8M, CF8		
	F _x ≤	F _y ≤	
	16000	4000	

The Recommended Value of Load Capacity(N)	Material: CF8M, CF8		
	F _x ≤	F _y ≤	
	16000	6000	

J170A Series(rhombus shape)

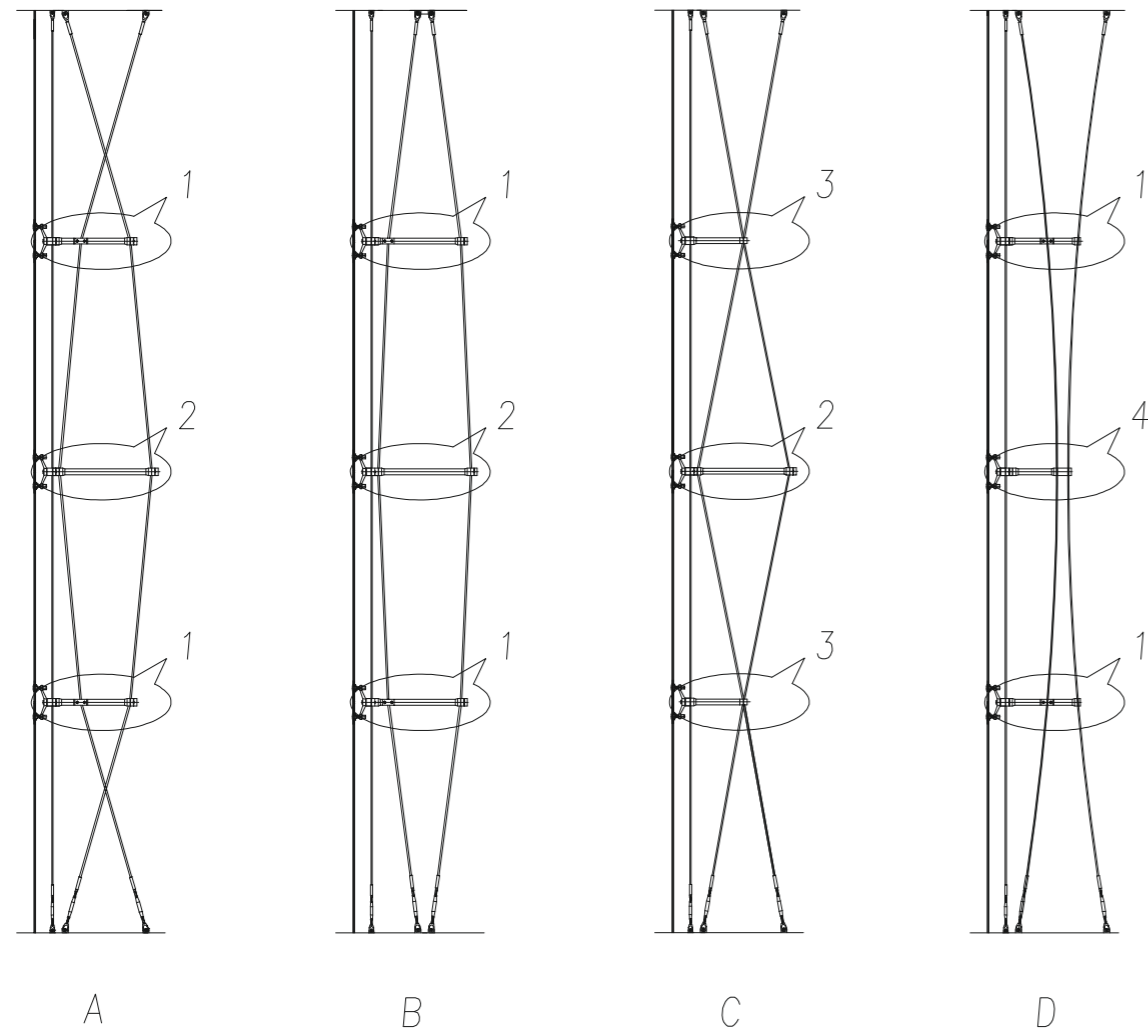
J300A Series(shape of spider)



The Recommended Value of Load Capacity(N)	Material: CF8M, CF8		
	F _x ≤	F _y ≤	
	16000	4500	

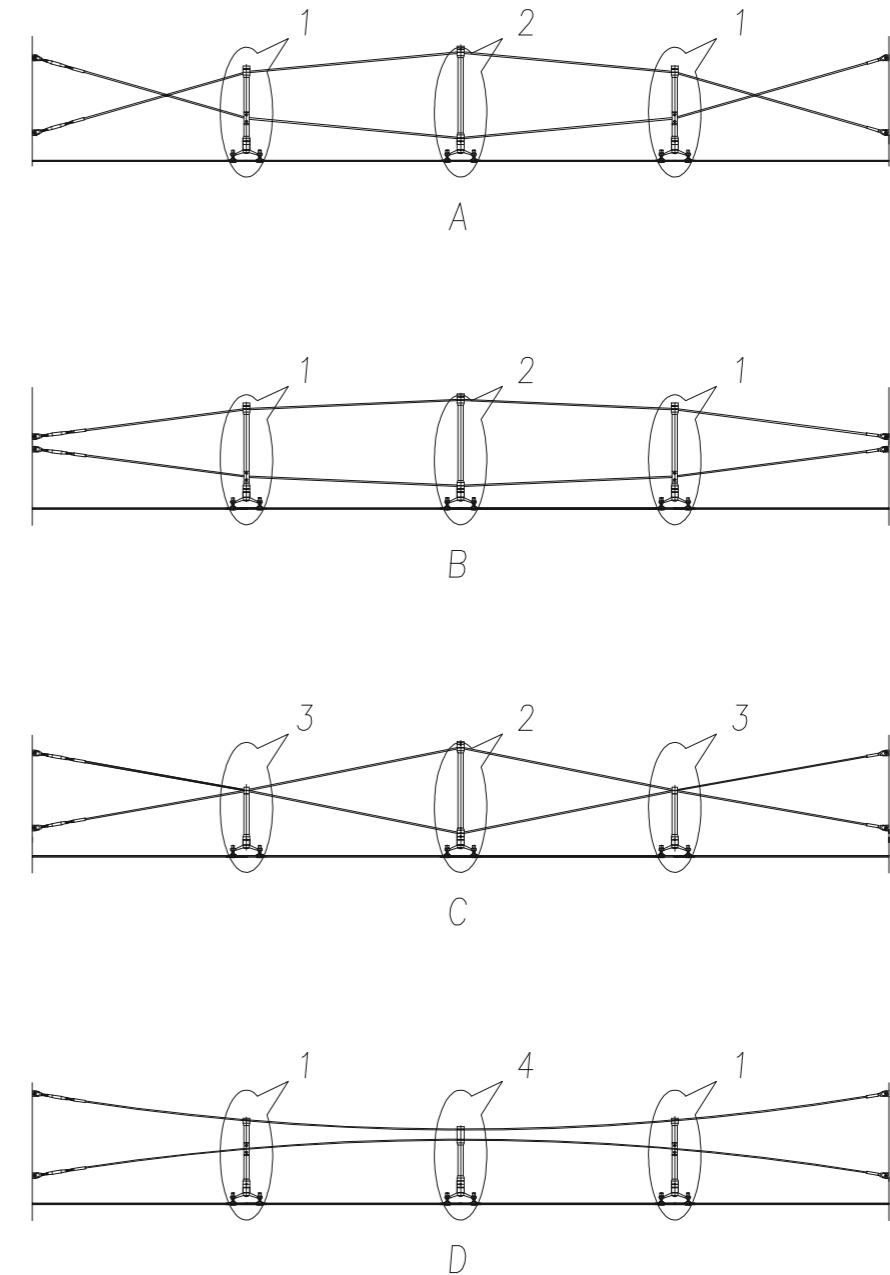
The Recommended Value of Load Capacity(N)	Material: CF8M, CF8		
	F _x ≤	F _y ≤	
	5000	2500	

Strut Bar of Tension Cable



Forms of Vertical Cable Arrangement

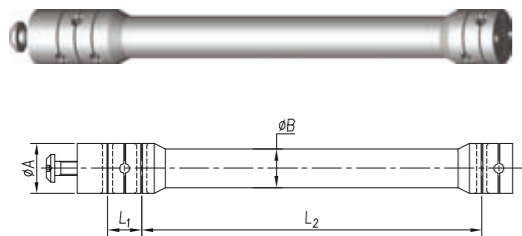
Available support bar type at detail 1	SSA-21, SSA-22
Available support bar type at detail 2	SSA-11, SSA-12
Available support bar type at detail 3	SSA-31, SSA-32
Available support bar type at detail 4	SSA-41



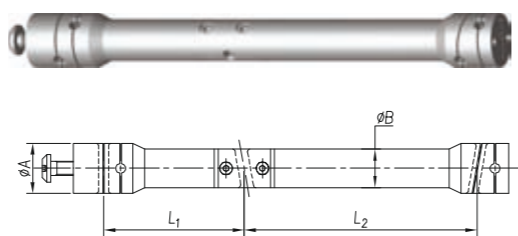
Forms of Horizontal Cable Arrangement

Available support bar type at detail 1	SHA-21, SHA-22
Available support bar type at detail 2	SHA-11, SHA-12
Available support bar type at detail 3	SHA-31, SHA-32
Available support bar type at detail 4	SHA-41

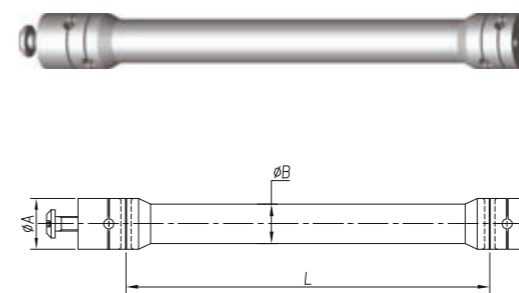
SSA-11



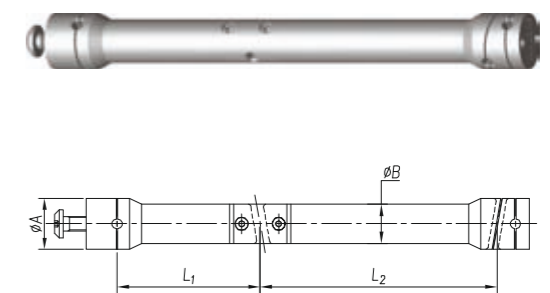
SSA-21



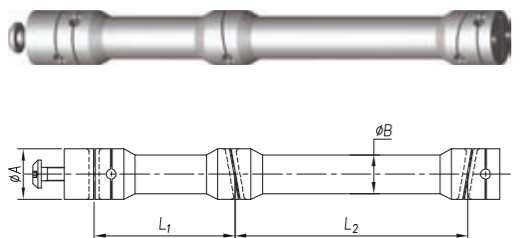
SHA-11



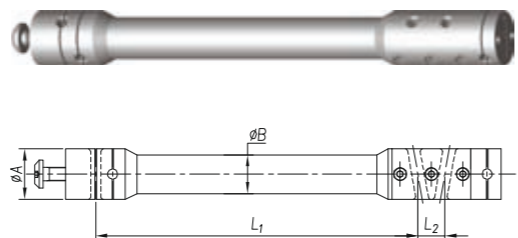
SHA-21



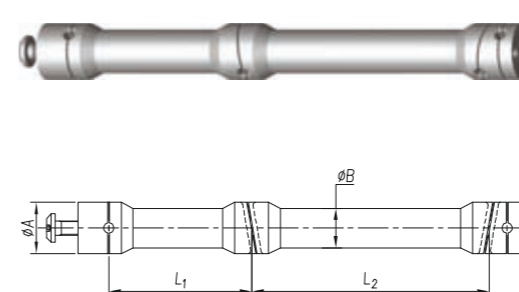
SSA-22



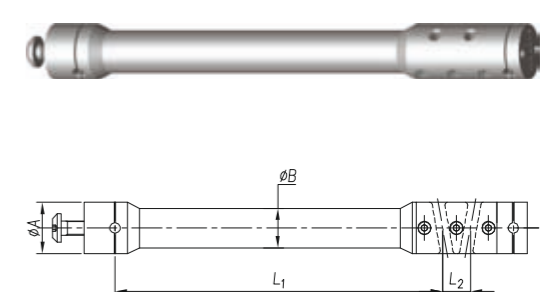
SSA-31



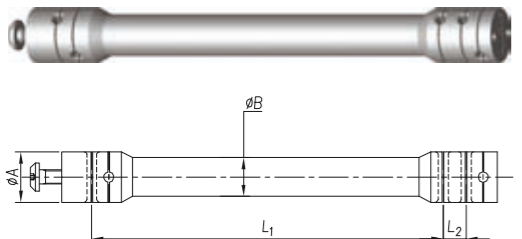
SHA-22



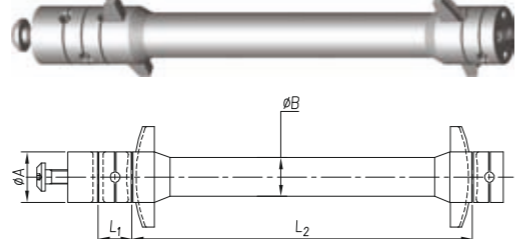
SHA-31



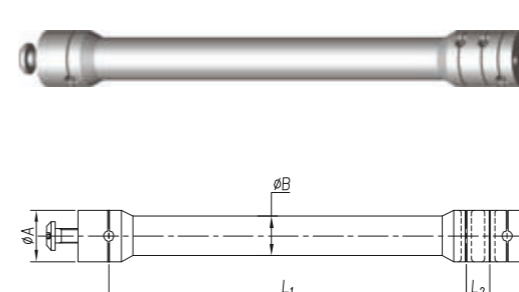
SSA-41



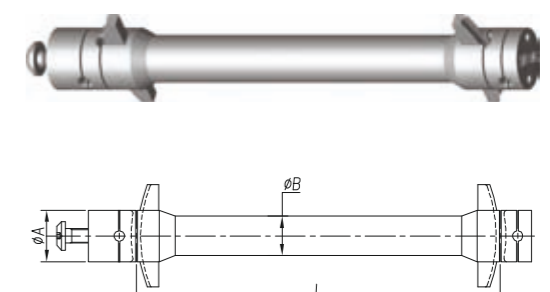
SSA-12



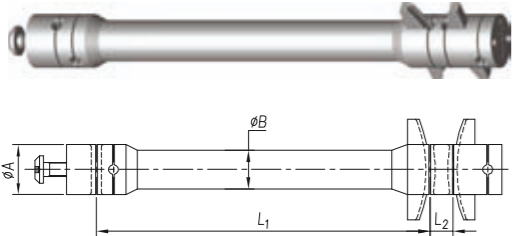
SHA-41



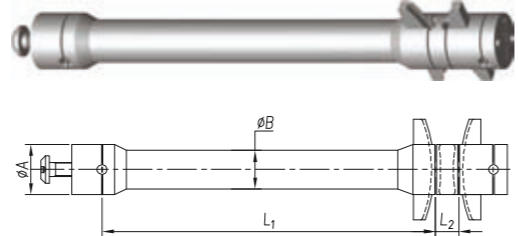
SHA-12



SSA-32



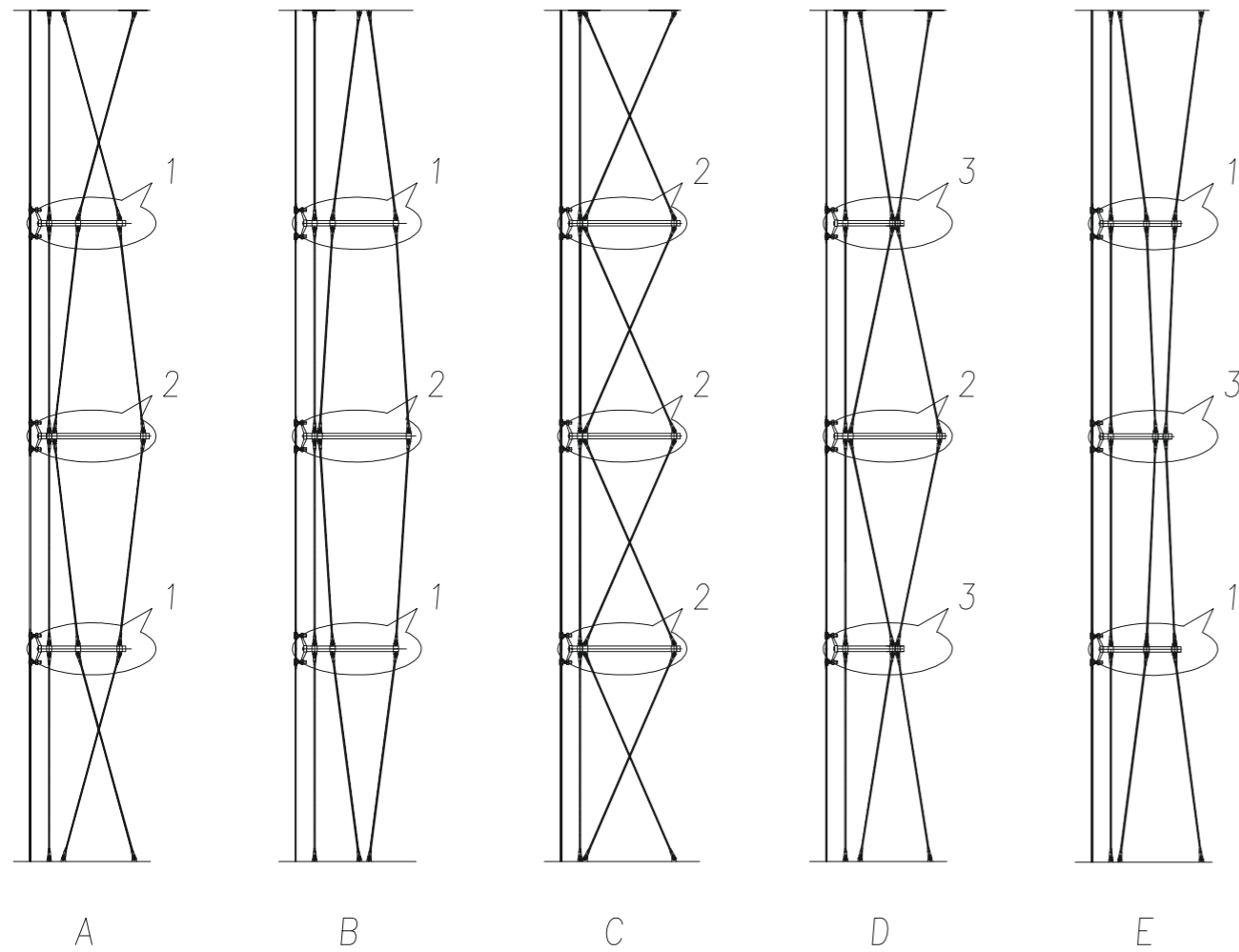
SHA-32



Notes:

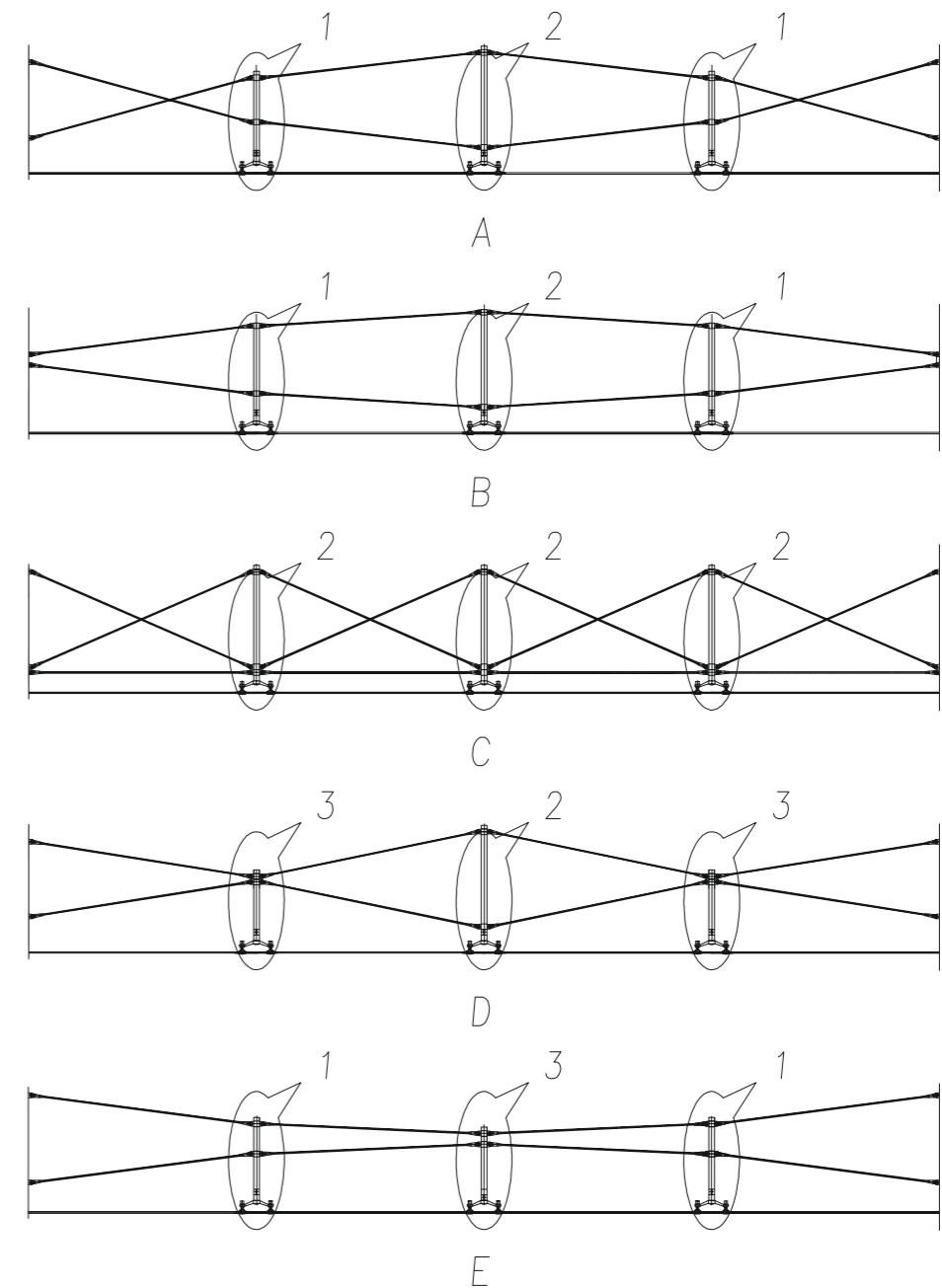
1. There are two types of diameter of lock block ϕA : $\phi 65$ and $\phi 75$, select proper one according to the diameter of cable.
2. There are two specifications of the joint sleeve ϕB of the strut: $\phi 50 \times 5$ and $\phi 60 \times 8$, the exact dimension is based on the calculation.

Strut Bar of Tension Rod



Forms of Vertical Rod Arrangement

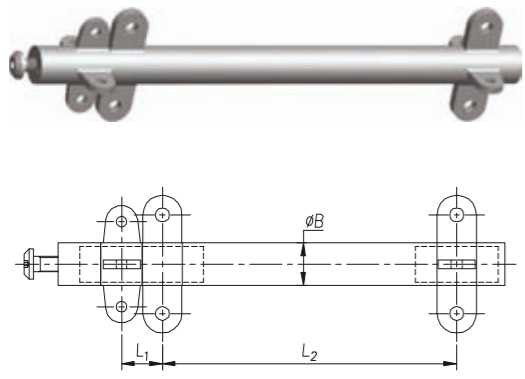
Available support bar type at detail 1	GA-2、GB-2
Available support bar type at detail 2	GA-1、GB-1
Available support bar type at detail 3	GA-31、GA-32、GB-3



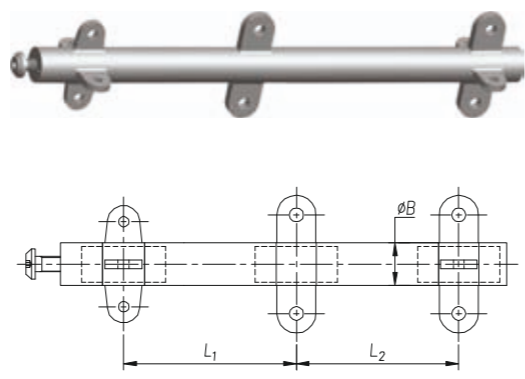
Forms of Horizontal Rod Arrangement

Available support bar type at detail 1	GA-4
Available support bar type at detail 2	GA-1、GB-1、GA-5
Available support bar type at detail 3	GA-61、GA-62

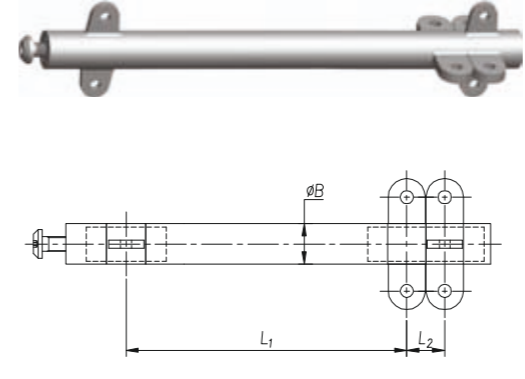
GA-1



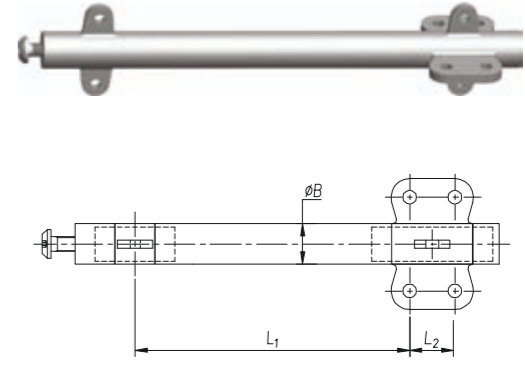
GA-2



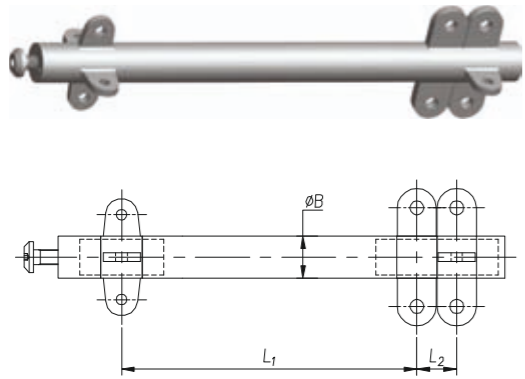
GA-61



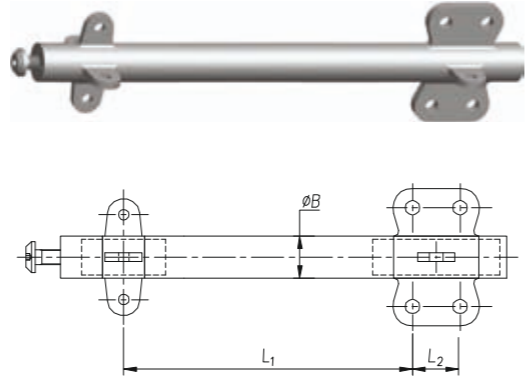
GA-62



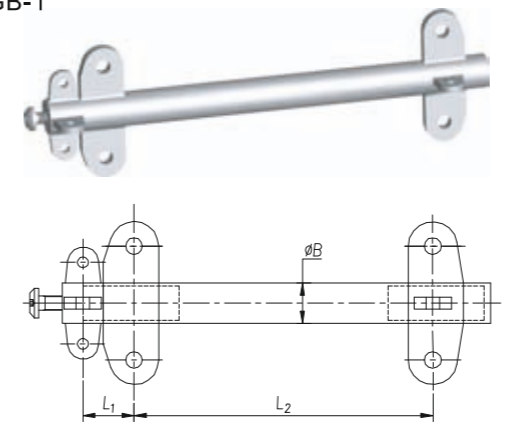
GA-31



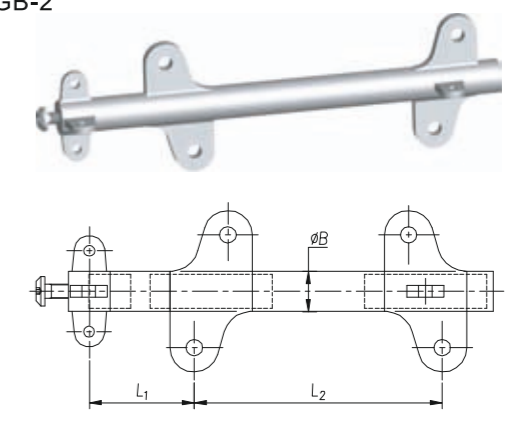
GA-32



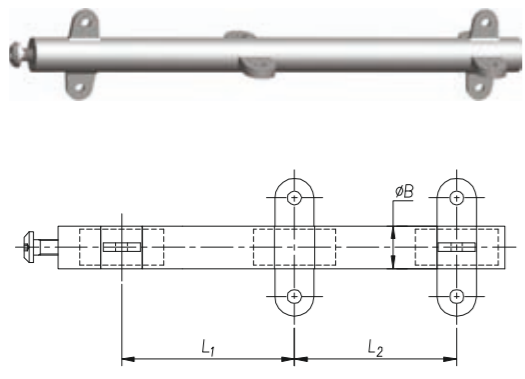
GB-1



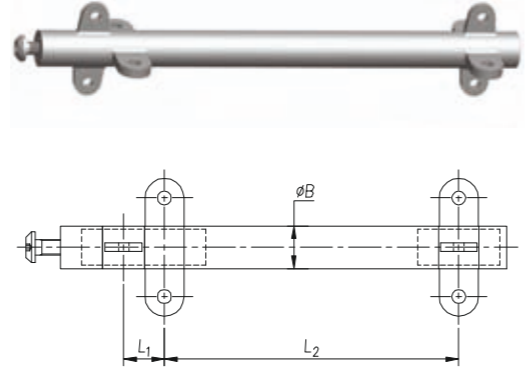
GB-2



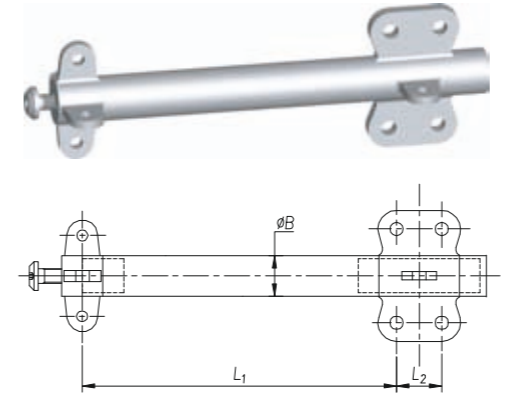
GA-4



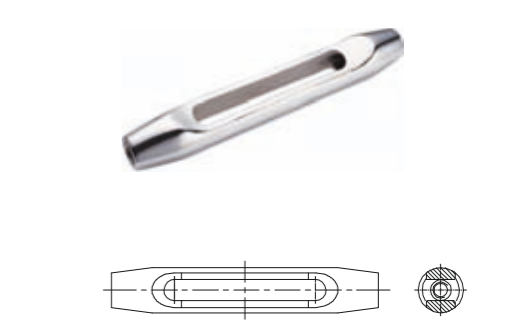
GA-5



GB-3



GC50B-P (φ 10- φ 36)



Note: The otic placode of strut bar is depended on the size of tension rod. Two specifications (φB= φ50x5 & φ60x8) are available for the connecting sleeve φB of strut bar.

Stainless Steel Tension Rod



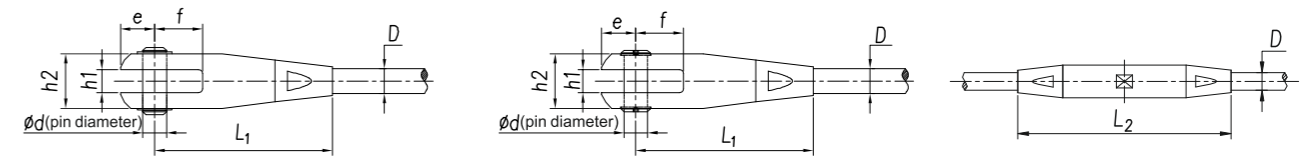
Material

Type	Product	Screw Rod	Fastener	Tension Rod Joint	Product Range
Q01A Series		316, 304	316, 304 (A4-70, A2-70)	CF8M, CF8	Φ10-Φ36
Q01B Series		316, 304	316, 304 (A4-70, A2-70)	CF8M, CF8	Φ10-Φ36

The parameters of the rod body

No.	Thread Diameter (mm)	Effective Section Area (mm ²)	Yield Strength $\sigma_{0.2}$ (MPa)	Tensile Strength σ_b (MPa)	Elongation $\delta\%$
1	M10	57.99	515	650	≥25
2	M12	84.27			
3	M14	115.44			
4	M16	156.67			
5	M18	192.47			
6	M20	244.79			
7	M22	303.40			
8	M24	352.50			
9	M27	459.40			
10	M30	560.59			
11	M33	693.60			
12	M36	816.72			

Model



Pin fixed by snap spring for diameter $d \leq M22$

Pin fixed by screw for diameter $d > M22$

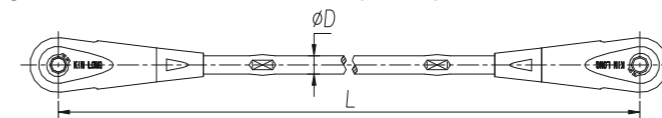
Adjustable connector

Specification

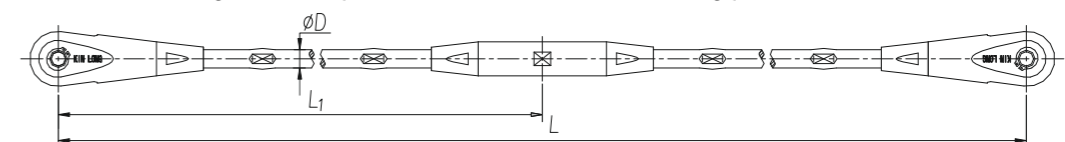
Type	OD of Screw	D	e	f	h_1	h_2	L_1	L_2	d	Single Side Adjustment Capacity
Q01A-10	M10	Φ9	18	23	11	26.5	100	155	13	±12.5
Q01A-12	M12	Φ10.8	18	23	11	26.5	100	155	13	
Q01A-14	M14	Φ12.6	20	25	13	31	108	166	15	
Q01A-16	M16	Φ14.6	23	28	15	35	117	179	16	
Q01A-18	M18	Φ16.3	25	35	17	40	130	199	18	
Q01A-20	M20	Φ18.3	30	35	17	42.5	138	211	20	
Q01A-22	M22	Φ20.3	32.5	42	21	47	148	211	22	
Q01A-24	M24	Φ24	38	48	21	53	170	244	24	±14
Q01A-27	M27	Φ27	43	52	25	60	182	254	27	
Q01A-30	M30	Φ30	47.1	60	25	65	195	265	30	
Q01A-33	M33	Φ33	49.5	65	27	68	205	285	33	
Q01A-36	M36	Φ36	56.5	72	29	76	220	295	37	±17.5
Q01B-10	M10	Φ9	16.5	23	11	21	58	115	13	±5
Q01B-12	M12	Φ10.8	18.1	23	11	23	61	117	13	
Q01B-14	M14	Φ12.6	19.9	25	13	28	66	124	15	
Q01B-16	M16	Φ14.6	22.7	28	15	32	76	131	16	
Q01B-18	M18	Φ16.3	26	35	17	35	84	153	18	
Q01B-20	M20	Φ18.3	28.7	35	17	37	89	155	20	
Q01B-22	M22	Φ20.3	31.6	42	21	45	103	157	22	
Q01B-24	M24	Φ24	33.2	48	21	47	110	184	24	
Q01B-27	M27	Φ27	37.8	52	25	54	123	198	27	
Q01B-30	M30	Φ30	43.6	60	25	56	134	205	30	
Q01B-33	M33	Φ33	47.5	65	27	62	147	219	33	
Q01B-36	M36	Φ36	50.8	72	29	68	160	231	37	

Order Instruction

The Length of the tension rod is from pin to pin.

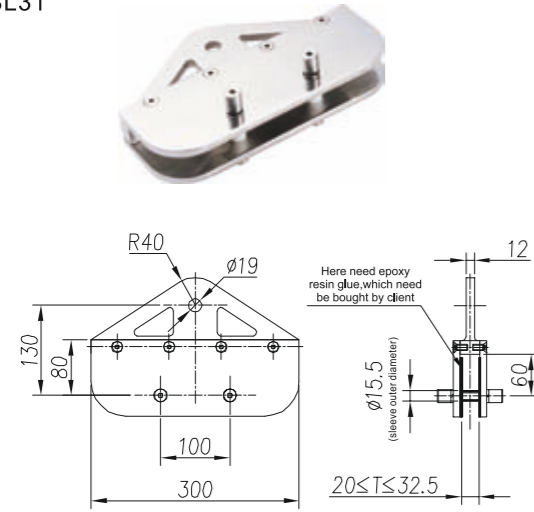


When the tension rod length > 6m, please connect as the following picture.

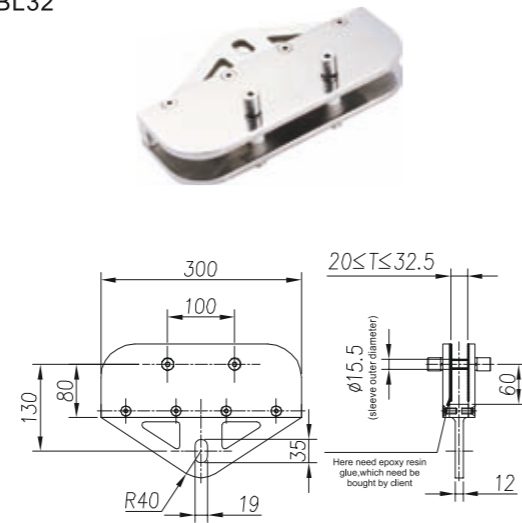


Products for Steel Fin System

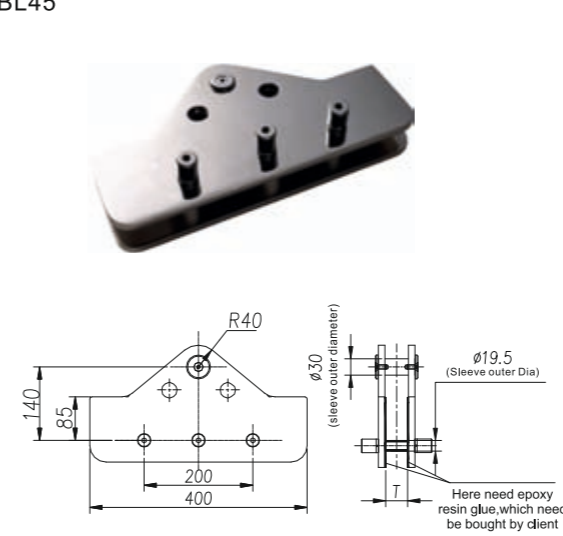
BL31



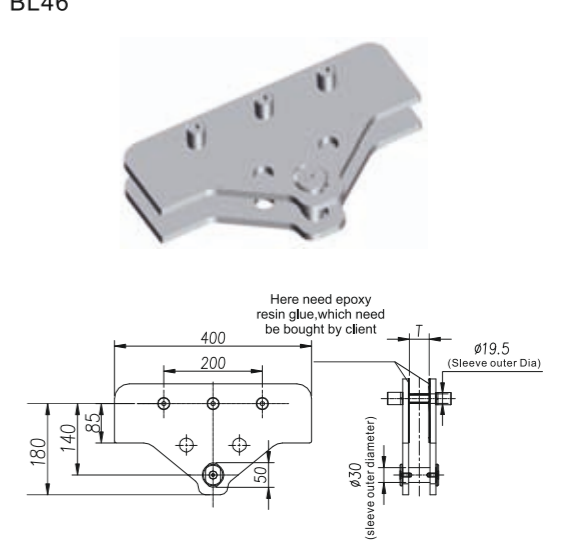
BL32



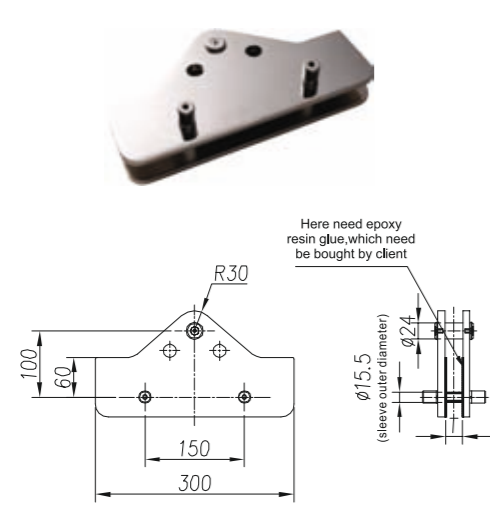
BL45



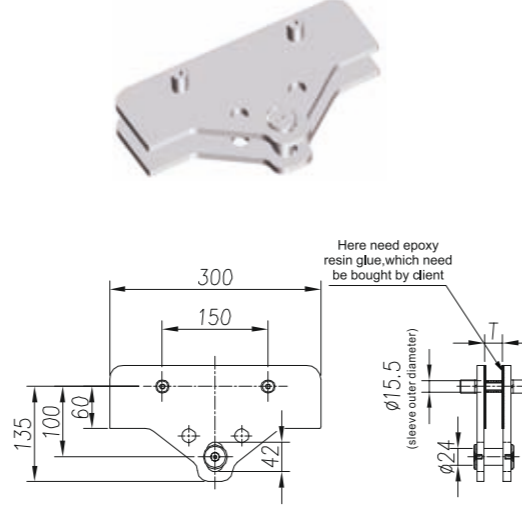
BL46



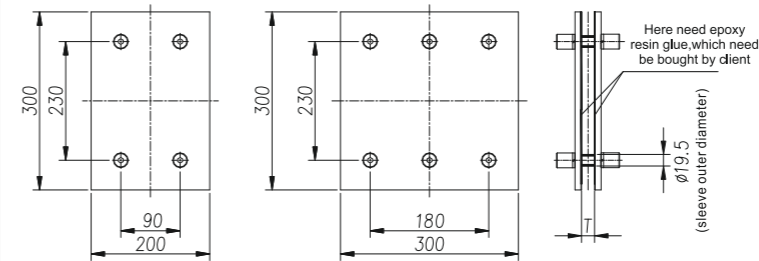
BL35



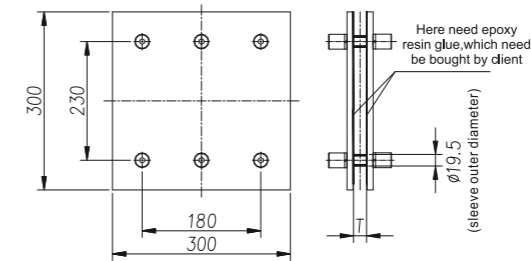
BL36



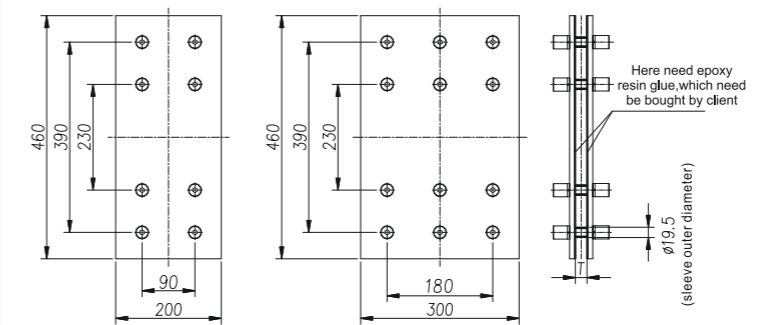
BLF32



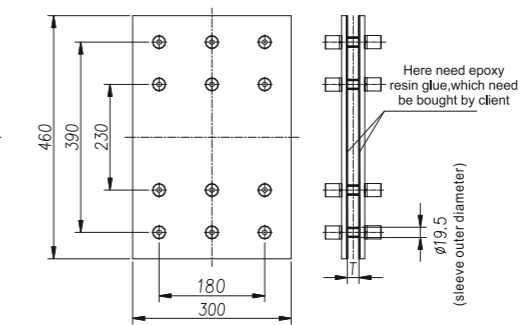
BLF33



BLF322

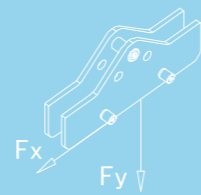


BLF332

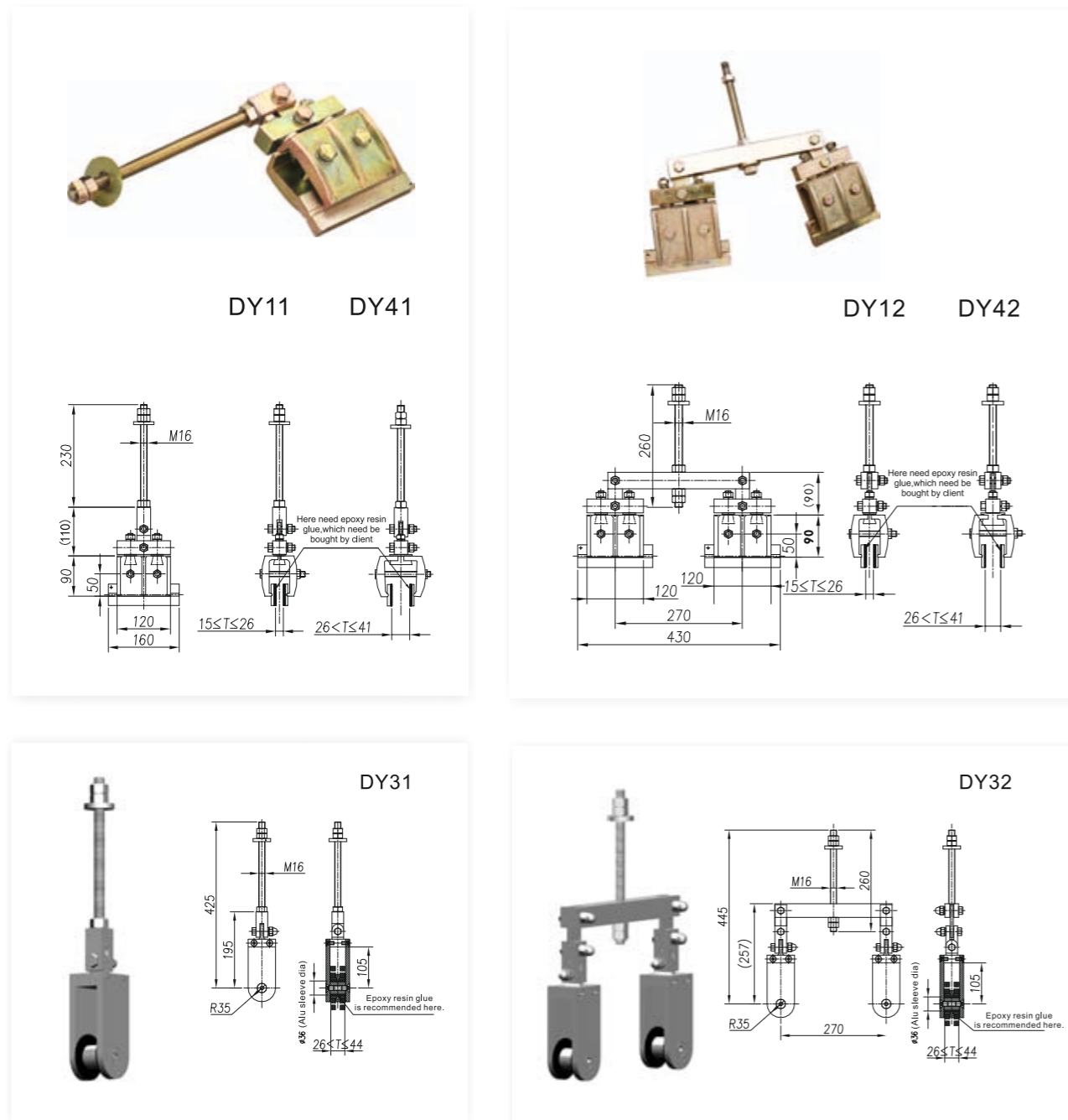


Middle fin clamp usage diagram

The Recommended Value of Load Capacity (N)	Model	Main material: CF8M/316, CF8/304	
		$F_x \leq$	$F_y \leq$
	BL31	12000	12000
BL32	12000	/	
BL35	15000	15000	
BL36	15000	/	
BL45	22000	22000	
BL46	22000	/	



Glass Suspending Clamp



The Recommended Value of Load Capacity (N)						
Material	Carbon steel				316/304	
Model	DY11	DY12	DY41	DY42	DY31	DY32
Bearing Capacity(N)	4000	7000	4000	7000	6000	12000

Note: This product can not bear the horizontal load.

Stainless Steel Tension Cable

Material

Type	Product	Steel Strand	Fastener	Swaged End With Adjustor, Lock Pin	Anchor	Product Range
A01、B01、M01		316/2205	316(A4-70)	2205	CD3MN	φ 8- φ 36

Ordinary Tension Cable



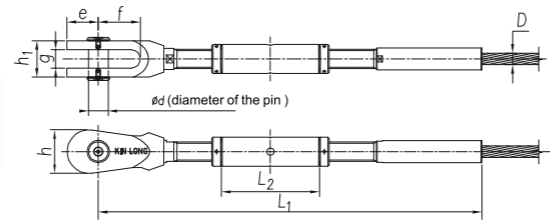
Performance Parameter

Cable Diameter (mm)	Reference Configuration	Steel Wire Diameter (mm)	Sectional Area (mm ²)	Minimum Breaking Strength(kN)	Modules Elasticity (10 ⁵ N/mm ²)
8	1X19	1.60	38.20	45.38	1.30±0.10
10		2.00	59.69	70.91	
12		2.40	85.95	102.11	
14	1X37	2.80	116.99	138.99	
16		2.29	152.39	181.04	
18		2.57	192.15	225.68	
20	1X61	2.86	237.22	278.62	
22		2.44	286.27	336.23	
24		2.67	340.69	400.14	
26		2.89	399.84	469.61	
28		3.11	463.71	544.63	
30		2.73	531.60	624.37	
32	1X91	2.91	604.85	710.39	
34		3.09	682.82	801.97	
36		3.27	765.51	899.09	

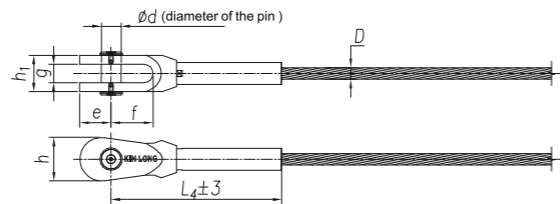
Note: Besides the above mentioned tension cables, we also can fabricate the cable with higher strength. Send your enquiry if in need.

Model

Adjustable Swaged Anchor A01



Fixed Swaged Anchor B01

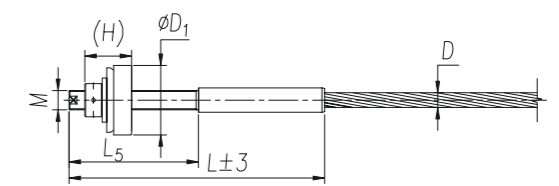


Specification

2205 Anchor(A01/B01)									
D	d	g	h ₁	e	f	h	L ₁	L ₂	L ₄
φ8	12	11	22	20	24	28	≤275	80	107
φ10	14	13	26	23	30	32	≤305	80	134
φ12	16	15	30	26	34	36	≤442	125	163
φ14	20	18	36	32	42	44	≤466	125	191
φ16	22	20	40	36	46	50	≤492	130	209
φ18	24	23	46	39	52	54	≤523	130	237
φ20	27	25	50	43	58	60	≤655	175	262
φ22	30	27	54	48	65	68	≤684	175	294
φ24	33	29	58	53	74	76	≤728	180	321
φ26	33	32	64	53	74	76	≤746	180	339
φ28	36	34	68	58	80	82	≤778	185	364
φ30	39	37	74	62	88	88	≤935	230	394
φ32	42	40	80	67	94	96	≤955	230	417
φ34	45	42	84	72	100	102	≤992	235	442
φ36	50	45	90	77	106	110	≤1016	235	464

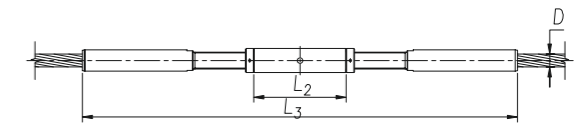
Model

Adjustable End of Spherical Hinge C01



Note: Material of ball joint seat is carbon steel.

Adjustable Center Connector M01



Specification

2205 Anchor(M01/C01)							
D	M	L	L ₅	D ₁	H	L ₂	L ₃
φ8	M12	158	90	55	38	80	≤304
φ10	M16	178	92	55	42	80	≤342
φ12	M18x2	228	119	65	48	125	≤497
φ14	M20x2	250	124	70	53	125	≤523
φ16	M22x2	270	132	70	57	130	≤552
φ18	M24x2	294	140	70	60	130	≤596
φ20	M27x2	350	177	85	67	175	≤736
φ22	M30x2	378	187	100	74	175	≤773
φ24	M33x2	398	190	100	78	180	≤819
φ26	M33x2	413	190	100	78	180	≤855
φ28	M36x3	453	212	115	86	185	≤893
φ30	M39x3	502	245	115	90	230	≤1061
φ32	M42x3	528	255	130	98	230	≤1084
φ34	M45x3	553	263	140	107	235	≤1124
φ36	M48x3	573	268	140	108	235	≤1163

Material

Type	Product	Steel Strand	Fastener	Swaged End With Adjustor, Lock Pin	Anchor	Product Range
G02, H02, K02		316/2205	316 (A4-70)	2205	CD3MN	φ30- φ100

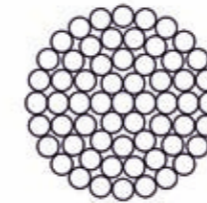
Ordinary Tension Cable



Locked Coil Strand



Parameter of the Ordinary Tension Cable



Cable Diameter (mm)	Reference Configuration	Steel Wire Diameter (mm)	Sectional Area (mm ²)	Minimum Breaking Force (kN)	Modules Elasticity (10 ⁵ N/mm ²)
30	1x91	2.73	531.60	693.74	1.30±0.10
32		2.91	604.85	789.33	
34		3.09	682.82	891.07	
36		3.27	765.51	998.99	
38		3.45	852.93	1113.07	
40		3.64	945.07	1233.32	
42		3.82	1041.94	1359.74	
45		4.09	1196.11	1508.89	
48	4.36	1360.91	1716.78		
52	1x127	4.00	1595.93	2013.26	
56		4.31	1850.90	2334.91	
60	1x169	4.00	2123.72	2648.27	
65		4.33	2492.42	3108.04	
70	1x217	4.12	2889.67	3603.42	
75	1X271	3.95	3316.46	4135.62	
80		4.21	3773.39	4705.42	
85	1X331	4.05	4259.09	5311.09	
90		4.29	4774.90	5954.30	
95		4.52	5320.18	6634.27	
100		4.76	5894.94	7350.99	

Note: Besides the above mentioned tension cables, we also can fabricate the cable with higher strength. Send your enquiry if in need.

Parameter of Locked Coil Strand

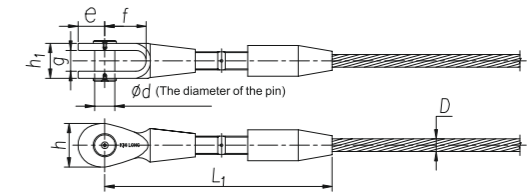


Cable Diameter (mm)	Sectional Area (mm ²)	Minimum Breaking Force (kN)	Modules Elasticity (10 ⁵ N/mm ²)
30	549.91	710.60	1.30±0.10
35	737.40	969.00	
40	968.12	1293.90	
45	1268.29	1641.60	
50	1578.22	2039.65	
55	1928.95	2469.05	
60	2264.12	2880.40	
65	2703.15	3456.10	
70	3210.94	3960.55	
75	3621.01	4472.60	
80	4066.54	5195.55	
85	4611.63	5526.69	
90	5163.78	6188.40	
95	5729.24	6866.06	
100	6339.34	7597.22	

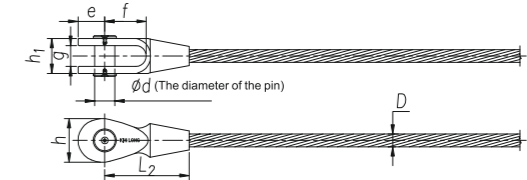
Note: Besides the above mentioned tension cables, we also can fabricate the cable with higher strength. Send your enquiry if in need.

Model

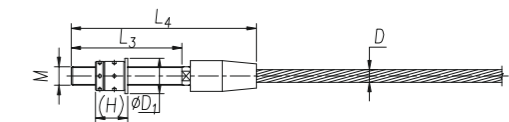
Adjustable Swaged Anchor G02



Fixed Swaged Anchor H02



Screw Anchor K02



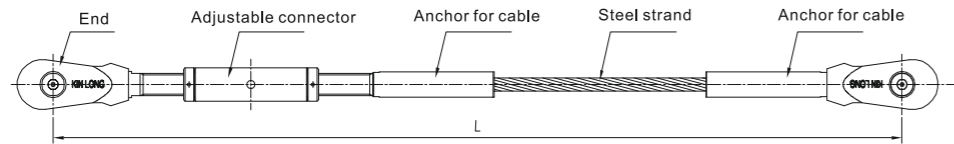
Note: Suggest to use spherical hinged shim at screw end.

Specification

D	d	g	h ₁	e	f	h	L ₁	L ₂	L ₃	L ₄	H	D ₁	M
φ30	46	50	84	64	99	104	≤ 630	205	250	435	77	85	M45
φ32	50	53	89	68	105	112	≤ 673	220	260	456	83	92	M48
φ34	52	57	95	71	112	116	≤ 701	230	269	472	84	98	M52
φ36	56	60	100	76	115	124	≤ 729	236	280	493	93	105	M56
φ38	60	63	106	81	118	132	≤ 758	250	290	509	93	105	M56
φ40	62	65	111	85	132	138	≤ 797	262	300	530	99	110	M60x4
φ42	66	70	117	88	138	145	≤ 817	280	305	541	99	110	M60x4
φ45	70	75	125	95	148	155	≤ 875	300	318	568	101	115	M64
φ48	74	80	132	100	156	165	≤ 944	320	330	595	105	120	M68
φ52	80	85	144	108	170	178	≤ 994	340	360	647	120	125	M72x6
φ56	88	93	154	117	185	192	≤ 1063	370	380	684	127	140	M80x6
φ60	94	100	166	126	196	206	≤ 1122	395	395	710	130	145	M85x6
φ65	102	108	180	136	214	222	≤ 1205	435	411	756	136	160	M90x6
φ70	108	117	194	147	230	240	≤ 1285	460	435	806	144	175	Tr100x6
φ75	116	125	208	158	246	258	≤ 1360	500	455	855	164	180	Tr105x6
φ80	124	133	222	167	263	275	≤ 1413	530	460	880	169	185	Tr110x6
φ85	132	141	236	177	280	292	≤ 1460	556	470	910	176	200	Tr115x6
φ90	140	150	250	190	296	310	≤ 1528	595	485	950	181	210	Tr120x6
φ95	148	159	263	200	312	327	≤ 1593	625	485	985	191	220	Tr130x6
φ100	156	167	278	210	328	344	≤ 1652	660	490	1005	198	230	Tr135x6

Notes: The above specifications are the corresponding sizes of ordinary cables. For the specifications and sizes of locked coil strand, please consult our company

Order Instruction



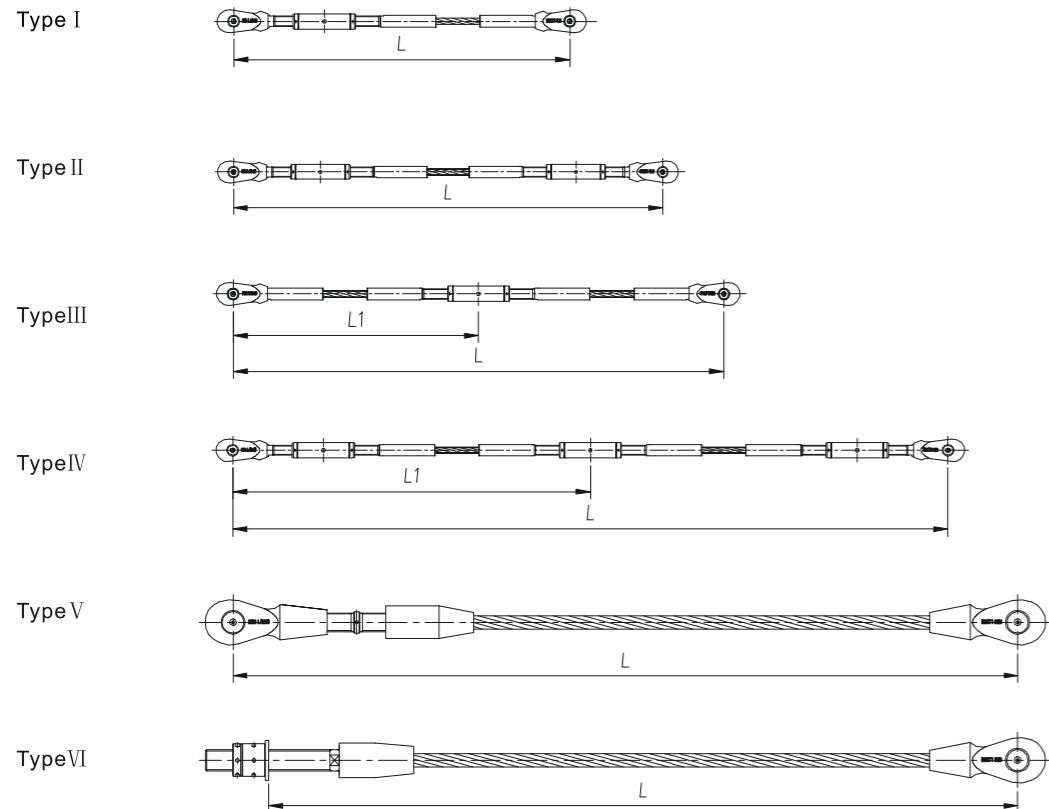
When order the products, please pay attention to the following:

- 1.L is the length as your requirement.(L means pin to pin).
- 2.The below format is the cable length that one adjusting end normally can adjust(L),if the needed cable length is more than L of the below format ,it needs to add adjusting anchors or consult KIN LONG company.

Tension cable diameter Φ D	Φ 8	Φ 10	Φ 12	Φ 14	Φ 16	Φ 18	Φ 20	Φ 22	Φ 24	Φ 26	Φ 28	Φ 30	Φ 32	Φ 34	Φ 36
Adjustable tension cable length L(m)	≤ 5	≤ 5	≤ 10	≤ 10	≤ 10	≤ 10	≤ 16	≤ 16	≤ 16	≤ 16	≤ 20	≤ 25	≤ 25	≤ 25	≤ 25

- 3.When purchasing this product, please provide the value of pretension force.
- 4.For Φ 8 and Φ 10 cable ,the anchor is hexagon.

Tension cable common combined types as below figure



Stainless Steel Tension Cable Using Instructions

Stainless steel tension cable has high strength, good corrosion resistance, and high stiffness characteristic. Brightness appearance can maximum reflect metallic texture. It gets most of architects & clients approval. Therefore, stainless steel tension cable gets widely application in construction cable structure. In order to avoid abnormal appearing, we suggest paying attention to following points during the using:

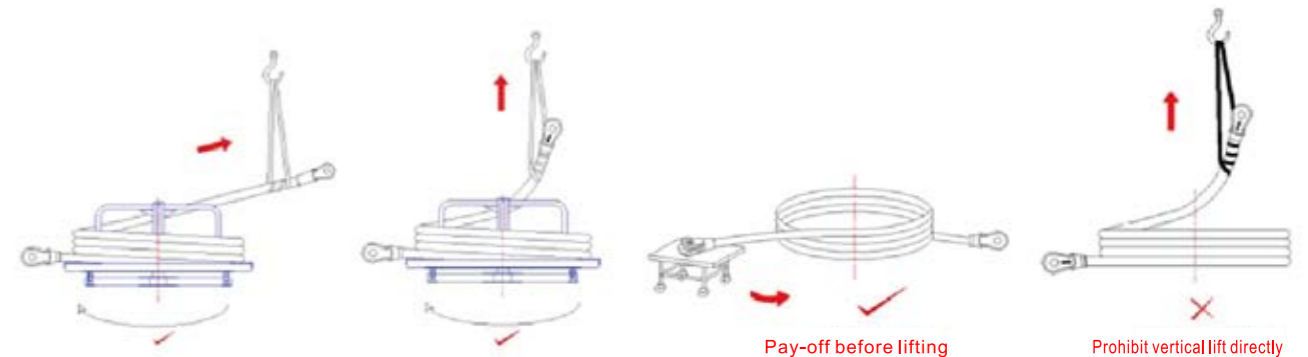
1.Storage:

After the tension cable ship to the construction site, it shall be inspected as soon as possible. If not use immediately after the inspection qualified, the product should be still kept in the original packaging box, and then deposits it according to the following conditions:

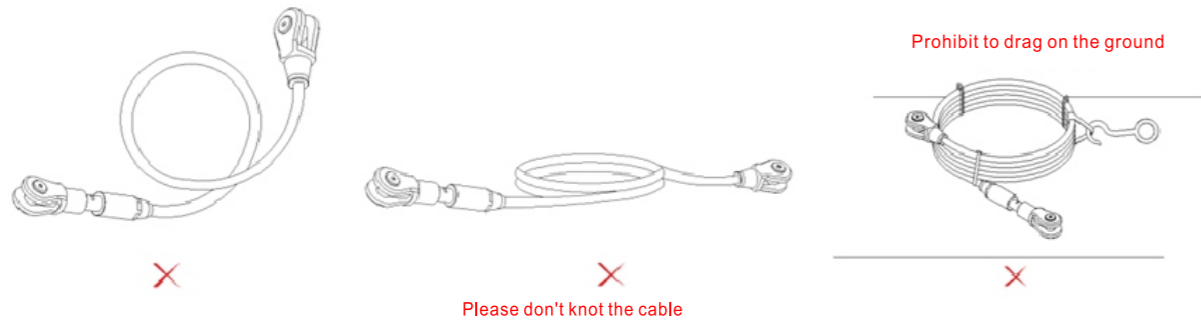
- (1) Tension cable deposit location should be indoors, storage environment should be ventilated, dry, no acid, alkali, salt and water vapor in high temperature which bad medium could lead to stainless steel corrosion.. Such as the storage time more than one month, then half a month need to unpacking check regularly, to check if the surface is rust. If there is any rust, need to find and eliminate the cause of the corrosion products, when the reason belongs to the storage environment, its location should be changed to another proper one.
- (2) If the indoor storage conditions are not available, please pay attention to the above attentions and make waterproof protection. Besides weather enclosure or rain cover, please pad the product to prevent rainwater from the bottom into the packages. If packages get wet, the product must be cleaned and change into new packages. When in outdoor storage, the inspect period can be reduced to a week.
- (3)Please kept the packages for a period of time after taking out the tension cables for installation. The rest tension cables must be stored in the original packages; Any products return or repair needs to send back to supplier with original package.

2. Installation:

- (1) Before lifting, please check the thread engagement of the adjustable anchor, the thread engagement of tension cable should be smoothly without stress, If can't goes smoothly, then should find the reason and eliminate them. Common problems are like thread out of shape, thread damage, having sand & soil on the thread. Solution refer to maintain with file, clear with steel brush, change the accessories etc. If the problems can not be solved accordingly on site, please contact us timely.
- (2) When lifting, for the small diameter tension cable, please straight the cable reverse to pay-off spool; For the big diameter tension cable, pay-off while lifting, the lifting speed shall be same as pay-off speed to make sure lift up the tension cable naturally. Prohibit vertical lift directly before the cable pay-off naturally. If the cable is spiral when lifting, the lifting work must be stop immediately. It can go on only after the cable is in a natural state, please lift and pay-off with folk-lift or manpower if no pay-off spool is available. Two anchors on both sides should be protected and the cable packaging should not tear off when lifting to prevent scratching and crashing.



- (3) There is no need to use pay-off spool if the cable is short or have the enough space. Concrete operations are: keep the pay-off spool still, lift the anchor and pay-off opposite to the spool, then begin to lift.
- (4) Once improper lifting operation caused cable warp, wire skip, strands loose or injured, please contact the professional person to repair and check whether the product is available.
- (5) After the cable lifting at proper position, confirm the length and dimension to make sure no dismounting any more, then coat the thread locking adhesives on the pin bolt thread and tighten the bolt with 3N·m torque.



3. Construction protection:

- (1) Tension cable should be handled gently on site, no throw or drop products, in order to avoid collision between products or damaged by other hard products; During the installation, the product should also be well protected to prevent scratches and crash, especially the thread part of the tension cable.
- (2) During installation, try to avoid welding or cross-operation. If have to, protection measures should be taken to avoid welding spark or slag to splash down to the surface of the tension cable. Particular attention is that cable can not be used as a welding lead.
- (3) If there are multi-cross operations on site, please protect the surface of tension cables away from cement mortar, coating and other pollutants of other type of works. If the products getting pollution and corrosion, clients should consult our company for solution and improve protection after cleaning.

4. Maintenances:

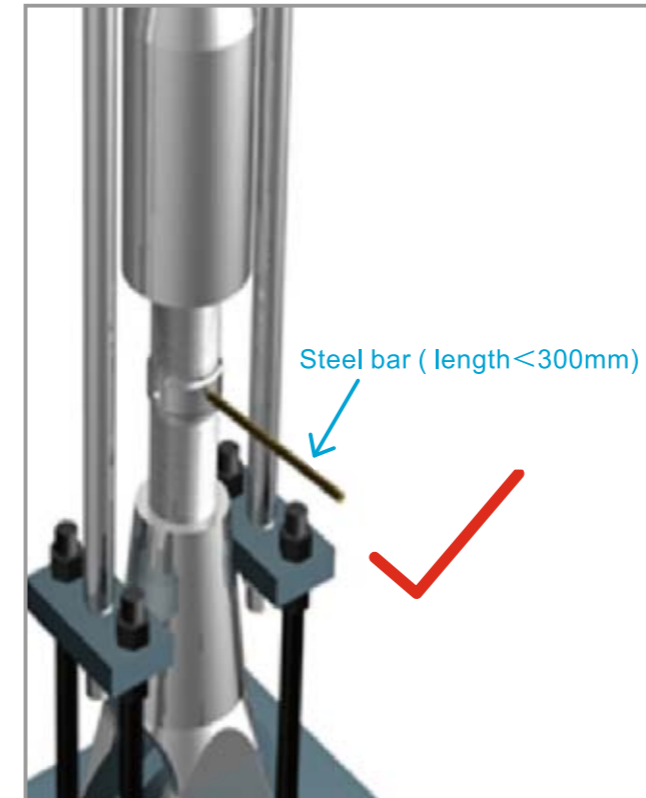
- (1) Surface cleaning:
Stainless steel means it can have certain chemical stability around the corrosion mediums of air, water, acid, alkali, salt or others. But it does not mean the stainless steel will never rust. When come into service, the dust and other pollutants on product surface may lead to stainless steel corrosion and even rupture. Therefore, stainless steel tension cable must be regularly and daily cleaning. Regular cleaning cycle should within one year; daily cleaning cycle depends on the pollution, if it will cause corrosion, then cleaning or clearing. Since tension cable is multi-gap structure, liquid like water and detergent is not allowed to spray on it, please wring the wet towel out or clean it with few detergent on the soft fabric.

Please pay attention to the following points during maintenance:

- ① In any case, it is forbidden to clean with chlorinated solution (such as bleaching fluid, 84 disinfectant and etc.). When chlorinated solution be used for other purpose (e.g. disinfection), the stainless steel should also be in a good protection.
- ② Stainless steel gets rust is not only concerned with pollutants, but also with the ambient temperature, humidity, atmospheric composition and so on. If the product get rust without any obvious pollutants, besides timely rust cleaning, it need to find out the reason of corrosion and solution.

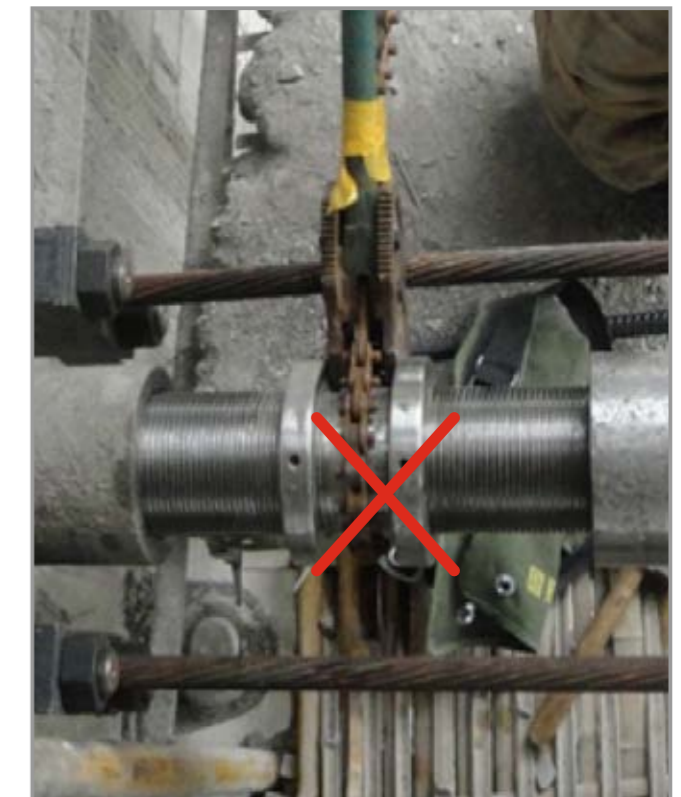
- (2) Others:
Any product maintenance (such as prestress inspection and adjustment and etc.) doesn't mention above, please carry on according to the current industry standard Glass Curtain Wall Engineering Specifications.

Instruction of Stainless Steel Tension Cable of "Easy extension" Series



Please pay attention to the following matters when tensioning the cable:

- 1. Before tensioning, the thread should be checked again and remove the attached sand, welding slag and so on.
- 2. Before tensioning, make sure the exposed thread length is the same as picture shows.
- 3. Specified tension tools shall be use.
- 4. During tensioning, it is recommended to hand screw or screw by inserting steel bar (L≤300mm) into wrench hole. Normally, one hand can easily turn the screw (no more than 5KG force). If the above method can not easily turn the screw, it may cause by improper tools or adjustment, please readjust or consult our company.
- 5. It is forbidden to add extension bar, chain wrench, pipe wrench or any similar tools to screw. If any operation against above causes tension difficulty or product damage. KIN LONG will not take any responsibility.



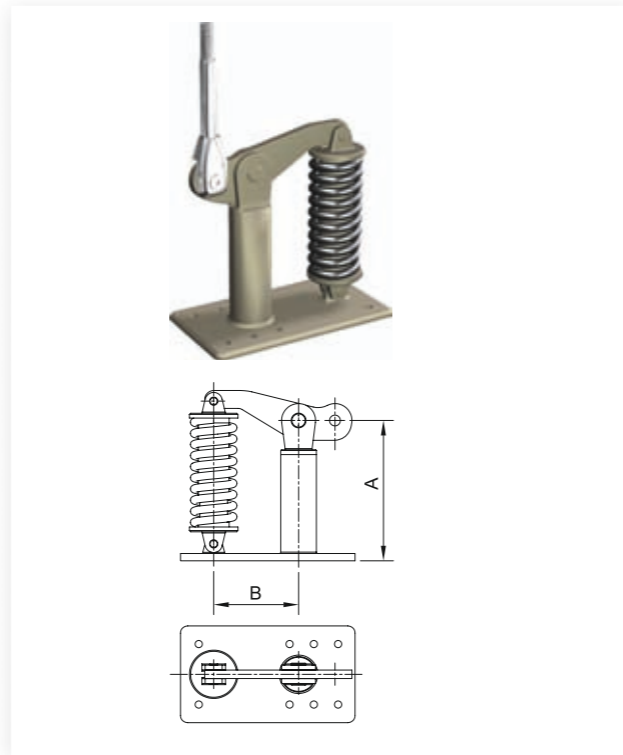
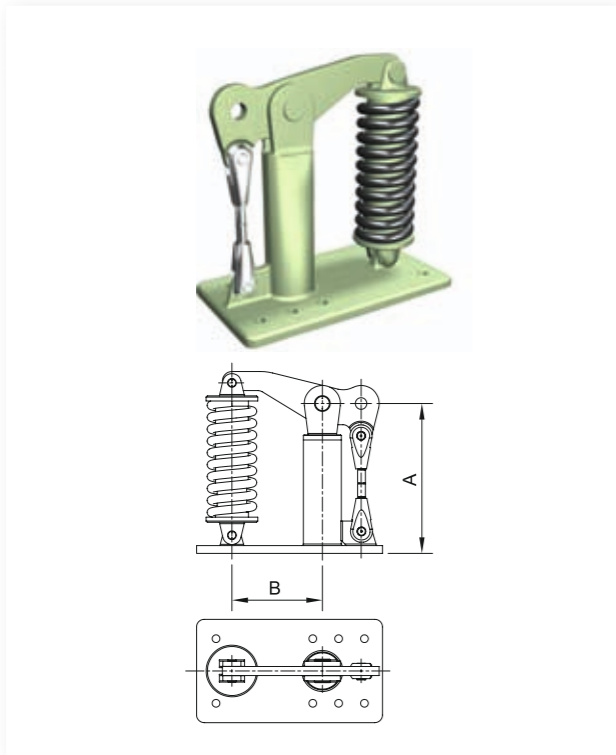
Typical Fittings for Cable



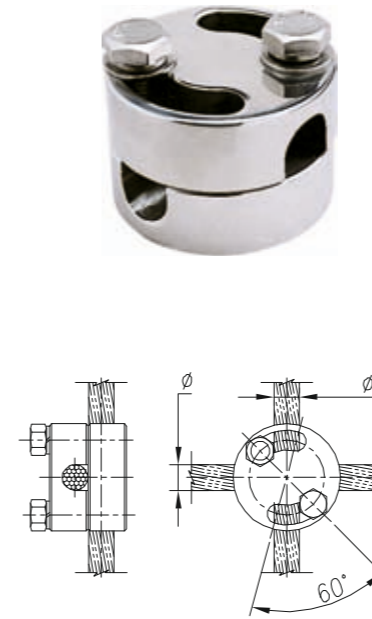
Jiang Su International Library Center

Overload Protection Device

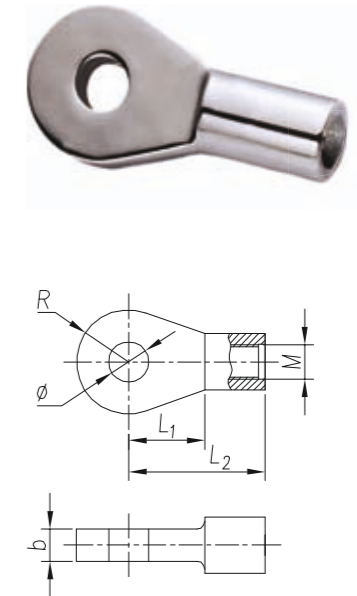
Pretension Keeping Device



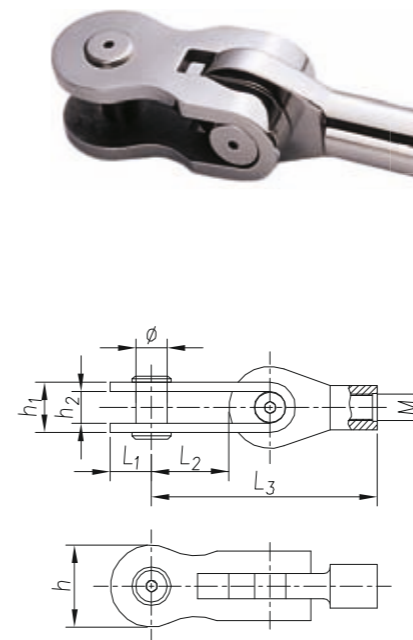
SGP-02



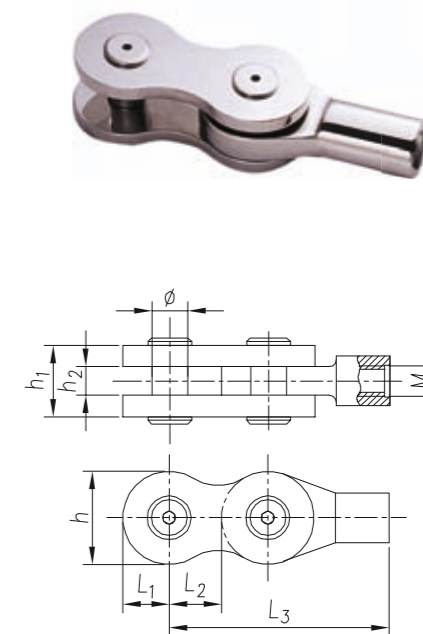
SGP-03



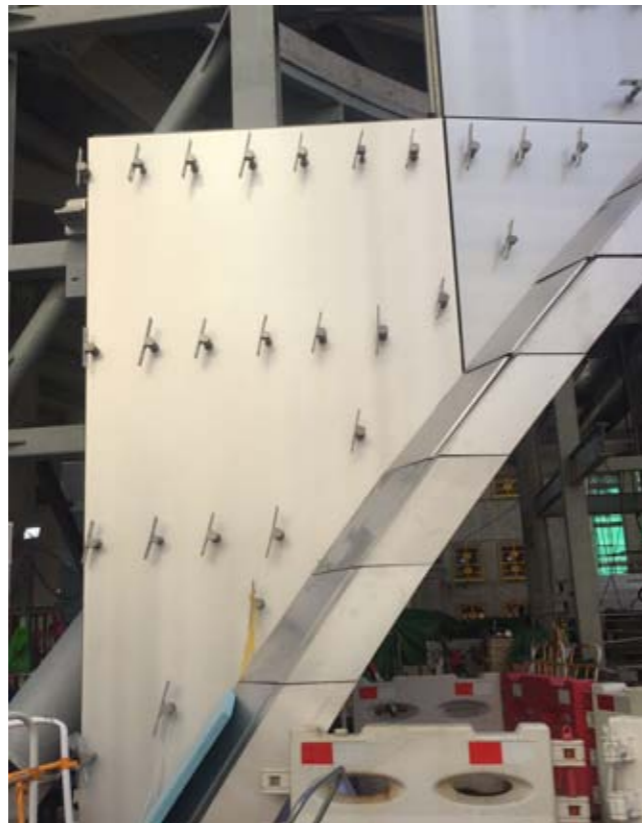
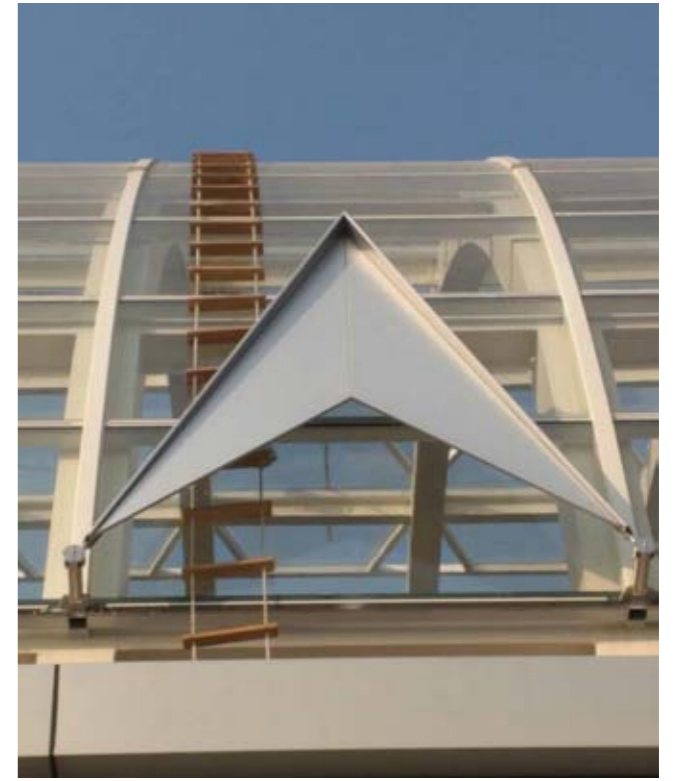
SGP-05



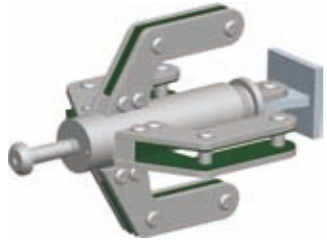
SGP-06



Customized Products



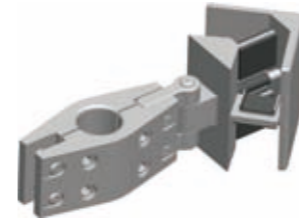
Zhenjiang Sports International Convention and Exhibition Center



Shenzhen Ping An International Financial Center



Shenyang Hanglung Plaza



HTC Headquarters Mansion in Taiwan



Beijing Golden Center



Project in California, U.S.A



ASOK Terminal 21 in Thailand



Dongguan Wing Lung Business Hotel



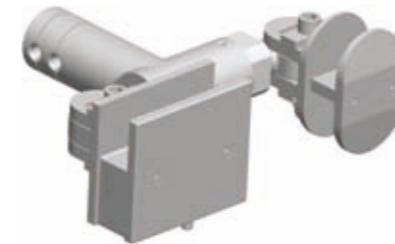
Sydney Green Center High-rise Apartment Building



HK West Kowloon



Guangzhou West Tower



Shanghai Siemens



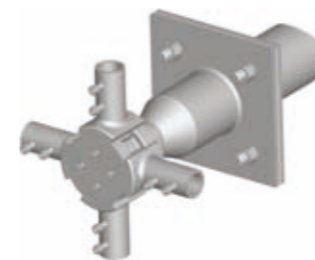
Burj Khalifa in Dubai



Shijiazhuang Airport



Shenzhen Stock Exchange



Shanghai Zhongjian Building



Installation Tools

Shenzhen Gangxia Parkway



Shenzhen Baoan District Children's Palace



Nanchang International Expo City



Taiwan United Daily



Shanghai Bund International Financial Center



Hong Kong Drama Centre



Huaya Square Curtain Wall System



Shenzhen Zuotingyoyuan



Statement

1. We compiled this catalogue carefully, and based on familiarity and understanding to our products currently, The information in this catalogue is correct and reliable, but if any inadequacy in the catalogue, welcome to contact us.
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