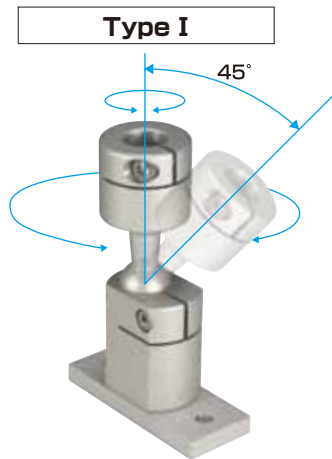
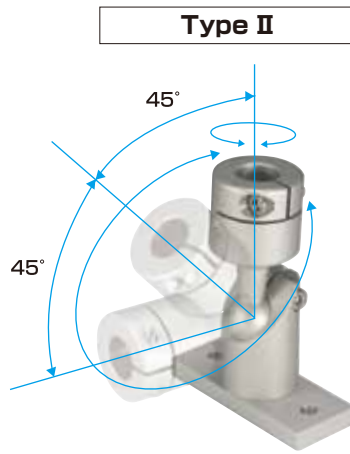


Fixed base (3 types by usage) pipe diameter : 3 sizes for $\phi 12 \cdot \phi 16 \cdot \phi 19$

Please loosen sphere tightening screw when transferring



Maximum 45° swing, pivoting vertical axis



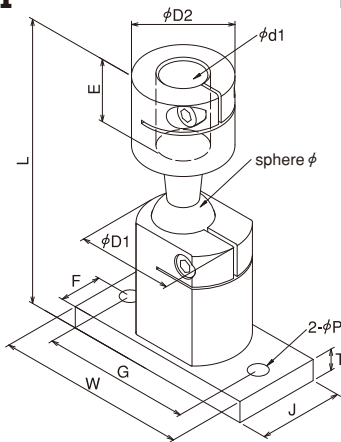
Maximum 45° swing, pivoting elevation angle 45°



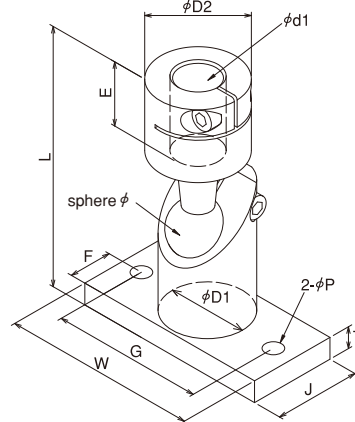
swivel allows 360° swings in addition to type II motion

- Type I** : Flexible movement of attachment direction within the range of maximum swing angle 45°
- Type II** : Maximum elevation angle 90° for motion. Flexible swing with maximum angle 45°, pivoting on elevation angle 45° (Not capable of swinging toward left and right on vertical or horizontal position)
- Type III** : **Complex function**
In addition to type II motion, the bottom swivel allows 360° swings in elevation angle 0°- 90° (horizontal and vertical)

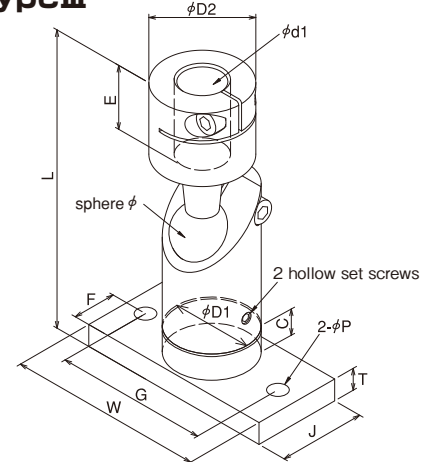
Type I



Type II



Type III



Type I

Part No.	$\phi d1$	$\phi D1$	$\phi D2$	sphere ϕ	L	E	F	G	W	J	T	2- ϕP	pipe Cap screw	sphere Cap screw	withholding load N (distance from the center of sphere)	
															250mm	500mm
FBC312-1	$\phi 12$	$\phi 29$	$\phi 27$	$\phi 16$	90	25	15	50	65	30	8	$\phi 6.5$	M4	M5	27.0	13.5
FBC316-1	$\phi 16$	$\phi 37$	$\phi 34$	$\phi 20$	110	30		55	75	30			24.7			
FBC416-1	$\phi 19.1$	$\phi 45$	$\phi 40$	$\phi 25$	130	35	20	60	80	40	10	$\phi 8.5$	M6	M6	79.4	44.7
FBC419-1	$\phi 19.1$	$\phi 45$	$\phi 40$	$\phi 25$	130	35		70	90	40			44.7			

Type II

Part No.	$\phi d1$	$\phi D1$	$\phi D2$	sphere ϕ	L	E	F	G	W	J	T	2- ϕP	pipe Cap screw	sphere Cap screw	withholding load N (distance from the center of sphere)	
															250mm	500mm
FBC312-2	$\phi 12$	$\phi 25$	$\phi 27$	$\phi 16$	83	25	15	50	65	30	8	$\phi 6.5$	M4	M5	21.2	10.6
FBC316-2	$\phi 16$	$\phi 30$	$\phi 34$	$\phi 20$	98	30		55	75	30			18.2			
FBC416-2	$\phi 16$	$\phi 30$	$\phi 34$	$\phi 20$	98	30	20	60	80	40	10	$\phi 8.5$	M6	M6	78.8	42.3
FBC419-2	$\phi 19.1$	$\phi 37$	$\phi 40$	$\phi 25$	120	35		70	90	40			42.3			

Type III

Part No.	$\phi d1$	$\phi D1$	$\phi D2$	sphere ϕ	L	C swivel	E	F	G	W	J	T	2- ϕP	2 hollow set screws	pipe Cap screw	sphere Cap screw	withholding load N (distance from the center of sphere)	
																	250mm	500mm
FBC312-3	$\phi 12$	$\phi 25$	$\phi 27$	$\phi 16$	95	7	25	15	50	65	30	8	$\phi 6.5$	M4	M5	M5	21.2	10.6
FBC316-3	$\phi 16$	$\phi 30$	$\phi 34$	$\phi 20$	113	10	30		55	75	30			18.2				
FBC416-3	$\phi 16$	$\phi 30$	$\phi 34$	$\phi 20$	113	10	30	20	60	80	40	10	$\phi 8.5$	M6	M6	M6	78.8	42.3
FBC419-3	$\phi 19.1$	$\phi 37$	$\phi 40$	$\phi 25$	137	12	35		70	90	40			42.3				