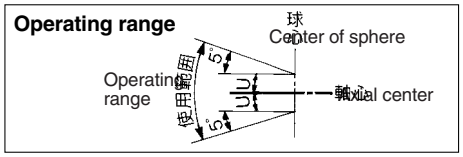
Floating Joint: For Compact Cylinders

Series JB

Specifications

Operating pressure	Air pressure compact cylinder 1 MPa or less

Operating range



Specifications

Model	Applicable bore size (mm)	Applicable cylinder nominal thread size	Maximum operating tension and compression force (N)		Allowable eccentricity **U** (mm)	Rotating angle
			Compression side	Tension side		
JB12-3-050	12	M3 x 0.5	112	112	0.5	±5°
JB16-4-070	16	M4 x 0.7	200	200	0.5	
JB20-5-080	20	M5 x 0.8	1100	300	0.5	
JB25-6-100	25	M6 x 1	2500	500	0.5	
JB40-8-125	32, 40	M8 x 1.25	6000	1300	0.75	
JB63-10-150	50, 63	M10 x 1.5	11000	3100	1	
JB80-16-200	80	M16 x 2	18000	5000	1.25	
JB100-20-250	100	M20 x 2.5	28000	7900	2	
JB140-22-250	125, 140	M22 x 2.5	54000	15300	2.5	
JB160-24-300	160	M24 x 3	71000	20000	3	

How to Order

J B 40 — 8-125 — X11

For compact cylinders/ Female thread

Applicable bore size (mm)

Symbol	Applicable bore size (mm)
12	12
16	16
20	20
25	25
40	32, 40
63	50, 63
80	80
100	100
140	125, 140
160	160

Thread nominal size

Nominal thread size	Applicable cylinder nominal thread size
3-050	M3 x 0.5
4-070	M4 x 0.7
5-080	M5 x 0.8
6-100	M6 x 1
8-125	M8 x 1.25
10-150	M10 x 1.5
16-200	M16 x 2
20-250	M20 x 2.5
22-250	M22 x 2.5
24-300	M24 x 3

Option

X11	High temperature specifications –5 to 100°C

⚠ Precautions

Be sure to read before handling. Refer to pages 10-24-3 to 10-24-6 for Safety Instructions and Actuator Precautions.

Mounting

⚠ Warning

1. To screw the male threads of the rod into the female threads of the socket or the case, make sure that it does not bottom out. If the floating joint is used with its rod bottomed out, the stud will not be able to float, causing damage. For the screw-in depth of the female threads, refer to the dimensions (page 10-19-11). As a rule, after the rod bottoms out, back off 1 to 2 turns.

2. When screwing stud or socket, or case in the driven object, make sure to screw them in the state that dust cover has been removed from the case. If screwing without removing dust cover, duct cover might be broken.

3. To use a floating joint to connect the cylinder rod to a driven body, secure it in place by applying a torque that is appropriate for the thread size. Also, if there is a risk of loosening during operation, take measures to prevent loosening, such as using a locking pin or thread adhesive.
In the event that the connected portion becomes loose, the driven body might lose control or fall off, leading to equipment damage or injury to personnel.

4. Do not use for rotational applications, because it is not a fitting designed for rotational axis.

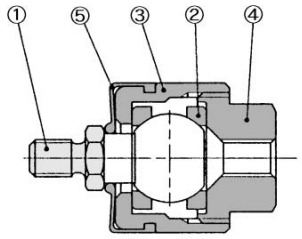
Maintenance

⚠ Warning

1. Do not reuse if disassembled.
High strength adhesive is applied to the portion of the connection that is threaded to prevent it from loosening, and it must not be disassembled. If it is forcefully disassembled, it could lead to damage.

Construction

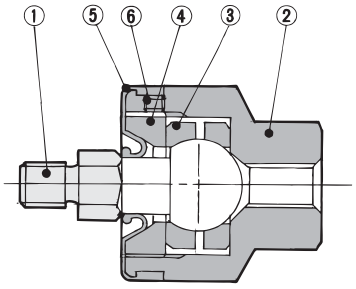
ø12, ø16



Component Parts

No.	Description	Material	Note
①	Stud	Free-cutting steel	
②	Case	Brass	
③	Ring	Carbon steel	
④	Socket	Brass	
⑤	Dust cover	Synthetic rubber	

ø20 to ø160

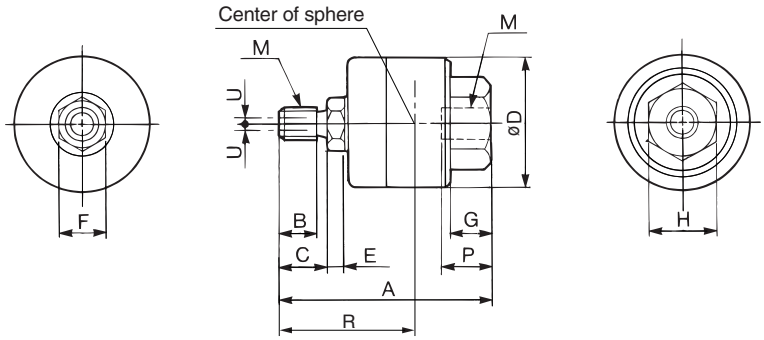


Component Parts

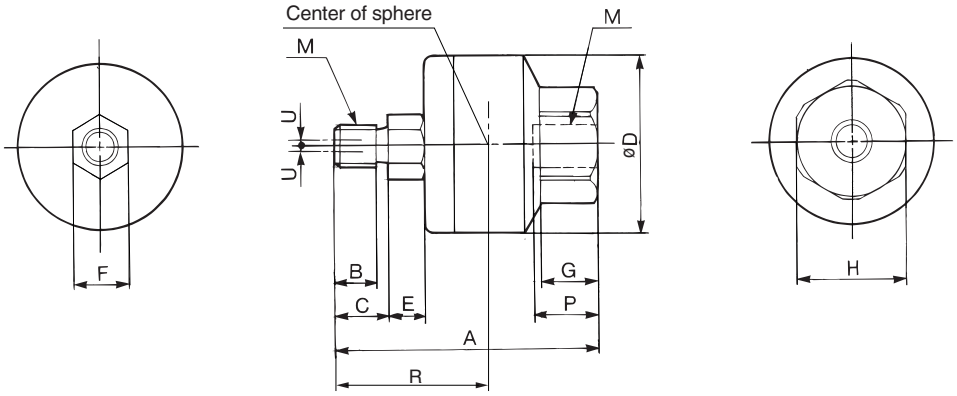
No.	Description	Material	Note
①	Stud	Chromium molybdenum steel	
②	Case	Carbon steel	
③	Ring	Chromium molybdenum steel	
④	Cap	Carbon steel	
⑤	Dust cover	Synthetic rubber	
⑥	Set screw	Carbon steel	

Basic Style: JB

JB12, 16



JB20 to 160



(mm)

Applicable bore size (mm)	Model	M		A	B	C	D	E	F	G	H	Center of sphere R	Maximum thread depth P	Allowable eccentricity U	Maximum operating tension and compression force (N)		Weight (kg)
		Nominal size	Pitch												Compression	Tension	
12	**JB12-3-050**	3	0.5	24.5	3	4	16	2	6	5	10	13	7	0.5	112	112	0.02
16	**JB16-4-070**	4	0.7	26.5	4.5	6	16	2	6	5	10	15	7	0.5	200	200	0.02
20	**JB20-5-080**	5	0.8	33	5	6.5	21	4.5	7	7	13	19.5	8	0.5	1100	300	0.04
25	**JB25-6-100**	6	1	38	6	8	24	5	8	8	17	22.5	9	0.5	2500	500	0.07
32, 40	**JB40-8-125**	8	1.25	51	8.5	11	31	6	11	11	22	29	13	0.75	6000	1300	0.15
50, 63	**JB63-10-150**	10	1.5	62.5	10	13	41	7.5	14	13.5	27	35.5	15	1	11000	3100	0.29
80	**JB80-16-200**	16	2	80.5	16	20	50	9.5	19	16	32	47.5	18	1.25	18000	5000	0.56
100	**JB100-20-250**	20	2.5	101	21	26	59.5	11.5	24	20	41	59	24	2	28000	7900	1.04
125, 140	**JB140-22-250**	22	2.5	129	18	22	79	14	30	22	46	71.5	38	2.5	54000	15300	2.6
160	**JB160-24-300**	24	3	149	20	26	96	16	36	24	55	83	42	3	71000	20000	4.5