Floating Joint

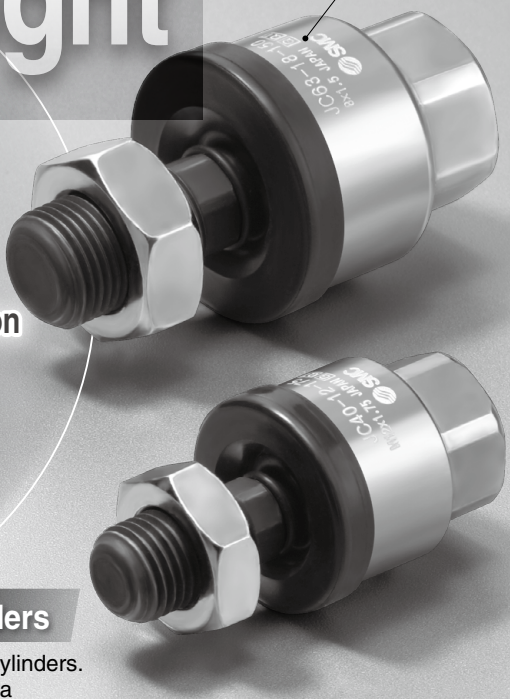
Series JC

Standard/Light Weight Type 20, 30, 40, 63

Light weight

Aluminum case

RoHS

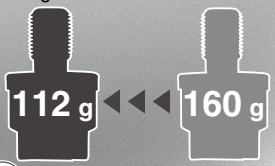


With the aluminum case

30% Weight reduction

∗Compared to the existing model JA40

48 g lighter



New JC40 JA40

Product suitable for air cylinders

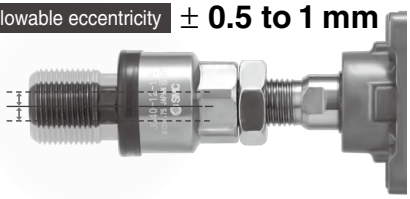
- Light weight mitigates lateral loads to air cylinders.
- Maximum tensile force equivalent to 1 MPa

Floating joint compensates for any misalignment between the work piece and the air cylinder.

Interchangeable mounting with the existing JA series

Rotating angle ± 5°

Allowable eccentricity ± 0.5 to 1 mm



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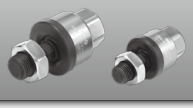
Technical data

Series Variations

Series	Cylinder supply pressure		Applicable cylinder bore size (mm)	Mounting	Page
Series JC (Light weight type) 	**Pneumatic cylinder**	**1 MPa or less**	**20, 25, 32, 40, 50, 63**	**Basic style**	**P.1131**
Series JA (Standard) 	Pneumatic cylinder	0.7 MPa or less	6, 10, 15	Basic style · Flange style · Foot style	**P.1136**
		1 MPa or less	20, 25, 30, 40, 50, 63 80, 100, 125, 140, 160		
	Hydraulic cylinder	3.5 MPa or less	20, 25, 30, 40, 50, 63 80, 100, 125, 140, 160		
Series JAH (Heavy load) 	Hydraulic cylinder	7 MPa or less	40, 50, 63, 80, 100	Basic style · Flange style · Foot style	**P.1141**
Series JB (For compact cylinders) 	Pneumatic cylinder	1 MPa or less	12, 16, 20, 25, 32 40, 50, 63, 80, 100	Basic style (Female thread)	**P.1144**
Series JS (Stainless steel type) 	Pneumatic cylinder	1 MPa or less	10, 16, 20, 25, 32 40, 50, 63, 80, 100	Basic style	**P.1146**
	Hydraulic cylinder	3.5 MPa or less	20, 25, 32, 40, 50, 63		

Floating Joint
Standard/Light Weight Type
Series JC

RoHS

Series JC

Model/Specifications

Model	Applicable cylinder bore size (mm)	Applicable cylinder nominal thread size	Maximum operating tensile and compressive force (N) Basic style	Allowable eccentricity (Umm)	Rotating angle
Standard/Thread nominal size					
JC20-8-125	20	M8 x 1.25	300	0.5	± 5°
JC30-10-125	25/32	M10 x 1.25	800	0.5	
JC40-14-150	40	M14 x 1.5	1250	0.75	
JC63-18-150	50/63	M18 x 1.5	3100	1	
Semi-standard/Thread nominal size					
JC20-8-100	20	M8 x 1	300	0.5	± 5°
JC25-10-150	25	M10 x 1.5	800	0.5	
JC32-10-100	32	M10 x 1	800	0.5	
JC40-12-125	32/40	M12 x 1.25	1250	0.75	
JC40-12-150	40	M12 x 1.5	1250	0.75	
JC40-12-175	32/40	M12 x 1.75	1250	0.75	
JC50-16-150	50	M16 x 1.5	3100	1	
JC63-16-200	50/63	M16 x 2	3100	1	

How to Order

JC [**40**] – [**14-150**]

Applicable cylinder bore size

Model	Symbol	Applicable cylinder bore size (mm)
Standard type	**20**	20
	30	25/32
	40	40
	63	50/63

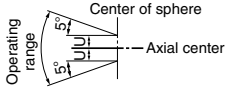
Thread nominal size (Standard)

Thread nominal size	Applicable cylinder nominal thread size
8-125	M8 x 1.25
10-125	M10 x 1.25
14-150	M14 x 1.5
18-150	M18 x 1.5

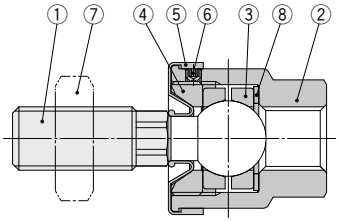
Specifications

Operating pressure	Pneumatic cylinder: 1 MPa or less
Mounting	Basic style
Operating temperature	–10 to 70°C

Operating range



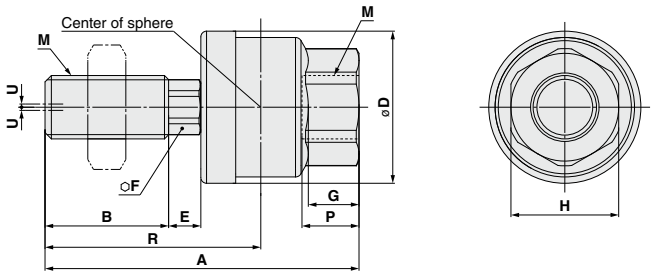
Construction



No.	Description	Material	Note
1	**Stud**	Steel	Manganese phosphate
2	**Case**	Aluminum	Chromated
3	**Ring**	Steel	
4	**Cap**	Steel	Black zinc chromated
5	**Dust cover**	Synthetic rubber	
6	**Set screw**	Steel	Zinc chromated
7	**Rod end nut**	Steel	Zinc chromated
8	**Washer**	Steel	

Dimensions

JC20 to 63



Standard type Pneumatic: to 1 MPa (mm)

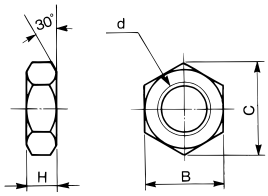
Applicable cylinder bore size	Model	M		A	B	D	E	F	G	H	Center of sphere R	Maximum thread depth P	Allowable eccentricity U	Maximum operating tensile and compressive force N	Weight kg
		Nominal size	Pitch												
20	**JC20-8-125**	8	1.25	44	17.5	21	4.5	7	7	13	30.5	8	0.5	300	0.03
25, 32	**JC30-10-125**	10	1.25	49.5	19.5	24	5	8	8	17	34	9	0.5	800	0.05
40	**JC40-14-150**	14	1.5	60	20	31	6	11	11	22	38	13	0.75	1250	0.12
50, 63	**JC63-18-150**	18	1.5	74.5	25	41	7.5	14	13.5	27	47.5	15	1	3100	0.23

Semi-standard type Pneumatic: to 1 MPa (mm)

Applicable cylinder bore size	Model	M		A	B	D	E	F	G	H	Center of sphere R	Maximum thread depth P	Allowable eccentricity U	Maximum operating tensile and compressive force N	Weight kg
		Nominal size	Pitch												
20	**JC20-8-100**	8	1	44	17.5	21	4.5	7	7	13	30.5	8	0.5	300	0.03
25	**JC25-10-150**	10	1.5	49.5	19.5	24	5	8	8	17	34	9	0.5	800	0.05
32	**JC32-10-100**	10	1	49.5	19.5	24	5	8	8	17	34	9	0.5	800	0.05
32, 40	**JC40-12-125**	12	1.25	60	20	31	6	11	11	22	38	13	0.75	1250	0.11
40	**JC40-12-150**	12	1.5	60	20	31	6	11	11	22	38	13	0.75	1250	0.11
32, 40	**JC40-12-175**	12	1.75	60	20	31	6	11	11	22	38	13	0.75	1250	0.11
50	**JC50-16-150**	16	1.5	71.5	22	41	7.5	14	13.5	27	44.5	15	1	3100	0.22
50, 63	**JC63-16-200**	16	2	71.5	22	41	7.5	14	13.5	27	44.5	15	1	3100	0.22

Dimensions of Accessories

Rod end nut



(mm)

Model	Order number	d: Thread nominal size	H	B	C
JC20-8-100	DA00207	M8 x 1	5	13	15
JC20-8-125	DA00169	M8 x 1.25	5	13	15
JC32-10-100	DA00141	M10 x 1	6	17	19.6
JC30-10-125	DA00142	M10 x 1.25	6	17	19.6
JC25-10-150	DA00140	M10 x 1.5	6	17	19.6
JC40-12-125	DA00145	M12 x 1.25	7	19	21.9
JC40-12-150	DA00146	M12 x 1.5	7	19	21.9
JC40-12-175	DA00143	M12 x 1.75	7	19	21.9
JC40-14-150	DA00148	M14 x 1.5	8	22	25.4
JC50-16-150	DA00151	M16 x 1.5	10	24	27.7
JC63-16-200	DA00150	M16 x 2	10	24	27.7
JC63-18-150	DA00153	M18 x 1.5	11	27	31.2

Spare parts

- **Rod end nut**
  The basic style has one rod end nut attached, it is possible to order additional pieces by the above order numbers.

- **Dust cover**
  When the dust cover is damaged and deteriorated, order with the part number as shown below.

Part no. for dust cover	Applicable model
P215215	JC20
P215225	JC25, JC30, JC32
P215235	JC40
P215245	JC50, JC63

Specific Product Precautions

Be sure to read before handling. Refer to front matter 57 for Safety Instructions, pages 3 to 7 for 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 1132). As a rule, after the rod bottoms out, back off 1 to 2 turns.

2. The dust cover may stick to the stud. Move the dust cover at the base of the stud with fingers, or twist the stud right and left gently to free them.

And 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, dust 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.

5. When a driven object is stopped, be sure to prevent the impact force of the object being transferred to the product by using the cushion mechanism of a cylinder or other cushioning devices such as a shock absorber. Otherwise, the impact force may exceed the maximum tensile and compressive force of the product.

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.