

Standard/Lightweight and Compact Type Floating Joint

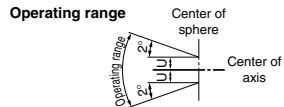
JT Series



Specifications



Model	Nominal thread size	Allowable axial force [N]	Allowable eccentricity U [mm]	Rotating angle [°]	Operating temperature range
JT20	M8 x 1.25	220	0.5	±2	-10 to 70°C
JT32	M10 x 1.25	560	0.5	±2	
JT40	M14 x 1.5	880	0.75	±2	



Applicable Cylinder

Model	Applicable cylinder *1		Recommended cylinder
	Bore size	Operating pressure	
JT20	ø20	0.7 MPa or less	JC□M20 (Rod end male thread type)
JT32	ø25		JC□M25 (Rod end male thread type)
	ø32		JC□M32 (Rod end male thread type)
JT40	ø40		JC□M40 (Rod end male thread type)

*1: Make sure to use a cylinder with a built-in cushion mechanism.

How to Order

JT **20**

Size	Applicable cylinder	Nominal thread size
20	For ø20	M8 x 1.25
	For ø25	M10 x 1.25
32	For ø32	M10 x 1.25
	For ø40	M14 x 1.5

Operating Conditions

Operating pressure	Pneumatic cylinder: 0.7 MPa or less
Mounting	Basic
Operating temperature	-10 to 70°C

Floating Joint

Light Weight Type for Light Load

JC Series



Model/Specifications



Model	Applicable cylinder bore size (mm)	Applicable cylinder nominal thread size	Maximum operating tensile and compressive force (N)	Allowable eccentricity (Umm)	Rotating angle
			Basic type		
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

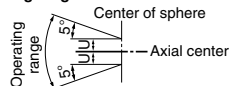
Thread nominal size (Standard)

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 type
Operating temperature	-10 to 70°C

Operating range



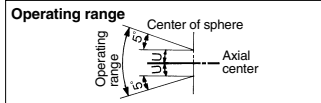
Floating Joint: Standard Type

JA Series



Specifications

Operating pressure	Pneumatic cylinder ^{Note)} : 1 MPa or less, 0.7 MPa or less
	Hydraulic cylinder: 3.5 MPa or less
Mounting	Basic type, Flange type, Foot type



Note) The operating pressure varies according to the cylinder bore size.
Refer to page 1233 for details.

⚠ Precautions

Be sure to read this before handling the products. Refer to page 20 for safety instructions.

Mounting

⚠ Warning

- 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 bottom 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 1236). As a rule, after the rod bottoms out, back off 1 to 2 turns.
- The dust cover may adhere to the stud. In this case, move the dust cover at the neck of the stud by the finger or twist the stud slightly left or right to break in the dust cover before use.
Additionally, when screwing the stud and socket or the case into a driven body, screw in such parts with the dust cover removed. When screwing in such parts without removing the dust cover, this may cause damage to the dust cover.
- 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.
- This product is not a rotary joint. So, the product cannot be used for rotational or rotation acting applications.
- Be sure to use the cushion mechanism of the cylinder or the buffer mechanism, such as the shock absorber so that any impact force is not applied to the floating joint when stopping a driven body. If there is no buffer mechanism, an excessive impact force is generated. As a result, the tensile compression force of the floating joint may exceed its maximum level.

Maintenance

⚠ Warning

- Do not reuse if disassembled.
The threaded part cannot be removed from the rest of the joint as they are either welded together or held together using high-strength adhesive. Attempting to forcefully disassemble the joint may result in damage.

Model/Specifications

Model	Applicable bore size (mm)	Applicable cylinder nominal thread size	Maximum operating tension and compression force (N)			Allowable eccentricity U (mm)	Rotating angle	Ambient temperature	
			Basic type	Flange type	Foot type				
Standard/Thread nominal size									
JA6-3-050	6	M3 x 0.5	19	—	—	0.5	±5°		
JA10-4-070	10	M4 x 0.7	54	—	—	0.5			
JA15-5-080	10, 15	M5 x 0.8	123	—	—	0.5			
JA15-6-100	15	M6 x 1	123	—	—	0.5			
JA□20-8-125	20	M8 x 1.25	1100	1100	1000	0.5			
JA□30-10-125	25, 32	M10 x 1.25	2500	2500	2000	0.5			
JA□40-14-150	40	M14 x 1.5	4400	4400	4400	0.75			
JA□63-18-150	50, 63	M18 x 1.5	11000	11000	9000	1			
JA□80-22-150	80	M22 x 1.5	18000	18000	14000	1.25			
JA□100-26-150	100	M26 x 1.5	28000	28000	22000	2			
JA□140-30-150	125, 140	M30 x 1.5	54000	36000	36000	2.5			
JA□160-36-150	160	M36 x 1.5	71000	55000	55000	3			
Semi-standard/Thread nominal size									
JA□20-8-100	20	M8 x 1	1100	1100	1000	0.5	-5 to 60°C		
JA□25-10-150	25	M10 x 1.5	2500	2500	2000	0.5			
JA□32-10-100	32	M10 x 1	2500	2500	2000	0.5			
JA□40-12-125	32, 40	M12 x 1.25	4400	4400	4400	0.75			
JA□40-12-150	40	M12 x 1.5	4400	4400	4400	0.75			
JA□40-12-175	32, 40	M12 x 1.75	4400	4400	4400	0.75			
JA□50-16-150	50	M16 x 1.5	11000	11000	9000	1			
JA□63-16-200	50, 63	M16 x 2	11000	11000	9000	1			
JA□80-20-250	80	M20 x 2.5	18000	18000	14000	1.25			
JA□100-24-300	100	M24 x 3	28000	28000	22000	2			
JA□100-27-150	100	M27 x 1.5	28000	28000	22000	2			
JA□125-27-200	125	M27 x 2	28000	28000	28000	2			
JA□160-33-200	160	M33 x 2	71000	55000	55000	3			

How to Order

JA
F
40
-
14-150
-

①
②
③
④

① Mounting type

Nil	Basic type
F	Flange type
L	Foot type

② Applicable bore size (mm)

Model	Symbol	Applicable bore size (mm)
Standard	6	6
	10	10
	15	10, 15
	20	20
	30	25, 32
	40	40
	63	50, 63
	80	80
	100	100
	140	125, 140
	160	160

③ Thread nominal size (Standard)

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
10-125	M10 x 1.25
14-150	M14 x 1.5
18-150	M18 x 1.5
22-150	M22 x 1.5
26-150	M26 x 1.5
30-150	M30 x 1.5
36-150	M36 x 1.5

④ Option

Nil	None
X11	High temperature specifications -5 to 100°C

Made to Order: Individual Specifications -X530

Note) For details, refer to page 1239. For pneumatic cylinders

Design

⚠ Caution

- The black zinc chromate treatment is applied to the material surfaces of the case, flange and foot. However, the white deposit may rarely occur on the surface. This white deposit does not affect the product functions. However, if the white deposit becomes a problem from a viewpoint of appearance, special products with the surface treatment changed to the electroless nickel plating are also available. For details, please contact SMC.

⚠ Warning

- JA series has play in the axial direction. (Default: 0.06 mm or less)
When positioning the driven object, avoid the influence of play using a knock pin or external stopper.

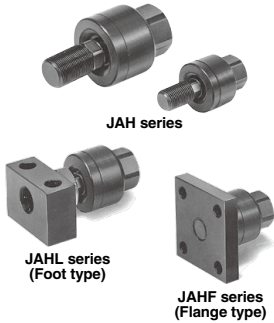
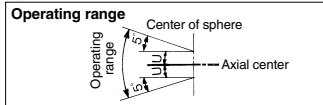
Floating Joint: Heavy Load Type

JAH Series



Specifications

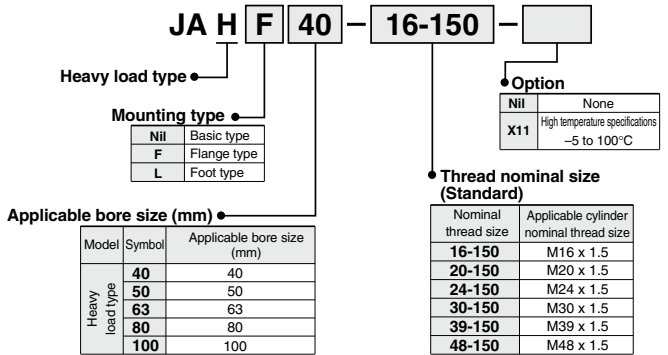
Operating pressure	Hydraulic cylinder: 7 MPa or less
Mounting	Basic type, Flange type, Foot type



Specifications

Model	Applicable bore size (mm)	Applicable cylinder nominal thread size	Maximum operating tension and compression force (N)			Allowable eccentricity U (mm)	Rotating angle	Ambient temperature		
			Basic type	Flange type	Foot type					
Standard/Thread nominal size										
JAH□40-16-150	40	M16 x 1.5	11000	9000	9000	1.25	±5°	-5 to 60°C		
JAH□50-20-150	50	M20 x 1.5	18000	14000	14000	2				
JAH□63-24-150	63	M24 x 1.5	28000	22000	22000	2				
JAH□80-30-150	80	M30 x 1.5	54000	36000	36000	2.5				
JAH□100-39-150	100	M39 x 1.5	71000	55000	55000	3				
JAH□100-48-150	100	M48 x 1.5	71000	55000	55000	3	±5°			
Semi-standard/Thread nominal size										
JAH□63-24-200	63	M24 x 2	28000	22000	22000	2				
JAH□80-30-200	80	M30 x 2	54000	36000	36000	2.5				
JAH□100-42-300	100	M42 x 3	71000	55000	55000	3				

How to Order



⚠ Precautions

Be sure to read this before handling the products. Refer to page 20 for safety instructions.

Mounting

⚠ Warning

- 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 1242). As a rule, after the rod bottoms out, back off 1 to 2 turns.
- The dust cover may adhere to the stud. In this case, move the dust cover at the neck of the stud by the finger or twist the stud slightly left or right to break in the dust cover before use. Additionally, when screwing the stud and socket or the case into a driven body, screw in such parts with the dust cover removed. When screwing in such parts without removing the dust cover, this may cause damage to the dust cover.
- 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 lockin pin or thread adhesive.

Maintenance

⚠ Warning

- 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.

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.

- This product is not a rotary joint. So, the product cannot be used for rotational or rotation acting applications.
- Be sure to use the cushion mechanism of the cylinder or the buffer mechanism, such as the shock absorber so that any impact force is not applied to the floating joint when stopping a driven body. If there is no buffer mechanism, an excessive impact force is generated. As a result, the tensile compression force of the floating joint may exceed its maximum level.

⚠ Caution

- The black zinc chromate treatment is applied to the material surfaces of the case, flange and foot. However, the white deposit may rarely occur on the surface. This white deposit does not affect the product functions. However, if the white deposit becomes a problem from a viewpoint of appearance, special products with the surface treatment changed to the electroless nickel plating are also available. For details, please contact SMC.

Design

⚠ Warning

- JAH series has play in the axial direction. (Default: 0.06 mm or less). When positioning the driven object, avoid the influence of play using a knock pin or external stopper.

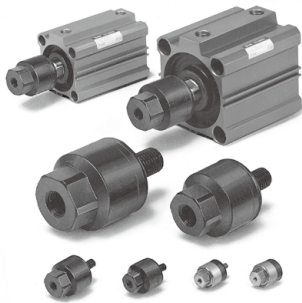
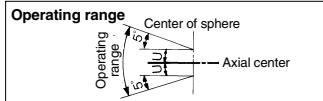
Floating Joint: For Compact Cylinders

JB Series



Specifications

Operating pressure	Air pressure compact cylinder 1 MPa or less
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Specifications

Model	Applicable bore size (mm)	Applicable cylinder nominal thread size	Maximum operating tension and compression force (N)		Allowable eccentricity U (mm)	Rotating angle	Ambient temperature
			Compression side	Tension side			
JB12-3-050	12	M3 x 0.5	112	112	0.5	±5°	-5 to 60°C
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 - []

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

Option

Nil	None
X11	High temperature specifications -5 to 100°C

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

⚠ Precautions

Be sure to read this before handling the products. Refer to page 20 for safety instructions.

Mounting

⚠ Warning

- 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 1245). As a rule, after the rod bottoms out, back off 1 to 2 turns.
- The dust cover may adhere to the stud. In this case, move the dust cover at the neck of the stud by the finger or twist the stud slightly left or right to break in the dust cover before use.
Additionally, when screwing the stud and socket or the case into a driven body, screw in such parts with the dust cover removed. When screwing in such parts without removing the dust cover, this may cause damage to the dust cover.
- 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.

- This product is not a rotary joint. So, the product cannot be used for rotational or rotation acting applications.
- Be sure to use the cushion mechanism of the cylinder or the buffer mechanism, such as the shock absorber so that any impact force is not applied to the floating joint when stopping a driven body. If there is no buffer mechanism, an excessive impact force is generated. As a result, the tensile compression force of the floating joint may exceed its maximum level.

Maintenance

⚠ Warning

- Do not reuse if disassembled.
The threaded part cannot be removed from the rest of the joint as they are either welded together or held together using high-strength adhesive. Attempting to forcefully disassemble the joint may result in damage.

⚠ Caution

- The black zinc chromate treatment is applied to the material surfaces of the case, flange and foot. However, the white deposit may rarely occur on the surface. This white deposit does not affect the product functions. However, if the white deposit becomes a problem from a viewpoint of appearance, special products with the surface treatment changed to the electroless nickel plating are also available. For details, please contact SMC.

Design

⚠ Warning

- JB series has play in the axial direction. (Default: 0.06 mm or less)
When positioning the driven object, avoid the influence of play using a knock pin or external stopper.

Floating Joint: Stainless Steel Type

JS Series



Specifications

Operating pressure	Pneumatic cylinder: 1 MPa or less
	Hydraulic cylinder: 3.5 MPa or less
Mounting	Basic type
Operating range 	



⚠ Precautions

Be sure to read this before handling the products. Refer to page 20 for safety instructions.

Mounting

⚠ Warning

- For the screw-in depth of the female threads, refer to the dimensions (page 1248).
- The dust cover may adhere to the stud. In this case, move the dust cover at the neck of the stud by the finger or twist the stud slightly left or right to break in the dust cover before use.
Additionally, when screwing the stud and socket or the case into a driven body, screw in such parts with the dust cover removed. When screwing in such parts without removing the dust cover, this may cause damage to the dust cover.
- 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.
- This product is not a rotary joint. So, the product cannot be used for rotational or rotation acting applications.
- Be sure to use the cushion mechanism of the cylinder or the buffer mechanism, such as the shock absorber so that any impact force is not applied to the floating joint when stopping a driven body. If there is no buffer mechanism, an excessive impact force is generated. As a result, the tensile compression force of the floating joint may exceed its maximum level.

Specifications

Model	Applicable bore size (mm) ⁽¹⁾	Applicable cylinder nominal thread size	Maximum operating tension and compression force (N)	Allowable eccentricity U (mm)	Operating pressure		Ambient temperature
					pneumatic cylinder	Hydraulic cylinder	
JS10-4-070	10	M4 x 0.7	80	0.5	1 MPa or less	-	-5 to 70°C
JS16-5-080	10, 16	M5 x 0.8	210	0.5			
JS20-8-125	20	M8 x 1.25	1100	0.5			
JS32-10-125	25, 32	M10 x 1.25	2500	0.5			
JS40-14-150	40	M14 x 1.5	6000	0.75			
JS63-18-150	50, 63	M18 x 1.5	11000	1			

Note 1) Think of applicable bore size as a guide. For details, confirm the rod end thread diameter of a cylinder to be used in the catalog.

Note 2) For 3.5 MPa hydraulic cylinders, operate within the maximum tension and compression force.

How to Order

J S 32 - 10-125

Stainless steel type Applicable bore size (mm) Nominal thread size Dust cover material

Symbol	Material
NiI	Fluororubber
S	Silicone rubber

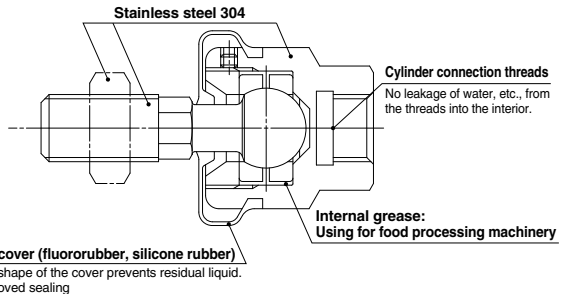
Symbol	Applicable bore size (mm)
10	10
16	10, 16
20	20
32	25, 32
40	40
63	50, 63

Symbol	Applicable cylinder nominal thread size
4-070	M4 x 0.7
5-080	M5 x 0.8
8-125	M8 x 1.25
10-125	M10 x 1.25
14-150	M14 x 1.5
18-150	M18 x 1.5

(Note)

80	80
100	100

Made to Order: Individual Specifications -X530
 (Note) For details, refer to page 1249.
 For pneumatic cylinders



Maintenance

⚠ Warning

- 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.

Design

⚠ Warning

- JS series has play in the axial direction. (Default: 0.06 mm or less)
When positioning the driven object, avoid the influence of play using a knock pin or external stopper.