

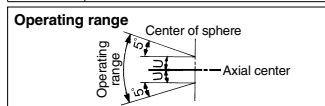
# Floating Joint: Stainless Steel Type

# JS Series

RoHS

## Specifications

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



JS series

## ⚠ 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.

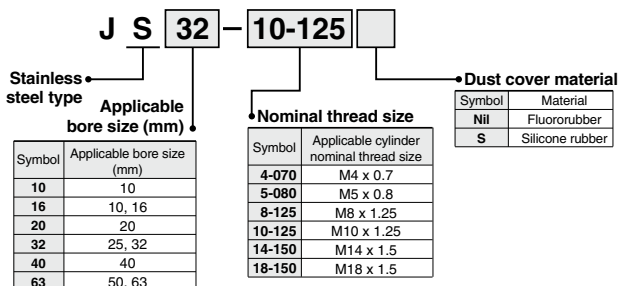
## Specifications

Model	Applicable bore size (mm) <sup>(1)</sup>	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

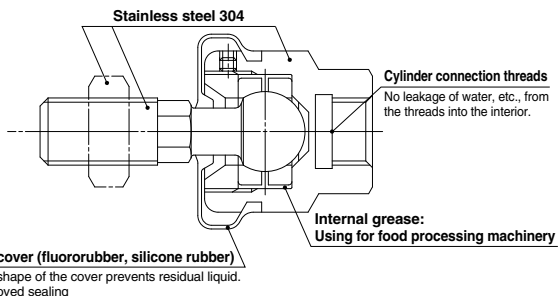


Note)

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.

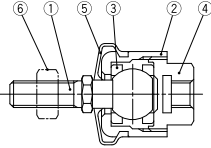
## Design

### ⚠ Warning

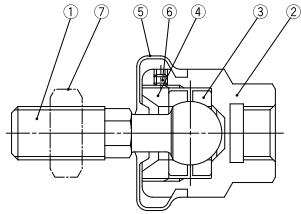
- JS series has play in the axial direction. (Default: 0.06 mm or less)  
When positioning the driven object, avoid the influence of play using a knock pin or external stopper.

## Construction

ø10, ø16



ø20 to ø63



### Component Parts

No.	Description	Material	Note
1	<b>Stud</b>	Stainless steel	
2	<b>Case</b>	Stainless steel	
3	<b>Ring</b>	Stainless steel	
4	<b>Socket</b>	Stainless steel	
5	<b>Dust cover</b>	Fluororubber/Silicon rubber	
6	<b>Rod end nut</b>	Stainless steel	

### Component Parts

No.	Description	Material	Note
1	<b>Stud</b>	Stainless steel (Thread parts)	Electroless nickel plated
2	<b>Case</b>	Stainless steel	
3	<b>Ring</b>	Chromium molybdenum steel	Electroless nickel plated
4	<b>Cap</b>	Carbon steel	Electroless nickel plated
5	<b>Dust cover</b>	Fluororubber/Silicon rubber	
6	<b>Set screw</b>	Carbon steel	
7	<b>Rod end nut</b>	Stainless steel	

## Replacement Parts

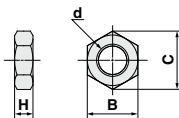
### Dust cover

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

Model	Part no. for dust cover	
	Fluoro rubber	Silicon rubber
<b>JS10</b>	P21530511	P21530512
<b>JS16</b>	P21530521	P21530522
<b>JS20</b>	P2153151	P2153152
<b>JS32</b>	P2153251	P2153252
<b>JS40</b>	P2153351	P2153352
<b>JS63</b>	P2153451	P2153452

### Rod end nunut

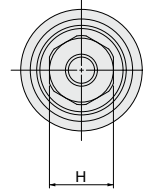
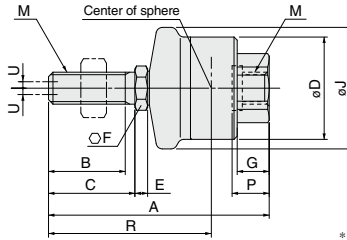
One rod end nut is supplied with the JS series. If additional nuts are needed, please order them using the part no. shown below.



Model	Order no.	d: Thread nominal size	H	B	C
<b>JS10-4-070</b>	DA00127	M4×0.7	3.2	7	8.1
<b>JS16-5-080</b>	DA00128	M5×0.8	4	8	9.2
<b>JS20-8-125</b>	DA00036	M8×1.25	5	13	15
<b>JS32-10-125</b>	DA00006	M10×1.25	6	17	19.6
<b>JS40-14-150</b>	DA00186	M14×1.5	8	22	25.4
<b>JS63-18-150</b>	DA00188	M18×1.5	11	27	31.2

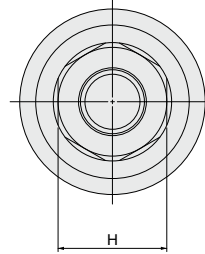
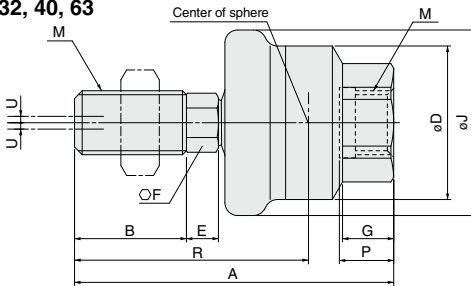
## Dimensions

### JS10, 16



\* Use the precision spanner for clock 4 mm in the case of mounting male thread of JS10.

### JS20, 32, 40, 63



(mm)															
Model	M	A	B	C	D	E	F	G	H	J	Center of sphere R	Max. thread depth P	Allowable eccentricity U	Max. operating tension and compression force (N)	Weight (kg)
JS10-4-070	M4 x 0.7	26	8.5	9.5	12	1.5	4	4	7	14.4	17	4.7	0.5	80	0.01
JS16-5-080	M5 x 0.8	34.5	12	13.5	16	2	6	5	10	19	23	5.8	0.5	210	0.02
JS20-8-125	M8 x 1.25	43.9	15.5	—	21	4.5	7	7	13	24.8	29.9	7.3	0.5	1100	0.05
JS32-10-125	M10 x 1.25	49.5	17.5	—	24	5	8	8	17	29	33.5	8.5	0.5	2500	0.08
JS40-14-150	M14 x 1.5	60	18.5	—	31	5	11	11	22	38.4	38	11.6	0.75	6000	0.16
JS63-18-150	M18 x 1.5	74.5	23	—	41	7	14	13.5	27	49.2	47.5	14.3	1	11000	0.31



Please contact SMC for detailed dimensions, specifications and lead times.

## 1 For Pneumatic Cylinders: For $\varnothing 80$ , $\varnothing 100$

Symbol  
**-X530**

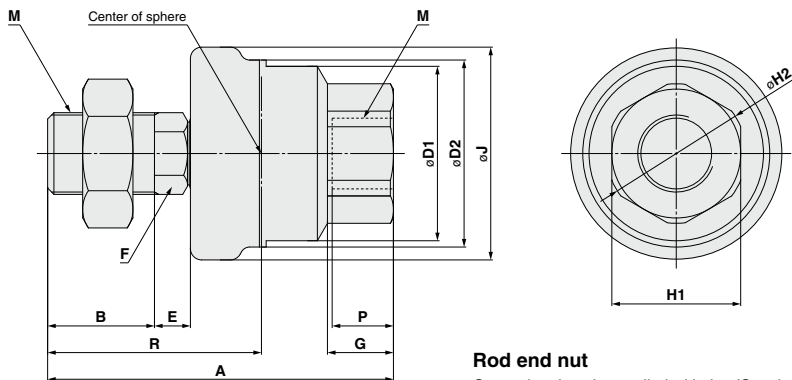
Applicable to the floating joint and stainless steel type JS series and used for pneumatic cylinders with bore sizes of  $\varnothing 80$  and  $\varnothing 100$ .  
\* This product is dedicated to the pneumatic cylinders.

### Model/Specifications

Model	Applicable cylinder				Maximum operating tensile and compressive force N	Allowable eccentricity U (mm)	Ambient temperature (°C)	Weight (kg)
	Bore size (mm) <small>Note</small>	Nominal thread size	Dust cover material	Operating pressure				
JS80-22-150-X530	$\varnothing 80$	M22 x 1.5	Fluororubber	1 MPa or less	5000	1.25	- 5 to 70	0.58
JS80-22-150S-X530			Silicone rubber					
JS100-26-150-X530	$\varnothing 100$	M26 x 1.5	Fluororubber		7850	2		
JS100-26-150S-X530			Silicone rubber					

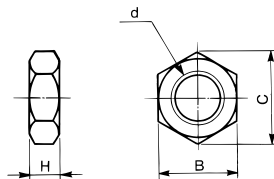
Note) Think of applicable bore size as a guide. For details, confirm the rod end thread diameter of a cylinder to be used in the catalog.

### Dimensions



#### Rod end nut

One rod end nut is supplied with the JS series. If additional nuts are needed, please order them using the part no. shown below.



Model	Order no.	d: Nominal thread size	H	B	C
JS80-22-150(S)-X530	DA00243	M22 x 1.5	13	32	37
JS100-26-150(S)-X530	DA00189	M26 x 1.5	16	41	47.3

### Dimensions

Model	M	A	B	D1	D2	E	F	G	H1	H2	J	Center of sphere R	Maximum thread depth P	Allowable eccentricity U	Maximum operating tensile and compressive force (N)	Weight (kg)
JS80-22-150(S)-X530	M22 x 1.5	89.5	28	46	50	9.9	19	16.8	32	34.7	57.2	65.5	14	1.25	5000	0.58
JS100-26-150(S)-X530	M26 x 1.5	110	34	55.5	59.5	11.4	24	21	41	44.4	66.2	68	19.5	2	7850	1.05