

Structure

Clamping type

XSTS-C → P.229

Outside Diameter $\phi 25 / \phi 32$



XSTS-C

Outside Diameter $\phi 40 - \phi 63$

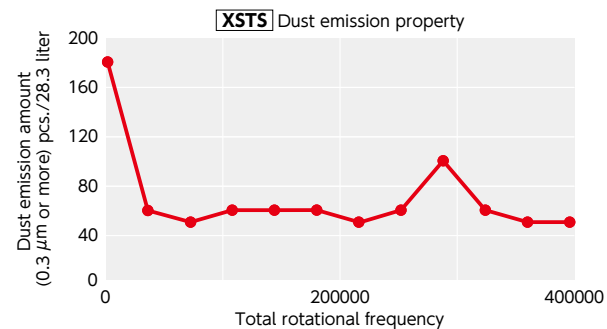
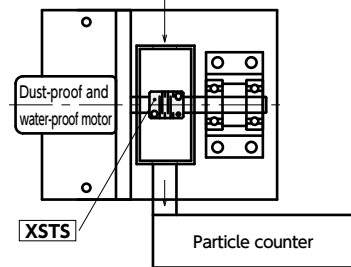


XWSS-C → P.229



Dust emission property

Cleanroom (class 500 or lower) Clean bench (class 10 or lower)



Property

	XSTS	XWSS
Low Particle	⊙	⊙
Vacuum-supported	○	○
Low Outgas	○	○
Heat-resistance	○	○
Chemical Resistance	⊙	⊙
Zero Backlash	⊙	⊙
High Torque	○	○
Allowable Misalignment	○	-
Corrosion resistance (all stainless steel)	⊙	⊙

⊙: Excellent ○: Very good

- This is an all stainless steel spring coupling with single-piece construction. A slit is inserted into a cylindrical material.
- Clean washing and clean packaging are completed. It can be used in an environment where chemical resistance is required, such as FPD manufacturing device and semiconductor manufacturing device.
- High flexibility type **XSTS** and short type **XWSS** are standardized.
- In **XSTS**, a plate spring formed by a slit allows eccentricity, angular misalignment, and end-play to be accepted.

Application

FPD manufacturing device/Semiconductor manufacturing device/Offshore instrument

Material/Finish

	XSTS-C / XWSS-C
Main body	SUS316L Shot Blast
Hex Socket Head Cap Screw	SUS316L HiMo

Related Products

There is a slit-type flexible coupling **MSX** made of extra super duralumin (A7075).
→ P.97



Part number specification

XSTS-32C-12-12

Product code Size bore diameter

Please refer to dimensional table for part number specification.

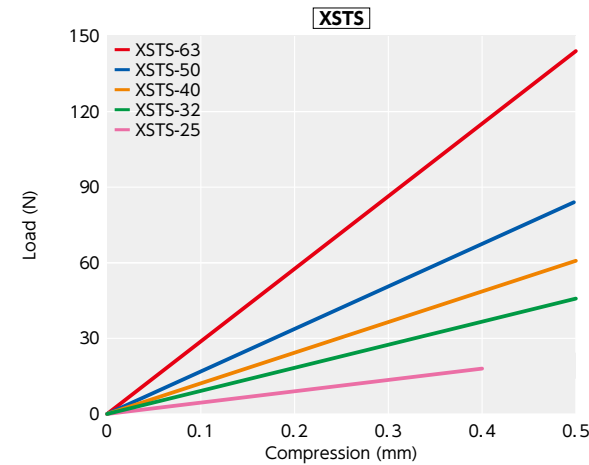
Technical Information

Made of SUS316L superior in corrosion resistance

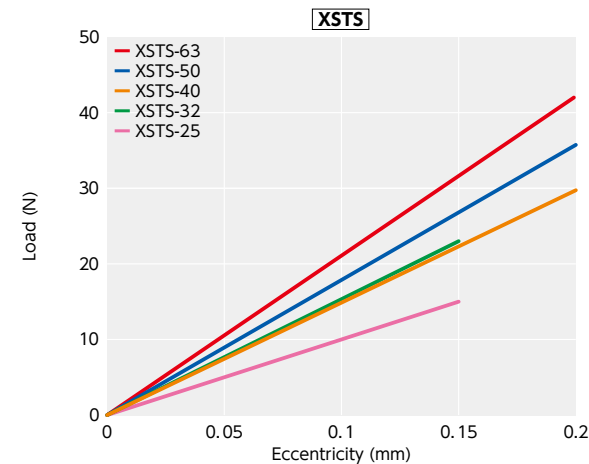
Characteristics

Material code	Characteristics
SUS304	This features smaller amount of carbon and is superior in corrosion resistance and weldability. This is the most standard product among austenitic stainless steel.
SUS316	This has good corrosion resistance and acid resistance as well as high-temperature strength due to addition of Mo and is used as heat resistant steel.
SUS316L	Carbon content is lower than that of SUS316 and the grain boundary corrosivity and weldability are improved.

Thrust Reaction Force

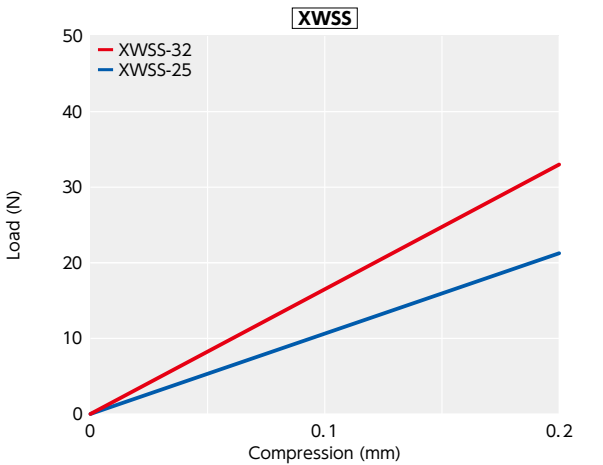


Eccentric Reaction Force



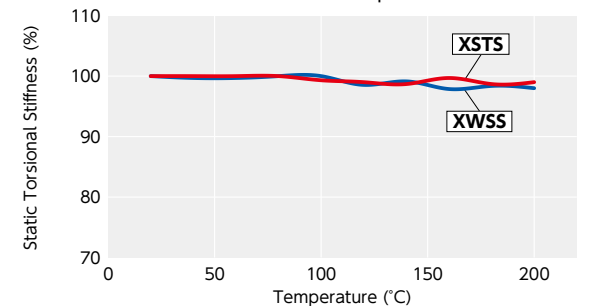
Chemical component

Material code	Chemical components (%)					
	C	Si / Mn / P / S	Ni	Cr	Mo	
SUS304	0.08 or less		8.00-10.50	18.00-20.00	-	
SUS316	0.08 or less	Equivalent	10.00-14.00	16.00-18.00	2.00-3.00	
SUS316L	0.03 or less		12.00-15.00	16.00-18.00	2.00-3.00	

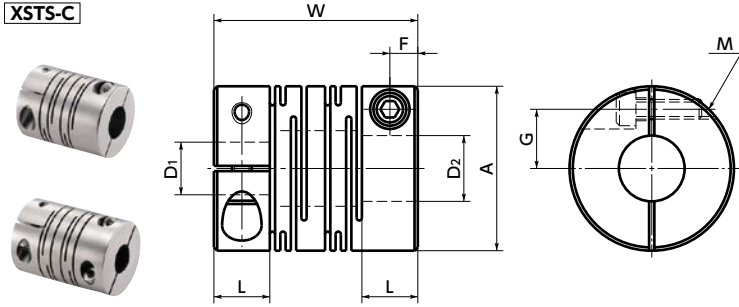


Change in static torsional stiffness due to temperature

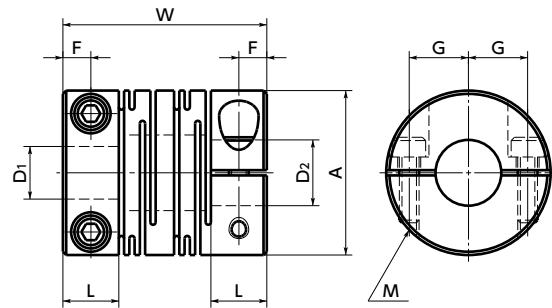
This is a value under the condition where the static torsional stiffness at 20°C is 100%. The change of **XSTS** **XWSS** in torsional stiffness due to temperature is small and the change in responsiveness is extremely small. However, if the unit is used at higher temperature, be careful about misalignment due to elongation or deflection of the shaft associated with thermal expansion.



XSTS-C

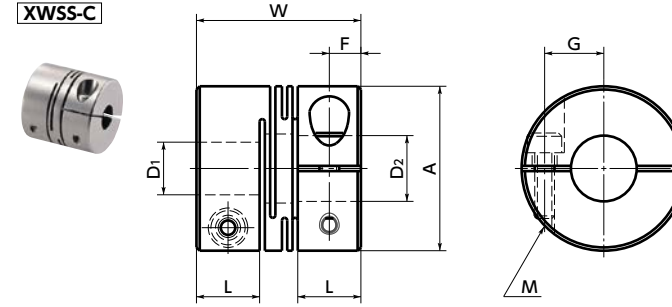


Outside diameter $\phi 25, \phi 32$



Outside diameter $\phi 40 - \phi 63$

XWSS-C



Dimensions

Unit : mm

Part Number	A	L	W	F	G	M	Screw Tightening Torque*1 (N·m)
XSTS-25C	25	8.5	31	4.25	9	M3	1.5
XSTS-32C	32	12	41	6	11	M4	2.5
XSTS-40C	40	17	56	8.5	14	M5	4
XSTS-50C	50	21	71	10.5	18	M6	8
XSTS-63C	63	26	90	13	24	M8	16
XWSS-25C	25	9.6	25	4.8	9	M3	1.5
XWSS-32C	32	12.6	32	6.3	11	M4	2.5

Part Number	Standard Bore Diameter D1 · D2																
	5	6	8	10	11	12	14	15	16	18	19	20	22	24	25	28	30
XSTS-25C	●	●	●	●													
XSTS-32C			●	●	●	●	●										
XSTS-40C			●	●	●	●	●	●	●	●							
XSTS-50C						●	●	●	●	●	●	●	●				
XSTS-63C							●	●	●	●	●	●	●	●	●	●	●
XWSS-25C	●	●	●	●													
XWSS-32C			●	●	●	●	●										

- All products are provided with hex socket head cap screw.
 - Recommended dimensional allowances of applicable shaft diameter are h6 and h7.
 - In case of mounting on D-cut shaft, be careful about the position of the D-cut surface of the shaft. → P.258
- *1 : This is a screw tightening torque when inserting a degreased shaft.

Performance

Part Number	Max. Bore Diameter (mm)	Rated*1 torque (N·m)	Max. Rotational Frequency (min ⁻¹)	Moment*2 of Inertia (kg·m ²)	Static Torsional Stiffness (N·m/rad)	Max. Lateral Misalignment (mm)	Max. Angular Misalignment (°)	Max. Axial Misalignment (mm)	Mass*2 (g)
XSTS-25C	10	2	25000	7.1×10 ⁻⁶	330	0.15	2	±0.4	78
XSTS-32C	14	3.5	19000	2.7×10 ⁻⁵	850	0.15	2	±0.5	170
XSTS-40C	18	8	15000	9.0×10 ⁻⁵	1000	0.2	2	±0.5	370
XSTS-50C	22	15	12000	2.8×10 ⁻⁴	1400	0.2	2	±0.5	750
XSTS-63C	30	35	10000	8.8×10 ⁻⁴	1800	0.2	2	±0.5	1400
XWSS-25C	10	2	25000	6.3×10 ⁻⁶	720		1	±0.2	69
XWSS-32C	14	3.5	19000	2.2×10 ⁻⁵	1300		1	±0.2	150

*1 : Correction of rated torque due to load fluctuation is not required.
 *2 : These are values with max. bore diameter.

- Part number specification

XWSS-25C-8-10

