

Stainless Steel Flexible Coupling Fig. 405



The Figure 405 Flexible Coupling is a Stainless Steel coupling made of ASTM A743/A743M cast stainless steel which is the cast equivalent to 316 Stainless Steel. It is designed for installation on Stainless Steel schedule 10 and 40 pipe and fittings. The stainless steel material is suitable for a variety of aggressive corrosive environments. The Figure 405 flexible coupling can accommodate some angular, rotational and axial pipe movement. It is capable of pressures up to 750 psi (41.4 bar) depending on pipe size and wall thickness.

Material Specifications

Stainless Steel Bolts

Stainless steel bolts are metric track head bolts conforming to ASTM A193M Class 2, Type 316 Grade B8M. Bolts are coated with an anti-galling agent.

Stainless Steel Nuts

Class 2 stainless steel nuts are heavy hex nuts conforming to ASTM A194M, Type 316, Grade 8M.

Material Specifications (continued)

Stainless Steel Housing

Type 316L, ASTM A743/A743M
Standard specification for castings, iron-chromium, iron-chromium-nickel, corrosion resistant; for general application Grade CR-8M.
Tensile strength, minimum 70,000 psi (4826.3 bar).
Yield strength, minimum 30,000 psi (2068.4 bar).
Elongation in 2" (50mm) minimum 30%.

Gasket Materials

Properties as designated in accordance with ASTM D2000

Grade "E" EPDM (Green color code)

-30°F to 230°F (Service Temperature Range)
(-34°C to 110°C)

Recommended for water service, diluted acids, alkalies solutions, oil-free air and many other chemical services.

NOT FOR USE IN PETROLEUM APPLICATIONS.

Grade "T" Nitrile (Orange color code)

-20°F to 180°F (Service Temperature Range)
(-29°C to 82°C)

Recommended for petroleum applications, air with oil vapors and vegetable and mineral oils.

NOT FOR USE IN HOT WATER OR HOT AIR

Grade "O" Fluoro-Elastomer (Blue color code)

20°F to 300°F (Service Temperature Range)
(-7°C to 149°C)

Recommended for high temperature resistance to oxidizing acids, petroleum oils, hydraulic fluids, halogenated hydrocarbons and lubricants.

Gasket Type

Standard C Style (1" - 8")

Flush Gap (1" - 8")

Lubrication

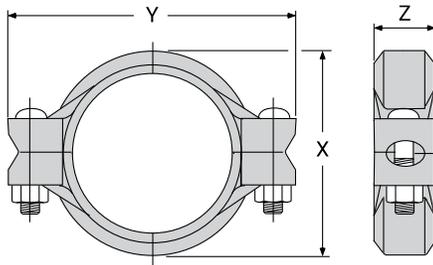
Standard Gruvlok

Gruvlok Xtreme (Do Not use with Grade "L")



PROJECT INFORMATION	APPROVAL STAMP
Project:	Approved
Address:	Approved as noted
Contractor:	Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

Stainless Steel Flexible Coupling Fig. 405



Nominal Size	O.D.	Max. Working Pressure †	Max. End Load †	Max. End Gap*‡	Deflection from ζ		Coupling Dimensions			Coupling Bolts		Approx. Wt. Ea.
					Per Coupling	of Pipe	X	Y	Z	Qty.	Size	
In./DN(mm)	In./mm	PSI/bar	Lbs./kN	In./mm	Deg.(°)-Min (')	In./ft-mm/mm	In./mm	In./mm	In./mm		In./mm	Lbs./kg
1	1.315	750	1.019	0.13	5° 26'	0.90	2.20	3.82	1.81	2	3/8 x 2 1/4	1.5
25	33.4	51.7	4.5	3.3		95.1	56.0	97.0	46.0		M10 x 57	0.6
1 1/4	1.660	750	1.623	0.13	4° 19'	0.90	2.56	4.19	1.81	2	3/8 x 2 1/4	1.5
32	42.4	51.7	7.2	3.3		75.0	65.0	106.4	46.0		M10 x 57	0.7
1 1/2	1.900	750	2.127	0.13	3° 46'	0.79	2.75	4.44	1.81	2	3/8 x 2 1/4	1.6
40	48.3	51.7	9.5	3.3		65.8	69.9	112.8	46.0		M10 x 57	0.7
2	2.375	500	2.215	0.13	3° 1'	0.63	3.25	4.88	1.88	2	3/8 x 2 1/4	1.7
50	60.3	34.5	9.9	3.3		52.5	82.6	124.0	47.8		M10 x 57	0.8
2 1/2	2.875	500	3.246	0.13	2° 29'	0.52	3.69	5.50	1.88	2	3/8 x 2 1/4	2.0
65	73.0	34.5	14.4	3.3		43.3	93.7	139.7	47.8		M10 x 57	0.9
76.1mm	3.000	500	3.534	0.13	2° 23'	0.50	4.00	5.75	1.88	2	—	3.1
65	76.1	34.5	15.7	3.3		41.7	101.6	146.1	47.8		M12 x 76	1.4
3	3.500	500	4.81	0.13	2° 3'	0.43	4.38	6.50	1.88	2	1/2 x 3	3.1
80	88.9	34.5	21.4	3.3		35.8	111.3	165.1	47.8		M12 x 76	1.4
4	4.500	500	7.952	0.25	3° 11'	0.67	5.69	7.75	2.06	2	1/2 x 3	4.0
100	114.3	34.5	35.3	6.4		55.8	144.5	196.9	52.3		M12 x 76	1.8
139.7mm	5.500	450	10.691	0.25	2° 36'	0.55	6.81	9.75	2.06	2	—	7.2
125	139.7	31.0	47.6	6.4		45.5	173.0	247.7	52.3		M16 x 83	3.3
5	5.563	450	10.933	0.25	2° 35'	0.54	6.88	9.75	2.06	2	5/8 x 3 1/4	7.1
125	141.3	31.0	48.7	6.4		45.0	174.8	247.7	52.3		M16 x 83	3.2
6	6.625	450	15.512	0.25	2° 10'	0.45	7.94	10.69	2.06	2	5/8 x 3 1/4	7.1
150	168.3	31.0	69.0	6.4		37.5	201.7	271.5	52.3		M16 x 83	3.2
8	8.625	450	29.261	0.25	1° 40'	0.35	10.19	13.56	2.50	2	3/4 x 4 3/4	14.5
200	219.1	31.0	117	6.4		29.2	258.8	344.4	63.5		M20 x 121	6.6

- Note:**
- * Maximum available gap between pipe ends. Minimum gap = 0.
 - † Maximum Pressure and End Load are total from all loads based on schedule 40 stainless steel pipe. Pressure ratings and end loads may differ for other pipe materials and/or wall thicknesses. Contact an ASC Engineered Solutions™ Sales Representative for details.
 - ‡ Max End Gap and Deflection is for cut grooved standard weight stainless steel pipe. Values for roll grooved pipe will be half that of cut grooved.



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