

FIG. 707

Heavy Duty Flexible Coupling



For Listings/Approval Details and Limitations, visit our website at www.anvilintl.com or contact an Anvil® Sales Representative.

The Figure 707 Heavy Duty Flexible Coupling allows for angular and linear deflection, thermal expansion and contraction, and misalignments of the pipe. Flexible couplings can act as an “expansion joint”, allowing linear and angular movement of the pipes when properly installed. This coupling is capable of pressures up to 1,000 psi (68.9 bar), depending on pipe size and wall thickness.

Suitable for use in a variety of applications, the Figure 707 Coupling provides a dependable method of joining pipe.

NOTE: The listed approvals apply to all of the flexible couplings except the 76.1 mm (DN65) and 20 Inch (DN500) sizes.

MATERIAL SPECIFICATIONS

BOLTS:

SAE J429, Grade 5, Zinc Electroplated
ISO 898-1, Class 8.8, Zinc Electroplated followed by a Yellow Chromate Dip

HEAVY HEX NUTS:

ASTM A563, Grade A, Zinc Electroplated
ISO 898-2, Class 8.8, Zinc Electroplated followed by a Yellow Chromate Dip

STAINLESS STEEL BOLTS & NUTS:

304SS bolts and nuts are available as a standard option.
(316SS are available for special order).

HOUSING:

Ductile Iron conforming to ASTM A 536, Grade 65-45-12

COATINGS:

- ☐ Rust inhibiting paint – Color: ORANGE (standard)
- ☐ Hot Dipped Zinc Galvanized (optional)
- Other Colors Available (IE: RAL3000 and RAL9000)
- For other Coating requirements contact an Anvil Representative.

GASKETS: Materials

Properties as designated in accordance with ASTM D 2000

- ☐ **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, alkalis solutions, oil-free air and many other chemical services.
NOT FOR USE IN PETROLEUM APPLICATIONS.

- ☐ **Tri-Seal Grade “E” EPDM** (Green color code)
-30°F to 230°F (Service Temperature Range)(-34°C to 110°C)
Recommended for use in low temperature and vacuum systems.
- ☐ **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.
- ☐ **Grade “L” Silicone** (Red color code)
-30°F to 350°F (Service Temperature Range)(-34°C to 177°C)
Recommended for dry, hot air and some high temperature chemical services. Contact an Anvil Representative for availability.

LUBRICATION:

- ☐ Standard
- ☐ 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:		

FIG. 707

Heavy Duty Flexible Coupling

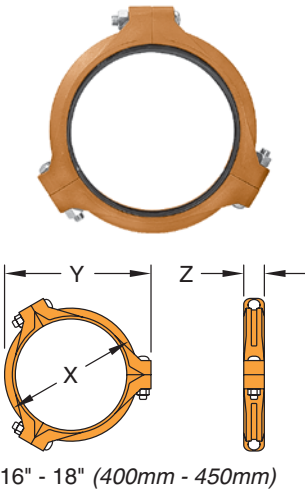
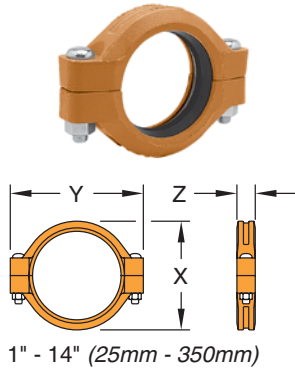


FIGURE 707 HEAVY DUTY FLEXIBLE COUPLING

Nominal Size	O.D.	Max. Working Pressure†	Max. End Load†	Max. End Gap‡	Deflection from C		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	Degrees(°)-Minutes(')	In./ft.-mm/m	In./mm	In./mm	In./mm		In./mm	Lbs./kg
1	1.315	1000	1,360	0.13	5° 26'	1.14	2.38	4.00	1.81	2	3/8 x 2 1/4	2.0
25	33.7	68.9	6.10	3.3		98.4	60.5	101.6	46.0		M10 x 57	0.9
1 1/4	1.660	1000	2,165	0.13	4° 19'	0.90	2.76	4.37	1.81	2	1/2 x 3	2.2
32	42.4	68.9	9.63	3.3		75.0	70.0	111.0	46.0		M12 x 76	1.0
1 1/2	1.900	1000	2,835	0.13	3° 46'	0.79	2.97	4.63	1.81	2	1/2 x 3	2.5
40	48.3	68.9	12.61	3.3		65.8	75.4	117.6	46.0		M12 x 76	1.1
2	2.375	1000	4,430	0.13	3° 1'	0.63	3.54	5.25	1.88	2	1/2 x 3	3.0
50	60.3	68.9	19.71	3.3		52.5	89.9	133.4	47.8		M12 x 76	1.4
2 1/2	2.875	1000	6,492	0.13	2° 29'	0.52	4.06	5.75	1.88	2	1/2 x 3	3.5
65	73.0	68.9	28.88	3.3		43.3	103.1	146.1	47.8		M12 x 76	1.6
76.1mm	3.000	1000	7,069	0.13	2° 23'	0.50	4.19	5.75	1.88	2	—	4.0
65	76.1	68.9	31.44	3.3		41.7	106.4	146.1	47.8		M12 x 76	1.8
3	3.500	1000	9,621	0.13	2° 3'	0.43	4.69	6.38	1.88	2	1/2 x 3	4.0
80	88.9	68.9	42.80	3.3		35.8	119.1	162.1	47.8		M12 x 76	1.8
4	4.500	1000	15,904	0.25	3° 11'	0.67	5.95	8.25	2.06	2	5/8 x 3 1/4	7.0
100	114.3	68.9	70.75	6.4		55.8	151.1	209.6	52.3		M16 x 83	3.2
139.7mm	5.500	1000	23,758	0.25	2° 30'	0.52	7.02	10.00	2.04	2	3/4 x 4 3/4	8.3
125	139.7	68.9	105.6	6.4		45.1	178.3	254.0	51.8		M20 x 121	3.8
5	5.563	1000	24,306	0.25	2° 35'	0.54	7.08	10.00	2.06	2	3/4 x 4 3/4	10.0
125	141.3	68.9	108.12	6.4		45.0	179.8	254.0	52.3		M20 x 121	4.5
165.1mm	6.500	1000	33,183	0.25	2° 12'	0.46	8.19	11.25	2.06	2	—	12.0
150	165.1	68.9	147.61	6.4		38.3	208.0	285.8	52.3		M20 x 121	5.4
6	6.625	1000	34,472	0.25	2° 10'	0.45	8.30	11.25	2.06	2	3/4 x 4 3/4	11.1
150	168.3	68.9	153.34	6.4		37.5	210.8	285.8	52.3		M20 x 121	5.0
8	8.625	800	46,741	0.25	1° 40'	0.35	10.68	14.00	2.47	2	7/8 x 6 1/2	21.4
200	219.1	55.2	207.91	6.4		29.2	271.3	355.6	62.7		M22 x 165	9.7
10	10.750	800	72,610	0.25	1° 20'	0.28	13.06	16.44	2.63	2	1 x 6 1/2	29.0
250	273.0	55.2	322.99	6.4		23.3	331.7	417.6	66.8		M24 x 165	13.2
12	12.750	800	102,141	0.25	1° 7'	0.23	15.39	18.84	2.63	2	1 x 6 1/2	37.0
300	323.9	55.2	454.35	6.4		19.2	390.9	478.5	66.8		M24 x 165	16.8
14	14.000	300	46,181	0.25	1° 2'	0.22	16.67	20.38	2.94	2	1 x 5 1/2•	46.0
350	355.6	20.7	205.43	6.4		18.3	423.4	517.7	74.7		—	20.9
16	16.000	300	60,319	0.25	0° 54'	0.19	18.83	22.64	2.94	3	1 x 5 1/2•	59.0
400	406.4	20.7	268.31	6.4		15.8	478.3	575.1	74.7		—	26.8
18	18.000	300	76,341	0.25	0° 48'	0.17	21.31	25.12	3.06	3	1 x 5 1/2•	78.0
450	457.2	20.7	339.58	6.4		14.2	541.3	638.0	77.7		—	35.4
20	20.000	300	94,248	0.25	0° 43'	0.15	23.47	27.88	3.06	4	1 1/8 x 5 3/4•	89.0
500	508.0	20.7	419.23	6.4		12.5	596.1	708.2	77.7		—	40.4
24	24.000	300	135,717	0.25	0° 36'	0.13	27.58	32.00	3.19	4	1 1/8 x 5 3/4•	112.0
600	609.6	20.7	603.7	6.4		10.8	700.5	812.8	81.0		—	50.8

NOTE:

* Maximum available gap between pipe ends. Minimum gap = 0.

† Maximum Pressure and End Load are total from all loads based on standard weight steel pipe. Pressure ratings and end loads may differ for other pipe materials and/or wall thicknesses. Contact an Anvil Sales Representative for details.

‡ Max End Gap and Deflection is for cut grooved standard weight pipe. Values for roll grooved pipe will be half that of cut grooved.

• Only available in ANSI bolt sizes.

• Sizes are available to JIS standards. Contact an Anvil Sales Representative for details.

For information on larger sizes, European sizes or other alternative sizes, contact an Anvil Sales Representative.