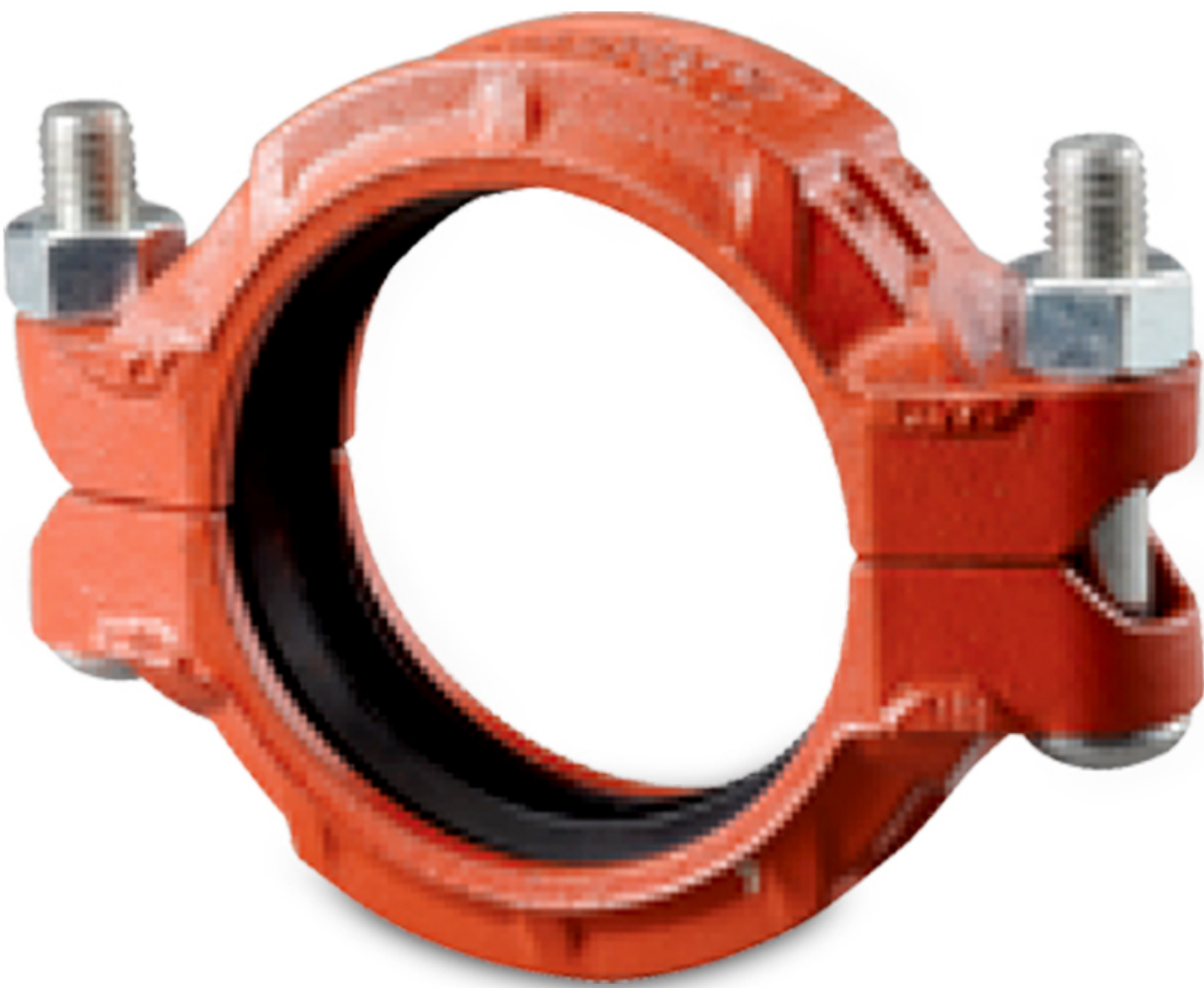


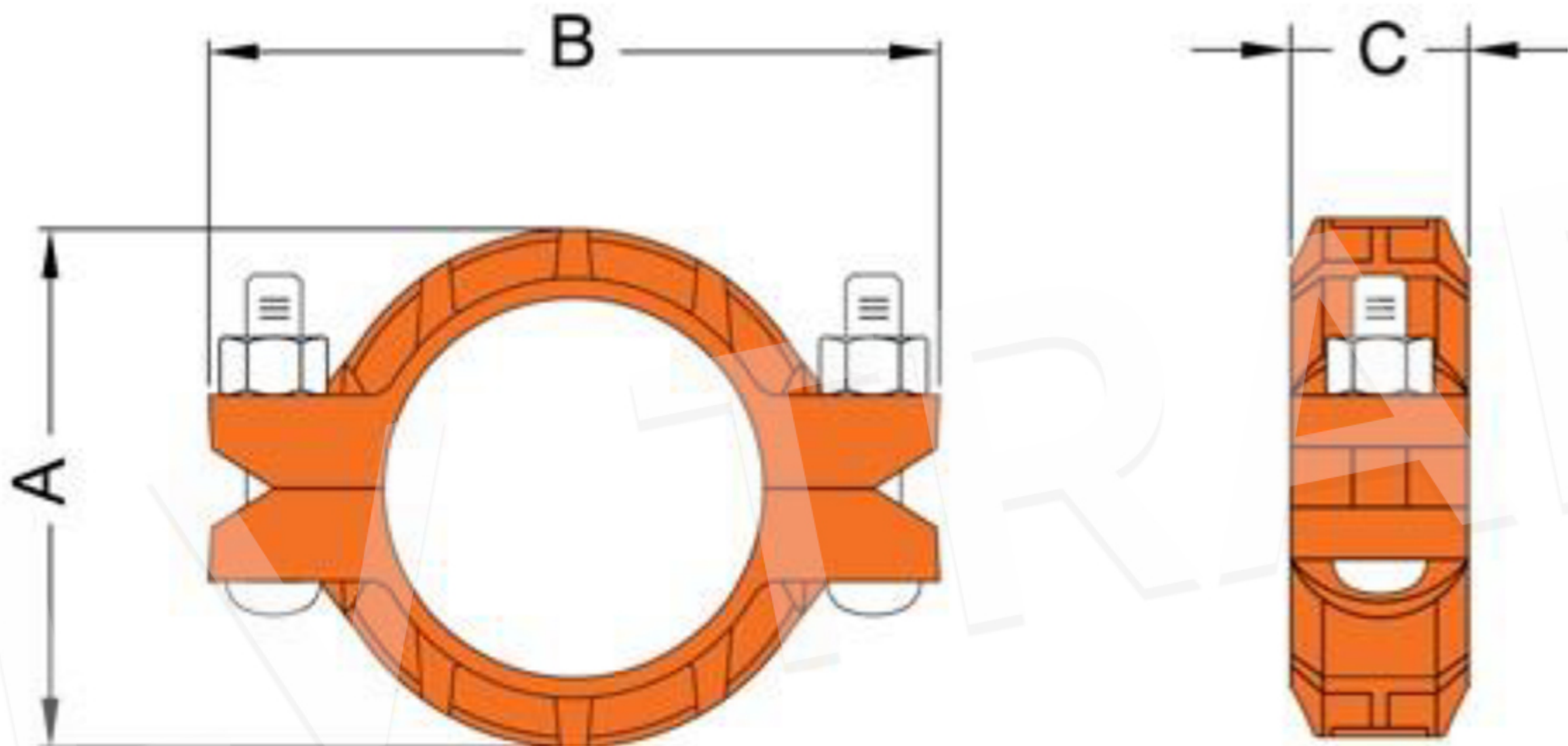
**MODEL 7707 HEAVY DUTY
FLEXIBLE COUPLING**

The Model 7707 Flexible Coupling is designed for use in a variety of general piping applications of moderate or high pressure services. Working pressure is usually dictated by the wall thickness and rating of the pipe being used. The Model 7707 couplings feature flexibility that can accommodate misalignment, distortion, thermal stress, vibration and noise and also resist seismic tremors. The utilization of Model 7707 couplings can accommodate a curved layout. See Typical Applications – Flexible Couplings on **Shurjoint** cutsheet #B-19.

The Model 7707 couplings are comprised of two housing segments, EPDM gaskets and plated track bolts and nuts. Housing segments are supplied with our standard painted finishes, i.e. orange or RAL3000 red. Optional finishes such as hot dipped zinc galvanized and epoxy coatings are also available.



7707 couplings should always be installed so that the coupling bolt pads make metal to metal contact.



Full warranty terms
can be found on
www.shurjoint.com

Model 7707 Heavy Duty Flexible Coupling												
Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max. End Load (CWP)	Angular Movement**†			Dimensions			Bolt		
				Axial Displacement †	Degree Per Coupling	Per Pipe	A	B	C	No.	Size	Weight
in	in	PSI	Lbs	in	(°)	in/ft	in	in	in		in	Lbs
mm	mm	Bar	kN	mm		mm/m	mm	mm	mm		mm	Kgs
¾	1.050	1000	865	0.0625	3° – 23'	0.71	2.13	3.74	1.81	2	¾ x 2 ½	1.3
20	26.7	69	3.79	1.6		58	54	95	46		M10x55	0.6
1	1.315	1000	1360	0.0625	2° – 45'	0.58	2.40	4.02	1.81	2	¾ x 2 ½	1.7
25	33.4	69	6.15	1.6		48	61	102	46		M10x55	0.8
1 ¼	1.660	1000	2160	0.0625	2° – 10'	0.45	2.76	4.45	1.81	2	½ x 3	2.1
32	42.2	69	9.64	1.6		38	70	113	46		M12x75	1.0
1 ½	1.900	1000	2830	0.0625	1° – 54'	0.40	3.00	4.57	1.81	2	½ x 2 ¾	2.1
40	48.3	69	12.64	1.6		33	76	116	46		M12x60	1.0
2	2.375	1000	4430	0.0625	1° – 31'	0.31	3.50	5.35	1.81	2	½ x 3	2.6
50	60.3	69	19.69	1.6		26	90	136	46		M12x75	1.2
2 ½	2.875	1000	6490	0.0625	1° – 15'	0.26	4.00	5.98	1.85	2	½ x 3	2.9
65	73.0	69	28.86	1.6		22	102	152	47		M12x75	1.3
76.1 mm	3.000	1000	7065	0.0625	1° – 12'	0.25	4.06	6.02	1.85	2	½ x 3	2.9
	76.1	69	31.37	1.6		21	103	153	47		M12x75	1.3
3	3.500	1000	9620	0.0625	1° – 02'	0.21	4.88	6.34	1.85	2	½ x 3	3.3
80	88.9	69	42.81	1.6		18	124	161	47		M12x75	1.5
4	4.500	1000	15900	0.1250	1° – 36'	0.33	6.18	8.03	2.05	2	¾ x 3 ½	4.6
100	114.3	69	70.76	3.2		27	157	204	52		M16x90	2.1
139.7 mm	5.500	1000	23750	0.1250	1° – 18'	0.27	7.32	9.41	2.09	2	¾ x 3 ½	6.8
	139.7	69	105.71	3.2		23	186	239	53		M16x90	3.1

Model 7707 Heavy Duty Flexible Coupling

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max. End Load (CWP)	Axial Displacement †	Angular Movement** †		Dimensions			Bolt		Weight
					Degree Per Coupling	Per Pipe	A	B	C	No.	Size	
in mm	in mm	PSI Bar	Lbs kN	in mm	(°)	in/ft mm/m	in mm	in mm	in mm		in mm	Lbs Kgs
5 125	5.563 141.3	1000 69	24295 108.14	0.1250 3.2	1° – 18'	0.27 22	7.32 186	9.65 245	2.09 53	2	5/8 x 3 1/2 M16x90	7.2 3.3
165.1 mm	6.500 165.1	1000 69	33170 147.64	0.1250 3.2	1° – 07'	0.23 19	8.11 211	10.24 260	2.09 53	2	3/4 x 4 3/4 M20x120	7.9 3.6
6 150	6.625 168.3	1000 69	34455 153.42	0.1250 3.2	1° – 05'	0.22 19	8.24 214	10.75 273	2.09 53	2	3/4 x 4 3/4 M20x120	8.1 3.7
8 200	8.625 219.1	800 55	46720 207.26	0.1250 3.2	0° – 50'	0.18 15	10.86 276	13.23 336	2.44 62	2	3/4 x 4 3/4 M20x120	14.5 6.6
10 250	10.750 273.0	800 55	72575 321.78	0.1250 3.2	0° – 40'	0.14 11	13.50 343	16.10 409	2.56 65	2	7/8 x 6 1/2 ---	23.3 10.6
12 300	12.750 323.9	800 55	102090 452.95	0.1250 3.2	0° – 34'	0.12 10	15.35 390	18.50 470	2.60 66	2	7/8 x 6 1/2 ---	26.4 12.0
200 JIS	8.516 216.3	800 55	45545 202.00	0.1250 3.2	0° – 51'	0.18 15	10.86 276	13.03 331	2.36 60	2	3/4 x 4 3/4 M20x120	13.9 6.3
250 JIS	10.528 267.4	800 55	69610 308.71	0.1250 3.2	0° – 41'	0.14 12	13.27 337	15.87 403	2.60 66	2	7/8 x 6 1/2 ---	22.4 10.2
300 JIS	12.539 318.5	800 55	98740 437.98	0.1250 3.2	0° – 35'	0.12 10	15.31 389	18.11 460	2.60 66	2	7/8 x 6 1/2 ---	25.5 11.6

* Working Pressure is based on roll grooved standard wall carbon steel pipe.

† Allowable Axial Displacement and Angular Movement (deflection) figures are for roll grooved standard steel pipe. Values for cut grooved pipe will be double that of roll grooved. These values are maximums; for design and installation purposes these figures should be reduced by: 50% for 3/4" – 3 1/2"; 25% for 4" and larger to compensate for jobsite conditions.

** Deflection or angular movement given is the maximum value that a coupling allows. When using the given maximum angles for a curved layout, proper bracing should be used to counter pressure thrust that will occur when the system is pressurized.

Flexible couplings can be used for angular movement and or thermal expansion, though please note individual coupling(s) cannot be used to their maximums for both types of movement within a system at the same time.

Performance Data

The following tables show the maximum working pressures (CWP) of **Shurjoint** Model 7707 Heavy Duty Flexible Coupling used on both carbon steel and stainless steel pipes. **Shurjoint** ductile iron couplings can be used in conjunction with stainless steel pipe in non-corrosive environment as the flow media does not come in direct contact with the coupling housings but rather only the gasket.

Model 7707 on Carbon Steel Pipe					
Nom. Size	Cut-Grooved		Roll-Grooved		
in / mm	XS PSI / Bar	STD PSI / Bar	STD PSI / Bar	Sch. 10 PSI / Bar	Sch. 7 PSI / Bar
3/4 20	1000 69	1000 69	1000* / 750 69* / 52	750* / 600 52* / 42	500 35
1 25	1000 69	1000 69	1000* / 750 69* / 52	750* / 600 52* / 42	500 35
1 1/4 32	1000 69	1000 69	1000* / 750 69* / 52	750* / 600 52* / 42	500 35
1 1/2 40	1000 69	1000 69	1000* / 750 69* / 52	750* / 600 52* / 42	500 35
2 50	1000 69	1000 69	1000* / 750 69* / 52	750* / 600 52* / 42	500 35
2 1/2 65	1000 69	1000 69	1000* / 750 69* / 52	600 42	500 35
3 80	1000 69	1000 69	1000* / 750 69* / 52	600 42	500 35
4 100	1000 69	1000 69	1000* / 750 69* / 52	600 42	400 28
5 125	1000 69	1000 69	1000* / 750 69* / 52	500 35	350 24
6 150	1000 69	1000 69	1000* / 700 69* / 48	450 31	300 20
8 200	800 55	800 55	800* / 600 55* / 42	350 24	250 17
10 250	800 55	800 55	800* / 550 55* / 38	300 20	200 14
12 300	800 55	800 55	800* / 500 55* / 35	300 20	200 14

Model 7707 on Stainless Steel Pipe					
Nom. Size	Cut-Grooved		Roll-Grooved		
in / mm	Sch. 80S PSI / Bar	Sch. 40S PSI / Bar	Sch. 40S PSI / Bar	Sch. 10S PSI / Bar	Sch. 5S PSI / Bar
3/4 20	750 52	750 52	750 52	500 35	325 22
1 25	750 52	750 52	750 52	500 35	325 22
1 1/4 32	750 52	750 52	750 52	500 35	325 22
1 1/2 40	750 52	750 52	750 52	500 35	325 22
2 50	750 52	750 52	750 52	500 35	325 22
2 1/2 65	750 52	750 52	750 52	500 35	325 22
3 80	750 52	750 52	750 52	500 35	325 22
4 100	750 52	750 52	750 52	500 35	250 17
5 125	750 52	750 52	650 45	500 35	NR
6 150	750 52	750 52	500 35	300 20	NR
8 200	600 42	600 42	450 31	300 20	NR
10 250	600 42	600 42	400 28	125 9	NR
12 300	600 42	600 42	400 28	125 9	NR

Note: * Maximum line pressure, including surge, to which a joint should be subjected.

MATERIAL SPECIFICATIONS

• Housing:

Ductile Iron to ASTM A536, Gr. 65-45-12 and or to ASTM A395, Gr. 65-45-15, min. tensile strength 65,000 psi (448 MPa).

• Surface Finish:

Standard painted finishes in orange or RAL3000 red.

- ☐ Hot dip zinc galvanized (Option).
- ☐ Tailored epoxy coatings including 3M Scotchkote #134 for waste water, hydrocarbons, harsh chemicals and sea water services, Drynamels #4900 for exterior (outdoor) architectural applications and others (Option).

For additional details contact **Shurjoint**.

• Rubber Gasket:

Grade E-pw EPDM (Color code: Double Green stripe) approved under NSF/ANSI 61 and NSF/ANSI 372 for potable water service to +180°F (+82°C). Also good for services for water with acid, water with chlorine or chloramines, deionized water, seawater and waste water, dilute acids, oil-free air and many chemicals.

Not recommended for petroleum oils, minerals oils, solvents and aromatic hydrocarbons.

Maximum Temperature Range: -30°F (-34°C) to +230°F (+110°C)*.

*EPDM seat for water services are not recommended for steam services unless valves or components are accessible for frequent replacement.

- ☐ (Option) **Grade “E” EPDM** (Color code: Green stripe) Good for cold & hot water up to +230°F (+110°C). Also good for services for water with acid, water with chlorine, deionized water, seawater and waste water, dilute acids, oil-free air and many chemicals. **Not recommended for petroleum oils, minerals oils, solvents and aromatic hydrocarbons.** Maximum Temperature Range: -30°F (-34°C) to +230°F (+110°C)*. *EPDM seat for water services are not recommended for steam services unless valves or components are accessible for frequent replacement

- ☐ (Option) **Grade “E” EPDM** (Color code: Green stripe) Good for cold & hot water up to +230°F (+110°C). Also good for services for water with acid, water with chlorine, deionized water, seawater and waste water, dilute acids, oil-free air and many chemicals. **Not recommended for petroleum oils, minerals oils, solvents and aromatic hydrocarbons.** Maximum Temperature Range: -30°F (-34°C) to +230°F (+110°C)*. *EPDM seat for water services are not recommended for steam services unless valves or components are accessible for frequent replacement

• Bolts & Nuts:

Heat treated carbon manganese steel track bolts to ASTM A449-83a (or A183 Gr. 2), minimum tensile strength 110,000 psi (758 MPa), Zinc electroplated, with heavy-duty hexagonal nuts to ASTM A563. Plain washers are always supplied for epoxy coated couplings.

- ☐ Type 304 or 316 track bolts with heavy duty nuts (Option)

General Notes:

- **Maximum Working Pressure (CWP)** listed is the maximum cold water pressure for general piping services tested to ASTM F1476 and or AWWA C606 methods. Figures listed are based on roll- or cut-grooved standard wall carbon steel pipe. For other pipe schedules or pipe materials, contact **Shurjoint** for additional information.
- **Max. End Load** is calculated based on the maximum working pressure (CWP).
- **Listed and or Approved Pressures** are pressure ratings for fire protection systems, tested and approved by various approval bodies. Please always refer to the latest approval data posted on the **Shurjoint** website.
- **Field Joint Test:** For one time only the system may be tested hydrostatically at 1½ times the maximum working pressure listed (AWWA C606 5.2.3).
- **Warning:** Piping systems must always be depressurized and drained before attempting disassembly and or removal of any components.
- **The 10 Year Limited Warranty** applies to manufacturing defects only and does not cover severe service/temperature applications or wear parts.
- **Shurjoint** reserves the right to change specifications, designs and or standard without notice and without incurring any obligations.