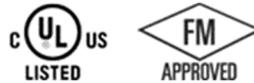


## 7707 HEAVY DUTY FLEXIBLE COUPLING



For pressure rating, listing, and approval information, refer to data sheet or visit SHURJOINT website [www.shurjoint.com](http://www.shurjoint.com) for details or contact your SHURJOINT representatives.

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.

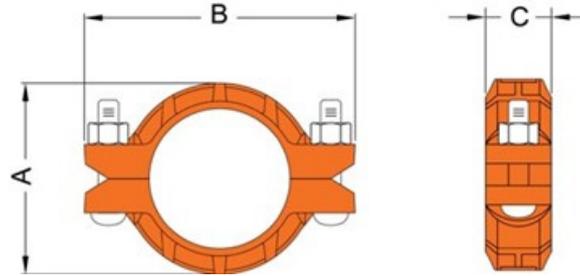


7707 couplings should always be installed so that the coupling bolt pads make metal to metal contact.

### material specification

- **Housing:**  
Ductile Iron to ASTM A536, Gr. 65-45-12, min. tensile strength 65,000 psi (448 MPa).
- **Surface Finish:**  
Standard painted finishes in orange or RAL3000 red.
  - Hot dip zinc galvanized (optional).
 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.
  - Other options: Grade "E" - EPDM  
Grade "T" - Nitrile  
Grade "O" - Fluoroelastomer.  
Grade "L" - Silicone.
 For additional details contact Shurjoint.
- **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).



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	
					Deg. Per Coupling	Per Pipe	A	B	C	No.	Size		
in	in	psi	lbf	in			in/ft	in	in	in		in	lbs
mm	mm	bar	kN	mm	(°)		mm/m	mm	mm	mm		mm	kg
¾	1.050	1000	865	0.0625	3° - 23'		0.71	2.13	3.74	1.81	2	¾ x 2½	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 2½	1.7
25	33.4	69	6.15	1.6		48	61	102	46	M10x55		0.8	
1¼	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	
1½	1.900	1000	2830	0.0625	1° - 54'		0.40	3.00	4.57	1.81	2	½ x 2¾	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	
2½	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	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 3½	4.6
100	114.3	69	70.76	3.2		27	157	204	52	M16x90		2.1	
139.7	5.500	1000	23750	0.1250	1° - 18'		0.27	7.32	9.41	2.09	2	¾ x 3½	6.8
	139.7	69	105.71	3.2		23	186	239	53	M16x90		3.1	

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**Model 7707 Heavy Duty Flexible Coupling**

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

\*\*\* Data for 5", 8", 10", and 12" 7707 couplings sold in North America, please refer to the [Shurjoint 7707A datasheet](#). Data showing in this table above is for 7707 models sold in EMEA and APAC territories

General note

- 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 1 1/2 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.