

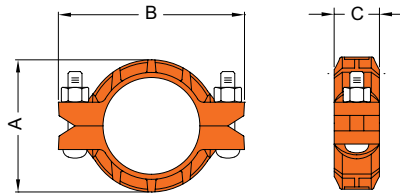
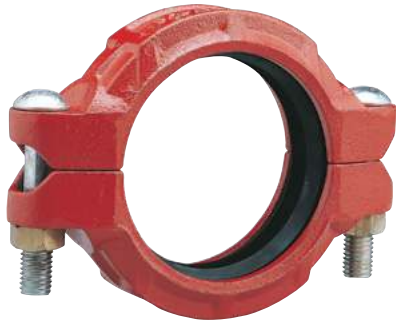


# SHURJOINT®

submittal sheet

## 7707

heavy duty flexible coupling



ensure coupling bolt pads make metal-to-metal contact.

job name:	
job location:	
engineer:	
contractor:	
tag:	
po#:	
rep:	
wholesale dist.:	

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 orange paint finish. optional finishes such as hot dipped zinc galvanized and epoxy coatings are also available.

for fire protection pressure rating, listing, and approval information, refer to data sheet B-42 or visit [www.shurjoint.com](http://www.shurjoint.com) for details or contact Shurjoint.

### dimensions

NOMINAL SIZE	PIPE O.D.	MAX. WORKING PRESSURE (CWP*)	MAX. END LOAD (CWP)	AXIAL DISPLACEMENT †	ANGULAR MOVEMENT** †		DIMENSIONS			BOLT SIZE		WEIGHT
					DEGREE PER COUPLING	PER PIPE	A	B	C	NO.	SIZE	
in	in	PSI	lb	in	(°)	in / ft	in	in	in		in	lb
mm	mm	Bar	kN	mm		mm / m	mm	mm	mm		mm	kg
3/4*	1.050	1000	865	0.0625	3° - 23'	0.71	2.13	3.74	1.81	2	3/8 x 2-1/8	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	3/8 x 2-1/8	1.7
25	33.4	69	6.15	1.6		48	61	102	46		M10x55	0.8
1-1/4	1.660	1000	2160	0.0625	2° - 10'	0.45	2.76	4.45	1.81	2	1/2 x 3	2.1
32	42.2	69	9.64	1.6		38	70	113	46		M12x75	1.0
1-1/2	1.900	1000	2830	0.0625	1° - 54'	0.40	3.00	4.57	1.81	2	1/2 x 2-3/8	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	1/2 x 3	2.6
50	60.3	69	19.69	1.6		26	90	136	46		M12x75	1.2
2-1/2	2.875	1000	6490	0.0625	1° - 15'	0.26	4.00	5.98	1.85	2	1/2 x 3	2.9
65	73.0	69	28.86	1.6		22	102	152	47		M12x75	1.3
3	3.500	1000	9620	0.0625	1° - 02'	0.21	4.88	6.34	1.85	2	1/2 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	5/8 x 3-1/2	4.6
100	114.3	69	70.76	3.2		27	157	204	52		M16x90	2.1
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
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

\* 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.



### material specifications

#### housing:

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

#### surface finish:

- standard painted finishes in orange.
- hot dip zinc galvanized (option).
- optional epoxy coatings available.

#### rubber gasket:

##### grade "E-pw" EPDM (color code: double green stripe)

- good for cold & hot water up to +230°F (+110°C). also good for services for water with acid, water with chlorine, chloramine, deionized water, seawater and waste water, dilute acids, oil-free air and many chemicals.
- good for cold +86°F (+30°C) and hot +180°F (+82°C) potable water services. EPDM is UL classified per NSF/ANSI 61 & NSF/ANSI 372.
- not recommended for petroleum oils, minerals oils, solvents and aromatic hydrocarbons.**
- maximum temperature range: -30°F (-34°C) to +230°F (+110°C).

\*EPDM gaskets for water services are not recommended for steam services.

##### (option) grade "T" nitrile (color code: orange stripe)

- recommended for petroleum products, air with oil vapors, vegetable and mineral oils.
- hot dip zinc galvanized (Optional). temperature range: -20°F to +180°F (-29°C to +82°C)
- do not use for hot water above +150°F (+66°C) or hot dry air above +140°F (+60°C).**

#### other options

##### 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)

### 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.

#### carbon steel pipe

NOM. SIZE	CUT-GROOVED		ROLL-GROOVED		
	XS	STD	STD	SCH. 10	SCH. 5
in	psi	psi	psi	psi	psi
mm	Bar	Bar	Bar	Bar	Bar
3/4	1000	1000	1000* / 750	750* / 600	325
20	69	69	69* / 52	52* / 42	22
1	1000	1000	1000* / 750	750* / 600	325
25	69	69	69* / 52	52* / 42	22
1-1/4	1000	1000	1000* / 750	750* / 600	325
32	69	69	69* / 52	52* / 42	22
1-1/2	1000	1000	1000* / 750	750* / 600	325
40	69	69	69* / 52	52* / 42	22
2	1000	1000	1000* / 750	750* / 600	325
50	69	69	69* / 52	52* / 42	22
2-1/2	1000	1000	1000* / 750	600	325
65	69	69	69* / 52	42	22
3	1000	1000	1000* / 750	600	325
80	69	69	69* / 52	42	22
4	1000	1000	1000* / 750	600	250
100	69	69	69* / 52	42	17
5	1000	1000	1000* / 750	500	NR
125	69	69	69* / 52	35	
6	1000	1000	1000* / 700	450	NR
150	69	69	69* / 48	31	
8	800	800	800* / 600	350	NR
200	55	55	55* / 42	24	
10	800	800	800* / 550	300	NR
250	55	55	55* / 38	20	
12	800	800	800* / 500	300	NR
300	55	55	55* / 35	20	

note: \*maximum line pressure, including surge, to which a joint should be subjected.

#### stainless steel pipe

NOM. SIZE	CUT-GROOVED		ROLL-GROOVED		
	SCH. 80S	SCH. 40S	SCH. 40S	SCH. 10S	SCH. 5S
in	psi	psi	psi	psi	psi
mm	Bar	Bar	Bar	Bar	Bar
3/4	750	750	750	500	325
20	52	52	52	34	22
1	750	750	750	500	325
25	52	52	52	34	22
1-1/4	750	750	750	500	325
32	52	52	52	34	22
1-1/2	750	750	750	500	325
40	52	52	52	34	22
2	750	750	750	500	325
50	52	52	52	34	22
2-1/2	750	750	750	500	325
65	52	52	52	34	22
3	750	750	750	500	325
80	52	52	52	34	22
4	750	750	750	500	250
100	52	52	52	34	17
5	750	750	650	500	NR
125	52	52	45	34	
6	750	750	500	300	NR
150	52	52	34	21	
8	600	600	450	150	NR
200	42	42	31	10	
10	600	600	400	125	NR
250	42	42	28	9	
12	600	600	400	125	NR
300	42	42	28	9	

**listings/approvals**

the information provided below is based on the latest listing and approval data at the time of publication. listings/approvals are subject to change and/or additions by the approvals agencies. contact Shurjoint for the performance on other pipes and the latest listings and approvals

UL / CUL				
NOM. SIZE	SCH 40	SCH 10	DF	BS13 87(M)
in	psi	psi	psi	psi
mm	Bar	Bar	Bar	Bar
¾	500	500		
20	35	35	NA	NA
1	500	500		
25	35	35	NA	NA
1-1/4	500	500		
32	35	35	NA	NA
1-1/2			450	
40	NA	NA	31	NA
2	500	450		
50	35	31	NA	NA
2-1/2	500	450		
65	35	31	NA	NA
76.1 mm				500
65	NA	NA	NA	35
3	500	450		
80	35	31	NA	NA
4	500	450	450	
100	35	31	31	NA
139.7 mm				500
125	NA	NA	NA	35
5	500	450		
125	35	31	NA	NA
165.1 mm				500
150	NA	NA	NA	35
6	500	450		
150	35	31	NA	NA
8	500	450		
200	35	31	NA	NA
10	300	+300		
250	20	+20	NA	NA
12	300	+300		
300	20	+20	NA	NA

\*0.188 wall pipe

FM				
NOM. SIZE	SCH 40	SCH 30	SCH 10	1387 (M/H)
in	psi	psi	psi	psi
mm	Bar	Bar	Bar	Bar
1-1/2	500			
40	35	NA	NA	NA
2	500	450	450	
50	35	31	31	NA
2-1/2	500	450	450	
65	35	31	31	NA
76.1 mm				500
65	NA	NA	NA	35
3	500	450	450	
80	35	31	31	NA
4	500	450	450	
100	35	31	31	NA
139.7 mm				500
125	NA	NA	NA	35
5	500	450	450	
125	35	31	31	NA
165.1 mm				500
150	NA	NA	NA	35
6	500	450	450	
150	35	31	31	NA
8	500	450	+450	
200	35	31	+31	NA
10	500	450	+450	
250	35	31	+31	NA
12	300	300	+300	
300	20	20	+20	NA

\* also 0.188" wall  
 † also 0.250 wall

**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 1.5 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.