



SHURJOINT®

submittal sheet

7707N

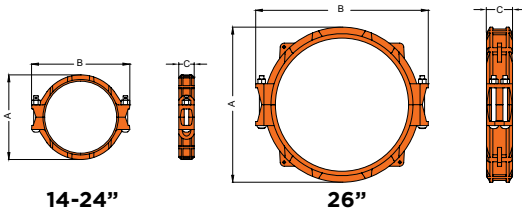
heavy duty flexible coupling



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



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



the model 7707N heavy duty flexible coupling is designed for use in a variety of general piping applications of moderate or high pressure services. the model 7707N couplings feature flexibility that can deal with misalignment, distortion, thermal stress, vibration and noise and also resist seismic tremors. with the use of model 7707N couplings you can even design a curved layout. see typical application - flexible couplings on Shurjoint data sheet #B-19.

the model 7707N couplings sizes 14" - 26" (350 mm - 650 mm) are comprised of two identical ductile iron housing segments, an EPDM rubber gasket and one or two bolts at each segment joint to ensure a positive connection and seal.

dimensions

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	in	PSI	lb	in	(°)	in / ft	in	in	in		in	lb
mm	mm	Bar	kN	mm		mm / m	mm	mm	mm			kg
14	14.00	300	46150	0.125	0° - 31'	0.06	16.23	19.80	2.95	2	7/8 x 6-1/2	34.5
350	355.6	20	198.53	3.2		4.5	412.0	503.0	75.0			15.7
16	16.00	300	60280	0.125	0° - 27'	0.05	18.23	21.85	2.95	2	1 x 6-1/2	37.0
400	406.4	20	259.30	3.2		4.0	463.0	555.0	75.0			16.8
18	18.00	300	76300	0.125	0° - 24'	0.04	20.45	24.06	3.11	2	1 x 6-1/2	47.1
450	457.2	20	327.89	3.2		3.5	520.0	611.0	79.0			22.3
20	20.00	300	94200	0.125	0° - 22'	0.04	22.48	26.38	3.11	2	1 x 6-1/2	54.4
500	508.0	20	405.16	3.2		3.0	571.0	670.0	79.0			24.7
22	22.00	300	113980	0.125	0° - 19'	0.04	24.46	30.16	3.11	2	1-1/8 x 6-1/2	63.0
550	558.8	20	490.60	3.2		3.0	621.4	766.0	79.0			28.6
24	24.00	300	135640	0.125	0° - 18'	0.03	26.55	30.43	3.11	2	1-1/8 x 6-1/2	65.1
600	609.6	20	584.20	3.2		2.5	674.0	773.0	79.0			29.5
26	26.00	300	159190	0.125	0° - 17'	0.03	29.68	33.15	4.94	4	7/8 x 9-5/8	143.0
650	660.4	20	684.72	3.2		2.5	754.0	842.0	125.6			65.0

* 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.

performance data

the following tables show the maximum working pressures (CWP) of Shurjoint model 7707N heavy duty flexible coupling used on roll-grooved carbon steel pipes.

carbon steel pipe

NOM. SIZE	CUT-GROOVED	ROLL-GROOVED	
	XS (0.500")	STD (0.375")	SCH. 20 (0.312")
in	psi	psi	psi
mm	Bar	Bar	Bar
14	300	300	250
350	20	20	17
16	300	300	250
400	20	20	17
18	300	300	250
450	20	20	17
20	300	300	NA
500	20	20	NA
22	300	300	NA
550	20	20	NA
24	300	300	NA
600	20	20	NA
26	300	300	NA
650	20	20	NA

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		FM		
NOM. SIZE	STD (0.375")	NOM. SIZE	SCH 40 CUT GROOVE	SCH 30 CUT GROOVE
in	psi	in	psi	psi
mm	Bar	mm	Bar	Bar
14	300	14	175	175
350	20	350	12	12
16	300	16	175	175
400	20	400	12	12
18	250	18	175	175
450	17	450	12	12
20	250	20	175	175
500	17	500	12	12
22	NA	22	175	175
550	NA	550	12	12
24	250	24	250	250
600	17	600	17	17
26	NA	26	NA	NA
650	NA	650	NA	NA

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 orange paint finish.
- 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.
- Ggood 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)

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.