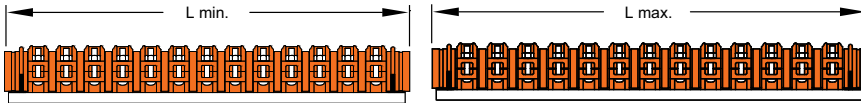




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The Model 651 Expansion Joint is a combination of couplings and specially machined pipe nipples that are joined in a series to accommodate the expansion and contraction of a piping system. The nipples are precisely grooved to provide full linear allowance at each joint. Standard units are comprised of either Model 7705 or Model 7707 flexible couplings and cut-grooved Sch. 40 pipe nipples. The end pieces are supplied grooved-ends to ANSI/AWWA C606 requirements for use with grooved mechanical couplings. Customized units are also available. The components are epoxy coated (RAL3000 red) for ease of use and longer life.

Shurjoint Model 651 Expansion Joints are designed only for use on straight pipe runs and should not be used on risers, and require independent support to prevent deflection which will reduce the available expansion. More detailed design and installation information can be found on [www.shurjoint.com](http://www.shurjoint.com) or the Shurjoint Installation Instructions sheet II/650N-651/O.

**DIMENSIONS**

NOMINAL SIZE	PIPE O.D.	COUPLINGS (STANDARD UNITS) <sup>1</sup>	MAX. WORKING PRESSURE (CWP)*	MAX. MOVEMENT	L - (REF.) §		WEIGHT
					MIN. (COMPRESSED)	MAX. (EXPANDED)	
in	in	Model No.	PSI	in	in	in	lb
mm	mm	No.	Bar	mm	mm	mm	kg
1-1/2	1.900	7705 or 7707	350	2.91	28.25	31.18	24.2
40	48.3	10	24	74	718	792	11.0
2	2.375	7705 or 7707	350	3.11	28.25	31.38	27.0
50	60.3	10	24	79	718	797	12.2
2-1/2	2.875	7705 or 7707	350	3.11	28.25	31.38	36.0
65	73.0	10	24	79	718	797	16.3
76.1 mm	3.000	7705 or 7707	350	3.11	28.25	31.38	36.0
	76.1	10	24	79	718	797	16.3
3	3.500	7705 or 7707	350	3.11	28.25	31.38	46.0
80	88.9	10	24	79	718	797	20.9
4	4.500	7705 or 7707	350	2.09	26.50	28.58	36.5
100	114.3	7	24	53	673	726	16.6
133.0 mm	5.250	7705 or 7707	350	2.09	26.50	28.58	72.0
	133.0	7	24	53	673	726	32.7
165.1 mm	6.500	7705 or 7707	350	2.09	26.26	28.35	58.1
	165.1	7	24	53	667	720	26.4
6	6.625	7705 or 7707	350	2.09	26.26	28.35	91.1
150	168.3	7	24	53	667	720	41.4
8	8.625	7705 or 7707	350	1.93	28.50	30.43	159.7
200	219.1	7	24	49	724	773	72.6
10	10.750	7705 or 7707	350	3.46	33.03	36.46	257.2
250	273.0	7	24	88	839	926	116.9
12	12.750	7705 or 7707	350	3.19	33.31	36.46	373.0
300	323.9	7	24	81	846	926	169.3

<sup>1</sup>For Performance Data refer to C-01 for Model 7705 and C-02 for Model 7707.  
 Note: Available with greater or less movement by adding or eliminating couplings and nipple units.  
 L - (ref.) § Length dimensions may vary slightly due to tolerances  
 \*Working pressure is based on connection with roll- or cut-grooved standard wall carbon steel pipe.

## 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)

### NIPPLES:

- Carbon steel pipe Sch. 40 to ASTM A53.

### END PIECES:

- Carbon steel pipe Sch. 40 to ASTM A53.

### SURFACE FINISH:

- Housing, sleeve and end pieces are all epoxy coated in red RAL 3000.

## RUBBER GASKET:

### 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 gaskets for water services are not recommended for steam.

### (Option) Grade "T" Nitrile (Color code: Orange stripe)

- Recommended for petroleum products, air with oil vapors, vegetable and mineral oils.
- 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

- Potable water use Grade "E" gaskets.
- For additional details contact Shurjoint.

## 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).
- 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.