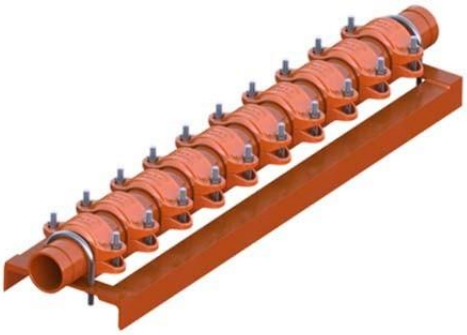
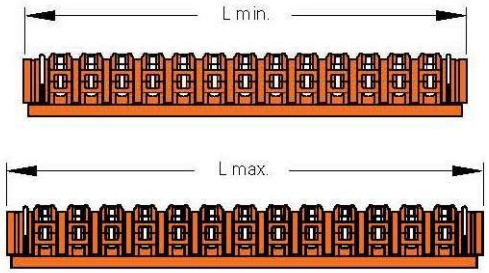
MODEL 651 EXPANSION JOINT

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 or the Shurjoint Installation Instructions sheet II/650N-651/0.



Model 651 Expansion Joint

Nominal Size	Pipe O.D.	Couplings (Standard Units†)	Max. Working Pressure (CWP)*	Max. Movement	L - (ref.) § Min. (Compressed)	L - (ref.) § Max. (Expanded)	Weight
in *mm*	in *mm*	Model No. *No.*	PSI *Bar*	in *mm*	in *mm*	in *mm*	Lbs *Kgs*
1½ *40*	1.900 *48.3*	7705 or 7707 *10*	350 *24*	2.91 *74*	28.25 *718*	31.18 *792*	24.2 *11.0*
2 *50*	2.375 *60.3*	7705 or 7707 *10*	350 *24*	3.11 *79*	28.25 *718*	31.38 *797*	27.0 *12.2*
2½ *65*	2.875 *73.0*	7705 or 7707 *10*	350 *24*	3.11 *79*	28.25 *718*	31.38 *797*	36.0 *16.3*
76.1 mm	3.000 *76.1*	7705 or 7707 *10*	350 *24*	3.11 *79*	28.25 *718*	31.38 *797*	36.0 *16.3*
3 *80*	3.500 *88.9*	7705 or 7707 *10*	350 *24*	3.11 *79*	28.25 *718*	31.38 *797*	46.0 *20.9*
4 *100*	4.500 *114.3*	7705 or 7707 *7*	350 *24*	2.09 *53*	26.50 *673*	28.58 *726*	36.5 *16.6*
133.0 mm	5.250 *133.0*	7705 or 7707 *7*	350 *24*	2.09 *53*	26.50 *673*	28.58 *726*	72.0 *32.7*
165.1 mm	6.500 *165.1*	7705 or 7707 *7*	350 *24*	2.09 *53*	26.26 *667*	28.35 *720*	58.1 *26.4*
6 *150*	6.625 *168.3*	7705 or 7707 *7*	350 *24*	2.09 *53*	26.26 *667*	28.35 *720*	91.1 *41.4*
8 *200*	8.625 *219.1*	7705 or 7707 *7*	350 *24*	1.93 *49*	28.50 *724*	30.43 *773*	159.7 *72.6*
10 *250*	10.750 *273.0*	7705 or 7707 *7*	350 *24*	3.46 *88*	33.03 *839*	36.46 *926*	257.2 *116.9*
12 *300*	12.750 *323.9*	7705 or 7707 *7*	350 *24*	3.19 *81*	33.31 *846*	36.46 *926*	373.0 *169.3*

† 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 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 gaskets for water services are not recommended for steam services unless couplings or components are accessible for frequent gasket replacement.

☐ **Grade "T" Nitrile** (Color code: Orange stripe) (Option) Recommended for petroleum products, vegetable oils, mineral oils and air with oil vapors. Temperature range: -20°F to +180°F (-29°C to +82°C). Also good for water services under +150°F (+66°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" Fluoro-Elastomer, Grade "L" Silicone, Potable water use Grade "E" gaskets, etc. are also available upon request.

• 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.

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.
- ***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 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.

__Shurjoint__ product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact __Shurjoint__ Technical Service. __Shurjoint__ reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligations to make such changes and modifications on __Shurjoint__ products previously subsequently sold.