

## Style 1501 & 1502 “Ultra-Spool” Rubber Expansion Joints



**Style 1501 Single-Arch and Style 1502 Double-Arch** rubber expansion joints are built for demanding applications and excessive pipe movements.

**Unisource Ultra-Spool** expansion joints are the ultimate in hand-built construction. Made with premium-grade elastomers, Ultra-Spool will provide long service life with dependable elastomer properties. These products are designed around a wide-arch, which provides several times the movement capabilities of the industry-standard narrow-arch design. High-pressure rated with a 4:1 safety factor, and built with solid steel body rings near the arches to provide a full 30 In. Hg vacuum rating—the best in the industry. Wire and fabric reinforcing provide pressure resistance. Flanges are full-face duck & rubber. Standard drilling is 150# ANSI, but are also available in 300# ANSI, Navy drilling, or non-drilled.

**Style 1501 & 1502** expansion joints can be constructed in a variety of elastomers and configurations. Special face-to-face lengths can be made to order. For greater motion requirements, Style 1503 Triple Arch, or Style 1504 4-Arch can be offered.

Inherent flexibility is never an afterthought with **Series 1500** expansion joints. Axial movement ratings range from 1-3/4” to 2-1/4” per arch, depending on size, and lateral movements ranging from 1” to 1-1/2” per arch, also depending on size.

**Style 1501 and 1502** expansion joints are ideal for many severe service industrial applications such as water & waste treatment, power generation, pulp & paper, chemical handling, mine processing, and marine. Spool type expansion joints should always be installed using split steel retaining rings. Control units are always required in unanchored piping systems and are recommended in all other pressure applications as a back-up safety device in the event of anchor failure.

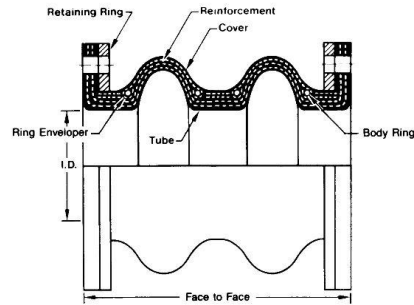
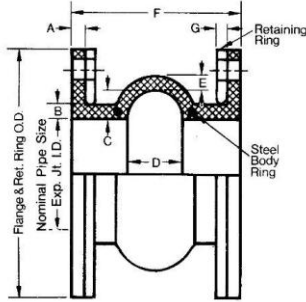
### Materials & Temperatures:

Style Number	Cover Elastomer	Tube Elastomer	Max. Operating Temp
1501EE or 1502EE	EPDM	EPDM	250°F (121°C) <sup>1</sup>
1501BB or 1502BB	Chlorobutyl	Chlorobutyl	250°F (121°C) <sup>1</sup>
1501NN or 1502NN	Neoprene	Neoprene	225°F (107°C)
1501NP or 1502NP	Neoprene	Nitrile	212°F (100°C)
1501NR or 1502NR	Neoprene	Natural Rubber	180°F (82°C)
1501VN or 1502VN	Neoprene	Viton	225°F (107°C)
1501VV or 1502VV	Viton	Viton	250°F (121°C) <sup>2</sup>
1501FD or 1502FD	EPDM	FDA Black EPDM	250°F (121°C)
1501FW or 1502FW	White FDA EPDM	White FDA EPDM	250°F (121°C)

1) Rated 300°F (149°C) for blower service.

2) Viton tube and cover with Kevlar reinforcing is rated for 400°F (205°C).

# Style 1501 Single-Arch & Style 1502 Double Arch



## STYLE 1501 SINGLE ARCH – SIZES, MOVEMENTS, PRESSURE RATINGS, WEIGHTS

Size (I.D.) (In.)	F/F (In.)	Allowable Movements From Neutral Face-to-Face (In.)				Effective Area (Sq. In.)	Pressure Ratings <sup>3</sup>		Weights		
		Axial Comp	Axial Ext	Lateral Deflection	Angular Rotation		Positive (PSIG)	Vacuum (in. Hg.)	Exp Jt.	Ret Rings	Control Rods <sup>4</sup>
2	6	1.75	.75	.75	15 Deg	12.4	225	30	4	4	7
3	6	1.75	.75	.75	15 Deg	19.4	225	30	5.5	6	7
4	6	1.75	.75	.75	15 Deg	27.9	225	30	8	7.5	8
6	6	1.75	.75	1	13 Deg	49.9	225	30	11	9	9
8	6	1.75	.75	1	10 Deg	78.0	225	30	15	12	12
10	8	1.75	.75	1	9 Deg	120	225	30	23	16	16
12	8	1.75	.75	1	8 Deg	162	225	30	34	22	16
14	8	1.75	.75	1	7 Deg	210	225	30	40	25	20
16	8	1.75	.75	1	6 Deg	265	160	30	47	27	20
20	8	1.75	.75	1	6 Deg	393	130	30	67	35	21
24	10	1.75	1	1	5 Deg	562	130	30	79	46	32
26	10	1.75	1	1	4 Deg	649	110	30	100	50	32
30	10	1.75	1	1	4 Deg	842	95	30	117	58	32
36	10	2.25	1	1	3 Deg	1179	90	30	143	99	43
42	12	2.25	1	1	3 Deg	1628	90	30	193	110	44

## STYLE 1502 DOUBLE ARCH – SIZES, MOVEMENTS, PRESSURE RATINGS, WEIGHTS

Size (I.D.) (In.)	F/F (In.)	Allowable Movements From Neutral Face-to-Face (In.)				Effective Area (Sq. In.)	Pressure Ratings <sup>3</sup>		Weights		
		Axial Comp	Axial Ext	Lateral Deflection	Angular Rotation		Positive (PSIG)	Vacuum (in. Hg.)	Exp Jt.	Ret Rings	Control Rods <sup>4</sup>
2	10	3.50	1.50	1.50	78 Deg	12.4	225	30	13	4	7
3	10	3.50	1.50	1.50	56 Deg	19.4	225	30	18	6	7
4	10	3.50	1.50	1.50	44 Deg	27.9	225	30	22	7.5	8
6	10	3.50	1.50	2	30 Deg	49.9	225	30	30	9	9
8	10	3.50	1.50	2	24 Deg	78.0	225	30	44	12	16
10	12	3.50	1.50	2	34 Deg	120	225	30	55	16	20
12	12	3.50	1.50	2	28 Deg	162	225	30	71	22	20
14	12	3.50	1.50	2	24 Deg	210	225	30	95	25	24
16	12	3.50	1.50	2	22 Deg	265	160	30	112	27	30
20	12	3.50	1.50	2	18 Deg	393	130	30	145	35	32

- 1) For specifications on other sizes, contact factory.
- 2) For triple arch, see Unisource 150T style. For 4-arch, see Unisource 1504 style.
- 3) Pressure and vacuum ratings above are calculated at 70 Deg. F.
- 4) Control unit weight is based on a two-rod set.
- 5) For filled arch, movement ratings will be 50% of those listed above.