

## Style 1501HT High-Temp Rubber Expansion Joints

**Style 1501HT High-Temperature** rubber expansion joints are designed for severe service where both extreme temperatures and high pressures will be present. **Style 1501HT** expansion joints combine high-temperature rated elastomers with special reinforcing to achieve an extreme-condition product. These expansion joints are a spool-type, hand-wrapped product with several construction features that provide advantages over standard expansion joints.

The wide-arch design provides several times the movement capabilities of standard narrow-arch style joints. Tube and cover elastomers can be either EPDM for up to 300°F<sup>1</sup> (149°C) continuous service, or Viton for up to 400°F (204°C) continuous service. A fabric reinforcing of Kevlar is able to provide high working pressures, even at temperatures that would severely limit most woven materials. Our heavy duty construction is able to withstand working pressures as high as 225 PSIG, depending on size, even when subjected to their maximum temperature range. Vacuum ratings are a full 30 In. Hg in all sizes. A thick, wrapped-on rubber cover protects the reinforcing from damage and the environment. Full-face duck and rubber flanges provide an optimum sealing surface. Open-arch is standard and filled-arch (designation FA) is available upon request.

**Style 1501HT** expansion joints can also be constructed in concentric or eccentric tapered reducing styles (Style 1501HT/RC or 1501HT/RE). Special face-to-face lengths can be made to order. For greater motion requirements, Style 1502 Double Arch, Style 1503 Triple Arch, or Style 1504 4-Arch can be offered.

Inherent flexibility is never and after thought with Style 1501HT expansion joints. Axial movement ratings range from 1-3/4" to 2-1/4", depending on size, and lateral movements ranging from 1" to 1-1/2", also depending on size.

**Style 1501HT** 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.

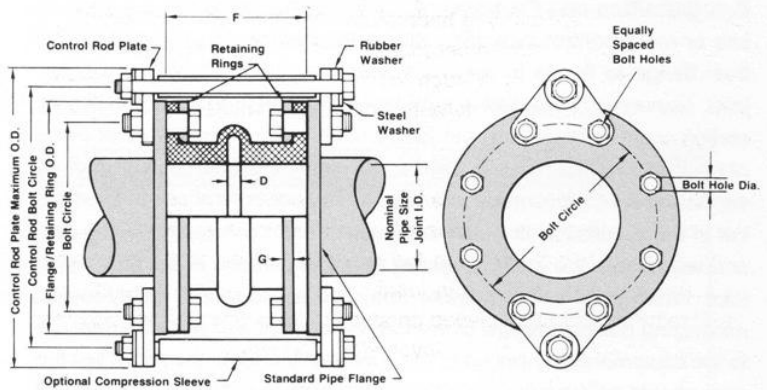
### Materials & Temperatures:

Style Number	Cover Elastomer	Tube Elastomer	Max. Operating Temp
1501HT/EE	EPDM	EPDM	300°F (149°C) <sup>1</sup>
1501HT/VV	Viton	Viton	400°F (204°C)

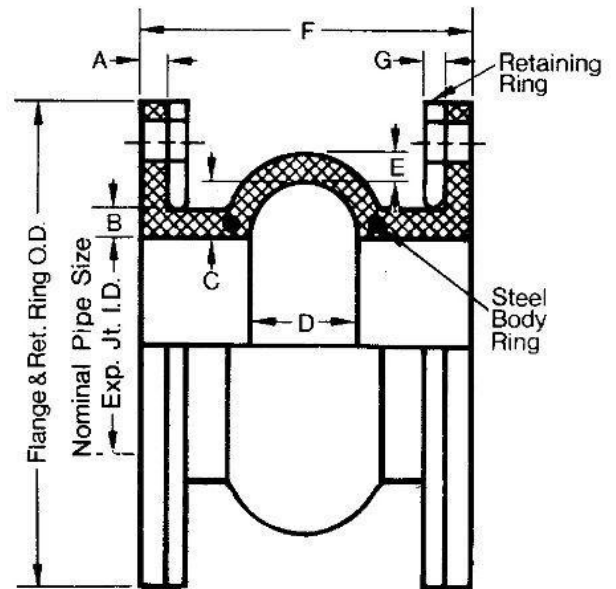
1) Can operate at 350 Deg. F. (177 Deg. C) continuous for blower service.



## Style 1501HT High-Temperature Single Arch Expansion Joint



RETAINING RINGS & CONTROL UNITS



### STYLE 1501HT 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>
1-1/2	6	1.75	.75	.75	15 Deg	7.4	225	30	3	3	6
2	6	1.75	.75	.75	15 Deg	12.4	225	30	4	4	7
2-1/2	6	1.75	.75	.75	15 Deg	15.7	225	30	4.5	5.6	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
5	6	1.75	.75	.75	15 Deg	38.1	225	30	9	8	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
18	8	1.75	.75	1	5 Deg	326	160	30	56	29	21
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
28	10	1.75	1	1	4 Deg	743	110	30	102	55	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
48	12	2.25	1	1	3 Deg	2086	90	30	211	154	87
54	12	2.25	1.25	1	3 Deg	2599	85	30	265	185	87
60	12	2.25	1.25	1	3 Deg	3209	85	30	309	215	87
72	12	2.25	1.25	1	2 Deg	4527	85	30	385	300	87

- 1) For concentric and eccentric reducing style, See Unisource 1501HT/RC and 1501HT/RC RE specification pages.
- 2) For double-arch, see Unisource 1502HT style. For triple arch, see Unisource 1503HT style. For 4-arch, see Unisource 1504HT style.
- 3) Pressure and vacuum ratings above are calculated at 300 Deg. F (149 Deg. C) for EPDM/Kevlar and at 400 Deg. F. (177 Deg. C.) for Viton/Kevlar.
- 4) Control unit weight is based on a two-rod set up to 48" diameter, and 3-rod set for 54" diameter and larger.
- 5) For filled arch, 1501HT/FA, movement ratings will be 50% of those listed above.