

J-10 Expansion Joints

- ▶ Connects unequal pipe sizes
- ▶ Absorbs thermal expansion and contraction
- ▶ Eliminates vibration and noise
- ▶ Noncorrosive
- ▶ Shock resistant
- ▶ Made in U.S.A.



Materials of Construction

▶ ELASTOMERS

Pure Gum Rubber, Neoprene, Hypalon®, Chlorobutyl, Buna-N, EPDM, and Viton®

▶ CONTROL RODS

Galvanized Steel, Stainless Steel

▶ RETAINING RINGS

Galvanized Steel, Stainless Steel

▶ WORKING PRESSURE

Standard pressure rating: 50 psi
High pressure rating: 75 psi

▶ VACUUM RATING

15 in. Hg
Full Vacuum Available

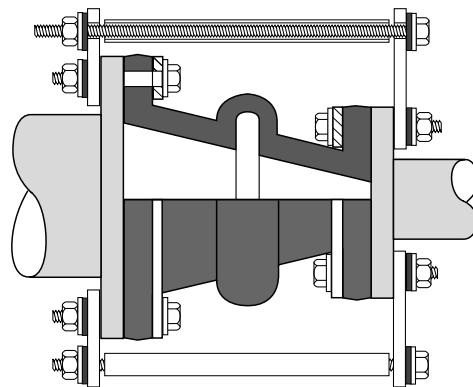
Red Valve Company's J-10 Concentric Reducer provides all of the benefits of a Redflex® Expansion Joint, with the ability to mate unequal size pipes. J-10 Concentric Reducers can be used as pipe reducers or increasers, expansion joints, flexible connectors and vibration eliminators. These tapers were designed to replace metal reducers in the pipeline. They are available in single, double, and triple arches, in either open or filled models. The multiple arches are used in applications where expansion or contraction will occur. The advantage to the all-rubber J-10 Reducers over metal reducers is the flexibility and durability of the elastomer. Filled reducers are usually used on slurry and abrasive applications to prevent the collection of material which can settle in the arches.

The Redflex® J-10 Concentric Reducer eliminates noise and isolates vibration in the pipeline, reduces stress, eliminates electrolysis and protects against start-up surges. Concentric reducers save installation space and reduce costs.

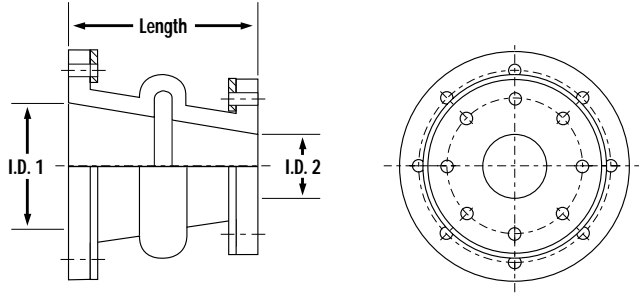
Red Valve Company manufactures concentric reducers to meet your exact piping needs. A complete chart of standard dimensions are listed on the next page. The flanges are designed to meet ANSI Class 125 drilling. J-10 Reducers are available in a variety of elastomers to satisfy the chemical compatibility and temperature of the process fluid.

Piping systems must be anchored when using concentric reducers. Standard control rods cannot be used to prevent overextension or elongation. This is particularly of concern in larger diameter sizes, over 12", where the smaller end joint control rods have a lever effect. Special design control rods with backup plates may need to be engineered.

Control Rod Configuration



J-10 Dimensions



Dimensions and Movement J-10 Concentric Reducers

Joint Size I.D. 1 x I.D. 2 x Length	Open Arch Movement Capability: From Neutral Position							Filled Arch Movement Capability: From Neutral Position						
	Length Minimum- Maximum	Axial Compress	Axial Extend	Lateral Deflect	Angular Deflect	Degrees Torsion	Thrust Factor	Length Minimum- Maximum	Axial Compress	Axial Extend	Lateral Deflect	Angular Deflect	Degrees Torsion	Thrust Factor
*2 x 1 x 6	5-1/2" - 6-1/4"	1/2"	1/4"	1/2"	18.4°	3°	12.69	5-3/4" - 6-1/8"	1/4"	1/8"	9/32"	9.5°	1.8°	3.14
*2 x 1-1/2 x 6	5-1/2" - 6-1/4"	1/2"	1/4"	1/2"	15.9°	3°	14.32	5-3/4" - 6-1/8"	1/4"	1/8"	9/32"	8.1°	1.8°	3.14
2-1/2 x 2 x 6	5-1/2" - 6-1/4"	1/2"	1/4"	1/2"	12.5°	3°	17.87	5-3/4" - 6-1/8"	1/4"	1/8"	9/32"	6.4°	1.8°	4.97
3 x 1 x 6	5-1/2" - 6-1/4"	1/2"	1/4"	1/2"	12.5°	3°	17.87	5-3/4" - 6-1/8"	1/4"	1/8"	9/32"	6.4°	1.8°	7.06
3 x 2 x 6	5-1/2" - 6-1/4"	1/2"	1/4"	1/2"	11.3°	3°	19.79	5-3/4" - 6-1/8"	1/4"	1/8"	9/32"	5.7°	1.8°	7.06
4 x 2 x 6	5-1/2" - 6-1/4"	1/2"	1/4"	1/2"	9.5°	3°	23.92	5-3/4" - 6-1/8"	1/4"	1/8"	9/32"	4.8°	1.8°	12.57
4 x 2-1/2 x 6	5-1/2" - 6-1/4"	1/2"	1/4"	1/2"	8.8°	3°	26.15	5-3/4" - 6-1/8"	1/4"	1/8"	9/32"	4.4°	1.8°	12.57
4 x 3 x 6	5-1/2" - 6-1/4"	1/2"	1/4"	1/2"	8.2°	3°	28.46	5-3/4" - 6-1/8"	1/4"	1/8"	9/32"	4.1°	1.8°	12.57
5 x 4 x 6	5-1/2" - 6-1/4"	1/2"	1/4"	1/2"	6.4°	3°	38.70	5-3/4" - 6-1/8"	1/4"	1/8"	9/32"	3.2°	1.8°	19.63
6 x 3 x 6	5-1/2" - 6-1/4"	1/2"	1/4"	1/2"	6.4°	3°	38.70	5-3/4" - 6-1/8"	1/4"	1/8"	9/32"	3.2°	1.8°	28.27
6 x 4 x 6	5-1/2" - 6-1/4"	1/2"	1/4"	1/2"	5.7°	3°	44.41	5-3/4" - 6-1/8"	1/4"	1/8"	9/32"	2.9°	1.8°	28.27
6 x 5 x 6	5-1/2" - 6-1/4"	1/2"	1/4"	1/2"	5.2°	3°	50.51	5-3/4" - 6-1/8"	1/4"	1/8"	9/32"	2.6°	1.8°	28.27
8 x 4 x 6	5-1/4" - 6-3/8"	3/4"	3/8"	1/2"	7.1°	3°	63.49	5-5/8" - 6-3/16"	3/8"	3/16"	9/32"	3.6°	1.8°	50.27
8 x 5 x 6	5-1/4" - 6-3/8"	3/4"	3/8"	1/2"	6.6°	3°	70.76	5-5/8" - 6-3/16"	3/8"	3/16"	9/32"	3.6°	1.8°	50.27
8 x 6 x 6	5-1/4" - 6-3/8"	3/4"	3/8"	1/2"	6.1°	3°	78.42	5-5/8" - 6-3/16"	3/8"	3/16"	9/32"	3.1°	1.8°	50.27
10 x 6 x 8	7-1/4" - 8-3/8"	3/4"	3/8"	1/2"	5.3°	3°	94.90	7-5/8" - 8-3/16"	3/8"	3/16"	9/32"	2.8°	1.8°	78.54
10 x 8 x 6	5-1/4" - 6-3/8"	3/4"	3/8"	1/2"	4.8°	3°	112.95	5-5/8" - 6-3/16"	3/8"	3/16"	9/32"	2.4°	1.8°	78.54
12 x 6 x 8	7-1/4" - 8-3/8"	3/4"	3/8"	1/2"	4.8°	3°	113.10	7-5/8" - 8-3/16"	3/8"	3/16"	9/32"	2.4°	1.8°	113.10
12 x 8 x 10	9-1/4" - 10-3/8"	3/4"	3/8"	1/2"	4.3°	3°	132.57	9-5/8" - 10-3/16"	3/8"	3/16"	9/32"	2.2°	1.8°	113.10
12 x 10 x 8	7-1/4" - 8-3/8"	3/4"	3/8"	1/2"	3.9°	3°	153.76	7-5/8" - 8-3/16"	3/8"	3/16"	9/32"	1.9°	1.8°	113.10
14 x 8 x 14	13-1/4" - 14-3/8"	3/4"	3/8"	1/2"	3.9°	2°	177.09	13-5/8" - 14-3/16"	3/8"	3/16"	9/32"	1.9°	1.2°	153.94
14 x 10 x 8	7-1/4" - 8-3/8"	3/4"	3/8"	1/2"	3.6°	2°	201.46	7-5/8" - 8-3/16"	3/8"	3/16"	9/32"	1.8°	1.2°	153.94
14 x 12 x 8	7-1/4" - 8-3/8"	3/4"	3/8"	1/2"	3.3°	2°	277.40	7-5/8" - 8-3/16"	3/8"	3/16"	9/32"	1.7°	1.2°	153.94
16 x 8 x 12	11-1/4" - 12-3/8"	3/4"	3/8"	1/2"	3.3°	2°	227.40	11-5/8" - 12-3/16"	3/8"	3/16"	9/32"	1.7°	1.2°	201.06
16 x 12 x 8	7-1/4" - 8-3/8"	3/4"	3/8"	1/2"	3.1°	2°	254.91	7-5/8" - 8-3/16"	3/8"	3/16"	9/32"	1.5°	1.2°	201.06
16 x 14 x 8	7-1/4" - 8-3/8"	3/4"	3/8"	1/2"	2.9°	2°	283.99	7-5/8" - 8-3/16"	3/8"	3/16"	9/32"	1.4°	1.2°	201.06
18 x 12 x 12	11-1/4" - 12-3/8"	3/4"	3/8"	1/2"	2.9°	1°	283.99	11-5/8" - 12-3/16"	3/8"	3/16"	9/32"	1.4°	.6°	254.47
18 x 14 x 8	7-1/4" - 8-3/8"	3/4"	3/8"	1/2"	2.7°	1°	314.65	7-5/8" - 8-3/16"	3/8"	3/16"	9/32"	1.3°	.6°	254.47
18 x 16 x 8	7-1/4" - 8-3/8"	3/4"	3/8"	1/2"	2.6°	1°	346.88	7-5/8" - 8-3/16"	3/8"	3/16"	9/32"	1.3°	.6°	254.47
20 x 10 x 20	19-1/4" - 20-3/8"	3/4"	3/8"	1/2"	2.9°	1°	283.99	19-5/8" - 20-3/16"	3/8"	3/16"	9/32"	1.4°	.6°	254.47
20 x 14 x 12	11-1/4" - 12-3/8"	3/4"	3/8"	1/2"	2.9°	1°	283.99	11-5/8" - 12-3/16"	3/8"	3/16"	9/32"	1.4°	.6°	254.47
20 x 16 x 10	9-1/4" - 10-3/8"	3/4"	3/8"	1/2"	2.9°	1°	283.99	9-5/8" - 10-3/16"	3/8"	3/16"	9/32"	1.4°	.6°	254.47
20 x 18 x 8	7-1/4" - 8-3/8"	3/4"	3/8"	1/2"	2.9°	1°	283.99	7-5/8" - 8-3/16"	3/8"	3/16"	9/32"	1.4°	.6°	254.47
24 x 18 x 12	11-1/4" - 12-3/8"	3/4"	3/8"	1/2"	2.9°	1°	283.99	11-5/8" - 12-3/16"	3/8"	3/16"	9/32"	1.4°	.6°	254.47
24 x 20 x 12	11-1/4" - 12-3/8"	3/4"	3/8"	1/2"	2.9°	1°	283.99	11-5/8" - 12-3/16"	3/8"	3/16"	9/32"	1.4°	.6°	254.47
30 x 20 x 18	17-1/4" - 18-3/8"	3/4"	3/8"	1/2"	2.9°	1°	283.99	17-5/8" - 18-3/16"	3/8"	3/16"	9/32"	1.4°	.6°	254.47
30 x 24 x 10	9-1/4" - 10-3/8"	3/4"	3/8"	1/2"	2.9°	1°	283.99	9-5/8" - 10-3/16"	3/8"	3/16"	9/32"	1.4°	.6°	254.47

*Filled Arch Only

Sizes reflect available tooling — other sizes available, consult factory.