

Redflex J-11 Eccentric Reducing Expansion Joint, With Arches (JEC)



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

Materials of Construction

- **Elastomers:** Natural Rubber (NR), Ethylene Propylene Diene Terpolymer (EPDM)*, Acrylonitrile-Butadiene (NBR), Fluoroelastomer (FKM), Chloroprene (CR)*, Chlorosulfonated Polyethylene (CSM), Chloro-Isobutylene-Isoprene (CIIR)

* - White food grade options available.

- **Control Rods and Retaining Rods:** galvanized steel, stainless steel

Working Pressure

- Standard pressure rating: 50 psi (350 kPa)
- High pressure rating: 75 psi (520 kPa)

Vacuum Rating

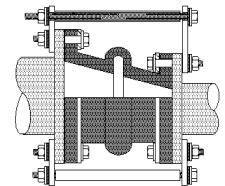
- 15" (381mm) Hg
- Full vacuum available

The Redflex J-11 Eccentric Reducing Expansion Joint, With Arches has the ability to mate unequal size pipes. J-11 Eccentric Reducers can be used as pipe reducers or increasers, expansion joints, flexible connectors and vibration eliminators. These reducing expansion joints were designed to replace metal reducers in pipelines. They are available in single arches, in either open or filled models. Multiple arches are used where expansion or contraction will occur. The J-11's flexible and durable elastomer body is its advantage. 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-11 Eccentric Reducer Expansion Joint eliminates noise and isolates vibration in the pipeline, reduces stress, eliminates electrolysis and protects against start-up surges. Eccentric reducers save installation space and reduce costs.

Eccentric reducing expansion joints are manufactured to meet your exact piping needs. Flanges are designed to meet ASME Class 125 drilling. J-11 Reducing Expansion Joints 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 eccentric reducers. Standard control rods cannot be used to prevent overextension or elongation. This is of particular concern in large diameter sizes over 12" (300mm), 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

Redflex R-5 Eccentric Reducing Expansion Joint, With Arches (JCC)



- Connects unequal pipe sizes
- Reduces vibration and noise
- Noncorrosive and shock resistant
- Made in the U.S.A.

Materials of Construction

- **Elastomers:** Natural Rubber (NR), Ethylene Propylene Diene Terpolymer (EPDM)*, Acrylonitrile-Butadiene (NBR), Fluoroelastomer (FKM), Chloroprene (CR)*, Chlorosulfonated Polyethylene (CSM), Chloro-Isobutylene-Isoprene (CIIR)

* - White food grade options available.

- **Control Rods and Retaining Rods:** galvanized steel, stainless steel

Working Pressure

- Standard pressure rating: 50 psi (350 kPa)
- High pressure rating: 75 psi (520 kPa)

The Redflex R-5 Eccentric Reducing Expansion Joint, With Arches can be used as pipe reducers or increasers, flexible connectors or vibration and noise reducers. These reducers are designed to replace metal reducers used with pipelines from pumps, compressors and other equipment. Like Redflex Rubber and Vibration Pipe, elbows and other flexible connectors, they prevent damage to equipment and compensate for minor misalignments.

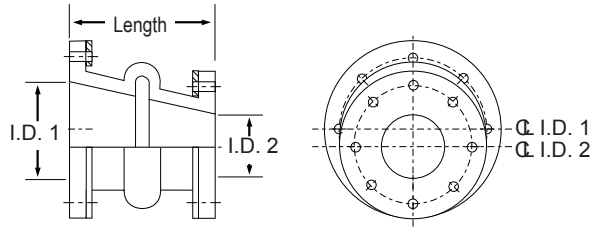
The inner lining and body of the reducer is constructed of elastomer. Steel wire is embedded in the body of the reducer for additional strength. A protective cover of natural or synthetic elastomer provides resistance to weather and ozone deterioration.

R-5 Eccentric Reducing Expansion Joints are manufactured to meet your exact piping needs. Flanges are designed to meet ASME Class 125 drilling. Split steel rings must be installed on the inside of the flanges.

As with standard expansion joints, when piping is not anchored, control units must be used with the reducer joint to prevent over-elongation.

Dimensions of the R-5 Reducers are the same as dimensions of the J-11 Eccentric Expansion Joints.

Redflex J-11 Eccentric Reducer Expansion Joint (JEC)


Series J-11 Eccentric Reducer Expansion Joint Dimensions and Movement

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 MIN. - MAX. in/mm	AXIAL COMPRESS in/mm	AXIAL EXTEND in/mm	LATERAL DEFLECT in/mm	ANGULAR DEFLECT	DEGREES TORSION	THRUST FACTOR	LENGTH MIN. - MAX. in/mm	AXIAL COMPRESS in/mm	AXIAL EXTEND in/mm	LATERAL DEFLECT in/mm	ANGULAR DEFLECT	DEGREES TORSION	THRUST FACTOR
*2 X 1 X 6" 50 x 25 x 150mm	5.5-6.25" 140-159mm	0.50 13	0.25 6	0.50 13	18.4°	3°	12.69	5.75-6.13" 146-156mm	0.25 6	0.13 3	0.28 7	9.5°	1.8°	3.14
*2 X 1.5 X 6" 50 x 40 x 150mm	5.5-6.25" 140-159mm	0.50 13	0.25 6	0.50 13	15.9°	3°	14.32	5.75-6.13" 146-156mm	0.25 6	0.13 3	0.28 7	8.1°	1.8°	3.14
3 X 2 X 6" 80 x 50 x 150mm	5.5-6.25" 140-159mm	0.50 13	0.25 6	0.50 13	11.3°	3°	19.79	5.75-6.13" 146-156mm	0.25 6	0.13 3	0.28 7	5.7°	1.8°	7.06
4 X 2 X 6" 100 x 50 x 150mm	5.5-6.25" 140-159mm	0.50 13	0.25 6	0.50 13	9.5°	3°	23.92	5.75-6.13" 146-156mm	0.25 6	0.13 39	0.28 7	4.8°	1.8°	12.57
4 X 2.5 X 6" 100 x 65 x 150mm	5.5-6.25" 140-159mm	0.50 13	0.25 6	0.50 13	8.8°	3°	26.15	5.75-6.13" 146-156mm	0.25 6	0.13 3	0.28 7	4.4°	1.8°	12.57
4 X 3 X 6" 100 x 80 x 150mm	5.5-6.25" 140-159mm	0.50 13	0.25 6	0.50 13	8.2°	3°	28.46	5.75-6.13" 146-156mm	0.25 6	0.13 3	0.28 7	4.1°	1.8°	12.57
6 X 3 X 6" 150 x 80 x 150mm	5.5-6.25" 140-159mm	0.50 13	0.25 6	0.50 13	6.4°	3°	38.70	5.75-6.13" 146-156mm	0.25 6	0.13 3	0.28 7	3.2°	1.8°	28.27
6 X 4 X 6" 150 x 100 x 150mm	5.5-6.25" 140-159mm	0.50 13	0.25 6	0.50 13	5.7°	3°	44.41	5.75-6.13" 146-156mm	0.25 6	0.13 3	0.28 7	2.9°	1.8°	28.27
6 X 5 X 6" 150 x 125 x 150mm	5.5-6.25" 140-159mm	0.50 13	0.25 6	0.50 13	5.2°	3°	50.51	5.75-6.13" 146-156mm	0.25 6	0.13 39	0.28 7	2.6°	1.8°	28.27
8 X 4 X 6" 200 x 100 x 150mm	7.25-8.38" 184-213mm	0.75 19	0.38 10	0.50 13	7.1°	3°	63.49	7.63-8.19" 194-208mm	0.38 10	0.19 5	0.28 7	3.6°	1.8°	50.27
8 X 5 X 6" 200 x 125 x 150mm	7.25-8.38" 184-213mm	0.75 19	0.38 10	0.50 13	6.6°	3°	70.76	7.63-8.19" 194-208mm	0.38 10	0.19 5	0.28 7	3.6°	1.8°	50.27
8 X 6 X 6" 200 x 150 x 150mm	5.25-6.38" 133-162mm	0.75 19	0.38 10	0.50 13	6.1°	3°	78.42	5.63-6.19" 143-157mm	0.38 10	0.19 5	0.28 7	3.1°	1.8°	50.27
10 X 6 X 8" 250 x 150 x 200mm	7.25-8.38" 184-213mm	0.75 19	0.38 10	0.50 13	5.3°	3°	94.90	7.63-8.19" 194-208mm	0.38 10	0.19 5	0.28 7	2.8°	1.8°	78.54
10 X 8 X 8" 250 x 200 x 200mm	7.25-8.38" 184-213mm	0.75 19	0.38 10	0.50 13	4.8°	3°	112.95	7.63-8.19" 194-208mm	0.38 10	0.19 5	0.28 7	2.4°	1.8°	78.54
12 X 6 X 6" 300 x 150 x 400mm	15.25-16.38" 387-416mm	0.75 19	0.38 10	0.50 13	4.8°	3°	113.10	15.63-16.19" 397-411mm	0.38 10	0.19 5	0.28 7	2.4°	1.8°	113.10
12 X 8 X 8" 300 x 200 x 200mm	7.25-8.38" 184-213mm	0.75 19	0.38 10	0.50 13	3.9°	3°	132.57	7.63-8.19" 194-208mm	0.38 10	0.19 5	0.28 7	2.2°	1.8°	113.10
12 X 10 X 8" 300 x 250 x 200mm	7.25-8.38" 184-213mm	0.75 19	0.38 10	0.50 13	3.9°	3°	153.76	7.63-8.19" 194-208mm	0.38 10	0.19 5	0.28 7	1.9°	1.8°	113.10
14 X 8 X 10" 350 x 200 x 250mm	9.25-10.38" 235-264mm	0.75 19	0.38 10	0.50 13	3.6°	2°	177.09	9.63-10.19" 245-259mm	0.38 10	0.19 5	0.28 7	1.9°	1.2°	153.94
14 X 10 X 12" 350 x 250 x 300mm	11.25-12.38" 286-314mm	0.75 19	0.38 10	0.50 13	3.3°	2°	201.46	11.63-12.19" 295-310mm	0.38 10	0.19 5	0.28 7	1.8°	1.2°	153.94
14 X 12 X 8" 350 x 300 x 200mm	7.25-8.38" 184-213mm	0.75 19	0.38 10	0.50 13	3.3°	2°	277.40	7.63-8.19" 194-208mm	0.38 10	0.19 5	0.28 7	1.7°	1.2°	153.94
16 X 10 X 12" 400 x 250 x 300mm	11.25-12.38" 286-314mm	0.75 19	0.38 10	0.50 13	3.3°	2°	227.40	11.63-12.19" 295-310mm	0.38 10	0.19 5	0.28 7	1.7°	1.2°	201.06
16 X 12 X 14" 400 x 300 x 350mm	13.25-14.38" 337-365mm	0.75 19	0.38 10	0.50 13	3.1°	2°	254.91	13.63-14.19" 346-360mm	0.38 10	0.19 5	0.28 7	1.5°	1.2°	201.06
20 X 16 X 12" 500 x 400 x 300mm	11.25-12.38" 286-314mm	0.75 19	0.38 10	0.50 13	2.9°	1°	283.99	11.63-12.19" 295-310mm	0.38 10	0.19 5	0.28 7	1.4°	.6°	254.47
24 X 12 X 20" 600 x 300 x 500mm	19.25-20.38" 489-518mm	0.75 19	0.38 10	0.50 13	2.9°	1°	283.99	19.63-20.19" 499-513mm	0.38 10	0.19 5	0.28 7	1.4°	.6°	254.47
24 X 18 X 10" 600 x 450 x 250mm	9.25-10.38" 235-264mm	0.75 19	0.38 10	0.50 13	2.9°	1°	283.99	9.63-10.19" 245-259mm	0.38 10	0.19 5	0.28 7	1.4°	.6°	254.47
24 X 20 X 16" 600 x 500 x 400mm	15.25-16.38" 387-416mm	0.75 19	0.38 10	0.50 13	2.9°	1°	283.99	15.63-16.19" 397-411mm	0.38 10	0.19 5	0.28 7	1.4°	.6°	254.47
30 X 20 X 24" 750 x 500 x 600mm	23.25-24.38" 591-619mm	0.75 19	0.38 10	0.50 13	2.9°	1°	283.99	23.63-24.19" 600-614mm	0.38 10	0.19 5	0.28 7	1.4°	.6°	254.47
30 X 24 X 22" 750 x 600 x 550mm	21.25-22.38" 540-568mm	0.75 19	0.38 10	0.50 13	2.9°	1°	283.99	21.63-22.19" 549-564mm	0.38 10	0.19 5	0.28 7	1.4°	.6°	254.47

* Filled arch only.
 Other sizes available, consult factory.