



EXPANSION JOINT

Rubber Expansion Joints are the flexible connectors molded or hand build of reinforced natural or synthetic rubber with or without metal back up flange and are used in piping system where axial, lateral and torsional flexibility is needed. It provides flexibility and concurrent movements, isolation of vibration and noise, resistance to abrasion and chemical erosions. The common used style are single and multi Arch spool type expansion joints of sizes from 25 mm to 3000 mm and other styles like spherical type, wide Arch type, etc.

Functions

- To protect equipment by reducing equipment vibration.
- To provide simple connection of misaligned pipes.
- Accommodate expansion and contraction movement in axial, lateral and angular direction.
- Prevent the propagation of electricity.

Materials

Rubber : Neoprene, Nitrile, EPDM, Natural, SBR ,Viton.
 Fabrics : Canvas, Rayon, Polyester, Nylon, Glass Fabric
 Metal Flanges : Stainless Steel, MS, Aluminum

Type, Size and Pressure Rating

Joint Size (Inside Dia.)	1	1 1/8	1 1/4	2	2 1/4	3	4	5	6	8	10	12	14	16	18	20	22	24	26	28	30	34	36
Flange Outside Dia.	4 1/4	4 5/8	5	6	7	7 1/2	9	10	11	13 1/2	16	19	21	23 1/2	25	27 1/2	29 1/2	32	34 1/4	36 1/2	38 3/4	43 3/4	46
Bolt Circle Dia.	3 1/8	3 1/2	3 7/8	4 3/4	5 1/2	6	7 1/2	8 1/2	9 1/2	11 3/4	14 1/4	17	18 3/4	21 1/4	22 3/4	25	27 1/4	29 1/2	31 3/4	34	36	40 1/2	42 3/4
Number Bolt Holes	4	4	4	4	4	4	8	8	8	8	12	12	12	16	16	20	20	20	24	28	28	32	32
Diameter Bolt Holes	5/8	5/8	5/8	3/4	3/4	3/4	3/4	7/8	7/8	7/8	1	1	1 1/8	1 1/8	1 1/4	1 1/4	1 3/8	1 3/8	1 3/8	1 3/8	1 3/8	1 5/8	1 5/8
Single Arch Recom. FF	6	6	6	6	6	6	6	6	6	6	8	8	8	8	8	8	10	10	10	10	10	10	10
Dimensions Fig. Thk. A	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	5/8	5/8	5/8	5/8	5/8	5/8
204 Arch Ht.	B	1	1	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	2	2	2	2	2	2	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4
Arch Width	C	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4	3/4	7/8	7/8	7/8	1	1	1	1	1
Single Arch Min.	FF	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	7	7	7	7	7	7	9	9	9	9	9	9	9
Double Arch Min.	FF	9	9	9	9	9	9	9	9	10	10	10	11 3/4	11 3/4	11 3/4	12 3/4	12 3/4	12 3/4	12 3/4	12 3/4	12 3/4	12 3/4	12 3/4
Triple Arch Min.	FF	12	12	12	12	12	12	12	12	14	14	14	15 1/2	15 1/2	15 1/2	16 3/4	16 3/4	16 3/4	16 3/4	16 3/4	16 3/4	16 3/4	16 3/4
	R	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
		1/4	1/4	1/4	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4	3/4	7/8	7/8	7/8	1	1	1	1

- Pumped Medium: Type of liquid, gas, etc.
- Temperature range.
- Pressure / vacuum range.
- Movement required.
- Exposing to environment (oil, chemicals, ozone, liquids, sunlight, etc.)
- Face to face distance for installation.
- Degree of pipe misalignment.
- Drilling Standard (For nonstandard Flange OD, Bolt, PCD, No. of hole, Hose dia)
- Requirement of retaining ring, control unit and nay other special construction.

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