

Product Overview | Expansion Joints

8782A Flanged, Expansion Joints are for use on low pressure air and exhaust. They allow for deviation in pipe length and provide protection to pipe and equipment from stresses caused by vibration and thermal expansion.

A standard version (8782A-C) and a high temperature version (8782A-S) are available. The 8782A-C can be special ordered with a corrosion resistant epoxy coating (8782A-E) for use in applications that are corrosive to 321 stainless steel.

Expansion joints are designed for axial movements. The standard lengths offered allow for 4" compression movement, 2" extension movement.

8782A have fabricated steel flat faced flange ends and are offered in pipe sizes from 4" to 30". ANSI class 150 type drilling fixed (or floating) fabricated flange ends are available in all sizes. A floating flange allows one flange end to be rotated to simplify installation and easily align bolt holes with a mating flange without imposing torque on the expansion joint. RPM "type" fabricated flanges are available in pipe sizes from 8" to 30" and are also offered as a fixed (or floating) flange.

8782A expansion joints can be ordered with both flange ends having the same drilling pattern, ANSI both ends or RPM both ends. They can also be ordered with mixed drilling pattern ends, ANSI one end and RPM one end. When an ANSI type floating flange is selected for one end, the other flanged end will be a fixed flange whether it is ANSI or RPM.

SPECIFICATIONS

Temperature Ratings

8782A-C (standard) series are for use up to 700°F service.

8782A-S (high temp) series are for use up to 1250°F service.

8782A-E (corrosion resistant) epoxy coated series are limited for use up to 250°F service

Minimum Service Temperature: -50°F.

MATERIALS OF CONSTRUCTION

All 8782A expansion joints are fabricated from one-ply, corrugated 321 SST (4" to 6" - .012" thick, 8" - .016" thick and 10" to 30" - .022" thick), rolled and welded (unbraided) tubing with fabricated flanges at each end.

The standard **8782A-C** and **8782A-E** have carbon steel flanges.

The **8782A-S** high temp series have 304 SST flanges.

ANSI and RPM flanges are flat faced so use flat face companion flanges and full face gaskets when installing this equipment. Raised face flanges and ring gaskets may damage expansion joint flange ends. FLOATING flanges have a stub end and a flange and are considered raised face so ring gaskets (raised face type) should be used.

PRESSURE RATINGS and PERFORMANCE

The standard lengths offered allow for 4" compression movement and 2" extension movement except the -7 and -8 sizes which allow 2" compression movement and 1" extension movement. These products are not intended for use with offset pipe or torsional movements.

Adjacent piping must support the axial forces generated by the internal pressure acting on the effective thrust area. Maximum working pressure is equal for positive pressure or vacuum service.

Pressure drop through an 8782A expansion joint is approximately three times that in comparable size and length of standard steel pipe.

Maximum working pressure varies with pipe size and service temperature. See Table.

*For higher pressure applications see **8773 braided metal hose**.*

Maximum Working Pressure, psig

Pipe Code	Maximum Working Pressure, psig			Effective Area (sq. in.)
	70°F	500°F	1250°F	
7	5	3	2.5	20
8	5	3	2.5	39
9	5	3	2.5	68
10	5	3	2.5	108
12	5	3	2.5	149
14	9.5	5.7	5	177
16	8.7	5.3	4.7	227
18	6.7	4	3.6	284
20	7.9	4.8	4.3	346
24	8.4	5.1	4.6	415
26	9.7	5.9	5.3	491
30	11	6.7	6	574