

Garlock Expansion Joint ABRA-LINE™ Style 404HP

Engineered for Abrasive Applications

The ABRA-LINE™ family of products was developed for highly abrasive applications typically found in the power generation, fertilizer, mining and chemical industries. These may include flue gas desulphurization systems, phosphate mining, dry bulk power transfer systems, tailings and slurry applications. Our proprietary urethane formula was designed to reduce wear and extend service life.

Style 404HP (High Pressure) is a fully customizable abrupt arched expansion joint for rigid piping systems. Style 404HP is to be used when pressure ratings exceed that of Style 404. Style 404 can be constructed as a single or multiple arch design. It can also connect pipe flanges in concentric or eccentric tapers, to join piping of unequal diameters.



DESIGN

- » Tube
 - Proprietary urethane formula for abrasive applications
 - Abrupt arch configuration provides maximum movement, and pressure and vacuum resistance
- » Body
 - Composite fabric construction with welded, treated metal body rings for dimensional stability
- » Cover
 - Wide selection of elastomers available which are resistant to oxidation

OPTIONAL CONFIGURATIONS

- » Multiple Arch- For higher movements
- » Filled Arch- To eliminate media buildup
- » Oversized Arch- For higher movements
- » Concentric and Eccentric Tapers- To connect piping of unequal diameter
- » Custom Drilling- ANSI, DIN, AWWA, BS, JIS, and special drilling patterns available on request
- » Extended Face-to-face
- » Offsets, lateral, angular, and torsional

TARGET MARKETS

- » Power Generation
- » Fertilizer
- » Mining

RETAINING RINGS

- » Must be used in all applications; provides metal surface to distribute bolt load evenly, preventing flange damage during bolt tightening
- » Standard material: mild steel with corrosion-resistant coating; galvanized or stainless steel also available

CONTROL UNITS/TIE RODS

- » Recommended on most applications to prevent damage due to excessive pipe movements
- » Standard material: mild steel, galvanized or stainless steel also available

GARLOCK

an EnPro Industries family of companies
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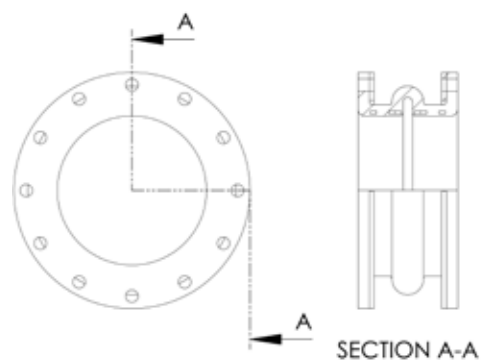
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SPECIAL COVER MATERIALS

- » CSM
- » Nitrile
- » Fluoroelastomer
- » EPDM
- » Neoprene
- » Chlorobutyl

TEMPERATURE

- » Standard Chlorobutyl/Polyester +180°F (82°C)

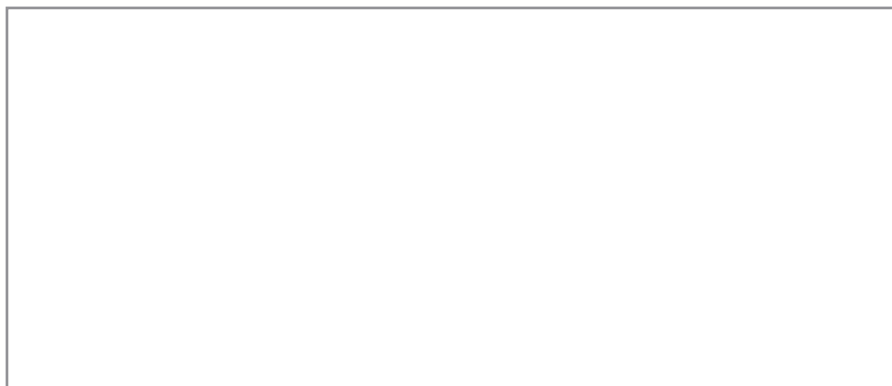


PRODUCT TABLE

Pipe Size I.D.		Movements					
		Compression		Lateral		Elongation	
inches	mm	inches	mm	inches	mm	inches	mm
1 - 1½	25 - 40	1/8	3	1/8	3	1/16	1.5
2 - 5	50 - 150	1/4	6.5	1/4	6	1/8	6
6 - 18	200 - 450	3/8	9.5	1/4	6	3/16	4.5
20 - 24	500 - 600	7/16	11	1/4	6	7/32	5.5
26 - 40	650 - 1000	1/2	12.5	1/4	6	1/4	6
42 - 120	1050 - 3000	9/16	14	1/4	6	1/4	6

PRESSURE TABLE

Pipe Size I.D.		Pressure		Vacuum	
inches	mm	psi	bar	inch Hg	mm Hg
½ - 4	13 - 100	200	13.8	29.9	750
5 - 12	200 - 300	190	13.1	29.9	750
14	350	130	8.9	29.9	750
16 - 20	400 - 500	110	7.6	29.9	750
22 - 24	550 - 600	100	6.9	29.9	750
26 - 40	650 - 1000	90	6.2	29.9	750
42 - 66	1050 - 1650	80	5.5	29.9	750
68 - 96	1700 - 2400	70	4.8	29.9	750
98 - 108	2450 - 2700	60	4.1	29.9	750
110 - 120	2750 - 3000	50	3.4	29.9	750



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