

# MERCER FLEXMORE

## Expansion Joints

### Series 450



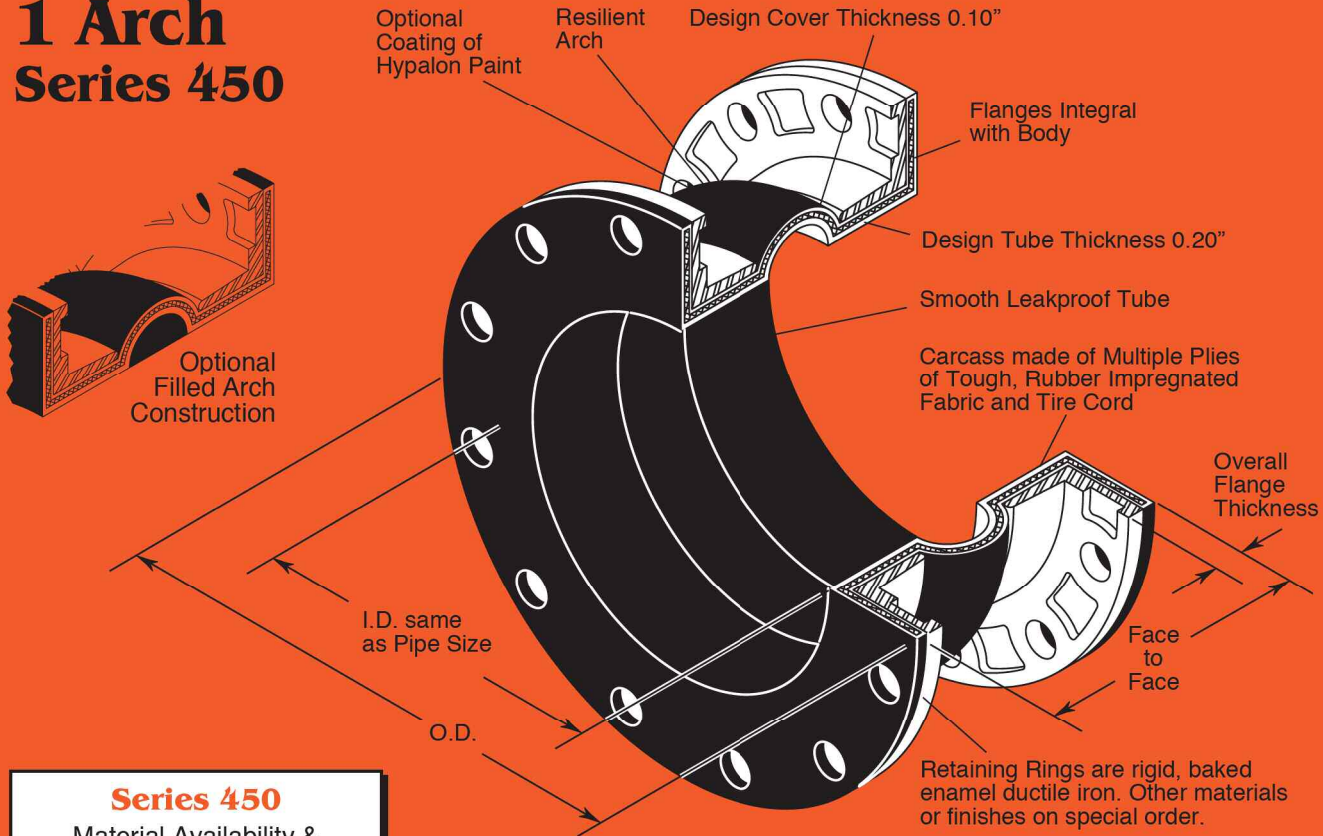
#### Construction Features

- Choice of eight cover elastomers
- Sizes up to 36 inch diameter
- Optional Coating of Hypalon paint
- Standard 150 lb. ASA Drilling, Ductile Iron Back-up Rings
- Filled or Unfilled Arches
- Lightweight

#### Performance Features

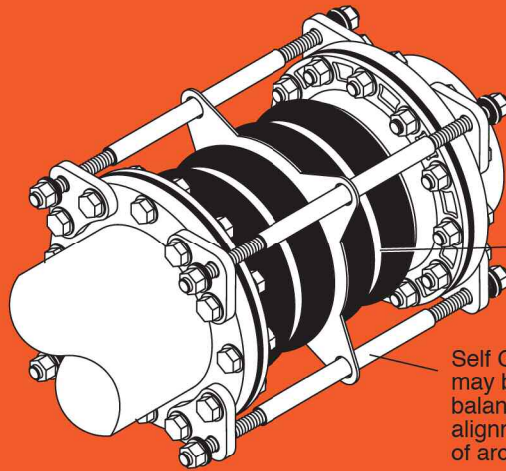
- Working pressures up to 250 psi in all sizes
- Greater movements per arch
- Manufactured in one to six arches
- Minimum 3 to 1 safety factor to burst pressure
- Wide arch contour provides controlled extension under pressure
- Lower spring rates

# 1 Arch Series 450



Series 450 Material Availability & Operating Temperatures			
Series 450	STANDARD MATERIALS		Max Oper. Temp.
	Tube	Cover	
B	Butyl	Butyl	225°F*
E	EPDM	EPDM	225°F*
H	Hypalon	Hypalon	225°F
HN	Hypalon	Neoprene	225°F
N	Neoprene	Neoprene	225°F
NH	Neoprene	Hypalon	225°F
Ni	Nitrile	Nitrile	210°F
NiN	Nitrile	Neoprene	210°F
NR	Neoprene	Natural	180°F
R	Natural	Natural	180°F
RN	Natural	Neoprene	180°F
V	Viton	Viton	225°F*

\*Max 250°F for intermittent service;  
see Note 2 under 'CAUTION' on p.4.



## Typical Multiple Arch Construction

Hot Dipped Galvanized  
Steel Body Hoop Rings

Self Guiding Control Rod Assemblies  
may be needed on multiple arch joints to  
balance movements and maintain arch  
alignment depending on diameter, number  
of arches and operating pressure.

## Series 450

Mercer Flexmore Series 450 is the most economical, full-pressure elastomeric expansion joint available. Tough fabric and tirecord plies are bonded between the tube and cover in a steel mold and then cured in a thermostatically controlled steam chamber. The product is uniform in both appearance and performance. A wide, low profile arch provides exceptional flexibility and virtually eliminates the need for filled arches in all but the most severe sludge and slurry applications. External integral flange reinforcing rings control both radial and arch swell. A variety of cover and tube elastomers are available, offering superior chemical, aging and temperature resistance from -30° to +250°F\* operating temperatures.

## Series 450 Drilling Dimensions ASA Class 150 lb.

Pipe Size (in)	Flange OD (in)	Overall Flange Thickness (in)	Dia. Bolt Circle (in)	No. of Holes	Dia. of Holes (in)
1 1/2	5	3/4	37/8	4	5/8
2	6	13/16	43/4	4	3/4
2 1/2	7	13/16	51/2	4	3/4
3	7 1/2	13/16	6	4	3/4
4	9	7/8	7 1/2	8	3/4
5	10	7/8	8 1/2	8	7/8
6	11	7/8	9 1/2	8	7/8
8	13 1/2	7/8	11 3/4	8	7/8
10	16	7/8	14 1/4	12	7/8
12	19	7/8	17	12	7/8
14	21	1	18 3/4	12	1 1/8
16	23 1/2	1	21 1/4	16	1 1/8
18	25	1	22 3/4	16	1 1/4
20	27 1/2	1	25	20	1 1/4
24	32	1	29 1/2	20	1 3/8
30	38 3/4	1	36	28	1 3/8
36	46	1 1/4	42 3/4	32	1 5/8