Mercer Expansion Joints

The Mercer Rubber Company was started in 1865 as a small factory on Mercer Street in Hamilton Square, New Jersey. The company specialized in molded rubber mechanical products, rubber sheeting and conveyor belting, and began building rubber expansion joints in the early 1930's. Mercer was completely owned by one family from its inception through 1982, when it became a sister to Mason Industries, one of the world's largest producers of molded rubber expansion joints. Since that time, it has been managed by professional engineers, and we believe our engineering staff is proportionately larger than any other similar company in the United State

300 SERIES

Since sleeve type expansion joints cannot be readily protected with control rods, it is IMPERATIVE that piping be axially aligned, properly guided and PROPERLY ANCHORED.

Periodic tightening of clamps may be necessary.

STYLE 301 **STYLE 302** **STYLE 303** **STYLE 304**

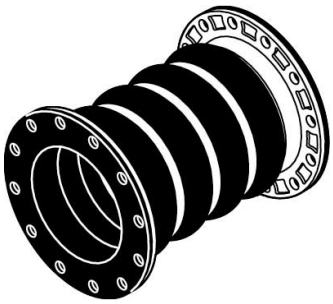
450 SERIES

Mercer Flexmore Series 450 is the most economical, full-pressure elastometric 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.

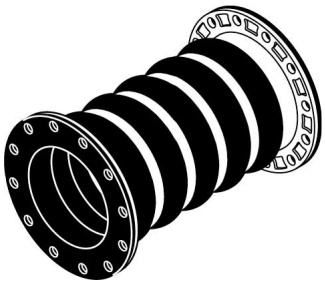
451

452

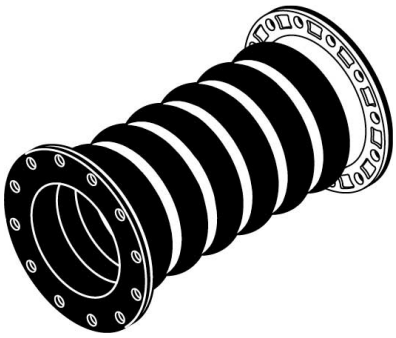
453



454



455



456

500 SERIES

Series 500

The Invincible 500 is our most rugged expansion joint. They are all hand built by our skilled craftsmen. The 1/4” minimum thickness solid elastomer tube is continuous with the flange face. Multiple plies of rubber impregnated high strength polyester or nylon tire cord form the first pressure reinforcement over the tube. Arch swell in response to pressure and arch migration are virtually eliminated by criss-crossed layers of reinforcement that pass over the arch and around steel or ductile iron rings embedded on both sides at the base of the arch. Body swell is controlled by high strength fabric or spiral steel wire. Large diameter joints are often built with steel rings in place of the wire when in addition to internal pressure, external pressure resistance is important. External pressure may come from deep burial, shallow embankment under roadways or joints inside tanks.

Series HT500

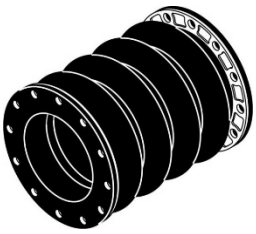
The Invincible HT500 has all the construction features of the 500 combined with High Temperature capability. DuPont Kevlar® or other heat resistant fabrics replace the polyester

or nylon. The tube and cover are either EPDM or Viton® for full pressure service up to 350°F and 400°F respectively.

501 & HT501

502 & HT502

503 & HT503



504 & HT504

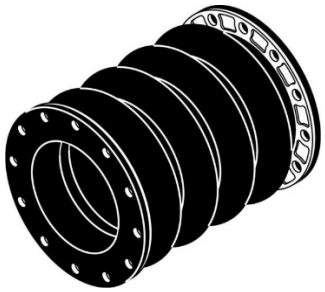
600 SERIES

Series 600
The Invincible 600 has a built in solid steel ring locked in place by reinforcement materials at the arch crown. This enables the 600 to handle vacuum conditions in excess of those listed for the 500 in multiple arch joints.

Series HT600
The Invincible HT600 has all the construction features of the 600 combined with High Temperature capability. DuPont Kevlar® or other heat resistant fabrics replace the polyester or nylon. The tube and cover are either EPDM or Viton® for full vacuum service up to 350°F and 400°F respectively.

602 & HT602

603 & HT603



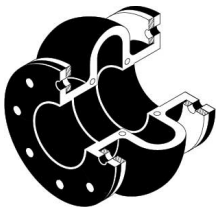
604 & HT604

1000 SERIES

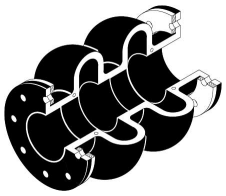
Expansion joints installed in piping systems that are anchored on both sides of the joint.
No control rods are necessary. If control rods are installed as a safety measure, the locking nuts must be backed off with a clearance equal to the specified axial movement. The expansion joint will exert a thrust force on the anchors. To calculate pressure thrust on anchors use the following equation:

Pressure Thrust = (Pressure Thrust Area) x (Rated Working Pressure)

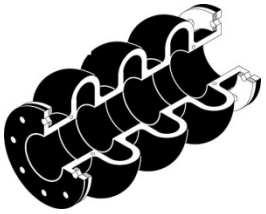
Expansion joints installed in unanchored piping or connected to isolated equipment. Control rods are necessary. Once control rods are installed the joint will no longer act as an expansion joint, since the pressure will extend the joint to the nuts of the control rods. The joint will no longer take up axial motion. It will make up for misalignment, transverse and possibly angular motion. The nuts of the control rods should be threaded against control rod gussets, thereby preventing joint from extending.



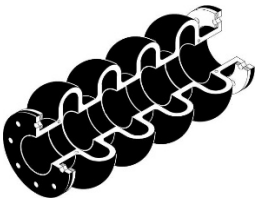
1001



1002



1003



1004