METRAFLEX

Metraflex is a full-service manufacturer and supplier of HVAC piping components since 1959. We have long been the industry leader developing innovative problem-solving products. We offer a wide range of products including expansion joints, flexible connectors, flow conditioners and seismic protection. This is only an introduction to our products and capabilities. To learn more visit www.Metraflex.com.

DISTRIBUTION

Metraflex has a global sales network to provide local service and support. For more information and to find your local rep, please visit our website www.Metraflex.com/agent-locator. Our engineering staff can assist you in your design work and offer finite element analysis. Our manufacturing and engineering capabilities allow us to offer products custom tailored to your project.

SPECIAL ASSEMBLIES/FABRICATION

Metraflex has the capability to design and manufacture virtually any specialty piping products to meet a customer’s specifications. Our on-staff engineers can perform finite element pipe stress analysis and computational fluid dynamics analysis for your application.
EXPANSION JOINTS & COMPENSATORS

**METRALOOP®**
Metraflex invented the Metraloop® that is now the industry standard expansion joint to compensate for piping thermal expansion and for protecting pipe systems from damage during seismic events. It is the easiest way to compensate for thermal expansion. This flexible expansion loop requires a fraction of the space of hard pipe loops and minimal guiding and anchoring, the MetraLoop® is a designer’s savior. Pipes run closer, pressure drop is less and costs are reduced.

**METRAGATORS®**
All welded construction and large axial movements are available in these externally pressurized expansion joints. Sizes from 1” to 36”, movements of 4”, 6” & 8” compression, 150# and 300# class make the MetraGator® a perfect choice for steam or high temperature hot water systems. All end connections are available. Housing material is carbon or stainless steel. Dual end units are constructed for movements of up to 16”.

**HP COMPENSATOR®**
Designed for a wide range of applications from building risers to fin tube baseboard radiation systems, the HP model expansion compensators are available in 1, 2, 3 and 4” movement. Same basic construction as the MetraGators, in a smaller package. Available in thread, weld, flanged or grooved ends; ¾” to 4” size, service to 175 psi at 750°F… or copper sweat ends; ¾” to 3” size, service to 150 psi at 500°F.

**STYLE IV SPIDER TYPE GUIDE**
Matched to pipe size and insulation thickness, the spider guide provides lateral stability to the pipe to prevent “bowing” and to ensure axial pipe movement in and out of the expansion joint. Extended spiders are available. These guides are not designed to support the weight of the pipe. The Metraflex style IV guides are available for pipe 1 inch to 24 inch diameter, insulation thicknesses 0 to 4 inches are standard, larger thicknesses are available, and axial movement up to 12 inches of travel. Add dielectric spacer for copper pipe.

**MULTI-PLY CONNECTORS – MODEL MPTR®**
Multiple plies of stainless steel form the vibration dampening multi-ply bellows of the Metraflex MPTR. The MPTR is a versatile hybrid pump connector and expansion joint. With the same short face-to-face dimensions of rubber joints and the same temperature and pressure rating of a metal joint, the MPTR is an ideal connector when dealing with high temperatures. Integral control rods prevent over extension. Vanstoned construction keeps all wetted surfaces stainless steel which in some cases saves the high cost of stainless steel flanges. Available in pipe sizes 1 ½” to 24”. Temperatures to 480°F, 150 psi or 300 psi options available. Standard 150 lb. flanges with option for 300 lb. flanges.

For videos and technical data visit www.Metraflex.com
SEISMIC BREAK AWAY HANGER®
Another Metraflex innovation is the Seismic Break Away Hanger®. This product is specially designed to be used with the Metraloop. When installing a Metraloop it is very important that the 180° return fitting is free to move, this is especially important in seismic applications. The Seismic Break Away Hanger will release in a seismic event, allowing the loop to move freely. When the seismic event is over, the pin can be reinstalled in the field to wait for the next seismic event.

PIPE LINE STRAINERS
Y-Type available in both flanged and screwed end styles... in pipe sizes: ¼” through 16”. Basket-Type in sizes: 2” through 20”. Stainless steel or monel strainer screens... in mesh sizes for specific requirements. Precision casting feature self-cleaning blow-off outlets.

LPD-Y STRAINER®
This is the first real innovation in strainers since the Y strainer came out. The new Metraflex LPD Y-Strainer®/Filter provides significant energy savings over the old Y-strainer. Metraflex has re-engineered the 100-year-old strainer and given it a leaner interior with fewer obstructions and a much larger screen. The result is significantly lower pressure drops resulting in energy-savings so significant the LPD Y-strainer® can pay for itself in months.

RISER ANCHOR CLAMP (RAC)®
The Riser Anchor Clamp® is an engineered way to anchor a pipe passing through a floor or wall. The new Riser Anchor Clamp saves both time and space. It’s no secret that architects are giving the mechanical engineer less area to install their systems, because space is expensive. The RAC has been engineered to anchor a pipe in the smallest footprint possible. Installing the RAC is fast, simply torquing two bolts, saving time. Additionally, with no welding required for installation, solves the problem of what to do when you are not allowed to have an open flame. The RAC features a Ductile Iron body with case hardened teeth for a positive attachment.

STRAINERS & SPECIALTIES
Sales and technical support 312-738-3800
**METRASEAL®**
This modular, mechanical wall penetration seal quickly seals any round pipe or conduit passing through a concrete wall or floor. 15 standard link sizes seal virtually any pipe/hole or sleeve combination. Links available in EPDM (standard service), Nitrile (oily service), or Silicone (high temp service). Plated carbon steel or 316 stainless steel hardware.

**AIR VENTS**
Features Stainless Steel spherical float design. Vents air in piping system through open discharge valve. Rising water raises float to close valve. Valve outlet tapped for safety drain line. Simple design eliminates blow-by and assures long-lasting efficiency. Two sizes for all riser systems. For 150 PSI and 300 PSI. ½”, ¾” or 1” inlet. Available with FM approval.

**BUTTERFLY VALVES**
Specified in pipelines for ¼ turn control, for balancing systems, etc. because of their simple, space-saving design, trouble free service and low cost. Metraflex Butterfly Valves are cast iron, bronze disc and EPDM seat. Lug style can be used to “dead end” service. Available in both water and lug styles in sizes from 2” through 16” diameter. Sizes 8” and larger come standard with gear operator.

**SILENT CHECK VALVES**
Eliminate water hammer with Metraflex center guided silent check valves. Built to ANSI 125# or 250# flange class and available in wafer style in 2” to 10” or globe style 2 ½” to 36” styles. Also available are Double Disk or Split Disk check valves available in sizes 2” through 48”. Standard construction is cast iron body 125# or 250# class, with stainless trim or nickel coated ductile iron with O-ring seat. Available with FM approval.

**ENGINEERING SERVICES**
Metraflex can provide a full range of engineering services to assist you in your piping design, utilizing our decades of experience designing piping systems. From simply recommending expansion joint location to performing Finite Element Analysis (FEA) to analyze your complex piping layouts for movement, stresses and anchor loads. Our on-staff engineers can even stamp the calculations when needed. We can also perform on-site inspections and troubleshoot existing systems.

For videos and technical data visit www.Metraflex.com
**PUMP CONNECTORS**

**METRASPHERE CONNECTORS®**
The Metrasphere family of joints include the Metrasphere®, Doublesphere®, Cablesphere®, Double Cablesphere®, and the Kevlar reinforced Mightysphere®. These joints can be used as **pump connectors or expansion joints**. The Metrasphere combines the strength of the spherical shape, the flexibility of rubber compound and the forgiveness of alignable steel floating flanges. Please visit our website for available sizes, elastomers and temperature/pressure ratings.

**FLEXIBLE RUBBER SPOOL TYPE WIDE ARCH JOINTS**
Another design of rubber joints is the spool type wide arch joint. This is the rubber joint that can be customized. These joints come with a **full-face rubber gasket** and are available in sizes up to 48”. The model 711 FRP comes with integral gusset plates and control rods.

**SUCTION DIFFUSER FLEX**
The Suction Diffuser Flex technology consists of a scientifically designed set of stationary vanes placed in the suction-side pump connector just upstream of an elbow. These **vanes eliminate the turbulence** normally caused by fluid passing through an elbow by rotating the fluid as it enters the elbow. The fluid negotiates the turn uniformly and enters the pump with a flat velocity profile. This results in improved pump performance.

**THE VANE FLEX™ PUMP CONNECTOR**
The Vane Flex™ Pump Connector provides the same flow straightening value as an **equivalent 10” pipe diameter** length of pipe installed on pump discharge. And at the same time provides the stress relief and vibration dampening of a pump connector in a fraction of the space.

**FLEXIBLE METAL CONNECTORS/PUMP CONNECTORS**
Metal flex connectors are available in standard and custom configurations and assist in **vibration control**. We have many standard styles in stock. We can also design and manufacture custom flex connectors tailor made for your application.

**BUILDING INFORMATION MODELING (BIM)**
Metraflex has Revit® files, and all other major CAD drawing file types, for Building Information Modeling (BIM). Virtually every product, every model, every size. Our Revit® files contain important information on each product, including pressure and temperature ratings, spring rates, compression, flow rates and more. Embedding a Revit® file helps ensure the right product gets installed and keeps your engineered piping system in balance. Visit [www.Metraflex.com/Revit](http://www.Metraflex.com/Revit) to try it today!
THERMAL, VIBRATION, NOISE & SEISMIC SOLUTIONS FOR PIPES