Mason Industries was started in 1958. Our first effort went toward the creation of a totally new approach to Vibration Isolation using high deflection free standing springs as opposed to traditional inadequate methods.

Our more recent work includes new approaches to both seismic and bomb blast protection, architectural isolation for floating floors, walls and ceilings, and complete building isolation, always using our own designs or new methods.

In the molded spherical rubber expansion world we started with Masonflex and Superflex that have a 35 year history and culminated our development with Safeflex, the only Kevlar reinforced spherical joint molded in high temperature EPDM with escape proof flanges in 1996.

In order to complete our rubber offering, we acquired the Mercer Rubber Company in 1984 and increased our size capability to diameters of more than 12 feet with virtually unlimited shape and movement capability.

Wonderful as rubber materials are, we still needed stainless steel products for corrosive fluids and gases or temperatures and pressures out of the rubber range. We lacked the ability to handle extreme seismic motions across building joints as well.

We entered the stainless steel market in 2004 to overcome these shortcomings. Startup included basic products of high quality with improvements such as floating flanges and a reluctance to furnish short, cheap ineffective lengths.

It is our intention, as always, to build on this base and try to solve the problems other people walk away from. It would not be our way to do it any differently.

Welcome aboard.
In addition to the equal ended flexible connectors, we also manufacture concentric reducers that act as a flexible transition piece between different sizes of piping, particularly at pump suction and discharge. They are usually used with an ASA 150 Carbon Raised Face Steel Plate Flange on one end and a Floating Flange on the other. Other configurations are available as well.

To complete this flexible connector offering, we stock bronze braided hoses with copper female ends for sweating into copper piping systems and the usual copper ended Freon connectors.

We have CSA, UL & NSF for most of these products.
BELLOWS PUMP CONNECTORS

All bellows differ from Stainless Steel Hose in the corrugation configurations. Bellows are deeper and wider, and they are made of heavier material, to handle the pressures without braid. A very common location for our 2 ply Bellows is at the pumps. The face to face dimension is equal to the length of most Single Sphere Rubber Molded Expansion Joints. This product should be used when a combination of short length with greater movement capabilities along with the other benefits of stainless steel (high temperature and pressure) are required. If the equipment is solidly mounted, and there is an anchor somewhere in the line on the other side of the bellows, they will accept 1” (25mm) of compression and 3/8” (9mm) of elongation. Transverse movement varies between 1/8” (3mm) and 3/8” (9mm), depending on diameter.

If no anchors are provided, the joint will always remain in the full open position against the rubber isolated control rods and only serve to reduce transverse misalignment.

SEISMIC “Vee” ASSEMBLIES

Many buildings are separated by expansion joints through the walls and floors. During an earthquake, the two adjacent parts resonate with relative motion of as much as ± 4” (100mm) in shear as well as toward and away from one another. Vertical motion is minimal. We have developed a unique product to handle this seismic motion. Our Vee construction is based on two 30, 60, 90 triangles complimenting one another to form a 60° “Vee” at the bottom. We thought the concept so interesting that we tooled up for these fittings rather than use the common 45°, 90° and 180° configurations. Since it may be necessary to fit these Vee’s at odd angles, depending on space conditions, we have floating ASA 150 carbon steel flanges on both ends. No competitive product can be rotated this way.

Vee’s are often used in simple expansion applications as well.

Other fittings include Carbon Steel NPT Nipples, weld ends, Copper Female Sweat Couplings or Grooved Ends, as required. All of our Vee assemblies are designed for ± 4” (100mm) movement in all directions. Other manufacturers offer ± 2” (50mm) designs as well to reduce cost, but it is not worth the risk of misapplication.

LARGE SPECIAL ORDER and STOCK EXPANSION JOINTS

Many expansion joints are custom manufactured to diameters as large as 8 feet (2.4m). The construction varies, depending on the operating pressure and the required movements. We can provide these unusual constructions in virtually every configuration. We can build to your specific product description or complete our own recommendations based on your movement and pressure requirements.

Please let us have your inquiries.

We also stock expansion joints in 2” to 16” diameters with 2” axial and 1/4” transverse capability.
**EXPANSION COMPENSATORS & HOUSED EXPANSION JOINTS**

Expansion Compensators and Housed Expansion Joints are basically a bellows that is protected by and guided within a pipe housing. While the industry offers two styles, one of which is referred to as “internally” and the other “externally pressurized”, they both serve the same function but we prefer the “externally pressurized” for improved bellows stability. They are furnished with a Fixed ASA150 Drilling Raised Face Carbon Steel Flange on the one end and a Floating Flange on the other. The alternates are Carbon Steel Threaded Nipples, Weld or Grooved Ends or Copper Female Sweat Ends as needed.

There are three movement choices: 2” (50mm) compression and 1/2” (13mm) extension, 4” (100mm) compression and 3/4” (19mm) extension or 8” (200mm) compression and 11/2” (38mm) extension. They are all designed for systems that will run hot and the slight extension is only there for those occasions when ambient temperatures are fairly high during installation, and the installation drops to some very low temperatures before they are put into hot water or steam service.

**PIPE ALIGNMENT GUIDES**

Our newly developed Adjustable Sliding Guides offer many improvements over other guides: one size guide for all thicknesses of insulation, less friction with our Stainless Steel Slides, sturdier construction and they can be used as load supports as well.

We still carry spider guides as well. Anchors are manufactured to order.

**BALL JOINTS**

When ball joints are installed at each end of a pipe offset, the system can accommodate much larger movements with much lower anchorage requirements than solid pipe in the same configuration.

We not only sell our flanged and weld end ball joints, but we engineer the systems should there be no specifications or if specifications call for design by vendor.