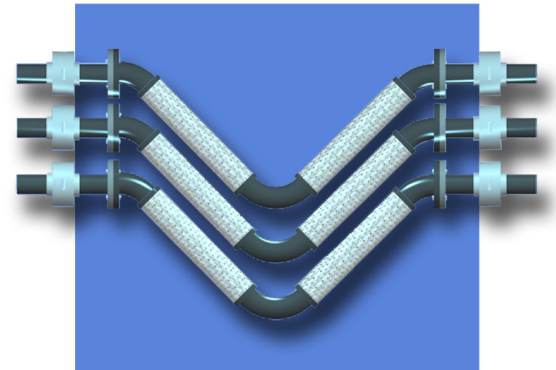


# SEISMIC FLEX LOOPS

## Unisource "Uni-Loops" For Seismic & Thermal Pipe Motion

Specified by consulting engineers and building owners and installed by contractors throughout the world for many years, *Unisource Uni-Loops* solve the problems of pipe motion caused by thermal pipe growth and the unpredictable movements associated with seismic activity. **Uni-Loops** can perform the functions of large pipe loops or expansion joints, and in addition, can provide protection and flexibility in multiple planes during potentially catastrophic earthquakes.

Unlike large pipe loops, **Uni-Loops** take up a minimum of space, providing pipe motion accommodation solutions in limited space situations such as indoor piping. The small configuration of the **Uni-Loops** are also far less susceptible to the heat loss that must be dealt with in the case of large pipe loops.



Whereas metal bellows or rubber expansion joints will impose substantial anchor loads due to the effects of static pressure thrust, ***Uni-Loops will not introduce any thrust loads on the piping system.*** The unique construction of the braided V-shaped loop creates a flexible product that does not expand when pressurized. A welded-on braid acts as a restraining device, even at extended pressures, yet allows tremendous flexibility. Anchor loads in regard to the **Uni-Loops** are confined to the relatively small spring forces required to deflect the flexible legs within the loop. Unlike expansion joints, a minimum of pipe guiding is required.

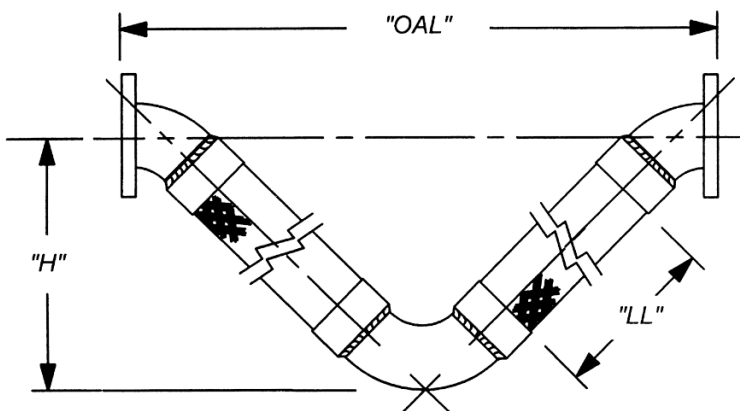
**Uni-Loops** are extremely easy to design in nested configurations. Due to the inherent V-design, standard **Uni-Loops** can simply be nested within each other with relatively tight centering. A substantial amount of space can be saved, and since no additional pipe extensions need to be installed in the **Uni-Loops**, standard models can be used, saving cost and reducing delivery time.

The standard position for the **Uni-Loop** is in a horizontal pipe run, with the elbow pointing straight down. Positioning is versatile, however, and the loops can be installed in many other positions such as laying the loop horizontal, positioning the elbow straight up, or positioning for vertical pipe run. In installations other than the standard position, Unisource can provide a support eyelet to allow a cable or rod to support the weight of the loop and its contents.

**Uni-Loops** can be used for a variety of fluids and gases. Loops can be constructed using stainless steel hose and braid with carbon steel end fittings and elbows, or with bronze hose and braid with copper end fittings and elbows. End fitting options include flanges, male threads, beveled weld ends, grooved ends, and copper sweat. Use **Uni-Loops** for applications such as heating and cooling water in HVAC systems; moderate velocity steam; natural gas; medical gases; fire sprinkler piping; and selected process applications. Drain ports can be added where required. For higher pressure applications, **Uni-Loops** can be constructed using double braided hose legs. Consult Unisource for specific pressure ratings.

Standard **Uni-Loops** are offered for either 2", 3" or 4" of motion from center-line in axial and offset planes. Loops for even greater motions can be constructed upon request.

All **Uni-Loops** are shipped complete with installation instructions wire tagged to each product. Unisource offers loops for applications under the auspices of the CSA/AGA, NFPA, and U.L.



***Select the problem solving UNI-LOOPS for your next project!***

***A complete assortment of UNI-LOOP products....***

- V-SF21-47-47 Flanged
- V-SF21-40-40 Male NPT
- V-SF21-55-55 Grooved
- V-SF21-42-42 Beveled Weld Ends
- V-BF11-12-12 Copper Sweat
- V-SF21AGA Natural Gas
- V-SF21FIRE Fire Sprinkler
- V-BF11MED Medical Gases