

# Seismic Flex Loops

## Unisource Series 455 “MedFlex” “V-Loop” For Medical Gas Systems

**Series 455 MedFlex** loops are produced specifically for medical gas applications and are documented, purged, and brazed to NFPA 99 (National Fire Protection Association) standards. All loops are cleaned, capped, and bagged in accordance with CGA (Compressed Gas Association) G-4.1.

**Series 455 MedFlex** loops are constructed with bronze hose and braid, copper return elbow, and copper sweat end connections. Sizes 2-1/2” through 4” utilize stainless steel hose and braid, stainless steel return elbow, and copper sweat end fittings silver brazed to the assembly.

Unisource **MedFlex V-Loops** can be included into specific seismic bracing designs for submission to the California Office of Statewide Health Planning and Development (OSHPD) for use in health care facilities.

Like other **V-Loop** products, **MedFlex** loops are capable of motion in all directions. Due to the unique design, **MedFlex** loops can be installed anywhere that building motion or pipe movement may be experienced—seismic applications, thermal pipe growth, or building settling. The **MedFlex** loop is versatile. It may be installed in a variety of configurations and can even be nested to save space.

Whereas metal bellows or rubber expansion joints will impose substantial anchor loads due to the effects of static pressure thrust, **MedFlex V-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.

**MedFlex V-Loops** are extremely easy to design in nested configurations. Due to the inherent V-design, standard they 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 these loops, standard models can be used, saving cost and reducing delivery time.

The standard position for the **MedFlex V-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.

### SERIES 455, MEDFLEX “V-LOOP”

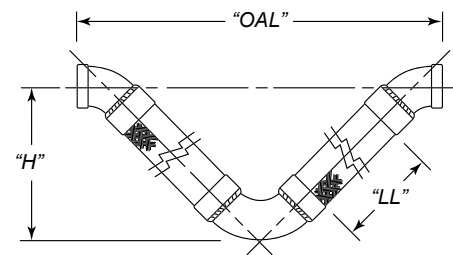
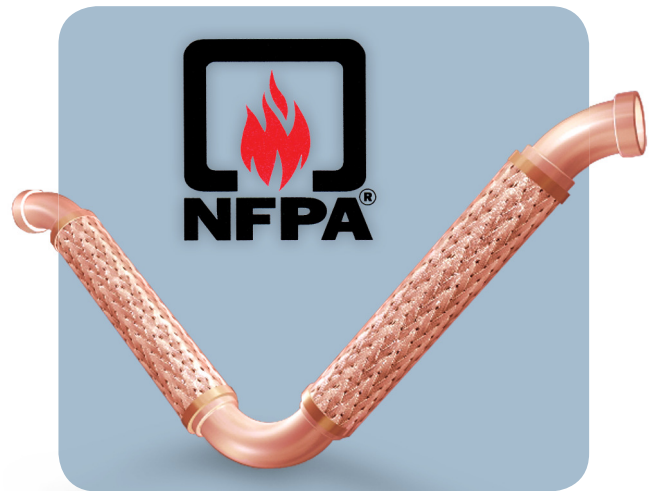
**Hose:** Bronze

**Braid:** Bronze

**Elbows:** Copper

**Ends:** Copper Female Sweat

Note: Sizes 2-1/2”, 3”, and 4” are constructed with stainless steel hose and braid, stainless steel 90-degree Sch 10 bottom elbow and copper sweat end connections.



Part #	Size (Inches)	Overall Length OAL (Inches)	Live Length LL (Inches)	Height H (Inches)	Approximate Spring Force (Lbs.) to Deflect the Full Rated Movement	Pressure Ratings (PSIG)		Allowable Motions X, Y, or Z
						W.P.	Max. Test	
455-050-4	1/2	25-1/4	14	12	5	566	849	4"
455-075-4	3/4	28-3/4	15	13-3/8	9	468	701	
455-100-4	1	30-3/8	15	14-1/4	11	334	501	
455-125-4	1-1/4	33-3/8	16-1/2	15-1/2	26	306	459	
455-150-4	1-1/2	35-3/4	17	16-1/2	42	297	445	
455-200-4	2	40-1/4	18-1/2	18-1/2	72	210	315	
455-250-4	2-1/2	45-1/4	20-1/2	20-1/4	114	387	581	
455-300-4	3	52	23-1/2	23	137	316	474	
455-400-4	4	59	25-1/2	25-3/4	152	232	348	

\* Total force necessary to accommodate full motion, calculated @ 150 PSIG.