

# Seismic/Expansion Flex Connectors for Medical Gas Applications <u>SPECIFICATION</u>

## **Description**

Beaconmedæs in line flexes provide for expansion or movement in medical gas pipelines and should be used wherever medical gas piping crosses an expansion joint or in other locations as mandated by seismic regulations.

## **Specification**

In line flex assemblies are designed specifically for installation in medical gas pipelines. They are provided with two flexible connectors in a "vee" configuration and provided with copper tube extensions to facilitate installation according to NFPA 99. Assemblies are cleaned for oxygen service and suitable for working pressures to at least 185 psig (1.2 mPa). Assemblies to 2" are all copper and brass, assemblies 2 1/2" and larger are stainless steel with brass or stainless fittings and copper tube extensions for convenient brazing.



### Ordering Information and Dimensions

Part Number	Nominal Size (S)	Length (L)	Height (H)	Extention Length (E)
4107 0053 87	1/2"	38″	12-1/2"	6"
4107 0053 88	3/4"	41-1/2"	14"	6"
4107 0053 89	1"	46"	14"	8″
4107 0053 90	1 1/4"	50"	16"	8″
4107 0053 91	1 1/2"	51-1/2"	16-1/2"	8″
4107 0053 92	2"	63-1/2"	18-1/2"	12"
4107 0053 93	3"	74"	23-1/2"	12″
4107 0053 94	4"	81″	26-1/2"	12"

### Notes:

All flexes 1/2" to 2" are copper fittings, brass flex hoses enclosed in brass braid. 2 1/2" through 4" are stainless flex hoses with stainless braid. All extentions are copper tube.

Flexes 1/2" through 3" are suitable for working pressures of 300 psig or more. 4" flexes are limited to a working pressure of 250 psig.

Maximum permitted deflection is 4 inches in x,y or z plane.

All dimensions are reference only.



#### Installation Recommendations

1. Piping at each end of the flex must be aligned. Seismic flexes should not be used as compensators for misalignments in piping.

2. Seismic Flexes should be supported at each end using pipe hangers, pipe trays or other support means.

3. Ends of the pipeline must be placed to allow the flex to be installed in the "rest" position (no tension or compression on the flex sections).

4. Seismic flexes can compensate for movement up to 4 inches from the rest position in any plane (x, y or z). Motion greater than 4 inches must be compensated with multiple flexes or by other means to preserve the full strength of the flex assembly.

5. Orient the flex with the "vee" facing up and the two arms horizontal (as shown on front). Other mounting arrangements are possible, but may require additional support in the center of the "vee" to prevent sagging of the flex sections.

6. Flexes may be installed using any NFPA 99 approved jointing technique, including brazing, cryogenic shrink fittings, or axially swaged connectors.