



### **DESCRIPTION - EXPANSION SPRINGS**

ITW CHIL-SPRINGS® are 4" and 2" Type 302 stainless steel flat expansion springs used to secure insulation over small diameter insulated piping, tanks, vessels, and equipment subject to expansion and contraction. They can be used with any common width of strapping up to 3/4".

### **APPLICATION**

ITW CHIL-SPRING expansion springs are simply attached to strapping with stainless steel wing seals. The strapping is slipped through the seal and then through the spaced opening at either end of the CHIL-SPRING. The strapping is then bent back and the wings of the seal are flattened. Strapping is then extended completely around the insulated object, or to the next spring, and the same routine is repeated until the entire circumference has been encircled.

Maximum expansion of the 4" spring should not exceed 2-1/2" beyond its original length; it is recommended that each spring be stretched 1/2" upon installation. This allows an additional 2" expansion capability per spring. For the 2" spring, maximum allowable expansion is 1-1/4" beyond its original length; it is recommended that each spring be stretched 1/4" upon installation to allow an additional 1" of expansion capability per spring.

The number and size of CHIL-SPRING expansion springs to be used should have an expansion capability of at least twice that of the expected expansion of the object. Extreme care should be taken to assure that stresses are evenly distributed around the insulation.

### **DESCRIPTION - COMPRESSION SPRINGS**

ITW MITY-SPRING compression springs are assembled from components of Type 302 and 304 stainless steel. They are used with strapping to accommodate expansion and contraction of large diameter insulated and jacketed piping, tanks, vessels, and equipment. Standard MITY-SPRING compression springs provide 80 lbs./inch of compression, and can be used with strapping widths up to 3/4". When excessively high winds are a factor, or compression exceeds 80 lbs./inch, SUPER MITY-SPRINGS with 300 lbs./inch of compression and mounting plates for 1-1/4" strapping widths are available.

### **APPLICATION**

3/4" X .020" stainless steel strapping is slipped through and back over the slots on one end of the flat bottom of the spring. Strapping is secured with a 3/4" closed seal. Strapping is extended around the object, or to the next spring, and the routine is repeated until the entire circumference has been encircled. (*Secure the SUPER MITY-SPRING with 1-1/4" X .020" strapping, and 1-1/4" closed seals.*)

To accommodate expected expansion of the object, the number of MITY-SPRING compression springs to be installed is based on a maximum compression of 1-1/2" per MITY-SPRING or SUPER MITY-SPRING. Install one MITY-SPRING compression spring for every 25' of strapping. When tensioning the strapping, compress each spring unit a total of 1/2" (*1/4" for each half of the spring unit*). Extreme care should be taken to assure that spring compression and strapping stresses are evenly distributed around the object.