

# Installation Instructions

## StopLink™ Cable Control Unit Assembly

Without proper anchoring a flexible expansion joint may very well over-extend from pressure thrust damaging the integrity of the device. To minimize possible damage from over-extension caused by pressure thrust, excessive movement of the piping system or from anchor failure a control device is recommended. Traditionally a control unit is a system of two or more control rod (tie rod) assemblies placed across an expansion joint from flange to flange to minimize this possible damage. The disadvantage to the use of standard control rods is it is necessary to set the jam nuts properly in the field (at installation) to insure movement is limited to the joints capability. With the use of the StopLink; cable length is factory pre-set, designed for the maximum rated sphere extension, so there are no jam nuts to set in the field. StopLinks are designed to adequately protect the joints but the user should be sure that pipe flange strength is sufficient to withstand total force that will be encountered.

Expansion Joint Extension: is encountered when a piping system contracts (cools down). It will also occur through pressure thrust when it is not feasible in a given structure to provide adequate anchors in the proper locations. The static pressure thrust of a piping system will cause the expansion joint to extend to the limit set by the control cables and retard further motion that would over-extend the joint (beyond its design capability). It cannot be stated too strongly that rubber expansion joints, by the nature of their design are not designed to take end thrusts, proper anchoring is essential. If proper anchoring and/or protection from over-extension is ignored, premature failure of the expansion joint will ultimately occur.

Expansion Joint Compression: occurs in the typical application when a piping system expands (heats up). Confirm that the amount of pipe expansion anticipated is within the compression capability of the flexible expansion joint. If protection is required from possible over-compression a standard control rod assembly should be utilized (with optional pipe stops) to help protect the expansion joint from over compression. It is not recommended that pipe stops be used with the StopLink Cable Control assembly.

## INSTALLATION

- 1) Typically an expansion joint is installed at its neutral face to face dimension between the pipe flanges.
- 2) The flanges on the sphere rotate (prior to tightening) to allow bolt hole alignment
- 3) Verify the number of StopLink sets required to handle the system pressure as indicated in the table below
- 4) During Step 1, install the StopLink plates (gusset plates) at equal distances around the outer circumference of the mating pipe flange. They should be installed so the cable is in a straight line across the expansion joint. This will reduce stress on the cable and the cable ends. Bolt each gusset plate behind the mating pipe flange at each location
- 5) The StopLink cable length is factory pre-set, designed for the maximum rated sphere extension, so it will not be taunt when the joint is at its neutral face-to-face dimension.
- 6) Follow the installation instructions that accompany the sphere for additional information regarding tightening and inspection.

Table  
StopLink Pressure Capabilities

NND or NNS nominal Sphere Size	Maximum Working / Test Pressure (PSI)	Number of sets required (gussets and cables per set)	Maximum Working/Test Pressure (PSI)	Number of sets required (gussets and cables per set)
2"	225 / 338	One (4 gussets, 2 cables)		
2-1/2"	225 / 338	One (4 gussets, 2 cables)		
3"	225 / 338	One (4 gussets, 2 cables)		
4"	225 / 338	One (4 gussets, 2 cables)		
5"	225 / 338	One (4 gussets, 2 cables)		
6"	225 / 338	One (4 gussets, 4 cables)		
8"	225 / 338	One (4 gussets, 4 cables)		
10"	175 / 265	One (4 gussets, 4 cables)	225 / 338	Two (8 gussets, 8 cables)
12"	125 / 190	One (4 gussets, 4 cables)	225 / 338	Two (8 gussets, 8 cables)

## MAINTENANCE

In a typical application no maintenance is required for the StopLink. During routine inspection of the sphere the StopLink cables should be inspected for any damaged or frayed wires. Also look for any corrosion in the cables and cable end fittings. In the event damage or corrosion is evident the StopLink assembly should be replaced immediately.