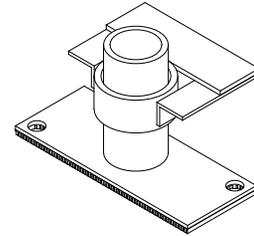


## KRG Guide Installation Instructions

KRG Guides available in a number of configurations. In their simplest configuration, they act as a guide only and are intended only to “align” and “stabilize” a riser or in some cases a horizontal run of piping at a point along its length. These units do not include a spring coil for support and look as shown at right.

These components offer lateral cushioning but allow free movement along their axis to accommodate expansion or contraction in the piping system.

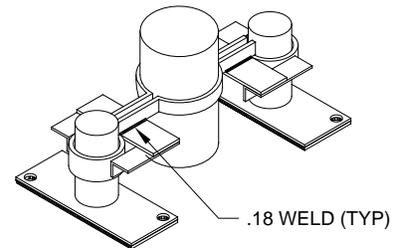


Listed KRG ratings are suitable for either attachment to steel structures or for concrete anchorage using KNC provided anchors embedded in 3000 psi min concrete with minimum embedment and edge distance spacing equal to those called out on the KNC anchor submittal or in section P10 of the seismic design manual (available on the KNC website).

KRG's can also be welded in place, however welds should be made in a series of small passes using proper procedures to protect the internal rubber elements in the Guide itself.

KRG Guides are intended to be connected to piping using heavy duty riser clamps or welded brackets. These must be positively attached to the pipe with welds or clamped in a fashion that will ensure that the clamp will not slip on the pipe. See also the sketch below.

KRG Guides in riser applications should be used in pairs with one on either side of the guided pipe to balance the load. When used on horizontal pipe runs, they should be mounted horizontally to match the pipe.



During installation, normal procedures are that the KRG Guides be connected to the structure prior to making final alignment adjustments in the riser clamp. The Sliding element of the guide is normally located at approximately the mid-travel position. However, if the pipe is expected to grow more than it shrinks (or vice versa), it can be offset to allow the full range of growth/shrinkage to be accommodated over the active travel range of the guide.

Once located and properly anchored to the structure the KRG sliding element mounting plate should be welded to the riser clamp or bracket that is fitted to the pipe in a series of small passes allowing adequate time in between for cooling to protect the internal rubber elements in the sliding element itself.