

KPA Anchor Installation Instructions

KPA anchors are intended to “locate” and “fix” the position of a riser or in some cases a horizontal run of piping at a point along its length. These components offer cushioning but will exhibit minimum variations in deflection over a widely varying range of loads. Their capacity on a long-term basis equals their listed rating in any horizontal plane, in tension or in compression.

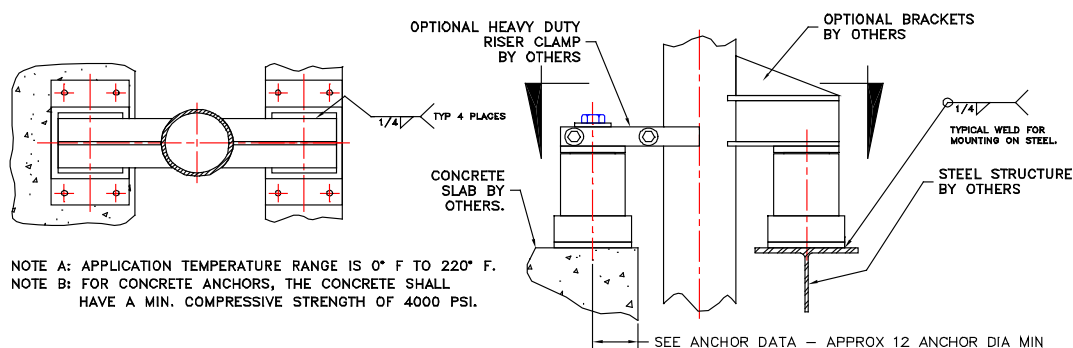
Listed KPA ratings assume through bolts or welded structural connections. Ratings are reduced significantly if bolted to concrete. On concrete, the addition of oversized baseplates will increase the KPA’s installed capacity and depending on the baseplate size, can bring it up to the full rating. (Caution, the distance between an anchor bolt and the nearest slab edge must exceed the minimum edge distance values appropriate to the anchor bolt used (approx 12 anchor diameters). If short, the bolt capacity drops and the resulting KPA capacity drops as well. For Risers involving anchorage to concrete, a perimeter structural steel frame around the riser well that acts as an interface between the KPA assemblies and the concrete anchorage components can frequently be beneficial. If welding in place, welds should be made in a series of small passes using proper procedures to protect the internal rubber elements in the anchor itself.

KPA anchors 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, trapped by a surface pipe feature (like the offset caused by a flange or coupling) or clamped in a fashion that can easily transfer the worst case expected load. Where the anchor load can vary from tension to compression, the attachment arrangement must be positive in both directions. See also the sketch below.

KPA anchors in riser applications should be used in pairs with one on either side of the riser pipe to balance the load.

During installation, normal procedures are that the KPA pipe anchors be connected to the structure prior to making final alignment adjustments in the riser clamp. If using a feature on a pipe to positively retain the clamp, ensure that there is adequate room to fit the anchor into the available space and then install the clamp. Once the clamp is installed, the KPA can be set in place and the base shimmed to the proper elevation.

Once located and properly anchored to the structure the KPA top plate can be bolted or welded to the riser clamp or bracket fitted to the pipe. (For larger KPA’s, welding may be the only option.) If welding, the weld should be done in a series of small passes allowing adequate time in between for cooling to protect the internal rubber elements in the anchor itself.



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