Graphite Pressure Seal Rings

Fluid Sealing Solutions



Nuclear Power Products and Services



One of the most difficult areas of plant maintenance occurs with pressure seal design valves.





Over the years there has been considerable research and development performed by AP Services and several valve manufacturers to develop graphite pressure rings. Flexible graphite offers several advantages over pressure seals manufactured from silver plated soft annealed metal.

Advantages:

- **Improved Sealing:** The flexible graphite's ability to "flow" provides significantly better sealing. This can be especially true in valves where the sealing surfaces are rough or where large clearance tolerances exist between the body and bonnet joint.
- **Thermal/Pressure Stability:** The thermal stability of AP Services' graphite pressure seal ring will withstand the frequent cycling that occurs in fossil and nuclear stations.
- Low Cost: AP Services' graphite pressure seals are an economical alternative to metallic seals.
- **"Contained" Design:** AP Services' graphite pressure seal design uses thin metal containment "caps" to prevent graphite extrusion. This reduces the need to modify valves or install metal spacers to reduce clearances with the exception of extreme cases.
- Nuclear Grade: AP Services' graphite pressure seal is manufactured under stringent QA controls. The parts can be supplied Safety-Related under AP Services' quality program which is NUPIC audited to the requirements of 10CFR50 Appendix B Part 21.