

## **PVP2005-71790**

### **Design and Application for a Constant Seating Stress Gasket**

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Gasketed joints suffer from numerous performance issues relating to gasket design or installation. These include creep relaxation of the sealing material and, in the case of spiral-wound gaskets, unwinding or buckling of the inner ring or windings such that the sealing elements may extrude into the flow path, thereby damaging downstream components. These are sometimes exacerbated by various closure design factors or system operating conditions, such as piping misalignment, system thermal cycling, or high system vibration . A new gasket design, the constant seating stress gasket, addresses all of the common issues that have traditionally caused in-service leakage in gasketed joints. In addition, as its name implies, it also results in a uniform gasket seating stress radially across the entire sealing surface. This presentation discusses the key concepts underlying this revolutionary gasket design, as well as its application in mitigating several common causes of in-service gasketing failure.