

**ABSTRACT**

A metal stem seal for sealing between a movable stem and a stem opening in a valve body has an annular seal body through which the stem extends. The seal has a flexible annular seal leg depending from the seal body for sealing against the stem. The inner surface of the seal leg has at least one groove defining a plurality of sealing lands, including at least a lower sealing land and upper sealing land. The undeflected inner diameter of the lower sealing land is selected so that upon insertion of the stem through the seal, the seal leg deflects outward. The undeflected diameter of the upper sealing land is selected so that it is larger than the undeflected inner diameter of the lower sealing land. The undeflected diameters of additional sealing lands are selected so that they are successively larger than the undeflected inner diameters of the sealing lands below them. Increased fluid pressure in the stem opening causes the seal leg to flex inward causing additional sealing lands to contact the stem.

---

This Sheet Has Been Replaced



SP1476.P3  
17 November 1994