

DUAL METAL SEAL SYSTEM

ABSTRACT

A wellhead seal assembly has a primary seal and a secondary seal, each seal forming a metal-to-metal seal between inner and outer wellhead members. A primary metal seal ring has inner and outer walls separated by a slot. A secondary metal seal is located below the seal ring and has a bottom portion that contacts an upward facing shoulder of a hanger. A primary energizing exerts downward force on the primary seal, causing a secondary energizing ring, located below the primary energizing ring, to energize the secondary seal. Once the secondary seal is energized, thus stopping downward movement of the primary seal and secondary energizing ring, the primary energizing ring energizes the primary seal.

Figure 1