

SEGMENTED SEAL RING AND SUPPORT OF SAME

Abstract

A locking assembly for seals within inner and outer members. The locking assembly includes a segmented tube with an inner surface that is segmented into a plurality of pieces cut in radial or reversed angles to allow assembling segments in a circumferential groove machined in the internal diameter of a housing. The housing has an internal diameter that is smaller than the outside diameter of the segmented tube. The segments that make up the segmented tubing are locked into place within the housing via a bushing or locking ring that match a profile on the inner surface of the segmented tube to lockingly engage. The bushing and segmented tube retain a lower inner seal in place and support an upper inner seal. The segmented design of the segmented tube allows for smaller diameter members to be used and minimizes leak paths.

Figure 1