

ABSTRACT

ULTRA-SEAL GASKET FOR JOINING HIGH PURITY FLUID PATHWAYS

A ring-shaped gasket for making high-purity fluid pathway connections between opposing fluid delivery apparatus elements having at least one simple flat surface in contact with the gasket. The face of at least one apparatus element typically has a circular counterbore depression to receive the gasket, but is not required. The gasket has a body, pierced through by a hole creating a fluid pathway and defining a radial inner surface, and additionally having a radial outer surface, a first axial end surface and a second axial end surface. At least one of the first and second axial end surfaces has a stress concentration feature radially adjacent to a gasket sealing region, the sealing region constructed to be in contact with a face surface of a corresponding fluid conduit port. The stress concentration feature may be a groove or a plurality of cavities disposed adjacent the gasket axial end surface sealing region.

Fig. 9A