This Sheet Has Been Replaced

ABSTRACT

ISOLATION STRUCTURE FOR CONTAMINATION SENSITIVE ITEMS

A reusable isolation structure (100) features an easily cleanable shell (110) and a cloture member or door (112). The shell has viewing windows (117,119) formed therein, each protected by a framing ridge (121, 122) or a recess integrally formed in the shell provides protection of contents from contamination, impact, vibration and tampering. Framing ridges or recesses also facilitate stacking of shells. The opening (90) of the door (112) of the shell includes a groove formed around the periphery thereof and is preferably not more than slightly smaller than an interior cross-section of the shell. The door of the isolation structure is dimensioned to fit within the door opening and has a resilient seal (113) clamped to the periphery of a backbone (124) by front (123) and rear (125) plates. The front and rear plates cooperate with grooves formed in the backbone to define a preferred form of manifold for coupling pressure or a vacuum to the interior of the resilient seal whereby the resilient seal may be collapsed to allow removal of the door or allowed to expand or pressurized to provide secure closure. Filters (328) and vapor and moisture drains are carried by the door structure. The door also provides a smooth interior surface of the isolation structure of closely controlled and accurately repeatable dimensions. A vacuum plate (114) for handling the door simultaneously provides for evacuation and controlled collapse of the resilient seal as well as containment of contamination of the exterior thereof.

Figure n° 1