



VERTICAL RISING DOOR CONFIGURATION FOR MINI BULK & BULK STERILIZERS

This design consists of a solid 316L S/S inner plate and external carbon steel structural I-beams with outer channels to form the door. The door is positioned behind heavy-duty retaining blocks, which also guide the door during raising and lowering. The design utilizes two direct drive hydraulic cylinders, to raise and lower the door. The hydraulic system is provided with built in safety links, flow control valves and a dual-action mechanical pump to raise or lower the door in the event of an emergency. Once the door is lowered into position, compressed air is applied behind the gasket, pushing it against a machined sealing surface on the doorplate, to create the seal. The gasket-retaining groove consists of a solid stainless steel block that has been welded to the end of the autoclave, milled flat, and then a precision-groove machined into it. This ensures that a true retaining groove is provided for the door seal. For door unsealing, a vacuum is drawn behind the gasket, pulling it back into the groove, and away from the door-sealing surface. The door gasket is a round silicone rubber extrusion. The door is retained on two vertical sides. Two proximity safety strips are mounted on the inner and outer edges of the door bottom to stop the door if an obstruction is encountered. This design can be used on chamber cross sections as large as 148" W x 84"H.



Vertical rising door autoclave installed at site.

APPLICATION

The Vertical Sliding Door is a good choice for applications where a new facility has planned interstitial mechanical space and vertical space is not an issue. Mechanical equipment can be located on top of the autoclave. Loads can be staged in front of the door and pit size is significantly smaller.

