

PS-3 TRIPLE PRESSURE SCREEN



SECTION 1 - INTRODUCTION

This manual contains specific instructions for installation, operation, and maintenance of the Fluid-Quip 120 degree Triple Pressure Screen.

Fluid-Quip pressure screens are designed for efficiency and simplicity in liquid-solid separation of fibrous non-abrasive materials and for ease of operation, to simplify maintenance and to reduce down-time.

These Fluid-Quip PS-3 120 degree Triple Pressure Screens consists of a cabinet with 3 compartments, each enclosing a single screen, supplied by five (5) nozzles connected to a feed header. Slurry flow is controlled by valves on the feed header. Slurry pumped into the header manifold @ 60 psi (4.14 bar) is directed through the feed nozzles at a tangent onto the 120 degree screen. As the slurry flows downward, the screen's bar edges slice off thin layers which pass through the slot opening to the filtrate port. Slurry material larger than the slot openings is retained on the screen surface and flows downward to the "oversize" port.

By varying feed pressure, nozzle orifice size, and the open area of screens, operating conditions can be customized to meet specific product requirements. Fluid-Quip can assist customers in determining the conditions that best fill their needs.

1.1 Design Features

- Easy access through large front and back doors with simple and rugged one-handle latches
- Easy, quick-change, vapor-proof EPDM rubber door seals
- Quick-change, roll-out screens of 316 stainless steel with UHMW side supports
- Range of screen opening sizes available: 50, 75, 100, and 150 microns
- Swing-up nozzles permit easy screen removal
- Slide-in feed nozzles for ease of installation are replaceable without opening compartments
- Molded Nylon nozzles available in a range of sizes

1.2 Specifications

Construction of all metal parts - 316 Stainless Steel

Door seals - EPDM rubber

Screen side supports - UHMW polyethylene

Feed Inlet 6" nominal flanged connection

Oversize Outlet 8" nominal flanged or welded connection

Undersize Outlet 8" nominal flanged or welded connection

Weight (empty) ~2500 lbs. (~ .1134 kg)

Dimensions See Figure 2, Appendix B

Operating Pressure 25 - 60 psi (172 - 414 kPa)

Recommended Feed 60 psi (414 kPa)

Screens (supplied by customer) 316SS, 24" width, (micron size, TBD)

Nozzles Molded Nylon, ½" diameter orifice