**4700 Vertical Multistage Pumps - QVMS**

File No: 47.102IN

Date: November 13, 2024

Supersedes: New

Date: New

Typical Specifications

**Construction**

Supply and install, as shown on the plans and specifications, the Armstrong Series 4700 QVMS (Vertical Multistage) Pumps. The pump shall have a continuously rising curve from minimum head to shut-off condition and a motor installed suitable for the full range of the published performance curve.

* QVMS -03, 05, 10, 15, 32, 42, 65, 85,120, and 150: All wetted components shall be manufactured from Type 304.
* QVMSL -03, 05, 10 & 15, 32, 42, 65, 85, 120, and 150: 316 stainless steel is available as optional

The 304 and 316L stainless steel shafts shall be fitted with Tungsten Carbide intermediary bearing(s).

* Pump casing: Vertical Multistage pumps 304 (316L for QVMSL) Stainless Steel body and base with DIN/PN flanges for working pressure of 16/25 bar at 120°C. 25 bar packages shall be within the standard offering of the manufacturer.
* Impeller: 304 (316L for QVMSL) stainless steel, fully enclosed type.
* Shaft: 304 (316L for QVMSL) stainless steel pump shafts.
* Coupling: Rigid spacer type of Carbon steel. Coupling to be designed to allow removal of all mechanical seal components for servicing without removal of the pump.
* Mechanical seals: Mechanical shaft seal with EPDM secondary seal, carbon rotating face, and silicon carbide stationary seat.
* Bearing: Tungsten carbide pump bearings and sleeves provide maximum operating life.

Each Vertical Multistage (VMS) pump will have the following pump characteristics:

* Full 304/316L stainless steel construction of all wetted components ensuring longevity of life and maximum resilience against a wide array of fluids’ chemical and physical properties.
* Rising heads shut off to supply required hydrostatic lift in low flow conditions.
* Low axial thrust impellers to enable long motor bearing life.
* Air vent in casing cover allows for proper venting to prevent air entrapment and dry run.
* Fill port in casing cover to allow for water fill, as well as installation of sensors, gauges, and other measuring devices.
* Self-aligning liner ring, floating design constructed to prevent swelling at high temperatures.
* Keyed, direct drive pump and motor shafts for positive, reliable power transmission with no adjustments necessary
* “Flexible” floating outer casing allowing for thermal expansion in hot water applications, preventing deformation due to pressure fluctuations.
* Square-edge four spline shaft providing positive location and drive of impellers, eliminating wear.
* Cartridge mechanical seal design, enabling replacement of the shaft seal without disassembling the motor bracket.