

ARMSTRONG



Vertical MultiStage Pumps

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VMS 50



VMS 100



VMS 180

Heavy Duty Thrust Bearing

Maintains rotating assembly axial location and unloads pump hydraulic thrust.

Unique Internal Upper End Design

Eliminates vapor locking and ensures lubrication and cooling of the mechanical seal.

High Grade Stainless Steel Impellers

For high temperature operation and for maximum resistance to corrosion and erosion. Prevents accumulation of debris on the internal pump components.

Tungsten Carbide Intermediate Bearings

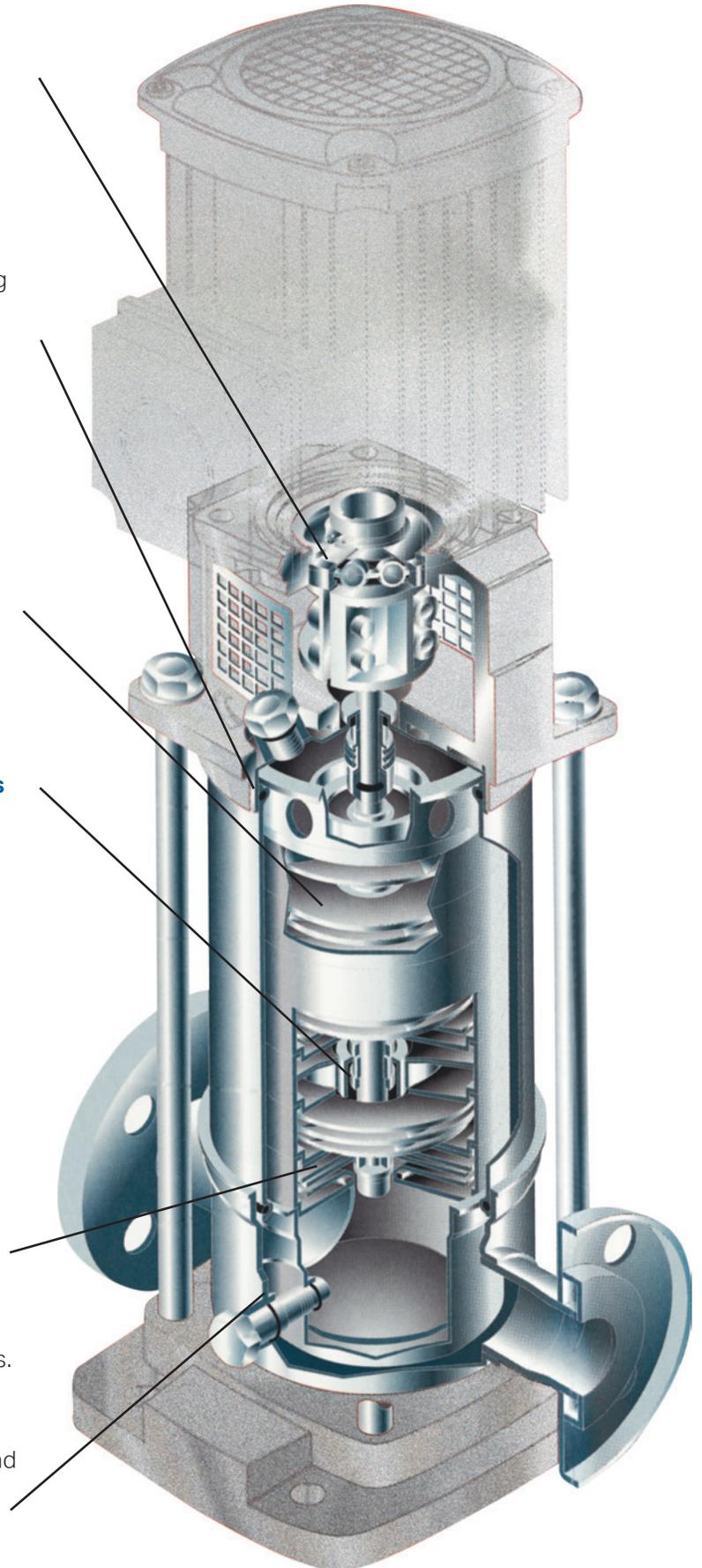
Reduces rotor vibration and improves stability on multistage pumps. Continuous pressure lubricated bearings ensure long life and reduced maintenance.

Heavy Duty Teflon Impeller Seal Rings

Limits interstage recirculation and dramatically reduces friction. Teflon® effectively resists thermal distortion and has excellent abrasion resisting characteristics.

Priming Plugs

Interconnect suction and discharge chambers to facilitate quick filling and initial air removal.



Solutions Tailored To Each Application

► Environmental Engineering

Armstrong Series 4700, designed for temperatures ranging from 5°F to 250°F (-15°C to 120°C), are well suited for boiler feed applications, condensate recovery and air conditioning systems. Easy to incorporate into industrial environmental engineering equipment, our Vertical MultiStage pumps combine the advantages of compact design, quiet operation and ease of maintenance.



► Water Distribution

From basic water supply to the most specific pressure boosting and fire line pressure maintenance applications, Armstrong Series 4700 Vertical MultiStage pumps satisfy all water distribution requirements. The wide pressure range - from 10 psig to 430 psig (0.7 bar to 30 bar) - makes this product well suited for applications such as pressure washing of aircraft, trains, boats and road vehicles as well as spray washing of industrial parts and electronic components.



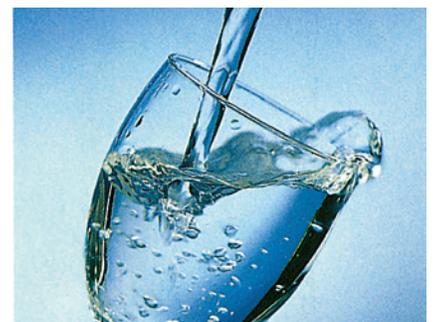
► Industry

Water feed to machine tools, grease removal, cooling of lathes and molds ... water has many uses in the industrial market. The stainless steel design and wide temperature parameters of the Series 4700 Vertical MultiStage pump makes it an ideal unit for light industrial applications.



► Water Treatment

Water is becoming a precious commodity. Water transportation, demineralization, filtration, deionization and reverse osmosis all call for high pressure supply and hygienic considerations. The Armstrong Series 4700 Vertical MultiStage pump is made entirely with stainless steel wetted components, for most sizes and is well suited for these applications.



► Agriculture

The excellent hydraulic efficiency of the Armstrong Series 4700 makes this pump a great choice for irrigation and sprinkling applications. Whether irrigating large farms or sprinkling parks and golf courses, the Armstrong stainless steel pump stages provide the best hydraulic efficiency in all power ranges. The compact design allows the best utilization of available space in pumping stations.



► Typical Specifications

Construction

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

- Models VMS-03, 05, 10 & 18: All hydraulic components shall be manufactured from Type 304 stainless steel.
- Models VMS-32, 45 & 64: Manufactured from Type 304 stainless steel with cast iron casing.

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

Mechanical Seal

The mechanical seal shall be suitable for the full pressure and temperature range of the pump and shall be fitted with Carbon rotating face and Silicon Carbide stationary face.

Pedestal Bearing

The motor pedestal shall be fitted with an integral thrust bearing on pumps where the motor is greater than 5 HP. The thrust bearing must be connected to the adapter and shaft in such a manner as to eliminate any transfer of pump axial loads to the motor, allowing standard NEMA design motors to be used.

Connections

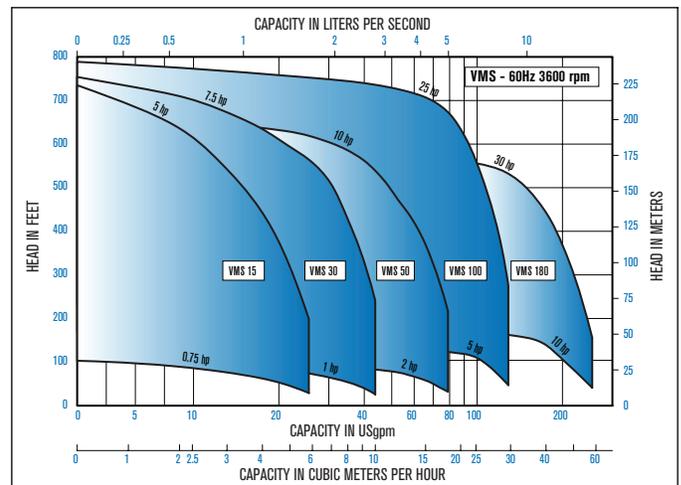
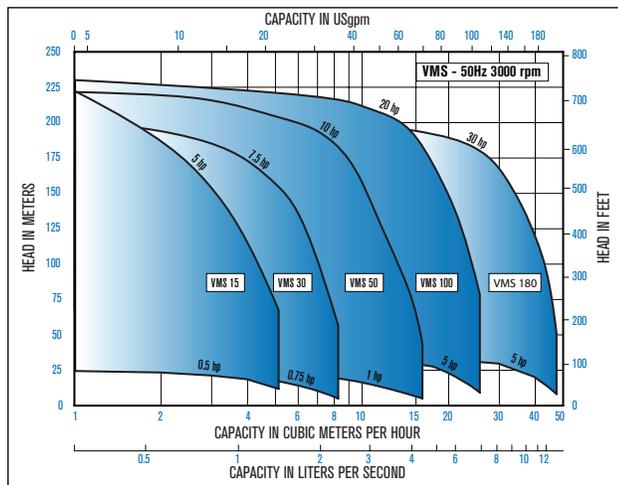
The base mounted pump shall be assembled in a vertical shaft configuration with the suction and discharge connections being 180° in-line at the bottom.

Suction and discharge connections shall have same size flanges with an ANSI 150 (250 or 300, as appropriate) rating.

Motor

Supply a standard NEMA design 2-pole motor with the electrical characteristics, efficiency level and enclosure as indicated on the drawings.

► Performance Curves



S. A. Armstrong Limited
23 Bertrand Avenue
Toronto, Ontario
Canada, M1L 2P3
T: 416-755-2291
F: 416-759-9101

Armstrong Pumps Inc.
93 East Avenue
North Tonawanda, New York
U.S.A., 14120-6594
T: 716-693-8813
F: 716-693-8970

Armstrong Integrated Limited
Wenlock Way
Manchester
United Kingdom, M12 5JL
T: +44 (0) 8444 145 145
F: +44 (0) 8444 145 146



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