

Two Stage Split Case Centrifugal Pumps

General

Furnish a unit built in accordance with the Hydraulic Institute and ANSI Standards. Qty _____ Series 5260 Horizontally Split Case Multi-Stage Pump(s) and specified accessories. Pump performance and installation details as follows.

Fluid _____ Temperature °F _____
 Specific Gravity _____ Viscosity _____
 U.S. GPM _____ Total Head _____
 Motor Voltage _____ Motor Phase _____
 Motor Hertz _____ Motor Speed _____
 Motor Efficiency _____ Pump Efficiency _____
 Other _____

Submittal Data

Provide General Product Bulletin, Performance Curve, and Dimension Print. Maintenance Manual required at time of shipment. Recommended Spare Parts List to be included.

Testing

The following (Witnessed)(Non-Witnessed) test to be performed:

Pump Performance Routine Motor Test
 Hydrostatic - Complete Pump

Exceptions

Any exceptions taken to this specification shall be clearly stated and justification provided.

Pump

Furnish and install, as shown on the plans _____ Deming Fig. _____ Size _____ Horizontally Split Case Multi-Stage Centrifugal Pump(s). Each shall be capable of pumping _____ GPM when operating against a total pumping head of _____ feet of (suction lift)(suction pressure) at the temperature, specific gravity and viscosity indicated. The pump shall operate at _____ RPM and shall have _____ percent minimum guaranteed efficiency at the design point. Shut off head shall be continually rising with rotation (clockwise)(counter-clockwise) when viewed from behind the driver end.

Construction Details

The pump casing shall be of extra heavy cast iron, with minimum tensile strength of 30,000 lbs. and shall be split parallel to the shaft. Bearing housing supports, suction and discharge flanges shall be cast, bored and machined integrally with the lower half casing. Upper and lower half casing shall

be dowelled and bolted together. Removable upper half casing must permit inspection or removal of the entire rotating assembly without disturbing the piping. Flanges shall be 125 lb ANSI Flat Face Suction and 250 lb ASA Flat Face Discharge. The impellers shall be of (bronze)(iron) enclosed, single opposed suction type both statically and hydraulically balanced. The impellers shall be keyed to a (steel)(416 st. stl.) shaft. The shaft shall be protected by (416 st. stl.)(ceramic coated 416 st. stl.)(316 st. stl.) sleeves with a gasketed joint between it and the impeller for protection against shaft corrosion. The sleeves will be positive a drive by means of a key and with an external shaft sleeve nut set screwed to the shaft for reduction in shaft wear.

The pump shall be equipped with (bronze)(cast iron) renewable throat bushings, casing rings, and interstage channel ring to reduce casing wear and maintenance costs. The casing rings and channel ring shall be held by anti-rotational pins to permit easy re-installation and reduce down time. Impeller wear rings are optional and will be of (bronze)(cast iron) material. The rotating element shall be mounted in (grease)(oil) lubricated ball bearings (when temperatures rise above 225°F. water jackets shall be added. Heavy cast split glands shall be furnished on each stuffing box design for easy removal for packing inspection and maintenance.

Various mechanical seals can also be installed. Heavy fabricated steel base (with)(without) drip lip to mount the pump and driver shall be furnished. Flexible shaft coupling shall be furnished to connect the driver to the pump. Coupling shall be enclosed in (Standard)(OSHA) coupling guard.

Motor

The motor shall be not less than _____ HP _____ RPM, NEMA Design B squirrel cage induction type, (Drip Proof)(TEFC)(Explosion Proof) EISA motor with (1.15)(1.0) service factor and suitable for operation on (200)(208)(230/400)(460)(575) volt, 3 phase, 60 hertz power supply. Motor size shall be sufficient to prevent overloading at operating conditions or at the lowest listed head conditions whichever point requires greater horsepower. Following installation, grouting and connection of all piping, pump and motor must be checked for alignment in accord with standards of the Hydraulic Institute.