DEMING®

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Vertical In-Line Chemical & Process Pumps

General

Furnish and install as indicated on plans and specifications qty _____ Deming Series 3180 Chemical & Process Vertical In-line Centrifugal pump(s) for _____ type service.

Operating Conditions

Each pump shall be capable of delivering _____ GPM of _____ liquid against _____ feet total head. The characteristics of the liquid to be pumped are as follows:

Liquid Handled _____
Temperature _____
Specific Gravity _____
Nature of Solids Present _____
Percentage of Solids by Weight _____
Viscosity of Liquid at Pumping Temperature _____
$NPSH_A$ _____

NOTE: Add any additional facts concerning the nature of the liquid which might affect pump construction or application.

Construction Details

The casing of the pump shall be of (cast iron)(ductile iron)(316 st. stl.) material and shall be equipped with (125lb.)(150lb.) Flat face flanges on the inlet and outlet connections. The discharge and suction connections shall be in-line, and perpendicular to the shaft axis. The casing shall be designed for working pressures up to 250 lbs., with 1/8" corrosion allowance, and have optional (250lb.)(300 lb.) flanges or raised faces.

Impeller

The impeller shall be of the enclosed single suction type of (cast iron)(bronze)(316 st. Stl.) both statically and hydraulically balanced for maximum efficiency and smooth operation. Balance holes shall be provided to keep smooth positive pressure on the mechanical seal and balanced axial thrust loads. The impeller shall be keyed to the shaft so that it will have maximum drive with shaft rotation.

Shaft Sleeve

Pumps shall be equipped with a hooked style shaft sleeve which is securely keyed to the shaft. The surface of the sleeve shall be finished to 32 micro inches. Sealing gaskets shall be provided to prevent leakage of the fluid pumped. The sleeve shall extent throughout the stuffing box area and shall be 440C (500 Brinnell) for packed ductile iron pump or (316 stainless steel) for a pump with mechanical seal.

Casing/Seal (Housing) Head Adapter

The pumps shall be packed box consisting of packing, (5 rings), Teflon seal cage and split gland. The stuffing box shall include water cooling jacket for use where required. The stuffing box shall incorporate an external connection through which sealing liquid may be provided to the seal cage. Pump construction shall permit conversion from packed stuffing box to mechanical seal without special machining.

As an alternate to packing, the pump can be furnished with a single seal or double mechanical seal that is compatible with the material being pumped.

Motor

The motor shall be not less than _____ hp _____ RPM, NEMA design B squirrel cage type, (drip proof)(TEFC)(EISA)(premium) efficiency motor with (1.15)(1.0) service factor and suitable for operation on (115)(230) volt, 1 phase, (50)(60) Hertz power supply OR (200)(230)(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 accordance with standards of the Hydraulic Institute