

Typical Specifications

7365 Series Class I Division 1 Group C&D X-Pruf®

Demersible Non-Clog Pumps

General

Furnish and install in accordance with plans; <u>(Single)</u> (Duplex) automatic Deming Series 7365 Demersible solids handling pump(s) each with a capacity of _____ GPM at a total head o f_____feet (including vertical lift from sump, friction in discharge piping and velocity head) and designed to pass solids

up to 2.5" (3" discharge pumps) or up to 3" solids (4" and 6" pumps) or up to 3.5" solids (8U) or up to 4" solids (8M, 8V plus 10" pumps). The unit(s) shall be suitable for installation in sump having a depth of _____feet. Pump speed not to exceed (3600)(1800)(1200)(900) RPM.

Pump Motor

Motor(s) shall be sized to operate pump without exceeding the nameplates rating. Motor shall be totally submersible and rated for continuous duty in 40° C (104° F) liquid continuous and 70° C (160° F) intermittently, on (208)(230)(460)(200)(575)* Volts _____ Phase.

The motor shall have two mechanical seals installed in tandem with an oil chamber between the pump and motor. Seal materials of construction shall be Carbon/ Ceramic for the pump-end seal and Carbon/ Ceramic for the motor-end seal. Motor shall have built-in thermal overload protection with automatic reset. The inner seal chamber shall have a moisture sensing probe with leads for connection to a relay with test button. Motors shall be dielectric oil filled for optimal thermal management and maximum bearing life. Air-filled motors with grease lubricated bearings shall not be acceptable. The motor windings shall utilize spike resistant Class H varnish and magnet wire. The motor shall meet the NEMA Design B standard.

Motor shall be CSA Listed to the CSA/UL harmonized standard for frame sizes #4 and #5. CSA Listed for frame sizes #2 and #3. Certifications to include rating on Class I Division 1 Group C&D Explosion-Proof with a T4 temperature rating.

Pump Construction

Pump case, motor case, seal plate and adapter shall be ASTM A-48 Class 30 cast iron. Discharge flange shall be sized in accordance with standard flange designations and slotted to accommodate ANSI or ISO flanges. Impeller shall be ASTM A-536 ductile iron (ASTM A-532 class III Type A White Iron for abrasive applications) with a keyed, tapered shaft bore. The impeller shall be enclosed, (mono)(dual)(tri) vane or (vortex), solids handling type designed to pump industrial wastes and wastewater and be dynamically balanced to ISO G6.3 specifications. Shaft shall be constructed of 416 stainless steel and feature a tapered impeller end to automatically center and self-seat the impeller for vibration free operation. All exposed hardware including the oversized lifting bail shall be 300 series stainless steel.

(Optional): Suitable heavy-duty breakaway fittings shall be provided for installation in the sump bottom and allow the use of slide rail systems for ease of maintenance and pump replacement.

The pump shall be equipped with (30)(50)(75)(100) ft. of a CSA-qualified submersible quick connect power cable constructed in accordance with type W guidelines and shall include the moisture and temperature sensor leads. For #2 & #3 frame pumps, the cable entry system shall consist of a voltage-selectable expanding elastomeric plug held in place by a cast stainless steel plate indicating voltage and max amps. For #4 & #5 frame pumps, cord connection shall be a pump mounted plug and a rigid cord socket contained by a cast iron housing bolted to the motor with epoxy-potted cable connections and sealed by compressed O-rings.

Pump Test

The pump manufacturer shall perform a standard three point performance test at the minimum. If certified testing is required, the manufacturer shall offer to perform tests in accordance with Grades B, E and U of Hydraulic Institute standards. Additionally,

- 1. A check of the motor voltage and frequency shall be made as shown on the name plate.
- 2. A motor and cable insulation test for moisture content or insulation defects shall be made per CSA criteria.
- 3. A performance curve from the production line test showing head versus flow shall be included in the Installation and Operation Manual shipped with each pump.
- 4. A written report shall be available showing the aforementioned tests have been performed in accordance with the specifications.

* See catalog for voltage vs. horsepower availability.





PUMPS & SYSTEMS

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