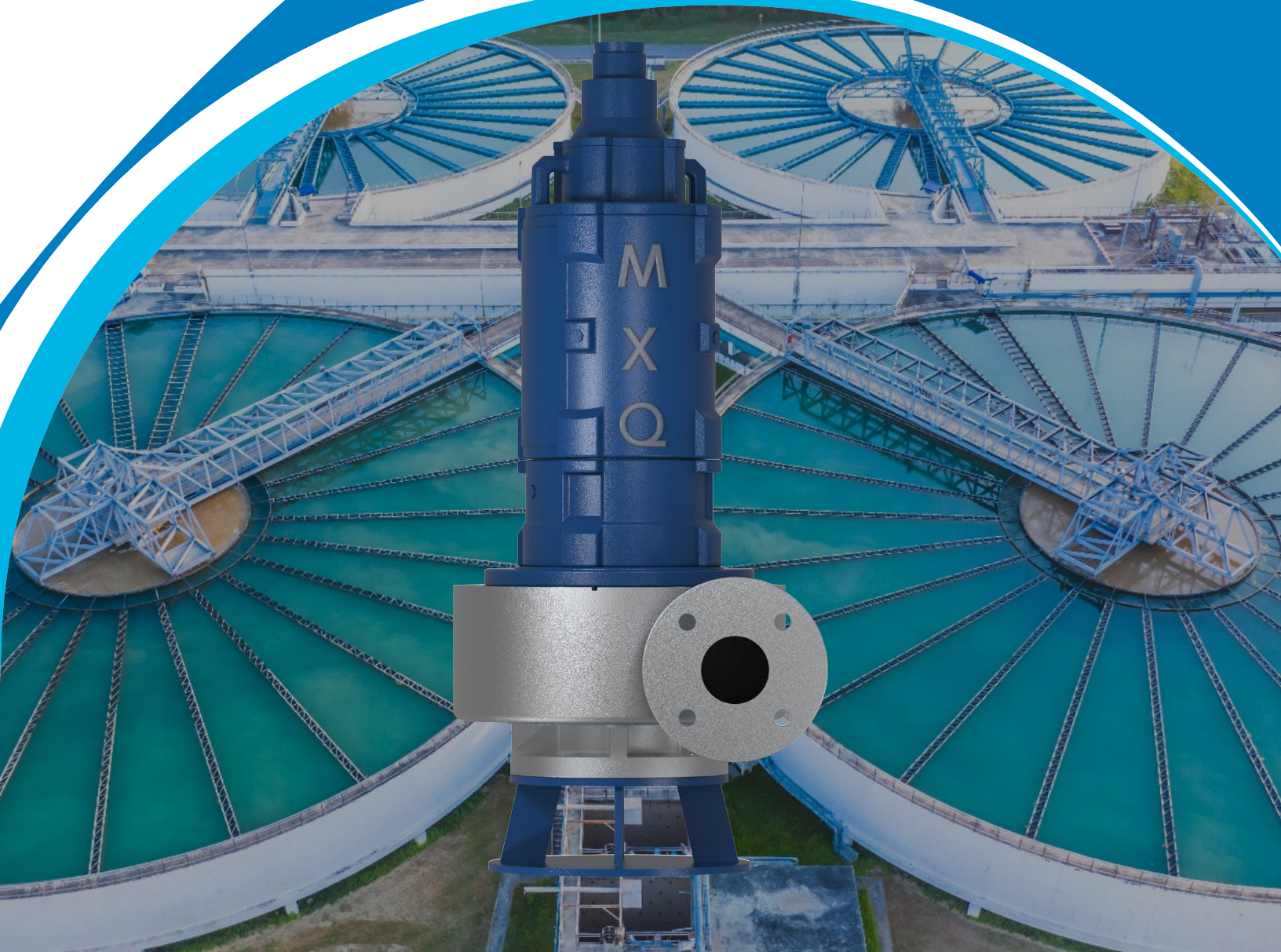


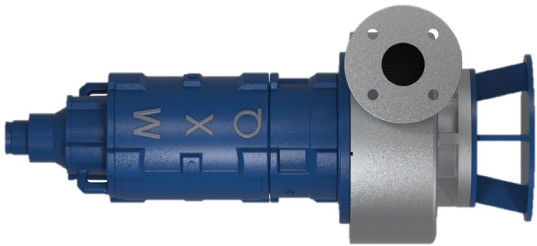


SUBMERSIBLE DISC PUMP



MXQ SUBMERSIBLE DISC PUMP

MXQ submersible disc pumps can handle fluids with high viscosity (up to 50,000 cP), high solids (up to 60%), and entrained air or gas (*Up to 50% at low rpms and low flow and TDH*). They also generate very little shear making them an excellent option for thixotropic or dilatant media. Self-cooling motors can also be provided allowing the motors to be kept cool for high temperature applications, or even run dry permanently.



INDUSTRIES:



AVAILABLE MATERIALS:



GENERAL SPECIFICATIONS

Certifications	FM (United States, Canada)
Permitted Use	ClassI (GAS/VAPOUR), Division 1, Groups C & D
Maximum Operating Temperature Range (T-Code)	T4 [135°C (275°F)]
Motor	Three Phase Squirrel Cage Induction Motor
Method of Cooling	Non Jacketed or Jacketed
Motor Rating HP	2 POLE(3600RPM): 2 HP-40 HP 4 POLE(1800RPM): 2 HP-125 HP 6 POLE(1200RPM): 5 HP-100 HP 8 POLE(900RPM): 5 HP-75 HP
Power Supply	208, 230, 460, 575V (Other voltages not more than 600V are available)
Insulation	Class F (155°C, 310°F) or Class H (180°C, 356°F)
Service Factor	1.15
Starting Method	Direct-On-Line or Star-Delta
Electrical Characteristics	NEMA Design B
Liquid Temperature	40°C (104°F) (Other temperatures are available on request)
Ambient Air Temperature	40°C (104°F)
Submersible Depth	Max. 65 ft (20m)
Leakage Detector	Single- or Dual-Electrode Leakage Detectors
Thermal Protector	Two Bi-Metallic Thermal Switches

STANDARD MOTOR

1. CABLE

UL approved, specifically designed for submersible applications chloroprene cable withstands temperatures of up to 90°C(194°F).

2. CABLE ENTRY

Bell-mouths are provided on junction chamber cover to reduce the likelihood of conductor insulation damage. Power cables and control cable are supported by clamps attached to the bell-mouths for a strain relief. The cable sealing between the cables and the junction chamber cover and strain relief for the cables are ensured by rubber bushings. All cables are potted into the junction chamber cover with cable sealing cement, forming the cable and cover assembly. Conductors located in the junction chamber cover are completely encapsulated in epoxy after removing the sheath and the other coverings for ensuring a non wicking cable entry.

3. LIFTING DEVICE

Oversized dual lifting rings of AISI-304 are provided for the safe handling.

4. BEARINGS

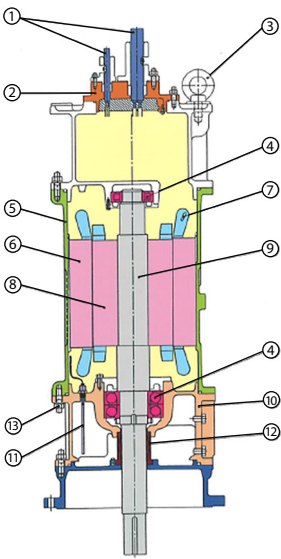
The support(upper) bearing consists of a single row ball bearing(frame size: 140T, 180T and 250T) or a roller bearing(frame size: 320T and 360T). The main (lower) bearing consists of a single row ball bearing (frame size: 140T) or a double row angular contact ball bearing (frame size: 180T, 250T, 320T and 360T). Both upper and lower bearing are packed with lithium grease for high temperature usage. Minimum bearing life L10 30,000 hours is standard.

5. MOTOR HOUSING

Rugged cast iron ASTM type A48. Class 35

6. MOTOR

An air filled, three phase squirrel cage induction motor for submersible or dry pit duty. Stator windings are insulated with specially treated Class F(155°C, 310°F) or Class H (180°C, 356°F) nonhygroscopic insulation system. Direct on Line for up to 10HP and Star- Delta winding for 15HP and above are standard.



7. THERMAL PROTECTOR

Two automatic-resetting bimetallic thermostats connected in series for limiting motor temperature are embedded in the motor windings.

8. ROTOR

Cast aluminum, dynamically balanced

9. SHAFT

AISI-420 stainless steel, oversized for maximum strength and life.

10. OIL CHAMBER

The oil in the oil chamber lubricates and cools the shaft seals and functions as a buffer to prevent water penetration into the motor.

11. LEAKAGE DETECTOR

A single-electrode or dual-electrode leakage detectors are installed in the oil chamber for sensing water penetration into there.

12. SHAFT SEALS

Double mechanical seals prevent the water from penetrating into the oil chamber and the motor housing. The inner seal (motor side) uses carbon against ceramic faces (frame size: 140T, 180T and 250T) or dual silicon carbide faces (frame size: 320T and 360T). The outer seal(process side) uses dual silicon carbide faces for all frame sizes.

13. HARDWARE

All external hardware are made of AISI-304 stainless steel.

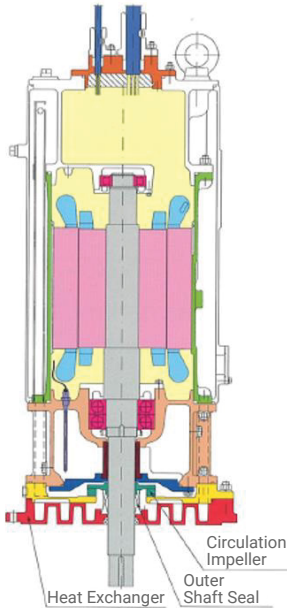
SELF COOLING MOTOR

As same as the General Specifications, but,

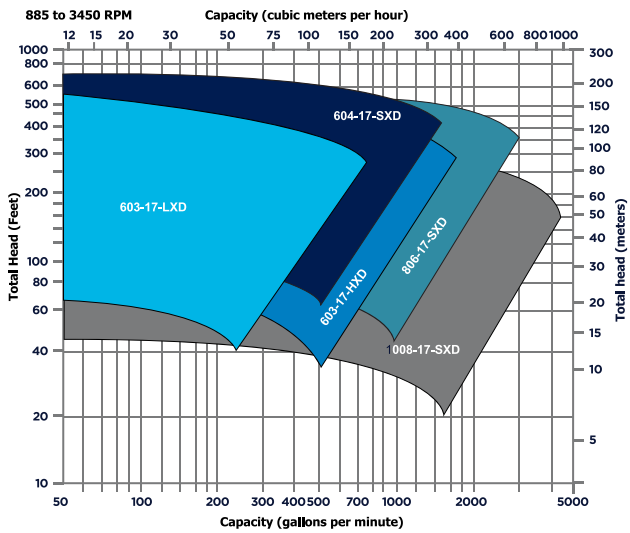
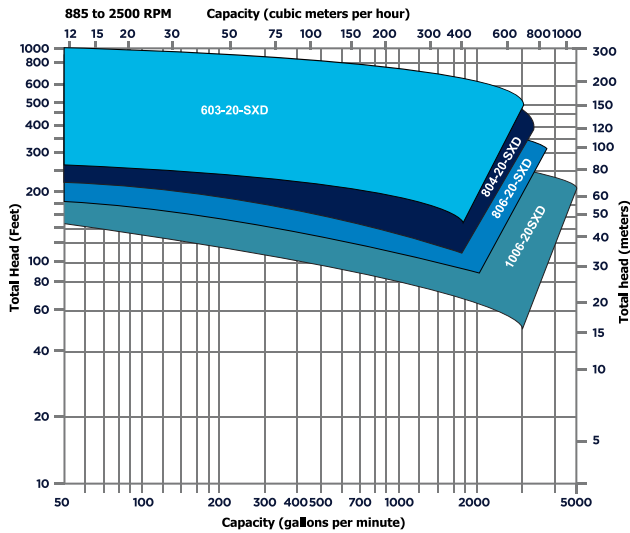
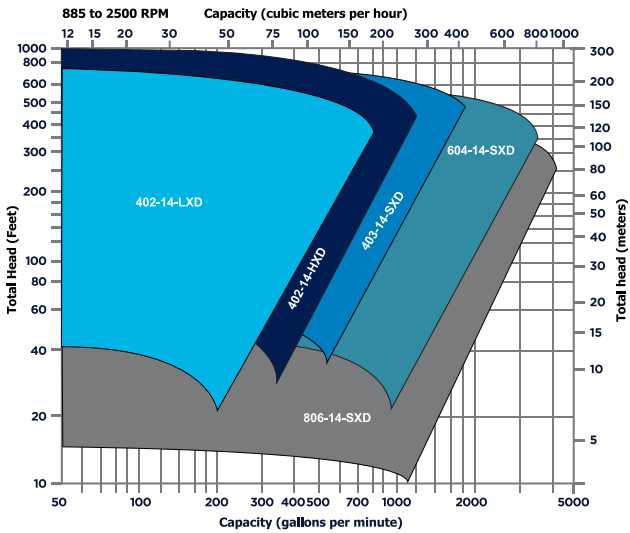
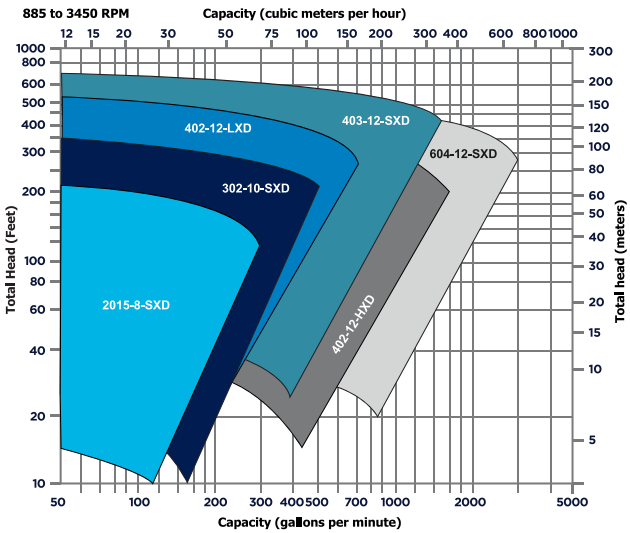
- * Continuous submerged and dry operation
- * Class F non-hygroscopic winding insulation
- * Silicon carbide faces (both rotating and stationary faces) outer shaft seal

Our self cooling model comes with aninternal closed loop cooling system with a unique corrugate shape heat exchanger incorporated into the bottom of motor. Through this configuration with wide heat transfer surfaces, the heat exchanger has superior performance in the cooling effect.

- The cooling circuit separated from the oil chamber
- The cooling media of the clean water/glycol mix having excellent heat conductivity compared with the conventional cooling media such as oil is circulated by means of a motor shaft mounted circulation impeller located between the oil chamber and the outer shaft seal.
- The circulation impeller causes the water to move through and around the motor housing from which it picks up heat generated in the motor active parts. This heat is then directed into the heat exchanger which transfers the heat to the pumped liquid.



PERFORMANCE





CONNECT WITH US

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