



IMMERSIBLE MOTOR

EXPLOSION PROOF IMMERSIBLE MOTOR

Overview

JWC Environmental's exclusive immersible motor is designed specifically for use with JWC products requiring full time or near full time in-air operation with periodic submergence. The JWC immersible motor feature a high efficiency design with a 1.15 Service Factor. JWC's immersible motor features a cast iron housing along with class F insulation to draw the heat out from the motor and keep it running even in the harshest of climates. The motor is designed with a NEMA C-face flange and shaft length, making connection to a gear box or speed reducer much easier than other designs. The motor is the preferred option in open channel wastewater applications using the Muffin Monster®, Channel Monster® and Auger Monster® products.

JWC Immersible Motor vs. Other Submersible or Immersible Motors

Submersible motors use a de-rated horsepower design requiring a large housing and a shaft seal design with the use of an oil chamber to keep the seal lubricated and cool. Submersible motors operating continuously in air tend to generate high heat, which can contribute to shaft seal failure. If the seal is not maintained and oil escapes from the chamber, the motor will run excessively hot and fail during operation. Unlike submersible motors, the JWC immersible motor features a unique shaft seal design that does not require an oil chamber and can run in air continually without generating excessive heat, shaft seal failure or downtime for your equipment.

The JWC immersible motor differentiates itself from other immersible motor designs that require the use of a fan or blower to keep the motor cool while operating in air. This fan or blower is required to be connected to a user supplied float switch that will turn off the fan/blower during submergence. Once the fan or blower's motor is submerged, it must be replaced.

JWC's immersible motor provides a high efficiency, compact design that was engineered specifically to provide long trouble-free service in demanding pump station and headworks applications.



Features & Benefits

Immersible Design

- Operates in air continuously
- Operates to 40 feet (12.2 m) of continuous submergence for a period of 40 days

Shaft Seal

- Requires no external lubrication or oil chamber to maintain integrity in dry operating conditions
- Helps support cool operation even in harsh climates or conditions

Housings

- Allows motor to operate continuously in air or under submergence for a period of time
- Rated as Class I, Div. I, Groups C&D, Class II, Div. II, Groups F&G and Class III, Div. I Zone I
- Class F insulation allows 167°F (75°C) temperature rise
- C-Face Mounting with standard NEMA frame sizes

Pre-Wired Cable Entry

- Standard with a 40 ft. (12m) cable (Other lengths available)
- Cable gland allows for factory approved change-out of cable

Technical Specs

Frame: NEMA C-Face XPNV (Explosion Proof Non-Ventilated)

U.L. Rating: NEMA 6P (IP68)

Manufacturer Rating: 40 feet (12.2 m) submergence for 40 consecutive days.

Horsepower: 1 HP, 3HP, 5 HP, 10 HP and 15 HP

RPM: 1770 (60 Hz) / 1440 (50 Hz)

Service Factor: 1.15

Site Pictures



An immersible motor[®] installed on a Channel Monster[®] in a deep channel.



An overhead view of an immersible motor in a deep wet well.



Channel Monster[®] with immersible motor and lifting bail.



A Muffin Monster[®] with immersible motor and lifting bail in a deep wet well.



An immersible motor powers an Auger Monster[®] in an underground vault.

Technical Specifications

HP (kW)	Voltage	Hz	Frame
1 (0.75)	208-230/ 460	60	145TC
1 (0.75)	190-200/ 380-400	50	145TC
1 (0.75)	575	60	145TC
3 (2.20)	208-230/ 460	60	184TC
3 (2.20)	190-200/ 380-400	50	184TC
3 (2.20)	575	60	184TC
5 (3.75)	208-230/ 460	60	184TC
5 (3.75)	190-200/ 380-400	50	184TC
5 (3.75)	575	60	184TC
10 (7.50)	208-230/ 460	60	254TC
10 (7.50)	190-200/ 380-400	50	254TC
10 (7.50)	575	60	254TC
15 (11.25)	208-230/ 460	60	254TC
15 (11.25)	190-200/ 380-400	50	254TC
15 (11.25)	575	60	254TC



JWC
Environmental[®]
A Sulzer Brand

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