MWI Moving Water Industries
CORPORATION
ESTABLISHED 1926

AXIAL AND MIXED FLOW

SUBMERSIBLE
ELECTRIC PUMPS

About the Company

Moving Water Industries (MWI) Corporation traces it roots back to 1926, when Hoyt Eller started a business in Deerfield Beach, Florida. The company grew over the years due to its reputation for customer service, quality and innovative designs. David Eller, the current CEO/President has over 20 US patents for his innovations in pump design. He is joined by his two sons, Dana and Daren and daughter Danielle, all graduate engineers.

MWI's international headquarters and extensive manufacturing capabilities are located in Deerfield Beach, Florida, very close to the original business. The manufacturing facilities are spread over 4 city blocks and total nearly 300,000 SF, to include a 10,000 SF test lab. The company also has facilities in Egypt and Nigeria and representatives throughout the United States, Latin America, Middle East, Africa and Asia.

MWI's pump product line includes: lineshaft, submersible electric, hydraulically driven, centrifugal, self priming, trash, rotary lobe and solar borehole pumps.

Today, MWI is focused on:

- *Axial and mixed flow pumps for drainage, irrigation, flood control and emergency pumping*
- *Pumps for rental companies and contractors for construction dewatering, sewage bypass and industrial applications.*
- *Renting pumps directly in Central and South Florida and nationwide when very large pumps are required.*
- *Solar powered pumps with water treatment capabilities for the developing world.*

Our philosophy is simple: provide innovative, high-quality pumps at competitive prices and take care of each customer. Let us help you solve your water moving problems with our extensive engineering staff, years of experience and great products.

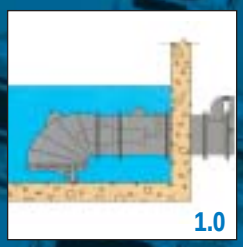
About the Product

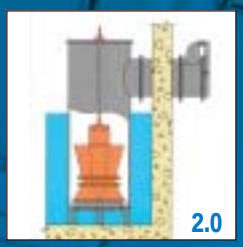
Submersible electric pumps are pump units that have an impeller directly connected to a water-proof electric motor. These have multiple configurations — vertical, horizontal, or any angle in between, canned or enclosed. They are quiet, low profile, and provide for easy maintenance. Submersible Electric pumps are typically used in applications for storm water drainage, flood control, irrigation and final effluent pumping and are available in sizes ranging from 8" to 60" in diameter.

Submersible Electric Pumps

Installation Options

MWI offers submersible electric pumps units in both mixed flow and axial flow propeller designs. Installation options are shown.





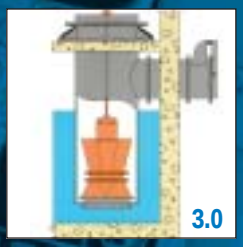


fig.1.0 ***Horizontal pump with 90° intake bell (for use when low profile is desirable).***

fig.2.0 ***Self-supporting vertical can, horizontal discharge pipe, lift out pump with intake bell.***

fig.3.0 ***Suspended vertical can, horizontal discharge pipe, lift out pump with intake bell.***

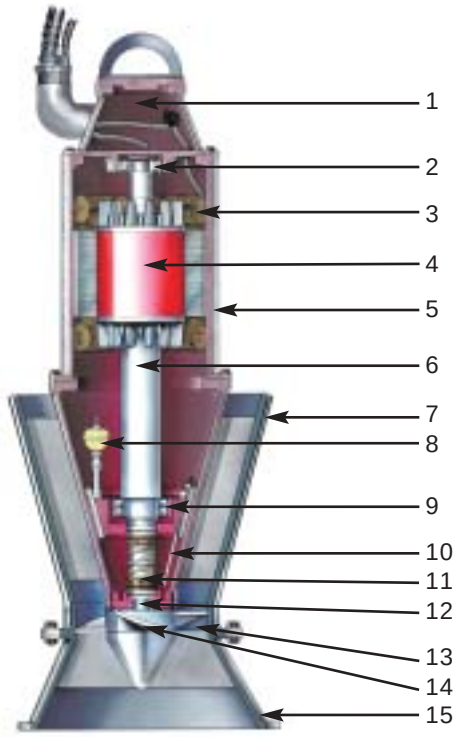
fig.4.0 ***Suspended vertical can with intake bell, vertical discharge, lift out pump.***

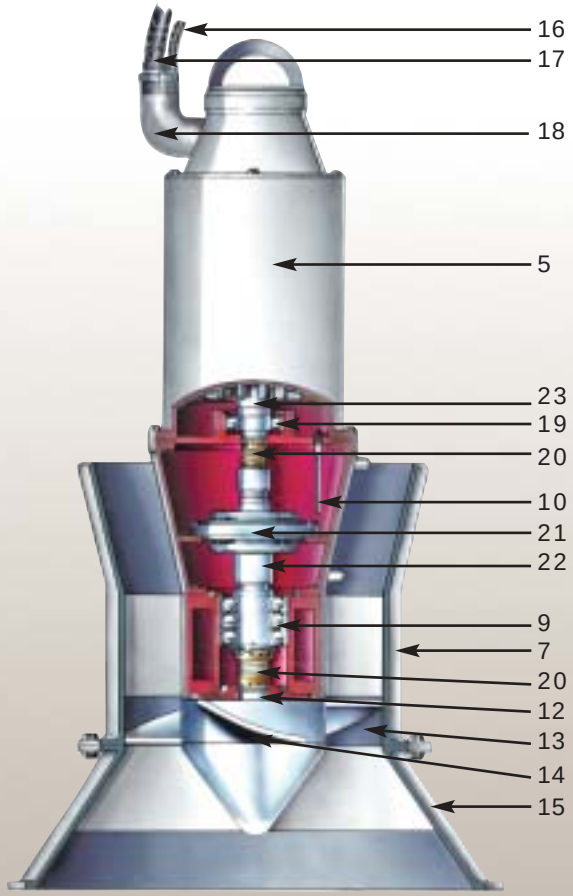
fig.5.0 ***45° pump with 45° intake bell, horizontal discharge pipe, simple support structure.***

Submersible Electric Pumps

Internal Components

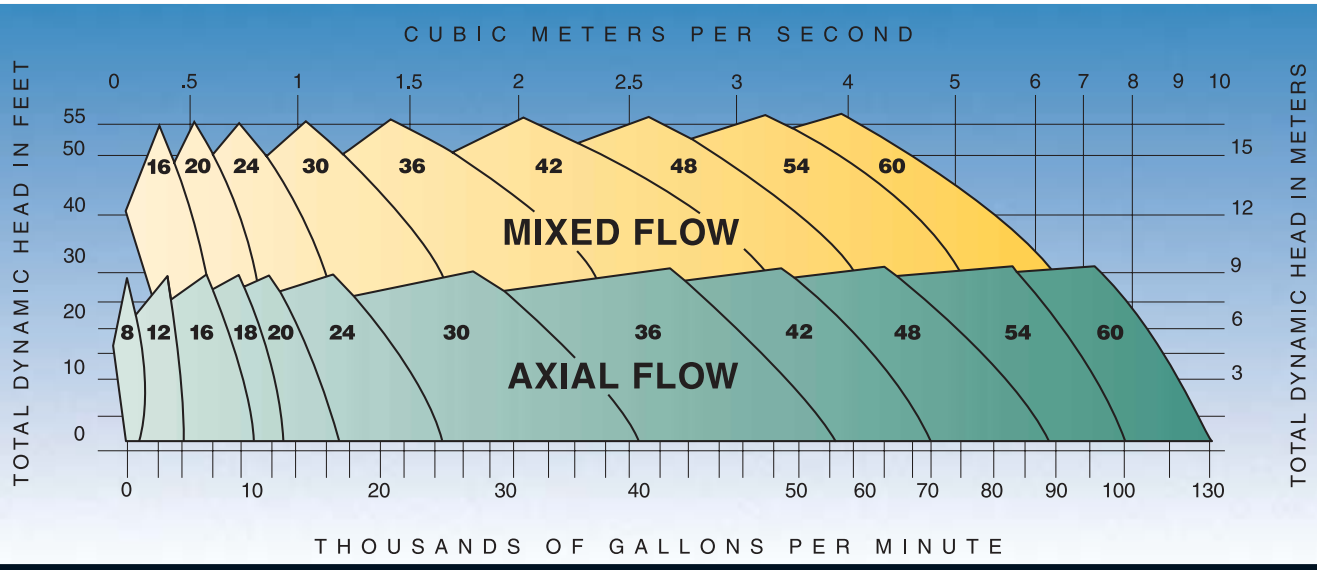
1. Wire Connection Chamber, Junction Box
2. Upper Support Bearing
3. Stator Winding with Thermal Protection
4. Dynamically Balanced Rotor
5. Motor Housing
6. Pump Shaft
7. Pump Bowl Assembly with Flow Straightening Vanes
8. Accumulator
9. Thrust Bearings
10. Moisture Detection Probe
11. Dual Mechanical Seals
12. Seal Protector
13. Optional Replaceable Liner
14. Propeller with Taper Lock Attachment
15. Intake Bell with Guide Vanes
16. Control Cable
17. Heavy Insulated Power Cable
18. Double Cable Seal
19. Intermediate Support Bearing
20. Mechanical Seal
21. Speed Reducer Assembly
22. Pump Bowl Shaft
23. Motor Shaft





Due to our continual improvement of our products, we reserve the right to change designs and specifications.

Performance Data



Efficient Drive System

The submersible pump is a direct-coupled waterproof motor and pump bowl which eliminate long shafts and complex drive systems. This greatly simplifies the entire drive train, increasing reliability, and allowing ready access for maintenance.

Stainless Steel

MWI's submersible pumps come standard with stainless steel motor housings, impellers, and impeller wear rings. Corrosion resistant, high-strength A242/A588 steel is a available as a lower cost option, when stainless steel is not required or specified.

Superior Motor Winding Insulation

MWI uses premium insulation on its submersible pump motor stator windings. Several methods, to include Vacuum Pressure Impregnation (VPI) when appropriate, are used to provide superior heat transfer, moisture resistance, and mechanical strength.

Moisture and Heat Protection

Double mechanical seals are provided between the motor and the pumped liquid. A pressure compensation device is installed in the mechanical seal oil chamber to limit the oil pressure caused by thermal expansion. Electric motors are air filled and include a moisture detection probe. Thermal sensors are embedded in the motor stator windings for overheating protection.

Pump Lift-Out Option

The submersible pump can be housed in a discharge can which will allow the pump to be easily lifted out for routine maintenance.

Unlimited Angle of Installation

MWI's submersible pump can be placed at any angle for simple pump station design and reducing civil works costs.

Low Profile Applications

Since MWI's submersible pump can be placed at any angle, it can be utilized where low profile or aesthetically pleasing applications are required.

Non-Proprietary Seals

MWI's submersible pumps use standard commercially available seals which are less costly than other manufacturers' proprietary spare parts.

Custom Design

MWI custom designs every submersible electric pump. This will insure the pump which best suits your pumping requirements and will help insure low energy costs.

Benefits

Mobile Designs

MWI offers a mobile submersible electric pump complete with generator and light tower. Sizes range from 8" to 16". These versatile units can be used to provide mobile generating power or portable lighting or the high volume flows that come only from an axial or mixed flow pump for serious water moving.

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