



Large Axial Flow & Mixed Flow Propeller Pumps

Lineshaft



Moving Water Worldwide - Reliably and Efficiently

Lineshaft Pumps from MWI

Advantages ...

Shaft & Bearings:

Shafts are made from high tensile strength polished alloy steel shafting that is stress relieved, turned, and ground. The lower areas of the shaft that are in contact with bearings or seals are inlaid with hardened stainless steel. The shaft is enclosed in a sealed, oil filled tube. The tube contains bronze bearings spaced to prevent operation of the shaft near its critical speed.

Column & Elbow:

The discharge column and elbow are manufactured from corrosion resistant ASTM A242 steel. The discharge elbow has multiple segments to allow for smooth and efficient flow. The elbow terminates with a flange and is also available with a plain or grooved end to accommodate compression type couplings.

Pump Bowl:

The pump bowl is designed to maintain the highest possible hydraulic efficiency. Because the bowl absorbs much of the hydraulic and mechanical stress, its heavy duty design features corrosion resistant ASTM A242 steel. Bowls can also be made from CAST iron or Stainless Steel.

One-Piece Pump

Simplicity of design is the hallmark of the MWI Couch one-piece pump. While using the same high efficiency hydraulic design common to all MWI Couch pumps, the one-piece pump features major components permanently welded together to form a rigid, factory aligned unit. Critical alignment of the bearings in the shaft enclosing tube is maintained by support spiders welded to the pump column and hood,

and the unique stepped design of the bearings allows easy replacement with a minimum of pump disassembly.

Jointed Pump:

The MWI Couch jointed pump allows for complete disassembly of most pump components. The pump bowl is flanged to the column. Pump shaft bearings are threaded into shaft enclosing tube sections.

Mixed Flow Bowl:

For higher head applications the mixed flow bowl provides the highest pumping efficiency. Mixed flow bowls come standard with a throttle bearing and pressure relief vent to reduce the hydraulic pressure on the lower seals, thus increasing the life of the seals. A replaceable impeller bowl section is available as an option.

Thrust Bearings:

Where the pump is required to carry the hydraulic thrust load, the shaft is supported by heavy duty, duplex mounted angular contact ball bearings designed for a combination of thrust and radial loads and a minimum L10 life of 20,000 hours (higher life hours are available).

Thrust Bearing Housing:

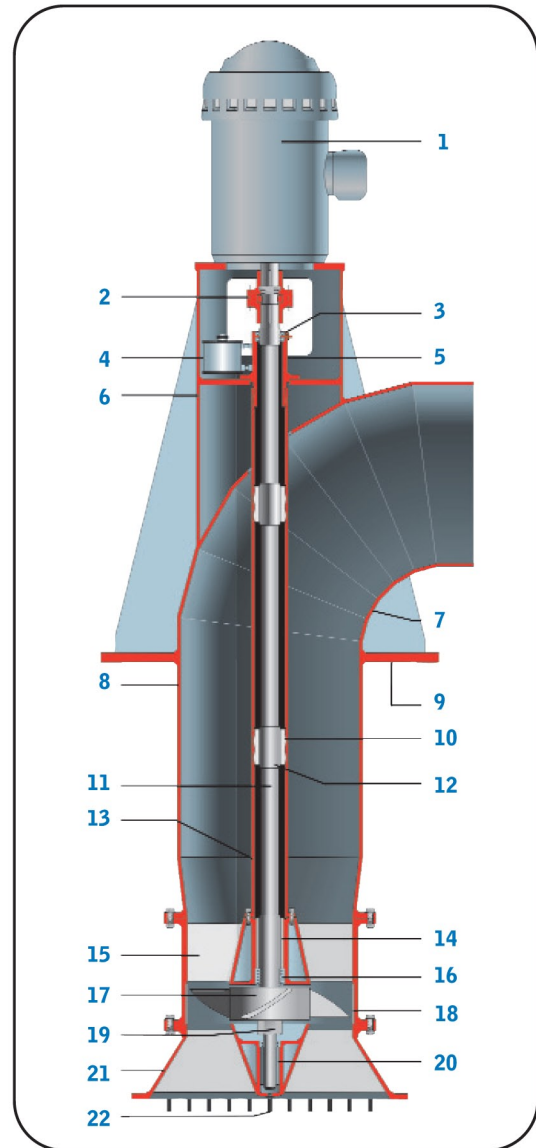
For belt drive applications, a thrust bearing housing at the top of the pump, carries the radial load at the closest possible point to the load. A convenient lubrication port and vent are provided to add new grease and purge old grease from the bearings.



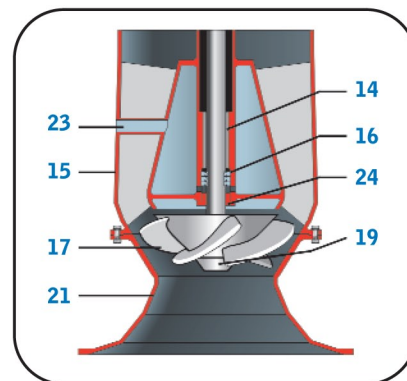
Internal Components ...

1. Solid Shaft Driver
2. Flanged Shaft Coupling
3. Enclosing Tube Seals
4. Oil Reservoir
5. Tube Tension Nut
6. Hood
7. Discharge Elbow
8. Column
9. Mounting Plate
10. Bearing/Tube Coupling
11. Pump Shaft
12. Shaft Wear Sleeves
13. Shaft Enclosing Tube
14. Bowl Bearing
15. Bowl
16. Bowl Seals
17. Propeller
18. Bowl Liner
19. Propeller Nut
20. Suction Bell Bearing
21. Suction Bell
22. Strainer Bars
23. Pressure Relief Vent
24. Throttle Bearing

Jointed Pump



Mixed Flow



Illustrations are subject to variation due to size, options, etc. Request certified drawings for construction.

Configurations ...

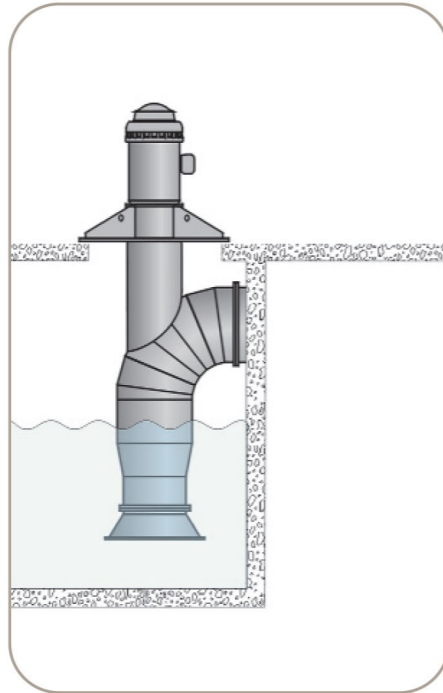
MWI offers various configurations for lineshaft pumps. Vertical with direct drive motors, right angle gears, or belt and pulley being the most common.

Angle lineshaft pumps are normally belt driven, but may be configured with right angle gears and diesel drives.

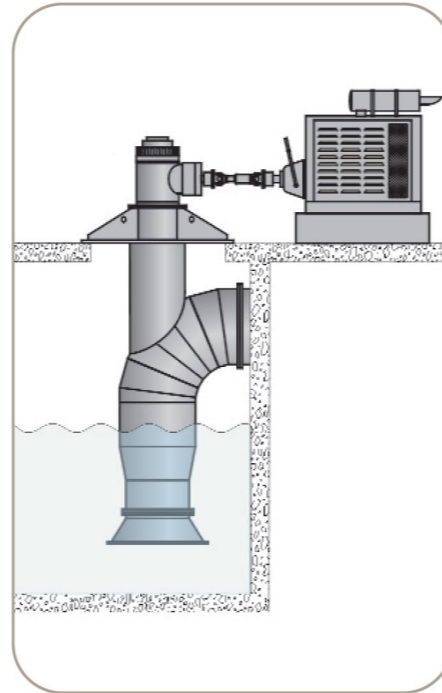
Consult factory for the solution to your pumping requirements.

+1 (954) 426-1500

mwicorp.com/contact.shtml

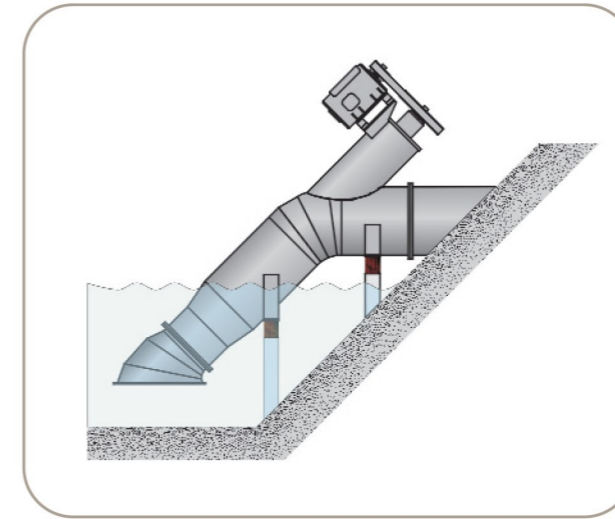


DIRECT DRIVE ELECTRIC MOTOR



ENGINE WITH GEAR DRIVE AND DRIVE SHAFT

- Optional direct drive electric motor



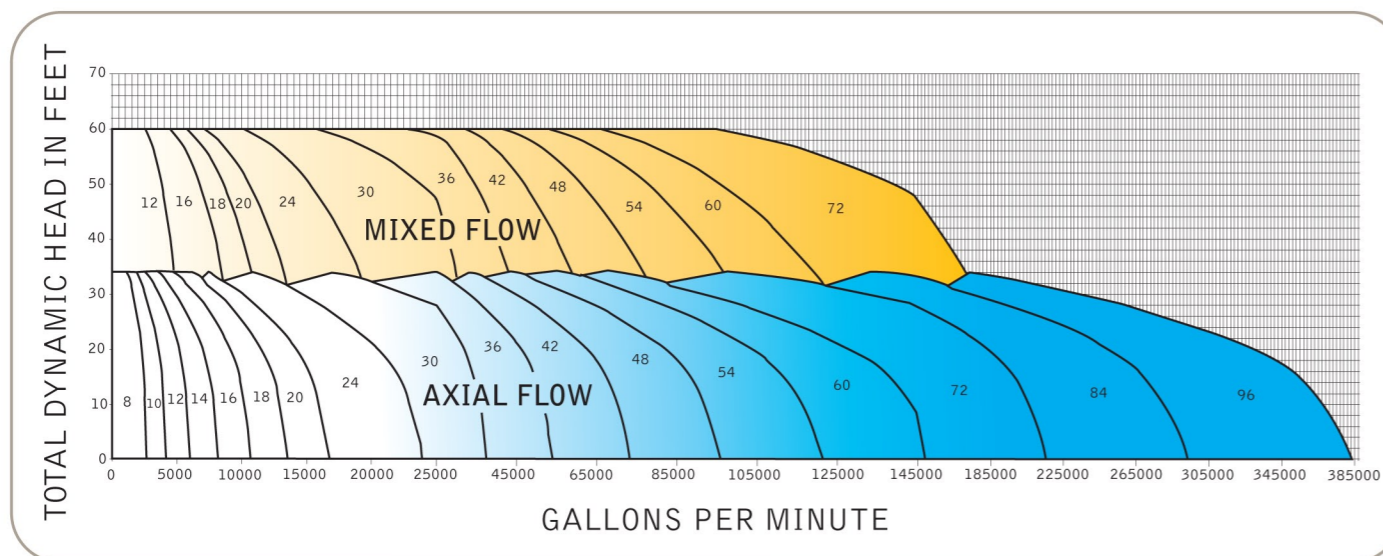
ELECTRIC MOTOR WITH BELT DRIVE

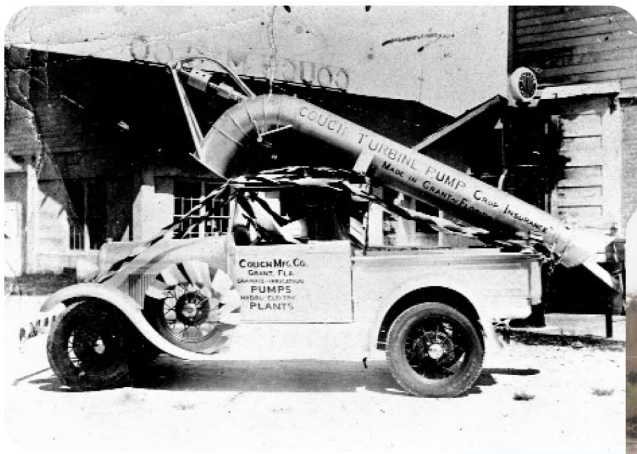
- Optional right angle gear

Features ...

- ISO 9001 Certification and member of Hydraulic Institute standards
- Full size testing with certified curves
- Experienced engineering staff to insure your pumps are designed to match your needs and provide effective, efficient results.
- Choice of materials to match the environment and pumped media, such as 316L stainless steel
- Multiple drive unit configurations - electric, diesel or natural gas to provide you with the most reliable and cost effective situation
- Different configurations - horizontal, angled or vertical to provide maximum flexibility

Performance curves for each bowl size are available upon request.





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 ft², to include a 10,000 ft² test lab. The company has a facility in Egypt and representatives throughout the United States, Latin America, Middle East, Africa and Asia.



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MOVING WATER INDUSTRIES
INTERNATIONAL HEADQUARTERS

201 N. Federal Highway Deerfield Beach, Florida 33441 USA
Phone: (954) 426-1500 Fax: (954) 426-1582 E-mail: info@mwicorp.com www.mwicorp.com