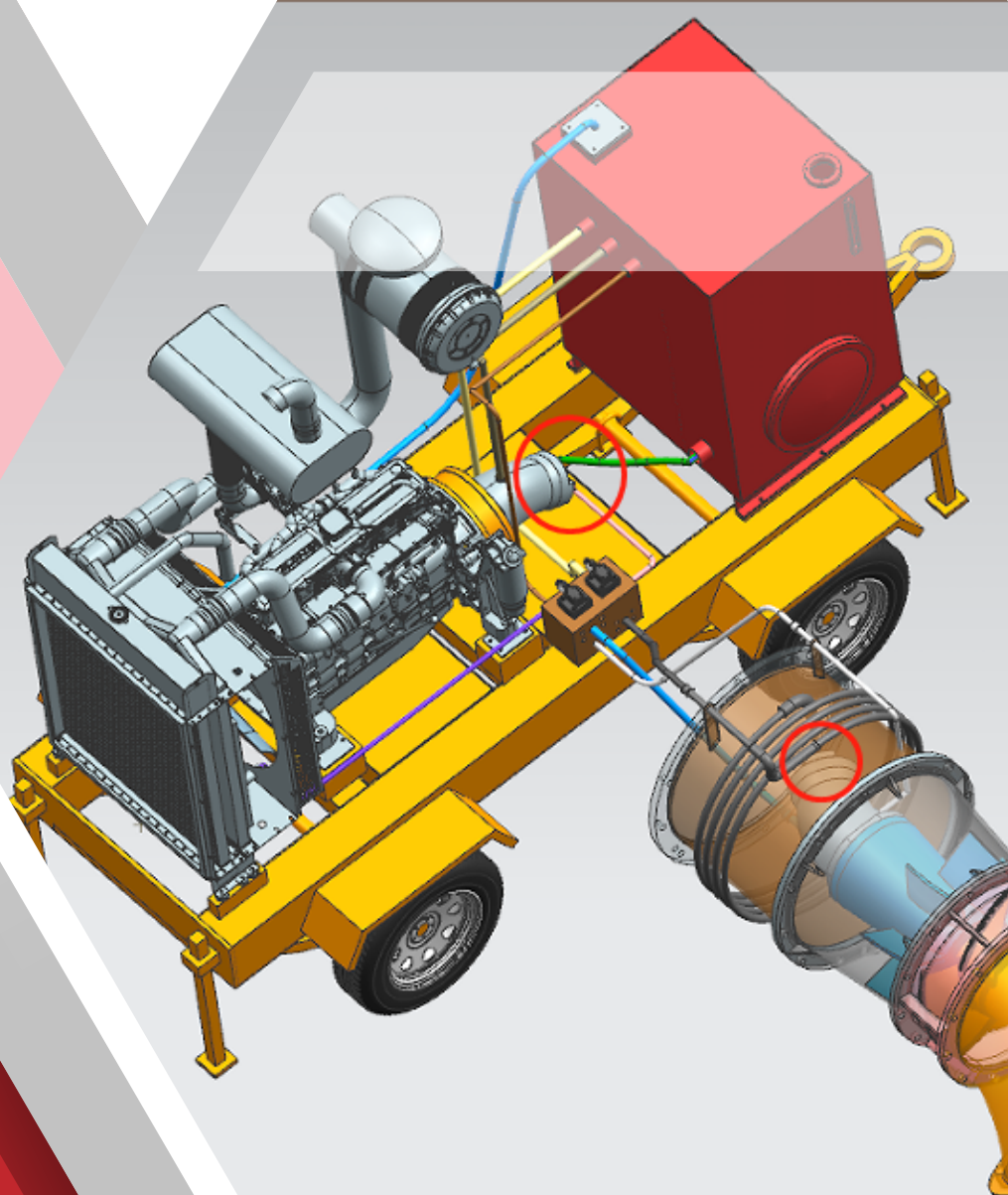




Hydraulically-Driven Large-Volume Submersible Water Pumps



www.wgflow.com

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PRODUCTS DESCRIPTION

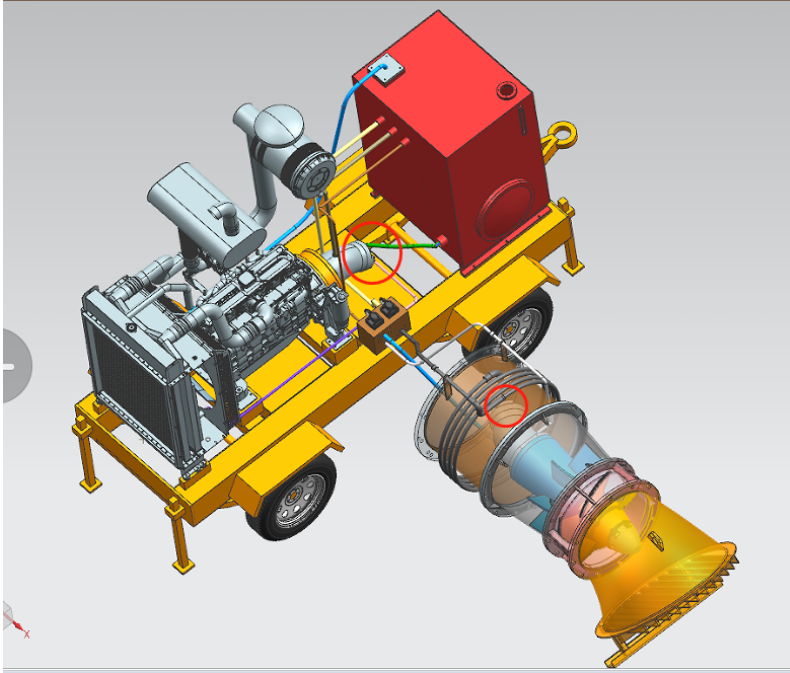
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INTRODUCTION



WINGS pumps enable you to complete the job quickly and effectively while saving you 50-70% on civil works costs. They can perform the functions of many traditional pumps without the need for housing structures.

decreasing the bottom line and complexity of the job. Furthermore, these large water pumps can be installed in a matter of hours rather than months, saving time and labor, allowing portability, and providing variable speed control. We provide several hydraulic fluid options, all of which are biodegradable and fall within the EPA's toxicity limits.

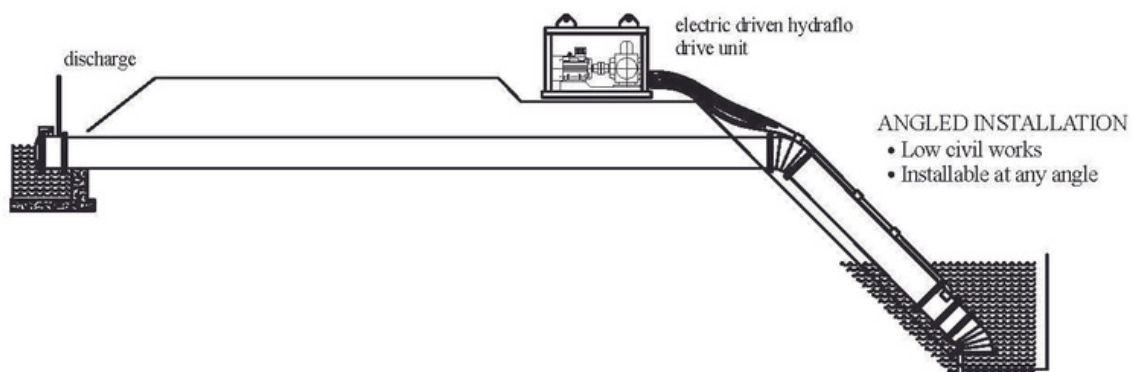
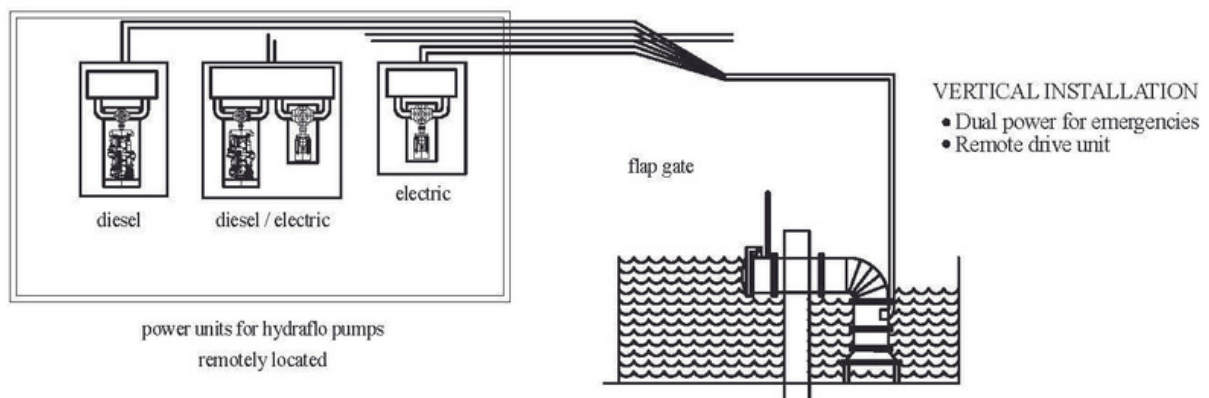
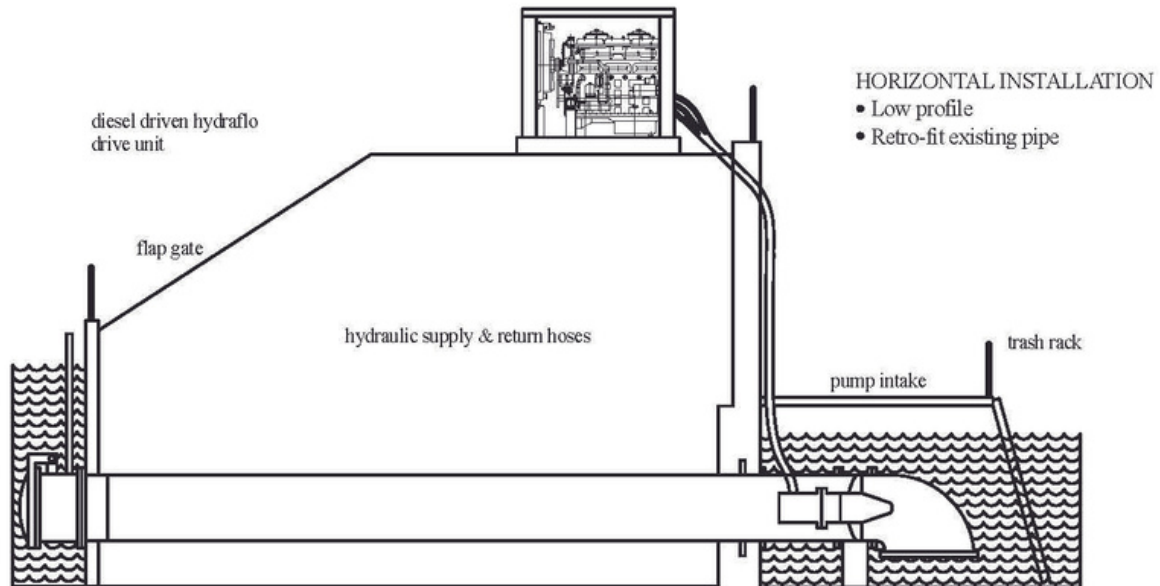
WINGS pump offers a wide range of discharge configurations, and each unit can be customized to fit your jobsite by our in-house professional engineering team.

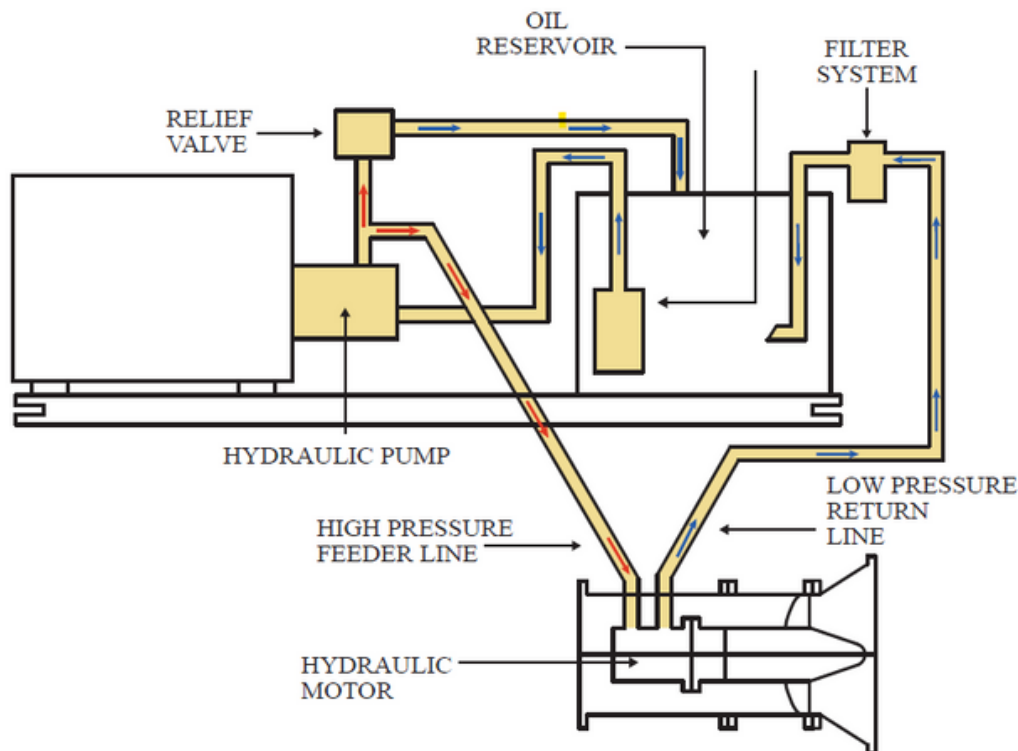


FEATURE & BENEFITS

- Fast and easy installation and configuration - efficiency reduces labor costs and expenses
- Built complete various - designed to be heavy-duty and durable for the most difficult jobs.
- Can save up to 70% of civil works/facility building costs
- Mobility is improved because it can be easily moved from one pumping location to another.
- varying flow and various propeller speeds (RPM)
- Capability to load large amounts of trash
- Hydraulic fluids that are friendly to the environment
- Variable-speed pumping control ensures safe operation.
- Pump can run dry indefinitely due to its oil-lubricated mechanical seal
- Bolt-together feature allows for higher-head applications, and each unit has a low profile and can be installed at any angle.
- Endurance - the ability to run dry without causing damage to vital components.
- Less maintenance is required - the streamlined design allows for low submergence, lower operating costs, and minimal wear.

INSTALLATIONS





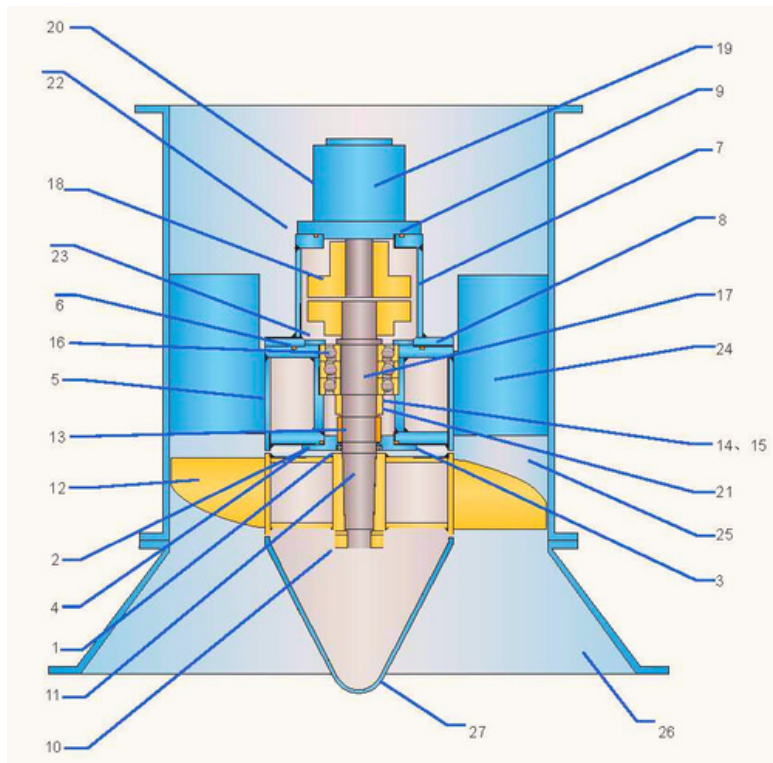
HOW IT WORKS

The hydraulic system's operation is depicted in Schematic A. The primary mover may be an internal combustion engine, an electric motor, or a combination of both. It drives a hydraulic pump that then feeds oil to the water pump's hydraulic motor, which is directly coupled to the propeller. Then the hydraulic oil is returned through the return filter to the oil reservoir. The hydraulic oil then passes through a strainer before returning to the hydraulic pump to complete the circuit.

SAFE AND RELIABLE

In the case that something gets stuck in the propeller, a relief valve from the high pressure side to the oil reservoir serves to bypass the power transmission fluid and divert flow. This vital safety element, exclusive to Hydraflo systems, guards against shock loads for all components. The propeller speeds can be infinitely modified automatically using the hydraulic power transmission system to meet up with any combination of water flows and head circumstances when variable flows are required (such as in sewage effluent or "piped in" stormwater pumping).

PUMP COMPONENT INTERNAL PARTS & MATERIAL



- | | |
|---------------------------------------------------------------------|--------------------------------------------------|
| 1. Lip seal Seal (Synthetic Rubber & Stainless Steel Garter Spring) | 15. Bearing Lock-Washer (ANSI C1015 Steel) |
| 2. Bolts: Fasten End PI-Bearing Box (Grade 5) | 16. Bearings |
| 3. End Plate (ASTM A588, Corten steel) | 17. Hydraflo Shaft (420 Stainless Steel) |
| 4. O-Ring: End Plate / Bearing Box | 18. Shaft Coupling Assembly (Steel) |
| 5. Bearing Box (ASTM A588, Corten Steel) | 19. Hydraulic Motor (Alloy steel) |
| 6. O-Ring: Bearing Box / Motor Mount | 20. Mounting Flanges / Adapters |
| 7. Motor Mount (ASTM A242 Corten Steel) | 21. Bronze Spacer (Bronze 660) |
| 8. Bolts: Motor Mount-Bearing Box (Grade 5) | 22. Bowl (Alloy steel A242, Steel plate Grade-A) |
| 9. O-Ring: Motor Mount / Hydraulic Motor | 23. Bearing Retainer (ASTM A242, Corten Steel) |
| 10. Propeller Nut (AISI 1026 Steel) | 24. Distributor Blades (ASTM A242, Corten Steel) |
| 11. Propeller Key (AISI 1018 Steel) | 25. Wear Ring / Liner (304 Stainless Steel) |
| 12. Propeller (SUS 304 Blades) | 26. Bell (Alloy steel) |
| 13. Mechanical Seal Assembly (Ceramic & Stainless Steel Spring) | 27. Guide Hub |
| 14. Bearing Lock-Nut (ANSI C1015 Steel) | |

HYDRAULIC AXIAL FLOW PUMP (MIXED FLOW PUMP)

Hydraulic axial flow pump (mixed flow pump) is optimized and improved on the basis of electric portable submersible pump technology combined with hydraulic motor and hydraulic power unit. This series of hydraulic axial flow pumps (mixed flow pumps) adopts the structural design of water inlet and outlet above, and the hydraulic motor is located at the bottom of the pump, which makes the structure more stable.

PRODUCT DESCRIPTION

MATERIAL : Cast steel/ Stainless Steel (304)/ duplex steel (2205)

FLOWRATE : 380-12,600 m³/hr

Head : 5-14 m.

(Accept product customization requirements)



PRODUCT FEATURES

1. hydraulic axial flow pump (mixed flow pump) is directly driven by the hydraulic power station system, without the risk of leakage.
2. The pump impeller adopts axial flow or semi-open design, which has small volume, large flow rate and high passing rate of impurities. The
3. pump body is light in weight and easy to move.
4. With hydraulic quick connector, easy to operate.



FIELDS OF PRODUCT APPLICATION

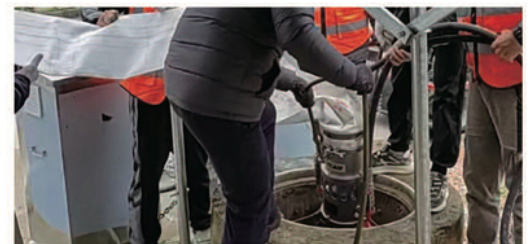


Municipal emergency repair and drainage, urban flood control and drainage, inspection well and sewer pipe cleaning and sewage discharge, construction site drainage : water intake from rivers, ditches, and lakes for drought resistance, fire fighting, water supply, sea water extraction, explosion-proof areas, etc.

INSTALLATION METHOD

Mobile installation

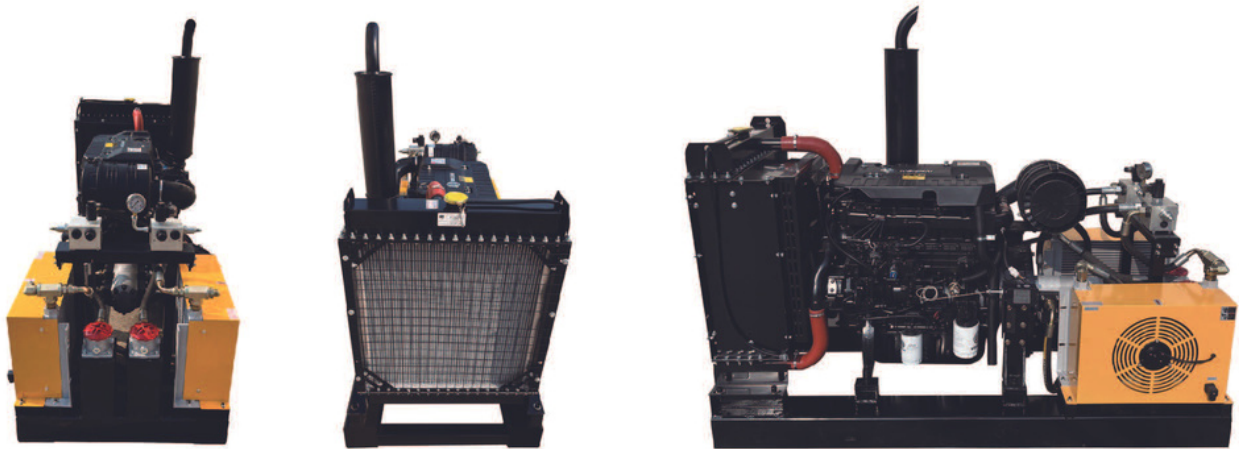
Fixed installation



PRODUCT :

INSTALLATION METHOD

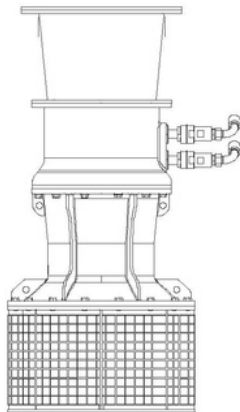
petrochemical industry, mine crushing, large hydraulic equipment, fixed hydraulic pump drainage pump station, fire extinguishing water supply, seawater pumping, explosion-proof area, etc.



hydraulic power station can be set up with single circuit, which can be set freely according to the oil supply and pressure of the equipment used, with reliable and stable operation and low noise.

- 1.All moving parts work in a relatively closed hydraulic oil environment, and it is difficult for dirt to enter. This not only ensures that the maintenance of the hydraulic power station is simple, the failure rate is low, and the service life is long.
- 2.The equipment has compact structure and stable operation. It can be placed in a tool cart or equipped with a fixed hydraulic pump station.
- 3.Driven by a diesel engine, equipped with a large capacity hydraulic oil tank and an efficient cooling system, the machine can continue to work for a long time.
- 4.The skid frame is made of steel, which has good vibration resistance, and the machine also very stable when it is running under load.
- 5.External hydraulic filter, easy to replace.
- 6.There is a one-key stop button, which is convenient for maintenance.
- 7.Equipped with a working hour meter, which is convenient for maintenance.
- 8.The fuel tank is equipped with an electronic fuel gauge display, which can monitor the fuel quantity in real time

Model spectrum



The Axial Flow Pump is the pump of choice when pumping large volumes of clear water at maximum heads of 25 feet. Whether your needs are flood control, field irrigation or moving large volumes of water, rely on WINGS Axial Flow Pumps for maximum performance.

Cast steel bearing tube, oil bath lube for pump bearings.

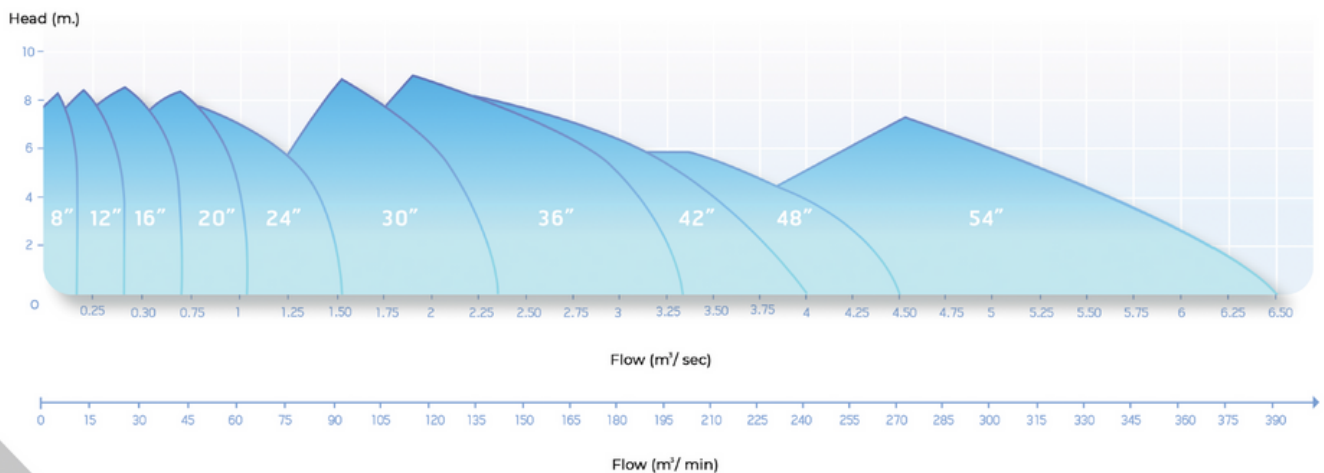
Replaceable stainless steel wear rings, easy rebuild.

Cast bronze propeller, uniform performance. Cast stainless steel optional.

Lifting eye, easily setup or moved.

Self-cleaning inlet screen, keeps out debris.

Spin on hydraulic connections, fast setup.



PERFORMANCE
CURVES FOR
VARIOUS SIZES