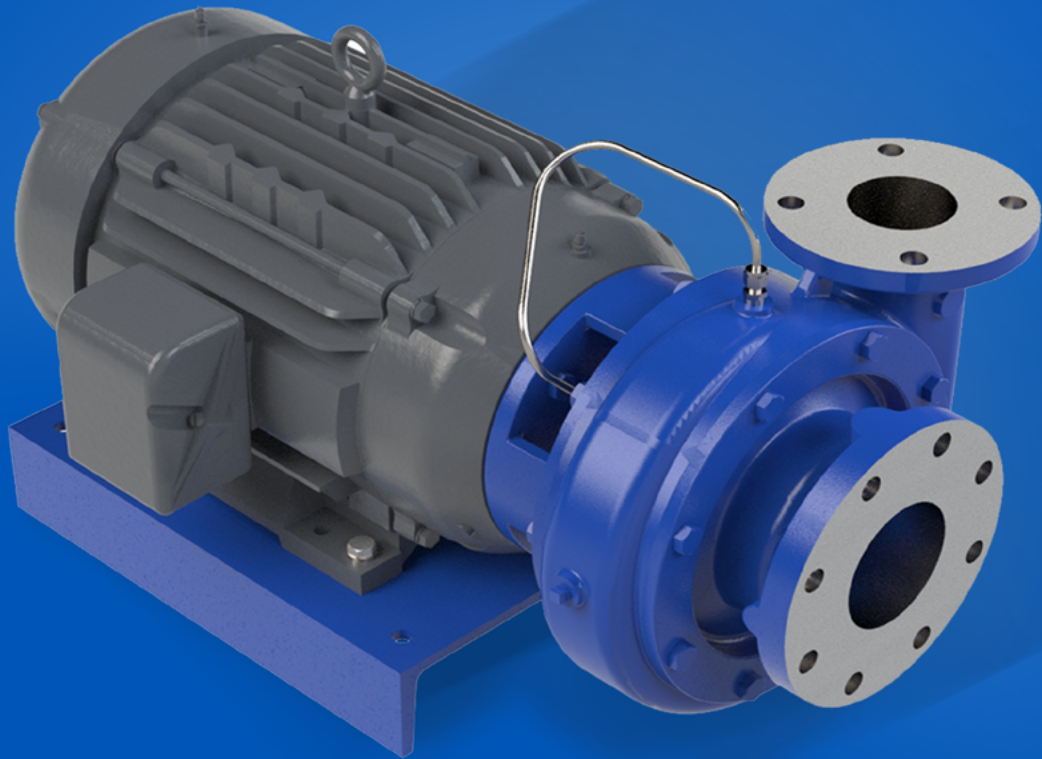




CARVER PUMP™

Built for purpose



GH

End-Suction
Centrifugal Pump



GH

Horizontal end-suction pump for handling water, oils and chemicals in marine, process and general industrial applications. Hydraulic performance extends to 2,500 GPM and is covered by 28 sizes.

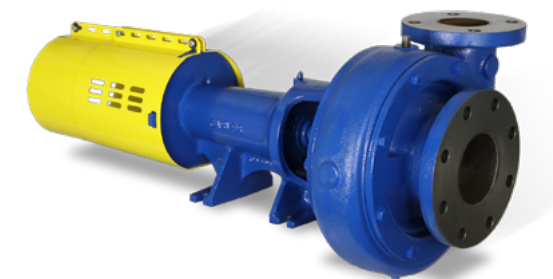
The GH series pumps are designed to provide both simplicity and efficiency. These pumps are available as either a frame-mounted (GHF) or close-coupled (GHC) unit, and share many of the same parts as our vertical pumps. This provides compatibility and aids in parts availability.

The frame-mounted GHF model utilizes only three bearing frames across 28 different sizes, while the GHC is fully compatible with standard, off-the-shelf NEMA JP and JM frame motors. Both models feature a back pull-out design and casings rotatable in 90° increments, making it easy to accommodate different field piping orientations.

For simplicity and to maximize availability, the GH is constructed with four basic materials: cast iron, bronze fitted, 316ss fitted, and all 316ss. The GH kit program offers added convenience, with repair kits and whole pump builds available.

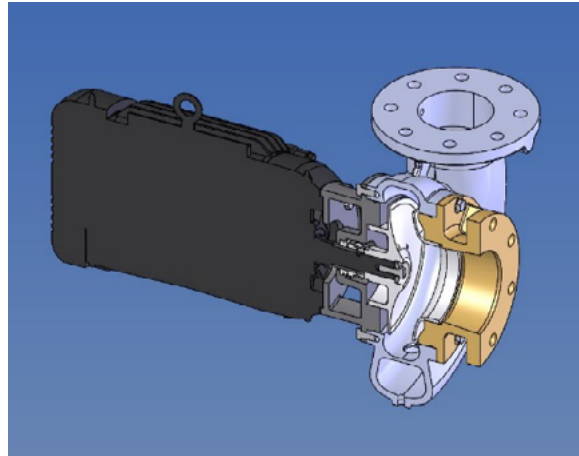
Our GH pumps are equipped with impressive features, such as 316 SS shaft sleeves, keyed impellers to prevent accidental spin off, dynamic balancing to ISO G2.5 guidelines, and regreasable bearings secured with locking rings, as standard. These features combine to produce shaft deflection values so low that they exceed the requirements of ANSI B73.1M-1991.

To further enhance the capabilities of our GH pumps, we offer common options such as replaceable wear rings, cartridge seals, and various flush plans. Additionally, we offer higher alloy material options such as Ni-Al-Br and CD4MCuN, as well as a full range of motor and baseplate choices to meet specific needs. Choose GH pumps for reliable, efficient, and customizable solutions for all your pumping needs.



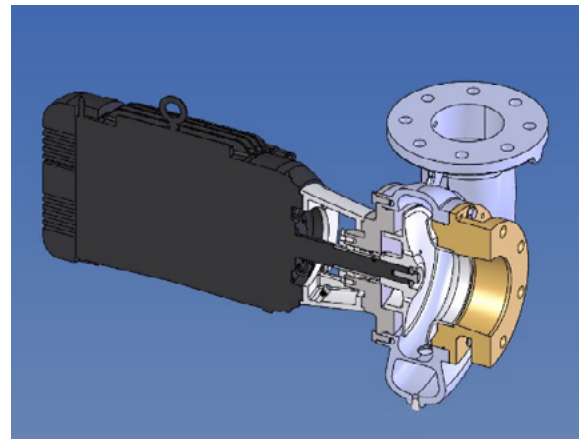
GH FRAME MOUNTED

OPTIONS



JM (Short) Shaft Extension

JM pumps are compact, and at Carver Pump, our JM pump back cover also serves as the motor bracket, making for less costly construction. Although the shorter shaft extension allows for fewer seal options, it does have an important advantage: better seal life. This is because an important contributor to long seal life is limited vibration and radial movement at the seal face. With a JM shaft extension, the distance from the inboard motor bearing to the seal face is shorter than with a JP shaft. Since the fluid forces acting on the impeller will always place some force or vibration on the impeller, the shorter shaft will not only place a lower torque on a JM shaft, but also lead to lower deflection at the seal face, ultimately contributing to better seal life.



JP (Long) Shaft Extension

The JP shaft extension is the longer of the two pump-specific motor standards. The longer JP means a greater distance between the face of the motor and the hydraulic center of the impeller. At Carver Pump, this means we design the pumps with a full seal chamber/stuffing box that can accommodate a variety of seals or packing. Also possible is the use of single or double cartridge seals and nearly any type of seal flush plan. A possible downside is that the pump is larger than an identical pump with a JM shaft extension. Another consideration is that when hot fluids are pumped, the longer JP shaft extension provides greater thermal separation from the motor bearing, contributing to better bearing life.

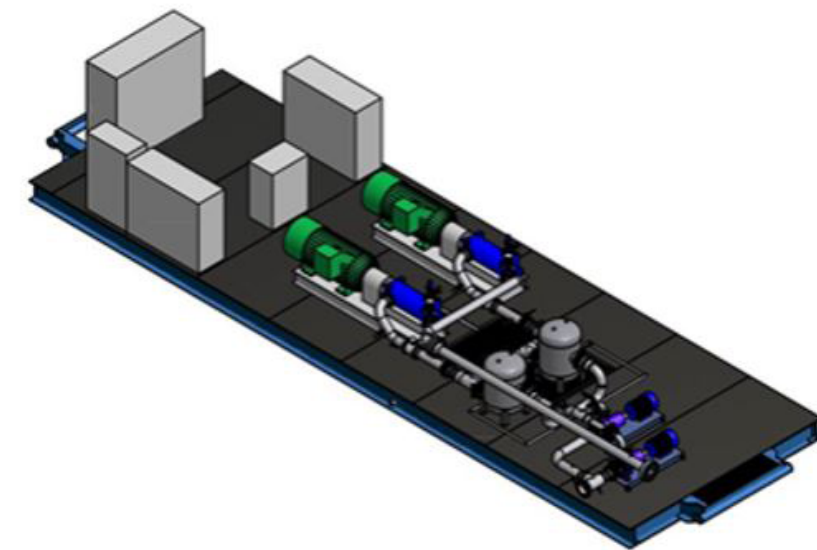
ENCLOSED

Enclosed impellers are designed to optimize the flow of “clean” fluids with low-to-moderate suspended solids. These impellers consist of vanes sandwiched between a front and back shroud. Flow enters through the eye of the rotating impeller and is then channeled between the shrouds in a circular/radial motion. This allows for high hydraulic efficiencies. Impeller wear rings also help to minimize the amount of recirculating discharge fluid from high pressure back to low pressure within the volute, further increasing the pump’s hydraulic efficiency.



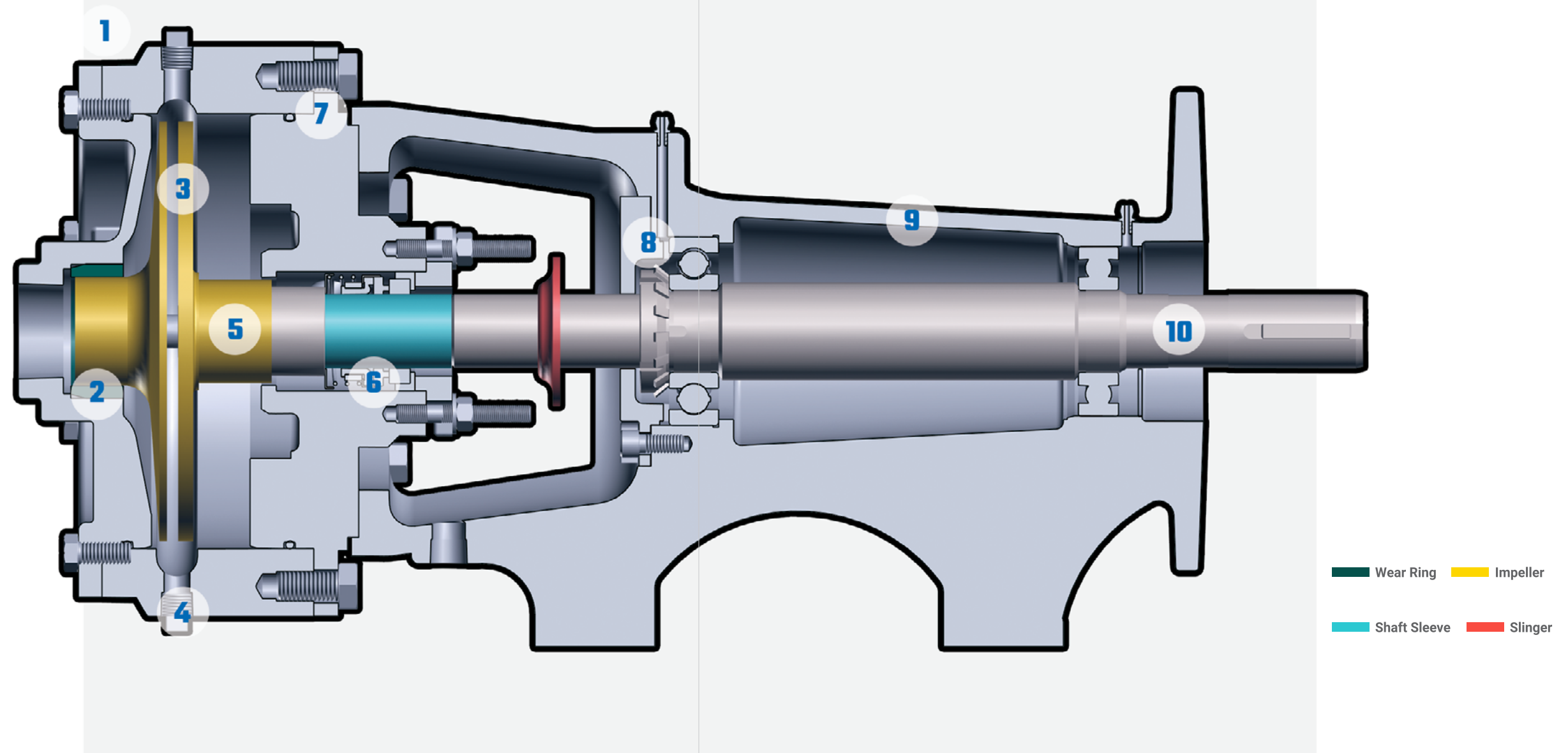
SEMI-OPEN

Semi-Open impellers are designed without a front shroud. Instead, the gap between the suction casing and impeller is used to channel the flow. While slightly less efficient than an enclosed impeller, this design feature allows the pump to better handle fluids with solids content or debris without clogging the impeller.



GH pumps boost the Produced Water to the RS pumps in a Coal Bed Methane installation

GH FRAME-MOUNTED



1 FLANGES
ANSI flat-face cast iron or 316 SS flanges for all sizes greater than or equal to 2" discharge

2 WEAR RINGS
Replaceable 17-4PH SS wear rings with all-enclosed impeller, 316 SS models

3 IMPELLERS
High-efficiency design in cast iron, bronze or 316 SS

4 CASING DRAINS
Heavy-walled casing with vent and drains for easier maintenance

5 KEYED IMPELLERS
Keyed impellers lock the impeller to the shaft, preventing unintentional loosening, even in reverse rotation

6 MECHANICAL SEAL
Seal chamber accommodates component seals, cartridge seals, packing and a variety of flush plans

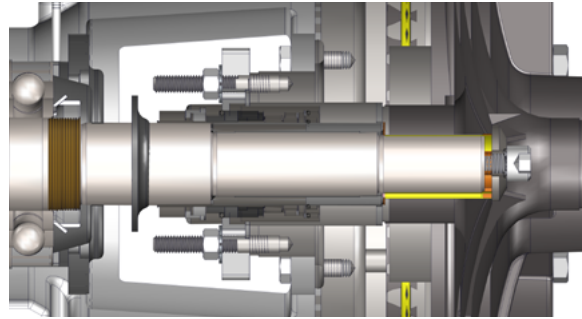
7 BACK PULL-OUT DESIGN
Allows removal of rotating elements and replacement of the shaft, impeller or mechanical seal without disturbing system piping

8 POSITIVELY-LOCKED BEARINGS
Oversized, greased-lubricated ball bearings secured by lock nuts eliminate axial movement at the faces and impeller-to-casing clearances

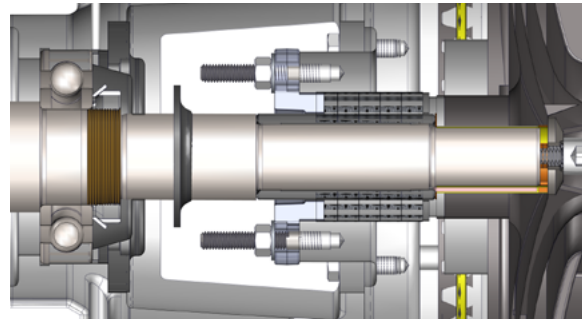
9 BEARING FRAME
Heavy-duty, thick-walled bearing frame reduces rotor vibration, for greater system reliability

10 SHAFT
Large-diameter shafts with replaceable 316 SS shaft sleeves

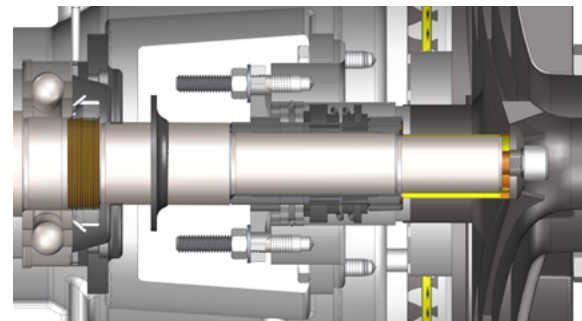
SEAL OPTIONS



CARTRIDGE - SINGLE OR DUAL



PACKING



COMPONENT - SINGLE

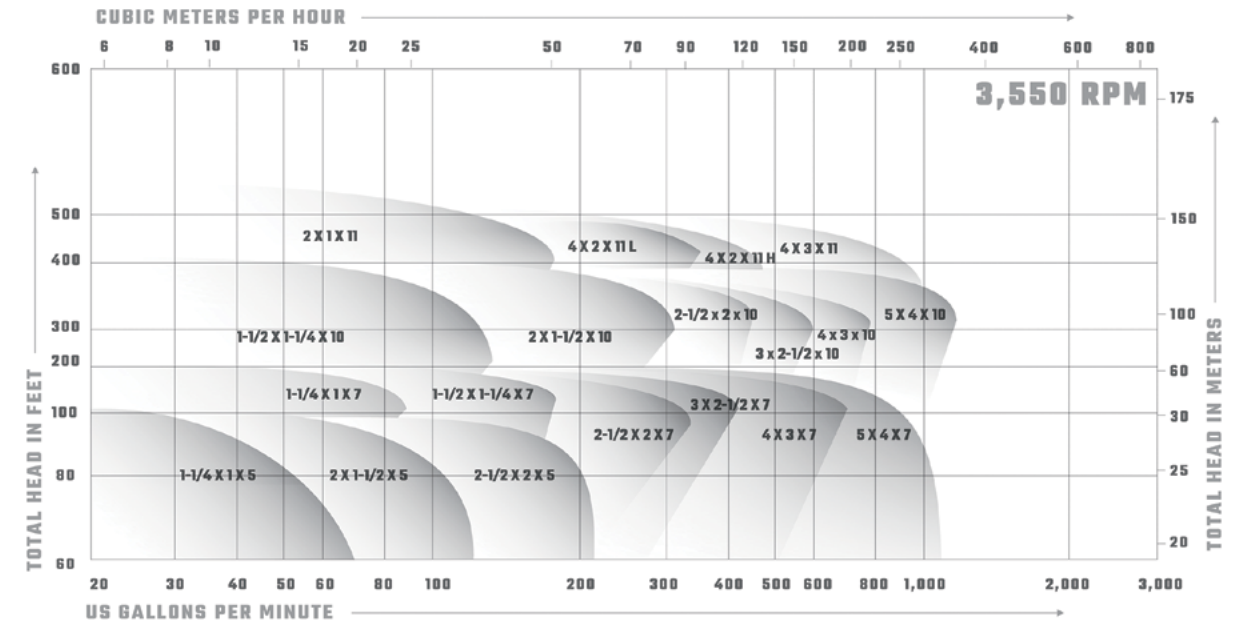


40HP 3x2.5x10 Frame-mounted GH with plan 31 Cyclone separator

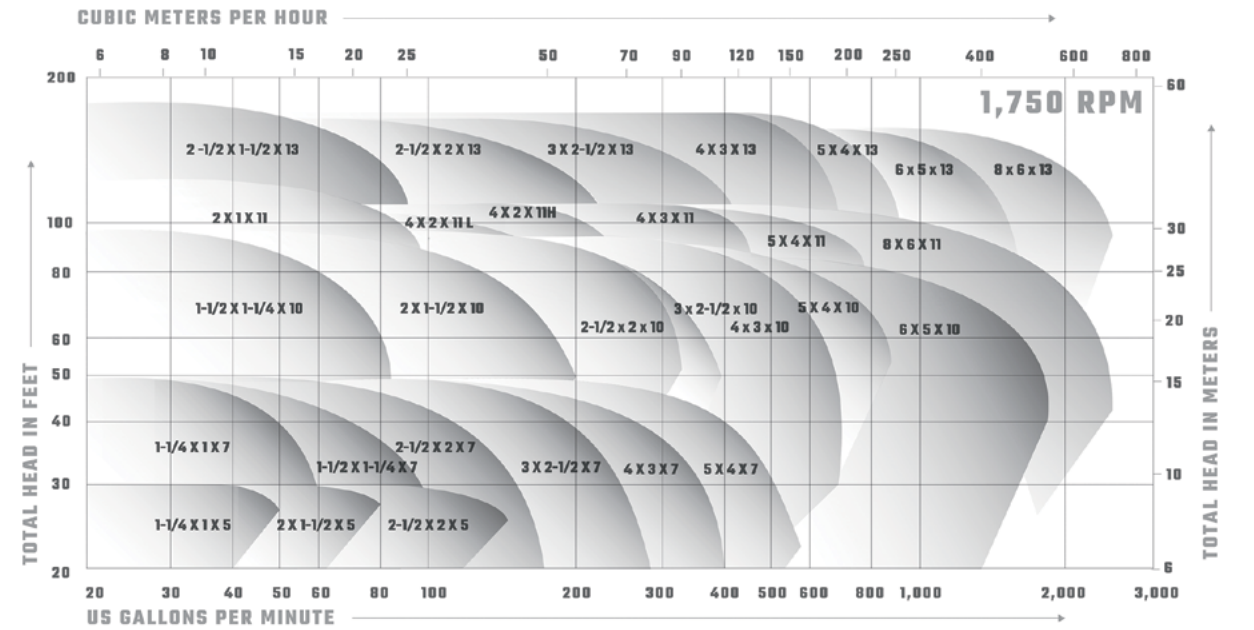


3HP 4x3x7 Close-Coupled GH with plan 11 seal flush and motor space heaters

HYDRAULIC COVERAGE



JM CLOSE COUPLED IS AVAILABLE FROM 5" TO 10" ONLY. SEMI-OPEN IS AVAILABLE FROM 5" TO 10" ONLY.



Quality Management System Approval Certification Number 95-370h

HYDRAULICS

- Flows to 2,500 US GPM (570 m³/hr)
- Heads to 520 feet (160 m)
- Efficiencies to 85%
- Power to 150 HP (110 kW)
- Solids to 1.250" (32 mm)
- Speeds to 3,550 RPM

APPLICATIONS

- Commercial
- Industrial
- Marine
- Power Generation
- Pulp & Paper
- Acids and Solvents Transfer
- Air Conditioning Chilled Water
- Bilge Transfer
- Black, Green and White Liquor
- Caustic Solution Transfer
- Commercial Marine Vessels
- Cooling Tower Water Recirculation
- Desalination and Reverse Osmosis
- Distilling Plant Systems
- District Flood Control
- Fluid Filtering
- Hot Oil Applications
- Irrigation Systems
- Various OEM and Proprietary Systems

WHY A GH?

- Available in frame-mounted or close-coupled configuration.
- Seal chamber accommodates various mechanical seals or packing for greater flexibility.
- Offers enclosed and semi-open impellers to suit a wide range of applications.
- Larger size options include dual volutes, which reduce radical loads on the rotor.
- All casings are renewable with wear rings, extending the pump's lifespan.
- Features a back pull-out design for easy service without disturbing piping. Pumps with diameters under 13" also have a front pull-out for easy access to rotating elements.

MARINE CERTIFICATIONS



STANDARD MATERIALS

Casing	Cast Iron or 316 SS
Impeller	Cast Iron, Bronze or 316 SS
Shaft Sleeve	316 SS
Shaft	Carbon Steel
Bearing Frame	Cast Iron

Other materials available upon request.

MECHANICAL DATA

Rotation	Clockwise When Viewed from Motor End
Input Power	Up to 150 HP
Connections	NPT or Flange

DISCOVER OUR PUMPS



**GH - HORIZONTAL
END-SUCTION PUMP**



**RS - MULTISTAGE
RING SECTION PUMP**



**API MAXUM OH2 -
END-SUCTION PUMP**



**KWP - NON-CLOGGING
PROCESS PUMP**



**850 - HORIZONTAL
FILTRATE PUMP**



**MAXUM OH1- HEAVY-
DUTY, HORIZONTAL
END-SUCTION PUMP**



**855 - TANK-
MOUNTED FILTRATE
PUMP**



**RSV - VERTICAL
IN-LINE MULTISTAGE
PUMP**



**VLO - VERTICAL LUBE
OIL PUMP**



**G2C - VERTICAL
CANTILEVER PUMP**



**G2S - VERTICAL
SUMP PUMP**



**OH3 - VERTICAL
IN-LINE PUMP**



**KFP - SELF PRIME
PUMP**



**M SERIES - ASTM
F998 CLOSE-
COUPLED PUMP**



**PACKAGED PUMP
SYSTEM**



**UL508A LISTED
CONTROL PANELS**



85 years of experience

Since we built our first pumps in 1938, Carver Pump has become recognized as one of the leading centrifugal pump companies, building to the most demanding engineering specifications and military standards in the world.

Carver Pump's quality management system is certified by Intertek to conform to ISO 9001:2015. Our commitment to quality includes not only our

hardware, but also superior customer service, leading-edge R&D, and continuous improvement in everything we do.

So whether the job is refueling fighter jets on the deck of an aircraft carrier, supplying paint to an auto assembly line, or bringing water to the fountain in a city park, we put our reputation on the line everyday with every pump we build.

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