

GVS Series

*Vertical Sump Pump
For Depths to 22 Feet*

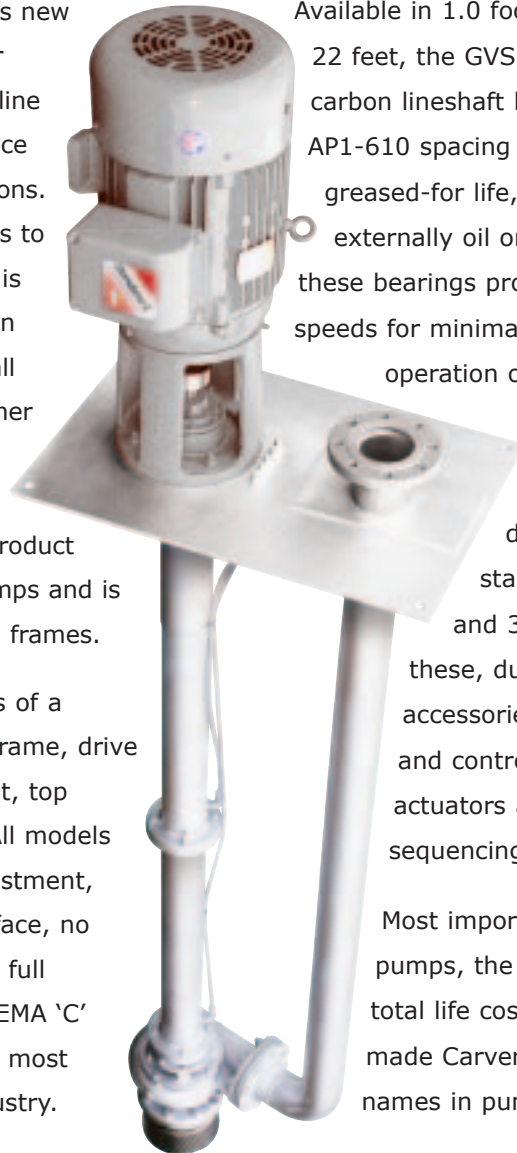
 **Carver[®]**

Creating Value.

The GVS Series

The GVS Series is Carver's new vertical wet pit pump for handling water, acid, and alkaline solutions in both general service and process industry applications. Hydraulic performance extends to 2,500 GPM at 1,750 RPM and is covered by twenty-four sizes in cast iron, 316 SS fitted, and all 316 SS construction, with higher alloy materials available. For added simplicity, the entire series is based on the same product platform as our horizontal pumps and is covered with only two bearing frames.

The basic GVS design consists of a pumping (wet) end, bearing frame, drive shaft, motor mounting bracket, top plate, and discharge piping. All models feature external impeller adjustment, bearings above the liquid surface, no mechanical seals to maintain, full compatibility with standard NEMA 'C' face motors, and some of the most efficient hydraulics in the industry.



Available in 1.0 foot increments for depths to 22 feet, the GVS is offered with bronze or carbon lineshaft bearings that comply with AP1-610 spacing guidelines and can be greased-for life, product lubricated, or externally oil or water flushed. Either way, these bearings provide high shaft critical speeds for minimal deflection and vibration-free operation over the life of the pump.

Common options include larger than standard discharge piping, steel or stainless steel suction strainers, and 316 SS underliners. Along with these, duplex pumping units and accessories such as automatic greasers and control panels with float switch actuators and automatic start/stop sequencing are also available.

Most importantly, as with all our other pumps, the GVS offers the reliability, low total life cost, and lasting value that has made Carver one of the most trusted names in pumps.

Hydraulics

- Flows to 2,500 US GPM (570 m³/hr)
- Efficiencies to 80%
- Solids to 1.250" diameter (32 mm)
- Power to 75 HP (55 KW)
- Depths to 22 feet (6.5 m)

Applications

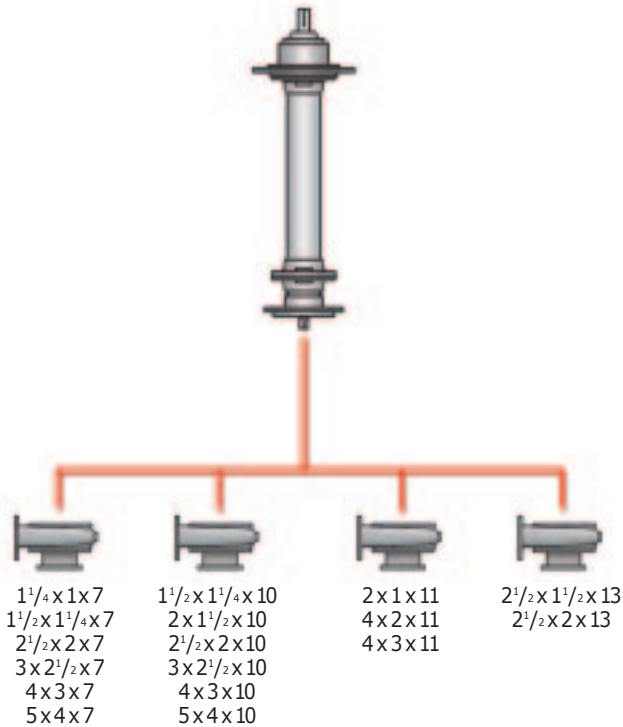
- Bilge transfer
- Caustic and chemical feed
- Coatings and spray paint systems
- District flood control
- Farm irrigation
- Lube oil supply for rotating equipment
- Mine and landfill dewatering
- Refinery off-sites loading and unloading
- Sump collection and drain
- Wastewater evacuation



Modular Construction

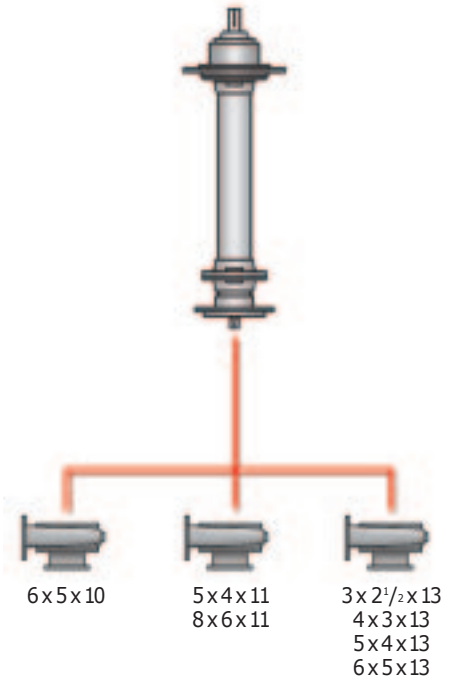
43V-1 Bearing Frame

Up to 3500 RPM / 20 HP



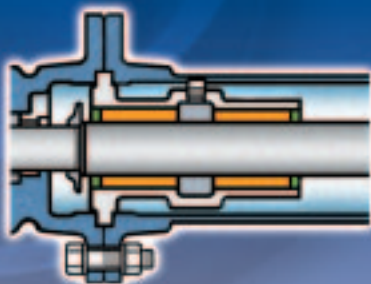
43V-2 Bearing Frame

Up to 1750 RPM / 75 HP

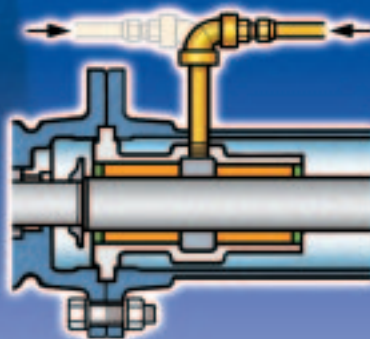


The simple design of the GVS is augmented by its modular construction. All twenty-four sizes are based on only two bearing frames and share most of the same parts as our other industrial product lines.

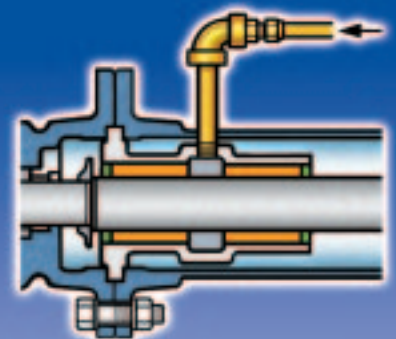
Lineshaft Bearing Options



Option 1
Bronze bearing, greased-for-life, ends sealed



Option 2
Bronze or carbon bearing, product flush or external water flush, ends open



Option 3
Bronze or carbon bearing, external oil flush, ends sealed

Features & Benefits

Motors

Operation with standard, easily available NEMA 'C' face motors

Bearing Frame

Heavy duty, thick-walled cast iron frame supports bearings above the tank or pit surface, protecting them from fluid and vapors

Ball Bearings

Oversized, grease lubricated, double row ball bearings located above tank top for easy maintenance

Impeller Adjustment

External adjustment for precise in-place adjustment of impeller-to-casing clearance, optimizing hydraulic performance over the life of the pump

Connections

ANSI raised face steel or 316 stainless steel discharge flanges for all sizes

Shafts

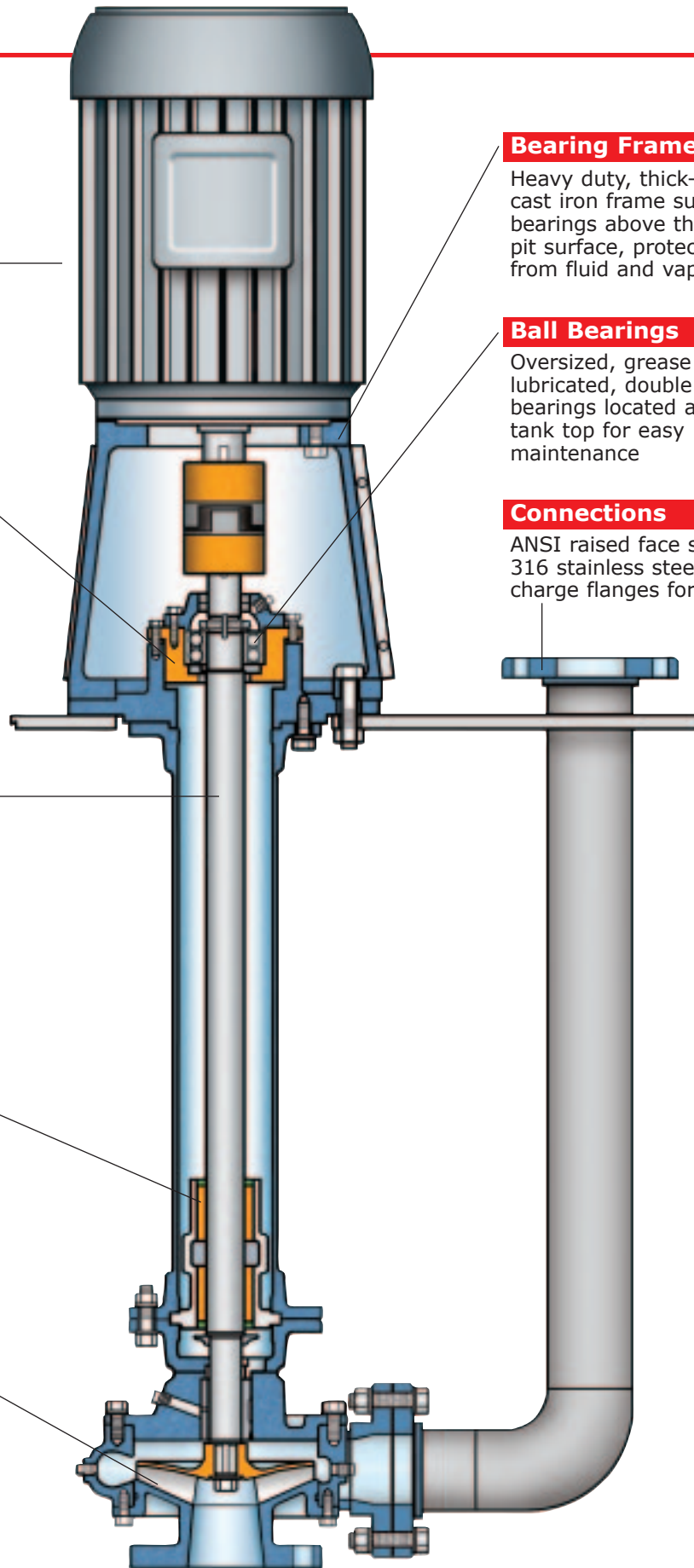
Carbon steel or 316 stainless steel, with optimum diameter and bearing spans for minimal deflection

Lineshaft Bearings

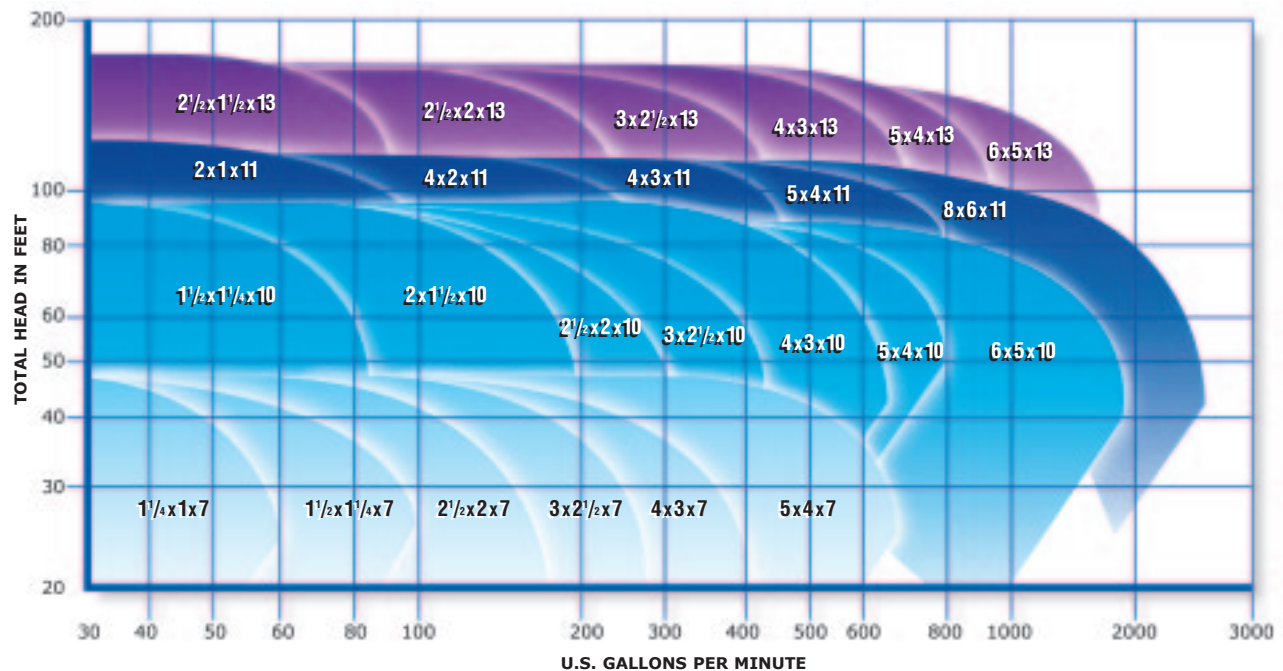
Bronze or graphite bearings can be permanently sealed, product flushed, or externally lubricated for total system compatibility

Impellers

High efficiency design in cast iron or 316 stainless steel – individually balanced to stringent ISO G2.5 standards for vibration-free operation



Hydraulic Coverage @ 1750 RPM



Why A GVS?

Along with all of its technical advantages, the GVS also offers the indirect benefits of:

- robust designs with the same reliability and quality that we have been providing the United States military for the past 60 years
- extensive standard and optional features that assure total flexibility in meeting system installation and hydraulic performance requirements
- backing by over 70 stocking distributors, sales agents, and certified service centers – the largest aftermarket support group for pumps of this type in the world.

There are many things to consider when selecting a vertical pump. However, in the end it all comes down to value, and the GVS delivers more of it than any other pump.

To see for yourself, contact us or any of our stocking distributors.

Standard Materials

Casing	Cast iron or 316 SS
Impeller	Cast iron or 316 SS
Lineshaft Bearing	Carbon or tin-bronze
Piping	Carbon steel or 316 SS
Shaft	Carbon steel or 316 SS
Support Column	Carbon steel or 316 SS
Throttle Bushing	Reinforced teflon
Top Plate	Carbon steel or 316 SS

Mechanical Data

Speed	Up to 3500 RPM
Input Power	Up to 75 HP
Discharge Connection	ANSI 150 lb. flange
Bearing Lubricant	Grease as standard
Radial Bearing L ₁₀ Life	50,000 hours
Thrust Bearing L ₁₀ Life	25,000 hours



Approval Certification Number 95-370



Since we built our first pumps in 1938, the Carver name has become synonymous with value. Today we are recognized as one of the world's leading centrifugal pump companies, building pumps to the most demanding engineering specifications and military standards in the world.

Our company is located in Muscatine, Iowa, 25 miles southwest of the Quad Cities area. Our operations there include some of the most modern manufacturing equipment and pump development software available, and we are committed to the highest quality possible in our products and our people. Along these lines, Carver was also one of the first American pump companies to attain ISO 9001 certification-the most recognized standard for quality in the world.

From an applications standpoint Carver has traditionally built pumps for water, oil, and chemicals for both the public and private sectors. Our product line includes both horizontal and vertical end suction, multi-stage, axial split case, self-priming, API, and solids-handling pumps that all carry the same Carver trademark: lasting value from solid, straightforward designs engineered to provide many years of service.

These pumps are also backed by unparalleled aftermarket support. Our network of stocking distributors, manufacturer's representatives and certified service centers throughout the world means that no matter where your pump may be installed, there are local sales and service people ready to support your aftermarket needs.



Carver Pump Company

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