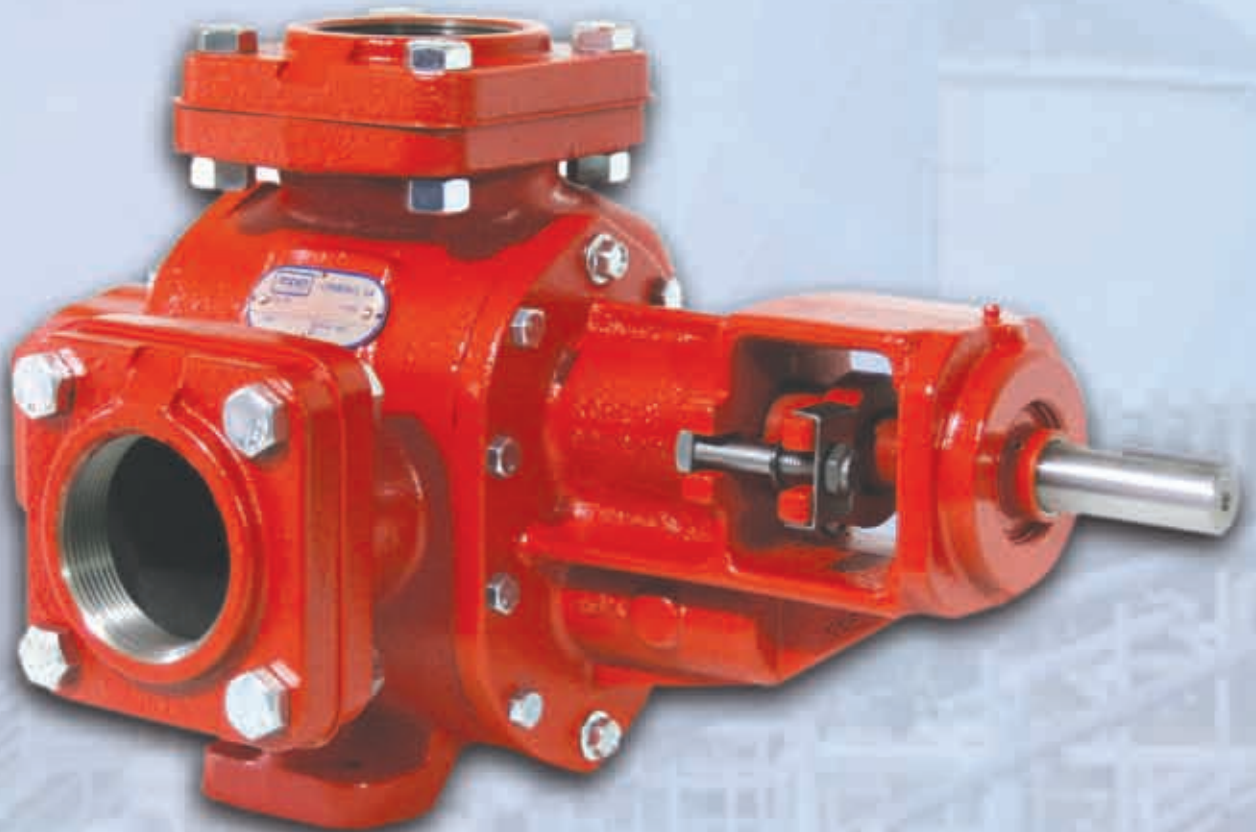




THE LEADING FORCE behind liquids™ since 1857



3600 Series Heavy Duty Pumps

General Purpose Pumps for Mixing, Blending, Recirculating, Fixed and Mobile Transfer

THE UNSTOPPABLE

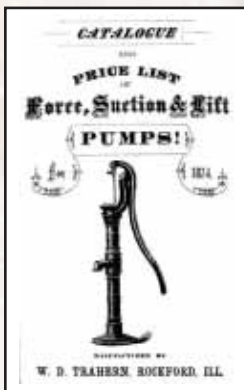
ROPER

The early history of the Roper Company is truly a triumph of American grit over adversity.

George D. Roper, was challenged from childhood by the loss of his left arm in a train accident. He chopped wood and performed other duties as well as other boys with two good hands, asking no consideration because of having only one arm.

In 1889 at age 34, George D. Roper founded the Roper legacy with the purchase of a 50% interest in the Van Wie Gas Stove Company of Cleveland, Ohio. He persuaded them to move to Rockford, Illinois, operating as Secretary and Treasurer to company president P.G. Van Wie.

As the U.S. moved into Depression in the early 1890's, the Van Wie plant passed into trusteeship. George Roper was to operate as trustee until the obligations against the plant were paid off, at which time the Gas Stove Works would become his sole property. All debts were liquidated fully on September 1, 1894. Ten days later, the institution was entirely destroyed by fire.



Salvaged and rebuilt as the Eclipse Gas Stove Company, the business grew steadily, expanding to include the American Foundry Company in 1901, and the Trahern Pump Company in 1906. Trahern's

hand operated well pumps had been helping to build the American dream since 1857.

Within a few years the company was pioneering new pump developments, and becoming a major supplier to the rapidly growing petroleum industry.

In 1919, George D. Roper merged all of his companies into one company named the George D. Roper Corporation. He passed away In 1925, and left the presidency of the corporation to his son, Mabon P. Roper.

The company survived the Great Depression of 1929, and during World War II developed diesel engine lubricating pumps for war plants and naval vessels. They also manufactured projectiles and ammunition boxes.

Mabon P. Roper died in 1942, ending the Roper family line. He was succeeded by Stanley Hobson, who continued the Roper tradition of quality and dependability.

From Legacy to Leadership

In the two decades that followed, the George D. Roper Corporation grew and evolved. They sold the original Stove Company in 1957, and renamed the remaining pump portion Roper Hydraulics Inc. In 1959, Roper Hydraulics acquired O.E. Szekely & Co., pump specialists located in Commerce, Georgia, where Roper Pump Company maintains operations to this day.

In 1961, Roper Hydraulics changed their name to Roper Industries Inc. Roper Industries became a publicly traded company in 1992 (NYSE symbol: ROP). Roper Pump Company is a division of their Industrial Technology Group.



Tradition Built Locally



150 years
1857-2007
For a Globally Geared Future

Through continued product line expansion, Roper Pump Company has secured its position as a leader in the transport industry and is gaining influence in the chemical industry with unique and reliable stainless steel products. Today, Roper Pump Company offers its innovation, state-of-the-art technology, quality and value, combined with a tradition of reliability that dates back 150 years.



ISO9001:2000 Certified





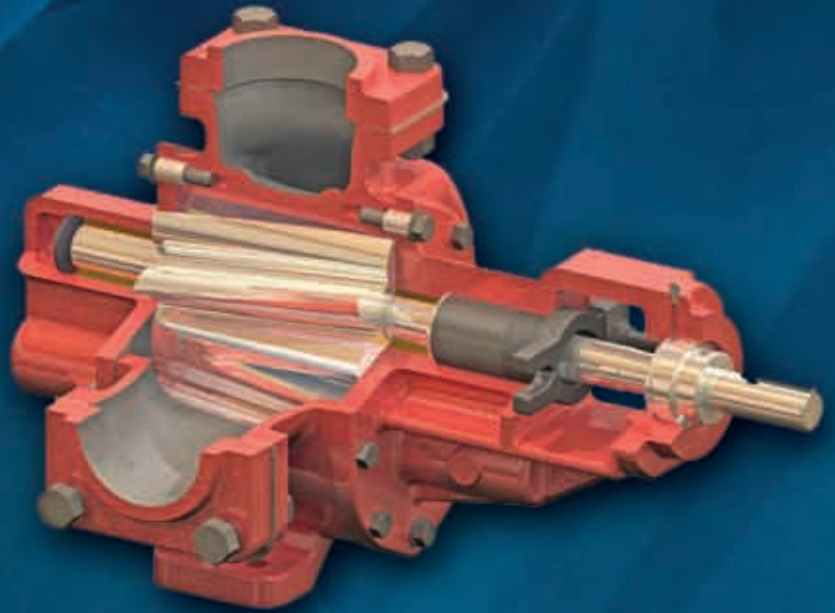
3600 Series Heavy Duty Pumps

General Purpose Pumps for Mixing, Blending, Recirculating, Fixed and Mobile Transfer
Up to 468 GPM • Up to 125 PSI

These pumps operate smoothly and with equal efficiency in either direction of rotation. They effectively handle heavy, viscous materials such as asphalt, molasses, roofing compounds, and printing inks, as well as fuel oils, gasolines, and similar thin liquids.

Pumps can be supplied in several materials of construction, with or without built-in relief valves.

Pumps can be assembled either hi-drive or low-drive, and are available with conventional packed box or lapped-face mechanical shaft seal. They can be direct driven or driven through a built-in gear reduction with a wide range of ratios. These pumps operate equally well regardless of the mounting configuration or the direction of rotation.



MATERIALS OF CONSTRUCTION

Standard Fitted

| | |
|----------------|-----------|
| Housing | Cast Iron |
| Gears | Cast Iron |
| Bearings | Bronze |
| Shafts..... | Steel |

Optional Materials*

| | |
|----------------|--------------------------------------|
| Gears | Bronze Stainless Steel Delrin® |
| Bearings | Iron Carbon |
| Shafts | Stainless Steel |

**some of the optional materials may not be available for all sizes*

FEATURES

Quiet-Running Helical Gears

- Heat treated cast-iron pumping gears are accurately machined for quiet, efficient operation and long life.
- The pumping gears are keyed to their shafts with a sliding fit and are easily replaced.
- Accurate machining insures proper meshing, and reduces friction and vibration.

Long-Lasting Bearing Surfaces

- Bearings are special wear-resistant, high-lead bronze. Iron and carbon bearings are available.
- Four heavy duty sleeve bearings give positive support to pumping gears and insure long, efficient service.
- Bearing grooves allow circulation of the liquid being pumped for lubrication & control of bearing temperature.
- Outboard drive shaft bearing supports external radial loads and absorbs most thrust loads.

Precision-Ground Shafts

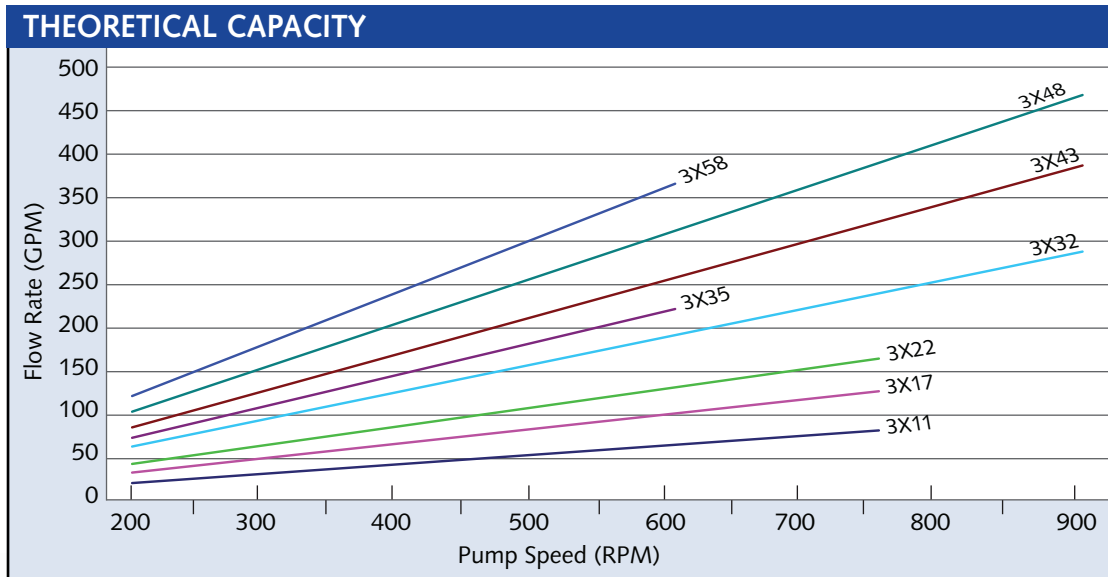
- The steel shafts are induction hardened in the bearing and packing areas and are precision ground to exacting standards for maximum life.
- Hardened stainless steel shafts available.

Rugged Housing

- Standard castings are cast iron.
- Precise manufacturing tolerances provide minimum clearances for maximum pumping efficiency.
- Large, hardened steel dowel pins insure positive alignment between the faceplate, case, and backplate.

THE LEADING FORCE behind liquids since 1857

Capacities & Nomenclature



NOMENCLATURE – 3611 G H B F R V

| | | | |
|----------------|--|--|---------------------|
| 3 | Port Location | 3 – Right Angle Ports | |
| | | 4 – Straight Through Ports | |
| 6 | Seal Option | 5 – Triple Lip Seal | |
| | | 6 – Packing | |
| | | 7 – Mechanical Seal | |
| | | 8 – Lip Seal with Ball Bearings | |
| 11 | Size | 11 – 11 Gal/100 Rev | 35 – 35 Gal/100 Rev |
| | | 17 – 17 Gal/100 Rev | 43 – 43 Gal/100 Rev |
| | | 22 – 22 Gal/100 Rev | 48 – 52 Gal/100 Rev |
| | | 32 – 32 Gal/100 Rev | 58 – 58 Gal/100 Rev |
| Configuration* | H | Pump Head without Outboard Ball Bearing | |
| | HB | Tapped Port Case with Outboard Ball Bearing | |
| | HBFB | Flanged Ports with Outboard Bearing | |
| | HBFRV | Flanged Ports with Outboard Bearing and Relief Valve | |
| | GHBFVRV | Flanged Ports with Outboard Bearing, Relief Valve, and Gear Reducer | |
| | BH | Tapped Ports, No Outboard Bearing, Mounting for Hyd. Drive or CCD Bracket | |
| | BHF | Flanged Ports, No Outboard Bearing, Mounting for Hyd. Drive or CCD Bracket | |
| BHFRV | Flanged Ports, No Outboard Bearing, Mounting for Hyd. Drive or CCD Bracket, and Relief Valve | | |

* There are over 40 basic configurations and several thousand custom designs.
Please consult your local Roper distributor to decide which configuration best fits your needs

Key Components



BEARINGS

Four heavy duty sleeve bearings give positive support to pumping gears and insure long, efficient service. A special wear-resistant, high-lead bronze bearing is standard on 3600 Series Pumps. For thin non-abrasive liquids we offer optional carbon bearings as well as iron bearings for abrasive liquids. The bearings are grooved to allow circulation of the liquid being pumped for lubrication & control of bearing temperature.



GEARS

The helical pumping gears are machined from heat treated cast iron because of its excellent wear resistance. For chemical pumping applications, the standard gears can be replaced with stainless steel or bronze. An optional Delrin® idler gear can be used for quieter operation when running thin liquids.



SHAFTS

Standard steel shafts are induction hardened in the bearing and packing areas, and are precision ground to exacting standards for maximum life. Hardened stainless steel shafts are also available upon request.



HOUSING

Our rugged cast-iron housings are manufactured to precise tolerances, providing minimum clearances for maximum pumping efficiency. Large, hardened steel dowel pins ensure positive alignment between the faceplate, case, and backplate.



GASKETS

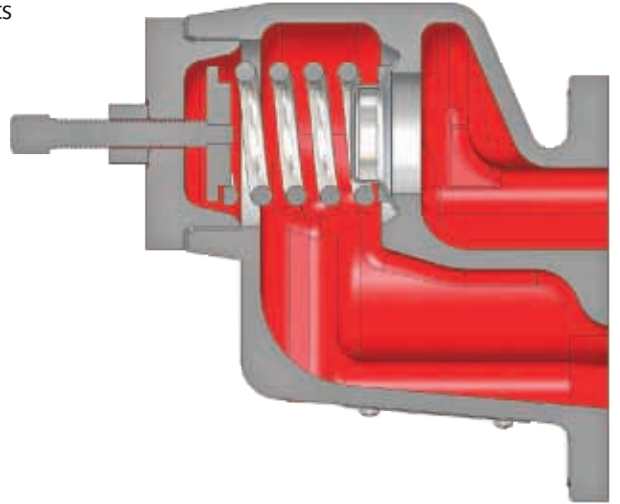
3600 Series Pumps come standard with fiber gaskets that are used up to 212°F/100°C. For higher temperature applications (up to 450°F/232°C) we offer other optional gasket materials.

Delrin® is a registered trademark of E. I. du Pont de Nemours and Company.

Relief Valves & Jacketing

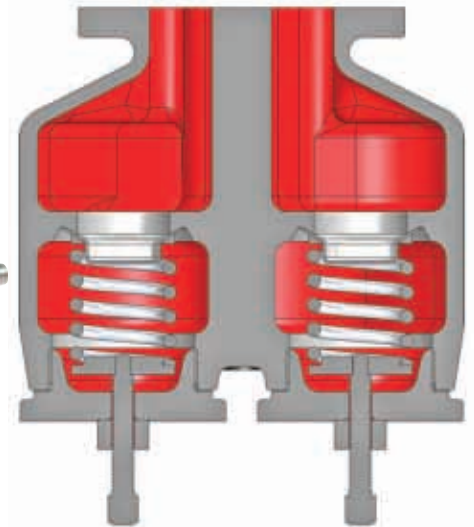
RELIEF VALVE

In the event of overpressure situations, our adjustable relief valve protects personnel and equipment by returning liquids to the suction side of the pump until conditions are corrected. Various spring sizes can be specified to handle a wide range of operating conditions. Roper's inverted poppet relief valve is designed without close fitting guides that can clog and cause excessive pressures when the valve does not open freely. The valve will provide protection in only one direction of rotation. However it can be positioned easily to either side of the pump to accommodate flow direction.



BI-DIRECTIONAL RELIEF VALVE

Roper's integral bi-directional pressure relief valve offers reliable protection of your personnel and equipment, regardless of which direction you are pumping. You can reverse flow without disabling pressure relief operability, or compromising operator safety. Based on our rugged and time proven standard relief valves, this offers you a lighter weight, lower cost alternative compared to externally plumbed systems.



JACKETING

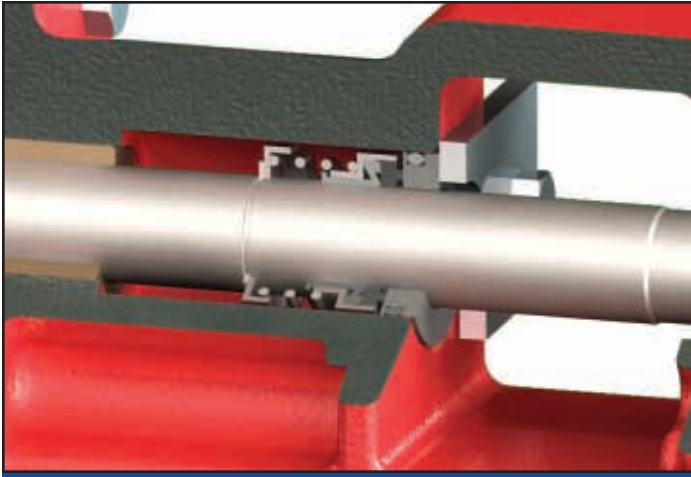
Whether the fluid to be pumped must be heated, cooled, or maintained at a specific temperature, a jacketed Roper pump will handle difficult-to-pump materials such as Bunker C, molasses, asphalt mixes, refined sugars, creosote, printing ink, and other viscous fluids which require temperature control for satisfactory handling.

Roper jacketed pumps provide efficient heat transfer to the packing, seal relief valve, bearing areas, and endplates of the pump. The jackets are suitable for use with steam, hot or cold water, heat transfer oil, etc., as heating or cooling mediums.

Jacketing is available on the faceplate only, backplate only, or on both.

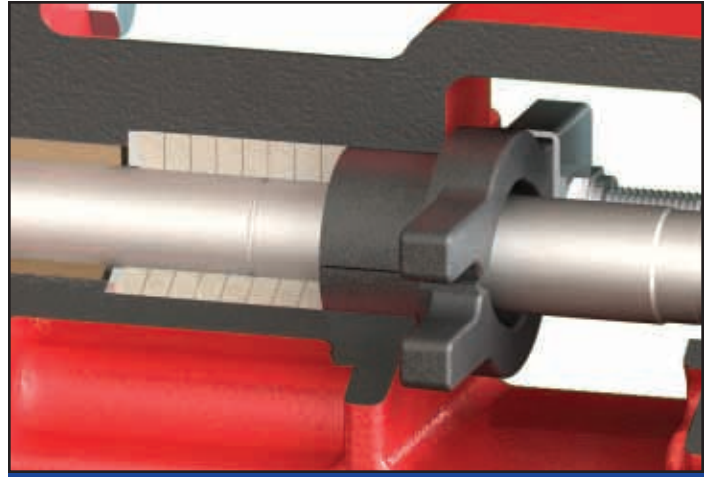


Pump Seals



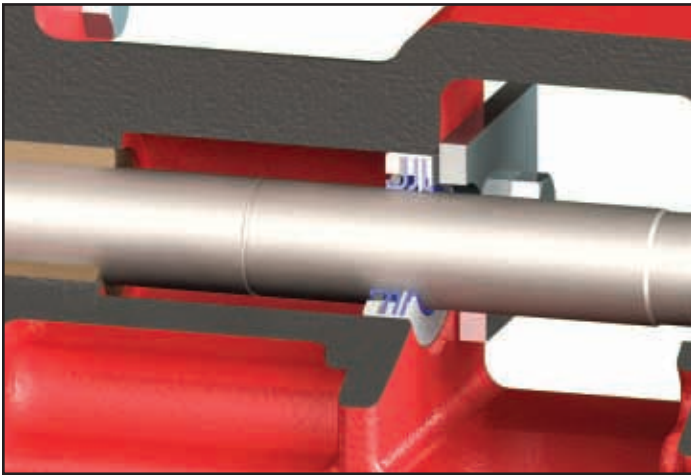
MECHANICAL SEAL

Mechanical seals are for those applications where product leakage is unacceptable. Under proper conditions the mechanical seal has a longer service life than the packed box and does not require adjustment. The standard mechanical seal is an elastomeric bellows type seal. A PTFE wedge seal is also available.



PACKED BOX

Our standard packing is suited for general purpose applications, and is easily replaced with split ring packing. For best performance, the gland should be adjusted to allow slight seepage. Standard packing is graphite, with several optional packing materials available for applications involving high temperatures or mildly corrosive liquids, or those requiring compatibility with food products.



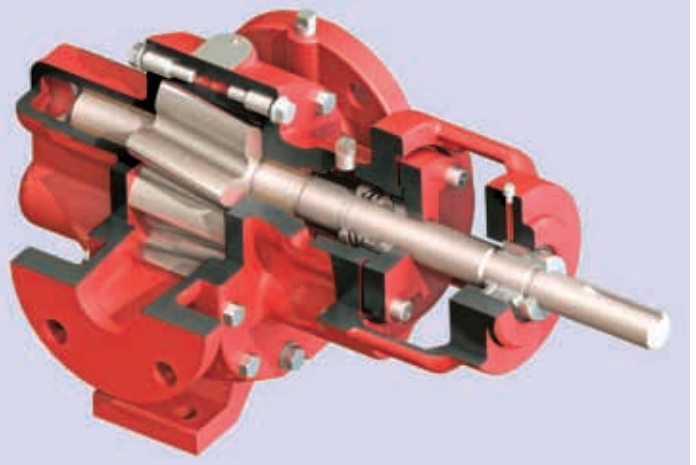
TRIPLE LIP SEAL

Offering the same high degree of sealing reliability as a mechanical seal, triple lip seals are better suited for viscous products that tend to set up while the pump is idle, such as resins, glues and paints. The Teflon® filled elastomer lips create an effective barrier to product leakage, and will move freely upon resumption of pumping a thickening substance. In cases where extreme circumstances can cause catastrophic failure of mechanical seals, the resilient nature of the triple lip elastomer makes it relatively immune to sudden failure.

Need More Seal Options?

OUR Z SERIES...

Based on our 3600 Series, the Roper "Z" Series features a larger seal chamber in a two-piece backplate that allows for virtually unlimited options, and facilitates easy seal maintenance. Many parts are interchangeable with the 3600 Series.



Teflon® is a registered trademark of E. I. du Pont de Nemours and Company.

Gear Reduction (GHB) Unit

Totally enclosed and running in oil, the reduction gears are made of hardened steel to assure longer life. Antifriction bearings are used throughout. Three interchangeable gear ratios are available in each size. For additional ratios look at using a Roper CCD bracket and an industrial standard gearmotor.

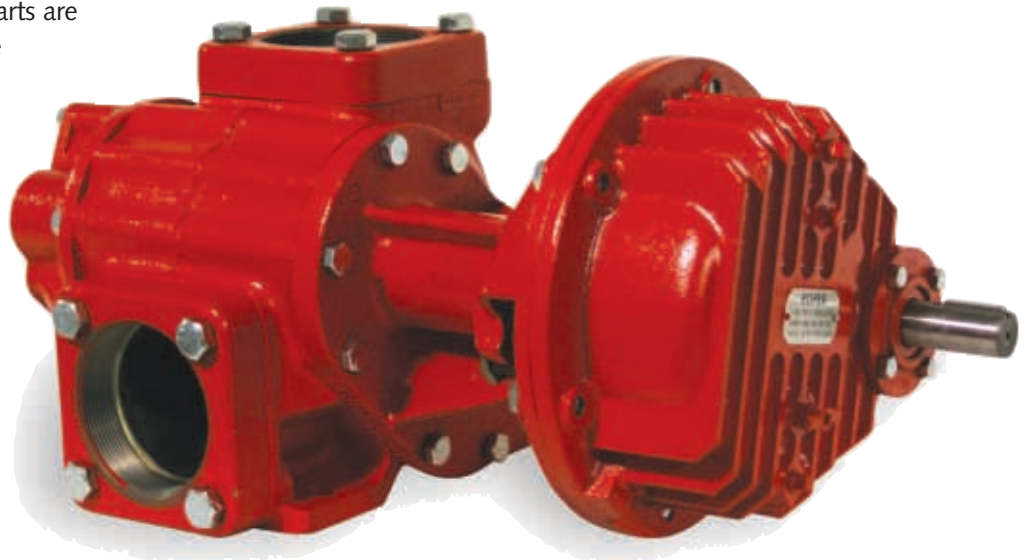
| GEAR RATIOS AND CAPACITIES FOR GHB UNITS | | | | |
|--|-----------|------------|----------|---------------------|
| | Motor RPM | Gear Ratio | Pump RPM | Max. Permissible HP |
| 11 through 22 | 1150 | 4.60:1 | 250 | 5.5 |
| | | 3.94:1 | 290 | 6.5 |
| | | 3.20:1 | 360 | 8.0 |
| | 1750 | 4.60:1 | 380 | 8.5 |
| | | 3.94:1 | 445 | 10.0 |
| | | 3.20:1 | 545 | 10.0 |
| 3450* | 4.60:1 | 750 | 10.0 | |

*3450 RPM motors are used in handling low viscosity lubricating liquids.

PERFORMANCE CHARTS

Performance figures show maximum horsepower requirements for minimum rated gallons per minute at the various speeds, viscosities and pressures. The charts are intended as a guide for conditions at the pump. In determining the proper conditions of operation for the pump, many factors must be considered including inlet conditions, liquid characteristics, and temperature.

If there is any question concerning these charts or the recommended operating conditions, please consult your Roper distributor, district representative, or the home office.

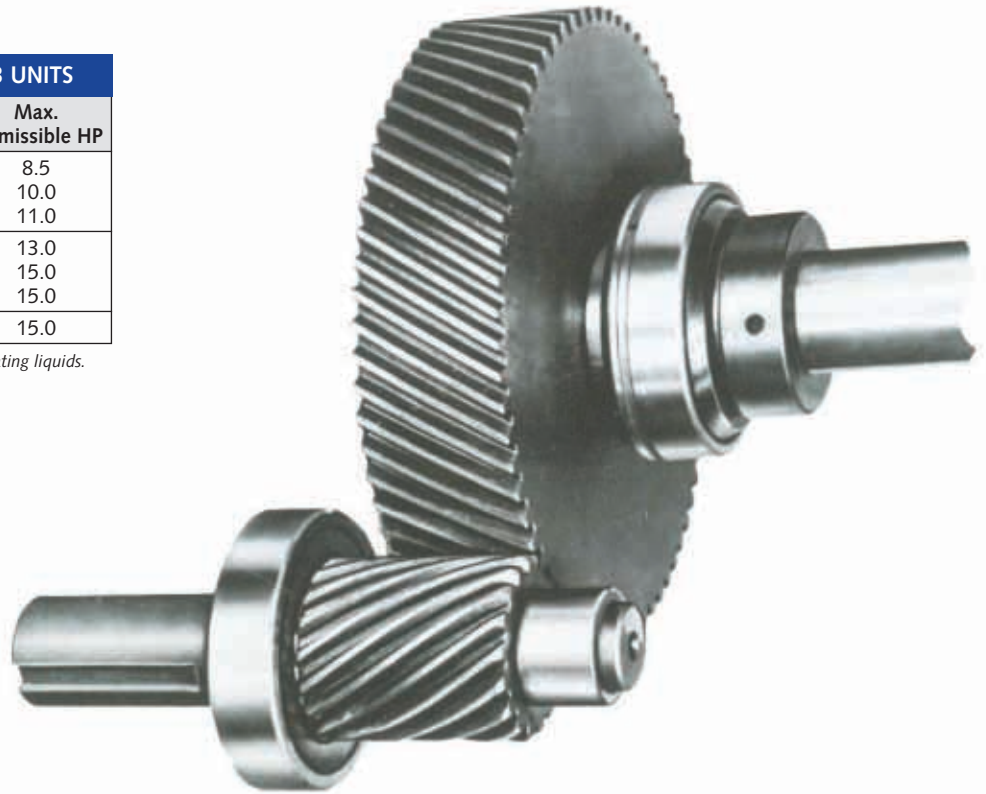


| SIZE | RPM | 250 RPM | | | | 290 RPM | | | | 360 RPM | | | | 380 RPM | | | | 445 RPM | | | | 545 RPM | | | | 750 RPM | | | | | | |
|------|-----|---------|-----|-----|-----|---------|--------|-----|-----|---------|--------|-----|-----|---------|--------|-----|-----|---------|--------|-----|-----|---------|--------|------|------|---------|--------|------|------|------|--------|--|
| | | PSI | SSU | 30 | 100 | 1000 | 10,000 | 30 | 100 | 1000 | 10,000 | 30 | 100 | 1000 | 10,000 | 30 | 100 | 1000 | 10,000 | 30 | 100 | 1000 | 10,000 | 30 | 100 | 1000 | 10,000 | 30 | 100 | 1000 | 10,000 | |
| 11 | 25 | GPM | .25 | .26 | .27 | .27 | .29 | .30 | .31 | .31 | .37 | .38 | .39 | .39 | .40 | .41 | .42 | .42 | .47 | .48 | .49 | | .58 | .59 | .60 | | .80 | .81 | .82 | | | |
| | | HP | .7 | .7 | .9 | 1.3 | .9 | 1.2 | 1.5 | 1.1 | 1.1 | 1.4 | 2.2 | 1.1 | 1.1 | 1.5 | 2.3 | 1.4 | 1.4 | 2.0 | | 1.9 | 1.9 | 2.7 | | 2.8 | 2.8 | 3.8 | | | | |
| | 50 | GPM | 23 | 25 | 27 | 27 | 27 | 29 | 31 | 31 | 35 | 37 | 39 | 39 | 38 | 40 | 42 | 42 | 45 | 47 | 49 | | 56 | 58 | 60 | | 78 | 80 | 82 | | | |
| | | HP | 1.1 | 1.1 | 1.3 | 1.7 | 1.3 | 1.3 | 1.5 | 1.9 | 1.7 | 1.7 | 2.0 | 2.8 | 1.7 | 1.7 | 2.1 | 2.9 | 2.1 | 2.1 | 2.6 | | 2.7 | 2.7 | 3.5 | | 3.9 | 3.9 | 4.9 | | | |
| 17 | 100 | GPM | | 23 | 26 | 27 | | 27 | 30 | 31 | | 35 | 38 | 39 | 33 | 38 | 41 | 42 | 40 | 45 | 48 | | 51 | 56 | 59 | | 73 | 78 | 81 | | | |
| | | HP | | 1.9 | 2.1 | 2.5 | | 2.2 | 2.4 | 3.0 | | 2.8 | 3.1 | 3.9 | 2.9 | 2.9 | 3.3 | 4.1 | 3.5 | 3.5 | 4.0 | | 4.4 | 4.4 | 5.2 | | 6.3 | 6.3 | 7.3 | | | |
| | 125 | GPM | | 22 | 24 | 27 | | 26 | 30 | 31 | | 34 | 38 | 39 | | 37 | 41 | 42 | | 44 | 48 | | 48 | 55 | 59 | | 70 | 77 | 81 | | | |
| | | HP | | 2.2 | 2.6 | 2.8 | | 2.7 | 2.9 | 3.5 | | 3.3 | 3.6 | 4.4 | | 3.5 | 3.9 | 4.7 | | 4.2 | 4.7 | | 5.4 | 5.4 | 6.2 | | 7.5 | 7.5 | 8.5 | | | |
| 22 | 25 | GPM | 38 | 40 | 41 | 42 | 45 | 47 | 48 | 49 | 57 | 59 | 60 | 61 | 60 | 62 | 63 | 64 | 71 | 73 | 74 | | 88 | 90 | 91 | | 123 | 125 | 126 | | | |
| | | HP | .8 | .8 | 1.1 | 1.8 | 1.0 | 1.0 | 1.3 | 2.2 | 1.2 | 1.2 | 1.8 | 3.0 | 1.3 | 1.3 | 1.9 | 3.3 | 1.7 | 1.7 | 2.5 | | 2.3 | 2.3 | 3.6 | | 3.5 | 3.5 | 6.0 | | | |
| | 50 | GPM | 38 | 38 | 41 | 42 | 40 | 45 | 48 | 49 | 52 | 57 | 60 | 61 | 55 | 60 | 63 | 64 | 66 | 71 | 74 | | 83 | 88 | 91 | | 118 | 123 | 126 | | | |
| | | HP | 1.4 | 1.4 | 1.7 | 2.4 | 1.6 | 1.6 | 1.9 | 2.8 | 2.1 | 2.1 | 2.7 | 3.9 | 2.3 | 2.3 | 2.9 | 4.3 | 2.9 | 2.9 | 3.7 | | 3.6 | 3.6 | 4.9 | | 5.4 | 5.4 | 7.9 | | | |
| 22 | 100 | GPM | | 34 | 40 | 41 | | 41 | 47 | 48 | | 49 | 53 | 59 | 60 | 52 | 56 | 62 | 63 | 63 | 63 | 67 | 73 | | 80 | 84 | 90 | | 115 | 119 | 125 | |
| | | HP | | 2.5 | 2.9 | 3.6 | | 3.0 | 3.3 | 4.2 | | 3.8 | 3.8 | 4.4 | 5.6 | 4.2 | 4.2 | 4.8 | 6.2 | 5.0 | 5.8 | | 6.3 | 6.3 | 7.6 | | 9.0 | 9.0 | 11.5 | | | |
| | 125 | GPM | | | 39 | 41 | | | 46 | 48 | 49 | 51 | 58 | 60 | 52 | 54 | 61 | 63 | 63 | 65 | 72 | | 80 | 82 | 89 | | 115 | 117 | 124 | | | |
| | | HP | | | 3.4 | 4.1 | | | 4.0 | 4.9 | 4.6 | 4.6 | 5.2 | 6.4 | 5.0 | 5.0 | 5.6 | 7.0 | 6.0 | 6.0 | 6.8 | | 7.5 | 7.5 | 8.8 | | 10.8 | 10.8 | 13.3 | | | |
| 22 | 25 | GPM | 52 | 53 | 55 | 55 | 60 | 61 | 63 | 63 | 7 | 77 | 79 | 79 | 80 | 81 | 83 | 83 | 94 | 95 | 97 | | 116 | 117 | 119 | | 162 | 163 | 165 | | | |
| | | HP | 1.1 | 1.1 | 1.4 | 1.9 | 1.3 | 1.3 | 1.7 | 2.5 | 2.0 | 2.0 | 2.6 | 3.9 | 2.2 | 2.2 | 3.0 | 4.3 | 2.7 | 2.7 | 3.5 | | 3.2 | 3.2 | 4.4 | | 5.1 | 5.1 | 7.2 | | | |
| | 50 | GPM | 50 | 52 | 54 | 55 | 58 | 60 | 62 | 63 | 74 | 76 | 78 | 79 | 78 | 80 | 82 | 83 | 92 | 94 | 96 | | 114 | 116 | 118 | | 161 | 162 | 164 | | | |
| | | HP | 2.0 | 2.0 | 2.3 | 2.8 | 2.3 | 2.3 | 2.6 | 3.4 | 3.1 | 3.1 | 3.7 | 5.0 | 3.3 | 3.3 | 4.1 | 5.4 | 4.1 | 4.1 | 4.9 | | 4.8 | 4.8 | 6.0 | | 7.3 | 7.3 | 9.4 | | | |
| 22 | 100 | GPM | 44 | 50 | 53 | 55 | 52 | 58 | 61 | 63 | 68 | 74 | 77 | 79 | 72 | 78 | 81 | 83 | 86 | 92 | 95 | | 108 | 114 | 117 | | 154 | 160 | 163 | | | |
| | | HP | 3.5 | 3.5 | 3.8 | 4.3 | 4.2 | 4.2 | 4.5 | 5.3 | 5.4 | 5.4 | 6.0 | 7.3 | 5.7 | 5.7 | 6.5 | 7.8 | 6.8 | 6.8 | 7.6 | | 8.2 | 8.2 | 9.4 | | 12.0 | 12.0 | 14.1 | | | |
| 22 | 125 | GPM | | 49 | 53 | 55 | 50 | 57 | 61 | 63 | 66 | 73 | 77 | 79 | 70 | 77 | 81 | 83 | 84 | 91 | 95 | | 106 | 113 | 117 | | 152 | 159 | 163 | | | |
| | | HP | | 4.2 | 4.5 | 5.0 | 5.2 | 5.2 | 5.5 | 6.3 | 6.5 | 6.5 | 7.1 | 8.4 | 6.9 | 6.9 | 7.7 | 9.0 | 8.3 | 8.3 | 9.1 | | 10.2 | 10.2 | 11.4 | | 14.7 | 14.7 | 16.8 | | | |

GEAR RATIOS AND CAPACITIES FOR GHB UNITS

| 32 through 58 | Motor RPM | Gear Ratio | Pump RPM | Max. Permissible HP |
|---------------|----------------------------|----------------------------|----------------------|---------------------|
| | 1150 | 5.66:1 4.88:1 4.26:1 | 203 235 270 | 8.5 10.0 11.0 |
| 1750 | 5.66:1 4.88:1 4.26:1 | 309 360 410 | 13.0 15.0 15.0 | |
| 3450* | 5.66:1 | 609 | 15.0 | |

*3450 RPM motors are used in handling low viscosity lubricating liquids.



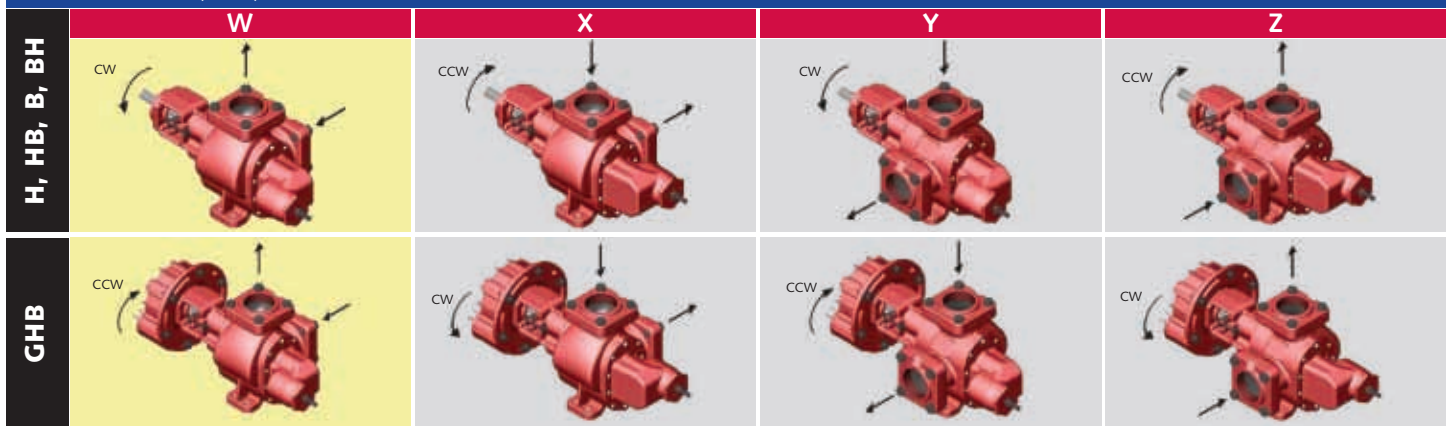
| SIZE | RPM | 203 RPM | | | | 235 RPM | | | | 270 RPM | | | | 309 RPM | | | | 360 RPM | | | | 410 RPM | | | | 609 RPM | | | | |
|------|-----|---------|-----|-----|------|---------|--------|-----|------|---------|--------|-----|------|---------|--------|------|------|---------|--------|------|------|---------|--------|------|------|---------|--------|------|------|------|
| | | PSI | SSU | 30 | 100 | 1000 | 10,000 | 30 | 100 | 1000 | 10,000 | 30 | 100 | 1000 | 10,000 | 30 | 100 | 1000 | 10,000 | 30 | 100 | 1000 | 10,000 | 30 | 100 | 1000 | 10,000 | 30 | 100 | 1000 |
| 32 | 25 | GPM | 54 | 57 | 61 | 65 | 64 | 67 | 71 | 75 | 75 | 78 | 82 | 86 | 88 | 91 | 95 | 99 | 104 | 107 | 111 | 115 | 120 | 123 | 127 | 131 | 184 | 187 | 191 | 195 |
| | | HP | 1 | 1.2 | 1.4 | 1.8 | 1.3 | 1.5 | 1.8 | 2.3 | 1.7 | 1.9 | 2.5 | 3 | 2.1 | 2.3 | 2.8 | 3.4 | 2.8 | 3 | 3.6 | 4.3 | 3.5 | 3.7 | 4.3 | 5.2 | 6 | 6.7 | 8 | 10 |
| | 50 | GPM | 41 | 47 | 55 | 59 | 51 | 57 | 66 | 70 | 62 | 68 | 77 | 81 | 75 | 81 | 89 | 93 | 91 | 97 | 106 | 110 | 107 | 113 | 122 | 126 | 171 | 177 | 185 | 189 |
| | | HP | 2 | 2.2 | 2.4 | 2.8 | 2.3 | 2.5 | 2.8 | 3.3 | 3 | 3.2 | 3.8 | 4.3 | 3.5 | 3.7 | 4.2 | 4.8 | 4.5 | 4.7 | 5.3 | 6 | 5.5 | 5.7 | 6.3 | 7.2 | 9 | 9.7 | 11 | 13 |
| 35 | 100 | GPM | | | 44 | 52 | | | 54 | 62 | | | 47 | 65 | 73 | | | 60 | 78 | 86 | 94 | 102 | 81 | 92 | 110 | 118 | 145 | 156 | 174 | 182 |
| | | HP | | | 4.4 | 4.8 | | | 5.1 | 5.6 | | | 5.9 | 6.5 | 7 | | | 6.7 | 7.2 | 7.8 | 8.3 | 9 | 9.5 | 9.7 | 10.3 | 11.2 | 14.5 | 15.2 | 16.5 | 18.5 |
| | 125 | GPM | | | | 49 | | | 46 | 59 | | | 57 | 70 | | | 70 | 83 | 45 | 65 | 86 | 99 | | 81 | 102 | 115 | 145 | 166 | 179 | |
| | | HP | | | | 5.8 | | | 6.6 | 7.1 | | | 8 | 8.5 | | | 8.7 | 9.3 | 9.2 | 9.4 | 10 | 10.7 | | 11.5 | 12.1 | 13 | 17.8 | 19.1 | 21.1 | |
| 43 | 25 | GPM | 71 | 72 | 73 | 75 | 83 | 84 | 85 | 87 | 96 | 97 | 98 | 100 | 110 | 111 | 112 | 114 | 129 | 130 | 131 | 133 | 148 | 149 | 150 | | 221 | 222 | 223 | |
| | | HP | 2.6 | 2.6 | 2.8 | 4.3 | 3.1 | 3.1 | 3.3 | 5.2 | 3.7 | 3.7 | 3.9 | 6.2 | 4.4 | 4.4 | 4.6 | 7.5 | 5.3 | 5.3 | 5.7 | 9.4 | 6.2 | 6.7 | | 10.9 | 10.9 | 11.9 | | |
| | 50 | GPM | 67 | 69 | 71 | 73 | 79 | 81 | 83 | 85 | 92 | 94 | 96 | 98 | 106 | 108 | 110 | 112 | 125 | 127 | 129 | 131 | 144 | 146 | 148 | | 217 | 219 | 221 | |
| | | HP | 3.7 | 3.7 | 3.9 | 5.4 | 4.4 | 4.4 | 4.6 | 6.5 | 5.1 | 5.1 | 5.3 | 7.6 | 6.0 | 6.0 | 6.2 | 9.1 | 7.1 | 7.1 | 7.5 | 11.2 | 8.4 | 8.4 | | 14.2 | 14.2 | 15.2 | | |
| 48 | 100 | GPM | | 61 | 68 | 71 | | 73 | 80 | 83 | 82 | 86 | 93 | 96 | 96 | 100 | 107 | 110 | | 126 | 129 | | | 145 | | | | 218 | | |
| | | HP | | 5.8 | 6.0 | 7.5 | | 6.8 | 7.0 | 8.9 | 8.0 | 8.0 | 8.2 | 10.5 | 9.4 | 9.4 | 9.6 | 12.5 | | | 15.1 | | | 13.4 | | | | 21.8 | | |
| | 125 | GPM | | | 65 | 70 | | 77 | 82 | | 83 | 90 | 95 | | | 104 | 109 | | | 123 | 128 | | | 142 | | | | 215 | | |
| | | HP | | | 7.2 | 8.7 | | 8.3 | 10.2 | | 9.5 | 9.7 | 12.0 | | | 11.2 | 14.1 | | | 13.4 | 17.1 | | | 15.6 | | | | 25.2 | | |
| 58 | 25 | GPM | 76 | 79 | 83 | 85 | 90 | 93 | 97 | 99 | 105 | 108 | 112 | 114 | 122 | 125 | 128 | 131 | 144 | 147 | 150 | 153 | 165 | 168 | 172 | 174 | 251 | 254 | 257 | 260 |
| | | HP | 1.8 | 2 | 2.3 | 3 | 2 | 2.3 | 2.8 | 3 | 2.4 | 2.9 | 3.3 | 3.7 | 3 | 3.2 | 3.7 | 4.4 | 3.7 | 3.9 | 4.7 | 5.6 | 4.4 | 4.9 | 5.7 | 7 | 8.2 | 9 | 11 | 14 |
| | 50 | GPM | 62 | 68 | 77 | 81 | 76 | 82 | 91 | 95 | 91 | 97 | 106 | 110 | 108 | 114 | 123 | 127 | 130 | 136 | 145 | 149 | 151 | 157 | 166 | 170 | 237 | 243 | 252 | 256 |
| | | HP | 2.5 | 2.7 | 3 | 3.7 | 3.2 | 3.5 | 4 | 4.2 | 4 | 4.5 | 4.9 | 5.3 | 5 | 5.2 | 5.7 | 6.4 | 5.8 | 6 | 6.8 | 7.7 | 7.1 | 7.6 | 8.4 | 9.7 | 12 | 12.8 | 14.8 | 17.8 |
| 58 | 100 | GPM | | | 62 | 72 | | | 76 | 86 | | | 73 | 91 | 101 | | | 90 | 108 | 118 | 95 | 112 | 133 | 133 | 151 | 161 | 202 | 219 | 237 | 247 |
| | | HP | | | 5.5 | 6.2 | | | 7 | 7.2 | | | 8 | 8.4 | 8.8 | | | 9.2 | 9.7 | 10.4 | 10.6 | 10.8 | 11.6 | 12.5 | 12.2 | 13.5 | 14.8 | | | |
| | 125 | GPM | | | 56 | 69 | | | 70 | 83 | | | 85 | 98 | | | 102 | 115 | 55 | 97 | 124 | 137 | | 118 | 145 | 158 | 182 | 204 | 231 | 244 |
| | | HP | | | 6.6 | 7.3 | | | 8.5 | 8.7 | | | 9.5 | 9.9 | | | 11.2 | 11.9 | 13.1 | 13.3 | 14.1 | 15 | | 15.4 | 16.2 | 17.5 | 23.2 | 24 | 26 | 29 |
| 58 | 25 | GPM | 94 | 97 | 101 | 103 | 111 | 114 | 118 | 120 | 129 | 132 | 136 | 138 | 149 | 152 | 156 | 158 | 176 | 179 | 183 | 185 | 202 | 205 | 209 | 211 | 305 | 308 | 312 | 314 |
| | | HP | 2.5 | 2.8 | 3.2 | 3.8 | 3.0 | 3.4 | 3.9 | 4.6 | 3.7 | 3.9 | 4.7 | 5.7 | 4.4 | 4.7 | 6.9 | 5.4 | 5.9 | 7.0 | 8.5 | 6.3 | 6.8 | 8.4 | 10.3 | 10.9 | 12.0 | 16.8 | 18.8 | |
| | 50 | GPM | 106 | 114 | 120 | 122 | 126 | 134 | 140 | 142 | 147 | 155 | 161 | 163 | 171 | 179 | 185 | 187 | 202 | 210 | 216 | 218 | 233 | 241 | 247 | 249 | 368 | 368 | 368 | 373 |
| | | HP | 5.6 | 5.6 | 5.7 | 7.7 | 6.3 | 6.3 | 6.6 | 9.0 | 7.3 | 7.3 | 7.8 | 12.1 | 8.7 | 8.7 | 9.4 | 13.7 | 10.1 | 10.4 | 11.5 | 16.8 | 11.9 | 12.0 | 13.8 | 21.6 | | | | |
| 58 | 100 | GPM | | | 117 | 121 | | | 137 | 141 | | | 158 | 162 | | | 182 | 186 | | 213 | 217 | | | 244 | 248 | | | 365 | | |
| | | HP | | | 9.4 | 11.4 | | | 11.0 | 13.4 | | | 12.6 | 16.9 | | | 14.9 | 19.2 | | 17.8 | 23.1 | | | 21.0 | 28.8 | | | 35.0 | | |
| | 125 | GPM | | | 115 | 120 | | | 135 | 140 | | | 156 | 161 | | | 180 | 185 | | 211 | 216 | | | 242 | 247 | | | 363 | | |
| | | HP | | | 11.1 | 13.1 | | | 13.0 | 15.4 | | | 15.1 | 19.4 | | | 17.8 | 22.1 | | 21.0 | 26.3 | | | 24.7 | 32.5 | | | 40.5 | | |

Direction of Rotation

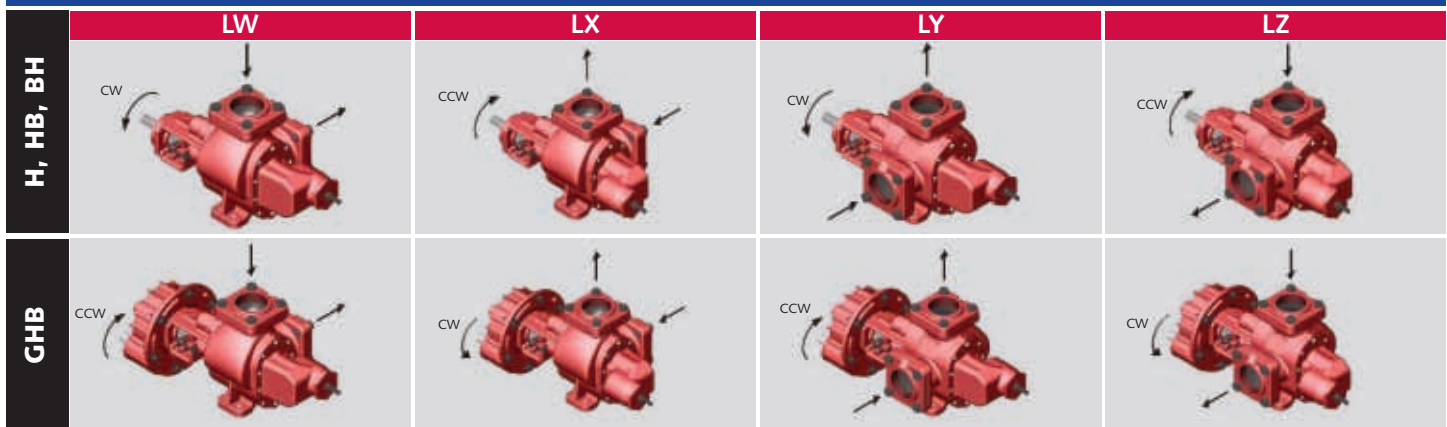
Rotation direction is determined when facing the drive shaft. The diagrams will serve as a helpful basis for you to determine the direction of rotation wanted according to your piping system. We can build the pump at the factory to meet your installation requirements. If the pump build is not specified, it will be shipped the standard "W" configuration. Once in the field, if you need to change the configuration, it can easily be done by just disassembling the pump and rebuilding it to your desired arrangement. No new parts are needed.

Note: top picture in each section is a standard pump and the bottom picture is the same pump with gear box added.

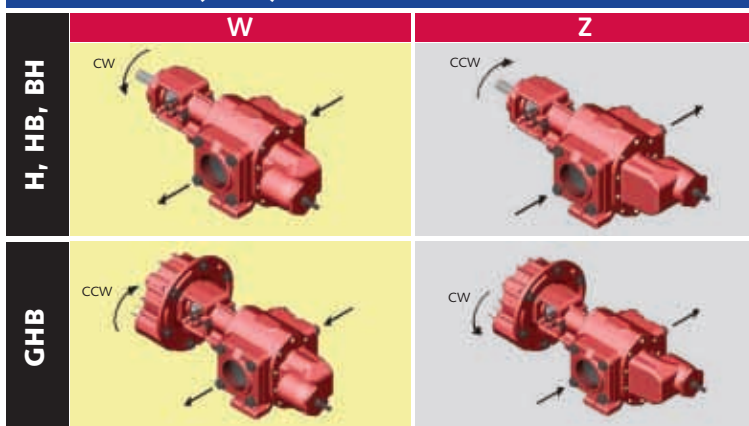
3600 SERIES (90°) WITH HIGH DRIVE



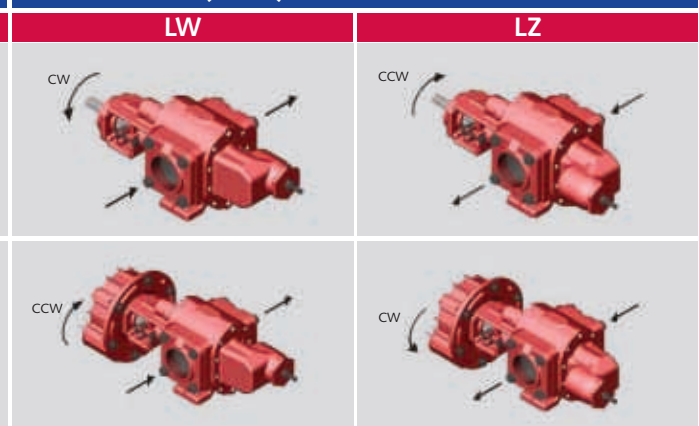
3600 SERIES (90°) WITH LOW DRIVE



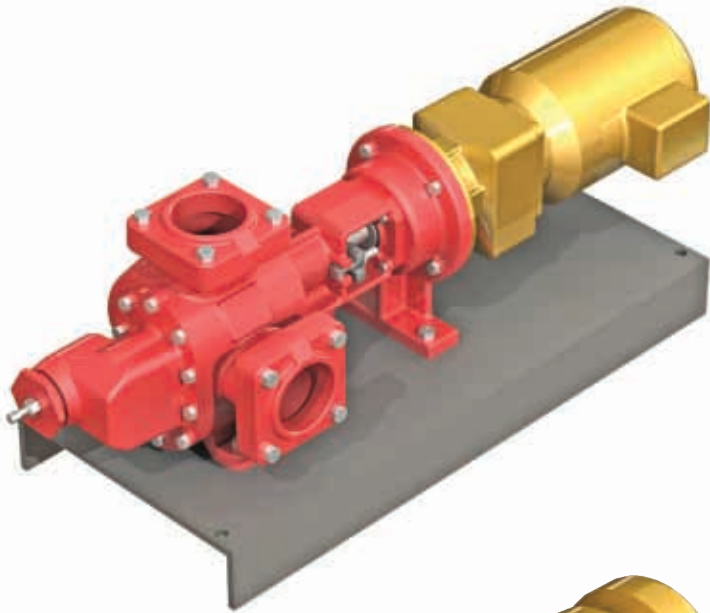
4600 SERIES (180°) WITH HIGH DRIVE



4600 SERIES (180°) WITH LOW DRIVE

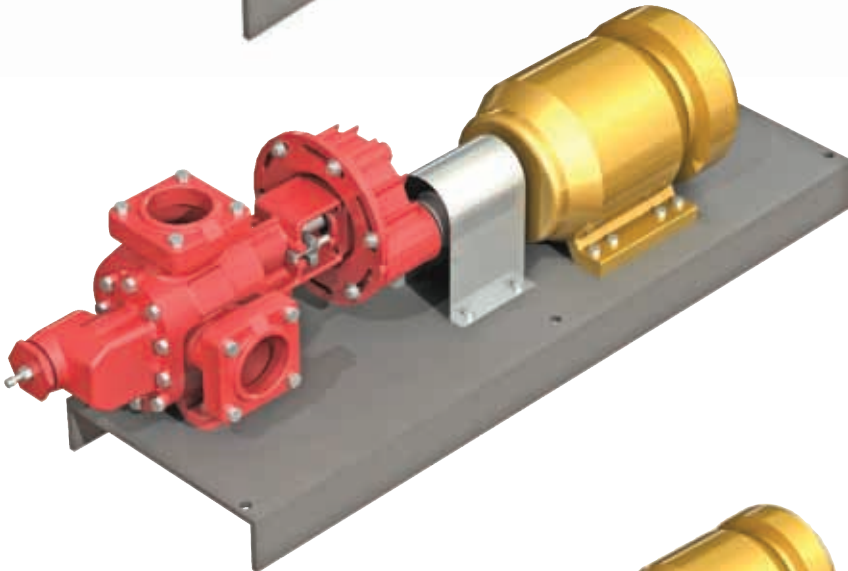


Base Mounted Units



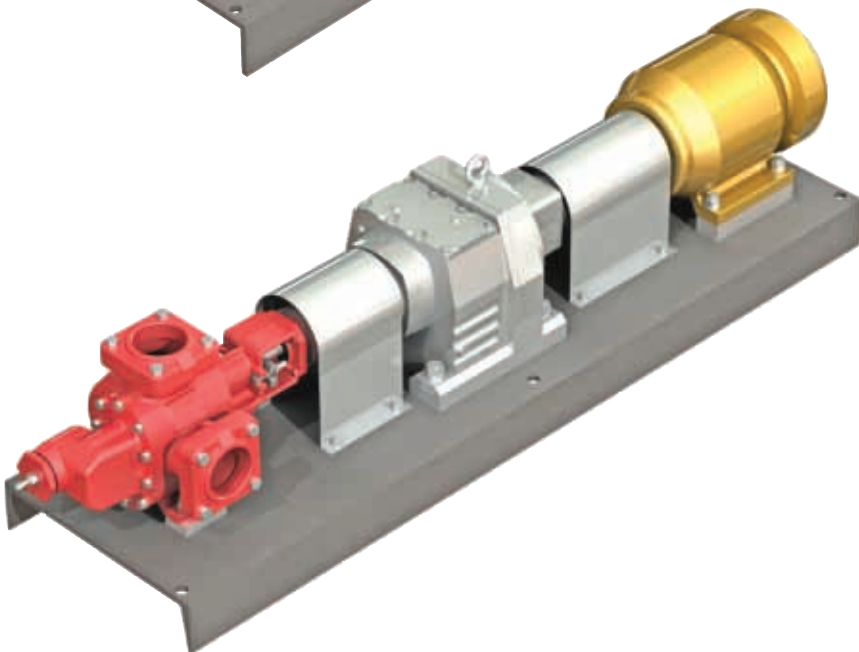
CLOSE COUPLED DRIVES (CCD)

The close coupled drive configuration provides an enhanced level of safety in a compact package. Guards and alignment are not required because this complete drive package easily mounts to DIN flanged gear motors. Since the CCD bracket creates a unified system from the motor to the pump, the baseplate becomes an optional component to the system. These units will attach to our standard 3600 BH pumps.



ROPER GHB GEARBOX

The versatile GHB gearbox configuration features a built-on gear reduction unit that allows minute adjustments for various driver shaft heights. This feature makes alignment to the motor shaft very simple. The carefully selected ratios convert standard motor speeds to ranges suitable for most pumping applications. See pages 8-9 for more information on available gear ratios.

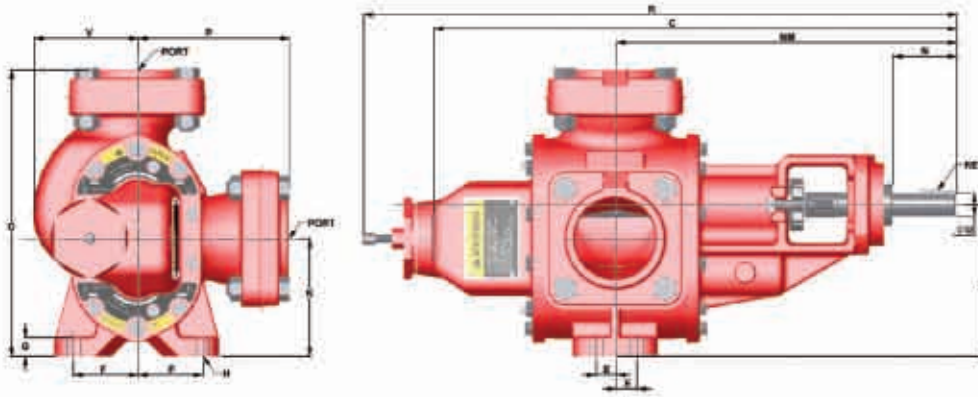


INDUSTRIAL STANDARD

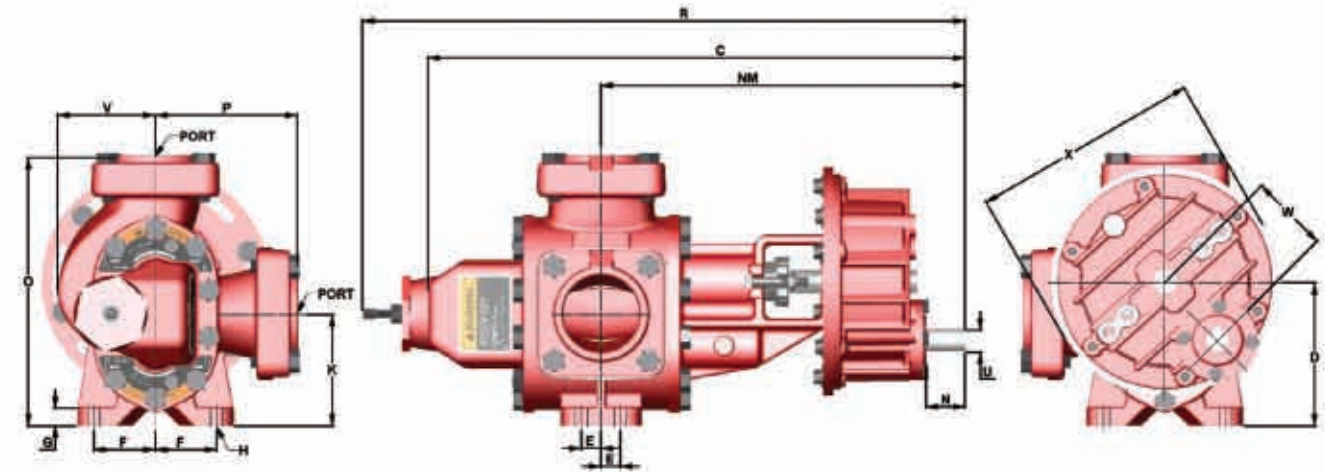
Using an industrial standard gearbox offers virtually unlimited gear ratio options and the ability to easily change pump speeds by simply changing the gearbox. Roper Pump offers extensive expertise in spacing, mounting and aligning the complete drive package of motor, gearbox and pump.

3600 SERIES - 90° Ports

H & HB

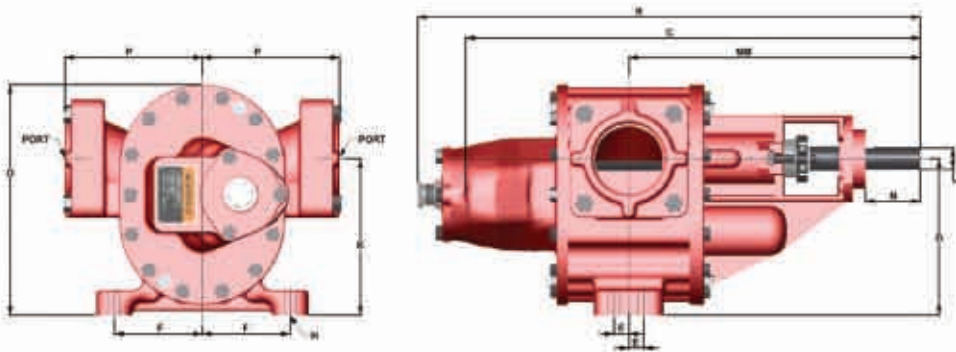


GHB

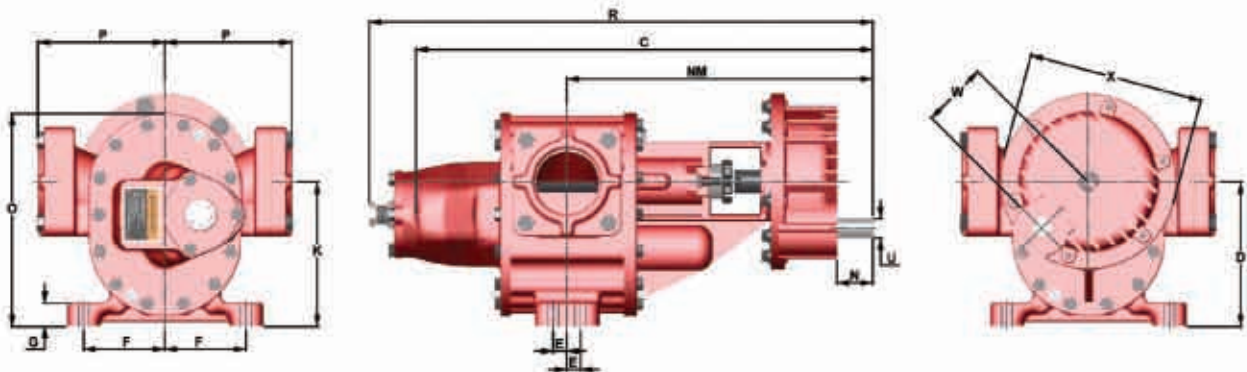


4600 SERIES - Thru Ports 180°

H & HB



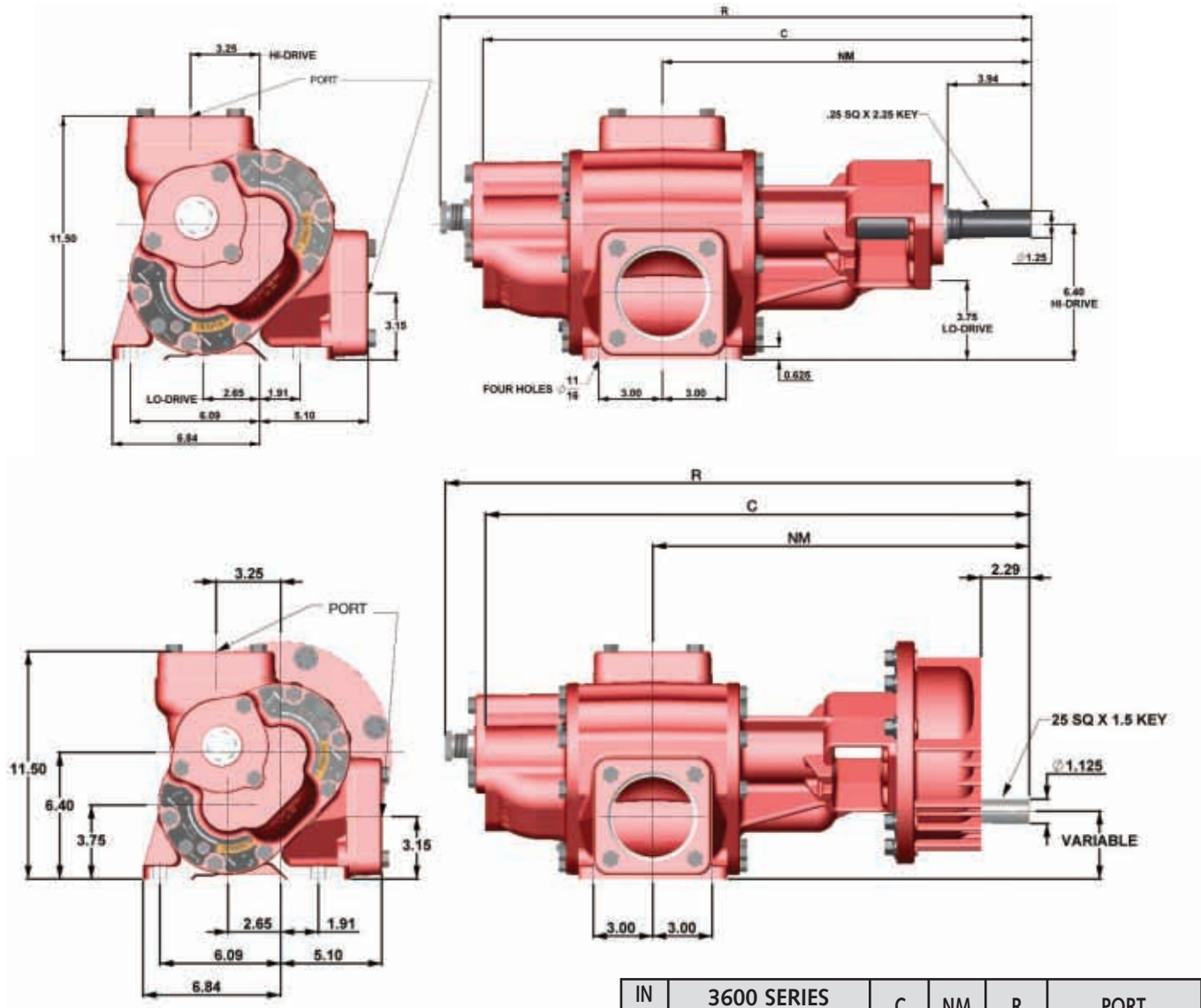
GHB



| IN [mm] | 3600 SERIES | | C | D | | E | F | G | H | K | N | NM | O | P | R | U | V | W | X | KEY | PORTS | | | | | | | | | |
|--------------------------|--------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------|---------------|---------------|---------------|--------------|
| | | | | HIGH | LOW | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO OUTBOARD BEARING | 11 | H & HRV (SPEC G) | 15.97 [405] | 6.44 [163] | 0.88 [22] | 2.75 [69] | 0.75 [19] | 0.56 [14] | 5 [127] | 2.58 [65] | 10.34 [262] | 10.75 [273] | 3.62 [91] | 19.57 [497] | 1.06 [26] | 4 [101] | N/A | N/A | .25 SQ X 1.50 | 2 NPT TAPPED | | | | | | | | | | |
| | | 11.54 [293] | | | | | | | | | | 4.3 [109] | 2 NPT FLANGED | | | | | | | | | | | | | | | | | |
| | 17 | H & HRV (SPEC G) | 16.72 [424] | | | | | | | 2.75 [69] | | 0.75 [19] | 0.56 [14] | 5 [127] | | | | | | 2.58 [65] | 10.34 [262] | 10.75 [273] | 3.62 [91] | 20.33 [516] | 1.06 [26] | 4 [101] | N/A | N/A | .25 SQ X 1.50 | 2 NPT TAPPED |
| | | 11.54 [293] | | | | | | | | | | | | | | | | | | | | 4.3 [109] | 2 NPT FLANGED | | | | | | | |
| | 22 | HF & HFRV (SPEC G) | 18.59 [472] | | | | | | | 2.2 [55] | | 11.46 [291] | 12.16 [308] | 6.41 [162] | | | | | | 22.19 [563] | 1.44 [36] | 4.41 [112] | 15.63 [397] | 6.88 [174] | 23.04 [585] | 1.44 [36] | 6 [152] | .38 SQ X 1.62 | 3 NPT FLANGED | |
| | | 16.66 [423] | | | | | | | | | | | | | | | | | | | | | | | | | | | 7.91 [200] | 3 NPT TAPPED |
| 35 | H & HRV | 19.53 [496] | 5.19 [131] | 1.5 [38] | 0.69 [17] | 9.25 [234] | 2.15 [54] | 11.96 [303] | 15.63 [397] | 6.88 [174] | 23.04 [585] | 1.44 [36] | 6 [152] | .38 SQ X 1.62 | 3 NPT TAPPED | | | | | | | | | | | | | | | |
| | 16.66 [423] | | | | | | | | | | | | | | 7.91 [200] | 3 NPT FLANGED | | | | | | | | | | | | | | |
| 58 | HF & HFRV (SPEC G) | 22.51 [571] | 2.29 [58] | 13.52 [343] | 17.35 [440] | 8.1 [205] | 26.02 [660] | 1.44 [36] | 6.28 [159] | 15.63 [397] | 6.88 [174] | 23.04 [585] | 1.44 [36] | 6 [152] | .38 SQ X 1.62 | 4 NPT FLANGED | | | | | | | | | | | | | | |
| WITH OUTBOARD BEARING | 11 | HB & HBRV | 19.32 [490] | 6.44 [163] | 0.88 [22] | 2.75 [69] | 0.75 [19] | 0.56 [14] | 5 [127] | 3.45 [87] | 13.69 [347] | 10.75 [273] | 3.62 [91] | 22.92 [582] | 1 [25] | 4 [101] | N/A | N/A | .25 SQ X 1.50 | 2 NPT TAPPED | | | | | | | | | | |
| | | 11.54 [293] | | | | | | | | | | 4.3 [109] | 2 NPT FLANGED | | | | | | | | | | | | | | | | | |
| | 17 | HB & HBRV | 20.07 [509] | | | | | | | 2.75 [69] | | 0.75 [19] | 0.56 [14] | 5 [127] | | | | | | 3.45 [87] | 13.69 [347] | 10.75 [273] | 3.62 [91] | 23.67 [601] | 1 [25] | 4 [101] | N/A | N/A | .25 SQ X 1.50 | 2 NPT TAPPED |
| | | 11.54 [293] | | | | | | | | | | | | | | | | | | | | 4.3 [109] | 2 NPT FLANGED | | | | | | | |
| | 22 | HB & HBRV | 21.57 [547] | | | | | | | 14.4 [366] | | 12.16 [308] | 6.41 [162] | 25.17 [639] | | | | | | 1.25 [31] | 6 [152] | 15.63 [397] | 6.88 [174] | 27.2 [690] | 1.25 [31] | 6 [152] | .38 SQ X 2.25 | 3 NPT TAPPED | | |
| | | 16.66 [423] | | | | | | | | | | | | | | | | | | | | | | | | | | 7.91 [200] | 3 NPT FLANGED | |
| 35 | HB & HBRV | 23.69 [601] | 16.12 [409] | 17.35 [440] | 8.1 [205] | 30.04 [763] | 1.25 [31] | 6 [152] | 15.63 [397] | 6.88 [174] | 27.2 [690] | 1.25 [31] | 6 [152] | .38 SQ X 2.25 | 3 NPT TAPPED | | | | | | | | | | | | | | | |
| | 16.66 [423] | | | | | | | | | | | | | | 7.91 [200] | 3 NPT FLANGED | | | | | | | | | | | | | | |
| 58 | HB & HBRV | 26.53 [673] | 17.54 [445] | 17.35 [440] | 8.1 [205] | 30.04 [763] | 1.25 [31] | 6.28 [159] | 15.63 [397] | 6.88 [174] | 27.2 [690] | 1.25 [31] | 6.28 [159] | .38 SQ X 2.25 | 4 NPT FLANGED | | | | | | | | | | | | | | | |
| WITH GEAR REDUCTION UNIT | 11 | GHB & GHBRV | 20.47 [519] | 6.44 [163] | 0.88 [22] | 2.75 [69] | 0.75 [19] | 0.56 [14] | 5 [127] | 1.74 [44] | 14.83 [376] | 10.75 [273] | 3.62 [91] | 24.07 [611] | 1 [25] | 4 [101] | 3.523 [89] | 10.24 [260] | .25 SQ X 1.50 | 2 NPT TAPPED | | | | | | | | | | |
| | | 11.54 [293] | | | | | | | | | | 4.3 [109] | 2 NPT FLANGED | | | | | | | | | | | | | | | | | |
| | 17 | GHB & GHBRV | 21.97 [558] | | | | | | | 15.58 [395] | | 10.75 [273] | 3.62 [91] | 25.57 [649] | | | | | | 1.25 [31] | 6 [152] | 15.63 [397] | 6.88 [174] | 29.39 [746] | 1.25 [31] | 6 [152] | .25 SQ X 2.00 | 3 NPT TAPPED | | |
| | | 11.54 [293] | | | | | | | | | | | | | | | | | | | | | | | | | | 4.3 [109] | 3 NPT FLANGED | |
| | 22 | GHB & GHBRV | 23.47 [596] | | | | | | | 16.33 [414] | | 12.16 [308] | 6.41 [162] | 27.07 [687] | | | | | | 1.25 [31] | 6 [152] | 15.63 [397] | 6.88 [174] | 29.39 [746] | 1.25 [31] | 6 [152] | .25 SQ X 2.00 | 3 NPT TAPPED | | |
| | | 16.66 [423] | | | | | | | | | | | | | | | | | | | | | | | | | | 7.91 [200] | 3 NPT FLANGED | |
| 35 | GHB & GHBRV | 25.88 [657] | 18.31 [465] | 17.35 [440] | 8.1 [205] | 32.23 [818] | 1.25 [31] | 6 [152] | 15.63 [397] | 6.88 [174] | 29.39 [746] | 1.25 [31] | 6 [152] | .25 SQ X 2.00 | 3 NPT TAPPED | | | | | | | | | | | | | | | |
| | 16.66 [423] | | | | | | | | | | | | | | 7.91 [200] | 3 NPT FLANGED | | | | | | | | | | | | | | |
| 58 | GHB & GHBRV | 28.72 [729] | 19.73 [501] | 17.35 [440] | 8.1 [205] | 32.23 [818] | 1.25 [31] | 6.28 [159] | 15.63 [397] | 6.88 [174] | 29.39 [746] | 1.25 [31] | 6.28 [159] | .25 SQ X 1.50 | 4 NPT FLANGED | | | | | | | | | | | | | | | |

| IN [mm] | 4600 SERIES | | C | D | | E | F | G | H | K | N | NM | O | P | R | U | V | W | X | KEY | PORTS | | | | | | | |
|-----------------------|--------------------|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|--------------|---------------|---------------|---------------|
| | | | | HIGH | LOW | | | | | | | | | | | | | | | | | | | | | | | |
| NO OUTBOARD BEARING | 11 | HF & HFRV (SPEC G) | 15.97 [405] | 6.44 [163] | 0.88 [22] | 2.75 [69] | 0.62 [15] | 0.56 [14] | 5 [127] | 2.58 [65] | 10.34 [262] | 9.44 [239] | 4.17 [105] | 19.57 [497] | 1.06 [26] | N/A | N/A | N/A | .25 SQ X 1.50 | 2 NPT TAPPED | | | | | | | | |
| | | 11.54 [293] | | | | | | | | | | | 4.3 [109] | 3 NPT FLANGED | | | | | | | | | | | | | | |
| | 17 | HF & HFRV (SPEC G) | 16.72 [424] | | | | | | | 2.2 [55] | | 11.46 [291] | 12.16 [308] | 6.41 [162] | | | | | | 22.19 [563] | 1.44 [36] | 15.63 [397] | 6.88 [174] | 23.04 [585] | 1.44 [36] | 6 [152] | .38 SQ X 1.62 | 4 NPT FLANGED |
| | | 16.66 [423] | | | | | | | | | | | | | | | | | | | | | | | | | | 7.91 [200] |
| 58 | HF & HFRV (SPEC G) | 22.51 [571] | 2.29 [58] | 13.52 [343] | 17.35 [440] | 8.1 [205] | 26.02 [660] | 1.44 [36] | 6.28 [159] | 15.63 [397] | 6.88 [174] | 23.04 [585] | 1.44 [36] | 6 [152] | .38 SQ X 1.62 | 4 NPT FLANGED | | | | | | | | | | | | |
| WITH OUTBOARD BEARING | 11 | HB & HBRV | 19.32 [490] | 6.44 [163] | 0.88 [22] | 2.75 [69] | 0.62 [15] | 0.56 [14] | 5 [127] | 3.8 [96] | 13.69 [347] | 5 [127] | 4.17 [105] | 22.92 [582] | 1 [25] | N/A | N/A | N/A | .25 SQ X 1.50 | 2 NPT TAPPED | | | | | | | | |
| | | 11.54 [293] | | | | | | | | | | | 4.3 [109] | 3 NPT FLANGED | | | | | | | | | | | | | | |
| | 17 | HB & HBRV | 20.07 [509] | | | | | | | 2.75 [69] | | 0.75 [19] | 0.56 [14] | 5 [127] | | | | | | 3.05 [77] | 14.44 [366] | 4.85 [123] | 25.17 [639] | 1.25 [31] | 6 [152] | .25 SQ X 1.50 | 4 NPT FLANGED | |
| | | 16.66 [423] | | | | | | | | | | | | | | | | | | | | | | | | | 7.91 [200] | 3 NPT TAPPED |
| 58 | HB & HBRV | 26.53 [673] | 17.54 [445] | 17.35 [440] | 8.1 [205] | 30.04 [763] | 1.25 [31] | 6.28 [159] | 15.63 [397] | 6.88 [174] | 27.07 [687] | 1.25 [31] | 6.28 [159] | .25 SQ X 1.50 | 4 NPT FLANGED | | | | | | | | | | | | | |
| WITH REDUCTION UNIT | 11 | GHB & GHBRV | 20.47 [519] | 6.44 [163] | 0.88 [22] | 2.75 [69] | 0.62 [15] | 0.56 [14] | 5 [127] | 1.74 [44] | 14.83 [376] | 5 [127] | 4.3 [109] | 24.07 [611] | 1 [25] | N/A | 3.523 [89] | 10.24 [260] | .25 SQ X 2.00 | 2 NPT TAPPED | | | | | | | | |
| | | 11.54 [293] | | | | | | | | | | | | 4.3 [109] | | | | | | 3 NPT FLANGED | | | | | | | | |
| | 17 | GHB & GHBRV | 21.97 [558] | | | | | | | 15.58 [395] | | 10.75 [273] | 3.62 [91] | 25.57 [649] | | | | | | 1.25 [31] | 6 [152] | 15.63 [397] | 6.88 [174] | 29.39 [746] | 1.25 [31] | 6 [152] | .25 SQ X 2.00 | 3 NPT TAPPED |
| | | 16.66 [423] | | | | | | | | | | | | | | | | | | | | | | | | | | 7.91 [200] |
| 58 | GHB & GHBRV | 28.72 [729] | 19.73 [501] | 17.35 [440] | 8.1 [205] | 32.23 [818] | 1.25 [31] | 6.28 [159] | 15.63 [397] | 6.88 [174] | 29.39 [746] | 1.25 [31] | 6.28 [159] | .25 SQ X 1.50 | 4 NPT FLANGED | | | | | | | | | | | | | |

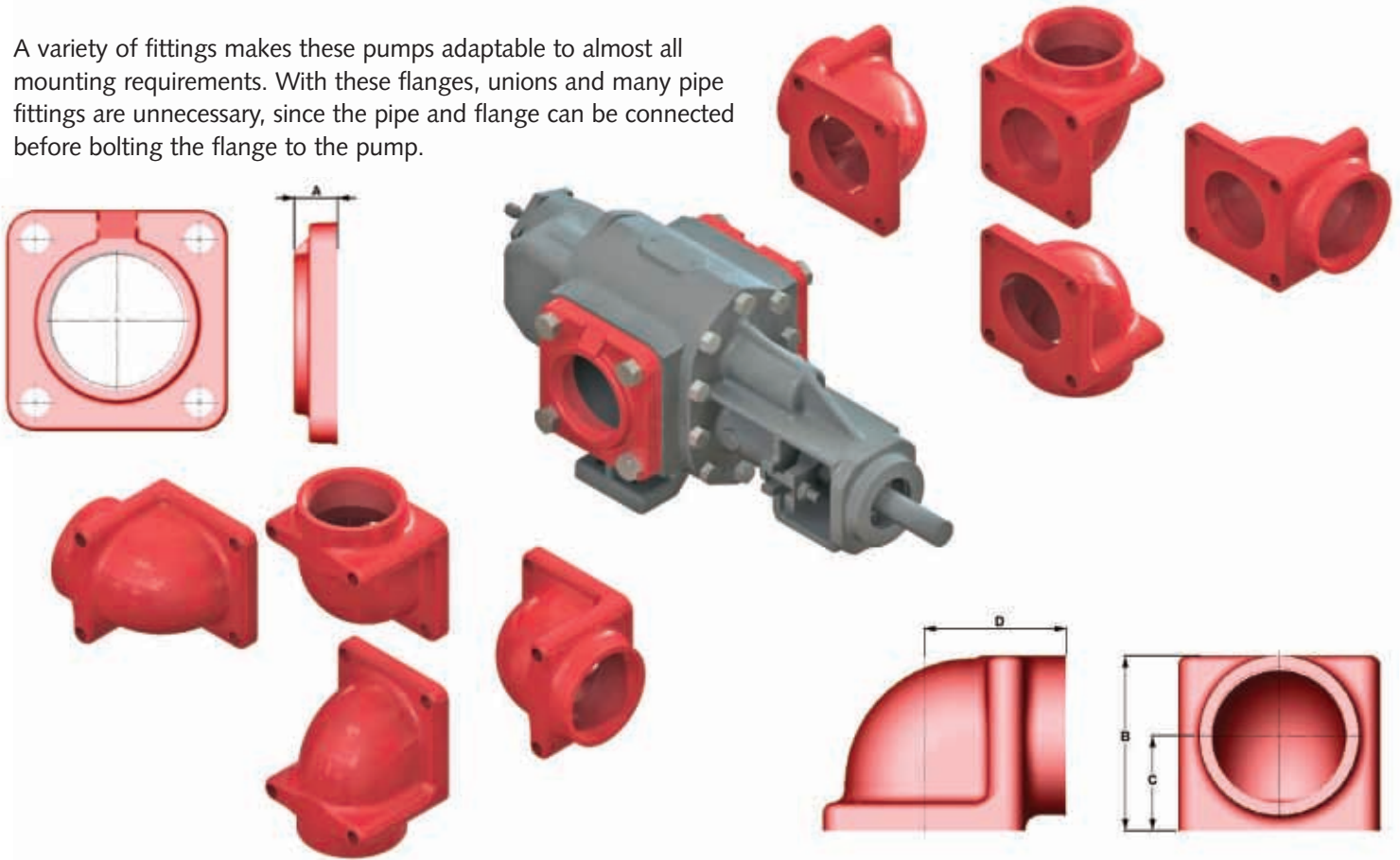
3600 SERIES - Angled Gears



| | IN [mm] | 3600 SERIES ANGLED GEARS | C | NM | R | PORT |
|--------------------------|---------|--------------------------|-------|-------|-------|--------------|
| NO OUTBOARD BEARING | 32 | HF & HFRV | 20.48 | 12.25 | 21.40 | 3 NPT FLANGE |
| | 43 | | 22.10 | 13.07 | 23.02 | 3 NPT FLANGE |
| | 48 | | 23.19 | 13.66 | 24.21 | 4 NPT FLANGE |
| WITH OUTBOARD BEARING | 32 | HBF & HBFRV | 23.67 | 15.44 | 24.58 | 3 NPT FLANGE |
| | 43 | | 25.32 | 16.29 | 26.24 | 3 NPT FLANGE |
| | 48 | | 27.02 | 17.38 | 27.93 | 4 NPT FLANGE |
| WITH GEAR REDUCTION UNIT | 32 | GHBF & GHBRV | 25.82 | 17.59 | 26.74 | 3 NPT FLANGE |
| | 43 | | 27.43 | 18.40 | 28.35 | 3 NPT FLANGE |
| | 48 | | 28.63 | 19.00 | 29.55 | 4 NPT FLANGE |

Flanges

A variety of fittings makes these pumps adaptable to almost all mounting requirements. With these flanges, unions and many pipe fittings are unnecessary, since the pipe and flange can be connected before bolting the flange to the pump.



| PUMP SIZE | FITTING TYPE | PORT SIZE | ASSEMBLY NUMBER | FLANGE PART NO. | A | B | C | D |
|----------------------|----------------------------|------------------|-----------------|-----------------|-----------------|----------------|----------------|------------------|
| 3611 4611 | Straight Flange (Std.) | 2" | N14-14 | P23-30 | $\frac{7}{8}$ | - | - | - |
| | Flanged Elbow (vertical) | 2" | N14-15 | P23-32 | - | $3\frac{3}{8}$ | $1\frac{1}{8}$ | $3\frac{13}{16}$ |
| | Flanged Elbow (horizontal) | 2" | N14-16 | P23-31 | - | $3\frac{7}{8}$ | $1\frac{1}{8}$ | $2\frac{1}{2}$ |
| 3617 | Straight Flange (Std.) | 2" | N14-17 | P23-12 | $\frac{7}{8}$ | - | - | - |
| | Flanged Elbow | 2" | N14-19 | P23-60 | - | $3\frac{3}{8}$ | $1\frac{1}{8}$ | $2\frac{7}{8}$ |
| | Flanged Elbow | 3" | N14-20 | P23-36 | - | $4\frac{7}{8}$ | $2\frac{3}{8}$ | $4\frac{3}{8}$ |
| | Straight Flange | $2\frac{1}{2}$ " | N14-62 | P23-72 | $1\frac{1}{8}$ | - | - | - |
| 4617 | Straight Flange (Std.) | 3" | N14-18 | P23-35 | $1\frac{1}{8}$ | - | - | - |
| | Flanged Elbow | 2" | N14-19 | P23-60 | - | $3\frac{3}{8}$ | $1\frac{1}{8}$ | $2\frac{7}{8}$ |
| | Flanged Elbow | 3" | N14-20 | P23-36 | - | $4\frac{7}{8}$ | $2\frac{3}{8}$ | $4\frac{3}{8}$ |
| | Straight Flange | $2\frac{1}{2}$ " | N14-62 | P23-72 | $1\frac{1}{8}$ | - | - | - |
| 3622 | Straight Flange | 2" | N14-28 | P23-18 | $1\frac{1}{8}$ | - | - | - |
| | Straight Flange | $2\frac{1}{2}$ " | N14-29 | P23-22 | $1\frac{1}{8}$ | - | - | - |
| | Straight Flange (Std.) | 3" | N14-30 | P23-10 | $1\frac{1}{8}$ | - | - | - |
| | Flanged Elbow | 3" | N14-31 | P23-59 | - | $4\frac{1}{4}$ | $2\frac{1}{8}$ | $4\frac{3}{8}$ |
| | Straight Flange | 4" | N14-59 | P23-19 | $1\frac{1}{8}$ | - | - | - |
| 3632 | Straight Flange (Std.) | 3" | N14-121 | P23-150 | $1\frac{1}{8}$ | $4\frac{7}{8}$ | $2\frac{3}{8}$ | $4\frac{3}{8}$ |
| 3635 | Straight Flange (Std.) | 3" | N14-76 | P23-35 | $1\frac{1}{8}$ | $4\frac{7}{8}$ | $2\frac{3}{8}$ | $4\frac{3}{8}$ |
| | Flanged Elbow | 3" | N14-77 | P23-36 | - | - | - | - |
| 4622 3643 3648 | Straight Flange | 2" | N14-57 | P23-18 | $1\frac{1}{8}$ | - | - | - |
| | Straight Flange | 3" | N14-21 | P23-10 | $1\frac{1}{8}$ | - | - | - |
| | Straight Flange (Std.) | 4" | N14-22 | P23-19 | $1\frac{5}{16}$ | - | - | - |
| | Flanged Elbow | 3" | N14-23 | P23-59 | - | $4\frac{1}{4}$ | $2\frac{1}{8}$ | $4\frac{3}{8}$ |
| | Flanged Elbow | 4" | N14-24 | P23-37 | - | $5\frac{1}{2}$ | $2\frac{3}{4}$ | $5\frac{3}{8}$ |
| 3658, 4658 | Straight Flange (Std.) | 4" | N14-26 | P23-52 | $1\frac{5}{16}$ | - | - | - |

Each assembly includes: flange, gasket, and hardware.

For simplicity, the pump sizes above are only shown with PACKING ("6" in the model number).

Flanges are interchangeable with 3500 (triple lip seal), 3600 (packing) and 3700 (mechanical seal) variations.



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Roper Pump Company is a global supplier of high quality positive displacement pumps, designed to handle a broad range of industrial applications. In addition to helical gear pumps, progressing cavity pumps and triple screw pumps, we design and develop numerous custom pumps for customers with unique and demanding applications.

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