



# GR Series

Between Bearings, External  
Herringbone Gear Pump



## Smooth, efficient handling of viscous liquids

GR Series between bearings, herringbone gear pumps have long been workhorses within a multitude of industrial markets due to their dependability, efficiency and low total lifecycle cost. GR Series pumps provide high-efficiency, pulse-free pumping, even under the most challenging conditions. They are designed to handle viscous fluids across a broad spectrum of flows and pressures.

GR Series pumps are available in two basic gear widths and with multiple options. With a modular design, GR Series pumps can be customized to satisfy a wide range of applications.

### Applications

- Oil circulation
- Process industries
- OEM
- Filtration equipment
- Fire foam systems
- Petrochemical blending and transfer
- Food and beverage processing
- Asphalt and tars
- Grease

### Features and benefits

**Two-piece doweled construction** on each side of the body ensures accurate alignment and facilitates maintenance by allowing faster access to pump internals without disturbing piping.

**Full hydraulic balance** due to herringbone gears with dual stuffing boxes eliminates the need for specialized balancing devices or thrust bearings.

**Between bearings gear design** minimizes shaft deflection and reduces bearing loads. High-pressure and high-speed capabilities are improved, extending pump life, improving reliability and lowering total lifecycle costs.

**Convertible stuffing box** allows for greater flexibility in the use of packing or mechanical seals.

**Large, unobstructed suction and discharge** passages keep entrance losses and turbulence to a minimum.

**High-capacity, double-row roller bearings** are standard for long life.

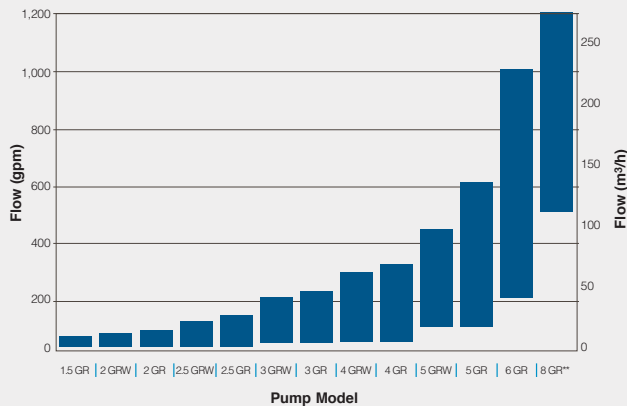
**Carbon sleeve bushings** may be used when handling liquids with poor lubricity or low viscosities. Also available in antimony-impregnated carbon for high-temperature applications.

**Shafts** are fine-grain, hot rolled medium carbon steel and generously sized to minimize deflection.

## Operating parameters

- Flows to 275 m<sup>3</sup>/h (1,200 gpm)
- Pressures to 35 bar (500 psi)
- Temperatures to 350°C (650°F)
- Viscosities to 33,000 cps (1 million ssu)
- Speeds to 1,800 rpm
- Standard sizes from 40 to 200 mm (1.5 to 8 in)

## GR Series quick selection chart\*



\* Refer to the above chart for quick selection of the GR pump model corresponding to the desired flow rate. The ranges shown are based on typical viscosities and speeds and assume zero differential pressure. The chart's purpose is to direct the user to the appropriate performance curve, not to be a substitute for it.

\*\*Available upon request.

## Materials of construction

Component	Cast Iron Model	Cast Steel Model
Body, Stuffing Box, Bearing Cover, Gland, Sideplates	ASTM A278, Class 35 Cast Iron (Typical)	ASTM A216, Cast Steel Grade WCB
Gears	Cast Iron	Cast Iron
Shaft	ASTM A576, Class 1040 Carbon Steel	
Packing	Graphited Filament Yarn	

## Available options

- Inboard bearing with mechanical seal for V-belt drive
- Jacketed pump body
- Integral safety relief valve (up to 3GR size)
- Mechanical seals (various materials available)
- Jacketed stuffing box
- Dual stuffing boxes with packing or mechanical seals
- INSUROCK<sup>®</sup> low-friction wearplates

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