



## G SERIES

Positive Displacement  
Rotary Gear Pumps



*The Pump People®*







# A History Of Innovation

Gorman-Rupp has been revolutionizing the pumping industry since 1933. Many of the innovations introduced by Gorman-Rupp over the years have become industry standards.

More than ever, we continue to update our factories, processes, research and development, and engineering to ensure that our pumps and systems are among the most reliable and efficient in the world.

When you purchase a Gorman-Rupp product, you buy more than just a pump. You benefit from our worldwide network of factory-trained distributors, knowledgeable engineers and helpful customer service team.

The Gorman-Rupp G Series line of positive displacement rotary gear pumps is designed to provide unmatched performance, serviceability and adaptability.

G Series pumps are versatile enough to handle virtually any pumping application and liquid type. They are manufactured with unique features that enable them to last longer than other gear pumps in the industry.

Gorman-Rupp's commitment to our original philosophy of innovation, continuous improvement, unparalleled quality and customer service continues to set us apart from others.



## Unmatched Adaptability

Gorman-Rupp positive displacement rotary gear pumps are designed for maximum application flexibility and adaptation.

# Delivering Decades Of Performance And Value

Gorman-Rupp is committed to meeting your fluid-handling requirements long after installation. The quality manufacturing and testing that go into every G Series pump guarantee long-lasting, trouble-free operation. And we provide fast parts service to back up our products and ensure your peace of mind.

G Series pumps boast some of the lowest life cycle costs in the industry. Because of the quality manufacturing and testing that goes into every Gorman-Rupp product, you benefit from minimal service interruptions and some of the lowest

maintenance in the industry. Gorman-Rupp delivers the best ROI by ensuring low operating costs for decades.

When you need a replacement part for your G Series pump, you'll have it fast. With tens of thousands of genuine Gorman-Rupp parts and pumps at our disposal, we fill and ship most parts orders within 24 hours. Should your G Series pump ever require service, our worldwide network of factory-trained distributors is ready to quickly respond to your needs.

**With just one number  
to call for parts and  
service, it's easy and  
convenient to keep your  
equipment performing  
as it should.**



**Gorman-Rupp G Series®**

# Focused On Specialized Applications



**GMC Series**  
Medium-Duty



**GMS Series**  
Medium-Duty



**GHC Series**  
Heavy-Duty

## Longer Lasting

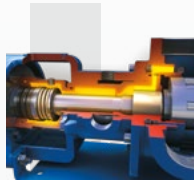
All G Series pumps are designed with features that are only available on Gorman-Rupp rotary gear pumps. The quality manufacturing and testing that go into each pump ensure reliable pumping long after installation. Additional features include:



### Rigid Rotating Elements

Optimum bushing locations provide high pressure operation while reducing overhung loads. On both packed box and mechanical seal models, the bushings are located as close as possible to the applied loads, providing maximum shaft support.

High strength gear material eliminates the need for special steel fitted pump components traditionally required for viscous applications.



### Internal Seal Vent

Venting provides continuous flow of liquid through seal cavity, ensuring cooling. The seal cavity maintains low pressure, reducing seal face load and increasing seal life.

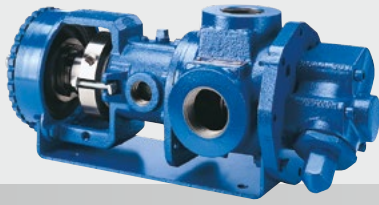
## Engineered Sealing Solutions

G Series pumps offer the widest selection of sealing options available in the industry.



### Flexible Sealing

Gorman-Rupp rotary gear pumps are engineered to allow installation of industry-standard cartridge, compression packing or standard component mechanical seals.



**GHS Series**  
Heavy-Duty



**GHA Series**  
Extreme-Duty - Abrasive

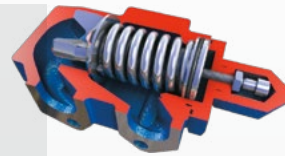
## Easy To Service

Intelligent design makes servicing G Series pumps faster, easier and more cost effective. Features common to medium-, heavy- and extreme-duty pumps are:



### Back Pull-Out Design

The back pull-out design provides the ability to perform service and maintenance without disconnecting pump housing from piping.

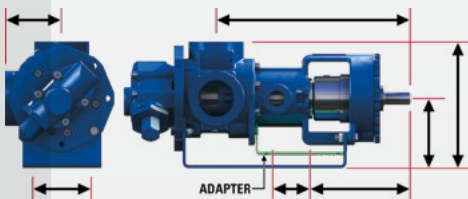


### Adjustable No-Leak Pressure Release Valve

Innovative o-ring design on the relief valve allows for adjustment during operation, without leakage.

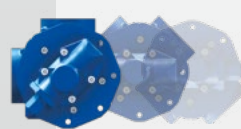
## Fully Adaptable

Gorman-Rupp gear pumps are designed for maximum application flexibility and include built-in features that make them completely interchangeable with other pump manufacturers.



### Rigid Pump Support

Foot brackets are centrally located under pump ports to provide stability to the pump and piping. Pumps can be configured to fit any piping configuration making them extremely versatile.



### Multiple Port Positioning And Configurations

Interchangeable 90° or 180° housings with multiple port sizes on most models. Suction and discharge ports are available in threaded or flanged configurations.



## Medium-Duty Gear Pump Solutions:

# Economical For Demanding Applications

## Flexible Solutions

Medium-duty gear pumps are designed for intermittent service for applications in the specified operating ranges. Units are available with head and backhead jackets for temperature control, carbon graphite bushings for low viscosity liquids and silicon carbide bushings for wear resistance.



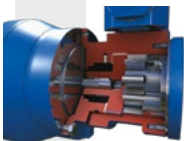
### High Strength Thrust Washer

A large, replaceable thrust washer supports higher loads and extends pump life.



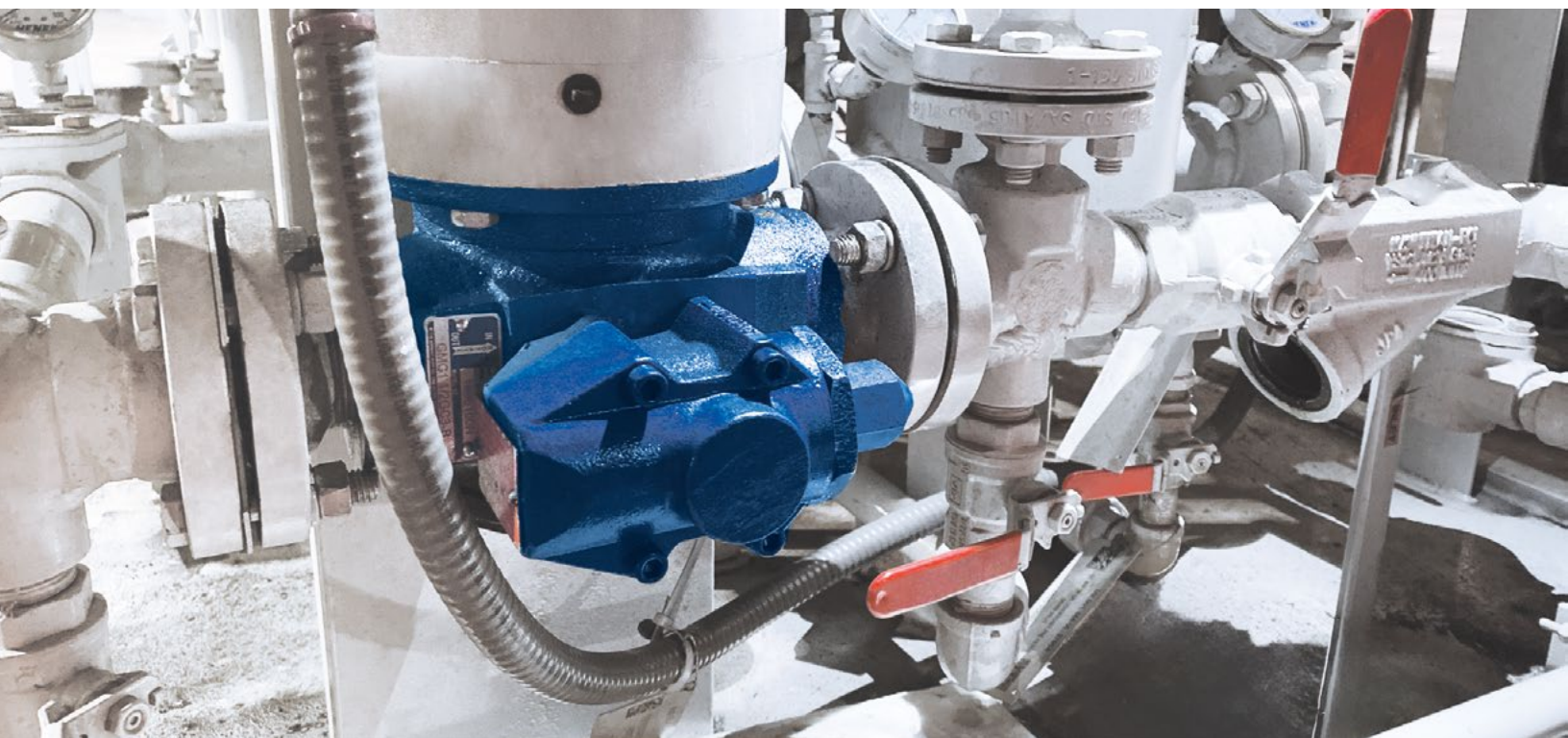
### Automatic Idler Pin Lubrication System

Unique internal pressure lubricated idler pin reduces wear by continuously cooling and lubricating the idler pin and bushing. Available on GMC, GHC and GHS models (unless equipped with silicon carbide bushings).

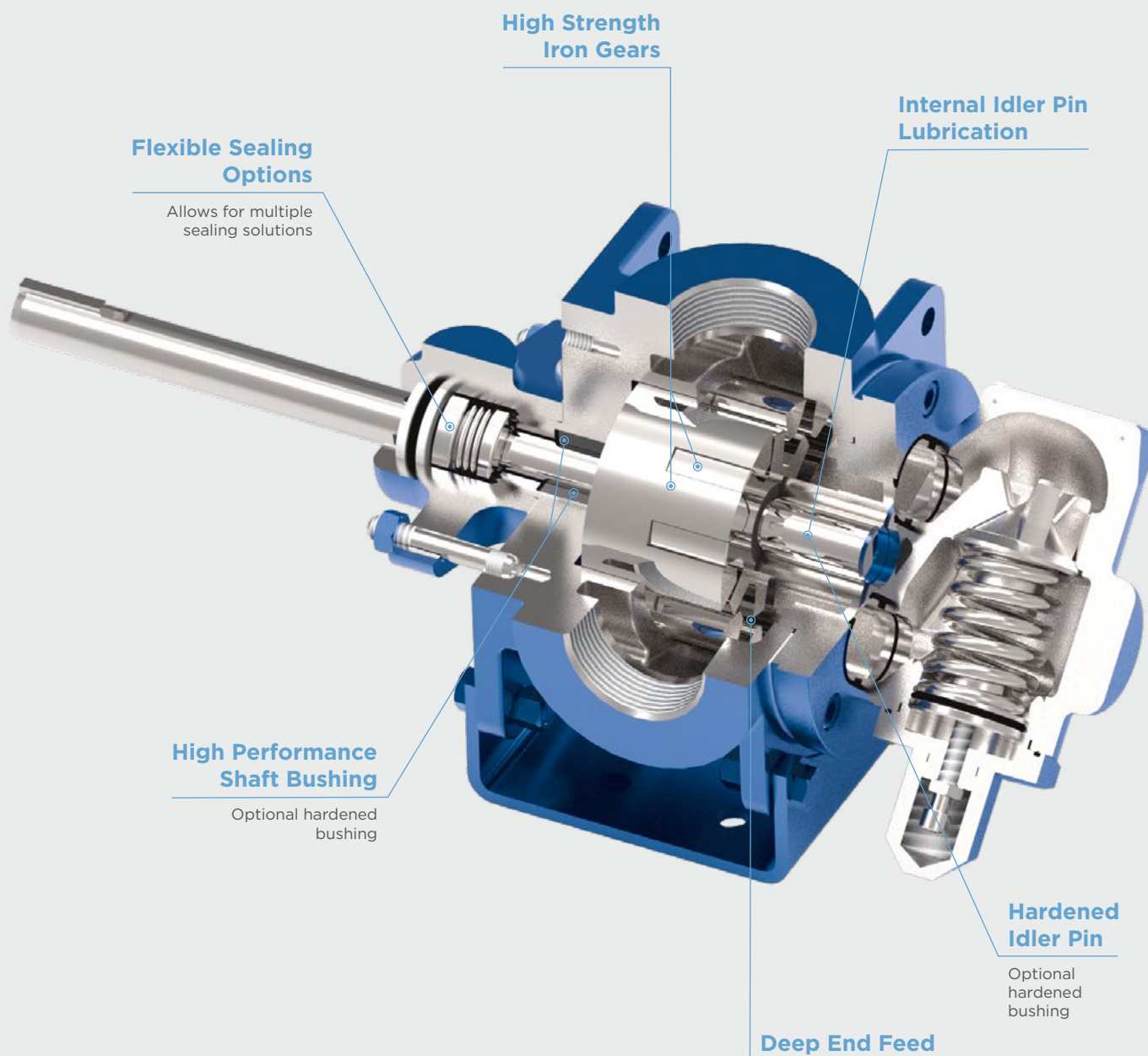


### Compact, C-Face Mounted GMC

For high performance in a small package, the GMC can be close coupled to motors as large as the NEMA 215TC frame.



# Medium-Duty G Series Pump Features\*



## Specifications

**Pump Size:** 1" (25 mm), 1.5" (40 mm), 2" (50 mm), 2.5" (60 mm), 3" (80 mm), 4" (100 mm), 5" (125 mm), 6" (150 mm)

**Max Capacity:** 600 GPM (2271 lpm)

**Max Viscosity:** 250000 SSU (54000 cSt)

**Max Pressure:** 200 PSI (14 BAR)

**Min Temperature:** -60°F (-51°C)

**Max Temperature:** 450°F (232°C)

**Materials of Construction:** Cast Iron

\*Optional thermal head and backhead jackets are not shown.



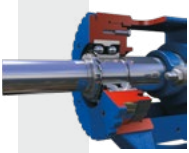
All G Series pumps come standard with a one-year warranty.



## Heavy-Duty Gear Pumps

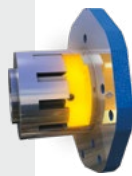
# The Most Versatile In The Industry

The high capacity, heavy-duty line of G Series pumps is designed for continuous use. Ideal for the bulk handling of thin and viscous liquids, the heavy-duty G Series provides superior rotor shaft support and an integral, maintenance-free radial/thrust bearing, for reduced deflection and wear.



### Externally Adjustable Clearance

The externally adjustable clearance and three-piece design provide easy and precise rotor adjustment. Sealed double row bearings are maintenance-free and provide thrust control.



### Deep End Feed Area

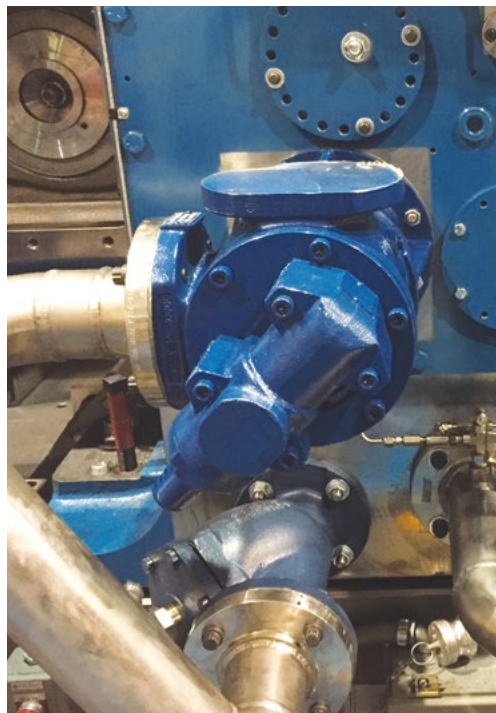
The deep end feed area offers superior priming performance and overall better pumping efficiency under low inlet pressure conditions and/or high viscosity liquids. Available on GMS, GHS and GHA models.

## Engineered Sealing Solutions

Gorman-Rupp offers the widest range of sealing solutions for the G Series line of rotary gear pumps.

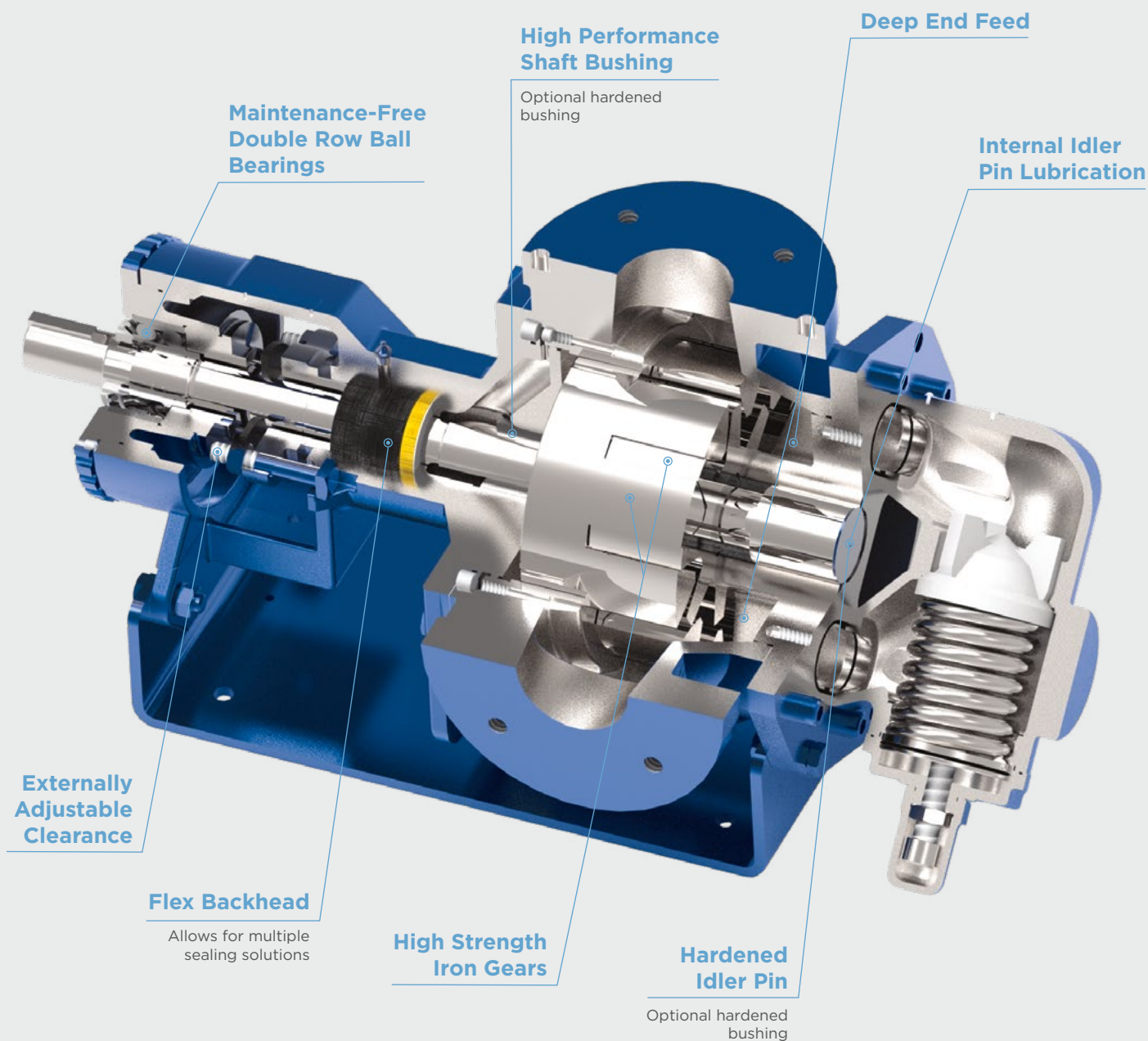


- Minimum leak- and abrasive-resistant packing
- Cartridge single seal with hard faces (requires steam quench)
- Cartridge double seal with hard faces (requires pressurized barrier fluid)
- Triple lip cartridge seal (requires steam or hot oil quench)





# Heavy-Duty G Series Pump Features\*



## Specifications

**Pump Size:** 1" (25 mm), 1.5" (40 mm), 2" (50 mm), 2.5" (60 mm), 3" (80 mm), 4" (100 mm), 5" (125 mm), 6" (150 mm)

**Max Capacity:** 600 GPM (2271 lpm)

**Max Viscosity:** 2000000 SSU (440000 cSt)

**Max Pressure:** 300 PSI (21 BAR)

**Min Temperature:** -60° F (-51° C)

**Max Temperature:** 675° F (357° C)

**Materials of Construction:** Cast Iron, Cast Steel, Ductile Iron, Stainless Steel

\*Optional thermal head and backhead jackets are not shown.



All G Series pumps come standard with a one-year warranty.

## Extreme-Duty Gear Pumps:

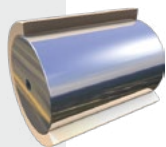
# The Most Rugged And Wear-Resistant

Extreme-duty/abrasive gear pumps are designed to provide superior wear resistance, rotor shaft support and an integral, maintenance-free radial/thrust bearing for reduced deflection and wear.



### Wear-Resistant Pump Head And Housing

Critical wear areas of both the head and housing are hardened to resist wear and maintain maximum pump efficiency.



### Carbide Idler Pin And Idler Bushing

Extremely hard carbide pin and bushing provide excellent wear resistance under the most severe, abrasive applications.



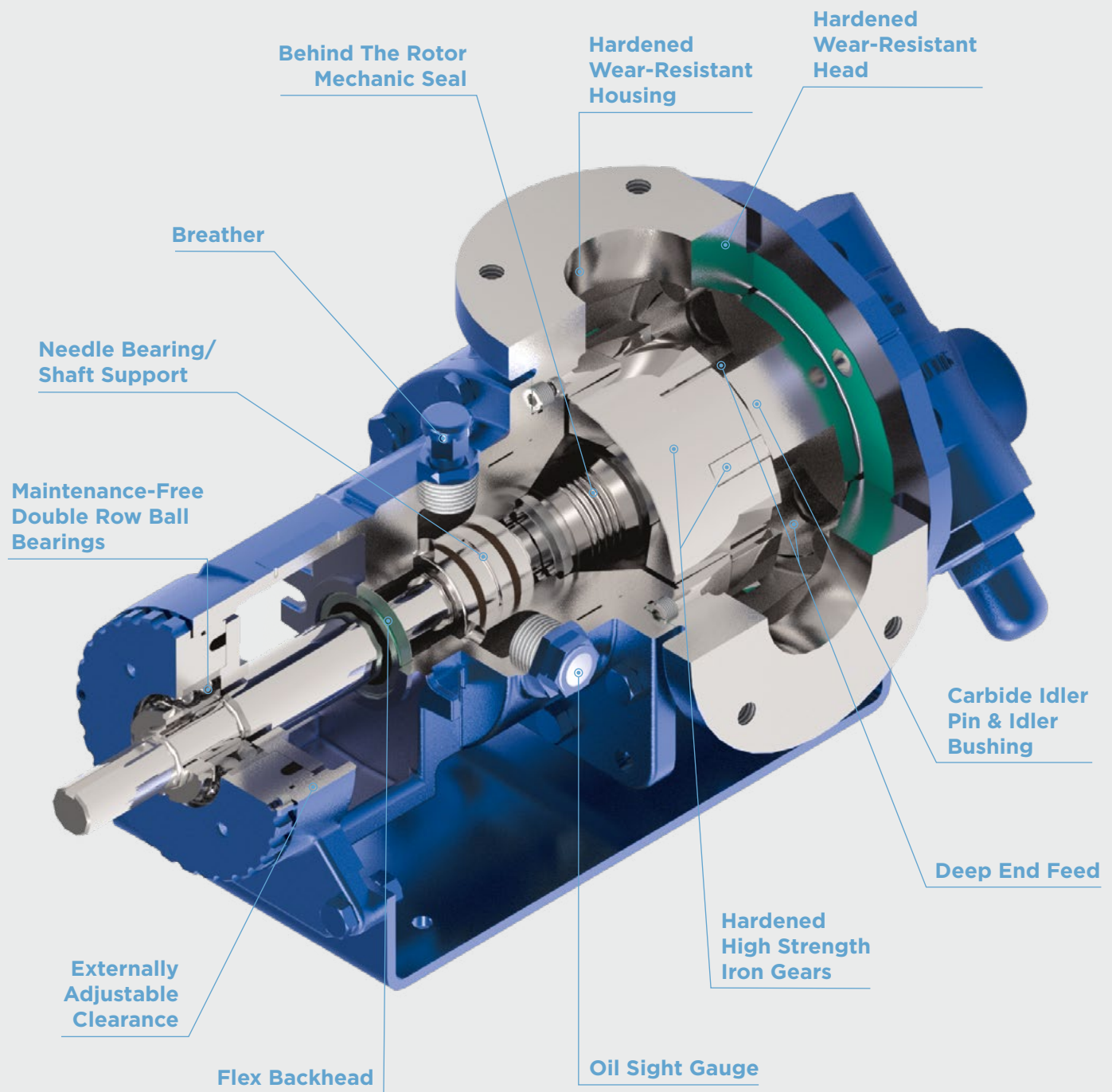
### Needle Bearing Or Carbide Shaft Bushing Support

Depending on seal configuration, extreme-duty pumps are available with carbide shaft bushing or our unique, precision needle bearing which provides exceptionally reliable, high-load shaft support and better rotor shaft stability—extending the seal life and operational life of the pump.





# Extreme-Duty/Abrasive G Series Pump Features\*



## Specifications

Pump Size: 1.5" (40 mm), 2" (50 mm), 3" (75 mm), 4" (100 mm)

Max Capacity: 325 GPM (1230 lpm)

Max Viscosity: 250000 SSU (54000 cST)

Max Pressure: 200 PSI (14 BAR)

Min Temperature: -60° F (-50° C)

Max Temperature: 500° F (260° C)

Materials of Construction: Cast Iron

\*Optional thermal head and backhead jackets are not shown.



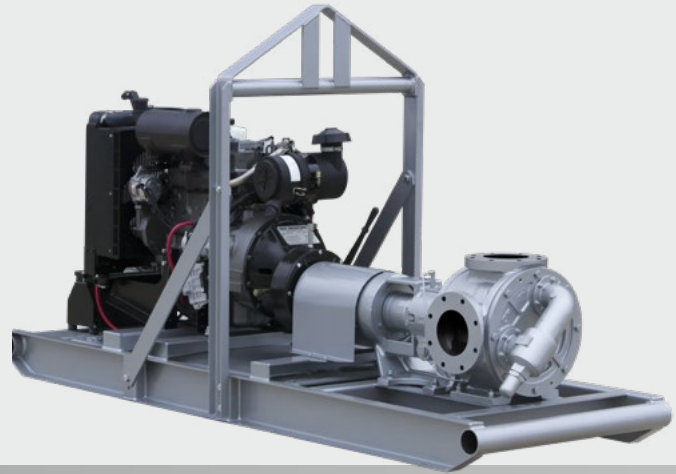
All G Series pumps come standard with a one-year warranty.

**Gorman-Rupp G Series®**

# Customized Solutions



**Engine Driven  
Wheel Kit**



**Engine Driven**

G Series positive displacement rotary gear pumps are available in a variety of drive configurations, including: close-coupled, flex-coupled, v-belt, engine-driven, gear reducer or as part of an engineered packaged pump station.

## G Series Options

- **Various Port Sizes and Styles**
  - 180°/90°
  - 1" (25 mm) to 6" (150 mm)
  - NPT, ANSI Flange, BSP, DIN Flange
- **Bidirectional Operation**
- **Various Bushing Materials**
  - Bronz
  - Carbon graphite (low and high temp.)
  - Siliconized graphite (low and high temp.)
  - Tungsten carbide
- **Gear Materials**
  - Ductile iron
  - Hardened austempered ductile iron
  - Bronze gears
  - SST gears are also available

- **Various Idler Pin Materials**
  - Hardened alloy steel
  - Hardened tool steel
  - Colmonoy coated
  - Chromium oxide coated
  - Tungsten carbide
- **Sealing Options**
  - Single
  - Double
  - Tandem
  - Various elastomers
  - Hard faced
  - Quench
  - Flush
  - Metal bellows
  - High temperature
  - Corrosion resistant
  - Cartridge style
  - Heavy-duty lip
  - Cartridge PTFE lip
  - Packing
  - Seal pot
  - Type 9 (Teflon Wedge)





### Packaged System

- **O-rings of Various Elastomers**
    - Viton®
    - Buna
    - EPDM
    - PTFE encapsulated
    - Chemraz
    - Kalrez®
  - **Hardened Wear-resistant Heads and Housings**
  - **Jacketed Heads and Backheads**
  - **Interchange Shafts/Housing Ports**
- **Multiple Centerline Foot Brackets**
  - **Relief Valve Options**
    - Low/high pressure springs
    - Return to tank style
    - Various elastomers
    - High temperature

## Gorman-Rupp G Series®

# Positive Displacement Rotary Gear Pumps

## Medium-Duty Operating Ranges

Model	Size	Max. Capacity	Max. Pressure	Max. Viscosity	Construction	Temp. Range
<b>GMC Series</b>	1" (25 mm) to 2" (50 mm)	38 GPM (144 lpm)	200 PSI (14 bar)	250000 SSU (54000 cSt)	Cast Iron	-60°F (-51°C) to 300°F (149°C)
<b>GMS Series</b>	1" (25 mm) to 6" (150 mm)	600 GPM (2271 lpm)	150 PSI (10 bar)	250000 SSU (54000 cSt)	Cast Iron	-60°F (-51°C) to 450°F (232°C)

## Heavy-Duty Operating Ranges

Model	Size	Max. Capacity	Max. Pressure	Max. Viscosity	Construction	Temp. Range
<b>GHC Series</b>	1" (25 mm) to 3" (75 mm)	107 GPM (405 lpm)	300 PSI (21 bar)	50000 SSU (11000 cSt)	Cast Iron	-60°F (-51°C) to 350°F (177°C)
<b>GHC Series</b>	1" (25 mm) to 3" (75 mm)	107 GPM (405 lpm)	300 PSI (21 bar)	50000 SSU (11000 cSt)	Cast Steel	-20°F (-29°C) to 350°F (177°C)
<b>GHC Series</b>	1" (25 mm) to 3" (75 mm)	107 GPM (405 lpm)	200 PSI (14 bar)	25000 SSU (5417 cSt)	Stainless Steel	-30°F (-34°C) to 350°F (177°C)
<b>GHS Series</b>	1" (25 mm) to 6" (150 mm)	600 GPM (2271 lpm)	300 PSI (21 bar)	2000000 SSU (440000 cSt)	Cast Iron	-60°F (-51°C) to 675°F (357°C)
<b>GHS Series</b>	1.5" (40 mm) to 4" (100 mm)	295 GPM (1117 lpm)	300 PSI (21 bar)	2000000 SSU (440000 cSt)	Cast Steel	-20°F (-29°C) to 675°F (357°C)
<b>GHS Series</b>	1" (25 mm) to 4" (100 mm)	295 GPM (1117 lpm)	200 PSI (14 bar)	2000000 SSU (440000 cSt)	Stainless Steel	-30°F (-34°C) to 675°F (357°C)
<b>GHS Series</b>	4" (100 mm) to 6" (150 mm)	500 GPM (1893 lpm)	200 PSI (14 bar)	2000000 SSU (440000 cSt)	Ductile Iron	-60°F (-51°C) to 500°F (260°C)

## Extreme-Duty Operating Ranges

Model	Size	Max. Capacity	Max. Pressure	Max. Viscosity	Construction	Temp. Range
<b>GHA Series</b>	1.5" (40 mm) to 4" (100 mm)	325 GPM (1230 lpm)	200 PSI (14 bar)	250000 SSU (54000 cSt)	Cast Iron	-60°F (-51°C) to 500°F (260°C)



# Pumps For A Variety Of Applications

Gorman-Rupp Rotary Gear Pumps will be found operating in the most hostile environments. Down in the sub-basements, in the heat, steam, grease and grime, handling the corrosive and abrasive wastes other pumps cannot. Performing reliably month after month, year after year, in all types of systems, pumping solids and debris that would shut other operations down.

## Medium-Duty Gear Pumps

- **Hydrocarbons, Petrochemicals and Similiar Liquids:**  
Fats  
Fuels  
Oils
- **Viscous Liquids and Polymers:**  
Asphalt  
Grease
- **Thermosensitive Liquids:**  
Resins  
Tar



## Heavy-Duty Gear Pumps

- **Hydrocarbons, Petrochemicals and Similar Liquids:**  
LPG  
Fats  
Fuels  
Oils
- **Viscous Liquids and Polymers:**  
Adhesives and Glue  
Asphalt  
Grease  
Styrenes  
Varnish
- **Thermosensitive Liquids:**  
Resins  
Tar
- **Acids:**  
Acetic  
Phosphoric
- **Solvents:**  
Acetone  
Ketones
- **Salts and Caustics:**  
Soda Ash  
Viscose

- **Papermill Liquids:**  
Black Liquor  
Tall Oil  
Kaolin
- **Heat Transfer Liquids:**  
MobilTherm  
DowTherm
- **Food Products:**  
Chocolate  
Glucose  
Vegetable Oil  
Syrups

## Extreme-Duty/Abrasive Gear Pumps

- Barium Sulfate
- Diatomaceous Earth
- Enamels and Paints
- Filled Asphalt
- Fish Solubles
- Iron Oxide, Titanium Dioxide and Zinc Oxide
- Paper Coatings
- Pitch
- Printing Ink
- Waste Oils
- Wax



# After Sale Support

Gorman-Rupp products stand the test of time due to our quality manufacturing processes, rigorous product testing and extensive after sale support.

## Product Support

Every pump manufactured by Gorman-Rupp is supported with reference information. Pump operation and maintenance manuals (including parts lists), specification data sheets, performance curves and outline drawings in PDF and CAD formats are available on our website or through your distributor for every pump.

## Warranty

The warranties on Gorman-Rupp products are some of the best in the industry. Gorman-Rupp has you covered with warranties up to 60 months.

## Education & Safety

Gorman-Rupp is committed to remaining at the forefront of the industry with technology and safety. Training videos, demos and

in-person training sessions created for our distributors and end-users help to keep everyone up to date on the latest safety tips and pump maintenance.

## Parts

When you need a replacement part, you'll have it fast. Gorman-Rupp is fully committed to keeping your equipment running long after installation and ensuring your pump or lift station continues to meet your requirements year after year. We sell parts through our network of distributors. Find a distributor in your area for assistance.

## Service

Should your pump or lift station require service, our worldwide network of factory-trained distributors are ready to quickly respond. Our distributors have the expertise to support you and your pump or lift station long after installation.

## Manufacturing Facilities

**Gorman-Rupp USA**  
Mansfield, Ohio, USA

**Gorman-Rupp Canada**  
St. Thomas, Ontario, Canada

**Gorman-Rupp Europe**  
Waardenburg, Netherlands  
Namur, Belgium

**Gorman-Rupp Africa**  
Cape Town, South Africa  
Durban, South Africa  
Johannesburg, South Africa (Headquarters)

## Distribution Center

Grand Prairie, Texas, USA

Engineering and manufacturing superiority has been the hallmark of Gorman-Rupp since our inception in 1933. Today we bring our products to life in some of the most efficient, modern and state-of-the-art manufacturing facilities in the world. Gorman-Rupp has a selection of nearly 3,000 pump models, and our world-class team of distributors has worked closely with thousands of end users around the world. We have the proven expertise and the resources to specify, manufacture, test and service your pump, and to ensure reliable performance for the long haul.

**GRPUMPS.COM**

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