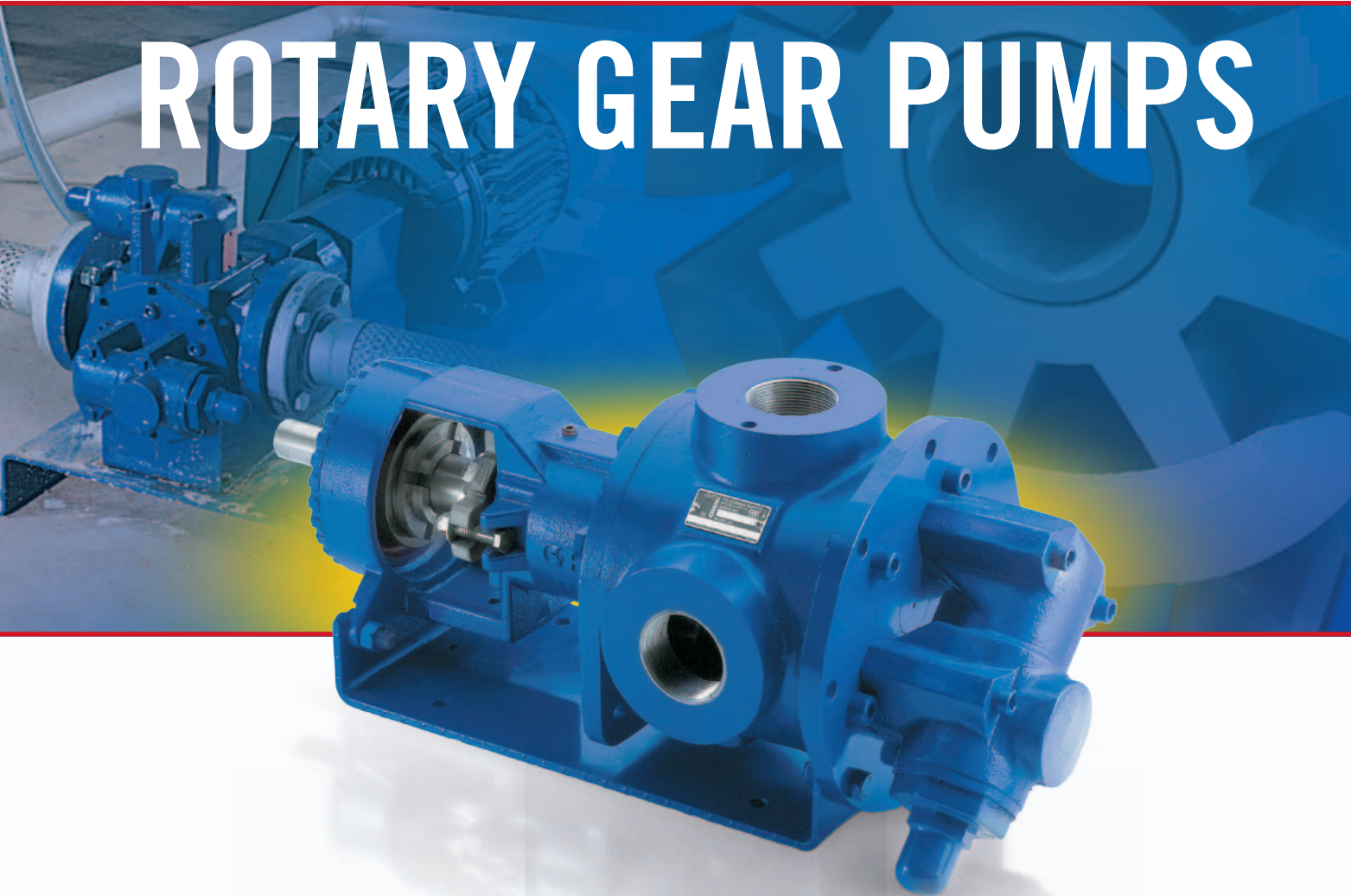


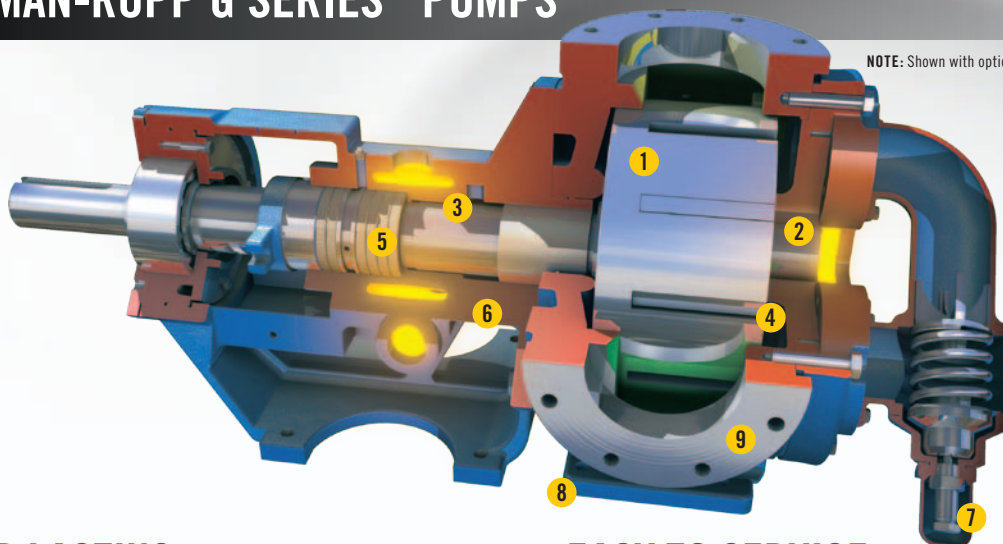
# POSITIVE DISPLACEMENT ROTARY GEAR PUMPS



**GR**<sup>®</sup>  
**GORMAN-RUPP**  
**PUMPS**

*[GRpumps.com](http://GRpumps.com)*

## GORMAN-RUPP G SERIES™ PUMPS



### LONGER LASTING

All Gorman-Rupp G Series pumps are designed with numerous features that are available only on Gorman-Rupp's line of robust gear pumps, providing you the longest lasting, highest performing gear pump on the market.



#### 1 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 fittings traditionally required for viscous applications.*



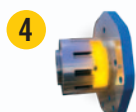
#### 2 Automatic Idler Pin Lubrication System

*Unique internal pressure lubricated idler pin reduces wear by continuously cooling and lubricating the idler pin and bushing.*



#### 3 Internal Seal Vent

*Seal cavity venting provides continuous flow of liquid through seal cavity, ensuring cooling. Seal cavity is maintained at low pressure, reducing seal face load and increasing seal life.*



#### 4 Deep End Feed Area

*Deep end feed area offers superior priming performance under low inlet pressure conditions and/or high viscosity liquids.*

### FLEXIBLE SEAL DESIGN



#### 5 Flexible Sealing

*Flexible Seal gear pumps are engineered to allow installation of industry-standard cartridge seals, compression packing seals, or standard component mechanical seals.*

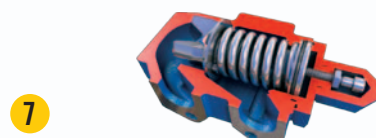
### EASY TO SERVICE

G Series intelligent design makes servicing faster, easier and more cost effective with unique features that are common to all of our medium-, heavy- and extreme-duty gear pumps.



#### 6 Back Pullout Design

*Back pullout design allows service and maintenance without disconnecting pump housing from piping.*

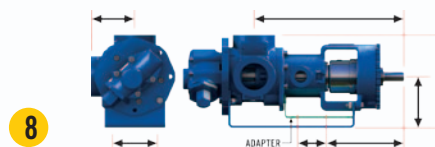


#### 7 Adjustable No-Leak Pressure Relief Valve

*O-ring design on relief valve allows for adjustment during operation, without leakage.*

### FULLY ADAPTABLE

G Series gear pumps are designed for maximum application flexibility and contain innovative design features that make them fully interchangeable with other gear pump manufacturers.



#### 8 Rigid Pump Support

*Foot brackets are centrally located under pump ports, providing pump and piping support. Pumps can be configured to fit any piping configuration, making Gorman-Rupp rotary gear pumps an extremely versatile choice.*



#### 9 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 PUMPS

THE FLEXIBLE, ECONOMICAL SOLUTION FOR MANY DEMANDING APPLICATIONS.



**Gorman-Rupp G Series™ Medium-Duty pumps** are designed for general intermittent applications.

Available in two styles – the compact, close-coupled GMC and the stub shaft GMS. Medium-Duty G Series pumps offer all the quality features found on all G Series pumps, as well as performance and adaptability features that are unique to our medium-duty line.\*

\*GMS available in flex-coupled and v-belt drive configurations.

NOTE: Shown with optional head jacket and extended shaft

## TYPICAL MEDIUM-DUTY APPLICATIONS

**Hydrocarbons, Petrochemicals and Similar:**

- Oils
- Fats
- Fuels

**Viscous Liquids and Polymers:**

- Grease
- Asphalt

**Thermosensitive Liquids:**

- Resins
- Tar

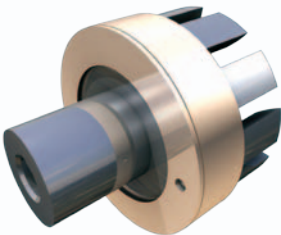


GMS SERIES

GMC SERIES

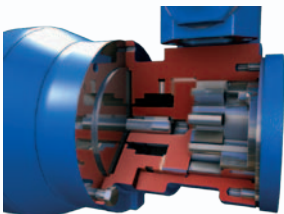
### High Strength Thrust Washer

*Large, replaceable thrust washer supports higher loads and extends pump life.*



### 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.*

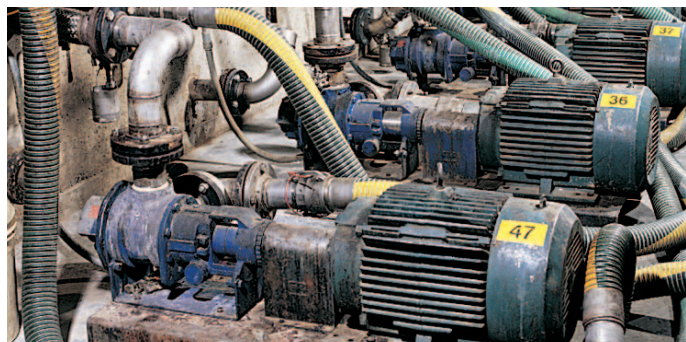


MODEL	GMC	GMS
OPERATING RANGE		
Size	1-6"	1-6"
Max Capacity (gpm)	38	600
Max Capacity (lpm)	(144)	(2271)
Max Pressure (psi)	200	150
Max Pressure (bar)	(13.8)	(10.3)
Max Viscosity (SSU)	250,000	250,000
Max Viscosity (cSt)	(54,000)	(54,000)
Temperature °F	–60° to 300°	–60° to 450°
Temperature (°C)	(–51° to 149°)	(–51° to 232°)



# HEAVY-DUTY GEAR PUMPS

THE MOST CAPABLE, VERSATILE GEAR PUMP IN THE INDUSTRY.



**Designed for the most demanding clean liquid applications,** Gorman-Rupp G Series™ Heavy-Duty pumps combine high performance materials and innovative design to outperform all other pumps of their type.

Available in two styles – the stub shaft GHS and the compact stub shaft GHC – Heavy-Duty G Series are available in cast iron, shock-resistant cast steel and corrosion-resistant 316 stainless steel to provide superior performance in countless pumping applications. They offer the premium quality features found on all G Series pumps, as well as performance and serviceability features that are unique to our heavy-duty line.

## TYPICAL HEAVY-DUTY APPLICATIONS

### Hydrocarbons, Petrochemicals and Similar:

- Oils
- Fuels
- Fats
- LPG

### Viscous Liquids and Polymers:

- Glue, Adhesives
- Varnish
- Grease
- Styrenes
- Asphalt

### Thermosensitive Liquids:

- Resins
- Tar

### Acids:

- Acetic
- Phosphoric

### Solvents:

- Ketones
- Acetone

### Salts and Caustics:

- Soda Ash
- Viscose

### Papermill Liquids:

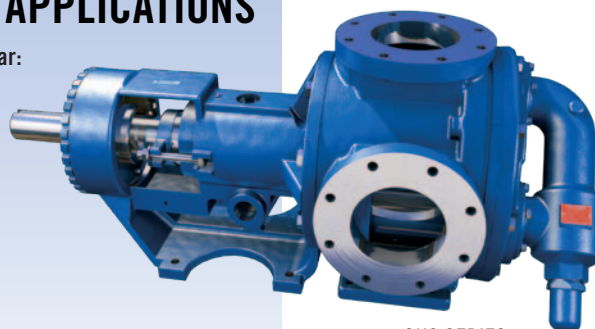
- Black Liquor
- Tall Oil
- Kaolin

### Heat Transfer Liquids:

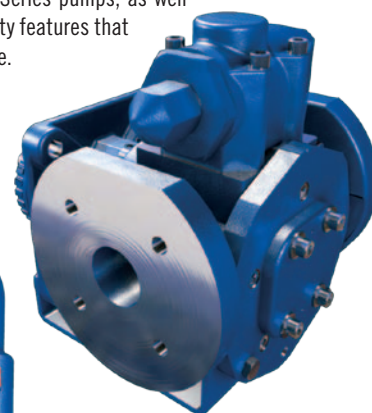
- MobilTherm, DowTherm

### Food Products:

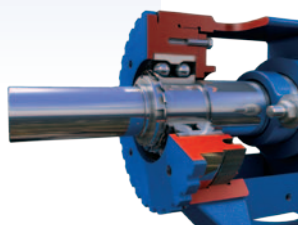
- Chocolate
- Glucose
- Vegetable Oil
- Syrups



GHS SERIES



GHC SERIES



### Simple and Precise Rotor Adjustment

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

### Engineered Sealing Solutions

Gorman-Rupp offers the widest range of sealing solutions available. For example, we offer minimum-leak and abrasive resistant packing, cartridge single seal, cartridge double seal, or triple lip cartridge seal.

MODEL	GHC	GHC STL	GHC SST	GHS	GHS STL	GHS SST
<b>OPERATING RANGE</b>						
Size	1-3"	1-3"	1-3"	1-6"	1.5-4"	1-4"
Max Capacity (gpm)	107	107	107	600	295	295
Max Capacity (lpm)	(405)	(405)	(405)	(2271)	(1116)	(1116)
Max Pressure (psi)	300	300	200	300	300	200
Max Pressure (bar)	(20.7)	(20.7)	(13.8)	(20.7)	(20.7)	(13.8)
Max Viscosity (SSU)	250,000	250,000	250,000	2,000,000	2,000,000	2,000,000
Max Viscosity (cSt)	(54,000)	(54,000)	(54,000)	(440,000)	(440,000)	(440,000)
Temperature °F	–60° to 350°	–20° to 350°	–30° to 350°	–60° to 675°	–20° to 675°	–30° to 675°
Temperature (°C)	(–51° to 177°)	(–29° to 177°)	(–34° to 177°)	(–51° to 357°)	(–29° to 357°)	(–34° to 357°)

# EXTREME-DUTY GEAR PUMPS

THE MOST RUGGED, WEAR-RESISTANT GEAR PUMP IN THE WORLD.



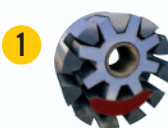
## TYPICAL EXTREME-DUTY APPLICATIONS

### Abrasive Liquids:

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

**Designed to survive the severe challenge of liquids containing abrasives**, the Gorman-Rupp GHA Extreme-Duty pump combines proven gear pump technology with state-of-the-art wear-resistance processes, making it the world's toughest, longest-lasting gear pump.

Available in cast iron with capacities to 325 gpm, pressures to 200 psi and viscosities to 250,000 SSU, the extreme-duty pump offers many of the performance features found on all G Series™ pumps, as well as innovative and unique abrasion-resistant features that provide the best service life possible under many extreme wear applications.



1

### Wear-Resistant Rotor and Idler

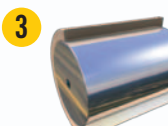
Hard, austempered ductile iron gears resist abrasive wear, extending pump life.



2

### 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.



3

### Carbide Idler Pin and Idler Bushing

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



4

### 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.



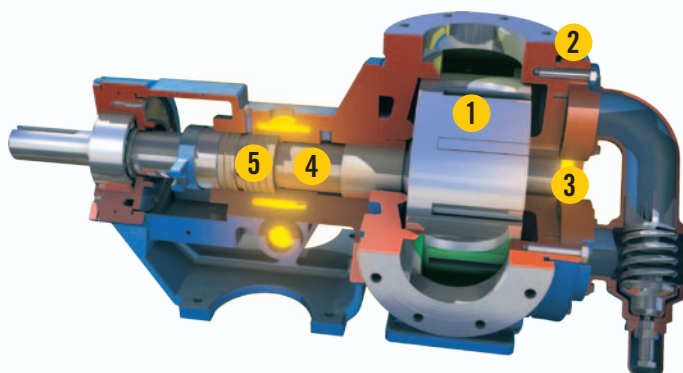
5

### Flexible Seal

Flexible Seal gear pumps are engineered to allow installation of industry standard cartridge seals, compression packing seals, or hard face mechanical seals.

Silicone carbide seal faces mounted in a highly engineered mechanical seal ensure maximum life and reliability with minimal wear for high-abrasive viscosity applications up to 100,000 SSU (22,000 cSt).

MODEL	GHA
<b>OPERATING RANGE</b>	
Size	1.5-4"
Max Capacity (gpm)	325
Max Capacity (lpm)	(1230)
Max Pressure (psi)	200
Max Pressure (bar)	(13.8)
Max Viscosity (SSU)	250,000
Max Viscosity (cSt)	(54,000)
Temperature °F	-60° to 500°
Temperature (°C)	(-51° to 260°)



# FOCUSING ON THE SPECIALIZED NEEDS OF THE ROTARY GEAR MARKET

When you specify Gorman-Rupp, you benefit from worldwide service centers, knowledgeable engineers and assistance. Gorman-Rupp has been manufacturing pumps, pumping systems and providing superior fluid-handling solutions since 1933. Many of the innovations introduced by Gorman-Rupp have become industry standards.



Pump models include rotary gear, self-priming centrifugal, standard centrifugal, submersible, and diaphragm pumps. Gorman-Rupp has over one million square feet of the most modern manufacturing and warehousing facilities found throughout the world.

As we continue to provide pumping systems and fluid-handling solutions to customers around the globe, we never lose sight of the original philosophy that started our company.



## DESIGNED AND BUILT FOR LONGEVITY, SERVICEABILITY AND ADAPTABILITY.



The Gorman-Rupp G Series<sup>TM</sup> line of self-priming positive displacement rotary gear pumps is designed to provide performance no other gear pumps can match.

Available in Medium-Duty, Heavy-Duty and Extreme-Duty models — in cast iron, cast steel and stainless steel. G Series pumps are versatile enough to handle virtually any pumping application and liquid type. They come in a variety of drive arrangements, including close-coupled, flex-coupled, gear reducer and v-belt drive.

G Series pumps are manufactured with unique features that enable them to perform better and last longer on countless applications, providing quality and reliability that make the G Series the premier gear pump in the industry.

## G SERIES OPTIONS

### Various port sizes and styles

- 180°/90°
- 1"– 6"
- NPT, ANSI FLANGE, BSP, DIN FLANGE

### Bidirectional operation

### Various bushing materials

- Carbon graphite (low & high temp.)
- Siliconized graphite (low & high temp.)
- Tungsten carbide

### Gear materials

- Ductile iron
- Hardened austempered ductile iron
- Bronze gears
- SST gears are also available

### Hardened wear-resistant heads and housings

### Interchange shafts/housing ports mounting feet

### Relief valve options

- Low/high pressure springs
- Return to tank style
- Various elastomers
- High temperature

### Jacketed heads & backheads

### Multiple centerline foot brackets

## WIDE RANGE OF DRIVE CONFIGURATIONS

- Direct Drive
- VFD Drives
- Gear Reducers
- V-Belt



### Various idler pin materials

- Hardened alloy steel
- Hardened tool steel
- Colmonoy coated
- Chromium oxide coated
- Tungsten carbide

### O-rings of various elastomers

- Viton<sup>®</sup>
- Buna
- EPDM
- PTFE encapsulated
- Kalrez<sup>®</sup>

### 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

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Product information is subject to change; consult factory for details.



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