

OBERDORFER PUMPS

A Gardner Denver Product

CHEMSTEEL[™] PUMP SERIES

RM106 METALLIC

CHEMSTEEL™ PUMP

CHEMSTEEL PUMPS SERIES RM106 M

PERFORMANCE



FEATURES

Gear/bearing design allows for "trimming" for optimizing the pump's maximum flow to reach minimum turndown or to match flow to a specific OEM's requirement.

Special materials combinations are available for specific liquids:

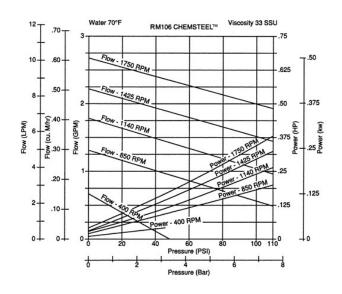
- Stainless or Alloy C housing construction.
- Gears available in 316 stainless, W88 stainless and Alloy C. Also in Polytetrafluoroethylene, polyphenylenesulfide and polyetheretherketone.
- Shafts are 316 stainless steel or Alloy C.
- Bearings available in Carbon or Polytetrafluoroethylene.

DRIVE

The pump is driven directly from the electric motor shaft by means of a flexible coupling. A close-coupled adapter connects the pump to the motor.

LIQUIDS AND TEMPERATURE

This pump is suitable to handle clear lubricating and nonlubricating fluids at temperatures to 450F. These pumps will handle viscous fluids to 100,000 cps (462,000 SSU) at reduced shaft speeds.



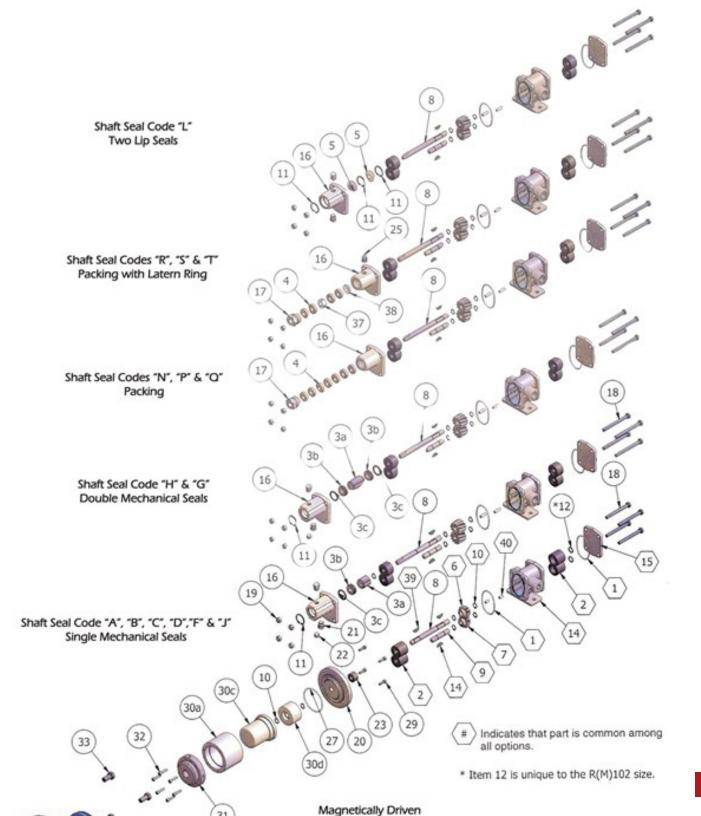
SUCTION LIFT

This pump has a suction lift capability of 20 feet for a new pump. Though gear pumps are self-priming, a foot valve is recommended. If possible, wet gears with the liquid to be pumped for the first dry start. Liquid retained in the system and gear chambers serves to wet the pump on subsequent starts.

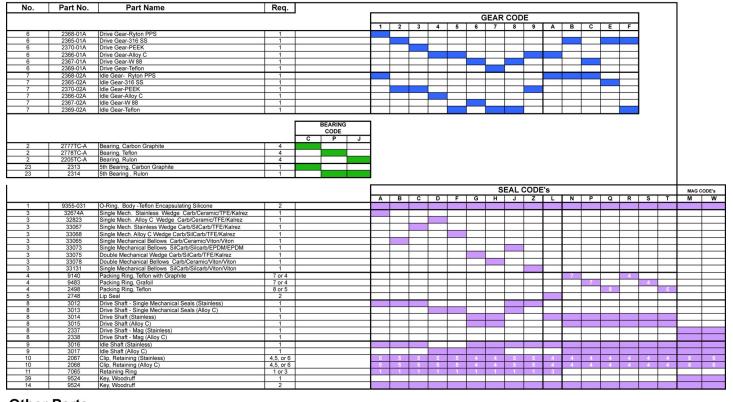
EXPLODED VIEW AND PARTS LIST



R(M)102, R(M)103, R(M)104 & R(M)106 METALLIC EXPLODED VIEW



CHEMkit Parts

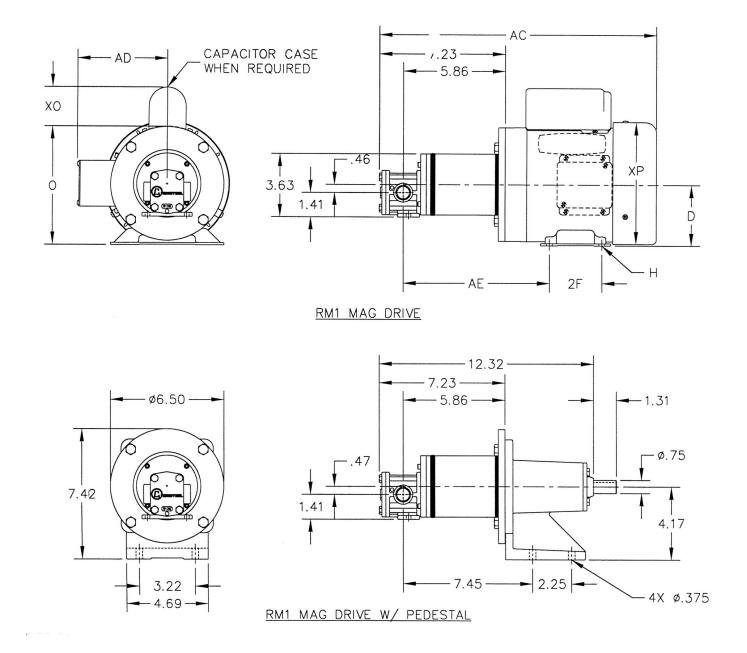


Other Parts

| | | | | | | SEAL CODE's | | | | | | MAG CODE's | | | | | | | | | | |
|----------------|----------|---|---|--|---|-------------|---|---|---|---|---|------------|---|---|---------|---|---|------|---|---|---|---|
| | | | | | Α | В | С | D | F | G | н | J | Z | L | N | P | Q | R | S | Т | M | W |
| 14 | 9127S-5P | Body with 1/2" NPT Ports (Stainless) | 1 | | | | | | | | | | | | | | | | | | | |
| 14 | 9127H-5P | Body with 1/2" NPT Ports (Alloy C) | 1 | | | | | | | | | | | | | | | | | | | |
| 15 | 9128S-1 | Rear Cover (Stainless) | 1 | | | | | | | | | | | | | | | | | | | |
| 15 | 9128H-1 | Rear Cover (Alloy C) | 1 | | | | | | | | | | | | | | | | | | | |
| 16 | 9130S-3 | Front Cover, Single/ Double Mechanical (Stainless) | 1 | | | | | | | | | | | | | | | 1.00 | | | | |
| 16 | 9130H-3 | Front Cover, Single/ Double Mechanical (Alloy C) | 1 | | | | | | | | | | | | | | | | | | | |
| 16 | 9129S-5 | Front Cover, Lip (Stainless) | 1 | | | | | | | | | | | | | | | | | | | |
| 16 | 9129S-1 | Front Cover, Packing (Stainless) | 1 | | | | | | | | | | | | | | | | | | | |
| 16 | 9129H-1 | Front Cover, Packing (Alloy C) | 1 | | | | | | | | | | | | | | | | | | | |
| 16 | 9129S-3 | Front Cover, Lantern Packing (Stainless) | 1 | | | | | | | | | | | | | | | | | | | |
| 16 | 9129H-3 | Front Cover, Lantern Packing (Alloy C) | 1 | | | | | | | | | | | | | | | | | | | |
| 17 | 9138 | Pack Nut (Stainless) | 1 | | | | | | | | | | | | | | | | | | | |
| 17 | 2746 | Pack Nut (Alloy C) | 1 | | | | | | | | | | | | | | | | | | | |
| 18 | 9365-070 | Hex Head Cap Screws | 4 | | | | | | | | | | | | | | | 1 | | | | |
| 18 | 9365-062 | Hex Head Cap Screws (Mag) | 4 | | | | | | | | | | | | | | | | | | | |
| 19 | 9367 | Hex Nuts | 4 | | | | | | | | | | | | | | | | | | | |
| 40 | 9793 | Dowel Pin | 2 | | | | | | | | | | | | | | | | | | | |
| 21 | 6600-01 | Hex Head Pipe Plug (Stainless) | 2 | | | | | | | | | | | | | | | | | | | |
| 21 | 6600-02 | Hex Head Pipe Plug (Alloy C) | 2 | | | | | | | | | | | | | | | | | | | |
| 25 | 5390-01 | Grease Lubrication Fitting | 1 | | | | | | | | | | | | | | | | | | | |
| 38 | 2695 | Starter Ring | 1 | | | | | | | | | | | | | | | | | | | |
| 37 | 2671 | Lantern Ring | 1 | | | | | | | | | | | | | | | | | | | |
| 20 | 2312S | Pump Adapter (Stainless) | 1 | | | | | | | | | | | | | | | | | | | |
| 20 | 2312H | Pump Adapter (Alloy C) | 1 | | | | | | | | | | | | | | | | | | | |
| 26 | 2302-01 | Bell Housing | 1 | | | | | | | | | | | | · · · · | | | | | | | |
| 27 | | O-Ring, Containment Can -Teflon Encapsulating Silicone | 1 | | | | | | | | | | | | | | | | | | | |
| 29 | 2481-014 | Hex Head Cap Screws (Bell/Pump Adapter) | 4 | | | | | | | | | | | | | | | | | | | |
| 30 a b c d | 2023-3NS | Magnet Kit, Neo (Stainless) | 1 | | | | | | | | | | | | | | | | | | | |
| 30 a b c d | 2023-3NH | Magnet Kit, Neo (Alloy C) | 1 | | | | | | | | | | | | | | | | | | | |
| 30a b c d | | Magnet Kit, Sam C (Stainless) | 1 | | | | | | | | | | | | | | | | | | | |
| 30a b c d | 2023-3SH | Magnet Kit, Sam C (Alloy C) | 1 | | | | | | | | | | | | | | | | | | | |
| | | | | | _ | | | | | | | | | | | | | | | | | |
| 31,32,33,34,35 | catalog | Mag - Power End Kit (motor hub, adapters, hardware) | | | | | | | | | | | | | | | | | | | | |
| | 2464 | Optional Mag Foot Kit (not shown) | | | | | | | | | | | | | | | | | | | | |
| | catalog | Sealed - Close Coupled Adapter Kit (not shown- faceplate, motor adapter, couplings, hardware) | | | | | | | | | | | | | | | | | | | | |
| | catalog | Sealed- Long Mount Bedplate Kits (not shown - base, shims, couplings, coupling guard, hardware) | | | | | | | | | | | | | | | | | | | | |
| | catalog | Motors (not shown) | | | | | | | | | | | | | | | | | | | | |
| | catalog | Pressure Relief Valve (not shown) | | | | | | | | | | | | | | | | | | | | |

| Series | Model | Repair Kit |
|---------|-----------------|------------------|
| RM106 M | RM10635CW-M1 | RM10635CW-M1K |
| | RM10635CW | RM10635CWK |
| | RM10634CW-M1 | RM10634CW-M1K |
| | RM10634CW | RM10634CWK |
| | RM10633CW-M1 | RM10633CW-M1K |
| | RM10633CW | RM10633CWK |
| | RM1061FCW-M1 | RM1061FCW-M1K |
| | RM1061FCW | RM1061FCWK |
| | RM1061ECW-M1 | RM1061ECW-M1K |
| | RM1061BJW-M1 | RM1061BJW-M1K |
| | RM10616PW-M1 | RM10616PW-M1K |
| | RM10616JW-J81 | RM10616JW-J81K |
| | RM10616CW-X1 | RM10616CW-X1K |
| | RM10616CWM1-J47 | RM10616CWM1-J47K |
| | RM10616CW-M1 | RM10616CW-M1K |
| | RM10616CW | RM10616CWK |
| | RM10613CW-M1 | RM10613CW-M1K |
| | RM10613CW | RM10613CWK |
| | RM10612JW-T3W82 | RM10612JW-T3W82K |
| | RM10612JW-T3 | RM10612JW-T3K |

DIMENSIONS



FAX (315) 463-9561

MODEL CHART

| MODEL | RM106 | | | | | |
|--|---------------|--|--|--|--|--|
| Maximum Flow (gpm) @1750 RPM | 3 | | | | | |
| Theoretical Displacement (cc/revolution) | 7.5 | | | | | |
| Maximum Differential Pressure (psig) | 110 | | | | | |
| Maximum System Pressure (psig) | 300 | | | | | |
| Maximum Speed (RPM) | 1800 | | | | | |
| Maximum Fluid Temperature | 450° F | | | | | |
| Minimum Fluid Temperature | -50° F | | | | | |
| NPSHR @ 1750 (feet) | 2 | | | | | |
| Standard Port Size | 1/2 inch FNPT | | | | | |
| weight-less motor (lbs) | 13 | | | | | |

MAINTENANCE

A three-part housing provides easy disassembly and service. Full size bearings match the gear diameter, and eliminate the need for separate wear plates. TFE encapsulating silicone o-ring pump housing seals provide elastic memory to assure an effective long lasting seal and thus avoiding the re-torquing required of pumps using pure TFE.

To order a CHEMKIT[™] parts kit, simply add a "K" to the end of the model number.

A repair kit contains the following parts: bearings, gears, o-rings, shafts, keys, c clips, and retaining ring.

LIFE CYCLE/COST OF OWNERSHIP

Pump design and materials selection, together provide the longest life available from a gear pump. Key attributes include:

- Gear & bearing combinations of metallic and nonmetallic wear surfaces.
- Slotted bearings to lubricate shaft and gear surfaces.
- Hydraulic porting to balance axial thrust and to reduce wear.
- Ample port sizing to reduce the likelihood of cavitation when inlet pressure is marginal.
- Effective housing seals with elastic memory prevent leakage of corrosives.

FIT

Connections are 1/2" female NPT or BSPT, pump hardware is metric and close couple adapters mount to both NEMA and IEC standard motor frame sizes for world wide acceptance. The port size is the same as competitive pumps.