

CHEMSTEEL

CHEMSTEEL PUMPS SERIES SM207 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:

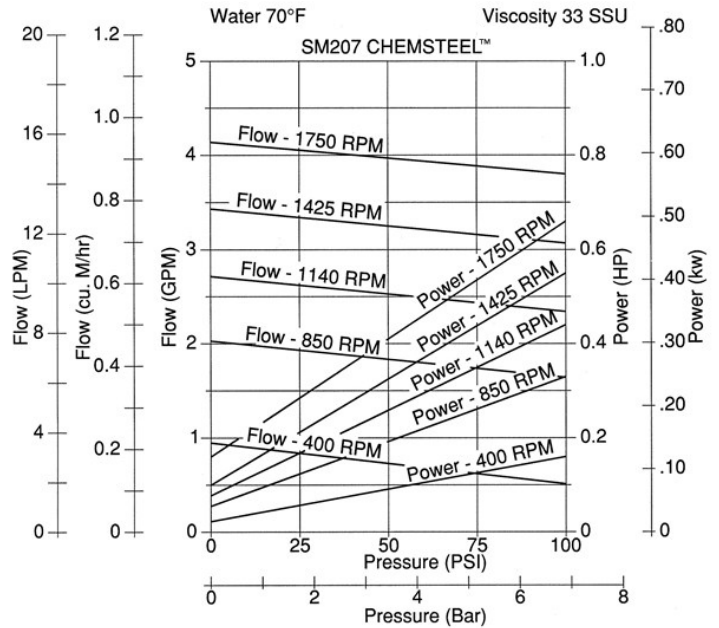
- Stainless or Alloy C housing construction.
- Gears available in metallic 316 stainless, W88 stainless and Alloy C. Also in Polytetrafluoroethylene, polyphenylenesulfide and polyetheretherketone.
- Shafts are 316 stainless steel or Alloy C.
- Bearings available in Carbon and Polytetrafluoroethylene

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

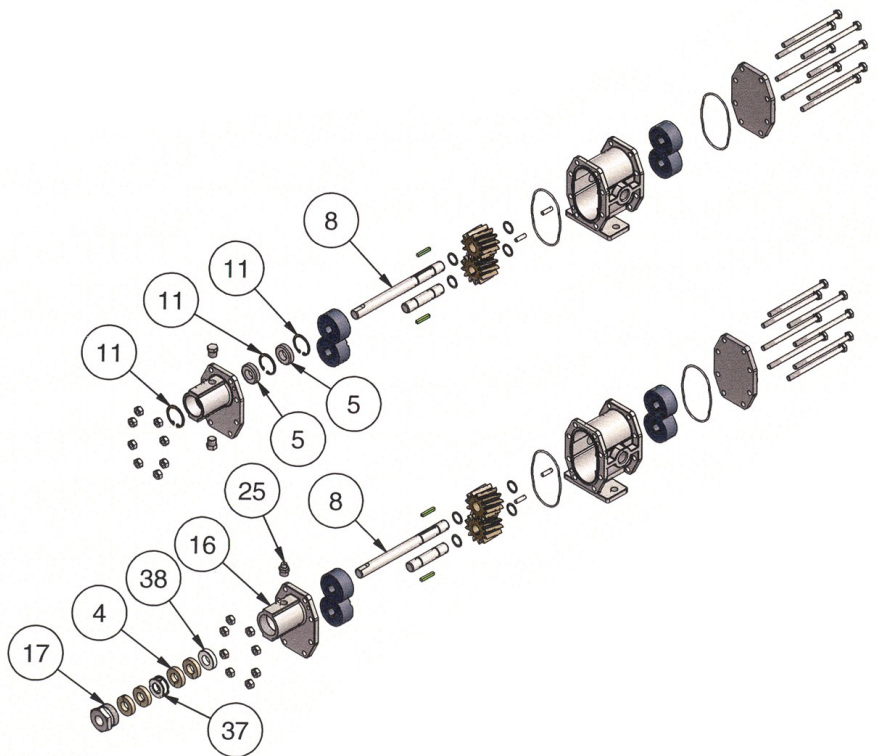
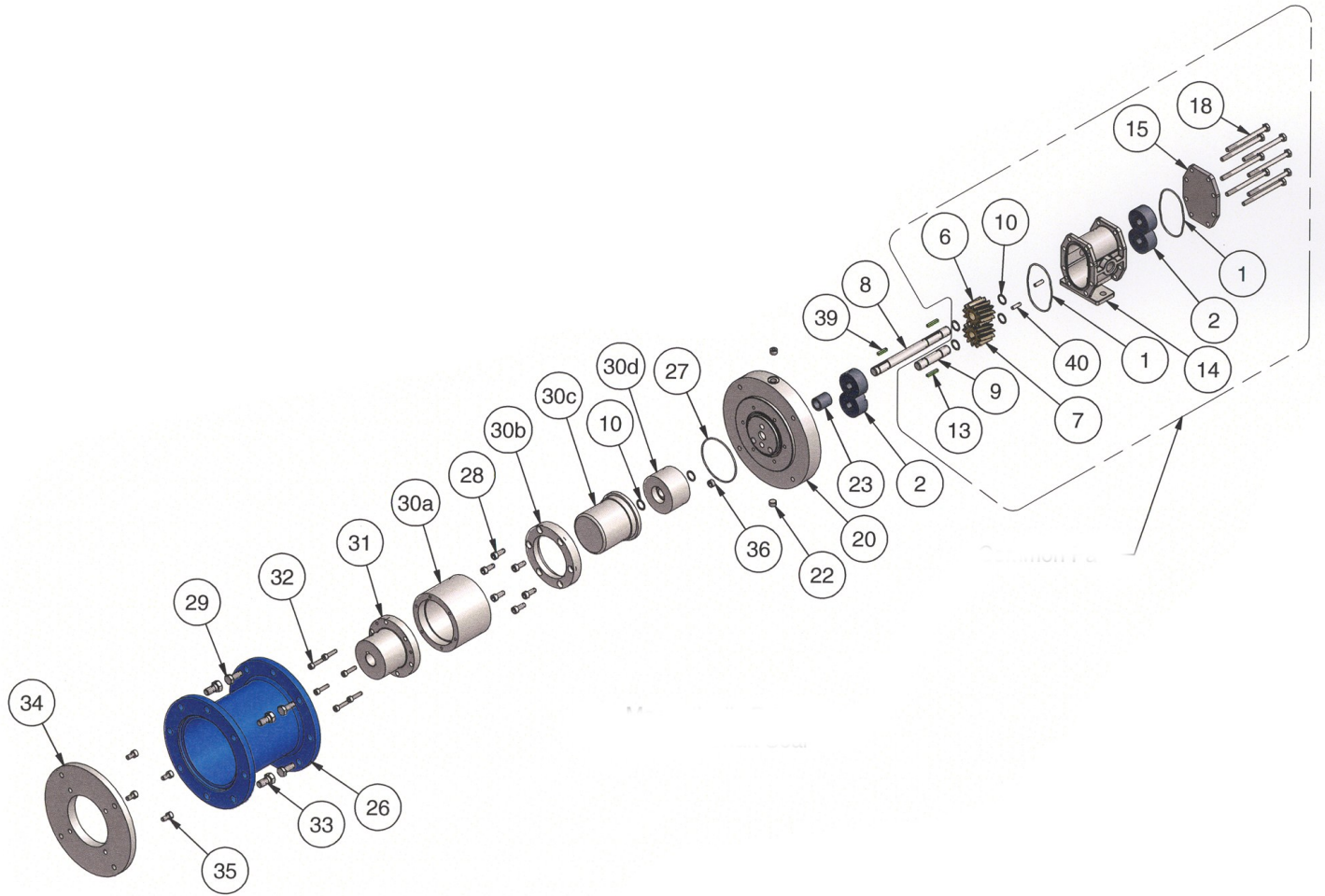
This pump is suitable to handle clear lubricating and non-lubricating fluids at temperatures to 450F. These pumps will handle viscous fluids to 100,000 cps (462,000 SSU) at reduced shaft speeds.



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



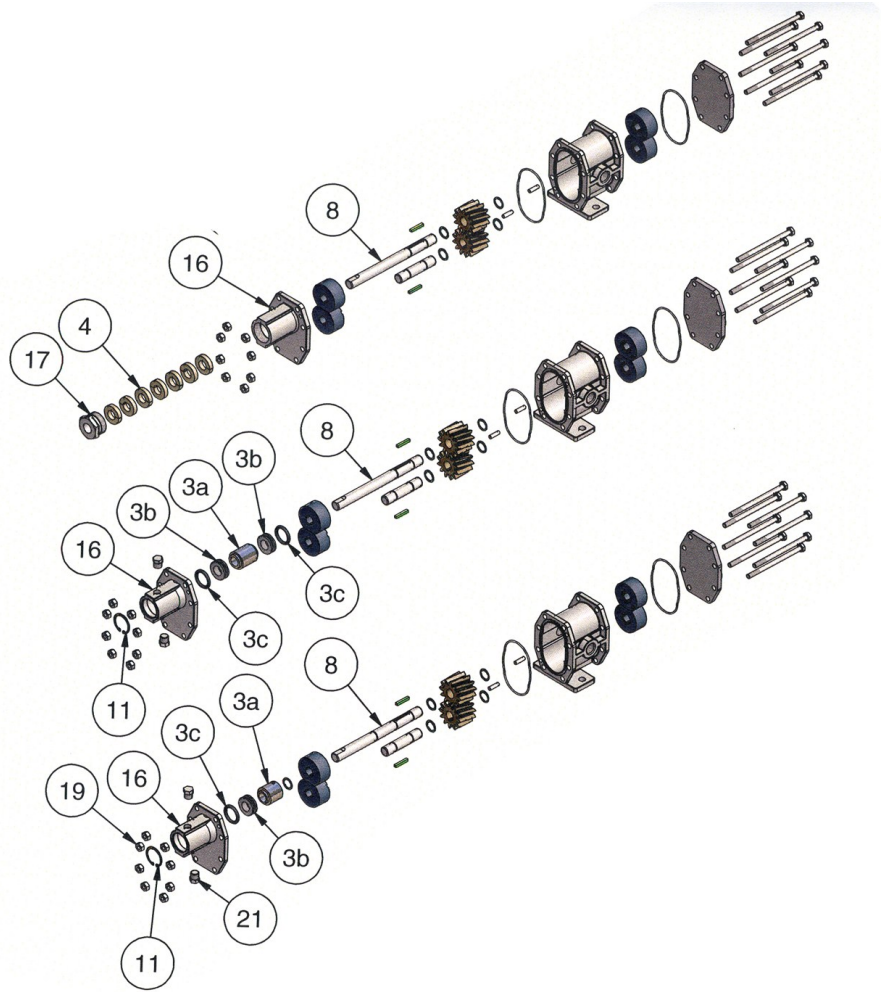
Shaft Seal Code "L"
Two Lip Seals

Shaft Seal Codes "R", "S" & "T"
Packing with Lantern Ring

Shaft Seal Codes "N", "P" & "Q"
Packing

Shaft Seal Codes "H" & "G"
Double Mechanical Seals

Shaft Seal Codes "A", "B", "C", "D", "F" & "J"
Single Mechanical Seals



CHEMkit Parts

Table listing gear and bearing parts with columns for No., Part No., Part Name, Req., and GEAR CODE (1-10, A-F). Includes a separate BEARING CODE table (C, P, J).

Table listing seal parts with columns for No., Part No., Part Name, Req., and SEAL CODE's (A-T, M-W). Includes a sub-table for MAG CODE's.

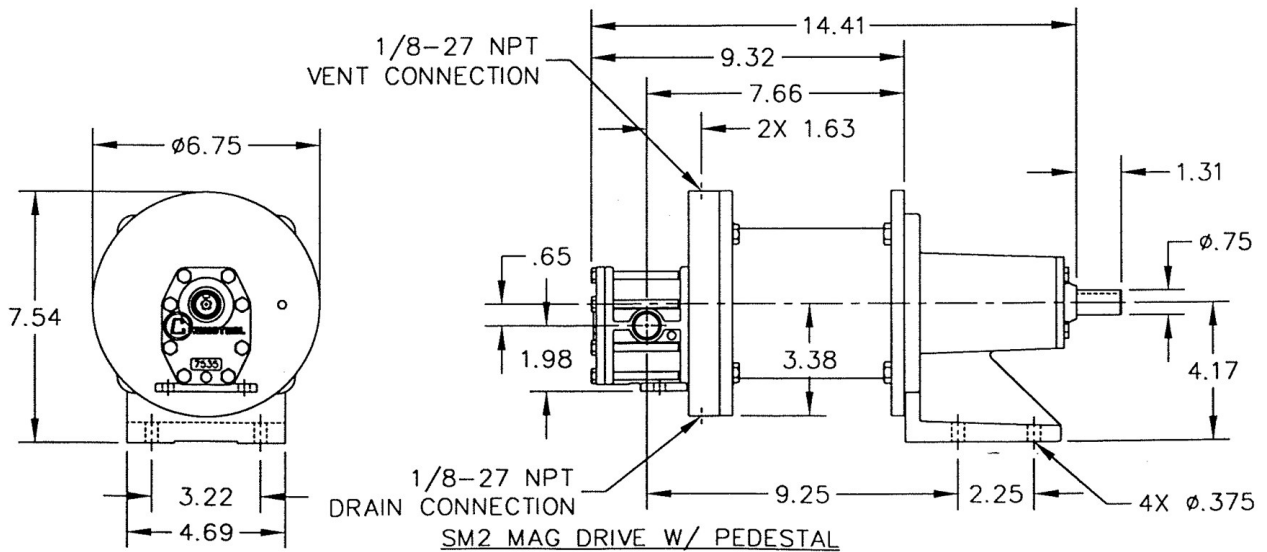
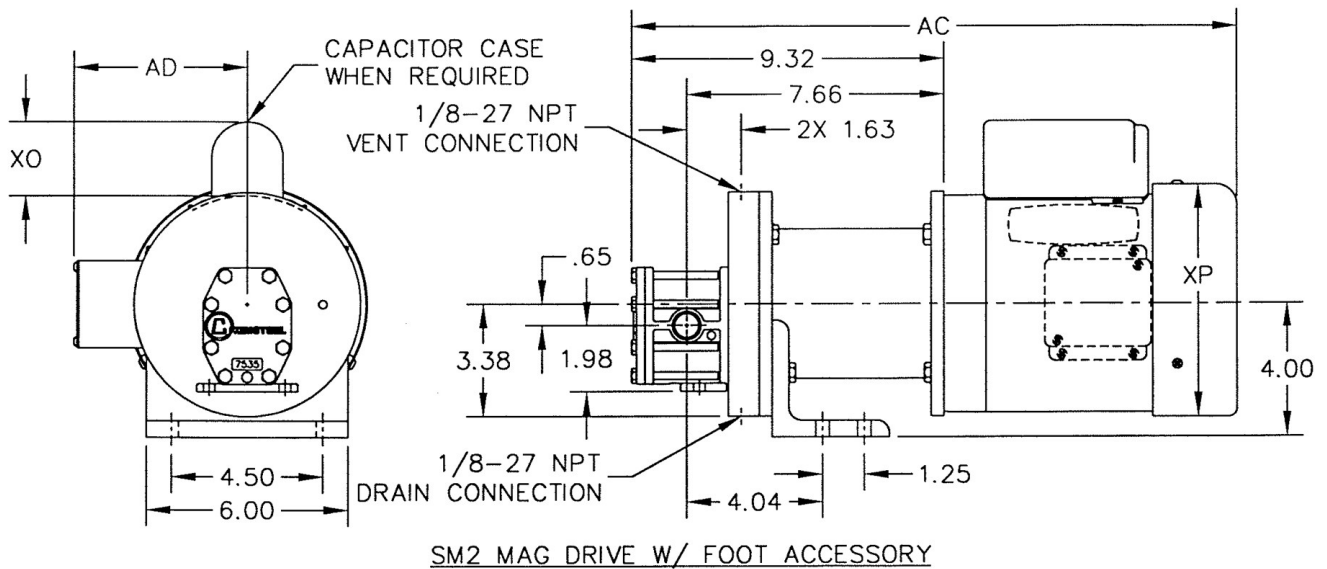
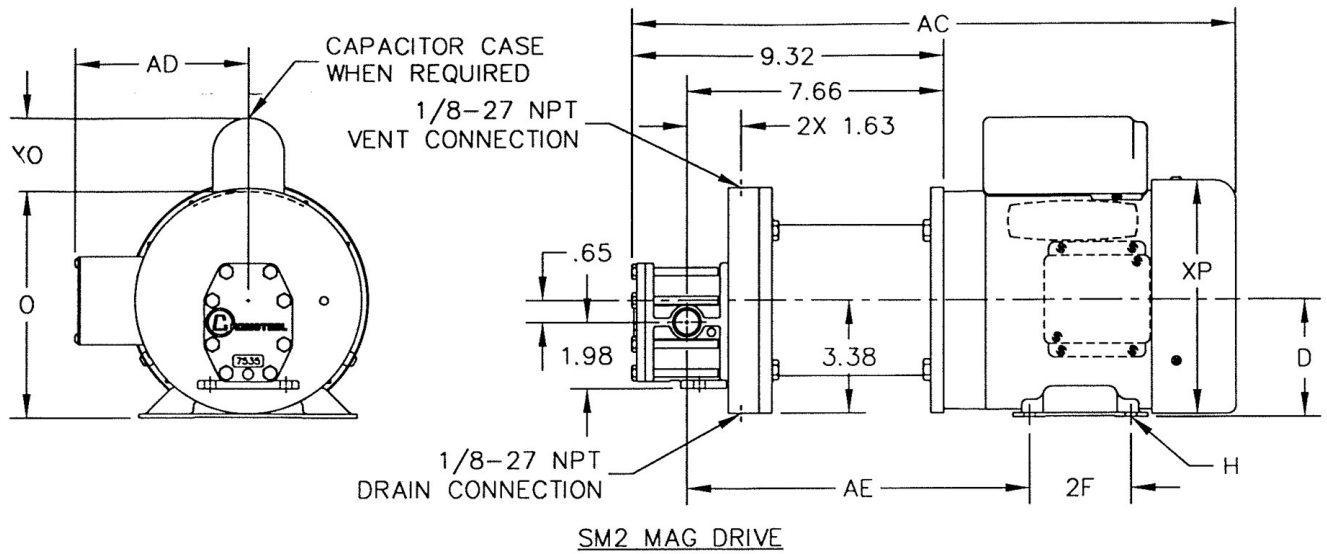
Other Parts

Table listing various other parts with columns for No., Part No., Part Name, Req., and SEAL CODE's (A-T, M-W).

Small table listing accessories with columns for No., Part No., Part Name, Req., and description.

Series	Model	Repair Kit
SM207 M	SM20735JW-M81	SM20735JW-M81K
	SM20733JW-M1	SM20733JW-M1K
	SM2071FJW	SM2071FJWK
	SM2071FCW-M1	SM2071FCW-M1K
	SM2071ECW-M1	SM2071ECW-M1K
	SM2071BCW-X1	SM2071BCW-X1K
	SM2071BCW-M1	SM2071BCW-M1K
	SM20717CW-M3	SM20717CW-M3K
	SM20717CW	SM20717CWK
	SM20716CW-N47	SM20716CW-N47K
	SM20716CWM1-M47	SM20716CWM1-M47K
	SM20716CW-M1	SM20716CW-M1K
	SM20716CW-C1	SM20716CW-C1K
	SM20716CW	SM20716CWK
	SM20716BCW-M1	SM20716BCW-M1K
	SM20715PW-M1	SM20715PW-M1K
	SM20715PW	SM20715PWK
	SM20713CW-M1	SM20713CW-M1K
	SM20713CW	SM20713CWK
	SM20712JW-M1	SM20712JW-M1K

DIMENSIONS



MODEL CHART

MODEL	SM207
Maximum Flow (gpm) @1750 RPM	4
Theoretical Displacement (cc/revolution)	11.2
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)	4
Standard Port Size	1/2 inch FNPT
weight-less motor (lbs)	28

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 gearsurfaces.
- 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.
- Recirculation heat port versatility.
- Containment can flush & drain connections.

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 worldwide acceptance. The port size is the same as competitive pumps.