CHEMSTEEL™ PUMP

CHEMSTEEL PUMPS SERIES SM946 M

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 inPolytetrafluoroethylene, polyphenylenesulfide andpolyetheretherketone.
- Shafts are 316 stainless steel or Alloy C.
- Bearings available in Carbon and Polytetrafluoroethylene.

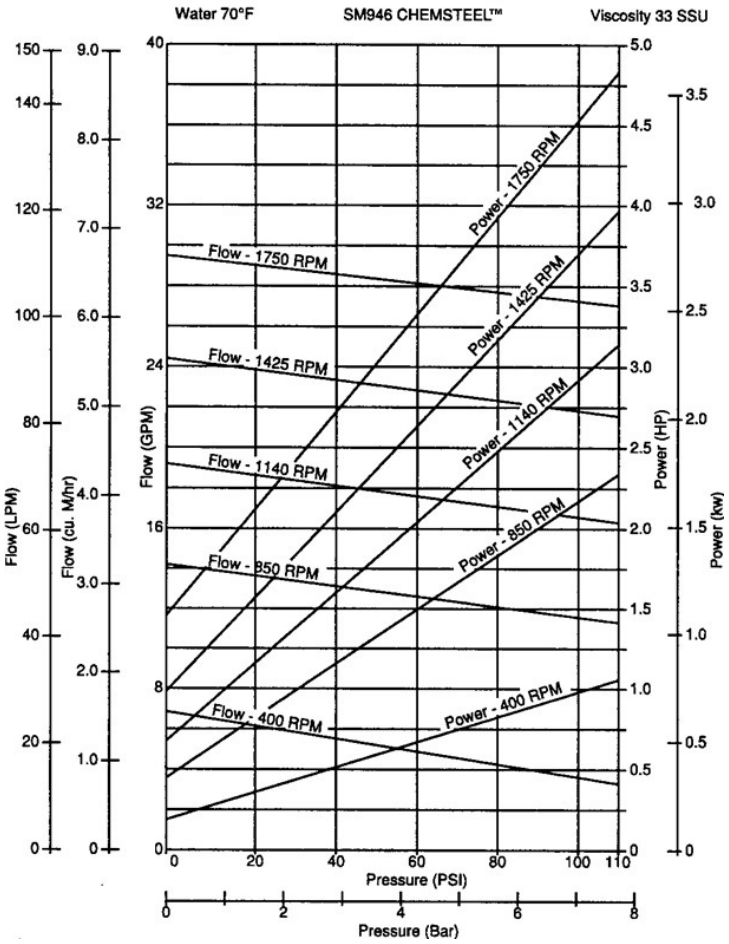
DRIVE

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.

PERFORMANCE



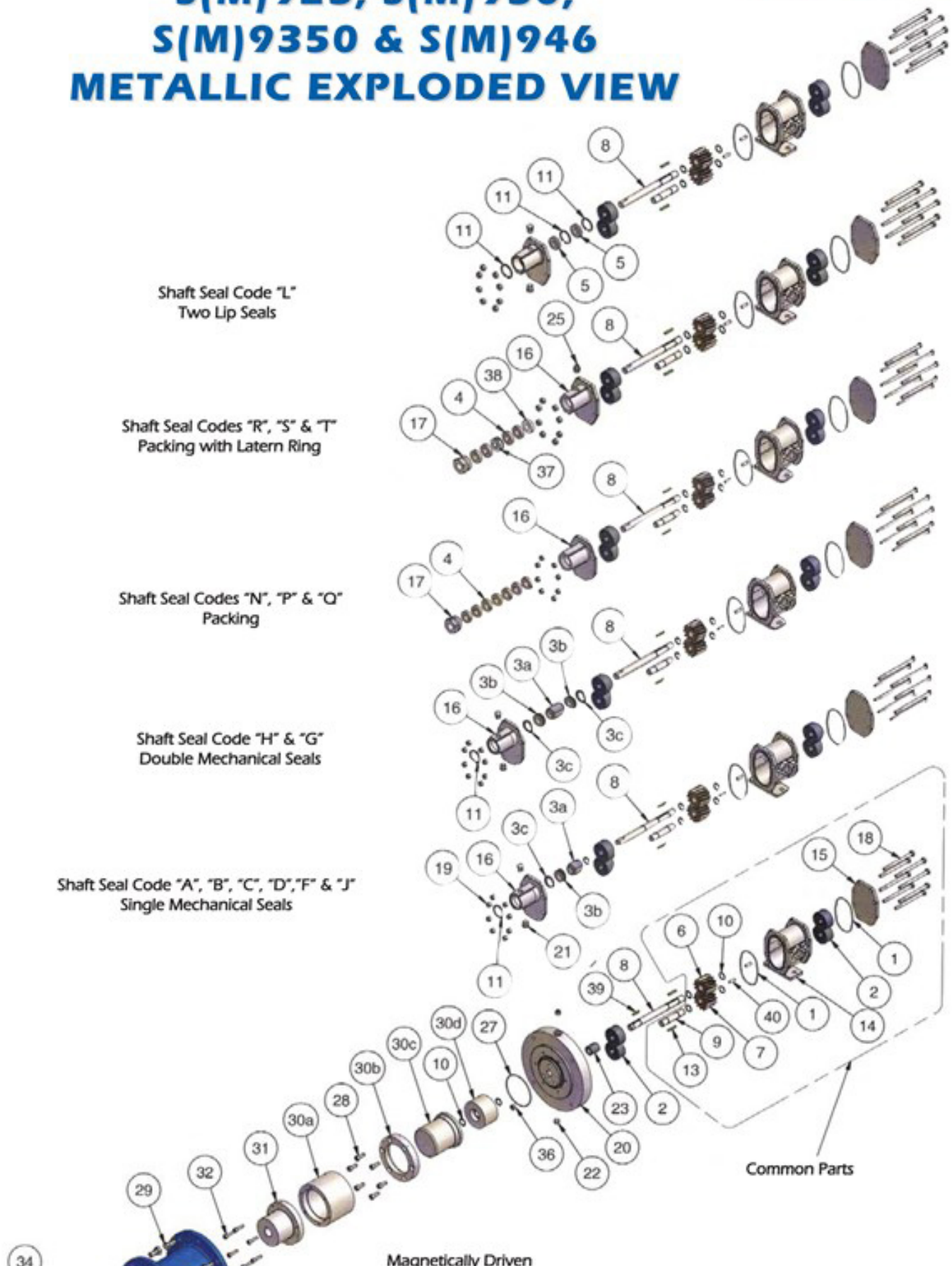
SUCTION LIFT

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

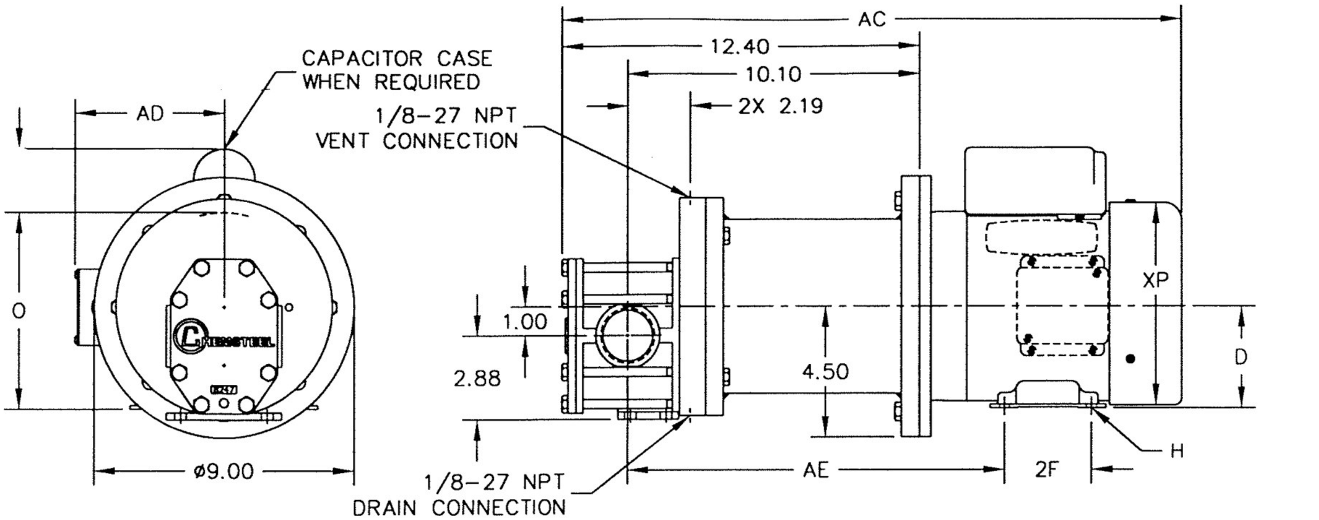
CHEMSTEEL™

S(M)923, S(M)930, S(M)9350 & S(M)946 METALLIC EXPLODED VIEW

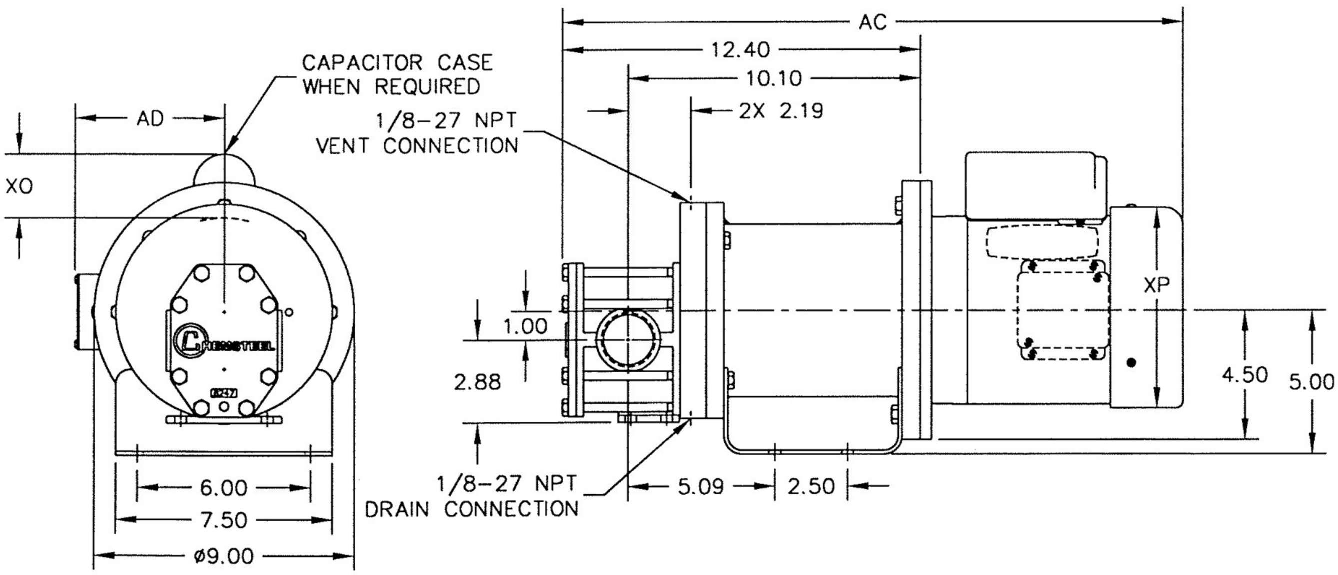


Series	Model	Repair Kit
SM946 M	SM9461FPW-X97	SM9461FPW-X97K
	SM9461FPW	SM9461FPWK
	SM9461FCW-T1Y82	SM9461FCW-T1Y82K
	SM9461FCW-M6	SM9461FCW-M6K
	SM9461FCW	SM9461FCWK
	SM9461ECW-M6	SM9461ECW-M6K
	SM9461ECW-M2	SM9461ECW-M2K
	SM9461ECW	SM9461ECWK
	SM9461BCW-M7	SM9461BCW-M7K
	SM9461AJW-M6	SM9461AJW-M6K
	SM94616JW-M6	SM94616JW-M6K
	SM94616CWM6-X97	SM94616CWM6-X97K
	SM94616CW-EFM7	SM94616CW-EFM7K
	SM94613JW	SM94613JWK
	SM94612CW-X81	SM94612CW-X81K
	SM94612CW-M6	SM94612CW-M6K
	SM94612CW	SM94612CWK

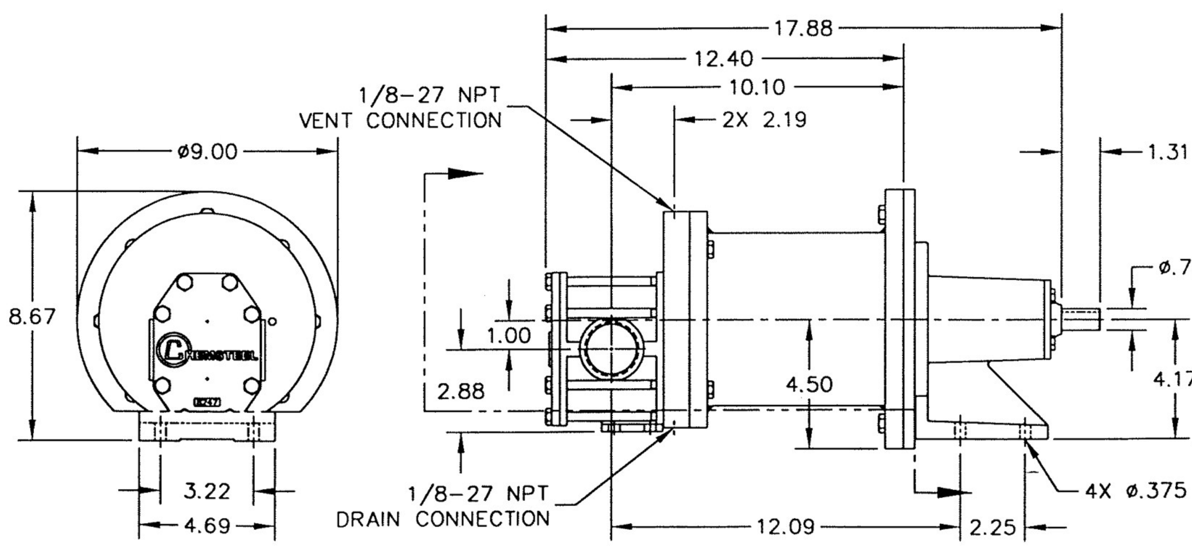
DIMENSIONS



SM9 MAG DRIVE



SM9 MAG DRIVE W/ FOOT ACCESSORY



SM9 MAG DRIVE W/ PEDESTAL

MODEL CHART

MODEL	SM946
Maximum Flow (gpm) @1750 RPM	30
Theoretical Displacement (cc/revolution)	76.9
Maximum Differential Pressure (psig)	110
Maximum System Pressure (psig)	225
Maximum Speed (RPM)	1800
Maximum Fluid Temperature	450° F
Minimum Fluid Temperature	-50° F
NPSHR @ 1750 (feet)	10
Standard Port Size	1 1/2 inch FNPT
weight-less motor (lbs)	50

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

FIT

Connections are 1 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.