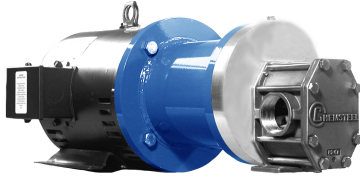


CHEMSTEEL™ PUMP

CHEMSTEEL PUMPS SERIES SM923 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:

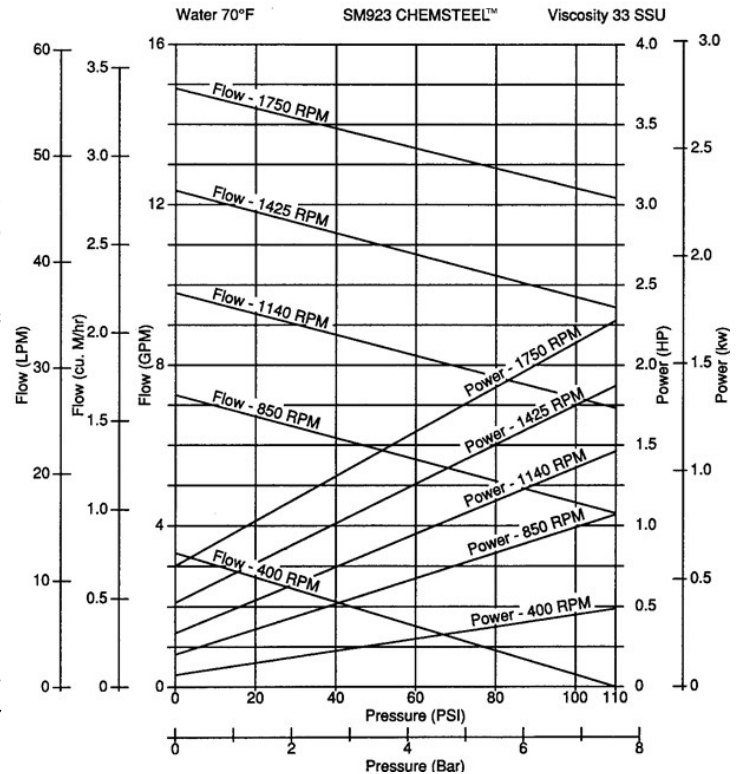
- Stainless or Alloy C housing construction.
- Gears available in metallic 316 stainless, W88 stainless and Alloy C. Also in Polytetrafluoroethylene, polyphenylenesulfide, and polyetheretherketone.
- Shafts are 316 stainless steel or Alloy C.
- Bearings available in Carbon and Polytetrafluoroethylene.

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

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

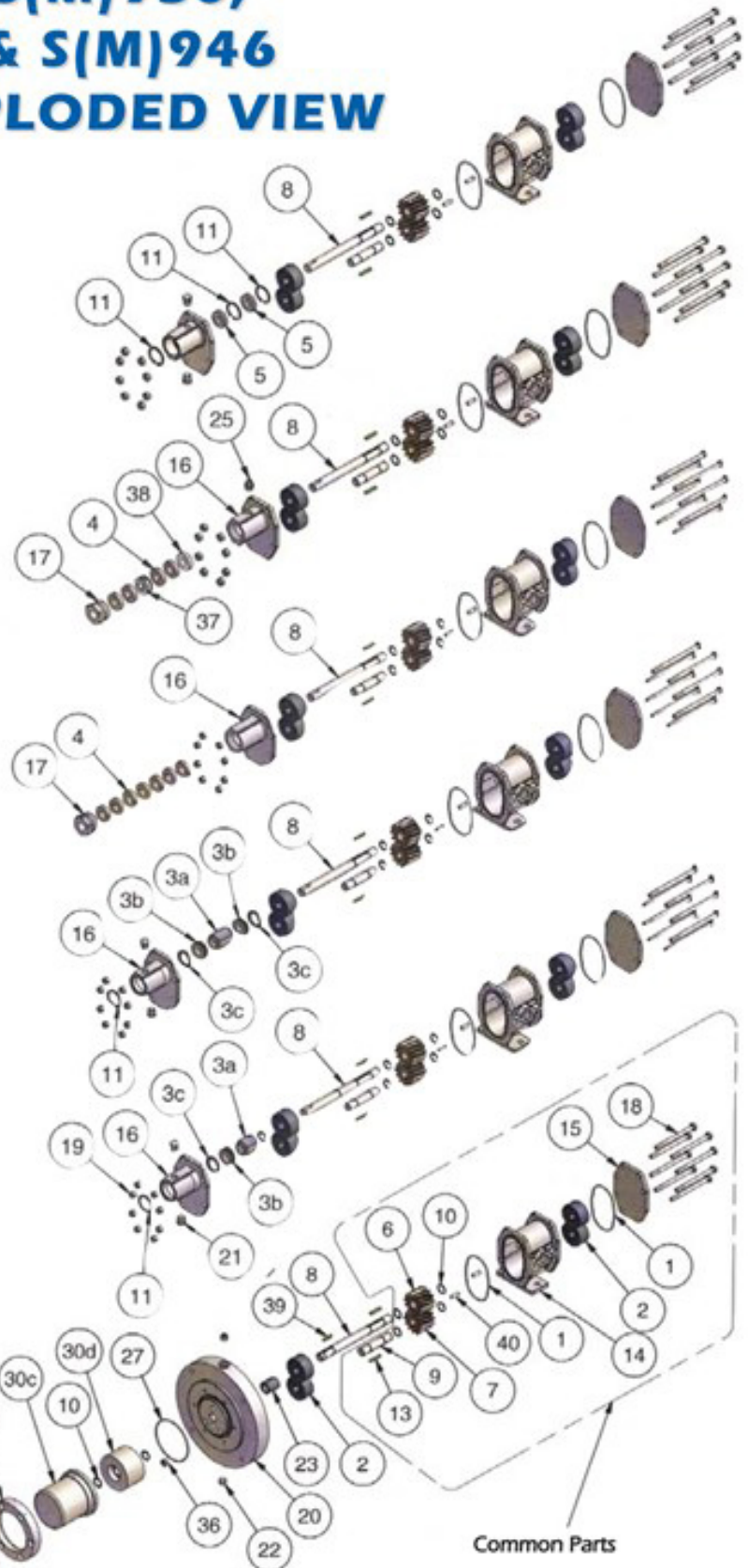
Shaft Seal Code "L"
Two Lip Seals

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

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

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

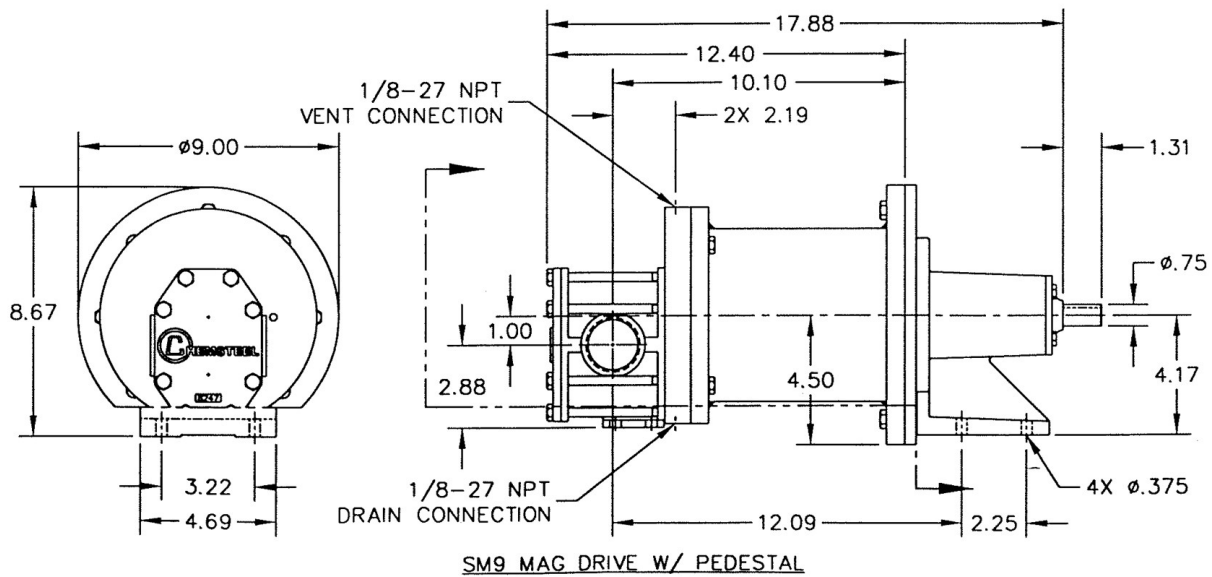
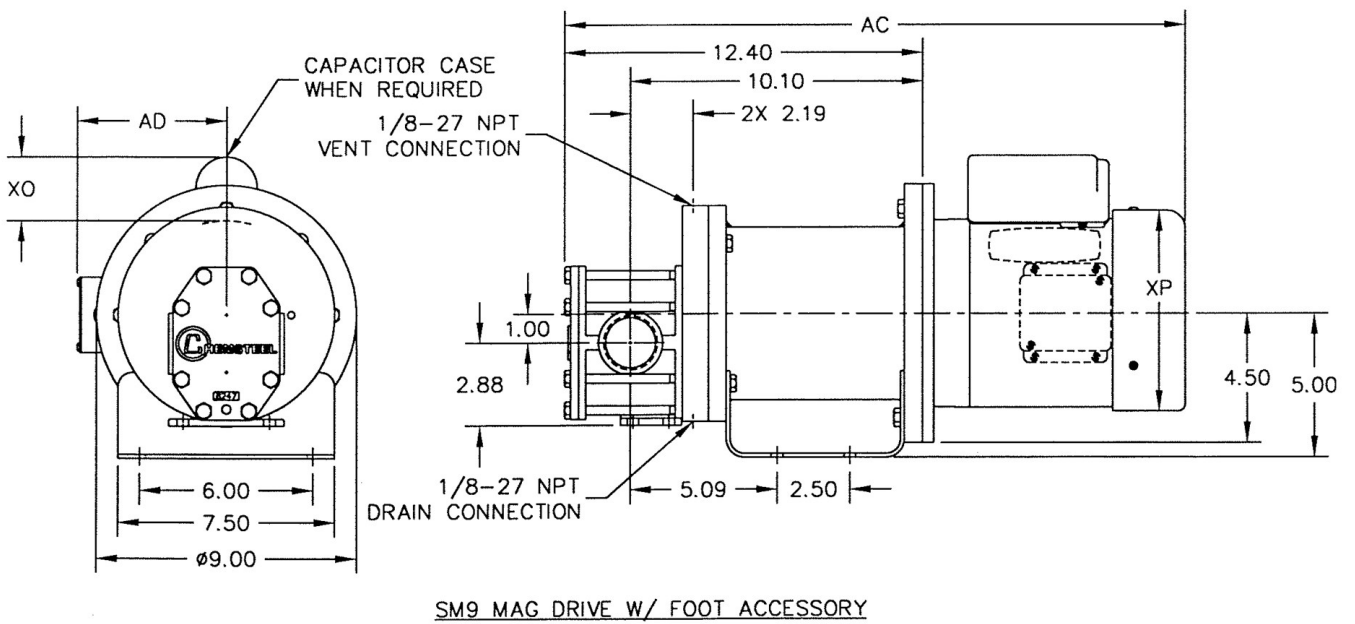
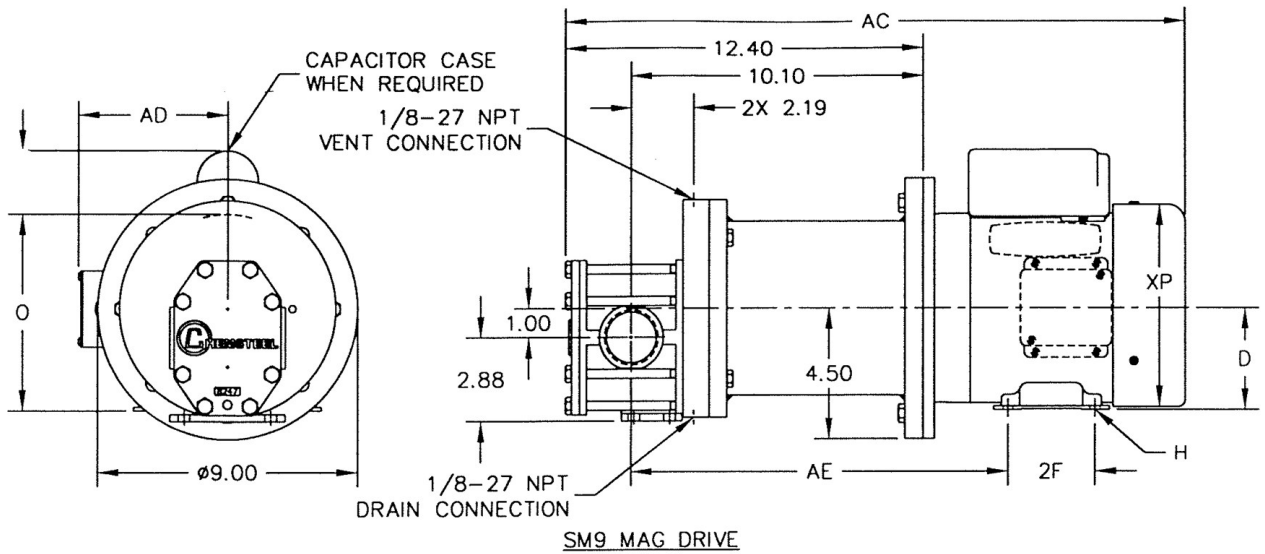
Shaft Seal Code "A", "B", "C", "D", "F" & "J"
Single Mechanical Seals



Common Parts

Series	Model	Repair Kit
SM923 M	SM92334PW-M2	SM92334PW-M2K
	SM9231FPW-M2	SM9231FPW-M2K
	SM9231FCW-M2	SM9231FCW-M2K
	SM9231FCW	SM9231FCWK
	SM9231CCW-X1M6	SM9231CCW-X1M6K
	SM92316PW-M1	SM92316PW-M1K
	SM92316CWM6-Y97	SM92316CWM6-Y97K
	SM92316CW-M6	SM92316CW-M6K
	SM92316CW-M2	SM92316CW-M2K
	SM92316CW-M1	SM92316CW-M1K
	SM92316CW	SM92316CWK
	SM92312PW-M1	SM92312PW-M1K
	SM92312CW-T5M2	SM92312CW-T5M2K
	SM92312CW-M6	SM92312CW-M6K

DIMENSIONS



SM9 Series Chemsteel™ Mag Drive Pumps

Mag Chemsteel™ Option Suffix	Power Kit Part No.	Motor Frame		*AC	D	2F	H	AE
M1	MC9H56	56C	inches	21.54	3.50	3.00	.34 Slot	13.06
			millimeters	547.1	88.9	76.2	8.6 Slot	331.7
M2	MC9J45T	143TC/145TC	inches	24.92	3.50	4.00/5.00	0.34	13.37
			millimeters	633	88.9	101.6/127	8.6	339.6
M5	MC9U90E	IEC 90SC/90LC, B14 Face	inches	23.43	3.54	3.94/4.92	.39 Slot	12.70
			millimeters	595.1	89.9	100.1/125	9.9 Slot	322.6
M6	MC9K84T	182TC/184TC	inches	25.00	4.50	4.50	0.41	13.48
			millimeters	635	114.3	114.3	10.4	342.4
M7	MC9V100E	IEC 100LC, B14 Face	inches	25.39	3.94	5.51	0.47	12.97
			millimeters	644.9	100.1	140	11.9	329.4

*Dimensions AC, O, XO and XP may vary depending on HP, Enclosure, Speed and Manufacturer.

AD	*O	*XO	*XP
5.31	6.81	2.25	7.16
134.9	173	57.2	181.9
5.31	6.81	2.25	7.16
134.9	173	57.2	181.9
5.12/4.25	6.81/6.53	n/a	5.51
130/108	173/165.9	n/a	140
6.38	8.75	2.25	9.09
162.1	222.3	57.2	230.9
6.06	9.44	n/a	8.03
153.9	239.8	n/a	204

MODEL CHART

MODEL	SM923
Maximum Flow (gpm) @1750 RPM	15
Theoretical Displacement (cc/revolution)	38.4
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)	2
Standard Port Size	1 1/2 inch FNPT
weight-less motor (lbs)	35

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.