

CHEMSTEEL™ PUMP

CHEMSTEEL PUMPS SERIES RM104 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:

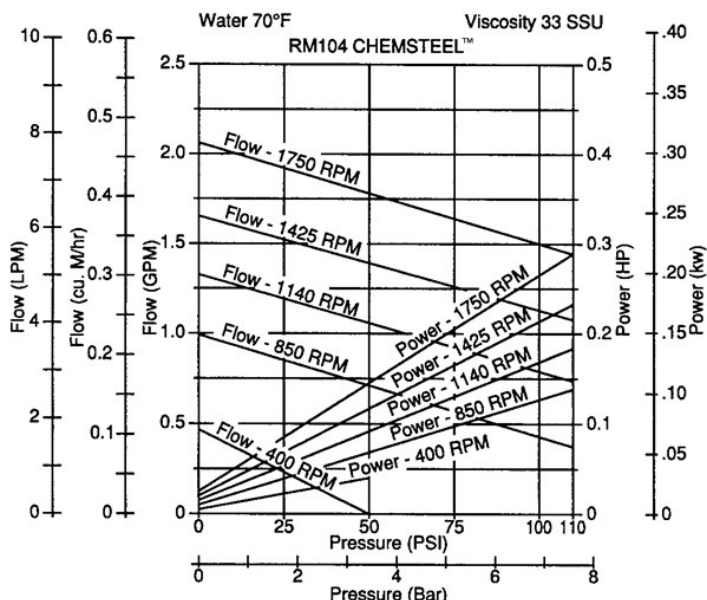
- Stainless or Alloy C housing construction.
- Gears available in 316 stainless, W88 stainless and Alloy C. Also in Polytetrafluoroethylene, polyphenylenesulfide and polyetheretherketone.
- Shafts are 316 stainless steel or Alloy C.
- Bearings available in Carbon, or Polytetrafluoroethylene.

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



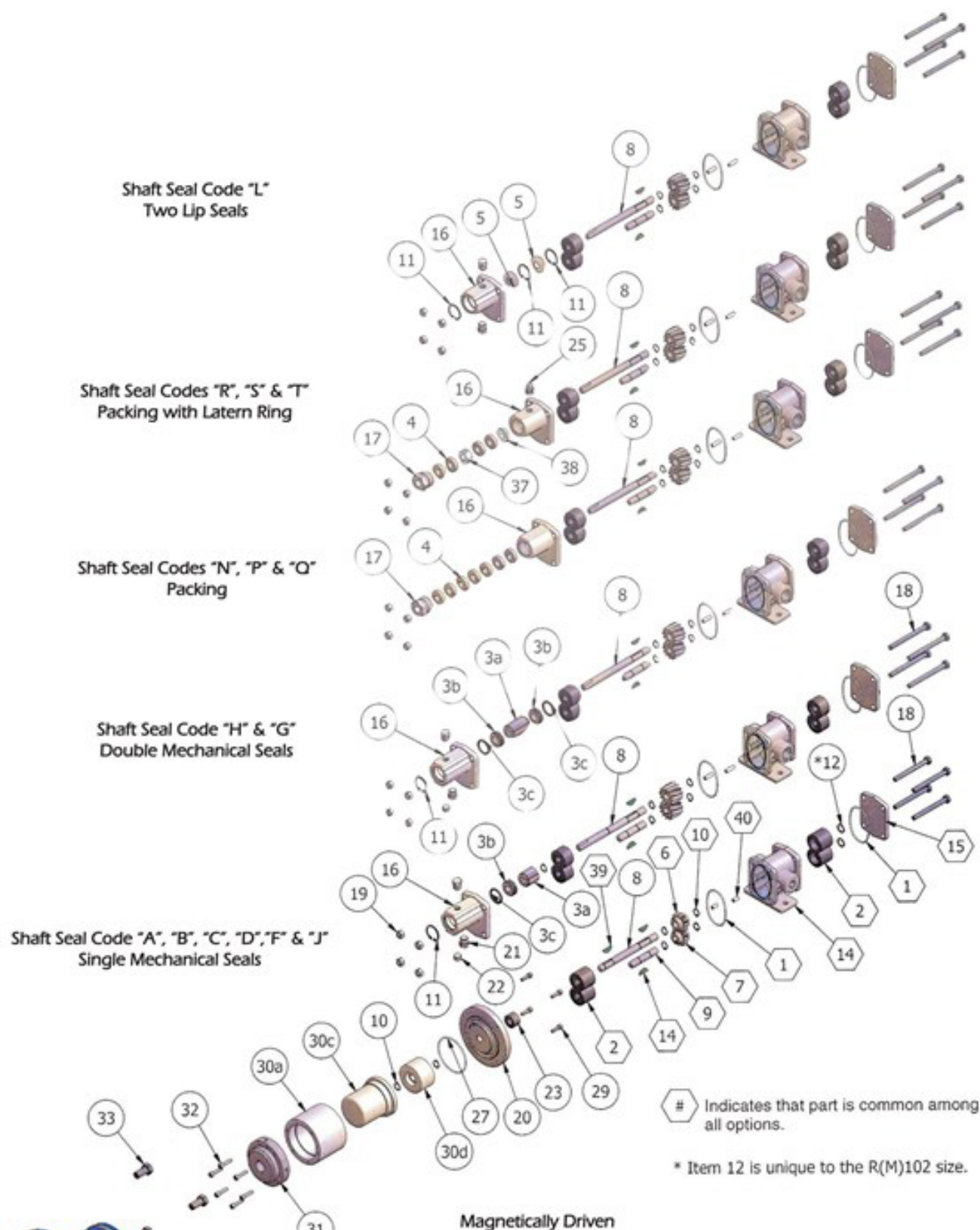
SUCTION LIFT

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



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



CHEMkit Parts

No.	Part No.	Part Name	Req.	GEAR CODE															
				1	2	3	4	5	6	7	8	9	A	B	C	E	F		
6	9656-01A	Drive Gear-Ryton PPS	1																
6	9698-01A	Drive Gear-316 SS	1																
6	9393-01A	Drive Gear-PEEK	1																
6	9149-01A	Drive Gear-Alloy C	1																
6	9150-01A	Drive Gear-W 88	1																
6	9151-01A	Drive Gear-Teflon	1																
7	9656-02A	Idle Gear- Ryton PPS	1																
7	9698-02A	Idle Gear-316 SS	1																
7	9393-02A	Idle Gear-PEEK	1																
7	9149-02A	Idle Gear-Alloy C	1																
7	9150-02A	Idle Gear-W 88	1																
7	9151-02A	Idle Gear-Teflon	1																

BEARING CODE			
C	P	J	
2	9235TC-A	Bearing, Carbon Graphite	4
2	9400TC-A	Bearing, Teflon	4
2	9425TC-A	Bearing, Rulon	4
23	2313	5th Bearing, Carbon Graphite	1
23	2314	5th Bearing, Rulon	1

SEAL CODE's																MAG CODE's		
A	B	C	D	F	G	H	J	Z	L	N	P	Q	R	S	T	M	W	
1	9355-031	O-Ring, Body -Teflon Encapsulating Silicone	2															
3	32674A	Single Mech. Stainless Wedge Carb/Ceramic/TFE/Kalrez	1															
3	32823	Single Mech. Alloy C Wedge Carb/Ceramic/TFE/Kalrez	1															
3	33067	Single Mech. Stainless Wedge Carb/SilCarb/TFE/Kalrez	1															
3	33068	Single Mech. Alloy C Wedge Carb/SilCarb/TFE/Kalrez	1															
3	33065	Single Mechanical Bellows Carb/Ceramic/Viton/Viton	1															
3	33073	Single Mechanical Bellows SilCarb/Silcarb/EPDM/EPDM	1															
3	33075	Double Mechanical Wedge Carb/SilCarb/TFE/Kalrez	1															
3	33078	Double Mechanical Bellows Carb/Ceramic/Viton/Viton	1															
3	33131	Single Mechanical Bellows SilCarb/Silcarb/Viton/Viton	1															
4	9140	Packing Ring, Teflon with Graphite	7 or 4															
4	9483	Packing Ring, Grafoil	7 or 4															
4	2498	Packing Ring, Teflon	8 or 5															
5	2748	Lip Seal	2															
8	3127	Drive Shaft - Single Mechanical Seals (Stainless)	1															
8	3128	Drive Shaft - Single Mechanical Seals (Alloy C)	1															
8	3129	Drive Shaft (Stainless)	1															
8	3130	Drive Shaft (Alloy C)	1															
8	2306	Drive Shaft - Mag (Stainless)	1															
8	2307	Drive Shaft - Mag (Alloy C)	1															
9	3131	Idle Shaft (Stainless)	1															
9	3132	Idle Shaft (Alloy C)	1															
10	2067	Clip, Retaining (Stainless)	4,5, or 6															
10	2068	Clip, Retaining (Alloy C)	4,5, or 6															
11	7065	Retaining Ring	1 or 3															
39	9524	Key, Woodruff	1															
14	9524	Key, Woodruff	2															

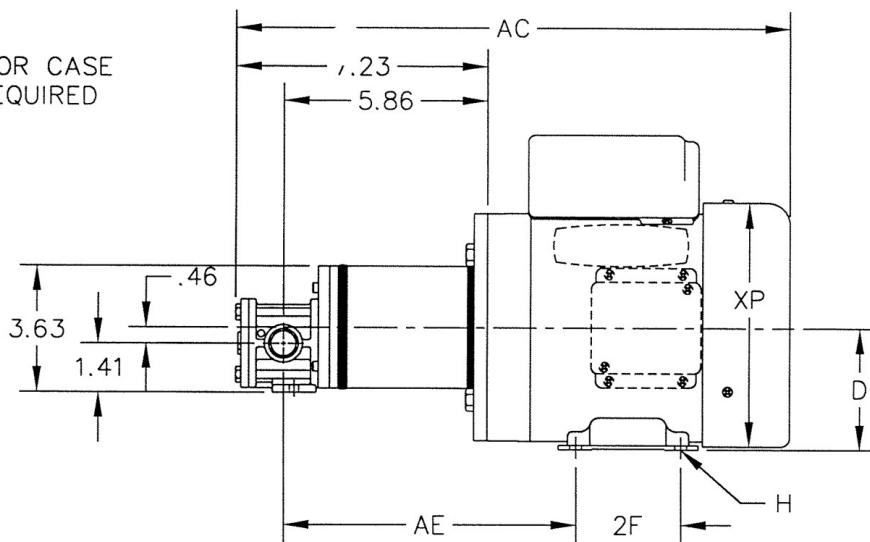
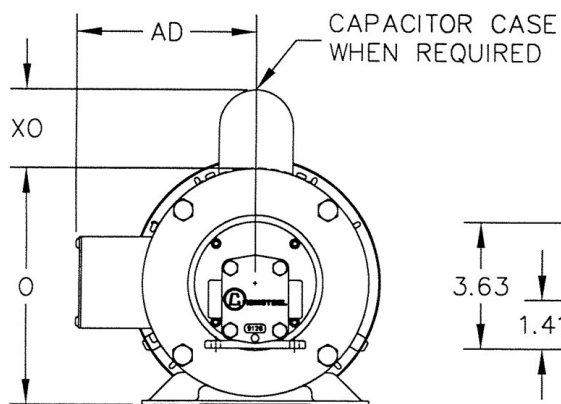
Other Parts

SEAL CODE's																MAG CODE's		
A	B	C	D	F	G	H	J	Z	L	N	P	Q	R	S	T	M	W	
14	9127S-6P	Body with 1/2" NPT Ports (Stainless)	1															
14	9127H-6P	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															
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															
18	9365-062	Hex Head Cap Screws (Mag)	4															
19	9367	Hex Nuts	4															
40	9793	Dow 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	9355-033	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	2023-3SS	Magnet Kit, Sam C (Stainless)	1															
30a b c d	2023-3SH	Magnet Kit, Sam C (Alloy C)	1															

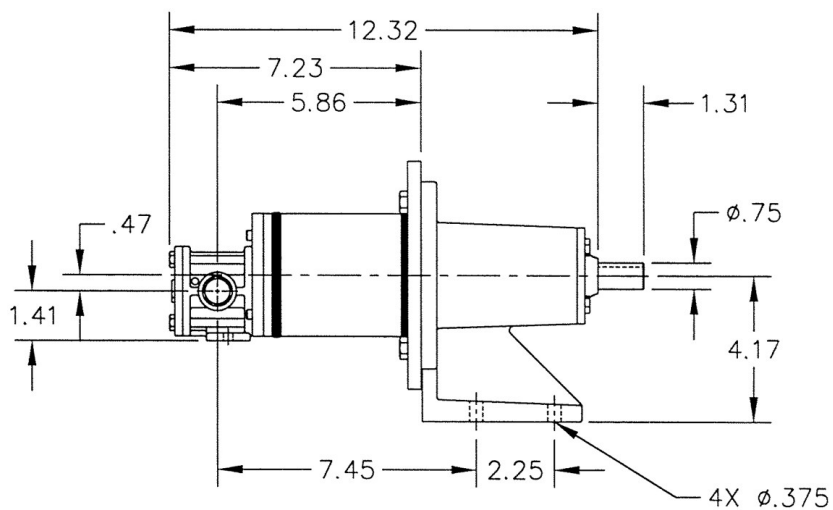
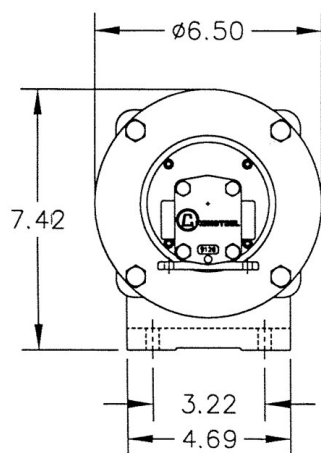
31,32,33,34,35	catalog	Mag - Power End Kit (motor hub, adapters, hardware)
	2464	Optional Mag. Foot Kit (not shown)
	catalog	Sealed - Close Coupled Adapter Kit (not shown- faceplate, motor adapter, couplings, hardware)
	catalog	Sealed- Long Mount Bedplate Kits (not shown - base, shims, couplings, coupling guard, hardware)
	catalog	Motors (not shown)
	catalog	Pressure Relief Valve (not shown)

Series	Model	Repair Kit
RM104 M	RM10435CW-M1	RM10435CW-M1K
	RM10434PW-M1	RM10434PW-M1K
	RM10434PW	RM10434PWK
	RM10434CW-M1	RM10434CW-M1K
	RM10434CW	RM10434CWK
	RM1041FPW-J97	RM1041FPW-J97K
	RM1041FPW-J81	RM1041FPW-J81K
	RM1041FCW-M1	RM1041FCW-M1K
	RM1041EPW-M1	RM1041EPW-M1K
	RM1041ECW-M1	RM1041ECW-M1K
	RM1041ECW	RM1041ECWK
	RM10416PW-M1	RM10416PW-M1K
	RM10416JW-M1	RM10416JW-M1K
	RM10416JW-J97	RM10416JW-J97K
	RM10416JW-F73	RM10416JW-F73K
	RM10416JW	RM10416JWK
	RM10416CW-X1M1	RM10416CW-X1M1K
	RM10416CW-M4	RM10416CW-M4K
	RM10416CWM1-F50	RM10416CWM1-F50K
	RM10416CW-M1	RM10416CW-M1K
	RM10416CW-J47	RM10416CW-J47K
	RM10416CW-F53	RM10416CW-F53K
	RM10413CW-M1	RM10413CW-M1K
	RM10412CW-F81	RM10412CW-F81K
	RM10412CW	RM10412CWK

DIMENSIONS



RM1 MAG DRIVE



RM1 MAG DRIVE W/ PEDESTAL

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