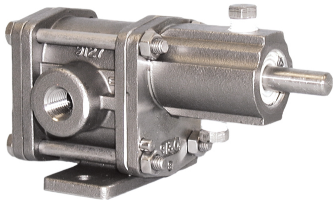


CHEMSTEEL™ PUMP

CHEMSTEEL PUMPS SERIES R102 M

PERFORMANCE



FEATURES

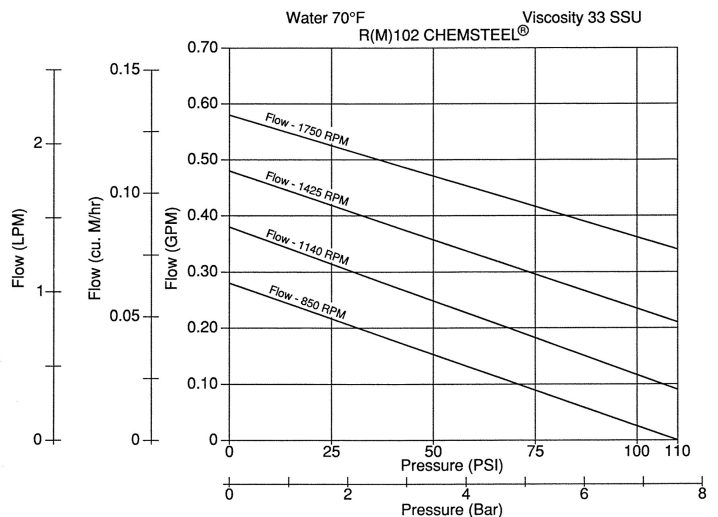
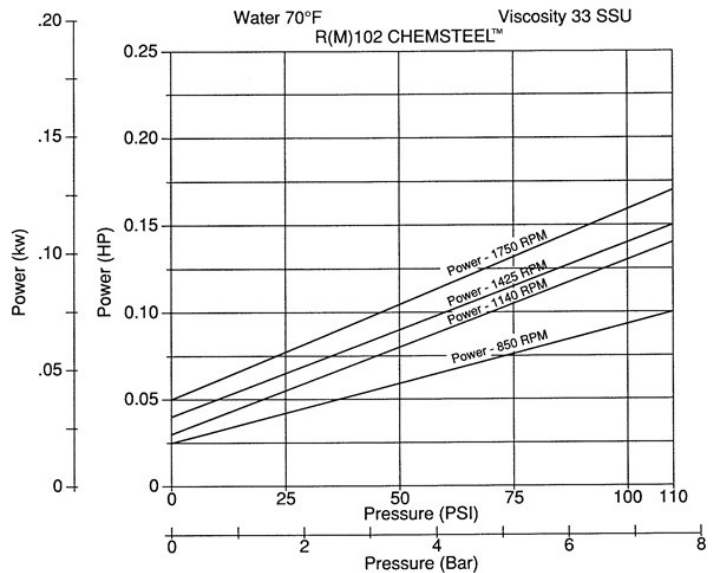
- Gear/bearing design allows for “trimming” for optimizing the pump’s maximum flow to reach minimum turndown or to match flow to a specific OEM’s requirement.
- Special materials combinations are available for specific liquids:
- Stainless or Alloy C housing construction.
- Gears available in 316 stainless, Alloy C. Also in Polytetrafluoroethylene (PTFE), and Polyetheretherketone.
- Shafts are 316 stainless steel or Alloy C.
- Bearings available in carbon or Polytetrafluoroethylene (PTFE)
- Full range of seal options including lip seal, packing and mechanical designs.

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

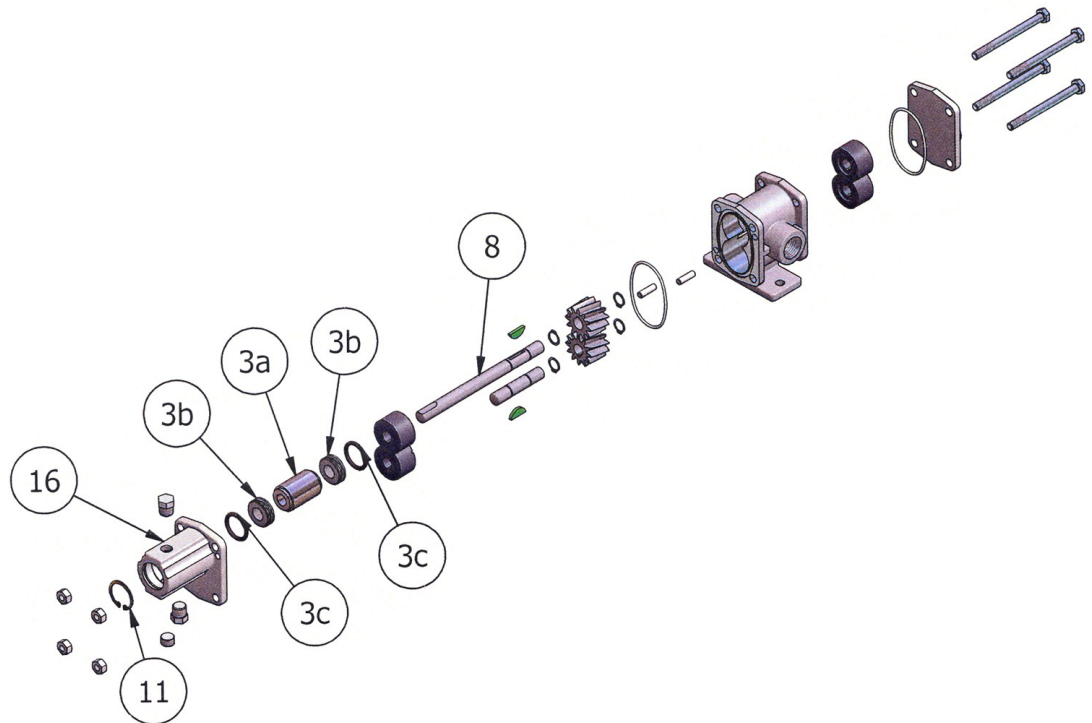
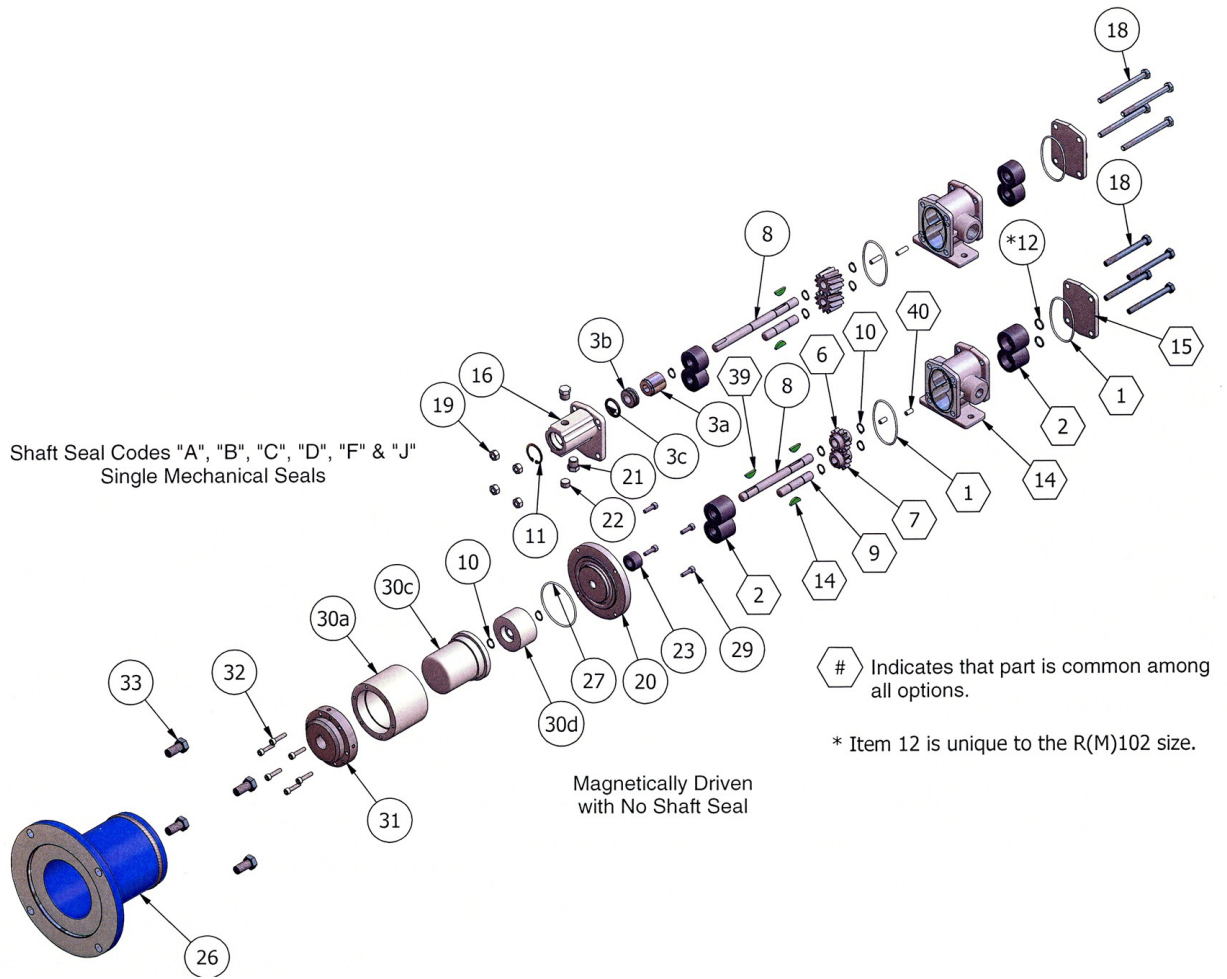
This pump is suitable to handle clear lubricating and non-lubricating fluids at temperatures to 450F. These pumps will handle viscous fluids to 100,000 cps (462,000 SSU) at reduced shaft speeds.



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.

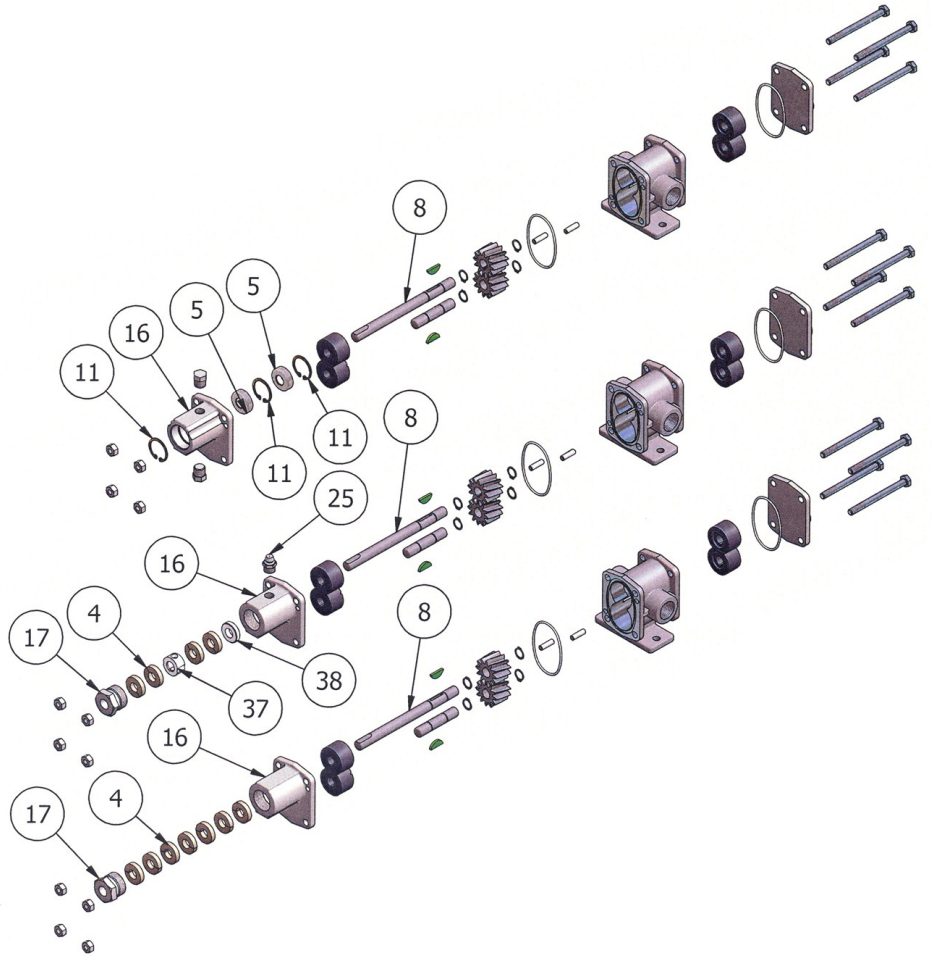
EXPLODED VIEW AND PARTS LIST





Shaft Seal Codes "L" & "M"
Packing with Lante.

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



SERIES R102 / RM102 METAL PUMPS

Revised 01/27/05

CHEMkit Parts

No.	Part No.	Part Name	Req.	GEAR CODE															
				2	3	4	5	7	9						E	F			
6	2315	Drive Gear-316 SS	1																
6	2320	Drive Gear-PEEK	1																
6	2319	Drive Gear-Alloy C	1																
6	2317	Drive Gear-Teflon	1																
7	2315	Idle Gear-316 SS	1																
7	2320	Idle Gear-PEEK	1																
7	2319	Idle Gear-Alloy C	1																
7	2317	Idle Gear-Teflon	1																

BEARING CODE	
C	P

No.	Part No.	Part Name	Req.	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	33095	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																					
12	2336	Wave Spring (Alloy C)	2																					
39	9524	Key, Woodruff	1																					
14	9524	Key, Woodruff	2																					

Other Parts

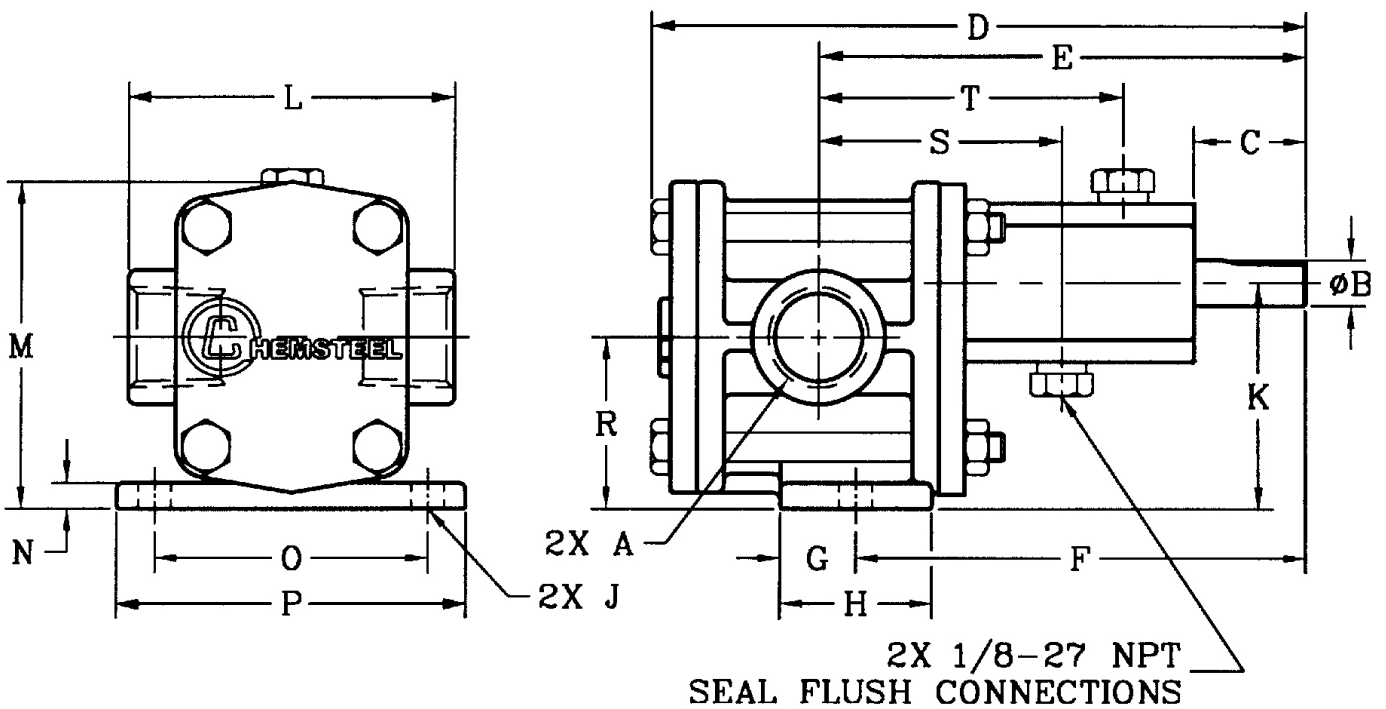
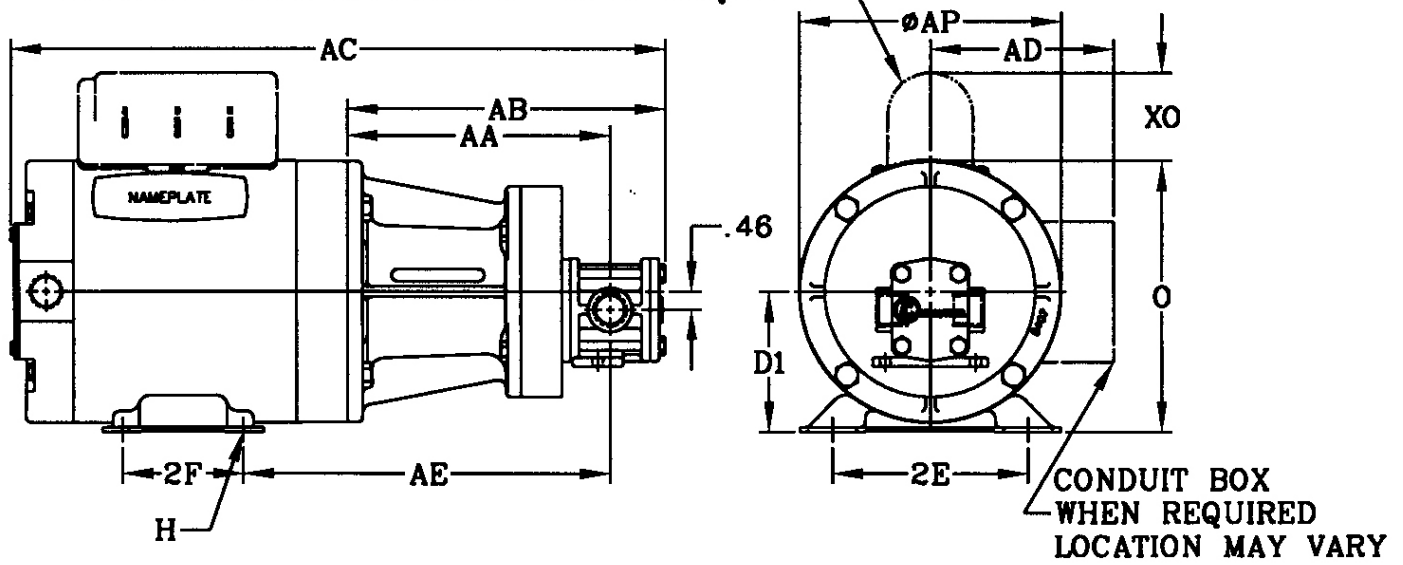
No.	Part No.	Part Name	Req.	SEAL CODE's																			MAG CODE's	
				A	B	C	D	F	G	H	J	Z	L	N	P	Q	R	S	T	M	W			
14	9127S-1P	Body with 1/4" NPT Ports (Stainless)	1																					
14	9127H-1P	Body with 1/4" NPT Ports (Alloy C)	1																					
15	9128S-1	Rear Cover (Stainless)	1																					
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	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	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
R102 M	R10212CA	R10212CAK
	R10212CB	R10212CBK
	R10212CB-C1	R10212CB-C1K
	R10212CB-C2	R10212CB-C2K
	R10212CB-E	R10212CB-EK
	R10212CZ	R10212CZK
	R10212CZ-C1	R10212CZ-C1K
	R10212PB	R10212PBK
	R10212PB-C1	R10212PB-C1K
	R10212PC	R10212PCK
	R10213CA	R10213CAK
	R10213CB	R10213CBK
	R10213CB-C1	R10213CB-C1K
	R10213CC	R10213CCK
	R10213CC-C1	R10213CC-C1K
	R10213CL-E	R10213CL-EK
	R10213PA	R10213PAK
	R10213PA-C1	R10213PA-C1K
	R10213PB	R10213PBK
	R10213PB-C1	R10213PB-C1K
	R10213PZ	R10213PZK
	R10213PZ-C1	R10213PZ-C1K
	R10216CA	R10216CAK
	R10216CA-C1	R10216CA-C1K

DIMENSIONS

CAPACITOR CASE AND GASKET WHEN REQUIRED



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. The upper shaft configuration lends itself to in-line pump seal maintenance without the leakage of trapped chemicals from an incompletely drained pump. 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 1/4" 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. “Near” dimensional interchangeability offers easy upgrade to CHEMSTEEL™ pump. The port size is the same as competitive pumps.