



Series EM-Pak

Power Units

Catalog 2600-560/USA

B



Warranty

The hydraulic components on these Parker Power Units are warranted for two years. This warranty may be extended to three years by using and properly maintaining Parker filters.

Installation Data:

See Installation/Maintenance Manual for specific recommendations pertaining to start-up, system cleanliness, fluids, temperature and other important factors relative to proper installation and use of these power units.



Standard Features

- Horizontal Design
- Close Coupled Motor
- Suction Strainer
- Glycerine Filled Pressure Gage with Shut Off
- Oil Level Gage with Thermometer
- Relief Valve (Except on NR Option)
- Breather and Fill Cap
- SAE Drain Plug

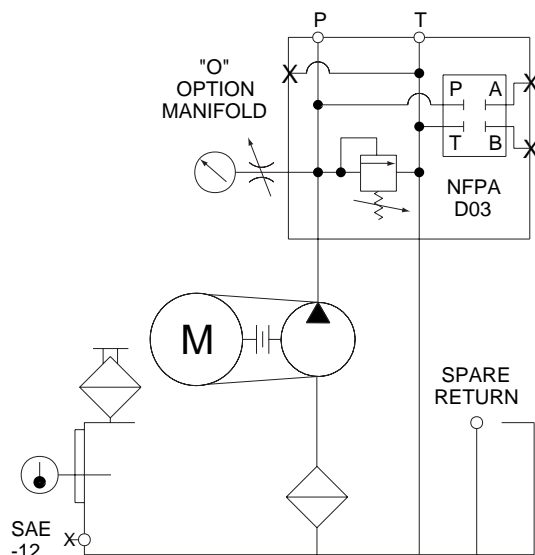
Benefits

- Easy Maintenance
- Eliminates Mounting Adapter and Potential for Misalignment
- Protects Pump from Contamination
- Improved Diagnostics
- Helps to Maintain Trouble-Free Performance
- Protects Against System Shock
- Easy To Fill Reservoir
- Prevents Leaks

Schematic Symbol

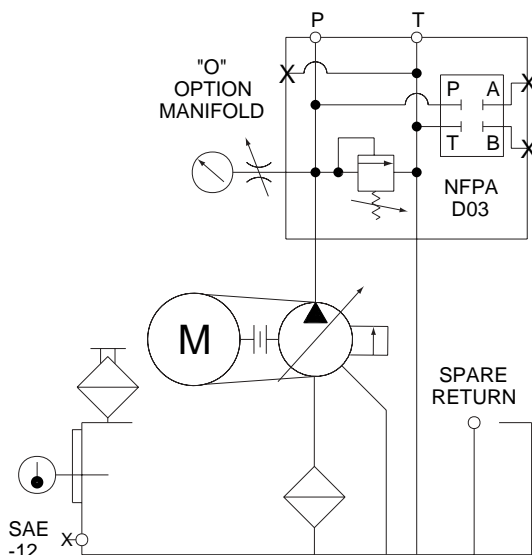
(Hydraulic Schematic - Basic Unit)

EM-PAK BASIC UNIT WITH GEAR PUMP
 NO OPTIONS OR ACCESSORIES
 "O" OPTION MANIFOLD



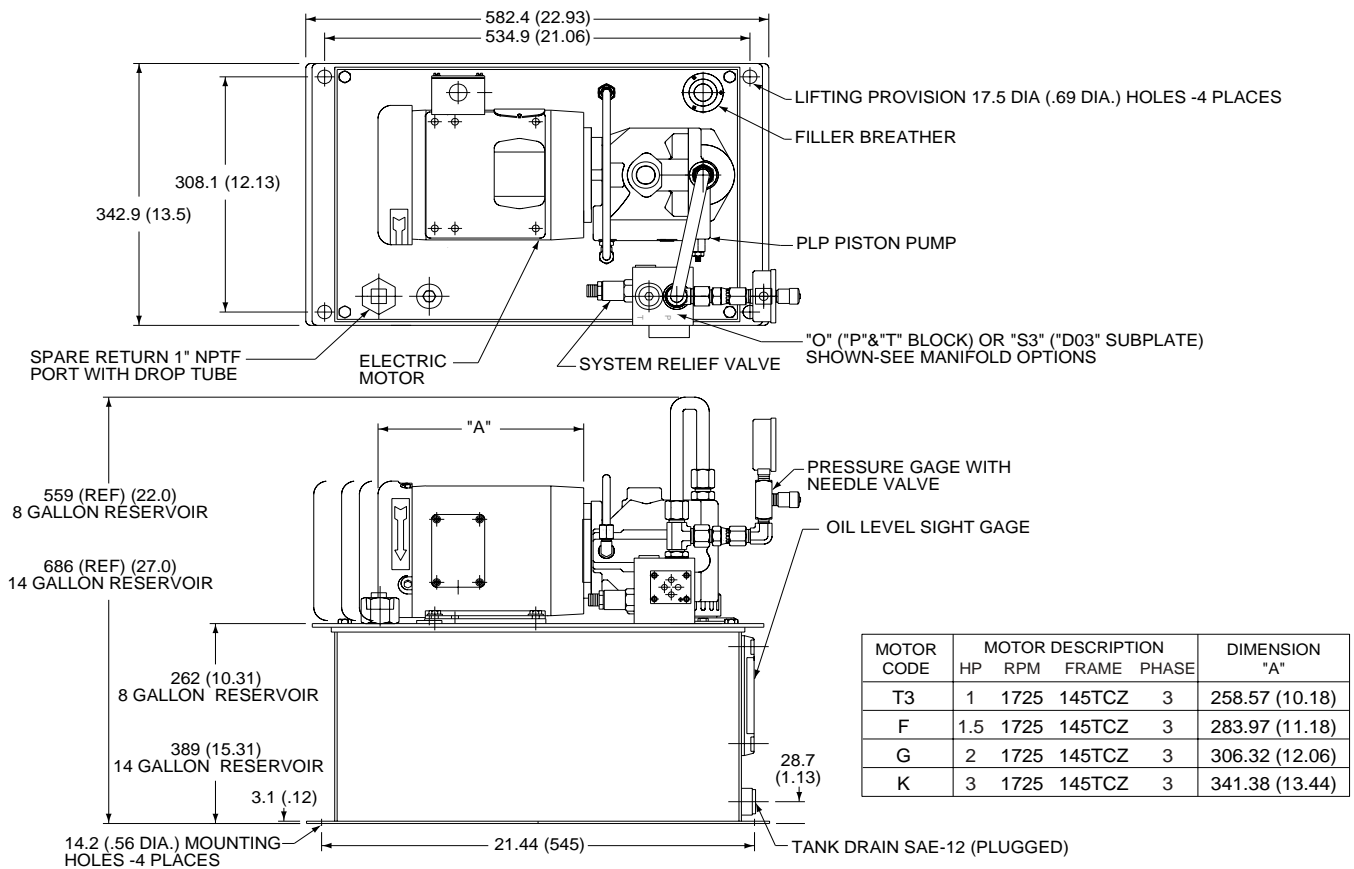
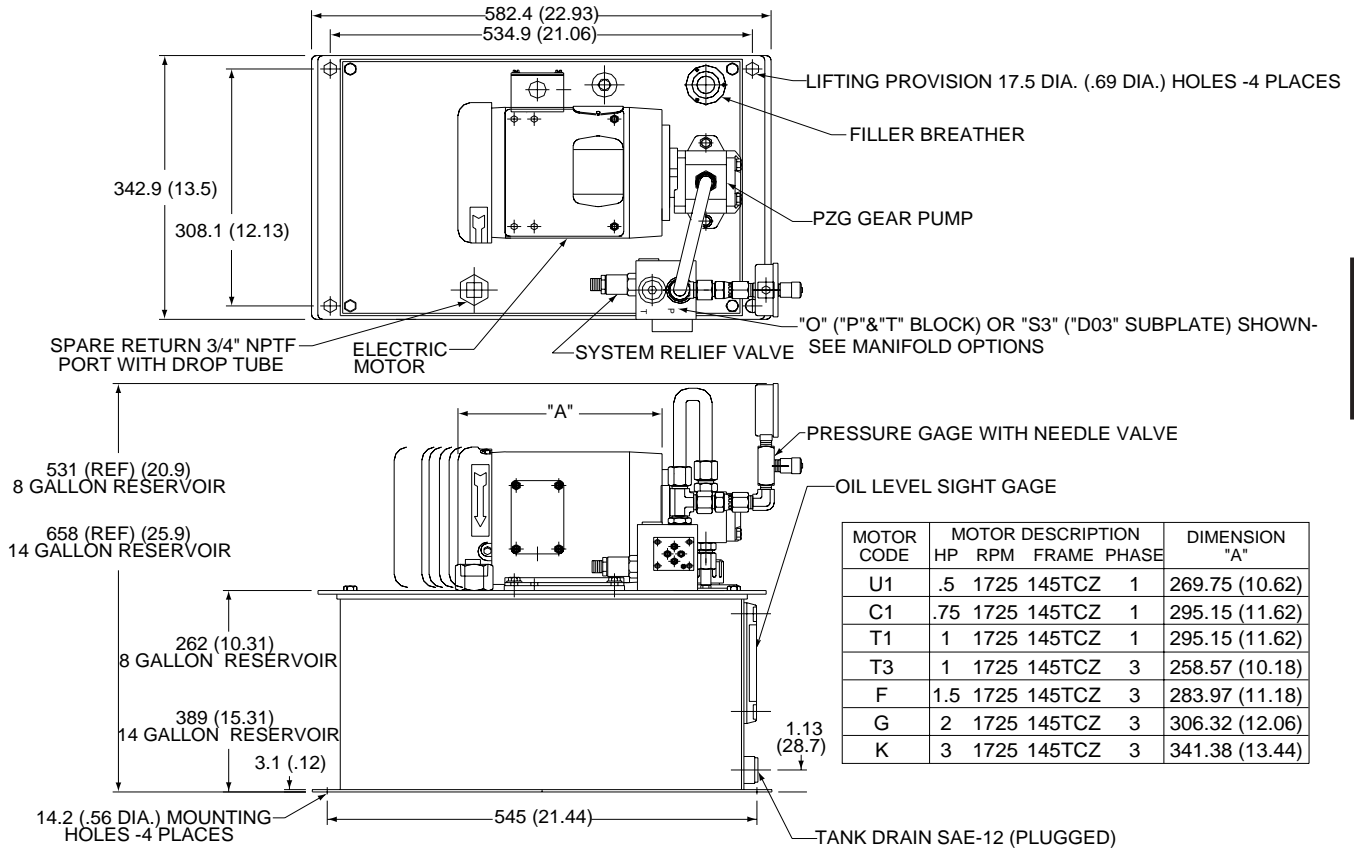
HYDRAULIC SCHEMATIC

EM-PAK BASIC UNIT WITH PISTON PUMP
 NO OPTIONS OR ACCESSORIES
 "O" OPTION MANIFOLD

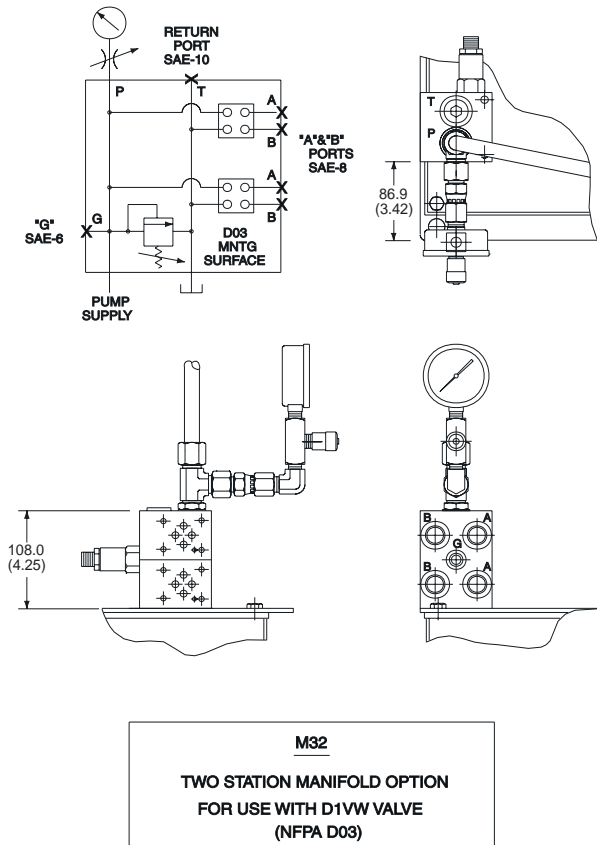
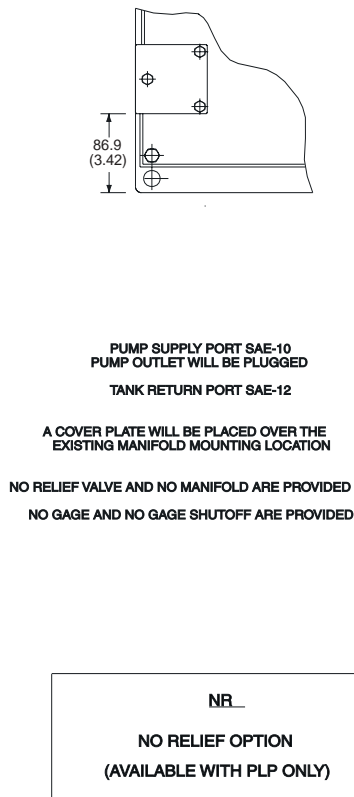
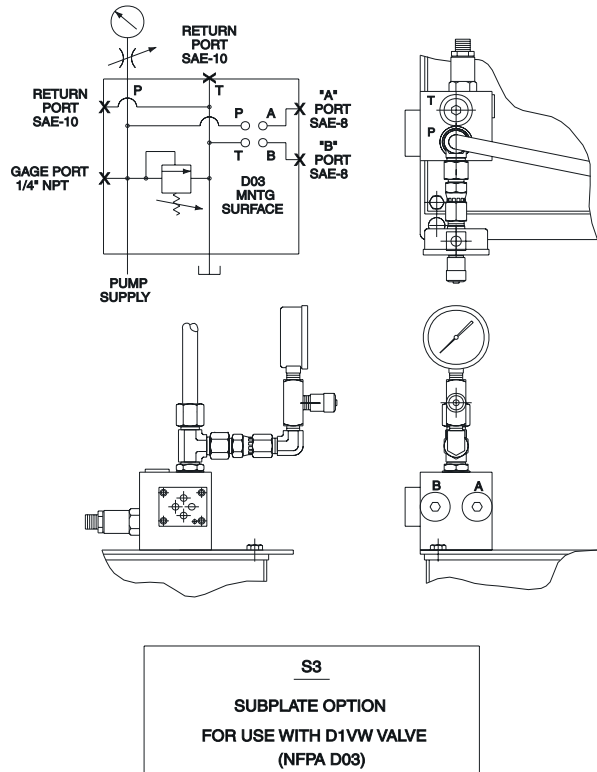
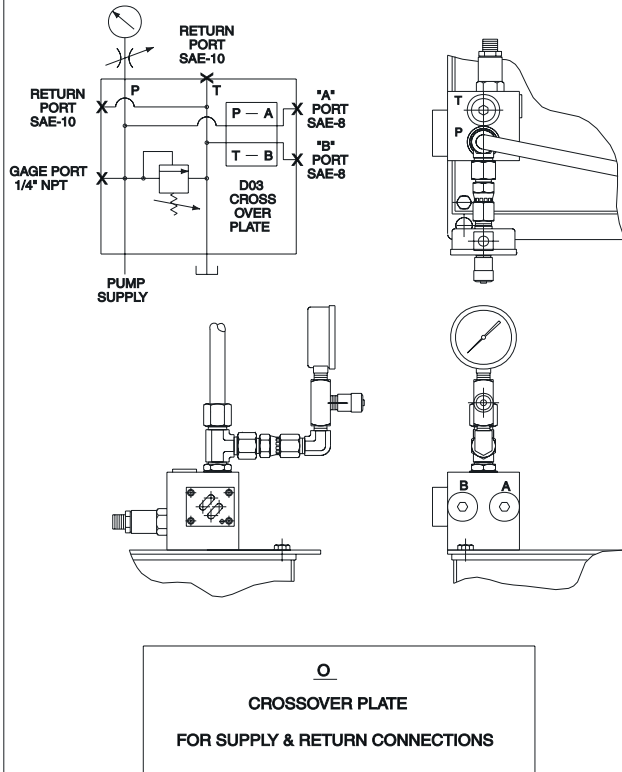


HYDRAULIC SCHEMATIC

Dimensions



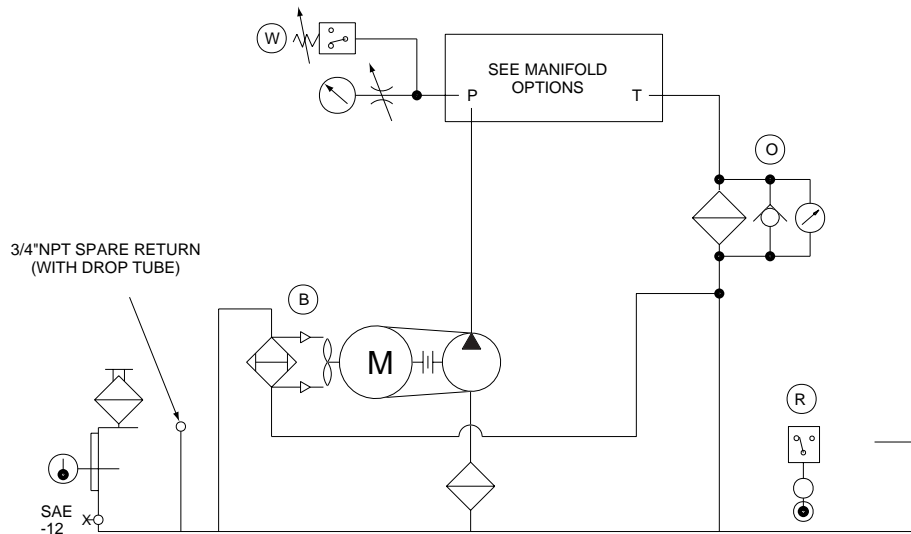
Manifold Options



Accessory Options

ACCESSORY OPTIONS - EM PAK WITH GEAR PUMP

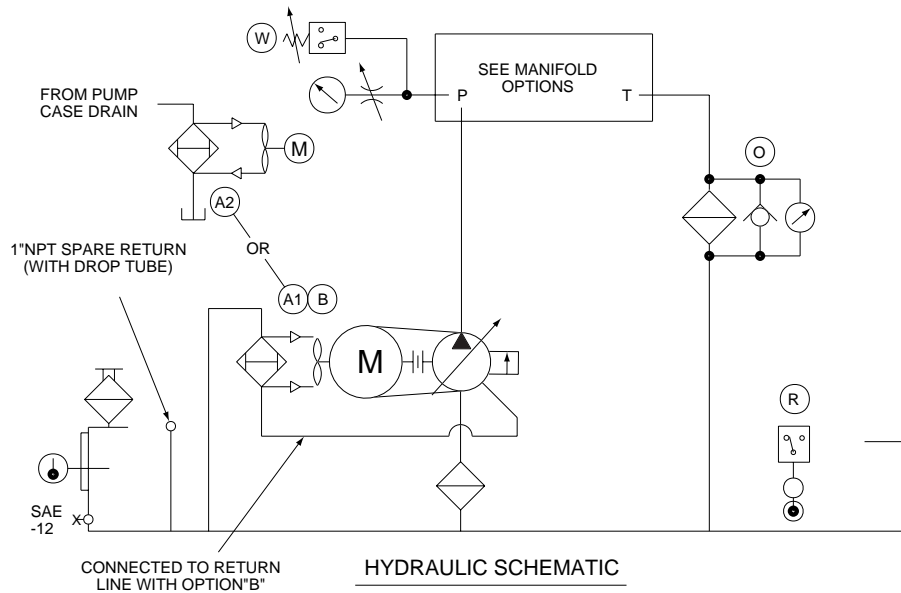
- OPTION (B) RETURN LINE AIR/OIL HT.EXCH.
- OPTION (O) RETURN LINE FILTER
- OPTION (R) COMB.TEMP/LEVEL SWITCH (R1 OR R2)
- OPTION (W) PRESSURE SWITCH (W1 OR W2)



HYDRAULIC SCHEMATIC

ACCESSORY OPTIONS - EM PAK WITH PISTON PUMP

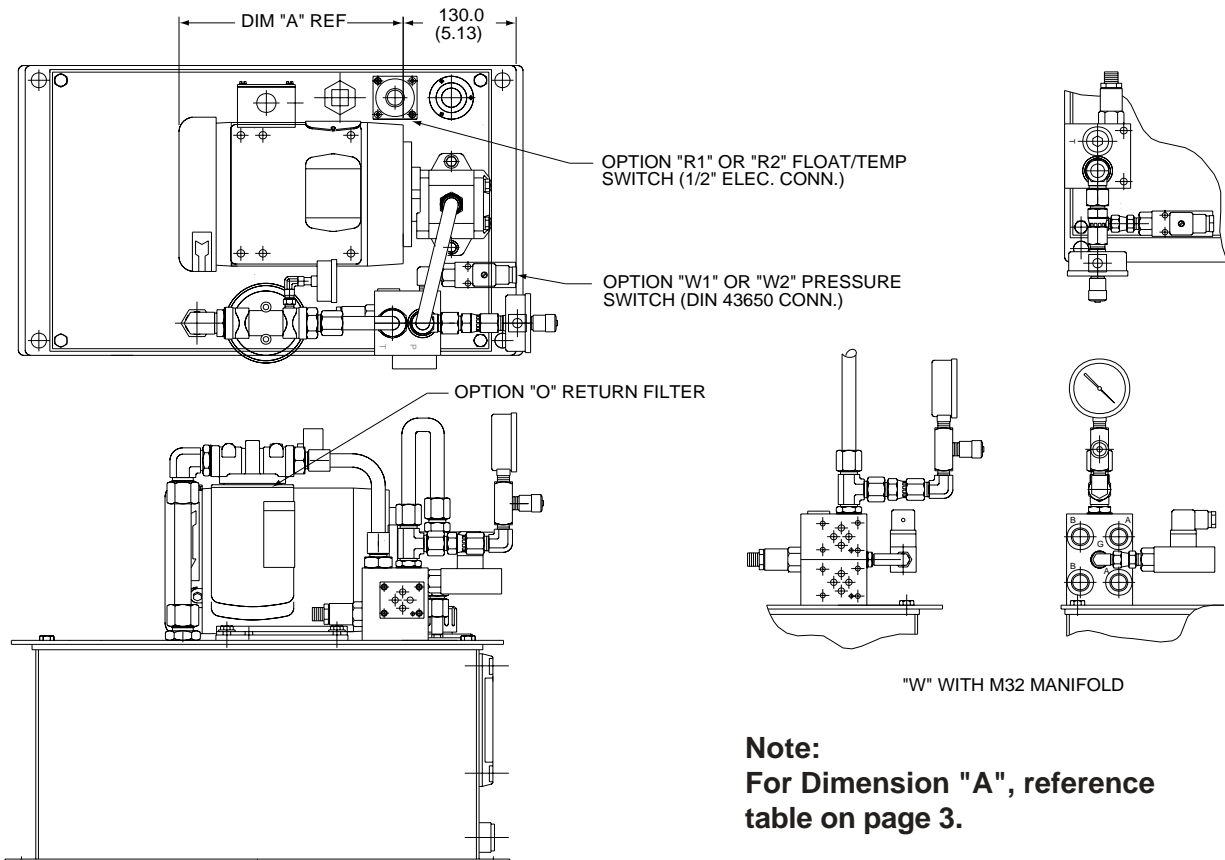
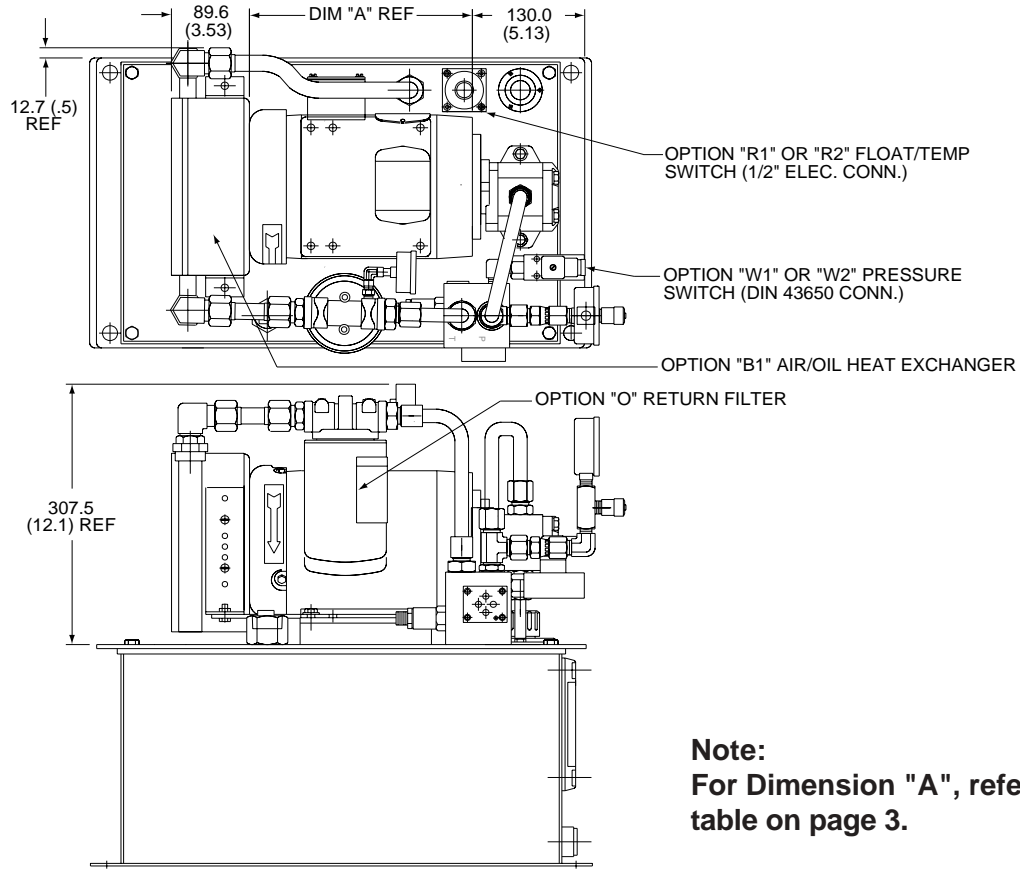
- OPTION (A) PUMP CASE AIR/OIL HT.EXCH.
- OPTION (B) RETURN LINE AIR/OIL HT.EXCH.
- OPTION (O) RETURN LINE FILTER
- OPTION (R) COMB.TEMP/LEVEL SWITCH (R1 OR R2)
- OPTION (W) PRESSURE SWITCH (W1 OR W2)



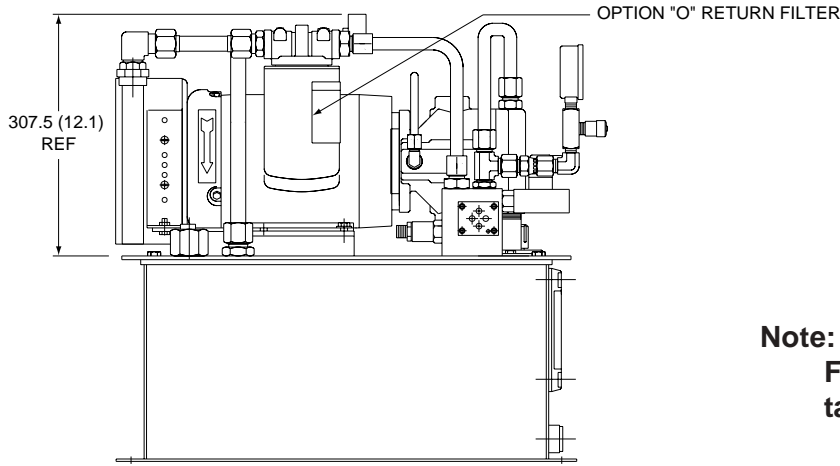
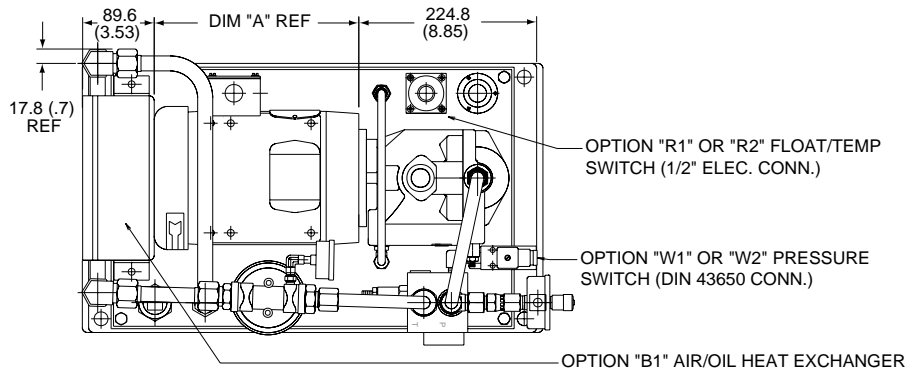
HYDRAULIC SCHEMATIC



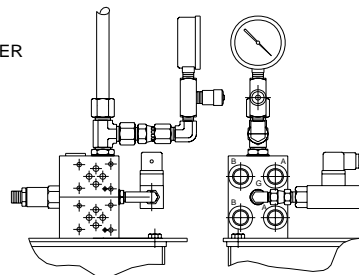
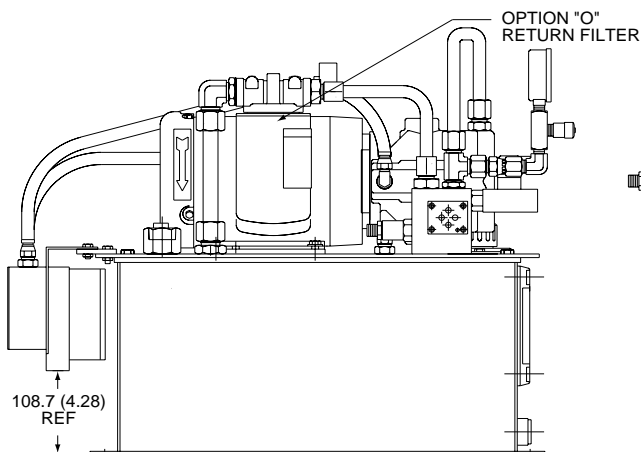
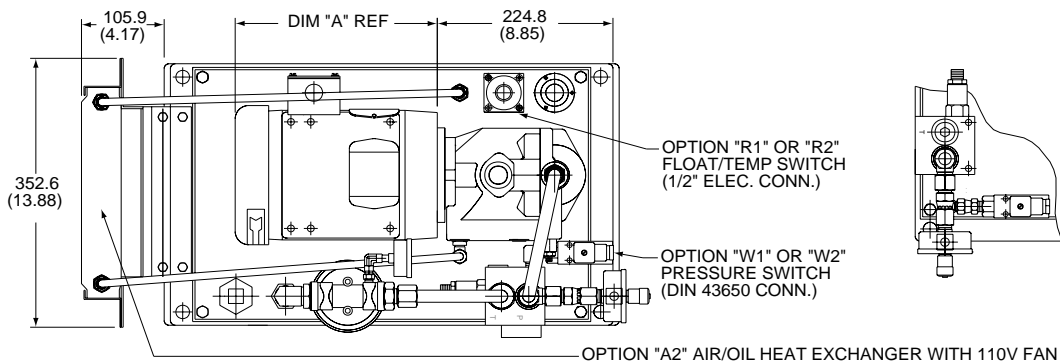
Dimensions – EM-Pak with Gear Pump



Dimensions – EM-Pak with Piston Pump



Note:
 For Dimension "A", reference table on page 3.



"W" WITH M32 MANIFOLD

Note:
 For Dimension "A", reference table on page 3.



Performance Data

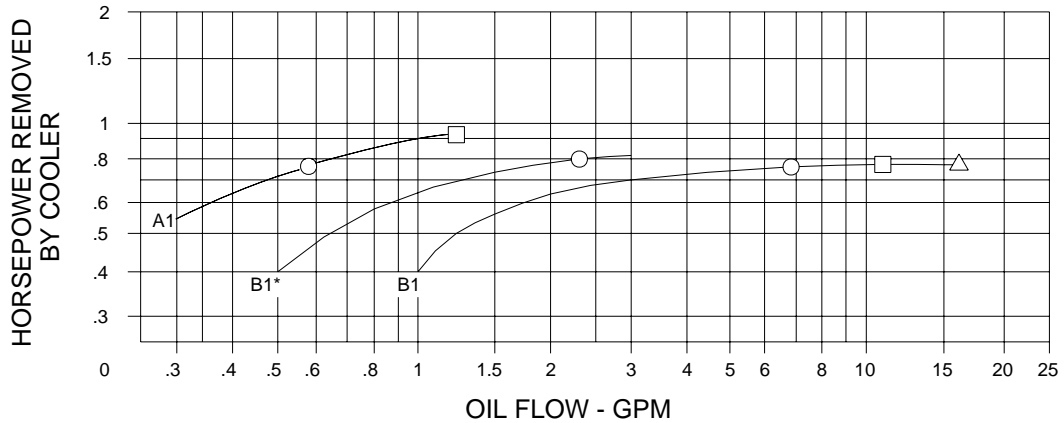
**EM PAK - PUMP/MOTOR COMBINATIONS
 MAXIMUM OPERATING PRESSURES**

PUMP TYPE	PUMP CODE FLOW AT 1725 RPM	MOTOR HP					
		.5	.75	1	1.5	2	3
GEAR PUMP	0.6	1140	1700	2280	3420		
	0.9	810	1220	1620	2430	3240	
	1.2	630	940	1260	1880	2510	3770
	1.8	430	640	860	1280	1720	2570
	2.3	330	500	670	1000	1340	2010
	2.7	290	440	580	870	1170	1750
PISTON PUMP	3.2	N/A	N/A	350	570	800	1280
	3.6	N/A	N/A	310	520	750	1160
	4.5	N/A	N/A	240	400	580	910
	5.5	N/A	N/A	190	340	480	740
	6.4	N/A	N/A	170	300	400	660
	7.3	N/A	N/A	150	250	330	540

**** REPRESENTS MAX. OPERATING PRESSURE WITH PUMP/MOTOR COMBINATION. THIS WILL BE THE MAXIMUM RELIEF VALVE SETTING.

**** REPRESENTS MAX. OPERATING PRESSURE WITH PUMP/MOTOR COMBINATION. WHEN USED ON POWER UNIT PRODUCTS THIS WILL REPRESENT A 3000 PSI RELIEF VALVE SETTING.

**AIR/OIL HEAT EXCHANGERS
 "A1" & "B1" USED WITH 1800 RPM TEFC MOTORS**



- "A1" - PUMP CASE HT.EX.(USED WITH PISTON PUMPS)
- "B1" - RETURN LINE HT.EX.(USED WITH PISTON PUMPS)
- "B1*" - RETURN LINE HT.EX.(USED WITH GEAR PUMPS)

- OIL PRESSURE DROP AT 100 SSU
- =5 PSI
 - =10 PSI
 - △ =20 PSI

HEAT REMOVAL IS BASED ON 40°F DIFFERENTIAL BETWEEN TRANSFER MEDIUM.

HORSEPOWER REMOVED BY RESERVOIR

HP REMOVAL	RESERVOIR SIZE(GALLONS)	
	8	14
	0.22	0.34

HEAT REMOVAL IS BASED ON STATIC AMBIENT AIR OF 85°F AND MAX.OIL TEMPERATURE OF 135°F.

PLP Pump Specifications

Pressure Ratings

Outlet Port: 105 bar (1500 PSI) Continuous (P1)

Inlet Port: 1.72 bar (25 PSI) Maximum
 5 In. Hg. Minimum @ 1800 RPM
 (See inlet chart for other speeds.)

Speed Ratings: 600 to 2200 RPM

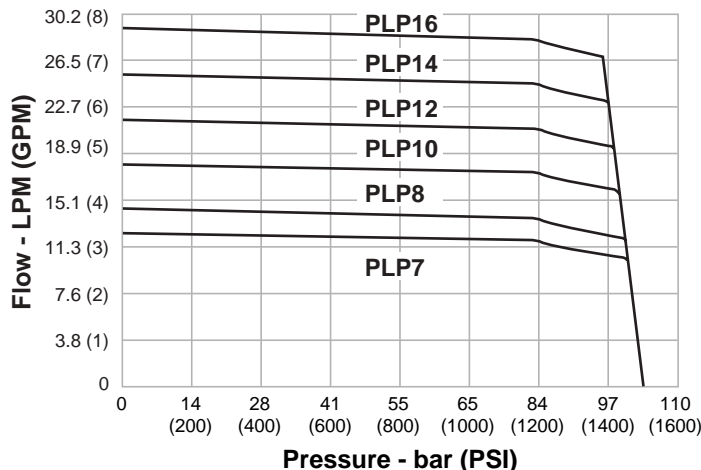
Operating Temperature Range: -40°C to 71°C
 -40°F to 160°F

Housing Material: Cast-Iron

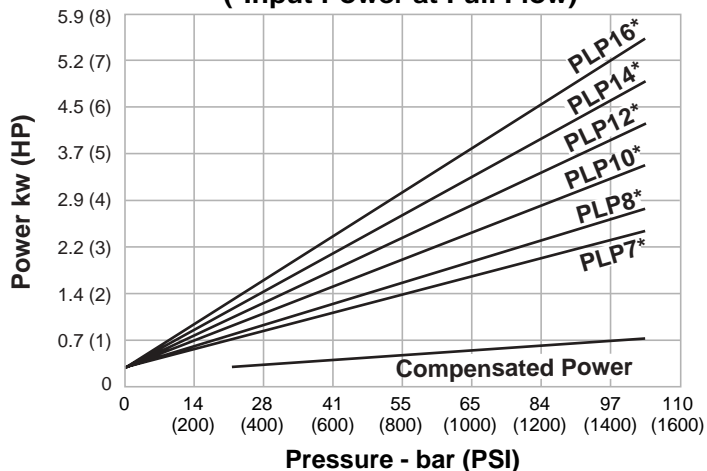
Filtration: Maintain SAE Class 4,
 ISO 16/13,
 ISO 18/15 Maximum

Mounting: SAE "A" 2-Bolt

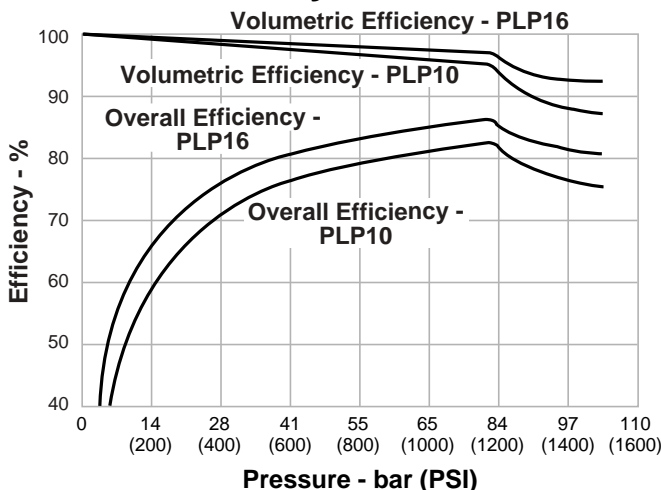
Flow vs. Pressure @ 1800 RPM



Input Power vs. Pressure @ 1800 RPM
 (*Input Power at Full Flow)



Efficiency @ 1800 RPM



All performance data represents operation @ 120°F on 100 SSU fluid.

Quick Reference Data Chart

PLP	Displacement cc/rev (in ³ /rev)	Pump Delivery @ 21 bar (300 PSI) in LPM (GPM)		Power At Max. Displacement & kw (1500 PSI in HP)	
		1200 RPM	1800 RPM	1200 RPM	1800 RPM
16	16 (1.0)	18.9 (5.0)	28.8 (7.6)	3.7 (4.9)	5.6 (7.5)
14	14 (0.9)	16.3 (4.3)	25.0 (6.6)	3.2 (4.3)	4.9 (6.6)
12	12 (0.7)	14.0 (3.7)	21.6 (5.7)	2.8 (3.7)	4.2 (5.6)
10	10 (0.6)	11.7 (3.1)	17.8 (4.7)	2.3 (3.1)	3.5 (4.7)
8	8 (0.5)	9.1 (2.4)	14.0 (3.7)	1.9 (2.5)	2.8 (3.8)
7	7 (0.4)	7.9 (2.1)	12.5 (3.3)	1.6 (2.2)	2.5 (3.4)

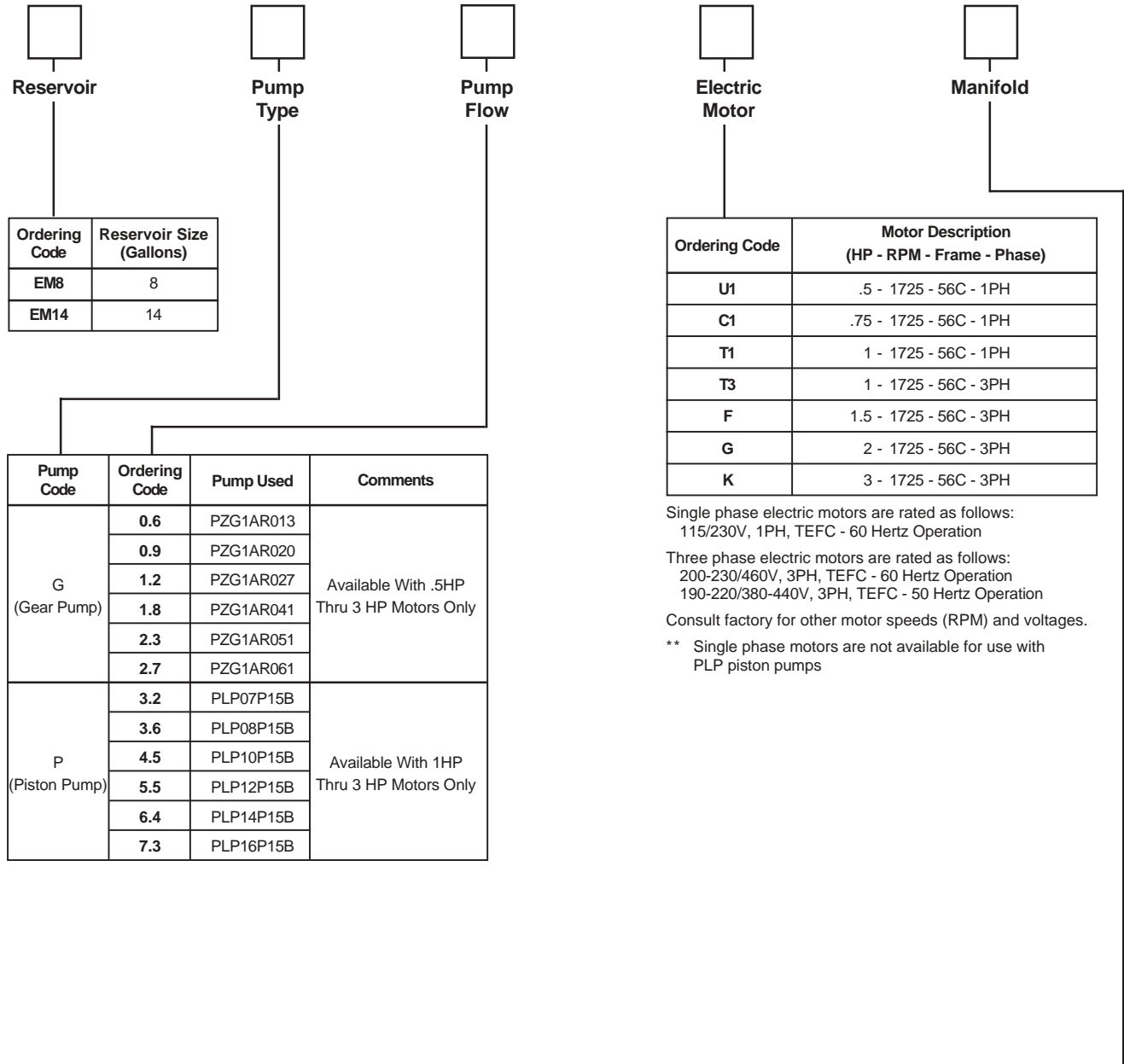
***Approximate Noise Levels dB (A)
 @ full flow 1800 RPM (1200 RPM)**

34 bar (500 PSI)	69 bar (1000 PSI)	105 bar (1500 PSI)
69 (74)	70 (75)	71 (76)

* Since many variables such as mounting, tank style, plant layout, etc., effect noise levels, it cannot be assumed that the above readings will be equal to those in the field. The above values are for guidance in selecting the proper pump. Noise levels are A-weighted, mean sound pressure levels at 1 meter from the pump, measured and recorded in accordance with applicable ISO and NFPA standards.



EM-Paks



Ordering Code	Reservoir Size (Gallons)
EM8	8
EM14	14

Pump Code	Ordering Code	Pump Used	Comments
G (Gear Pump)	0.6	PZG1AR013	Available With .5HP Thru 3 HP Motors Only
	0.9	PZG1AR020	
	1.2	PZG1AR027	
	1.8	PZG1AR041	
	2.3	PZG1AR051	
	2.7	PZG1AR061	
P (Piston Pump)	3.2	PLP07P15B	Available With 1HP Thru 3 HP Motors Only
	3.6	PLP08P15B	
	4.5	PLP10P15B	
	5.5	PLP12P15B	
	6.4	PLP14P15B	
	7.3	PLP16P15B	

Ordering Code	Motor Description (HP - RPM - Frame - Phase)
U1	.5 - 1725 - 56C - 1PH
C1	.75 - 1725 - 56C - 1PH
T1	1 - 1725 - 56C - 1PH
T3	1 - 1725 - 56C - 3PH
F	1.5 - 1725 - 56C - 3PH
G	2 - 1725 - 56C - 3PH
K	3 - 1725 - 56C - 3PH

Single phase electric motors are rated as follows:
 115/230V, 1PH, TEFC - 60 Hertz Operation

Three phase electric motors are rated as follows:
 200-230/460V, 3PH, TEFC - 60 Hertz Operation
 190-220/380-440V, 3PH, TEFC - 50 Hertz Operation

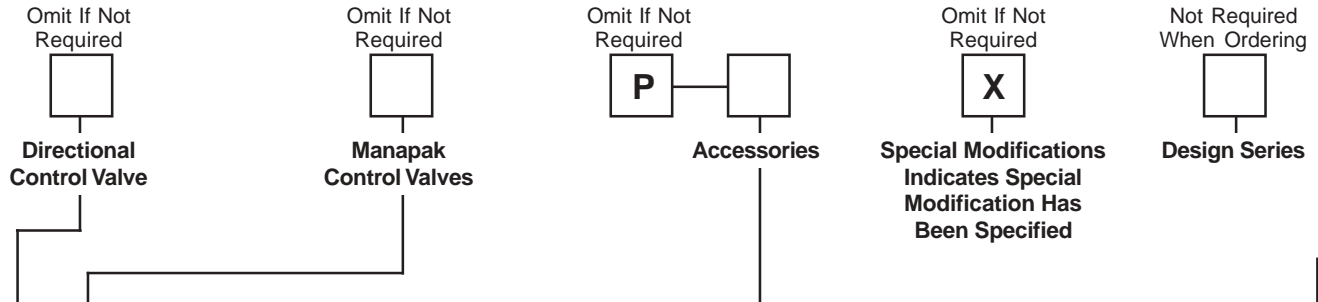
Consult factory for other motor speeds (RPM) and voltages.

** Single phase motors are not available for use with PLP piston pumps

Ordering Code	Porting Block/Subplate or Manifold Type	Port Size
NR	No Manifold & No Relief Valve Piston Pump Outlet is Plugged	Piston Pump Outlet is SAE-10
O	Pressure and Return Port Block with Safety Relief Valve	"A" & "B" Ports SAE-8 Str. Thr'd
S3	D03 Single Station Subplate with Safety Relief Valve	
M32	D03 Two Station Parallel Circuit Manifold with Safety Relief Valve	"A" & "B" Ports SAE-8 Str. Thr'd

* The NR Option is not available with Gear Pumps. Gear Pumps require a relief valve for safe operation.

EM-Paks



Ordering Code	Function	Valve Model Number	NFPA Mounting Pad	Nominal Flow (GPM)	Circuit Symbol
1	Flow Control	FM2DDKN	D03	7	
3	Pilot Operator Check	CPOM2DDN	D03	7	
5	"P" Port Check	CM2PPN	D03	7	
7	"P" Port Pressure Reducing	PRM2PP25KN (150-3000)	D03	6	

Ordering Code	Function	Model Number	Technical Data
A 1*	Pump Case Heat Exchanger	RM-08-4-2	Air/Oil: .7HP Rejection @ .5 GPM (Only for Piston Pumps)
A 2*	Pump Case Heat Exchanger	877337	Air/Oil: 1.5HP Rejection @ .5 GPM (Only for Piston Pumps)
B 1*	Return Heat Exchanger	RM-08-*2	Air/Oil: .7HP Rejection @ 7 GPM
O	Return Filter	12AT10C	Cellulose Element Ind. Gage - 15 PSI Bypass (12 GPM Max. Oil Flow)
R 1	Combination Float/Temp. SW N.O. Float Up	876361-*	Fixed Temp at 149°F Close @ Low Level And/Or 149°F (N.O.)
R 2	Combination Float/Temp. SW N.C. Float Up	876360-*	Fixed Temp at 150°F Open @ Low Level And/Or 150°F (N.C.)
W 1	Pressure Switch ("P") 90-700 PSI	876371-01	N.O. & N.C. Contacts (SPDT Switch) DIN 43650 Connector 5A @ 125/250VAC Induct 7A @ 12/25VDC Induct
W 2	Pressure Switch ("P") 700-3000 PSI	876731-02	

* Heat rejection based on flow given with a 40°F differential between transfer medium.

Options "A1" and "B1" are mounted to the rear of the motor. Only one of these options is available for use on the unit.

Ordering Code	Valve Model Number	NFPA Mounting Pad	Nominal Flow (GPM)	Solenoid Operator -110 VAC	Circuit Symbol
A	D1VW20BNCYCF	D03	7	Single (Spr. Ret)	
B	D1VW1CNCYCF	D03	7	Double (Spr. Ctr)	
C	D1VW4CNCYCF	D03	7	Double (Spr. Ctr)	
D	D1VW20DNCYCF	D03	7	Double (Detent)	
N	Cover Plate	D03	-	-	
S	D1VW2CNCYCF	D03	7	Double (Spr. Ctr.)	
T	D1VW8CNCYCF	D03	7	Double (Spr. Ctr.)	



