

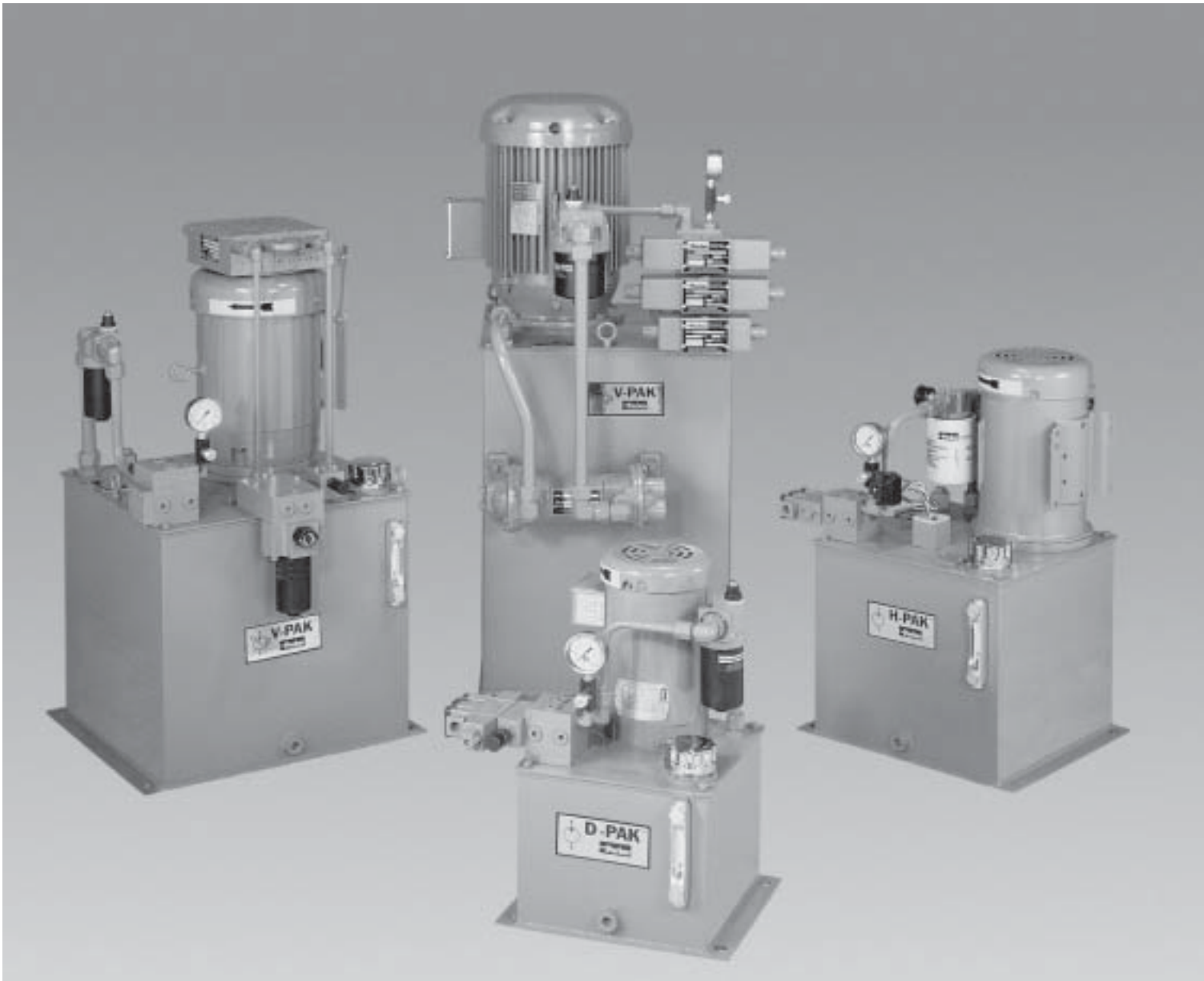


Hydraulic Power Units

D, H and V-Pak Series

HY13-2600-500-002/US

B





Quick Reference Data Chart

| Pump Model No. | Tank Size Liters (Gallon) | Pump Flow LPM (GPM) @ 1725 RPM | Electrical Motors KW (HP) | Maximum* Bar (PSI) |
|----------------|--|--------------------------------------|---------------------------------|-----------------------|
| D-Paks | 18.9 (5) | 2.2 - 10.2 (0.9 - 2.7) | .37 KW (.5 HP) - 2.24KW (3 HP) | 207 (3000) |
| H-Paks | 37.9 (10), 75.7 (20), 113.6 (30), 151.4 (40) | 2.2 - 46.6 (0.9- 12.3) | 37 KW (.5 HP) - 14.9 KW (20 HP) | 207 (3000) |
| V-Paks | 37.9 (10), 75.7 (20), 113.6 (30), 151.4 (40) | 7.6 - 59.1 (2.0 - 15.6) | 1.5 KW (2 HP) - 14.9 KW (20 HP) | 207 (3000) |

* See pump/motor combination, maximum pressure charts.

Warranty

The hydraulic components on these Parker Power Units are warranted for one year. This warranty may be extended to two 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

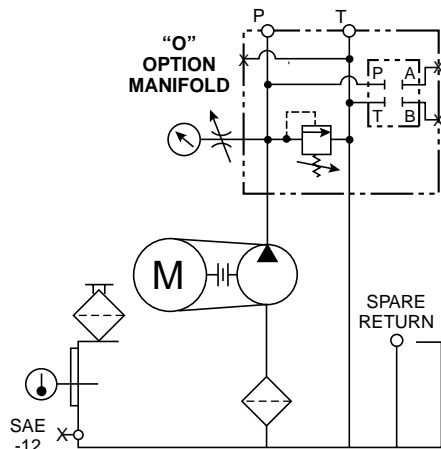
- Vertical Design
- Submerged Pump
- Spare Return Ports
- Precision Pump Mounting Adapters
- Suction Strainer
- Glycerine Filled Pressure Gage with Shut Off
- Oil Level Gage with Thermometer
- Relief Valve
- Breather and Fill Cap
- SAE Drain Plug
- Parker Connector Technology

Benefits

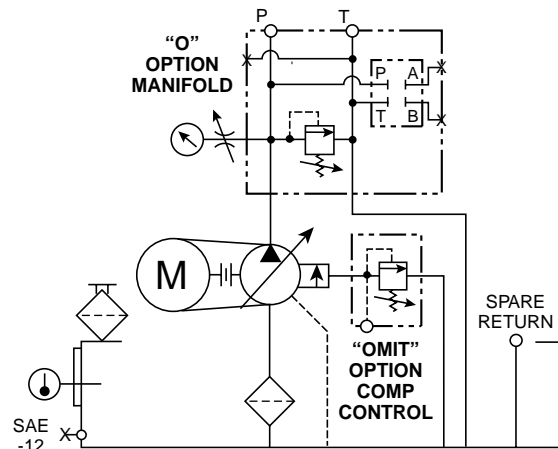
- Saves Floor Space
- Quieter Operation, Elimination of Potential Leak Point
- Longer Pump Life
- Protects Pump from Contamination
- Improved Diagnostics
- Helps to Maintain Trouble-Free Performance
- Protects Against System Shock
- Easy To Fill Reservoir
- Prevents Leaks

Schematic Symbol

(Hydraulic Schematic - Basic Unit)

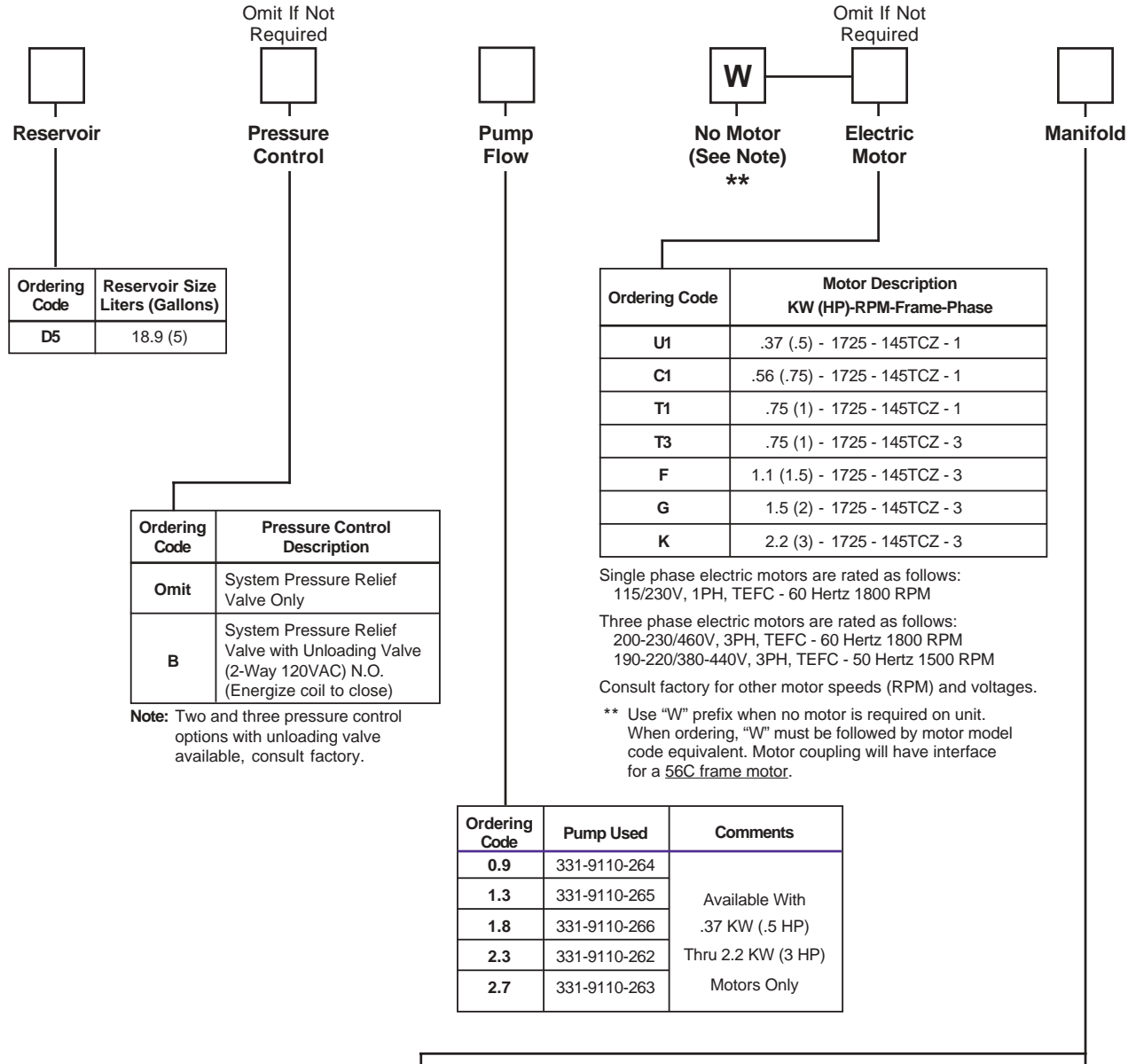


D & H-PAK BASIC UNIT
 NO OPTIONS OR ACCESSORIES
 "O" OPTION MANIFOLD



V-PAK BASIC UNIT
 NO OPTIONS OR ACCESSORIES
 "OMIT" OPTION PUMP COMPENSATOR
 "O" OPTION MANIFOLD

D-Paks



| Ordering Code | Reservoir Size Liters (Gallons) |
|---------------|---------------------------------|
| D5 | 18.9 (5) |

| Ordering Code | Pressure Control Description |
|---------------|--|
| Omit | System Pressure Relief Valve Only |
| B | System Pressure Relief Valve with Unloading Valve (2-Way 120VAC) N.O. (Energize coil to close) |

Note: Two and three pressure control options with unloading valve available, consult factory.

| Ordering Code | Motor Description KW (HP)-RPM-Frame-Phase |
|---------------|---|
| U1 | .37 (.5) - 1725 - 145TCZ - 1 |
| C1 | .56 (.75) - 1725 - 145TCZ - 1 |
| T1 | .75 (1) - 1725 - 145TCZ - 1 |
| T3 | .75 (1) - 1725 - 145TCZ - 3 |
| F | 1.1 (1.5) - 1725 - 145TCZ - 3 |
| G | 1.5 (2) - 1725 - 145TCZ - 3 |
| K | 2.2 (3) - 1725 - 145TCZ - 3 |

Single phase electric motors are rated as follows:
 115/230V, 1PH, TEFC - 60 Hertz 1800 RPM

Three phase electric motors are rated as follows:
 200-230/460V, 3PH, TEFC - 60 Hertz 1800 RPM
 190-220/380-440V, 3PH, TEFC - 50 Hertz 1500 RPM

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

** Use "W" prefix when no motor is required on unit. When ordering, "W" must be followed by motor model code equivalent. Motor coupling will have interface for a 56C frame motor.

| Ordering Code | Pump Used | Comments |
|---------------|--------------|--------------------|
| 0.9 | 331-9110-264 | |
| 1.3 | 331-9110-265 | Available With |
| 1.8 | 331-9110-266 | .37 KW (.5 HP) |
| 2.3 | 331-9110-262 | Thru 2.2 KW (3 HP) |
| 2.7 | 331-9110-263 | Motors Only |

| Ordering Code | Porting Block/Subplate or Manifold Type | Supply/Return Port or Actuator Port Size | Other |
|---------------|---|--|------------------------------|
| O | Pressure and Return Port Block with Safety Relief Valve | "P" & "T" Ports SAE-10 Str. Thr'd | Convertible to S3 Option |
| S3 | D03 Single Station Subplate with Safety Relief Valve | "A" & "B" Ports SAE-8 Str. Thr'd | Spare "P" & "T" SAE-10 Ports |
| M3 * | D03 Multistation Parallel Circuit Manifold with Safety Relief Valve | "A" & "B" Ports SAE-8 Str. Thr'd | Spare "G" Port SAE-6 |
| C3** | D03 Multistation Series Circuit Manifold with Safety Relief Valve | "A" & "B" Ports SAE-8 Str. Thr'd | Spare "G" SAE-6 |

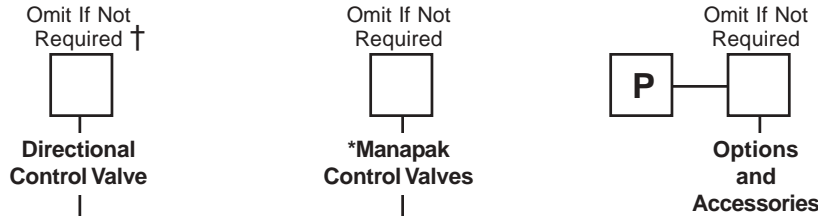
* When ordering Multi-Station Manifolds, the number of stations must be specified. If more than 5 stations required, consult factory. If valves are to be mounted, specify the valves and sequence. If the model code exceeds 25 digits, utilize the special ordering code X.

Example: D5 1.2 T1 M33X
 X= 3 Station Manifold
 Station #1: A
 Station #2: B
 Station #3: C4

NOTE:
 Manifolds are mounted vertically.
 Bottom station is number 1.

** Available in 2 and 3 stations.
 For shaded option C3, lead time is 2 weeks.

D-Paks



**Consult Factory
 For Special Modifications**

| Ordering Code | Function | Valve Model Number | NFPA Mounting Pad | Nominal Flow LPM(GPM) | Circuit Symbol |
|---------------|----------------------------|---|-------------------|-----------------------|----------------|
| 1 | Flow Control (Meter-Out) | FM2DDKN | D03 | 26.5 (7) | |
| 3 | Pilot Operator Check | CPOM2DDN | D03 | 26.5 (7) | |
| 5 | "P" Port Check | CM2PPN | D03 | 26.5 (7) | |
| 7 | "P" Port Pressure Reducing | PRDM2PP21KNS 2.76-210 Bar (44-3045 PSI) | D03 | 22.7 (6) | |

*Manapak valves mounted in order of callout. First valve will be nearest DCV; last valve will be on manifold.

| Ordering Code | Valve Model Number | NFPA Mounting Pad | Nominal Flow LPM(GPM) | Description | Circuit Symbol |
|---------------|--------------------|-------------------|-----------------------|--------------------|----------------|
| A | D1VW020BN*** | D03 | 26.5 (7) | Single (Spr. Ret) | |
| B | D1VW001CN*** | D03 | 26.5 (7) | Double (Spr. Ctr) | |
| C | D1VW004CN*** | D03 | 26.5 (7) | Double (Spr. Ctr) | |
| D | D1VW020DN*** | D03 | 26.5 (7) | Double (Detent) | |
| S | D1VW002CN*** | D03 | 26.5 (7) | Double (Spr. Ctr.) | |
| T | D1VW008CN*** | D03 | 26.5 (7) | Double (Spr. Ctr.) | |

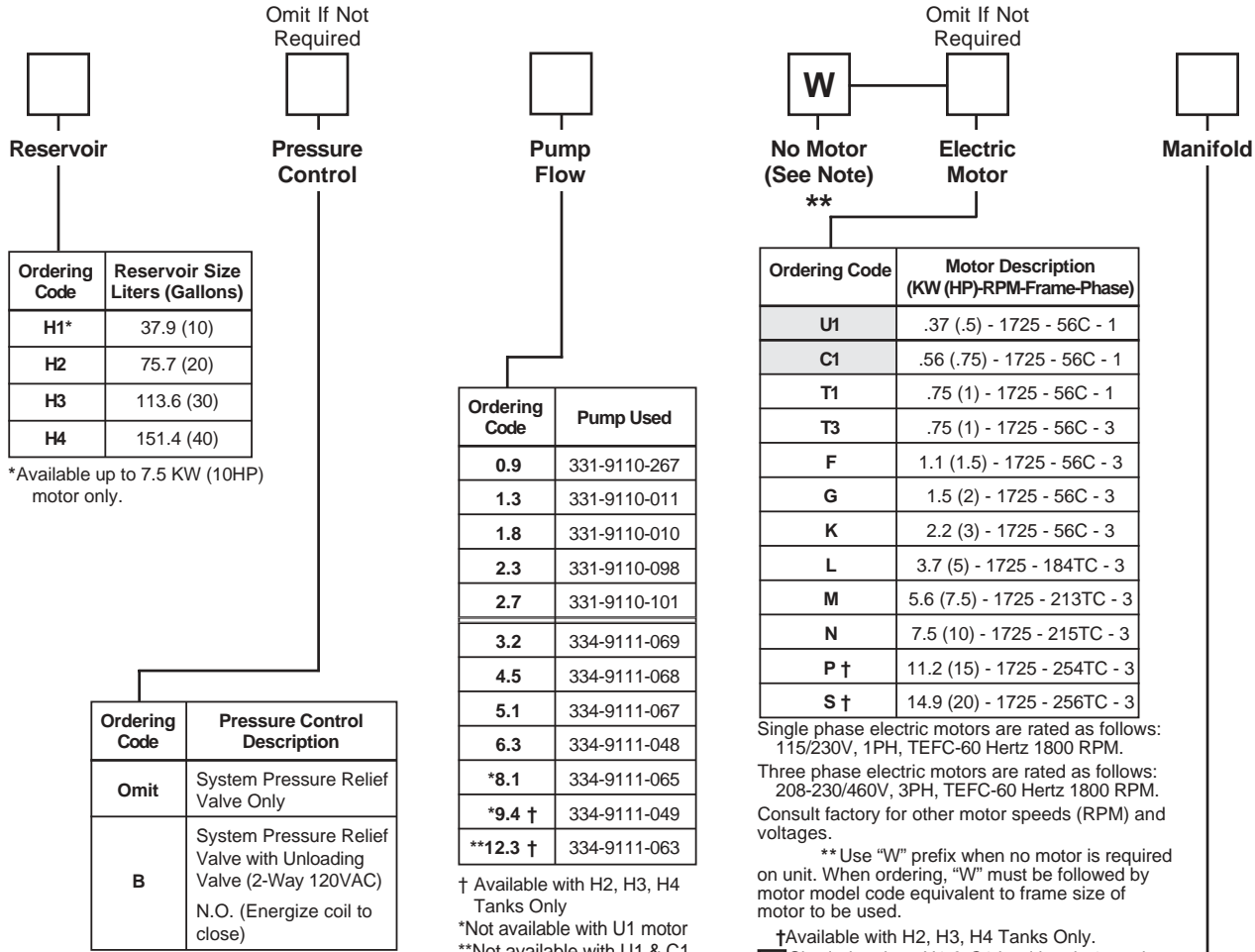
† Units less valves will be supplied with station cover plates installed. Refer to options and accessories for voltage and connection choices.

| Ordering Code | Function | Model Number | Technical Data | |
|--------------------|----------|---|---|---|
| Options | OMIT | Paint | Machine Tool Grey Quick Dry Enamel No Prep or Paint | |
| | 2 | | | |
| | OMIT | Solenoid Voltage | 120 VAC / 60 HZ 110 VAC / 50 HZ 24 VDC | |
| | 3 | | | |
| Accessories | OMIT | Solenoid Connection | Conduit except for "B" Pressure Control which will be Hirschmann Hirschmann with Plug | |
| | 4 | | | |
| | B1* | Return Heat Exchanger | RM-08-2-2 | Air/Oil: 52KW (.7HP) Rej. @ 11.4 LPM(3 GPM) |
| | C* | Return Heat Exchanger | N401A40 | Oil/Water (1:1): 2.24KW (3HP) Rej. @ 11.4LPM (3 GPM) (34 LPM (9 GPM)Max.) Diff. @11.4 LPM (3 GPM)) |
| | E | Water Temp. Modulating | V47AC-6 Valve | 23.9°C(75°F) to 57.2°C(135°F) Adj. Range Cross Ambient Sensing 3/4" NPT Inlet |
| | H | Pressure Filter | 15P110QXRS | Microglass II Element Vis. Ind. - 3.4 Bar (50 PSI) Bypass (.14 Bar (2 PSI) Diff. @11.4 LPM (3 GPM)) |
| | J | Immersion Heater | ET2-251-LB | 250 Watt, 120 V, 1PH, 120°F Fixed Thermostat NEMA 4 (2.1 Amps) |
| | K | Check Valve Pump Outlet | DT370MOMF05 | .34 Bar (5 PSI) Cracking Pressure (.48 Bar (7 PSI) Diff. @ 11.4 LPM (3 GPM)) |
| | L | Bypass Check (On Heat Exch) | C1020S65 | 4.5 Bar (65 PSI) Cracking Pressure |
| | M | Return Filter | 15CN110BQ (.21 Bar (3 PSI) Diff. @11.4 LPM | Microglass II Element Visual 1.72Bar (25PSI) Indicator (3 PSI Diff. @ 3 GPM) |
| | O | Return Filter | 12AT10C (45 LPM (12 GPM)) | Cellulose Element (Ind. Gage - 1.03 Bar (15 PSI) Bypass Max. Oil Flow) |
| | R1 | Combination Float/Temp. Switch N.O. Float Up | 876782-01 | Fixed Temp at 65°C(149°F) Close @ Low Level And/Or 65°C (149°F) (N.O.) |
| | R2 | Combination Float/Temp. Switch Float Up | 876782-02 | Fixed Temp at 65.6°C(150°F) Open @ Low Level And/Or 65.6°C (150°F) (N.C.) |
| | W1 | Pressure Switch 6.2-48.3 Bar (90-700 PSI) | 876731-01 | N.O. & N.C. Contacts (SPDT Switch) DIN 43650 Connector |
| | W2 | Pressure Switch 48.3-206.8 Bar (700-3000 PSI) | 876731-02 | 5A @ 125/250VAC Induct 7A @ 12/25VDC Induct |

* Heat rejection based on flow given with a 40°F differential between transfer medium.
 ☐ For shaded options 3 and 4, lead time is 4 weeks.

B

H-Paks



*Available up to 7.5 KW (10HP) motor only.

Note: Two and three pressure control options with unloading valve available, consult factory.

† Available with H2, H3, H4 Tanks Only
 *Not available with U1 motor
 **Not available with U1 & C1 motor

Single phase electric motors are rated as follows:
 115/230V, 1PH, TEFC-60 Hertz 1800 RPM.
 Three phase electric motors are rated as follows:
 208-230/460V, 3PH, TEFC-60 Hertz 1800 RPM.
 Consult factory for other motor speeds (RPM) and voltages.
 ** Use "W" prefix when no motor is required on unit. When ordering, "W" must be followed by motor model code equivalent to frame size of motor to be used.
 † Available with H2, H3, H4 Tanks Only.
 ☐ Shaded options U1 & C1 leadtime is 2 weeks.

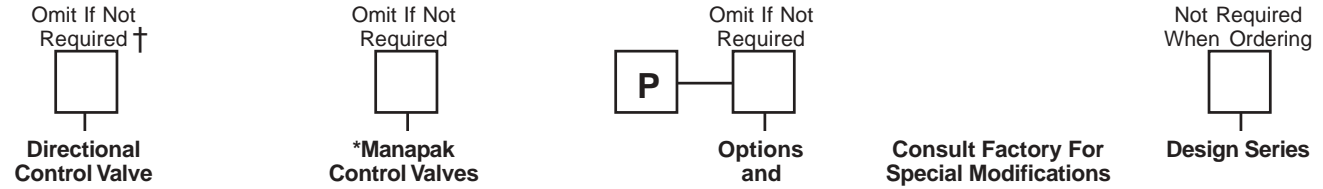
| Ordering Code | Porting Block/Subplate or Manifold Type | Supply/Return Port Actuator Port Size | Other |
|---------------|--|---------------------------------------|---------------------------------------|
| O | Pressure and Return Port Block with Safety Relief Valve | "P" & "T" Ports SAE-12 Str. Thr'd | Convertible to S3, S5, S6 Option |
| S3 | D03 Single Station Subplate with Safety Relief Valve | "A" & "B" Ports SAE-8 Str. Thr'd | Spare "P" & "T" SAE-10 Ports |
| S5 | D05 Single Station Subplate with Safety Relief Valve | "A" & "B" Ports SAE-10 Str. Thr'd | Spare "P" & "T" SAE-12 Ports |
| S6 | D05H/D05HE Single Station Subplate with Safety Relief Valve | "A" & "B" Ports SAE-10 Str. Thr'd | "X" & "Y" Ports SAE-4 (H & HE) |
| M3 * | D03 Multistation Parallel Circuit Manifold with Safety Relief Valve | "A" & "B" Ports SAE-8 Str. Thr'd | Spare "G" Port SAE-6 |
| M5 * | D05 Multistation Parallel Circuit Manifold with Safety Relief Valve | "A" & "B" Ports SAE-8 Str. Thr'd | Spare "G" Port SAE-6 |
| M6 *† | D05H Multistation Parallel Circuit Manifold with Safety Relief Valve | "A" & "B" Ports SAE-12 Str. Thr'd | Spare "G" SAE-6 No "X" & "Y" Ports |
| C3** | D03 Multistation Series Circuit Manifold with Safety Relief Valve | "A" & "B" Ports SAE-8 Str. Thr'd | Spare "G" SAE-6 |

* When ordering Multi-Station Manifolds, the number of stations must be specified. If more than 5 stations required, consult factory. If valves are to be mounted, specify the valves and sequence. If the model code exceeds 25 digits, utilize the special ordering code X.
 Example: H2 6.3 N M53X
 X= 3 Station Manifold
 Station #1: E
 Station #2: F
 Station #3: G4
NOTE:
 Manifolds are mounted vertically.
 Bottom station is number 1.

** Available in 2 and 3 stations.
 † Available with H2, H3, H4 only.
 ☐ For shaded options C3, leadtime is 2 weeks.



H-Paks



| Ordering Code | Function | Valve Model Number | NFPA Mounting Pad | Nominal Flow LPM(GPM) | Circuit Symbol |
|---------------|----------------------------|---|-------------------|-----------------------|----------------|
| 1 | Flow Control | FM2DDKN | D03 | 26.5 (7) | |
| 2 | Flow Control | FM3DDKN | D05 | 45.4 (12) | |
| 3 | Pilot Operator Check | CPOM2DDN | D03 | 26.5 (7) | |
| 4 | Pilot Operator Check | CPOM3DDN | D05 | 45.4 (12) | |
| 5 | "P" Port Check | CM2PPN | D03 | 26.5 (7) | |
| 6 | "P" Port Check | CM3PPN | D05 | 45.4 (12) | |
| 7 | "P" Port Pressure Reducing | PRDM2PP21KNS 3.03-210 Bar (44-3045 PSI) | D03 | 22.7 (6) | |
| 8 | "P" Port Pressure Reducing | PRM3PP25KN | D05 | 45.4 (12) | |

*Manapak valves mounted in order of callout. First valve will be nearest DCV; last valve will be on manifold.

| Ordering Code | Valve Model Number | NFPA Mounting Pad | Nominal Flow LPM(GPM) | Description | Circuit Symbol |
|---------------|--------------------|-------------------|-----------------------|-------------------|----------------|
| A | D1VW020BN*** | D03 | 26.5 (7) | Single (Spr. Ret) | |
| B | D1VW001CN*** | D03 | 26.5 (7) | Double (Spr. Ctr) | |
| C | D1VW004CN*** | D03 | 26.5 (7) | Double (Spr. Ctr) | |
| D | D1VW020DN*** | D03 | 26.5 (7) | Double (Detent) | |
| E | D3W20BN** | D05 | 75.7 (20) | Single (Spr. Ret) | |
| F | D3W1CN** | D05 | 75.7 (20) | Double (Spr. Ctr) | |
| G | D3W4CN** | D05 | 56.8 (15) | Double (Spr. Ctr) | |
| H | D3W20DN** | D05 | 75.7 (20) | Double (Detent) | |
| J | D31VW020B4N*** | D05H | 75.7 (20) | Single (Spr. Ret) | |
| K | D31VW001C4N*** | D05H | 75.7 (20) | Double (Spr. Ctr) | |
| L | D31VW004C4N*** | D05H | 75.7 (20) | Double (Spr. Ctr) | |
| M | D31VW020D4N*** | D05H | 75.7 (20) | Double (Detent) | |
| S | D1VW002CN*** | D03 | 26.5 (7) | Double (Spr. Ctr) | |
| T | D1VW008CN*** | D03 | 26.5 (7) | Double (Spr. Ctr) | |
| V | D3W2CN** | D05 | 75.7 (20) | Double (Spr. Ctr) | |
| W | D3W8CN** | D05 | 56.8 (15) | Double (Spr. Ctr) | |

† Units less valves will be supplied with station cover plates installed.

☐ For shaded options H,J,K,L,M and V lead time is 4 weeks.

Note: Refer to options and accessories for voltage and connection choices.

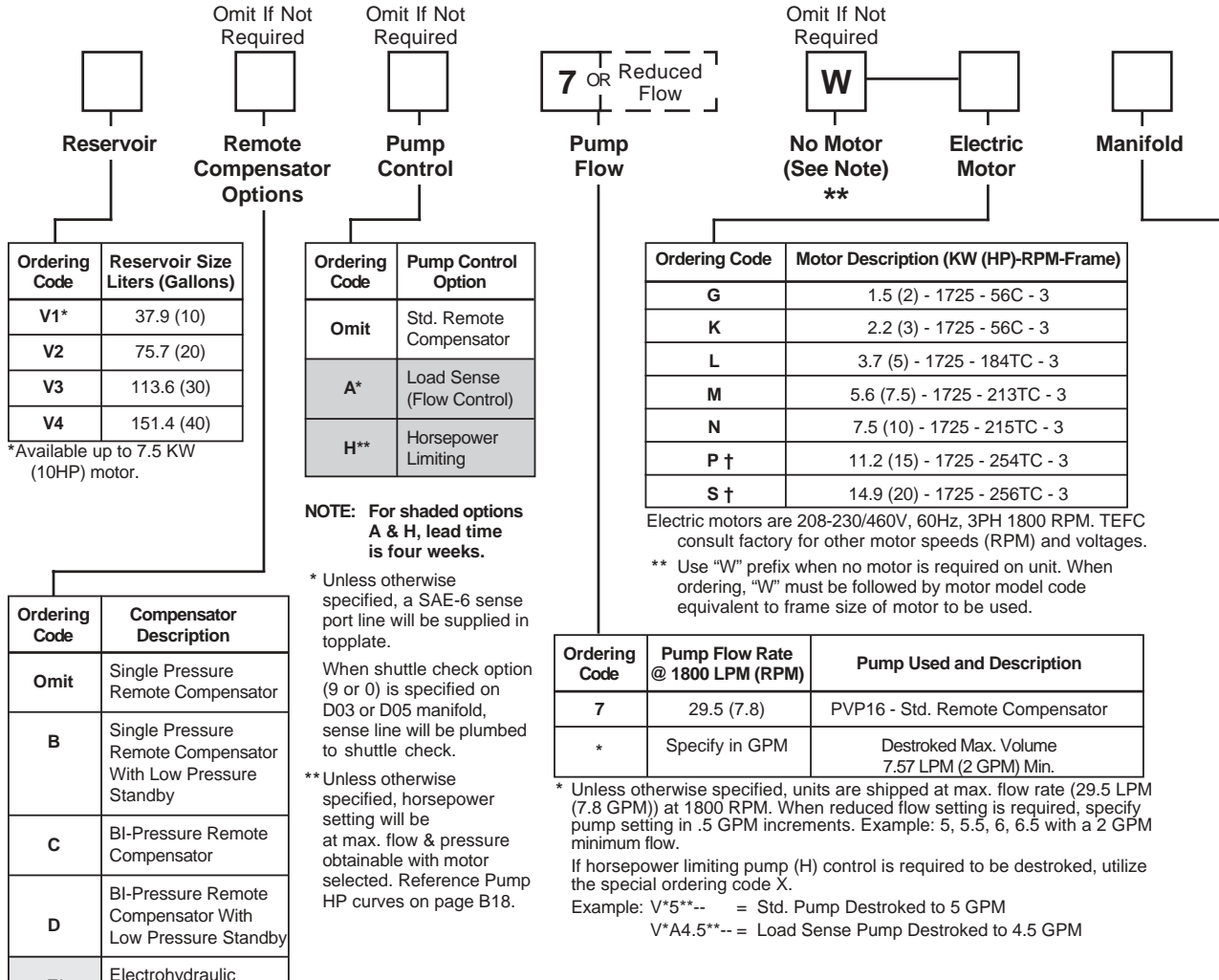
| Ordering Code | Function | Model Number | Technical Data |
|---------------|---|---|---|
| OMIT | Paint | - | Machine Tool Grey Quick Dry Enamel No Prep or Paint |
| 2 | | | |
| OMIT | Solenoid Voltage | - | 120 VAC / 60 HZ 110 VAC / 50 HZ 24 VDC |
| 3 | | | |
| OMIT | Solenoid Connection | - | Conduit except for "B" Pressure Control which will be Hirschmann Hirschmann with Plug |
| 4 | | | |
| B1* | Return Heat Exchanger | RM-08-1-2 | Air/Oil: .52 KW (.7 HP) Rejection @ 26.5 LPM (7 GPM) (.37 - 3.7 KW (.5 - 5 HP) Motors Only) |
| B2* | Return Heat Exchanger | RM-190-1-2 | Air/Oil: 1.1 KW (1.5HP) Rejection @ 26.5 LPM (7 GPM) (5.6 - 11.2 KW (7.5 - 15 HP) Motors Only) |
| C* | Return Heat Exchanger | N401A40 | Oil/Water (1:1): 3.7 KW (5 HP) Rej. @ 26.5 LPM (7 GPM) (34 LPM (9 GPM) Max.) (.62 Bar (9 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| D* | Return Heat Exchanger | N701B6F | Oil/Water (2:1): 3 KW (4HP) Rej. @ 26.5 LPM (7 GPM) (94.6 LPM (25 GPM) Max.) (.21 Bar (3 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| E | Water Temp. Modulating | V47AC-6 Valve | 23.9 - 57.2°C (75° - 135°F) Adj. Range Cross Ambient Sensing 3/4" NPT Inlet |
| H | Pressure Filter | 15P110QXRS | Microglass II Element Vis. Ind. -3.49 Bar (50 PSI) Bypass (.27 Bar (4 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| J | Immersion Heater | BGS79J6W-29 | 1 KW, 240 V, 1PH, 30-110°F Thermostat NEMA 4 (23 W/Sq.In.) |
| K | Check Valve Pump Outlet | "DT" & "C" Series | 34 Bar (5 PSI) Cracking Pressure (1.72 Bar (25 PSI) Diff. @ 56.8 LPM (15 GPM)) |
| L | Bypass Check (On Heat Exch.) | C1220S65 | 4.5 Bar (65 PSI) Cracking Pressure |
| M | Return Filter | 15CN110Q | Microglass II Element Visual 1.72 Bar (25 PSI) Indicator (.34 Bar (5 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| N | Return Filter | 40CN110Q | Microglass II Element Visual 1.72 Bar (25 PSI) Indicator (.2 Bar (3 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| O | Return Filter | 12AT10C (45.2 LPM (12 GPM) Max. Oil Flow) | Cellulose Element Ind. Gage - 1.03 Bar (15 PSI) Bypass |
| R1 | Combination Float/Temp. SW N.O. Float Up | 876782-01 | Fixed Temp at 65°C (149°F) Close @ Low Level And/Or 65°C (149°F) (N.O.) |
| R2 | Combination Float/Temp. SW N.O. Float Up | 876782-02 | Fixed Temp at 65.6°C (150°F) Open @ Low Level And/Or 65.6°C (150°F) (N.C.) |
| V | Return Filter | 50AT10C (132 LPM (35 GPM)) | Cellulose Element Ind. Gage - 1.03 Bar (15 PSI) Bypass Max. Oil Flow |
| W1 | Pressure Switch 6.2-48.3 Bar (90-700 PSI) | 876731-01 | N.O. & N.C. Contacts (SPDT Switch) DIN 43650 Connector |
| W2 | Pressure Switch 48.3-206.8 Bar (700-3000 PSI) | 876731-02 | 5A @ 125/250VAC Induct 7A @ 12/25VDC Induct |
| Z | Temperature Switch | 837-A4A NEMA 1 | 15.6-87.8°C (60-190°F) Adjust. Differential N.O. & N.C. Contacts |

*Heat rejection based on flow given with a 4.4°C (40°F) differential between transfer medium.

☐ For shaded options 3 and 4, lead time is 4 weeks.

B

V-Paks – 2 thru 7 GPM



| Ordering Code | Pump Control/Mounting | Supply/Return Port Actuator Port Size | Other |
|---------------|--|---------------------------------------|------------------------------------|
| O | Pressure and Return Port Block with Safety Relief Valve | "P" & "T" Port SAE-12 Str. Thr'd | Convertible to S3, S5, S6 Option |
| S3 | D03 Single Station Subplate with Safety Relief Valve | "A" & "B" Ports SAE-8 Str. Thr'd | Spare "P" & "T" SAE-10 Ports |
| S5 | D05 Single Station Subplate with Safety Relief Valve | "A" & "B" Ports SAE-10 Str. Thr'd | Spare "P" & "T" SAE-12 Ports |
| S6 | D05H/D05HE Single Station Subplate with Safety Relief Valve | "A" & "B" Ports SAE-10 Str. Thr'd | "X" & "Y" Ports SAE-4 (H & HE) |
| M3 * | D03 Multistation Parallel Circuit Manifold with Safety Relief Valve | "A" & "B" Ports SAE-8 Str. Thr'd | Spare "G" Port SAE-6 |
| M5 * | D05 Multistation Parallel Circuit Manifold with Safety Relief Valve | "A" & "B" Ports SAE-8 Str. Thr'd | Spare "G" Port SAE-6 |
| M6 *† | D05H Multistation Parallel Circuit Manifold with Safety Relief Valve | "A" & "B" Ports SAE-12 Str. Thr'd | Spare "G" SAE-6 No "X" & "Y" Ports |

* When ordering Multi-Station Manifolds, the number of stations must be specified. If more than 5 stations required, consult factory. If valves are to be mounted, specify the valves and sequence. If the model code exceeds 25 digits, utilize the special ordering code X.

Example: V2 7 N M33X
 X= 3 Station Manifold
 Station #1: A
 Station #2: B
 Station #3: C24

NOTE:
 Manifolds are mounted vertically.
 Bottom station is number 1.

† Available with V2, V3, V4 only.

V-Paks – 2 thru 7 GPM

Omit If Not
 Required †



Directional Control Valve

Omit If Not
 Required



****Manapak Control Valves**

Omit If Not
 Required



Accessories

**Consult Factory
 For Special Modifications**

Not Required
 When Ordering



Design Series

| Ordering Code | Function | Valve Model Number | NFPA Mounting Pad | Nominal Flow LPM(GPM) | Circuit Symbol |
|---------------|----------------------------|--------------------|-------------------|-----------------------|----------------|
| 1 | Flow Control Meter Out | FM2DDKN | D03 | 26.5 (7) | |
| 2 | Flow Control Meter Out | FM3DDKN | D05 | 45.4 (12) | |
| 3 | Pilot Operator Check | CPOM2DDN | D03 | 26.5 (7) | |
| 4 | Pilot Operator Check | CPOM3DDN | D05 | 45.4 (12) | |
| 5 | "P" Port Check | CM2PPN | D03 | 26.5 (7) | |
| 6 | "P" Port Check | CM3PPN | D05 | 45.4 (12) | |
| 7 | "P" Port Pressure Reducing | PRM2PP21KNS | D03 | 22.7 (6) | |
| 8 | "P" Port Pressure Reducing | PRM3PP25KN | D05 | 45.4 (12) | |
| 9* | Shuttle Check (Load Sense) | - | D03 | - | |
| 0* | Shuttle Check (Load Sense) | - | D05 | - | |

* Use in combination with load sense pump type (A7) and flow control valve option (1 or 2).

* Manapak valves mounted in order of callout. First valve will be nearest DCV; last valve will be on manifold.

☐ For shaded options 9 and 0, lead time is 5 weeks.

| Ordering Code | Valve Model Number | NFPA Mounting Pad | Nominal Flow LPM(GPM) | Description | Circuit Symbol |
|---------------|--------------------|-------------------|-----------------------|-------------------|----------------|
| A | D1VW020BN*** | D03 | 26.5 (7) | Single (Spr. Ret) | |
| B | D1VW001CN*** | D03 | 26.5 (7) | Double (Spr. Ctr) | |
| C | D1VW004CN*** | D03 | 26.5 (7) | Double (Spr. Ctr) | |
| D | D1VW020DN*** | D03 | 26.5 (7) | Double (Detent) | |
| E | D3W20BN** | D05 | 75.7 (20) | Single (Spr. Ret) | |
| F | D3W1CN** | D05 | 75.7 (20) | Double (Spr. Ctr) | |
| G | D3W4CN** | D05 | 56.8 (15) | Double (Spr. Ctr) | |
| H | D3W20DN** | D05 | 75.7 (20) | Double (Detent) | |
| J | D31VW020B4N*** | D05H | 75.7 (20) | Single (Spr. Ret) | |
| K | D31VW001C4N*** | D05H | 75.7 (20) | Double (Spr. Ctr) | |
| L | D31VW004C4N*** | D05H | 75.7 (20) | Double (Spr. Ctr) | |
| M | D31VW020D4N*** | D05H | 75.7 (20) | Double (Detent) | |

† Units less valves will be supplied with station cover plates installed.

☐ For shaded options H,J,K,L,M and V lead time is 4 weeks.

Note: Refer to options and accessories for voltage and connection choices.

| Ordering Code | Function | Model Number | Technical Data |
|---------------|---|--|--|
| OMIT | Paint | - | Machine Tool Grey Quick Dry Enamel No Prep or Paint |
| 2 | | | |
| OMIT | Solenoid Voltage | - | 120 VAC / 60 HZ 110 VAC / 50 HZ 24 VDC |
| 3 | | | |
| OMIT | Solenoid Connection | - | Conduit except for "B" Pressure Control which will be Hirschmann Hirschmann with Plug |
| 4 | | | |
| A* | Pump Case Heat Exchanger | RM-08-4-2 | Air/Oil: .52 KW (.7HP) Rejection @ 1.9 LPM (.5 GPM) (1.5-11.2KW (2-15HP) Motors) |
| B1* | Return Heat Exchanger | RM-08-1-2 | Air/Oil: .52 KW (.7HP) Rejection @ 26.5 LPM (7 GPM) (1.5-3.7KW (2-5HP) Motors Only) |
| B2* | Return Heat Exchanger | RM-190-1-2 | Air/Oil: 1.1KW (1.5HP) Rejection @ 26.5 LPM (7 GPM) (5.6-11.2KW (7.5-15HP) Motors Only) |
| C* | Return Heat Exchanger | N401A40 | Oil/Water (1:1): 3.7 KW (5HP) Rej. @ 26.5 LPM (7 GPM) (34.1 LPM (9 GPM) Max.) (.62 Bar (9 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| D* | Return Heat Exchanger | N701B6F | Oil/Water (2:1): 3 KW (4HP) Rej. @ 26.5 LPM (7 GPM) (94.6 LPM (25 GPM) Max.) (.21 Bar (3 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| E | Water Temp. Modulating Valve | V47AC-6 3/4" NPT Inlet | 23.9-57.2°C (75-135°F) Adj. Range Cross Ambient Sensing |
| H | Pressure Filter | 15P110BXR5 | Microglass II Element Vis. Ind. - 3.4 Bar (50 PSI) Bypass (.28 Bar (4 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| J | Immersion Heater | BGS79J6-W1 | 1 KW, 240 V, 1PH, 30-110°F Thermostat NEMA 4 (23 W/Sq.In.) |
| K | Check Valve Pump Outlet | DT750MOMF05 | .34 Bar (5 PSI) Cracking Pressure (.55 Bar (8 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| L | Bypass Check (On Heat Exch.) | C1220S65 | 4.48 Bar (65 PSI) Cracking Pressure |
| M | Return Filter | 15CN110B | Microglass II Element Visual 1.72 Bar (25 PSI) Indicator (.34 Bar (5 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| N | Return Filter | 40CN110B | Microglass II Element Visual 1.72 Bar (25 PSI) Indicator (.21 Bar (3 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| O | Return Filter | 12AT10C (45.2 LPM (12 GPM) Max. Oil Flow) | Cellulose Element Ind. Gage - 1.03 Bar (15 PSI) Bypass |
| R1 | Combination Float/Temp. SW N.O. Float Up | 876782-01 | Fixed Temp at 65°C (149°F) Close @ Low Level And/Or 65°C (149°F) (N.O.) |
| R2 | Combination Float/Temp. SW N.O. Float Up | 876782-02 | Fixed Temp at 65.6°C (150°F) Open @ Low Level And/Or 65.6°C (150°F) (N.C.) |
| V | Return Filter | 50AT10C (132.5 LPM (35 GPM) Max. Oil Flow) | Cellulose Element Ind. Gage - 1.03 Bar (15 PSI) Bypass |
| W1 | Pressure Switch 6.2-48.3 Bar (90-700 PSI) | 876731-01 | N.O. & N.C. Contacts (SPDT Switch) DIN 43650 Connector |
| W2 | Pressure Switch 48.3-206.8 Bar (700-3000 PSI) | 876731-02 | 5A @ 125/250VAC Induct 7A @ 12/25VDC Induct |
| Z | Temperature Switch | 837-A4A NEMA 1 | 15.6-87.8°C (60-190°F) Adjust. Differential N.O. & N.C. Contacts |

*Heat rejection based on flow given with a 4.4°C (40°F) differential between transfer medium.

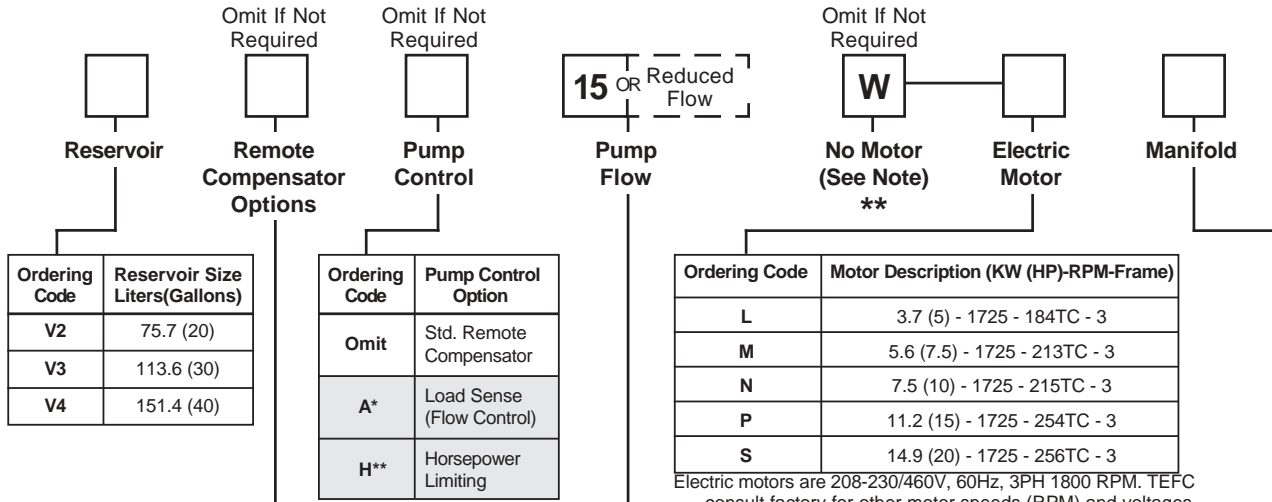
☐ For shaded options 3 and 4, lead time is 4 weeks.

B

Ordering Information

Series V-Paks

V-Paks – 8 thru 15 GPM



| Ordering Code | Reservoir Size Liters(Gallons) |
|---------------|--------------------------------|
| V2 | 75.7 (20) |
| V3 | 113.6 (30) |
| V4 | 151.4 (40) |

| Ordering Code | Pump Control Option |
|---------------|---------------------------|
| Omit | Std. Remote Compensator |
| A* | Load Sense (Flow Control) |
| H** | Horsepower Limiting |

| Ordering Code | Motor Description (KW (HP)-RPM-Frame) |
|---------------|---------------------------------------|
| L | 3.7 (5) - 1725 - 184TC - 3 |
| M | 5.6 (7.5) - 1725 - 213TC - 3 |
| N | 7.5 (10) - 1725 - 215TC - 3 |
| P | 11.2 (15) - 1725 - 254TC - 3 |
| S | 14.9 (20) - 1725 - 256TC - 3 |

Electric motors are 208-230/460V, 60Hz, 3PH 1800 RPM. TEFC consult factory for other motor speeds (RPM) and voltages.

** Use "W" prefix when no motor is required on unit. When ordering, "W" must be followed by motor model code equivalent to frame size of motor to be used.

NOTE: For shaded options A & H, lead time is four weeks.

| Ordering Code | Compensator Description |
|---------------|--|
| Omit | Single Pressure Remote Compensator |
| B | Single Pressure Remote Compensator With Low Pressure Standby |
| C | Bi-Pressure Remote Compensator |
| D | Bi-Pressure Remote Compensator With Low Pressure Standby |
| E* | Electrohydraulic Pressure Control |
| F | Provision For Customer Supplied Remote Control Relief Valve |

* Unless otherwise specified, a SAE-6 sense port line will be supplied in topline.

When shuttle check option (9 or 0) is specified on D03 or D05 manifold, sense line will be plumbed to shuttle check.

** Unless otherwise specified, horsepower setting will be at max. flow & pressure obtainable with motor selected. Reference Pump HP curves on page B18.

| Ordering Code | Pump Flow Rate @ 1800 RPM LPM (GPM) | Pump Used and Description |
|---------------|-------------------------------------|------------------------------------|
| 15 | 59 (15.6) | PVP33 - Std. Remote Compensator |
| * | Specify in GPM | Destroyed Max. Volume (8 GPM Min.) |

* Unless otherwise specified, units are shipped at max. flow rate (59 LPM (15.6 GPM)) at 1800 RPM. When reduced flow setting is required, specify pump setting in .5 GPM increments. Example: 11, 11.5, 12, 12.5 with a 8 GPM minimum flow.

If horsepower limiting pump (H) control is required to be destroyed, utilize the special ordering code X.

Example: V*12**-- = Std. Pump Destroyed to 12 GPM

V*A11.5**-- = Load Sense Pump Destroyed to 11.5 GPM

* Consult factory for driver card options.

☐ For shaded option E, lead time is 4 weeks.

| Ordering Code | Porting Block/Subplate or Manifold Type | Supply/Return Port or Actuator Port Size | Other |
|---------------|--|--|------------------------------------|
| O | Pressure and Return Port Block with Safety Relief Valve | "P" & "T" Ports SAE-12 Str. Thr'd | Convertible to S3, S5, S6 Option |
| S3 | D03 Single Station Subplate with Safety Relief Valve | "A" & "B" Ports SAE-8 Str. Thr'd | Spare "P" & "T" SAE-10 Ports |
| S5 | D05 Single Station Subplate with Safety Relief Valve | "A" & "B" Ports SAE-10 Str. Thr'd | Spare "P" & "T" SAE-12 Ports |
| S6 | D05H/D05HE Single Station Subplate with Safety Relief Valve | "A" & "B" Ports SAE-10 Str. Thr'd | "X" & "Y" Ports SAE-4 (H & HE) |
| M3 * | D03 Multistation Parallel Circuit Manifold with Safety Relief Valve | "A" & "B" Ports SAE-8 Str. Thr'd | Spare "G" Port SAE-6 |
| M5 * | D05 Multistation Parallel Circuit Manifold with Safety Relief Valve | "A" & "B" Ports SAE-8 Str. Thr'd | Spare "G" Port SAE-6 |
| M6 * | D05H Multistation Parallel Circuit Manifold with Safety Relief Valve | "A" & "B" Ports SAE-12 Str. Thr'd | Spare "G" SAE-6 No "X" & "Y" Ports |

* When ordering Multi-Station Manifolds, the number of stations must be specified. If more than 5 stations required, consult factory. If valves are to be mounted, specify the valves and sequence. If the model code exceeds 25 digits, utilize the special ordering code X.

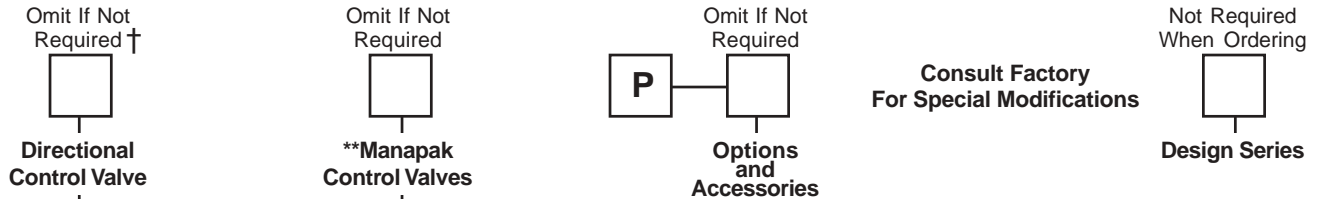
Example: V3 11 N M53X
 X= 3 Station Manifold
 Station #1: E
 Station #2: F
 Station #3: G4

NOTE:
 Manifolds are mounted vertically.
 Bottom station is number 1.

Ordering Information

Series V-Paks

V-Paks – 8 thru 15 GPM



| Ordering Code | Function | Valve Model Number | NFPA Mounting Pad | Nominal Flow LPM(GPM) | Circuit Symbol |
|---------------|----------------------------|---|-------------------|-----------------------|----------------|
| 1 | Flow Control (Meter-Out) | FM2DDKN | D03 | 26.5 (7) | |
| 2 | Flow Control (Meter-Out) | FM3DDKN | D05 | 45.4 (12) | |
| 3 | Pilot Operator Check | CPOM2DDN | D03 | 26.5 (7) | |
| 4 | Pilot Operator Check | CPOM3DDN | D05 | 45.4 (12) | |
| 5 | "P" Port Check | CM2PPN | D03 | 26.5 (7) | |
| 6 | "P" Port Check | CM3PPN | D05 | 45.4 (12) | |
| 7 | "P" Port Pressure Reducing | PRDM2PP21KNS 3.03-210 Bar (44-3045) | D03 | 22.7 (6) | |
| 8 | "P" Port Pressure Reducing | PRM3PP-25KN | D05 | 45.4 (12) | |
| 9* | Shuttle Check (Load Sense) | - | D03 | - | |
| 0* | Shuttle Check (Load Sense) | - | D05 | - | |

* Use in combination with load sense pump type (A15) and flow control valve option (1 or 2).
 ** Manapak valves mounted in order of callout. First valve will be nearest DCV; last valve will be on manifold.
 For shaded options 9 and 0, lead time is 5 weeks.

| Ordering Code | Valve Model Number | NFPA Mounting Pad | Nominal Flow LPM(GPM) | Description | Circuit Symbol |
|---------------|--------------------|-------------------|-----------------------|-------------------|----------------|
| A | D1VW020BN*** | D03 | 26.5 (7) | Single (Spr. Ret) | |
| B | D1VW001CN*** | D03 | 26.5 (7) | Double (Spr. Ctr) | |
| C | D1VW004CN*** | D03 | 26.5 (7) | Double (Spr. Ctr) | |
| D | D1VW020DN*** | D03 | 26.5 (7) | Double (Detent) | |
| E | D3W20BN** | D05 | 75.7 (20) | Single (Spr. Ret) | |
| F | D3W1CN** | D05 | 75.7 (20) | Double (Spr. Ctr) | |
| G | D3W4CN** | D05 | 56.8 (15) | Double (Spr. Ctr) | |
| H | D3W20DN** | D05 | 75.7 (20) | Double (Detent) | |
| J | D31VW020B4N** | D05H | 75.7 (20) | Single (Spr. Ret) | |
| K | D31VW001C4N** | D05H | 75.7 (20) | Double (Spr. Ctr) | |
| L | D31VW004C4N** | D05H | 75.7 (20) | Double (Spr. Ctr) | |
| M | D31VW020D4N** | D05H | 75.7 (20) | Double (Detent) | |

† Units less valves will be supplied with station cover plates installed.
 For shaded options H, J, K, L and M lead time is 4 weeks.
 Refer to options and accessories for voltage and connection choices.

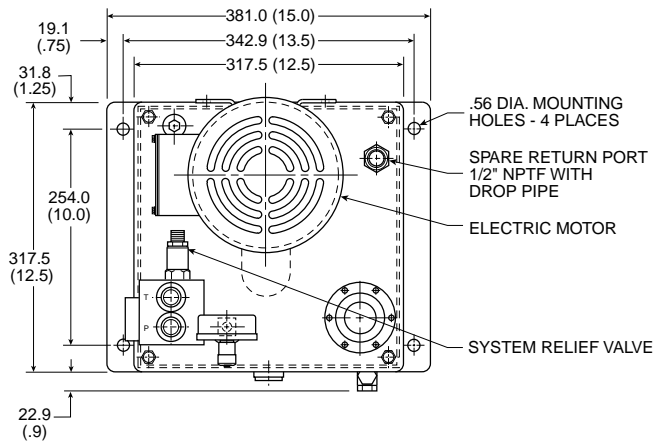
| Ordering Code | Function | Model Number | Technical Data |
|---------------|---|--|--|
| OMIT | Paint | - | Machine Tool Grey Quick Dry Enamel No Prep or Paint |
| 2 | | | |
| OMIT | Solenoid Voltage | - | 120 VAC / 60 HZ 110 VAC / 50 HZ 24 VDC |
| 3 | | | |
| OMIT | Solenoid Connection | - | Conduit except for "B" Pressure Control which will be Hirschmann Hirschmann with Plug |
| 4 | | | |
| A* | Pump Case Heat Exchanger | RM-08-4-2 | Air/Oil: .52 KW (.7HP) Rejection @ 1.9 LPM (.5 GPM) (1.5-11.2KW (2-15HP) Motors) |
| B1* | Return Heat Exchanger | RM-08-1-2 | Air/Oil: .52 KW (.7HP) Rejection @ 26.5 LPM (7 GPM) (1.5-3.7KW (2-5HP) Motors Only) |
| B2* | Return Heat Exchanger | RM-190-1-2 | Air/Oil: 1.1KW (1.5HP) Rejection @ 26.5 LPM (7 GPM) (5.6-11.2KW (7.5-15HP) Motors Only) |
| C* | Return Heat Exchanger | N401A40 | Oil/Water (1:1): 3.7 KW (5HP) Rej. @ 26.5 LPM (7 GPM) (34.1 LPM (9 GPM) Max.) (.62 Bar (9 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| D* | Return Heat Exchanger | N701B6F | Oil/Water (2:1): 3 KW (4HP) Rej. @ 26.5 LPM (7 GPM) (94.6 LPM (25 GPM) Max.) (.21 Bar (3 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| E | Water Temp. Modulating Valve | V47AC-6 3/4" NPT Inlet | 23.9-57.2°C (75-135°F) Adj. Range Cross Ambient Sensing |
| H | Pressure Filter | 15P110BXRS | Microglass II Element Vis. Ind. - 3.4 Bar (50 PSI) Bypass (.28 Bar (4 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| J | Immersion Heater | BGS79J6-W1 | 1 KW, 240 V, 1PH, 30-110°F Thermostat NEMA 4 (23 W/Sq.In.) |
| K | Check Valve Pump Outlet | DT750MOMF05 | .34 Bar (5 PSI) Cracking Pressure (.55 Bar (8 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| L | Bypass Check (On Heat Exch.) | C1220S65 | 4.48 Bar (65 PSI) Cracking Pressure |
| M | Return Filter | 15CN110B | Microglass II Element Visual 1.72 Bar (25 PSI) Indicator (.34 Bar (5 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| N | Return Filter | 40CN110B | Microglass II Element Visual 1.72 Bar (25 PSI) Indicator (.21 Bar (3 PSI) Diff. @ 26.5 LPM (7 GPM)) |
| O | Return Filter | 12AT10C (45.2 LPM (12 GPM) Max. Oil Flow) | Cellulose Element Ind. Gage - 1.03 Bar (15 PSI) Bypass |
| R1 | Combination Float/Temp. SW N.O. Float Up | 876782-01 | Fixed Temp at 65°C (149°F) Close @ Low Level And/Or 65°C (149°F) (N.O.) |
| R2 | Combination Float/Temp. SW N.O. Float Up | 876782-02 | Fixed Temp at 65.6°C (150°F) Open @ Low Level And/Or 65.6°C (150°F) (N.C.) |
| V | Return Filter | 50AT10C (132.5 LPM (35 GPM) Max. Oil Flow) | Cellulose Element Ind. Gage - 1.03 Bar (15 PSI) Bypass |
| W1 | Pressure Switch 6.2-48.3 Bar (90-700 PSI) | 876731-01 | N.O. & N.C. Contacts (SPDT Switch) DIN 43650 Connector |
| W2 | Pressure Switch 48.3-206.8 Bar 700-3000 PSI | 876731-02 | 5A @ 125/250VAC Induct 7A @ 12/25VDC Induct |
| Z | Temperature Switch | 837-A4A NEMA 1 | 15.6-87.8°C (60-190°F) Adjust. Differential N.O. & N.C. Contacts |

*Heat rejection based on flow given with a 4.4°C (40°F) differential between transfer medium.
 For shaded options 3 and 4, lead time is 4 weeks.

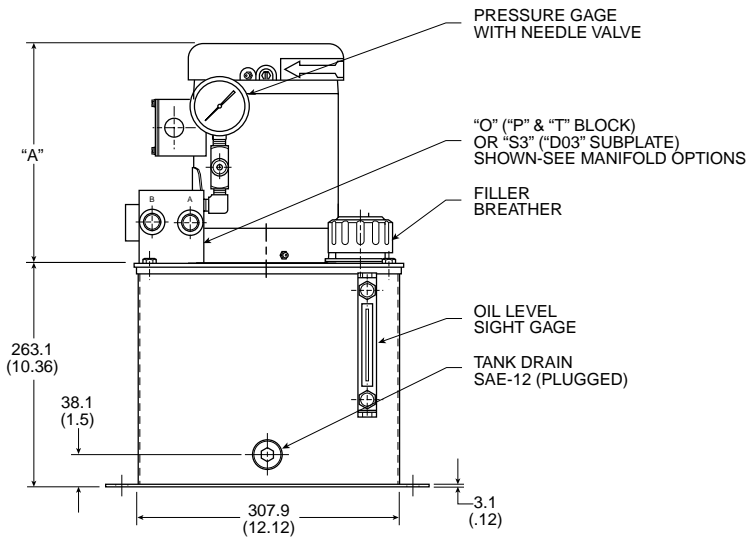
B

Dimensions - Basic D-Pak (18.9 Liter (5 Gallon) Tank)

Inch equivalents for millimeter dimensions are shown in (**).



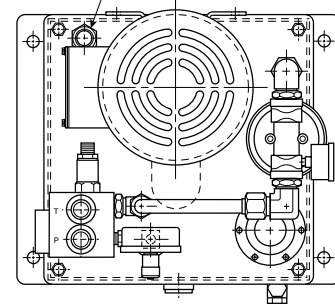
**"O" & "S3" OPTION MANIFOLD
 (P & T BLOCK & D03 SINGLE STATION)
 BASIC UNIT**



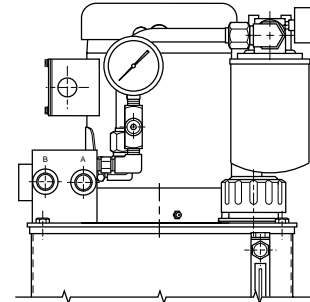
| Motor Code | Motor Description KW(HP)-RPM-Frame-Phase | Dimension |
|------------|---|----------------|
| | | "A" |
| U1 | .37 (.5)-1725-145TCZ-1 | 269.75 (10.62) |
| C1 | .56 (.75)-1725-145TCZ-1 | 295.15 (11.62) |
| T1 | .75 (1)-1725-145TCZ-1 | 295.15 (11.62) |
| T3 | .75 (1)-1725-145TCZ-3 | 258.57 (10.18) |
| F | 1.1 (1.5)-1725-145TCZ-3 | 283.97 (11.18) |
| G | 1.5 (2)-1725-145TCZ-3 | 306.32 (12.06) |
| K | 2.2 (3)-1725-145TCZ-3 | 341.37 (13.44) |

Filter Option Reference

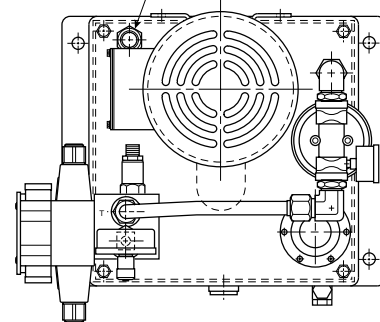
SPARE RETURN PORT
 1/2" NPTF
 WITH DROP PIPE



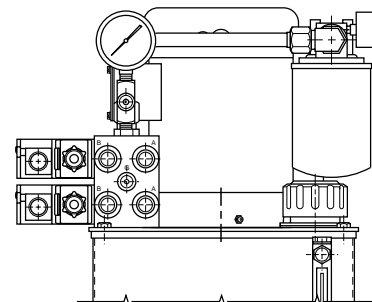
**"O" & "S3" OPTION MANIFOLD
 (P & T BLOCK & D03 SINGLE STATION)
 SHOWN WITH OPTION "O" RETURN FILTER**



SPARE RETURN PORT
 1/2" NPTF
 WITH DROP PIPE

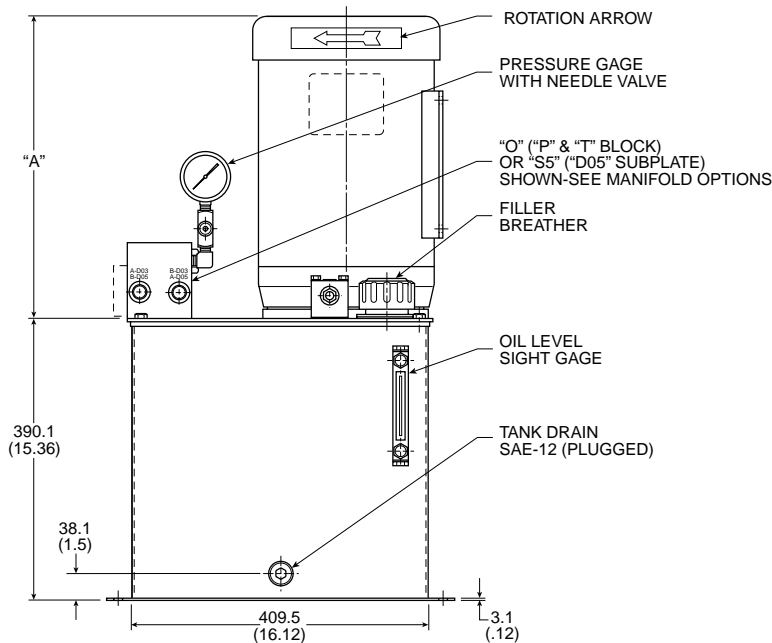
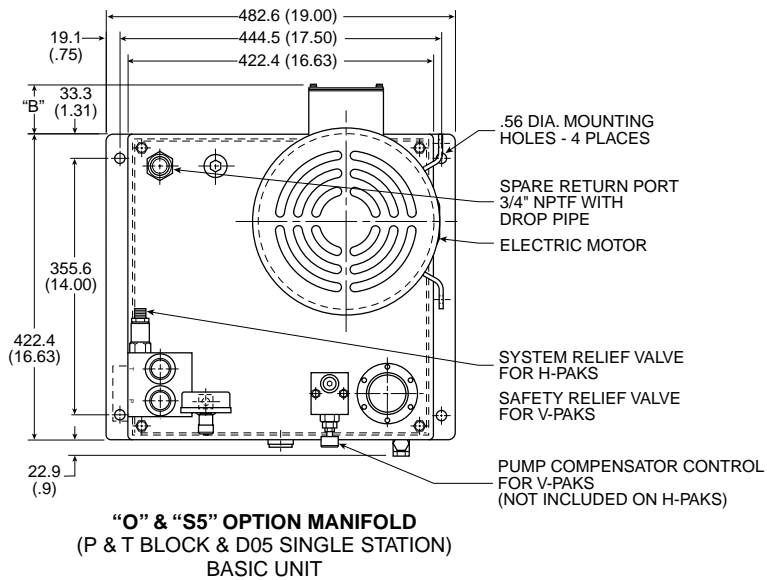


**"M3" & "C3" OPTION MANIFOLD
 (MULTI-STATION D03 MANIFOLD)
 SHOWN WITH OPTION "O" RETURN FILTER**



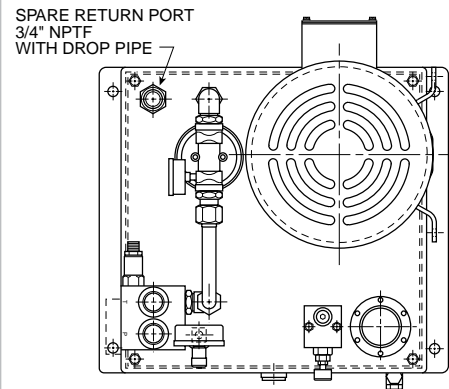
Dimensions - Basic H1 & V1
(10 Gallon Tank)

Inch equivalents for millimeter dimensions are shown in (**).

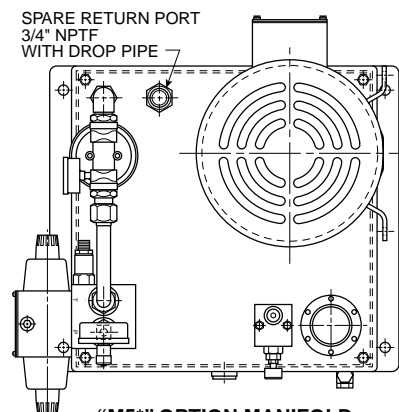
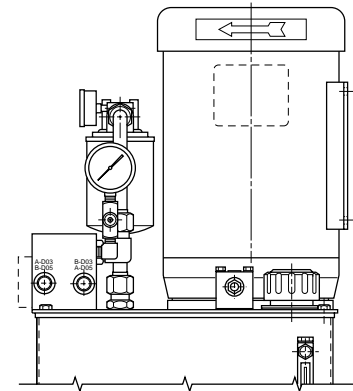


| Motor Code | Motor Description KW(HP)-RPM-Frame-Phase | Dimension | |
|------------|---|----------------|--------------|
| | | "A" | "B" |
| U1 | .37 (.5)-1725-56C-1 | 266.70 (10.50) | 19.05 (.75) |
| C1 | .56 (.75)-1725-56C-1 | 279.40 (11.00) | 19.05 (.75) |
| T1 | .75 (1)-1725-56C-1 | 298.45 (11.75) | 19.05 (.75) |
| T3 | .75 (1)-1725-56C-3 | 266.70 (10.50) | 19.05 (.75) |
| F | 1.1 (1.5)-1725-56C-3 | 273.05 (10.75) | 19.05 (.75) |
| G | 1.5 (2)-1725-56C-3 | 298.45 (11.75) | 19.05 (.75) |
| K | 2.2 (3)-1725-56C-3 | 320.55 (12.62) | 19.05 (.75) |
| L | 3.7 (5)-1725-184TC-3 | 365.25 (14.38) | 28.70 (1.13) |
| M | 5.6 (7.5)-1725-213TC-3 | 406.40 (16.00) | 66.80 (2.63) |
| N | 7.5 (10)-1725-215TC-3 | 413.51 (16.28) | 66.80 (2.63) |

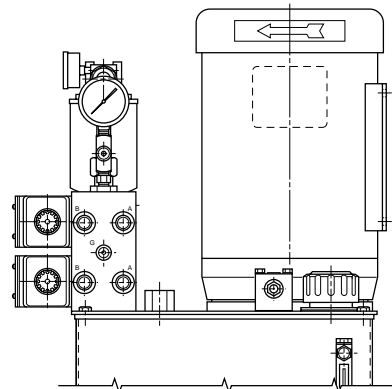
Filter Option Reference



"O" & "S5" OPTION MANIFOLD
 (P & T BLOCK & D05 SINGLE STATION)
 SHOWN WITH OPTION "O" RETURN FILTER

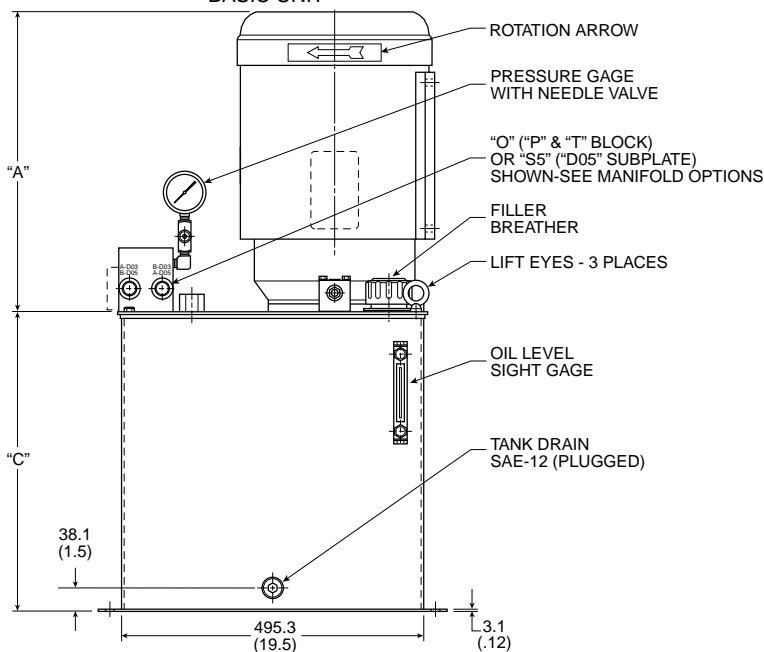
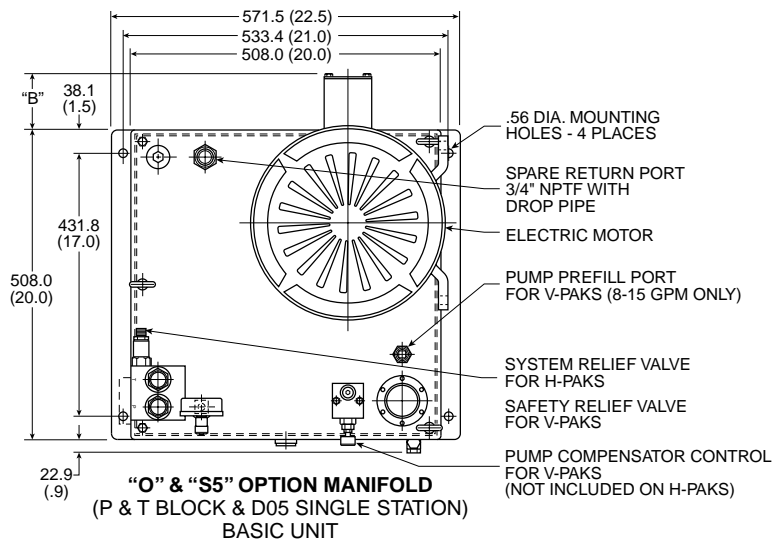


"M5" OPTION MANIFOLD
 (MULTI-STATION D05 MANIFOLD)
 SHOWN WITH OPTION "O" RETURN FILTER



Dimensions - Basic H2, 3, 4 & V2, 3, 4
(20, 30, 40 Gallon Tank)

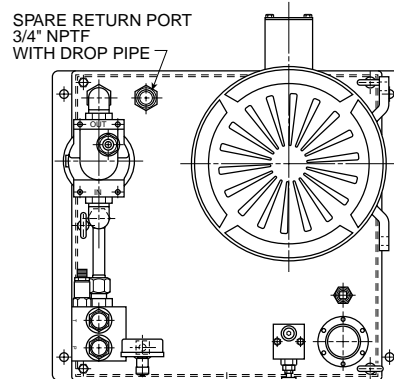
Inch equivalents for millimeter dimensions are shown in (**).



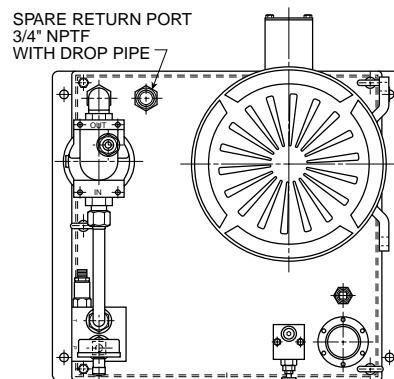
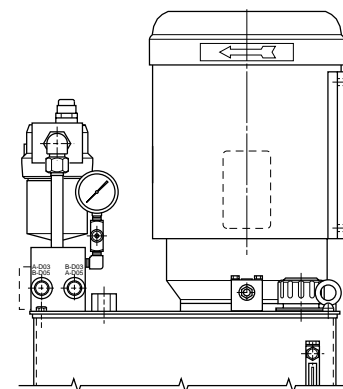
| Motor Code | Motor Description KW(HP)-RPM-Frame-Phase | Dimension | |
|------------|---|----------------|--------------|
| | | "A" | "B" |
| U1 | .37(.5) -1725-56C-1 | 266.70 (10.50) | 19.05 (.75) |
| C1 | .56(.75) -1725-56C-1 | 279.40 (11.00) | 19.05 (.75) |
| T1 | .75(1) -1725-56C-1 | 298.45 (11.75) | .75 (19.05) |
| T3 | .75(1) -1725-56C-3 | 266.70 (10.50) | 19.05 (.75) |
| F | 1.1(1.5) -1725-56C-3 | 273.05 (10.75) | 19.05 (.75) |
| G | 1.5(2) -1725-56C-3 | 298.45 (11.75) | 19.05 (.75) |
| K | 2.2(3) -1725-56C-3 | 320.55 (12.62) | 19.05 (.75) |
| L | 3.7(5) -1725-184TC-3 | 365.25 (14.38) | 28.70 (1.13) |
| M | 5.6(7.5) -1725-213TC-3 | 406.40 (16.00) | 35.05 (1.38) |
| N | 7.5(10) -1725-215TC-3 | 413.51 (16.28) | 35.05 (1.38) |
| P | 11.2(15) -1725-254TC-3 | 447.80 (17.63) | 85.09 (3.35) |
| S | 14.9(20) -1725-256TC-3 | 492.25 (19.3) | 85.09 (3.35) |

| Reservoir Code | Reservoir Size | Dimension "C" |
|----------------|-----------------------|----------------|
| H2 or V2 | 151.4 Liters (20 Gal) | 491.74 (19.36) |
| H3 or V3 | 113.6 Liters (30 Gal) | 599.95 (23.62) |
| H4 or V4 | 75.7 Liters (40 Gal) | 733.04 (28.86) |

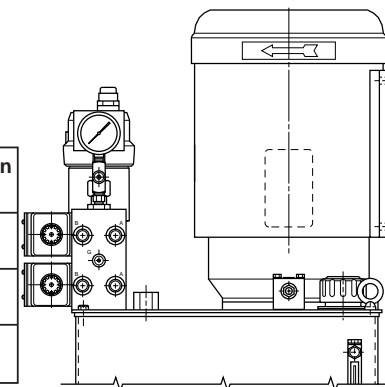
Filter Option Reference



"O" & "S5" OPTION MANIFOLD (P & T BLOCK & D05 SINGLE STATION) SHOWN WITH OPTION "N" RETURN FILTER



"M5*" OPTION MANIFOLD (MULTI-STATION D05 MANIFOLD) SHOWN WITH OPTION "N" RETURN FILTER



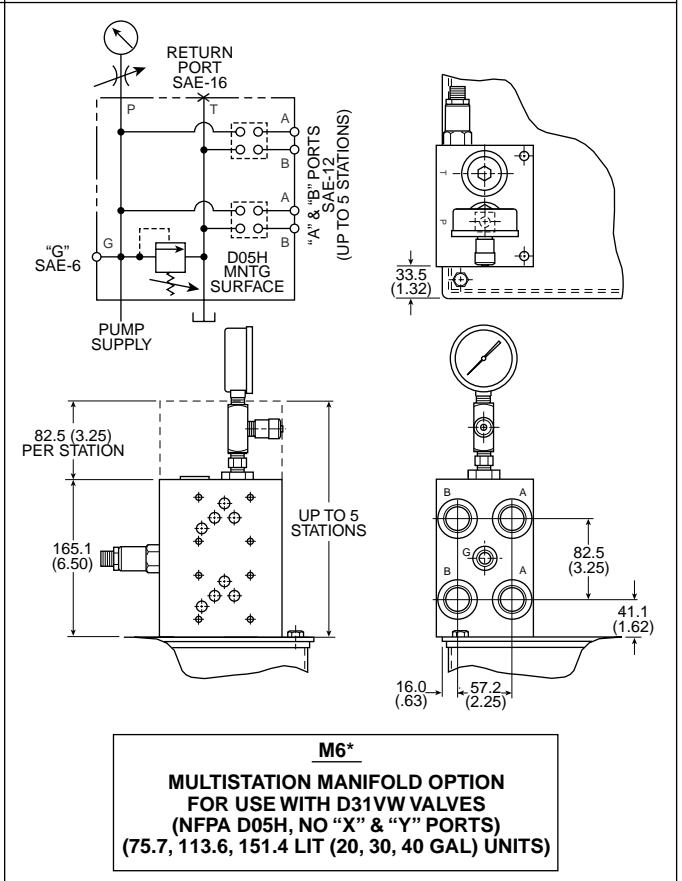
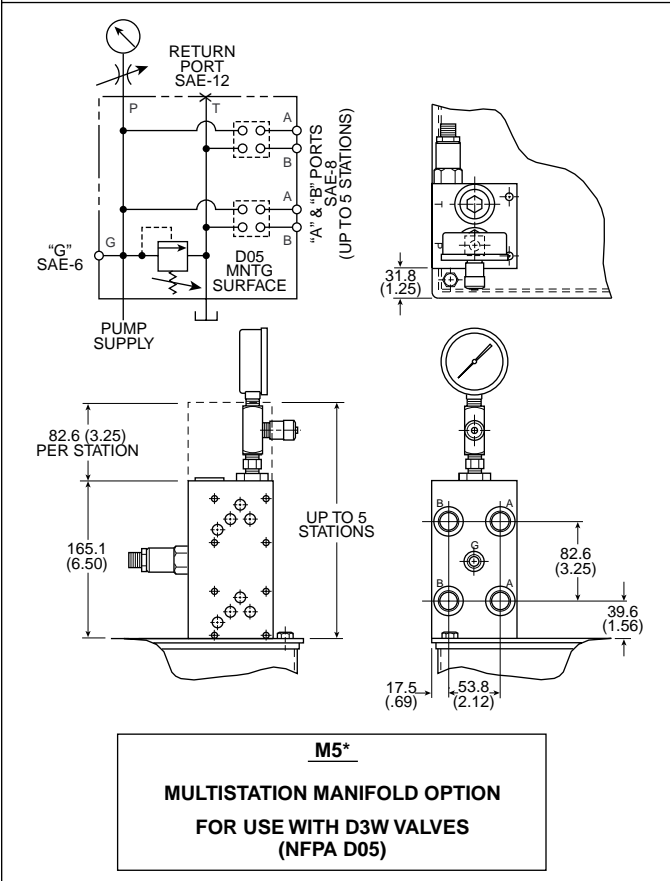
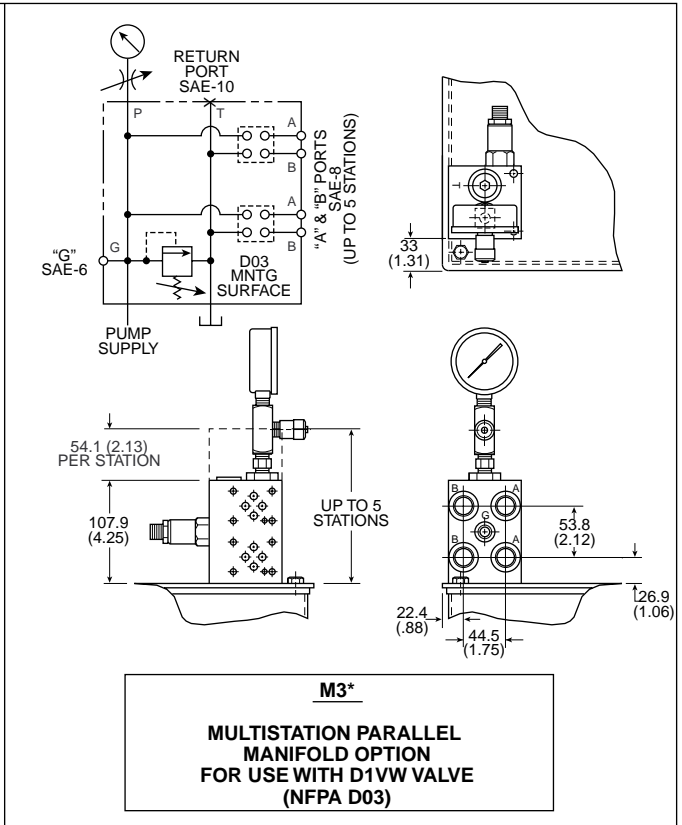
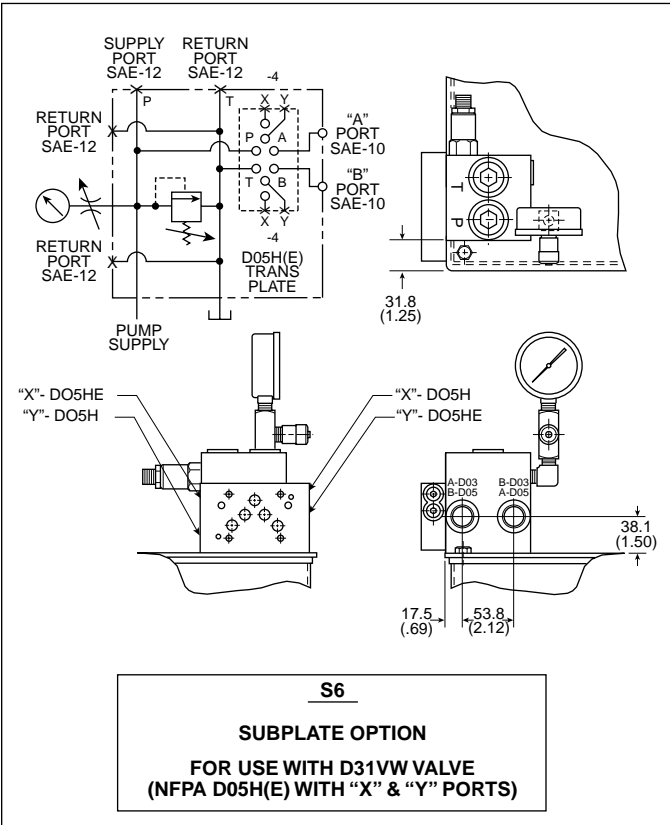
Manifold Options

Inch equivalents for millimeter dimensions are shown in (**).

| | |
|---|---|
| <p>O MANIFOLD OPTION FOR SUPPLY & RETURN CONNECTIONS (5 GAL. RESERVOIR UNITS)</p> | <p>S3 SUBPLATE OPTION FOR USE WITH D1VW VALVE (NFPA D03)</p> |
| <p>O MANIFOLD OPTION FOR SUPPLY & RETURN CONNECTIONS (37.9, 75.7, 113.6, 115.4 LIT (10, 20, 30, 40 GAL) RESERVOIR UNITS)</p> | <p>S5 SUBPLATE OPTION FOR USE WITH D3W VALVE (NFPA D05)</p> |

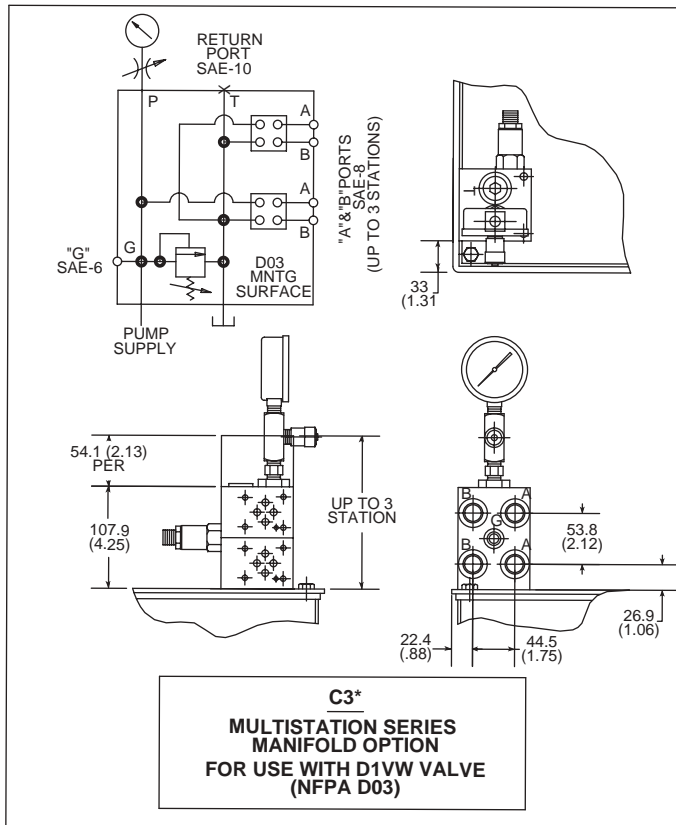
Manifold Options

Inch equivalents for millimeter dimensions are shown in (**).



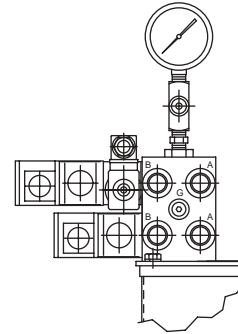
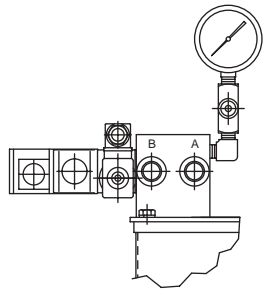
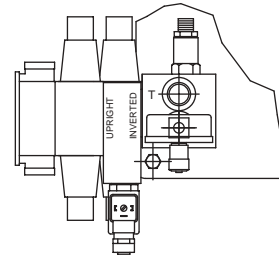
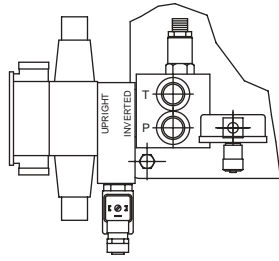
Manifold Options

Inch equivalents for millimeter dimensions are shown in (**).



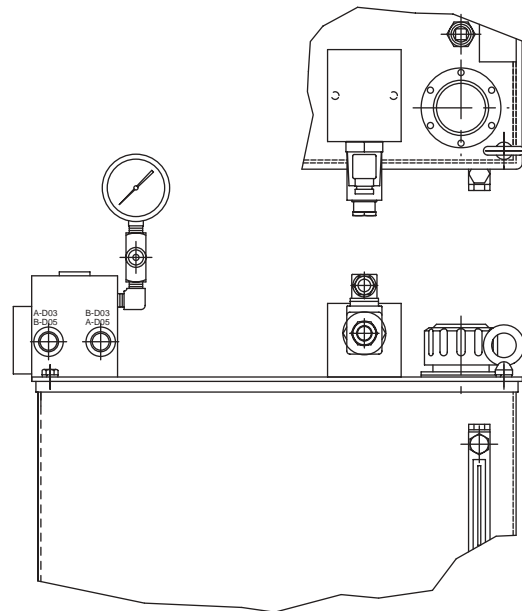
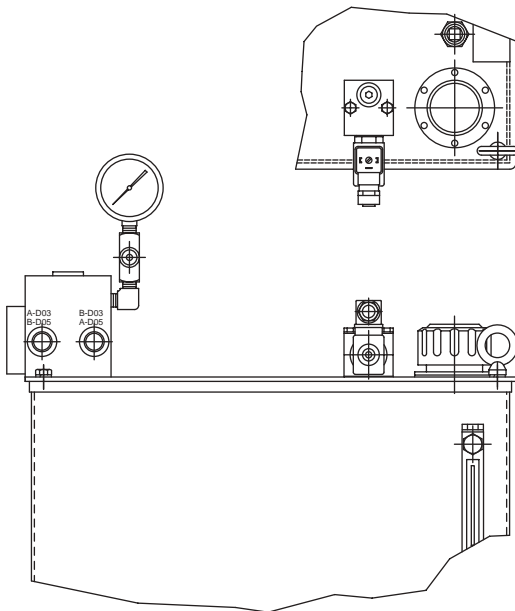
B

Pressure Control Option "B" - Unloading Valve



"H"PAK WITH
 "S3" MANIFOLD
 3.4-19.3 LPM (0.9-5.1 GPM) FLOW RATES ONLY
 (CONNECTED TO SYSTEM RETURN LINE)

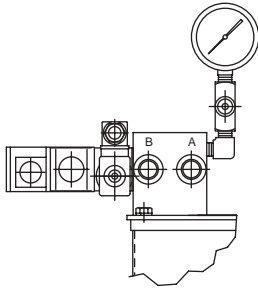
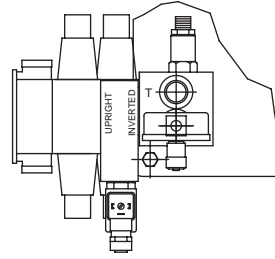
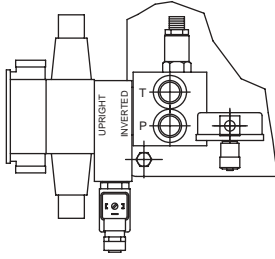
"H"PAK WITH
 "M3*" MANIFOLD
 3.4-19.3 LPM (0.9-5.1 GPM) FLOW RATES ONLY
 (CONNECTED TO SYSTEM RETURN LINE)



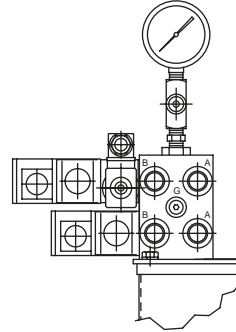
"H"PAK WITH
 "OMIT", "S5", "S6", "M5*", "M6*" MANIFOLDS
 3.4-19.3 LPM (0.9-5.1 GPM) FLOW RATES ONLY
 (PLUMBED DIRECTLY BACK TO TANK)

"H"PAK WITH
 "OMIT", "S3", "S5", "S6", "M3*", "M5*", "M6*" MANIFOLDS
 23.84-46.56 LPM (6.3-12.3 GPM) FLOW RATES ONLY
 (PLUMBED DIRECTLY BACK TO TANK)

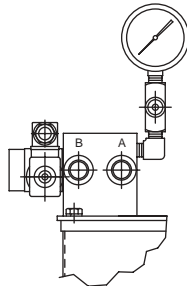
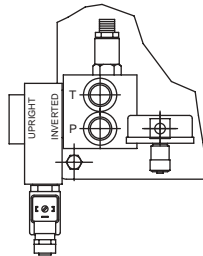
Pressure Control Option "B" - Unloading Valve



"D"PAK WITH
"S3" MANIFOLD
(CONNECTED TO SYSTEM RETURN)



"D"PAK WITH
"M3" MANIFOLD
(CONNECTED TO SYSTEM RETURN)



"D"PAK WITH
"OMIT" MANIFOLD
(CONNECTED TO SYSTEM RETURN)

B

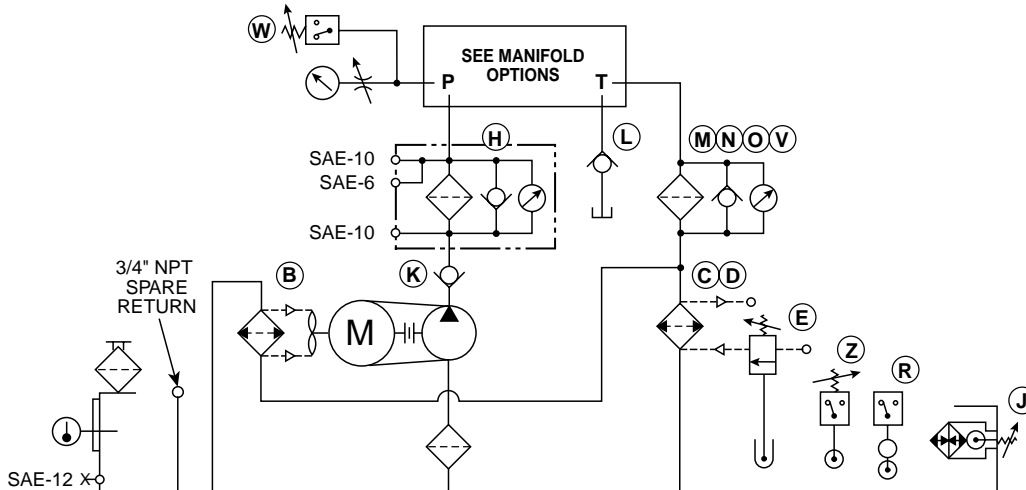
V-Pak – Compensator Options

| | |
|--|---|
| <p>“OMIT” OPTION SINGLE PRESSURE REMOTE COMPENSATOR</p> <p>AUX. VENT PORT (SAE-6) PUMP COMPENSATOR CONTROL ADJUSTMENT</p> | <p>“B” OPTION SINGLE PRESSURE REMOTE COMPENSATOR W/LOW PRESS. STANDBY</p> <p>SOLENOID IS LOW WATT WITH DIN. 43650 CONNECTOR AND MANUAL OVERRIDE</p> <p>LOW PRESS. STANDBY (N.O.) ENERGIZE TO BUILD PRESSURE PUMP COMPENSATOR CONTROL ADJUSTMENT</p> |
| <p>“C” OPTION BI-PRESSURE REMOTE COMPENSATOR</p> <p>SOLENOID IS LOW WATT WITH DIN. 43650 CONNECTOR AND MANUAL OVERRIDE</p> <p>HIGH PRESS. SOLENOID (N.O.) ENERGIZE FOR HIGH PRESSURE PUMP COMPENSATOR HIGH PRESS. CONTROL</p> <p>PUMP COMPENSATOR LOW PRESS. CONTROL</p> | <p>“D” OPTION BI-PRESSURE REMOTE COMPENSATOR W/LOW PRESS. STANDBY</p> <p>SOLENOID IS LOW WATT WITH DIN. 43650 CONNECTOR AND MANUAL OVERRIDE</p> <p>HIGH PRESS. SOLENOID (N.O.) ENERGIZE FOR HIGH PRESSURE LOW PRESS. STANDBY (N.O.) ENERGIZE FOR LOW PRESSURE</p> <p>PUMP COMPENSATOR HIGH PRESSURE CONTROL PUMP COMPENSATOR LOW PRESSURE CONTROL</p> |
| <p>“E” OPTION ELECTROHYDRAULIC PRESSURE CONTROL</p> <p>INPUT PRESSURE SIGNAL AMP</p> <p>DRIVER CARD ATTACH POINT SOLENOID REQUIRES 24 VDC, 30 WATT POWER SUPPLY (DIN 43650 CONNECTOR)</p> | <p>“F” OPTION PROVISION FOR CUSTOMER SUPPLIED REMOTE COMPENSATOR</p> <p>SAE-6 37 FLARE</p> <p>PUMP COMPENSATOR PRESSURE (INLET) PORT PUMP COMPENSATOR TANK (RETURN) PORT</p> <p>SAE-6 37 FLARE “P” & “T” PORTS ATTACH POINTS FOR CUSTOMER SUPPLIED REMOTE COMPENSATOR</p> |

Accessory Options

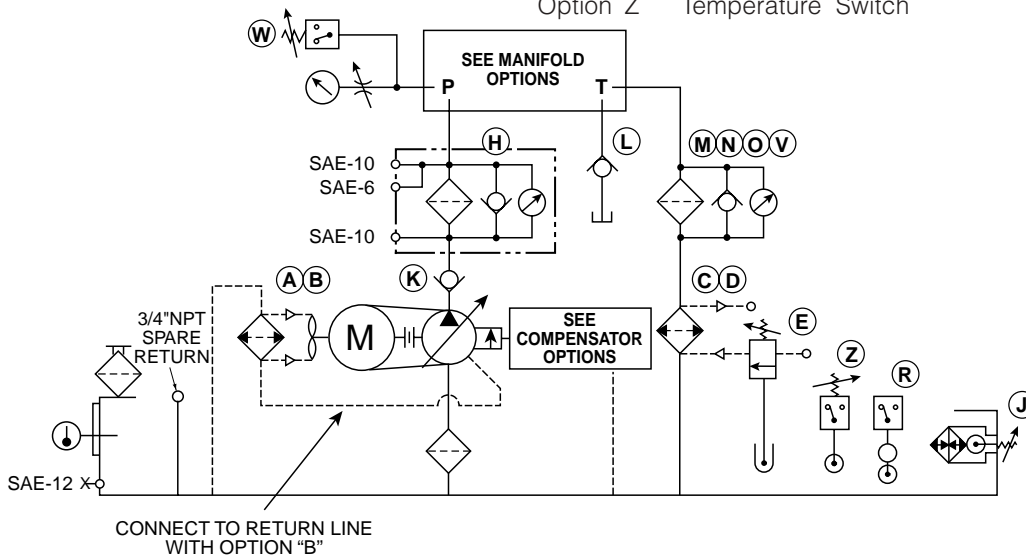
D & H-PAKS

- | | | | |
|----------|---|----------|--|
| Option B | Return Line Air/Oil Heat Exchanger (B1 or B2) | Option L | Check Valve – Return Line Bypass |
| Option C | Return Line Water/Oil Heat Exchanger | Option M | Return Line Filter |
| Option D | Return Line Water/Oil Heat Exchanger | Option N | Return Line Filter |
| Option E | Water Line Temperature Control Valve | Option O | Return Line Filter |
| Option H | Pressure Filter | Option R | Combination Temp/Level Switch (R1 or R2) |
| Option J | Immersion Heater | Option V | Return Line Filter |
| Option K | Check Valve – Pump Outlet | Option W | Pressure Switch (W1 or W2) |
| | | Option Z | Temperature Switch |



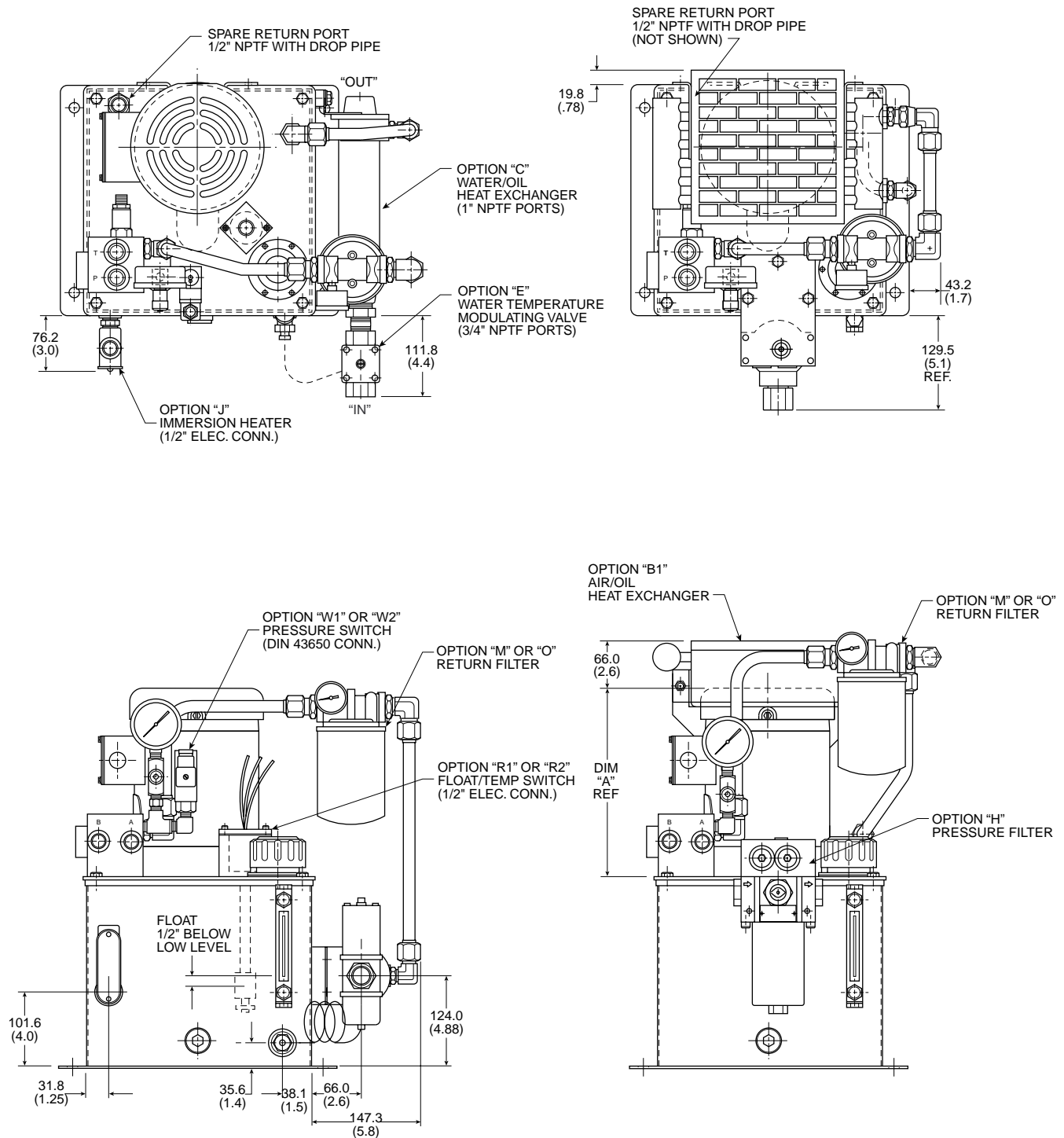
V-PAKS

- | | | | |
|----------|---|----------|--|
| Option A | Pump Case Heat Exchanger | Option K | Check Valve – Pump Outlet |
| Option B | Return Line Air/Oil Heat Exchanger (B1 or B2) | Option L | Check Valve – Return Line Bypass |
| Option C | Return Line Water/Oil Heat Exchanger | Option M | Return Line Filter |
| Option D | Return Line Water/Oil Heat Exchanger | Option N | Return Line Filter |
| Option E | Water Line Temperature Control Valve | Option O | Return Line Filter |
| Option H | Pressure Filter | Option R | Combination Temp/Level Switch (R1 or R2) |
| Option J | Immersion Heater | Option V | Return Line Filter |
| | | Option W | Pressure Switch (W1 or W2) |
| | | Option Z | Temperature Switch |



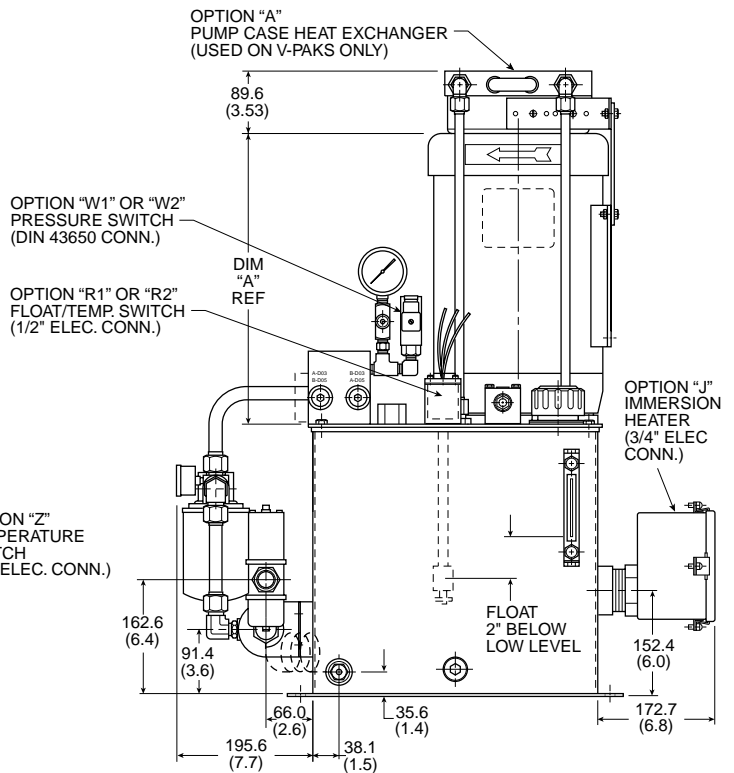
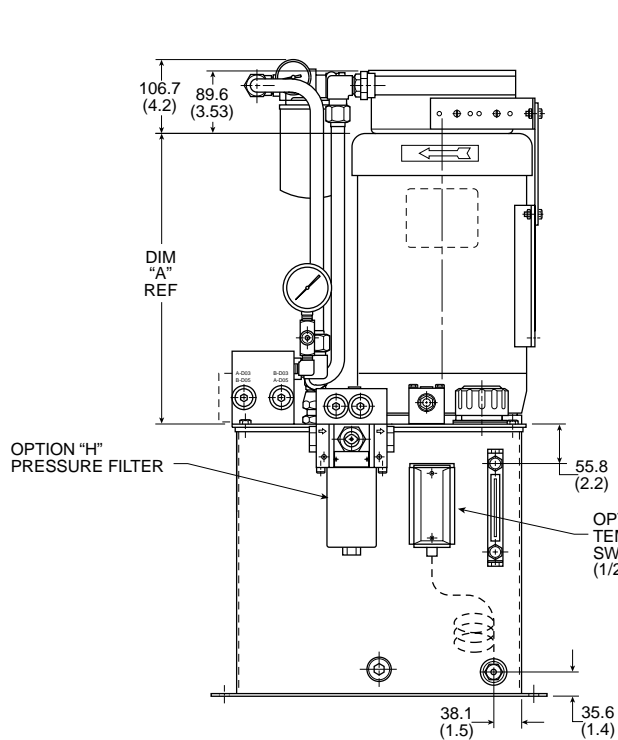
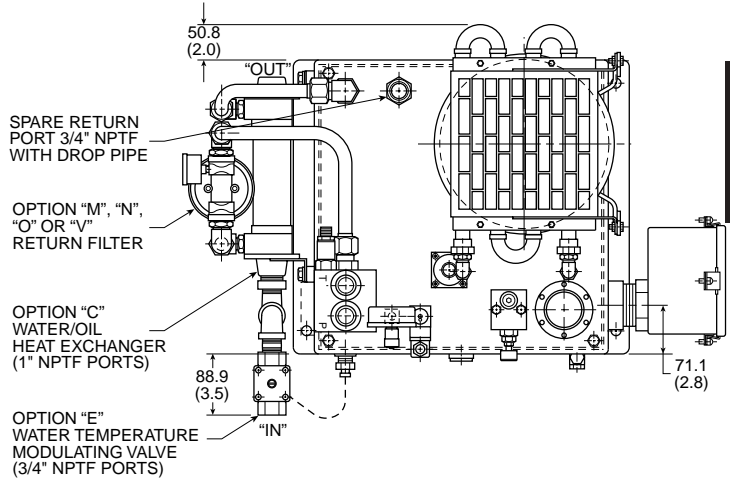
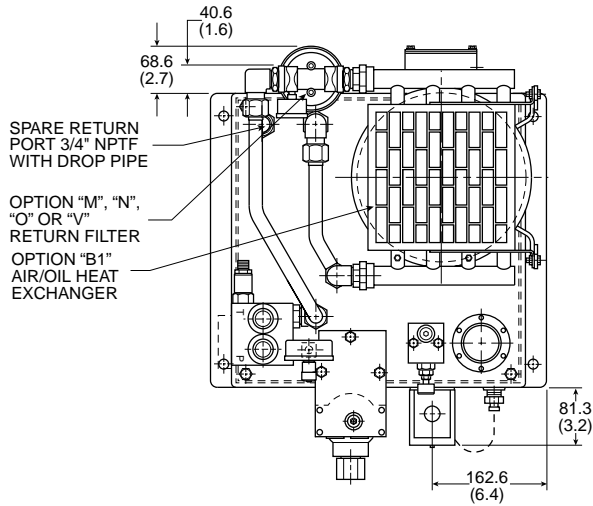
Dimensions - D-Pak (5 Gallon Tank) Accessories

Inch equivalents for millimeter dimensions are shown in (**).



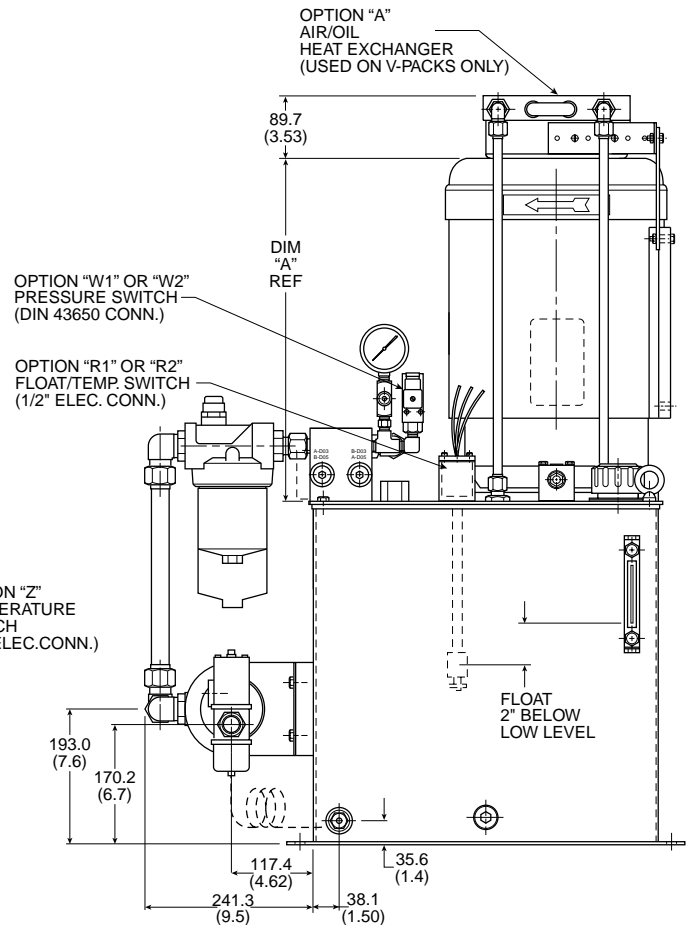
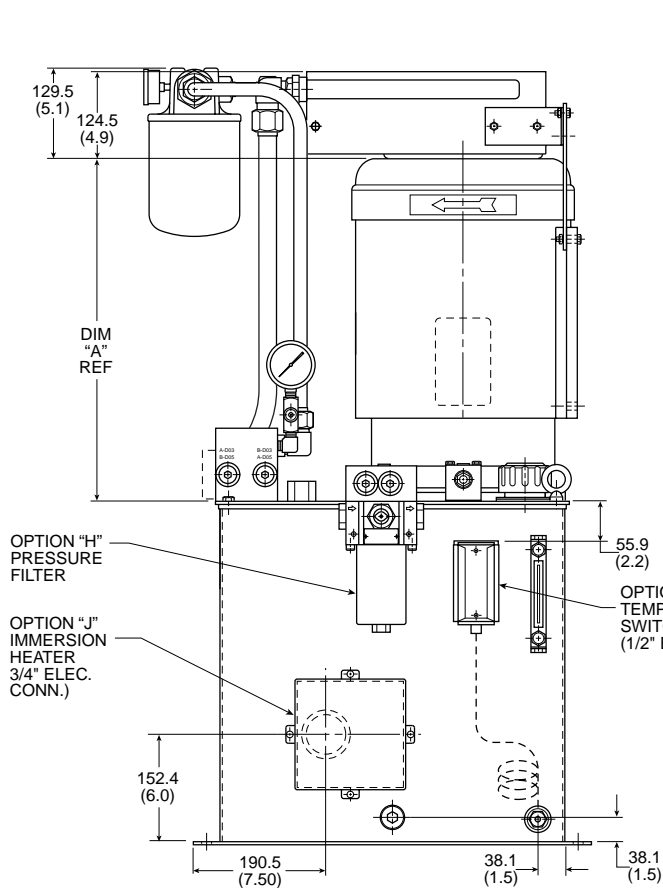
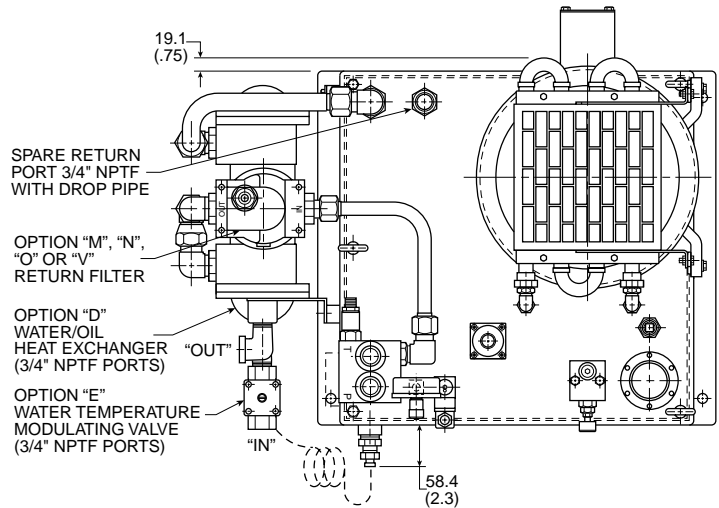
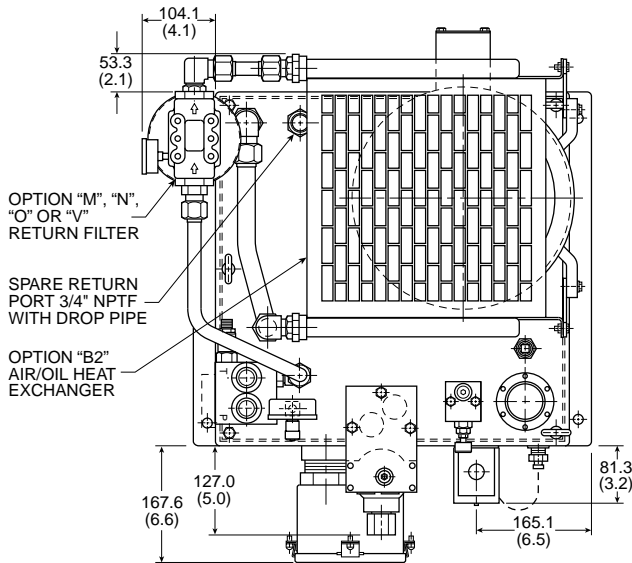
Dimensions - H1 & V1 (10 Gallon Tank) Accessories

Inch equivalents for millimeter dimensions are shown in (**).



Dimensions - H2, 3, 4 & V2, 3, 4 (20, 30, 40 Gallon Tank) Accessories

Inch equivalents for millimeter dimensions are shown in (**).



Performance Data – Maximum Working Pressures

- **** Represents maximum operating pressure with pump/motor combination. This will be the maximum relief valve or compensator setting.
- **** Represents maximum operating pressure with pump/motor combination. When used on power unit products this will represent a 206.8 Bar (3000 PSI) relief valve or compensator setting.

D & H-Pak - Pump/Motor Combinations Maximum Operating Pressure Bar (PSI)

| Pump Code Flow at 1725 RPM LPM (GPM) | Motor KW (HP) | | | | | | | | | | |
|---|--------------------------------------|------------|-------------|-------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | .37 (.5) | .60 (.75) | .75 (1) | 1.1 (1.5) | 1.5 (2) | 2.2 (3) | 3.7 (5) | 5.6 (7.5) | 7.5 (10) | 11.2 (15) | 14.9 (20) |
| | Max Operating Pressure (Theoretical) | | | | | | | | | | |
| 3.4 (0.9) | 55.8(810) | 84.1(1220) | 111.7(1620) | 167.5(2430) | 223.4(3240) | | | | | | |
| 4.9 (1.3) | 40.0(580) | 60.0(870) | 80.0(1160) | 119.3(1730) | 159.3(2310) | 239.2(3470) | | | | | |
| 6.8 (1.8) | 29.6(430) | 44.1(640) | 59.3(860) | 88.3(1280) | 118.6(1720) | 177.2(2570) | 275.0(3988) | | | | |
| 8.7 (2.3) | 22.8(330) | 34.5(500) | 46.2(670) | 69.0(1000) | 92.4(1340) | 138.6(2010) | 231.0(3350) | | | | |
| 10.2 (2.7) | 20.0(290) | 30.3(440) | 40.0(580) | 60.0(870) | 80.7(1170) | 120.7(1750) | 201.3(2920) | 275.0(3988) | | | |
| 12.1 (3.2) | 15.9(230) | 24.1(350) | 31.7(460) | 48.3(700) | 64.1(930) | 96.5(1400) | 160.6(2330) | 241.3(3500) | | | |
| 17.0 (4.5) | 11.0(160) | 17.2(250) | 22.8(330) | 33.8(490) | 45.5(660) | 69.0(1000) | 115.1(1670) | 172.4(2500) | 228.9(3320) | | |
| 19.3 (5.1) | 10.3(150) | 15.2(220) | 20.7(300) | 30.3(440) | 40.7(590) | 61.4(890) | 102.0(1480) | 153.1(2220) | 204.1(2960) | 275.0(3988) | |
| 23.8 (6.3) | 8.3(120) | 12.4(180) | 16.5(240) | 24.8(360) | 33.1(480) | 49.6(720) | 82.7(1200) | 124.1(1800) | 165.5(2400) | 248.2(3600) | |
| 30.7 (8.1) | | 9.7(140) | 12.4(180) | 18.6(270) | 24.8(360) | 37.2(540) | 62.7(910) | 93.8(1360) | 125.5(1820) | 187.5(2720) | 251.0(3640) |
| 35.6 (9.4) | | 8.3(120) | 11.0(160) | 16.5(240) | 21.4(310) | 32.4(470) | 53.8(780) | 81.4(1180) | 108.2(1570) | 162.0(2350) | 215.8(3130) |
| 46.6 (12.3) | | | 8.3(120) | 11.7(170) | 15.9(230) | 24.1(350) | 40.0(580) | 60.0(870) | 80.0(1160) | 120.0(1740) | 160.0(2320) |

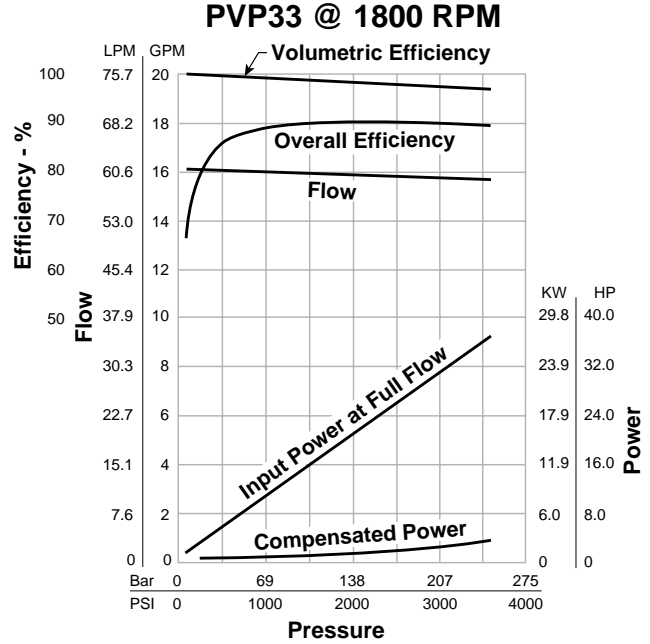
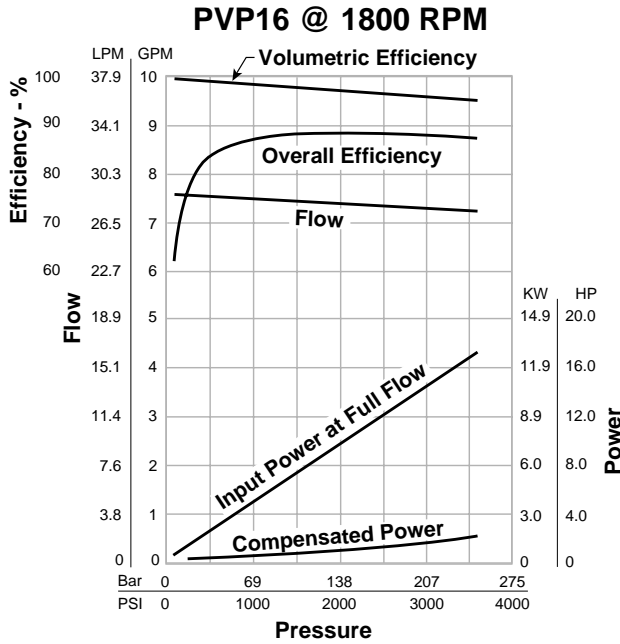
B

V-Pak - Pump/Motor Combinations Maximum Operating Pressure Bar (PSI)

| Pump | LPM (GPM) @ 1725 RPM | Motor KW (HP) | | | | | | |
|-------|----------------------|---------------|-------------|-------------|--------------------|--------------------|--------------------|--------------------|
| | | 1.5 (2) | 2.2 (3) | 3.7 (5) | 5.6 (7.5) | 7.5 (10) | 11.2 (15) | 14.9 (20) |
| PVP16 | 7.6 (2.0) | 72.4(1050) | 108.2(1570) | 179.3(2600) | 266.1(3860) | | | |
| PVP16 | 9.5 (2.5) | 64.1(930) | 94.5(1370) | 155.1(2250) | 232.4(3370) | | | |
| PVP16 | 11.4 (3.0) | 57.2(830) | 84.8(1230) | 137.9(2000) | 206.8(3000) | | | |
| PVP16 | 13.2 (3.5) | 51.7(750) | 75.8(1100) | 124.1(1800) | 184.8(2680) | 246.1(3570) | | |
| PVP16 | 15.1 (4.0) | 46.9(680) | 68.9(1000) | 113.8(1650) | 168.2(2440) | 223.4(3240) | | |
| PVP16 | 17.0 (4.5) | 43.4(630) | 63.4(920) | 103.4(1500) | 153.8(2230) | 204.8(2970) | 305.4(4430) | |
| PVP16 | 18.9 (5.0) | 40.0(580) | 58.6(850) | 96.5(1400) | 142.0(2060) | 188.9(2740) | 281.3(4080) | |
| PVP16 | 20.8 (5.5) | 37.9(550) | 55.2(800) | 89.6(1300) | 132.4(1920) | 175.1(2540) | 261.3(3790) | |
| PVP16 | 22.7 (6.0) | 35.2(510) | 51.7(750) | 83.4(1210) | 123.4(1790) | 163.4(2370) | 244.1(3540) | |
| PVP16 | 24.6 (6.5) | 33.1(480) | 48.3(700) | 77.9(1130) | 115.8(1680) | 153.0(2220) | 228.2(3310) | |
| PVP16 | 26.5 (7.0) | 31.0(450) | 45.5(660) | 73.8(1070) | 108.9(1580) | 144.8(2100) | 215.1(3120) | |
| PVP33 | 30.3 (8.0) | | 41.4(600) | 66.2(960) | 97.9(1420) | 129.6(1880) | 193.1(2800) | 255.1(3700) |
| PVP33 | 32.2 (8.5) | | 39.3(570) | 64.1(930) | 93.1(1350) | 123.4(1790) | 182.7(2650) | 242.7(3520) |
| PVP33 | 34.1 (9.0) | | 37.2(540) | 60.7(880) | 88.9(1290) | 117.2(1700) | 174.4(2530) | 231.0(3350) |
| PVP33 | 36.0 (9.5) | | 35.9(520) | 57.9(840) | 84.8(1230) | 112.4(1630) | 166.2(2410) | 220.6(3200) |
| PVP33 | 37.9 (10.0) | | 34.5(500) | 55.2(800) | 81.4(1180) | 106.9(1550) | 159.3(2310) | 206.8(3000) |
| PVP33 | 39.7 (10.5) | | 33.1(480) | 53.1(770) | 77.9(1130) | 102.7(1490) | 152.4(2210) | 202.7(2940) |
| PVP33 | 41.6 (11.0) | | 31.7(460) | 51.0(740) | 75.2(1090) | 98.6(1430) | 146.9(2130) | 194.4(2820) |
| PVP33 | 43.5 (11.5) | | 31.0(450) | 49.0(710) | 72.4(1050) | 95.1(1380) | 141.3(2050) | 186.8(2710) |
| PVP33 | 45.4 (12.0) | | 29.6(430) | 47.6(690) | 69.6(1010) | 91.7(1330) | 135.8(1970) | 180.0(2610) |
| PVP33 | 47.3 (12.5) | | 29.0(420) | 46.2(670) | 66.9(970) | 88.3(1280) | 131.0(1900) | 173.7(2520) |
| PVP33 | 49.2 (13.0) | | 28.3(410) | 44.8(650) | 64.8(940) | 85.5(1240) | 126.9(1840) | 167.5(2430) |
| PVP33 | 51.1 (13.5) | | 26.9(390) | 43.4(630) | 62.7(910) | 82.7(1200) | 122.7(1780) | 162.0(2350) |
| PVP33 | 53.0 (14.0) | | 26.2(380) | 42.1(610) | 60.7(880) | 80.0(1160) | 118.6(1720) | 157.2(2280) |
| PVP33 | 54.9 (14.5) | | 25.5(370) | 40.7(590) | 59.3(860) | 77.9(1130) | 115.1(1670) | 152.4(2210) |
| PVP33 | 56.8 (15.0) | | 24.8(360) | 39.3(570) | 57.2(830) | 75.2(1090) | 111.7(1620) | 147.5(2140) |

Performance Data – Pumps

Standard Pumps



NOTE: The efficiencies and data in the graph are good only for pumps running at 1800 RPM and stroked to maximum. To calculate approximate horsepower for the other conditions, use the following formula:

$$HP = \left[\frac{Q \times (PSI)}{1714} \right] + (CHp) \times \frac{N}{1800}$$

Actual GPM is directly proportional to drive speed and maximum volume setting. Flow loss, however, is a function of pressure only.

WHERE:

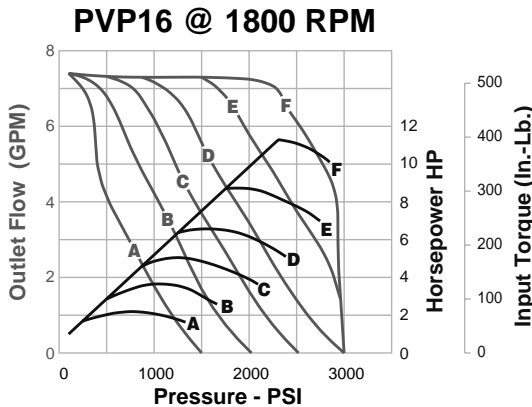
Q = Actual Output Flow in GPM

PSI = Pressure At Pump Outlet

CHp = Input Horsepower @ Full compensation @ 1800 RPM (from graph read at operating pressure)

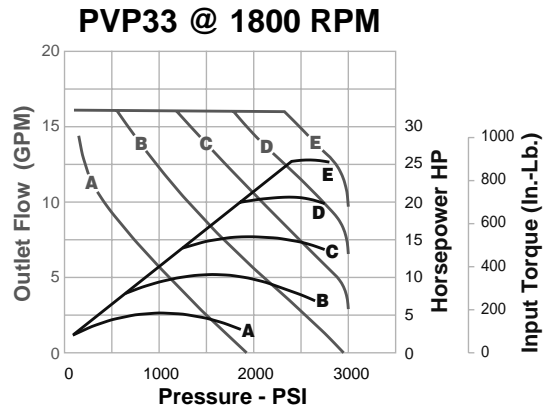
N = Drive Speed in RPM

Horsepower Limited Pumps



| | MOTOR KW (HP) | | | | | |
|-------------|-------------------------------|--------|--------|----------|---------|----------|
| | 1.5(2) | 2.2(3) | 3.7(5) | 5.6(7.5) | 7.5(10) | 11.2(15) |
| | Compensator Setting Bar (PSI) | | | | | |
| PVP16 | 110.3 | 151.7 | 206.8 | 206.8 | 206.8 | 206.8 |
| FULL STROKE | (1600) | (2200) | (3000) | (3000) | (3000) | (3000) |

Pump Control Option "H" with PVP16
 Horsepower Limiting
 Factory Compensator Settings



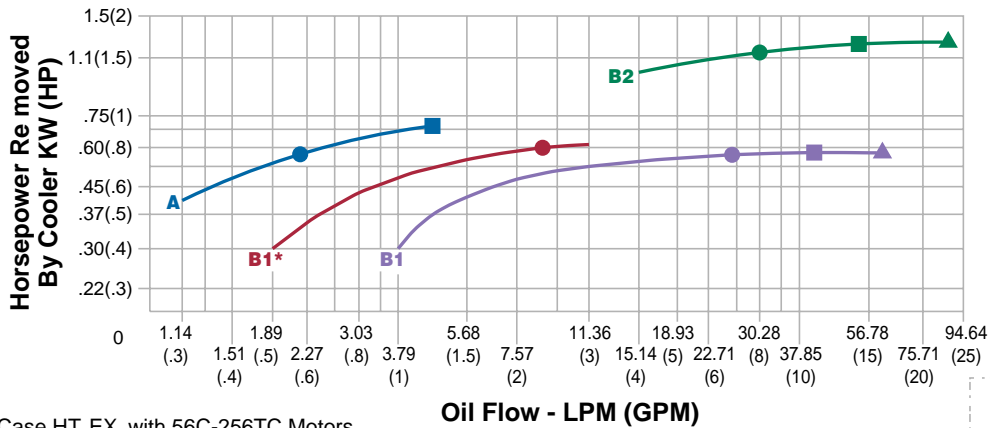
| | MOTOR KW (HP) | | | |
|-------------|-------------------------------|---------|----------|----------|
| | 5.6(7.5) | 7.5(10) | 11.2(15) | 14.9(20) |
| | Compensator Setting Bar (PSI) | | | |
| PVP33 | 151.7 | 186.2 | 206.8 | 206.8 |
| FULL STROKE | (2200) | (2700) | (3000) | (3000) |

Pump Control Option "H" with PVP33
 Horsepower Limiting
 Factory Compensator Settings

Performance Data – Heat Exchangers

Air/Oil Heat Exchangers

“A”, “B1” & “B2” used with 1800 RPM TEFC Motors



- “A” - Pump Case HT. EX. with 56C-256TC Motors
- “B1*” - Return Line HT. EX. (D5 Power Units Only)
- “B1” - Return Line HT. EX. with 56C-184TC Motors
- “B2” - Return Line HT. EX. with 213TC-256TC Motors

Heat removal is based on 4.40C (40°F) differential between transfer medium.

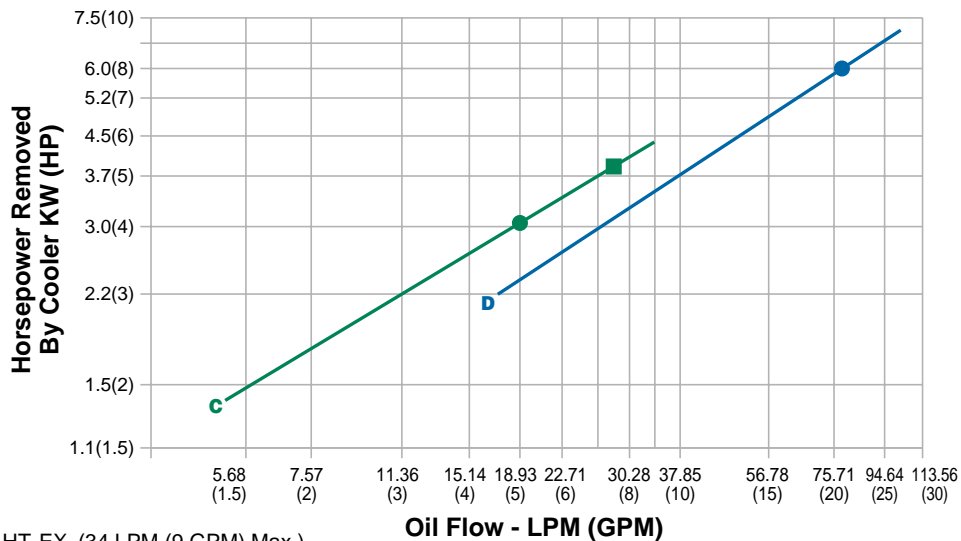
Oil Pressure Drop at 100 SSU

- = .34 Bar (5 PSI)
- = .69 Bar (10 PSI)
- ▲ = 1.38 Bar (20 PSI)



Water/Oil Heat Exchangers

“C” (1:1 Oil/Water Ratio) “D” (2:1 Oil/Water Ratio)



- “C” - Return Line HT. EX. (34 LPM (9 GPM) Max.)
- “D” - Return Line HT. EX. (17 LPM (4.5 GPM) Min.)

Heat removal is based on 4.40C (40°F) differential between transfer medium, using 29.40C (85°F) cooling water.

The Oil/Water ratio of 2:1 means that for every 7.57 Liters (2 gallons) of oil through the cooler, a minimum of 3.79 Liters (1 gallon) of 29.40C (85°F) water must be circulated to achieve curve results.

Oil Pressure Drop at 100 SSU

- = .34 Bar (5 PSI)
- = .69 Bar (10 PSI)

Horsepower Removed By Reservoir

| | RESERVOIR SIZE LITERS (GALLONS) | | | | |
|-----------------|---------------------------------|----------|----------|-----------|-----------|
| | 18.9(5) | 37.9(10) | 75.7(20) | 113.6(30) | 151.4(40) |
| KW (HP) REMOVAL | .15(.2) | .28(.38) | .43(.58) | .51(.68) | .60(.81) |

Heat removal is based on static ambient air at 29.40C (85°F) and max. oil temperature of 57.20C (135°F).



Operating Notes

- Jog the electric motor once and verify that the electric motor is rotating in the same direction as the arrow on the electric motor housing. If direction is incorrect, reverse two of the three leads on a 3-phase electric motor.
- D & H-Pak power units are tested and relief valve is set at maximum pressure of the pump/motor combination.
- V-Pak power units are tested and pressure control valves are factory preset. If adjustments are needed, follow the procedure below: Begin adjusting relief valve and pump compensator control valve to increase pressure gradually. (NOTE: Always set relief valve 250 PSI higher than pump compensator pressure control valve or severe overheating will occur.)
- If pump fails to prime, vent pump discharge to atmosphere to establish fluid flow.
- Reservoir temperature should not exceed 150°F. System reliability and component service life will be reduced when system is operated at higher temperature.
- Clean fluid = improved system reliability and longer component service life, change filter elements whenever filter indicators indicate a dirty element condition.

- It is recommended that every 4,000 operating hours or once a year, whichever occurs first, the filler/breather cap and suction strainer should be replaced.

Fluid Recommendations

Premium quality hydraulic oil with a viscosity range between 150-250 SSU (30-50 cst.) at 100°F (38°C). Normal operating viscosity range between 80-1000 SSU (17-180 cst.). Maximum start-up viscosity is 4000 SSU (1000 cst.).

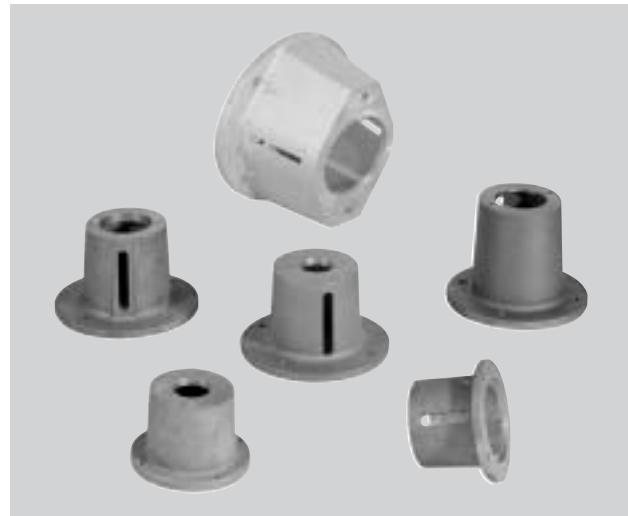
NOTE: Consult Parker when exceeding 160°F (71°C) operation. Oil should have maximum anti-wear properties, rust and oxidation treatment.

Filtration

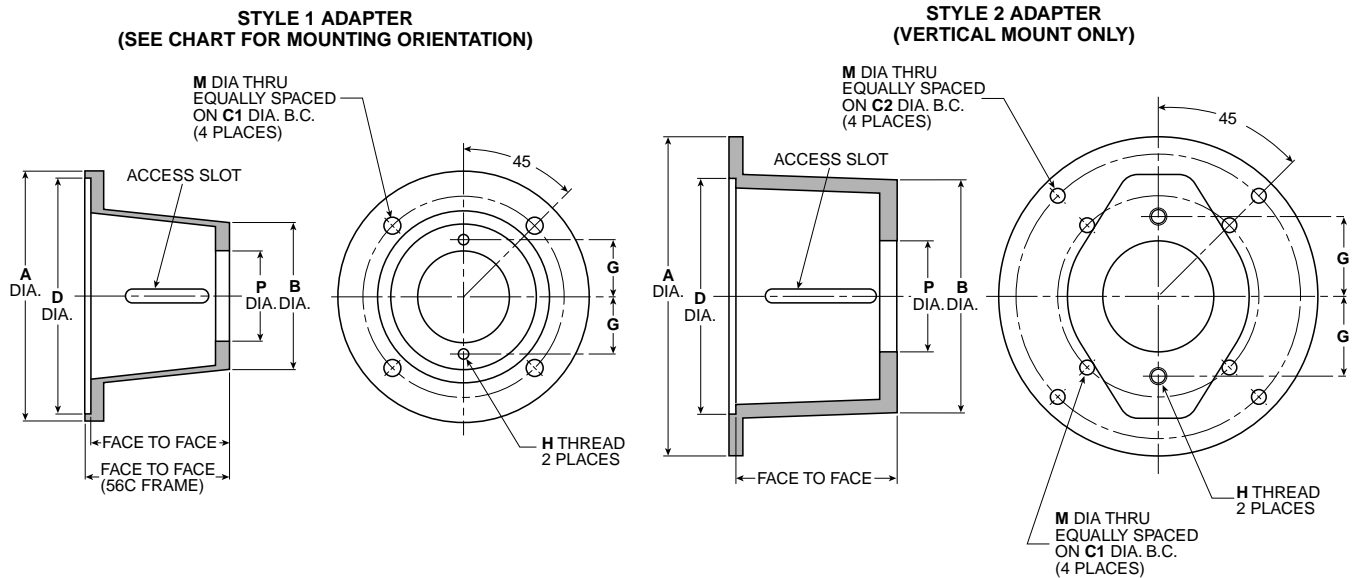
For maximum pump and system component life, the system should be protected from contamination at a level not to exceed 125 particles greater than 10 microns per milliliter of fluid. (SAE Class 4 / ISO 16/13.) Due to the nature of variable displacement pumps, variations in pump inlet conditions, fluid acceleration losses, system aeration, and duty cycle must be carefully considered before specifying suction line filtration. Contact your Parker representative for assistance.

NOTE: For additional information refer to latest edition of Bulletin No. HY13-2600-550-xxx..

The totally enclosed pump mounting bracket offers precision shaft alignment and safety from the rotating shafts and coupling. The bracket is designed to mount on the motor face with the motor coupling half secure to the shaft. Then the pump, with its coupling half secure on the pump shaft, is mounted and the coupling halves are engaged. This will require proper spacing of the coupling prior to installation and a coupling with an outside diameter less than "P" dimension. If the coupling selected cannot be assembled this way, both coupling halves must be installed on the motor shaft. Next, mount the adapter on the motor. Then the pump can be mounted and the coupling secured to the pump by using the access slot to tighten the pump shaft coupling set screw.



Dimensions*
 Pump Mounting Adapter



| Model Number | Pump Mounting | Motor Mounting | A | B | C1 | C2 | D | Face to Face | G | H | M | P | Vertical Mounting | Horizontal Mounting | Style | Weight |
|--------------|---------------|----------------|------|-----|------|-------|------|--------------|------|--------|------|------|-------------------|---------------------|-------|--------|
| 876631 | SAE AA | 56C | 6.7 | 5.0 | 5.88 | N/A | 4.50 | 3.50 | 1.63 | 3/8-16 | 0.44 | 2.00 | YES | YES | 1 | 3 lb. |
| 876632 | SAE AA | 182TC/256TC | 9.0 | 5.3 | 7.25 | N/A | 8.50 | 5.00 | 1.63 | 3/8-16 | 0.56 | 2.00 | YES | YES | 1 | 4 lb. |
| 876633 | SAE A | 56C | 6.7 | 5.0 | 5.88 | N/A | 4.50 | 4.25 | 2.10 | 3/8-16 | 0.44 | 3.25 | YES | YES | 1 | 4 lb. |
| 876634 | SAE A | 182TC/256TC | 9.0 | 5.3 | 7.25 | N/A | 8.50 | 5.00 | 2.10 | 3/8-16 | 0.56 | 3.25 | YES | YES | 1 | 4 lb. |
| 876635 | SAE A | 182TC/256TC | 9.0 | 5.3 | 7.25 | N/A | 8.50 | 5.88 | 2.10 | 3/8-16 | 0.56 | 3.25 | YES | YES | 1 | 5 lb. |
| 875343 | SAE B | 182TC/256TC | 11.4 | 9.0 | 7.25 | 10.25 | 8.50 | 5.75 | 2.88 | 1/2-13 | 0.53 | 4.00 | YES | NO | 2 | 7 lb. |
| 875344 | SAE B | 182TC/256TC | 11.4 | 9.0 | 7.25 | 10.25 | 8.50 | 6.81 | 2.88 | 1/2-13 | 0.53 | 4.00 | YES | NO | 2 | 8 lb. |
| 876683 | SAE B | 182TC/256TC | 9.0 | 8.8 | 7.25 | N/A | 8.50 | 6.38 | 2.88 | 1/2-13 | 0.53 | 4.00 | NO | YES | 1 | 7 lb. |
| 876684 | SAE C | 182TC/256TC | 9.0 | 9.3 | 7.25 | N/A | 8.50 | 6.69 | 3.56 | 5/8-11 | 0.53 | 5.00 | NO | YES | 1 | 20 lb. |

* All dimensions are in inches.

NOTE: It is the responsibility of the user to check the listed dimensions to ensure suitability of mounting adapter with pump/coupling/motor combination.

Application Formulas

- 1 GPM at 1500 PSI = 1 HP (General Rule)
 - 1 Gallon = 231 Cubic Inches (3.7854 Liters)
 - 1 Gallon Oil = 7.08 Lbs.
 - 1 bar = 14.5 PSI
 - 25.4mm = 1 Inch
- 1 HP = 42.4 BTU/Min.
 - 1 Gallon = 3.7854 Liters

$$\text{HP} = \frac{\text{GPM} \times \text{PSI}}{1714 \times \text{Pump Efficiency}}$$

$$\text{PSI} = \frac{1714 \times \text{Pump Efficiency} \times \text{HP}}{\text{GPM}}$$

$$\text{GPM} = \frac{1714 \times \text{Pump Efficiency} \times \text{HP}}{\text{PSI}}$$

$$\text{HP} = \frac{\text{Torque (in.-lbs.)} \times \text{RPM}}{63025}$$

$$\text{Torque} = \frac{\text{HP} \times 63025}{\text{RPM}}$$

$$\text{RPM} = \frac{\text{HP} \times 63025}{\text{Torque}}$$

Motor Information

At 440V — 3-Phase Motor Draws 1.25 AMP/HP

At 220V — 3-Phase Motor Draws 2.5 AMP/HP

At 110V — Single Phase Motor Draws 10 AMP/HP