

PERMCO

OLD BLUE IS GOING GREEN



Versa-Pak

Flow Control/Unloader Refuse Pump System

The Sensible Choice

Protecting your bottom line and the enviroment!



NFPA
Solutions through
motion technology



OLD BLUE IS GOING GREEN



Versa-Pak Flow Control/Unloader System

The Versa-Pak Flow Control/Unloader unit is ideal for most residential and commercial refuse hydraulic systems. Applications include residential and commercial front loaders, rear loaders, automated side loaders, compactors, roll-offs, recycle and all PTO driven pump applications.

The Flow Control/Unloader configuration has both the Flow Control and Unloader function. By flipping a switch on the dash, the operator can go into the Unload mode where full flow is diverted back to the tank at low pressure. This function reduces system heat buildup and horsepower losses resulting in substantial vehicle fuel efficiencies.

The priority pressure compensated flow control valve allows a preset amount of flow to the hydraulic system with the excess flow being returned to tank; this function protects the system's main relief valve from being flooded. In addition, the priority type pressure compensated flow control minimizes heat generation by returning unused oil back to tank. This oil is returned to tank at only a few hundred PSI more than system pressure rather than dumping excess flow across the main relief valve at maximum pump pressure. Because the system never exceeds the correct flow, it does not have the consequential high flow induced pressure spikes resulting in cylinder and/or component failure.

Hydraulic system flow is always available regardless of engine RPM, this allows pack on the fly and system operation capabilities without interruption. Unlike some over-speed control systems the operator never loses control of the hydraulic system. With constant controlled output flow available, cycle times, system efficiencies and productivity is maintained.

The Flow Control/Unloader unit can be installed on new OEM equipment as well as retrofitted onto existing refuse equipment without major plumbing or system changes. Other more expensive pumps are not as tolerant of conditions that exist in the refuse market. Replacement and downtimes are minimized because of reliability, availability, and simplicity of design. Going Green is the only Sensible Choice.



System Features

- Improved fuel savings due to lower horsepower draw in the unload mode
- No external overspeed components that effect operator control, efficiencies and productivity
- Improved route time and increased productivity and profits
- No external speed sense connections required
- No need for special directional control valves with signal lines
- Less system heat generation in the unload mode
- No pneumatic components or air line connections required
- Tamper-resistant flow regulation, yet field adjustable
- Simplistic gear technology design allows for low technical level maintenance training
- Continuous oil circulation provides better filtration conditions
- Quieter operation than conventional dry valve systems
- One piece design provides for simple installation and reduced plumbing connections

Pump Features

- Available in six frame sizes (24-47 GPM @ 1200 RPM)
- Wide variety of controlled flow options
- Pressures to 3000 PSI
- Special design pressure balanced wear plates maintain high pump efficiency throughout all operating ranges
- High strength cast iron dowel pin construction
- High strength alloy steel gear and shaft set
- Sealed outboard bearing protected with an outer seal keeping contamination away from the pump
- Built-in non-adjustable pump safety relief valve
- All units are 100% factory tested

Versa-Pak Flow Control Model Number Construction

VP42 - 4C 0 F L - FC40

Pump Model (VP+GPM@1200 RPM)

VP24
VP28
VP32
VP37
VP42
VP47

Mounting Flange

4B Four Bolt "B"
2C Two Bolt "C"
4C Four Bolt "C"

Shaft

0 1-1/4" C Keyed
6 1-1/4" C Spline

*Consult factory for flows not listed
Refer to service manual for accessories items

Function & Flow Control Setting*

FC Flow Control
Blank No Flow Setting
40 40 GPM (115 LPM)
45 45 GPM (170 LPM)
50 50 GPM (189 LPM)
55 55 GPM (208 LPM)

Rotation

L Left, CCW
R Right, CW

Ports

VP24, VP28#
1-1/2" Split Flange Inlet

VP32, VP37, VP42, VP47#
2" Split Flange Inlet

#1-1/4" Split Flange Outlet & By Pass Ports

Pump Specifications

Model Number	Disp Cu.In. (CC)	Max RPM	Min RPM	Max PSI (BAR)	Inlet Port SAE-4-Bolt	Discharge Port SAE-4-Bolt	By-Pass Port SAE-4-Bolt
VP24	5.055 (83)	2400	600	3000 (207)	1-1/2"	1-1/4"	1-1/4"
VP28	6.066 (99)	2400	600	3000 (207)	1-1/2"	1-1/4"	1-1/4"
VP32	7.077 (116)	2400	600	3000 (207)	2"	1-1/4"	1-1/4"
VP37	8.088 (133)	2400	600	2500 (172)	2"	1-1/4"	1-1/4"
VP42	9.099 (149)	2400	600	2500 (172)	2"	1-1/4"	1-1/4"
VP47	10.110 (166)	2400	600	2500 (172)	2"	1-1/4"	1-1/4"

Maximum inlet vacuum not to exceed 5 IN HG (.17 BAR) or a positive pressure greater than 20 PSI (1.37 BAR)
Maximum oil temperature not to exceed 185° F (85° C)
Refer to service manual for oil specifications

Pump Output

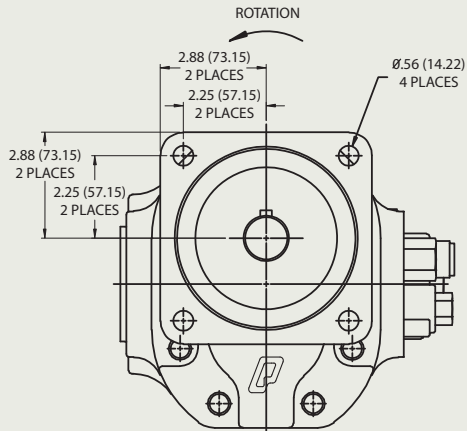
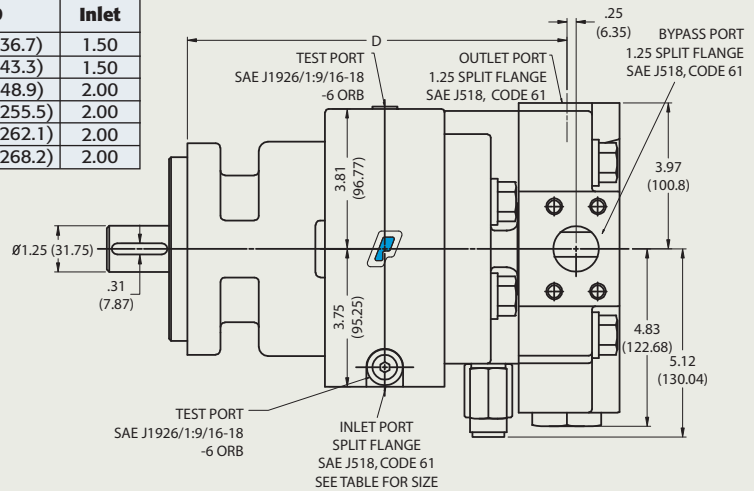
Model	600 RPM	1200 RPM	1500 RPM	1800 RPM	2100 RPM	2400 RPM
VP24	10.0 (37.9)	22.5 (85.1)	28.5 (107.8)	35.0 (132.5)	41.0 (155.2)	47.0 (178.0)
VP28	12.5 (47.3)	27.5 (104.0)	34.5 (130.6)	42.0 (159.0)	49.0 (185.5)	56.5 (213.9)
VP32	14.5 (54.9)	32.5 (123.0)	41.0 (155.2)	50.0 (189.2)	59.0 (223.3)	67.5 (255.5)
VP37	17.5 (66.2)	37.5 (142.0)	47.5 (179.8)	57.0 (215.8)	67.0 (253.6)	76.5 (289.6)
VP42	20.0 (75.7)	42.5 (160.8)	53.0 (200.6)	64.0 (242.3)	74.5 (282.0)	85.5 (323.7)
VP47	23.5 (89.0)	47.0 (177.9)	59.0 (223.3)	71.0 (268.8)	82.5 (312.3)	94.5 (357.7)

Average output flow rate in GPM (LPM) at 2000 PSI (138 BAR)

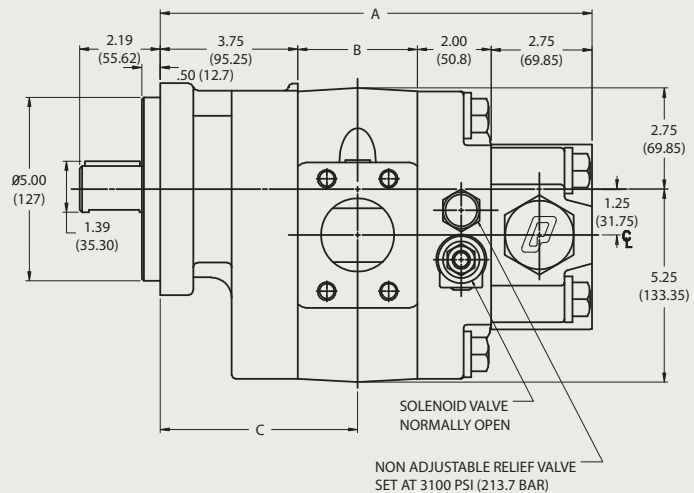
The product described herein including without limitation, product features, specification and design are subject to change by Permco without notice

Model	A	B	C	D	Inlet
24	10.75 (273.1)	2.25 (57.2)	4.88 (123.9)	9.32 (236.7)	1.50
28	11.00 (279.4)	2.50 (63.5)	5.00 (127.0)	9.58 (243.3)	1.50
32	11.25 (285.8)	2.75 (69.9)	5.12 (130.0)	9.80 (248.9)	2.00
37	11.50 (292.1)	3.00 (76.2)	5.25 (133.4)	10.06 (255.5)	2.00
42	11.75 (298.5)	3.25 (82.6)	5.38 (136.7)	10.32 (262.1)	2.00
47	12.00 (304.8)	3.50 (88.9)	5.50 (139.7)	10.56 (268.2)	2.00

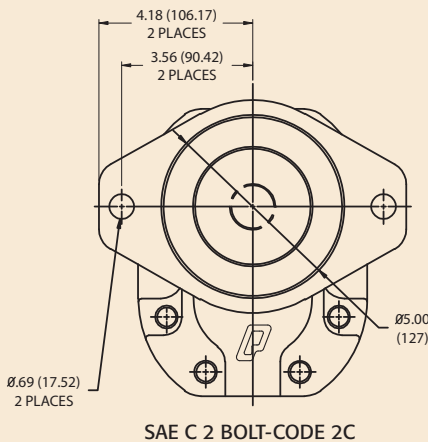
Installation Dimensions Inches (MM)



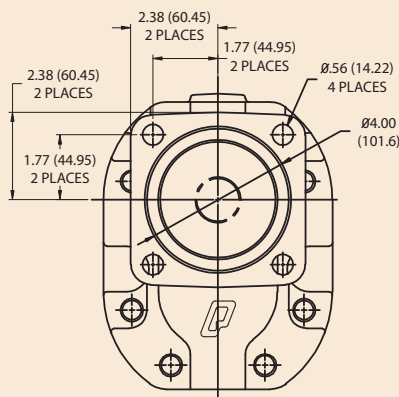
SAE C 4 BOLT SHAFT END COVER-CODE 4C
SAE C 1.25 DIAMETER GEAR SHAFT-CODE 0
CCW ROTATION SHOWN-CODE L



Shaft End Cover Options

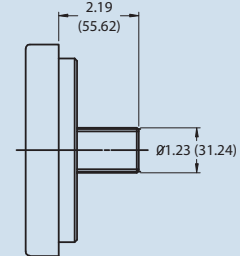


SAE C 2 BOLT-CODE 2C



SAE B 4 BOLT-CODE 4B

Shaft Option



ANSI B92.1 30 INVOLUTE SPLINE
FLAT ROOT SIDE FIT
12/24 DIAMETER PITCH
14 TOOTH, SAE C SPLINE-CODE 6



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