Pump Mounted Directional Control Valves



▼ Shown from left to right: VM32, VE33, VM33, VM43L, VE43-115



- Advance/Retract and Advance/Hold/Retract operation of single-acting and double-acting cylinders
- Manual or solenoid operation
- Pump mounting will retrofit on most Enerpac pumps
- Available "locking" option on VM Series valves for loadholding applications
- Standard "locking" feature on VE Series 3-position valves
- User adjustable relief valves allow the operator to easily set the working pressure
- ▼ ZE4420SB-FH Z-Class pump is mounted next to an Enerpac H-frame press, includes VE43 electric valve to control cylinder operation.



For Reliable Control of Single and Double-Acting Cylinders

Valve Operation	Used with	Valve						
Operation	Cylinder	Туре						
	0: 1	0.144						
Manual	Single- acting	3-Way 2 Position						
	acting	21 03111011						
Manual	Single-	3-Way						
	acting	2 Position						
Manual	Single-	3-Way						
	acting	3 Position, Tandem Center						
		Tanasın sonus						
Manual	Double-	4-Way						
	acting	3 Position,						
		Tandem Center						
Manual	Single-	3-Way						
Ivialidai	acting	3 Position,						
		Tandem Center,						
		Locking						
Manual	Double-	4-Way						
	acting	3 Position,						
		Tandem Center, Locking						
		Locking						
Solenoid	Single-	3-Way						
24 VDC	acting	2 Position						
0	0: :	6						
Solenoid 24 VDC	Single-	3-Way 2 Position,						
24 VDC	acting	Dump						
		Bamp						
Colonaid	Single-	3-Way,						
Solenoid 24 VDC	acting	3-way, 3 Position,						
2.700	9	Tandem Center						
Solenoid	Single-	3-Way, 3 Position,						
115 VAC	acting	Tandem Center						
Solenoid 24	Double-	4-Way,						
VDC	acting	3 Position, Tandem Center						
Solenoid	Double-	4-Way,						
115 VAC	acting	3 Position,						
		Tandem Center						
For remote val	ve applications	s, see page 108.						

For remote valve applications, see page 108.

Pump Mounted Directional Control Valves

All valves feature several gauge ports for "system", A port and B port pressure monitoring. User-adjustable relief valves are included on all models to allow the operator to easily set the optimum working pressure for each application. VM33 and VE43 valves include "System Check"

Schematic Flowpath

feature, for more precise pressure holding and improved system control. The VM33 has improved porting which provides faster cylinder retraction while motor is running.

Model

Nur	aei mber	Hydraulic Symbol	Schematic Flowpath			Weight
			Advance	Hold	Retract	(lbs)
VM	122	P	A P		A T T	5.6
VM	132	P	P		A T	5.6
VM	33	P	A T	P T T	P	6.7
VM	43		A B	A B	A P B	6.8
VM	33L		P	**************************************	A T	10.7
VM	43L		P B T	P B	A T T B	10.8
VES	32	P A A	T T	T P	A T	8.7
VES	32D	T A	A P		A P	8.7
VE	33 33-115	P				20.3
VE ²	43 43-115	P A B	B C 4A T T	B D T	B L L	20.3
Coom	2000 100	for product dimens	iana			

See page 109 for product dimensions.

VM, **Series**



Flow Capacity:

4.5 gal/min.

Maximum Operating Pressure:

10,000 psi

High-Pressure Hoses

require a separate 115 volt power supply

VE33-115 and VE43-115 electric valves are supplied with IC400 control station. These valves include an 8 ft. power cord, and can be used on any Enerpac pump. They



to operate.

Locking Valves

For applications that require positive load holding, VM Series valves (except the VM22 and VM32 valve)

are available with a pilot-operated check valve. This option provides hydraulic locking of the load until the valve is shifted into the retract position.

To order this feature, place an "L" at the end of the model number.



Pendants for VE-Series Solenoid Valves

When ordering Enerpac VE-Series solenoid valves, the pendant must be ordered separately for

Z-Class pumps. Pendant connection to be plugged into electric box of pump.

To be used with solenoid valves:	Pendant
VE32D	ZCP-1
VE32, VE33, VE43	ZCP-3

Remote Manual Directional Control Valves



▼ Shown from left to right: VC-20, VC-4L



Reliable Remote Control



Locking Valves

For applications that require positive load holding, VC and VM Series valves are available with a pilot-operated check valve. This

option provides hydraulic locking of the load until the valve is shifted into the retract position.

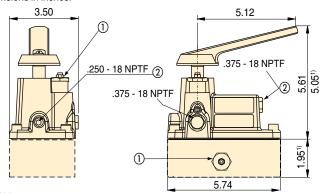
 Advance/Hold/Retract operation for use with single-acting or double-acting cylinders

Valve Operation	Used with Cylinder	Valve Type	Model Number	Hydraulic Symbol	Schematic Flowpath			Weight (lbs)
					Advance	Hold	Retract	
Manual	Single Acting	3-Way, 3 Position, Tandem Center	VC-3	A PT	P T	P T	P	6.4
Manual	Single Acting	3-Way, 3 Position, Tandem Center, Locking	VC-3L	A D D D D D D D D D D D D D D D D D D D				10.3
Manual	Single Acting	3-Way, 3 Position, Closed Center	VC-15	A PT	P Î	A.	P	6.4
Manual	Single Acting	3-Way, 3 Position, Closed Center, Locking	VC-15L					10.3
Manual	Double Acting	4-Way, 3 Position, Tandem Center	VC-4	A B P T	P B	P	A P B	6.4
Manual	Double Acting	4-Way, 3 Position, Tandem Center, Locking	VC-4L					10.3
Manual	Double Acting	4-Way, 3 Position, Closed Center	VC-20	A B P T	A 1	A. ‡ .	A.*	6.4
Manual	Double Acting	4-Way, 3 Position, Closed Center, Locking	VC-20L		P B	B *	P	10.3

Return line kit included with remote valves

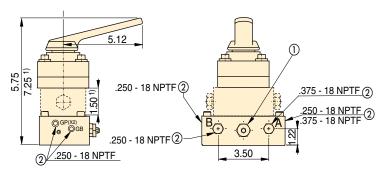
Directional Control Valves Dimensions

Valve dimensions in inches.



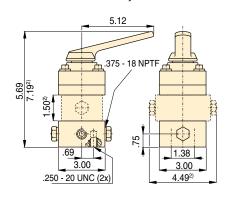
VM22, VM32

1) VM22 only

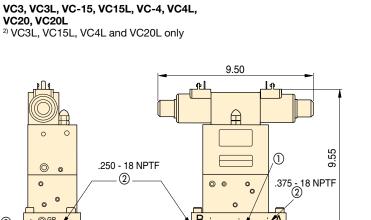


VM33, VM33L VM43, VM43L

1) VM33L and VM43L only



VC3, VC3L, VC-15, VC15L, VC-4, VC4L, VC20, VC20L



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3.50

.250 - 18 NPTF 2

(1) User Adjustable Relief Valve

VC, VM, **Series**



Flow Capacity:

4.5 gal/min.

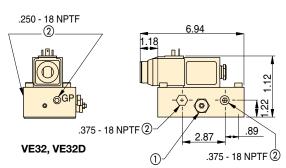
Maximum Operating Pressure:

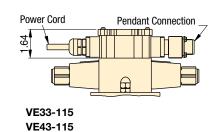
10,000 psi



User Adjustable Relief Valve

All VM- and VE-Series have a user adjustable relief valve to allow the operator to easily set the optimum working pressure.





② Auxiliary Port

.250 - 18 NPTF

VE33, VE43

.375 - 18 NPTF ②