

V-Series, Pressure and Flow Control Valves

ENERPAC

▼ From left to right: V152, V66, V82, V161, V42, V17



Your Hydraulic Control Solution

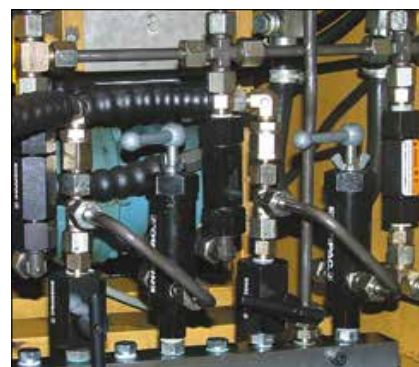


Valve Applications

To see these valves used in typical hydraulic circuits, please see our 'Yellow Pages'.

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▼ The V152 pressure relief valve limits the pressure or force developed in the hydraulic system.



- All valves are rated for 700 bar operating pressure
- All valves feature NPTF porting to insure against leakage at rated pressure
- All valves are painted, coated, or plated for corrosion resistance
- Viton® seals (in V66NV and V152NV) for high temperature applications, nickel-plated for maximum corrosion resistance.

Valve dimensions in mm

<p>V82</p>	<p>V182</p>	<p>V8F</p>	<p>V91</p>
<p>V10</p>	<p>V17</p>	<p>V42</p>	
<p>V66, V66NV</p>	<p>V66F</p>	<p>V152, V152NV</p>	<p>V161</p>

Pressure and Flow Control Valves



Control Manifolds

For two or four port manifolds with integral flow control valves, see the manifold page of the System Components section.

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Fittings

For additional fittings see the fitting page of the System Components section in this catalogue.

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V Series



Maximum Operating Pressure:

700 bar

Valve Type and Model Number		Description		Hydraulic Symbol
Needle Valve V82 V182 V8F		V82: To control cylinder speed. Can also be used as shutoff valve for temporary load holding. 3/8" NPTF ports, nickel plated. V182: Same as V82, but with 1/4" NPTF female ports, nickel plated.	Also suitable for gauge snubbing (also V82). V8F: Like V82, but with very fine metering for precise flow control 0,16 - 14,7 l/min at 275 bar. Not recommended as shutoff valve.	
Snubber Valve V91		V91: Infinitely adjustable for metering oil out of a gauge to prevent snapping of gauge pointer when load or pressure is suddenly released.	Also suitable as shutoff valve to protect the gauge during high cycling applications. 1/2" NPTF male and female threads for use with GA1, GA2 or GA4 gauge adaptors.	
Auto Damper® Valve V10		V10: To be used when gauge pressure must be monitored during high cycle applications. Creates a flow resistance when load is released suddenly.	No adjustments are necessary. 1/2" NPTF male and female threads for use with GA1, GA2 or GA4 gauge adaptors.	
Check Valve V17		V17: Ruggedly built to resist shock and operate with low pressure drop. Closes smoothly without pounding. 3/8" NPTF female port.		
Pilot Operated Check Valve V42		V42: Can be mounted at the cylinder to hold the load in case of system pressure loss. Normally used with doubleacting cylinders where pilot port receives pressure from a Tee-fitting in the cylinder retract line.	3/8" NPTF female ports. Pilot pressure ratio 14% (6,5:1).	
Manually Operated Check Valve V66, V66NV * V66F		V66, V66NV: For load holding applications with single and double acting cylinders. Valves allow oil to flow back to tank when cylinder retracts.	V66NV with Viton seals, nickelplated. V66F: Similar to V66, but with very fine metering capability for precise flow control. V66F is not designed for load holding.	
Pressure Relief Valve V152 V152NV *		V152: Limits pressure developed by the pump in hydraulic circuit, thus limiting the force imposed on other components. Valve opens whenever preset pressure is reached.	To increase pressure setting, turn handle clockwise. Includes: • 0,9 m return line hose kit, • ± 3% repeatability, • 55 - 700 bar adjustment range.	
Sequence Valve V161		V161: To control oil flow to a secondary circuit. Flow is blocked until system pressure rises to the V161 setting. When this pressure level is reached, the V161 opens to allow flow to the secondary circuit.	A pressure differential is always maintained between the primary and secondary circuit. Minimum operating pressure: 140 bar.	

* See page 64 for more information about products for use in high temperature and extreme environment applications.