

Electric Driven Workholding Pumps Application & selection

Shown: ZW5111SWE100



Enerpac's workholding pump unit features an innovative range of zero leakage, poppet design, directional valves. With the modular valve design, various independent single-acting or double-acting circuits can be realized.

Application

These advanced workholding pumps, operating at maximum 350 bar hydraulic pressure, are highly suitable for production tooling applications – offering the optimum in terms of compact size for required oil flow and pressure rating and customization to your specific needs.

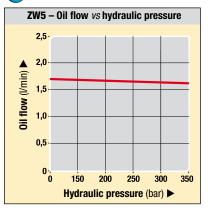
Enerpac electric pump used in conjunction with swing cylinders, work supports, directional valves, control valves and sequence valves can provide a complete clamping solution. The pressure switch allows the unit to be fully automated.

128 **ENERPAC**.

Customize to your needs

- Various models including electric controls and pressure switch
- Stackable to 8 VP-series valve stations high
- · Customer adjustable relief valve
- Glycerine dampened pressure gauge G-2517L on pumps with VP-series valves
- 230/460/3/50/60 Hz 1,1 kW motor.

🕋 Output oil flow



Product selection

Oil flow rate	Pressure range	Voltage and current 50 Hz	Usable oil capacity ²⁾	Valve models included	Model number	à
l/min	bar	V @ A	litres			kg
With manifold for VP-series modular valves, no electric controls						
1,64	100-350	230 @ 4,8	10,0	-	ZW5VPSEE100	65
1,64	100-350	400 @ 2,4	10,0	-	ZW5VPSWE100	65
▼ With manifold for CETOP 03 valves, no electric controls						
1,64	100-350	230 @ 4,8	10,0	-	ZW5C03SEE100	65
1,64	100-350	400 @ 2,4	10,0	-	ZW5C03SWE100	65
▼ For 2x single-acting circuits						
1,64	100-350	230 @ 4,8	10,0	1x VP-41	ZW5141SEE100	77
1,64	100-350	400 @ 2,4	10,0	1x VP-41	ZW5141SWE100	77
▼ For 1x double-acting circuits + isolating valve ¹⁾ for A-port						
1,64	100-350	230 @ 4,8	10,0	1x VP-11	ZW5111SEE100	77
1,64	100-350	400 @ 2,4	10,0	1x VP-11	ZW5111SWE100	77
▼ For 2x double-acting circuits + isolating valves ¹⁾ for all A-ports						
1,64	100-350	230 @ 4,8	10,0	2x VP-11	ZW5211SEE100	80
1,64	100-350	400 @ 2,4	10,0	2x VP-11	ZW5211SWE100	80
 Isolating valve is pressure switch PSCK-8. ZW5-series pumps comes standard with 8 litres reservoir. 						

²⁾ ZW5-series pumps comes standard with 8 litres reservoir. (4, 8, 20 or 40 reservoir is optional).

Collet-Lok[®] products

Swing clamps

Work Supports

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Dimensions & options **ZW5-series**

Reservoir:

Flow: 1,64 l/min Pressure: 100 - 350 bar Motor: 1,1 kW

E Bombas eléctricas

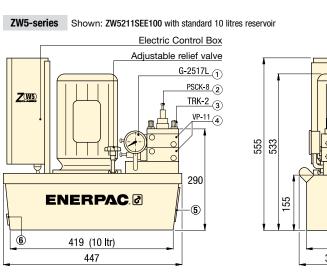
Options

VP-series,

F Centrale hydraulique

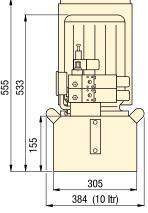
D Modulare Spannpumpe

4 - 40 litres



Pressure gauge
 Pressure switch
 Tie Rod Kit

④ Directional valve⑤ Oil level glass⑥ Oil drain

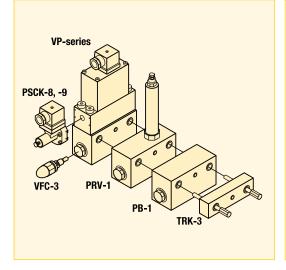


Product selection

Pump series	Voltage	Phase	Continuous operation at 350 bar	Motor capacity	Motor speed	Motor protection class	Sound Level
	Volt			kW	RPM		dBA
ZW5	230	1	50%	1,1	1390	IP54	75
ZW5	400	3	50%	1,1	1390	IP54	75

Valve options

See page 136 for VP-series valves and available options.



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modular valves □136 VFC-3 flow control valve **137** Pressure switches **□**188 Hoses and couplers **192 High-pressure** filters **□**193 Fittings □194

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Valves

Yellow Pages

ENERPAC. **2** 129

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See page 141 for VP03-series valves

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and available options.

PSCK-8

PB-

VP03-1

VFC-4

PRV-6

VD2P

MB-2



Collet-Lok[®] products

Swing clamps

Supports

Nork

Linear Cylinders

^oower Sources

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ZW5 series

These advanced workholding pumps, operating at maximum 350 bar hydraulic pressure, are highly suitable for production tooling applications – offering the optimum in terms of compact size for required oil flow and pressure rating and customization to your specific needs.

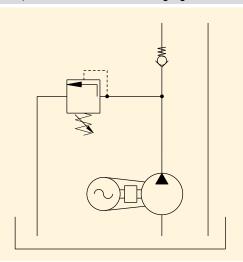
Application

Enerpac electric pump used in conjunction with swing cylinders, work supports, directional valves, control valves and sequence valves can provide a complete clamping solution. The pressure switch allows the unit to be fully automated.

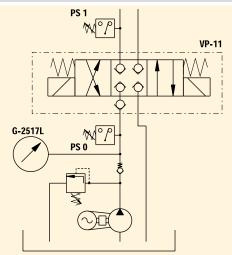
Enerpac VP-series valves stackbuilt on ZW5211SWE100. The pressure switch PSCK-8 is mounted directly onto the endplate of Tie Rod Kit TRK-2.



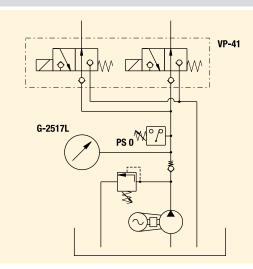
ZW5VPSEE100 with manifold for VP-series or CETOP 03 valves, without electric controls and gauge



ZW5111SEE100 For 1x Double-Acting circuit and Isolating Valve for A-port



ZW5141SEE100 For 2x Single-Acting circuits



Basic pumps

Customize to your needs with the Enerpac VP-series valves and options or choose your own D03 valve.

Isolating valves

For applications where clamping pressure has to be maintained, isolating valves are an economic and safe solution.

The pressure switch (PS 1) switches in the hydraulic line to the cylinder actuates the valve with a closed center position and isolates the circuit when the preset pressure has been reached. In case of pressure drop the switch opens the valve to compensate.

For some particular applications, i.e., when a workpiece has to be positioned and clamped with different forces, you can set different isolating valve pressures for the independent circuits.

Pressure switch (PS 0) switches the motor off at maximum pressure; in case of pressure drop due to activating circuits, the motor restarts.



CSM-572 SLRD-92 SLRD-92 WFL-222 MVPM-5 ZW5211SEE100

ZW5211SEE100 for 2x Double-Acting circuit and **Isolating Valve for all A-ports**

PS 1 PS 2 ₩°^ °/° VP-11 VP-11 ₩°/° PS 0 G-2517L $\langle \rangle D$

Flow:	1,64 l/min
Pressure:	100 - 350 bar
Motor:	1,1 kW
Reservoir:	4 - 40 litres

- E) Bombas eléctricas
- F) Centrale hydraulique
- D Modulare Spannpumpe



Applications & Options **ZW5-series**

😰 Options

Hoses and couplers

filters

Sequence valves □152



□192

□193

193

High pressure



Yellow Pages

Electric Scheme

Shown the electric scheme of the ZW5211SWE100 (400 volt) for two doubleacting circuits and isolating valves (pressure switches) in both A-lines.

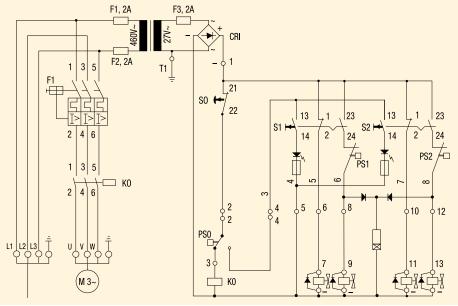
Building the right workholding system for a

specific production tooling requirement is best achieved by observing the Basic System Set-up

ZW5211SWE100

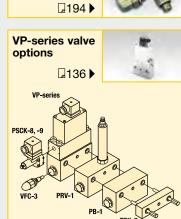
Application example

in our "Yellow Pages" (□202 ►).



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Hydraulic oil Fittings



ENERPAC, 131

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