

WhisperPak® Series Hydraulic Power Supplies

The Shore Western WhisperPak® Series are acoustically treated laboratory quality hydraulic power systems designed to meet the exacting requirements of servo-hydraulic control systems. These power supplies utilize quality components and micro-clean filtration to provide trouble-free long life with minimum maintenance. A complete system of interlocks and controls allow failsafe unattended continuous operation. Low noise level and leak-free components allow use directly in the laboratory next to the test equipment. Typical applications include

- **Laboratory and Test Lab HPS**
- **Large flow central HPS systems**
- **Used extensively where sound attenuation is required**

The low noise level is achieved by use of inherently quiet components operated as a submerged pump/motor unit(s) inside the enclosed hydraulic oil tank. Output is filtered by pulsation dampers and connected through low velocity flexible hoses to a piping interface manifold. The pumping assembly is mounted with isolators in a completely sealed, acoustically treated enclosure to eliminate airborne noise and prevent heat discharge into the surrounding environment. All possible connections, including components, utilize o-ring fittings or welded joints to eliminate external oil leaks. Units range in size from 7 gpm to 180 gpm. Standard units are wired for 380/460 VAC, 3 phase, 50/60 Hz. Other voltages and frequencies available.

Features

Easy maintenance and accessibility

Access doors on end and top provide access to filtration, cooling and pressure controls. The reservoir has a full-size removable top for unrestricted access and clean out.

Reduced vibration

The pump-motor assembly is shock mounted inside the reservoir and is soft connected by hoses to prevent mechanical excitation of the surrounding structure.

Ease of installation

Smaller sizes are portable with swivel casters. Larger units are skid mounted with forklift access for ease of handling. All oil and water connections are located together on one end of the unit, specified at order.

High capacity water cooling

A water flow modulating valve monitors reservoir temperature, limiting water flow to that required to maintain a set oil temperature. The heat exchanger is over-sized to minimize water consumption while dissipating full system heat load.



WhisperPak 1180 with maintenance access shown

High capacity filtration system

Designed to achieve ISO 14/11 cleanliness level consistent with the protection of critical servo components, a full-flow filter with a 3-micron replaceable element is provided on the pump discharge.

Electric motor controls

Controls and motor starter are mounted in a NEMA 12 oil-tight enclosure located on the end of the unit. They include control power/emergency stop switch, main pump stop/start-low/high pressure switches, run-time hour meter, indicator lights for low oil level and oil over temperature.

Options

Optional controls

Low oil pressure warning indicator, oil over temperature warning indicator, filter condition indicator(s) and combination fused disconnect.

Additional filtration

Optional 3-micron, replaceable element return line filter or kidney loop filtration can be added.

Special operating conditions

Systems with operation to 550 degrees F (288 degrees C) and over 5,000 psi (345 bar) available.

Increased flow options

Larger units can be plumbed in parallel to provide increased total flow capabilities. Total flow capacities are in increments of 60 gpm.

Run On Demand (ROD) PLC control system

Using a flow meter to monitor demand, as the flow of the system approaches the capacity of the active pumps, the next pump is brought online or switched from idle to run mode. Control algorithms allow proper timing for adding and reducing pump capacity avoiding instability or low frequency oscillations in the system. The system monitors pump hours and brings units on-line in a rationalized sequence to distribute the wear.

60 Hz Performance

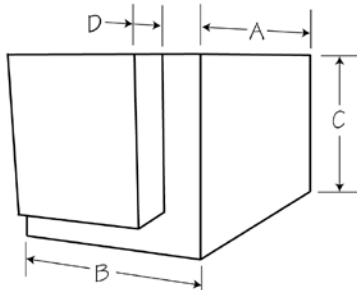
Model	Flow	RATINGS		PIPING CONNECTIONS**				COOLING WATER	
		Pressure	Sound Level	Pressure Ratings	Return	Drain	Cooling Water	Flow	Max Temp.
107	7.5 gpm	3,000 psi	58 dBA*	SAE Male -8	SAE Male -8	SAE Male -6	NPT 1/2 inch	3.5 gpm	80 F
112	12 gpm	3,000 psi	60 dBA*	SAE Male -8	SAE Male -8	SAE Male -8	NPT 1/2 inch	6 gpm	80 F
120	20 gpm	3,000 psi	63 dBA*	SAE Male -16	SAE -16	SAE Male -8	NPT 3/4 inch	10 gpm	80 F
130	30 gpm	3,000 psi	63 dBA*	SAE Male -16	SAE -16	SAE Male -8	NPT 3/4 inch	15 gpm	80 F
160	60 gpm	3,000 psi	68 dBA*	SAE Flange 1 1/4 inch	SAE Flange 1 1/4 inch	SAE Male -12	NPT 1 inch	30 gpm	80 F
1120	120 gpm	3,000 psi	70 dBA*	SAE Flange 1 1/2 inch	SAE Flange 2 1/2 inch	SAE Male -12	ANSI 150 lb 2 inch	60 gpm	80 F
1180	180 gpm	3,000 psi	72 dBA*	SAE Flange 2 inch	SAE Flange 2 1/2 inch	SAE Male -12	ANSI 150 lb 2 inch	90 gpm	80 F

50 Hz Performance

Model	Flow	RATINGS		PIPING CONNECTIONS**				COOLING WATER	
		Pressure	Sound Level	Piping Ratings	Return	Drain	Cooling Water	Flow	Max Temp.
107	23 lpm	210 bar	58 dBA*	SAE Male -8	SAE Male -8	SAE Male -6	NPT 1/2 inch	13 lpm	27 C
112	38 lpm	210 bar	60 dBA*	SAE Male -8	SAE Male -8	SAE Male -8	NPT 1/2 inch	19 lpm	27 C
120	63 lpm	210 bar	63 dBA*	SAE Male -16	SAE -16	SAE Male -8	NPT 3/4 inch	30 lpm	27 C
130	95 lpm	210 bar	63 dBA*	SAE Male -16	SAE -16	SAE Male -8	NPT 3/4 inch	50 lpm	27 C
160	190 lpm	210 bar	68 dBA*	SAE Flange 1 1/4 inch	SAE Flange 1 1/4 inch	SAE Male -12	NPT 1 inch	95 lpm	27 C
1120	380 lpm	210 bar	70 dBA*	SAE Flange 1 1/2 inch	SAE Flange 2 1/2 inch	SAE Male -12	ANSI 150 lb 2 inch	190 lpm	27 C
1180	570 lpm	210 bar	72 dBA*	SAE Flange 2 inch	SAE Flange 2 1/2 inch	SAE Male -12	ANSI 150 lb 2 inch	280 lpm	27 C

Dimensions

Model	A	B	C	D	Weight
107	40 inch (1016 mm)	28 inch (711 mm)	36.8 inch (933 mm)	10.5 inch (266 mm)	1200 lbs (545 kg)
112	40 inch (1016 mm)	28 inch (711 mm)	36.8 inch (933 mm)	10.5 inch (266 mm)	1200 lbs (545 kg)
120	48 inch (1219 mm)	34 inch (864 mm)	44.1 inch (1119 mm)	12.5 inch (317 mm)	3400 lbs (1545 kg)
130	48 inch (1219 mm)	34 inch (864 mm)	44.1 inch (1119 mm)	12.5 inch (317 mm)	3400 lbs (1545 kg)
160	58 inch (1473 mm)	42 inch (1067 mm)	66 inch (1676 mm)	14.5 inch (368 mm)	5000 lbs (2270 kg)
1120	70 inch (1778 mm)	58 inch (1473 mm)	60 inch (1524 mm)	14.5 inch (368 mm)	6500 lbs (2950 kg)
1180	92 inch (2337 mm)	58 inch (1473 mm)	60 inch (1524 mm)	14.5 inch (368 mm)	9700 lbs (4400 kg)



Other flow and pressure rating are available; consult factory.

Wired for 380/460 VAC, 3 Phase, 50/60 Hz, other voltages available; consult factory.

*Measured 1m from running HPS.

** SAE Male fittings are 37 degree flare; SAE Flange fittings are CODE 61.

Represented by:



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