

SERVOTEST

TEST AND MOTION SIMULATION

SP Series Hydraulic Power Supplies



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SERVOHYDRAULIC TEST AND MOTION SIMULATION SYSTEMS

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Servotest Testing Systems Ltd

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Servotest's SP series hydraulic power supplies are designed to be sufficiently quiet for use 'in-laboratory'. These HPSs save infrastructure costs by eliminating the need for a separate pump-room and also reducing the costs and losses associated with long runs of hydraulic hardline.

The SP series HPS' combines advanced oil-immersed motors and high-efficiency noise enclosures to deliver full-flow operation with low noise levels within a compact package. Optional hydraulic pulsation dampers are also available where required by the application. Built using high-quality system components these will deliver long-life and a quiet testing environment.

As with all Servotest HPS' a 'kidney-loop' cooling and filtration circuit is provided to ensure that the hydraulic oil is maintained in optimum condition and to maintain oil temperatures during operation which stabilize system performance and minimize servovalve noise.

Working pressure:	28 MPa (4,000 PSI)
Operating voltage:	380 V AC 3-phase, 50 Hz
Cooling:	Independent active ('kidney-loop') filtering & circulating cooling system Water-cooled Air-blast cooling available as an option
Filtration:	3 µm low-pressure return-line filter 10 µm high-pressure return filter
Real-time monitoring:	Oil pressure, oil temperature, oil level, alarm information
Pump manager:	PLC intelligent management system effectively and safely realizes the lifetime control of working units in silent oil supply system

SP series options:

Working pressure:	21 MPa (3,000 PSI)
Operating voltage:	400 V AC 3-phase, 50 Hz 460 V AC 3-phase, 60 Hz
Cooling:	Air-blast cooling
Accumulator:	Sized to suit the application
Layout:	Mirror-image layout



Functional characteristics of SP series:

- Low noise
 - The oil-immersed motors are mounted within the hydraulic oil reservoir. The oil and the tank together form a natural noise barrier
 - Attractive & compact sound-absorbing (plastic/steel) noise enclosure
 - High-strength base and high quality vibration isolation isolate secondary noise from the oil tank and the hydraulic components
 - 65 dB(A) to 72 dB(A) depending upon model/flow-rate
- Reduced installation costs
 - SP oil supply series is designed to be located within the test lab close to its associated test rig thereby eliminating the need for a separate pump-room and reducing hardline costs

- High-performance
 - Reduced external heat-load: Motor heat is dissipated into the hydraulic reservoir and removed the oil cooling minimizing heat-load at the HPS location, reducing the need for additional pump-room ventilation
 - 3 µm scrubbing filtration system ensures that the system cleanliness level is at NAS5 to protect the hydraulic components and ensure system control precision
 - 10 µm high-pressure filter to protect the hydraulic system components
- Professional PLC intelligent management system
 - Local & remote touch-screen control
 - User-friendly display for control, guidance and monitoring
 - Intelligent real-time monitoring, for safety and alarming signal, automatic shut-down system

Parameters	SP75A	SP150A	SPP225A	SP300A
Flow (60Hz)	85L/min	170L/min	254L/min	339L/min
Flow (50HZ)	75L/min	150L/min	225L/min	300L/min
Norminal Working Pressure	28MPa	28MPa	28MPa	28MPa
Return Oil Filter Precision	3µm	3µm	3µm	3µm
Noise Level	≤65dBa	≤67dBa	≤70dBa	≤72dBa
Fuel Tank Capacity	700L	1050L	1450L	1850L
Oil Temprature	5-55°C	5-55°C	5-55°C	5-55°C
Cooling Water Flow	82L/min	165L/min	248L/min	330L/min
	(30°C)	(30°C)	(30°C)	(30°C)
Material of Oil Tank	Carbon steel	Carbon steel	Carbon steel	Carbon steel
Length	2050mm	2550mm	3050mm	3600mm
Width	1200mm	1200mm	1200mm	1200mm
Height	1375mm	1375mm	1375mm	1375mm
Weight With Oil	2550Kg	3150Kg	3750Kg	4550Kg
Start of Motor	Soft Boot	Soft Boot	Soft Boot	Soft Boot
Number of Motor/Pump	2	3	4	5
	1 off 45KW	2 off 45KW	3 off 45KW	4 off 45KW
	1 off 7.5KW	1 off 7.5KW	1 off 7.5KW	1 off 7.5KW
Total Power	52.5KW	97.5KW	142.5KW	187.5W

