Packaged Power Systems

HiP offers a range of standard power packs that are typically in-stock or available with a short lead time, as well as custom power systems to satisfy your specific requirements. All HiP power systems are factory pressure tested prior to shipping.

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HIGH PRESSURE EQUIPMENT COMPANY
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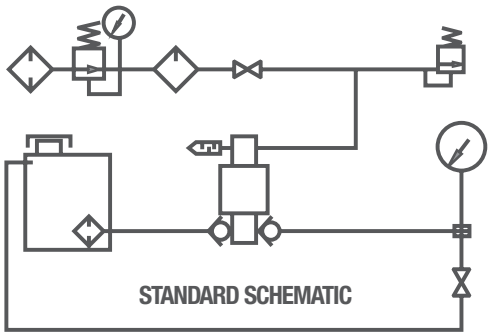
T-Series

Pump Power Packs

HiP packaged hydraulic power systems using our new high performance T-Series pumps are an excellent method to deliver high pressure hydraulic power to your field location. These turn-key systems only require a non-lubricated air supply to generate hydraulic power up to 68,000 psi and are designed for plain water or oil service. We offer a range of standard power packs that are typically in-stock or available with a short lead time, as well as custom power systems to satisfy your specific requirements. All HiP power packs are factory pressure tested prior to shipping.

T-Series Pump Power Packs can be used for a wide variety of high pressure applications such as bolt tensioning, pressure testing, power pressing, jacking, lifting, hydraulic power units, proof testing components, valve actuation and many more.



Ordering Information

Part Number Example: 5065T-T6036-TB-SST This is a T60 series pump with a maximum outlet pressure of 36,500 psi and options of a tank bypass and 316 stainless steel tank.

5065T — **T6036** — **TB-SST**

All Models

Pump Series

T60	6” Motor Series Pump
T75	7-1/2” Motor Series Pump

Pump Model/Max Pressure

T60 Series		T75 Series	
03	3,200psi	**05**	5,000psi
05	4,800psi	**07**	7,400psi
06	6,300psi	**10**	10,000psi
10	10,000psi	**16**	15,750psi
12	12,500psi	**19**	19,500psi
16	16,250psi	**25**	25,500psi*
25	25,250psi	**39**	39,500psi*
36	36,500psi	**57**	57,100psi
58	58,000psi	**68**	68,000psi

** Optimum seal life is achieved at less than 80 cycles per minute. Intermittent duty above 30,000psi.*

Additional Extras

TB	Tank Bypass
IV	Isolation Valve
CRO	Chart Recorder Outlet
SST	Stainless Steel 316 Tank
USB	USB Transducer
ATEX	ATEX certified

T-Series Pump Power Packs
Typical Pressure & Connection Sizes

T60 Series	Maximum Working Pressure psi	bar	Air Inlet	Gauge Range	Outlet Connection
03	3,000	221	1/2" NPT(F)	0-5,000psi/bar	1/2" NPT(F)
05	4,800	331	1/2" NPT(F)	0-10,000psi/bar	1/2" NPT(F)
06	6,300	434	1/2" NPT(F)	0-10,000psi/bar	1/2" NPT(F)
10	10,000	689	1/2" NPT(F)	0-15,000psi/bar	HF9
12	12,500	862	1/2" NPT(F)	0-15,000psi/bar	HF9
16	16,250	1120	1/2" NPT(F)	0-20,000psi/bar	HF9
25	25,250	1740	1/2" NPT(F)	0-30,000psi/bar	HF4
36	36,500	2516	1/2" NPT(F)	0-40,000psi/bar	HF4
58	58,000	3998	1/2" NPT(F)	0-70,000psi/bar	HF4

T75 Series	Maximum Working Pressure psi	bar	Air Inlet	Gauge Range	Outlet Connection
05	5,000	344	1/2" NPT(F)	0-10,000psi/bar	1/2" NPT(F)
07	7,400	510	1/2" NPT(F)	0-10,000psi/bar	1/2" NPT(F)
10	10,000	689	1/2" NPT(F)	0-15,000psi/bar	1/2" NPT(F)
16	15,750	1085	1/2" NPT(F)	0-20,000psi/bar	HF9
19	19,500	1344	1/2" NPT(F)	0-30,000psi/bar	HF9
25	25,500	1758	1/2" NPT(F)	0-30,000psi/bar	HF9
39	39,500	2723	1/2" NPT(F)	0-50,000psi/bar	HF4
57	57,100	3936	1/2" NPT(F)	0-70,000psi/bar	HF4
68	68,000	4688	1/2" NPT(F)	0-80,000psi/bar	HF4

Chart Recorder Port HF4 plugged
Stainless Steel Tank 316 SS, mesh in tank filter, sight glass
USB Transducer Range to suit pump max pressure. 400bar, 1500bar, 2000bar, 3000bar, 4000bar
Standard Seal Material NBR
Optional Seal Materials EPR available upon request
FKM, FFKM available for pumps with maximum pressures of 16,250 or less

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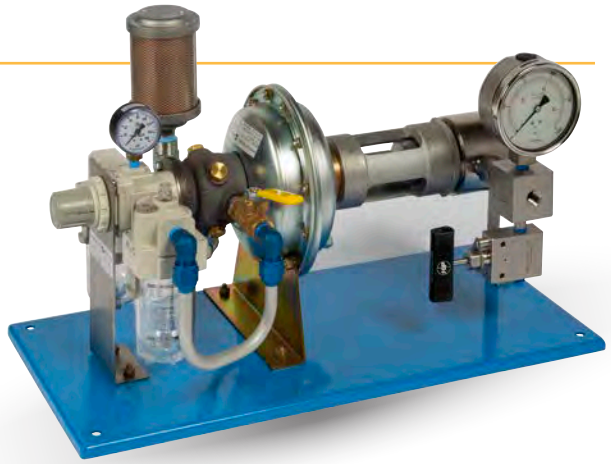
Sprague Non-Contaminating

Hydraulic Pump Power Units



S-440-JS-( )—This contaminate-free hydraulic power unit uses the S-216-JS-( ) pump. The unit's components include an air filter, pressure regulator and lubricator (FRL), air shut-off valve, muffler, manifold, liquid bleed valve, air pressure gauge and liquid pressure gauge. The base is steel and has four mounting holes. All components in contact with the liquid being pumped are stainless steel.

NOTE: S-440-JS-10 thru -125 only (pumps with NPT liquid ports)

	S-440JS-( )SS
Length:	23-7/16 in. (59.8 cm)
Width:	11-7/16 in. (29.4 cm)
Height:	12 in. (30.5 cm)
Filter Air Inlet Port Threads:	3/8 NPT
Pump Liquid Outlet S-440-JS-10 thru 100	3/8 NPT (NFC)
Reference S-440-JS-( )	79546-11 thru -61

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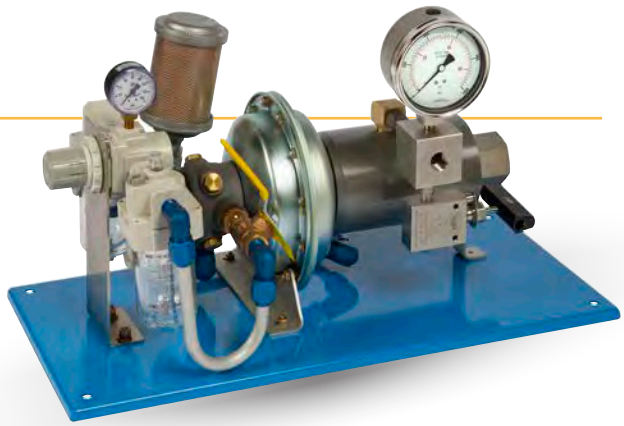
Sprague Double-Acting

Hydraulic Pump Power Units



Sprague S-440-JD double-acting hydraulic power units are assembled with compatible accessories, ready for portable power supply or for stationary use within a hydraulic system.

The “JD” power units include the selected type “JD” pump, see pages 22 and 23, air filter, pressure regulator, liquid and airpressure gauges, air lubricator, valves, fittings and mounting base.

S-440-JD-6.8 Services oil, liquid refrigerants, many corrosive chemicals and low lubricity liquids.

	S-440-JD-6.8
Length:	20 in. (58.4 cm)
Width:	11 in. (27.9 cm)
Height:	13-1/2 in. (34.3 cm)
Filter Air Inlet Port Threads:	1/2 NPT
Liquid Inlet Port:	1 NPT
Liquid Outlet Port:	1/2 NPT
Liquid Bypass Port:	1/4 NPT
Reference:	90763-11

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S-440-JD-34 Services oil, water and many corrosive liquids.
S-440-JD-36 Services oil and non-corrosive liquids. **Not for water service.**

	S-440-JD-34	S-440-JD-36
Length:	23 in. (58.4 cm)	23 in. (58.4 cm)
Width:	11 in. (27.9 cm)	11 in. (27.9 cm)
Height:	12-1/2 in. (31.8 cm)	12-1/2 in. (31.8 cm)
Filter Air Inlet Port Threads:	3/8 NPT	3/8 NPT
Liquid Inlet Port Threads:	3/8 NPT	3/8 NPT
Liquid Outlet Port Threads:	1/4 NPT	1/4 NPT
Reference:	90029-11	90822-11

S-440-JD-60 Uses lubricated driving air. Services petroleum or water based hydraulic fluids.

S-440-JDN-60 Uses clean, dry driving air. For cleanroom or laboratory use.

	S-440-JD-60	S-440-JDN-60
Length:	23 in. (58.4 cm)	23 in. (58.4 cm)
Width:	11 in. (27.9 cm)	11 in. (27.9 cm)
Height:	12-1/2 in. (31.8 cm)	12-1/2 in. (31.8 cm)
Filter Air Inlet Port Threads:	3/8 NPT	3/8 NPT
Liquid Inlet Port Threads:	3/8 NPT	3/8 NPT
Liquid Outlet Port Threads:	1/4 NPT	1/4 NPT
Reference:	91614	91615

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Air Operated Pumping Systems

to 50,000 psi

- **Model PS-10: 10,000 psi**
- **Model PS-20: 20,000 psi**
- **Model PS-30: 30,000 psi**
- **Model PS-40: 40,000 psi**
- **Model PS-50: 50,000 psi**
- **Model PS-90: 90,000 psi**

High Pressure air operated hydraulic pumping systems are complete, selfcontained units and ready to operate. Just hook up standard shop air supply (maximum 100 psi) to connection supplied on the side of the console. Discharge capacities range to 64 in^3/min.

Features

System includes hydraulic oil reservoir, oil filter, air operated hydraulic pump, pressure gauge, panel mounted high pressure valves, safety head assembly, panel mounted air regulator and gauge and air line filter and lubricator.
All components are enclosed in a steel console with only the back exposed. Dimensions of standard systems are 26" wide, 24" deep and 40" high.

4

System Capabilities

The output pressure is predetermined by adjustment to the air regulator setting.

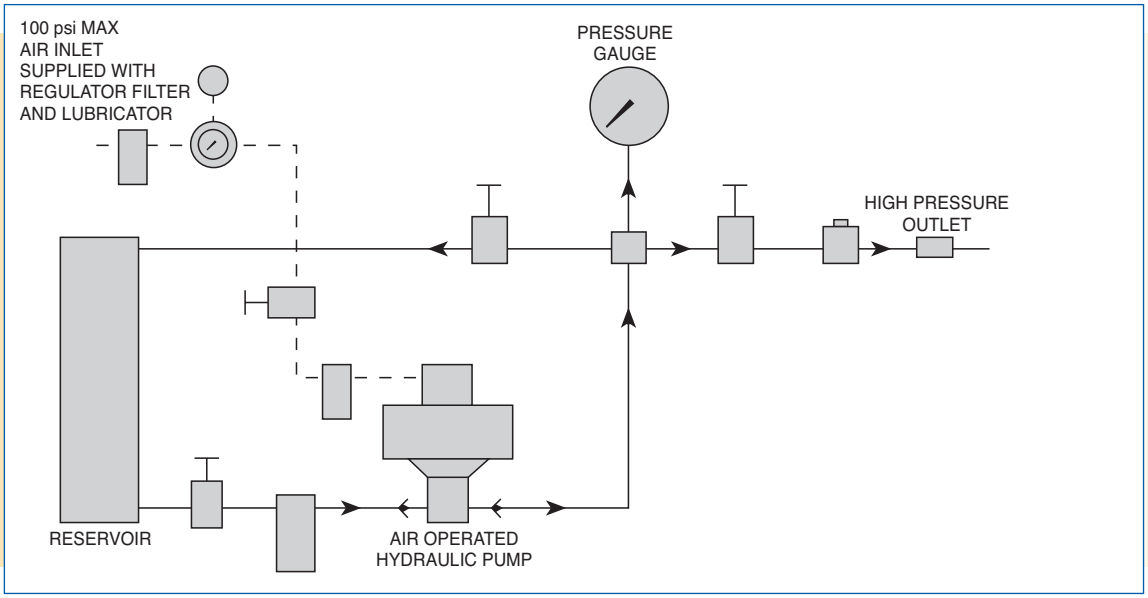
Output pressure is maintained constantly and pump compensates for pressure drops or losses.

Hydraulic input is gravity fed, however, if pump is used alone, the feed can be pressurized to the limit of the pump.

Within the pump the large diameter air piston drives a smaller piston to provide fluid flow at high pressure.

Air consumption will be approximately 56 CFM of free air at 100 psi input.

Reservoir = 4 gallon capacity, do not pressurize.



Standard Pumping System Specifications

Approximate Air to Hydraulic Pressure Ratio — Static Conditions

	Model No.	Air psi										
		10	20	30	40	50	60	70	80	90	100	110
Hydraulic Pressure psi	PS-10	1,500	3,200	5,200	7,100	9,000	10,800	12,500	14,500	16,300	18,000	19,800
	PS-20	3,000	6,000	9,500	12,600	16,000	19,100	22,300	25,600	29,000	32,300	35,600
	PS-30	4,000	8,800	13,700	18,000	22,500	27,000	31,500	36,500	41,400	45,800	50,300
	PS-40	6,000	13,000	21,000	27,000	34,000	40,500	46,000	52,000	59,000	65,000	70,000
	PS-50	6,000	13,000	21,000	27,000	34,000	40,500	46,000	52,000	59,000	65,000	70,000
	PS-90	Uses Dual Pump			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Approximate Rate of Discharge — CIPM

Model →		PS-10			PS-20			PS-30			PS-40			PS-50		
Air psi →		60	80	100	60	80	100	60	80	100	60	80	100	60	80	100
Pressure →	10,000 psi	27	52	64	31	40	44	28	33	35	19	23	24	19	23	24
	30,000 psi	0	0	0	0	0	14	0	16	21	12	15	17	12	15	17
	40,000 psi	0	0	0	0	0	0	0	0	14	2	12	15	2	12	15
	50,000 psi	0	0	0	0	0	0	0	0	0	0	6	11	0	6	11

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150,000 psi Pumping System

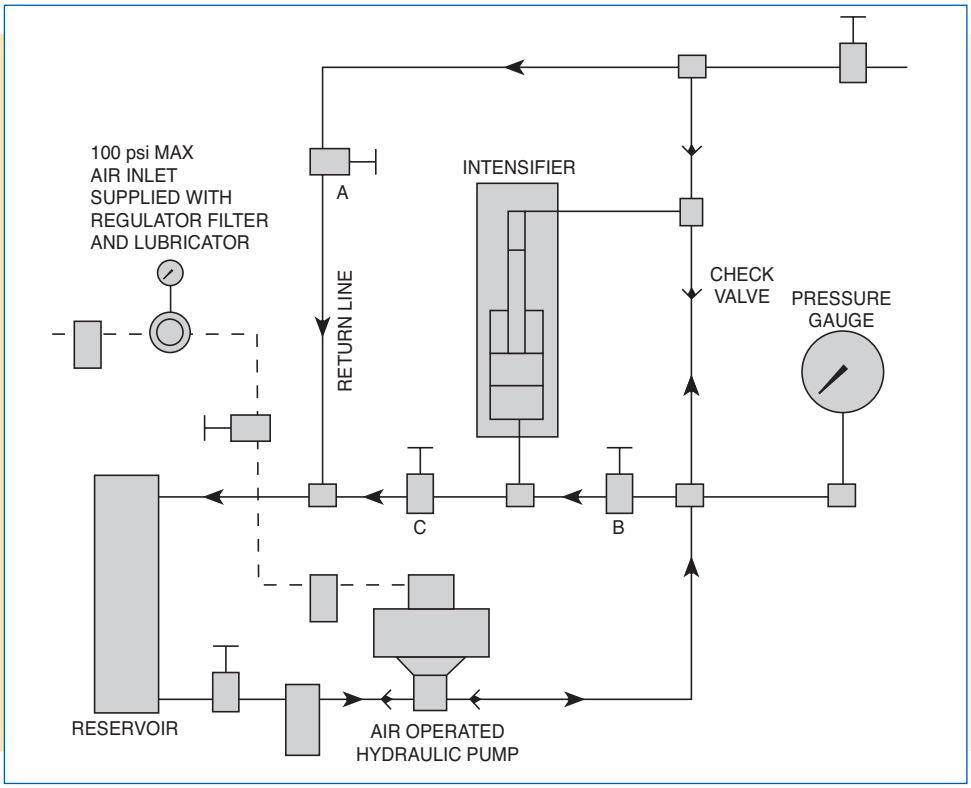
Model PS-150

The Model PS-150 Pumping System is designed for generating hydraulic pressure up to 150,000 psi by means of an air operated hydraulic pump and an intensifier. The 10 to 1 ratio intensifier is fully illustrated on page 73. This system is complete and ready to operate requiring only the connection of an air supply of approximately 80 psi.

The steel console is 26" wide, 24" deep, 40" high and includes manual valves, air regulator, filter and lubricator, air gauge, high pressure gauge, reservoir, oil filter, pump (0-16,000 psi), related high pressure tubing and fittings.

The 0-20,000 psi pressure gauge is connected to the low pressure side of the intensifier which has a ratio of 10 to 1. Pressure on the high pressure side of the intensifier is thus determined by multiplying the gauge reading by 10. A small variation must be allowed for friction from the intensifier packing.

The air operated hydraulic pump pressurizes the system to 16,000 psi with valves "A" and "B" closed and the intensifier piston is automatically positioned to the low pressure end of its stroke. With valves "A" and "C" closed, valve "B" is opened to allow the pump to pressurize the low pressure end of the intensifier. The fluid in the high pressure end of the intensifier is thus pressurized with a 10 to 1 ratio. If the intensifier reaches the end of its stroke before the desired pressure is achieved, the intensifier may be recycled. The intensifier output is approximately 1.2 cubic inches per stroke.



Air Driven Power Units

A variety of Sprague and PowerStar™ pumps are available as packaged systems with output pressures up to 36,500 psi. These air driven power units are designed for portable and stationary applications and delivered fully assembled, ready-to-use and factory tested.

S-440

- Standard unit for general use.
- Components include S-216-J-()-SS pump, air filter, pressure regulator and lubricator, air shut-off valve, muffler, liquid bleed valve, air pressure gauge, liquid-filled pressure gauge with quick disconnect fitting.
- Steel powder coated base has four mounting holes.
- Available as S-440 with the addition of a by-pass circuit that allows quick fills from your inlet source.

S-1101

- Compact power unit has same components as S-440 with the addition of a three gallon (11.4 liters) stainless steel reservoir.
- Reservoir is fitted with filter-breather-screen assembly, suction filter inline to pump, and sight glass to show liquid fill point.
- Base flanges of reservoir have four mounting holes.
- Designed to improve suction capability of higher ratio pumps and eliminate dry start-ups.

S-441

- Compact, lightweight unit for general use.
- Occupies slightly more than one cubic foot of space and weighs six lbs. (2.7kg) less than S-440.
- Components include S-216-() pump, air filter, pressure regulator and lubricator, air shut-off valve, muffler, manifold, liquid bleed valve, air pressure gauge, liquid-filled pressure gauge with quick disconnect fitting.
- Stainless steel base has four mounting holes.

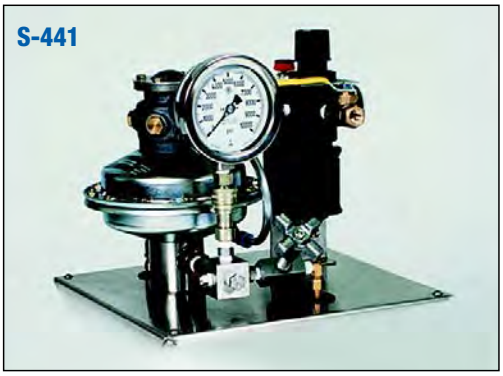
S-439

- Compact power unit has same components as S-441 with the addition of a five gallon (18.9 liters) stainless steel reservoir.
- Reservoir is fitted with filler-breather-screen assembly, suction filter inline to pump, and sight glass which shows liquid fill point.
- Base flanges of reservoir have four mounting holes.

S-440

S-1101

S-441



S-439

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Air Driven Power Units

S-1400

- Sturdy, portable unit with 15” square tubular frame for general use.
- Components include S-216-() pump (ten ratios), air filter, pressure regulator and lubricator, muffler, manifold, liquid bleed valve, air pressure gauge, liquid-filled pressure gauge with quick disconnect fitting.
- Dual gauge set-up available.


S-1400

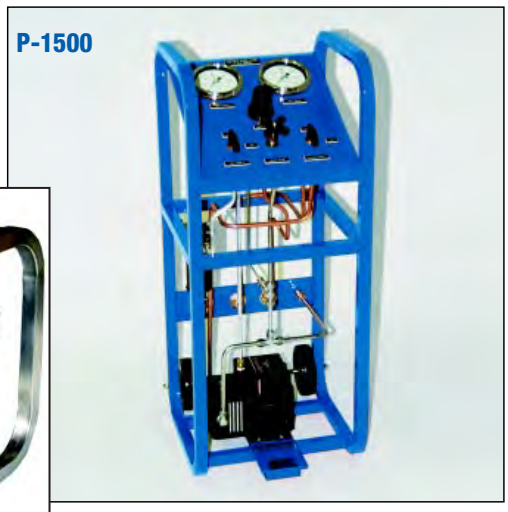
S-1500

- Air-operated piston pump mounted on tubular frame with wheels for extreme portability.
- Hydro gauges, valves and pump regulator all panel-mounted.
- Output pressure adjusted by setting air pressure regulator to pump.
- Pump automatically shuts off at set pressure; re-starts when pressure drops


S-1500

P-1500

- Air-operated piston pump mounted on tubular frame with wheels for extreme portability.
- Hydro gauges, valves and pump regulator all panel-mounted.
- Output pressure adjusted by setting air pressure regulator to pump.
- Pump automatically shuts off at set pressure; re-starts when pressure drops.


P-1500

S-1401

- Air-driven lubricated J series pump with pressure ranges from 1000 to 36,500 PSI.
- 1” Square tubular frame stainless steel, glycerin-filled, quick disconnect.
- 3/8” Air inlet port with stainless steel ball valve, filter regulator with gauge, 50 micron filter.
- Stainless steel manifold block, extra quick disconect port for relief valves.


S-1401

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