### P-Series, Lightweight Hand Pumps

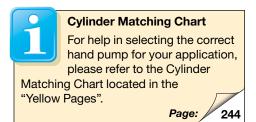


▼ Pumps shown, from top to bottom: **P-802**, **P-842**, **P-202**, **P-142** 



- Lightweight and compact design
- Durable glass-filled nylon reservoir and nylon encapsulated aluminum pump base for maximum corrosion resistance
- Two-speed operation on most models reduces handle strokes by as much as 78% over single speed pumps
- Lower handle effort to minimize operator fatigue
- Integral 4-way valve on P-842 for operation of double-acting cylinders
- Handle lock and lightweight construction for easy carrying
- Large oil capacities to power a wide range of cylinders or tools
- Non-conductive fiberglass handle for operator safety
- Internal pressure relief valve for overload protection

# Exclusively from Enerpac



Speed Chart
To determine how a specific pump will operate your cylinder, see the Pump/Cylinder Speed
Chart in the "Yellow Pages".

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#### **Tank Kits**

When a return-to-tank port is required, the Tank Kits provide a \(^{1}\)6-20 port at the rear of the reservoir.

	Fits P-141, P-142
PC-25	Fits P-202, P-391, P-392



#### LX-101 Hand Pump Oil

A medium viscosity oil specially formulated for hand pumps. Performs well in low temperatures and requires less pumping effort than

standard Enerpac HF blue oil.

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lacktriangle P-392 in action with RC-256 cylinders.

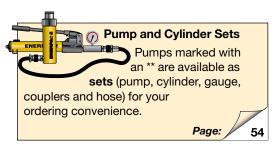


Pump Type	Usable Oil Capacity	Model Number		e Rating*	Oil Displa per S		Max. Handle Effort	
	(in³)		1 <sup>st</sup> stage 2 <sup>nd</sup> stage		1st stage	2 <sup>nd</sup> stage	(lbs)	
Single	20	P-141	N/A	10,000	N/A	.055	72	
speed	55	P-391	N/A	10,000	N/A	.151	85	
	20	P-142**	200	10,000	.221	.055	78	
_	55	P-202	200	10,000	.221	.055	63	
Two speed	55	P-392**	200	10,000	.687	.151	93	
эрсси	155	P-802	400	10,000	2.40	.151	95	
	155	P-842***	400	10,000	2.40	.151	95	

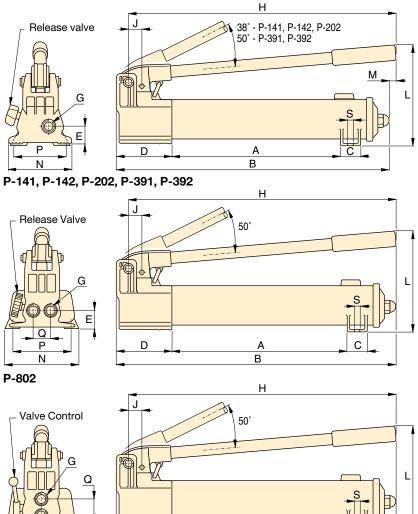
Contact Enerpac for applications where operating pressure is less than 10% of pressure rating.
 Available as set, see note on top of next page.

<sup>\*\*\*</sup> For use with double-acting cylinders.

### **Lightweight Hand Pumps**



P-842



P Series



Reservoir Capacity:

20-155 in<sup>3</sup>

Flow at Rated Pressure:

.055-.15 in<sup>3</sup>/stroke

Maximum Operating Pressure:

10,000 psi



#### Hoses

Enerpac offers a complete line of high-quality hydraulic hoses. To ensure the integrity of your system, specify only

genuine Enerpac hydraulic hoses.

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#### Gauges

Minimize the risk of overloading and ensure long, dependable service from your equipment. Refer to the

System Components section for a full range of gauges.

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#### Aluminum Reservoir

For applications where composite reservoirs may not be suitable, the **P-392AL** utilizes an

extruded aluminum reservoir. Also

included is a second handle for twohand use. Contact Enerpac for details.

Piston Stroke		Dimensions (in)													Weight	Model Number
(in)	А	В	С	D	Е	G	Н	J	L	М	N	Р	Q	S	(lbs)	
.50	7.31	13.25	1.13	3.37	1.13	1/4"-18 NPTF	12.56	.75	5.63	_	3.75	3.25	-	.28	5.3	P-141
1.00	13.56	21.00	1.44	3.93	1.31	3/8"-18 NPTF	20.56	1.19	7.00	.63	4.75	_	_	_	9.0	P-391
.50	7.31	13.25	1.13	3.37	1.13	1/4"-18 NPTF	12.56	.75	5.63	-	3.75	3.25	-	.28	5.3	P-142**
.50	13.56	20.06	1.44	3.37	1.13	1/4"-18 NPTF	15.75	.75	5.69	.63	3.75	-	-	-	7.5	P-202
1.00	13.56	21.00	1.44	3.93	1.31	3%"-18 NPTF	20.56	1.19	7.00	.63	-	-	-	-	9.0	P-392**
1.00	13.30	21.75	1.78	5.25	1.39	3/8"-18 NPTF	20.75	2.19	9.00	_	7.12	6.02	1.40	.41	18.0	P-802
1.00	13.30	21.75	1.78	5.25	.81	3/8"-18 NPTF	20.75	2.19	9.00	_	7.12	6.02	1.44	.41	22.0	P-842***

Α

### P-Series, ULTIMA Steel Hand Pumps



▼ Shown from left to right: **P-77**, **P-80**, **P-84**, **P-801**, **P-39** 



- Reduced handle effort and ergonomic grip for less operator fatigue
- Two-speed operation for fast and easy operation (except P-39)
- Vent free reservoir eliminates spills
- Quick grip handle allows for easy transport
- Integral reservoir over-pressurization protection
- All steel construction, chrome plated plunger and wiper system for durable, long lasting performance
- 4-way valving on the P84 and P-464 for operation of double-acting cylinders

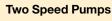
#### ▼ In the absence of a power supply, the P-80 Hand Pump offers a powerful solution.



#### Pump **Usable Oil** Model Pressure Rating\* Oil Displacement Max. Capacity per Stroke Handle Type Number **Effort** $(in^3)$ (psi) $(in^3)$ 1st stage 2<sup>nd</sup> stage 1st stage 2<sup>nd</sup> stage (lbs) P-39 N/C 10.000 N/C 47 .15 85 **Single** P-77 500 10.000 1.00 .15 88 47 P-80\*\* 500 10,000 1.00 77 134 Two-P-801 500 10,000 1.00 .15 77 250 speed P-84\*\*\* 500 10.000 1.00 .15 77 134 10,000 7.69 .29 P-462 200 110 453 P-464\*\*\* 200 10,000 7.69 .29 110 453 Contact Energac for applications where operating pressure is less than 10% of pressure rating.

- Available as a set, see note on next page.
- For use with double-acting cylinders.

### The Solution for **Tough Jobs**



Recommended for applications where cylinder plunger must advance rapidly to contact load, and applications where greater oil capacities are required, such as multiple



cylinder hook-ups.

#### **Foot Pump Conversion Kits**

Convert your **P18**, **P39**, **P77**, P80, or P801 to foot power with the PC-11 Kit. Includes instructions for easy conversion.



#### Gauges

Minimize the risk of overloading and ensure long, dependable service from your equipment. Refer to the

System Components section for a full range of gauges.





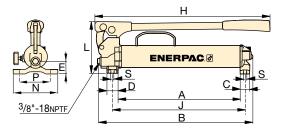
#### 4-Way Control Valve

P-84 and P-464 feature a manual 4-way control valve, designed for use with one double-acting or two single-

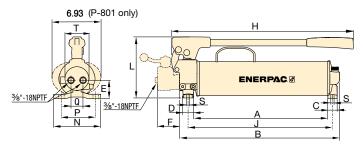
acting cylinders. For system set-up information:

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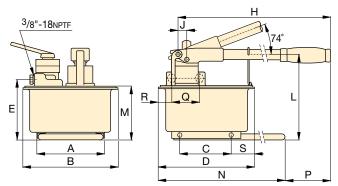
## **Steel Hand Pumps**



P-39, P-77



P-80, P-801, P-84



P-462, P-464

### P Series



Reservoir Capacity:

47-453 in<sup>3</sup>

Flow at Rated Pressure:

.15-.29 in<sup>3</sup>/stroke

Maximum Operating Pressure:

10,000 psi

Extra Capacity Hand Pumps P-462 and P-464 featu

**P-462** and **P-464** feature extra large reservoirs and a high first-stage flow rate.

These pumps are ideally suited for powering high-capacity cylinders.

Pump and Cylinder Sets
P-80 is also available as a set (pump, cylinder, gauge, couplers and hose) for your ordering convenience.

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Cylinder Matching Chart

For help in selecting the correct hand pump for your application, please refer to the Cylinder

Matching Chart located in the 
"Yellow Pages."

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Piston Stroke							D	imensio	ons (in)		I	I					Weight	Model Number
(in)	Α	В	С	D	Е	F	Н	J	L	М	N	Р	Q	R	S	Т	(lbs)	
1.00	15.09	18.91	1.18	1.38	1.48	-	21.63	16.37	6.39	-	5.51	4.37	-	-	0.33	-	13.6	P-39
1.00	15.39	19.19	1.18	1.38	1.86	-	21.63	16.67	6.39	-	5.51	4.37	_	-	0.33	-	15.6	P-77
1.00	16.83	20.12	1.18	1.38	2.17	-	23.50	18.11	7.65	-	5.91	4.76	1.65	-	0.33	2.93	23.6	P-80**
1.00	16.83	20.12	1.18	1.38	2.17	_	23.50	18.11	7.65	-	5.91	4.76	1.65	-	0.33	2.93	31.0	P-801
1.00	16.83	20.06	1.18	1.38	2.30	2.77	22.78	18.11	7.65	-	5.91	4.76	1.50	-	0.33	2.93	26.0	P-84***
1.50	8.25	12.13	6.42	12.63	7.68	-	26.44	.98	10.63	6.89	25.6	3.63	-	-	3.13	-	61.0	P-462
1.50	8.35	12.13	6.42	12.63	7.68	_	26.44	.98	10.63	6.89	25.6	3.63	3.50	2.68	3.13	_	61.0	P-464***

# P-Series, Low Pressure Hand Pumps



▼ Shown from left to right: P-25, P-51, P-18



### When Less Than 10,000 psi is All You Need

- P-25 and P-50 pump oil in both forward and reverse handle movement improving overall efficiency, ideal when mounting space is restricted
- External load-release valve
- Internal pressure-relief valve for overload protection
- P-51 can be operated in horizontal and vertical position with pump head and oil outlet facing downwards



#### LX-101 Hand Pump Oil

A medium viscosity oil specially formulated for hand pumps. Performs well in low temperatures and requires less pumping effort than

standard Enerpac HF blue oil.

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#### Gauges

Minimize the risk of overloading and ensure long, dependable service from your equipment. Refer to the

System Components section for a full range of gauges.

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•	P-18 hand pump used for locking the rotating table for marble polishing.



Pump Type	Usable Oil Capacity	Model Number	Pressure Rating	Oil Displace- ment per Stroke	Max. Handle Effort
	(in³)		(psi)	(in³)	(lbs)
	22	P-18	2,850	0.15	34
Single-	200	P-25	2,500	0.58	60
speed	200	P-50	5,000	0.29	60
	50	P-51	3,000	0.25	61

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## **Low Pressure Hand Pumps**

P

**Series** 



Reservoir Capacity:

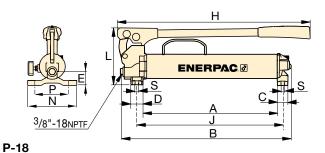
22-200 in<sup>3</sup>

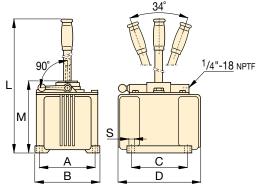
Flow at Rated Pressure:

.15-.58 in<sup>3</sup>/stroke

Maximum Operating Pressure:

2,500-5,000 psi





P-25, P-50

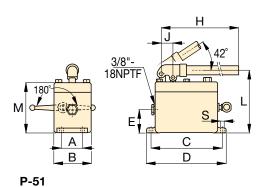


#### Hoses

Enerpac offers a complete line of high quality hydraulic hoses. To ensure the integrity of your system, specify only genuine Enerpac hydraulic hoses.

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P-51 hand pumps used with RC-series cylinders to keep wooden layers under pressure during lamination of plates.



Piston Stroke						Dimen	sions (in)						Weight	Model Number
(in)	Α	В	С	D	E	Н	J	L	М	N	Р	S	(lbs)	
1.00	8.70	12.44	1.18	1.38	1.48	15.17	9.98	6.39	_	5.51	4.37	.33	11	P-18
1.50	6.00	6.82	6.00	9.43	_	_	_	26.94	7.88	_	_	.40	36	P-25
1.50	6.00	6.82	6.00	9.43	-	_	_	26.94	7.88	_	_	.40	37	P-50
1.00	2.06	3.63	7.12	7.88	2.25	24.00	1.16	6.31	5.06	_	_	.34	12	P-51

### **Lightweight Hydraulic Foot Pump**



▼ Shown: **P-392FP** 



- Robust, durable and compact
  - Steel frame for maximum stability
  - Steel pumping handle
  - Aluminium reservoir
- Foot pedal lock and lightweight construction for portability
- Two-speed operation reduces foot pedal strokes
- Large foot-pad release valve for controlling load descent
- Internal pressure relief valve for overload protection

### P Series

Reservoir Capacity:

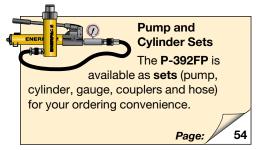
38 in<sup>3</sup>

Flow at Rated Pressure:

.151 in<sup>3</sup>/stroke

Maximum Operating Pressure:

10,000 psi





#### Hoses

Enerpac offers a complete line of high quality hydraulic hoses. To ensure the integrity of your system, specify only

genuine Enerpac hydraulic hoses.

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▼ P-392FP offers the advantage of hands free operation to handle and control the tool or cylinder.



Usable Oil Capacity	Model Number	Rat	sure ting si)	per S	lacement Stroke n³)	Max. Handle Effort	Piston Stroke	Weight
(in³)		1st stage	2nd stage	1st stage	2nd stage	(lbs)	(in)	(lbs)
38	P-392FP *	200	10,000	.687	.151	125	1	16

Available as set, see note on this page.

### **Multifluid Hand Pumps**

▼ Shown: **MP-110** 



### MP Series

Reservoir Capacity:

2 gal. (optional)

Flow at Rated Pressure:

.12-1.28 in<sup>3</sup>/stroke

Maximum Operating Pressure:

1,500-14,500 psi

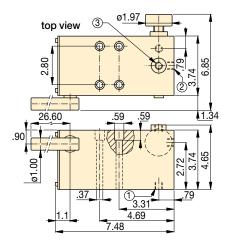


#### **Optional Reservoir Kit**

The 2 gallon reservoir kit **MP-10T\*** includes tank with skid frame, top plate with reservoir seal, suction pipe and mounting bolts. Useable oil capacity is 1.5 gal.

\*For use with mineral oil applications only.

- Superior corrosion resistance
- Impregnated aluminum anodized pump housing with stainless steel internal pumping components
- Standard Nitrile seals excellent for demineralized water, oil/water emulsions, water glycols, mineral oils, hydraulic fluids
- Custom EPDM seals available for use with Skydrol<sup>®</sup> or brake fluids
- Two speed pumps up to 14,500 psi pressure
- Externally adjustable pressure relief valve
- 1/4" NPTF gauge port



MP-110, 350, 700, 1000

- (1) Suction / Tank return port 3/8"-18 NPTF
- 2 Pressure port 3/8"-18 NPTF
- 3 Gauge port 1/4"-18 NPTF

▼ MP-Series pump testing and filling	
2 2 3	860



_		7.09	1				_
12.13	4.5/		)		12.6	11.1	

MP-10T

Pump Type	Usable Oil Capacity	Model Number	Pressure Rating (psi)		per S	il Displacement per Stroke (in³) Max. Handle Effort		Piston Stroke	Weight
	(in³)		1st stage	2nd stage	1st stage	2nd stage	(lbs)	(in)	(lbs)
	*	MP-110	500	1500	3.2	1.28	99	1.04	14.5
Two	*	MP-350	500	5000	3.2	.43	99	1.04	14.5
Speed	*	MP-700	500	10,000	3.2	.18	99	1.04	14.5
	*	MP-1000	500	14,500	3.2	.12	99	1.04	14.5

Note: MP-Pump includes .060 in. thick gasket for reservoir mounting.

<sup>\*</sup> MP-Series pumps require the use of an external reservoir.

### P/11 Series, Ultra-High Pressure Hand Pumps



▼ Shown from left to right: 11-100, P-2282



- Two-speed operation on the P-2282 allows for faster fill, reducing cycle times for many testing applications
- 303 Stainless steel construction on the 11-100 and 11-400 models enable use with many different fluids, such as distilled water, alcohol, diesters, silicones, soluble oils and petroleum
- Large release knob for improved control of pressure release
- Outlet ports are 3/4"-16 cone for 40,000 psi rating

# Ultra-High Pressure up to 40,000 psi



#### 2-Way Shut-Off Valve 72-750

For 40,000 psi applications requiring a shut-off valve or gauge snubber. Made of 318 Stainless Steel and utilizing .38 inch cone

fittings, it is the perfect selection for use with your Ultra-High Pressure Hand Pump.

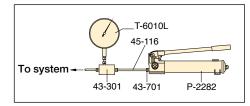


#### **Test System Gauges**

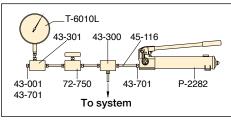
Ideal for monitoring pressure in your hydraulic circuit, Test System Gauges, such as the T-6010L, are available with

cone threads or NPTF threads and in a variety of pressure ranges.

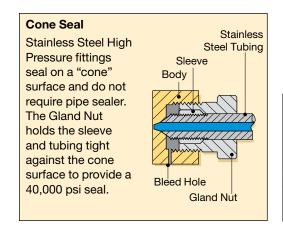
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▲ Typical Test System



▲ Test System with Gauge and Snubber



Pump Type	Usable Oil Capacity	Model Number	Rat	sure ing* si)	per S	acement troke	Max. Handle Effort	
	(in³)		1st stage	2nd stage	1st stage	2nd stage	(lbs)	
Two-speed	60	P-2282	200	40,000	.99	.037	106	
Single-speed	45	11-100	N/C	10,000	N/C	.152	120	
Siligie-speed	45	11-400	N/C	40,000	N/C	.038	120	

Contact Enerpac for applications where operating pressure is less than 10% of pressure rating.

### **Ultra-High Pressure Hand Pumps**

#### ▼ Optional Ultra-High Pressure Fittings and Tubing

Description	1	Connection	Model No.						
Docompaion		40,000 psi	model Hel						
Gland Nut Plug	<b>**</b>	.38" cone	43-001						
Elbow	-	.38" cone	43-200						
Tee		.38" cone	43-300						
Gauge Tee	*	.38" cone side/ .25" cone gauge port	43-301						
Gauge Adaptor	1	.38" cone side/ .25" cone gauge port	83-011						
Coupling	3	.38" cone	43-400						
Cross		.38" cone	43-600						
Gland Nut with Sleeve	0	.38" cone	43-701						
Gauge Connector	Î	.25" cone	43-704						
Tubing	_	4" tube, O.D38" * 8" tube, O.D38" * 12" tube, O.D38" *	45-116 45-126 45-136						
10,000 psi only									
Adaptor	1	.38" F cone to 1/4" M NРТF	41-146 41-166						
Adaptor	T	.38" F cone to 1/4" F NPTF	41-246 41-266						
Adaptor	O	.38" M cone to %" F NРТF	41-366						

Note: .25" cone fittings use  $\% \mbox{\ensuremath{\$^{"}}}\mbox{-18 threads}, \mbox{\ensuremath{\%^{"}}}\mbox{\ensuremath{$ 

\* Actual tubing lengths are .75" less than nominal size shown. These dimensions make distance between centers of valves and fittings multiples of 4" spaces. P/11 Series



Reservoir Capacity: 45-60 in<sup>3</sup>

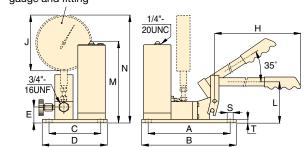
Flow at Rated Pressure:

.037-.152 in<sup>3</sup>/stroke

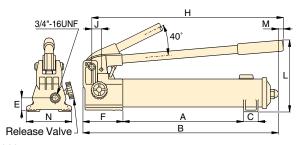
Maximum Operating Pressure: 10,000-40,000 psi

Stainless Steel Construction
Ultra-high Pressure Fittings
feature all stainless steel
construction except adaptor
41-366, which features nickel plated
carbon steel construction.

Optional T-Series gauge and fitting



11-100, 11-400



P-2282

Piston Stroke												Weight	Model Number		
Cuono															, ruiniboi
(in)	А	В	С	D	E	F	н	J	L	М	N	S	Т	(lbs)	
1.00	13.56	22.00	1.40	_	1.24	5.25	20.75	1.16	9.00	.28	4.74	-	_	14	P-2282
.78	9.45	10.50	5.98	7.00	1.77	_	25.00	6.41	4.50	9.33	12.38	.31	.37	22	11-100
.78	9.45	10.50	5.98	7.00	1.77	_	25.00	6.41	4.50	9.33	12.38	.31	.37	22	11-400