Pump Selection

ENERPAC
Hydraulic Technology Worldwide

▼ HAND PUMP AND SINGLE-ACTING CYLINDER MATCHING CHART

Capacity ▸ / ▼ Stroke	5 t	10 t	15 t	25 t	30 t	50 t	60 t	75 t	100 t	150 t
< 1.00"										
1.00"										
2.00"										
3.00"										
4.00"										
5.00"										
6.00"										
7.00"										
8.00"										
9.00"										
10.00"										
12.00"										
13.00"										
14.00"										
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Note: Selection based on oil capacity requirements of cylinders.

▼ POWER PUMP SELECTION CHART

Flow*	Low (10 to 20 in^3/min)		Medium (30 to120 in^3/min)		High (120 to 463 in^3/min)
Reservoir Oil Capacity	0.5-1 gal	1.5 gal	1.2-10 gal	2.5-10 gal	25 gal
Duty Cycle**	Intermittent	Continuous	Intermittent	Continuous	Both
Portable/Stationary***	Portable	Stationary	Portable	Stationary	Stationary
Recommended Series	**Economy**	**Submerged**	**Titan**	**Hushh**	**8000 Series**
					
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* Flow
- Determined by motor size
- Directly affects electrical power requirements
- Determines cylinder or tool speed

** Duty Cycle
- Continuous would be applications requiring more than one hour of continuous pump use
- Intermittent would be used less than one hour of continuous pump use

*** Portability

Portable
- Ergonomic handles
- Flexible power requirments

Stationary
- Mounting options
- Normally requires stable power

Selection Worksheet

▼ **Complete the following information to select the right products:**

Cylinder Selection

Question:	*Tips/help*	*Data*	*Model Number*
Total force required in tons:	Total load		
Number of cylinders required:	Number of lifting points		
Force per cylinder in tons:	Should be 80% of total cylinder cap.		
Stroke required:	Plunger travel		
Single or double acting (D/A):	D/A used when pull force is required, or retract speed is critical		
Type of plunger required:	Hollow or solid		
Collapsed height required:			
Optional saddle required:	Tilt, Grooved, Flat		
Cylinder base:	Improves stability		
Cylinder attachments: (RC-series)	Expanded functions		
Selected cylinder model:		▶	
Including coupler model:			

Pump Selection

The three most commonly selected pumps are hand pumps, electric pumps and air-driven pumps. Battery and gas powered pumps, however can be selected in the same way.

Available power source: ☐ **Manual** ☐ **Electric** ☐ **Compressed Air** ☐ **Gasoline**

Hand pump	Not for high cycle applications		
Single or double acting operation	Use 4-way valve for D/A applications		
	Check speed chart on page 105 for number of strokes per inch)		
Selected hand pump:		▶	
Electric or Compressed Air pump			
Need for portability:			
Duty cycle:	Intermittent or high		
Required usable oil capacity:	Intermittent =1.2 x oil capacity		
	high cycle = 2 x oil capacity		
Available Voltage:			
Lifting speed (Important/not important):	Use speed chart on page 105		
Type of control:	Manual/remote pendant		
Type of actuation/function:	Advance/hold/retract		
Accessories:	Roll bar, Oil Filter kit, ...		
Selected pump:		▶	
Including Coupler:	Oil connection		

System Components

Number of hoses and length required:			
Selected Hoses:		▶	
Manifold or tee:		▶	
Extra hose per manifold (2):		▶	
Gauge (psi, lbs or tons scale):	Glycerine for high cycle	▶	
Gauge adapter:		▶	
Fittings:		▶	
Pressure Relief Safety Valve:		▶	
Load-holding Valve(s):		▶	
Hydraulic oil:		▶	