



## SELECTING THE RIGHT PUMP:

**Step 1** Select the hydraulic pump that best suits the application.

**Step 2** Select the series of pump with adequate oil output and reservoir capacity to power tool.

**Step 3** Select pump within series with the valve option that is best suited to the tool and application.

### PUMP SIZING CONSIDERATIONS:

1. What maximum system operating pressure (psi) is required?
2. What volume of oil delivery is required? (For manual pumps, cu. in. of oil per handle stroke. For powered pumps, cu. in./min. of oil).
3. Is a single or two-speed pump required? (Two-speed pumps deliver high oil volume at low pressure for rapid cylinder piston advance, then shift to high pressure, low volume stage under load).
4. What is the preferred source of power?
  - a. Manual (hand or foot operated): Provides portability, can be used where electricity or shop air are not available.
  - b. Air/Hydraulic: Uses shop air or a portable air compressor.
  - c. Electric/Hydraulic: What voltage is available? Is a battery operated pump preferred?
  - d. Gasoline Engine/Hydraulic: Powers high-output pumps at remote job sites where air or electricity are unavailable.
5. Is portability of the pump a factor to consider?
6. Will the pump be used intermittently, or will it need to provide high-cycle operation? Does the application require that the pump be capable of starting under load?
7. Is fluid heat build-up a factor in your application? High-cycle applications may require a larger capacity oil reservoir for cooling.
8. Will the application require large displacement or multiple cylinders? Reservoir size and pump output levels will be factors to consider.
9. Does the working environment require a pump having a low operating noise (dBA) level?
10. Must the pump operate in a spark-free environment?





▶ **MANUALLY-OPERATED HYDRAULIC PUMPS:**



- **P12, P23, P55** – These single-speed pumps are for use with single-acting cylinders.
- **P19/P19L, P59/P59L, P59F, P157, P159, P300, P460** – These two-speed pumps are used with single-acting cylinders. The two-speed feature provides high oil volume for fast cylinder piston approach to the work, then the pump automatically shifts to the high pressure stage. This reduces the number of pump handle strokes required.
- **P157D, P159D, P300D, P460D** – These two-speed pumps are used with double-acting cylinders.

▶ **AIR / HYDRAULIC PUMPS:**

Used where air is the preferred energy source or where electricity is not available. Ideal for use in petrochemical, mining or other flammable or explosive environments.



- **PA6 Series** – These single-speed pumps drive single or double-acting cylinders.
- **PA9 Series** – These new single-speed pumps drive single-acting cylinders and are ideal for powering portable hydraulic tools.
- **PA50 Series** – These single-speed pumps drive single or double-acting low pressure (3,200 psi) cylinders.
- **PA60** – This two-speed pump is equipped with a manifold to operate multiple cylinders, and provides a 2-gallon reservoir.
- **PA64** – Similar to PA60, this two-speed pump drives single or double-acting cylinders.
- **PA172 and PA174** – These “economy” two-speed pumps drive single or double-acting cylinders, depending on the model chosen. Provide a low weight-to-output ratio.
- **PA462 and PA464 Series** – These two-speed pumps drive single or double-acting cylinders, depending on the model selected. They offer high speed cylinder piston advance.
- **PA554** – This two-speed pump drives single or double-acting cylinders, delivering a high volume of oil.

▶ **ELECTRIC / HYDRAULIC PUMPS:**

All of the following pumps are two-speed models, and can be used to drive single or double-acting cylinders.



- **PE/PB10 Series “Quarter Horse” Series** – These pumps feature a 1/4 hp electric motor. A battery-powered version is available. Having a low noise level and weighing just 20 lbs. They are ideal for powering portable hydraulic spreaders, nut splitters, pipe flange spreaders and other tools.
- **PE17 Series** – CSA rated for intermittent duty, these feature a 1/2 hp, single-phase induction motor with a low noise level (67-81 dBA). Smaller generators and low amperage circuits can be used as a power source.
- **PE46 Series** – Powered by a 1-1/2 hp, single-phase induction motor, operates at a moderate noise level of 77-81 dBA. CSA rated for intermittent duty.
- **PE18 Series** – CSA rated for intermittent duty, these feature a 1/2 hp, single-phase universal motor with a noise level of 85-90 dBA. Provide high-performance at a low price. Has low amperage draw.
- **PE30 Series** – Equipped with a 1 hp, single-phase permanent magnet motor, have a noise level of only 82-87 dBA. CSA rated for intermittent duty, and requires a relatively low voltage. Ideal for use in general construction applications. Roll cage/handle protects the motor and controls.
- **PE55 and PED25 Series** – Equipped with a 1-1/8 hp, single-phase universal motor, have a 90-95 dBA noise level. Offer the best weight to performance ratio of any Power Team electric/hydraulic pump. CSA rated for intermittent duty. The PED25 versions are “dual flow” pumps which deliver the same low and high pressures to both valves, and have a noise level of 80-85 dBA. They have a 1-1/2 hp induction motor.



▶ **ELECTRIC / HYDRAULIC PUMPS: (CONT.)**



- **PE60 Series** – These Vanguard® Supreme® pumps provide trouble-free service in the most severe working environments. Powered by a 1-1/8 hp, single-phase motor, has a moderate noise level of 80-85 dBA. Starts under load even at the reduced voltages encountered on construction sites. High-output pumps, ideal for use with post-tensioning/pre-stressing jacks and other high-pressure hydraulic tools.
- **“Custom-Built” Pumps** – Power Team offers you “assemble to order” electric/hydraulic pumps to suit unique applications. You can choose from pre-engineered, off-the-shelf components to customize your pump.
- **PE21 Series** – Ideal for heavy-duty, extended-cycle applications. Powered by a 1 hp, single-phase motor, pump operates at a very low noise level of 70 dBA. Pump automatically shuts down in the event of a power failure. CSA rated for intermittent duty.
- **“Quiet” Pumps** – Our PQ60 and PQ120 series operate at a very low noise level of between 73-78 dBA. The PQ60 has a 2 hp (single-phase) motor; the PQ120 has a 3 hp (three-phase) motor. These pumps are designed for heavy-duty, extended cycle operations. CSA rated for intermittent duty.
- **PE400 Series** – High-flow units deliver a large volume of high pressure oil for heavy construction and maintenance operations employing high tonnage cylinders. The PE400 is powered by a 10 hp, three-phase motor. Low noise rating of 73-80 dBA.

▶ **GASOLINE-DRIVEN HYDRAULIC PUMPS:**

These two-speed pumps are ideal for use in remote applications, such as construction sites. May be used with single or double-acting cylinders.



- **PG30 Series** – Powered by a 2-cycle, 2 hp Honda engine, these have an integral, protective “roll cage” and adequate reservoir capacity for cylinders up to 100 tons capacity or more. Readily portable, and popular in the railroad, rescue and construction markets.
- **PG55 Series** – With a 4-cycle, 4 hp Briggs & Stratton engine, this pump is based on our popular Vanguard® Series hydraulic system. It has a generous five gallon reservoir capacity.
- **PG120 Series** – Powered by a 4-cycle, 5.5 hp Honda engine. Has a five gallon reservoir, and is capable of handling multiple-cylinder lifting tasks. Ideal for the structure moving, pier setting, bridge lifting and concrete contracting industries.
- **PG4004** – Featuring a 4-cycle, 18 hp Honda engine, this unit has a big 20 gallon reservoir. Rugged steel “roll cage” has a hook on top and swivel casters for ease of mobility. Popular for concrete stressing applications.

▶ **HYDRAULIC INTENSIFIER:**



- **HB Series** – Turns low pressure hydraulic pumps into high pressure power sources to operate single or double-acting cylinders and tools such as crimper’s, spreaders, cutters, etc. Compact and portable for use inside a utility vehicle aerial bucket or stowing in a vehicle.



**HYDRAULIC  
PUMP  
OPTIONS**

