

**Brief Description**

**Application**

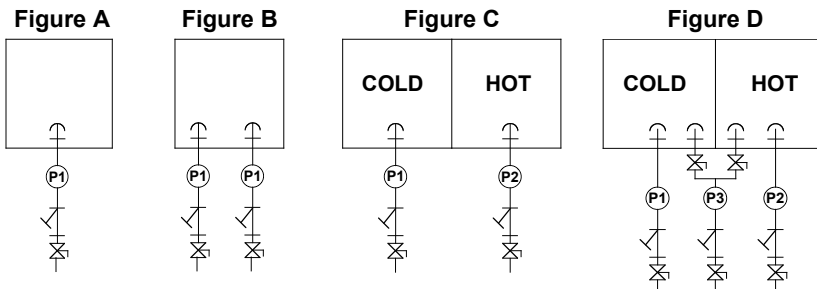
Pump sets are used for cooling tower and chilled water systems for existing underground reservoirs (sumps). They can have various configurations as shown in Figures A to D below, and can be used in single- or double-pump systems with standby pumping available for either system type.

Pump sets come standard with:

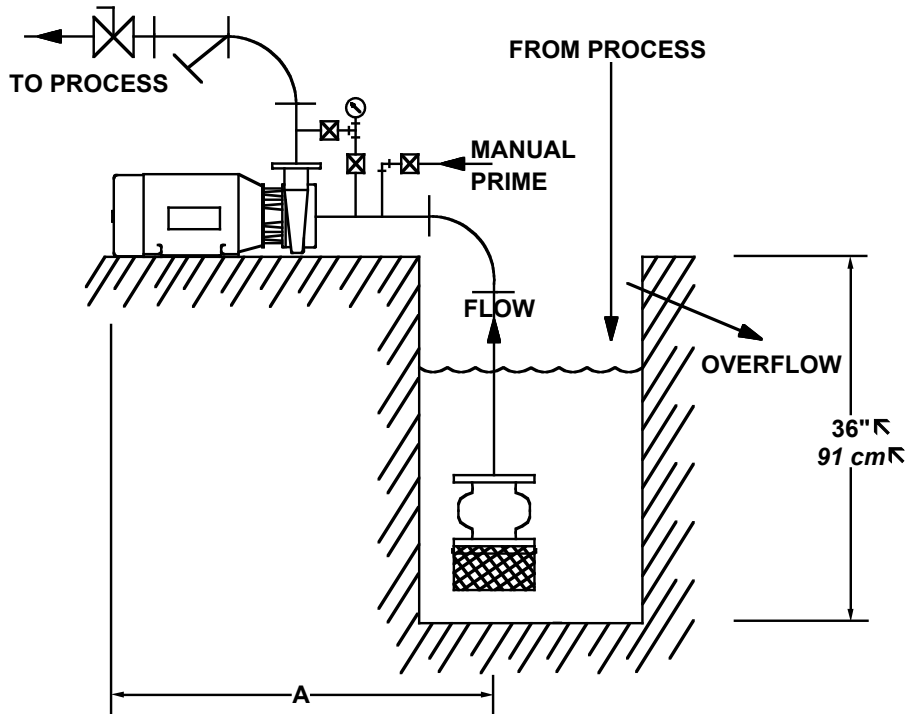
- Pressure gauge
- Thermometer
- Manual priming valve
- Discharge strainer
- Foot valve
- Lug-mount butterfly valves
- Automatic level control makeup valves
- Centrifugal close-coupled pump featuring cast iron impellers with 230 or 460/3/60 ODP motor (other voltages and motor designs are available)
- On/Off selector switch starter (shipped loose)
- Throttling/shutoff butterfly valve
- All necessary fittings
- 1 year warranty on parts and labor

Maximum flow		PS1 series model number ①	PS2 series model number ①	PS3 series model number ①
gpm	lpm			
90	340	PS1-3	PS2-3	PS3-3
90	340	PS1-5	PS2-3	PS3-5
160	605	PS1-7	PS2-5	PS3-7
160	605	PS1-10	PS2-5	PS3-10
250	946	PS1-15	PS2-7	PS3-15
320	1,211	PS1-20	PS2-7	PS3-20
450	1,703	PS1-25	PS2-10	PS3-25
600	2,271	PS1-30	PS2-15	PS3-30
900	3,406	PS1-40	PS2-20	PS3-40

① Model number nomenclature designates pump service type. For example, PS1 designates a process pump, PS2 designates a recirculation pump, and PS3 designates a dual standby pump. The number after the hyphen designates pump horsepower. To calculate *pump kW*, multiply pump hp by 0.746.



Typical Pump Set System



PS1 Process and PS3 Dual Standby Pump Specifications

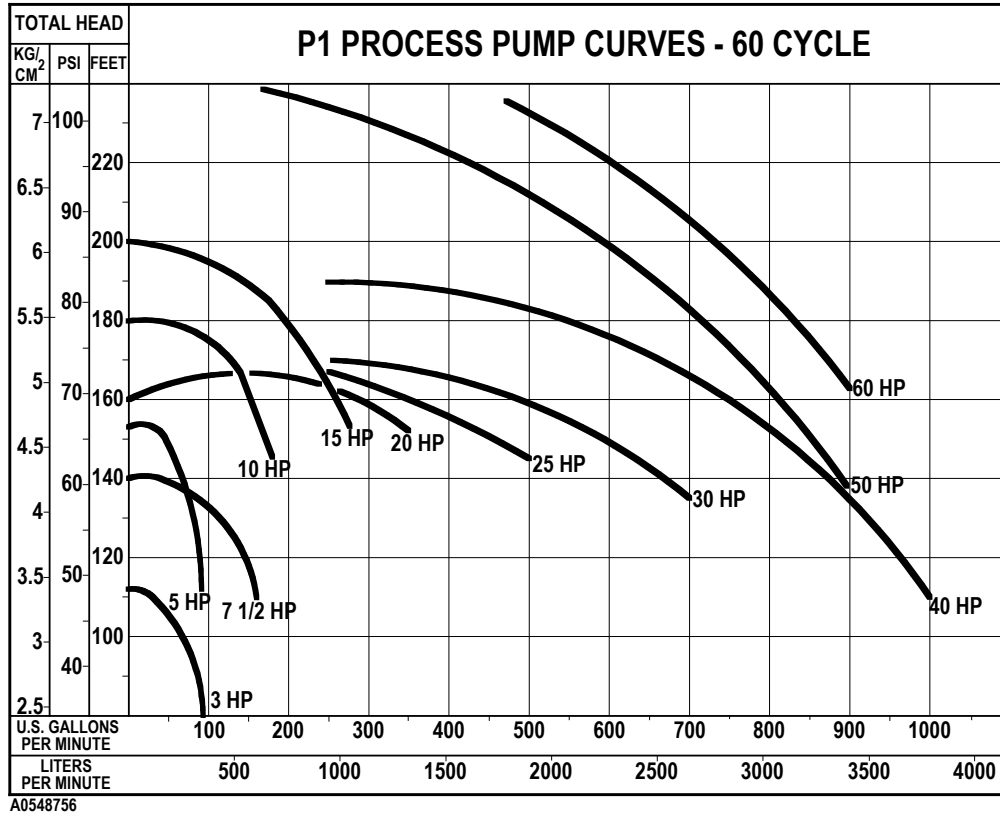
Pump power hp	Maximum flow kW	Maximum flow ①		PS1 ②		PS3 ②		Discharge size		Suction size		PS1 ship weight ③		PS3 ship weight ③	
		gpm	lpm	in.	cm	in.	cm	in. NPT	mm	in. NPT	mm	lbs.	Kg	lbs.	Kg
3	2.2	90	340	44	112	44	112	2.5"	63	2.5"	63	283	129	394	179
5	3.7	90	340	46	117	46	117	2.5"	63	2.5"	63	303	138	414	188
7.5	5.6	160	605	47	119	48	122	3"	76	3"	76	361	164	502	228
10	7.5	160	605	57	145	52	132	3"	76	3"	76	401	183	542	247
15	11.2	250	946	50	127	55	140	4"	102	4"	102	570	259	846	385
20	14.9	320	1,211	53	135	58	147	4"	102	4"	102	694	316	968	440
25	18.6	450	1,703	57	145	63	160	6"	127	6"	127	841	382	1,206	548
30	22.4	600	2,271	62	157	69	175	6"	127	6"	152	1,031	468	1,504	683
40	29.8	900	3,406	67	170	76	193	6"	152	8"	203	1,470	668	2,292	1,041

PS2 Recirculation Pump Specifications

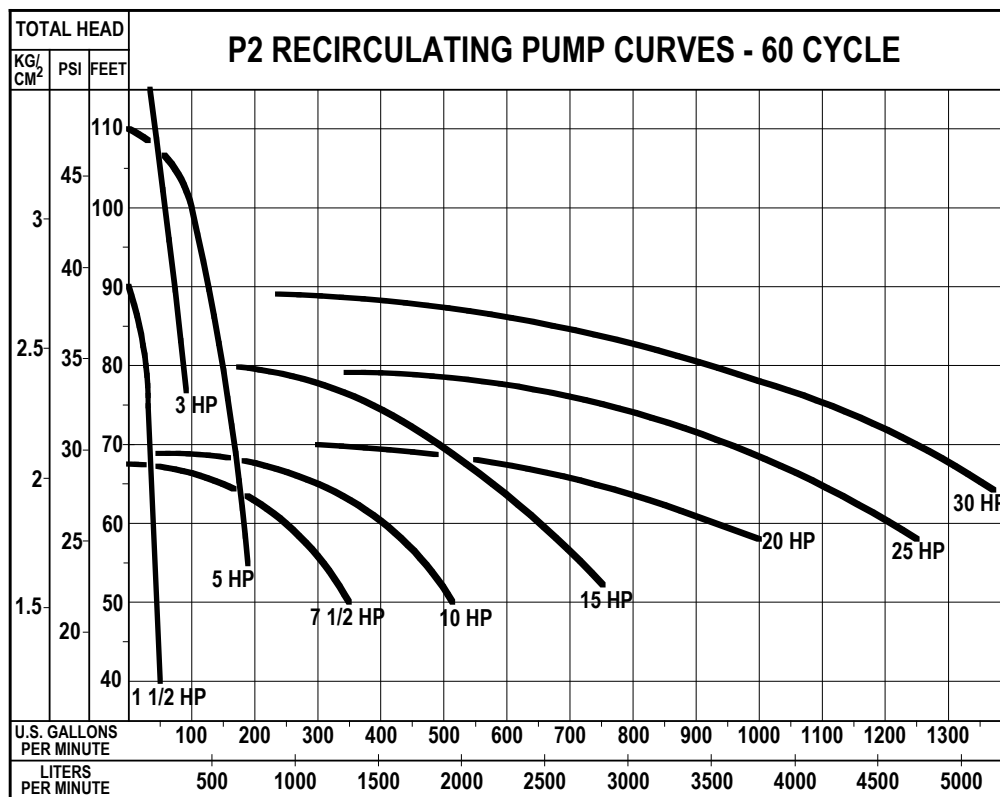
Pump power hp	Maximum flow kW	Maximum flow ①		PS2 A dimension ②		Discharge size		Suction size		PS2 ship weight ③	
		gpm	lpm	in.	cm	in. NPT	mm	in. NPT	mm	lbs.	Kg
3	2.2	90	340	44	112	2.5"	63	2.5"	63	283	129
5	3.7	160	605	48	122	3"	76	3"	76	351	160
7.5	5.6	320	1,211	53	135	4"	102	4"	102	665	302
10	7.5	450	1,703	57	145	6"	127	6"	127	857	390
15	11.2	600	2,271	64	163	6"	127	6"	152	1,056	480
20	14.9	900	3,406	70	178	6"	152	8"	203	1,575	715

- ① Flow is based on pumping water at 105°F (41°C) or less and sump water level being no more than 48" (115 cm) below pump(s).
- ② A dimension is the maximum distance from the centerline of the suction leg to the end of the pump.
- ③ Pump weight includes pipe and valves but not shipping crate. Pump(s) are shipped as individual units, **not** mounted on a common base, with the suction and discharge piping assembled but not attached to the pump.
- ④ Standard selections are based on pump(s) being located 36" (91 cm) from the bottom of the sump. Longer suction legs are available. **You must provide the distance from where the pump is located to the bottom of the sump with the order.**

**P1 Process Pump Curves • 60 Hz**



**P2 Process Pump Curves • 50 Hz**



**Note:** For 50 Hz operation, derate by multiplying pressures by **0.69**.

### Options

- Individual NEMA 1 starters (thermostat, well, on/off switch for cycling tower fans, and P2 recirculating pumps are available at extra cost. Pump hp available at 2, 3, 4, 7.5, 10, 15, 20, 25, 30, and 40 HP
- Annunciator circuit alarm: base, high temperature, low pressure, high pressure, low flow, low level, high level
- Automatic reservoir makeup package
- Suction legs over 36" (91 cm) long
- Butterfly valve handles
- Electronic level control with bracket
- Pressure regulating valve

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