

# P720 Hydraulic Pump SERIES

Hydraulic Power  
Hydronic Power  
Horse Power **HP<sup>3</sup>**

## HYDRONIC

Hydraulic Pumps and Power Packs

Hydronic pumps and power units of the P720 series have internal valving which allows the piston mechanism to cycle automatically when the system asks for hydraulic flow at low pressures. This performance-on-demand feature keeps the pump pressurized and at the ready to give hydraulic flow whenever it is needed.

Primarily designed for single acting cylinders, these models are particularly suited for small to medium sized workholding and clamping applications. Pressure release valves are available in manual or air pilot versions and are integral with the pump body. The P720 Series, used with the pressure release valve options, provide low cost off-the-shelf solutions for jigs and fixtures, hydraulic chucks, tombstones, punches, crimpers and small presses.

Three pump styles of the P720 Series are available. Five P720 models can be supplied in pressure ranges from 1,000 to 10,000 psi. For fluid compatibility, the P720 Series pumps are available with Buna, Viton or EPR seals. With four reservoir sizes to choose from, almost every combination of pump-to-tank can be supplied to suit any application.

Air connections are  $\frac{1}{8}$ " NPT and the oil pressure outlet is  $\frac{1}{4}$ " NPT. Power units have a 90 micron suction filter inside the tank and, where the tank top mounted version is selected, the same suction filter can be supplied. Threaded suction tubes are available in several lengths to accommodate larger reservoirs.

Power units can be supplied on request with conventional hydraulic valves operating two or more circuits. Typically, the 2 $\frac{1}{2}$  gallon reservoir would be used and the oil pressure outlet would be connected to a manifold bolted to the tank lid. The manifold can then be connected from the A & B ports to the separate parts of the circuit and the pump will supply hydraulic horsepower to each in turn, according to the valve actuation.

**Hydronic Corporation specializes in designing and manufacturing complete power units utilizing this series of pumps. Applications include material handling equipment, expanding mandrels and arbors, tire presses, valve actuators, bending machinery, workholding, clamping, and many other traditional fluid power applications.**

**P720 Series, P720M Style, Model P720M-70 pump mounted to  $\frac{3}{4}$  gallon tank with manual pressure release valve**



**P720 Series, Model P720A-70-N-R4 air pilot pressure release valve**

## Hydronic P720 Series Pumps

- Pumps come without release valve (720P), with manual pressure release valve (P720M) or with air pilot pressure release valve (P720A).
- Pressure sustaining up to 10,000 psi.
- Seals available for brake fluid and other synthetic oils.
- Reservoirs available in four sizes of  $\frac{3}{8}$ ,  $\frac{3}{4}$ , 1 $\frac{1}{2}$ , and 2 $\frac{1}{2}$  gallon capacities.
- Complete power units for single acting systems. No directional valves needed.
- Release valves are ideal for manual use and with air pilot for remote or automated operations.

P720 Pump Model	P720-10	P720-20	P720-40	P720-70	P720-100
Air Pressure psi (bar)	20-100 psi (1 $\frac{1}{2}$ - 7)				
Nominal Pressure Ratio	1 : 10	1 : 20	1 : 40	1 : 70	1 : 100
Max. Oil Pressure psi (bar)	1,000 (69)	2,000 (138)	4,000 (275)	7,000 (483)	10,000 (690)
Noise Level	78-80 dB @ 1 m				
Weight-Pump Only (kg)	17 lbs (7.72)				
Weight With Reservoir (kg)	R3 = 22.5 lbs (10), R4 = 23 lbs (10.5), R15 = 27 lbs (12.3), R25 = 29 lbs (13.2)				

**Note: Always fit an air filter/regulator with 40 micron rating and 30 scfm capacity. Slightly lower ratios can be expected at lower input air pressures.**

## Hydronic P720 Series Ordering Code

Select specifications from the table and build an ordering code number, as shown in the sample.

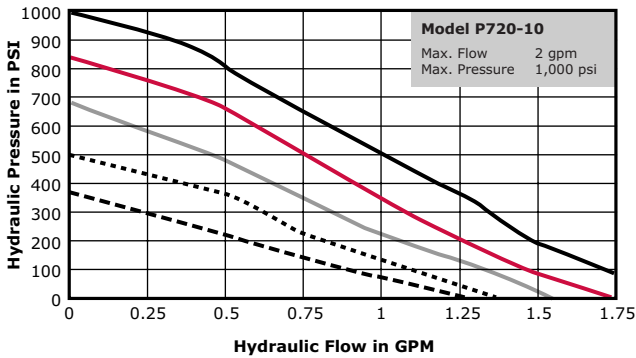
PUMP STYLE	MODEL	RATIO	SEAL	MOUNTING
No Valve (P)	P720P	1:10	N = Buna	O = Basic Pump
Manual Release	P720M	1:20	V = Viton	T = Tank Top Flange
Valve (M)	P720A	1:40	E = EPR	R3 = $\frac{3}{8}$ gallon tank
Air Pilot	P720A	1:70		R4 = $\frac{3}{4}$ gallon tank
Release Valve (A)		1:100		R15 = 1 $\frac{1}{2}$ gallon tank
				R25 = 2 $\frac{1}{2}$ gallon tank

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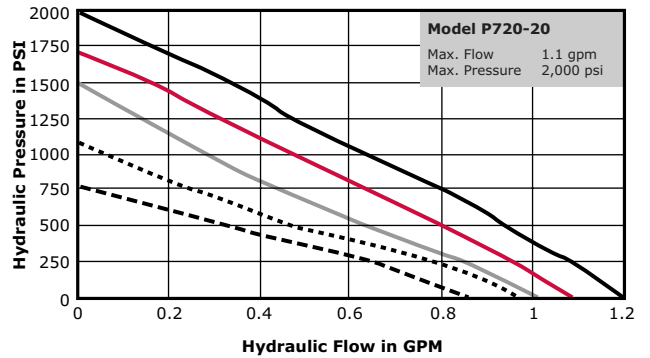
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## Flow and Pressure Performance Guides

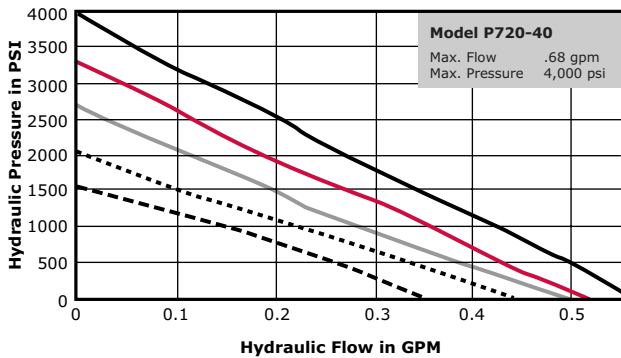
**P720-10 Fluid Flow Against Pressure**



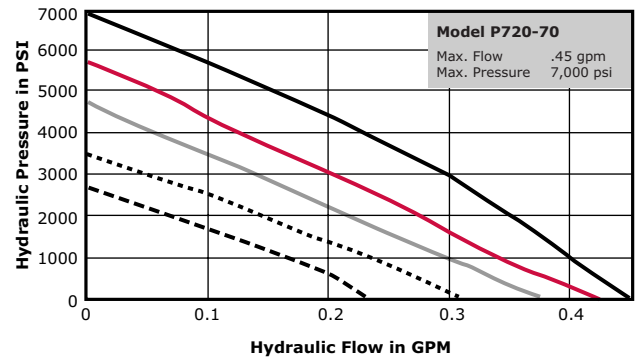
**P720-20 Fluid Flow Against Pressure**



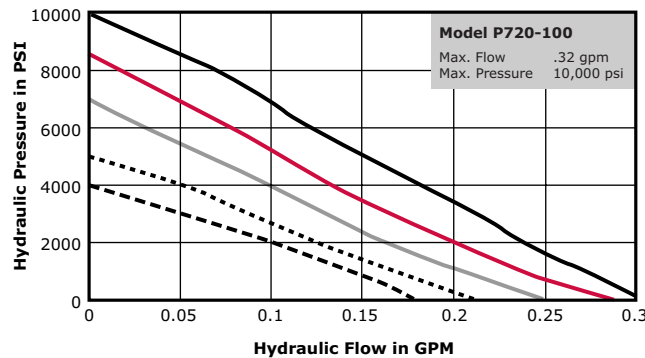
**P720-40 Fluid Flow Against Pressure**



**P720-70 Fluid Flow Against Pressure**



**P720-100 Fluid Flow Against Pressure**



32613 Folsom • Farmington Hills, MI 48336  
248-477-2288 • Fx: 248-893-3689 • [www.hydroniccorp.com](http://www.hydroniccorp.com)

