

General Description

Model 5720 metering pumps are of hydraulically actuated non-lost motion (amplitude modulated) diaphragm design. The unique method of actuation by means of a rotating plunger provides smoother, quieter operation. The design characteristics minimize back lash and shock loads to the process system.

5720 models are among the longest lasting pumps in the industry. These pumps will provide reliability in the heaviest workload environments, such as mining, nuclear plants, power plants and refineries/petroleum applications. These pumps meet API 675 standards.

Performance

The model 5720 offers maximum capacities from 20 gph (max. pressure of 940 psig) to 127 gph (max. pressure of 170 psig). The stroking length can be manually or automatically adjusted from 0-100%. The pumps are available with up to five stroking speeds. All models may be duplexed.

While the pump is running or stopped, the stroke length may be manually adjusted from 0 to 100% by using the micrometer control. This moves an internal shift ring. The unique spring-loaded rotating plunger is always extending or compressing. It displaces hydraulic fluid through the hollow center of the drive shaft and flexes the diaphragm for a smooth reliable performance. Repetitive accuracy is $\pm 1\%$.

Oversized main bearings support the drive shaft across a very short span, maximizing mechanical efficiency and ensuring long pump life.

An independent speed reducer allows for two separate oil reservoirs to match the requirements for both the hydraulic system using low viscosity oil and the gear drive using lubricating gear oil.

Materials of Construction

Model 5720 can be supplied with Alloy 20, Hastelloy C, 316 Stainless Steel or Polypropylene (max. 150 psig) wetted ends. All diaphragms and seals are available in PTFE, suited for the most demanding chemical duty applications.

A rugged cast iron housing contains a high performance rotating plunger submersed in an oil reservoir. The plunger is the only reciprocating part in the entire hydraulic drive mechanism.



Features

- A micrometer stroke length adjustment allows for accurate capacity control of 0-100%
- Maximum operating pressure up to 4000 psig
- Power supply: 120 VAC single phase or 230/460 VAC 3-phase TE or XP motor
- Built-in pressure relief valve
- Compact design offers high capacity per square foot of space
- Double ball check valves
- High mechanical efficiency reduces power requirements

Options

- Double diaphragm system
- Electronic or pneumatic capacity control
- High suction lift head allows for up to 16 ft. suction lift

Applications

- Nuclear power
- Petro-chemical
- Paper mills
- Corrosives

Technical Data

Model		5720								
Plunger diameter	in	1-3/16				1-5/8				
Stroke frequency	SPM	58	88	117	175	58	88	117	175	
Capacity per head @ 100 psig	gph	22	34	45	67	42	64	85	128	
1/2 Hp	Simplex: capacity at maximum pressure per head	gph @ psig	20.6 750	32.4 560	43.4 450	65.6 310	40.7 410	62.8 290	83.5 275	127.1 170
	Duplex: capacity at maximum pressure per head	gph @ psig	21.4 375	33.4 280	44.4 225	66.6 155	41.6 205	63.7 145	84.7 135	128.2 85
1 Hp	Simplex: capacity at maximum pressure per head	gph @ psig	20.2 940	31.1 940	41.2 940	63.1 680	40.3 500	61.4 500	81.6 500	124.8 350
	Duplex: capacity at maximum pressure per head	gph @ psig	20.4 825	32.2 625	43.3 485	65.4 340	40.6 440	62.6 325	83.7 250	127.0 175
Suction and discharge connections	in	1-1/4 M NPT (Metal), 1 M NPT (PP)								
Stroke length	in	1-3/8								
Suction lift	ft. H ₂ O	0 (16 with high suction head)								
Motor frame		NEMA 56C								
Max. temperature of process fluid	°F	316SS, Alloy 20, Hastelloy C: 180, PP: 120								
Weight (including motor) metal and PP models	Simplex	lbs.	160							
	Duplex	lbs.	230							

Note: Polypropylene construction is limited to a maximum operating pressure of 150 psig.
Check valves are single ball type.

