

General Description

The Model 5701 metering pump is a 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.

The Model 5701 is one of the longest lasting pumps in the industry. The pump will provide reliability in the heaviest workload environments, such as mining, nuclear plants, power plants and refineries/petroleum applications. The 5701 meets API 675 standards.

Performance

The Model 5701 offers maximum capacities from 0.65 to 13.8 gph at pressures of 150 to 2000 psig. The stroking length can be manually or automatically adjusted from 0-100%. The pump is available in four stroking speeds.

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. High mechanical efficiency reduces power requirements.

Materials of Construction

The Model 5701 is available with Alloy 20, Hastelloy C, 316 Stainless Steel or Polypropylene (maximum 150 psig) wetted ends. H_2SO_4 compatible materials are available. All diaphragms and seals are PTFE, suited for the most demanding chemical duty applications.

The rugged cast aluminum 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 accurate capacity control of 0-100%
- Operating pressure up to 2000 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

Options

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

Applications

- Nuclear power
- Petro-chemical
- Paper mill
- Corrosives

Technical Data

Model		5701							
Plunger diameter	in	7/16				23/32			
Stroke frequency	SPM	29	58	117	233	29	58	117	233
Capacity per head @ 100 psig	gph	0.65	1.3	2.7	5.3	1.8	3.6	7.2	14.4
Simplex: capacity at maximum pressure per head	gph @ psig	0.65 150	0.9 2000	1.9 2000	3.8 2000	1.8 150	3.2 800	5.9 1300	12.9 800
Duplex: capacity at maximum pressure per head	gph @ psig	0.65 150	0.9 2000	1.9 2000	4.5 1100	1.8 150	3.2 400	6.4 800	13.8 400
Suction and discharge connections	in	1/2 M NPT							
Stroke length	in	5/8							
Suction lift	ft. H ₂ O	4 (16 with high suction head)							
Motor size/frame	Hp	1/4 / 56C							
Maximum temperature of process fluid	°F	316SS, Alloy 20, Hastelloy C: 180, PP: 120							
Weight (including motor) metal and PP models	Simplex	lbs. 60							
	Duplex	lbs. 90							

