

General Description

The Model 1710 metering pump is a hydraulically actuated tubular diaphragm design. The memory of the prestressed diaphragm returns to its exact reference position on every suction stroke giving the pump exceptional accuracy, outstanding lift capabilities and minimal NPSH requirements. The ability of the diaphragm to withstand higher vacuum prevents premature diaphragm failure. The unique hydraulic system provides the industry with the simplest and most reliable design for metering pumps.

Performance

The Model 1710 is available in four different plunger diameter sizes, offering capacities from 1.4 to 80 gph at a maximum pressure rating up to 2000 psig.

The stroking length can be manually adjusted from 0-100% by using the micrometer knob for effortless manual control. The pump is available in three stroking speeds. Repetitive accuracy is +/-1%.

The hydraulic system is open to atmosphere on every stroke for the venting of air and refill of oil by gravity. Mechanical vent or refill valves are not required. This design means less maintenance, longer life and lower cost.

Materials of Construction

The Model 1710 can be supplied with Alloy 20, 316 Stainless Steel and Polypropylene wetted ends. All diaphragms and seals are available in Hypalon® or Viton® suited for the most severe chemical duty applications. Check valves are single ball type for easy maintenance. Special H₂SO₄ and H₂O₂ compatible wetted ends are also available.

A rugged cast iron housing contains a high performance worm and wheel drive that operates in an oil reservoir insuring long life.

Features

- A micrometer stroke length adjustment allows effortless capacity control of 0-100%
- Maximum operating pressure up to 2000 psig
- Power supply: 120 VAC single phase or 230/460 VAC 3-phase TE or XP motor
- Built-in hydraulic pressure relief valve
- Unique hydraulic vent and refill design
- Single ball check valves



Options

- Cast iron floor stand or wall mount option
- Double ball checks for higher pressures
- Automatic AC or DC motor speed control by analog input signal
- Leak detection system
- Tungsten Carbide check valves
- Splash guards

Applications

- High pressure applications
- Potable water treatment
- Industrial chemical feed
- Wastewater treatment

Technical Data

Capacity (gph)	Max. Pressure (psig)*	Model	Plunger Diameter	Speed (SPM)	Motor (Hp)
1.4	2000	1711-1_-91_ _ - _	1/2"	58	1/4
3.0	1100	1711-5_-91_ _ - _	3/4"	58	1/4
5.3	1100	1711-1_-93_ _ - _	1/2"	173	1/4
6.7	400	1711-2_-91_ _ - _	1"	58	1/4
4.8	2000	1711-1_-93_ _ - _	1/2"	173	1/3
10.0	1000	1711-5_-93_ _ - _	3/4"	173	1/3
20.0	400	1711-2_-93_ _ - _	1"	173	1/3
60.0	200	1711-8_-93_ _ - _	1.4"	173	3/4
80.0	200	1711-8_-94_ _ - _	1.4"	230	3/4
Suction lift		16 ft. H ₂ O			
Weight including motor		Simplex: 55 lbs., Duplex: 65 lbs.			

* Polypropylene maximum operation pressure is 150 psig.

Temperature of Process Fluid

Material	Temperature Range
Hypalon [®]	32-150°F
Viton [®]	32-180°F
Polypropylene	32-120°F

