

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

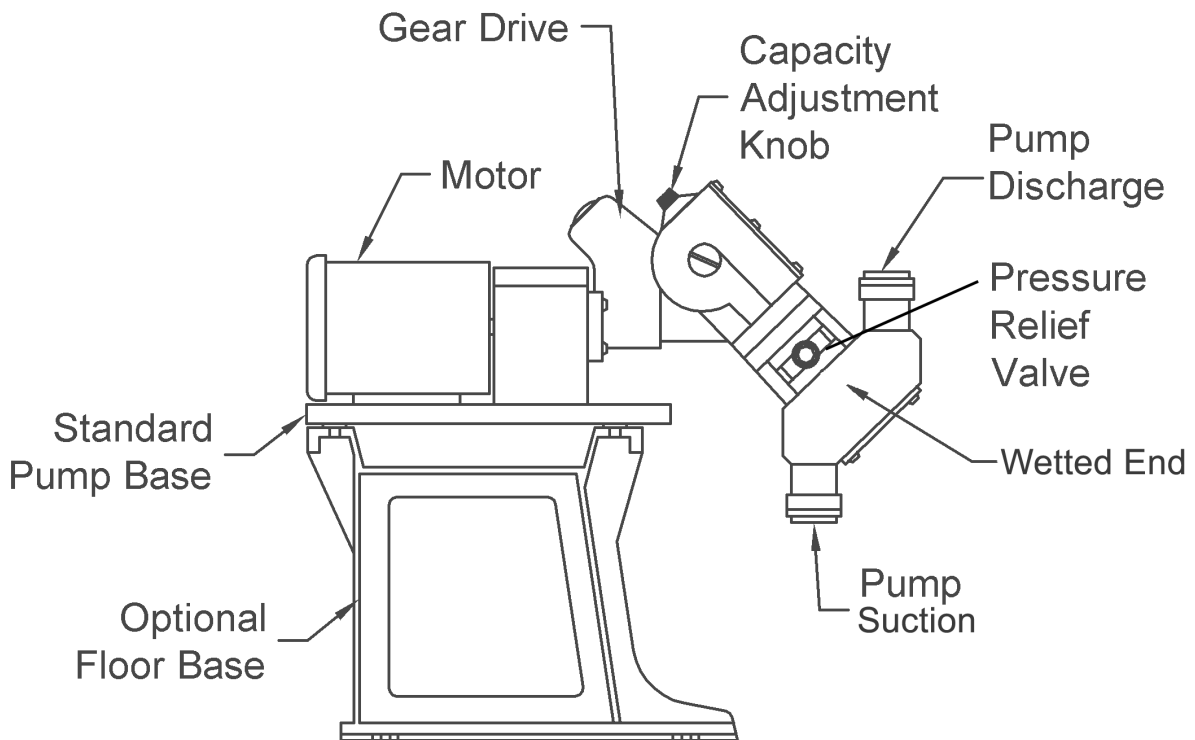
Technical Data

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



General Description

The Model 1730 metering pump is a hydraulically actuated tubular diaphragm design, utilizing a pre-stressed diaphragm and vertical plunger configuration. The memory of the pre-stressed 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 actuated design for metering pumps.

Performance

The Model 1730 is available in four different plunger diameter sizes offering maximum capacities from 1.5 gph at a maximum pressure of 3000 psig to 220 gph at a maximum pressure of 150 psig. All models may be duplexed.

The stroking length can be manually adjusted from 0-100% by using the micrometer control to raise or lower the internal rate setter slide. The adjustment is independent of any internal resistance or pressure, thus allowing effortless manual control. The pump is available in five 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 1730 can be supplied with Polypropylene, Ductile Iron, Alloy 20 and 316 Stainless Steel wetted ends. All diaphragms and seals are available in Nitrile, Hypalon® or Viton® suited for the most severe chemical duty applications. Check valves are single ball type for easy maintenance. Reversible seats provide long life and reduce replacement costs. Special H₂SO₄ and H₂O₂ compatible wetted ends are also available.

Applications

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



Features

- A micrometer stroke length adjustment allows effortless capacity control of 0-100%
- Pre-stressed tubular diaphragm withstands higher vacuum for longer life
- Maximum operating pressure up to 3000 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 cartridge type check valves
- Long term reliability and accuracy
- Tungsten Carbide check valves

Options

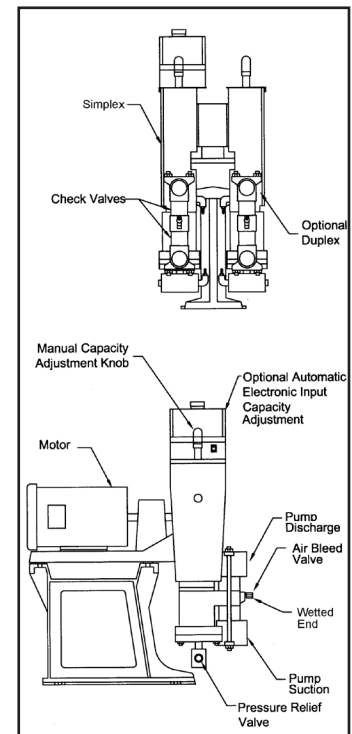
- Electronic or pneumatic capacity control
- Double ball checks for higher pressures
- Back pressure valve for low discharge pressure
- Automatic AC or DC motor speed control by analog input signal
- Leak detection system
- Slurry service

Technical Data

Capacity (gph)	Max. Pressure (psig)*	Model	Plunger Diameter	Suction + Discharge NPT	Materials Code	Speed (SPM)	Motor (Hp)	
1.5	3000	1731-1_-9019	1/2"	Metal 1/2" PP 1" Socket	2, 3, 5 or 8*	30	3/4	
1.6	2000	1731-1_-9017				30	1/2	
1.7	1400	1731-1_-9016				30	1/3	
2.2	3000	1731-1_-9211				44	1	
2.3	2850	1731-1_-9219				44	3/4	
2.5	1750	1731-1_-9217				44	1/2	
2.6	1200	1731-1_-9216				44	1/3	
3.0	3000	1731-1_-9311				58	1	
3.3	2850	1731-1_-9319				58	3/4	
3.6	1750	1731-1_-9317				58	1/2	
3.75	1200	1731-1_-9316				58	1/3	
4.6	3000	1731-1_-9411				88	1	
5.0	2550	1731-1_-9419				88	3/4	
5.5	1550	1731-1_-9417				88	1/2	
5.7	950	1731-1_-9416				88	1/3	
6.0	3000	1731-1_-9611				116	1	
6.6	2200	1731-1_-9619				116	3/4	
7.25	1500	1731-1_-9617				116	1/2	
7.8	950	1731-1_-9616				116	1/3	
10	3000	1731-1_-9811				192	1	
11	2200	1731-1_-9819	192	3/4				
12	1500	1731-1_-9817	192	1/2				
13	950	1731-1_-9816	192	1/3				
23.0	750	1731-2_-9411	1"	Metal 1" PP 1" Socket	88	1		
23.0	650	1731-2_-9419			88	3/4		
24.0	450	1731-2_-9417			88	1/2		
24.0	280	1731-2_-9416			88	1/3		
30.0	750	1731-2_-9611			116	1		
32.5	550	1731-2_-9619			116	3/4		
33.0	400	1731-2_-9617			116	1/2		
50.0	750	1731-2_-9811			192	1		
51.0	550	1731-2_-9819			192	3/4		
53.0	400	1731-2_-9817			192	1/2		
53.5	250	1731-2_-9816			192	1/3		
59.0	200	1731-6_-9411			1-1/2"	Metal 1-1/2" PP 1-1/4" Socket	88	1
77.0	100	1731-6_-9619					116	3/4
120.0	300	1731-6_-9812					192	1-1/2
124.0	200	1731-6_-9811					192	1
128.0	100	1731-6_-9819	192	3/4				
101	150	1731-4_-9411	2"	Metal 2" PP 2" Socket	88	1		
133	150	1731-4_-9611			116	1		
200	150	1731-4_-9911			175	1		
220.0	150	1731-4_-9811			192	1		

Temperature of Process Fluid

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



*Polypropylene is available as a head/check material for 1/2", 1", 1-1/2" plunger diameters up to 125 psig, 2" up to 75 psig.
* Weight including motor: Simplex = 175 lbs, Duplex = 200 lbs.

General Description

The Model 1740 metering pump is a hydraulically actuated tubular diaphragm design, utilizing a pre-stressed diaphragm and vertical plunger configuration. 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 1740 offers maximum capacities from 4 gph at a maximum pressure of 3000 psig to 415 gph at a maximum pressure of 150 psig. All models may be fitted with up to four independently controlled heads.

The stroke length can be manually adjusted from 0-100% by using the micrometer control to raise or lower the internal rate setter slide. The adjustment is independent of any internal resistance or pressure, thus allowing effortless manual control. The pump is available in four stroking speeds. Repetitive accuracy is +/-1%.

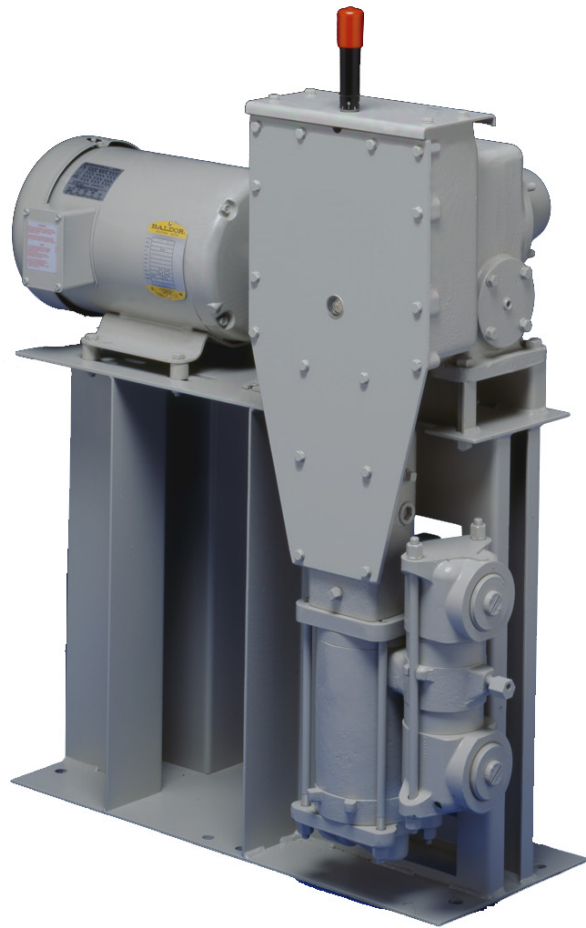
The hydraulic system is open to atmosphere on every stroke for the venting of air and refill of oil by gravity. Mechanical vent or refill valves are not required. This design means less maintenance, longer life and lower cost.

Materials of Construction

The Model 1740 can be supplied with Polypropylene, Ductile Iron, Alloy 20, and 316 Stainless Steel wetted ends. All diaphragms and seals are available in Hypalon® or Viton® suited for the most severe chemical duty applications. Check valves are single cartridge type for easy maintenance. Special H₂SO₄ and H₂O₂ compatible wetted ends are also available.

Features

- Micrometer adjustment allows effortless capacity range of 0-100%
- Pre-stressed tubular diaphragm withstands higher vacuum for longer life
- Power supply - single phase or 3-phase TE or XP motor
- Built-in pressure relief valves
- Unique vent and refill design
- Single cartridge type check valves



Options

- AEI/API for electronic or pneumatic control
- Double ball checks for higher pressures
- Back pressure valve for low discharge pressure
- Automatic AC or DC motor speed control by analog input signal
- Leak detection system
- Tungsten Carbide check valves
- Splash Guards

Applications

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

Technical Data

Capacity (gph)	Max. Pressure (psig)*	Model	Plunger Diameter	Speed (SPM)	Motor (Hp)
4.0	3000	1741-1_-9212	1/2 1/2	48	1-1/2
4.5	2500	1741-1_-9211	1/2	48	1
8.3	3000	1741-1_-9512	1/2	96	1-1/2
9.0	2400	1741-1_-9511	1/2	96	1
16.8	3000	1741-1_-9814	1/2	192	3
18.6	2250	1741-1_-9813	1/2	192	2
19.4	1700	1741-1_-9812	1/2	192	1-1/2
20.0	1100	1741-1_-9811	1/2	192	1
40.0	22000	1741-5_-9815	3/4	192	5
41.3	1600	1741-5_-9814	3/4	192	3
42.4	1100	1741-5_-9813	3/4	192	2
43.0	800	1741-5_-9812	3/4	192	1-1/2
43.5	550	1741-5_-9811	3/4	192	1
90.0	100	1741-2_-9815	1	192	5
90.0	800	1741-2_-9814	1	192	3
91.0	550	1741-2_-9813	1	192	2
92.0	400	1741-2_-9812	1	192	1-1/2
92.5	250	1741-2_-9811	1	192	1
190.0	575	1741-3_-9815	1-3/8	192	5
191.0	400	1741-3_-9814	1-3/8	192	3
193.0	275	1741-3_-9813	1-3/8	192	2
194.0	200	1741-3_-9812	1-3/8	192	1-1/2
310.0	250	1741-4_-9714	2	144	3
315.0	150	1741-4_-9713	2	144	2
410.0	250	1741-4_-9815	2	192	5
415.0	150	1741-4_-9814	2	192	3

Suction Lift: 16 ft. H2O

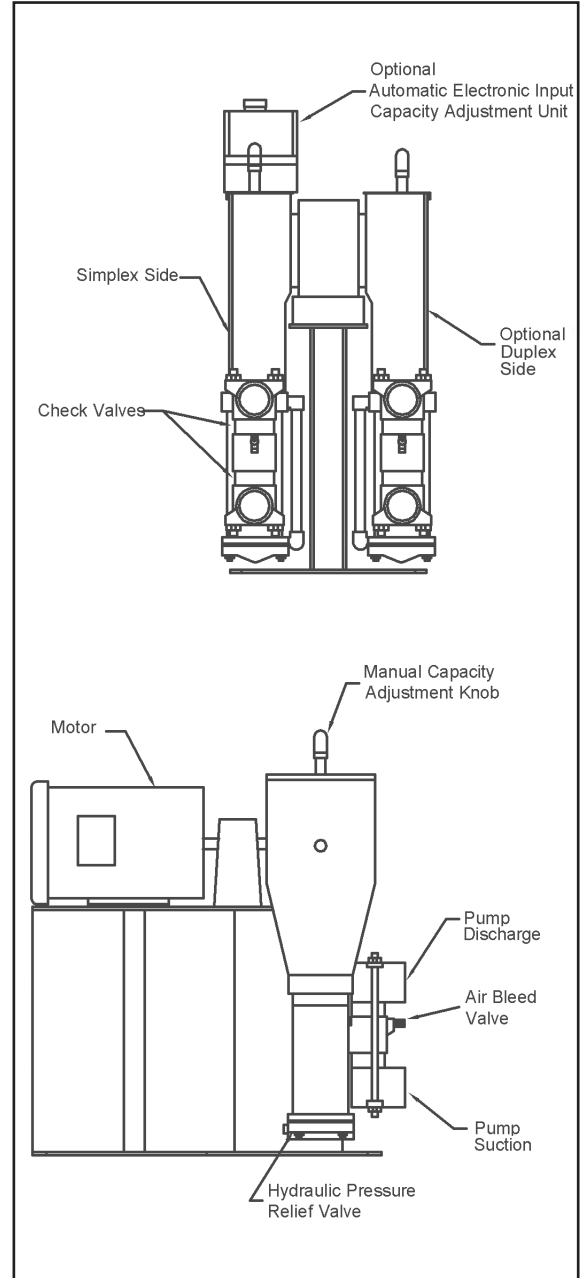
Weight including motor: Simplex: 225 lbs., Duplex: 275 lbs.

*Polypropylene construction is available in 2" plunger diameter only. Maximum operating pressure is 75 psig.

** All plunger sizes may be operated at all speeds listed.

Temperature of Process Fluid

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



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.

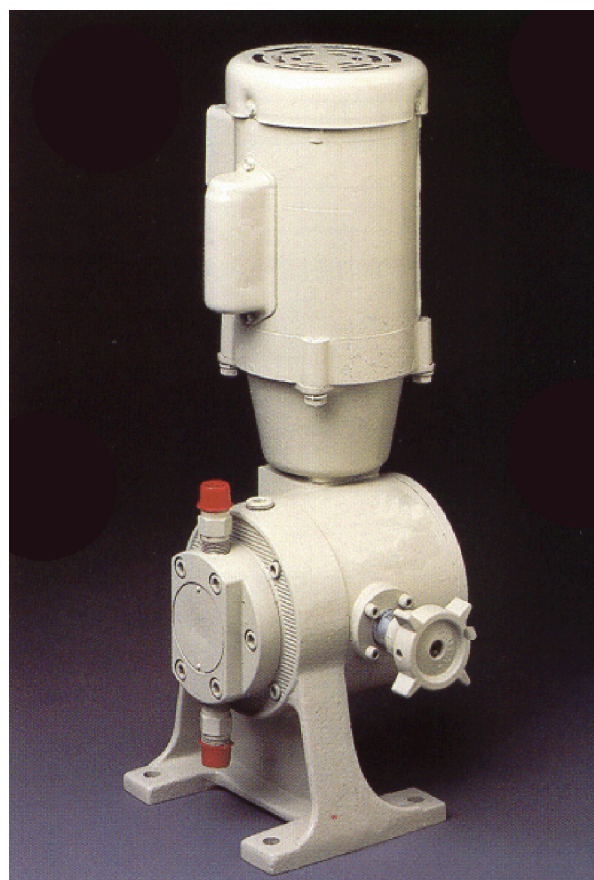
While the pump is running or stopped, the stroke length may be manually adjusted from 0 to 100% by using the micrometer control. This moves an internal shift ring. The unique spring-loaded rotating plunger is always extending or compressing. It displaces hydraulic fluid through the hollow center of the 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

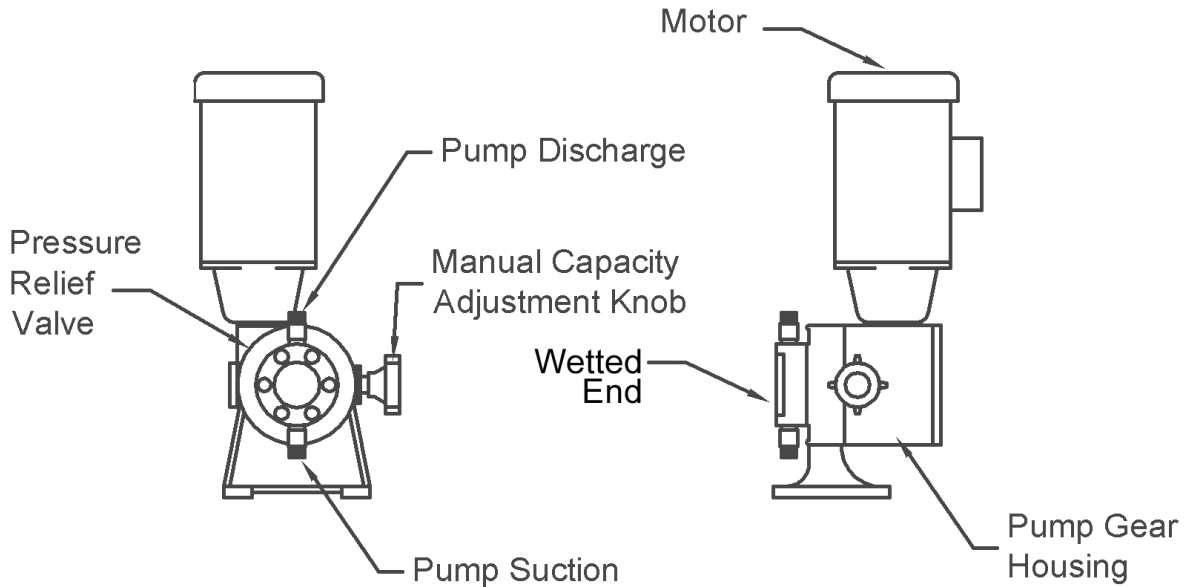
- Double diaphragm system
- Electronic or pneumatic capacity control
- High suction lift head allows for up to 16 ft. of suction lift

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				



General Description

Model 5710 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.

5710 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 5710 offers maximum capacities from 2.5 gph (max. pressure of 4000 psig) to 37 gph (max. pressure of 875 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 5710 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

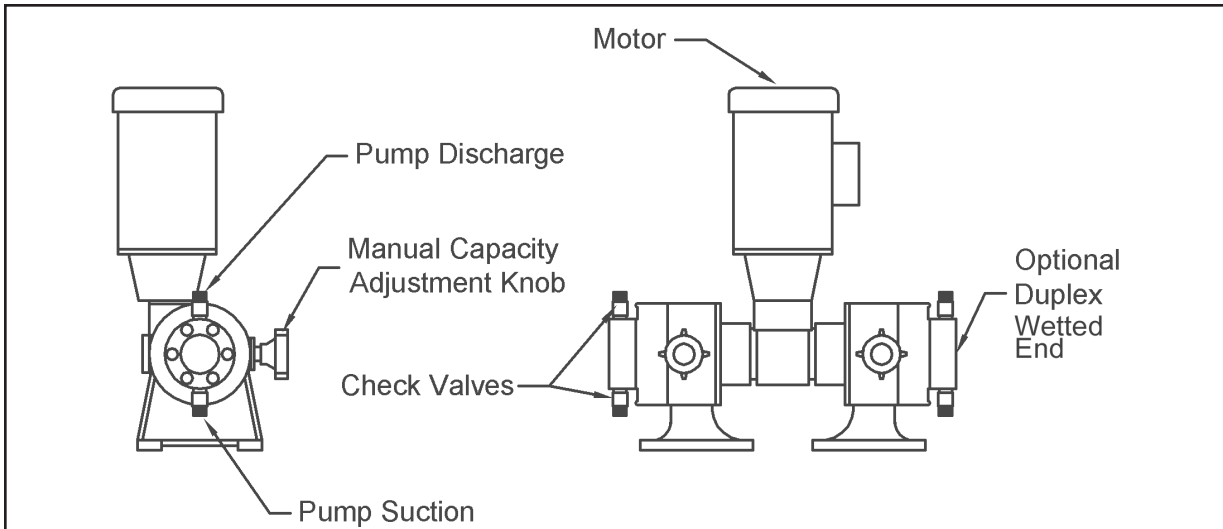
Applications

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

Technical Data

Model		5710									
Plunger diameter		in	19/32					1-1/16			
Stroke frequency		SPM	58	88	117	175	233	58	88	117	175
Capacity per head @ 100 psig		gph	4.1	6.2	8.3	12.5	16.5	13.3	20.0	26.7	40
1/4 Hp	Simplex: capacity at maximum pressure per head	gph @ psig	3.3 2000	5.4 1460	7.4 1145	11.6 800	15.7 600	12.6 625	19.3 445	26.0 360	39.4 250
	Duplex: capacity at maximum pressure per head	gph @ psig	3.7 1000	5.8 730	7.9 570	12.1 400	16.2 300	13.0 315	19.7 230	26.5 180	39.9 125
1/2 Hp	Simplex: capacity at maximum pressure per head	gph @ psig	2.5 4000	4.3 3210	6.3 2520	10.5 1700	14.5 1320	11.6 1380	18.2 1000	24.9 780	38.2 550
	Duplex: capacity at maximum pressure per head	gph @ psig	3.2 2200	5.3 1605	7.3 1265	11.5 880	16.5 660	12.5 690	19.2 500	25.9 395	39.3 275
1 Hp	Simplex: capacity at maximum pressure per head	gph @ psig	--	3.8 4000	5.1 4000	8.1 3600	12.1 2765	10.1 2500	16.0 2100	22.6 1645	35.8 1150
	Duplex: capacity at maximum pressure per head	gph @ psig	2.5 4000	4.2 3360	6.3 2500	10.3 1840	14.4 1380	11.7 1280	18.1 1050	24.8 820	38.1 575
1-1/2 Hp	Simplex: capacity at maximum pressure per head	gph @ psig	--	--	--	7.6 4000	11.7 3000	--	15.2 2500	20.3 2500	33.4 1750
	Duplex: capacity at maximum pressure per head	gph @ psig	--	4.1 3500	5.5 3500	9.1 2800	13.2 2100	10.9 1900	17.0 1625	23.6 1250	36.9 875
Suction and discharge connections		in	1/2 M NPT					3/4 M NPT			
Stroke length		in	1								
Suction lift		ft. H ₂ O	4 (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.	140								
	Duplex	lbs.	190								

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



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

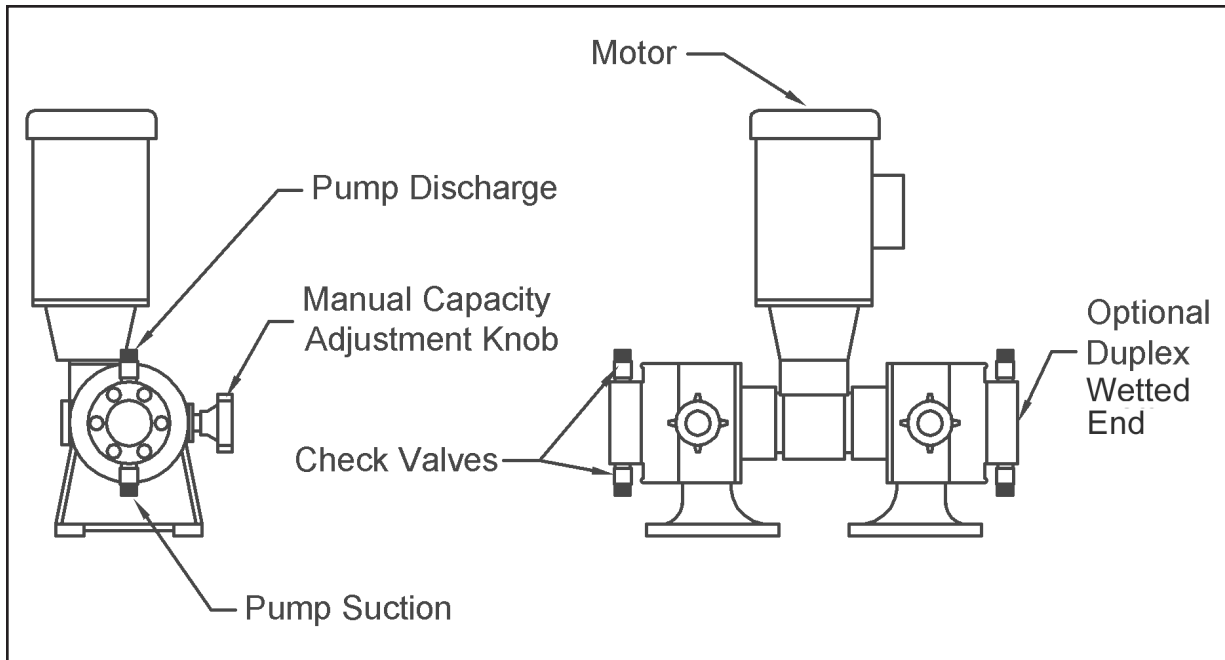
Applications

- 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.



Specifications

General Description

Models 5710-5730 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.

Models 5710-5730 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

Models 5710, 5720, 5730 offer maximum capacities from 4.1 gph (max. pressure of 4000 psig) to 350 gph (max. pressure of 250 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. Internally, this moves a 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 5710-5730 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

Optional Features

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

Applications

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



Specifications

Model 5710 Technical Data

Plunger Diameter (in.)			19/32"					1 1/16"			
Speed (SPM)			58	88	117	175	233	58	88	117	175
Capacity per Head at 100 psig (gph)			4.1	6.2	8.3	12.5	16.5	13.3	20.0	26.7	40
1/4 Hp	Simplex model maximum capacity and pressure per head @ 1/4 Hp	gph @ psig	3.3 2000	5.4 1460	7.4 1145	11.6 800	15.7 600	12.6 625	19.3 445	26.0 360	39.4 250
	Duplex model maximum capacity and pressure per head @ 1/4 Hp	gph @ psig	3.7 1000	5.8 730	7.9 570	12.1 400	16.2 300	13.0 315	19.7 230	26.5 180	39.9 125
1/2 Hp	Simplex model maximum capacity and pressure per head @ 1/2 Hp	gph @ psig	2.5 4000	4.3 3210	6.3 2520	10.5 1700	14.5 1320	11.6 1380	18.2 1000	24.9 780	38.2 550
	Duplex model maximum capacity and pressure per head @ 1/2 Hp	gph @ psig	3.2 2200	5.3 1605	7.3 1265	11.5 880	15.6 660	12.5 690	19.2 500	25.9 395	39.3 275
1 Hp	Simplex model maximum capacity and pressure per head @ 1 Hp	gph @ psig	-	3.8 4000	5.1 4000	8.1 3600	12.1 2765	10.1 2500	16.0 2100	22.6 1645	35.8 1150
	Duplex model maximum capacity and pressure per head @ 1 Hp	gph @ psig	2.5 4000	4.2 3360	6.3 2500	10.3 1840	14.4 1380	11.7 1280	18.1 1050	24.8 820	38.1 575
1 1/2 Hp	Simplex model maximum capacity and pressure per head @ 1 1/2 Hp	gph @ psig	-	-	-	7.6 4000	11.7 3000	-	15.2 2500	20.3 2500	33.4 1750
	Duplex model maximum capacity and pressure per head @ 1 1/2 Hp	gph @ psig	-	4.1 3500	5.5 3500	9.1 2800	13.2 2100	10.9 1900	17.0 1625	23.6 1250	36.9 875
Suction + Discharge Connections			1/2"					3/4"			
Stroke Length			1"								
Suction lift (ft. H ₂ O)			4 (16 ft. with high suction head)								
Motor			NEMA 56C frame								
Max. Temp. (°F)			180° (316SS, Alloy 20, Hastelloy C)					120° (PP)			
Weight (including motor)		Simplex	140 lbs.								
		Duplex	190 lbs.								

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

METERING PUMPS

5700 Series

Models 5710-5730

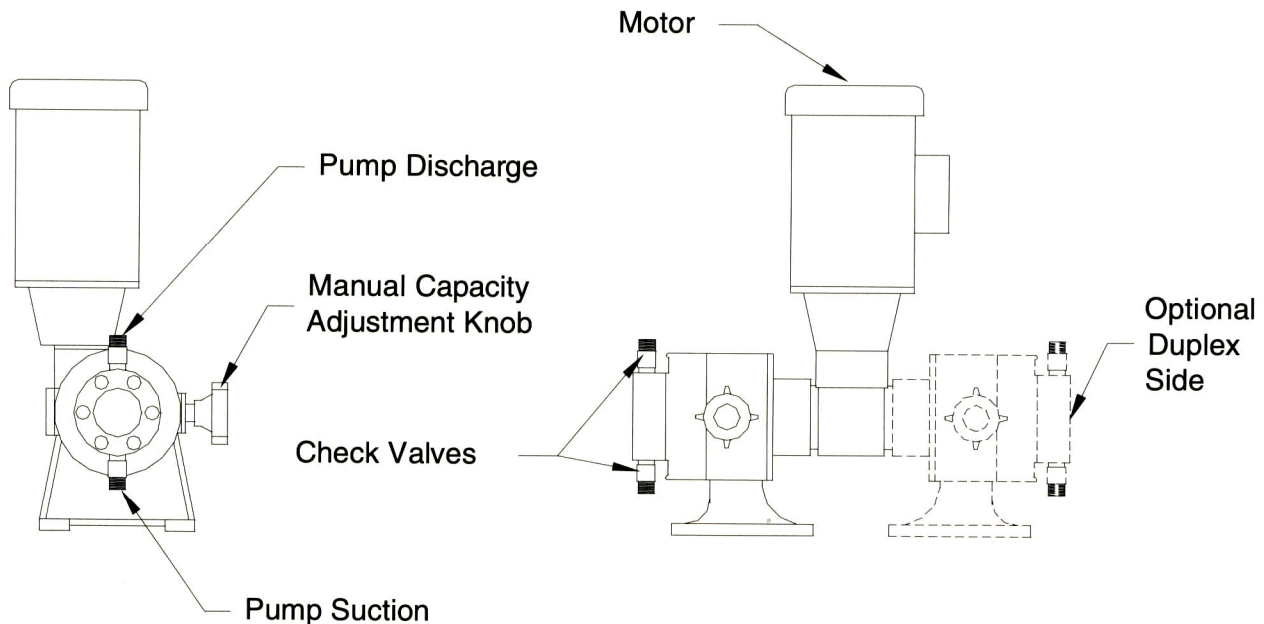
Specifications

Model 5720 Technical Data

Plunger Diameter (in.)			1 3/16"				1 5/8"			
Speed (SPM)			58	88	117	175	58	88	117	175
Capacity per Head at 100 psig (gph)			22	34	45	67	42	64	85	128
1/2 Hp	Simplex model maximum capacity and pressure per head @ 1/2 Hp	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 model maximum capacity and pressure per head @ 1/2 Hp	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 model maximum capacity and pressure per head @ 1 Hp	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 model maximum capacity and pressure per head @ 1 Hp	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 + Discharge connections			1 1/4" M NPT (metal), 1" M NPT (PP)							
Stroke length (in.)			1 3/8"							
Suction lift (ft. H ₂ O)			0 (16ft. with high suction head)							
Motor			NEMA 56C frame							
Max. Temp. (°F)			180° (316SS, Alloy 20, Hastelloy C) 120° (PP)							
Weight (including motor)	Simplex	160 lbs.								
	Duplex	230 lbs.								

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

Component Diagram for Models 5710-5730



METERING PUMPS
5700 Series
Models 5710-5730

Specification

Model 5730 Technical Data

Plunger Diameter (in.)			2 1/4"			
Speed (SPM)			58	88	117	175
Capacity per Head at 100 psig (gph)			116	176	232	350
1 Hp	Simplex model maximum capacity and pressure per head @ 1 Hp	gph @ psig	113 330	174 240	230 190	349 130
	Duplex model maximum capacity and pressure per head @ 1 Hp	gph @ psig	115 165	176 120	232 95	351 65
1 1/2 Hp	Simplex model maximum capacity and pressure per head @ 1 1/2 Hp	gph @ psig	-	171 370	228 290	347 195
	Duplex model maximum capacity and pressure per head @ 1 1/2 Hp	gph @ psig	-	175 185	231 145	350 100
2 Hp	Simplex model maximum capacity and pressure per head @ 2 Hp	gph @ psig	-	-	-	344 260
	Duplex model maximum capacity and pressure per head @ 2 Hp	gph @ psig	-	-	-	349 130
Suction			1 1/2" M NPT		2" M NPT	
Discharge			1 1/2" M NPT		1 1/2" M NPT	
Suction lift (ft. H ₂ O)			0 (16ft. with high suction head)			
Motor (Hp)			1, 1 1/2, 2			
Stroke length (in.)			2"			
Max. Temp. (°F)			180° (316SS, Alloy 20, Hastelloy C)		120° (PP)	
Weight (incl. motor)		Simplex	500			
		Duplex	1040			

Notes: Polypropylene construction is limited to a maximum operating pressure of 150 psig. Check valves are single ball type. All motors are NEMA 56C frame. All Model 5730 pumps have a 2" stroke.



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