

WATER PROCESS SOLUTIONS



Encore® 700 Plunger Pump

Precise Metering, Robust and Reliable

Years of continued service

The Encore® 700 plunger pump is a simple to use plunger pump built for heavy duty conditions and longevity. Metering accuracy is achieved by a carefully designed liquid end which enables a full 10:1 turn-down within +/- 1% flow repeatable accuracy. It is available in simplex, duplex and double simplex configurations, the latter providing an independent liquid adjustment of both liquid end outputs.

Operation:

The Encore® 700 plunger pump provides accurate metering and transfer of a wide variety of chemicals and is available in four piston sizes (9.5, 19,38 and 50mm).

Unlike solenoid or loss motion pumps, the Encore® 700 plunger pump is driven by a rotating crankshaft, where the eccentricity can be smoothly adjusted during operation. There are no return springs, the diaphragm moves with a simple harmonic motion. The fluid velocity profile is sinusoidal at all stroke lengths; adjusting stroke length simply alters the amplitude of the sine wave. This design provides reliability and longevity and pump valves operate with far greater efficiency and minimal system vibration.

Liquid End:

The Encore® 700 plunger pump comprises of a 316 stainless steel liquid end with a high alumina ceramic plunger and PTFE gland packing's. The PTFE packing is selected according to application and may be supplied as a single chevron or lantern ring arrangement. The combination of materials provides versatility in the handling of a variety of chemicals as well as providing longevity between service intervals.

Precision engineered liquid ends meter chemicals with greater accuracy than mechanical diaphragm pumps.

For greater efficiency, double suction and discharge valves can be fitted. Thereby providing a plunger pump with a high level of accuracy and repeatability, over a wide turndown range and high back pressure.

The Encore® 700 plunger pump is available in two compact drive arrangements: Direct drive or Pulley drive. Pulley drive can provide an additional 4:1 range ability on stroke frequency with a standard induction motor.



Key benefits:

- Efficient, reliable and smooth discharge pattern through the use of variable non-loss motion eccentric stroke adjustment
- High metering accuracy even at varying discharge pressures
- Choice of direct coupled or pulley driven to suit the environment and market place
- Fast and easy service of valve assemblies without disturbing the suction and discharge piping
- Choice of configurations—Simplex / Duplex / Double simplex to suit the complexity of the application / site layout restrictions



Operational Performance

Tables of Capacities - Plunger Head (Simplex)									
Liquid End Size mm (inches)	Stroke Frequency (50Hz)	l/h 50Hz 1450 rpm	US g/h 50Hz 1450 rpm	Stroke Frequency (60Hz)	l/h 60Hz - 1750 rpm	US g/h 60Hz 1750 rpm	Maximum Discharge Pressure bar (psi)		Connection BSP (NPT)
							0.37 kW motor	0.75 kW motor	
9.5 (3/8)	30	0.83	0.2	36	1.19	0.3	200 (2,940)	200 (2,940) (Duplex)	12.5 (1/2)
	60	2.1	0.6	72	2.37	0.6	200 (2,940)	200 (2,940) (Duplex)	
	120	3.3	0.9	144	4.75	1.3	-	200	
	144	4.0	1.1	-	-	-	-	200	
19 (3/4)	30	4.5	1.2	36	6.2	1.6	200 (2,940)	200 (2,940) (Duplex)	12.5 (1/2)
	60	8.7	2.3	72	12.4	3.3	200 (2,940)	200 (2,940) (Duplex)	
	120	17	4.5	144	24.8	6.6	-	200	
	144	20	5.3	-	-	-	-	200	
38 (1 1/2)	30	17.6	4.6	36	23.6	6.2	50 (735)	50 (735) (Duplex)	12.5 (1/2)
	60	35.4	9.4	72	47.1	12.4	50 (735)	50 (735) (Duplex)	
	120	68	18.0	144	94.2	24.9	-	50	
	144	80	21.1	-	-	-	-	50	
50 (2)	30	30	7.9	36	42.8	11.3	30 (441)	30 (441) (Duplex)	12.5 (1/2)
	60	75	19.8	72	85.7	22.6	30 (441)	30 (441) (Duplex)	
	120	105	27.7	144	171.3	45.3	-	30 (441)	
	144	145	38.3	-	-	-	-	30 (441)	

Note: Duplex arrangement doubles the tabulated capacity. Double simplex arrangement can be a combination of liquid end sizes for proportioning or blending duties, i.e. 9.5mm & 50mm liquid ends, each with independent stroke control.

Accessories:

A comprehensive range of co-ordinated accessories provide the ability to produce the best possible installation.

These include: Back pressure valves, pressure relief valves, anti-syphon valves, multi-function valves, main connections, strainers, pulsation dampeners, calibration chambers, solutions tanks, mixers, liquid level management, slurry flushing systems and numerous mounting accessories. Supply and support on these is available with the Encore[®] 700 plunger pump.

Configurations:

Simple Pump

Offers single head design on single gear box with stroke control

Duplex Pump

Offers two identical sized heads on a single gear box with common stroke length control and direct drive management.

Double Simplex

Offers two heads with two gear boxes each with independent stroke length control and a common motor.



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Water Process Solutions comprises a group of highly experienced water treatment professionals. Our personnel have backgrounds with brands and companies such as Wallace & Tiernan, Stranco and Chemfeed, all well known and trusted within the water industry.

Based in Kent, our aim is to provide customers with the equipment and support they need for effective and reliable water treatment.

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