

# ENCORE<sup>®</sup> LIQUID CHEMICAL METERING PUMPS



**ENCORE<sup>®</sup> PUMPS**

# Encore® 700 Pumps

With over 100 years of liquid feed experience, UGSI Chemical Feed continues to be the leader in disinfection and chemical feed systems for potable water, wastewater and industrial process applications.

UGSI Chemical Feed products provide safe, reliable and accurate methods of controlling the addition of chemicals to water sources or processes. UGSI Chemical Feed equipment can be used to accurately dose chemicals ranging from sodium hypochlorite and caustics to viscous polymers and slurries. High performance materials are used in all critical areas to ensure optimum compatibility and long service life. The complete line of liquid feed equipment offers an extensive range of capacities from 0.09 gph (0.3 lph) to over 660 gph (2,500 lph).

Double Simplex Pump



With UGSI Chemical Feed products, you do not have to compromise on a marginal liquid feed and controls technology for a particular application. Instead, you can choose from multiple technologies to match the best pump to your application.

A rugged, heavy duty mechanical diaphragm metering pump available with six diaphragm sizes and double simplex capability to handle capacities up to 660 gph and backpressure to 175 psi.

- Non-Loss motion stroke adjust mechanism for reliability and longevity.
- Available in either a direct drive configuration or a pulley coupled arrangement for additional 4:1 turndown on stroke frequency.
- Manual control or control via an automatic stroke length positioner or variable speed drive or both.
- Optional diaphragm leak detector.

Encore® motor driven metering pumps use a rugged drive mechanism and composite diaphragm for long life and easy serviceability. Suitable for most chemicals across a wide range of capacities and pressures.

Encore® 700



*"For 13 years, our Encore® 700 pumps have been running perfectly. We are very pleased; this is the best pump I've ever used! We keep them maintained and they just seem to run forever."*

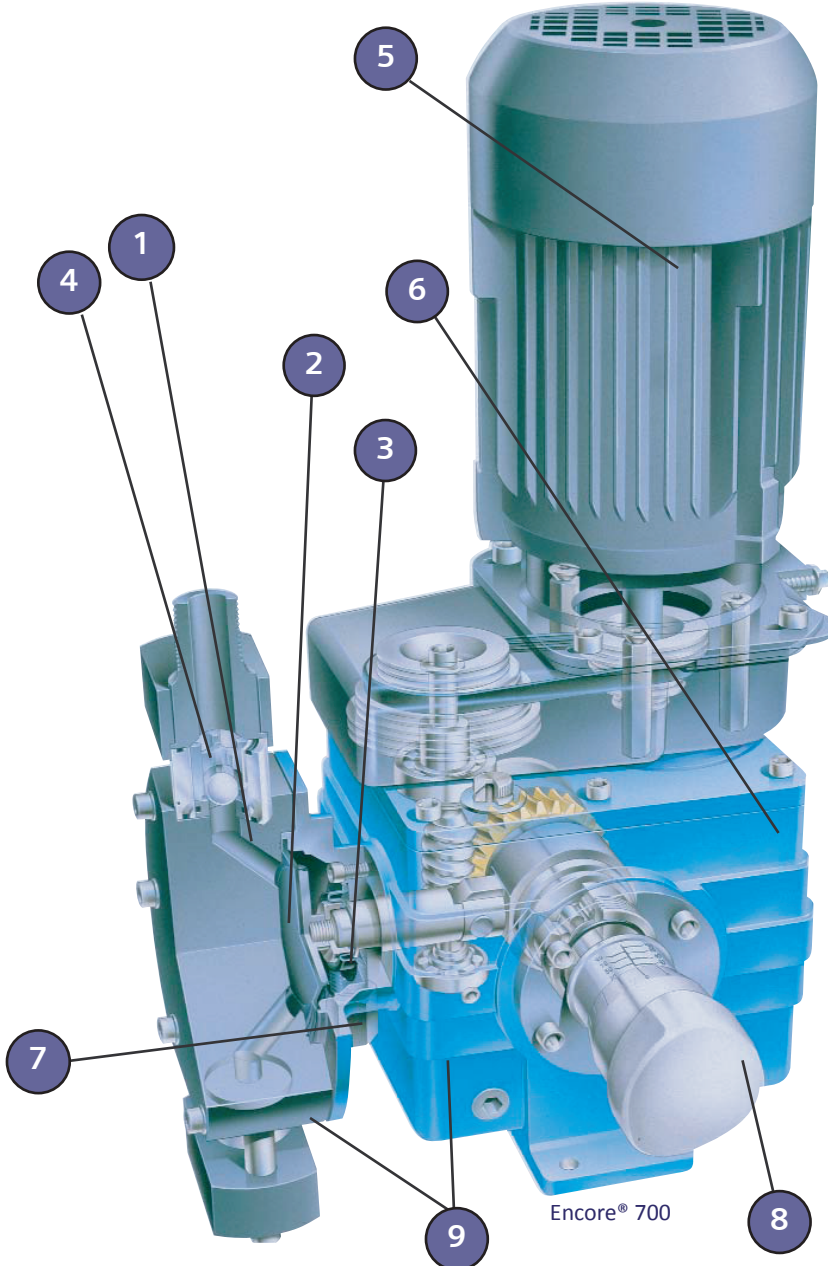
**Tim Sherman**  
Treatment Facility Supervisor,  
City of Salem, OR

*"The Encore® 700 pumps have been working great for us. They're a lot less maintenance – virtually maintenance-free – and the problems we had with the previous pump just aren't there with the Encore® 700. We plan to continue converting every pump at all of our wells."*

**Peter Ranaldo**  
Assistant Superintendent,  
Jericho Water District, NY

# Key Benefits and Features

- 1 Short suction and discharge ports minimize friction losses and cavitation, improving hydraulic characteristics and providing for **more efficient fluid metering** than conventional liquid designs.
- 2 Our premium composite diaphragm is manufactured to stringent specifications to ensure **long life even with the most demanding applications**. The design incorporates PTFE facing, for the highest degree of chemical resistance, and nylon reinforcements, all bonded to a preformed elastomeric support. We've added convolutions for unconstrained accuracy even at varying discharge pressures, and an O-ring groove in the head's diaphragm cavity for complete sealing.
- 3 A secondary diaphragm seal completely separates the pump head from the drive unit. This double diaphragm isolating design **eliminates the risk of cross-contaminating** gearbox lubricant and process fluid.



## 5 Year Drivetrain warranty

24-48 hour shipping for most build-to-order requests

Configurations to meet all liquid chemical and slurry applications for water and wastewater treatment

- 4 High precision guided, ball and seat, clear PVC cartridge valves are available to provide **built-in sight flow indication and fast, foolproof service**. The proven design includes wide flow paths and four-point guides to control ball rise and assure proper seating. The valve housing is compression-sealed to the pump head and pipe connectors by O-rings and is easily removed for the service or replacement without disturbing the external piping.
- 5 Available with standard induction, variable speed, or inverter duty motors for **wider operating ranges and automatic process control**.
- 6 **This proven robust mechanical assembly** features liberal use of heavy-duty parts, including an epoxy-painted cast iron gearbox for **superior corrosion resistance**, stainless steel fasteners, load-absorbing tapered roller bearings, robust gears, and steel and nodular iron drive components.
- 7 An optional diaphragm **leak detection system** senses the early stages of diaphragm failure. The system consists of a solid-state, electro-optic sensor that mounts to the liquid end and a control box. This box, which can be mounted at the pump, or up to 100 ft. (30m) away, can monitor two liquid ends. LED's and a relay provide both local and remote indication of failure.
- 8 Obtain **precise and highly repeatable feed rate** settings with a 10-turn, micrometer-type stroke length adjuster. A percent scale and vernier indicate stroke length in 0.25% increments. Feed rate is infinitely adjustable from 0 to 100%. Optional automatic capacity control via stroke length is also available.
- 9 Proven, reliable drive and control mechanism with precision liquid end design offer superior metering and process control performance.



### Solenoid Pump

The Encore® E (electronic) solenoid pump is a good value choice for simple and continuous dosing applications. The Encore® EM/ED/EK/EP model is available in seven capacity ranges, up to 3.96 gph. The Encore® EA/EB model is available in three capacity ranges, up to 27.7 gph. The pump is certified for compliance to UL and CSA standards.



### Plunger Pump

The Encore® 700 Plunger Pump utilizes the proven Encore® 700 gearbox to meet high pressure applications. It is available in four capacities, up to 45.3 gph and up to 2900 psi.



### Mechanical Motor-Driven Pump

The manually controlled Encore® ME and the microprocessor-based Encore® MB models are available in eleven capacity ranges, up to 92 gph. The Encore® MB model's integrated speed control provides up to 1400:1 turndown. The pump is certified for compliance to UL and CSA standards.



### Chemical Metering Pump Skid

The pre-wired, plumbed and tested skid can be easily installed and commissioned within a short period of time, reducing the need for extensive on-site prep work. UGSI Chemical Feed can supply a complete line of hydraulic accessories, as well as custom designed skid mounted pump and dosing packages to suit virtually any municipal or industrial application. The turnkey skid system saves time and labor costs, allowing quick implementation of the equipment into the plant operation.



### Stepper Motor Pump

The compact stepper motor pump, coupled with an intelligent drive concept, combines the significant advantages of a solenoid driven pump with the precision of a mechanical motor-driven pump. It is available in four capacities, up to 5.20 gph and up to 232 psi. Discharge and suction strokes can be controlled at different speeds. This produces a constant supply stream, which results in low-pulsation dosing.



### LVN2000™ Liquid Chemical Feed System

A reliable, field-proven system with V-Notch variable orifice for liquid chemical feed. It is ideal for sodium hypochlorite, because it is unaffected by out-gassing. It has a smooth flow of solution, no pulsing output, and has flexible control modes; manual to fully automatic control is available.

*Parts and accessories available for all Encore® models and sizes.*



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