



Food Industry Equipment

High-Pressure Pumps and Systems



Product Quality, Reliability and Support You Expect

www.catpumps.com



Maximize Uptime with Cat Pumps

Cat Pumps offers a complete line of triplex positive displacement pumps that exceed industry expectations for quality, reliability, availability and support. Our commitment to produce the highest-quality, longest lasting products available is supported by maintaining a rigorous zero defect quality assurance program to guarantee consistently high quality products — every time.

When high-pressure liquid is required, Cat Pumps is the supplier of choice for pumps, systems and control accessories. Applications include evisceration tool cleaning, humidification, wash down, central cleaning, deboning and numerous other industry uses.

Engineering and Technical Support

Cat Pumps offers engineering and technical support for product selection, installation, maintenance, pump repair, troubleshooting and custom designed systems. Live Support available M-F, 8:00 a.m. to 5:00 p.m CST, 763-780-5440 and at techsupport@catpumps.com

Readily Available – Off the Shelf

In addition to receiving the highest quality products available, Cat Pumps customers also benefit with the following:

- Pumps and repair parts are stock items and have a 99.7% order fill rate
- Fast shipping with 95% of orders shipped within 24 hours
- Worldwide sales and service channel stocking genuine Cat Pumps products



Global Presence / Worldwide Acceptance

The dependability of Cat Pumps products is a major reason why our products are in use for french fry production in Maine, reverse osmosis systems in Singapore, humidification systems from Virginia to California, and in a remarkable variety of other high-pressure applications from New York to New Zealand.

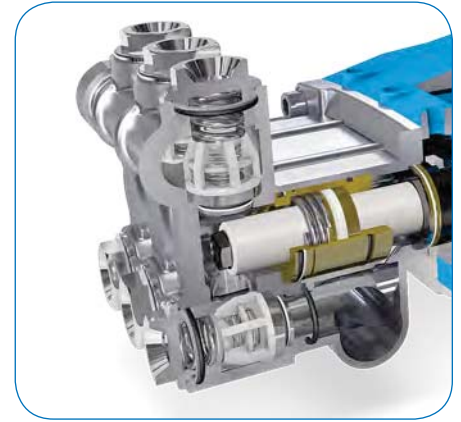
With operations in the United States, United Kingdom, Belgium, Germany and distribution network covering the globe, Cat Pumps products are everywhere you need them to be.

Technical support is also offered by our worldwide network of qualified distributors.

Quality You Need to Keep Your Equipment Running

Cat Pumps designs and builds products to the highest quality levels. Every last design detail is optimized for product life and performance. Examples include the following features:

- Specially formulated seals and high density, polished ceramic plungers typify the attention to design detail that results in thousands of hours of trouble-free service
- Stainless steel valves, seats and springs provide corrosion resistance, positive seating and long life
- Wet seal design increases service life by allowing pumped fluids to cool and lubricate the elastomers on both sides



Product Performance Range

A wide range of pump options are available, including a variety of products that meet industry certifications and directives.

- Flow: 0.13 to 240 gpm (0.49 to 908 lpm)
- Pressure: 100 to 10,000 psi (6.9 to 689 bar)
- RPM: 100 to 3450
- Liquid Temperature: -10° to 240°F (-23° to 115°C)
- Manifold Materials: Brass, Nickel Aluminum Bronze, 304 and 316 Stainless Steel, Duplex Stainless Steel. Other materials available on request
- Sealing Material: NBR, FPM, EPDM, PTFE, high-temp (240° F), silicone-free and other materials available upon request
- Drives: Electric, Engine, Hydraulic, Pneumatic
- Food-grade crankcase oil available



Model 6762
60 gpm (227 lpm), 1200 psi (83 bar)



Food Industry Applications

Cleaning and Sanitation

For nearly 50 years, Cat Pumps has been providing the longest-lasting and most dependable pumps for high-pressure cleaning and sanitation applications.

- Belt Cleaning
- Equipment Washdown
- Surface Cleaning
- High Pressure Rinse
- Screen Cleaning
- Portable Cleaning Equipment
- Tote Cleaning
- Central Cleaning Systems
- Sanitizing
- Tank Cleaning
- Barrel Cleaning
- Label Removal



Processing

Cat Pumps industrial-grade products are designed for continuous duty applications, keeping your equipment running. From reverse osmosis to tool cleaning, trust Cat Pumps products to get the job done.

- Homogenization
- Metering
- Reverse Osmosis
- Vinegar Production
- Evisceration Tool Cleaning
- Fish Scale Removal
- French Fry Cutting Tool
- Flash Drying
- Poultry De-Boning
- Margarine Processing
- Liquid CO₂ Lipid Extraction
- Water Based Hydraulics
- Injection
- Crab Cleaning
- Egg Wash
- Liquid CO₂ Freezing



High Pressure Misting

With thousands of systems in operation worldwide, Cat Pumps is the standard for providing high pressure misting pumps. From poultry barns in Indiana to greenhouses in Ontario and to the finest wineries in California, Cat Pumps are on-the-job.

- Humidity Control
- Temperature Control
- Greenhouse Misting
- Odor Control
- Produce Storage
- Air Scrubbing
- Dust Suppression
- Flash Drying
- Livestock and Poultry Cooling
- Pest Control
- Poultry Hatchery
- Computer Server Rooms
- Cooling Towers



Advantages of High-Pressure Over Low- Pressure Cleaning

Using high pressure water significantly reduces cleaning time and water consumption compared to using low pressures (under 250 psi) water or other cleaning solutions. A high pressure stream of water directed toward a surface provides an increased amount of kinetic energy, yielding a higher impact force and agitation on the surface being cleaned. The steady flow from the nozzle then flushes the contamination, resulting in a completely cleaned surface.



The pressure wash industry uses “Cleaning Units” (CU) to measure potential cleaning performance.

Example of calculated Cleaning Units: PSI x GPM = Cleaning Units (CU)

- 5 gpm at 1000 psi = 5000 CU
- 20 gpm at 100 psi = 2000 CU

With higher values of cleaning units, high-pressure system offers a favorable return-on-investment and superior cleaning.

- Less time and labor required
- Water savings through reduced flow requirements at higher pressures
- Less energy consumption
- Improved cleaning results

Cat Pumps Advantages vs. Pitot Tube Centrifugal Pumps

When considering pumps and power unit systems for central cleaning, belt cleaning and washdown applications, Cat Pumps products are an excellent choice. Compare the advantages of Cat Pumps to competitive pitot tube centrifugal pumps.

Pump/System Variable	Cat Pumps	Pitot Tube Pump
Overall Pump Efficiency	85%	50% or less
Energy Consumption Example: 75 gpm @ 1000 psi; 60 hrs/wk; \$0.07 kWh	Savings: \$5,888.00 per pump; savings can double with Cat Pumps VFD on-demand system	Additional cost compared to Cat Pumps: \$5,888.00 per pump
Pump Maintenance*	Easy in-plant service; no special tools required	Often pump must be returned to manufacturer for servicing

* Cat Pumps standard service repair requires only (1) seal kit, (1) inlet valve kit, and (1) discharge valve kit. Based on industry feedback, the Cat Pumps can be serviced for 1/8 of the cost compared to a pitot tube pump.

Cat Pumps systems are installed in food production facilities around the globe due to application-proven long-life and lower operating cost. Service parts are in-stock for same day shipping. To learn more, contact Cat Pumps at info@catpumps.com.

Food Processing Plant Reduces Energy Costs by 70% with Cat Pumps

Many large food processing production sites use centralized cleaning systems that feature one or more high-pressure pumps feeding a variety of wash-down guns and lances. Using high-pressure water demonstrates advantages over lower pressure systems and chemical-based cleaning.

Original systems were installed at a time when excessive energy consumption was not a major consideration, so the use of a rotary pitot tube pump was common. The pitot tube pump is widely recognized as being very inefficient, typically running at less than 40% mechanical efficiency even at its optimum operating point. A further disadvantage of pitot pumps is the high speeds (4,500 to 5,500 rpm) required to achieve desired flow and pressure rates.

High-speeds and contamination build-up can throw the rotor out of balance, leading to early seal and bearing failure. Often, the pitot tube pump requires servicing at its manufacturer's site, resulting in a lengthy and expensive repair.

A Cat Pumps model 6831 high-pressure pump is cutting energy and maintenance costs at a leading food processing plant. The triplex positive displacement plunger pump replaced two pitot tube pumps used for washing filter screens and supplying high pressure water for wash-down applications.

In its first year of operation, the Cat Pumps pump and system reduced the energy costs from \$69.5K to \$20.5K, and maintenance costs from \$46.1K per year to \$4.4K. These are 70% energy and 90% maintenance savings respectively – per year. Payback for the Cat Pumps system upgrade was just 9.9 months.

The Cat Pumps model 6831 pump was selected for a rating of 28 gpm at 2,300 psi, achieved at a shaft speed of just 440 rpm. The Cat Pumps power unit system also offered a significant reduction in required footprint area.

Reduced maintenance and energy costs and less downtime were decisive factors in the selection of Cat Pumps. Given the reliable performance of the model 6831, the customer also decided that a standby (backup) pump was not required.

Contact Cat Pumps to learn more about how we can help you reduce energy and maintenance costs while keeping your facility clean.



Cat Pumps high-pressure cleaning systems are used to improve cleaning results in less time and maximize water and energy savings.



Model 6831
40 gpm (152 lpm), 2300 psi (158 bar)

“The Cat Pumps pump and system reduced the energy costs from \$69.5K to \$20.5K, and maintenance costs from \$46.1K per year to \$4.4K. These are 70% energy and 90% maintenance savings respectively – per year.”

Custom Pumping Systems

Cat Pumps is the industry leader in providing custom-engineered pumping systems to meet a wide range of application needs. By selecting Cat Pumps for your next pumping system, you eliminate the expense of designing, multiple source buying, fabrication and testing. The Cat Pumps technical sales team assists with proper component selection, as well as operation and maintenance support.

All systems are designed, built and pressure tested in the Cat Pumps Minneapolis location. To begin the quoting process, call the main office at (763) 780-5440 or submit the custom system quote form at catpumps.com.

With thousands of installations running around the world, Cat Pumps is the supplier of choice for custom pumping systems.



System Configuration

With extensive design experience, Cat Pumps can help determine the best configuration for any application. Common options listed below:

Base

System design starts with choosing the base that best fits the application. Numerous base configurations are available to meet space, portability, sound and material demands.

- Standard • Vertically Stacked • Enclosed • Multiple Pump

Power Source

A qualified technical staff with extensive experience can assist in recommending the correct product for any power source available.

- Electric • Gas • Diesel • Hydraulic • Pneumatic

Drive Package

A wide variety of drive packages are available to complement any power source of choice.

- Belt • Direct Drive • Gearbox • Clutch

Accessories

Choose from hundreds of high-quality genuine Cat Pumps accessories for optimum system performance and life.

- Regulator • Relief / Pop-off Valve • Pressure Gauge
- Pulsation Dampener • Inlet Filter / Strainer • Oil
- Spray Guns • Wands

Advanced Control Options



Ask about advanced control options designed to provide maximum system performance as well as system protection.

Options include:

- Variable Frequency Drives (VFD)
- PID Loop (varies speed of pump to maintain system pressure)
- Multiple Pump Systems
- Low-Pressure Seal Monitors
- Auto Shutdowns (Temperature and Low Inlet Pressure)

Other control options are available upon request.

ABOUT CAT PUMPS

Proven Quality, Customer Focused

Founded in 1968, Cat Pumps is a world leader in the design, manufacture and marketing of the most dependable high-pressure positive displacement reciprocating triplex pumps and systems in the market.

With an emphasis on immediate product availability and outstanding customer service, the family-owned and operated business prides itself on a commitment to quality and product reliability as the foundation of its ongoing success. It is the mission to exceed customer expectations for quality, reliability, availability, delivery, technical expertise and aftermarket support to assure the best value in all the industries served.

LOCATIONS

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SALES, DISTRIBUTION, SERVICE

Call today for product and application assistance.
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