

Cannabis Industry

High-Pressure Pumps and Systems



Product Quality, Reliability and Support You Expect www.catpumps.co.uk



Cat Pumps Advantages

Cat Pumps offers a complete line of positive displacement high-pressure pumps and systems that exceed industry expectations for 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.

When high-pressure liquid is required, Cat Pumps is the supplier of choice for pumps, pumping systems and control accessories. Applications include CO₂ extraction, washdown, mist cooling, humidification, odor control and numerous other industry uses.

Quality You Can Rely On

Equipment builders stake their reputation on system performance. Lost time, production, and customer satisfaction cannot be recovered. This is why Cat Pumps is the leading pump provider to the industry. With over 50 years of high-pressure pump manufacturing, Cat Pumps has built a solid reputation of producing the highest quality, longest-lasting pumps.

Quality is never an accident. Cat Pumps has engineered every last detail of pump design for long life and reliable performance. When service is necessary, repairs can be made fast without special tools. Cat Pumps stocks service kits and parts for off-the-shelf delivery, plus is supported by a strong worldwide distribution network.



Industry-Leading Customer Service

Most of our technical and production employees are qualified engineers and technicians with many years of experience in pumps and equipment. They are fully trained and are on hand to assist customers with application, installation, operation and service questions.

- Experienced staff on call to assist with inquiries, from designing systems to troubleshooting
- Technical resources at catpumps.co.uk
- Product training and servicing information

We operate in an ethical and business like manner and we strive to always be polite, helpful and trustworthy.

Quality to Keep Your Equipment Running

Cat Pumps designs and builds pumps to the highest quality levels. Every 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

Cat Pumps is the number one choice for precision triplex reciprocating pumps and systems worldwide. Unrivaled reliability and performance lead to fewer repairs and less downtime. The result? Higher productivity and a lower cost of ownership.



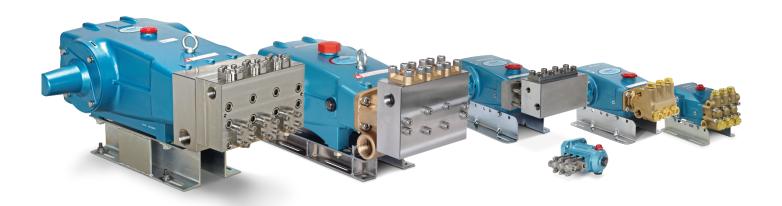
Pump Performance Range

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

- Flow: 1.3 to 378.5 lpm (0.34 to 100 gpm)
- Pressure: 6.9 to 689 bar (100 to 10,000 psi)
- RPM: 100 to 3450
- Liquid Temperature: -29° to 93°C (-20° to 200°F)
- Manifold Materials: Brass, Nickel Aluminum Bronze, 304 and 316 Stainless Steel, Duplex Stainless Steel*
- · Sealing Material Options: NBR, FPM, EPDM, PTFE, silicone-free*
- · Drives: Electric, Engine, Hydraulic, Pneumatic



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



 $[\]hbox{* Other materials available upon request.}\\$



High-Pressure Misting

Cannabis growing and production facilities are closely monitored to ensure ideal conditions are maintained while meeting government regulations. High-pressure misting contributes to the success of the growing and processing facilities. The pump is the heart of any misting system, and Cat Pumps are the pumps of choice because of their consistent reliability and low cost of ownership. Equipment builders, growing facilities and production facilities count on the proven dependability of Cat Pumps products to ensure ideal growing conditions are met.

Humidity/Moisture Control

Misting systems are used to maintain proper moisture and/or consistent humidity. They eliminate static electricity, suspend airborne dust and improve product production and quality.

Evaporative Cooling/Temperature Control

A high-pressure pump system and nozzles inject atomized water into the air. The results of this type of cooling are dramatic and can reduce air temperature by -6.7 to -1.1C $^{\circ}$ (20 to 30 $^{\circ}$ F), depending upon ambient conditions.

Odor and Pest Control

Misting/fogging systems are commonly used with chemicals to neutralize odors or manage unwanted insects and other pests. High-pressure misting systems use less water and chemicals than other methods, making them an economical control solution.



Direct-drive pumps offer high-performance in a small footprint.

 Flows from 0.49 to 59.8 lpm (0.13 to 15.8 gpm)

High-Pressure CO₂ Extraction

 CO_2 extraction equipment is the preferred process because it creates a pure, clean, quality oil. An added benefit of CO_2 extraction is as a supercritical fluid (SCF) that kills microbial bacteria, insect mites, mold or mildew on the plant. Therefore, CO_2 extraction guarantees that your concentrates will not only be cleaner, but significantly healthier for consumption. The equipment also allows the extract makers to isolate, capture and scientifically research and understand cannabinoids.

The heart of the extraction equipment is the high-pressure liquid CO_2 pump. For over 30 years, Cat Pumps has provided dependable liquid CO_2 pumping systems, working closely with research facilities, universities and equipment manufacturers to develop reliable solutions in challenging liquid CO_2 applications. From 1.3 to 189 lpm (0.34 gpm to 50 gpm), and pressures up to 483 bar (7,000 psi), Cat Pumps has a solution for your pumping needs. Cat Pumps has dedicated and knowledgeable technical sales and engineering teams to help with selection and troubleshooting for liquid CO_2 pump applications.

CO₂ Pump Configurations



Cat Pumps liquid CO₂ series of pumps feature modifications to accommodate the unique properties of liquid CO₂.

- Specialty seals are used to handle the low lubricity of liquid CO₂ and required cold temperatures.
- Pump manifolds are modified to allow higher inlet pressures up to 55 bar (800 psi) and discharge pressures up to 483 bar (7,000 psi).
- Drive-end and manifold material combinations are available to cover a wide flow range from 1.3 to 189 lpm (0.34 to 50 gpm).
- Pumps are available in brass, 316 stainless steel and nickel aluminum bronze.



Foliar Spraying



Foliar spraying is an effective and fast-acting method to add nutrients and protect cannabis plants from insects, molds, fungi and diseases. The water droplet size is critical in this application to ensure maximum absorption with minimal drift. A high-pressure system with a positive displacement pump ensures consistent flow for optimal water droplet size.

Cat Pumps has products specifically designed for foliar spraying. Our 2SF Series pumps are compact and are direct-driven with an electric motor. These pumps are available with brass or 316 stainless steel. We offer a full line of accessories to match any pump configuration, including pressure controls, gauges, shut-off guns and much more.

Stainless steel direct-drive options:

- Flows from 1.9 to 15.9 lpm (0.5 to 4.2 gpm)
- Pressures from 69 to 138 bar (100 to 2,000 psi)



High-Pressure Cleaning

Cat Pumps offers an extensive product line of pumps and accessories for high-pressure cleaning applications. A variety of drive options, coupled with a wide range of flows and pressures, offer reliable solutions for everything from small portable washers to stationary systems to vehicle-mounted washing equipment. Indoors or out, our world-class pressure washer pumps are designed to meet the demands of most any job.

DRIVE OPTIONS FOR ANY CONFIGURATION



Hollow shaft direct-drive pumps for electric drive offer a small compact footprint



Belt-drive pumps for electric motor-driven units offer flexibility in meeting performance needs and long pump life



Bell Housing with flex coupler for hydraulic and electric-driven applications

Electric options with flows from 1.3 to 378.5 lpm (0.34 to 100 gpm) and pressures up to 689 bar (10,000 psi).



Your Complete High-Pressure Pump and System Supplier

Growing and production facilities must meet increasing production demands while adhering to stringent quality, sanitation and cleanliness requirements. In addition, there is pressure to reduce water usage, use fewer chemicals and increase labor efficiency. Given these demands, the industry continuously looks for ways to conserve resource consumption while maintaining quality and cleanliness standards.

Cat Pumps high-pressure pumps and systems keep production lines running by significantly reducing the time needed for cleaning and maintenance. With less cleaning time, there is significantly lower usage of water, chemicals and labor. These benefits are in addition to greatly improved cleaning effectiveness of the Cat Pumps high-pressure system.

Custom-Engineered to Meet Your Application Demands

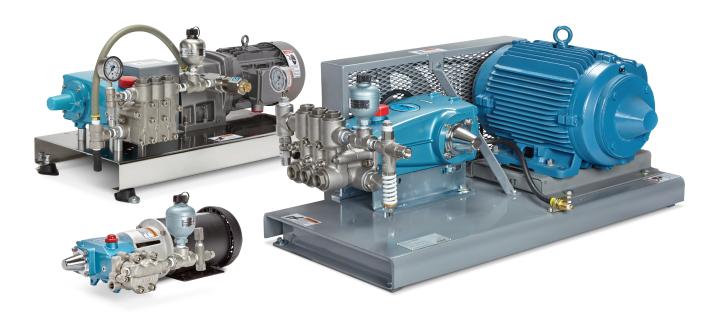


Cat Pumps is an industry leader in providing customers with quality custom-engineered pumping systems to meet a wide range of application needs. By selecting a Cat Pumps custom system, customers eliminate the hassle and expense of designing, multiple source buying, fabricating and testing. Our knowledgeable and helpful technical sales team assists with proper component selection as well as installation, operation and maintenance support.

All systems are designed, built and pressure-tested to verify performance. To begin the quoting process, contact us at +44 (0) 1252 622031 or email us at sales@catpumps.co.uk.

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

You Define. We Design and Deliver.



ABOUT CAT PUMPS

Proven Quality, Customer Focused

Cat Pumps is the world leader in the design, manufacture and marketing of the most dependable high-pressure positive displacement reciprocating triplex pumps and systems in the market. Our 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. +44 (0) 1252 622031 or visit us at www.catpumps.co.uk



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