

# Oil and Gas Products

Industrial Positive-Displacement, High-Pressure Pumps and Systems





# 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 dehydration, injection, cleaning, accumulator charging, hydrostatic testing, and numerous other industry uses.

### **Engineering and Technical Support**

Cat Pumps offers engineering and technical support for product selection, installation, maintenance, pump repair, trouble shooting 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 shipping 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 on oil rigs in the North Sea, reverse osmosis systems in Singapore, hydroexacavation trucks from Alberta to Texas, 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 That Keeps 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. (This is a Cat Pumps original design)



# 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) and other materials available upon request.
- · Drives: Electric, Engine, Hydraulic, Pneumatic



Model 3560 20 gpm (75.7 lpm) at 4,000 psi (275 bar)



# **Applications**

#### **Mobile**

Cat Pumps products are widely used on all types and sizes of mobile equipment, from small washdown units to hydroexcavation trucks and large mining equipment.

- Hydroexcavation
- Jetting
- Steam Trucks
- High-Pressure Wash Down

- Hydrostatic Testing
- Well Drilling Foam Injection
- Tank Cleaning
- Water Blasting



### **Injection and Enhanced Oil Recovery**

To keep product flowing and maximize uptime, Cat Pumps products are used in a variety of injection applications, from waste water injection to liquid CO<sub>2</sub> Injection.

- CO<sub>2</sub> Injection
- · Steam Injection
- Chemical Injection
- Salt/Waste/Produced Water Injection
- · Foam Injection

- Seal Gland Flushing
- Methanol Injection
- · Polymer Injection
- Fresh Water Injection



## Safety/Maintenance/Cleaning

Proven reliability is another reason why Cat Pumps products are specified for safety, maintenance and cleaning applications.

- Platform Desalination (SWRO)
- Blow-off Preventer (BOP) Accumulator Charging
- Hydrostatic Testing
- TEG Dehydration
- Odor and Dust Control Misting
- Base Oil Transfer
- High Pressure Mist Cooling

- Rig Cleaning
- Barnacle Removal
- Drilling Mud Filter Cleaning
- Wet Sandblasting
- Central Cleaning Systems
- Heavy Equipment Wash
- Tank Cleaning
- Shaker Cleaning



# Flexible Drive Options

#### **Motor Driven**

Cat Pumps offers hollow shaft and solid shaft pumps for easy configuration and assembly.

- Hollow Shaft Direct Drive Pumps 5/8", 3/4" and 1-1/8"
  - 0.13 to 5 gpm/0.49 to 18.9 lpm
  - 100 to 3,500 psi/6.9 to 241 bar
- Solid Shaft Bell Housing Direct Drive
  - 1 to 10.5 gpm/3.7 to 39.7 lpm
  - 100 to 5,000 psi/6.9 to 345 bar
- Solid Shaft Belt Driven or Direct Driven with Gearmotor
  - 0.1 to 240 gpm/0.37 to 908 bar
  - 100 10,000 psi/6.9 to 689 bar



### **Engine Driven**

Pumps available in hollow shaft and solid shaft make them easy to use with engine driven systems.

- Hollow Shaft Direct Drive Pumps 3/4" and 1"
  - 2.5 to 5 gpm/9.4 to 18.9 lpm
  - 100 to 4,000 psi/6.9 to 275 bar
- Hollow Shaft Gearbox Direct Drive 1" and 1-1/8"
  - 3.5 to 10.5 gpm/13.2 to 39.7 lpm
  - 100 to 5,000 psi/6.9 to 345 bar
- Solid Shaft Belt Driven
  - 1 to 240 gpm/3.7 to 908 bar
  - 100 to 10,000 psi/6.9 to 689 bar



## **Hydraulic and Pneumatic Driven**

Hydraulics and pneumatic driven pumps are commonly used for mobile and remote applications.

- Solid Shaft Direct Drive
  - 1 to 75 gpm/3.7 to 286 lpm
  - 100 to 10,000 psi/6.9 to 689 bar



# Specialty Pumps

#### **ATEX Certified**

Cat Pumps offers a full range of pumps that meet the ATEX directive for pumps used in an explosive atmosphere. The ATEX directive addresses many European Union directives describing equipment and work environment permitted in an environment with an explosive atmosphere.

Under the ATEX Directive, equipment is designated by group, category, and zone. Cat Pumps has been certified as ATEX 2, which also covers all the ATEX 3 requirements.



Model 3560 .ATEX2

#### **TEG**

The formation of hydrates (water crystals) in gas pipelines has a significant negative impact on production, causing unplanned shutdowns and damaged system equipment and instrumentation. Triethylene glycol (TEG) is the most common method of removing water from natural gas lines. Cat Pumps electric/engine-driven TEG pump product line has been field-proven in the most rigorous dehydration conditions.



Model 1050.44101

### **Flushed Pumps**

A flush-style pump is designed to allow a flushing liquid to circulate between the high pressure and low pressure seals. The seal flush can greatly increase seal life and reduce pump maintenance in applications where low lubricity liquids such as deionized (DI) water or liquid  $CO_2$  are used. Cat Pumps offers a variety of flow and pressure ranges of flush-style pumps from 0.25 - 240.0 gpm/0.95 to 908 lpm and up to 10,000 psi/689 bar.



Model 3831K

# **Liquid CO<sub>2</sub> Pumps**

Cat Pumps liquid  $CO_2$  series of pumps feature modifications to accommodate the unique properties of liquid  $CO_2$ . The seals are modified to handle low lubricity and low temperature that liquid  $CO_2$  applications require. Pump manifolds are modified for inlet pressures to 800 psi (55 bar) and discharge pressures up to 5,000 psi (345 bar). Drive-end and manifold combinations are available to cover a wide flow range of flow from 0.68 to 30 gpm (2.6 to 113.5 lpm).



Model 1530RSCM.CO2

# Custom Pumping Systems

For over 25 years, Cat Pumps has been the industry leader in providing custom-engineered pumping systems to meet a wider range of application needs. By selecting Cat Pumps for your next pumping system, customers eliminate the hassle and expense of designing, multiple source buying, fabrication and testing. The technical sales team assists with proper component selection, as well as installation, 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.



With extensive experience building thousands of systems, Cat Pumps can help determine the best configuration for any application.

#### **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



### **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**

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**

#### **Worldwide Headquarters**

#### **Cat Pumps**

1681 94th Lane Northeast Minneapolis, MN 55449 USA

P: 763-780-5440 F: 763-780-2958 techsupport@catpumps.com www.catpumps.com

#### **Territories Served**

U.S., Canada

#### **International Division**

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#### **Territories Served**

Africa, Asia, Australia, Central and South America, Mexico, Middle East, New Zealand, Turkey

#### Cat Pumps International N.V.

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#### **Territories Served**

Western Europe (except U.K., Germany, and Austria)

#### Cat Pump (U.K.) Ltd.

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P: +44 1252 622031 F: +44 1252 626655 sales@catpumps.co.uk technical@catpumps.co.uk www.catpumps.co.uk

#### **Territories Served**

England, Ireland, Scotland, N. Ireland, Wales

#### **Cat Pumps Deutschland GmbH**

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#### **Territories Served**

Austria, Commonwealth of Independent States (CIS), Germany and Eastern Europe

#### SALES, DISTRIBUTION, SERVICE

Call today for product and application assistance. 763-780-5440 or visit us at www.catpumps.com



#### CAT PUMPS

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For International inquiries go to www.catpumps.com and navigate to the "Contact Us" link.