

Evolution of Cat Pumps

Quality is the Difference

Prior to 1968, the existing pumps for industrial cleaning and carwash applications delivered very short life with very high operating costs. They could not meet the demands of these applications without constant breakdowns and frequent replacement. This greatly reduced the growth potential for these markets.

In 1968, William Bruggeman, founder of CAT PUMPS, ended his quest for a more dependable high pressure pump with the development of the patented uniflow design CAT PUMP. This new pump technology, first introduced with the Model 400, quickly changed these markets. This new long lasting pump eliminated the costly and frequent downtime and initiated a period of rapid growth and development in the carwash and pressure wash industries.

Our focus always has been on quality pumps and performance for the end user and equipment manufacturer. Our exclusive, specially formulated Hi-Pressure Seals, our solid ceramic plungers which are 100% concentric, hardened and polished, our forged brass and 316 stainless steel manifolds, our computer controlled, close tolerance machining centers and our ISO 9001 certified manufacturing, assure CAT PUMPS deliver the longest lasting pump, the easiest maintenance and the most value for your investment.

Our quality does not end with our pumps. No other pump company has as extensive an international distributor network providing parts and service wherever CAT PUMPS are working; or as qualified a technical sales team responding to your system and application questions; or as comprehensive technical data to assist in the selection, installation and operation of your CAT PUMP.

1968 Introduction of the “A” Series **Model 400** CAT PUMP rated at 4.0 GPM, 700 PSI. Originally designed for the carwash market, this pump revolutionized both the carwash and pressure wash industries, providing 10 times the life of previous pumps.

1969 Expansion of the CAT PUMPS line with the “B” Series **Model 1000** pump rated at 10 GPM, 600 PSI and the “C” Series **Model 500** pump rated at 5 GPM, 1000 PSI began our growth into the industrial markets.

1970 Introduction of the “T” Series **Model 250 Twin Piston**, ultra-compact pump for the pressure washer industry. This pump was rated at 2.5 GPM, 600 PSI and included one of our first accessories, the **Pulsation Damper**.

1971 Addition of the “D” Series **Model 2500** pump rated at 25 GPM, 600 PSI encouraged additional applications in the Food and Processing industries. Concern for coordinating accessories accelerated early with the introduction of the **Model 6050 Flow Sensitive Regulating Unloader**, Pulsation Dampeners, Pressure Gauges, the **Model 6060 Pressure Regulator and Ceramic Nozzles**.

1973 Introduction of the **Model 420** with its patented “**Stepped-Sleeved Piston Rod**” brought significant changes to pump construction, providing quick, simple and complete servicing of all wear parts from the front end of the pump. This greatly reduced servicing time, parts and labor costs, and became a standard feature on all CAT PUMPS.



During the next two years, CAT PUMPS went “international”. Three offices in **England, Belgium and Germany** were opened to meet the growing needs in Europe for the pump with “Nine Lives” due to our rapid acceptance by the industrial market place; each office with technical managers to meet the application and delivery needs of the specific region.

1974 Announced a special **Hi-Pressure Injection Pump** called the **Model 284**. This pump was built with sleeved-type pistons and multiple V-Packings to provide 0.6 GPM at 3000 PSI. Several other high pressure sleeved-type piston pumps followed later that year, including the **434** (4.0 GPM, 1750 PSI), **524** (4.5 GPM, 2150 PSI), **624** (3.0 GPM, 3000 PSI) **1024** (6.0 GPM, 3000 PSI) and the **1044** (10 GPM, 2000 PSI). It was model 524 that took the gas engine pressure washer market by storm and quickly became the industry standard.

This same year a new **Pulse Pump Injector Head** was introduced. This mounted directly onto the piston pump discharge manifold and permitted chemical injection at pressures up to 1000 PSI.



1968 Model “A” Series



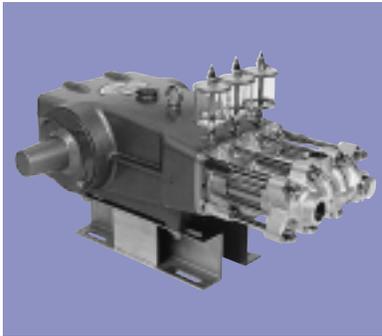
1969 Model “B” Series



1970 Compact “T” Series



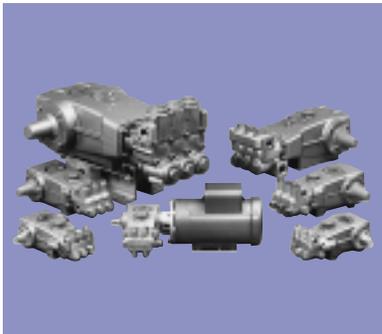
1974 Sleeved-Type Piston Pump



1976 60 Frame Pumps



1978 Model 310



1984 Nickel Aluminum Bronze Pumps



1985 Stainless Steel Pumps & Accessories

1975 Started the concept of “**Modular Flexibility**” permitting different flow and pressure combinations to be built from the same Frame size. This encouraged “minimum inventory” and “maximum application flexibility.”

1975 also brought the CAT PUMPS family to **57 different models and 5 Frame sizes**. To emphasize the “**Nine Lives Dependability and Service**”, we named each of the frame sizes after one of the well-known cats: **Bobcat, Cougar, Leopard, Jaguar and Panther**.

Live CAT PUMP demonstrations, applications, motorized cutaways and system accessories were demonstrated on-site, as the CATMOBILE, the first high pressure pump demonstration van, began traveling across the U.S. in 1975.



1976 Introduction of a new larger Frame size, the 45 HP, **60 Frame Series**, including the Models 6020, 6040, 6024 and 6044 brought our capacity up to 60 GPM and maximum pressure up to 5000 PSI. This increased our application opportunities in agriculture, oil field, mining, central cleaning systems and large vehicle wash systems.

1977 CAT PUMPS answered the demand for Hi-Temp pumps for applications such as pumping Hi-Temp condensate back into boilers with the Model 2527 (later renamed the 2520C). This pump was rated up to 25 GPM, 1000 PSI at 210°F and featured a specially ported inlet manifold to allow cool fluid to be circulated on the back side of the inlet seals for optimum life with Hi-Temp fluids.

1978 Introduction of the “double seal” concept Plunger Pump, with the Lo-Pressure Seal providing lubrication for the ceramic plunger on the backside of the Hi-Pressure seal. This unique new seal design and the exclusive, specially formulated seal material offered exceptional life and higher pressure capabilities, further expanding CAT PUMPS into the industrial market. 1978 and 1979 delivered 4 new Frame sizes including the 3 Frame Model 270, 5 Frame Model 310, 7 Frame Models 530 and 550 and the 15 Frame Models 650 and 1050.

1979 Continued demand for our products internationally and industrially prompted the addition of our 4th international office in **Switzerland** covering Asia, Africa, Australia and the Middle East. Our five locations have developed the “most extensive” international distributor network for high pressure pumps.

1980 During the next of couple years, efforts were directed towards expanding our accessory line to include **Sandblasters, Flow-sensitive Pressure Unloaders, Thermo Valves, Pop-off Valves, Strainers, Accumulators and 5000 PSI Guns** to match each CAT PUMP and meet application needs.



1982 CAT PUMPS were the leading players in making Reverse Osmosis systems reliable. Of all pumps supplied to the British Navy for the Falklands crisis, only CAT PUMPS did not fail. 1982 was the introduction of the first two 35 Frame pumps rated at 36 GPM, 1000 PSI, the Model 3535 and the Nickel Aluminum Bronze version Model 3537, used in Reverse Osmosis.

1983 Introduction of a new breed, the **Direct Drive CAT PUMPS**. Special high RPM versions of the proven dependable Models 270 and 310 provided a variety of **Gearbox and 1725 RPM Motorized Direct Drive** pump units. The **Model 279** (3.5 GPM, 1500 PSI) and the **Model 34G1** (4.0 GPM, 2000 PSI) were the first two gearbox pump units providing simple, direct mounting to gas engines. The 230, 240, 270, 340, 350 models provided the driving force behind a variety of **Motorized Pump Units** offering an economical, compact, lightweight, motorized pump unit with 1.5, 2.0, 3.0 and 5.0 HP motor options.

1983 also expanded the 35 Frame pump series with the 3507 (9 GPM, 5000 PSI), 3517 (14 GPM, 3000 PSI) and the 3527 (23 GPM, 2000 PSI) to meet the growing industrial needs in hydrostatic testing, sewing cleaning, jet cutting and water hydraulic applications. Although first introduced as cleaning pumps, CAT PUMPS outstanding performance reputation soon had it “specified” in many specialized industrial applications. And CAT PUMPS began “custom designing and modifying” pumps such as our 551, which supplied power to robots in the nuclear industry to strip fuel rods.

1984 Our dependability and long life in Reverse Osmosis encouraged the development of additional **Nickel Aluminum Bronze Plunger Pumps** including the **Models 277, 317, 1057 and 3527**. The smaller models were available in the standard belt drive version, as well as direct drive and gearbox, providing a pump for just about every need.

1985 Two special **316 Stainless Steel Plunger Pump Models** were added to the CAT PUMPS line. The **Model 651** (7 GPM, 3000 PSI) and the **Model 1051** (10 GPM, 2200 PSI) were constructed of 316 Stainless Steel and provided additional fluid and high temperature compatibilities. Coordinating Stainless Steel Regulators and Pulsation Dampeners were also added to the line.

1985 also brought more accessories such as different styles of **Pressure and Flow Sensitive Unloaders, Custom I and II Guns and Chemical Injectors** to satisfy a multitude of cleaning needs.

1986 A revolutionary new pump, combining our rugged plunger pump design with the unique “Uniflow” concept, created the ultra compact, direct drive “**SuperFlow**” **Plunger Pumps**. These **SF Models** were capable of operation up to 3600 RPM and came complete with a Regulating Unloader for pressure regulation and pump safety. The (E) Electric Models were available with a 1.5, 2.0 or 3.0 HP electric motor. The (G) Gas Models could be mounted directly to any gas engine without the need of a gearbox.

1986 also saw the new **60 Frame 6767** plunger pump, built of Nickel Aluminum Bronze and 316 Stainless Steel wet-end components, become a key component in Reverse Osmosis systems, as well as large central cleaning, processing, mining and vehicle wash systems.

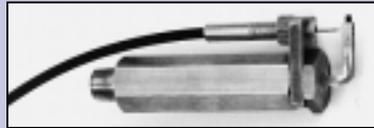


1986 also delivered a most unique accessory to the CAT PUMP line to help minimize problems associated with inlet pressure fluctuations. The **C.A.T.** (Captive Acceleration Tube) installed at the inlet of the pump stabilized pressure fluctuations caused by long feed lines, booster pumps or pressure spikes from regulating valves. It proved especially helpful in prolonging the life and performance of Reverse Osmosis pumps.

1988 Announced the expansion of the tremendously successful **SF Plunger Pumps** with the new **4SF Models**. Six new units expanded the performance of the SF pumps to 2000 PSI, 5.0 GPM. Like the 2SF models, these new 4SF pumps came complete with a Regulating Unloader and mounted directly to either a gas engine or electric motor. Eight motorized units were available with either a 5.0 HP or 7.5 HP electric motor.

1988 was also the year for the addition of the Stainless Steel **35 Frame Models 3521 and 3531** providing increased tolerance to the harsh conditions of brackish and saltwater.

1989 Introduction of a unique new accessory designed to throttle down your engine when your trigger gun was released. The patented **Throttle Controller** prolongs engine life and reduces fuel consumption.



1990 Introduced the new **5 Frame “HS” Series** in answer to the market demand for larger horsepower, direct drive performance, but small compact sizing. The **Model 42HS** delivered 4.5 GPM at 2000 PSI, the **Model 43HS** delivered 4.0 GPM at 3000 PSI.

These units mount directly to gas engines with the use of a bell housing and flexible coupling. A sister **Model 45** offered similar high performance for those desiring a belt drive system.

1991 The compactness and excellent performance of the **2SF and 4SF** pumps have made them the leading pressure washer pump. To enhance their performance, these units were upgraded to **2000 PSI** on the 2SF and **3000 PSI** on the 4SF. For added convenience these models were offered with a built-in by-pass hose, Thermo Valve and chemical injector for added protection and versatility.

The outstanding performance of the 2SF pump and the need for a quality industrial cleaning unit our distributors did not have to fabricate themselves, prompted the birth of the **TUFF CAT**. This compact, complete cleaning system included a totally enclosed pump and motor along with gun, hose lance, chemical injector, vari-nozzle and GFCI power cord. This gave our distributors a quality and versatility not previously available in an off-the-shelf, portable, cold water or Hi-Temp unit.

1992 The market for 316 Stainless Steel pumps began to expand due to growing requests from the Reverse Osmosis and specialized industrial equipment OEMs. Our answer to these needs was the **68 Frame** plunger pumps, constructed of 316 Stainless Steel **block style manifold heads** offering both strength and chemical compatibility. The **Model 6811** was rated at 15 GPM with up to 7000 PSI for industrial blasting and cutting, the **Model 6821** was rated at 25 GPM, 3000 PSI for chemical injection and surface prep. The **Models 6841** (48 GPM, 2000 PSI) and **6861** (70 GPM, 1000 PSI) were for Reverse Osmosis and various cleaning and misting/humidification applications.

This same year the 35 Frame also expanded to the block style 316 stainless steel head with the **Model 3801** (9 GPM, 5000 PSI), **3821** (23 GPM, 2000 PSI) and **3831** (36 GPM, 1200 PSI).

1993 With the growing demand for high quality, dependable, larger capacity pumps and the need for fast turn-around on complete systems, CAT PUMPS introduced the **POWER UNITS**. These custom designed, 10-70 hp skid mounted complete packages include either an epoxy coated steel or 304 stainless steel base, belt guard, adjustable motor mount, electric, hydraulic or gas drive, pump and all the necessary accessories to control and protect the system. We have continued our response to industrial market needs with our performance in applications such as odor control and arduous industrial waste treatment.

Ed Fossen celebrated 25 years with CAT PUMPS. In his early years, Ed started in R&D testing and shipping pumps, later became sales coordinator and is presently the Midwestern Regional Manager. He truly appreciates the close working relationship he has developed with his accounts.

Thomas “Kelly” Shultis celebrated 20 years with CAT PUMPS. Kelly started in pump repair and testing. As Technical Service Manager, he coordinates all new product testing and development and product presentation at trade shows. Kelly enjoys the applications challenges and the opportunity of working with so many talented distributors and OEM accounts.



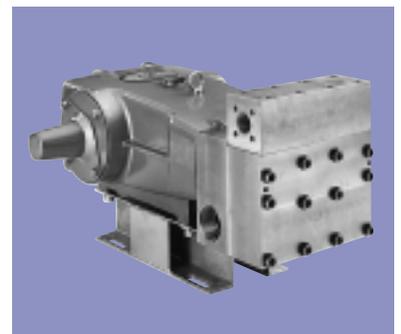
1986 2SF and 4SF Pumps



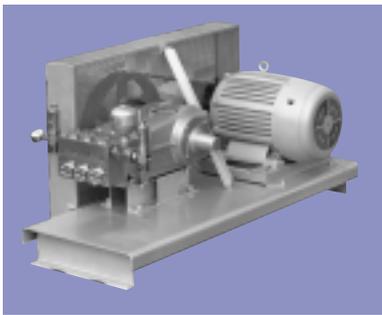
1988 Model 3531



1991 TUFF CAT Cleaning System



1992 68 Frame Stainless Steel Block Head Pumps



1993 Custom Power Units



1994 5000 PSI Ultra-Compact Pump



1995 Vertical Engine Pumps



1996 5DX Direct Drive Pump



1997 Block-Style Model 781

1994 Introduction of the new ultra-compact, but powerful plunger pump **Model 70**, delivering 5000 PSI at 5 GPM at a new affordable price. Available in either belt drive or gearbox, this new pump offered tremendous power for its size.

Also this year the **4HP** plunger pump with a new design crankcase and modular built-in unloader was introduced. This economy version direct drive pump offers 3.5 or 4.0 GPM at 3000 PSI for the portable pressure cleaning industry.

When Paul Ophoff, General Manager of our **Belgium** office, started in 1974, he was impressed by the quality of our pumps. And now over 20 years later, he still feels we sell the highest quality pumps, resulting in the most economical pump to run.

1995 The most popular pressure washer pumps underwent further changes this year with the addition of a **sleeved-piston rod** to simplify servicing. The 4SF sleeved version upgraded to 3500 PSI at 3.5 GPM or 4.0 GPM.

To meet the growing needs for a dependable but economical small pressure washer pump, CAT PUMPS introduced the **vertical shafted 2X pumps** which mount directly to the very affordable vertical shaft engines.

The new **Hot'n Dry** pumps were also introduced in 1995. Various plunger pump models can be modified to a special Hi-temp, Hi-pressure Seals to handle pumped fluid up to 190°F. These higher temperatures are necessary for many applications including carpet cleaning and sanitizing.

Lez Warren, General Manager of our **U.K.** office, has been the spearhead since 1975 in the development of many specialty pumps for ice cream plants, leachate treatment and high temperatures. It was his diligence and dedication to customer needs that resulted in the development of the C.A.T., a remedy for stabilizing system inlet pressures.

Darla Jean Thompson celebrated 25 years with CAT PUMPS. She posted inventory, typed packing lists, handled collections and the sales order desk before becoming Director of Marketing. Whether she's creating an ad, at a trade show or writing a new technical manual, she still finds selling CAT PUMPS an enjoyable challenge.

Gary Kanne celebrated 20 years with CAT PUMPS. As a regional manager for the Western Region, Gary reflects on how the pump market has grown over the years and remembers the sales figures that were a struggle to achieve for an entire year are now nearly achievable in a single week.



Over 200 years of combined pump experience!

1996 Was the introduction of the new 2DX and 5DX direct drive pumps. These offered a high performance pump at a lower cost than the 2SF and 4SF pumps for the highly competitive pressure washer industry. Both the 2DX and 5DX feature a modular style unloader with a built-in by-pass channel for an ultra compact assembly and easy direct mounting to gas engines.

1997 Introduced the new generation CP series CAT PUMPS. The new 3CP and 5CP pumps offer greater capacity at a very economical price. They feature the new press-in style seal case for easier servicing, eight bolt manifold mounting for added strength at the new higher performances, high strength forged brass head or "W770" head on the 5CP2120W model offering washout and freeze protection.

New Gearbox versions 3CP1120G and 5CP5150G1 offer convenient direct mount to gas engines and continuous-duty performance for the industrial cleaning projects. The new 5CP6121, 316S.S. model offers greater compatibility at greatly reduced price.

The block-style Model 781 also made its debut this year, offering the flushing feature, high inlet capabilities, and 316 S.S. construction at 5000 PSI.

Customer Confidence is our Greatest Asset

In a world of constant change, our goal is to continue looking one-step-ahead, to continue offering the latest in pump technology and materials, to help expand high pressure industrial applications and to continue earning your confidence by offering only the very best quality products. We are grateful for a constant interchange of ideas from our worldwide customers and thank everyone for their continued support.

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