# Pumping Technology For Tomorrow's World







# World Leader in Pump Reliability

For over a century, Patterson has been the company to deal with for reliability in worldwide pumping installations—whether satisfying urban water and waste demands; harnessing and controlling ravaging floods; reclaiming arid deserts; taming rampaging and devastating fires; or protecting the planet's ecological balance.

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Patterson also has been the preferred source for highest quality valves for controlling high volume liquid and gas flows.





Latest Equipment and Able Design Engineers Provide Up-to-the-minute Capability

Patterson design engineers continue to make incremental improvements throughout the company's product line, developing new products to take advantage of leading-edge pumping technology. A complete engineering staff, with the latest CAD programming, designs, engineers and coordinates with fabrication products that are over 96% to specific order.

Plate shop personnel are fully qualified in accordance with Section IX of the ASME Code for all types of approved welding. Highly trained machinists operate the latest high-tech, computer-controlled machining centers, vertical turning centers and computerized lathes, offering high-precision workmanship in less time for faster delivery.



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## For Tomorrow's World



One of the industry's largest and most comprehensive test laboratories offers a complete closed-loop system under ideal research conditions. This fully instrumented testing laboratory — built around a 400,000 gallon below grade reservoir — is capable of verifying every design and performance specification of Patterson pumps, including cavitation testing and model testing.

#### TRAINING— The extra step in patterson service

Patterson reliability is enhanced by coordinated training in proper operation and maintenance of pumping products at its modern training facility in Toccoa. One of very few manufacturers to furnish such training, Patterson considers it essential to providing full service to its industrial, municipal and governmental agency customers.

#### SIX SIGMA AND ISO 9001 CERTIFICATION

Six Sigma is an optimized level of performance which means overall excellence, not only in a world-class finished product, but in the administrative, service and manufacturing processes throughout the company. Patterson's Six Sigma program is highly successful because it has full support of upper management, a solid phase-wise infrastructure, and a proven methodology that standardizes the right tools and techniques, while providing working teams with step-wise progressions in applying those tools.

Patterson Pump is ISO 9001 certified, attesting to its world-class quality and dependability. The company is continually reevaluated, with a complete reassessment every three years, to ensure all elements are maintained in keeping its products world-class. We are committed to support the company's vision and values in order to achieve total quality for customer satisfaction.



MODERN TRAINING FACILITY



COMPREHENSIVE TEST LABORATORY





**ISO CERTIFIED INSPECTION** 

# A World Leader in Hydro-Control and Heavy Duty Pumping

Patterson's full line of modern, high-performance pumps continue to set the standard for the industry in both domestic and international markets by offering:

- industrial and commercial pumps;
- horizontal and vertical centrifugal pumps;
- fire pumps for a variety of safety applications;
- non-clogging waste and sewage pumps;
- axial and mixed flow pumps for flood control and irrigation;
- multi-purpose vertical turbine pumps;
- Patterson vertical turbine pumps;
- general service pumps; and
- prepackaged pump systems.

Quality workmanship, pump designing know-how, efficient production capability and careful attention to testing details ensure that every Patterson pump will perform its intended function efficiently, economically and durably. Whether the systems are electric, diesel engine, turbine or dual drive, all have guaranteed satisfaction of individual application time after time.

## **VERTICAL IN-LINE PUMPS**

Patterson's V.I.P. In-line Pumps are designed for ease in adapting to existing systems or being designed into new systems in industrial, HVAC and fire applications. Their ease of installation into pipe lines eliminates the need for costly foundations or pads. Standard piping supports on either side of the pump are all that is required. Suction and discharge flanges are on a common center line, 180° apart, for mounting in the pipe line. Pressure ratings from 40 psi to 150 psi are available, along with flow ranges of 150 to 750 GPM. Non-fire flows can be in excess of 750 GPM.

## THE FORCELINE® NCS SERIES PUMPS

Patterson developed The Forceline Nonclog Service Pump Series through years of experience and expertise in waste water pumping. Professionally engineered, The Forceline is designed to be one of the most modern, reliable and easy-to-install lines of dry pit service pumps available on today's market. It is especially suited for processing sludge, raw unscreened sewage, miscellaneous liquids and contaminated trashy fluids efficiently. Both horizontal and

vertical models are offered in standard or alloy construction. Capacities range from 150 to 12,000 GPM, with heads in excess of 250 feet.







## For Tomorrow's World



#### VERTICAL AND HORIZONTAL CENTRIFUGAL SEWAGE PUMPS

Patterson's Type "F" Centrifugal Pumps are heavy duty, non-clogging workhorses for sewage plants and other applications involving sludge, drainage, paper mills, reduction plants or other unscreened solids up to eight inches in diameter. The Type "F" is offered in over 17 standard models, but special requirements are addressed and custom alterations are made routinely as part of Patterson's unparalleled customer service. Capacities for both types of models range from 500 to 100,000 GPM, with heads to 150 feet. Special wear resistant castings are available for handling abrasives.

#### HORIZONTAL SPLIT CASE PUMPS

Patterson's Type "A" Horizontal Split Case Pumps (vertical units are available upon request) are engineered, built and tested to move clear water or low viscosity clear liquids at moderate heads dependably, efficiently and economically. Their rugged, simple design contributes to extended service life, reduced maintenance costs and minimum power consumption. Fabricated parts are standardized and accurately machined for true alignment. They meet Hydraulic Institute Standards, in capacities from 50 to over 100,000 GPM, with single stage heads to 550 feet and two stage heads to 1,150 feet, or in custom sizes. If your hydraulic requirements exceed the range of our standard units, custom units are available.

#### AXIAL AND MIXED FLOW PUMPS

The Patterson Axial and Mixed Flow Pumps deliver high capacity at low to medium heads for flood control, irrigation and drainage projects; large scale primary water supplies; industrial process work; power plant condensing; and other circulating systems. Each Type "G" axial and mixed flow pump is especially designed and built to individual customer requirements. These pumps have demonstrated their ability to move large volumes of liquid at low to medium heads with efficiency and economy unobtainable with any other type pump. Capacities range from 2,000 to 500,000 GPM with heads to 100 feet per stage, and bowl sizes up to 84 inches. If your hydraulic requirements exceed the range of our standard units, custom units are available.







## Latest Vertical Turbine Technology

PATTERSON

PUMPS

VERTICAL TURBINE

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MULTI-PURPOSE VERTICAL TURBINE PUMPS



Patterson's patented Multi-purpose Vertical Turbine Pumps are superior performing, solids handling, municipal/ industrial pumps which offer the highest hydraulic performance, lowest rotor vibration and noise levels. They are designed for easy integration into retrofit plans for water treatment, flood control, municipal/industrial water supply and more. Pump discharge, motor and controller are above grade, allowing maintenance in a clean, safe environment. Components can be replaced without teardown of the entire unit. Capacities range from 1,500 to 20,000 GPM.

#### PATTERSON VERTICAL TURBINE PUMPS

The Patterson Vertical Turbine Pumps employ the latest design concepts and engineering technology in producing highly efficient pumps that are adaptable in a variety of industrial/municipal/power applications, including fire pumps. They can be staged as necessary to meet desired pressure requirements. Minimum floor space is required, and the pumps operate in low NPSHA applications. Fire capacities are from 500 to 5,000 GPM, with pressures over 300 psi. Bowls are 12" through 40" and capable of handling flows in excess of 30,000 GPM.

#### ENVIRONMENTALLY PLEASING PREPACKAGED PUMP SYSTEMS

Patterson recognizes that while pump installations must be reliable and economically sound, they also must be environmentally pleasing. Booster stations and other municipal/ industrial installations, often located in highly visible open areas, demand environmental considerations. Patterson has designed total covers for these prepackaged systems which feature aesthetics, simple construction and easy installation.

Patterson Prepackaged Pump Systems offer three choices of covers:

- The "Rock," an aesthetically pleasing, fiberglass boulder, for blending into open area locations;
- (2) a durable metal structure with color options for blending into surrounding areas; and
- (3) an equally durable fiberglass structure, also with color options.

All three choices of covers are equipped for entry, lighting and ventilation, and have all necessary piping connections, controls, etc.





Thousands of Patterson Fire Pumps are in service throughout the world, standing face-to-face with the rampaging renegade, fire, and delivering the force necessary to bring it under positive control. Many have logged well over 25 years of continuous service, attesting to the reliability of Patterson quality.

Four types of Patterson pumps are effective in fire control systems: the Horizontal Split Case, the Vertical Turbine, the Vertical In-line and the End Suction. These fire pumps operate with pressures in excess of 390 psi and up to 5,000 GPM.

Patterson Fire Pumps conform to, and in some cases surpass, the rigid standards set forth by approving and listing authorities. They are UL and ULC/cUL listed, FM and NYBSA approved, and meet the requirements set forth by the National Fire Protection Association (Pamphlet No. 20).

#### A CHOICE OF APPROVED DRIVERS

Patterson Fire Pumps are usually furnished with electrical motors or diesel engines for underwriter approved installations; however, a full line of other power units, including steam turbines, is offered. Dual drive combinations for special service requirements also can be supplied.



#### ECONOMICALLY LOW COST PATTERSON PRE-PAC®

The highly-efficient Patterson Pre-Pac is designed to minimize labor, engineering and installation time. Whether totally enclosed, or just a base mounted package unit, it will assure you that all sensing lines, fittings, piping, drive, pump and controls are designed to meet, or exceed, all applicable codes. The Pre-Pac is completely unit tested with all piping hydrostatically tested. It meets all UL and ULC/cUL listings, FM approvals, and meets NFPA-20 requirements.

# A World Leader in Fire Control







# Patterson Pumps... Versatility Plus

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TWO-STAGE	•	•	•	•	•	•	•	•			•			•		•		•	•	•	•	•
HSC	•	•	•	•		•	•	•			•	•	•	•		•	•	•	•	•	•	•
PVT	•	•	•		•	•	•	•			•	•		•		•		•	•	•		•
MPVT							•	•	•	•	•		•	•	•			•	•	•		•
AXIAL & MIXED FLOW				•		•					•	•	•	•	•	•	•	•	•	•	•	•
NCS							•	•	•	•	•		•					•	•	•	•	•
TYPE F SEWAGE PUMP							•	•	•	•	•		•		•			•	•	•	•	•
END SUCTION	•	•	•	•			•	•			•			•				•	•	•	•	
VIP	•	•	•	•			•	•			•			•				•	•	•		•
PRE-PAC PACKAGE SYSTEMS	•	•	•	•	•		•	•	•	•	•			•				•	٠	•	•	•

# Precision Valves for Trouble-free Service





## DOUBLE DISC GATE VALVES

Ludlow-Rensselaer Valves, exclusive with Patterson, feature the Ludlow-pioneered double wedging design of locking gates, which operate easier under pressure and with less wear. Made of the best applicable materials, these refined valves are precision-machined for longer, trouble-free service life.

Double-disc gate valves continue to be the most commonly used control mechanisms for on-off service. They are used in the general waterworks service; water pollution control field; the chemical process industry; iron and steel mills, particularly blast furnace pipeline; and in coke oven and byproduct plant pipelines.

> Three designs are available: Round Bottom Valves, Square Bottom Valves and Slimline Valves. All three types of gates may be placed in any position and work effectively. All Ludlow-Rensselaer List 13A valves meet or exceed A.W.W.A. C500 specifications.

For Tomorrow's World



The heritage of quality, innovation and reliability which earmarks Patterson water and wastewater pumps had its beginning in 1900 as Thomas & Smith, contracting and manufacturing engineers in Chicago. Their successor, Economy Pumping Machinery Company, created the Patterson pump line in 1915 with the introduction of steam powered piston pumps.

In intervening years, the company acquired the C.H. Wheeler Manufacturing Company in Philadelphia and changed their name to Wheeler-Economy. Later sold to Baldwin-Lima-Hamilton Corporation, the company became part of Patterson Industries, then subsequently became Patterson Pump Company in 1979.

#### WE OFFER OEM PARTS AND SERVICE FOR YOUR PUMPS

You gained distinct advantages and benefits when you first chose Patterson pumps, or earlier models, for your operation. We want to ensure that you will continue to enjoy these same benefits. That's why we offer genuine OEM replacement parts and service to every customer.

Patterson Pump Company is the only place for OEM parts and service for these pumps and valves:

#### Pumps:

C.H.WHEELER PUMPS BALDWIN-LIMA-HAMILTON PUMPS WHEELER-ECONOMY PUMPS PATTERSON PUMPS

#### Valves:

#### LUDLOW-RENSSELAER VALVES

We realize there may be a temptation to utilize parts or services that are "cheaper" and claim to be "just as good." With the very real risk of failure, lost production time and high labor costs can prove much costlier in the long run.

That's why we offer competitive pricing, top quality parts, fast delivery and field or factory service.

Contact us via e-mail—service@pattersonpumps.com—for any questions, parts or service needs. We offer over 100 years of experience to help you.



WHEELER-ECONOMY



BALDWIN-LIMA-HAMILTON



WHEELER-ECONOMY

## WITH PATTERSON, YOU GET WHAT YOU NEED, WHEN YOU NEED IT!

Since our first day in business, the people at Patterson Pump Company have been committed to producing superior products that meet or exceed individual needs of customers. Today, that commitment is stronger than ever, and is evidenced not only by the increasing growth and diversification of our company, but also by the continuing loyalty of the many urban centers and industrial companies we serve.

The full range of Patterson Pump's leadership in design, engineering and fabrication is available now for application to your pumping needs. Discover for yourself why Patterson is the world leader in reliability.



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