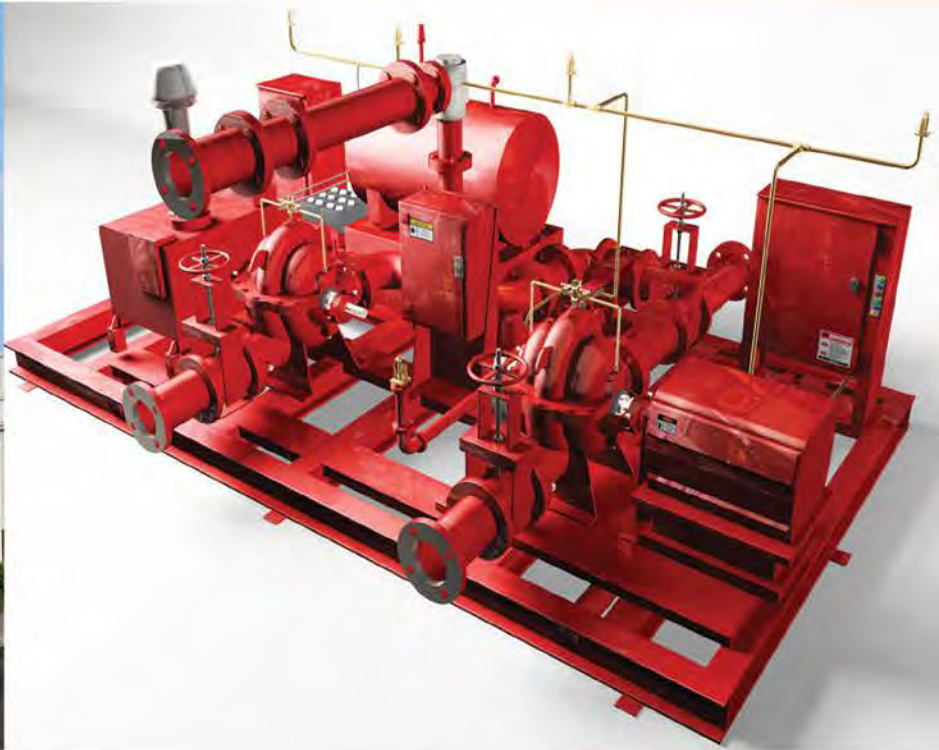


# SENTINEL SERIES

*World-Class Fire Suppression  
Pumping Solutions*



A Gorman-Rupp Company



Timely delivery of rugged, reliable and responsive fire suppression pumps and prepackaged systems is critical. Whether we're meeting stringent customer standards, unheard-of deadlines or just going the extra mile to ensure customer satisfaction, more and more customers are choosing Patterson's Sentinel™ Series Fire Pump products and services to securely fulfill their fire protection needs.



No matter the pump type, size or system configuration, there is a Sentinel solution to meet your needs.



## Standing Guard for the Safety of Millions

From Europe to Australia, South America to the Far East, commercial, residential and industrial facilities around the globe are depending on Patterson fire suppression pumps and Pre-Pac® engineered self-contained systems. Millions count on Patterson for their unparalleled knowledge and expertise in developing quality fire pumps and pumping systems that perform reliably when needed in office buildings, schools, dormitories, industrial sites, high-density residential areas, manufacturing plants and commercial sites.

All Patterson Fire Pumps and accessories are engineered to meet, or exceed, all applicable codes, including: UL and ULC listings, FM and NYBSA approvals, NFPA, VdS, LPCB, CNBOP and CE certifications worldwide and all NFPA-20 standards.



*The Pump People®*

## Horizontal Split Case Fire Pumps

Ideal for both high and low pressure pumping requirements.

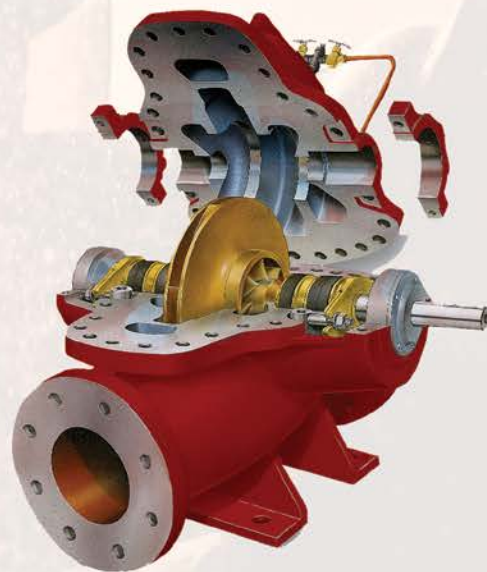
Patterson Horizontal Split Case Fire Pumps are engineered for reliable operation upon demand.

Patterson sweats the details. All fabricated parts are standardized and accurately machined for true alignment, increasing overall durability. Precision balancing of all rotating components provides mechanical dependability, reliable operation and minimal maintenance. Impellers are constructed with double inlets that practically eliminate end thrust while boosting operating efficiency.

The simple, split case design of these pumps allows for in-line service without disturbing piping while ensuring long, efficient unit life, reduced maintenance costs and minimal power consumption.

These pumps are designed to operate with pressures in excess of 390 psi (27 bar) and flows from 150 gpm to 5,000 gpm (568 litres/min to 18,925 litres/min).

Whether your fire pump application requires an electric motor, a diesel engine or vertical or horizontal orientation, these industry-approved pumps can be configured to meet your specific needs.

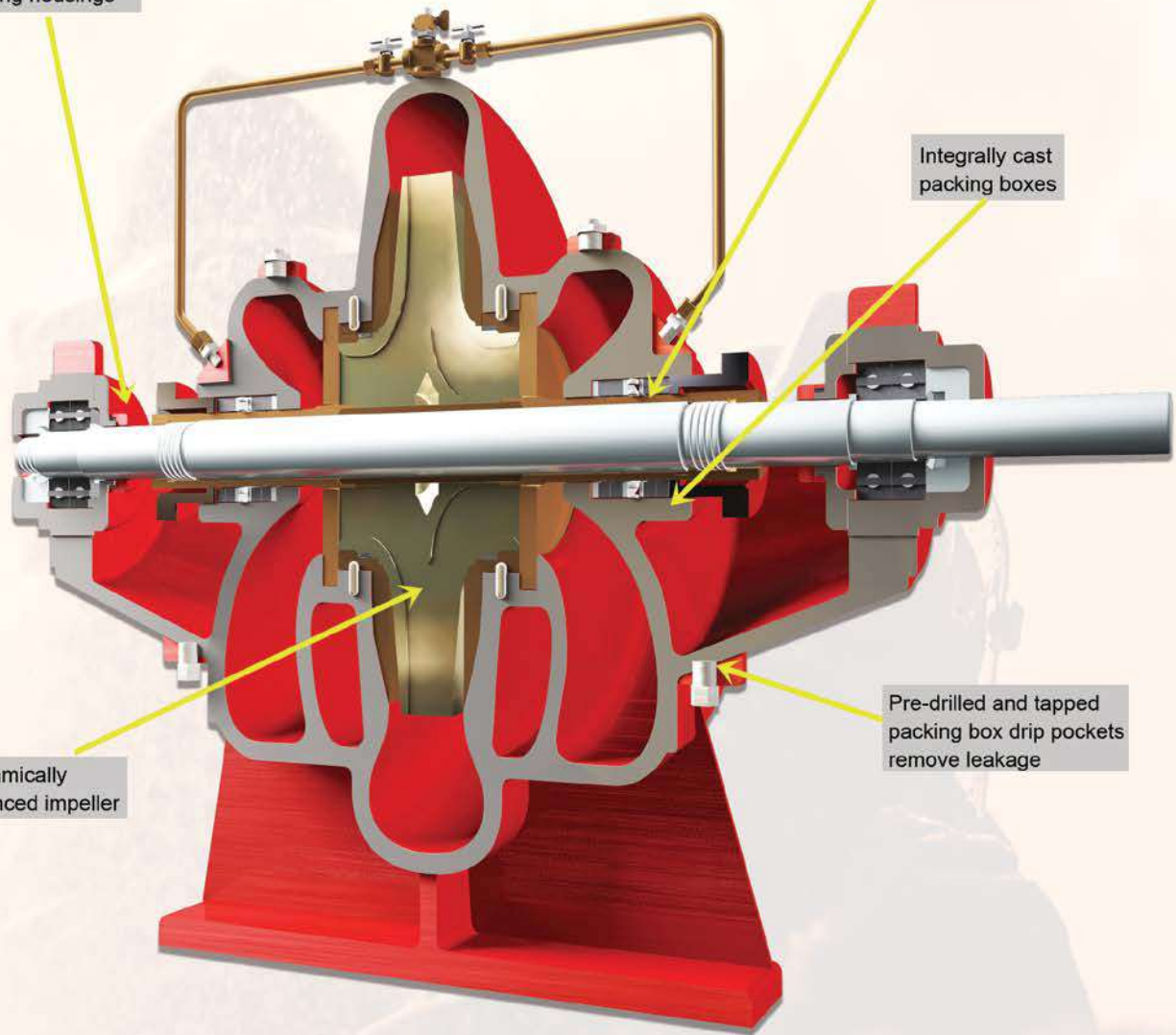


TM

Deflectors prevent water from entering bearing housings

Shaft sleeves locked against rotation by impeller key

Integrally cast packing boxes



Dynamically balanced impeller

Pre-drilled and tapped packing box drip pockets remove leakage



*The Pump People®*

## High Pressure Two-Stage DMD Fire Pumps

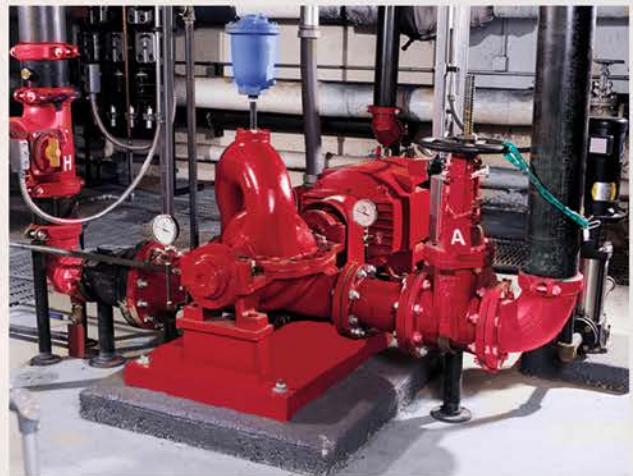
Engineered for rugged, reliable service when space is at a premium.

High Pressure Two-Stage Fire Pumps are engineered to produce as much head as two single-stage pumps in series but in a much more compact size. Heavily built, they are highly dependable and have every mechanical feature to assure long life.

Design highlights include dual single-inlet, enclosed impellers, mounted back-to-back, and an interconnecting passage between stages. Bronze or bronze-bushed interstage pieces guard against wear.

High-Pressure, Two-Stage DMD Fire Pump is engineered for rugged, reliable service and is ideal for installations where space is at a premium. One two-stage unit can produce as much head as two single-stage pumps.

Sizes range from 3-in. to 6-in. (7.6-cm to 15.2-cm) discharge for capacities to 1,000 gpm (3,785 litres/min) and heads to 1,150 ft (351 m).

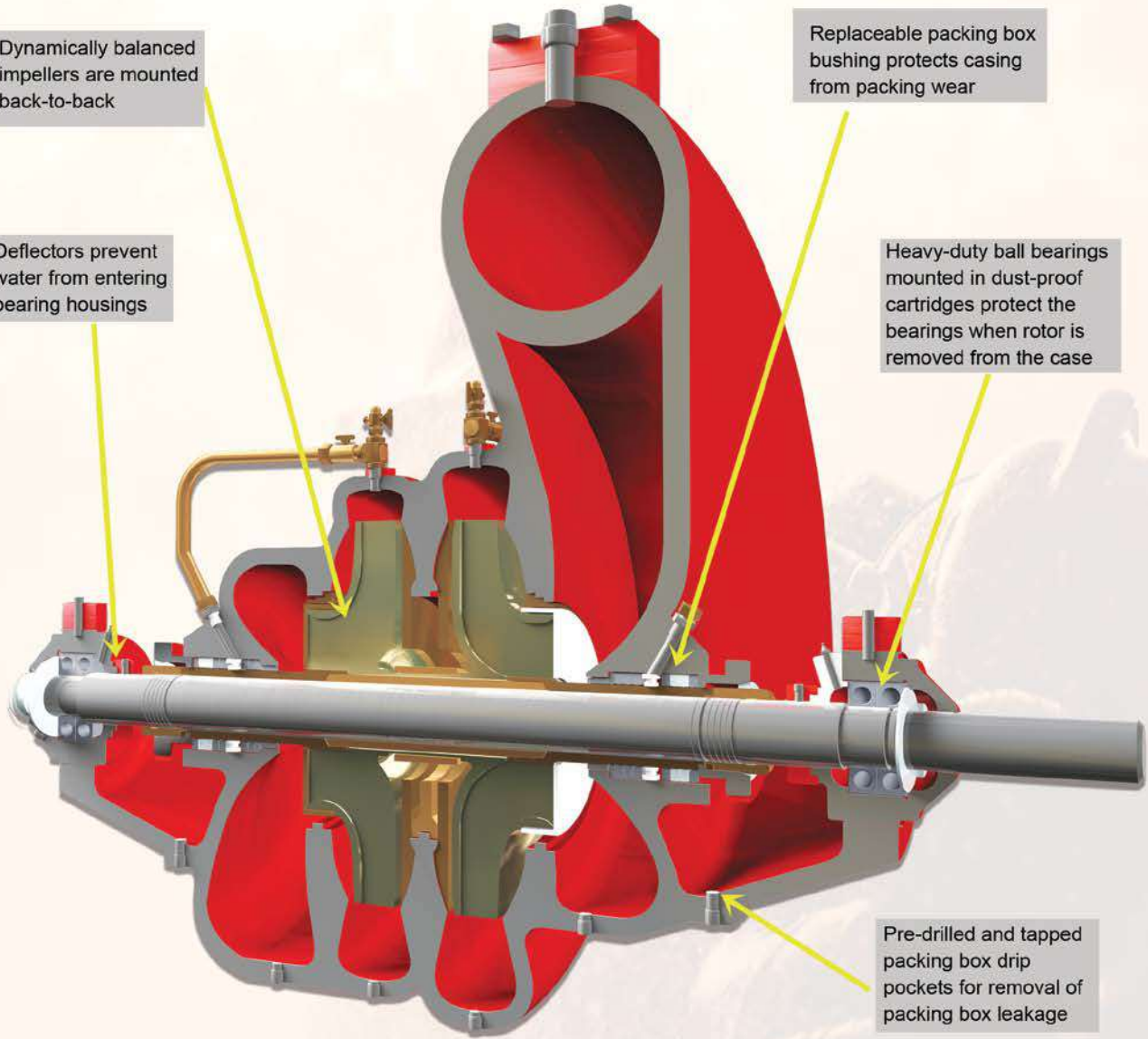


Dynamically balanced impellers are mounted back-to-back

Deflectors prevent water from entering bearing housings

Replaceable packing box bushing protects casing from packing wear

Heavy-duty ball bearings mounted in dust-proof cartridges protect the bearings when rotor is removed from the case



Pre-drilled and tapped packing box drip pockets for removal of packing box leakage



*The Pump People®*

## V.I.P. Vertical In-Line Fire Pumps

Compact, self-contained design for easy adaptability to new or existing applications.

Patterson's V.I.P. series of Vertical In-Line Fire Pumps offer a simple alternative to horizontal split case pumps in fire applications with lower flow ranges. Their unique design also minimizes energy consumption while lengthening service life.

These fire pumps are easy to install into existing pipe lines. With the inlet and outlet on a common center line, only standard piping supports on either side of the pump are needed. This eliminates the need for costly foundations or pads.

The precision-cast impeller is dynamically balanced for smooth operation, and it is enclosed for optimum performance and long service life. Balance holes on the back side of the impeller reduce thrust with hydraulic balancing of the pressures.

Designed for durability, every pump has standard packing and a two-piece gland. Coupled to V.I.P.'s standard JP/JM motor, this quality, integral drive system features uniformity of tolerances, minimum shaft deflection and bearings sized properly for the job.

An integral clean-out port on the suction side enables cleaning without having to remove the driver, eliminating the need for a NFPA 6.3.4.1 Pipeline Strainer.

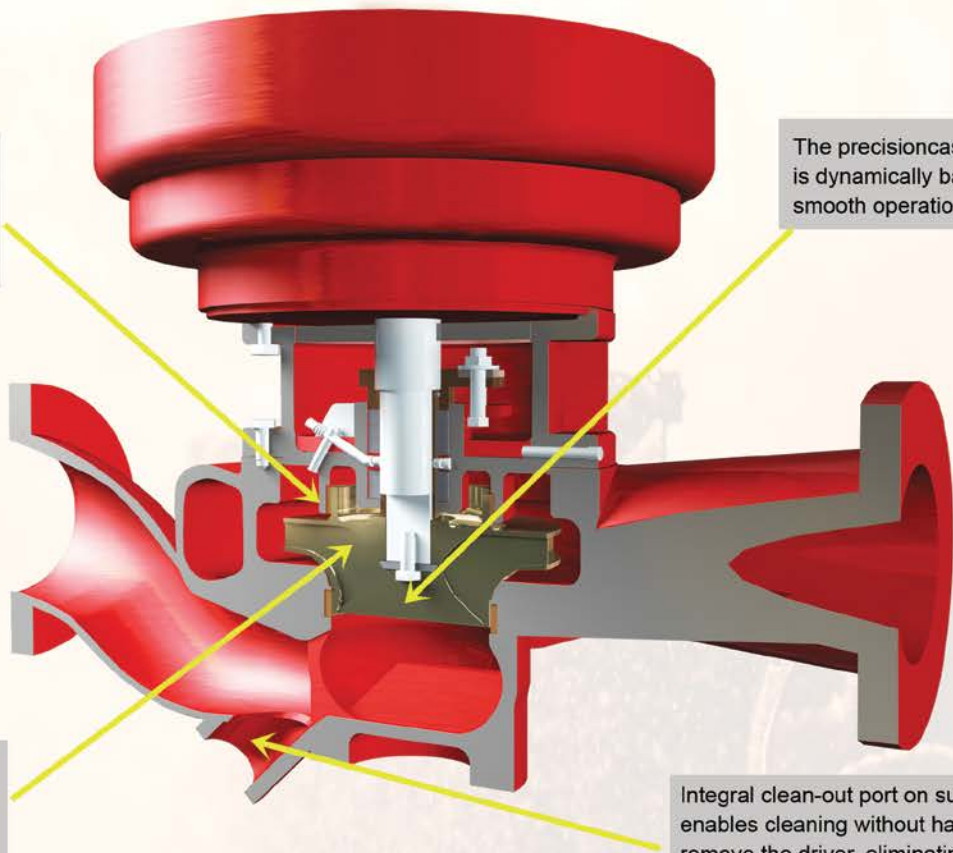
With pressure ratings from 40 psi to 150 psi (3 bar to 10 bar), Patterson's V.I.P. Vertical In-Line Fire Pumps deliver flow ranges of 50 gpm to 1,250 gpm (189 litres/min to 4,731 litres/min).





Balance holes on the back side of the impeller reduce thrust with hydraulic pressure balancing

The precisioncast impeller is dynamically balanced for smooth operation



Enclosed impeller design ensures optimal performance and service life

Integral clean-out port on suction side enables cleaning without having to remove the driver, eliminating need for NFPA 6.3.4.1 Pipeline Strainer



*The Pump People®*

## Vertical Turbine Fire Pumps

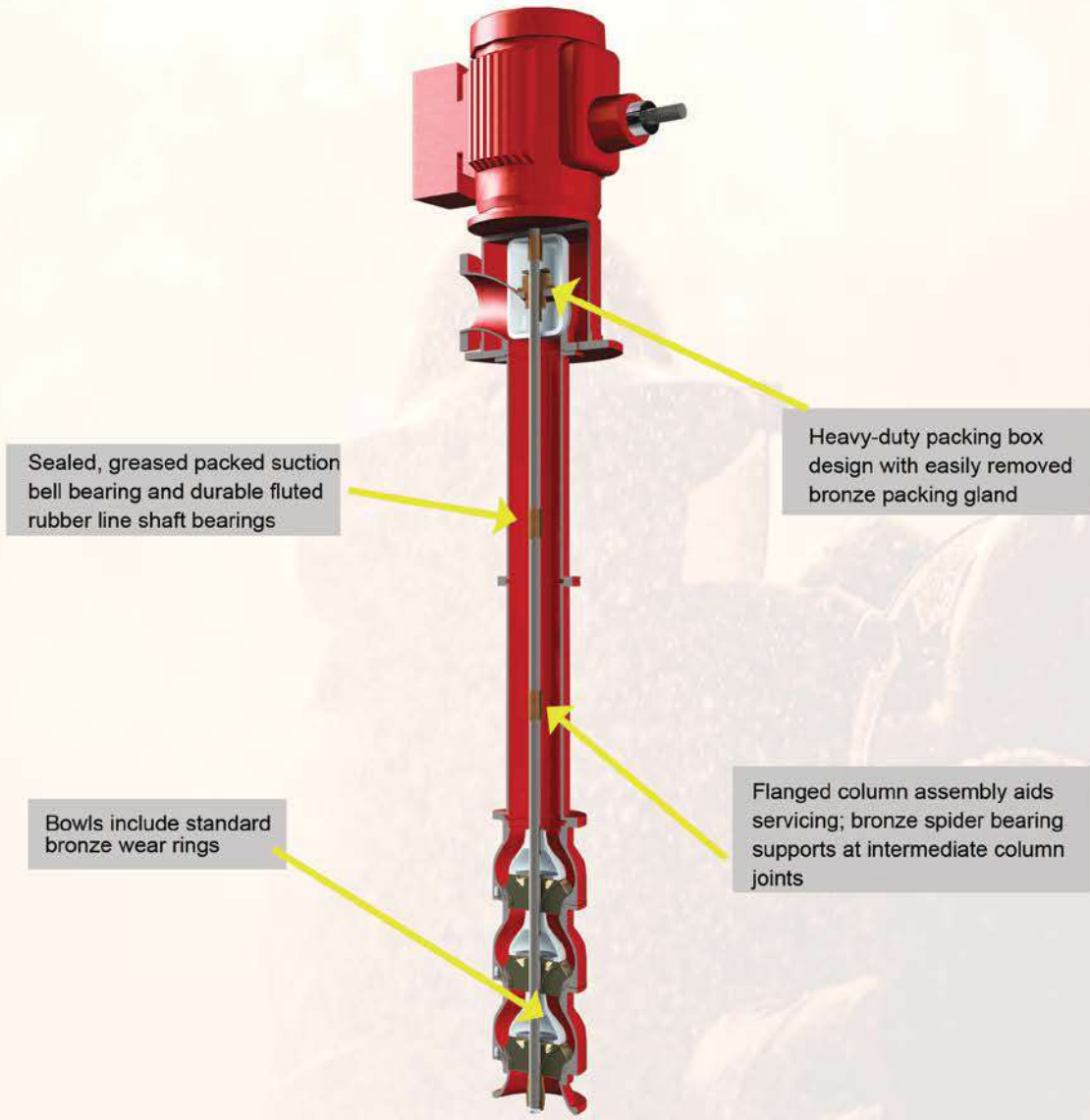
Flexible staging enables capacity requirements in minimum floor space.

Among the most versatile pumps in Patterson's arsenal, the Vertical Turbine Fire Pump stands on Patterson's more than 50 years of vertical pump expertise. Employing the latest design concepts and engineering technology, these pumps are ideal for fire fighting.

They can be staged as needed to meet specific pressure requirements, with lengths and construction adaptable to the application. And their space-saving vertical design minimizes floor space requirements. Standard construction offers cast iron discharge heads with a fabricated steel column, stainless steel head and bowl shafts, or alloy steel line shaft and cast iron bronze fitted bowls. Open line shaft construction is standard; special metallurgies are available.

No priming is necessary to provide flows from 500 gpm to 5,000 gpm (1,892 litres/min to 18,925 litres/min), with pressures in excess of 350 psi (24 bar).





*The Pump People®*

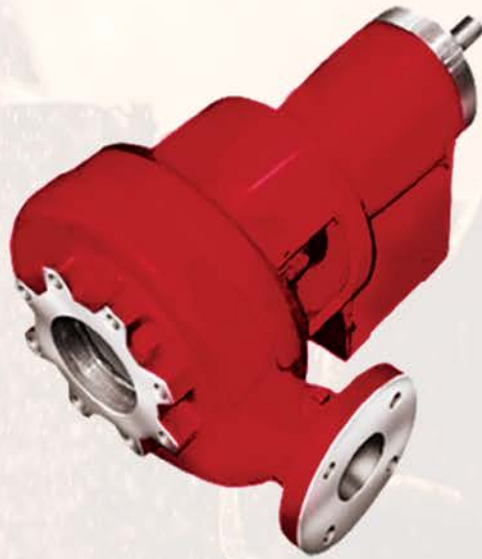
## End Suction Fire Pumps

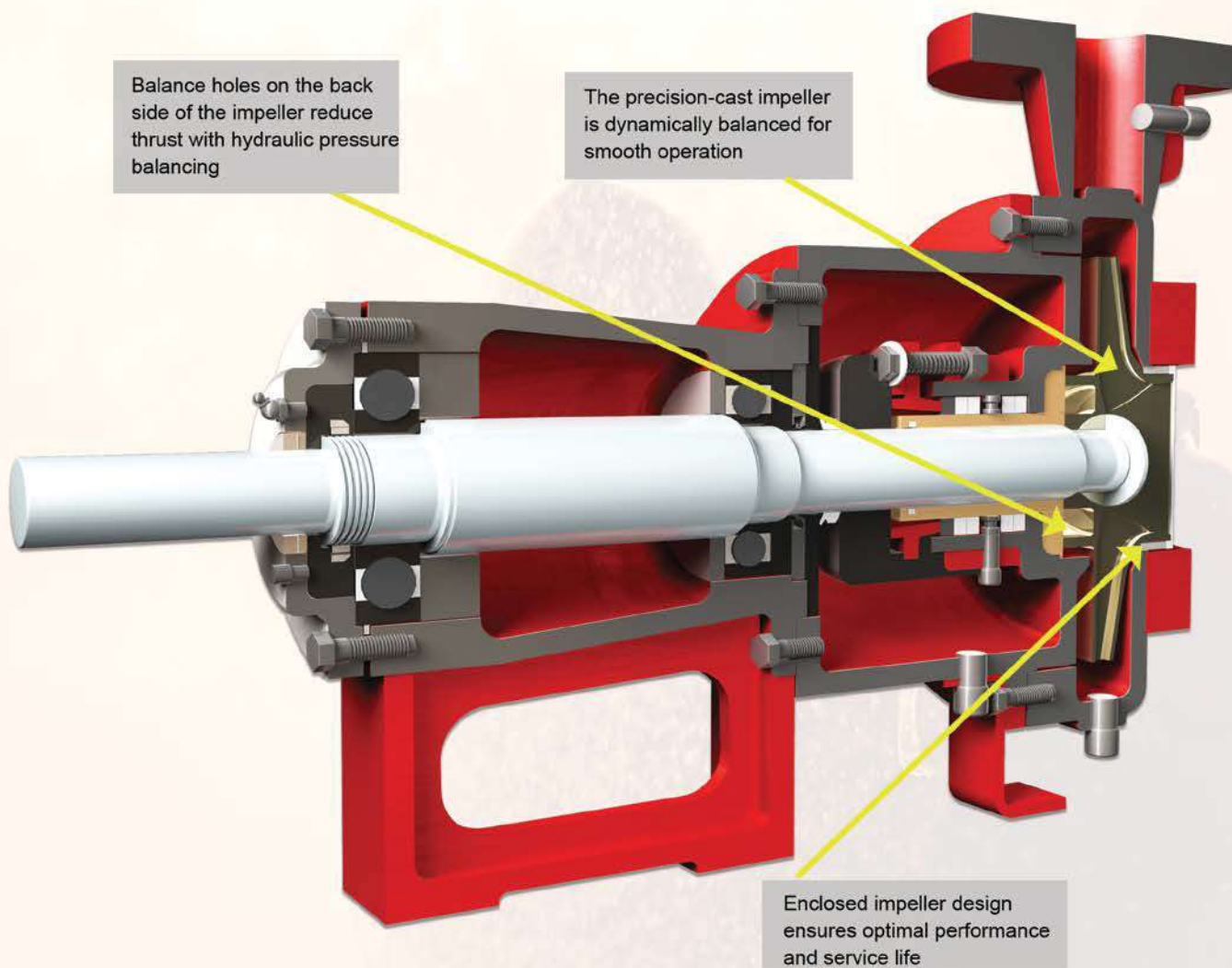
Deliver Patterson performance and reliability to new or existing installations.

Choose from two configurations—frame mounted and close-coupled, which can be flanged or threaded. These pumps are engineered to last with a precision-cast, dynamically balanced and enclosed impeller that minimizes vibration and maximizes bearing life. Engineered for lasting integrity with standard packing and a shaft sleeve, each unit is hydrostatically pressure-tested to 1-1/2 times shutoff before shipping.

Removing the rotating element without disturbing suction and discharge connections is easy because of our unique, back pullout design. Registered fits at the volute and volute cover maintain pump alignment.

Featuring pressure ratings from 40 psi to 150 psi (3 bar to 10 bar), Patterson's End Suction Fire Pumps are available in flow ranges of 50 gpm to 750 gpm (189 litres/min to 2,835 litres/min).





*The Pump People®*

## Pre-Pac® Fire Pump Systems

### Save on compact, custom-engineered pre-packaged systems.

The Patterson Pre-Pac is one of the most popular and reliable, self-contained fire protection pump systems on the market today. It is compact, highly efficient and cost effective. From high-density residential complexes to industrial and commercial sites, the Pre-Pac helps you properly protect the lives and property in your care even while facing budget constraints and space limitations.

#### Here's How

Created to provide highly efficient, quality fire control in less space and for less cost, the Pre-Pac saves money by reducing labor, engineering and installation costs. Each Pre-Pac is built in our environmentally-controlled facility to your exact specifications. Our knowledge, expertise and complete line of quality fire pumps and accessories ensures that your Pre-Pac system will provide the very best in pumping technology when you need it. We can also provide special metallurgies for seawater service.

Pre-Pacs are built on one-piece skids up to 12 ft by 40 ft (3.6 m by 12.2 m) with or without a housing enclosure. Larger units can be built and shipped in two or three pieces. All Pre-Pac systems feature Patterson's exclusive built-in lifting devices. They allow each unit to be lifted by a single crane while keeping the system level and preventing the base from flexing.

#### Complete Package

Whether you select a completely housed Pre-Pac or a base-mounted package, you can be assured that all sensing lines, fittings, pipes, drive, pump and controls are pre-engineered to meet, or exceed, all applicable codes. And all piping is hydrostatically tested before shipping.

On-time delivery is assured, and installation couldn't be easier. With or without a housing enclosure, we'll deliver your Pre-Pac to your site ready for a simple hook-up to water and electricity by your contractors.

The real muscle behind our high pressure pre-packaged systems lies within Patterson's reliable Split Case or Vertical Turbine Pumps, featuring discharge pressures of 40 psi to 390 psi (3 bar to 27 bar) and capacities of 150 gpm to 5,000 gpm (568 litres/min to 18,925 litres/min). When our Vertical In-Line and End Suction Pumps are employed, they offer lower pressures ranging from 40 psi to 150 psi (3 bar to 10 bar) and capacities of 50 gpm to 1,250 gpm (189 litres/min to 4,731 litres/min). And you can select from diesel, electric or dual-drive configurations to power your system.

Compact. Efficient. On time. In budget. Made to order with Patterson's quality products, single source reputation and reliable engineering expertise. Housing structure cutaway. That's the Pre-Pac.

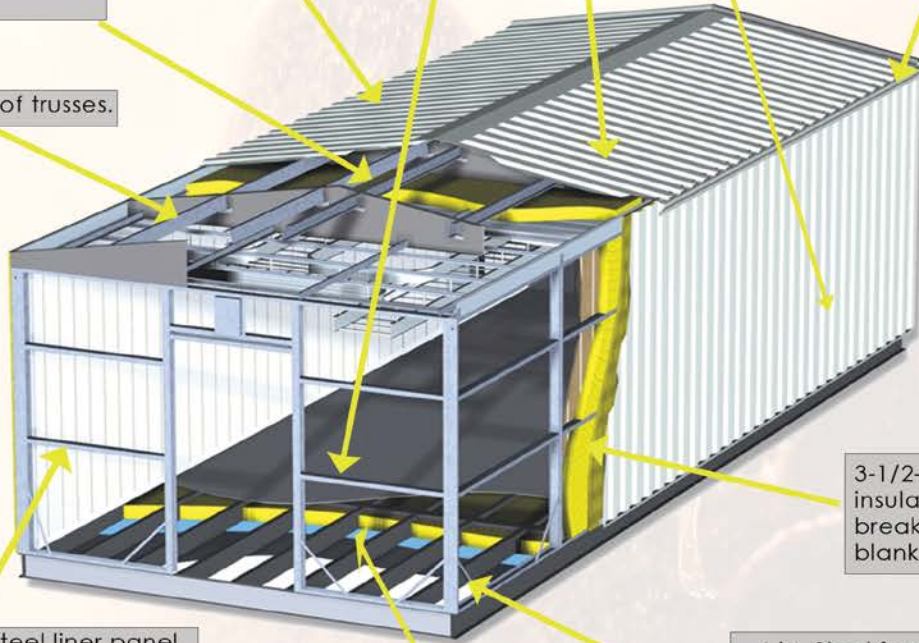
Available roof styles include gabled, hipped, and single slope. Roofing materials can be 18, 24, or 26-gauge ribbed steel or plywood with architectural shingles.

Kynar 500 – baked on polyester resin finish on roof, ceiling, exterior and interior wall panels – guaranteed against fading or chalking for 30 years.

Optional gutters and down spouts.

Galvanized steel roof purlins

Solid web roof trusses.

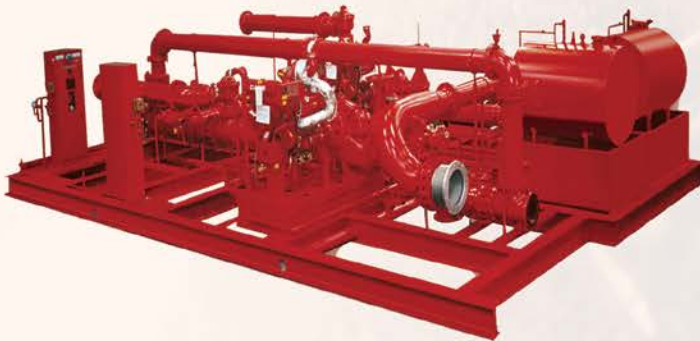


3-1/2-in. – R14 high density insulation with 1-in. thermal break consisting of 1-in. blanket insulation.

22-gauge steel liner panel with concealed fasteners or FRP laminated, 7/16-in. OSB plywood.

Optional slip resistant steel deck plate.

4-in. Steel framework consisting of 12, 14 & 16 gauge galvanized steel. Building load requirements are met prior to the installation of the roof and exterior panels.



*The Pump People®*

## Full Service Resources Don't Stop at the Pump

Testing, training, accessories and personalized service...get it all from Patterson.

Patterson's commitment to controlling fire around the world goes beyond our extensive line of quality fire pumps and pre-packaged systems. We perform testing procedures in a fully equipped test laboratory. This enables our engineers to verify design and performance specifications of our pumps.

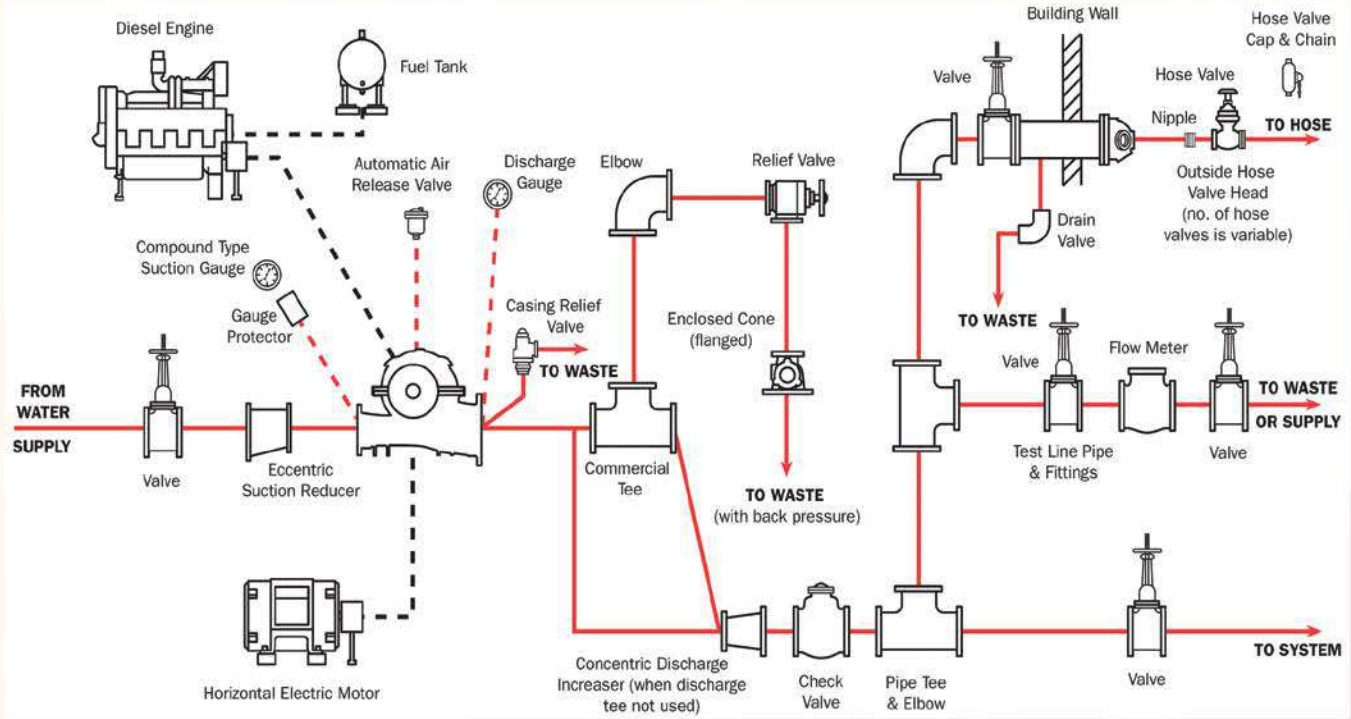
We are one of the few worldwide manufacturers who offer coordinated training in the proper operation and maintenance of our pumping products at our training facility in Toccoa, Georgia, U.S.A. And our teams of field and factory experts always stand ready to provide our customers with dedicated personal service, whether it's a complete pump rebuild, a single O.E.M. part or the answer to a simple question. Our fire pump technology experts will also help you identify and secure everything you need for a safe, secure installation.

Horizontal or vertical systems, Patterson engineers can specify and provide a full line of accessories to meet your needs. In addition to the accessories shown, Patterson can also furnish a host of standard accessory items from motor controls to battery chargers and fuel systems to splash partitions..

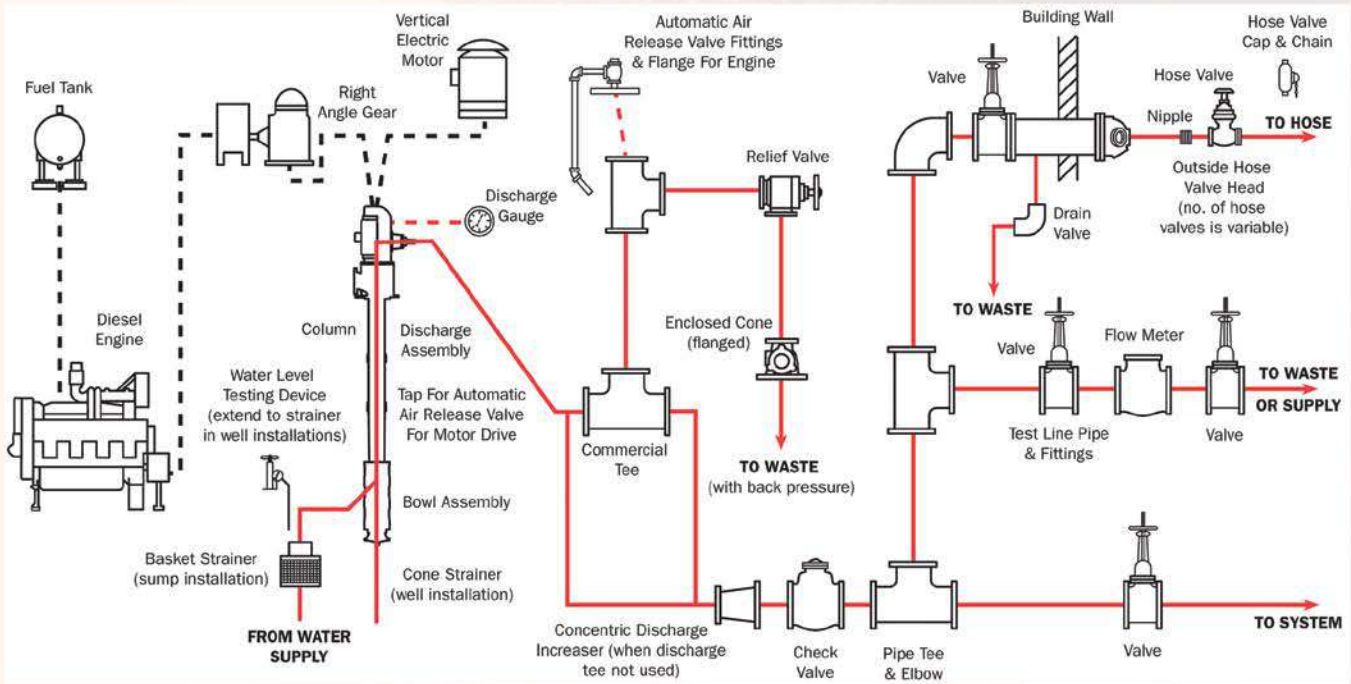




## Patterson Horizontal Fire Pump Accessories



## Patterson Vertical Fire Pump Accessories



## Pumping Technology for Tomorrow's World

Over the last century, Patterson built a firm reputation for reliable pump installation worldwide—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.

Patterson Pump Company leads America as one of the foremost designers and manufacturers of: Split Case Pumps; Fire Pumps; Axial and Mixed Flow Pumps; Vertical Turbine Pumps; End Suction Pumps; Vertical In-Line Pumps; solids handling pumps; engineered packaged systems; and exclusive Ludlow-Rensselaer Double-Disc Gate Valves.

**Proven Quality and Reliability for More Than a Century.** It is Patterson's centurylong dedication to the quality, innovation and reliability of its products that has inspired its high-quality, valued employees.

Patterson's design engineers are driven to continuously make incremental improvements throughout the company's product line and to develop leading-edge pumping technology.

Just as Patterson's highly trained machinists meticulously operate the cutting-edge, computer-controlled machining centers, vertical turning centers and computerized lathes—all to create Patterson products with high-precision workmanship in less time for faster delivery.

The quality and reliability of Patterson products doesn't stop at installation. Patterson is equally dedicated to providing the finest field

and factory services and maintaining the best service department in the industry.

**ISO 9000 Certification.** Patterson does more than strive for quality and reliability; Patterson has invested in the company's core values.

Patterson is ISO 9000 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.

**Six Sigma.** Patterson has also invested significant resources into its Six Sigma program. Six Sigma is an optimized level of performance. That's overall excellence—not only in a world-class finished product, but also in the administrative, service and manufacturing processes throughout the company.

Patterson's Six Sigma program is a proven methodology that standardizes the right tools and techniques, while providing working teams with step-wise progressions in applying these tools. The program has successfully enhanced Patterson's reputation for high-quality, reliable pump design, manufacture and service.



*Patterson Headquarters, Toccoa, Georgia, U.S.A. (above), which includes a Training Center, (right). Patterson Factory, Mullingar, Ireland (far right).*



*The Pump People®*



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