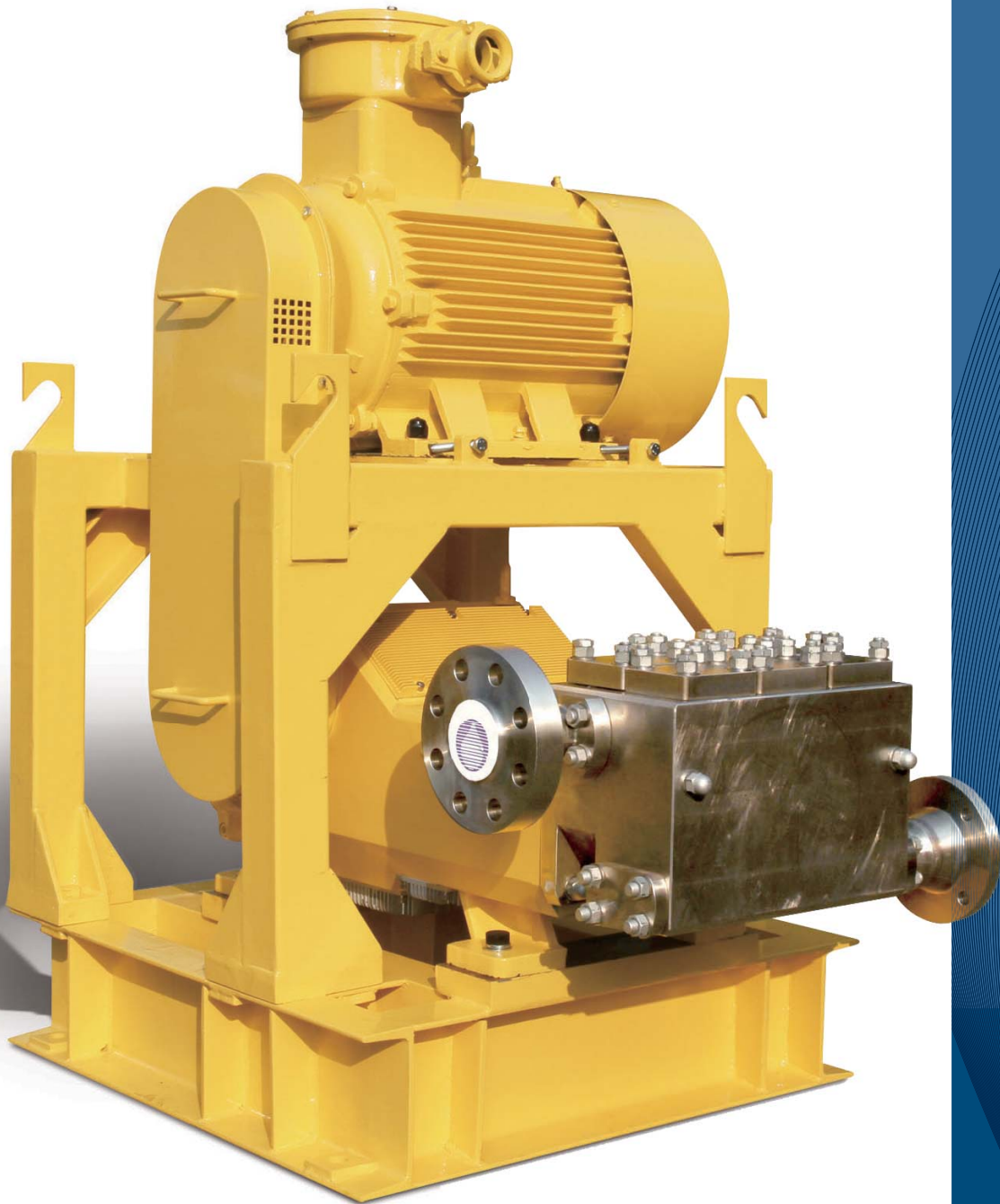


POWERROY[®]

API674-Compliant Positive-Displacement Reciprocating Pump



The Force in Pump Technology

POWEROYAL® pump technology

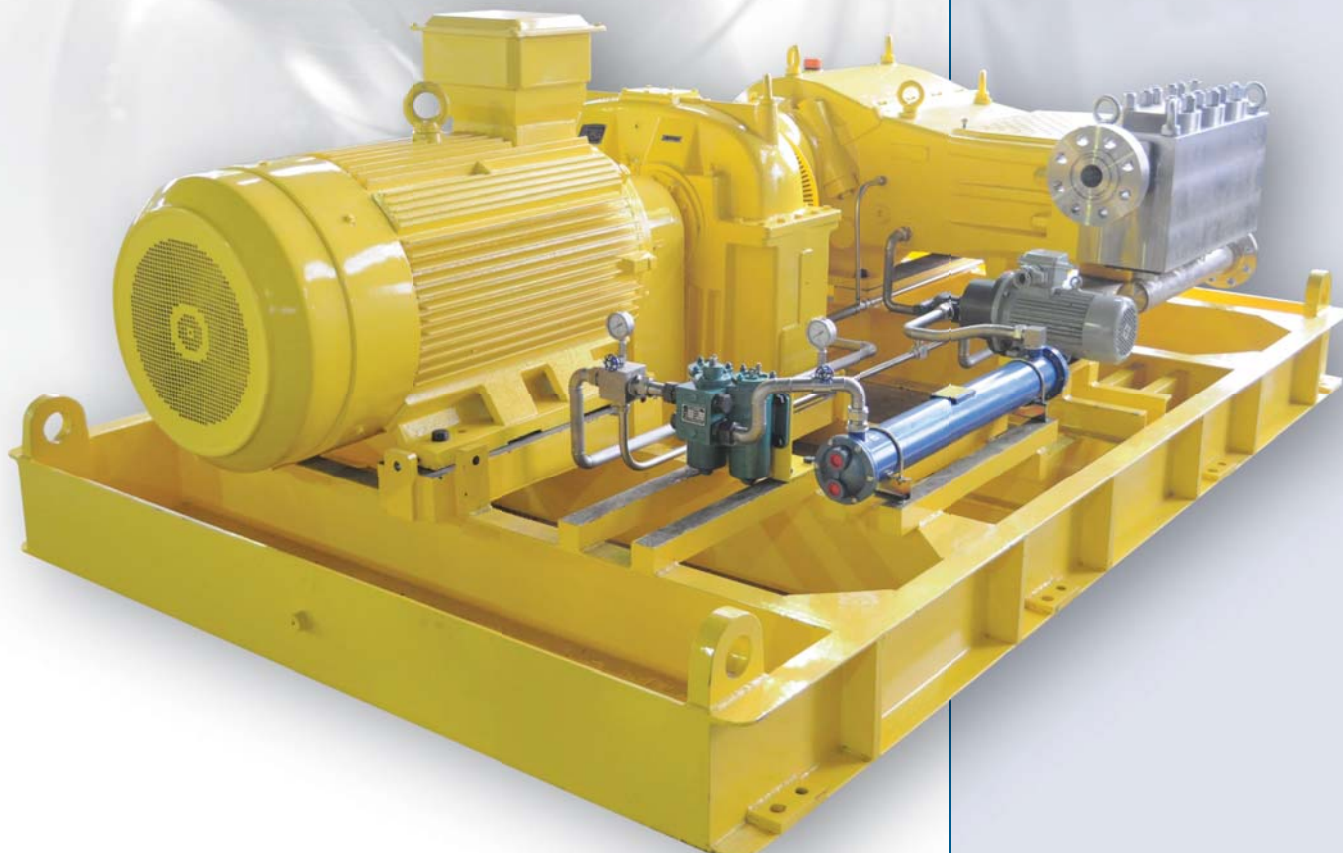
Optimize efficiency, minimize maintenance and improve performance

The Poweroyal® positive-displacement reciprocating pump provides outstanding performance in demanding conditions such as higher flow rates and high resistance. Powered to constantly move liquid within a fixed volume, this API674-compliant pump can handle acids, bases, corrosives, viscous liquids and abrasive fluids. The pump's optimal efficiency means it consumes less electrical power and it is well suited for high-pressure/high-volume applications. Available in four models to handle any pressure and flow rate combination, the Poweroyal pump is ready to take on the toughest conditions.

The pump's optimal efficiency means it consumes less electrical power and it is well suited for high-pressure/high-volume applications

Milton Roy is the trusted and established leader in controlled-volume chemical metering pumps

With over 75 years of experience, Milton Roy combines vast industry experience, a proven track record, and a culture of continuous technological improvement to provide customized solutions for all pump applications. Milton Roy delivers the market's most reliable, comprehensive range of metering pumps. Every one of our pumps is engineered to exceed expectations and is backed by a global network of highly trained field engineers and after-sales support that is second-to-none.



Applications

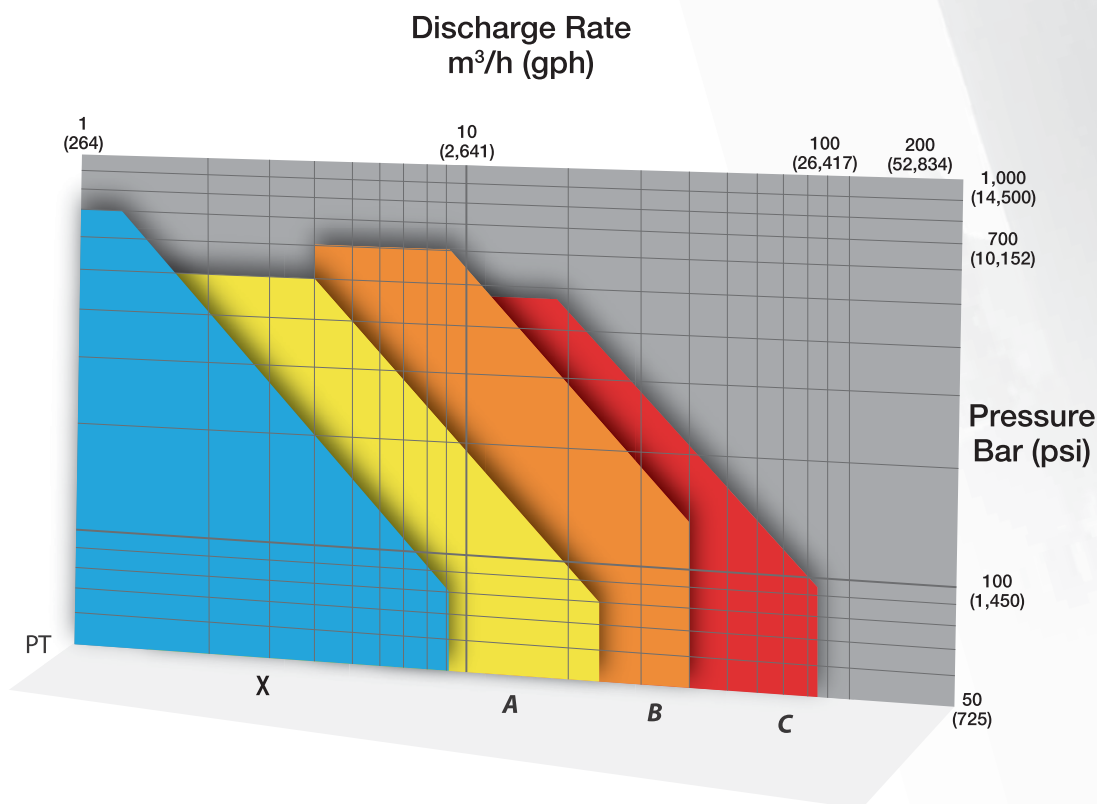
The Poweroyal pump is ideal in challenging environments such as:

- Oil and Gas: glycol injection, amine sweetening, methanol injection, CO₂ injection, oil transporting, water or polyacrylamide (PAM) injection, and hot-water injection.
- Hydrocarbon processing industries (HPIs) and chemical processing industries (CPIs): flush and desalting waters in refineries, condensate handling, and carbamate and ammonia fertilizers.

Benefits

- Designed for maximum performance in minimal space
- Reduced friction and stress
- Constructed of the highest quality of materials to minimize wear and tear
- Increased life through advanced technology and design

Performance chart



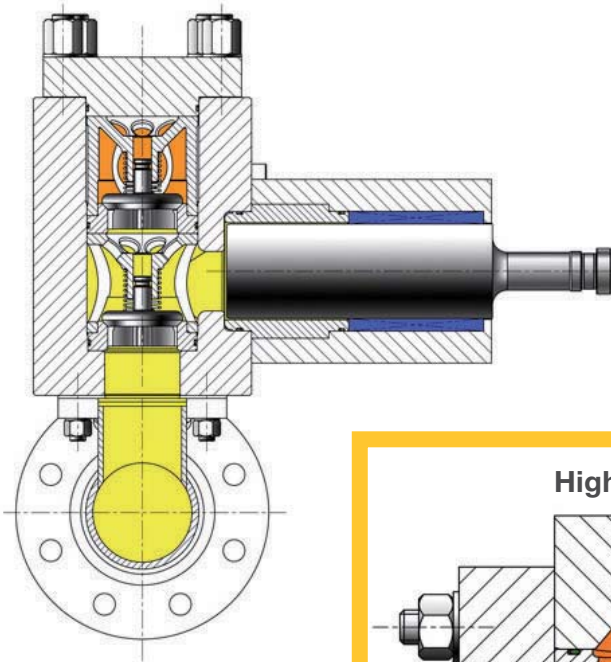
The Poweroyal pump is available in four models to meet your capacity needs: PTX, PTA, PTB, and PTC. This chart illustrates the performance parameters of the standard design at the maximum discharge rate of 124 m³/h (32,757 gph) and maximum discharge pressure 700 bar (10,152 psi) when the motor power is at maximum of 315 kW (422 HP) and an operating temperature range of -30°C to 150°C (-22°F to 302°F).

These values are based on a 50Hz motor. For a 60 Hz motor, the flow rate will increase by approximately 20%. Please consult your representative to verify.

Features and Benefits

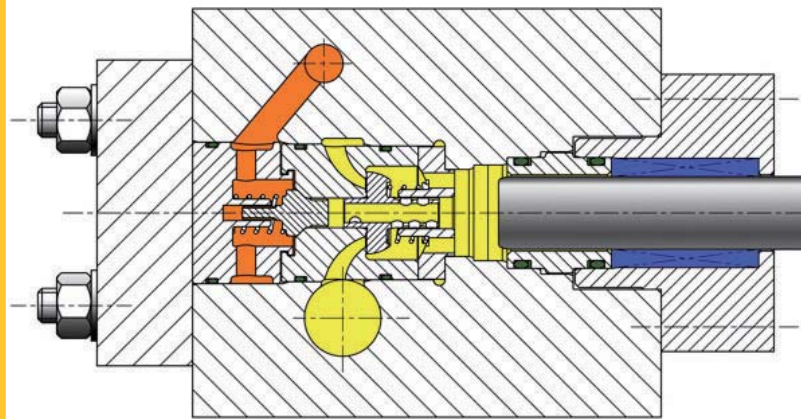
Minimize pump-head cracking from the inside out with liquid ends that are specially designed and fabricated.

Middle and low pressure liquid end



For middle and low pressures, the liquid end's design helps to minimize stress concentration. Our novel spark machining technique on the rounded intersection helps to reduce stress.

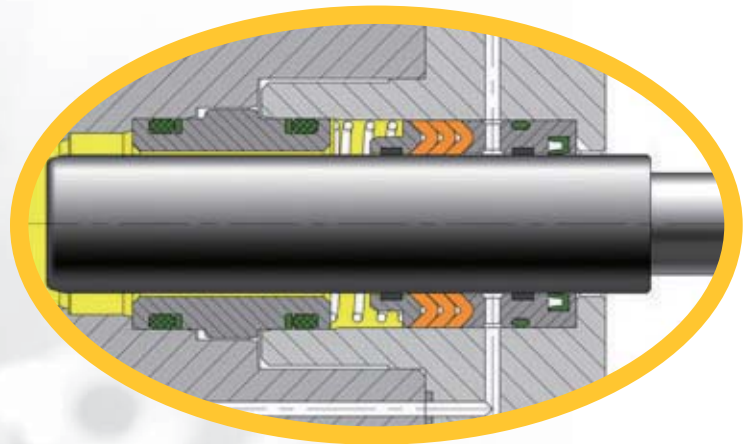
High pressure liquid end



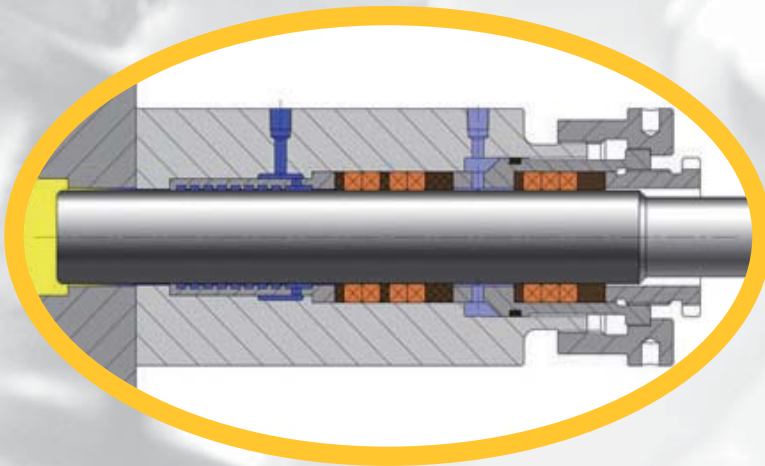
For high pressure, the pump's coaxial valve combines suction and discharge. This valve divides the pump head into high pressure and low pressure areas, which reduces the chance of fatigue failure.

Minimize unwanted leaking with seals designed to get the most protection for your pump.

The V ring seal is spring loaded, self-adjusting, and has an innovative internal leakage return system that is designed to reduce maintenance work loads. The V ring is available in two options to meet client's needs. The standard V ring seal is self-tightening and double sealed.



V ring seal standard design



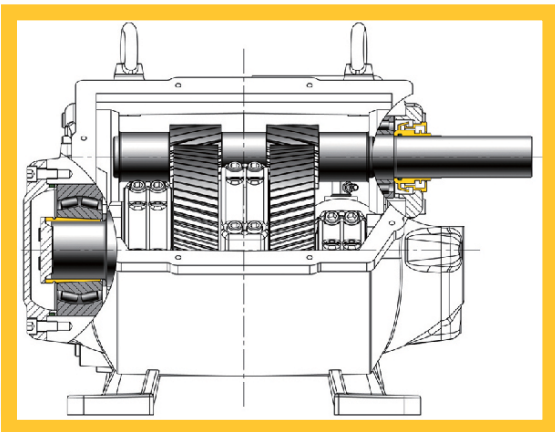
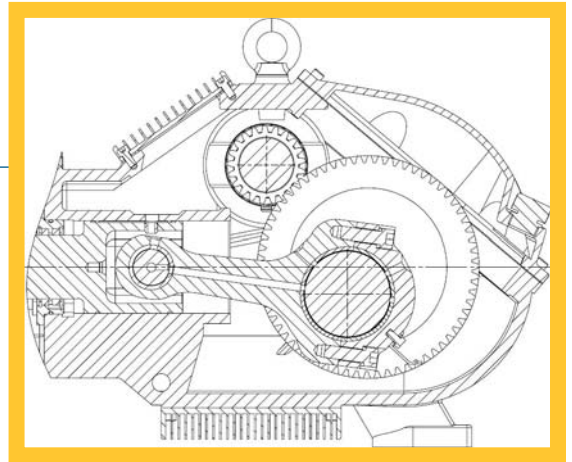
Special designed double seals

A specially-designed double seal is also available to add flush or lubrication between the primary and auxiliary seals.

Features and Benefits

Extend the life of your equipment with a lubrication system that reduces wear through unique designs.

The Poweroyal pump has innovative lubrication systems that use low-speed injection, which help to decrease the need for replacement. The lubrication oil is splashed to the entire drive end so that the system does not require external lubrication. Additionally, the pump offers a complete and independent external lubrication system. Less lubrication oil consumption means less operating costs.



Eliminate thrust, and extend bearing life efficiently with the integrated dual helical gear reducer

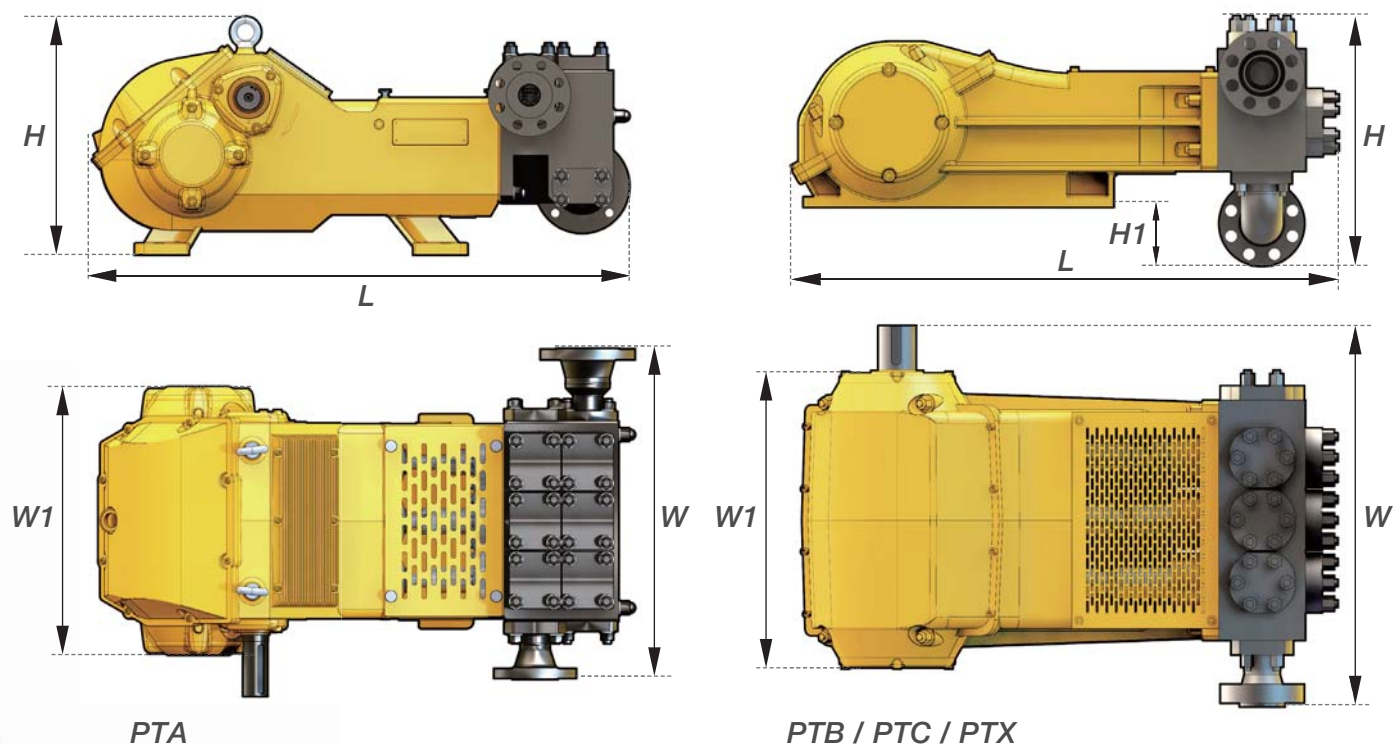
The gear reducer's compact design provides accurate transmission, reducing wear to the internal parts.

The internal gear reducer features a floating crankshaft and pinion shaft that are free of axial loads. Ideal for heavy loads, the self-aligning reducer also features double rows of rollers, tapered bore bearing, and a sparkfree labyrinth seal on the gear shaft.

An optional external speed reducer can be installed between the motor and pump. This independent low-noise reducer is ideal for large pumps and houses minimal parts, leaving maximum space for equipment and required maintenance.

Specifications

All Poweroyal pump models meet API674 standards.



Dimensions

MODEL	PTX	PTA	PTB	PTC
mm (in.)				
Length	860 (33.9)	1100 (43.3)	1600 (63.0)	1980 (78.0)
Width	575 (22.6)	700 (27.6)	1000 (39.4)	1400 (55.1)
Height	375 (14.8)	460 (18.1)	600 (23.6)	960 (37.8)
Width 1	420 (16.5)	540 (21.3)	640 (25.2)	1060 (41.7)
Height 1				200 (7.9)

Performance Parameters

- The maximum discharge rate of standard design: 124,000 l/h (32,757 gph)
- The maximum discharge pressure of standard design: 700 bar (10,152 psi)
- The maximum motor power: 315 kW (422 HP)
- Operating temperature range: -30° to 150° C (22°F to 302°F)

We are a proud member of Accudyne Industries, a leading global provider of precision-engineered, process-critical and technologically advanced flow control systems and industrial compressors. Delivering consistently high levels of performance, we enable customers in the most important industries and harshest environments around the world to accomplish their missions.



To learn more about the Poweroyal API674-compliant positive-displacement reciprocating pump, contact your local representative or visit our website.

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