CORNELL PUMP COMPANY

MP SERIES

MINING PUMPS DESIGNED FOR COARSE ABRASIVES

MP SERIES MINING

EFFICIENT BY DESIGN

Cornell Pump was founded in 1946 by five friends who set out to design a more reliable, durable, and efficient pump. Over the years, Cornell engineers have contributed significantly to industry advances in a centrifugal pump design with pump features like Cornell Redi-Prime®, Run-Dry™, and Cycloseal® systems.

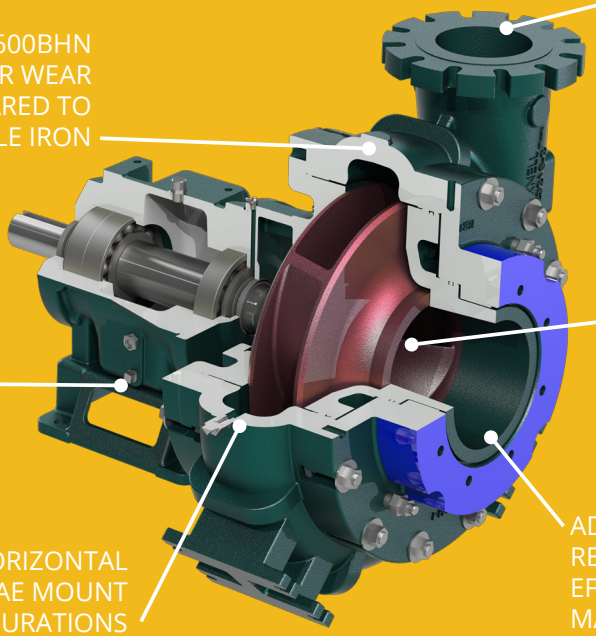
THE CORNELL MP SERIES: SOLID ENGINEERING, ADVANCED TECHNOLOGY

Cornell Pump Company's MP Mining Pump Series combines decades of innovative pump manufacturing and design with our highly-regarded, patented Cycloseal® technology. The MP pumps are specifically designed for coarse abrasive slurry applications such as sand, gravel, coal, manure, and mine dewatering by offering high-operating pressures.

LONGER WEAR LIFE

Compared to Cornell's standard solids handling pumps, MP series pumps last longer and are better suited for rugged environments. And while MP series pumps are designed for slurry, they also handle larger solids.

- Coal production
- Sand pumping
- Gravel transport
- Manure slurry
- Aggregate
- Tailings
- Oil sands
- Underground Ramp Development
- Tunnel Dewatering & TBM Support



MP SERIES MINING PUMPS: DESIGNED FOR COARSE ABRASIVES

MP SERIES SLURRY PUMPS

MP Series pumps are unlined slurry pumps designed for coarse abrasives and solids up to 4". The MP Series offers exceptional wear resistance for reduced maintenance and long life in harsh environments.

Cornell Slurry pumps are designed to withstand exposure to abrasive materials that can reduce pump life and cause seal failures. With proper maintenance, MP slurry pumps can last years longer than standard cast-iron pumps. MP Series pumps are suitable for mine dewatering, gravel transport, tailings, and many other applications within the mining industry.

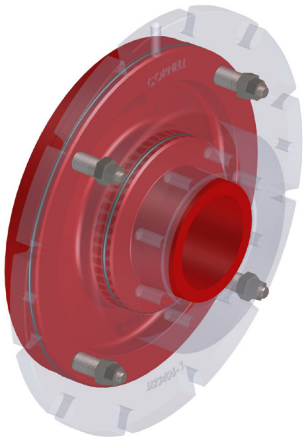
MP SERIES PERFORMANCE	
DISCHARGE SIZE RANGE	2" TO 10" (5 cm TO 20 cm)
MAX SOLIDS HANDLING	4" (10.16 cm)
MAX FLOW	9,000 GPM (2044 m^3/h)
MAX HEAD	660' (201 m)

MATERIALS OF CONSTRUCTION

- High-chrome white iron standard construction
- 17-4PH stainless steel shafts
- Hardness rating > 600BHN

FEATURES

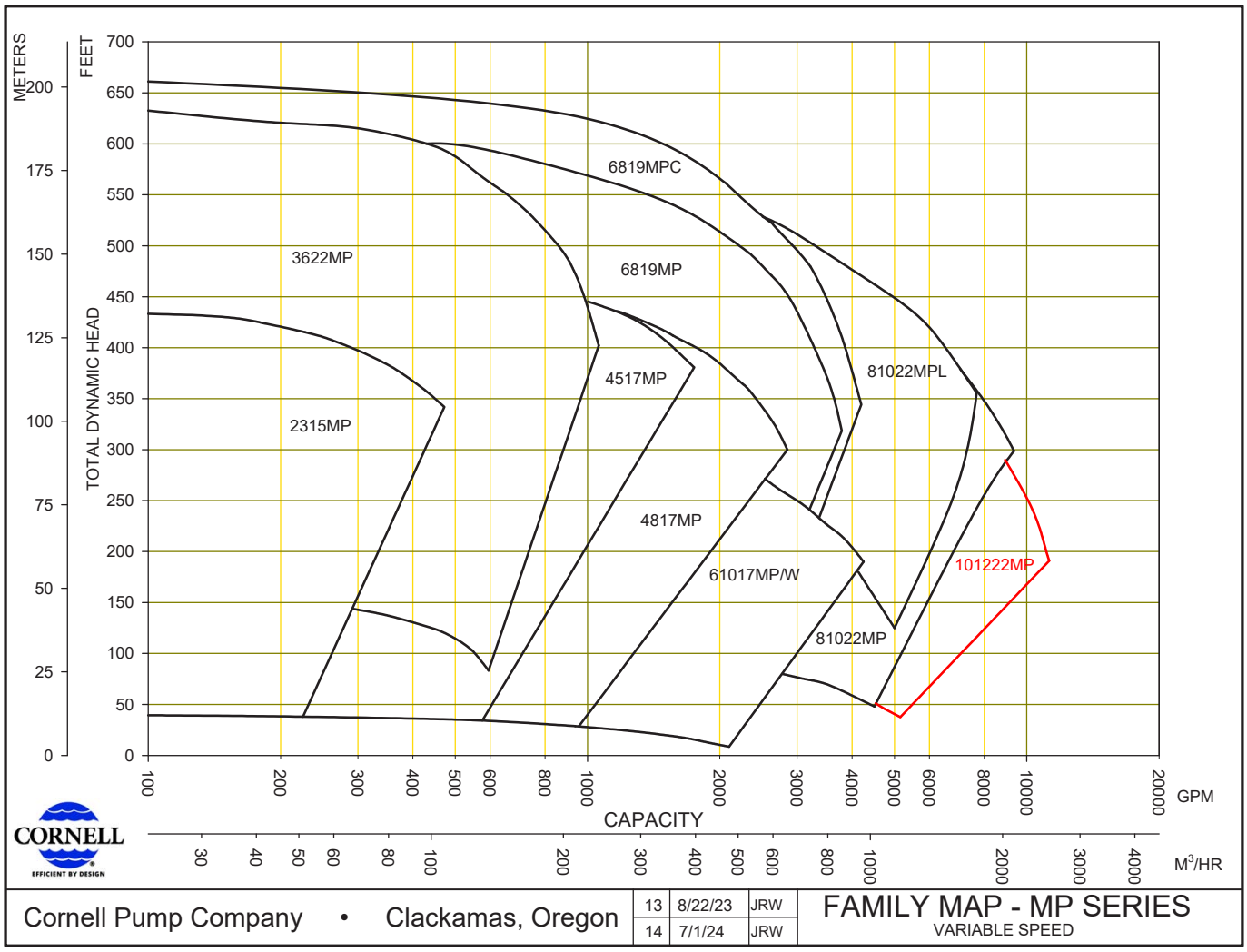
- Cycloseal® grit removal system
- High-efficiency design
- Run-Dry™ and Redi-Prime® Options
- Heavy-duty construction for aggressive applications
- Adjustable & replaceable wear plates
- Two-year warranty



MP Series pumps feature a replaceable, adjustable wear plate to regain lost efficiency while in service. Externally adjustable without moving piping or bearing frame.

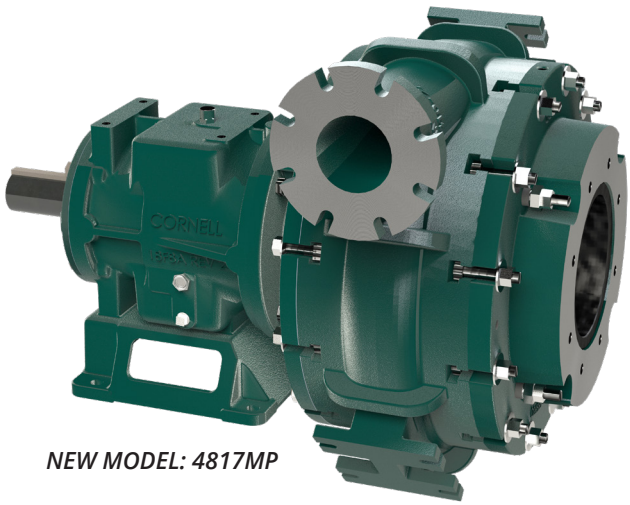
MP SERIES MINING

MP SERIES FAMILY CURVE



PUMP MODEL	MIN. FLOW	MAX. FLOW	MAX PRESSURE	%BEP
2315MP	60 GPM	470 GPM	250 PSI	52%
3622MP	120 GPM	900 GPM	400 PSI	55%
4517MP	250 GPM	1750 GPM	250 PSI	70%
4817MP	375 GPM	2750 GPM	250 PSI	68%
6819MP	750 GPM	3800 GPM	375 PSI	74%
6819MPC	800 GPM	4300 GPM	375 PSI	77%
61017MP	500 GPM	4250 GPM	250 PSI	79%
81022MP	1400 GPM	9000 GPM	300 PSI	83%
81022MPL	1400 GPM	7600 GPM	300 PSI	83%
101219MP*	1500 GPM	2750 GPM	300 PSI	76%
101219MPW	1500 GPM	6800 GPM	300 PSI	74%

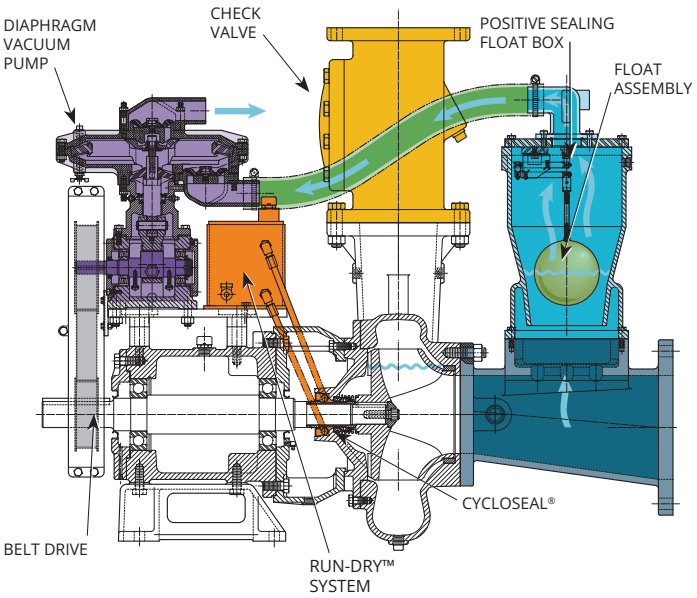
*Preliminary model; specifications subject to change.



NEW MODEL: 4817MP

MP SERIES OPTIONS

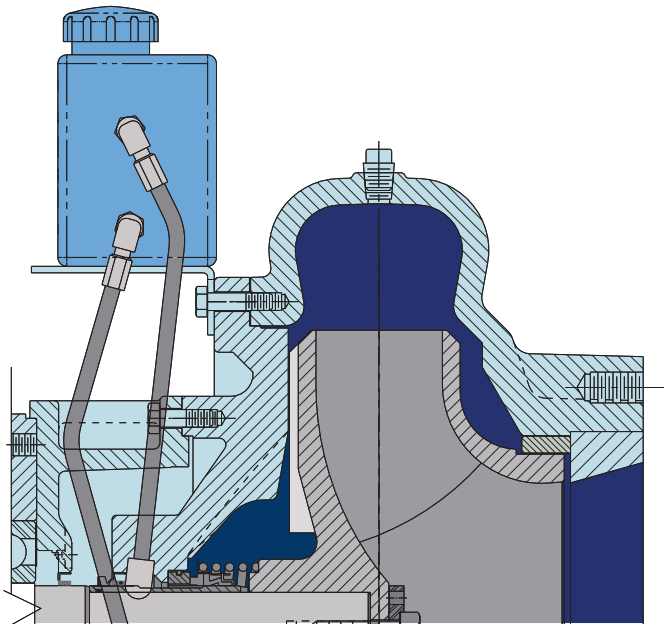
REDI-PRIME®



CORNELL REDI-PRIME PUMPS feature a patented, fully automated system for rapid priming or re-priming without constant monitoring. With oversized suctions, they deliver high flow, reduced friction losses, and enhanced suction lift, making them easily handle large solids and air/liquid mixtures. Redi-Prime also maintains premium hydraulic efficiency to reduce energy consumption. The priming system was designed with the environment in mind, utilizing a positive sealing float box and a diaphragm vacuum pump to prevent water carry-over and contamination. Most Cornell pumps can be easily fitted with the Redi-Prime system.

- Fully automatic priming and repriming
- Handles air/liquid mixtures with ease
- Rapidly primes and re-primes completely unattended
- Environmentally safe priming system designed to prevent product leakage
- Premium hydraulic efficiency for reduced energy consumption

RUN-DRY™

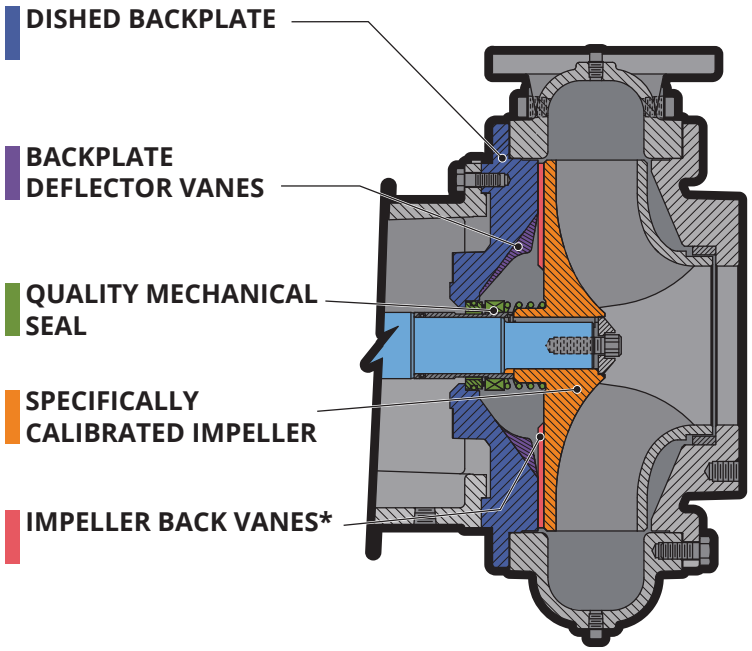


CORNELL'S RUN-DRY SYSTEM is a solution for applications where the pump might run dry. It includes an auxiliary gland and oil reservoir that lubricate the seal faces and prevent dry running during priming, re-priming, or standby operation. The system features continuous circulation and cooling of the lubricant and seal faces, and allows the pump to run dry for hours without damaging the mechanical seal.

- Run dry for hours without damaging the seal
- Cools and lubricates seal faces
- Ideal for applications that could operate in a dry condition
- Usable in conjunction with Cycloseal® and Redi-Prime®

61017MP with Run-Dry™

MP SERIES OPTIONS



CYCLOSEAL® — THE SEALING SYSTEM INTEGRAL TO CORNELL PUMPS

Cornell's MP pumps come equipped with the patented Cycloseal sealing system, which leverages cyclonic action to extract solids and abrasive substances from the seal area while simultaneously purging air and gas pockets. This groundbreaking technology extends the lifespan of the seal and eliminates the requirement for venting or flushing water.

No Flush Water or Packing: Cycloseal technology eradicates the need for packing or flushing water with its backplate and wide vanes, leading to cost savings, less service time, and no messy drips.

Extended Seal Life: Cornell's Cycloseal is highly durable in harsh conditions such as manure slurry, starch recovery, clear water, food processing, and self-priming applications, with the potential to triple the expected seal lifespan.

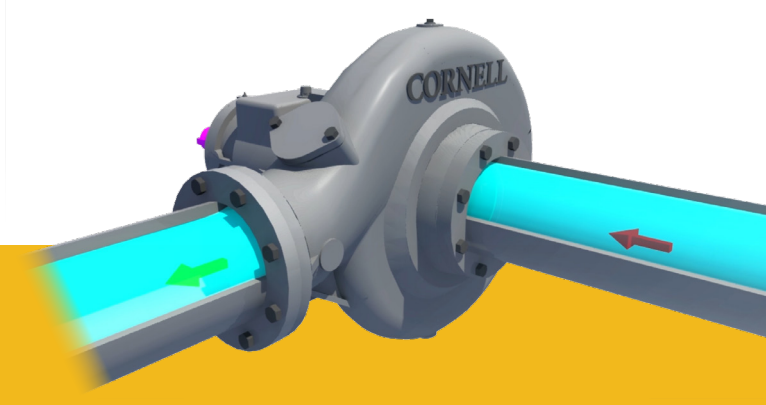
Run-Dry™ Option: Cornell's Cycloseal system-equipped pumps have an optional Run-Dry feature that lubricates the seal faces even without liquid in the pump casing. The Run-Dry feature is indispensable in scenarios where the pump must operate dry for an extended duration or may lose prime unexpectedly without being turned off.

System Savings: Cycloseal system eliminates the need for external water flush, filters, grease cups, or piping typically found in pumps with packing or mechanical seals.

Better for Abrasive Applications: Cycloseal is more durable than packing and regular mechanical seals that come into contact with grit and other substances, as it prevents solids from entering the seal area, resulting in less seal wear.

Greater Reliability: With positive seating, end users can easily detect when the Cycloseal is correctly installed, leading to longer service intervals due to its increased ability to withstand grit.

Maintenance Savings: A more durable seal results in less pump downtime and lower maintenance expenses throughout the pump's lifespan.



Watch the Cycloseal video online to see it in action:
http://www.cornellpump.com/cycloseal-system/

ADDITIONAL MINING PUMPS

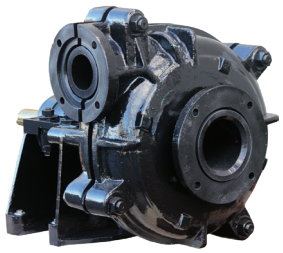
HYDRAULIC SUBMERSIBLE PUMPS

Cornell's DuraSub™ uses a heavy duty pump end and bearing frame for direct coupling to a hydraulic motor. The DuraSub™ has a modular design which allows standard Cornell pump ends to be used as a Hydraulic submersible pump.

- Available for most Cornell pump models
- Hydraulic motor driven
- Various adapter plates available for hydraulic motor fit
- Heavy duty shaft / bearing frame assembly and wet end construction
- Premium wet end efficiencies reduce horsepower requirements
- Heavy duty pumps ends for long service life and reliability

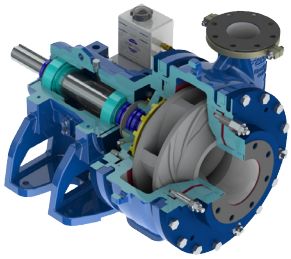
MX SERIES HIGH PRESSURE PUMPS

Flows to 825 feet TDH and flows to 8000 GPM. They are designed to handle high-head applications while providing a long service life. The new high-head MX Series pumps have multi-vane, enclosed impellers designed for industry-leading efficiency. The MX Series pumps are available in horizontal frame & SAE-mounted configurations.



SP SERIES SLURRY PUMP

Cornell's SP Series Slurry pump brings patented **Cycloseal®** technology to the mining process industry. Adding to the diverse range of mine dewatering pumps, The SP Series Slurry pump offers a Cornell solution to abrasive applications throughout the mill process.



SM SERIES SLURRY PUMP

The SM Series of pumps from Cornell is designed to handle a wide range of slurry applications and are especially effective for series pumping. These pumps are robust and durable with their unlined high chrome white iron wet ends. They are equipped with Cycloguard® and Cycloseal® innovations that extend their seal life and keep solids away from the seal area for reduced wear. The pumps are designed to operate at a maximum working pressure of 600 PSI.

STX SERIES

Cornell has redesigned our popular self-priming line to have the best efficiencies in the industry. Combined with our patented **Cycloseal®** back plate technology, the pump is durable, powerful, and energy efficient.

- 5 year warranty
- Cycloseal technology
- Premium efficiency
- 8 percent better performance than leading competitor

CORNELL PUMP COMPANY

MARKET & PRODUCT LINE

CORNELL
EFFICIENT BY DESIGN

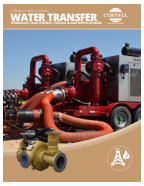
AGRICULTURE

FOOD PROCESS

INDUSTRIAL

MINING

MUNICIPAL



WATER TRANSFER

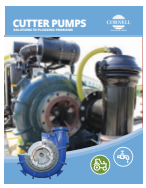
REFRIGERATION

CONSTRUCTION

SLURRY

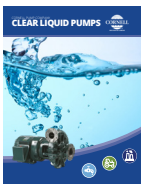
SLURRY SM

MANURE



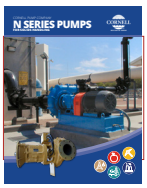
CUTTERS

SELF PRIMING

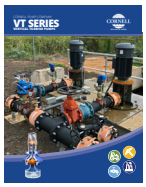


CLEAR LIQUIDS

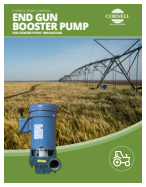
MX SERIES



N SERIES

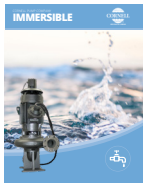


CYCLONE™



EDGE™

HYDRAULIC SUBS



IMMERSIBLE

CD4MCU

RUN-DRY™

PRIMING SYSTEMS

CYCLOSEAL®

24 - MI - BR - 201

CORNELLPUMP.COM

ANAB ACCREDITED ISO 9001 MANAGEMENT SYSTEMS CERTIFICATION BODY
Certified to ISO 9001:2015
TÜVRheinland® Precisely Right.

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