



Euromacchine
PUMPING INNOVATION

MANURE PUMPS

Solids handling & MP Series



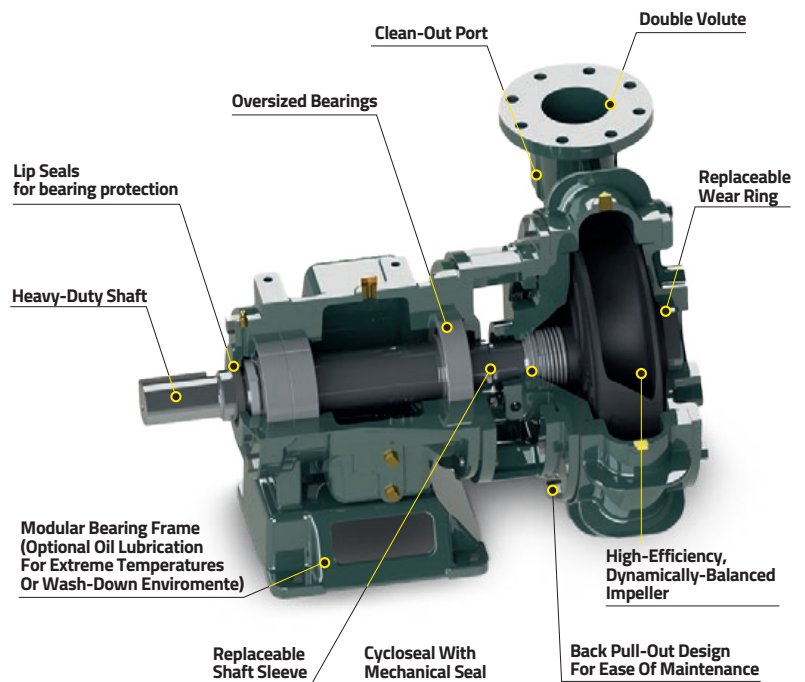


4NHTB Tractor Pump

SOLID HANDLING PUMPS FOR MANURE TRANSFER, INJECTION & SPREADING

Cornell offers over 60 models of heavy duty Solids Handling Pumps for the toughest slurry applications.

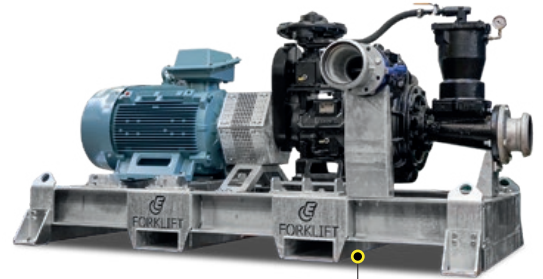
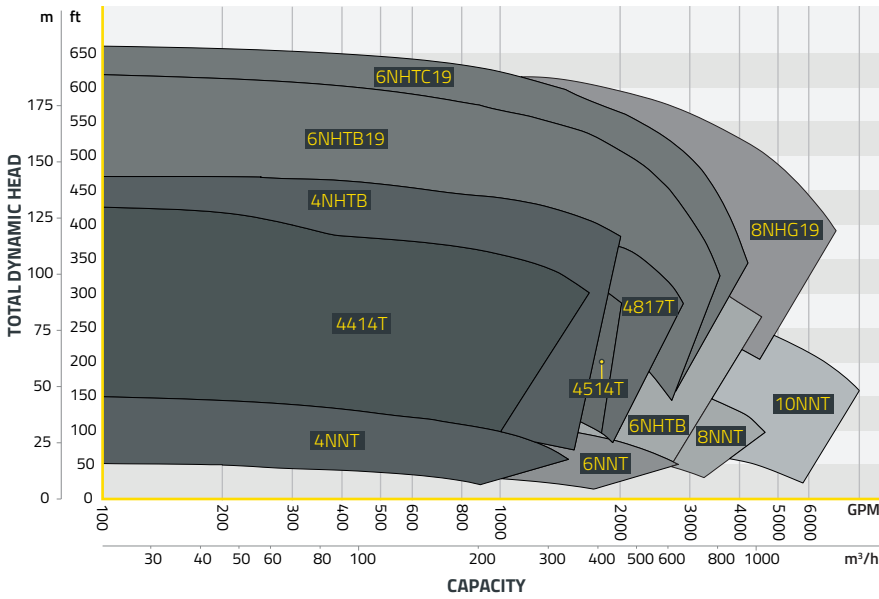
LEGACY MANURE PUMPS		
DISCHARGE SIZE RANGE	100 - 254 mm	4" - 10"
MAX SOLIDS HANDLING	85,8 mm	3.38"
MAX FLOW	1.814 m ³ /h	7,985 GPM
MAX HEAD	203 m	665'
SEAL TYPE	MECHANICAL SEAL WITH CYCLOSEAL®	
IMPELLER	ENCLOSED, SEMI-OPEN, OR DELTA	
CONFIGURATIONS	VARIED	



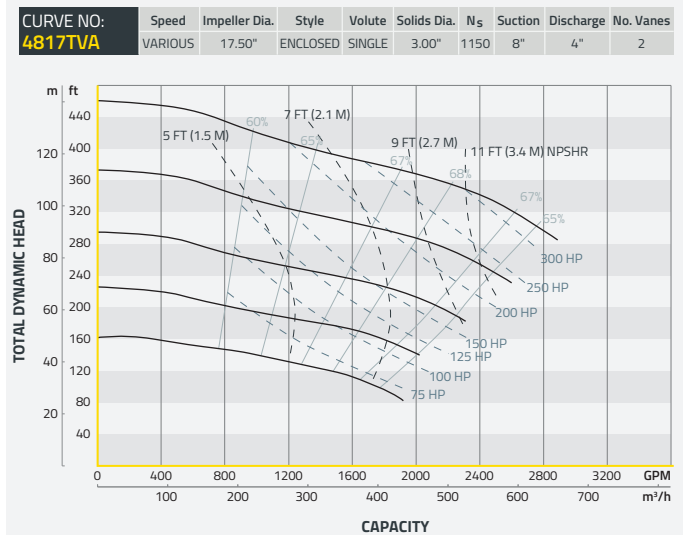
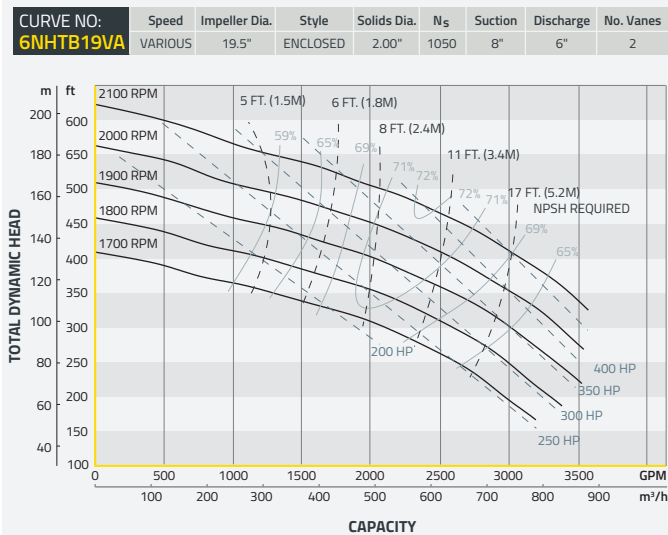
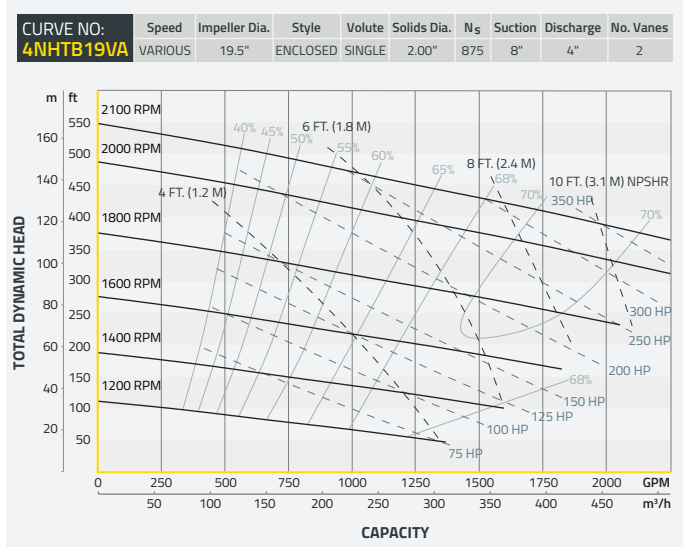
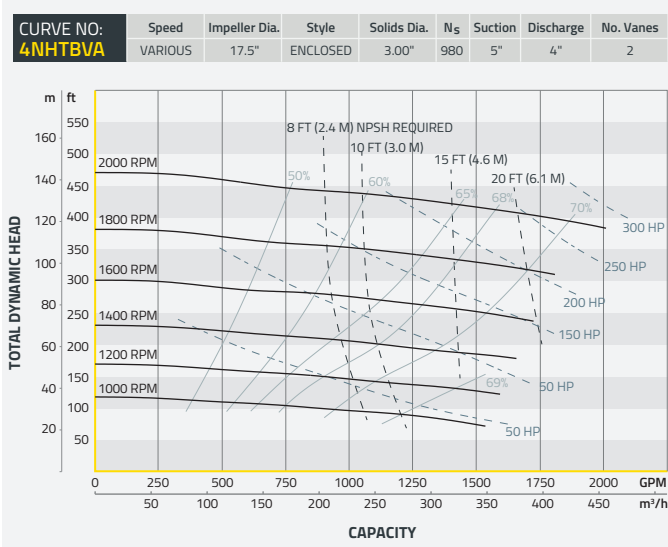
Cornell Manure Slurry pumps are iron or ductile iron construction with hard face mechanical seals for extended seal life. Optional materials are available for abrasive applications.

- ✔ High hydraulic efficiency
- ✔ Cycloseal® design
- ✔ Rigid, heavy walled construction
- ✔ Back pullout design
- ✔ Large bearings and shaft
- ✔ Impeller backvanes reduce axial thrust
- ✔ Replaceable wear rings and shaft sleeves
- ✔ Dynamically balanced impeller
- ✔ Low maintenance, long life
- ✔ Low power costs
- ✔ No seal venting or flushing required
- ✔ Ease of maintenance
- ✔ Smooth operating
- ✔ Solids handling capability
- ✔ Run-Dry™, Redi-Prime®, and cutter blades available
- ✔ Versatile mounting configurations

LEGACY MANURE PUMPS



4414T + 90kW

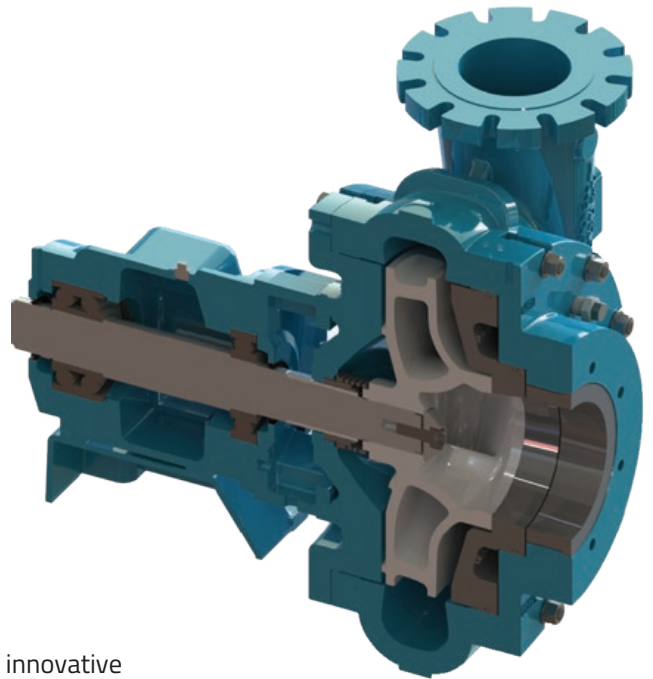




MP SERIES PUMPS ARE DESIGNED FOR COARSE ABRASIVES

The MP series offers exceptional wear resistance for reduced maintenance and long life in harsh environments.

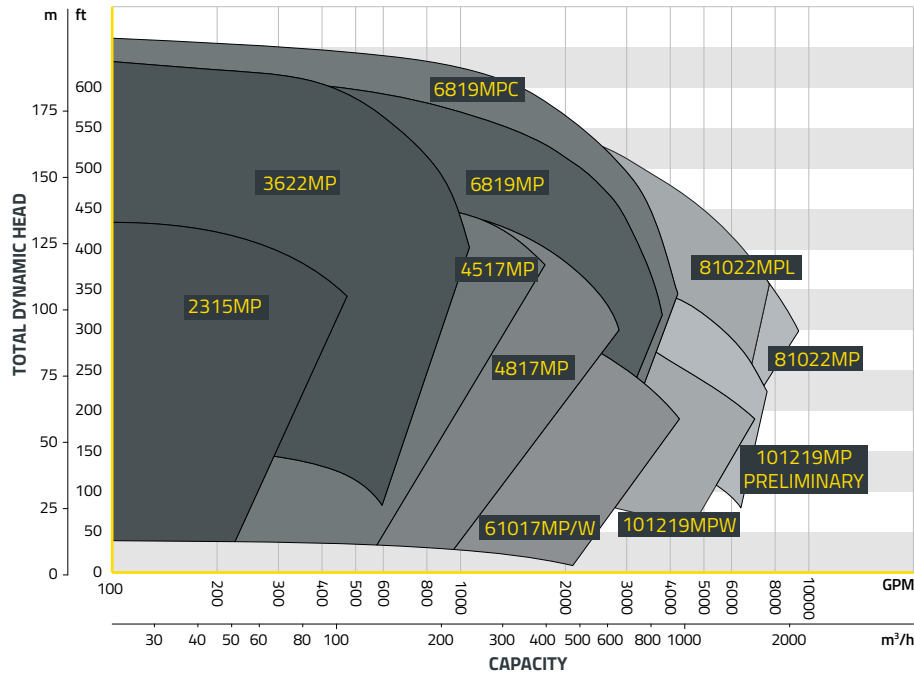
MP SERIES		
DISCHARGE SIZE RANGE	50 - 254 mm	2" - 10"
MAX SOLIDS HANDLING	101 mm	4"
MAX FLOW	2.044 m ³ /h	9,000 GPM
MAX HEAD	198 m	651'
SEAL TYPE	MECHANICAL SEAL WITH CYCLOSEAL®	
IMPELLER	ENCLOSED	
CONFIGURATIONS	HORIZONTAL FRAME AND SAE MOUNT	



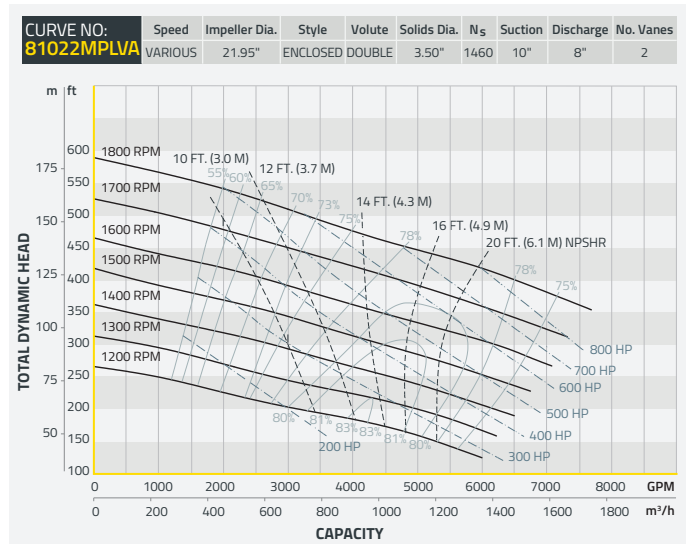
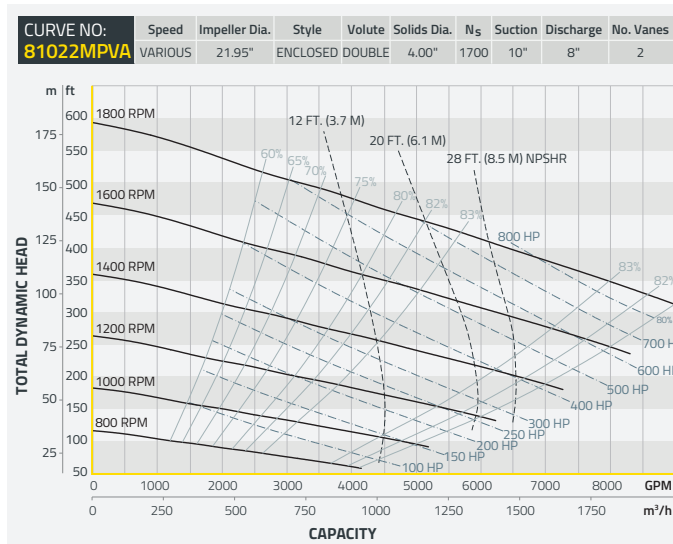
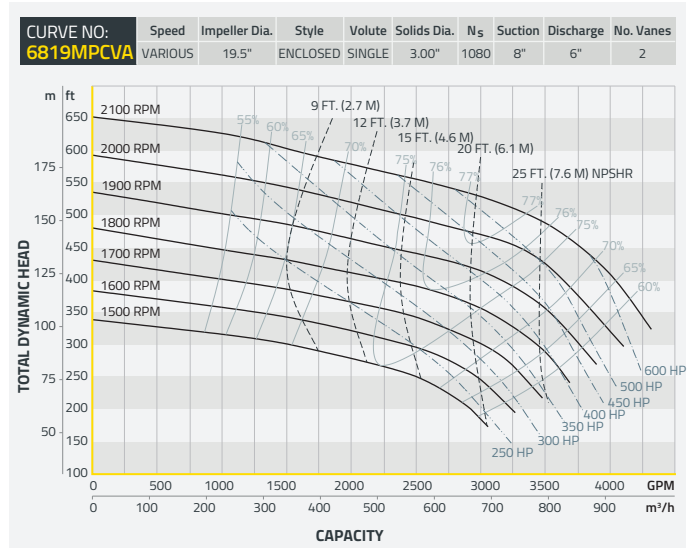
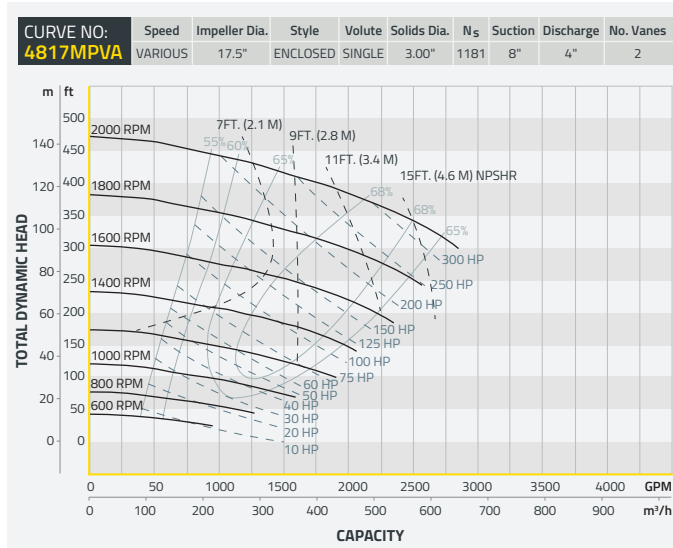
Cornell Pump Company's MP Pump Series combines 70 years of innovative pump manufacturing and design, with our highly-regarded patented Cycloseal® technology. Offering high operating pressures, the MP pumps are specifically designed for coarse abrasive slurry applications such as sand, gravel, and manure.

- ✔ Run-Dry™ and Redi-Prime® compatible
- ✔ High-chrome white iron or heat-treated ductile iron pump-end
- ✔ Thick cross-sections for abrasive wear and high operating pressures
- ✔ Front adjustable wear plate to regain lost efficiency while in service
- ✔ Replaceable suction liner and wear plates at point of maximum wear
- ✔ Heavy duty construction for aggressive applications with 17-4PH Stainless shaft
- ✔ Hardness rating > 600 BHN provides better wear properties compared to standard cast or ductile iron
- ✔ Heavy duty bearing frame with double angular contact thrust bearing. Oil or grease lubricated

MP SERIES PUMPS



- ✓ Extended wear resistance for abrasive applications
- ✓ Handle solids up to 101 mm
- ✓ Work in tough environments
- ✓ Cornell's patented Cycloseal®, Run-Dry™ and Redi-Prime® features available



SOLIDS HANDLING IMPELLERS

ENCLOSED TWO, THREE, AND FOUR PORT SPHERICAL SOLIDS

Large spherical solids pass through the pump while offering optimal head and efficiency.

- ✔ 51 mm or larger solids
- ✔ 76 mm to 254 mm discharge sizes
- ✔ Flows to 2045 m³/h and heads to 202 m



THREE OR FOUR BLADED, SEMI-OPEN SLURRY

Cutting action allows the semi-open impeller to handle the worst slurries at high heads.

- ✔ 25 mm or larger soft solids
- ✔ 31,75 mm to 254 mm discharge size



DELTA STYLE STRAW AND STRINGY MATERIALS

Trailing edges on impeller vanes reduce low pressure areas. Vortices are created which pass solids through the impeller. No "hair pinning" or hang-up of stringy materials. Larger solids are broken up.

- ✔ For difficult solids
- ✔ 76 mm to 254 mm discharge size
- ✔ Flows to 1135 m³/h and heads to 122 m



BLADE CUTTER CLOGGING MATERIALS

Rotating and stationary cutter blades mounted on the suction end break up clogs and stringy material before they reach the impeller while keeping efficiencies as high as possible.

- ✔ Minimal energy consumption (4% or less)
- ✔ Hardened, adjustable cutter blades
- ✔ Minimize flow restrictions



WASTE WARRIOR CUTTER SEVERE CLOGGING

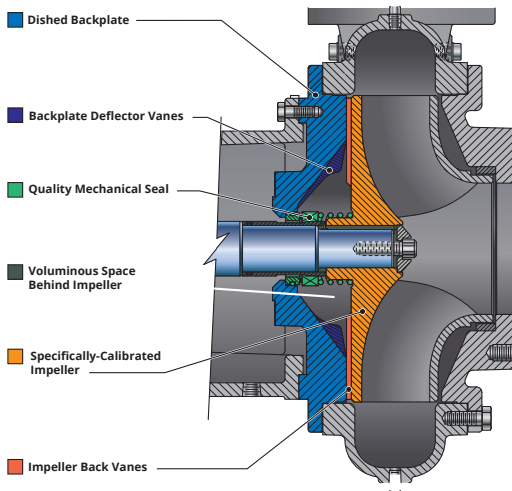


A more aggressive solution to help eliminate troublesome clogs caused by stringy material. A scythe-like edge sweeps the area where the suction pipe meets the volute to keep materials from clogging in the impeller area.

- ✔ Limited energy consumption (around 8%)
- ✔ Hardened cutter blades
- ✔ Insignificant flow restrictions



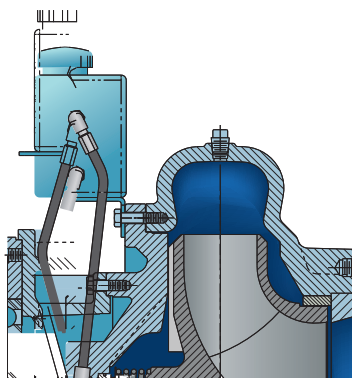
MORE FROM CORNELL



CYCLOSEAL® SYSTEM FOR GRIT REMOVAL

Cycloseal is a patented system with a self-contained single mechanical seal with a dished line. The Cycloseal pattern cast into the pump backplate in conjunction with contoured impeller back vanes and a dished backplate creates pressure gradients that move solids and entrained vapor away from the seal faces. The Cycloseal system is only available on Cornell pumps.

- ✔ Removes grit from pump seal compartment
- ✔ Extends pump seal life three times standard mechanical
- ✔ No drips/mess at application site
- ✔ Reduced maintenance costs
- ✔ Increased uptime and reliability



RUN-DRY™ SEAL PROTECTION SYSTEM

Cornell's Run-Dry system consists of an auxiliary gland and oil reservoir that keeps the seal faces lubricated and prevents dry running of the seal faces during priming, re-priming, or standby operation.

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



STX/H/L SELF-PRIMING PUMPS

STX/STL/STH Series of popular self-primers to have the best efficiencies in the industry. Combined with our patented-Cycloseal® back plate technology, the pumps are durable, powerful, and energy efficient. Heads up to 84 m and efficiencies to 81%. Simple to operate, Cornell Self Priming series are wet-primed (fluid in the pump cavity at initial operation), then self-priming as long as there is water above the eye of the impeller.

HYDRAULIC SUBMERSIBLE PUMPS

Many of Cornell's solids handling models can be configured as hydraulic submersible pumps. The modular design couples a Cornell high-efficiency pump end with a heavy-duty bearing frame and reliable hydraulic motor.



- ✔ Heavy duty shaft / bearing frame assembly and wet end construction
- ✔ Premium wet end efficiencies reduce horsepower requirements
- ✔ Solids handling > 76 mm
- ✔ Heads up to 23 m / Flows up to 1589 m³/h





Euromacchine S.r.l.

Via dell'Artigianato, 38
31047 Ponte di Piave (TV) - Italy

 (+39) 0422 149 86
 info@euromacchine.it

www.euromacchine.com