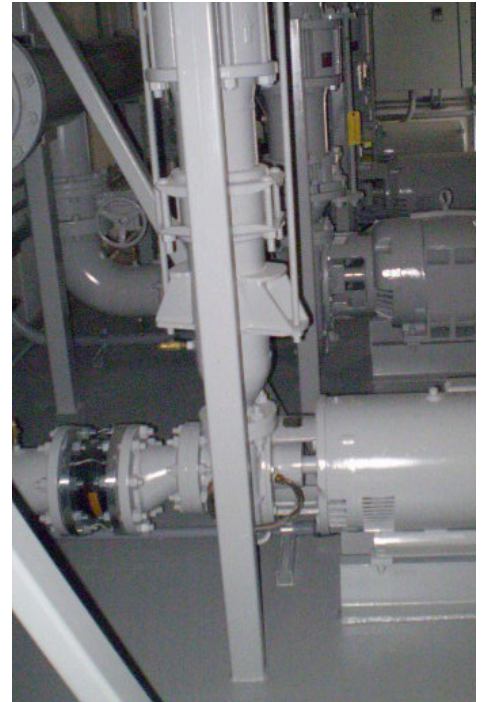


CORNELL PUMP COMPANY

# CLEAR LIQUID PUMPS



# CLEAR LIQUID PUMPS



## Clear Liquid Pumps

Cornell's clear liquid centrifugal pumps are commonly used in agricultural irrigation, industrial plants, and municipal applications and are known for their superior efficiency. These pumps are designed to save energy costs, potentially saving thousands of dollars annually. With a wide range of options available, Cornell offers clear liquid pumps that meet or exceed efficiency standards for centrifugal pumps.

### W, Y, R, & H SERIES PUMPS

Cornell clear liquid centrifugal pumps are found in many applications, and these pumps are designed to deliver best-in-class efficiency. Depending on operating hours, fuel, and horsepower required, you can save thousands per year in energy costs. Cornell offers a large selection of clear liquid pumps that meet or exceed optimum efficiency standards for centrifugal pumps.

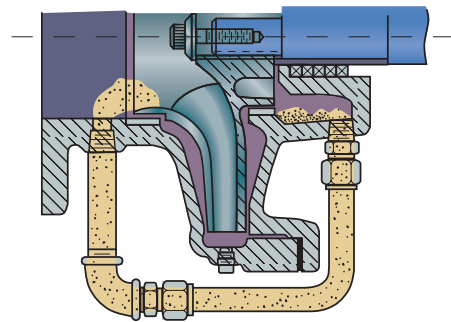
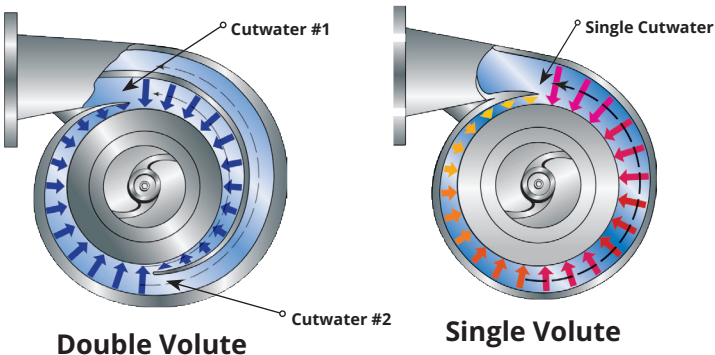
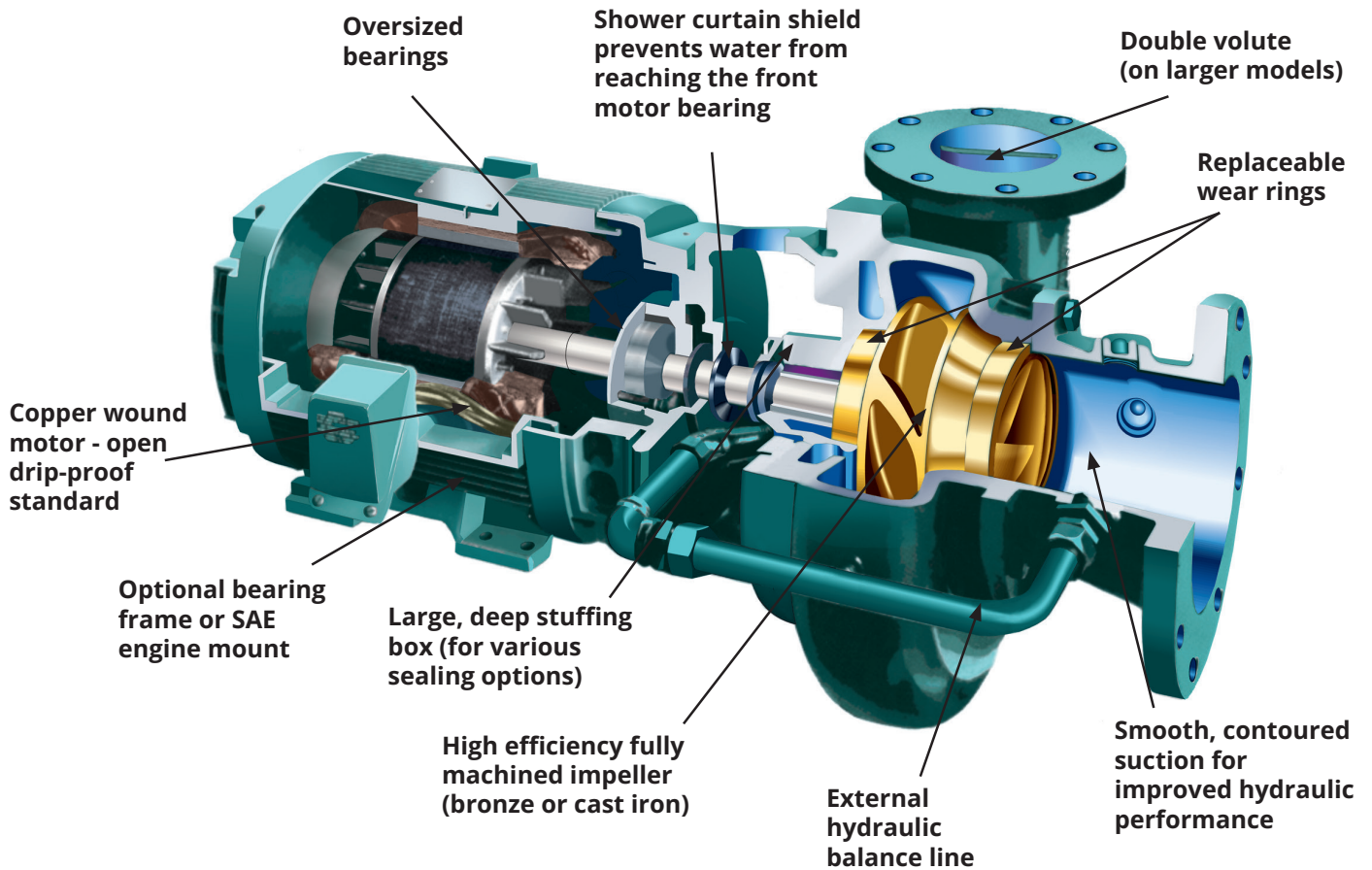
- Robust Construction
- High Efficiencies
- Multiple Mounting Configurations
- Wide Product Selection

### FEATURES

- Replaceable wear rings
- Double volute
- Various mounting configurations available, including close coupled, frame mounted, and engine-mounted
- Robust Mount Frame with mounting surfaces
- Shower curtain shield on close-coupled models
- Oversized bearings
- High efficiency, fully-machined impellers
- Efficiencies up to 89%
- Heavy walled castings
- External balance line
- Two-year warranty



# CLEAR LIQUID PUMPS



## DOUBLE VOLUTE

More than 30 years ago, Cornell was the first in the industry to introduce the double-volute system. This innovation effectively balances forces within the pump, reducing radial load, shaft deflection, and fatigue. Doing so eliminates shaft breakage and extends the service life of packing and mechanical seals, wear rings, and bearings while ensuring high hydraulic efficiency.

## EXTERNAL HYDRAULIC BALANCE LINE

Cornell utilizes an external hydraulic balance line to reduce axial loading on the impeller, shaft, and bearings by equalizing pressure between the impeller hub area and the pump suction. This system also helps move sand and silt from the stuffing box to the low-pressure area at the pump suction, reducing wear on the wetted parts.

# CLEAR LIQUID PUMPS

## ENERGY EFFICIENCY

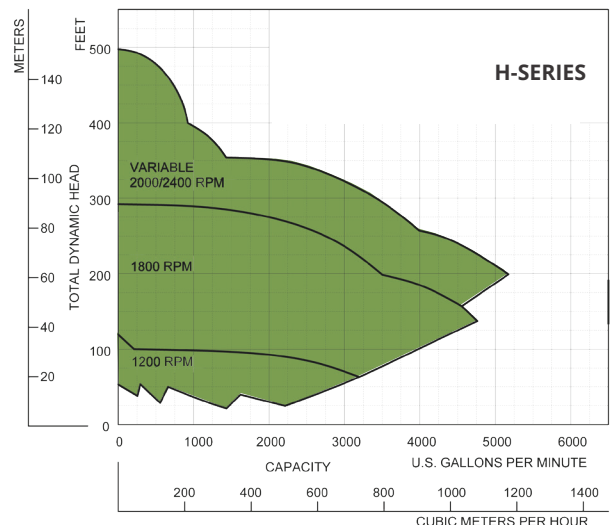
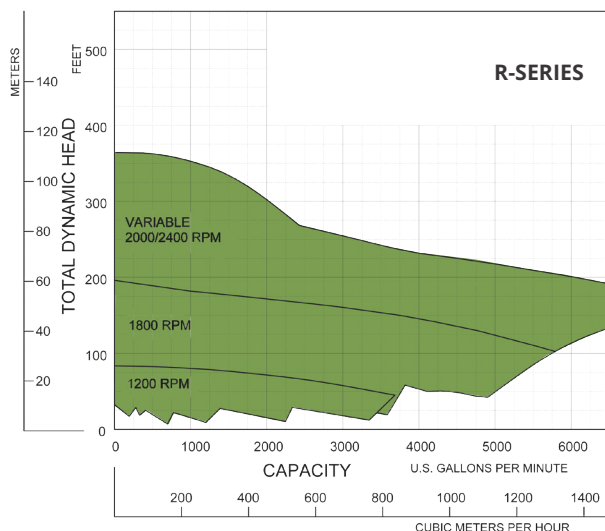
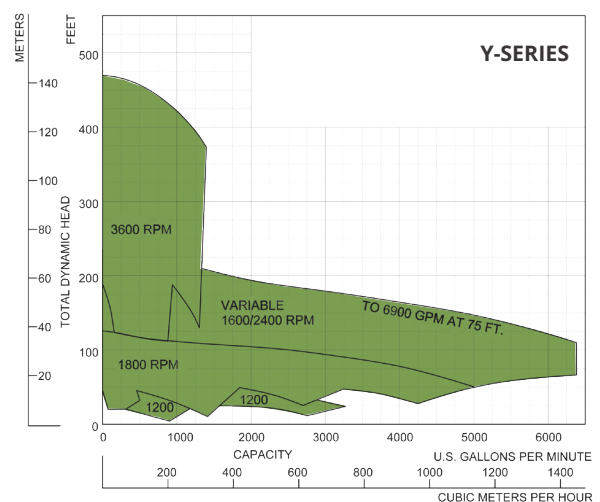
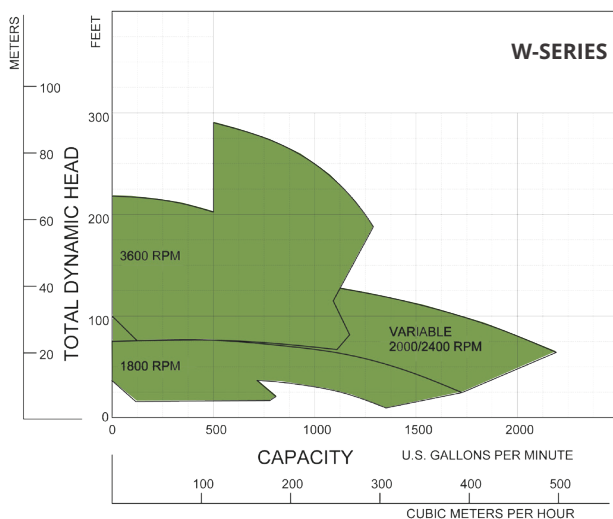
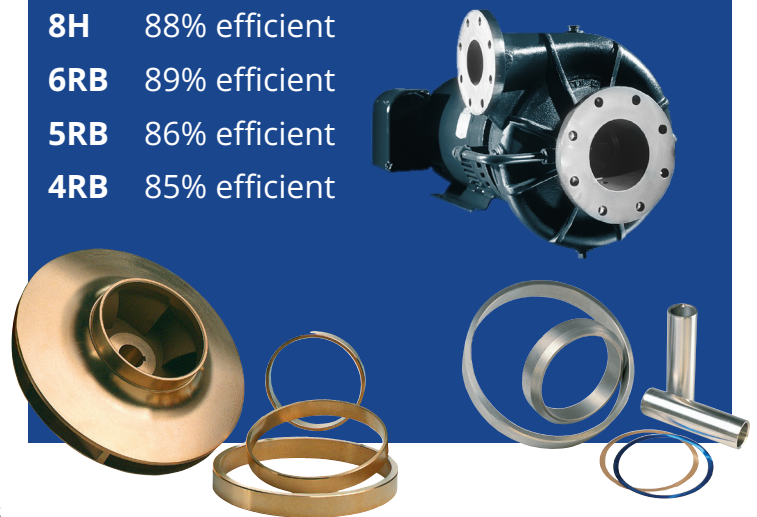
Cornell Pumps are engineered to provide superior efficiency, surpassing industry standards. Depending on the operational conditions, such as operating hours, fuel type, and horsepower needed, you can save over \$3,500 annually in energy costs. With over 35 models available, Cornell offers a wide range of pumps that deliver best-in-class efficiency and meet or exceed optimum standards for centrifugal pumps.

## MATERIALS OF CONSTRUCTION

Cornell pumps are fabricated with high-quality materials, including cast iron, bronze fitted, or all-iron construction, to ensure longevity and durability. Optional materials are also available for applications that require resistance to abrasive or caustic substances. To further enhance performance and longevity, these pumps are designed with balanced impellers, heavy-duty shafts, replaceable shaft sleeves, and wear rings as standard features.

## SELECT HIGH-EFFICIENCY PUMP MODELS

<b>8H</b>	88% efficient
<b>6RB</b>	89% efficient
<b>5RB</b>	86% efficient
<b>4RB</b>	85% efficient





## NSF-CERTIFIED PUMPS

Cornell Pump boasts nearly two dozen clear liquid pump models certified to meet the NSF/ANSI 61 and 372 Certifications for lead content. These pumps can be specified in projects which require pumps to meet these strict certification levels.

### Features include:

- Discharge size from 1.25" to 8" (3cm to 20cm),
- Flows from 30 GPM to near 6,000 GPM (7 to 1,360 m3/h)
- PSI 15.5 to 216 (
- Heads from 40' to over 500' (12.2 to 152m)
- NPSHr as low as 4' (1.22 m)
- High-efficiency design to save energy costs
- Cycloseal® Sealing system
- Two-year warranty
- Ductile Iron (CP) volutes, backplate, and suction covers
- Cast Iron (CI) impellers and wear rings
- TC/SC/Viton mechanical seal (RP seal code)—hard face option
- Base Elbows
- Volute, Backplates, Suction Spools, Suction Covers, and Base Elbows coated in 3M Skotchkote 134

## USES FOR NSF PUMPS



**Municipal:** potable water applications to transfer water from rivers, wells, and reservoirs to treatment facilities, intra-facility, and end-users. Helpful in retrofits to abate lead and other contaminant issues, the pumps are also applicable in agricultural irrigation where lead content is regulated.



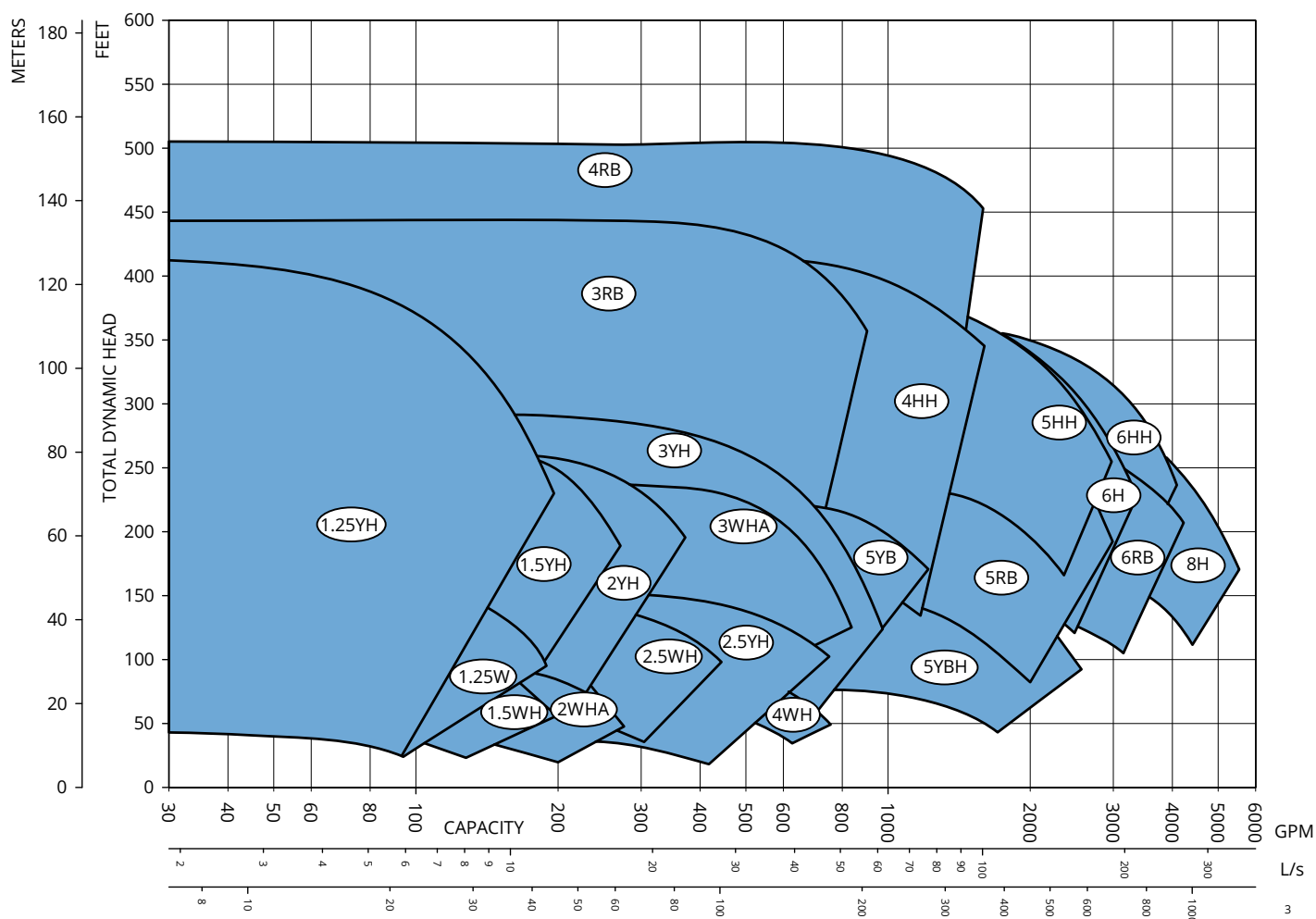
**Industrial:** potable water applications in industrial plants to transfer water into factories, where no lead content can be added. Also, for pump-treated or pre-treatment waste streams out of factories, to avoid introducing lead into the watershed or municipal treatment facilities. Additionally, they can be used in food packing applications where liquid with the product is required to meet lead-free standards.



**Rental:** The pumps are helpful in rental applications where certification alleviates the concern over the pump's potential for contributing to lead contamination.

DISCHARGE SIZE	NSF 61 CERTIFIED MODELS
1.25-1.5"	1.25W, 1.25YH, 1.5WH, 1.5YH
2" to 2.5"	2WHA, 2YH, 2.5WH, 2.5YH
3"	3RB, 3WHA, 3YH
4"	4HH, 4RB, 4WH
5"	5HH, 5RB, 5YB, 5YBH
6" or greater	6H, 6HH, 6RB, 8H

# NSF PUMPS



## CORNELL PULSE™



- CONNECTS VIA SHORT-RANGE WIRELESS
- PROVIDES A SNAPSHOT OF OPERATION
- INCLUDED ON ALL NEW CORNELL PUMPS\*
- RETROFITTABLE TO OLDER PUMPS OR OTHER EQUIPMENT

### LEADING-EDGE REAL TIME SNAPSHOT

Cornell Pulse is a new method to measure pump temperature and vibration in real time. The device is a small wireless unit, less than 2" in circumference, which is mounted on the pump and takes readings when prompted by the user via a mobile app. The app can be used on phones and tablets and allows detection of common pump issues if the user keeps track of the

readings. Pulse is designed to withstand tough wash-down conditions and can last up to five years with daily measurements (more frequent measurements use battery power and reduce service life.)



DOWNLOAD THE PULSE APP



# CORNELL CO-PILOT™



Connect via Cell Network



5 Sensor Inputs



Remote Control



## CORNELL Co-Pilot™

### THE POWER OF IOT

Cornell Co-Pilot is a monitoring system that connects to your pump to track temperature, vibration, and location. Co-Pilot can also be powered with a wired connection for continuous monitoring and control system integration. Our Internet of Things (IoT) platform reflects our dedication to cutting-edge design and meeting customer needs.

### USE THE CO-PILOT TO:

- Plan maintenance
- Check operation
- Reduce manual inspections
- Track pump location
- Demonstrate run conditions to customers on warranty claims
- Improve run time through the maintenance program

### MONITORING AT YOUR FINGER TIPS

Easily monitor your pump's performance with desktop and mobile apps available for iOS and Android. Receive alerts for out-of-condition operations and view the last GPS location of the pump, all in one convenient platform.

### CORNELL CO-PILOT ALLOWS YOU TO:

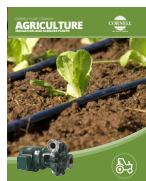
- Monitor pumps using the cloud and IOT
- Monitor temperature, vibration, and GPS location
- Additionally monitor pressure, flow, start/stop operations, and more\*
- Track data over time via web-based and mobile apps
- Receive real-time pump data for performance and health monitoring
- Receive alerts for preset running conditions

\*Requires external sensors; contact Cornell for details.

PART OF RPM<sup>2</sup> ASSET  
MANAGEMENT SYSTEM



# CORNELL PUMP COMPANY MARKET & PRODUCT LINE



AGRICULTURE



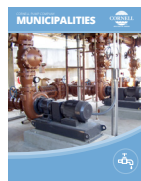
FOOD PROCESS



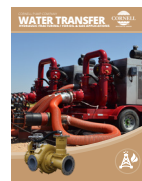
INDUSTRIAL



MINING



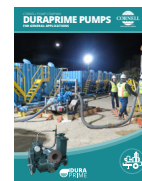
MUNICIPAL



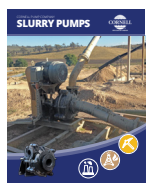
WATER  
TRANSFER



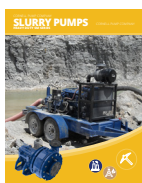
REFRIGERATION



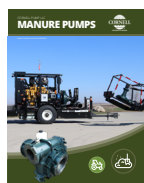
CONSTRUCTION



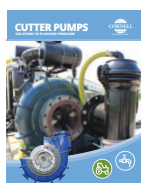
SLURRY



SLURRY SM



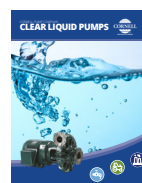
MANURE



CUTTERS



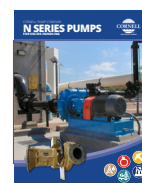
SELF PRIMING



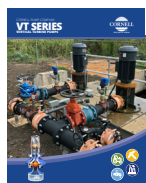
CLEAR LIQUIDS



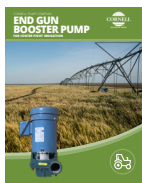
MX SERIES



N SERIES



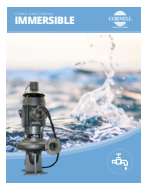
CYCLONE™



EDGE™



HYDRAULIC  
SUBS



IMMERSIBLE



CD4MCU



RUN-DRY™



PRIMING  
SYSTEMS



CYCLOSEAL®

Cycloseal® and Redi-Prime® are Registered Trademarks of Cornell Pump Company.

Cornell pumps and products are the subject of one or more of the following U.S.  
and foreign patents:

6,074,554; 6,036,434; 6,079,958; 6,309,169; 6,104,949.

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