

# CD4MCU

FOR CORROSIVE & ABRASIVE APPLICATIONS



**EFFICIENT BY DESIGN** 









#### WHY CD4MCu

CD4MCu is a duplex stainless steel, utilizing a two-phase metallurgy, compared to a single-phase metallurgy, which is used in more common grades of stainless steel, such as 316. This metallurgy process combines the corrosion resistance of 300 series stainless steel with the strength and hardness of 400 series stainless steel.

The end result is a stainless steel with corrosion resistance equal to or better and 316 SS, but with double the yield strength. CD4MCu construction allows the pumps to be used in more abrasive applications with better resistance to corrosive cracking and pitting.

Cornell now stocks CD4MCu castings in stock for 13 of our most popular pump models, allowing us to slash production time. We can have a CD4MCu pump built in as little as one to two weeks.

#### CD4MCu BENEFITS

- Corrosion and pitting resistance
- · Higher strength than standard grades of stainless steel
- Improved ductility and weldability
- · Better resistance to embrittlement

#### **CORNELL PUMP BENEFITS**

- Fully automated priming and self-priming, dry-run pumps
- Handles air/liquid mixtures with ease
- Patented Cycloseal®, Redi-Prime®, and Run-Dry™ options
- Cornell Competitive Advantage: Patented Engineering Features

#### **FEATURES**

- Clean steel
- · Brinell hardness up to 285
- Industry-leading two-year warranty

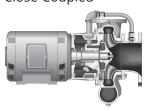
#### PUMP MODELS AVAILABLE IN STOCK

2.5H 4622MX 8NNT 6NNT 8NHG19 6NHTB19 4414T 8NHTA 4NNTL 4NHTB19 6822MX 6NHTA 6NHTB

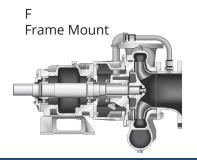
#### MOUNTING CONFIGURATIONS

Cornell pumps are available in a variety of mounting configurations, including horizontal and vertical close-coupled pumps, vertical and horizontal frame-mounted pumps, and pumps with an SAE bell housing mounting directly to an engine.

CC Close-Coupled



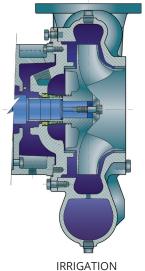
EM Engine Mount

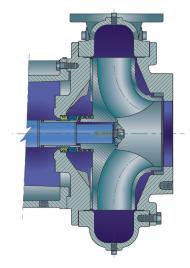




VM/VC/VF Close Coupled Coupled Frame Mount

## **OPTIONS**





SOLIDS HANDLING

#### **CYCLOSEAL®**

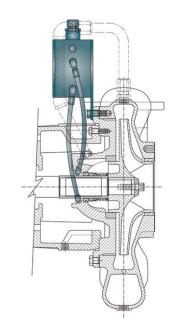
Ideally suited for water and waste water applications, Cornell's patented Cycloseal (U.S. Patent # 5,489,187) is a self-contained single mechanical seal with a dished backplate. This configuration requires no external flushing and eliminates the need for a water flush line. The Cycloseal uses stationary deflector vanes cast into the pump backplate in conjunction with contoured impeller back vanes and a dished backplate to create pressure gradients that moves solids and entrained vapor away from the seal faces. The service life of a Cycloseal mechanical seal can be as much as 10 times longer than a typical mechanical seal.

#### **REDI-PRIME®**

Cornell Redi-Prime pumps are designed with oversized suctions to provide more flow, reduced friction losses, and higher suction lift. The priming system was designed with the environment in mind. By using a positive sealing float box and a diaphragm vacuum pump, there is no water carry-over to contaminate the environment. With suction lifts of up to 28 feet, heads to 470 feet and flow rates exceeding 20,000 GPM, most Cornell pumps can be readily fitted with the Redi-Prime system.

#### RUN-DRY™ SYSTEM

For applications where there is the possibility of the pump operating in a dry condition, Cornell's Run-Dry system is the answer. 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. The Run-Dry gland is connected to a lubricant reservoir via inlet and outlet lines such



that shaft rotation provides continuous circulation and cooling of the lubricant and seal faces. With the Run-Dry system your pump can run dry for hours without damaging the mechanical seal.

#### APPLICATIONS

- Food Processing
- Mining
- Industrial Process
- Marine

- Brackish Water
- Deionized Water
- Fertilizer
- Oil/Gas





## **MARKET AND PRODUCT LINE**

















AGRICULTURE

**FOOD PROCESS** 

INDUSTRIAL

MINING

MUNICIPAL

WATER TRANSFER

REFRIGERATION

CONSTRUCTION

















SLURRY

SLURRY SM

MANURE

CUTTERS

SELF PRIMING

**V SERIES** 

MX SERIES

N SERIES







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: 3,207,485; 3,282,226; 3,295,456; 3,301,191; 3,630,637; 3,663,117; 3,743,437; 4,335,886; 4,523,900; 5,489,187; 5,591,001; 6,074,554; 6,036,434; 6,079,958; 6,309,169; 2,320,742; 96/8140; 319,837; 918,534; 1,224,969; 2,232,735; 701,979 and are the subject of pending U.S. and foreign patent applications.

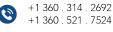
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#### AUTHORIZED CORNELL PUMP DISTRIBUTOR











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