



CORNELL PUMP COMPANY

DURAPRIME PUMPS

FOR GENERAL APPLICATIONS



 **DURA
PRIME**

EFFICIENT BY DESIGN





DURAPRIME PUMPS

CORNELL DURAPRIME SERIES

Cornell Pump's Duraprime series of robust construction pumps are available in 3", 4" and 6" models and are ideal for rental and construction applications. The Duraprime series feature a rebuild-able pump design, robust construction, efficient operation and competitive pricing. Series comes standard with Cornell Cycloseal® sealing system and Venturi Prime priming system integrated.

FEATURES AND BENEFITS

The Duraprime series of pumps are designed with Cornell's renowned quality and durability. Duraprime pumps feature tangential volutes and come in two configurations. Duraprime CP pumps feature a semi-open impeller and the Duraprime T models include an enclosed impeller. Cornell's patented Cycloseal® design is standard, with a Type 2 single mechanical seal with DuPont Viton® elastomers, stainless steel hardware and silicon carbide vs. silicon carbide seal faces for abrasion resistance. Bearings are angular contact bearings on DE, and deep groove ball bearings on PE.

ALL DURAPRIME PUMPS INCLUDE:

- ✓ Standard cast iron construction with ductile impeller and stainless steel shaft and sleeve
- ✓ Venturi-prime system
- ✓ Atmospheric vent in bearing frame to detect lip seal leakage.
- ✓ Cycloseal® mechanical seal system
- ✓ Impeller backvanes reducing axial thrust
- ✓ Replaceable shaft sleeves
- ✓ Replaceable wear plate (CP models)
- ✓ Dynamically balanced impeller



DURAPRIME ADVANTAGES:

- ✓ Renowned Cornell quality
- ✓ Low-operating costs
- ✓ Efficient operation; up to 82% at BEP
- ✓ Ease in servicing and maintaining pumps
- ✓ Low maintenance, long life
- ✓ No seal venting or flushing
- ✓ Two-year warranty

CYCLOSEAL® BENEFITS

No Flush Water or Packing: Through the backplate and sweeping vanes, Cycloseal requires no flush water or packing, saving expense, service time, and messy drips.

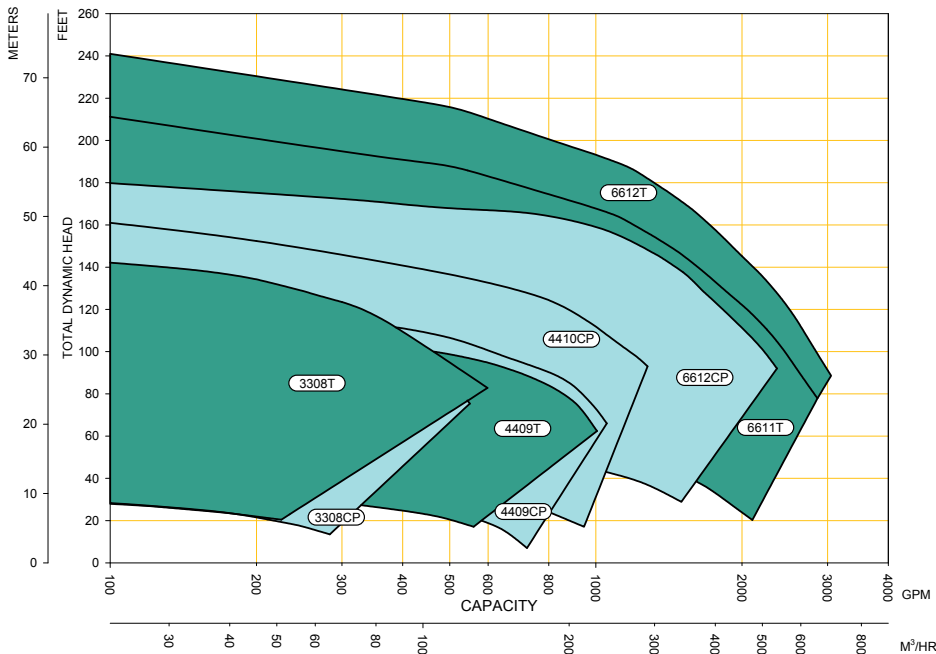
Extended Seal Life: Cornell's Cycloseal design has proven itself in the toughest applications in most cases more than tripling the normally-expected seal life.

System Savings: The Cycloseal system requires no external water flush, filters, grease cups, or piping normally associated with packing or mechanical seals in other pumps. The end result

of a longer-lasting seal is less down-time and lower maintenance costs over the life of the pump.

Better for Abrasive Applications: More resilient than packing and standard mechanical seals bathed in grit and other materials, Cycloseal keeps solids away from the seal area for reduced seal wear.

Greater Reliability: Through positive seating, end users can tell when the seal is perfectly fitted. With greater ability to withstand to grit, the Cycloseal system results in longer intervals between service.



3308CP/3308T

- Flow rates from 80 to 600 GPM
- Pressure from 14' to 139' (6 to 60 PSI)
- 69% efficient at Best Efficiency Point

4409CP/4409T

- Flow rates from 140 to 1,050 GPM
- Pressure from 12' to 116' (5 to 50 PSI)
- 73% efficient at Best Efficiency Point

4410CP

- Flow rates from 165 to 1,280 GPM
- Pressure from 23' to 143' (10 to 62 PSI)
- 67% efficient at Best Efficiency Point

6611T

- Flow rates from 400 to 2,860 GPM
- Pressure from 20' to 182' (9 to 79 PSI)
- 81% efficient at Best Efficiency Point

6612CP/6612T

- Flow rates from 60 to 3,050 GPM
- Pressure from 28' to 205' (13 to 89 PSI)
- 68% efficient at Best Efficiency Point (CP)
- 82% efficient at Best Efficiency Point (T)

VENTURI PRIME PRIMING SYSTEM

Cornell has integrated a venturi priming system on Duraprime pumps. The system utilizes a compressor driven by the pump shaft and lubricated by engine oil to blow air through the venturi to evacuate air from the suction line and pump casing. The venturi prime offers a robust priming system, that operates economically.

- Operates in temperatures below 25° Fahrenheit (-4° Celsius)
- Economical
- Automatic priming and repriming
- Primes with reasonable speed
- Can handle some solids
- Can operate unattended
- Energy efficiency
- Available with manual valve for operation in colder climates

THE DURAPRIME SERIES FEATURES CORNELL QUALITY REPUTATION, EXCEPTIONAL INITIAL COST, ROBUST PUMP LIFE, OPERATING AND MAINTENANCE COST SAVINGS, AND QUIET AND DEPENDABLE IN-FIELD OPERATION.

CYCLOSEAL® SEALING SYSTEM

One of the main reasons Cornell Pumps have a service advantage compared to competitors is our patented Cycloseal design that removes solids and abrasive

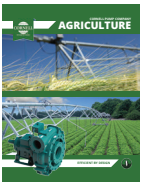
material from the seal area, while purging air and gas pockets. This innovative cyclonic action extends seal life and eliminates the need for venting or flush water. Duraprime pumps come with Cycloseal standard.

DURAPRIME - EFFICIENT BY DESIGN

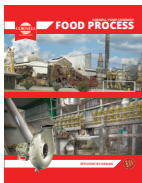
The Duraprime series features robust construction, ease of replacement parts, operating efficiency, and the reliability of an engine drive mount. The Cornell Duraprime series is designed for applications that need dry priming/repriming capabilities and Cornell's renowned quality, but must be cost conscious as well. While the Duraprime pumps were created with construction, rental, and OEM applications in mind, the series is also useful in agricultural, municipal, process water, water transfer, and water treatment applications.



MARKET AND PRODUCT LINE



AGRICULTURAL



FOOD PROCESS



INDUSTRIAL



MINE DEWATERING



MUNICIPAL



REFRIGERATION



OIL & GAS



CYCLOSEAL®



CHOPPER



CUTTER



EDGE™



HYDRAULIC SUBS



HYDRO TURBINE



IMMERSIBLE



MANURE



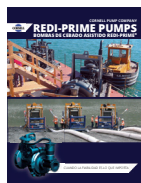
MP SERIES



MX SERIES



MX MINING



REDI-PRIME®



SELF PRIMING



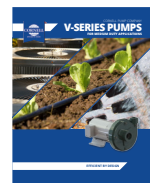
SLURRY



SUBMERSIBLE



WATER TRANSFER



V SERIES

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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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