CORNELL

EFFICIENT BY DESIGN

CORNELL PUMP COMPANY

REDI-PRIME®

AND VENTURI PRIME

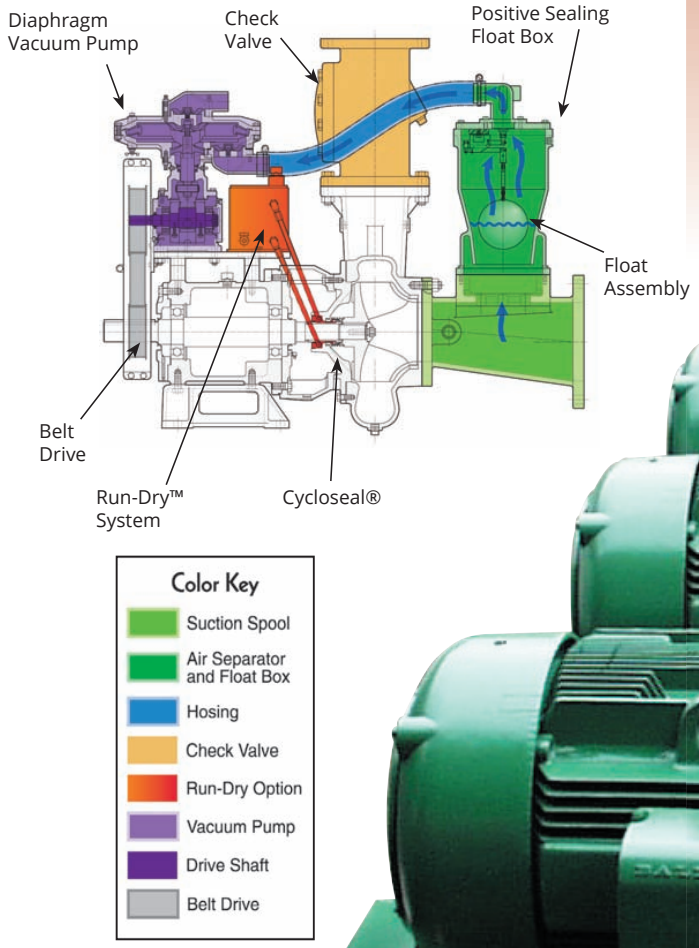
EFFICIENT BY DESIGN

SETTING THE STANDARD

CORNELL PUMP COMPANY

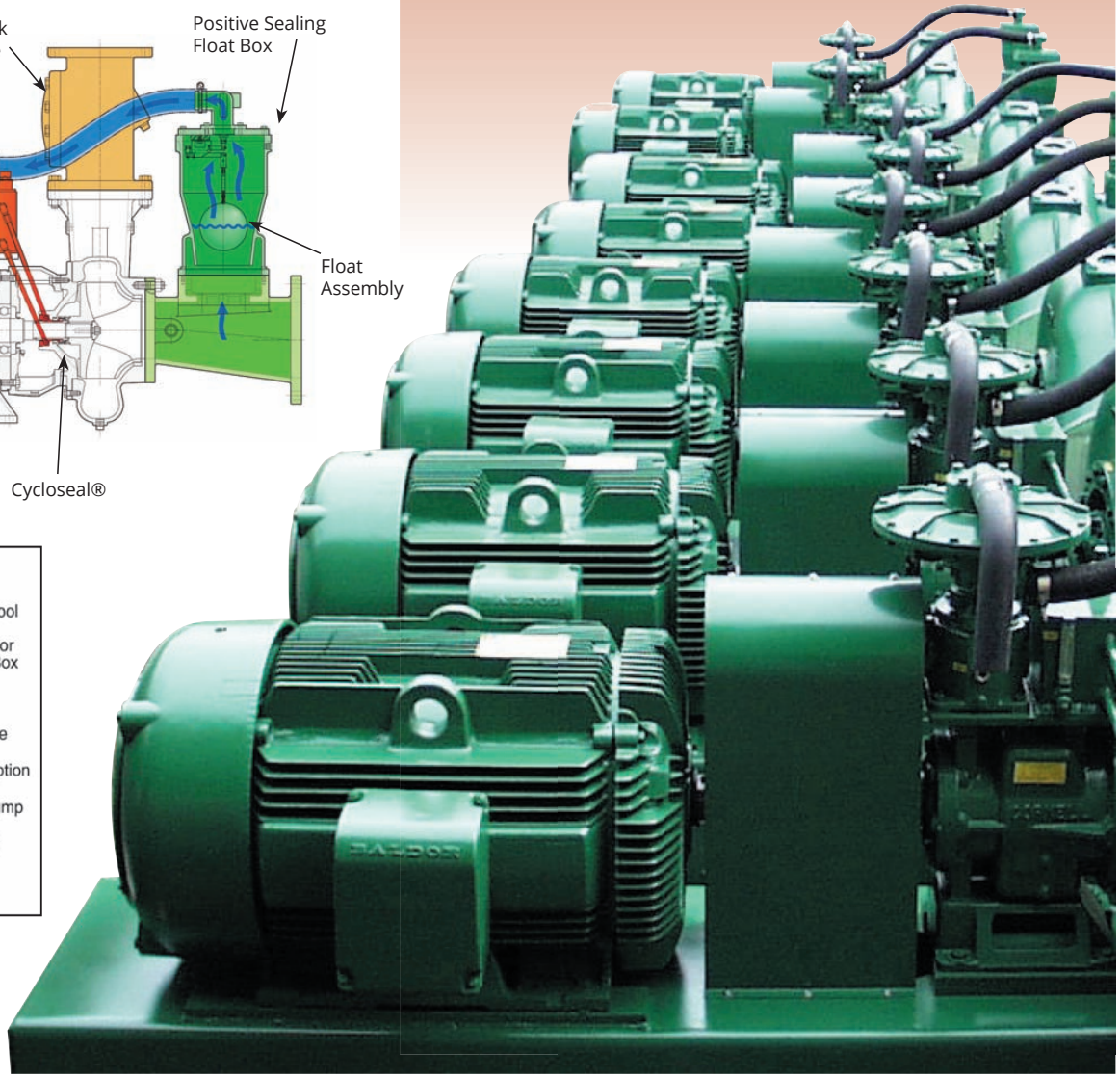
...is setting the standard for the construction pumping industry. Flow characteristics that were 'good enough' before are no longer acceptable. Cornell's innovative engineering and forward thinking have made our pumps capable of producing up to 400 percent more flow than the construction industry standards. Our hydraulic efficiencies reach well into the 80 percent range, significantly more than competitive products. In the new millennium there will be a need for more efficient pumps. It will no longer be acceptable to settle for a pump operating at 50% - 60% efficiency. Cornell Pump Company has made these pumps obsolete.

Cornell's priming system was specifically designed with the environment in mind. By using a positive sealing float box and a diaphragm vacuum pump, there is absolutely no water carry-over to contaminate the environment. Cornell pumps are designed for the new millennium.

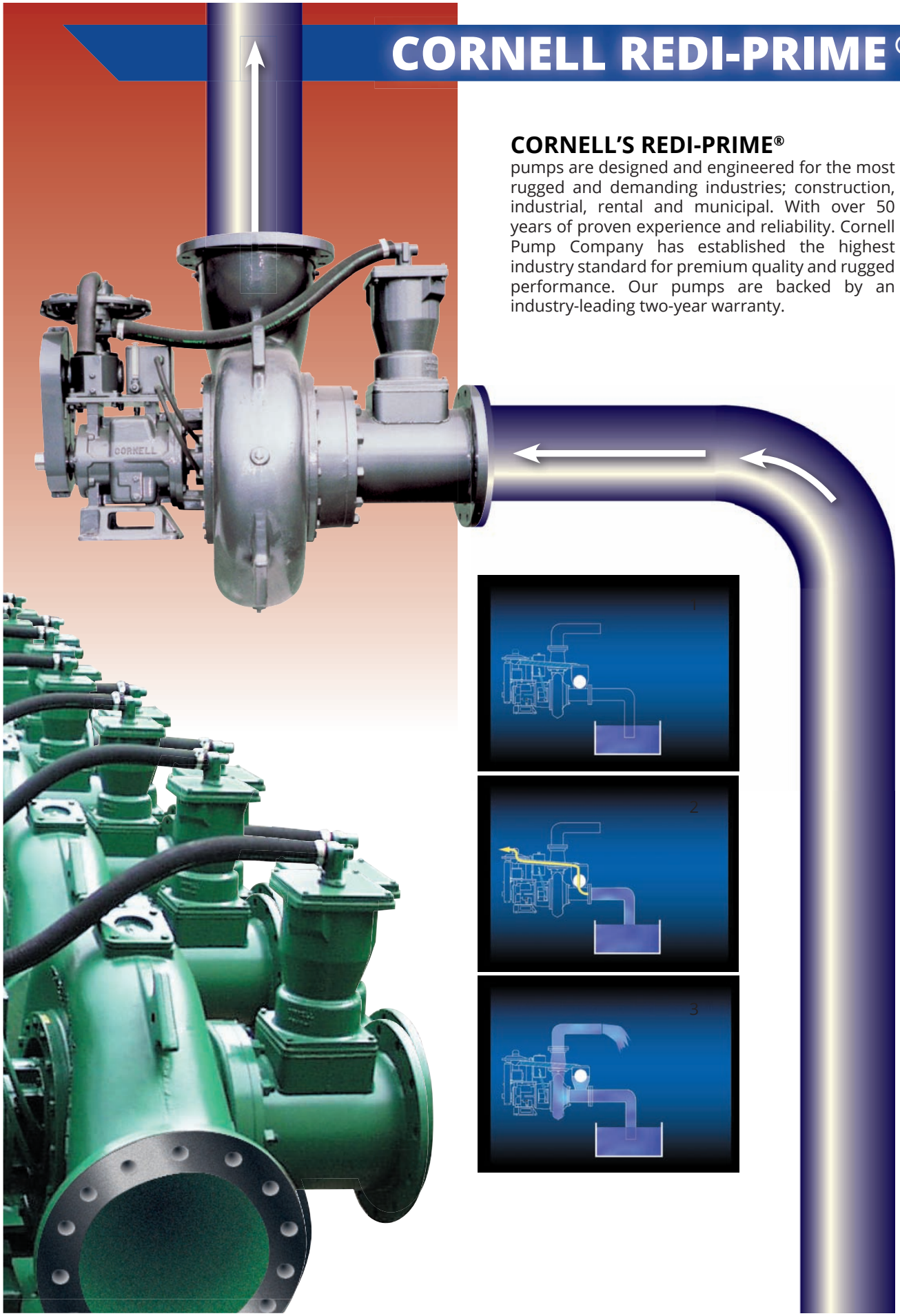


BENEFITS

- **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**
- **Patented Cycloseal® and Run-Dry™ options**
- **Handles large sized solids**
- **High suction lift capability up to 28 feet**
- **Premium hydraulic efficiency for reduced energy consumption**
- **Flow rates to 38,000 GPM**
- **Heads up to 800 FT.**
- **Valve eliminates any liquid carry over**



CORNELL REDI-PRIME ®



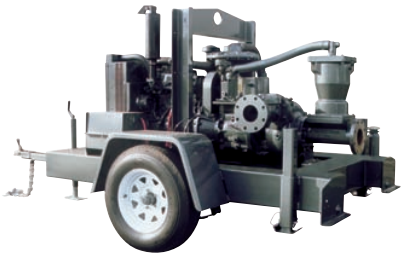
CORNELL'S REDI-PRIME®
pumps are designed and engineered for the most rugged and demanding industries; construction, industrial, rental and municipal. With over 50 years of proven experience and reliability. Cornell Pump Company has established the highest industry standard for premium quality and rugged performance. Our pumps are backed by an industry-leading two-year warranty.

SOLIDS HANDLING Pumps

FLOWS TO 38,000 GPM

EFFICIENCY

In addition to a dependable pump system, today's systems must also be efficient and economical. As energy costs rise, conservation and efficiency of operation become critical issues for customers as they strive to minimize expenses associated with energy consumption. Cornell pumps maintain superb hydraulic operating efficiencies. The bottom line – Cornell pumps cost less to operate.



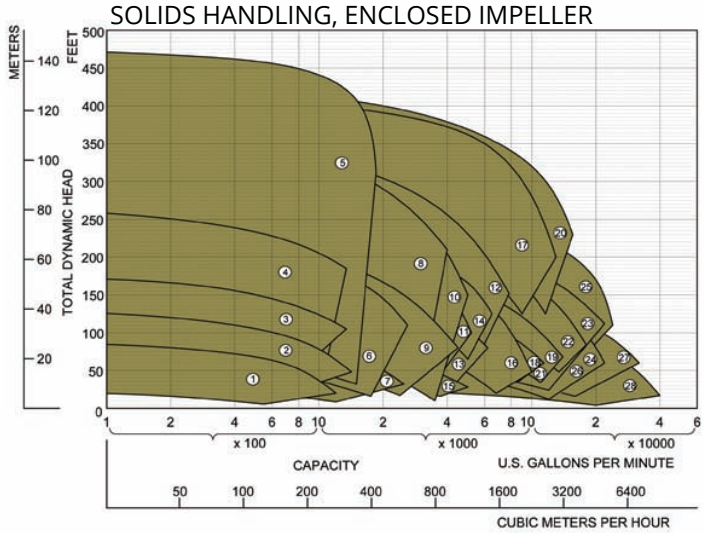
REDI-PRIME TRAILER MOUNT

Cornell offers the widest range of pump sizes and capacities in the industry. No matter what your requirements are, Cornell can provide you with a package that will fill your needs – Clear Liquid pumps up to 10", Solids Handling pumps up to 30" and Slurry pumps up to 4".

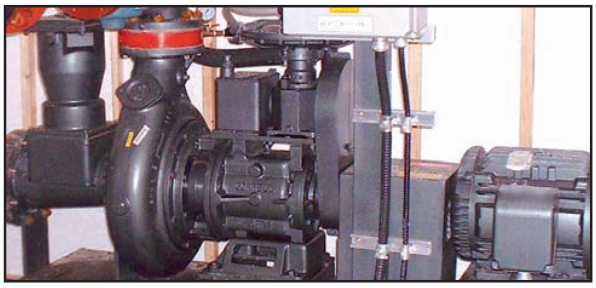
PUMP OPTIONS: SOLIDS HANDLING PUMPS

MODEL	DISCHARGE SIZE	MAX CAPACITY	MAX SOLIDS	MAX HEAD	MAX SUCTION	RPM
4NNTL	4"	1450	3"	175'	25'	2500
4NNT	4"	1400	3"	150'	25'	2000
4NHTA	4"	1400	3"	225'	25'	2100
4414T	4"	1400	3"	350'	25'	2000
4NHTB	4"	1,600	3"	425'	25'	2000
6NHTA	6"	2,700	3"	180'	25'	2000
6NNT	6"	2,550	3"	150'	25'	2100
6NHTB	6"	4,250	3.38"	350'	25'	1800
8NNT	8"	4,500	3.38"	255'	25'	1900
8NHTA	8"	5,000	3.38"	350'	25'	1800
8NHTH	8"	6,250	4"	255'	25'	1200
10NNT	10"	6,300	4"	340'	25'	1800
10NHTB	10"	8,000	4.75"	195'	25'	1200
10NHTA	10"	6,400	4.25"	245'	25'	1200
12NHTL	12"	5,200	4.25"	140'	25'	1500
12NNF	12"	8,500	3"	195'	25'	1800
12NHG28	12"	12,000	3.2"	410'	25'	1200
14NHG	14"	12,000	4"	210'	25'	1500
14NHGH	14"	13,500	4.25"	145'	25'	1200
14NHG28	14"	15,000	4.25"	430'	25'	1200
16NHGH	16"	13,500	4.25"	175'	25'	1200
16NHG22	16"	16,500	4.5"	265'	25'	1200
18NHG	18"	22,000	5"	220'	25'	900
18NHFL	18"	26,000	5"	190'	25'	890
18NHF34	18"	22,000	4.5"	320'	25'	900
20NHFL	20"	18,000	5"	116'	25'	720
24NNG	24"	32,000	5.25"	135'	25'	750
30NNT	30"	38,000	10.2"	110'	25'	585

SOLIDS HANDLING, ENCLOSED IMPELLER



1. 3NLT
2. 4NNTL
3. 4NNT
4. 4NHTA
5. 4414T
6. 4NHTB
7. 6NHTA
8. 6NNT
9. 6NHT/TH
10. 6NHTB
11. 8NNT
12. 8NHTA
13. 8NHTH
14. 8NHTR
15. 8NHGA
16. 10NHTB
17. 10NHTBH
18. 10NHTA
19. 12NHTL
20. 12NHTM
21. 12NNF
22. 12NHG28
23. 14NHG
24. 14NHGA
25. 14NHGH
26. 14NHG28
27. 16NHGH
28. 16NHG22
29. 16NHG32
30. 18NHG
31. 18NHFL
32. 18NHF34
33. 18NHG34
34. 20NHFL
35. 20NHF
36. 24NNG
37. 30NNT



WATER TRANSFER Pumps

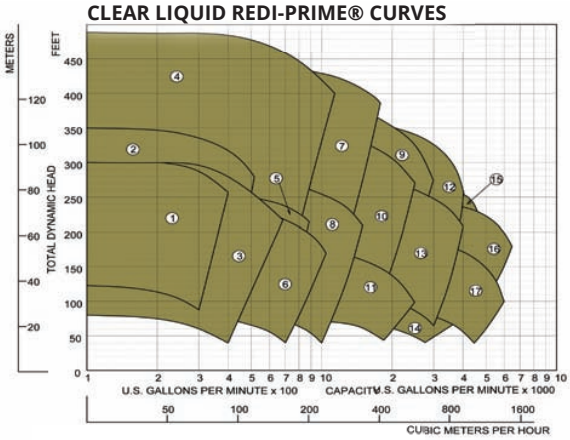
SUCTION LIFT TO 28FT.

PUMP OPTIONS: CLEAR LIQUID REDI-PRIME® PUMPS

MODEL	discharge size	max capacity	MAX solids	max head	max suction	max rpm
2.5RB	2.5"	400 GPM	.38"	300'	25'	2200
2.5H	2.5"	500 GPM	.41"	360'	25'	2200
2.5YH	2.5"	750 GPM	.41"	310'	28'	3000
3HC/HA	3"	1050 GPM	.5"	490'	28'	2400
3RB	3"	800 GPM	.5"	280'	28'	2200
3YL/YH	3"	1100 GPM	.5"	245'	28'	2700
4HC	4"	1650 GPM	.62"	470'	28'	2150
4RB	4"	1550 GPM	.84"	270'	25'	2200
5HH	5"	2900 GPM	.75"	375'	25'	2000
5RB	5"	2350 GPM	1"	360'	25'	2400
5YBH	5"	2500 GPM	.75"	200'	25'	2400
6HH	6"	4000 GPM	1.22"	365'	25'	2000
6RB	6"	4250 GPM	1.31"	300'	28'	2200
6YB	6"	4100 GPM	.75"	235'	25'	2400
8H	8"	5400 GPM	1.25"	305'	25'	2000
10RB	10"	7000 GPM	1.25"	300'	25'	2200
10YB	10"	6500 GPM	1.38"	200'	25'	2300

HIGH VOLUME DEWATERING

CLEAR LIQUID REDI-PRIME® CURVES



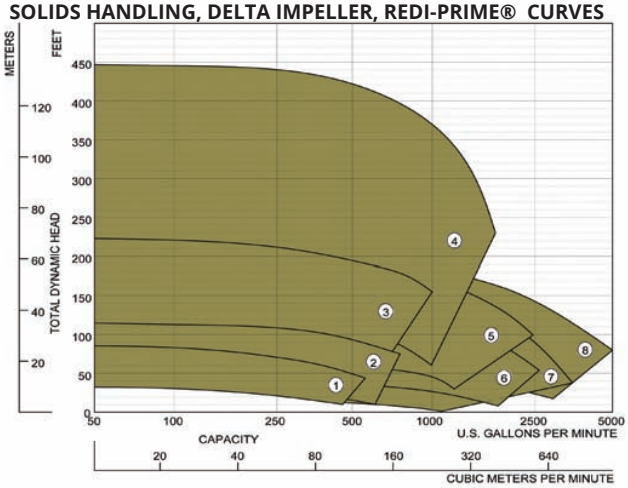
2.5RB
2.5H
2.5YH
3HC / HA
3RD / RB
3YL / YH
4HC
4RC / RB
5HH
5RC
5YBH
6HH
6RC / RB
6YB
8H
10RB
10YB

PUMPING LARGE VOLUMES OF WATER IS SIMPLE FOR A CORNELL PUMP

PUMP OPTIONS: DELTA™ IMPELLER PUMPS

MODEL	discharge size	max capacity	MAX solids	max head	max suction	max rpm
4NLDL	4"	525 GPM	3"	85'	25'	2,000
4NNDH	4"	750 GPM	3"	115'	25'	1,800
4NHDH	4"	1,050 GPM	3"	225'	25'	1,800
4NHM	4"	1,500 GPM	2.5"	380'	25'	2,200
6NHM	6"	2,500 GPM	3"	320'	25'	2,200
6NNDH	6"	2,400 GPM	3"	140'	25'	2,200
8NNDH	8"	1,625 GPM	3.38"	50'	25'	1,200
10NNDH	10"	5,000 GPM	3.5"	190'	25'	1,500

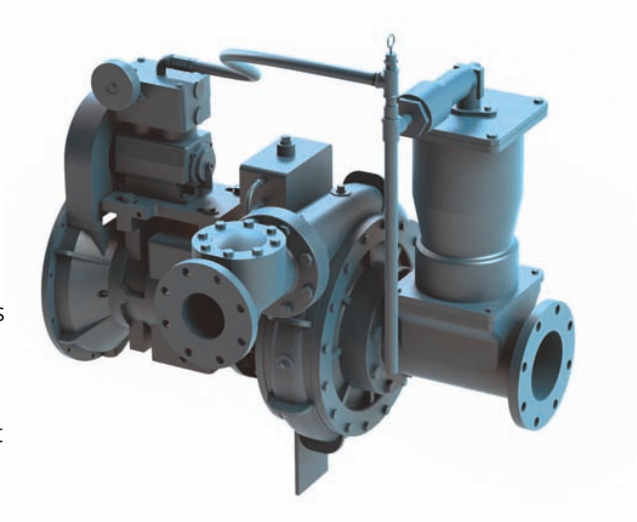
SOLIDS HANDLING, DELTA IMPELLER, REDI-PRIME® CURVES



VENTURI PRIME OPTION

VENTURI PRIME OPTION

Cornell has created a venturi priming option, utilizing 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 is generally 20 to 25 percentage less expensive than a comparably equipped Redi-Prime® system, and can be fit onto any Cornell pump that accepts Redi-Prime®. However, the lower cost comes with slower priming speeds than Redi-Prime®. For those applications where cost is key and premium quality still needs to be met, or in cases where the pump will consistently be priming in freezing conditions, Cornell's Venturi Prime System provides a great solution.



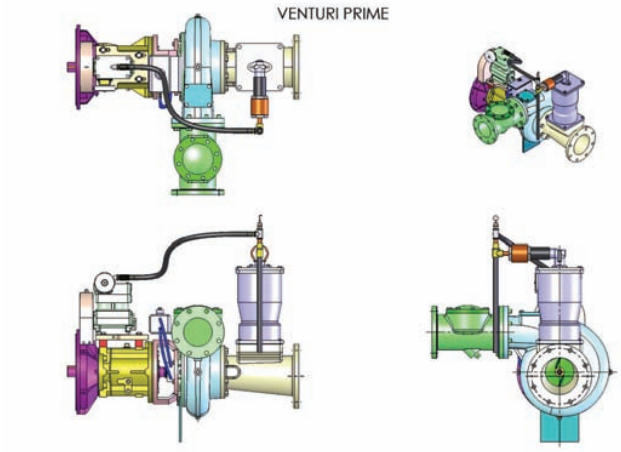
KEY DIFFERENCES BETWEEN VENTURI PRIME AND REDI-PRIME®

- Operates in temperatures below 25° Fahrenheit (-4° Celsius)
- Less expensive than Redi-Prime®
- Fewer moving parts
- Slower priming than Redi-Prime®

Cornell's Venturi Prime System can be tailored. The Venturi is connected to the Redi-Prime® suction box and linkage system. Cornell offers this configuration or the compressor delete if compressor is purchased with the engine. Unit also sold minus the suction box if the preference is to use existing stand pipe and suction spool.

BENEFITS OF VENTURI SYSTEM

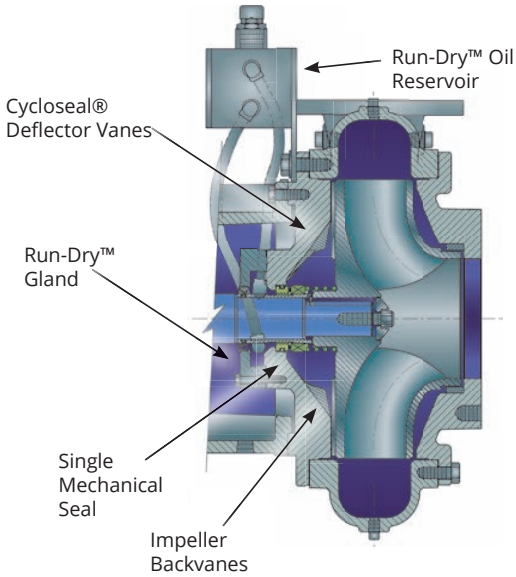
- Fully automatic priming and repriming
- Primes with reasonable speed
- Can handle some solids
- Can operate unattended
- Energy efficiency
- Flows up to 38,000 GPM
- Heads up to 800 Feet
- Available with manual valve for operation in colder climates



AVAILABLE OPTIONS

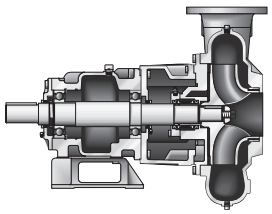
CYCLOSEAL®

Cornell's Cycloseal® design has proven itself in the toughest applications from manure slurry to starch recovery to sewer bypass and mining applications - in some cases more than tripling the normally expected mechanical seal life.

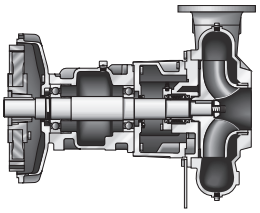


MOUNTING CONFIGURATIONS

Cornell's Modular Frame design allows for easy adaptability. Choose a pump, then pick the mounting configuration best suited to your application. Right hand and left hand rotation along with tangential or centerline discharges are available for most pumps.



F
HORIZONTAL FRAME MOUNTED



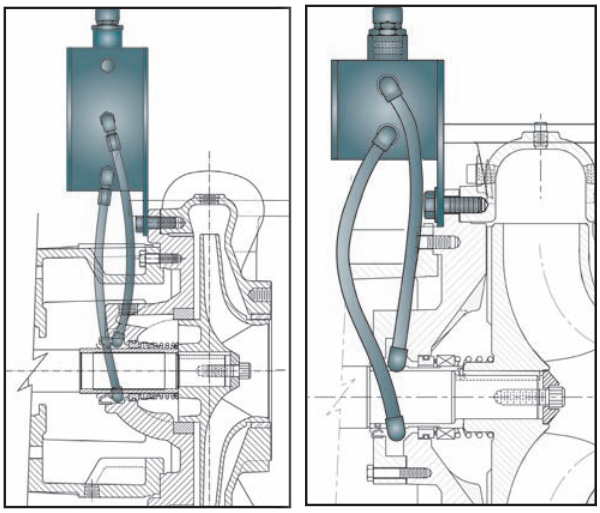
EM
ENGINE MOUNTED (SAE SIZE)

SOLIDS HANDLING IMPELLER OPTIONS

Cornell's two- and three-port enclosed impellers are designed to handle large solids and maintain exceptional hydraulic efficiencies. Cornell's Delta™ style impeller is specifically designed for handling stringy materials and heavy sludge for low- to medium-head applications. The three- or four-vane, semi-open impeller generates a cutting action designed to handle concentrated slurries for high head applications.

RUN-DRY™ OPTION

Run your pump dry without the use of expensive water systems and without mechanical seal damage. Cornell's Run-Dry™ system consists of an auxiliary gland which provides containment for an application-specific lubricant present at the inside diameter of the mechanical seal faces. This lubricant prevents dry running of the seal faces while priming, re-priming, and on standby. The Run-Dry™ gland is connected to a lubricant reservoir via inlet and outlet lines which are oriented tangentially to the pump shaft so that shaft rotation provides circulation and subsequent cooling of the lubricant.



CORNELL®

EFFICIENT BY DESIGN

MARKET AND PRODUCT LINE

AGRICULTURAL

FOOD PROCESS

INDUSTRIAL

MINE DEWATERING

MUNICIPAL

REFRIGERATION

WATER TRANSFER

CHOPPER

CUTTER

EDGE™

HYDRAULIC SUBS

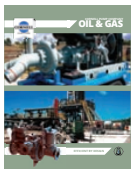
HYDRO TURBINE

IMMERSIBLE

MANURE

MP SERIES

MX SERIES



OIL & GAS

REDI-PRIME

STX

SLURRY

SUBMERSIBLE

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.

ISO 9001:2008 CERTIFIED

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