



# **TEAMING UP TO BE SAFER.**

**The emergency sector is a constant challenge.** We interpret this literally by challenging ourselves everyday in the design of machines that guarantee a higher standard of safety and performance.

That's why our **Multifunctional Motor Pump Units**, our **Lighting Towers** and our **Generating Sets**, are used by the **Civil Defense and Fire Brigades** all over the world for their efficiency, durability and reliability. A wide range of highly customizable products are our guarantee for your safety.





#### **INNOVATIVE PRODUCTS**

- research & development
- design & patent



# **MADE ON YOUR NEEDS**

 highly customized solutions and tailor made products



# MAIN PRODUCTS AND SOLUTIONS



# **FLOOD EMERGENCY TRAILER**

high performance multifunctional pump unit



# **WATER TRANSFER DIESEL PUMPS**

high volume drainage units



# **SELF-PRIMING DIESEL PUMPS**

custom solutions for differnt type of flow



# **CORNELL SELF-PRIMING DIESEL PUMPS**

highest flow and efficiency pumps in the market



# **RIVERSCREEN™**

dependable water supply self-cleaning operation



# **SPECIAL PROJECTS**

fully customized solutions for user needs

# EMERGENCY TRAILER. THE MULTIFUNCTIONAL ANSWER TO THE MOST DEMANDING SITUATIONS.



The patented multifunctional pump unit flood Emergency can be used simultaneously as a Generator, a lighting tower and a pump with the ability to vary the flow rates and pressures through an inverter. Emergency trailer guarantees water drainage with pumps from 100 to 500 m³/h.

Generating set come as standard in **SUPER SILENT version**, is available with power from 10 to 200 kVA and is completed with LED lights lighting tower. Emergency trailer is an highly customizable equipment that improve final user interventions.







# **TECHNICAL SPECS**



**GENERATOR POWER** From 10 up to 200 kVA



CAPACITY
From 100 up to 500 m³/h

RESIDUAL POWER
From 5 up to 200 kVA





**MAXIMUN DRAFTING DEPTH** Up to 30 m



**WORKING PRESSURE** From 2 à 16 bar



PUMP DIAMETER
From 100 mm (4")

# FIRE BRIGADES TRAILER HIGH EFFICIENCY TO FIGHT CRITICAL FLOODING EMERGENCIES







# FIRE BRIGADES TRAILER. **PERFORMANCE AND RELIABILITY** TAKEN TO A NEW LEVEL.



# **TECHNICAL SPECS**



PRESSURE From 6 à 13 bar



**CAPACITY** Up to 250 m<sup>3</sup>/h



RESIDUAL POWER From 10 à 200 kVA



**SUCTION DEPTH** Up to 30 mètres





# CORNELL PUMPS. EFFICIENT BY DESIGN.



When you need the impossible, we have the right solution, with high volume motor pump unit you can reach up to 8.600 m<sup>3</sup>/h at very high pressures. Quality and efficiency is guarantee by Cornell brand.

There are many features unique, such as **Cycloseal, Run-Dry® and Redi-Prime®**, that enable Cornell pumps to handle the most demanding applications. These features, along with **efficiencies up to 89%,** are the reasons why Cornell is the benchmark in the water transfer pumps industry.





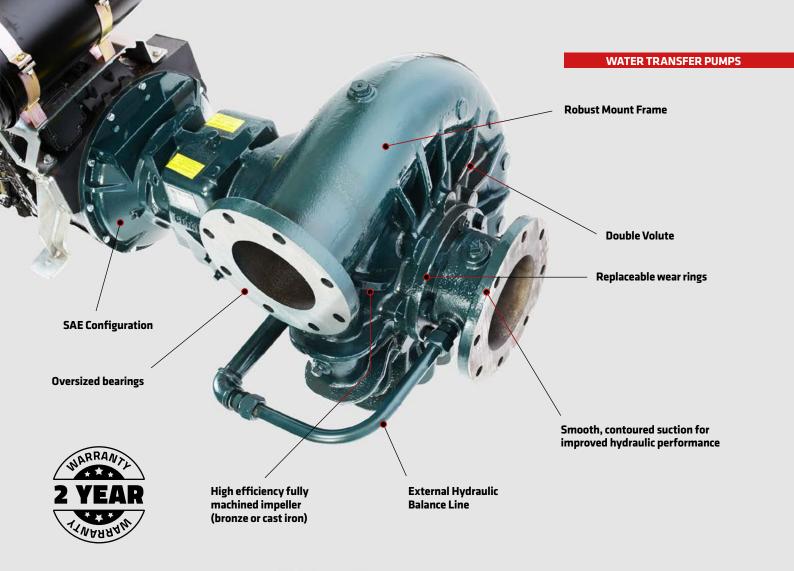
#### **LESS WEAR**

- less manteinance
- less parts
- less downtime



# **EFFICIENCY**

- less fuel consumption
- oversized shaft & bearings
- easily replaceable wear parts



# **TOP QUALITY MATERIALS**

Toutes les pompes d'irrigation Cornell sont construites avec des matériaux de première qualité. Les pompes d'irrigation Cornell sont en fonte, en bronze ou de construction entièrement en acier. Des matériaux optionnels sont disponibles pour les applications abrasives ou caustiques. Les caractéristiques standard comprennent des roues équilibrées, des arbres résistants, des chemises d'arbre remplaçables et des bagues d'usure remplaçables.

#### **ENERGY EFFICIENCY**

Features unique to Cornell pumps, such as Cycloseal, Run-Dry®, and Redi-Prime®, allow Cornell pumps to handle the most demanding applications. These features, coupled with efficiencies up to 89%, are why Cornell is considered the benchmark in water transfer pumps.

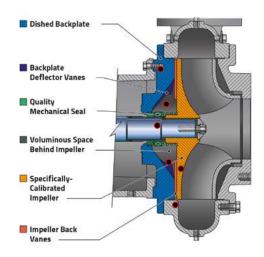




### **FEATURES & BENEFITS**

- Replaceable wear rings Double volute
- ✓ Various mounting configurations
- Robust Mount Frame
- 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



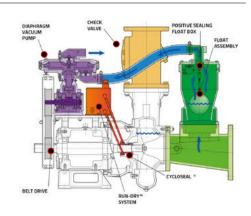


#### CYCLOSEAL® DESIGN: ADVANTAGES IN WATER TRANSFER

- **EXTENDED SEAL LIFE:** Cycloseal has proven itself in the toughest applications; in some cases more than tripling the normally-expected mechanical seal life.
- **SYSTEM SAVINGS:** The Cycloseal system requires no external water flush, filters, grease, piping or instrumentation normally associated with packing or double mechanical seals.
- MAINTENANCE SAVINGS: Longer seal life which translates into less pump down time and lower maintenance costs.
- **BETTER FOR ABRASIVES:** More resilient than standard mechanical seals, Cycloseal keeps solids away from the seal area for reduced seal wear.

#### **REDI-PRIME® SYSTEM**

- 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
- Check valve eliminates any liquid carry over





# **AVAILABLE SOLUTIONS**

# **DURA-PRIME® PUMPS**

Robust construction pumps are available in 3", 4" and 6" models and are ideal for rental and construction applications.



# **PUMP FLOW RATE**

Up to 700 m<sup>3</sup>/h



**PRESSURE** Up to 60 m



**MAX SOLIDS** 3" (76 mm)



# N-SOLIDS HANDLING PUMPS

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



# **PUMP FLOW RATE**

Up to 8.700 m<sup>3</sup>/h



**PRESSURE** Up to 150 m



**MAX SOLIDS** 

10" (260 mm)



# **HIGH-HEAD PUMPS**

Cornell's MX PUMPS provide heads up to 800', long service life, and industry-leading efficiency. Designed to handle high head applications



# **PUMP FLOW RATE**

Up to 1.800 m<sup>3</sup>/h



**PRESSURE** 

Up to 240 m



**MAX SOLIDS** 

2,5" (60 mm)



# **PUMPS FOR COARSE ABRASIVES**

These pumps are specifically designed for coarse abrasive slurry applications such as sand, gravel, coal, manure, and mine dewatering.



# **PUMP FLOW RATE**

Up to 2.000 m<sup>3</sup>/h



**PRESSURE** 

Up to 185 m



Solides max 3" (76 mm)





# EMERGENCY MOTOR PUMPS. CUSTOM SOLUTION FOR ANY TYPE OF NEED.



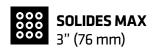
**High performance diesel engine pump units** customizable for every kind of need, with flow rates from 30 to 1450 m<sup>3</sup>/h with variable pressures. Each model can be specially designed and made according to the customer's specific requirements. Available in 3 ranges: **PORTABLE, EASY** and **BIG.** 



# **TECHNICAL SPECS**









# **APPLICATIONS**

- Flood areas management
- Firefighting support
- Bypass pumping
- **✓** Water transfer
- River level control



# **BASIC VERSIONS & CONFIGURATIONS**

# **PORTABLE**



**PUMP FLOW RATE** Up to 150 m³/h



PRESSURE Up to 4 bar



VERSION A / D



**CONFIGURATION** 1/2/5



# **EASY**



**PUMP FLOW RATE** Up to 350 m<sup>3</sup>/h



PRESSURE Up to 4 bar



**VERSION**A/B/C/D



**CONFIGURATION** 1 / 2 / 3 / 4 / 5



# **BIG**



**PUMP FLOW RATE** Up to 1450 m<sup>3</sup>/h



PRESSURE Up to 4 bar



**VERSION** A / B / D



**CONFIGURATION** 1/2/3/4



E

VERSION



FORK LIFT









CONFIGURATION











# CORNELL STH & STX SERIES. EFFICIENT, DURABLE, INNOVATIVE.

The Cornell STX, STL & STH Self-Priming Lines are the newest products from Cornell Pump following a tradition of building world-class pumping equipment. The Self-Priming Pumps follow this tradition by the addition of the Cycloseal® sealing system, which will extend your seal life. Have an existing self-primer installed? Contact Euromacchine regarding the retrofit program, which allows the Cornell STX rotating assemblies to retrofit into your existing pump volute.





# **STX SERIES**

Better efficiency than competitors, while maintaining flange-to-flange interchangeability. More robust than standard selfprimers, the oversize bearing frame



PUMP FLOW RATE



Up to 960 m³/h

PRESSURE

Up to 205' (62 m)



**SOLIDES MAX** 3" (76 mm)

# **STH SERIES**

High head without requiring a booster pump. With heads up to 253', excellent efficiencies and flow, the STH series is able to tackle the most demanding applications.



PUMP FLOW RATE Up to 460 m<sup>3</sup>/h



PRESSURE Up to 253' (77 m)



**SOLIDES MAX** 10" (260 mm)



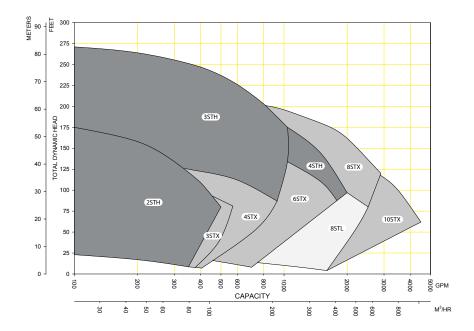


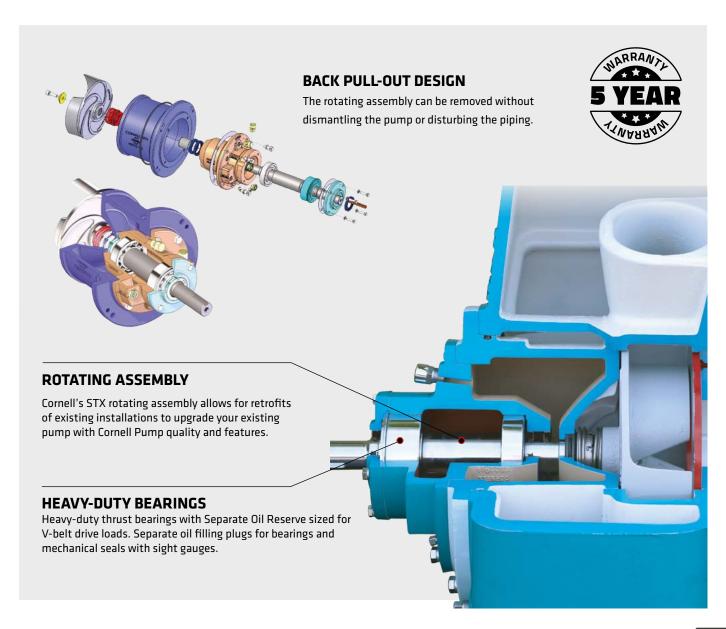
# **MATERIALS OF CONSTRUCTION**

- Ductile iron volute casing, backplate, and impeller
- 17-4PH stainless steel shafts
- Optional CD4MCu on 3STX, 4STX, and 6STX pump models

#### **FEATURES**

- Cycloseal® grit removal system
- High efficiency design
- High RPM capacity for engine driven applications
- · High head capacity
- Modular design
- ANSI, NPT, & DIN flanges available
- Five-year warranty





# RIVERSCREEN™ A DEPENDABLE WATER SUPPLY SELF-CLEANING OPERATION.



A rotating water-driven self-cleaning screen that dependably delivers good water from as little as 4 inches depth. The ideal solution for the operation depending upon river or canal water sources for pivot irrigation systems. RIVERSCREEN is built for shallow water pumping - prevents sand problems. Low maintenance operation. Standard on all Riverscreens is #10 304 stainless steel mesh (up to 120). Works great in livestock lagoons.



# **TECHNICAL SPECS**









# **FEATURES**

- Prevent sand problems
- Slow moving currents
- Low-pressure nozzles
- Fish friendly system















# **Optional Lifting Boom**

- Galvanized for long life
- Heavy 6" upright main pipe
- Trussed boom for greater strength
- Brake winch for ease of operation
- Quick latch hook for easy hookup



# **Optional Power Drive**

- Water Driven Power Drive: keeps drum turning even in slow moving current or still water. Only requires 6 GPM (23 l/min)
- Electric Power Driven (12/220V)
- Extra pontoon for long suction line



#### GERMAN & DUTCH FIREBRIGADES

Emergency trailer units are normally used by Dutch and German. Firebrigades that we support since last ten years. In this case a Double Pump with submerse transfer and a Vertical booster pump.



PUMP FLOW RATE Up to 250 m<sup>3</sup>/h



**PRESSURE**Up to 14 bar



**GENERATOR POWER** Up to 200 kVA



**SUCTION LIFT** Up to -30 m





# **SERBIAN CIVIL DEFENCE**

A project consisting of 3 Lampo unit 60kVA wth self priming pump 520 mc/h each and 3 high volume pump units 1300 m³/h maximum flow each.



PUMP FLOW RATE Up to 520 m<sup>3</sup>/h



PRESSURE Up to 3 bar



GENERATOR POWER
Up to 200 kVA



**LIGHTNING TOWER**Up to 9 meters height

#### **RUSSIAN SEWAGE MUNICIPALITY**

These trailed Cornell pump units for Russian sewage municipality are able to pump 920 mc/h each, featuring robust construction and efficient operation.



**PUMP FLOW RATE** Up to 920 m<sup>3</sup>/h



PRESSURE Up to 11 bar



FUELTANK Up to 1000 L



**SOLID HANDLING**Up to 86 mm





#### **ITALIAN WATER MUNICIPALITY**

High volume self priming and high solid handling pump unit 700 m³/h mounted in a strong structure double axle trailer to respond common requirements by the water municipality companies.



PUMP FLOW RATE Up to 1300 m<sup>3</sup>/h



PRESSURE Up to 3 bar



TRAILER MASS Up to 3000 Kg



**SOLID HANDLING** Up to 70 mm





#### FIRE BRIGADE BOOSTER UNIT

Fully customized high pressure booster unit designed and built under Italian Firebrigades specification and request, able to supply up to 4 fire units at the same time.



**PUMP FLOW RATE** Up to 250 m<sup>3</sup>/h



**PRESSURE**Up to 10 bar



FUEL TANK Up to 650 L



**SPÉCIFICATIONS**Pas de radiateur





### **OIL&GAS REFINERY PUMP**

Robust construction pump unit with RENTAL configuration, equipped with a pump, suitable to handle aggressive liquids in the chemical and petrochemical industries.



PUMP FLOW RATE Up to 250 m<sup>3</sup>/h



**PRESSURE** Up to 8 bar



FUEL TANK Up to 1000 L



**CONFIGURATION**Rental version

#### **BRITISH ARMY PUMPING UNIT**

Conçue et construite sous une surveillance stricte du département de l'armée britannique, cette unité a été réalisée pour alimenter les camps d'urgence en électricité, en lumière et en eau potable ; une pompe de transfert a été installée pour alimenter les unités résidentielles temporaires.



PUMP FLOW RATE Up to 250 m<sup>3</sup>/h



PRESSURE
Up to 16 bar



**GENERATOR POWER**Up to 200 kVA



WATER PUMP Up to -30 m





### **GERMAN SEWAGE MUNICIPALITY**

High volume solid handling Cornell pump unit for municipal by-pass and repairment intervention, equipped with Redi- Prime® system to ensure a continuous operation priming of the pump.



**PUMP FLOW RATE** Up to 350 m<sup>3</sup>/h



PRESSURE Up to 14 bar



**SOLID HANDLING** Up to 76,2 mm



PRYMING SYSTEM
Cornell Redi-Prime®



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