

# SPECIFICATION SHEET

## GENERAL BYPASS PUMP PACKAGE INFORMATION

Model	Pump	Engine	Max. Solids	Fuel Tank	Suc. x Dis.
TP 64E	Cornell	Hyundai	3"	100 gals	6" x 4"

**Engine rating: Rated for 2200 rpm engine speed.** (Corrected per SAE J1349)  
 Intermittent - Applicable for a varying intermittent loads with no overload capability.  
 Continuous - Continuous prime rating is applicable for supplying power to a varying load for an unlimited amount of running time, with 10% overload capacity available for 1 out of every 12 hours.

### STANDARD PUMP PACKAGE DESCRIPTION

Tradewinds Power Corp (TPC) bypass 6" x 4" pump packages are designed for continuous operation in rugged environments requiring uninterrupted de-watering for extended periods. As standard a automatic priming centrifugal pump and diesel engine are close coupled together on a DOT trailer. The package designed to be easily transported to site making it the preferred pump for renters, municipalities, industrial users, and construction.

### Key TPK4-FS Pump Package Features are:

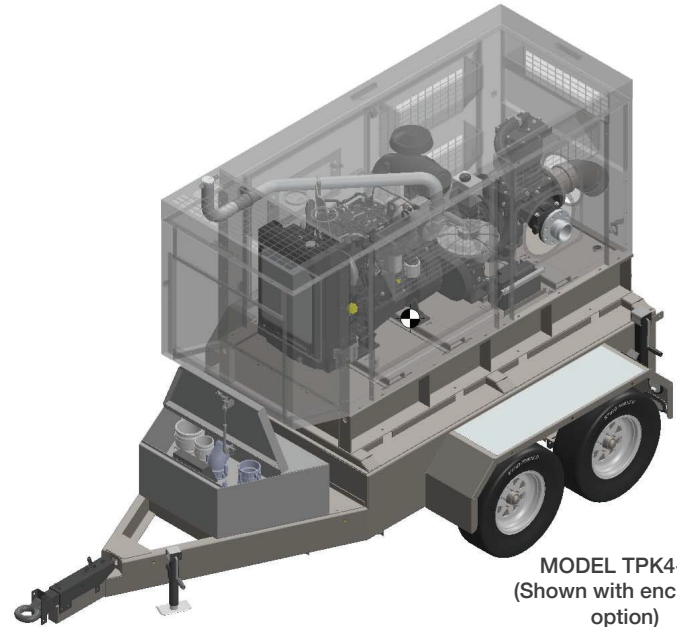
- CORNELL model 4NHTA Redi-Primer<sup>®</sup> bypass pump
- Hyundai diesel engine
- EPA and CARB certified for mobile applications
- DOT trailer for road and rough terrain mobility
- Heavy duty lifting bale
- 12v starter, charger and battery
- Auto start controller
- Open configuration with option for enclosure
- Spray bed liner that lasts longer than paint
- Torque spring axles for smoother equipment ride
- Hose box assembly with 250 PSI hoses
- All stainless steel hardware

### Pump Features:

- 6" discharge x 6" suction with 125# cast iron flanges
- Cast iron casing
- 2-vane enclosed stainless steel impeller that handles 3" diameter solids
- Replaceable wear rings & Run Dry Seals
- Cornell's patented Cycloseal<sup>®</sup> design with run-Dry oil lubrication system
- Vacuum pump 50 SCFM maximum. Positive seating vacuum priming valve prevent water carry-over to the vacuum, pump or atmosphere
- Ball valve made out of brass to prevent corrosion
- Alarms for Low Oil Level for run dry seals

### Optional Equipment Available for TPK4-FS Pump Package:

- Sound attenuated full enclosure fabricated from marine grade aluminum, and powder paint for durability
- Package can be easily upgraded to a pressure, level or flow transducer auto-start configuration



**MODEL TPK4-FS**  
 (Shown with enclosure option)

### Optional Equipment. Continued:

- Options for Flow Meters and Level Transducers
- Hoses with Stainless Steel couplings

### AUTOMATIC ENGINE CONTROLLER:

- Automatic engine controller with digital display of all functions
- Quick and easy to install
- Advanced, rugged, reliable microprocessor-based design
- Full engine monitoring and shut down protection
- Full autostart, manual start, and off controls
- 3.8" monochrome, transfective, white back light LCD



**MPC20**  
**ENGINE CONTROLLER**

### WARRANTY:

- Engine & Pump covered under the OEM manufacturer's warranty - consult Tradewinds Power Corp for details
- Complete package supplied with one-year limited warranty

*The manufacture reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.*

## TPK4-FS Performance Curve

### Pump Specifications

Manufacturer	Cornell
Model #	4NHTA
Type	4" discharge x 6" suction
Priming	Self-prime
Casing material	Cast iron
Impeller	Enclosed 2-vane
Impeller material	Stainless steel
Ball valve material	Brass
Solid size managed	3"
Wear rings	Replaceable
Ball bearing life	Heavy duty 50,000 hours
Shaft sleeve material	Stainless steel
Vacuum Pump	50 SCFM maximum

### Engine Specifications

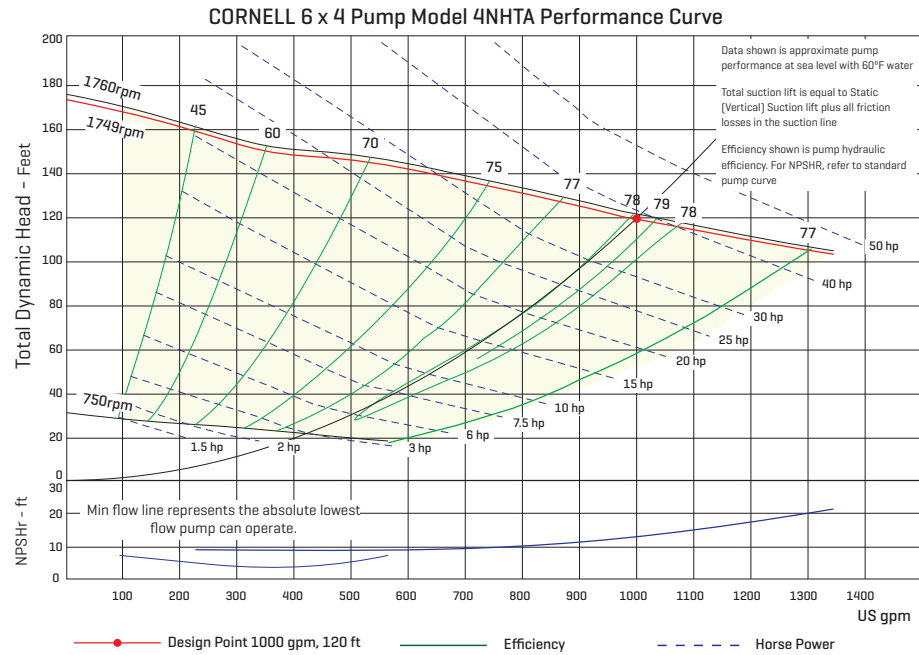
Manufacturer	Hyundai
Model	DM02
Emissions	Tier 4 - Final & Stage IIIB
Crankshaft speed	1,800 rpm
Engine Type & Combustion	Diesel Direct Injection
Fuel Injection System	High Pressure Common Rail
Fuel Pressure	1800 bar
Aspiration	Turbo-Charged & Inter-cooled
Diesel fuel grade	EN590 : 2009 Diesel
Cylinder Arrangement	In-line 4
Displacement in <sup>3</sup> (liters)	146 (2.392)
Bore and stroke ins (mm)	3.53 X 3.92 (90 X 94)
Peak power hp (kW) @ 2600 rpm	74.3 (55.4)
Cooling	Water Cooled
Engine Control	Electronic Engine Management
Compression ratio	17.0:1

### Standard Pump Package Arrangement

Coupling	Close coupled cam and
Arrangement	DOT trailer mounted
Fuel tank	100 gallon mounted in base
Starter and charging alternator	12V
Controller	MPC20
Exhaust	Mounted silencer
Hose coupling	Aluminum 250 psi
Site handling management	Lifting bale

### Options Offered for Pump Package

Sound attenuated enclosure	Aluminum powder coated
Hose box	Mounted on bed
Hose coupling option	Stainless steel
Auto switch operation options	Pressure/level/flow transducer



## TPK4-FS Performance Table

**Diesel Model:** Hyundai D24

**Pump Model:** Cornell 4NHTA

### Pump Details

Encl. Solids Handling	Adjustable	Package Dimensions	
<b>Design Point</b>	1000 gpm, 120 ft	Inches and Pounds	
<b>Static Head</b>	0 ft	Height	96.08
<b>Size</b>	4NHTA	Length	194.30
<b>Diameter (inches)</b>	12"	Width	88.36
<b>Speed</b>	1749	Dry Weight	6027.5 lbs

## TPK4-FS Dimensions

