

## SPECIFICATION SHEET

### GENERAL BYPASS PUMP PACKAGE INFORMATION

TPC Model	Pump	Engine	Max. Solids	Fuel Tank	Suc. x Dis.
TPK14-FS	Cornell	John Deere	4.25"	330 gals	14" x 14"

**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 14" x 14" 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 TPK14-FS Pump Package Features are:

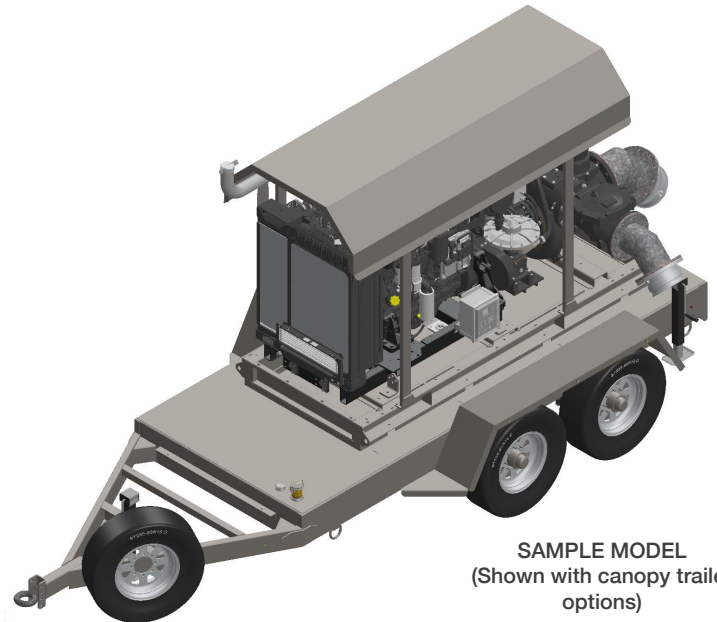
- CORNELL model 8NHTH Redi-Primer<sup>®</sup> bypass pump
- John Deere diesel engine
- EPA and CARB certified for mobile applications
- DOT trailer for road and rough terrain mobility
- Heavy duty lifting bale
- 12v starter, charger and battery
- Auto start controller
- Open configuration with option 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:

- 14" discharge x 14" suction with 125# cast iron flanges
- Cast iron casing
- 3-vane enclosed stainless steel impeller that handles 4.25" diameter solids
- Replaceable wear rings & Run Dry Seals
- Cornell's patented Cyclo Seal<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 TPK14-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



SAMPLE MODEL  
(Shown with canopy trailer options)

#### 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.*

## TPK14-FS Performance Curve

### Pump Specifications

Manufacturer	Cornell
Model #	14NHGH
Type	14" discharge x 14" suction
Priming	Self-prime
Casing material	Cast iron
Impeller	Enclosed 3-vane
Impeller material	Stainless steel
Ball valve material	Brass
Solid size managed	4.25"
Wear rings	Replaceable
Ball bearing life	Heavy duty 50,000 hours
Shaft sleeve material	Stainless steel
Vacuum Pump	50 SCFM maximum

### Engine Specifications

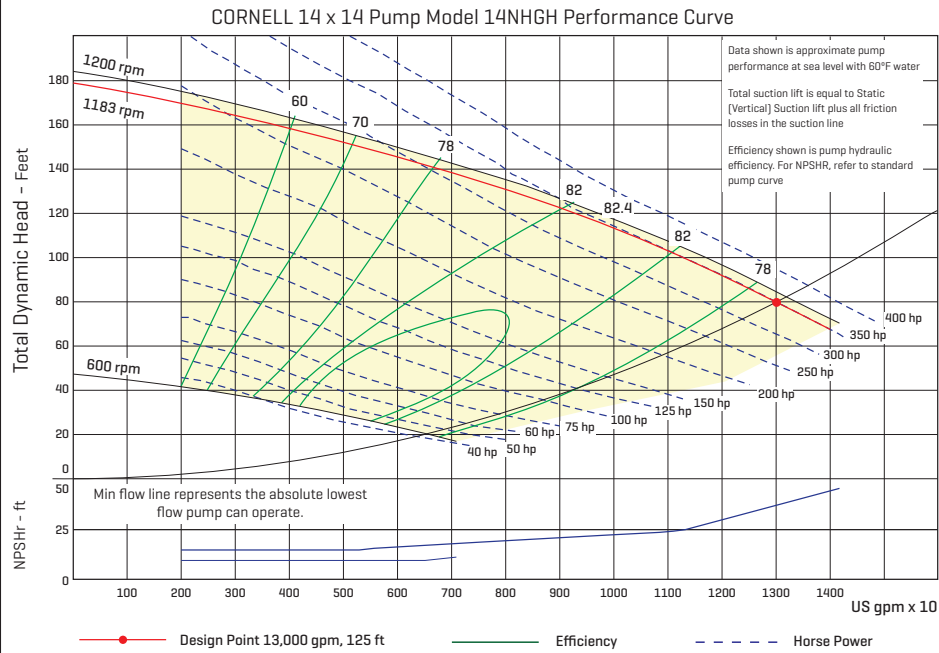
Manufacturer	John Deere
Model	6090HFC09
Emissions	Tier 4 - Final
Crankshaft speed	2,200 rpm
Engine Type & Combustion	Diesel Direct Injection
Fuel Injection System	High Pressure Common Rail
Fuel Pressure	2500 bar
Aspiration	Turbo-Charged aftercooled
Diesel fuel grade	EN590 : 2009 Diesel
Cylinder Arrangement	In-line 6
Displacement in <sup>3</sup> [liters]	549 [9.0]
Bore and stroke ins [mm]	4.66 X 5.35 [118.4 X 136.0]
Peak power hp [kW] @ 2200 rpm	425.0 [317.0]
Cooling	Water Cooled
Engine Control	JD Engine Control Unit [ECU]
Compression ratio	16.0:1

### Standard Pump Package Arrangement

Coupling	Pulley Arrangement
Arrangement	DOT trailer mounted
Fuel tank	330 gallon mounted in base
Starter and charging alternator	12V
Controller	MPC20
Exhaust	Mounted silencer
Hose coupling	Aluminum 250 psi
Site handling management	Lifting points

### 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
Flow meters	To track water pumped
Level Transducers	To measure height of water



## TPK14-FS Performance Table

Diesel Model: John Deere 6090T

Pump Model: Cornell 14NHGH

### Pump Details

Encl. Solids Handling	Adjustable	Pump Dimensions	
Design Point	13,000 US gpm, 80 ft	Inches and Pounds	
Static Head	0 ft	Height	57.20
Size	14NHGH	Length	93.00
Diameter (inches)	19.5"	Width	71.26
Speed	1183 rpm	Dry Weight	TBA

## TPK14-FS CORNELL Pump Dimensions

