

## SPECIFICATION SHEET

### GENERAL BYPASS PUMP PACKAGE INFORMATION

TPC Model	Pump	Engine	Max. Solids	Fuel Tank	Suc. x Dis.
TP88-24T4P	Cornell	Perkins	3"	n.a.	8" x 5"

**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 8" x 5" pump packages are designed for continuous operation in rugged environments requiring uninterrupted watering for extended periods. As standard an automatic priming centrifugal pump and diesel engine are close coupled together on a frame. The package designed to be easily mounted at site making it the preferred pump for agricultural applications.

### Key TP88-22T4P Pump Package Features are:

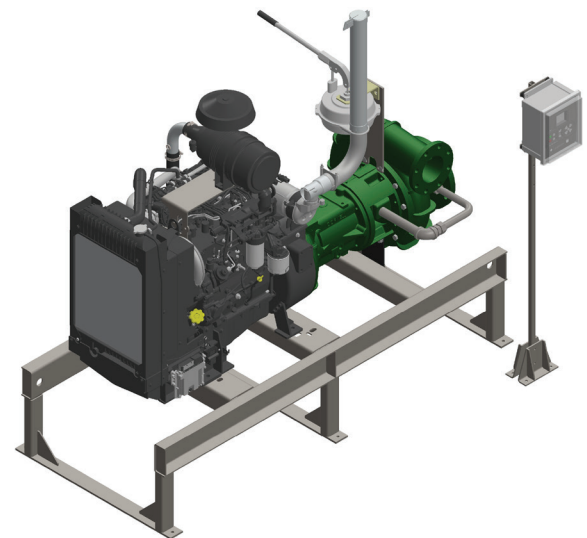
- CORNELL model 5RB-EM16 bypass pump
- Perkins diesel engine Model 904J-E36TA
- EPA and CARB certified for mobile applications
- Mounted to chassis for mounting on firm surface
- Lifting via heavy duty chassis
- 12v starter, charger and battery
- Auto start controller
- Open configuration
- Spray bed liner that lasts longer than paint
- All stainless steel hardware

### Pump Features:

- 5" discharge x 8" 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® 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 TP88-22T4P Pumps:

- 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 TP88-22T4P

### 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.*

## TP88-22T4P Performance Curve

### Pump Specifications

Manufacturer	Cornell
Self Priming Model #	5RB-EM16
Type (3" solid managed)	5" discharge x 8" suction
Casing material	Cast iron
Impeller	Enclosed 2-vane
Impeller material	Stainless steel
Ball valve material	Brass
Wear rings	Replaceable
Ball bearing life	Heavy duty 50,000 hours
Shaft sleeve material	Stainless steel
Vacuum Pump	50 SCFM maximum

### Engine Specifications

Manufacturer	Perkins
Model	904J-E36TA
Emissions	Tier 4 - Final & Stage IIIB
Crankshaft speed	2,200 rpm
Engine Type & Combustion	Diesel Direct Injection
Fuel Injection System	High Pressure Common Rail
Fuel Pressure	2000 bar
Aspiration	Turbo-Charged Aftercooled
Diesel fuel grade	EN590 : 2009 Diesel
Cylinder Arrangement	In-line 4
Displacement in <sup>3</sup> (liters)	219.7 (3.6)
Bore and stroke ins (mm)	3.85 X 4.72 (98 X 120)
Peak power hp (kW) @ 2200 rpm	100.0 (137.0)
Cooling	Water Cooled
Engine Control	Electronic Engine Management
Compression ratio	18.0:1

### Fuel Consumption @ 1800 rpm gals (liter) per hour

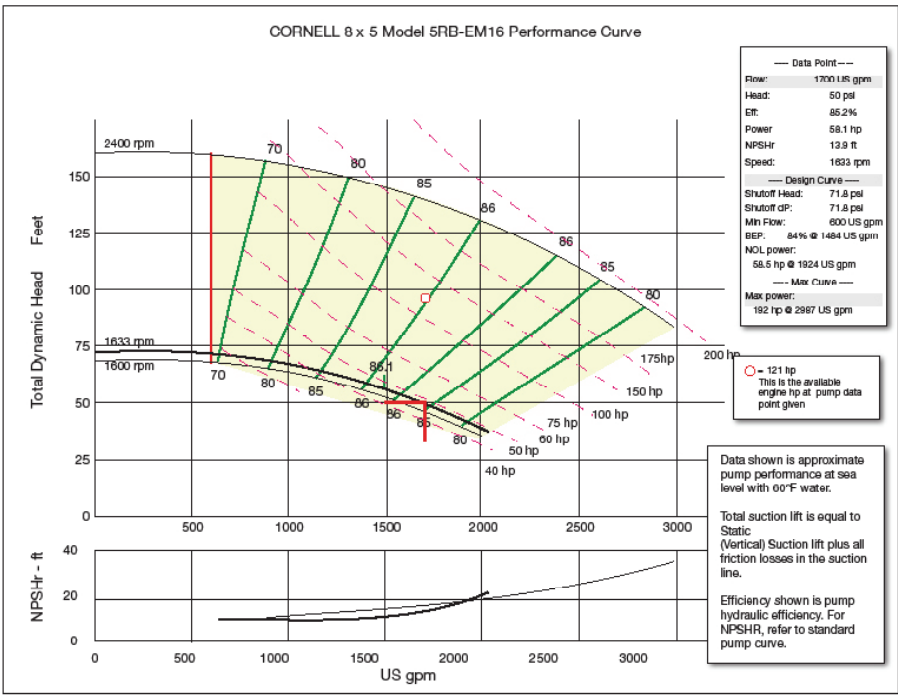
100% Load	6.206 (23.27)
75% Load	4.654 (31.88)
50% Load	3.103 (22.88)
25% Load	1.551 (13.50)

### Standard Pump Package Arrangement

Coupling & Arrangement	Close coupled on Chassis
Starter and charging alternator	12V
Controller	MPC20
Exhaust	Mounted silencer
Site handling management	Frame
Hose coupling	Aluminum 250 psi

### 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



## TP88-22T4P Performance Table

**Diesel Model:** Perkins 904J-E36TA

**Pump Model:** Cornell 4RB-EM16

### Pump Details

<b>Encl. Solids Handling</b>	3" Maximum	<b>Package Dimensions</b>	
<b>Design Duty Point</b>	1800 gpm @52 psi@1633rpm	Inches and Pounds	
<b>TDH</b>	120 ft	Height	65.48
<b>Size</b>	4RB-EM16	Length	84.00
<b>Diameter (inches)</b>	13.5"	Width	38.00
<b>Speed</b>	1633 rpm	Dry Weight	2146 lbs

## TP88-22T4P Dimensions

