

PUMP MODEL: TP60-28T4P

6" x 4" AG PUMP PACKAGE

PUMP TYPE: CORNELL

ENGINE: Perkins 404J-E22T

SPECIFICATION SHEET

GENERAL PUMP PACKAGE INFO				FORMATION	NC
TPC Model	Pump	Engine	Max. Solids	Fuel Tank	Suc. x Dis.
TP50-28T4iP	Cornell	Perkins	N.A.	N.A.	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) 6" x 4" AG 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 SAE mounted on a frame. The package designed to be easily mounted at site making it the preferred pump for agricultural applications.

Key TP60-28T4P Pump Package Features are:

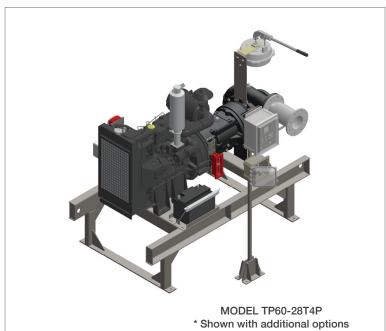
- · CORNELL model 4RB-EM16 bypass pump
- · Perkins diesel engine Model 404J-E22T
- EPA and CARB certified for mobile applications
- · Mounted to chassis for mounting on firm surface
- · Lifting via heavy duty chassis
- · 12v starter, charger and battery
- · Auto start controller mounted on aluminum stand
- Open configuration
- · AWL anticorrosive paint
- · Hand primer pump

Pump Features:

- 6" discharge x 4" suction with 125# cast iron flanges
- · Cast iron casing
- · 2-vane enclosed impeller
- · Replaceable wear rings & Run-Dry Seals
- · Ball valve made out of brass to prevent corrosion
- · Alarms for Low Oil Level for Run-Dry seals

Optional Equipment Available for TP60-28T4P 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
- 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



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, transflective, 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.



TP60-28T4P Performance Curve

			CORNELL 6 x 4 Model 4RB-EM16 1000 US gpm Performance Curve	
		3000 rpm	13FT NPSH 60 70 75	
	200	1	80 250 hp	Data Point Flow: 1000 US gpm Head: 64.9 psi Eff: 85.3% Power 48.0 hp
	150		83 200 hp	Design Curve Shutoff Head: 71.8 psi Shutoff dP: 71.8 psi Jin Flow: 150 US gpm SEP: 85.3% @ 1016 US gpm
Head psi	100	1800 rpm	85 83 125 hp	VOL power: 15.6 hp @ 1000 US gpm
	50	1000 rpm	76 hp 76 hp 40 hp 40 hp	= 53.3 hp @ 1800 rpm This is the available engine hp at pump duty point given Data shown is approximate
	0 (0	60 70 75 89 83 83 80 76 10 hp 15 hp 20 hp 25 hp 7.5 hp 7.5 hp 200 p 25 hp 7.5 hp	pump performance at sea level with 60°F water. Total suction lift is equal to Static (Vertical) Suction lift lous all friction losses in the
NPSHr - ft	40 20	_		Efficiency shown is pump hydraulic efficiency. For NPSHR, refer to standard pump curve.
2	0 (0	200 500 750 1000 1250 1500 US gpm	

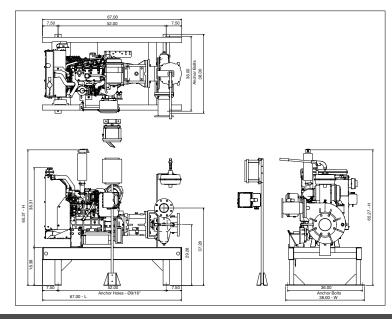
TP60-28T4P Performance Table

Diesel Model: Perkins 404J-E22T **Pump Model:** Cornell 4RB-EM16

Pump Details

Design Point min/max	1100 gpm @56psi @1800rpm	Package Dimensions Inches and Pounds	
Static Head	0 psi	Height	65.27
Size	4RB-EM16	Length	67.00
Impeller Diameter (in.)	12.75"	Width	38.00
Speed	1800	Dry Weight	972 lbs

TP60-28T4P Dimensions



Pump Specifications Manufacturer Cornell Model # 4RB-EM16 Type 4" discharge x 6" suction Casing material Cast iron Impeller Enclosed 2-vane Impeller material Cast iron Ball valve material Brass Wear rings Replaceable Ball bearing life Heavy duty 50,000 hours Shaft sleeve material Stainless steel **Engine Specifications**

Manufacturer	Perkins	
Model	404J-E22T	
Emissions	Tier 4 - Final & Stage IIIB	
Crankshaft speed	2,800 rpm	
Engine Type & Combustion	Diesel Direct Injection	
Fuel Injection System	High Pressure Common Rail	
Fuel Presssure	2000 bar	
Aspiration	Turbocharged	
Diesel fuel grade	EN590 : 2009 Diesel	
Cylinder Arrangement	In-line 4	
Displacement in ³ (liters)	135 (2.2)	
Bore and stroke ins (mm)	3.3 X 3.9 (84 X 100)	
Peak power hp (kW) @ 2800 rpm	60.0 (45.0)	
Cooling	Water Cooled	
Engine Control	Electronic Engine Management	
Compression ratio	18.0:1	
Fuel Consumption @ 1800 rpm gals (liter) per hour		

	Fuel Consumption @ 1800 r	pm gais (liter) per nour	
	100% Load	2.634 (9.88)	
	75% Load	1.948 (7.31)	
	50% Load	1.378 (5.17)	
	25% Load	0.772 (2.90)	
Standard Pump Package Arrangement			

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ounted		
chassis mounted		
)		
ed silencer		

LAHaust	Modrited Silericei	
Site handling management	Frame	
List of Options Offered for Pump Package		
Stainless steel impellar	Subbase	
Subbase fuel tank	Oil level switch gauge	
Water level switch gauge	Flow meter	
Concentric and eccentric reducers	Lay flat hoses with or without reel	
Foot valves		