

## **GASEOUS OPEN POWER UNITS**

GM AND FORD GASEOUS OPEN POWER UNITS (OPU) FOR AGRICULTURAL APPLICATIONS

Tradewinds Power Corp (TPC) OPUs units are designed, packaged, and tested to meet the power requirements of a wide range of equipment used in agricultural applications. All our systems and components are prototyped, assembled, and tested within a purpose built packaging, manufacturing, and test facility. There are considerable capital, and operational cost benefits in selecting gaseous OPUs.

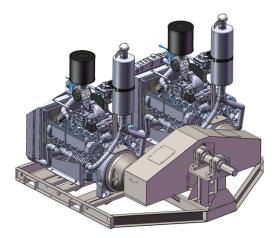


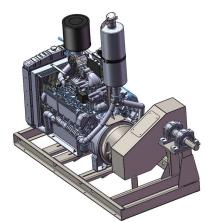
# **GAS POWER FOR AGRICULTURE**

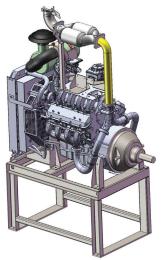
### Wide Range of EPA Certified Gaseous Open Powered Units.

Tradewinds Power Corp have chose the GM and FORD gaseous platforms for OPU AG power because we insist on maximum reliability, best performance, and a proven track record in supplying power in AG applications. As a packager of OPUs we have being using the GM and FORD engine platforms configured to run on LPG and Natural Gas for several decades.

We offer three distinct OPU configurations to provide our customers with the broadest power options:







#### **1 - TWIN ENGINE PULLEY REDUCTION DRIVE**

Using a proven engine platform for agricultural applications, we assemble on a rigid steel base (equipped for fork lift slots) two gaseous engines. Each engine is coupled via a reduction pulley drive system to a single shaft mounted on pedestal bearings. This option maximizes reliable gaseous power from the smallest envelop.

| COMPACT POWER:   | Up to 600 plus gaseous horse power                |  |
|------------------|---|--|
| BEST TORQUE:     | Engine speed and power matched for best torque    |  |
| MANEUVERABILITY: | Frame fitted with fork lift slots for ease of use |  |

#### **2 - SINGLE ENGINE PULLEY REDUCTION DRIVE**

Pulley reduction drive provides the user with the maximum power on the speed curve at a very useful 1800 rpm shaft output. The drive system and speed maximizes torque and horse power. As for the twin pack the final drive shaft is within pedestal bearings for convenient robust hookup to the load.

| MAXIMIZED POWER:   | Engine runs at optimum speed for power and torque  |
|--------------------|--|
| SPEED REDUCTION:   | Poly-vee belts drop speed to useful 1800 rpm       |
| PEDESTAL BEARINGS: | Long life with ability to manage high torque loads |

#### **3 - SINGLE ENGINE CLUTCH DRIVE**

The standard Tradewinds Power Corp gaseous OPUs are fully self contained ready to run units assembled on a rigid steel frame. A mixture of FORD and GM engine platforms provides our AG clients with a range of power nodes. Mounted equipment is within the envelope of the frame.

| SELF CONTAINED:   | Mounted exhaust, air cleaner, cooling, and controls |
|-------------------|---|
| EASY DOOR ACCESS: | Frame sized to fit standard door opening            |
| FLYWHEEL CLUTCH:  | Premium clutch assembly for durable load connection |



Twin Gas Model Depicted

#### **PROPANE MAKES "CENTS" FOR AGRICULTURAL POWER**

The Propane Farm Incentive Program has through research been promoting the benefits of propane. Users enrolling in PERC (Propane Education & Research Council) could be eligible for up to \$5000 incentive when purchasing propane-powered farm equipment. We only use gaseous engines eligible for the PERC farm program.

Through research from participating enrollees, PERC is promoting the benefits of using propane powered engines, including:

- · Propane engines are cheaper than diesel with a lower fuel cost
- 1.57 gallons of propane can do the work of 1-gallon of diesel
- Propane has lower CO2 than gasoline and diesel
- · Lower maintenance cost than a similar sized diesel
- Propane has a longer shelf life than diesel, with spillage less of an EPA impact

#### SUPERIOR SERVICE FROM TRADEWINDS POWER CORP

In addition to packaging, we have invested in the equipment, and trained service technicians to provide our customers with a "One-Stop-Shop" for all the service requirements.

We offer to users of our packages complete service programs customized around their individual needs.

A TPC planned service program ensures users of our power equipment trouble free operation, minimum unscheduled power interruptions, and the best value in ownership and operation. Contact us today to see how we can effectively manage all your service needs.

| TPC MODEL   | Max. hp LPG (NG) |            | 1800rpm hp LPG (NG) |            | Max. Torque ft-lbs LPG (NG) |             |  |  |
|---|------------------|------------|---------------------|------------|-----------------------------|-------------|--|--|
|   | Intermittent     | Continuous | Intermittent        | Continuous | Intermittent                | Continuous  |  |  |
| FORD Engine Powered OPUs  |                  |            |                     |            |                             |             |  |  |
| TFI85   | 74 (55)          | 67 (195)   | 78 (58)             | 42 (31)    | 195 (285)                   | 176 (257)   |  |  |
| TFI130  | 202 (151)        | 176 (131)  | 130 (97)            | 113 (84)   | 360 (315)                   | 324 (284)   |  |  |
| TFI130R   | 202 (151)        | 176 (131)  | 202 (151)           | 176 (131)  | 360 (315)                   | 324 (284)   |  |  |
| TFFI330   | 330 (290)        | 297 (261)  | 330 (290)           | 297 (261)  | 756 (105)                   | 297 (261)   |  |  |
| GM Engine Powered OPUs  |                  |            |                     |            |                             |             |  |  |
| TG51  | NA               | NA         | 60 (45)             | 52 (39)    | 224 (304)                   | 201 (274)   |  |  |
| TG106   | 106 (79)         | 92 (69)    | 70 (52)             | 61 (46)    | 398 (540)                   | 358 (486)   |  |  |
| TG160   | 160 (119)        | 139 (104)  | 102 (76)            | 89 (66)    | 738 (1000)                  | 664 (900)   |  |  |
| TG244   | 244 (167)        | 212 (158)  | 177 (132)           | 154 (115)  | 842 (1141)                  | 757 (1027)  |  |  |
| TG244R  | 244 (167)        | 212 (158)  | 244 (167)           | 212 (158)  | 1243 (1685)                 | 1119 (1517) |  |  |
| TG425   | 425 (317)        | 325 (242)  | 425 (317)           | 325 (242)  | 1243 (1685)                 | 1119 (1517) |  |  |
| TPC offer a full range of gaseous OPUs with the Ford and GM gaseous engines |                  |            |                     |            |                             |             |  |  |



MPC-20 Engine Controller

Available on remote stand

Designed for outdoor environment

#### **AUTOMATIC ENGINE CONTROLLER**

We have developed an engine control unit for the manual and automatic starting and monitoring system that meets the rigid and challenging environment of our served agricultural equipment customers. Consider the following features:

- · Full engine control and safety shut-down monitoring
- · Can-based display with rich full-color graphics
- · Bonded glare-free LCD screen, viewable in direct sunlight
- · Easy-to-use configuration software
- · Full auto-start, manual start, and off controls
- Rugged design for extreme environments

#### PRODUCT RELIABILITY

Farmers choose our products for performance and the low cost of ownership.

#### REASONS TO CHOOSE OUR GASEOUS FORD & GM OPUs

Farmers, nurseries, live stock providers, and other AG customers choose us for:

#### Performance

- Compact with lower foot print
- Proven technology in served market
- Best torque where you need it
- Rated to carry the load required

#### Cost of ownership

- 500-hour oil changes
- TPC service package
- Lower capital investment cost
- Best fuel consumption

The dedication of our employees is our greatest strength and we look forward to providing you with the highest quality products and service.

#### SUPERIOR ENGINEERING

We have over 40-years experience in packaging OPUs, generator sets, and pump packages for a wide range of applications. Located in Florida, we have invested in the facilities, engineering knowhow, design resources and development expertise to offer value engineered, tried and tested equipment.

#### PRODUCT RELIABILITY

The FORD and GM quality is a must to match the rigid standards for quality and reliability found in all of our products. Our OPUs are designed and engineered to provide years of reliable operation in their served markets and applications, with minimal cost of ownership.

#### WARRANTY

Complete package supplied with one-year unlimited warranty.

#### Self Contained Package

- Mounted on fabricated steel frame
- Clutch assembled to flywheel housing
- All moving surfaces & belts guarded
- Mounted exhaust, radiator, and filters

#### Engineered for Agricultural Use

- Gas engines already used by AG OEMs
- Engineered for operating conditions
- Controls for powering AG equipment
- Designed for minimal maintenance



Twin Gas OPU Depicted

OPU power up to 600 hp

Conveniently packaged shaft power

EPA and CARB Certified