

Dragon Power Turbine Product Benefits

Proven Benefits

FUEL FLEXIBILITY

Dual fuel with 100% gas and 100% liquid operation, including wellhead and flare gas, etc. greatly reduces fuel costs, change over at up to full load

LOW MAINTENANCE FREQUENCY

Up to 60,000 equivalent hours between major inspections at the factory (30,000 hours for hydraulic fracturing application)

COST EFFECTIVE

Reduced CAPEX and life cycle cost savings approach 50% of comparable reciprocating engine cost and 35% of electric motors

HIGH RELIABILITY

Cold end drive design and optimum speed control for maximum reliability

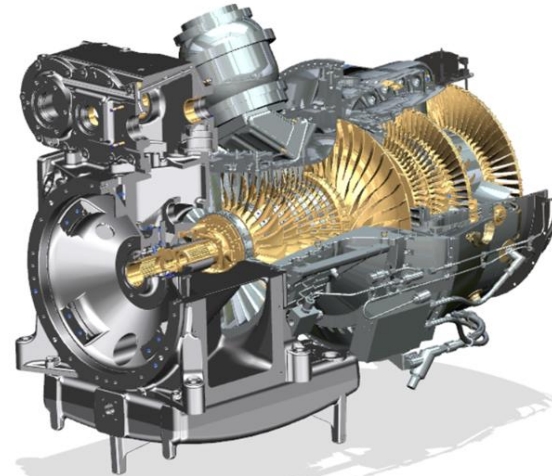
ECO-FRIENDLY

Lower emissions and noise compared to reciprocating engines

Features and Capabilities



| | | | |
|---|--|---|---|
|  FLEXIBLE On-condition maintenance, fuel variation, mobile options |  OPEX ADVANTAGES 5,000 SHP on a single trailer, reducing space, personnel and logistic requirements |  DIRECT MOUNT Direct mount eliminates alignment issues |  EASY MAINTENANCE Site module/engine replacement time in less than 8 hours, with no realignment required |
|  COMPACT Highest power to weight ration in its class |  COLD START Superior cold start capability, no required warm-up time |  FAST START Can start from zero to full load in less than one minute |  SWAP FUEL TYPE Transfer between gas and liquid fuel while operating at full load |



Mobile Power Generation package

COMPACT FOOTPRINT

- Mobile, remote sites
- Small footprint, tight spaces
- Low noise, urban ready
Bridge legal for transport

MINIMUM SETUP

- Direct cantilever mount/drive, no alignment required
- Quick start-up/shut-down, accurate & quick load/speed control
- High efficiency at variable loads and combined cycles (CHP)

FUEL FLEXIBILITY

- Low emissions, flexibility in remote areas, no operation interruption
- Natural Gas, CNG, LNG, Biogas or diesel

BENEFITS

- Electric power generation and CHP
- Reliability and dependability with longest lifecycle
- Lowest OPEX, quickest payback, effective financial value
- Low maintenance, tough road conditions transportable

APPLICATIONS

- Oil & Gas Fields: Drilling, E-Frac, Production Facilities
- Back-up Power, Disaster Relief
- Stand-alone Microgrids
- Urban Power Applications

Powered by

VERICOR



Americas 200+ Engines



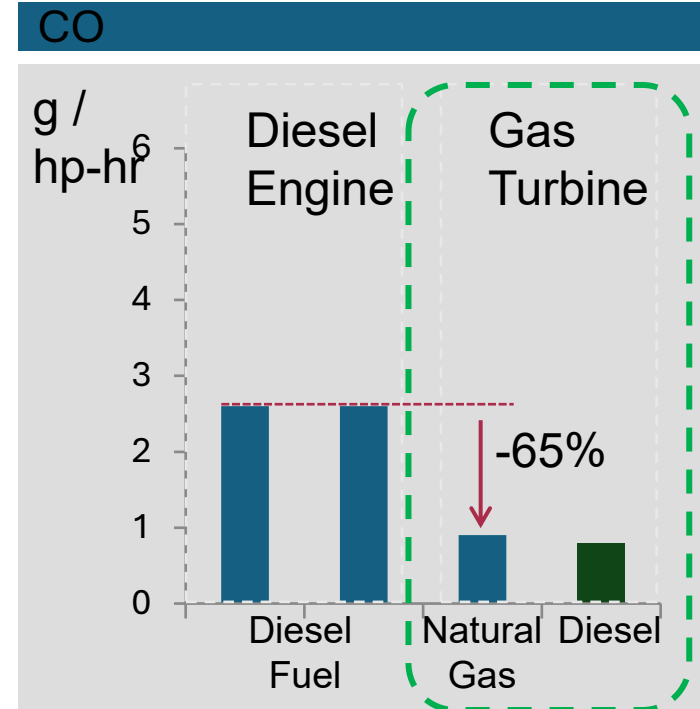
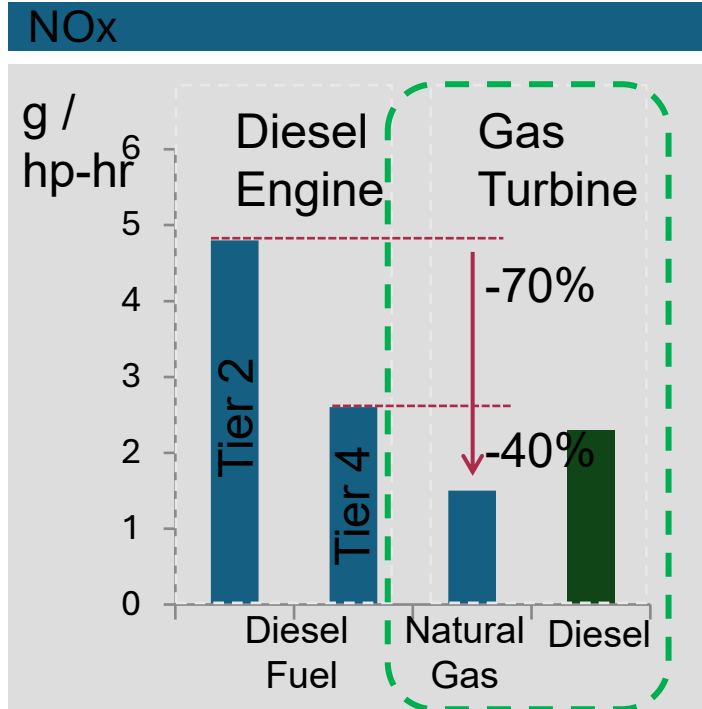
Europe 140+ Engines



Asia 210+ Engines

Total VPS Series Industrial Gas Turbine Engines in Service:
Over 600 worldwide...

Gas Turbine Natural Gas Emissions Below EPA Tier IV Required Limits

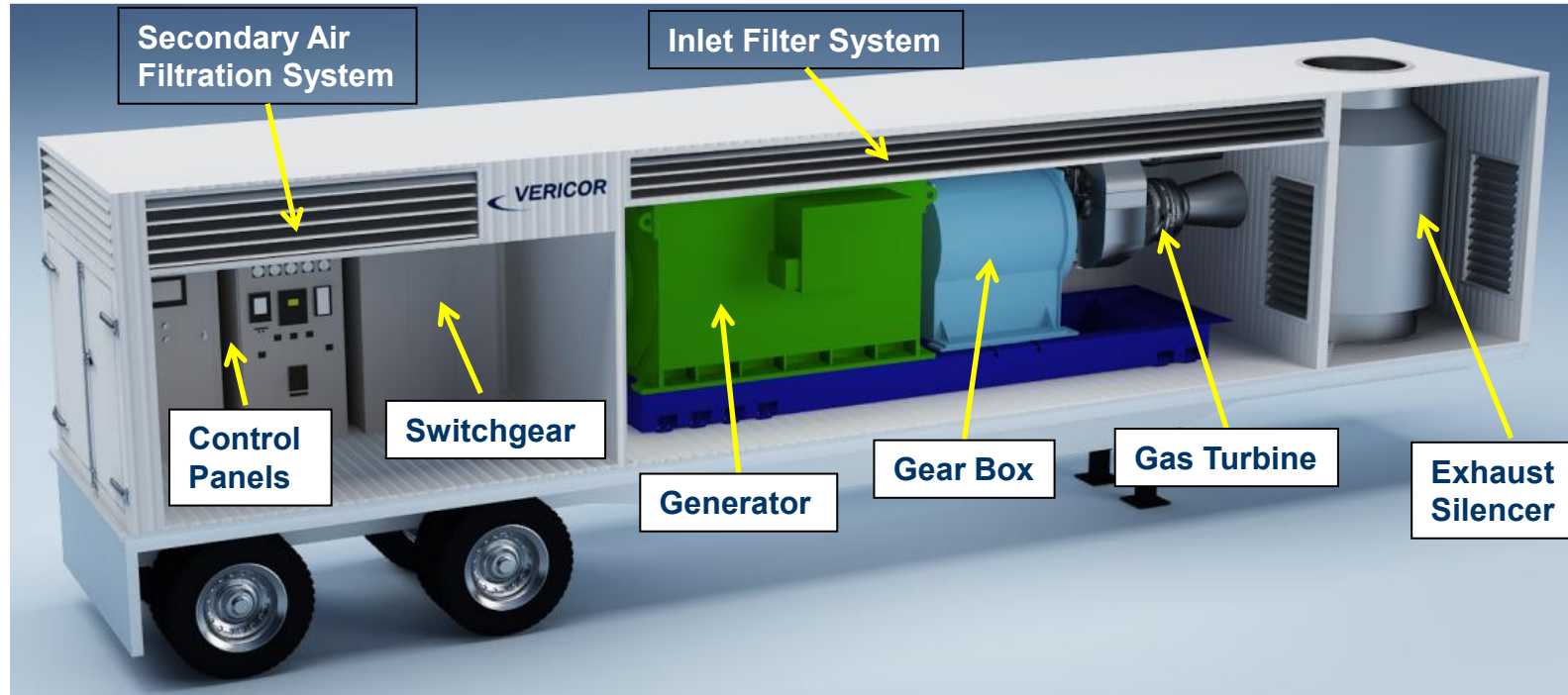


Tier IV

Higher diesel operating costs due to:

- Ultra Low Sulfur Diesel Fuel Required
- Diesel Particulate Filter Required
- Diesel Fluid for SCR Engines Required

The Complete Package is mounted on a Single Trailer



TURBINE GEN MODULE

- Enclosure full protection
- Cantilever mounted
- 85dB at 5' to 10'
- Air filtration system



AE50B TURBINE

- 8 stage compressor
- 4 turbine stages
- Free spool turbine
- Cold or hot start



REDUCTION GEAR

- Epicyclic
- 98.8% Efficiency
- 16.000
- Oil-cooled



GENERATOR

- 13,800V, 4375KVA
- 96.8% Efficiency
- Protection/Cooling - IP23/IC01
- Sleeve bearings



| Description | Diesel Engine | TF50F Gas Turbine | Comments |
|--|--|---|---|
| Horsepower | 2,250 or 2,500 shp | 5,000 shp | 2x the HP of a traditional diesel engine |
| Fuel flexibility | 100% diesel, 80/20 bi-fuel | 100% diesel or 100% natural gas / field gas | Significant fuel cost savings with natural gas |
| Portability | Over the road permits | No special permits required | Significant lower weight and footprint saves on transportation cost |
| Emissions | EPA tier 2 and tier 4 | 65% lower | Below EPA tier IV levels |
| Noise levels | 104 to 108 dba | 78 to 90 dba | With noise attenuation |
| Cold start capability | Oil, fuel and coolant heaters required below 32F | To -20F with heated diesel fuel (not required for gas fuel) | Reliable GT cold weather starting |
| Avg. maintenance costs per hhp/yr | ~ 120 \$ | ~ 60 \$ | assumes operation of 3,000 hrs./yr.; 7 year operations |