TITAN 130
Gas Turbine Compressor Set

General Specifications
Titan™ 130 Gas Turbine
• Industrial, Two-Shaft
• Axial Compressor
  – 14-Stage
  – Variable Inlet Guide Vanes and Stators
  – Pressure Ratio: 16:1
  – Inlet Airflow: 47.4 kg/sec (105.2 lb/sec)
  – Vertically Split Case
• Combustion Chamber
  – Annular-Type, Conventional or Lean-Premixed, Dry, Low Emission (SoLoNOx™)
  – 21 Fuel Injectors (Conventional)
  – 14 Fuel Injectors (SoLoNOx)
  – Torch Ignitor System
• Gas Generator Turbine
  – 2-Stage, Reaction
  – Max. Speed: 11,220 rpm
  – Thrust Bearing, Active: Tilting-Pad
  – Thrust Bearing, Inactive: Fixed Tapered Land
• Power Turbine
  – 2-Stage, Reaction
  – Max. Speed: 8855 rpm
  – Full Tilting-Pad Thrust Bearing
• Journal Bearings
  – Tilting-Pad
• Coatings
  – Compressor: Inorganic Aluminum
  – Turbine and Nozzle Blades: Precious Metal Diffusion Aluminide
• Vibration Transducer Type
  – Proximity Probes

Key Package Features
• Driver Skid with Drip Pans
• Driven Equipment Skid
  – Multi-Stage Compressor Options, Single-Body or Tandem Compressor Configurations
  – Pipeline Compressor Options
  – Compressor Auxiliary Systems
• Compressors
  – 316L Stainless Steel Piping ≤4” dia.
  – Compression-Type Tube Fittings
• Electrical System Options
  – NEC, Class I, Group D, Div 1, or Div 2
  – ATEX, Zone 2
  – CENELEC, Zone 1
• Turbotronic™ Microprocessor Control System
  – Onskid Control System (Div 2 or ATEX, Zone 2)
  – Freestanding Control Console
  – Color Video Display
  – Vibration Monitoring
• Control Options
  – 120-VDC Accessory Battery/Charger System
  – Gas Turbine and Package Temperature Monitoring
  – Serial Link Supervisory Interface
  – Turbine Performance Map
  – Compressor Performance Map
  – Historical Displays
  – Printer/Logger
  – Remote Monitoring and Diagnostics Option
  – Process Controls
  – Compressor Anti-Surge Control
  – Field Programming
  – Predictive Emissions Monitoring
• Start Systems
  – Pneumatic
  – Direct-Drive AC
• Natural Gas Fuel System
• Integrated Lube Oil System
  – Turbine-Driven Accessories
  – AC Motor-Driven Accessories
• Oil System Options
  – Oil Cooler
  – Oil Heater
  – Tank Vent Separator
  – Flame Trap
• Package Skid Design
  – Accommodates Mars® and Titan Turbines
  – Optional Modifications for Floating Production Applications
  – Drop-In Lube Oil Tank
  – Modularized System Design
• Axial Compressor Cleaning Systems
  – On-Crank
  – On-Crank/On-Line
  – Portable Cleaning Tank
• Gearbox (if applicable)
  – Speed Increaser
  – Speed Decreasers
• Air Inlet and Exhaust System Options (Carbon or Stainless Steel)
• Enclosure and Associated Options
• Factory Testing of Turbine and Package
• Documentation
  – Drawings
  – Quality Control Data Book
  – Inspection and Test Plan
  – Test Reports
  – Operation and Maintenance Manuals
### Performance

**Output Power**: 15,290 kW (20,500 hp)

**Heat Rate**: 9940 kJ/kW-hr (7025 Btu/hp-hr)

**Exhaust Flow**: 180,050 kg/hr (396,940 lb/hr)

**Exhaust Temp.**: 505°C (940°F)

*Nominal rating – per ISO
At 15°C (59°F), at sea level
No inlet/exhaust losses
Relative humidity 60%
Natural gas fuel with LHV = 35 MJ/nm³ (940 Btu/scf)
Optimum power turbine speed
AC-driven accessories
Engine efficiency: 36.2%

### Package Dimensions*

- **Length**: 9.8 m (32' 0")
- **Width**: 3.1 m (10' 2")
- **Height**: 3.2 m (10' 4")
- **Typical Weight**: 38,555 kg (85,000 lb)

*Driver package only*

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FOR MORE INFORMATION