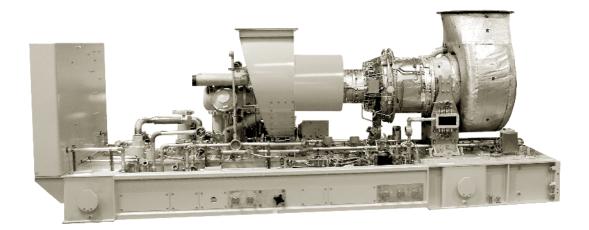
Solar Turbines

A Caterpillar Company

TAURUS 70

Gas Turbine Mechanical-Drive Package

Oil & Gas Applications



General Specifications

Taurus™ 70 Gas Turbine

- · Industrial, Two Shaft
- · Axial Compressor
 - 14 Stage
 - Variable Inlet Guide Vanes
 - Pressure Ratio: 16.5:1
 - Inlet Airflow:26.2 kg/sec (57.7 lb/sec)
 - Axially Split Case
- · Combustion Chamber
 - Single Annular Type
 - Conventional or Lean-Premixed,
 Dry, Low Emission (SoLoNOx™)
 - 12 Fuel Injectors
 - Torch Ignitor System
- · Gas Producer Turbine
 - 2 Stage, Reaction
 - Max. Speed: 15,200 rpm
- · Power Turbine
 - 2 Stage, Reaction
 - Max. Speed: 12,000 rpm
- Bearings
 - Journal and Thrust: Tilt Pad
- Coatings
 - Compressor Stators and Drums: Inorganic Aluminum
 - Turbine Nozzles and Blades:
 Precious Metal Diffusion Aluminide
- Vibration Transducer Type
 - Proximity Probes
 - Velocity Transducer

Key Package Features

- · Driver Skid with Drip Pans
- 316L Stainless Steel Piping ≤102mm (4")
- Compression-Type Tube Fittings
- Digital Display Panel
- · Electrical System Options
 - NEC Class I, Group D, Div. 1 or 2
 - CENELEC Zone 1 or 2
- Turbotronic[™] Microprocessor Control System
 - Offskid or Onskid ControlNet 1.5
 - Video Display Unit
 - Temperature and Vibration Monitoring
 - Historical Displays
- · Control System Options
- Auxiliary Control Interface or Auxiliary Control Console (with onskid controls)
- Remote Control and Display
- 120-VDC Control Battery/Charger
- Supervisory Communications Interface
- Turbine Performance Map
- Printer/Logger
- Field Programming
- Process Controls
- Compressor Performance Map
- Compressor Anti-Surge Control
- · CE/ATEX Zone 2 Certification

- · Start Systems
 - Pneumatic
 - Direct Drive AC
- Fuel System: Natural Gas
- Integrated Lube Oil System
 - Turbine-Driven Accessories
 - Oil Tank Vent Separator
 - Oil Tank Vent Flame Trap
- Lube Oil System Options
 - Oil Cooler
 - Oil Heater
- · Compressor Cleaning System Options
 - On-Crank
 - On-Crank/On-Line
 - Certified Cleaning Tank
- Gearbox (if applicable)
 - Speed Increaser or Reducer
- Air Inlet and Exhaust System Options
- Enclosure and Associated Options
- Factory Testing of Turbine and Package
- Documentation
 - Mechanical and Electrical Drawings
 - Quality Control Data Book
 - Inspection and Test Plan
 - Test Reports
 - Operation and Maintenance Instruction Manual

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Performance

Output Power	8320 kW (11,150 hp)
Heat Rate	10 170 kJ/kW-hr (7190 Btu/hp-hr)
Exhaust Flow	97 970 kg/hr (215,990 lb/hr)
Exhaust Temp.	500°C (935°F)

Nominal Rating - ISO At 15°C (59°F), sea level

No inlet/exhaust losses

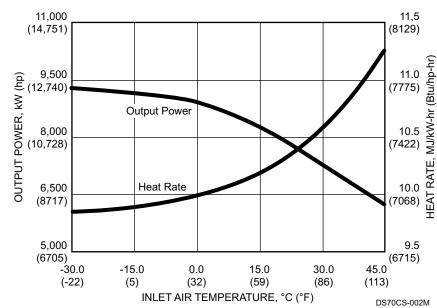
Relative humidity 60%

Natural gas fuel with $LHV = 35 MJ/nm^3 (940 Btu/scf)$

Optimum power turbine speed

AC-driven accessories Engine efficiency: 35.4%

Available Power

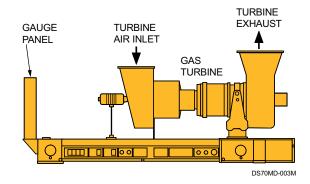


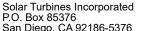
Package Dimensions *

Length: 7.7 m (25' 3") Width: 2.6 m (8' 8") Height: 3.3 m (10' 9")

Typical Weight: 24 495 kg (54,000 lb)

*Driver package only, dry weight, unenclosed height





San Diego, CA 92186-5376

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