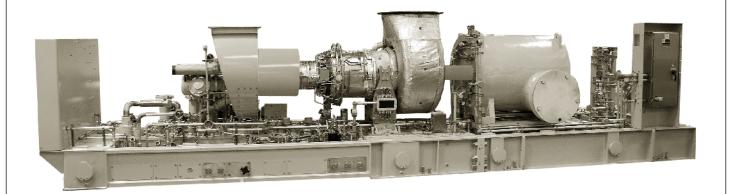
Solar Turbines

A Caterpillar Company

TAURUS 70

Gas Turbine Compressor Set

Oil & Gas Applications



General Specifications

Taurus™ 70 Gas Turbine

- · Industrial, Two-Shaft
- · Axial Compressor
 - 14-Stage
 - Variable Inlet Guide Vanes
 - Pressure Ratio: 16.2:1
 - Inlet Airflow:
 - 26.8 kg/sec (59.1 lb/sec)
 - Vertically 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: 11,600 rpm
- - Journal and Thrust: Tilt Pad
- Coatings
 - Compressor: Inorganic Aluminum
 - Turbine Blades and Nozzles: Precious Metal Diffusion Aluminide
- · Vibration Transducer Type

 - Proximity ProbesVelocity Transducer

Key Package Features

- · Base Frame with Drip Pans
- Driven Equipment Base Frame
 - Compressor
 - Compressor Auxiliary Systems
- 316L Stainless Steel Piping <4"
- Compression-Type Tube Fittings
- Digital Gauge 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
- Video Display Unit
- Temperature and Vibration Monitoring
- **Historical Displays**
- **Control 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
 - Tank Vent Separator
 - Flame Trap
- · Oil System Options
 - Oil Cooler
 - Oil Heater
- · Compressor Cleaning System Options
 - On-Crank/On-Line
 - Cleaning Tank
- · Gearbox (if applicable)
 - Speed Increaser
- Air Inlet and Exhaust System Options
- Enclosure and Associated Options
- · Factory Testing of Turbine with Package and Compressor
- Documentation
 - Drawings
 - Quality Control Data Book
 - Inspection and Test Plan
 - Test Reports
 - Operation and Maintenance Manuals

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Performance

Output Power	8290 kW
-	(11,110 hp)
Heat Rate	10 170 kJ/kW-hr
	(7190 Btu/hp-hr)
Exhaust Flow	96 500 kg/hr
	(212,740 lb/hr)
Exhaust Temp.	500°C
	(935°F)

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

No inlet/exhaust losses

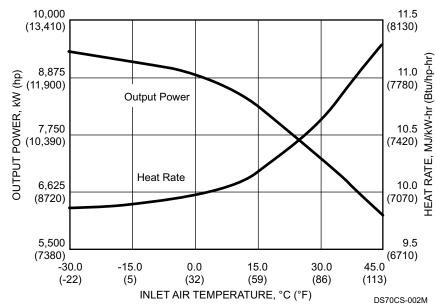
Relative humidity 60%

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

Optimum power turbine speed

AC-driven accessories Engine efficiency: 35.4%



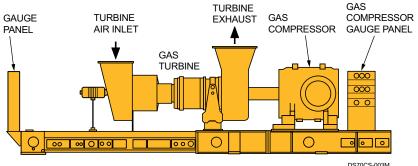


Package Dimensions*

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



DS70CS-003M

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