Solar® Turbines

A Caterpillar Company

Powering the Future Through Sustainable, Innovative Energy Solutions

C51 PRODUCTION GAS COMPRESSOR

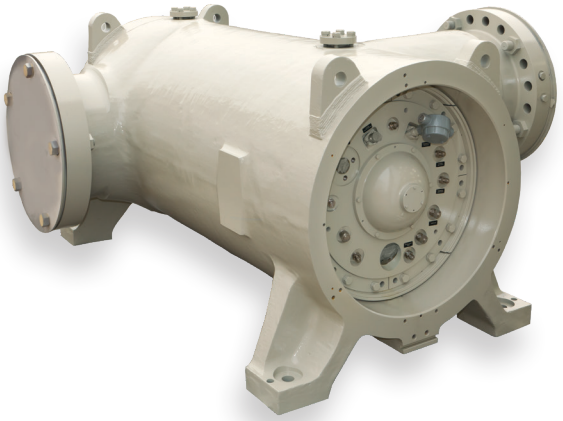
The Solar® C51 gas compressor is designed for oil and gas applications with the Taurus™, Mars® and Titan™ gas turbines families. Solar Turbines has built, installed and serviced more than 7,000 gas compressors worldwide, delivering proven reliability and decades of field-tested expertise.

BENEFITS

- High efficiency and wide flow range
- Robust design and ease of restaging
- State-of-the-art technology
- Proven reliability
- Designed durability in compliance with API 617

Key Features	
Number of Stages	1 - 10
Seals	Tandem dry gas
Bearings	Journal: Tilting-pad Thrust: Self-equalizing, tilting-pad
Inlet/Discharge Flanges	24/20 in. Class 900 20/16 in. Class 1500
Efficiency	> 85% isentropic
Maximum Speed	12,000 rpm
Maximum Flow	708 m^3/min (25,000 acfm)
Maximum Total Head	269 kJ/kg (90,000 ft-lbf/lbm)
Maximum Casing Press.	15 515 kPag (2250 psig) and 20 685 kPag (3000 psig) models
Maximum Torque	31 070 Nm (275,000 lbf-in.)
Instrumentation	Fully instrumented with vibration, temperature, and pressure monitoring per API 617
Vibration Limits	Within API 617

C51 Gas Compressor





Typical C51 Rotor



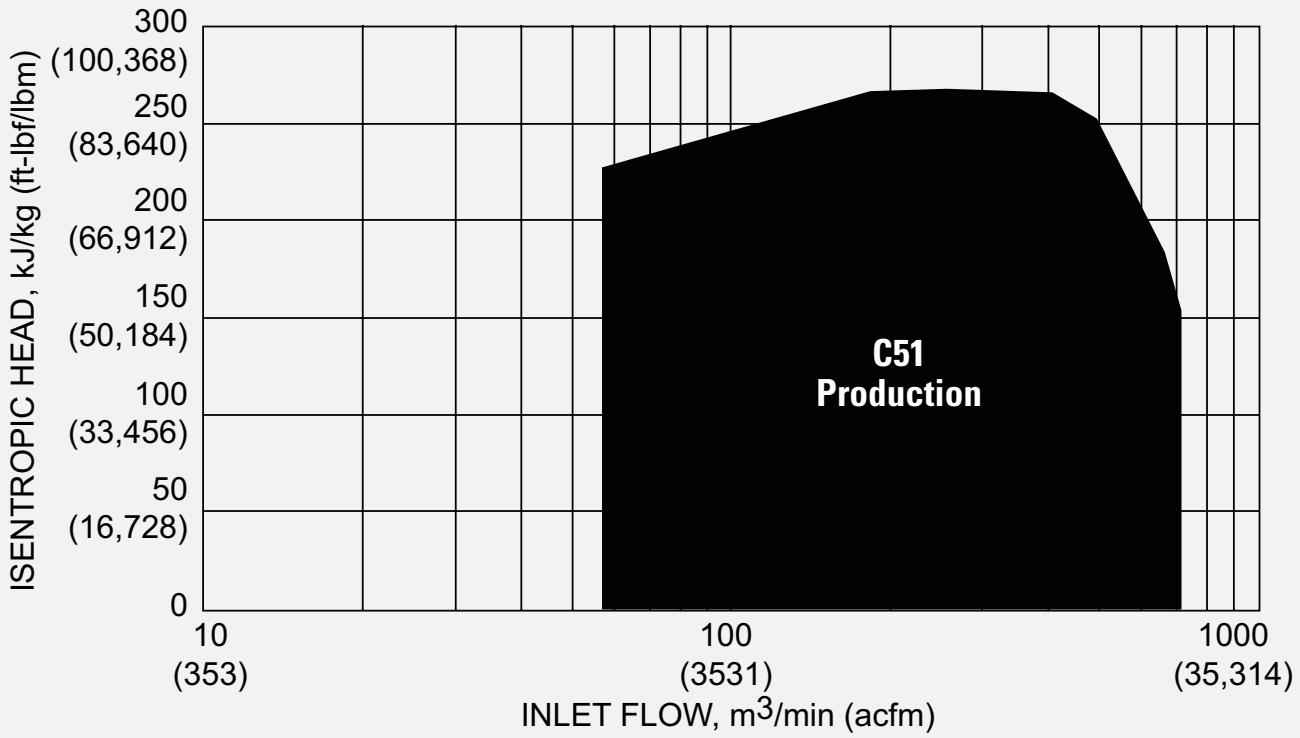
Standard Materials

Impeller	15-5 PH
Casing	ASTM A216 GR WCC
Diaphragm/Guide Vane	ASTM 516/A36
Rotor Spacer	AISI 410
Stub Shafts	AISI 4140
Labyrinth Seals	Steel-backed Babbitt

Typical Weights and Dimensions

Length	2.1 - 2.2 m (6' 11" - 7' 3")
Height	1.5 m (5' 1")
Width	2.2 m (7' 3")
Weight	17 327 - 24 449 kg (38,200 - 53,900 lb)

Operation Range (Head vs Flow)



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Additional Information:
www.solarturbines.com
Infocorp@solarturbines.com
+1-619-544-5352

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