Solar® Turbines

A Caterpillar Company

C33

Production Gas Compressors

Oil & Gas Applications

The *Solar*® C33 family of gas compressors is designed for applications with the *Saturn*® 20, *Centaur*®40, *Centaur* 50, *Taurus*™60, *Taurus* 70, *Mars*®90, *Mars* 100 and *Titan*™130 gas turbines. These compressors combine high efficiency and wide flow range with a robust design and ease of restaging.

The C33 gas compressors have the latest state-of-the-art technology combined with the experience and reliability that comes with building and installing over 5000 compressors. These compressors are designed in compliance with API 617, a requirement for the severe environments and operating conditions this equipment may encounter.

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C33 Gas Compressor

dsc33_002

Typical C33 Rotor

Typical Weights and Dimensions

Length	1.4 - 1.9 m (4' 6" - 6' 4")
Height	1.2 m (4' 0")
Width	1.7 m (5' 8")
Weight	6350 - 10 251 kg (14,000 - 22,600 lb)

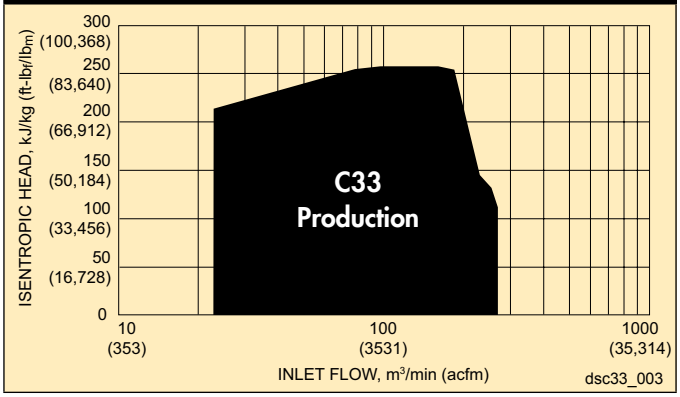
Key Features

Number of Stages	1 - 12
Seals	Tandem dry gas
Bearings	Journal: Tilting-pad Thrust: Self-aligning, tilting-pad
Inlet/Discharge Flanges	16/16 in. Class 900 16/16 in. Class 1500
Efficiency	> 80% isentropic
Maximum Speed	16,500 rpm
Maximum Flow	269 m^3/min (9500 acfm)
Maximum Total Head	257 kJ/kg (86,000 ft-lb_f/lb_m)
Maximum Casing Press.	15 515 kPag (2250 psig) and 18 620 kPag (2700 psig) models
Maximum Torque	7457 Nm (66,000 lb_f-in.)
Instrumentation	Fully instrumented with vibration, temperature, and pressure monitoring per API 617
Vibration Limits	Within API 617

Materials

Impeller	15-5PH
Casing	ASTM A216 GR WCC
Diaphragm/Guide Vane	ASTM A395
Rotor Spacer	AISI 410
Stub Shafts	AISI 4140
Labyrinth Seals	Steel-backed Babbitt

Operation Range (Head vs. Flow)



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For More Information

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