

Solar® Turbines

A Caterpillar Company

C41

Production Gas Compressors

Oil and Gas Applications

The Solar® C41 family of gas compressors is designed for applications with the *Centaur*®40, *Centaur* 50, *Taurus*™ 60, *Taurus* 70, *Mars*®90, *Mars* 100, *Titan*™130 and *Titan* 250 gas turbines. These compressors combine high efficiency and wide flow range with a robust design and ease of restaging.

The C41 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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C41 Gas Compressor



dsc41_002

Typical C41 Rotor

Typical Weights and Dimensions

Length	2.2 - 2.7 m (7' 4" - 8' 10")
Height	1.9 m (6' 3")
Width	1.5 m (5' 0")
Weight	15 422 - 18 325 kg (34,000 - 40,400 lb)

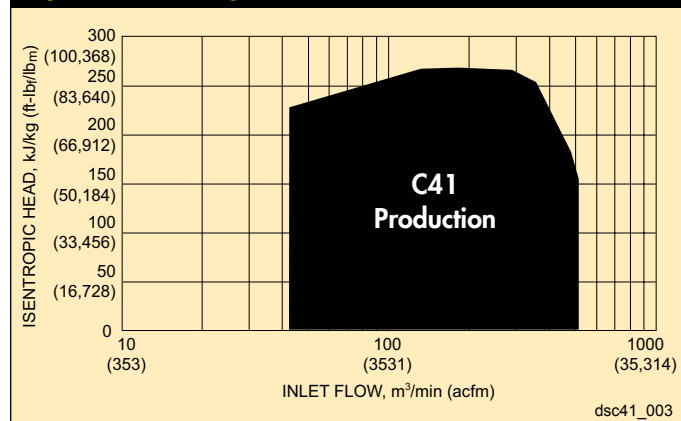
Key Features

Number of Stages	1 - 10
Seals	Tandem dry gas
Bearings	Journal: Tilting-pad Thrust: Self-equalizing, tilting-pad
Inlet/Discharge Flanges	20/16 in. Class 900
Nozzle Positions Up	20/14 in. Class 1500
Efficiency	> 85% isentropic
Maximum Speed	14,300 rpm
Maximum Flow	510 m ³ /min (18,000 acfm)
Maximum Total Head	269 kJ/kg (90,000 ft-lbf/lbm)
Maximum Casing Press.	15,515 kPag (2250 psig) and 25,855 kPag (3750 psig) models
Maximum Torque	20 960 Nm (185,500 lbf-in.)
Instrumentation	Fully instrumented with vibration, temperature, and pressure monitoring per API 617
Vibration Limits	Within API 617

Materials

Impeller	15-5 PH E2 and E3: 15-5 PH < 11,200 rpm E2 and E3: Titanium 11,200 - 14,300 rpm
Casing	ASTM A216 GR WCC
Diaphragm/Guide Vane	ASTM 516/A36
Rotor Spacer	AISI 410
Stub Shafts	AISI 4140
Labyrinth Seals	Steel-backed Babbitt

Operation Range (Head vs. Flow)



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