

The Solar® C50 family of gas compressors is designed for applications with the *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 C50 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.



dsc50\_001

**C50 Gas Compressor**



dsc50\_002

**Typical C50 Rotor**

### Typical Weights and Dimensions

Length	1.6 m (5' 3")
Height	2.0 m (6' 5")
Width	1.8 (5' 11")
Weight	19 278 kg (42,500 lb)

### Key Features

Number of Stages	1 - 5
Seals	Tandem dry gas
Bearings	Journal: Tilting-pad Thrust: Self-equalizing, tilting-pad
Inlet/Discharge Flanges	24/24 in. Class 900
Efficiency	> 84% isentropic
Maximum Speed	12,500 rpm
Maximum Flow	566 m <sup>3</sup> /min (20,000 acfm)
Maximum Total Head	239 kJ/kg (80,000 ft-lbf/lbm)
Maximum Casing Press.	10 350 kPag (1500 psig)
Maximum Torque	18 190 Nm, 161,000 lb <sub>r</sub> -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 WCB
Diaphragm/Guide Vane	ASTM A395/ASTM A36
Rotor Spacer	17- 4 PH
Stub Shafts	AISI 4140
Labyrinth Seals	Steel-backed Babbitt

### Operation Range (Head vs. Flow)

