

The Solar® C45 family of gas compressors is designed for applications with the 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 C45 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.



dsc45\_001

**C45 Gas Compressor**



dsc45\_002

**Typical C45 Rotor**

### Typical Weights and Dimensions

Length	1.4 - 1.9 m (4' 8" - 6' 4")
Height	1.9 m (6' 3")
Width	2.4 m (8' 0")
Weight	21 722 - 27 216 kg (48,000 - 60,000 lb)

### Key Features

Number of Stages	1 - 3
Seals	Tandem dry gas
Bearings	Journal: Tilting-pad Thrust: Self-equalizing, tilting-pad
Inlet/Discharge Flanges	24/24 in. Class 900
Efficiency	> 88% isentropic
Maximum Speed	12,000 rpm
Maximum Flow	524 m <sup>3</sup> /min (18,500 acfm)
Maximum Total Head	167 kJ/kg (56,000 ft-lbf/lbm)
Maximum Casing Press.	15 513 kPag (2250 psig)
Maximum Torque	20 900 Nm (185,000 lbf-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 A36/ASTM A516 Gr 70
Rotor Spacer	AISI 410
Stub Shafts	AISI 4140
Labyrinth Seals	Steel-backed Babbitt

### Operation Range (Head vs. Flow)

