

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 | 481 m ³ /min (17,000 acfm) |
| Maximum Total Head | 108 kJ/kg (36,000 ft-lbf/lbm) |
| Maximum Casing Press. | 11 030 kPag (1600 psig) |
| Maximum Torque | 20 900 Nm (185,000 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 A36/ASTM A516 Gr 70 |
| Rotor Spacer | AISI 410 |
| Stub Shafts | AISI 4140 |
| Labyrinth Seals | Steel-backed Babbitt |

Operation Range (Pressure vs. Flow)

