



High Speed Gas Seal Test Rig

Description

Design & manufacture of a number of high speed gas seal test rigs for for export around the world, for high performance and endurance testing of high speed, compressor gas seals, up to approximately 200 mm diameter.

These operate at speeds up to 30,000 RPM and are driven by an inverter controlled, AC synchronous, 110 kW motor, through a 1.5:1 belt drive and a 6:1 high speed gearbox transmission system. The seals are located in a separate, aligned chamber and are driven via a splined, quill output shaft from the gearbox.

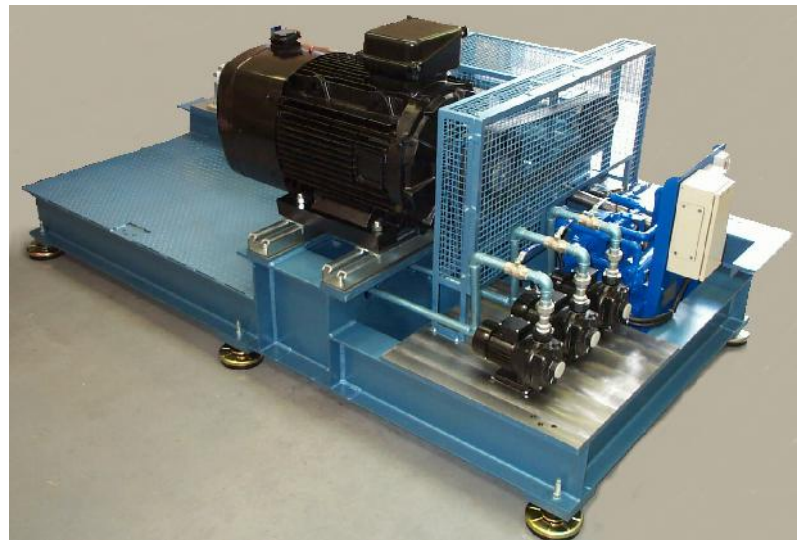
Ancillary equipment includes a 200 Nm torque transducer, a 3 pump water cooling system for the seal chamber and oil lubrication system for the gearbox.



High Speed Seal Rig

Specification Summary

- Max speed = 30,000 RPM
- Max seal dia = 200 mm
- 110 kW inverter controlled motor
- 1.5:1 pulley drive and 6:1 high speed gearbox
- Integral gearbox lubrication system
- Seal chamber water cooling system
- Max 200 Nm torque measurement
- Max 200 bar pressure



High Speed Seal Rig

Disciplines Used

- Conceptual & mechanical design, stress FEA, rotordynamics analysis, project management, manufacture, assembly, test & commissioning.