

ES5002 Dry diaphragm coupling conversion

Maintenance free dry diaphragm coupling



Engineered solution purpose

Our dry diaphragm coupling conversion provides efficient transmission of power between driver and driven equipment. It compensates for misalignment and axial movement between coupled shafts.

Applicability

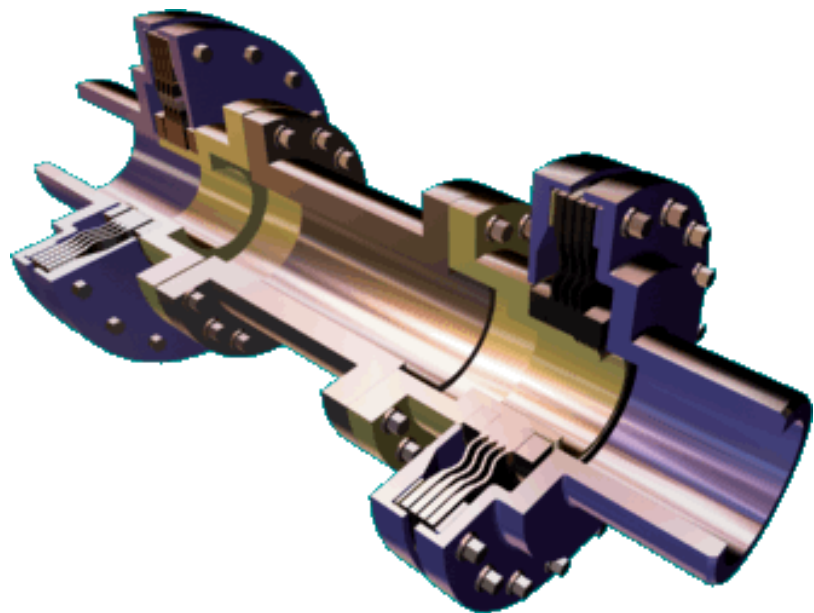
All Rolls-Royce packages originally supplied with wet type couplings.

Technical description

The flexible coupling connects the power turbine output shaft to the driven equipment. The coupling design incorporates convoluted diaphragm pack which enables the coupling to impose minimum thrusts loads on bearings or connected equipment. The design eliminates the need for lubricants and therefore is free from maintenance.

Benefits

- High torque to diameter ratio & high torque to weight ratio
- High speed capability
- Diaphragms are designed for infinite life
- Repeatable low imbalance
- Maintenance free
- Lubrication not required



Experience

Rolls-Royce has been supplying dry coupling conversions for a considerable number of years. Significant repeat customers include:
Great Lakes Gas Transmission
TCPL
Union Gas
Petroleos Mexicanos

Scope of work

The existing lubricated (gear) type coupling and coupling guard is replaced with a dry, non-lubricated, diaphragm type coupling and new coupling guard.

Bill of materials

Refer to RRESI Pipeline/barrel compressor Re-aero drawings

Undertaken

At site