



HIGHLIGHTS

- Unique separated multi-convoluted diaphragm configuration
- No wearing parts, no lubrication and no required maintenance
- 7 to 10 times less angular moment
- High torque to weight and torque to diameter ratios
- Stainless steel diaphragms designed for infinite life
- Black oxidized, heat treated, alloy steel torque transmitting components are standard
- API-671 compliant

Application Success Story



Ameriflex[®] Couplings

Power Generators

PROBLEM

A major aeroderivative gas turbine OEM needed a coupling solution for their completely new, next-generation engine design. The new 60 MW engine is larger than their previous models. Dual engine configurations feed a common generator to create a full 120 MW of power. High performance couplings are required to provide the critical link between the gas turbine engines and the generator.

Power added to the grid from all sources, including mobile generators, must be introduced into the system at the same frequency for a smooth, integrated flow. If the output frequency is not synchronized with the grid frequency, an overload can occur causing damage to the turbine and other system components. While this type of event is rare, the OEM had specified a very expensive overload protection device from another vendor to shield the turbine from potential damage.

SOLUTION

Due to their industry-wide reputation for providing reliable couplings, Ameridrives was contacted by the OEM to help design and integrate a new coupling. Two Ameriflex diaphragm couplings were supplied for the new, twin-engine package. The couplings connect the two turbine engines to the common generator positioned between them. Each 124" long coupling weighs approximately 1,500 lbs. and features a 4,400 RPM speed capacity.

Upon review of the drivetrain overload protection required, Ameridrives engineers designed and proposed a new, economical shear section that could easily be integrated onto the Ameriflex couplings supplied. The innovative Ameridrives shear device saved the customer 90% when compared to the originally specified 3rd party device.

US (Customer Service)

1-814-480-5000 (Universal Joints, Driveshafts)

1-888-449-9439 (Small Industrial Driveshafts)

1-219-874-5248 (Irrigation Universal Driveshafts)

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