



Customer Profile

Mendenhall Technical Services, Inc.

Location: Fairfield, OH

Application: Electric Starter System - Aeroderivative gas turbine for industrial power generation and military ship propulsion



Problem

The customer was looking for an efficient solution capable to replace the traditional pneumatic/hydraulic motor systems which require large and heavy collateral equipment to power the motors. Traditional pneumatic/hydraulic starter systems add complexity and demand comprehensive maintenance due to the presence of filters, valves, solenoids, reservoirs, pumps/compressors, gauges, heat exchangers, piping/hoses and fittings, etc.

Solution

Powertec partnered with the customer to design and manufacture a PMAC motor interacting with an overrunning clutch. The electric motor was designed to fit in a compact physical space and weight restrictions. The motor enclosure was designed to meet UL, ATEX, and IECEx Class 1 div 2, zone 2.

Why They Chose Powertec's PMAC Solution:

- ✓ 80% reduction in package weight and physical dimensions
- ✓ Exceptional performance. Efficiency improved from 92% to 97% with Powertec's solution
- ✓ Extended service life, engineered solution rated for 40-year life expectancy

Motor Specifications:

Performance: Performance: 335lb-ft torque intermittent duty

Weight: 145.5 lbs.

Dimensions: 12.28" long x 12.13" high