KDY
Automation Solutions, Inc.

Custom solutions for process automation.
Serving research & development,
pilot production,
and industrial customers.

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Air Starter Test Stand

- Intuitive touch-panel user interface displays the status of test cell and UUT

- Custom test stand designed using in-house CAD expertise

- Easy to configure software and highly automated hardware allow rapid testing of over 200 different air starter models

- Data logging of all acquired channels

- Customizable report format allows full, customer-compliant report to be included with final shipment of units
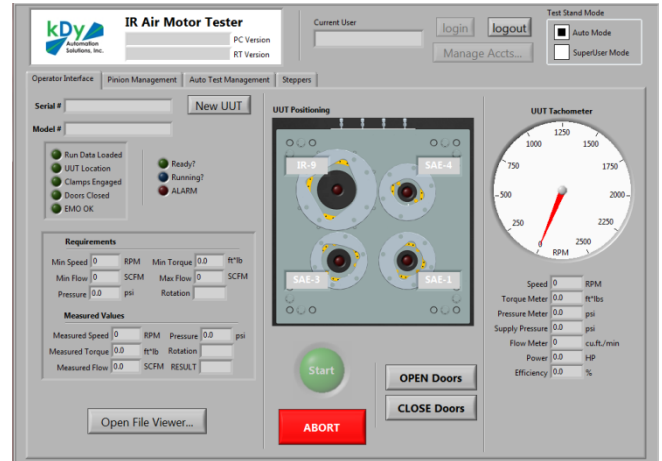
Overview

A leading manufacturer of air-powered motor starters asked KDY to develop a reliability test system that would output detailed power curves and other performance characteristics for units, at a rate of more than 20 units per hour. A National Instruments TM Compact RIO real-time control system was used with an industrial PC-based user interface and hardware watchdogs to protect against system failures. The solution KDY delivered allowed the customer to significantly reduce testing time and generate more detailed documentation on their products.
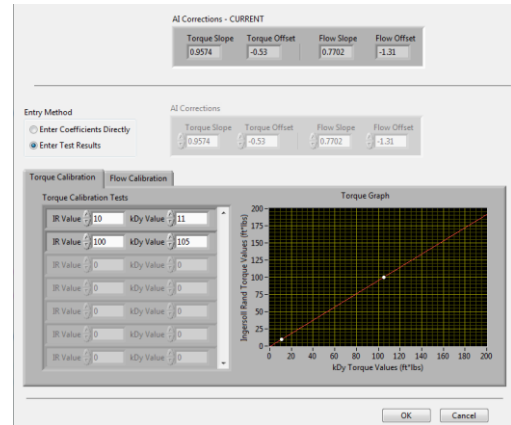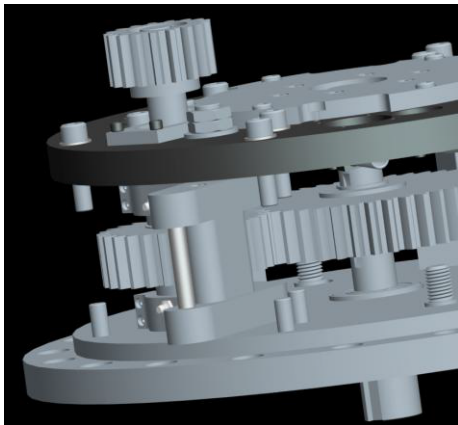
The Custom Hardware

KDY designed and fabricated a robust, easy to use test stand that automatically detected, secured, and engaged units for testing. The test stand would then run the air motor through a power test, controlling a high-pressure air supply and applying resistance (and assistance, for the smaller units) through a powerful electric motor. The stand also featured a secure noise-reducing enclosure.

Automated Testing, Data Logging and Reports.

The software KDY developed used a library of fully customizable, recipe-driven test profiles for all the units produced by the manufacturer. Data was logged for every test on every model locally, easily available for backup, and finally displayed in a customizable report format.