

Custom Hydraulic Cylinder Test Stand

Challenge

John Henry Foster Company was asked to provide a fixture for the testing of high pressure avionic cylinders. The cylinders control airline functions such as ailerons, rudders, elevators, and landing gear — so precise and accurate testing is critical in their manufacture and repair. The teststand needed to incorporate manual controls for hydraulic flow and pressure, as well as include readouts for actual values.

Goals

- Capable of testing cylinders of various stroke, bore, pressure, and flow
- Adjustable pressure and flow controls
- Readouts for pressure and flow

System Features

- Custom integrated control enclosure
- Front panel operation for ease of operation
- Movable lexan guarding
- Manual override pump for high pressure applications
- Extruded Aluminum frame with hardened steel testingsurface

Project Success

- Complete Turn-Key Solution: design, build and test by John Henry Foster
- Accurate and reliable testing of cylinders
- Containment system eliminating oil leaks during cylinder changes.

