

# CHOKE CONTROL HPU FOR LAND BASED MANAGED PRESSURE DRILLING



A CLASS 1, DIV. 2 GROUP A-D SYSTEM

#### **System Background:**

A premier North American rig manufacturer approached CFI to design and fabricate an HPU for choke control for land based managed pressure drilling (MPD) operations. The customer required an HPU, instrumentation, and power & communication cables to control two 3" chokes on the MPD manifold. In addition, the HPU was to be integrated with a customer designed controls package, which required further collaboration between the customer and CFI engineers. After reviewing the details of the application with the customer, CFI designed, manufactured, and delivered the HPU custom built to the customer's requirements.

### **System Specifications:**

- Carbon steel frame
- Customer defined coating & color
- Operating conditions: -20°C to +45°C
- Stainless steel tubing
- 600 VAC 50/60 Hz to HPU pumps
- 120 VAC 50/60Hz to Control Panel
- 100 PSI Pneumatic air
- Two 100 gal accumulators



### **Certification and Testing:**

As this HPU was designed for use in land based MPD applications, it was designed and built to Class 1, Div. 2 Group A-D standards. CFI tested and verified these systems throughout the design and manufacture process to ensure that the product was built to certification requirements.

## **Support and Documentation:**

Upon delivery of the all completed systems, CFI provides customers with full systems documentation and test reports to ensure effective operation of the system. Furthermore, CFI hosts all documents in a password protected online portal to provide customers on demand access to their documents.

These documents include:

- Maintenance/Operations Manual
- Requirements Document
- General Arrangement Drawing
- Hydraulic/Electrical Schematic
- Bill of Material (BOM)
- Manufacturing Record Book
- FAT (Factory Acceptance Test Procedure

