

## **CONNECT & OPERATE INDUSTRIAL ELECTRO-HYDRAULICS**

**Certification – Fluid Power Technician 1 (Basic Hydraulics)**

**Certification – Fluid Power Technician 2 (Electro-Hydraulics)**

- Training prepares the student for skill assessment and certification.
- Electro-hydraulics replicates a hydraulic manufacturing process with electrical controls and protective circuits on a standard classroom bench top.
- Hydraulic and electrical controls are permanently mounted and connected for replicating realistic plant-floor operating and maintenance procedures.
- Students install, connect, test, troubleshoot, and operate the hydraulic process directed by plant work orders.
- Skill Assessment and Technician Certification is based on NEC, NFPA, and industry validated hands-on performance standards.
- Twenty work orders provide typical plant maintenance tasks for assessment and certification.
- Installation and maintenance tasks are performed on; hydraulic power unit, directional control valves, pressure and flow valves, cylinders, hydraulic motor, electrical control stations, AC and DC power supplies.
- OSHA lockout and tagout procedures are required and assessed.
- 120-volt single-phase power is required.
- Troubleshooting skills include testing and measuring with standard industry test equipment (DMM fluid flow meter, and pressure gauge– not supplied).
- Standard electrician hand tools are required – not supplied.
- Training follows the standard competency-based model and requires 100-percent performance on task standards.
- U.L. Certified and Tagged.

# CONNECT & OPERATE INDUSTRIAL ELECTRO-HYDRAULICS

## Certification – Fluid Power Technician



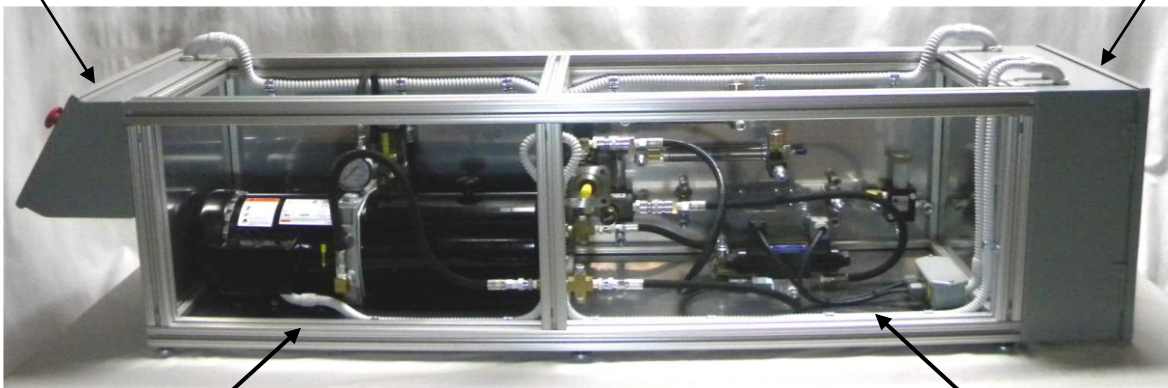
**Operator's Control Console**

Illuminated pushbutton controls  
Selector for JOG and RUN  
Selector for HAND-OFF-AUTO  
HPU Overload trip indicator  
HPU START-STOP control  
Emergency STOP control

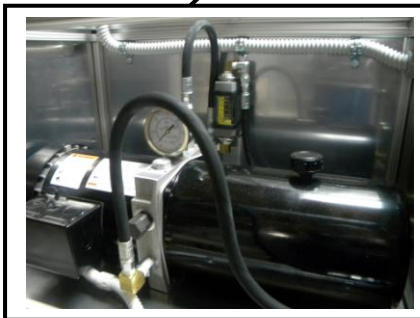


**Electrical Controls Cabinet**

24-volt DC circuit control voltage  
12-volt DC solenoid valve control  
HPU motor control starter  
Industrial wiring terminal strips  
120-volt AC operating voltage  
Lockout/tagout disconnect switch

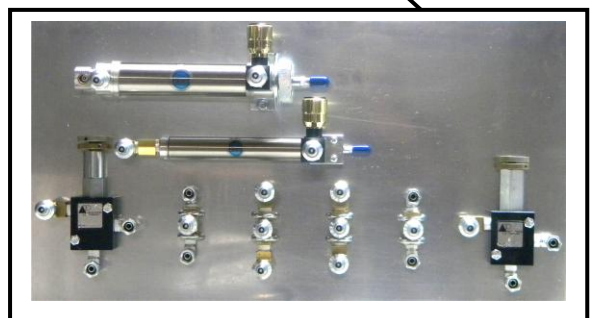


**ELECTRO-HYDRAULICS**  
TSI 111083D33



**Hydraulic Power Unit**

Provides hydraulic fluid flow & pressure  
Pressure preset @ 300 psi  
Pressure and flow gauges  
Fluid reservoir  
120-volt AC operation



**Hydraulic Actuators & Valves**

Sequence valve  
Pressure reducing valve  
Flow controls  
Hydraulic motor  
Closed-center solenoid valve  
Open-center solenoid valve  
Tandem-center solenoid valve