

# **Electric Hydraulic Controls Quick Start Guide**

# CONTROL POWER

This lighted pushbutton enables the control power to the filter press control panel. This light must be on to enable any filter press actions.

- 1. The main disconnect switch must be in the on position.
- 2. Pull the EMERGENCY STOP mushroom push/pull button.
- 3. Press the **CONTROL POWER ON** push button. The **CONTROL POWER ON** push button light will be on when the control panel power is present.

#### EMERGENCY STOP

PUSHED - Stops all operations; removes the control power feeding the PLC outputs. PULLED - Allows the control power to be restored through pressing the **CONTROL POWER ON** push button.

### **OPERATOR INTERFACE TERMINAL (OIT)**

A touch screen terminal that is made up of multiple screens used for filter press control, editing filter press set points, monitoring cycle status and fault annunciation. Note: The screens are option driven. Based on your options some screens may be hidden!

### SYSTEM FAULT INDICATION

If a machine fault or alarm occurs, a System Fault Indicator will pop up on any control screen. The operator can view a list of alarms or faults by pressing the Fault Indicator.

#### **MESSAGE BAR**

This is not present on every screen. The Message bar will notify the operator of press and cycle status.

Press is CLOSING	Press is CLAMPED
Press is OPENING Press is STOPPED	Press is OPENED
Feed Stage 1 FLOW	Feed Stage 3 FLOW
Feed Stage 2 FLOW	Feed Stage 4 FLOW
Feed Stage 1 TIME	Feed Stage 3 TIME
Feed Stage 2 TIME	Feed Stage 4 TIME

Feed Complete

### STOP SYSTEM

This push button is located on most control screens, by pressing it the operator will stop any press function; however, this push button is not an Emergency Stop.

### **FUNCTION BUTTONS**

F1 → Menu Screen	F3 → APCS Settings Screen
F2 → Control Screen	F4 → ALARM Screen

Pressing the SYSTEM button will go to system control screen. This screen can be used to adjust screen contrast and other variables including the time and date. Warning when using this screen the operator could erase the program.

## MAIN MENU

This screen is used as a main menu to select a desired control function screen.

#### MENU

This is the screen that will open when the system is first powered up.

#### START SCREEN

This screen is used for basic press functions of the electric hydraulic system.

#### **OPEN Press**

This push button is used to open the follower. The banner will indicate "Press is OPENING" while opening. The banner will indicate "Press is OPENED" when fully opened.

#### **CLOSE Press**

This push button is used to close the follower. The banner will indicate "Press is CLOSING" while the follower is closing. The banner will indicate "Press is CLAMED" when fully closed or clamped.

### STOP SYSTEM

This push button is used to stop the follower or a feed cycle. The banner will indicate "Press is STOPPED". To open the press from a "Clamped" position, press the **STOP SYSTEM** push button then the **OPEN Press** push button. The hydraulic pressure is displayed as Hyd PSI

#### OPEN

Press push button. The hydraulic pressure is displayed as Hyd PSI

### START CYCLE

This push button is used to start a filtration cycle. To start a filtration cycle the follower must be clamped, and the press must receive the OK to start signals from the Customer Interlock.

## CYCLE DONE

This push button is used to acknowledge the completion of a filtration cycle. Press this when the banner reads Feed Complete.





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# ALARMS

This screen displays a history of press alarms that will contain the time of the alarm, the name of the alarm, and alarm status. These alarms will be displayed until they are acknowledged and cleared. **ACK ALARM** will reset all active alarms.

# E-STOP Fault

This fault occurs anytime an Emergency stop occurs. Verify that by resetting the Estop fault, no damage or personal injury can occur. Reset all E-stop devices and press the **CONTROL** 

POWER ON push button, press the ACK ALARM to reset to the fault.

## Low hyd level fault

This fault occurs when the hydraulic tank oil level is below the level switch. Check the oil level and or sensor.

### Hyd high temp fault

This fault occurs when the oil temperature is above 140 degrees Fahrenheit. Check oil temp and or sensor.

### Hyd motor overload fault

This fault occurs anytime the hydraulic pump has been commanded to run and the PLC does not receive a signal verifying the pump is running. The most probable cause is the pump motor has overloaded. Verify the pump motor current draw with an amp probe. If motor is drawing excessive current replace the motor. To reset the fault, get a qualified electrician to reset the motor overloads, and press the **ACK ALARM** to reset to the fault.

### Hyd analog sensor fault

This fault occurs when the hydraulic pump has run or 10 seconds and the oil pressure is below 25 PSI. Check the analog sensor and press the **ACK ALARM** to reset to the fault.

## Press CLOSE Follower first

This fault occurs when the Start Cycle button is pressed before clamping the press. Press Close Press button then **ACK ALARM** to reset to the fault.

# To open STOP SYSTEM

This fault occurs when the OPEN press button is pressed before stopping the press. Press STOP SYSTEM button then **ACK ALARM** to reset to the fault.

### Feed cycle was stopped fault

This fault occurs when the STOP SYSTEM button is pressed during a feed cycle.

### Hyd pump ran too long fault

This fault occurs anytime the follower is commanded to open or close, and the follower has not reached its end position 10 minutes. Check the hydraulic power unit valves for correct operation. Correct the problem and press the **ACK ALARM** to reset to the fault.

### COUNTERS

The counters display the various cycle and run time counters, it can be used for preventive maintenance, or maintenance logging. Press the Reset button to reset the resettable timers.



