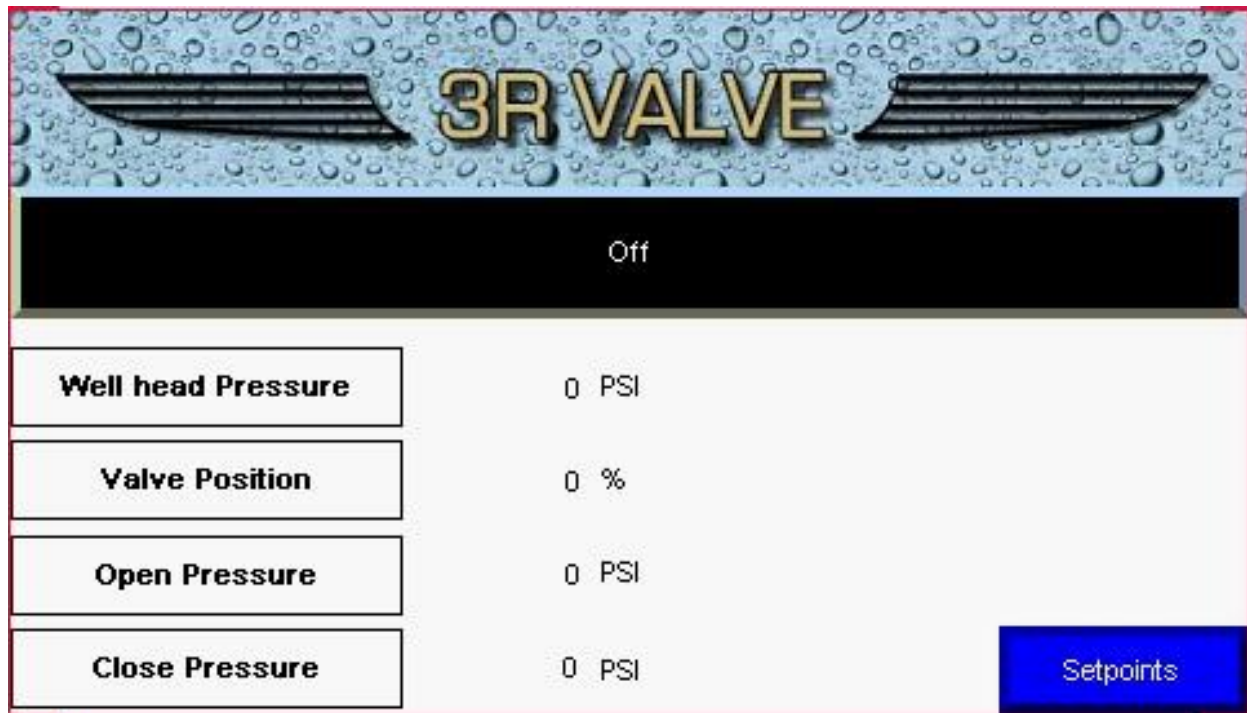


3R VALVE SYSTEM CONTROL:

- CONTROL PANEL HMI COLOR TOUCHSCREEN MAIN PAGE



The 3R Valve Control Panel Main Page displays the following information;

- System Status will be displayed below the 3R VALVE LOGO;
 - System 'OFF'.
 - System in 'RECOVERY'.
 - System in 'RECHARGE – STANDBY'.
- Displayed System Setpoints.
 - 'WELL HEAD PRESSURE': Well Pump discharge pressure in PSI.
 - 'VALVE POSITION': Valve Position in %.
 - 0% = Valve Closed.
 - 100% = Valve Open.
 - 'OPEN PRESSURE': Pressure of OPEN Pressure Transmitter, "PT-O". Refer to the P&ID for additional information.
 - 'CLOSE PRESSURE': Pressure of CLOSE Pressure Transmitter, "PT-C". Refer to the P&ID for additional information.
- 'SETPOINTS' Button:
 - This button directs to the 'SETPOINTS' page.

- CONTROL PANEL HMI COLOR TOUCHSCREEN SETPOINTS PAGE.

Well head Pressure SP	<input type="text"/>	PSI		Main Screen
Well Head dead band	<input type="text"/>	PSI	Valve Position Cal	Terminal Config
Open Pressure Cut in	<input type="text"/>	PSI	Open interval	<input type="text"/> SEC
Open Pressure Cut out	<input type="text"/>	PSI	Open duration	<input type="text"/> mSEC
Close Pressure Cut in	<input type="text"/>	PSI	Close interval	<input type="text"/> SEC
Close Pressure Cut out	<input type="text"/>	PSI	Close duration	<input type="text"/> mSEC

The 3R Valve Control Panel Setpoints Page allows the Operator the ability to enter system setpoints (Refer to P&ID for additional information):

- 'WELL HEAD PRESSURE SP': Well Discharge Pressure, "PT-3" setpoint in PSI.
- 'WELL HEAD DEAD BAND': Well Discharge Pressure, "PT-3" tolerance (+/-) from Well Discharge Pressure, "PT-3" setpoint.
- 'OPEN PRESSURE CUT IN': Hydraulic System Pressure "PT-O" pressure setpoint (system pressure decreasing) for valve OPEN operation.
- 'OPEN PRESSURE CUT OUT': Hydraulic System Pressure, "PT-O" pressure setpoint (system pressure increasing) for valve OPEN operation.
- 'CLOSE PRESSURE CUT IN': Hydraulic System Pressure, "PT-C" pressure setpoint (system pressure decreasing) for valve CLOSE operation.
- 'CLOSE PRESSURE CUT OUT': Hydraulic System Pressure, "PT-C" pressure setpoint (system pressure increasing) for valve CLOSE operation.
- 'OPEN INTERVAL': Time (sec) interval setpoint between OPEN adjustments to Valve Block Actuating Solenoid, "FCV-1".
- 'OPEN DURATION': Time (milisec) interval setpoint for the Valve Block Actuating Solenoid, "FCV-1" to be in the OPEN position.
- 'CLOSE INTERVAL': Time (sec) interval setpoint between CLOSE adjustments to Valve Block Actuating Solenoid, "FCV-1".
- 'CLOSE DURATION': Time (milisec) interval setpoint for the Valve Block Actuating Solenoid, "FCV-1" to be in the CLOSE position.

- 'MAIN SCREEN' Button:
 - This button directs to the 'MAIN SCREEN' page.
- 'VALVE POSITION CAL' Button:
 - This button directs to the 'VALVE POSITION CALIBRATION' page.

- **CONTROL PANEL HMI COLOR TOUCHSCREEN VALVE POSITION CALIBRATION PAGE.**



The 3R Valve Control Panel Valve Position Page allows the Operator the ability to calibrate the valve Linear Position Feedback from the Linear Potentiometer, “ZS-1”.

- With the valve in the CLOSED position, touch the, “SET 0% OPEN” button.
- With the valve in the OPEN position, touch the, “SET 100% OPEN” button.
- ‘SETPOINTS’ Button:
 - This button directs to the ‘SETPOINTS’ page.