ENCLINE
Artificial Lift Technologies

Phase Transition Control

Keep gas hot through compressor stages to eliminate paraffin, hydrates, downtime, and methanol injection.

The existing gas-lift rental compressor fleet is not designed for gas-lift, but rather for gas sales. Many operating problems arising from this basic design flaw. Typical problems include frozen scrubber dump lines, hydrate formation in discharge piping, increased tank vapors, high vapor pressure crude, poor compressor valve life, and lots of downtime. The customary remedy is methanol injection, a costly and oxygen-introducing practice. Encline instead believes in addressing the cause of the problem (not the result), which is cooling the rich gas below its dew point. By keeping hot gas from the compressor cylinders from falling below typically 130 ºF when cooled, hydrocarbon condensation is prevented, which stops all the above problems. Encline's patent pending system effectively controls gas temperature throughout the compression process, by conserving the adiabatic heat of compression from the initial stages of the compressor cycle and transferring it to latter stages.

Phase Transition Control from ENCLINE automates and optimizes individual stage louver setpoints and VFD fan control to keep gas hot enough tnever condense into a liquid:

- Simple hardware installation requiring VFD on separate fan motor
- Automatically computes and implements the optimum setpoint for individual stage louver positioning as well as VFD fan speed
- Available for electric as well as gas-driven packages

For more information on Phase Transition Control please visit us on the Web at: www.enclinelift.com

Analyze discharge temperatures

ENCLINE's patent-pending algorithms read temperatures and pressures from the compressor control panel via Modbus. Evaluation of the temperatures in and out of the cylinders occurs, with louver positioning and VFD changes being made to prevent hydrocarbon condensation. Further, the powerful PLC processor calculates theoretical discharge temperature for each stage based on pressure and temperature data. Comparing this to actual discharge temperature is a powerful tool (KPI) for identifying problem compressor cylinders, even identifying whether suction or discharge valves issues.

Smartphone monitoring

- View important PTC key performance indicators
- Change setpoints or algorithms
- Monitor realtime information on compressor temps and pressures
- Review historic information on louver positions and temperature outputs
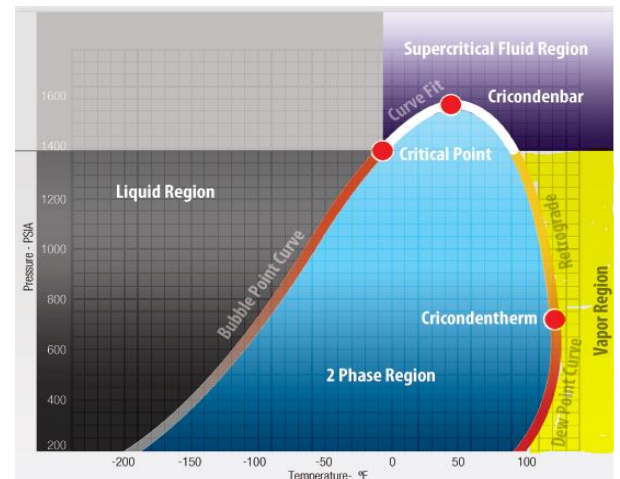
PTC SERVICE FEE INCLUDES:

IP address and well name configuration

Self-installation training

Technical Support

Software Maintenance

Application Upgrades

Lifetime Hardware Warranty

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