



EXPERTISE IN TURBOMACHINERY CONTROLS

Introduction

Centrifugal and axial compressors are susceptible to surge which can cause catastrophic damage to your turbomachinery train.

The Anti-surge controller is one of the most critical turbomachinery control applications that protect a compressor from surge by continuously calculating the distance between the compressor's operating point and its surge limit line.

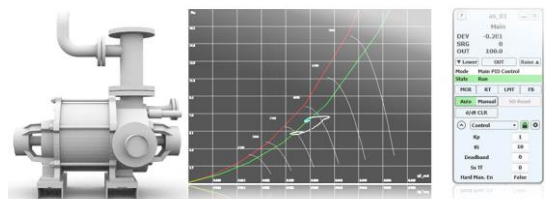
The controller modulates a recycle or blow-off valve to prevent the compressor's operating point from reaching the surge limit while maintaining other process variables within safe or acceptable limits.

Expected Learning Outcomes

- Identify a variety of compressors
- Explain surge phenomena and consequences on computer operation and process stability
- Interpret and recognize the controller's functions
- Analyze, identify and resolve alarms

Duration

5 Days



Course Program

Compressor Systems and Classification

Surge Phenomenon

- Theory of Surge Control
- System Resistance
- Causes

Specialized Controller Features

- Anti-surge Control
- Performance Control
- Speed Control
- Extraction Control

Software simulation

- Compressor maps
- Process Disturbances
- Instrument Failures

Hands-on simulation

- Using simulation software, a laptop, and a demonstration unit consisting of actual CCC controllers



Program Designed for:

- Rotating Equipment Engineers
- Instrument Engineers
- Ops Technician Mechanical
- Ops Technician Instrument
- Operations Staff
- Process Engineer.

Simulation Equipment

Hands-on simulation Equipment (either one upon majority)

Using simulation software, a laptop, and a demonstration unit consisting of actual CCC controllers

- **Series 5 Vanguard**
- **Series 3++**
- **Prodigy Solution**

Certification



Certification is world recognised by **Compressor Controls Corporation (CCC) Global**

