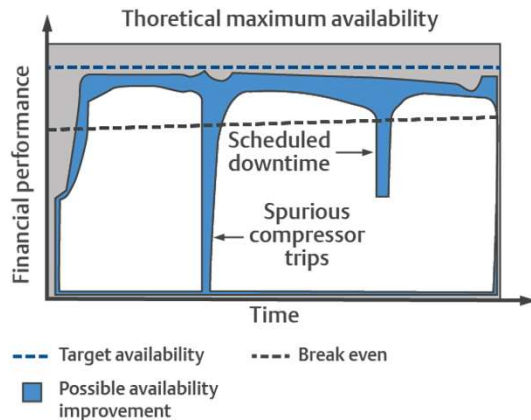


Operations & Energy

Compressed Air Monitoring

Operational Challenges

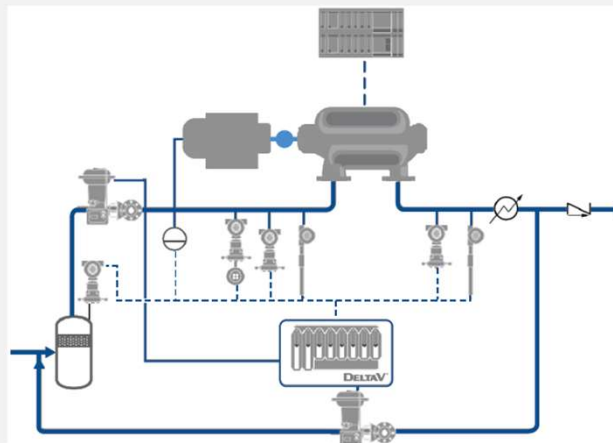
- Very limited instrumentation around air compressors
- Rapid changes in demand can require starting/stopping compressors
- Anti-surge systems important to protect compressor but often waste energy



Emerson Confidential

Value Improvement Practice

- Compressor controls in the DCS using standard, pre-engineered libraries
- Integrated operator console displays for key operations and performance data
- Ultra-high-speed valves for superior anti-surge loop performance
- On-line models to identify performance issues



Impact on Operations

Increase the reliability, safety, and effectiveness of compressed air system



Minimize compressor trips

\$2M

Eliminate production losses due to low air supply



Identify preventative actions



Reduce energy with optimum surge control