Two invariant coordinate systems
- Reduced head \( h_r \) versus reduced flow \( q_r \)
- Compression ratio \( RC \) versus reduced flow \( q_r \)

Four lines of protection
- Surge detect line
- Open loop response line
- Surge control line
- Predictive control line

Feed forward control
- Interactions between multiple antisurge control loops or between antisurge control loop and a performance control loop for increased stability at process disturbances

Sequencing
- Automatic loading and unloading of a compressor in conjunction with its companion performance controller

Critical event (such as a compressor surge) back-up on control system platform
- High resolution recording of critical parameters, \( x \) minutes* prior and \( y \) minutes* after the event
- In parallel to HMI or stand-alone

Surge tester
- Straight forward surge validation and testing
- Fully automatic configuration of tested surge points
- Easy interfacing for surge line modifications
- Password protected user level access

Sequence of event history on control system hardware, time stamped
- Standard \( x \) points* history in parallel to HMI or stand alone

User friendly application configurator
- Upper screen provides for loop configuration settings
- Lower screen shows dedicated loop’s contribution to overall output

Projected flow algorithm
- Enables running without a functioning flow transmitter or even without a flow measurement

Compressor performance deviation alarming
- Expected and actual performance are compared and alarmed in case diverging

Alarms and events
- Time stamped alarm and event reporting for signaling and troubleshooting purposes

Application control functions are selectable
- Customize each application individually by enabling or disabling site specific functionality (no programming)

Graphical interfaces
- Hardware platform independent
- Compressor maps
- Faceplate
- Configurator including surge line testing and validation

*) Quantity is configurable