Regulator Sizing and Selection

Course Objectives

- Introduction – What is a regulator and how does it work?
    - What is Droop? Can we use it?

- Regulator types and functions
    - Spring Operated
    - Pilot Operated
        - Piston-Type
            - Mooney FlowMax
            - Fisher 1098
            - Pietro Fiorentini ReFlux819
        - Diaphragm Type
            - Mooney FlowGrid
            - Fisher EZR
            - Pietro Fiorentini AperFlux 101
    - What is “Turn Down”
        - Restrictive Cages
        - Throttle Plates

- Station Design Considerations
    - What does the Code say?
        - Single Reg/Relief
        - Worker/Monitor
        - Working Monitor
    - Pressure Drop and Heat Loss (Joules Thompson)
    - Upstream Filtration and the effects of not having any
    - Noise and environmental considerations
    - Gas velocity – why is this important?

- By the Numbers… (the math part)
    - Thank Goodness for Sizing Programs!
    - Working the program

- Regulator Considerations
    - Selecting the right regulator for the application:
        - Diaphragm
        - Piston
        - Globe Valve
        - Ball Valve
    - What about “turn down”?
    - How severe is the service?

- Relief Selection
    - Regulator as a Relief
        - Service Considerations
    - Piston Type Relief
        - Modulating
        - Snap Acting

- Relief Sizing (Sizing Program)