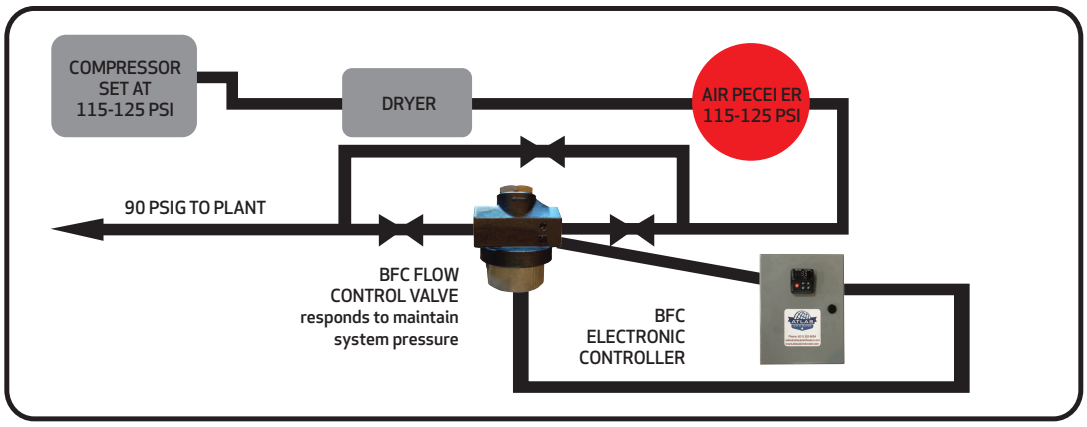
BFC FLOW CONTROL VALVES



The BFC Flow Control Valve delivers constant air pressure to the plant, reduces compressed air Energy/KW, reduces compressed air Flow/consumption.

BFC Flow Control Valves will support your plant's goals of maintaining the plant air at the lowest possible pressure, satisfying intermittent demand events with stored air, and prolonging the need to re-pressurize the storage tank. This control strategy results in the lowest possible energy consumption and maximum pressure control.

• BFC-2000E Electronic Controller	3" NPT Connection	Capacity: 2,500 cfm
• BFC-1000E Electronic Controller	2" NPT Connection	Capacity: 1,000 cfm

PressureFlowEnergy Controller Benefits

Supply Side Benefits

- Ensures highest possible air quality and constant pressure.
- Allows compressors to operate at their most efficient pressure ranges.
- Reduces compressor maintenance costs.
- Facilitates more precise compressor control and sequencing.
- Delays or prevents unnecessary compressor starts.

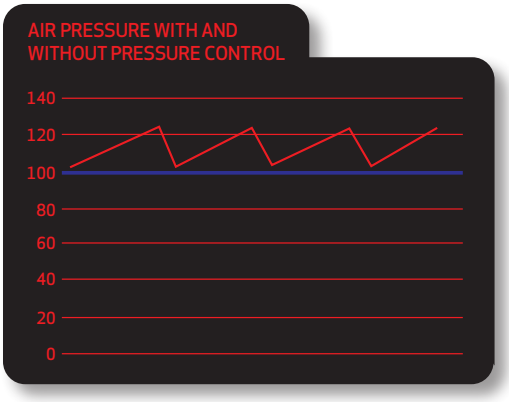
Demand Side Benefits

- Lower plant pressure reduces compressed air waste due to leaks and unregulated users.
- Reduces product defects caused by poor air quality and pressure fluctuations.
- Eliminates artificial demand by satisfying peak demand events with stored compressed air.
- Improves plant air dew point when air is expanded downstream of dryers

The combination of supply and demand side benefits typically result in energy savings of 20% - 40%!

Typical ROI for installation of PressureFlowEnergy Controller is 18 months!

Fact: For every 1 psig reduction in operating air pressure there is a 1% reduction in flow/SCFM



Optimize Air Storage

- Ideal operating pressure > 90 psi
- Compressor operating pressure 105-125 psi
- Ideal receiver capacity 4 gal. / scfm or 479 x 4 = 1916 gallons (2,000)
- Usable storage 430.0 cubic feet

Operating Cost Reduction

With compressor delivering compressed air at only 15 cents per 1000 cubic feet a demand reduction of 91 scfm equals 91 x 60 x 8760 / 1000 x .15 = $7,174.00 annually.

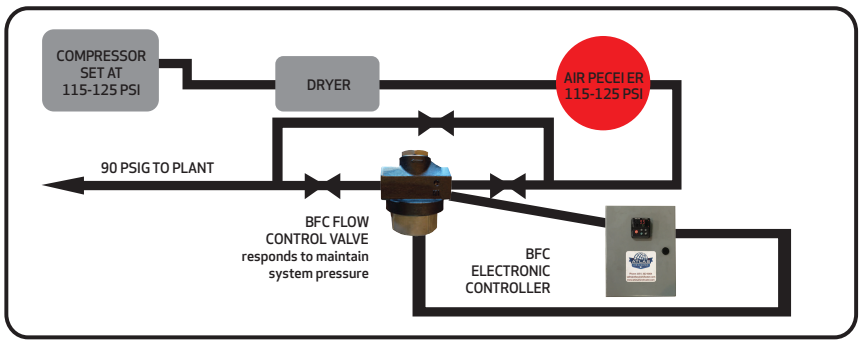
Compressed Air Demand Reduction

With compressed air pressure set at 100 PSI the compressed air demand is held constant at 479 scfm. This represents a compressed air demand reduction of 91 scfm from the previous average compressed air demand of 570 scfm.

Compressor Controls

- Air storage allows for multiple compressor installation with a workable operating dead-band.
- Demand expansion systems provide a stable operating pressure for base loaded compressors.

BFC Flow Control Valve Installation Instructions



Example:
Set pressure of Electronic or Pnuematic Regulator at 90 psig. As pressure exceeds 90 psig at output of large flow control valve, the flow control valve begins to close to reduce flow resulting in constant pressure. As pressure decays below 90 psig at output of large flow control valve, the flow control valve begins to open allowing more flow through the flow control valve to hold constant 90 psig.

How Large is a Cubic Foot of Air?

Size of 1 ft^3 of air at 0 psig

Size of 1 ft^3 of air at 100 psig

Size of 1 ft^3 of air at 125 psig

As air pressure is increased, each cubic foot of compressed air is squeezed smaller and smaller. This results in more compressed air flowing through each air device and leak. The air compressors have to make this additional CFM capacity, the plant does not need this extra CFM capacity to operate, thus the term artificial demand. PFE flow control valve provides constant pressure for constant performance of all operated devices and significant energy savings by reduced kilowatt of compressors.

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