

FAQs

Frequently Asked Questions -- Pressure Loss

Q: How much pressure loss is normal between the compressor discharge and any point of use.

A: A well designed compressed air system exhibits no more than 10% PSI of pressure loss between the compressor discharge and any point of use.

Q: How much does pressure loss cost me?

A: That depends on a range of factors, but a common rule of thumb states that for every 1 PSI of excess operating pressure, air compressor power consumption increases by approximately 0.5%.

Q: Apart from pipe diameter, what else should I consider when designing an air distribution system in order to minimize pressure loss?

A: Material of construction is an important consideration. Smooth bore pipes (e.g. aluminum and thermoplastics) cause lower pressure loss than black iron. Keep pipe runs as short as practically possible. Minimize the use of 90° elbows.

Q: My coalescing filter exhibits less than 1 PSID, and it's been this way for a long time. Is this a cause for celebration or concern?

A: If a filter element tears or ruptures, differential pressure across the filter will suddenly decrease. This absence of pressure loss can easily be mistaken for a sign that the filter is working well. In fact, a failed element passes contaminants downstream. Replace filter elements on a preventative maintenance schedule, regardless of differential pressure.