



MAKING AUTOMATION WORK

Air Preparation Terminology

Adsorbers

An Element which not only absorbs contaminate but draws the contaminate to it

Atmospheric pressure

Pressure exerted by the atmosphere at any specified location (sea level is approximately 14.7 pounds per square inch absolute)

Compressed air

Air at any pressure greater than atmospheric pressure

Differential pressure

The difference in pressure between any two points of a system or component

Filter

A device whose primary function is the retention by a porous media of insoluble contaminants from a fluid

Filter element

The porous device which performs the actual process of filtration

Flow rate

The volume, mass, or weight of a fluid passing through any conductor per unit of time

Fluid

A liquid or a gas

Free air

Air under the pressure due to atmospheric conditions at any specific location

Gauge pressure

Pressure differential above or below atmospheric pressure

Lubricator

A device which adds controlled or metered amount of lubricant into a fluid power system

Media

The porous materials which perform the actual process of filtration

Micron

One millionth of a meter, or about 0.00004 inch

Pressure

Force per unit area, usually expressed in pounds per square inch

Rated pressure

The qualified operating pressure which is recommended for a component or a system by a manufacturer

Regulator

A pressure control valve whose primary function is to limit outlet pressure

SCFM

Standard cubic feet per minute

Shutoff valve

A valve which operates fully open or fully closed

Standard air

Air at a temperature of 68 F, a pressure of 14.70 pounds per square inch absolute, and a relative humidity 36% (0.0750 pounds per cubic foot). In gas industries the temperature of "standard air" is usually given as 68 F

System pressure

The pressure which overcomes the total resistances in a system. It includes all losses as well as useful work

Vacuum

Pressure less than atmospheric pressure. It can be expressed in absolute or gage pressure

Working pressure

The pressure which overcomes the resistance of the working device