



# THE NEW MONNIER DICTIONARY OF THE FLUID POWER INDUSTRY

**air** a gas mixture consisting of nitrogen, oxygen, argon, carbon dioxide, hydrogen, small quantities of neon, helium and other gases.

**air con-di-tion-er** an assembly comprising a filter, pressure-reducing valve with a gauge and a lubricator, intended to deliver compressed air in suitable condition.

**am-bi-ent tem-per-a-ture** the temperature of the environment in which an apparatus is working.

**at-mos-pher-ic pres-sure** pressure exerted by the atmosphere at any specific location (sea level pressure is approximately 14.7 pounds per square inch absolute. 1 bar = 14.5 psi).

**back pres-sure** the pressure encountered on the return side of a system.

**break-loose (break-out) pres-sure** the minimum pressure which intimates movement.

**burst pres-sure** the pressure at which failure of and consequential loss of fluid through the product envelope.

**com-pressed air (pres-sure)** air at any pressure greater than atmospheric pressure.

**con-tam-in-ant** any material or substance which is unwanted or adversely affects the fluid system or components, or both.

**con-trol range pres-sure** the permissible limits between which system pressure may be set.

**crack-ing pres-sure** the pressure at which a pressure operated valve begins to pass fluid.

**cu-bic feet per min-ute (CFM or ACFM)** flow rate of air per minute at the actual temperature and pressure, real world operating conditions

**C<sub>v</sub>** coefficient of flow, used to express the pressure drop across an object, commonly used for sizing.

**dew point** the temperature at which vapors in a gas condense. For practical purposes, it must be referred to a stated pressure.

**dif-fer-en-tial pres-sure (pres-sure drop)** the difference in pressure between any two points of a system component.

**dried air** air with moisture content lower than the maximum allowable for a given application.

**fil-ter** a device whose primary function is the removal by porous media of insoluble contaminants from a liquid or gas.

**flow char-ac-ter-is-tic curve** the change in regulated (secondary) pressure occurring as a result of a change in the rate of the air flow over the operating range of the regulator.

**flow rate** the volume, mass or weight of a fluid passing through any conductor per unit of time.

**fluid** a liquid, gas or combination thereof.

**free air** air at ambient temperature, pressure, relative humidity and density.

**gauge pres-sure** pressure differential above or below ambient atmospheric pressure.

**hy-draul-ics** engineering science pertaining to liquid pressure and flow.

**in-let pres-sure** the pressure at the apparatus inlet port.

**lubri-cator** a device which adds controlled or metered amounts of lubricant into a fluid power system.

**max-i-mum in-let pres-sure** the maximum rated gauge pressure applied to the inlet port of the regulator.

**mod-u-lar F-R-L** a preassembled FRL (filter-regulator-lubricator combination) which has easily interchangeable parts.

**nom-in-al pres-sure** a pressure valve assigned to a component or system for the purpose of convenient designation.

**out-let pres-sure** pressure at the apparatus outlet port.

**pneu-ma-tics** engineering science pertaining to gaseous pressure and flow.

**pres-sure** force per unit area, usually expressed in pounds per square inch (bar).

**pres-sure rate** the qualified operating pressure which is recommended for a component or system by the manufacturer.

**reg-u-la-tor (air-line pres-sure)** a regulator which transforms a fluctuating pressure supply to provide a constant lower pressure output.

**sat-ur-a-ted air** air at 100% relative humidity, with a dew point equal to temperature.

**stan-dard cu-bic feet per min-ute (SCFM)** flow rate of air per minute at a temperature of 68.8° F, a pressure of 14.7 pounds per square inch absolute and a relative humidity of 36% (0.0750 pounds per cubic foot). In gas industries the temperature of "standard air" is usually given at 60.8° F.