

## Terminology

**ABSOLUTE PRESSURE** is the existing gauge pressure plus atmospheric pressure. At sea level the gauge pressure in pounds per square inch (PSI) plus 14.7 gives the absolute pressure in pounds per square inch (PSIA).

**ACTUAL CAPACITY** of an air or gas compressor is the quantity of air or gas compressed and delivered. It is usually expressed in cubic feet per minute at intake pressure and temperature. Standard cubic feet per minute (SCFM) is delivered air at specified laboratory conditions.

**COMPRESSED AIR** is free air that has been pressed into a volume smaller than it normally occupies. As compressed air exerts pressure, it performs work when released and allowed to expand to its normal free state.

**COMPRESSION EFFICIENCY** is the ratio of the theoretical horsepower to the actual indicated horsepower required to compress a definite amount of gas.

**DISPLACEMENT OF A COMPRESSOR CYLINDER** is the volume swept through by the piston. This is usually expressed in cubic feet per minute.

**DISPLACEMENT OF A MULTI-STAGE COMPRESSOR** is that of the first stage only, since the same gas passes through all stages in series.

**FREE AIR** is air at normal atmospheric conditions. Because the altitude, barometer, and temperature vary at different localities and at different times, it follows that this term does not mean air under identical conditions.

**LOAD FACTOR** is the ratio of the average compressor output during a certain period of time to the maximum rated output of the machine.

**LOW-PRESSURE ORIFICE TEST** is a method of accurately measuring the air delivered by a compressor. It is the method recognized by the Compressed Air and Gas Institute and Bureau of Standards.

**MECHANICAL EFFICIENCY** is the ratio of the indicated horsepower in the compressing cylinders to the indicated horsepower in the power cylinders, in the case of steam-driven or internal combustion engine-driven compressors, and to the brake horsepower delivered to the shaft in case of a power driven machine. It is expressed in percent.

**OVERALL EFFICIENCY** is the product of the compression efficiency and the mechanical efficiency.

**VOLUMETRIC EFFICIENCY** is the ratio of the actual capacity of the compressor to displacement and is expressed in percent.