

# Common terms used in the air separation industry



Nitrogen - as the most abundant gas in the air - is inexhaustible and inexhaustible. It is colorless, odorless, tasteless, non-toxic, inert gas at room temperature, and does not sustain life. The content of nitrogen (N<sub>2</sub>) in the air is 78.084%, molecular weight is 28, boiling point: -195.8°C, condensation point: -210°C.

Air - The volumetric components of various gases in air are: N<sub>2</sub>: 78.084%, O<sub>2</sub>: 20.9476%, argon: 0.9364%, CO<sub>2</sub>: 0.0314%, and other H<sub>2</sub>, CH<sub>4</sub>, H<sub>2</sub>O, O<sub>3</sub>, SO<sub>2</sub>, NO<sub>2</sub>, etc., but the content is very small.

Nitrogen purity - mainly refers to the content of non-oxidizing gases, which include nitrogen, argon and other inert gases, and trace gases such as carbon dioxide and water molecules. Commonly used units are % (nitrogen volume content) or oxygen content units ppm (parts per million or 10<sup>-6</sup>), ppb (parts per billion or 10<sup>-9</sup>)

Water dew point - at a certain pressure (atmospheric pressure), the temperature point at which the gaseous water molecule content of air is saturated and condenses into liquid water.

Pressure - in the engineering custom is mainly indicated as relative pressure, that is, the site altitude within 100 meters, relative to the atmospheric pressure at atmospheric atmospheric pressure indicated value.

Flow - the volume of gas at atmospheric pressure through the measurement point in a unit of time.

Air separation nitrogen production - the process of extracting inert gases such as nitrogen from the atmosphere on which people depend, at room temperature, by physical or chemical means to release oxygen.

Plain nitrogen - An abbreviation for nitrogen gas with a volume content of less than 99.9% purity.

High purity nitrogen - Abbreviation for nitrogen gas with a volume content higher than the purity of 99.95% purity.

Oil content - air in the compression process, because the compression head needs to be lubricated with lubricant, oil mist will be mixed into the compressed air, after filtering, the volume content of oil and gas remaining in the the compressed gas (unit mg/M3), usually expressed in ppm.

