

GLOSSARY OF FILTER TERMS
(courtesy of Filter-Mart Corporation)

ABSOLUTE RATING - The size of microns of the largest spherical particle that will pass through the element.

AEROSOL - Submicron particles suspended in air, gas or vapor. A fog, fume, or smoke.

ALKYLATION - A gasoline refining process.

AQUEOUS CONTAMINATE - Water-borne contaminate.

AREA - The surface exposed to the flow of a fluid.

BAR - A unit of pressure One (1)bar = 14.5 PSI.

BETA RATIO - The ratio of the number of particles greater than a specified micrometer in the influent fluid to the number of particles larger than the specified micrometer in the effluent fluid.

BUBBLE POINT - The differential gas pressure which when applied to a filter element submerged near the surface of a test fluid causes the first steady emission of gas bubbles from the filter element.

BULK DENSITY - Ratio of total mass or weight of the material divided by the volume of the material.

BUNA N - a Nitrile rubber seal compound. This is a generic term covering many formulations.

CENTIPOISE - A unit of absolute viscosity. One centipoise equals .01 poise.

CENTISTOKE - A unit of kinematic viscosity. One centistoke equals .01 stoke.

COLLAPSE PRESSURE - The minimum differential pressure that a filter element is designed to

FILTER MEDIA - The porous structure upon which, or in which, fluid system contaminants are trapped.

FILTRATE - The fluid which has passed through filtering media. Also referred to as effluent from filters.

FLOW FATIGUE RESISTANCE - The ability of a filter medium to resist structural failure or deterioration from cyclic loading.

GPH - Gallons per hour.

GPM - Gallons per minute.

GRAVITY SEPARATION - Separation of immiscible phases resulting from a difference in specific gravity (Settling).

HYDROPHILIC - Water accepting or water wettable. Opposite of hydrophobic.

HYDROPHOBIC - Not-water wettable. Opposite of hydrophilic.

IMMISCIBLE - Liquids which are mutually insoluble; opposite of miscible.

INFLUENT - Stream of fluid at the inlet of a filter or filter/separator. Opposite of effluent.

INLINE TYPE FILTER - A filter assembly whose inlet, outlet, and filter element have a common centerline.

MEDIA MIGRATION - Carry-over of fibers and particles from filter or separator media material into the effluent. Includes fiber migration measured in milligrams per liter.

MEDIUM - The porous material that performs the actual process of filtration.

withstand without permanent deformation.

CONTINUOUS PHASE - The basic product flowing through a filter or filter/separator which continues on through a system after being subjected to solids and/or water removal.

CYCLE - Filtration interval; length of time filter operates before cleaning.

DEGREE OF FILTRATION - A measure of the efficiency of a filter element. Expressed in terms of percentage retention of standard contaminants, under defined test conditions (**NOMINAL RATING**); and the size in microns of the largest hard spherical particle that will pass through the filter element (**ABSOLUTE RATING**).

DELTA (D) P - Pressure drop.

DIFFERENTIAL PRESSURE - The difference in pressure between two points in a fluid system usually in filtration systems expressed as P between a housing inlet and outlet.

DISCONTINUOUS PHASE - The phase dispersed in the continuous phase; water is a discontinuous phase to be separated from a hydrocarbon liquid or from air or gas.

DISPOSABLE FILTER ELEMENT - A filter element which is not recleanable and is therefore discarded and replaced at the end of its useful life. (Sometimes referred to as throwaway or non-cleanable element).

DROP - The quantity of liquid which makes up one spherical mass; a liquid globule.

DROPLET - A minute drop which may coalesce to form drops.

EFFECTIVE FILTRATION AREA - That area of the fluid medium in a filter element which is exposed to flow.

EFFICIENCY - The ability of a filter element to

MICROMETER OR MICRON - A unit of length. A micrometer is one millionth of a meter or 0.000039" (39 millionths of an inch). Expressed in convenient terms 25 micrometers are approximately equal to one thousandth of an inch (.001").

MISCIBLE - Liquids which are mutually soluble. Opposite of immiscible.

MULTI-PASS TEST - A test used to determine the Beta Ratio of a filter element.

NOMINAL FILTRATION RATING - An arbitrary micrometer value established by a filter manufacturer as a relative indication of average filtration capability.

PERMEABILITY - The relationship of flow per unit area to differential pressure across a filter medium.

PHOSPHATE ESTER BASE FLUIDS - Fire-resistant hydraulic fluids.

PRESSURE DROP - The difference in pressure between two points, generally at the inlet and outlet of a filter or a filter/separator. Measured in pounds per square inch, inches of mercury, kilograms per square centimeter, or bars (1 bar = 14.5 psi).

PSID (P) - Pounds per square inch differential.

PSIG - Pounds per square inch gauge = PSIA minus atmospheric pressure (14.696).

RATED FLOW - The optimum flow rate for which a filter is designed.

SAYBOLT SECONDS UNIVERSAL - (SSU) A measure of viscosity. The time in seconds for 60 cubic centimeters (cc) of oil to flow through a standard orifice at a specific temperature.

SPECIFIC GRAVITY - The ratio of weight of any volume of a substance to the weight of an equal

<p>remove/retain a specific artificial contaminant in a specified concentration under controlled test conditions. Efficiency is expressed in percent.</p> <p>EFFLUENT - Stream of fluid at the outlet of a filter or filter/separator. Opposite of influent.</p> <p>EMULSION - A dispersion of fine droplets in the continuous phase.</p> <p>ENTRAINED WATER - Discrete water droplets carried by a continuous hydrocarbon phase.</p> <p>FIBER MIGRATION - Carry-over of fibers from filter or separator media material into the effluent. Fiber migration is a qualitative part of total media migration.</p> <p>FILTER ELEMENT - A porous device which performs the actual filtration process.</p>	<p>volume of standard substance; i.e. water for solids and liquids, and air of hydrogen for gases.</p> <p>STATIC GENERATION - Unbalanced or net electrical charge produced in a following hydrocarbon liquid.</p> <p>SURFACTANTS - Surface-active agents, which are also called detergents, emulsifiers, or wetting agents. Polar compounds.</p> <p>TWO-STAGE - A filter/separator containing two kinds or types of replaceable elements.</p> <p>VELOCITY - The time rate of motion or speed in a given direction.</p> <p>VISCOSITY - A measure of the internal friction or the resistance of a fluid to flow. The standard unit of measure is poise or SSU.</p>
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