

Glossary of Terms

A	
ANSI	American National Standards Institute, Inc.
API	American Petroleum Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
Anodize	A process for aluminum, similar to zinc or chrome plating steel, in which an aluminum part is electrically charged then, dipped in various chemicals to produce various colors and/or surface hardness.

B

Burst Pressure The pressure at which rupture occurs.

C

Chamfer To cut an angle on the hose tube to aid in stem insertion and to prevent the hose end from flaring when a stem is inserted.

Clamp A metal fitting, band or wire used around the outside of a hose end to secure a coupling, fitting or nipple.

Cold Flow Continued deformation or movement of rubber under stress.

Compression Set The deformation that remains in rubber after it has been subjected to and released from stress such as a clamp. The longer the stress is maintained the more definitive the deformation.

Coupling A device at the end or ends of a length of hose that allows a connection to be made.

Crimping The act of forming the metal sleeve or ferrule of a hose fitting with a surrounding series of die segments to compress the hose within the fitting. The crimping process changes the shape of the entire circumference and length simultaneously. Often interchanged with the term "swaged".

D

Durometer An instrument for measuring the hardness of rubber.

Durometer Hardness A numerical value which indicates the resistance to indentation of the blunt indenter of the durometer.

E

Elastomer Any of various elastic substances resembling rubber.

Expansion Ring Typically refers to a type of fire hose couplings that are attached by expanding a sleeve (usually brass) outward to compress the hose against the wall of the bowl of the coupling.

External Swage (Swaging) A ferrule is passed through a reducing die, usually split, to bring the ferrule OD down to a predetermined size (for proper coupling retention) forcing the hose tube down into the stem serrations.

F

Ferrule A collar placed over a hose end to attach the fitting to the hose. The ferrule may be crimped swaged, forcing the hose against the shank of the coupling, or the shank may be expanded, forcing the hose out against the ferrule, or both.

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G

Gripping Finger The part of the clamp that goes over and behind the stem collar to aid in clamp retention.

H

Hard Coat An anodizing process in which the surface hardness of aluminum becomes similar to or greater than that of case hardened steel.

I

Internal Expansion (IX) A plug (or bullet) is pulled through a stem or a set of blades (fingers) increase the stem ID to the plug OD or a predetermined setting when using expansion blades (fingers). This forces the stem serrations into the hose tube and the hose cover into the serrations of the ferrule.

J

JIC Joint Industrial Committee

JIC Thread Typically refers to the threads on hydraulic fittings having 37° conical sealing surfaces.

M

MSHA Mine Safety and Health Administration

N

NSF/ANSI Standard 61 Drinking Water System Components was published in 1988 to establish minimum requirements for the control of potential adverse human health effects from products that contact drinking water.

Nipple The section of the fitting that is inserted into the hose. Also known as the shank of a coupling.

Nominal A dimensional value assigned for the purpose of convenient designation.

O

Operating Pressure The pressure at which system functions, also known as Working Pressure

P

PSI Pounds per square inch

PSIG Pounds per square inch gauge

Permanent Fitting The type of fitting which, after it is applied, cannot be removed for reuse.

Polymer A macromolecular material formed by the chemical combination of monomers having the same or different chemical composition.

Proof Pressure A specified pressure which exceeds the hose assemblies rated working pressure to indicate its reliability at normal working pressure. Follow RMA's testing guidelines for specific pressures and duration's for various types of hose.

PTFE Versatile polymer, polytetrafluoroethylene, commonly known as the DuPont brand name Teflon®

R

RMA Rubber Manufacturers Association

Reusable Fitting The type of fitting that is designed to be removed from a hose and recoupled on another hose.

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S	
SAE	Society of Automotive Engineers
SAE Threads	Similar to JIC except 45° conical sealing surfaces
SCFM	Standard Cubic Feet per Minute. Typically refers to the amount of compressed air a compressor can produce.
Safety Factor	A ratio used to establish the working pressure of a hose based upon the burst pressure. Typical Safety Factors are as follows: <ol style="list-style-type: none"> 1. Water hose up to 150 psi WP: 3 to 1 2. Hose for all other liquids, solid materials suspended in liquids or air and water hose over 150 psi WP: 4 to 1 3. Hose for compressed air and other gases: 4 to 1 4. Hose for liquid media that immediately changes into gas under standard atmospheric conditions: 5 to 1 5. Steam hose: 10 to 1
Serration	The part of the shank (stem) that grips the hose tube.
Shank	The section of the fitting or coupling that is inserted into the hose.
Sintered	Process in which powdered metal is formed in a mold under extreme pressure to form a finished part.
Styrene Butaline Rubber	Also known as SBR
Surge	A rapid rise and decrease of internal pressure.
T	
Torque	Amount of force required to turn an object. Usually measured in inch pounds (in. lbs.) or foot pounds (ft. lbs.)
Tube	The innermost part of the hose that's purpose is to contain the media being transported. Usually, rubber compounds or plastics are blended to give the tube specific properties so that it is compatible with certain media.
U	
UHMW	Ultra High Molecular Weight. Next generation of chemical hoses after cross-linked polyethylene having a thin tube liner made from extremely dense material giving it excellent chemical resistance properties.
V	
Victaulic Groove	A style of couplings that has a groove cut near the end of the stem where threads would typically be. The couplings are attached using a "C" shaped clamp that fits into the grooves on the stem.
W	
WOG	Water, Oil, Gas. Pressure rating for valves handling these products. This does not include steam.
WP	Working Pressure
Working Pressure	The maximum pressure to which a hose assembly will be subjected to including pressure surges.
X	
XLPE	Cross-Linked Polyethylene tube material that has good chemical resistance properties.