

Oil and Gas Termonology

Term	Definition
AGA	American Gas Association
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute. Formerly the ASA American Standards Association
API	American Petroleum Institute
ASME	American Society for Mechanical Engineers
ASTM	American Society of Testing Materials
A53A, A53B, A53F, A106	ASTM grades of carbon steel pipe
AWWA	American Water Works Association
Bales	Term associated with banded lifts of pipe.
Barlow's Formula	An equation which shows the relationship of internal pressure to allowable stress, nominal thickness and diameter.
Bevel	The angle formed between the prepared edge of the end of the pipe and a plane perpendicular to the surface of the member. The standard bevel for line pipe is 30o to facilitate welding.
Billet	A solid semi finished round or square product that has been hot worked by forging, rolling or extrusion. For seamless tubular products, the billet is heated and pierced to form a tube hollow.
Black Pipe	Denotes lacquered OD finish (as opposed to bare or galvanized)
Box	Internal (female) threaded end.
Brinell	Hardness testing system which measures indentation of the subject using a standard weight, shaped point.
BTC	Buttress threaded and coupled.
Bundles	Term associated with practice of packaging NPS 1 1/2" and smaller pipe. Pieces per bundle vary depending upon size.
Burst	Internal pressure at which tube will yield - often tested hydrostatically.

Burst Test	A destructive hydraulic test employed to determine actual yield strength and ultimate strength of both seamless and welded pipe.
Butt-weld Pipe	(See <i>Continuous Weld</i>)
Casing	Pipe used as a structural retainer for the walls of a drilled hole.
CAD	Computer aided design
CAM	Computer aided manufacturing
CFT	Hundred foot (sometimes used in pricing, i.e. \$425.97/cft vs. \$4.2597/ft.)
CNC	Computer numerically controlled - refers to machinery.
Chamfer	A beveled surface to eliminate an otherwise sharp corner.
Chemical Properties	Normally associated with a limited number of chemical elements; however, depending upon the specification, practically a full analysis may be required. Minimum or maximum limits are established in Standards.
Cold Drawn	Pipe or tubing which is pulled through a die to reduce diameter and wall. This process usually produces closer tolerances and higher strength.
Coupling	Threaded sleeve used to connect two lengths of pipe.
Cut Lengths	Pipe cut to a specific length as ordered.
CW	Continuous Weld a method of producing small diameter pipe (1/2 - 4")
CWT	Hundred Weight. Often used in handling or trucking pricing, i.e. .30/cwt load out charge or \$1.65/cwt (freight) with a minimum such as 30,000#.
Die Stamping	Permanent marking placed on pipe as required by some specifications.
Double Extra Strong	Standard pipe weight designation (XXS). Sometimes described as XXH (double extra heavy).
Drift	Minimum ID clearance verified by pulling a mandrel of known size through a length of pipe.

DRL	Double Random Length (35' minimum average or as defined in specifications).
DSAW	Double Submerged Arc Weld.
Ductility	The ability of a material to deform plastically without fracturing, being measured by elongation or reduction of area in a tensile test or by other means.
Eddy Current Testing	Non destructive testing method in which eddy current flow is induced in the test object. Changes in the flow caused by variations in the object are reflected into a nearby coil or coils for subsequent analysis by suitable instrumentation and techniques.
Elongation	In tensile testing, the increase in the gage length, measured after fracture of the specimen within the gage length, usually expressed as a percentage of the original gage length.
EMI	Electromagnetic inspection a method of determining wall thickness and detecting imperfections in steel tubes.
ERW	Electric Resistance Weld. See High Frequency Welding.
EUE	External upset ends forging of ends on (API) tubing and drill pipe to provide additional thickness for strengthening connections.
EW	Electric Weld. See High Frequency Weld.
Expanded Pipe	Pipe which has been enlarged circumferentially by mechanical or hydraulic pressure.
Extra Strong	Standard pipe weight designation (XS). Sometimes described as XH (extra heavy).
Flattening Test	A quality test for pipe in which a specimen is flattened between parallel plates that are closed to a specified height.
FLD	Full Length Drift (as opposed to "end drift") usually performed as part of used tubing or casing (OCTG) inspection.

Flush Joint

	Connection with male and female threads cut directly into the pipe (as opposed to T&C). This provides the same ID and OD clearance as in the middle of the tube, once lengths are joined.
FOB	Free On Board used to denote where pipe is to be provided to the buyer.
High Frequency Welding	A technique employed in the manufacture of electric resistance weld pipe. Typical radio frequency power for welding is supplied at 450,000 cycles/sec.
Hot Stamp	Permanent marking placed on pipe as employed by manufacturer or as established by specification.
Hydrostatic Test	Normal mill test as required by specifications. The pipe ends are sealed and high pressure water is introduced to predetermined pressures as required by specifications.
I.D.	Inside Diameter
Impact Test	A test performed at a specified temperature (usually lower than ambient) to determine the behavior of materials when subjected to high rates of loading, usually in bending, tension or torsion. The quantity measured is the energy absorbed in breaking the specimen by a single blow, as in a Charpy Test.
Ink Mark	Continuous printing identification associated with NPS 1 1/2 and smaller pipe. Detail is normally limited to the trademark and "Made in USA".
Joint	One length of pipe
Kip	A unit of weight equal to 1,000 pounds used to express dead weight.
Lifts	Term associated with separated segments of pipe (banded or unbanded for ease of handling).
LS	Limited Service pipe not meeting specification, usually rejected at the mill.
LT	Loaded Trucks used in price quotation to indicate seller pays for handling.

LTC	Long Thread and Coupling (OCTG casing connection)
Magnetic Particle	One of several methods of non destructive testing. A non destructive method of inspection for determining the existence and extent of possible defects in ferromagnetic materials. Finely divided magnetic particles, applied to the magnetized part, are attracted to and outline the pattern of and magnetic leakage fields created by discontinuities.
Magnetic Properties	The properties of a material that reveal its elastic and inelastic behavior where force is applied, thereby indicating its suitability for mechanical application; for example, tensile strength, elongation, hardness and fatigue limit.
Mid Weld	Two or more joints welded to form a longer one.
Nipple	Short length of pipe (<12") threaded on both ends
Nominal	Pipe size or wall thickness as specified (not actual). Sizes refer to approximate ID, even though OD is the fixed dimension.
Normalizing	Heating a ferrous material to a suitable temperature above the transformation range and then cooling in air to a temperature substantially below the transformation range.
NPS	A dimensionless designator for such traditional terms as "nominal diameter", "size", and "nominal size". Corresponds to actual outside diameter only in sizes 14 inches and over.
NUE	Non upset end OCTG tubing description (not as common as EUE)
O.D.	Outside Diameter
OCTG	Oil Country Tubular Goods pipe made to API specifications
Oiled	<i>(See Black Oiled)</i>
PE	Plain End
PEB	Plain End Beveled
p.s.i.	Pounds per square inch

Pickling	Pipe immersed into acid bath for removal of scale, oil, dirt, etc.
Pin Protector	External (male) threaded end Plastic, steel or composite cap to protect threads from handling damage
R & D	Reamed and Drifted. Pipe commonly used in water wells which has a special, heavy duty coupling and a guaranteed I.D. clearance.
Range	(R1, R2, R3) lengths of OCTG (Range 1 casing 16-25') (Range 2 casing 25-34') (Range 3 casing 34-48') (Range 1 tubing 20-24') (Range 2 tubing 28-32')
Rockwell Hardness	Relative resistance of a metal to indentation by a diamond cone, as expressed in hardness scale units (A, B, C or G)
SAW	Submerged arc weld a method of producing very large OD pipe
SC	Square cut plain end pipe
Schedule	Numbers assigned to different wall thicknesses of pipe (i.e. sch. 40)
SEA	Special End Area inspection to check for defects at either end of a steel tube which is also being inspected electronically. (EMI misses the ends.)
Shoe	Sub sometimes run on bottom of casing string with special metallurgy or design to help pipe to bottom through tight or bridged spots in drill hole.
Skelp	A piece or strip of metal produced to a suitable thickness, width and edge configuration, from which welded pipe is made.
SMLS	Seamless
Spec	Specification
SRL	Single Random Length (16-22 ft. for standard weight ASTM pipe or as defined in specifications).
STC	Short Thread and Coupling (OCTG casing connection).
STD	Standard reference to wall thickness of line pipe (=sch. 40 for 1/8 - 10").

Stencil	Paint spray identification placed on pipe. Specification size, wall, grade, test pressure, method of manufacture and normal mill characters and mill identification are usually included; however, detail varies by specification. "Country of Origin" is included.
Stretch Reduction	A technique employed in the manufacture of continuous weld pipe and in certain instances in the manufacture of seamless and electric resistance weld pipe. It involves one or several "master" sizes which are stretch reduced or rolled under tension through a number of stands to achieve a variety of standard pipe diameters and walls.
Strip	A sheet of metal in which the length is many times the width.
Sub	A short coupling with different types and/or sizes of ends.
T&C	Threaded and Coupled.
T&D	Tested and Drifted one method of verifying integrity of used tubing and casing (OCTG). "Test" refers to hydrostatic: ends are sealed and water pumped inside to a predetermined pressure. (<i>See drift def. above</i>).
TBE	Threaded Both Ends
Tensile Strength	In tensile testing, the ratio of maximum load to original cross sectional area. Also, called ultimate strength. Usually expressed in pounds per square inch.
TO	Threads Only
Tolerance	Specified allowance (plus or minus) of the given dimension of a finished product due to inaccuracies in manufacturing; usually quite small (thousandths of an inch or very small percentage) and often part of a standard such as ASTM or API.
Tool Joint	Threaded tube, usually thicker and harder, welded onto pipe to provide joint strength and durability exceeding that of flush joint or T&C connections.

Tube Round	<i>(See Billet)</i>
Ultrasonic	An electronic method of non destructive testing utilizing sound waves.
Victaulic	Joint grooves in the ends of pipe to accommodate a coupling.
XHY	Extra Heavy pipe about 50% thicker than standard (=sch. 80 for 1/8 - 8")
XXHY	Double Extra Heavy twice as thick as xhy for 1/2 - 6"
Yield Strength	The stress at which a material exhibits a specified deviation from proportionality of stress and strain. An offset of 0.2% is used for many metals including steels.