

Common Terms



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American National Standards Institute (ANSI) – A private, non-profit organization that oversees the development of voluntary consensus standards for products, services, processes, systems, and personnel in the United States.

American Petroleum Institute (API) – An American National Standards Institute (ANSI) accredited standards developing organization with approved standards development procedures and undergoing regular audits of its processes.

American Society of Non-Destructive Testing (ASNT) – A technical society for nondestructive testing (NDT) professionals.

aquacure – A chemical treatment used to neutralize and reverse the ravages that may be caused by salt water contamination.

brush, roll and spray (BR&S) – Process whereby tubes are brushed to remove external rust and deteriorated mill varnish, then sprayed with an environmentally friendly mill type varnish to renew the appearance of the tubes and protect the steel from deterioration.

clean and redope – Tube protectors are removed, thread compound is cleaned from both the tube threads and protectors, and then reapplied with a customer-approved thread compound.

collaring pipe – Staggering pipe (normally by the length of the coupling) when storing or transporting. This method is accomplished per stacked layer.

electromagnetic inspection (EMI) – A nondestructive inspection method that consists of the following services: longitudinal and transverse flaw detection coupled with wall thickness measurement.

electronic resistance welding (ERW) pipe - Pipe having one longitudinal seam formed by electronic resistance welding.

full-length drift (FLD) – A precisely measured dimensional cylinder is passed through the pipe's inner diameter (ID) to locate obstructions and/or assure compliance with appropriate dimensions.

full-length/body ultrasonic testing (FLUT/FBUT) – A nondestructive method of inspecting material using high frequency energy. UT inspections can be used for flaw detection, dimensional measurements, material characterization and other anomaly detections.

hydrostatic testing – Consists of filling the length of an OCTG with water then pressurizing for a specified time limit without a leaking or rupturing occurring.

improved visual thread inspection – The same process as a visual thread inspection, and also includes a thread profile check, a coupling length, and makeup check.

internal/external defect repair – An evaluation process whereby known defects are ground out of the tube wall while maintaining a greater than 87.5% remaining wall thickness.

liquid penetrant inspection – A nondestructive testing method that reveals surface breakage flaws by bleedout of a colored penetrant, with a visible or fluorescent dye, from the flaw.

magnetic particles – Powder-like ferromagnetic material (often diamond or football shaped).

magnetic particle inspection – A magnetic field used in conjunction with magnetic particles to locate crack-like defects on ferromagnetic material. In OCTG inspections longitudinal and transverse fields are applied separately.

naturally occurring radioactive material (NORM) – Material that exceed the levels of safe handling by OSHA standards (Patterson Tubular Services does not accept NORM).

oil country tubular goods (OCTG) – Are tubing, casing, and drill pipes manufactured according to API Specification 5CT.

oversized drift – A size larger drift than normally specified by API for clearance of larger drill bit applications.

pitch, diameter and ovality inspection – Pitch, diameter and ovality are performed using an MRP gauge to insure proper thread makeup.

Phased-array ultrasonics – Phased-array probes typically consist of a transducer assembly with multiple small individual elements that can each be pulsed separately. These may be arranged in a strip (linear array), a ring (annular array), a circular matrix (circular array) or a more complex shape. A phased-array system will also include a sophisticated computer-based instrument that is capable of driving the multi-element probes, receiving and digitizing the returning echoes, and plotting that echo information in various standard formats.

rig prep – Thread protectors are removed and storage compound is cleaned off of both thread protectors and pipe threads; a customer-approved compound is reapplied to the pipe threads, and protectors are replaced for shipment to the rig site.

rig return program – This program consists of a visual thread inspection, visual condition check of the tube, API drift, and clean and redope with customer approved thread compound, returning the material to a reusable, creditable or sellable condition.

salt-water contamination check – Process where silver nitrate is applied to an OCTG material to see if metal has been exposed to salt water contamination.

special end area (SEA) – A magnetic particle inspection used to locate longitudinal and transverse defects on the inside and outside surfaces of the tube end area not covered by Full Body Inspection. This can also be performed on product that has exposed threads, couplings, upsets, and integral connections. Can be done as a wet or dry special end area.

seamless pipe – A wrought steel tubular product made without a welded seam. Manufactured by hot working steel or, if necessary, by subsequently cold finishing the hot worked tubular product to produce the desired shape, dimensions, and properties.

thread gauge – Approved gauges are used to check lead, height, taper, and run-out (buttress only). Measurements of pitch, diameter and ovality are performed using an MRP Gauge. A visual inspection is also provided which includes measurement of thread profile, thread length, and coupling make-up.

ultrasonic end area – A manual ultrasonic evaluation of the tube ends not inspected by the Full Body Inspection system. This normally includes a longitudinal, transverse and wall thickness measurement.

ultrasonic weld line inspection – An ultrasonic inspection of the weld and the heat affected zone of ERW Material.

visual thread inspection (VTI) – Protectors are removed, threads are cleaned and visually checked for threading damage or pitting, and a customer specified thread compound is reapplied.

visual condition check (VCC) – Tubes are walked, rolled and visually scanned for tong marks or any other visually obvious damage to determine if the product has been used or is still in new condition.

wall thickness measurement – Ultrasonic wall thickness gauge is used to measure wall thickness on tube body and can be performed manually or with automated inspection systems.