

Welding Inspection & Testing

Welding Procedure Specification (WPS)

approved document describing welding procedures for a specific task

Discontinuity

interruption or irregularity in the typical structure of a weld

Defect

discontinuity or discontinuities that by nature, or by the accumulated effect, will render a part unusable or unable to meet code standards

Tolerance

amount of leeway, either over or under, a particular size or angle can be off and still be within code, standards or specification requirements

Dial Caliper

device with moveable arms, used to precisely measure objects

Fatigue Testing

used to determine the fatigue strength of the material

Shear Strength

material's ability to withstand forces that are trying to cut it at the cross section

Code

body of laws arranged systematically for easy reference

American National Standards Institute (ANSI)

writes welding codes

Impact Strength

material's ability to withstand a suddenly applied load

Filler Weld Break Test

used to determine the quality of the weld and is used as a welder qualification test

Acid Etchant

acid used to remove a small layer of a base material

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Dwell Time

amount of time during which a given process occurs

Mill Scale

oxidized layer of metal found during steel manufacturing

Root Opening

separation at the joint root between pieces to be joined

Root Pass

base bead in a multiple-pass weld

Electrode Angle

angle of electrode in relation to the surface of the metal

Magnetic Arc Blow

the shifting of the arc in various directions in electric-arc welding due to the magnetic fields at the arc

Soundness

measurement of a substance to determine freeness from defects