

WELDING TECHNICAL TERMS - 11

1. **WELD REINFORCEMENT:** weld metal extending beyond the upper and lower surfaces of the base metal.
2. **WELD TIME:** the time, measured in cycles, when current flows to make a resistance weld.
3. **WELDER:** person who performs welding activities. (Use of “welder” to describe a welding machine is incorrect.)
4. **WELDING GUN:** in GMAW, the device used to hold the consumable electrode.
5. **WELDING MACHINE:** a device that provides and controls the proper voltage and current for a welding task.
6. **WELDING PERFORMANCE QUALIFICATION:** test of a welder’s ability to weld a joint as directed by the welding procedure specification.
7. **WELDING POSITIONS:** the position of the weld axis and weld face determines whether a weld is made in the flat, horizontal, vertical, or overhead position.
8. **WELDING PROCEDURE:** method by which a weld is to be made, as outlines in the Welding procedure specification.
9. **WELDING PROCEDURE SPECIFICATION (WPS):** document that lists in detail the specifics of the job; the base metal to be welded, the filler metals to be used, the preheat or post-welding treatment to be used, the metal thickness, and all other variables for each welding process. All items in the specification are identified as essential or nonessential.
10. **WELDING SEQUENCE:** the order in which components (parts) of a structure are welded.
11. **WELDING SYMBOL:** the symbol (designed by the American Welding society) that appears on a drawing of a weldment. The symbol describes the joint preparation, the weld, and other considerations.
12. **WHIP MOTION:** rapid movement of the electrode or flame away from and back to the weld pool or arc crater. The motion allows time for the weld metal to cool.
13. **WIRE FEEDER:** in GMAW, the device that continuously feeds consumable electrode wire to the welding gun.
14. **WORKING PRESSURE GAUGE:** gauge on a pressure regulator that show pressure of the gas being supplied to the torch.
15. **WORKPIECE:** the object or assembly being welded.
16. **WROUGHT IRON:** an easily welded or forged iron containing about 0.2 percent carbon.
17. **X-RAY:** a stream of high-energy photons, common term for a photographic image made through the use of X rays.
18. **X-RAY INSPECTION:** the use of X-rays to check a weld for flaws or defects.
19. **YIELD STRENGTH:** the point at which, when a metal is being stretched, it takes a permanent set and will not return to its original dimensions when the stretching force is release.
20. **ZIRCONIA:** zirconium dioxide, a compound used in some GTAW electrodes for AC welding. It permits easier arc starting than pure tungsten.