

WELDING TECHNICAL TERMS - 7

1. **RESISTANCE** - the property of a material that causes the flow of current in a circuit to be retarded.
2. **RESISTANCE SPOT WELDING (RSW)** - welding overlapping pieces of metal together in small spots between two electrodes.
3. **RESTARTING THE ARC** - establishing a new arc after changing electrodes, or after losing the arc due to faulty welding technique.
4. **ROBOT** - device that uses a computer program to direct its movements as it completes a series of welds or other operations.
5. **ROBOT CONTROLLER** - the computer and associated devices that direct a robot in carrying out the program developed for it.
6. **ROCKWELL C HARDNESS TEST** - generally used for hard materials, this test uses a special piece of equipment to force a pointed diamond into the metal surface.
7. **ROOT BEND** - a test performed by bending a weld sample with the root of the weld on the outside of the bend.
8. **ROOT FACE** - the distance from the root of the joint to the point where the bevel angle begins.
9. **ROOT OF THE WELD** - the points where the root surface of the weld intersect the base metal. Also known as the "weld root".
10. **ROOT OPENING** - the distance between the two pieces at the root of the weld.
11. **ROOT PASS** - the first weld pass made into the root of the joint.
12. **ROOT PENETRATION** - the depth to which weld metal extends into the root of a welding joint.
13. **ROOT REINFORCEMENT** - the distance that the penetration projects from the root side of the joint.
14. **RUNNING A BEAD** - the process of making a weld bead.
15. **SAFETY CAP** - forged steel cap that should be screwed over the cylinder valve to protect it when the cylinder is stored or moved.
16. **SAFETY VALVE** - a device that prevents a gas cylinder from exploding when exposed to high temperatures. The valve includes a disc that ruptures under increased pressure.
17. **SAGGING** - the sinking or downward curving of metal (as in a weld pool), due to gravity or pressure.
18. **SELF-SHIELDING ELECTRODE** - an electrode that produces its own shielding gas and does not require additional shielding gas.
19. **SEMI-AUTOMATIC SYSTEM** - system in which some functions are performed manually and others by a programmed mechanical device.
20. **SEQUENCE** - order in which operations or events take place.