

# WELDING TECHNICAL TERMS - 10

1. **T-JOINT:** joint formed by two pieces of base metal placed at approximately a 90-degree angle to one another to form a “T” shape.
2. **TOE OF THE WELD:** the point where the weld bead contacts the base metal surface.
3. **TORCH:** device used to control and mix the fuel gas and oxygen and to direct the gas flame to the welding, brazing, cutting, or soldering area. Also, the assembly that holds the electrode in gas metal arc welding and gas tungsten arc welding.
4. **TORCH BODY:** main portion of the welding torch, to which fuel gas hoses are connected and the torch tip is attached.
5. **TORCH TIP:** the part of the end of the torch where the fuel gas and oxygen are ignited.
6. **TORCH VALVES:** valves that control the flow of oxygen and fuel gas into the torch.
7. **TOUGHNESS:** the ability of material to withstand all types of stresses without tearing or breaking.
8. **TOXIC:** poisonous
9. **TRACK:** a straight or curved guide path for an electric motor-driven carriage that carries a cutting torch.
10. **TRANSFORMER:** electrical device used to reduce or increase voltage.
11. **TUNGSTEN INCLUSIONS:** in GTAW, a weld defect caused by getting tungsten from the electrode in the weld.
12. **TWO-STAGE REGULATOR:** regulator reduces cylinder pressure to working pressure in two stages (steps).
13. **ULTIMATE TENSILE STRENGTH:** the greatest tensile stress that a material can withstand.
14. **ULTRASONIC:** vibrations generated at frequencies above the range of human hearing.
15. **ULTRASONIC INSPECTION:** a nondestructive testing method in which ultrasonic waves passed through the material being inspected. Echo patterns will locate any discontinuities.
16. **ULTRASONIC WELDING:** process used to weld metal or other material through use of ultrasonic vibrations.
17. **ULTRAVIOLET RAYS:** light rays with very short wavelengths that are given off by electric arcs and welding flames. Filter lenses in welding goggles and helmets screen out such rays, which can be harmful to the eyes.
18. **UNDER LOAD:** in arc welding, term used to describe state of the welding machine when current is flowing through the welding circuit (while welding or with the electrode holder touching the table or work piece).
19. **UNDERCUT:** a depression at the toe of the weld – the weld metal is below the level of the base metal.
20. **UNSTABLE ARC:** an arc that has not established itself in the ionized space between the electrode and the work piece. An unstable arc may wander or stop.