

The welding arc

When two pieces of metal are joined together using the welding process, a welding arc is formed. A welding arc is an electrical discharge between the electrode and the base material. This discharge generates intense heat—up to 6500°F (3600°C)—which melts the base materials and the filler metal (if used), creating a molten pool. The heat is produced by the resistance to the flow of electric current, causing the metal to reach its melting point and fuse together. This process allows for strong and durable bonds between the two pieces of metal.

