

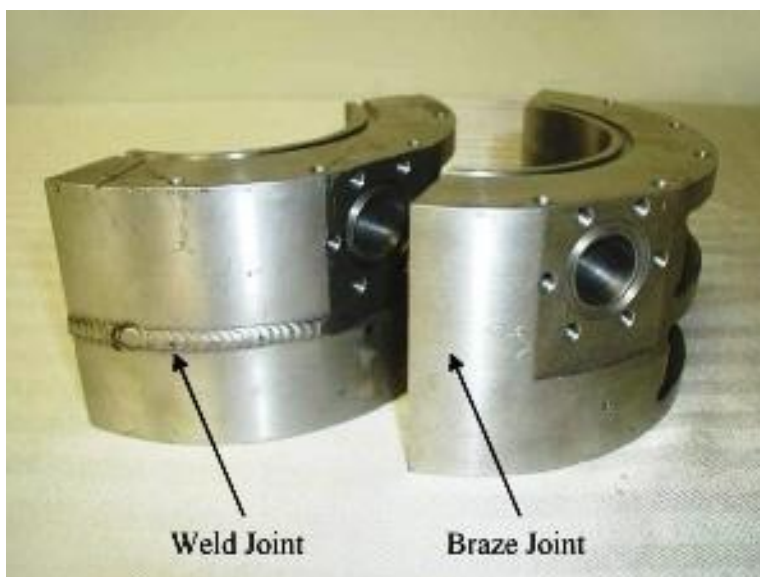


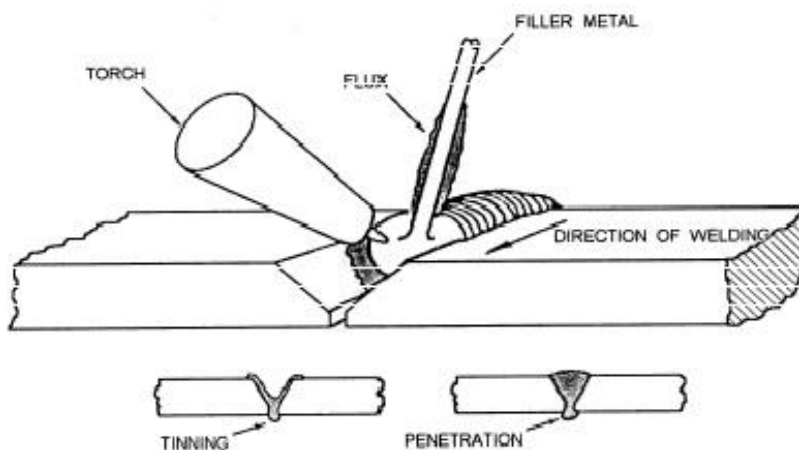
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Email: sales@agstech.net, Web: <http://www.agstech.net>

BRAZING & SOLDERING and ADHESIVE BONDING PROCESSES

Braze Welding

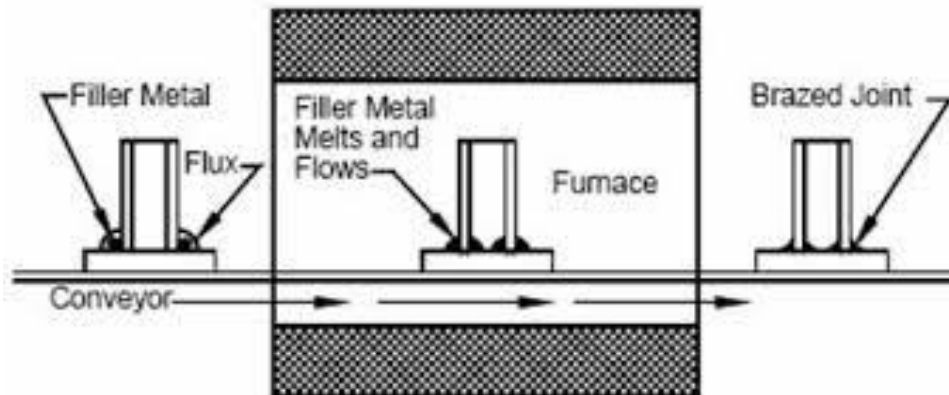




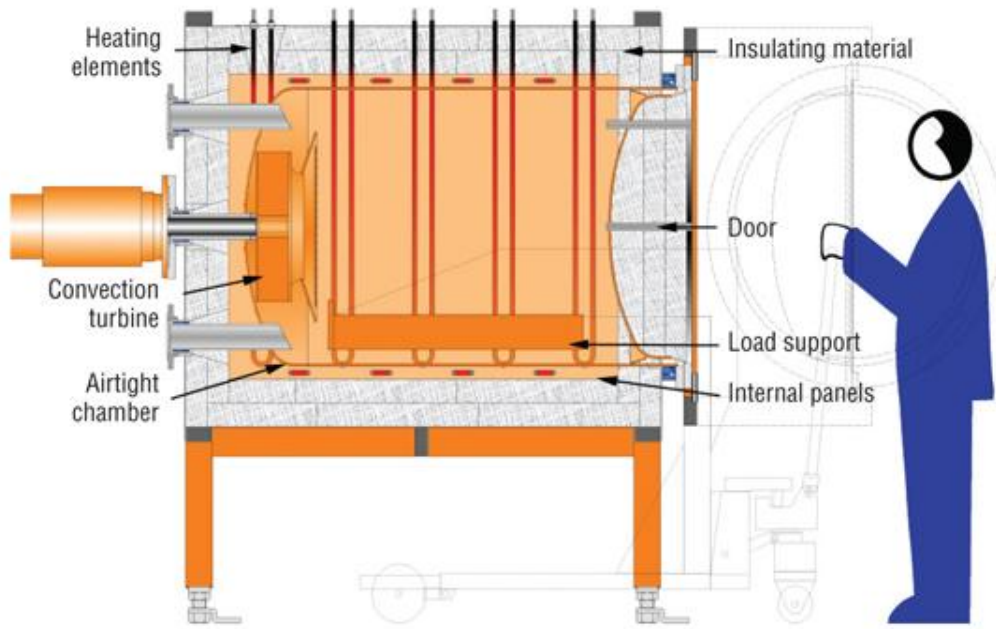
Braze welding cast iron, using the backhand method.

Braze welding is a procedure used to join two pieces of metal. It is very similar to fusion welding with the exception that the base metal is not melted. The filler metal is distributed onto the metal surfaces by tinning. Braze welding often produces bonds that are comparable to those made by fusion welding without the destruction of the base metal characteristics. Braze welding has many advantages over fusion welding. It allows you to join dissimilar metals, to minimize heat distortion, and to reduce extensive pre-heating. Another side effect of braze welding is the elimination of stored-up stresses that are often present in fusion welding. This is extremely important in the repair of large castings. The disadvantages are the loss of strength when subjected to high temperatures and the inability to withstand high stresses.

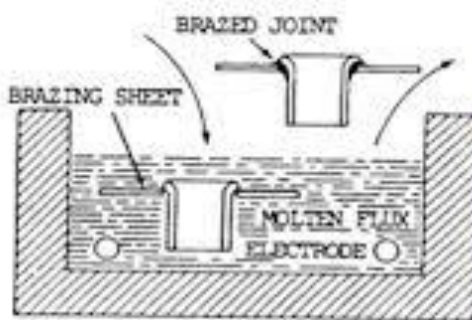
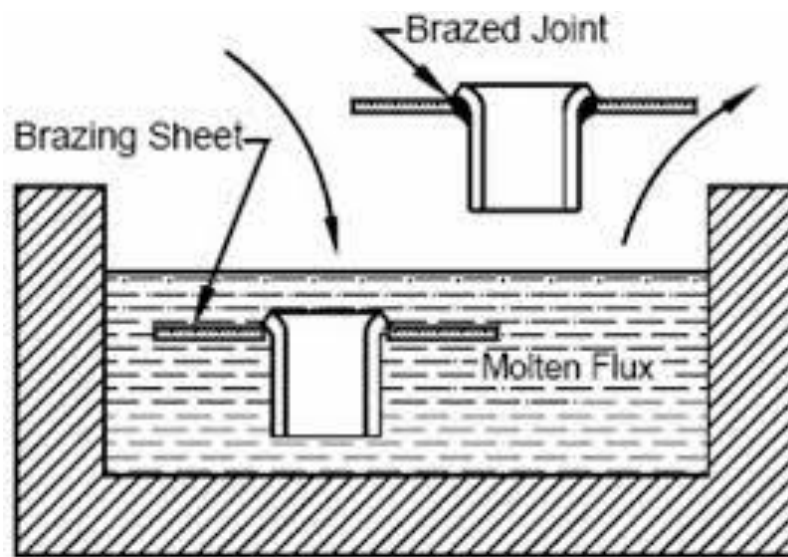
Furnace Brazing



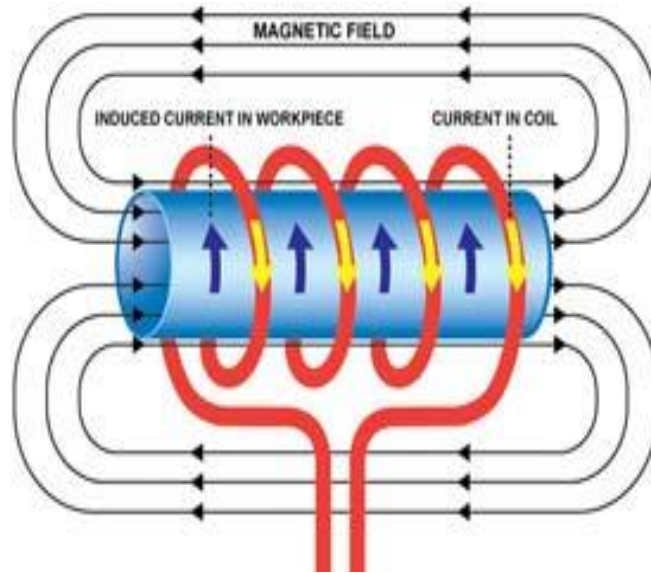
Vacuum Brazing

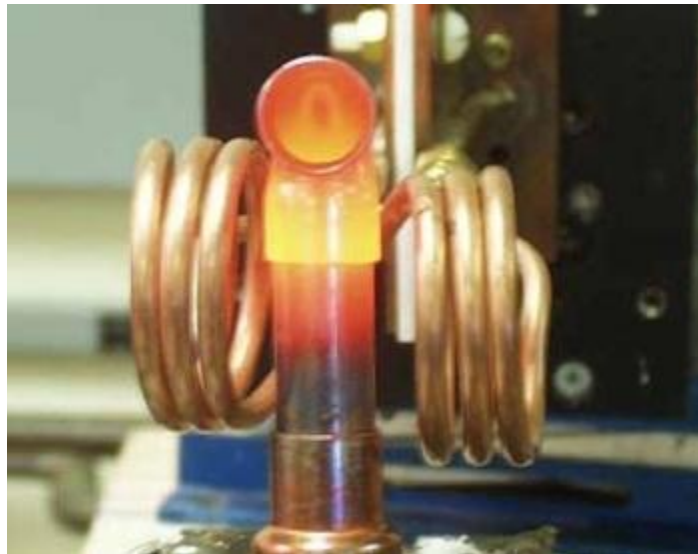


Dip Brazing

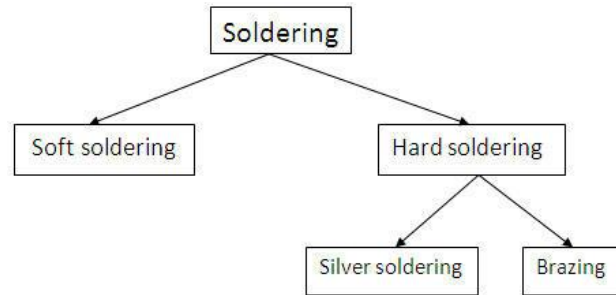


Induction Brazing

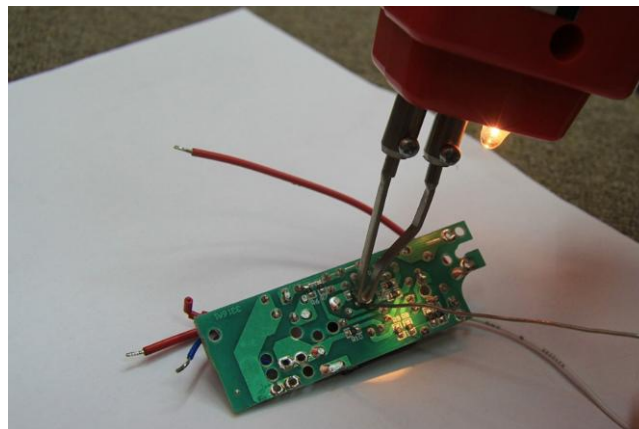
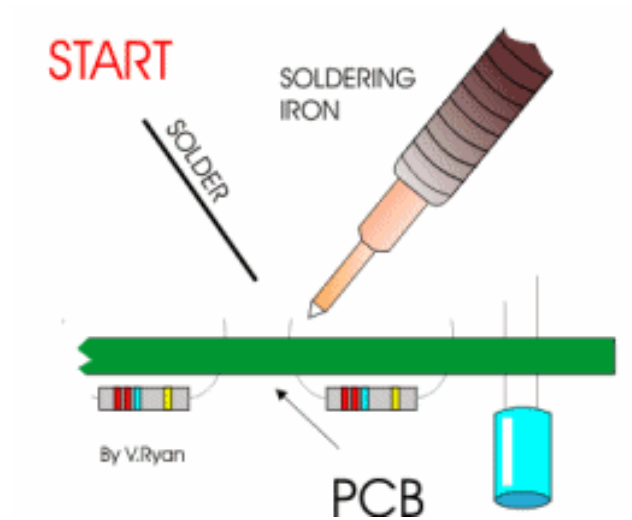




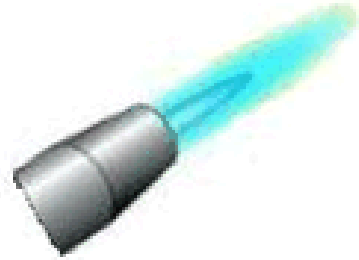
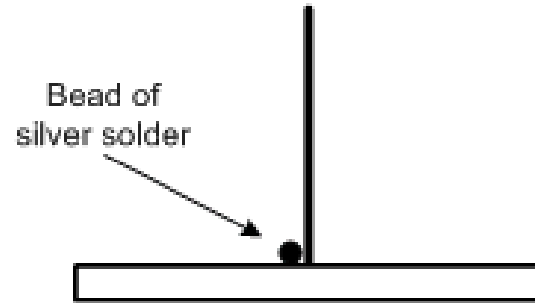
Soldering



Soft Soldering



Silver Soldering



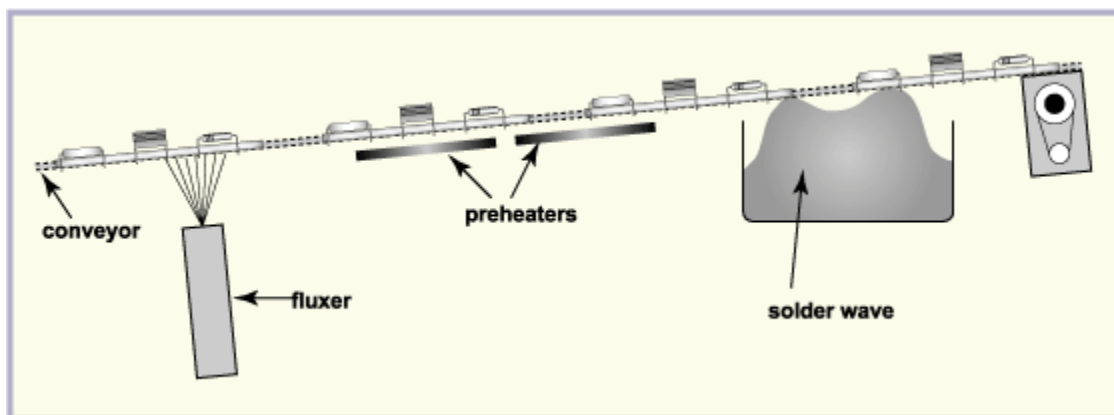
When joining thick and thin items, heat mostly the back of the thicker one.

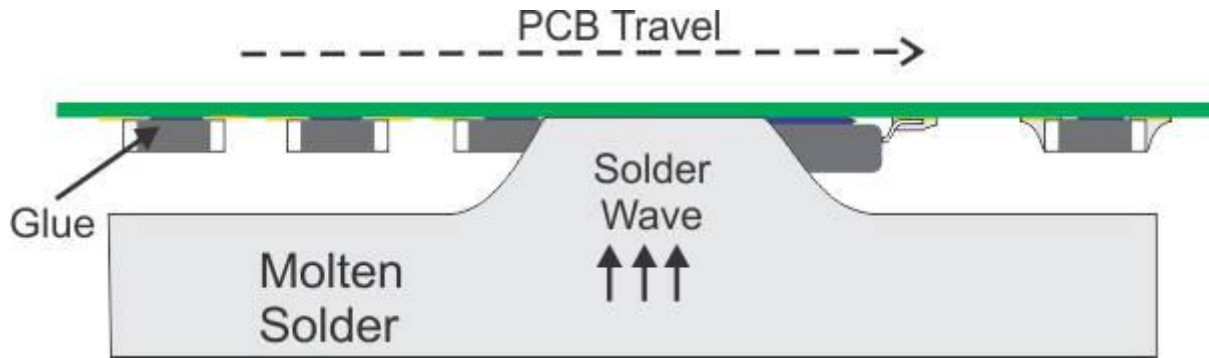


Induction Soldering



Wave Soldering





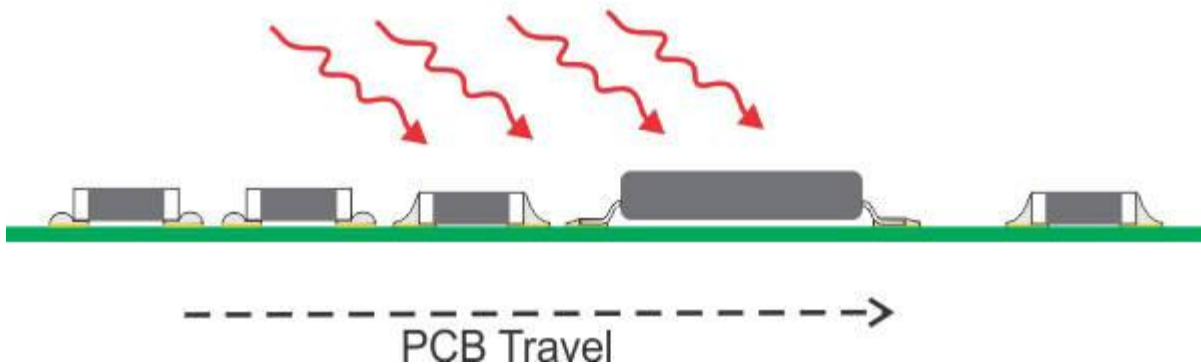
The wave of solder is produced with a pump, so that a welling up of solder will touch the PCB as it is passed over the solder-pot. All exposed metal on the bottom of the PCB will be coated with the solder.

Reflow Soldering



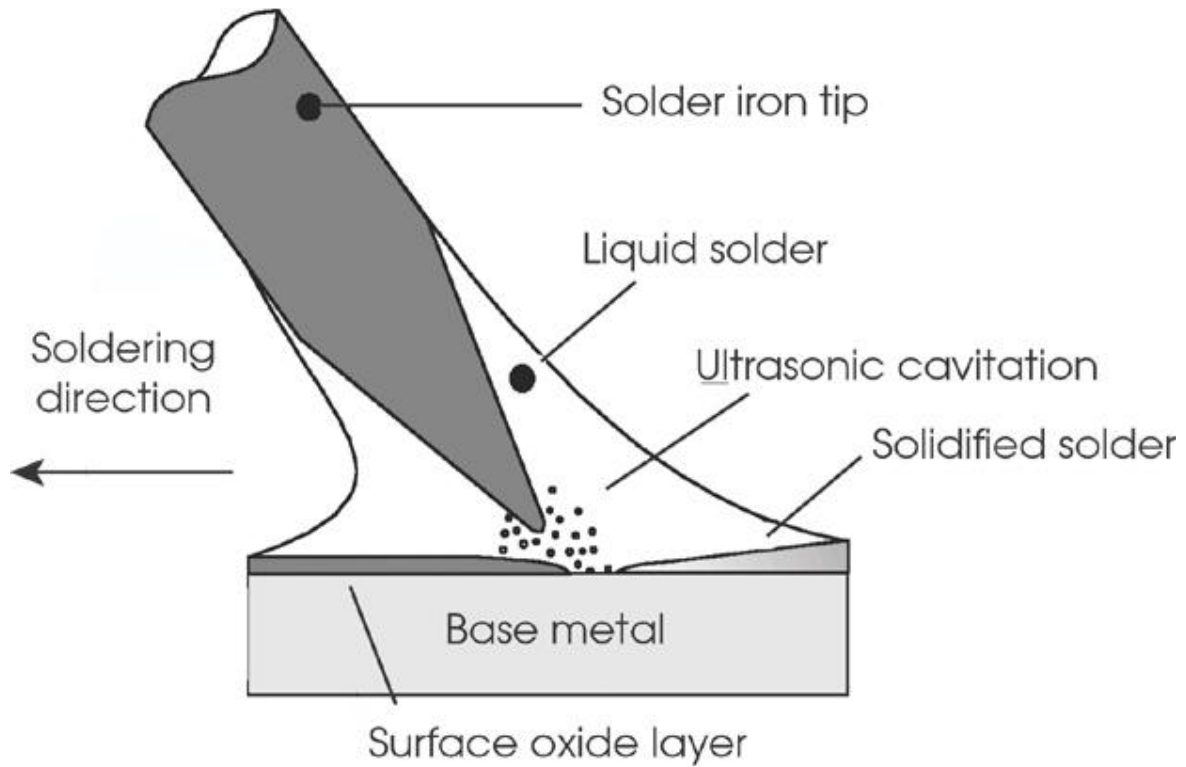
A paste, containing both solder and flux, is applied to the solder pads of the printed circuit board. The components are then placed on the PCB and the paste holds the components in place.

Reflow Heat



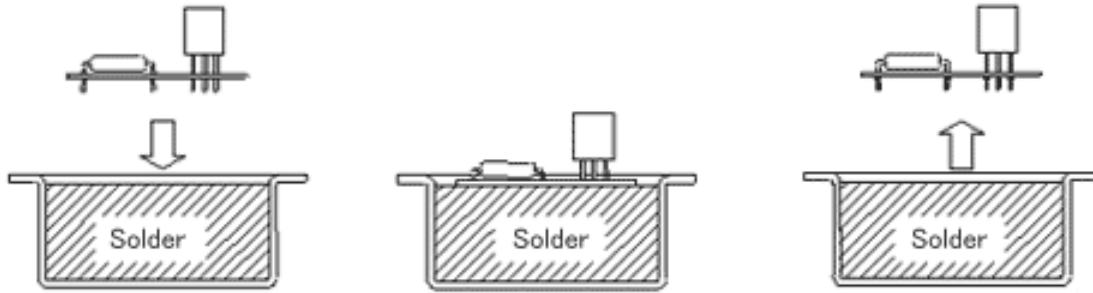
When all the components are placed on the PCB, heat in the form of infra-red radiant heat or hot air is used to melt the paste, which reflows to make permanent connections.

Ultrasonic Soldering

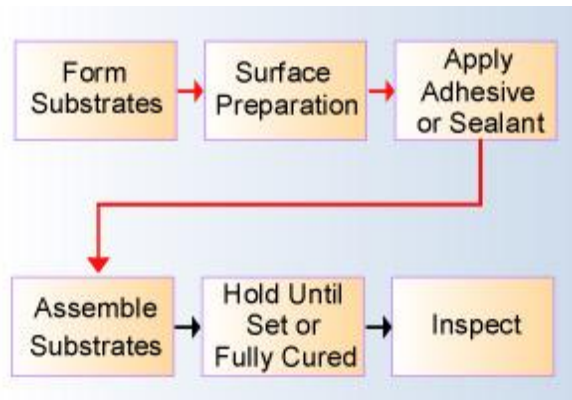


Ultrasonic Soldering Iron

Dip Soldering



Adhesive Bonding



UV Curing of Adhesives



Heat Curing of Adhesives

