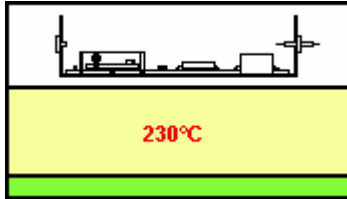


Electronic Technology Corporation

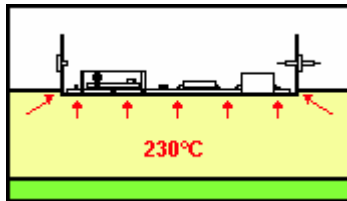
TEL: 630-584-2050

e-mail: etc@ameritech.net 38W553 Hilltop Drive St. Charles, IL. 60175

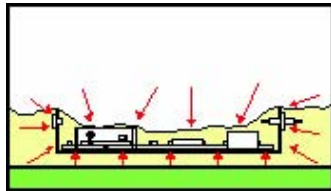
WWW.ETCFAB.COM



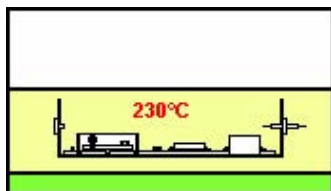
1. The assembly is moved to the vapor phase. It was preheated by IR radiators from the top. It also can be preheated on the upper boundary of the vapor phase predominantly from below. The use of IR preheat improves the quality of the solder joint and allows the free shaping of the temperature profiles.



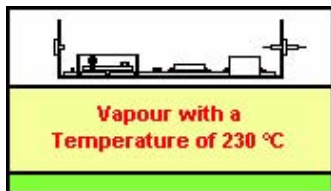
2. The assembly dives into the vapor phase. There, it is heated up. With a patented procedure, it is possible to control the heat transfer to the assembly in a way that soft temperature rise is performed.



3. The vapor condenses on the assembly and transfers its heat. Since the vapor is chemical inert, it performs an inert gas atmosphere with 0 ppm oxygen. This is done automatically without the use of nitrogen.



4. The assembly can be heated up to a maximum temperature that equals the temperature of the vapor. This temperature cannot be exceeded even if the assembly stays longer inside the vapor. Therefore, no overheating is possible.



5. After leaving the vapor phase there is still condensed fluid left on the board. Due to the inner heat of the assembly, the liquid evaporates and a dry assembly leaves the machine.

Boiling fluid to build up a vapor phase from below.

Today, a typically used boiling point for **lead free SMD reflow soldering** is **230°C**.