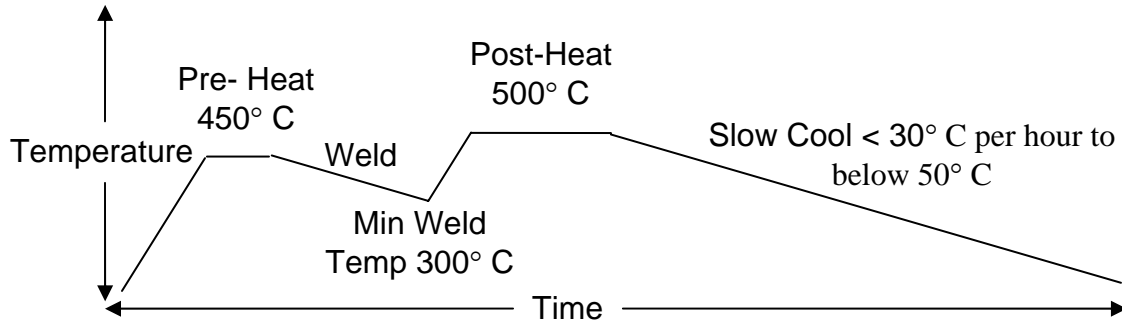


## Welding DC53

With special care DC53 can be welded. Use any appropriate weld rod such as an H72A rod which is commonly used for high carbon, high chrome die steels similar to D2. The weld rod should be dry to prevent bubble cracks in the weld. Placing the rod in a 350 degrees Celsius (650 degrees Fahrenheit) oven for one hour is generally sufficient.



Prep the surface by filing or grinding out and cracks of loose debris. Pre-heat the part to be welded to 450 degrees Celsius (840 degrees Fahrenheit). Weld the part without letting it drop below 300 degrees Celsius (575 degrees Fahrenheit). Weld at as low as possible power setting and avoid weaving.

Use austenitic stainless steel as base layer when building up an area. To minimize distortion, beads should be peened with a hammer immediately after welding followed by a 500 degree Celsius (930 degrees Fahrenheit) post heating for at least one hour and slow cool.

For optimum tooling performance DC53 should be annealed and re-heat treated. It is important to note that the weld itself will be significantly less wear resistance and have less strength than that of the base DC53 material. If the weld is in a critical wear area of the tool, it should generally be considered a temporary fix or to have an emergency back-up tool.