

SIFBRONZING: A GUIDE TO THE TECHNIQUE

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THE SIFBRONZE TECHNIQUE

For successful 'sifbronzing' or 'bronze welding', parts must be thoroughly cleaned and degreased and to obtain optimum strength a 60 – 90 vee preparation is required. The leftward welding technique is used and the parts should be heated with an oxidising flame to a 'dull red', before introducing the Sifbronze rod and flux.

Overheating must be avoided, as this will lead to porosity and inferior work. It is essential that the joint faces are tinned. A drop of Sifbronze appears to collapse and spread across the metal face. If the drop stays as a globule, the metal is either too hot, too cold or dirty. The gap between the tinned faces is now filled with a weave action. It may be necessary to carry out further 'weld runs', building up the joint. Sifbronze flux plays an important role not just cleaning the metal, but it covers the weld pool surface, preventing further oxidation of the molten bronze. ●



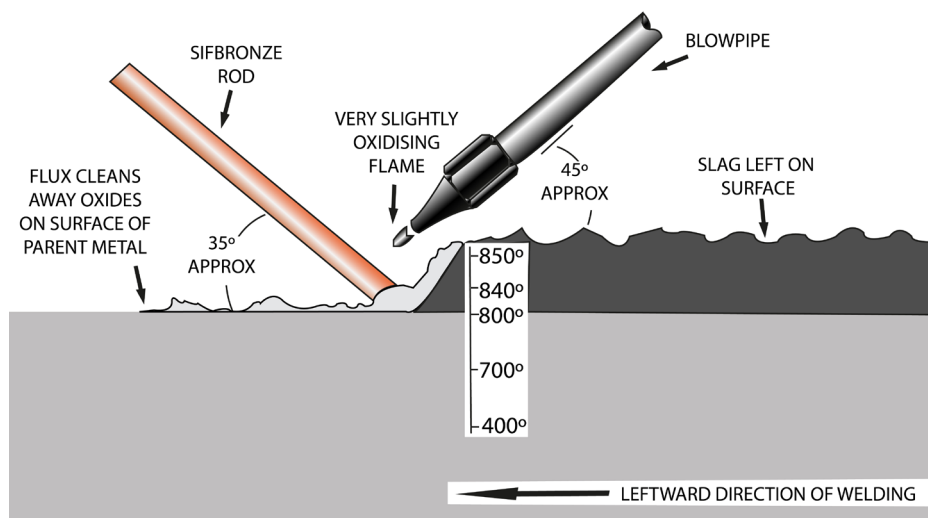
Carbonising Flame - For aluminium, stainless steels



Neutral Flame - For mild steel and general welding



Oxidising Flame - For welding brass and 'Sifbronzing'



	Sifbronzing	Brazing
Composition	60Cu, 40Zn alloy with small addition elements	60Cu, 40Zn alloys, Copper Phosphorus, Silver electrodes
Heating	Typically oxy-acetylene torch	Blowpipe, automatic gas or Electric heating
Joint design	Butt, fillet, lap or tee type	Close fitting joints
Building up	Deposit can be controlled and built up in a controlled manner	Not practical

sif tips



Technical advice in the original SifTips style was started in 1932. 'Sifbronzing' is an almost universally recognised way of describing the low temperature bronze welding of sheet steel, cast iron and other metals. This explains why Sifbronze, the company which first developed and promoted the technique, is generally considered to be a supplier of high quality welding rods, wires, fluxes and equipment.

'Will the Welder' was a SifTips magazine that was produced in the early 1930s. The aim was to provide users with ideas and tips on how to get the most out of their welding equipment.

Sif is renowned for its UK manufacturing heritage as well as its complete range of quality welding consumables used globally for almost a century.

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