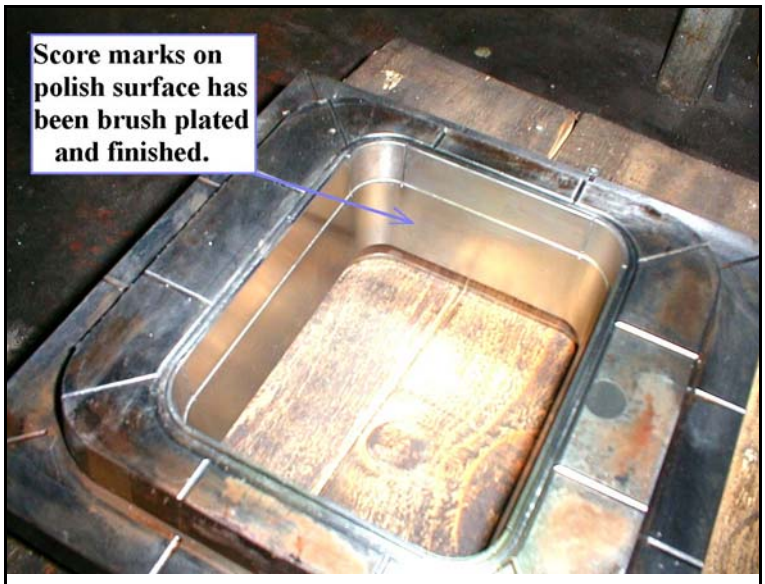
BRUSH PLATING.

CARRS
WELDING TECHNOLOGIES LTD
Precision Cold Welding

Brush –plating (or Brush-on Metals) is a tried and tested process, which Carr's have done since 1992. It is used mainly for coating steels with a precise layer of nickel alloys to give an even deposit for small dimensional changes. It is also used widely for coating local areas on highly polished surfaces, where welding has been applied to the surface and microscopic distortion is showing on polishing.

It works particularly well on all steel surfaces, where hand working has meant



This H13 cavity picked up whilst moulding. Deep scoring was filled with pulse welded steel, then brush-plated with nickel cobalt (52 to 54 RC). The whole surface then 0.05m high, was polished to the draw polish requirement.

Brush-plate is electro-plating, done by hand with specially made graphite electrodes. The electrode is made to match the area to be treated, much like spark eroding.

A chemical cleaning routine with various caustic and acid etches, allows the added material to bond to the parent and give a perfect blend.
Carr's mainly use brush-plating on moulding surfaces, where a perfect post weld surface is required, for example, a lens mould. Some coatings must be removed prior to treatment, to achieve the bond strength required.

Brush-plating means:—

- Tool damage repaired locally.
- Polished surfaces repaired.
- Hardness matched to parent.
- Access can be a problem.
- No residual heat or sinking.
- Chrome (III) is 55 RC.
- Nickel Cobalt is 50 to 55 RC.
- Nickel Tungsten is 58 RC.

Contact Phil Carr for more information.