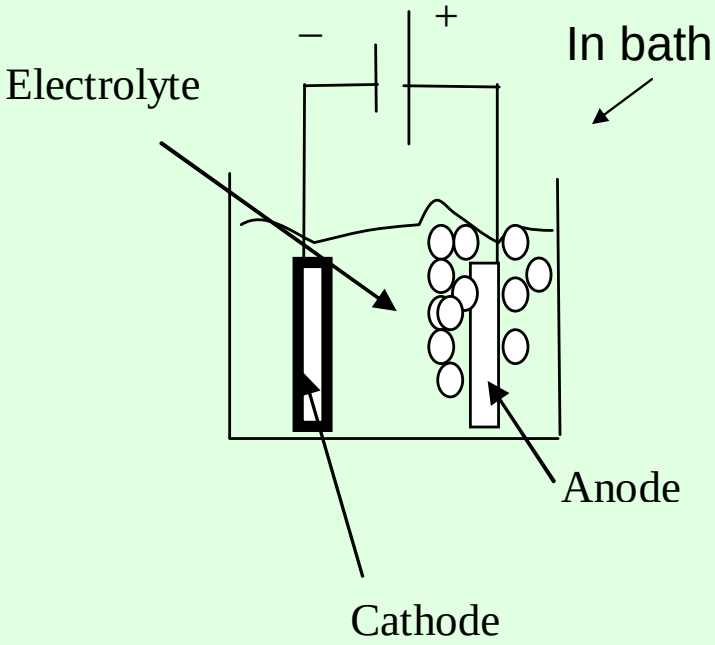
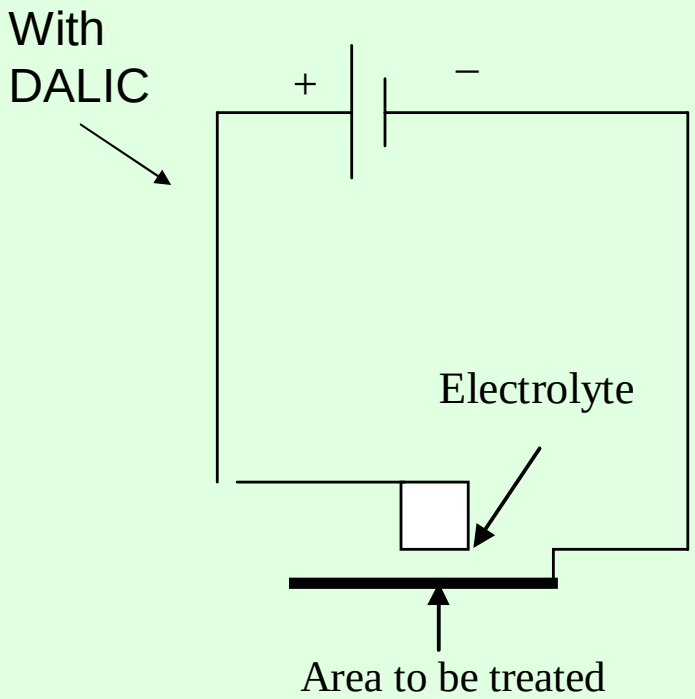
DALIC localized electrolysis processes

DALIC Selective Plating - France

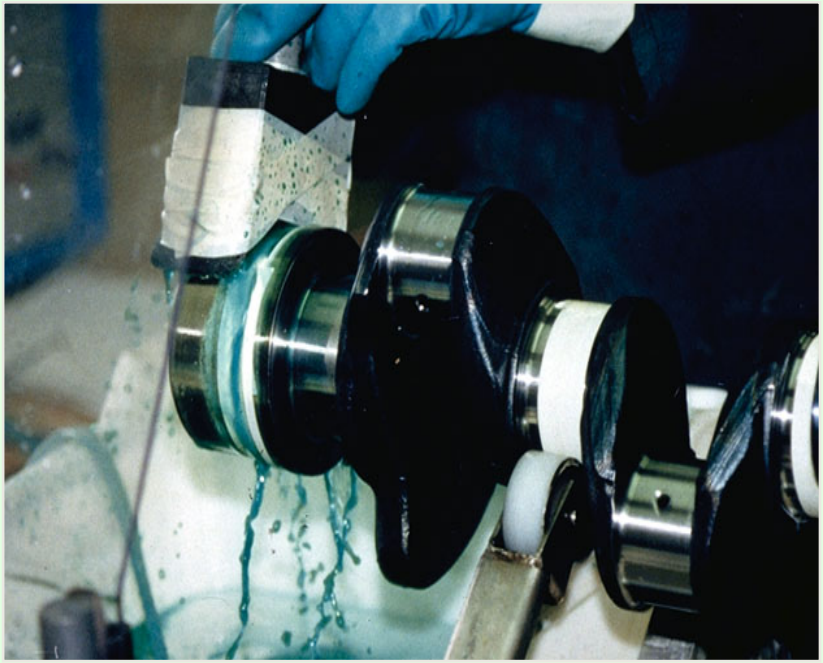
The basics of electroplating without immersion

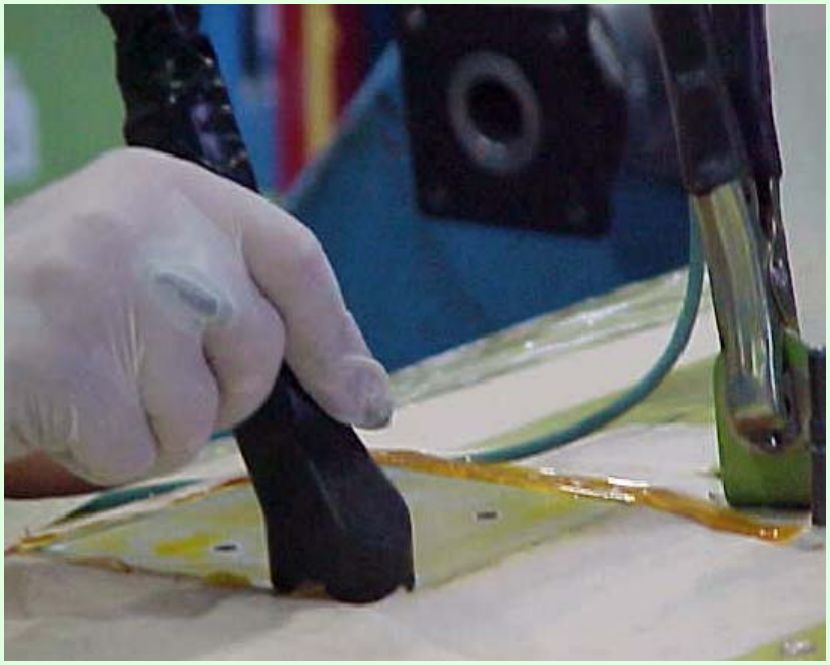
=> Surface modification only where needed
=> Treatment in-situ without disassembly
=> Application for maintenance & production
=> Use of small volumes of solutions





1932: Pioneer in brush plating



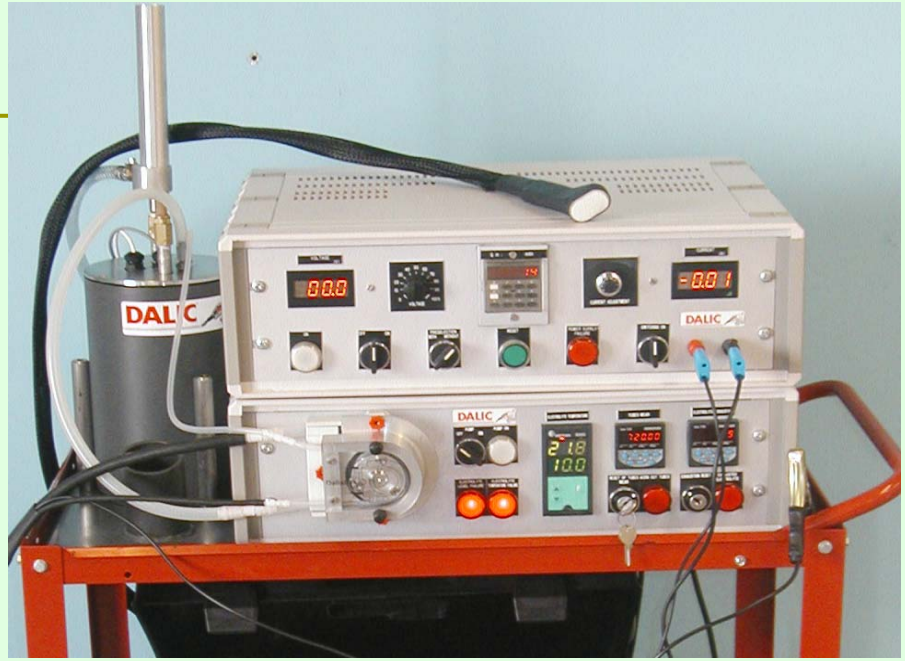


1996:
Innovation continues with Dalistick

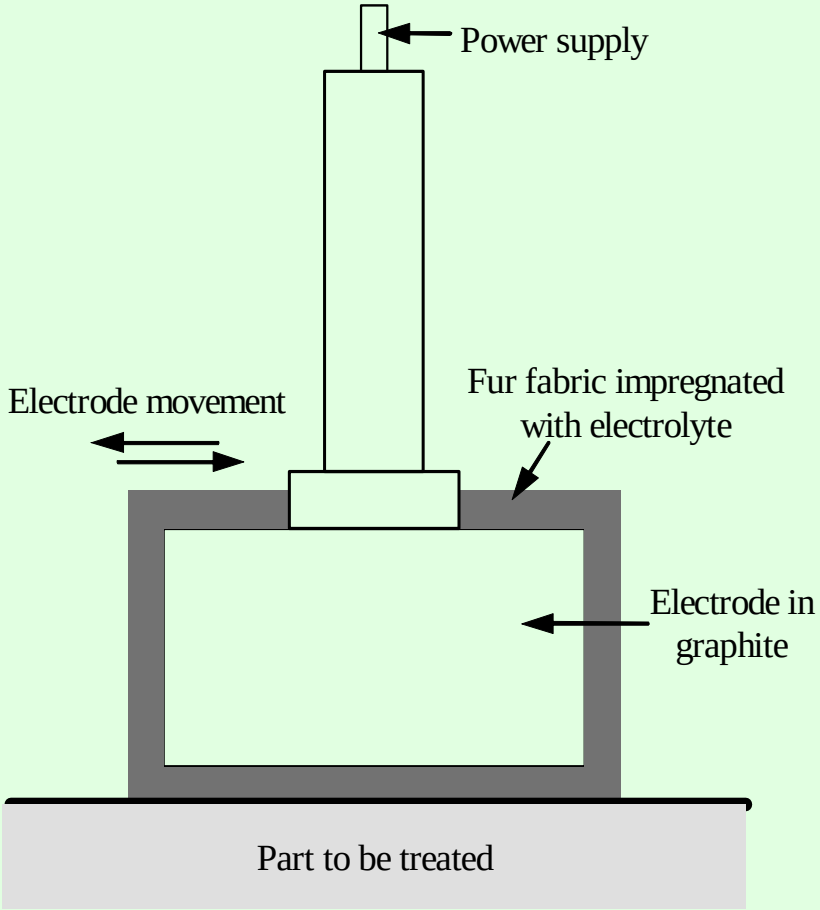
The DALISTICK workstation

Mobile, on a trolley, it comprises:

- **A rectifier to anodize or plate at a required thickness,**
- **A 2 heads pump to circulate the solution in a closed circuit,**
- **A container (regulated temperature),**
- **Usage rate indicators for solution and hoses,**
- **And ... a DALISTICK tool.**



BRUSH PLATING



APPLICATIONS

- Local repairs on small or large areas,
- For small series of parts,
- The electrolyte must be recovered, it flows down the part.

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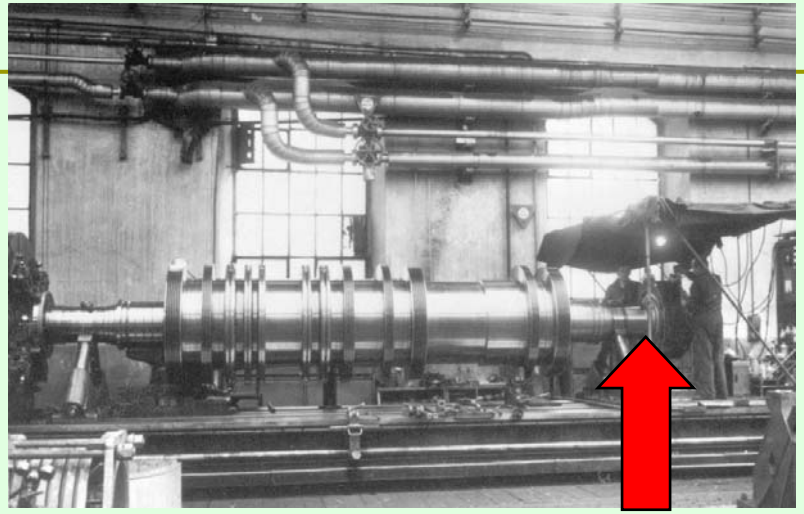
Local treatments, examples with BRUSH

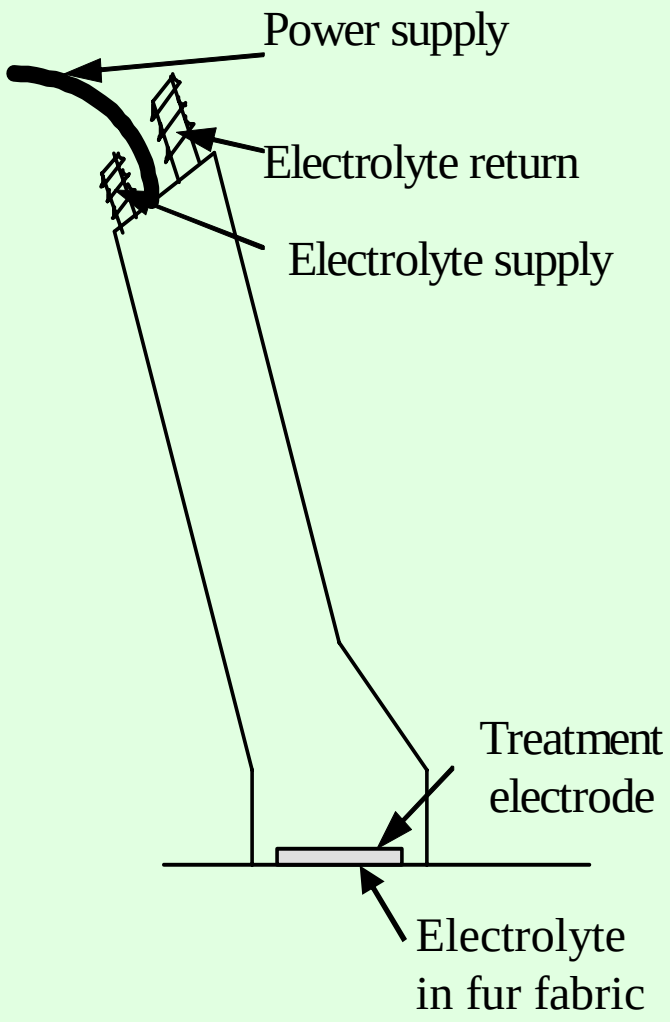


DALIC

Local treatments, examples with BRUSH

DALIC

DALISTICK



APPLICATIONS

- **Local repairs on small surfaces,**
- **Use in every position, on unaccessible surfaces or non-removable parts,**
- **Without electrolyte flow.**

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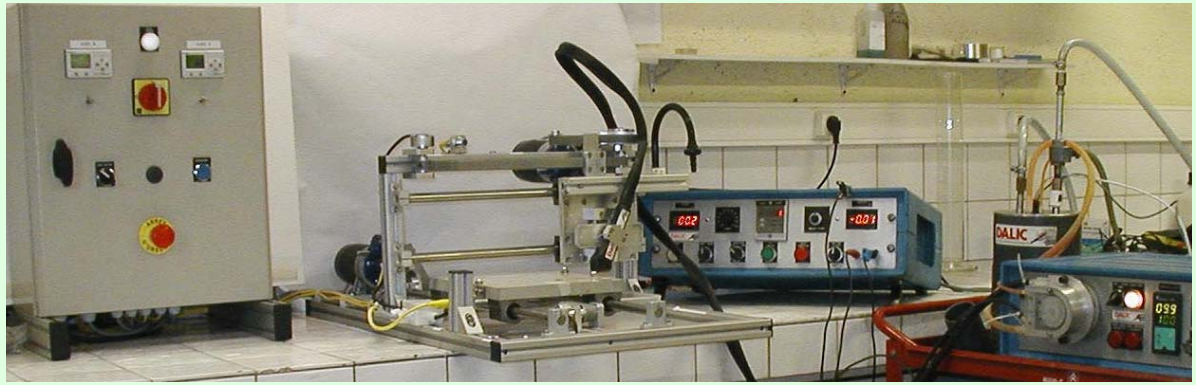
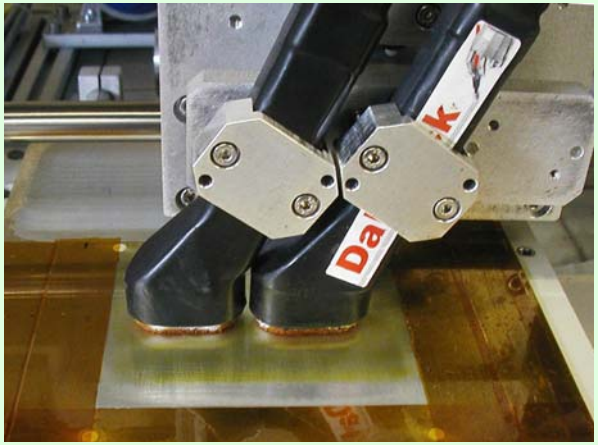
New DALISTICK developments

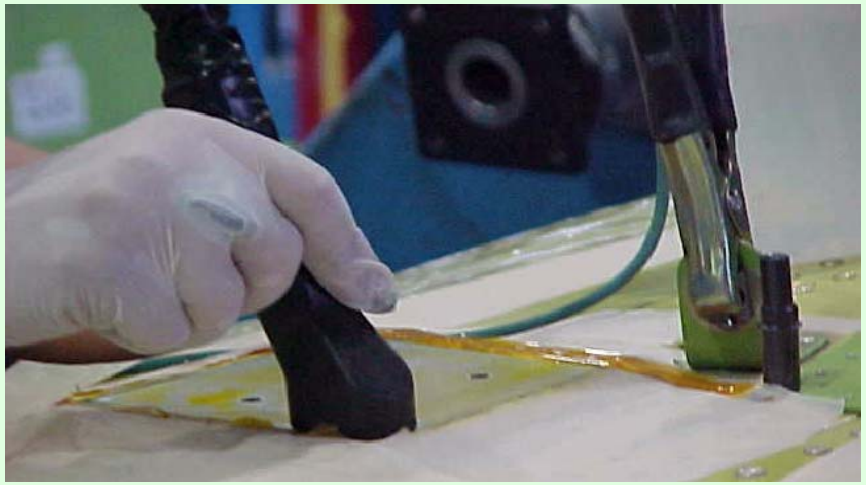
Association of tools,
new tool heads

Computerized process manipulation





Local treatments, examples with DALISTICK SCAA



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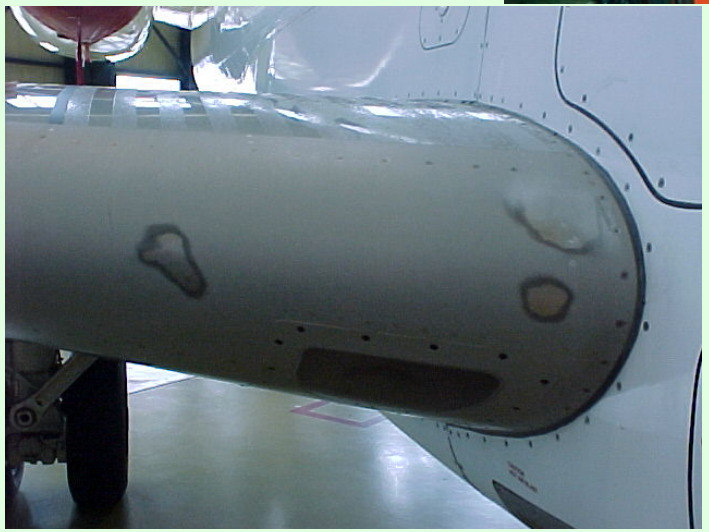
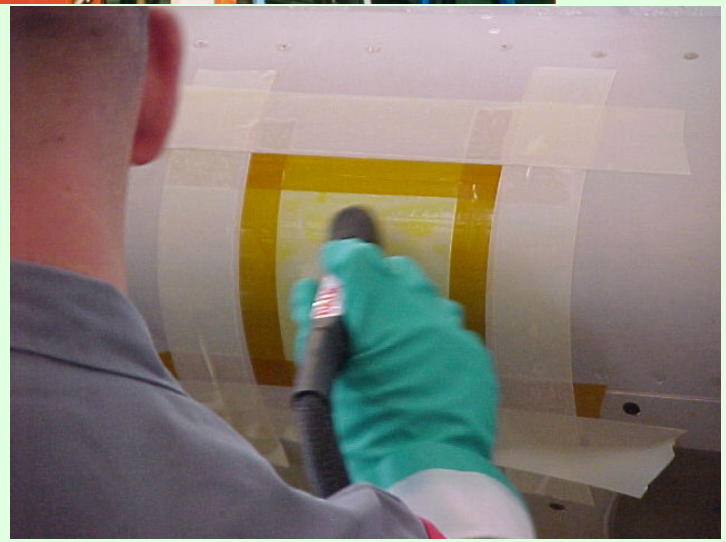
Local treatments, examples with DALISTICK SCAA





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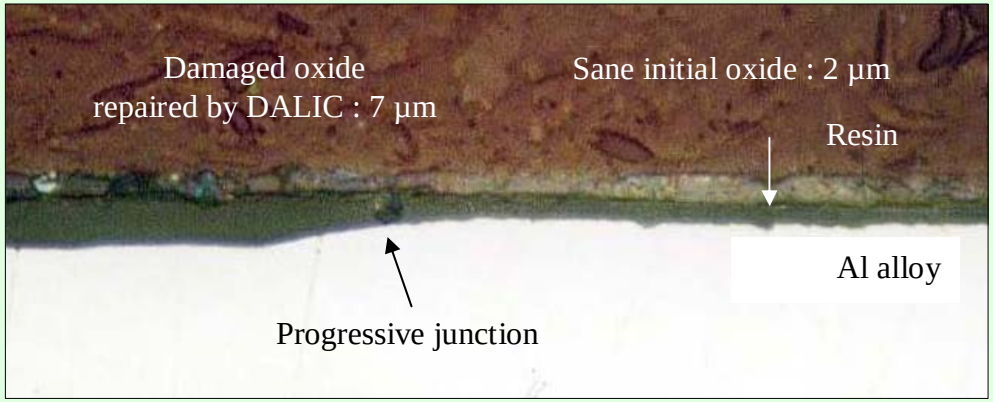
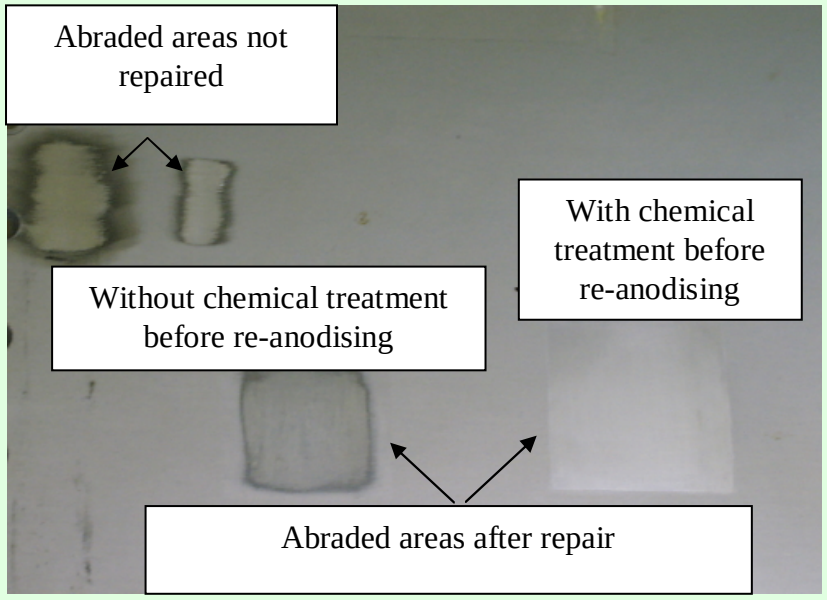
REPAIRS TO DAMAGED ALUMINIUM OXIDE





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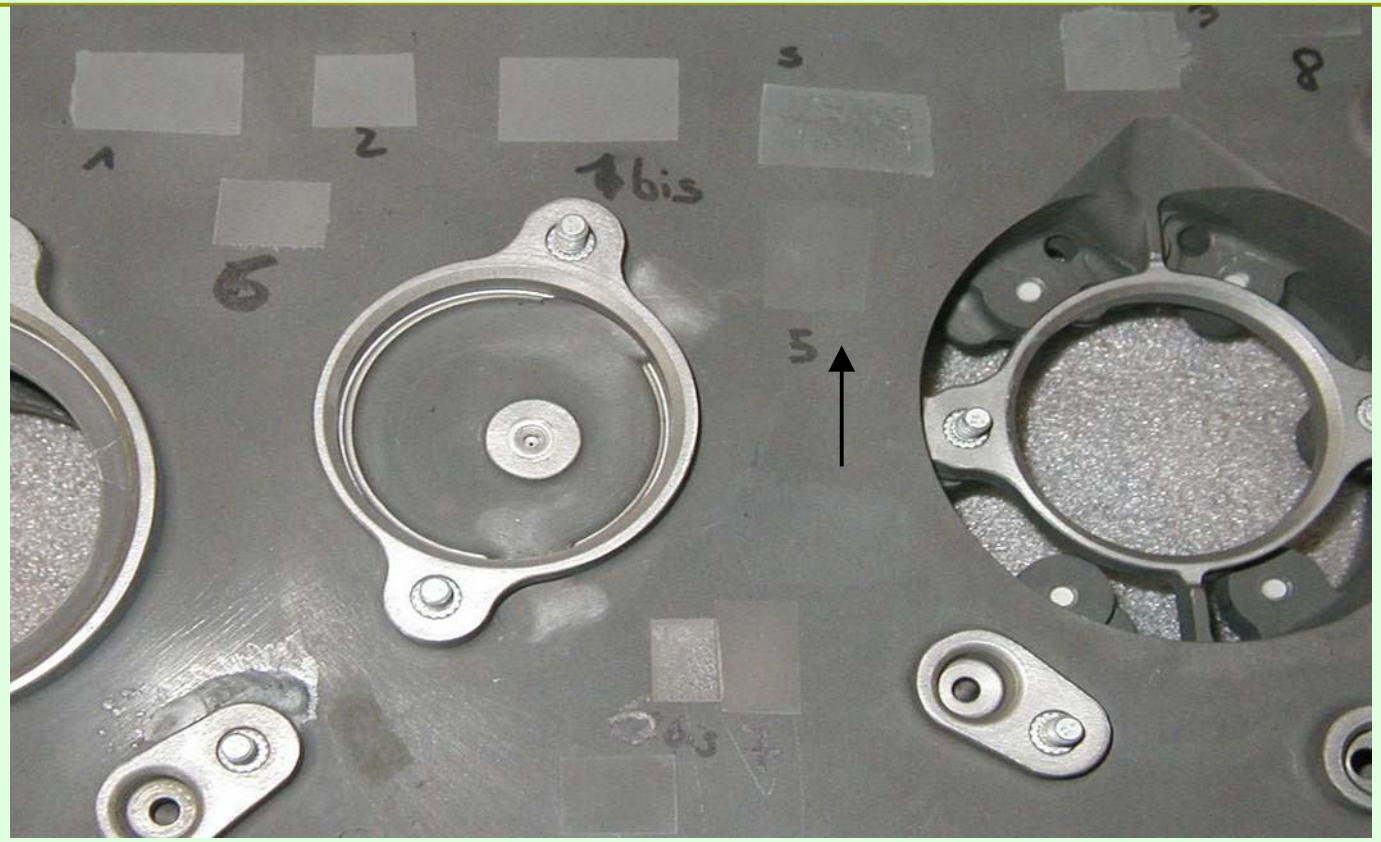
Repair on bath SAA layer (1)



Rebuilding of 10-15 µm of oxide on AS7G0.6 engine gear box

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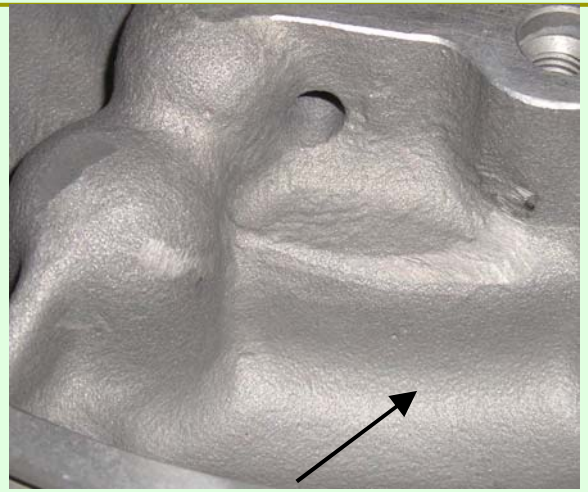
Repair on bath SAA layer (2)



Invisible repair
(sand blasting)

Repair more visible
(abrading)

Rebuilding of oxide, 5 µm, on cast-aluminium

Titanium anodizing with the Dalistick

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DALIC PLATING

Main metals

- Silver (with or without CN^-)
- Cadmium
- Chromium (Cr III based solution)
- Copper
- Gold
- Indium
- Lead
- Nickel
- Palladium
- Platinum
- Rhodium
- Tin
- Zinc

Main alloys

- Zinc - nickel
  - Atmospheric corrosion, high temperature resistance, hardness
- Nickel - tungsten
  - Hardness at high temperatures
- Nickel - cobalt
  - Co 16-18 %, 420 HV
  - resizing, wear resistance
- Nickel - Tin - Lead
  - 10 HV, severe corrosion conditions (atmospheric or marine), fretting corrosion
- Cadmium - Tin
  - Cd 25 %, 15 HV
  - atmospheric or marine corrosion
- Tin - indium
  - Fretting Corrosion
- Tin - nickel
  - Ni 45-50 %, 300 HV
  - corrosion and friction resistance

Any question about selective surface engineering ?

You're always welcome !

service@dalicworld.com