

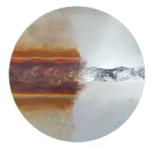
INNOVATIVE IMPLEMENTATION OF ELECTROEROSION FOR METALS DECONTAMINATION / POLISHING OPERATIONS

Stainless steel, Steel, Aluminium











CARBON FIBER BRUSHES

Carbon fibres are excellent conductors. Our carbon fibre brush contains up to 1.5 million of them; they conduct high current to the work piece with a current density up to 250 A/cm².

SWITCHABLE AC / DC DEVICES

In direct current mode: dissolve metal, oxides and polish the surface (stainless steel).

<u>In alternating current mode:</u> removal of **oxides** by acid, oxidizing and reducing dissolution reactions.

AUTOMATIC ELECTROLYTE SUPPLY SYSTEM

- A microprocessor calculates the optimum amount of electrolyte, which is then fed directly into the carbon fiber brush by a servo pump.
- The flow rate is function of the power generated, the metal treated and the electrolyte used. The order of magnitude is 0.5 1/h.
- Depending on the electrolyte used and the possibilities of waste acceptances, it is possible either to rinse the treated surface, or to wipe it with a smear: consequently, the waste generated will be either the used electrolyte diluted with rinse water, or wet smears.
- Automatic electrolyte supply system included in the Cleanox 5.0 model

ADVANTAGES

EASY

Portable equipment can be installed on site very quickly

FLEXIBLE

Different sizes of brushes (single size M, L, XL, XXL), different shapes

POWERFUL

Removal of a few microns of oxides or base metal in a very short time

REMOTE CONTROLLED

The brush can be automatically supplied with electrolyte (flow rate $\approx 0.5 1/h$)

• REPRODUCTIBLE

Since erosion is linked to the amount of current, the thickness removed (microns) is controlled by the time of the operation

LOW WASTE



ELECTROLYTES

MAINTENANCE OPERATIONS

• Phosphoric acid

DISMANTLING OPERATIONS

- Nitric acid
- Phosphoric acid

USE CASES

- Hot spot removal
- Waste decommissioning (change the waste category)
- Extensive decontamination of expensive or strategic parts to allow their maintenance and then their re-use
- Preparation of inactive surfaces to give them a state close to mirror polish limiting the incrustation of subsequent contamination



Email: frederique.damerval@tech-y-tech.fr www.tech-y-tech.fr

+33 6 84 79 43 74

