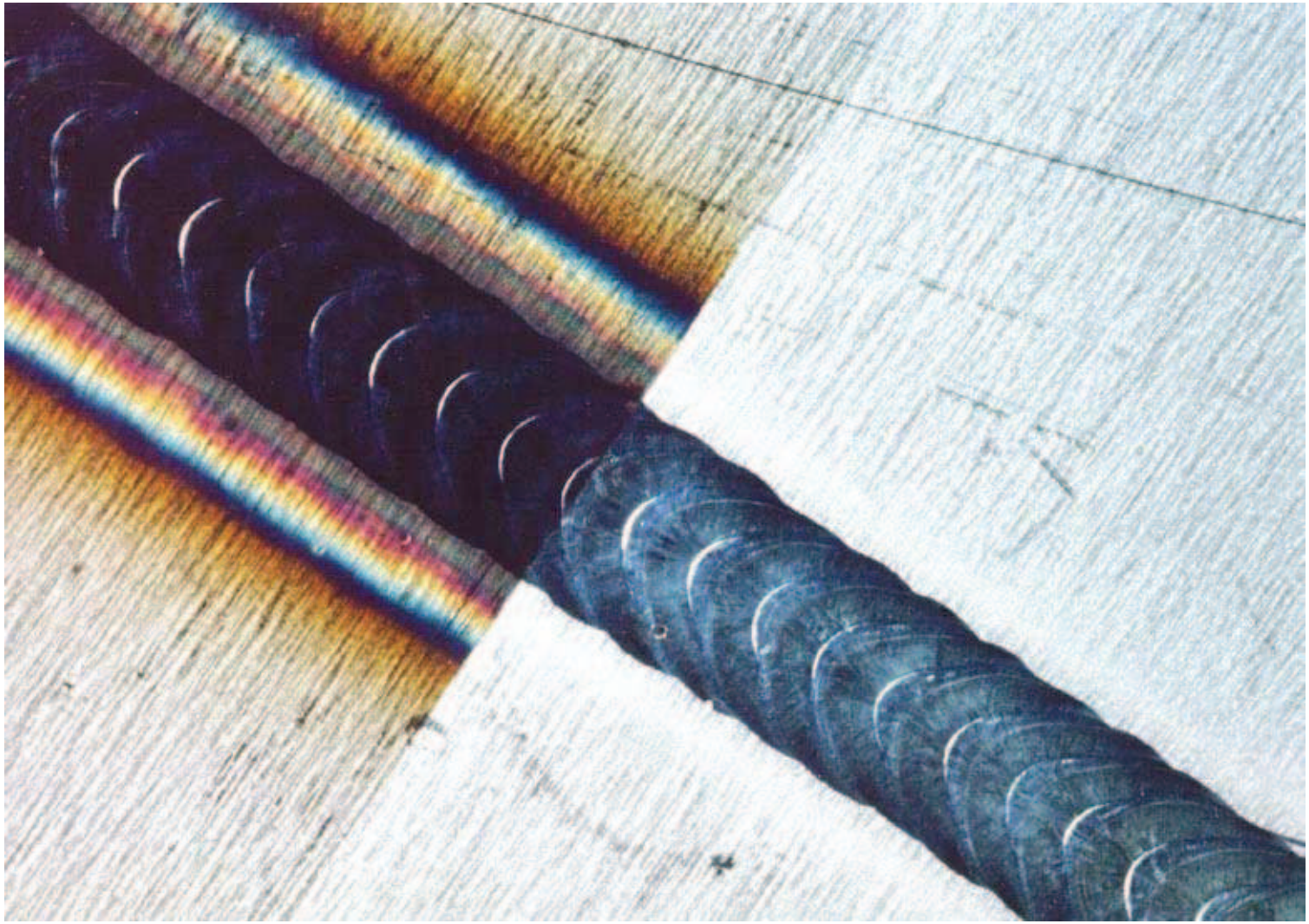
Magic Cleaner

Cleaning of stainless steel



Cleaning of stainless steel

- Pickling
- Sand-blasting
- Grinding
- **Electrochemical cleaning**

Electrochemical cleaning

Magic Cleaner

Electrical energy

+

Electrolyte

Advantages of the Magic-Clean process

- Economical cleaning of stainless steel surfaces
- Dosed electrolyte consumption
- Cleaning and passivating in one
- No subsequent passivation needed
- Cleaned surfaces are corrosion-resistant

  (Huey-Test)

Safety characteristics

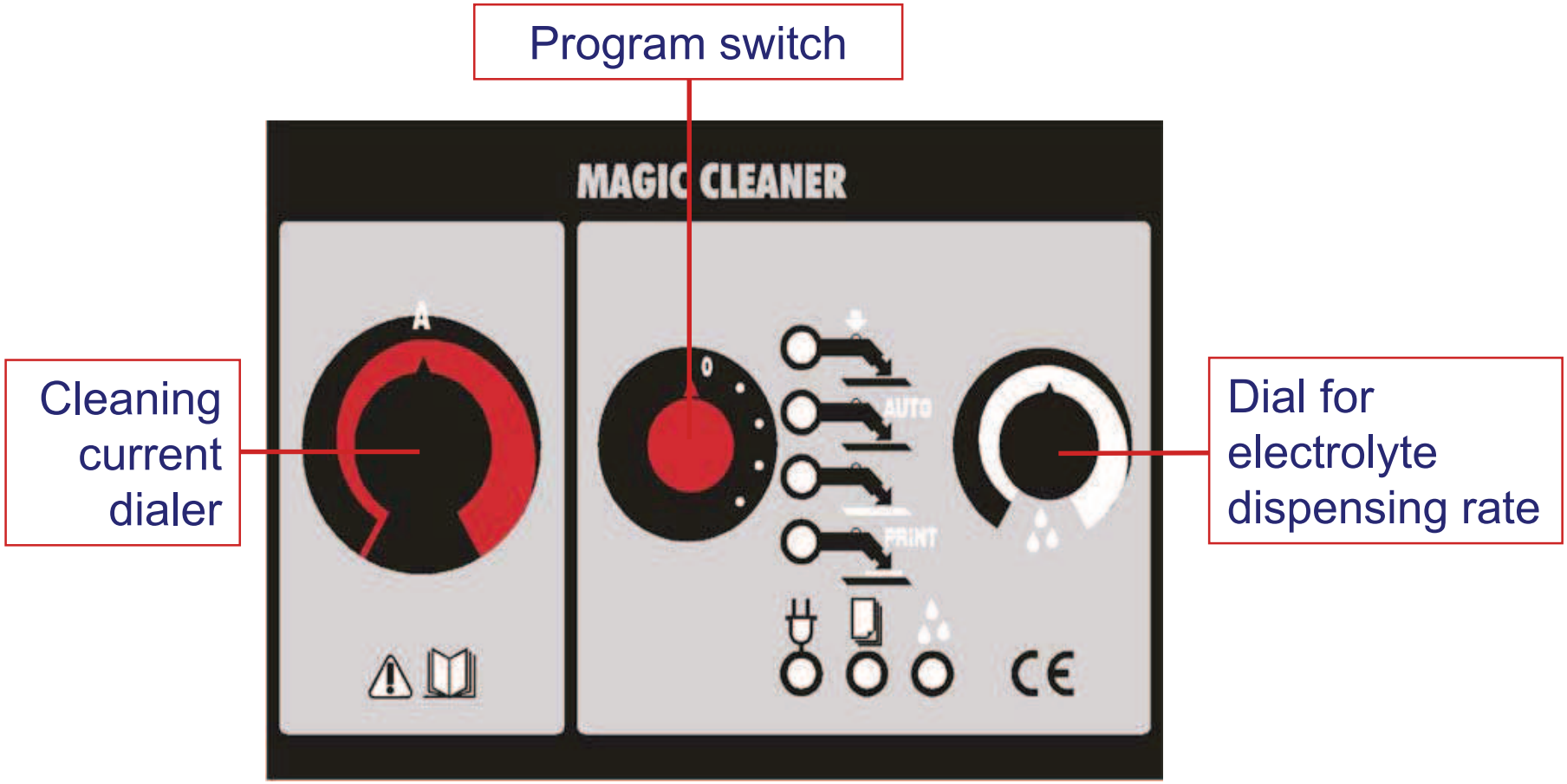
- Corrosion resitance of cleaned seam
- No toxic-chemicals user permit
- Environmentally compatible
- Short-circuit cut-out

Safety characteristics

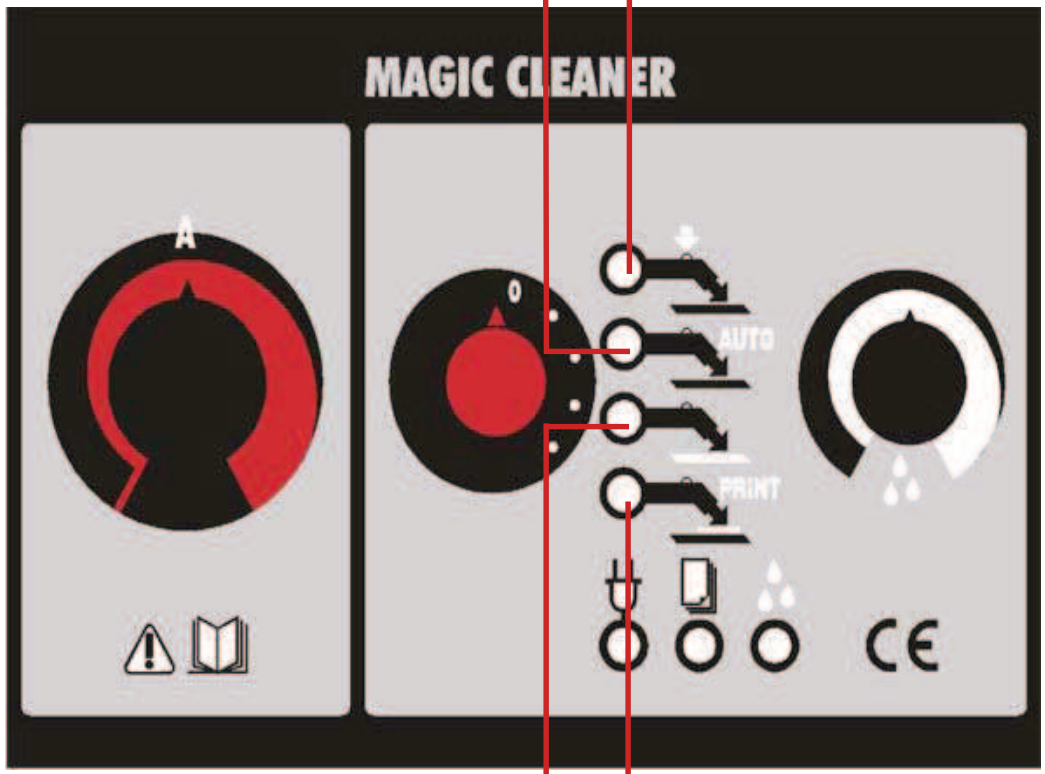
- Weight only 5 kg
- Easy user-interface
- Integral electrolyte feed
- Integral accessories compartment

Assembly of the Magic Cleaner

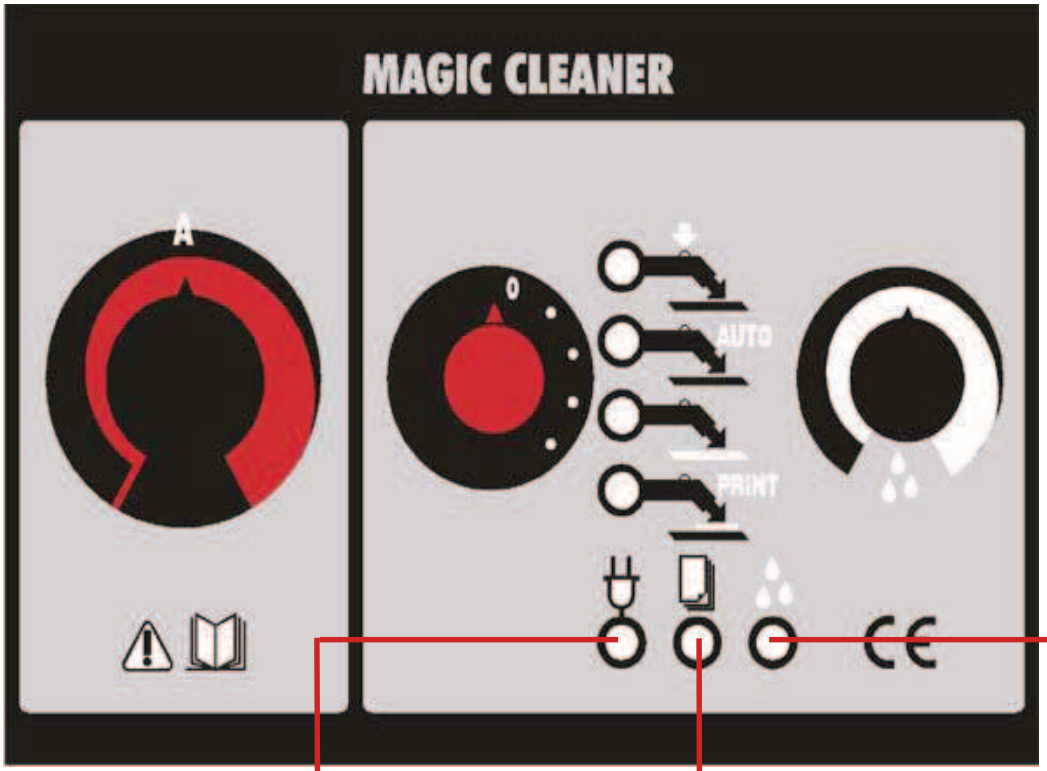
User interface



User interface



User interface

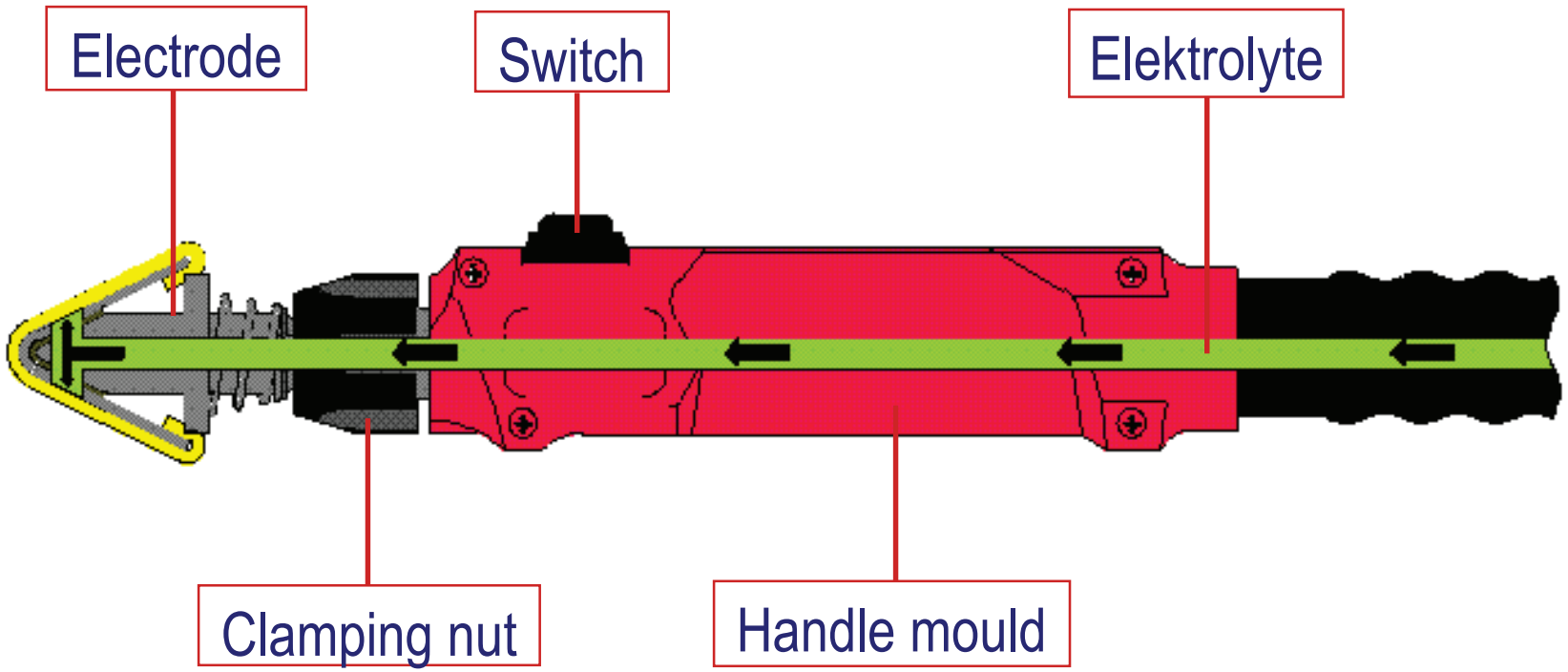


„Electrolyte dispensing“ LED

„Stand by“ LED

„Error“ LED

Integral electrolyte feed



Technical data

Mains voltage	230V 50/60Hz
Nominal power	300W
Cleaning current range	5-20A
Open-circuit voltage	17V
Operating voltage	5-12V
Dispensing rate	0,55-2,2 l/h
Cleaning time at 2,2l/h	40 min
Cleaning time at 0,55l/h	160 min
Cleaning agent capacity	1,5 l
Degree of protection	IP23
Dimensions L/W/H	430/180/280 mm
Weight	5kg

Application of Magic Cleaning

- Apparatus and plant construction

  (Institutional kitchen, dairies and swimming pools)
- Portal construction

  (Stair railings and canopies)
- Repair & maintenance

  (Repair work)

Option Magic Printen

- Easy-to-use way of marking workpieces with e.g.:

  graphics, company logos, ect.

- No re-working necessary

- The printings are corrosion resistant

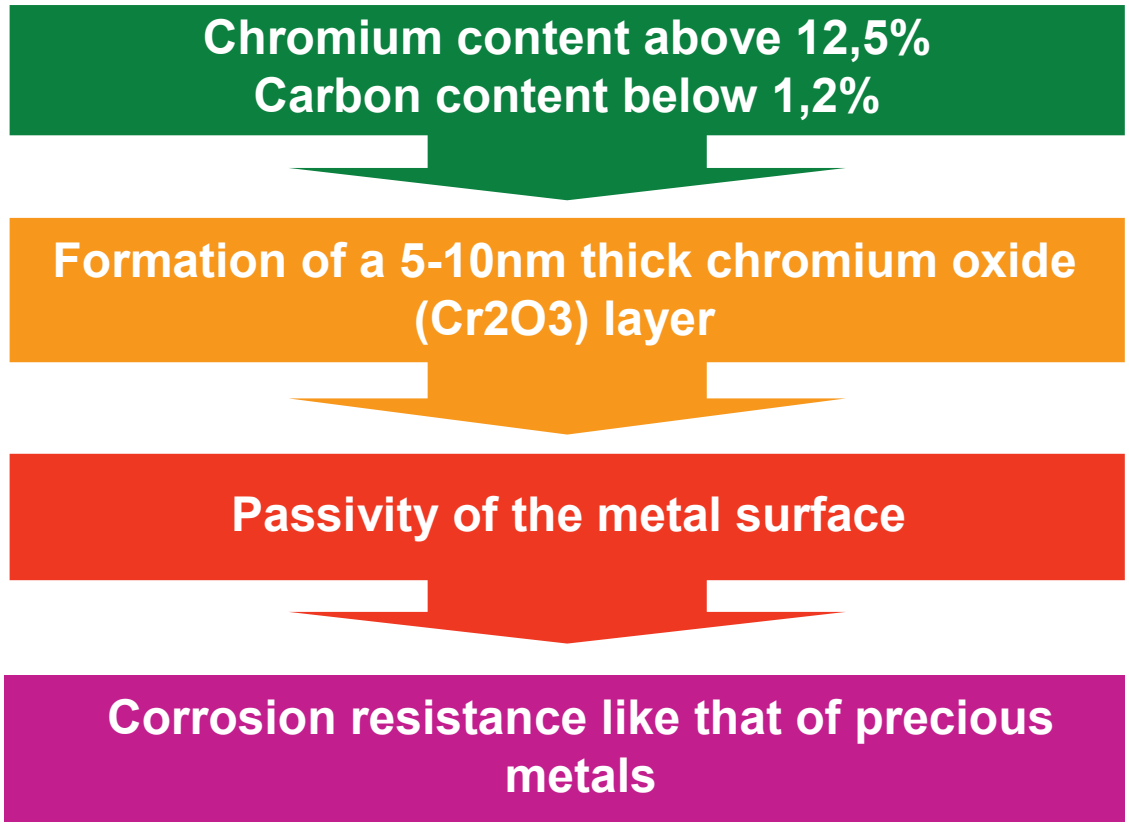
Magic Printen accessories

- Printing Program comes as standard with the Magic Cleaner
- Disposable films for do-it-yourself printing (Needle printer)
- Long-term films (over 2000 printings are possible!)
- Print electrolyte (no classed as „haz-mat“)
- Disposal as per law on chemical substances

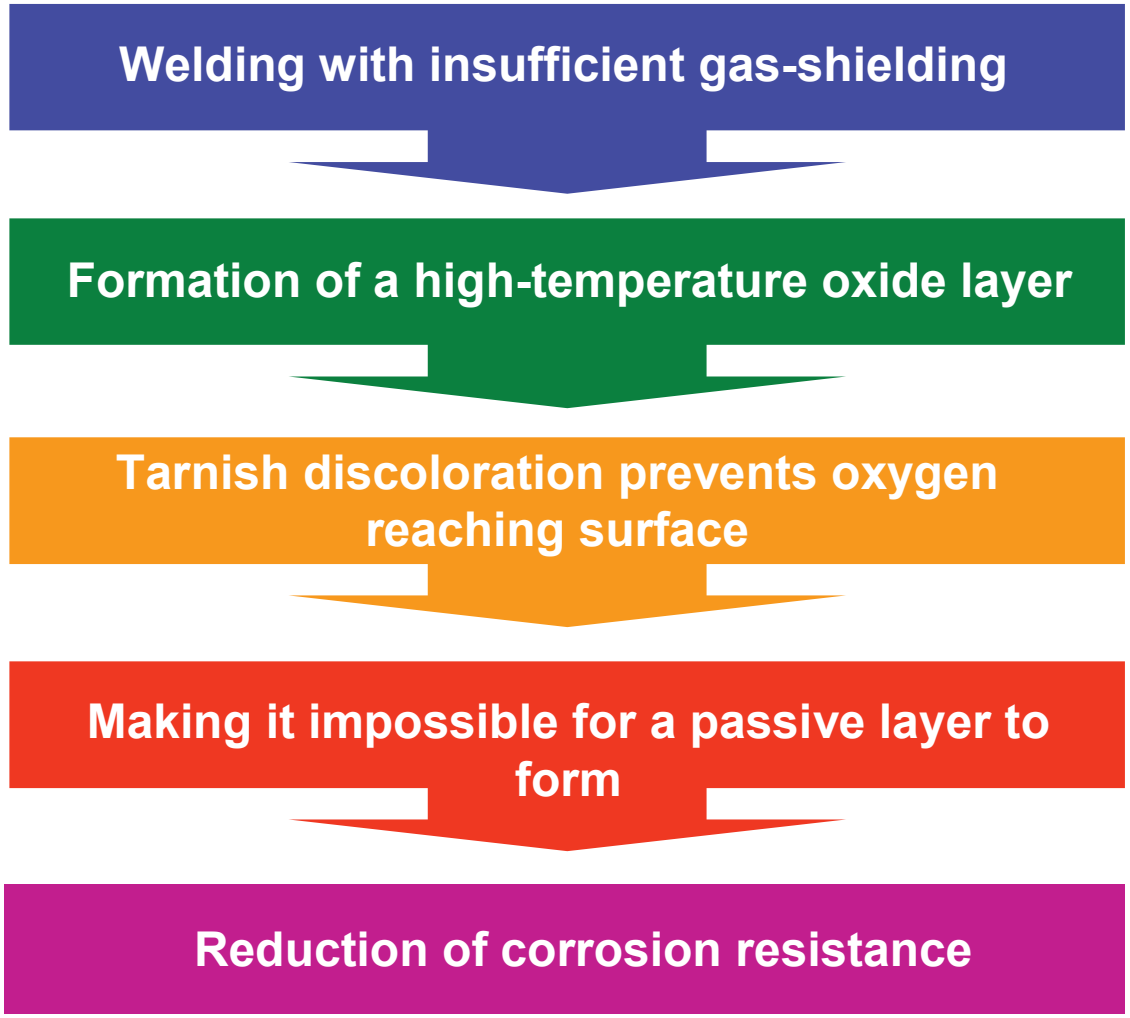
Detailed description of the prozess

- Characteristic of CrNi steel
- Behaviour as a result of heat treatment
- Cleaning with AC-Current
- Burnishing with DC-Current
- Printing with AC-Current
- Test of the corrosion resitance

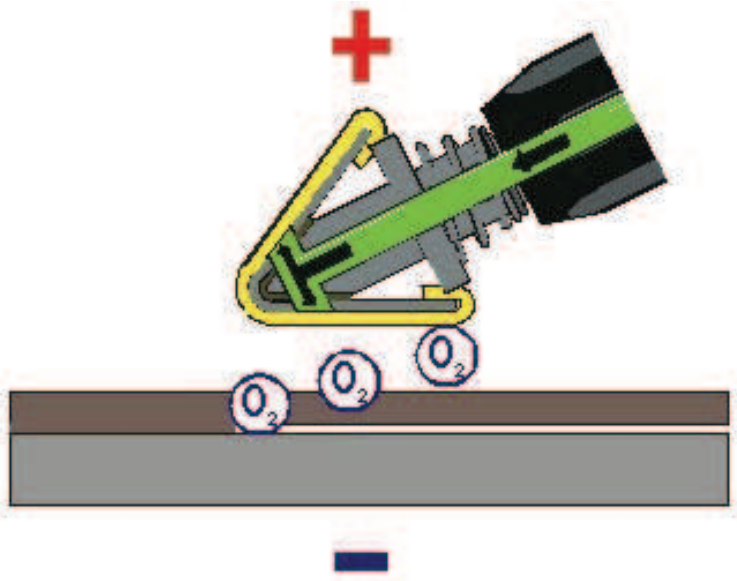
Characteristic of CrNi steel



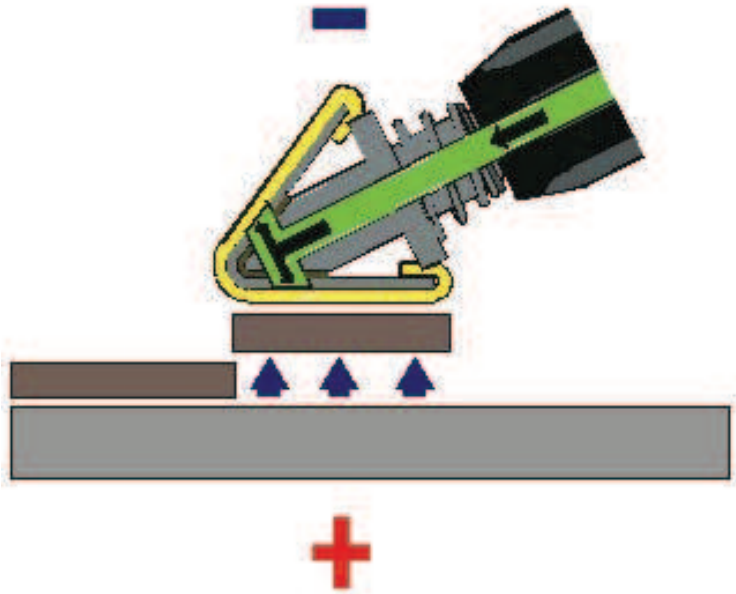
Behaviour as a result of heat treatment



Cleaning with AC-Current



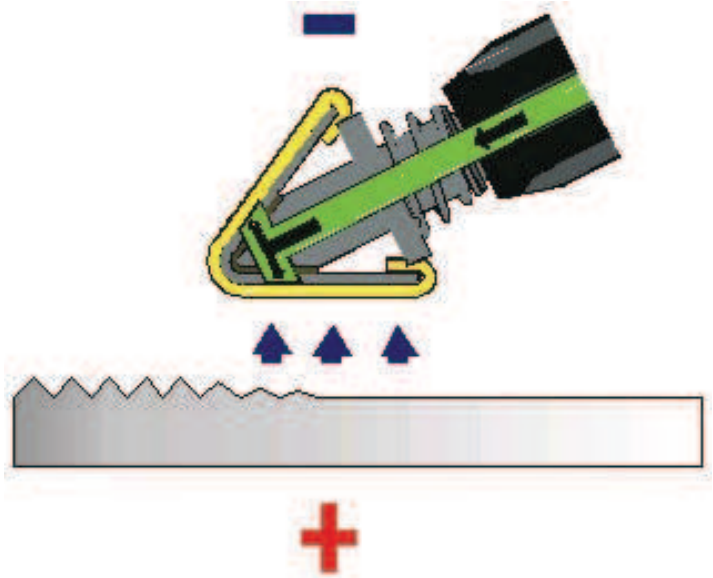
Separation of oxide layer from metal



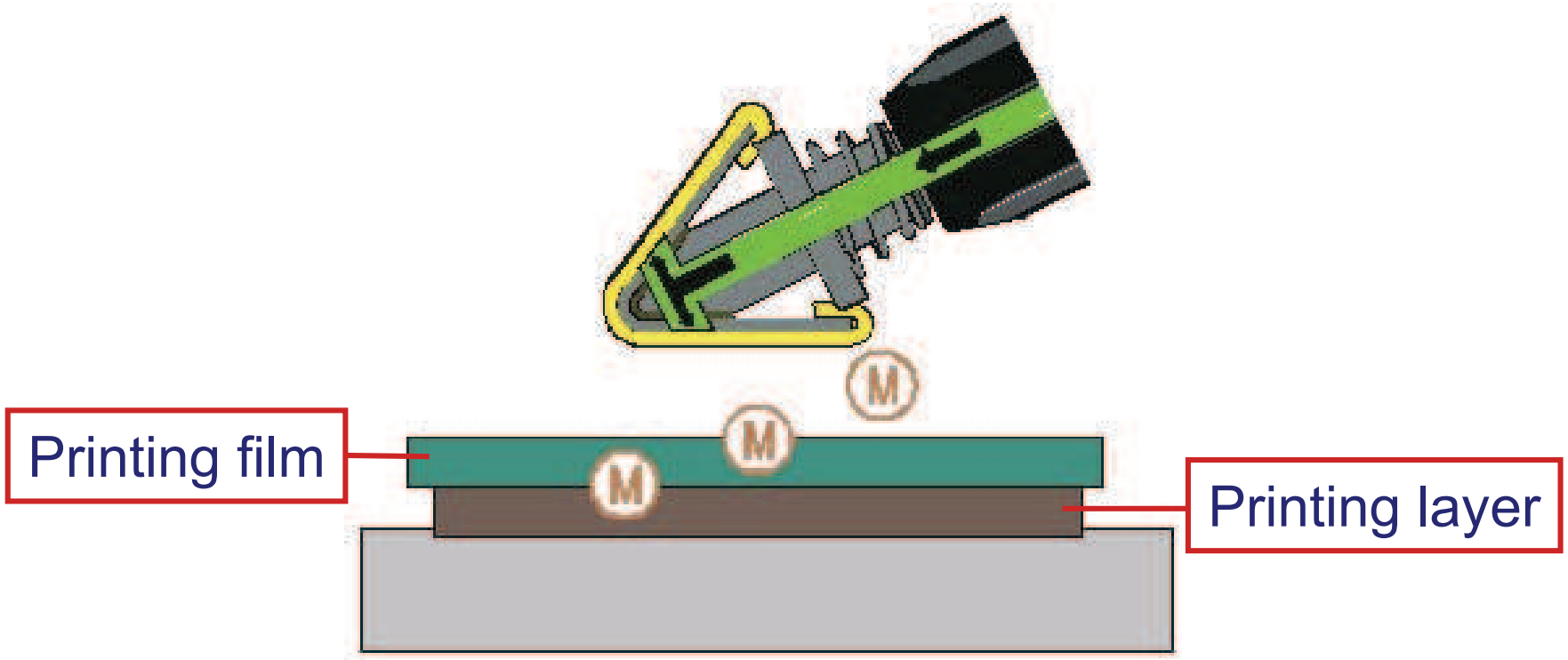
Removing of Discolorations

Burnishing with DC-Current

- Levelling-down of metal elevations (smoothing of the metal surface)
- Additional polishing of the weld seam



Printing with AC-Current

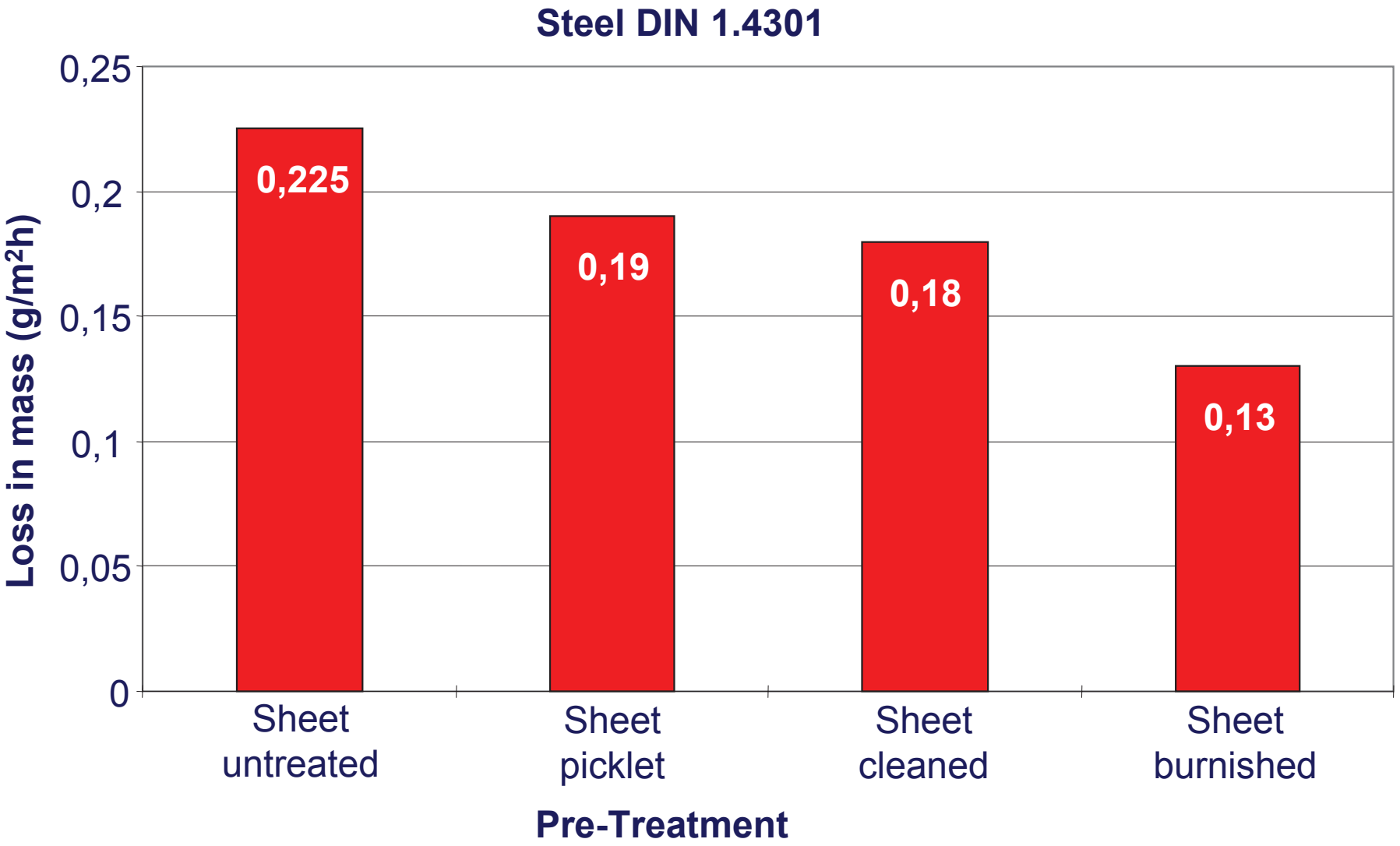


Refining of metal oxides on the surface (Magnetit)

Test of the corrosion resistance

- Huey method (DIN 50 921 – A)
- Samples are immersed in 65-67% nitric acid
- Nitric acid is boild up to approx. 120°C
- Loss in mass is measured after 48 hours
- Results are evaluated with reference to diagrams

Corrosion test diagram



PERFECT WELDING