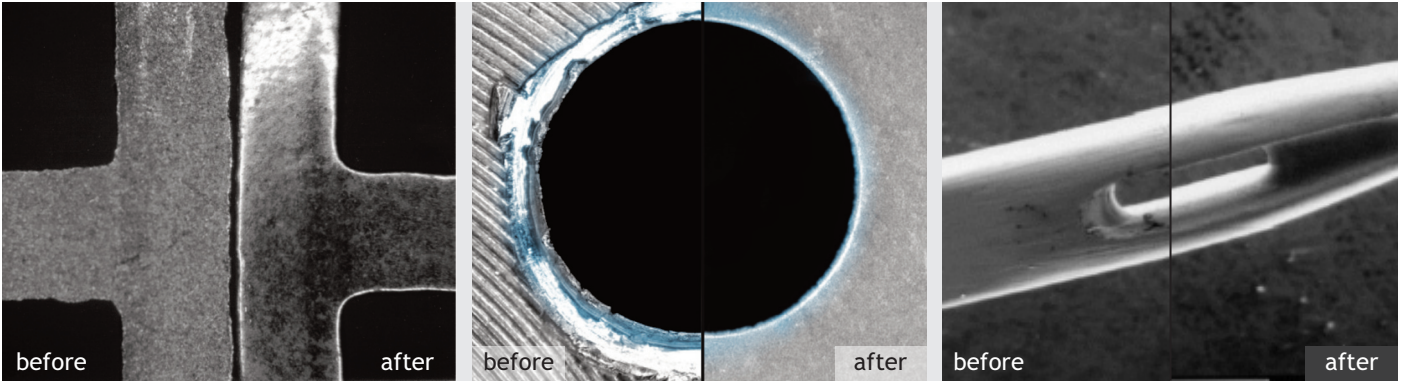


# Protection upgraded



## SurTec 451

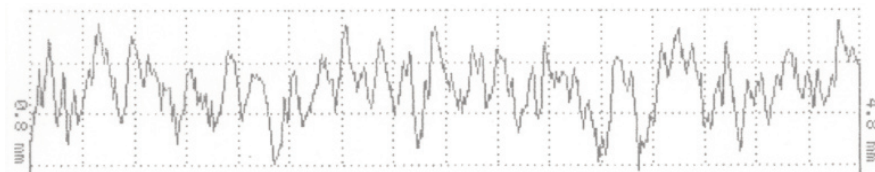
### Chemical Deburring

The Chemical Deburring process SurTec 451 is an electroless chemical process which removes burrs on steel parts created by cutting, milling, forging, and molding. Due to the chemical reactions and kinetic effects a local potential difference between peaks and valleys is formed. The potential difference causes a preferred removal of the burrs and therefore a leveling of the surface.

The degree of gloss of the surface depends on the carbon content in the material and how it is integrated into the metal lattice. The lower the carbon content, the brighter the surface.

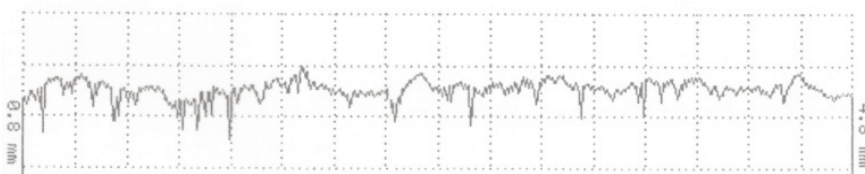
### Comparison of the Roughness

#### Before Chemical Deburring



Lt = 4.8 mm      Ra = 00.88  $\mu\text{m}$   
 Lc = 0.8 mm    Rz = 05.26  $\mu\text{m}$   
                      Rm = 05.66  $\mu\text{m}$

#### After Chemical Deburring



Lt = 4.8 mm      Ra = 00.25  $\mu\text{m}$   
 Lc = 0.8 mm    Rz = 02.00  $\mu\text{m}$   
                      Rm = 02.90  $\mu\text{m}$

# Protection upgraded

## Chemical Deburring is Applied in Different Industries



### Textile Machinery

- Comb technology
- Spinning technology
- Sewing technology



### Automotive

- Pumps
- Housings
- Bearings



### Medical Devices

- Positioning wheels
- X-ray machines
- Medical tubes

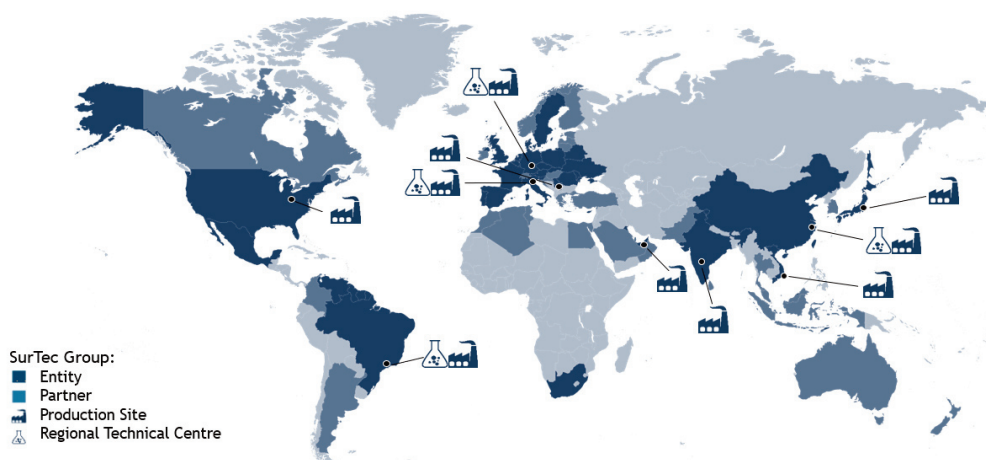


### Precision Engineering

- Gears
- Chain links
- Springs

## Advantages of SurTec 451

- Works stable and therefore achieves consistent results
- Good reproducibility of the dimensional tolerances
- Workpieces are deburred and smoothed even in hard-to-reach places
- A clean metallic surface results in better layers on subsequent galvanization
- No hydrogen embrittlement during the treatment
- Complex or filigree workpieces can be treated without any problems since there is no mechanical stress



### Your contact:

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**Global availability of technologies for surface treatment with local experts all around the world.**