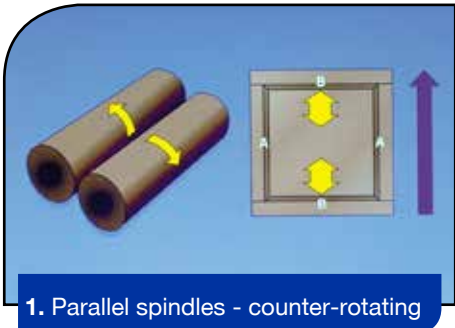
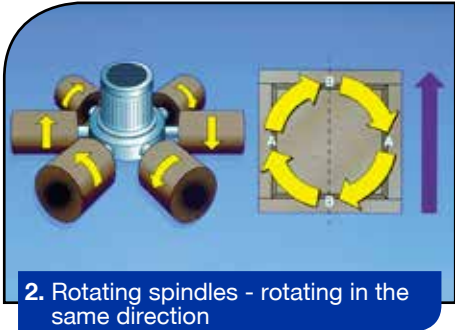


# Make the right choice

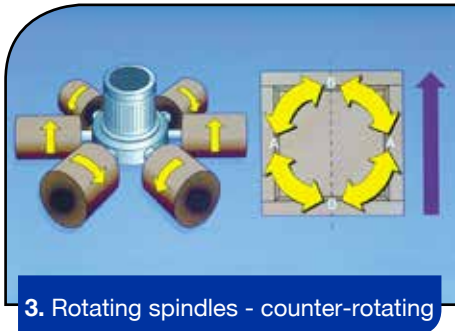
The FLADDER® deburring system is based on a principle which is fundamentally different from those of traditional deburring methods.



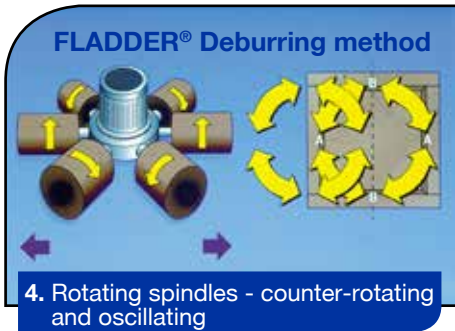
1. Shows a very simple method: Two counter-rotating spindles. The edges A and B will not be uniformly deburred as it is performed along the A edge and across the B edge. The wear on the tools will be uneven, with a tendency for the spindles to wear down most quickly at the middle. This principle is, for instance, used in most belt grinders.



2. A slightly improved method: Using an orbital movement by six spindles, all, however, rotating in the same direction, say, counter-clockwise. The result is a more uniform deburring of the A and B edges, and an even wear on the tool. However, the left half of the part will be deburred in one direction, and the other half in another direction. Most likely the deburring of the two halves will be uneven.



3. A more perfect method: Deburring in an orbital movement, with six spindles arranged in three pairs of counter-rotating spindles. The entire surface of the part is uniformly deburred. The A and B edges are uniformly deburred. This is the principle of the FLADDER® deburring system which has been successfully introduced in numerous companies throughout the world!

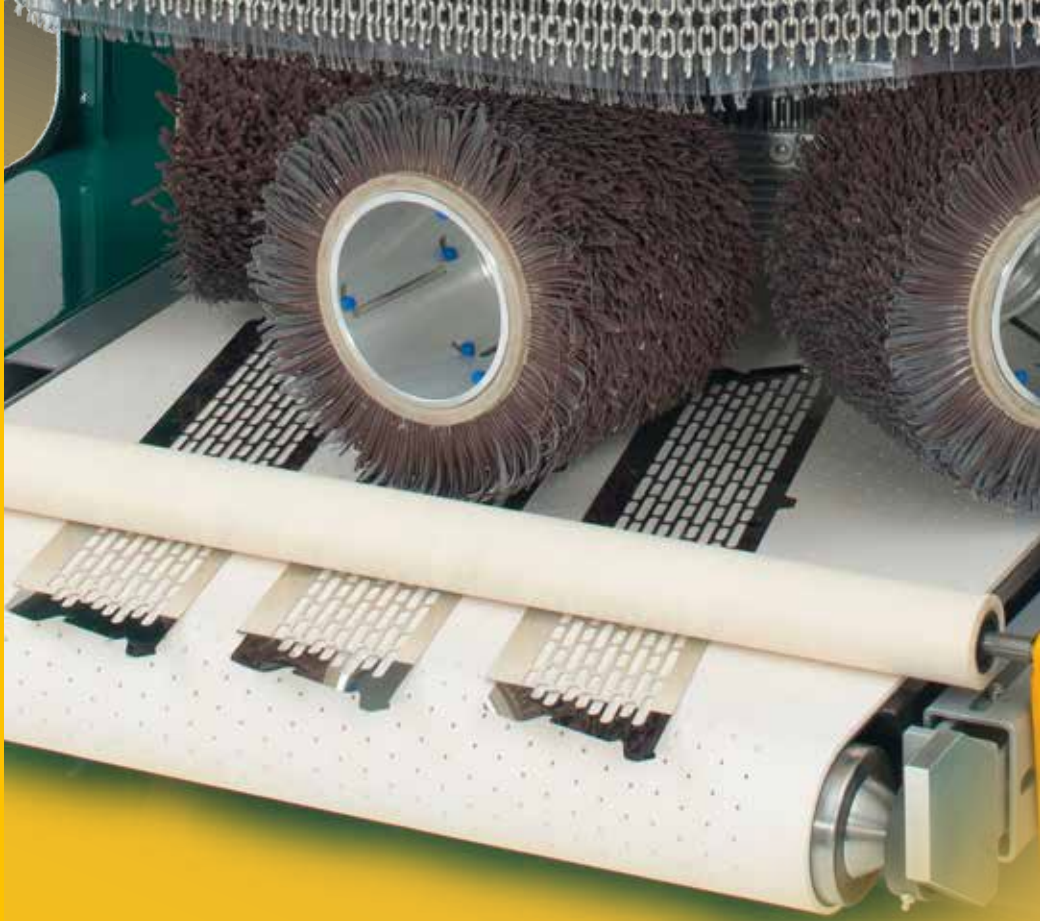


4. A refined version of the above: Deburring in both an orbital and an oscillating movement with three pairs of counter-rotating spindles. The oscillating movement makes it possible, to feed the parts side by side, and still be certain that they will be uniformly deburred. This is not quite the case with No. 3. The oscillating technique is necessary when deburring holes, as in this case the edges are processed from all angles.

The figures above show a simplified illustration of the different principles:

Spindles are shown with arrows indicating the rotating direction, a dark-blue arrow marks the infeed direction, and the part is shown with profiles or recesses marked A and B.

This technique is used in several FLADDER® deburring machines.



# Fladder®

flexible deburring and surface improvement

## Fladder Danmark A/S

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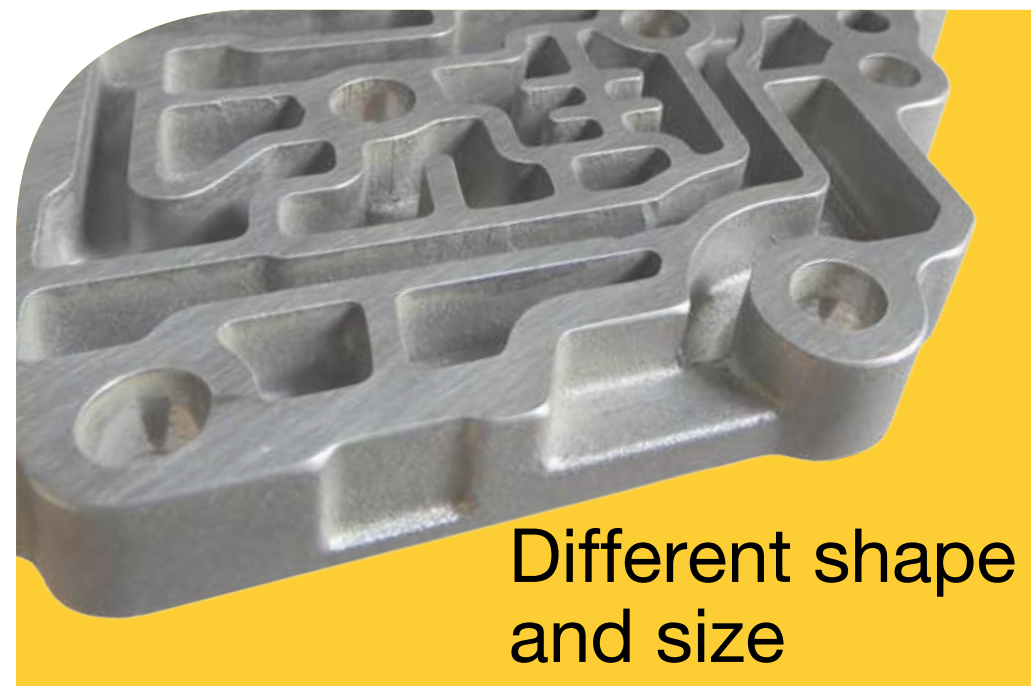
Tel: +45 75 297133  
Fax: +45 75 297143  
E-mail: fladder@fladder.dk

[www.fladder.com](http://www.fladder.com)

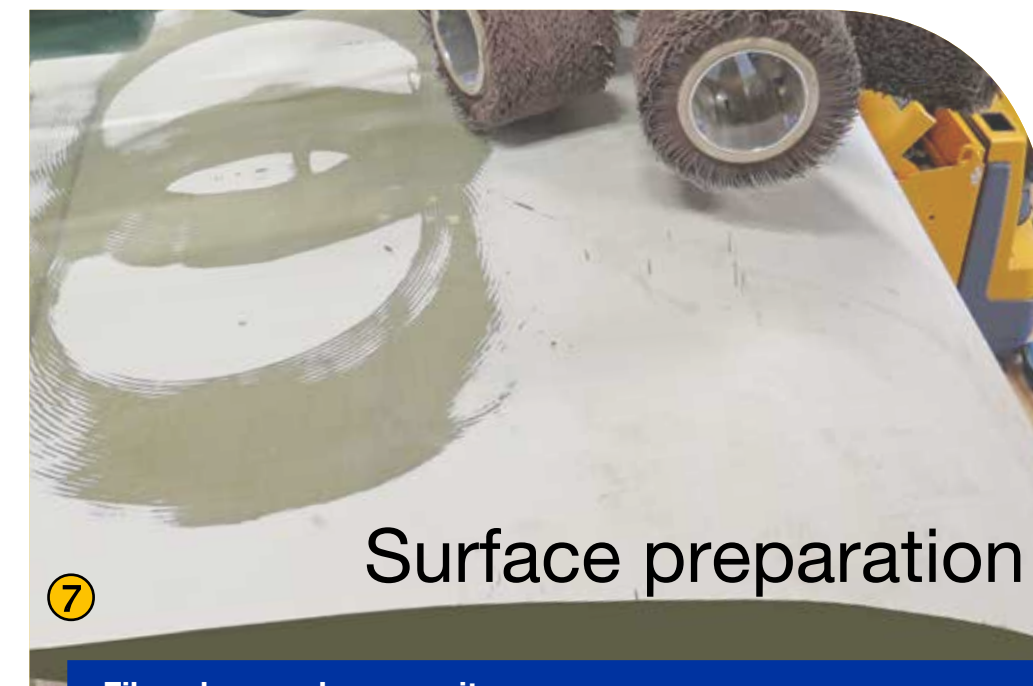


# Different material

- ① Stainless
- ② Aluminium
- ③ Steel
- ④ Galvanized
- ⑤ Copper
- ⑥ Titanium
- ⑦ Plastic
- ⑧ Composite



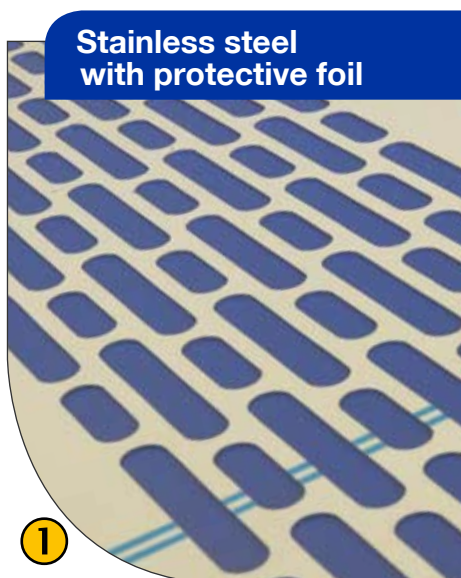
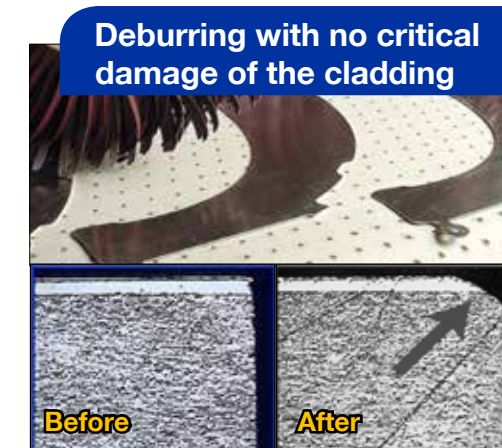
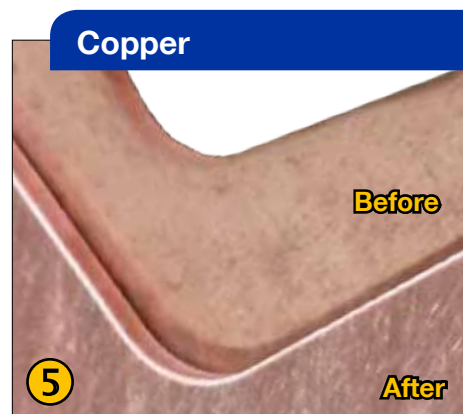
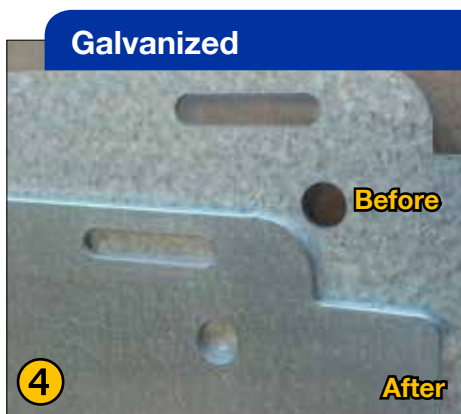
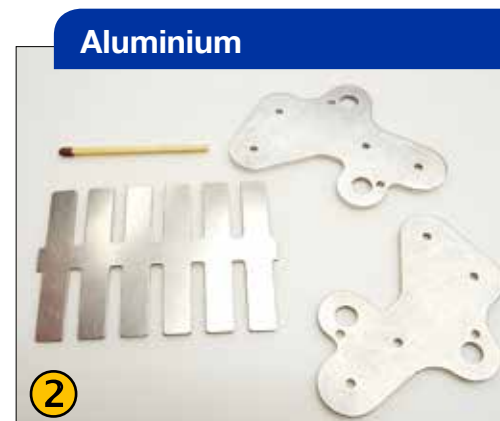
Different shape and size



Surface preparation

Fiberglass and composite

- non-directional surface finish
- convex and concave shapes
- improve bonding and adhesion of paint and glue
- matting
- automatic and manual solutions



- for laser cut, punched and machined parts
- uniform rounded edges
- no destruction of a surface protected by foil, cladding or zinc.
- flexible brushes perfect for 2 and 3D parts
- both automatic and manual machines
- dry process

The FLADDER® deburring and finishing system is a innovative method based on principles fundamentally different from those of traditional methods.

The tool is flexible, designed with a number of slats or strips with various density which rub tightly against the part, closely following its contours during the process.

