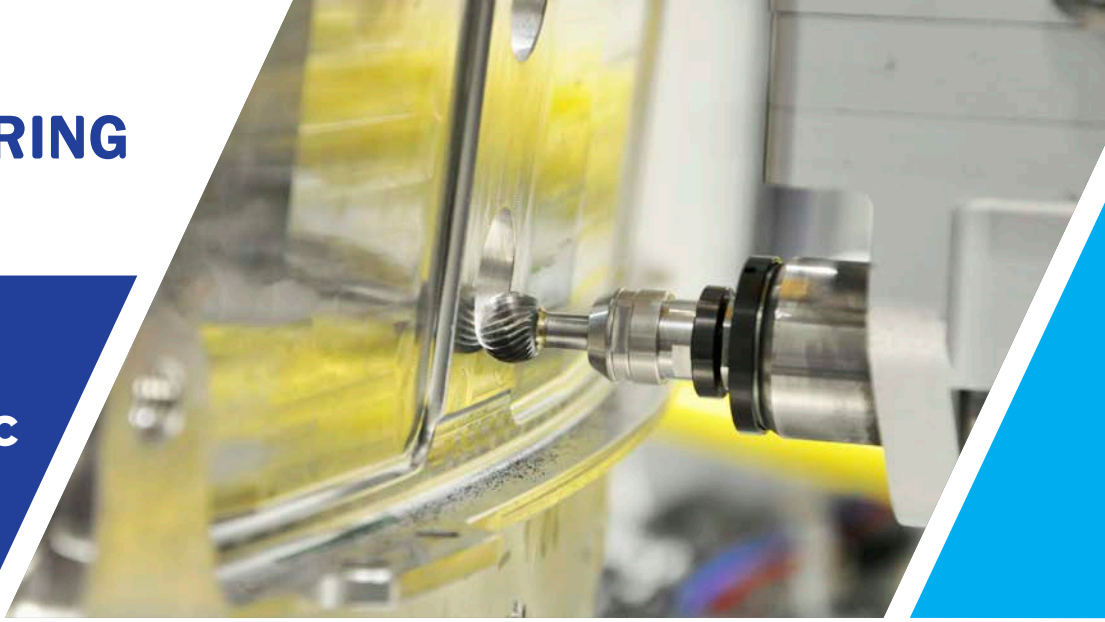
EMPOWERING TECHNOLOGIES

ROBOTIC DEBURRING

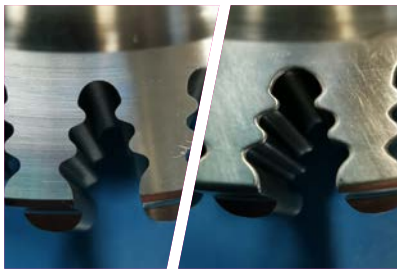


The deburring process **removes the metal residual stock, called "burrs**", of a part after machining, injection or molding operation by example. This operation is **often required** for **security reasons, aesthetic, or necessary according to a manufacturing process**.

How to deburr metallic parts?

There are different kinds of processes to deburr metallic parts. The choice of the method depends on the **quantity to eliminate, the form and the requested quality level.**

Manual deburring operation is well widespread for security reasons and functional reasons. However, it a painless operations. The high production rate and the lack of operators require the industries to **robotize this process**.



Before / after edge-rounding

ROBOTIZED DEBURRING SOLUTION

For many years, GEBE2 implements **robotized deburring and chamfering solutions**. The equipment, that we develop, goes **from material removal until result measure.** They reproduce the gestural and sensitivity of human with abrasive or cutting tools, as well as quality and repeatability, manually impossible to reach.

In order to make our robotized cell more **autonomous** and **performing**, we integrate our compliances, tools workshop with an automated load system on the end-effectors.

GEBE2 provides solutions on aluminum alloy, stainless steel, steel, titanium, inconel, magnesium.

Chamfering after machining of bores and edges

The advantages of robotic deburring

- Optimal aesthetic appearance
- Process repeatability
- High execution speed and production
- Reduction of abrasives consumption
- Reduction of MST
- Measurement of the result

Edge rounding by brushing

Offline Programming

The **regularity of the tool's motion** on the part is very important to obtain **an optimal deburring quality.**

Therefore, we provide you the simulation of all possible trajectories ensure by our offline programming software (OLP). GEBE2 works with **Robotstudio, Kukasil and Robotmaster.**

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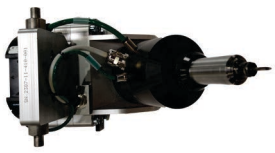
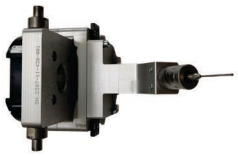
PRODUCT DEVELOPED BY GEBE2

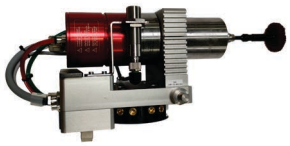
End-effectors



Machining electro-spindle



Mechanical sensor



Nrushing electro spindle

Workshops

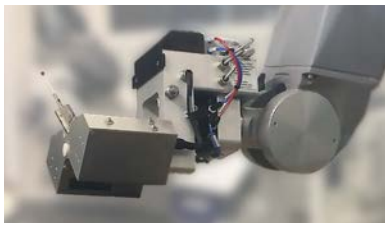
Horizontal abrasive workshop

Vertcial abrasive and cutting workshop

Interior cabin

Recalibration systems

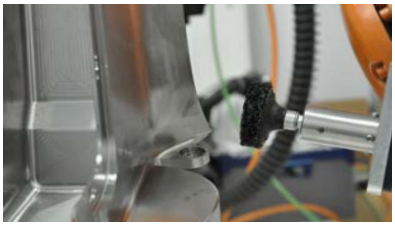
Scanner mounted on robot



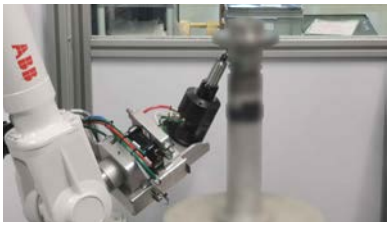
Profilometry (2 heads) scanner

Mechanical Probing

Applications



Deburring with abrasive tool



Machining

Robotic deburring cell

PROCESSES ROBOTIZATION / FEASIBILITY

GEBE2 has a technicians' team and a demonstration cell to define parameters linked to the process robotization or feasibility realization.

GEBE2 - Robotized solutions for industry
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