



OUR STRENGTH:

**WE INTEGRATE** HI-TECH TECHNOLOGIES IN CUSTOM-BUILT SOLUTIONS THAT ARE TAILORED TO YOUR REQUIREMENTS

# **ROBOTIC**

**DEBURRING POLISHING ENGRAVING MEASURING AND SORTING** 

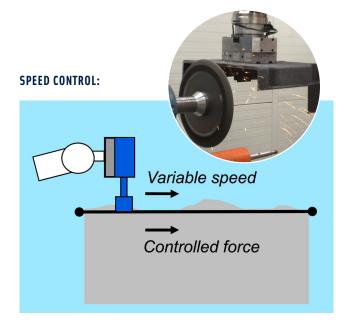
## **DEBURRING**

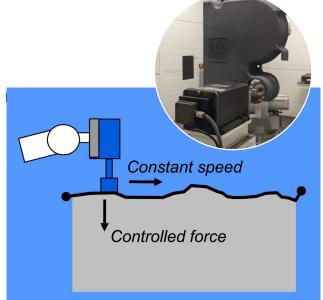
Automatic deburring of all parts in cast iron, aluminium, thermoset plastics, ... Deburring is often manual, repetitive, dirty, intensive and demanding work. Our robots can take this out of your hands. Especially when it concerns large quantities or small repetitive batches.





One of the key technologies is the use of ABB's Integrated Force Control which allows speed or pressure control. Normally robots are position controlled with a predefined path and speed. With the Integrated Force Control, the robot reacts to its surroundings and deviates from the programmed path or speed based on feedback from the force sensor. The adapted movement of the robot is determined by constraints that are specified to suit the particular application.





- Reducing speed when encountering excessive burrs or casting flash
- Increasing speed when possible to achieve the highest cycle time
- Very fast interaction "sense act" of 20 ms
- Constant force on the part during the process
- Very efficient following of edges and other contours and managing geometrical differences
- Surface is grinded equally on the whole surface

Thanks to Force Control you obtain improved process quality, reduced programming and cycle time and increased tool life. Parts can be taken from caliber or trough vision camera systems as bin picking or on the fly from a conveyor.

If parts are too big, we prefer to work with tooling on robot instead of part on robot.

In addition to the deburring also other actions can be included in the automation process such as stacking, assembly, sealant application, ...









## **POLISHING**

The polishing process normally consists of 2 phases: rough polishing and fine polishing. Buko automates this process with the PR/TX60 robot and makes machine changes redundant.



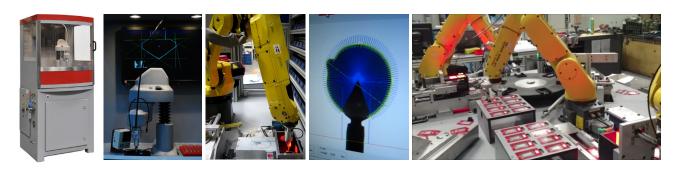
# **ENGRAVING**

The best engraving results in the shortest process time, that is the ER/TX60 unit. Of course we can adapt the standard configuration according to your requirements.



# **MEASURING AND SORTING**

Visual inspection (shape and/or surface) followed by sorting according to your scenario using HD-cameras and deep learning technology.



## **CUSTOM MADE**

Engineering and full realisation in house such as an automatich warehouse, machine loading systems, assembly lines, unloading stations.









Every custom made project is realised in house.

We have a motivated and talented team of engineers who can develop your project from A to Z.

## **ENGINEERING OFFICE**

- CAD design for the full project (Solidworks)
- Analysis and execution of the workcycle
- CAM processing of the plans
- Electric, pneumatic and hydrolic schemas (Eplan)

## **PROGRAMMATION**

- Control software (pc environment)
- PLC programmation (Beckhoff)
- Robot programmation (Staübli, ABB)
- Vision programmation







#### **HARDWARE**

- CNC turning and milling of parts
- Montage and wiring in our workplace
- Functional test of installation in our workplace

#### HANDLING

- Delivery and commissioning
- Training operators













#### **EXCLUSIVE DISTRIBUTOR IN BELGIUM OF:**

 ${\tt BLUE\ POWER/INDUTHERM:\ specialised\ induction-heating\ technology}$ 

OTEC: mass polishing and deburring machinery SIRO LASERTEC: engraving and welding with lasers LAMPERT: compact TIG micro welding equipment







LAMPERT.



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