



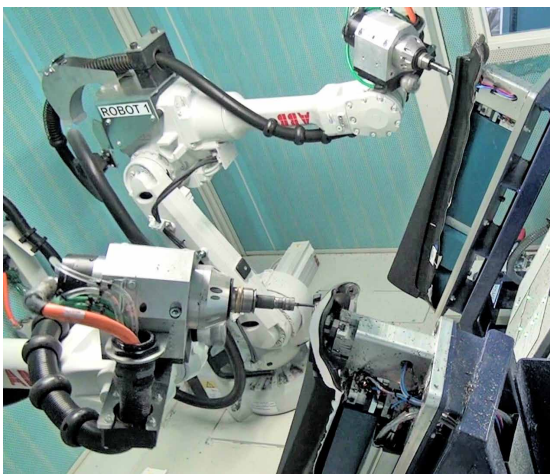
## ROBOTIC TRIMMING

a GEBE2 solution



Nowadays trimming is a very widespread operation in the production of parts. Precision requirements, production rates, as well as the complexity of parts require automation of this process.

GEBE2 offers a range of trimming cell offering relevant answers to these different constraints.



### High production rates

Robotized cell with swinging turntable including 2 toolings and 2 robots working simultaneously. (rate example : 2 parts every 90 seconds).



### Large parts

Use of additional axis, turntable and/or rails to increase the robot workspace and simplify accessibility to complex areas.

## TRIMMING END-EFFECTORS

A wide range of effectors allow GEBE2 machines to work on various machining operations, such as trimming, deburring, drilling or milling. These different applications can also be realized via an electrospindle with an automatic tool changer.

### Standard electrospindles characteristics

	Spindle 1	Spindle 2	Spindle 3	Spindle 4	Spindle 5
Power	12 kW	7.5 kW	4.5 kW	4 kW	2 kW
Max speed	24 000 rpm			18 000 rpm	
Tool changer	HSK63F	ISO30		ER32 collet	ER25 collet
Cooling	Liquid		Air		



**Spindle with W axis**

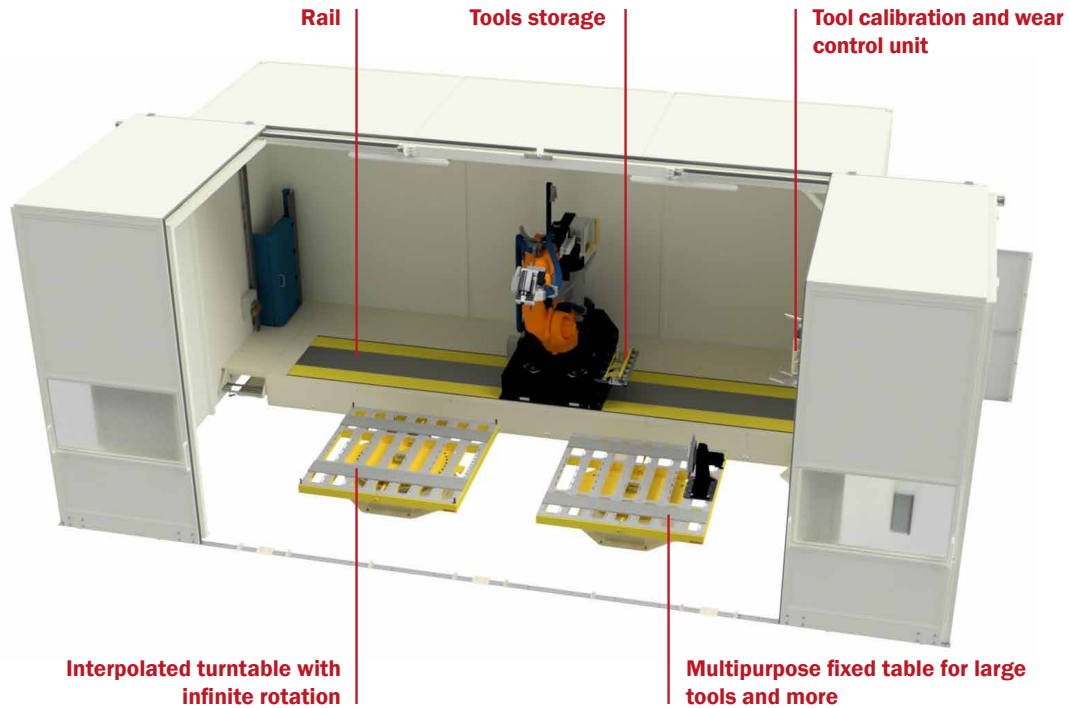
The W axis is useful to perform accurate holes, or for a better control of a countersink depth.



**Probing and adaptive machining**

Probes can be used as on a CNC machine. The robot can thus locate the tooling or the part to execute the machining path in the real part base frame. Probing can also measure deformations of the part so that the program is recalculated according to the actual shape.

**EXAMPLE OF A TRIMMING ROBOTIC CELL DESIGNED FOR LARGE PARTS**



**Offline Programming**

The programming of the machining robot is usually done by offline programming software (CAD / CAM). GEBE2 is equipped with Robotstudio and Kukasim software for trimming, and Robotmaster for all types of machining, ...

**Processes robotization / feasibilities**

GEBE2 has a dedicated team and robotized cells to demonstrate your project feasibility. This support makes it possible to secure investments by validating beforehand the performance and return on investment.

