

babilon

Werkzeugbau



HISTORY

Babilon was founded as a toolshop for thermoplastic molds in Breuberg near Frankfurt in **1984**. At the very beginning the company has produced parts for well known automotive customers – the staff comprised only 3 fulltime employees.

In the **early nineties** Babilon invested more and more in top notch employees and sophisticated technology like HSC milling machines and the referring software in order to stay ahead.

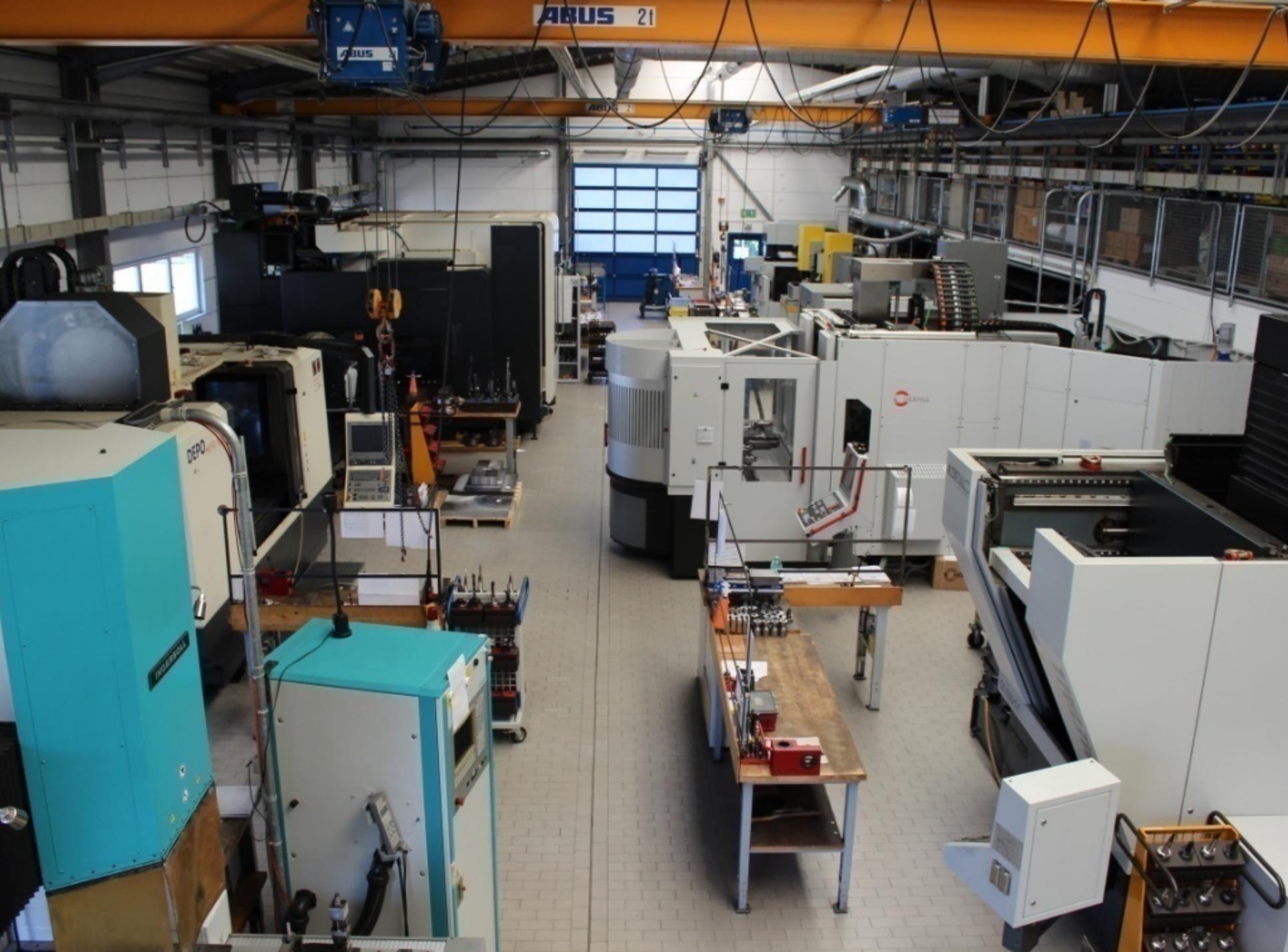
In **1994** we moved from the garage where we started to a new production site. In parallel new machinery was installed such as die spotting press, high speed spark erosion, wire erosion and 5 axis milling machines – the number of employees increased to 25.

As we run out of space in **2005** a second building was constructed. Following our philosophy we pushed efforts in concerns of automated production of electrodes or even inserts with complex geometry.

To the present day almost 50 high qualified and reliable toolmakers, skilled programmers and designers are working at Babilon company aiming at customers satisfaction.

Over the last few years Babilon has developed from being purely mould construction company to being a high-tech company for the most complicated tools for international customers. We do accompany the complete process by supporting the part design up to matching loops to get the product well prepared for serial production.





DGPO

PROTECTOR

OMEGA

ABUS

ABUS

Babilon at a glance

The manufacturing range of Babilon includes the production of **plastic molds** for fuel filler systems with all relating parts like housings in 2-component technology, hinge arms and flaps. Furthermore we are **specialist** in design and construction of tools for airbag covers - both driver and passenger side.

We are very experienced in **design and construction** of die casting moulds for steering wheels with corresponding trimming units and foaming tools. Design and construction is realized directly at Babilon in order to gain experience and getting faster with more **intelligent solutions**.

To all customers we offer a **pre-design review** of their parts concerning demouldability and feasibility. As well we are able to run mould flow simulation to be aware of filling situation and possible warpage.

After finishing the moulds we are performing a **test run** on our moulding machine to get suitable first-off-tool parts to be sent to customer.

Babilon at a glance

On demand we do supply an **optical measurement** of the parts or even a scan used for reverse engineering or review in regards of warpage, shrinkage or wall thickness.

The system supplied by GOM allows a direct comparison of real parts and its CAD counterpart. In order to meet customer requirements Babilon uses **high end equipment** like multicore workstations for CAD design and CAM programming.

More than 10 employees are taking care of achieving **best results** regarding tool design and practical implementation. The software used is CATIA and WorkNC. We do have several milling machines for rough milling and subsequent finishing. For the bigger parts like mold base we mostly use DMG machines from 1.250mm up to 1.600mm traverse path.

Those machines are used as well for **5-axis operations** and drilling of cooling systems if necessary. For operations like finishing of shaped inserts two very fast 5-axis machining centers are in use. They are equipped with pallet changers which keep them **running over night** or during the weekend. Both the smaller and the bigger one were supplied by HERMLE and the range of traverse path is from 450mm up to 650mm. There is several machinery used for wire cutting, spark erosion, die spotting and injection molding. Please have a look at our separate page showing some more details. The possible size of tool is up to 5 tons and 1000mm x 600mm.

MACHINERY

Milling

DMG DMC63V · 1 DMG DMC103V · 1 DMG DMC1035V · 1 DEPO MCFV 1680 (Rough milling)

Alzmetall GS 1000 5/T (5-axis-simultaneous milling)

Hermle C32UP (5-axis-simultaneous milling - pallet changer)

Hermle C22UP (5-axis-simultaneous milling - pallet changer)

DMU125P (Milling of mould base and 5-axis-simultaneous milling)

DMU160P (Milling of mould base and drilling of cooling systems)

Mikron HSM400 (Exclusively for electrodes – pallet changer)

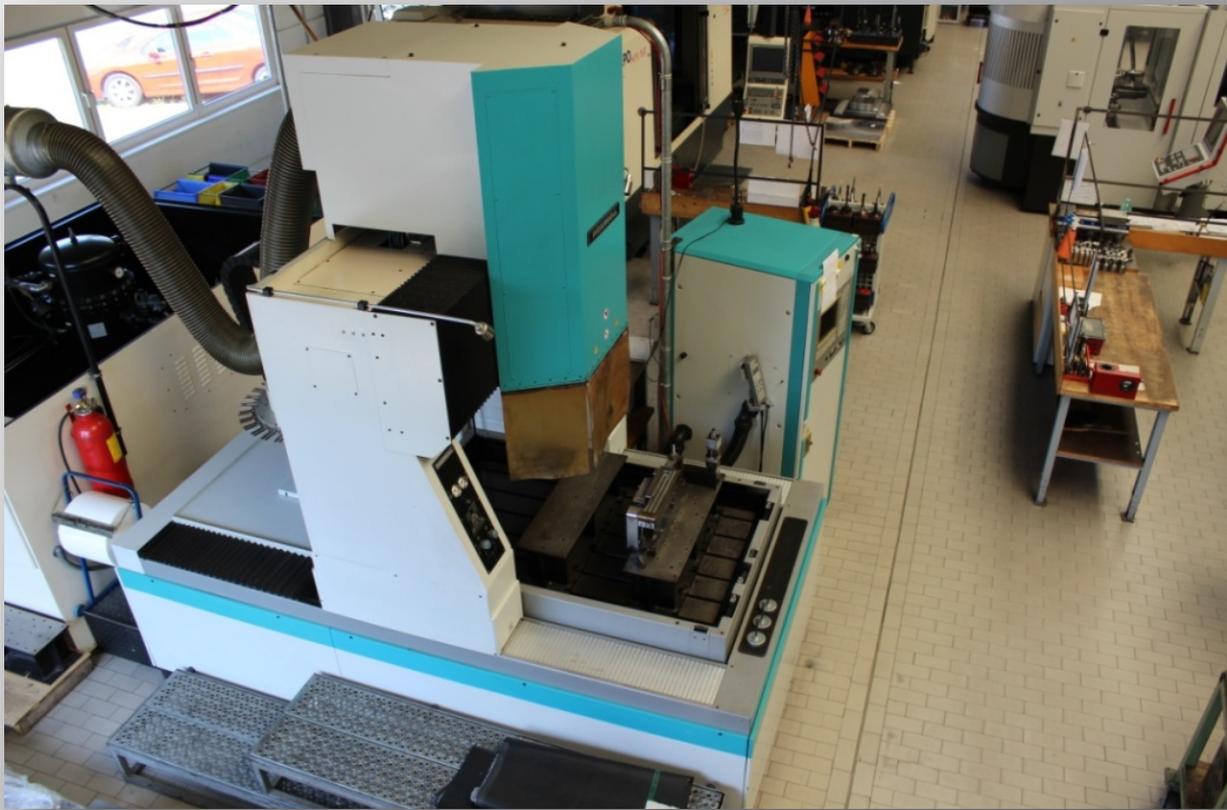
Erosion

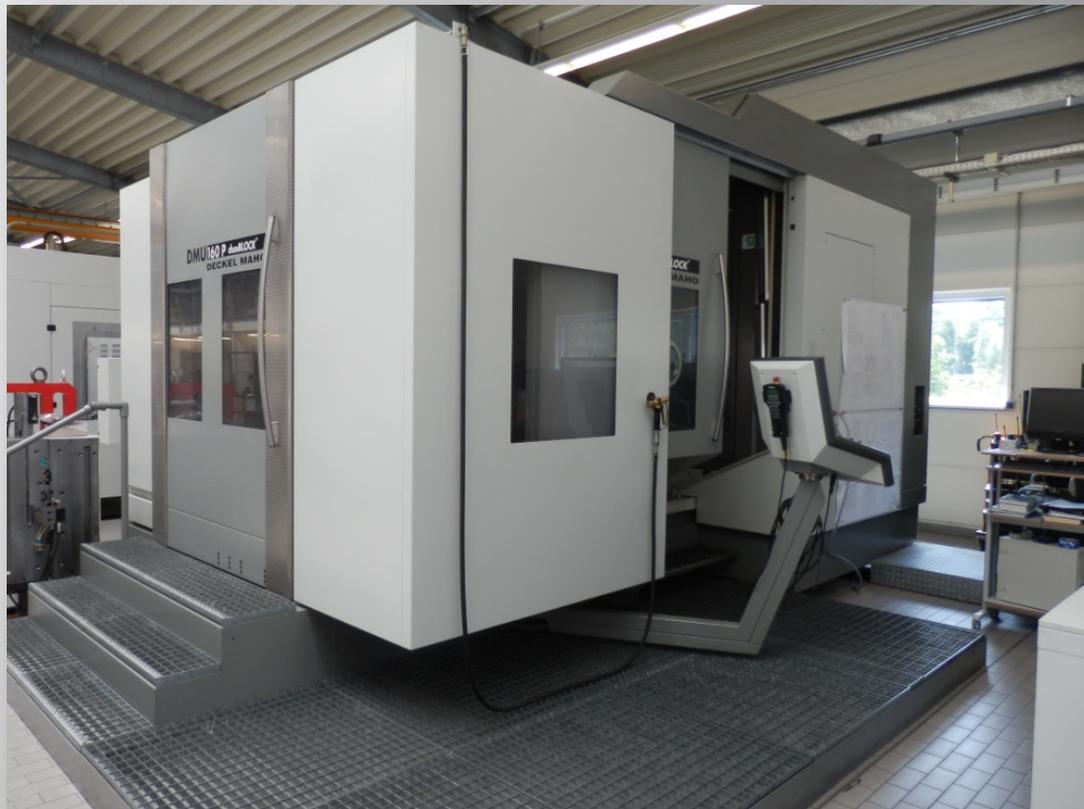
Wirecutting machines Mitsubishi FA20 and FA30

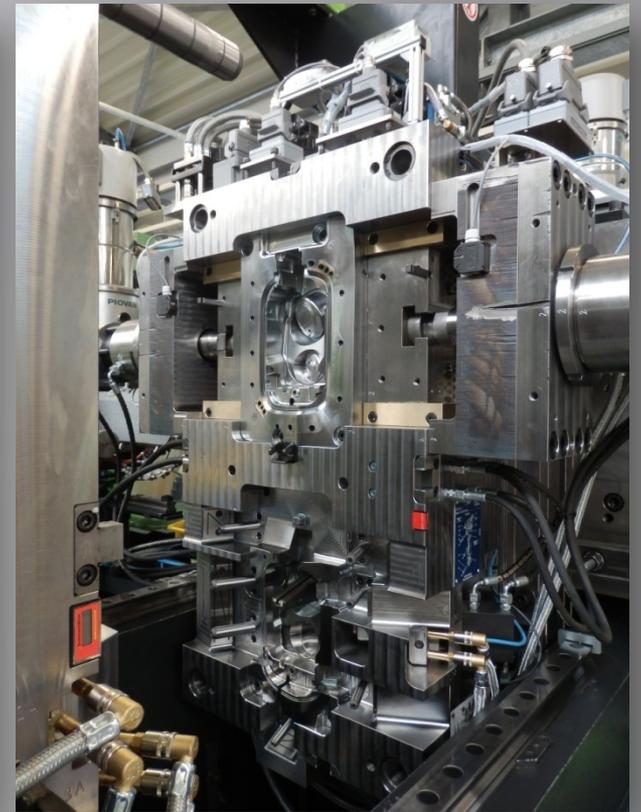
EDM machines Ingersoll 1000, 800 and 800 Eagle

Die spotting presses (Reis Robotics)









CAD/CAM

CAD Design

- 6 CATIA workstations
- 1 Workstation for Mouldflow-Calculation
- 1 Workstation for Reverse Engineering

CAM Programming

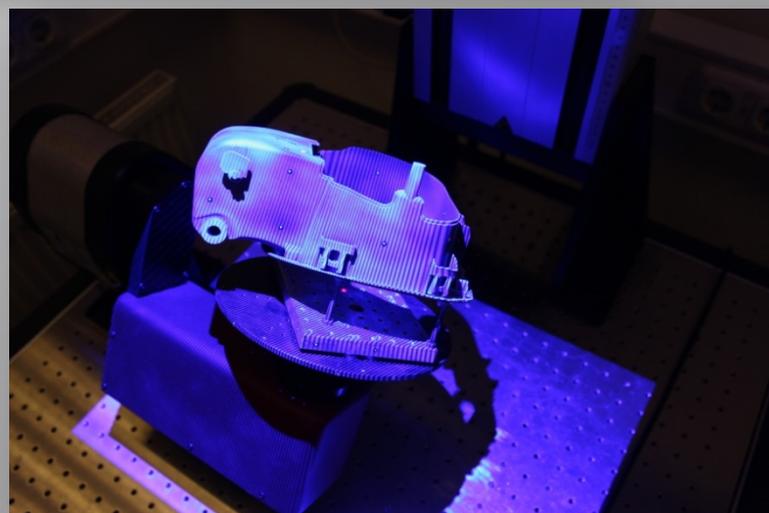
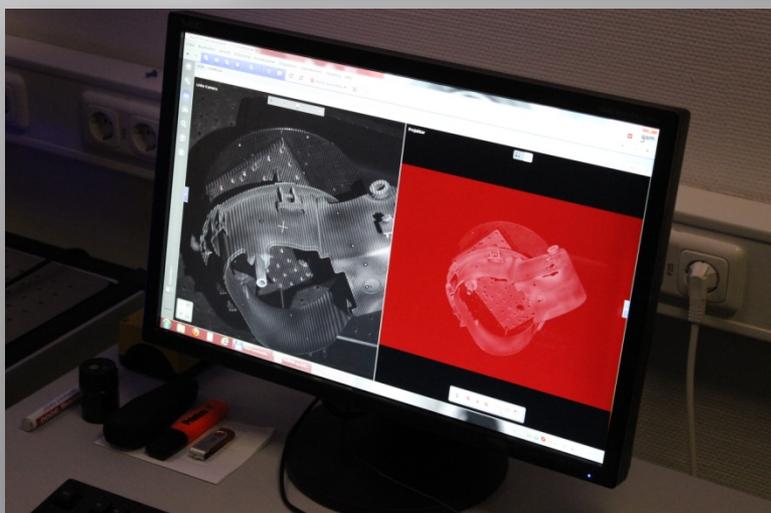
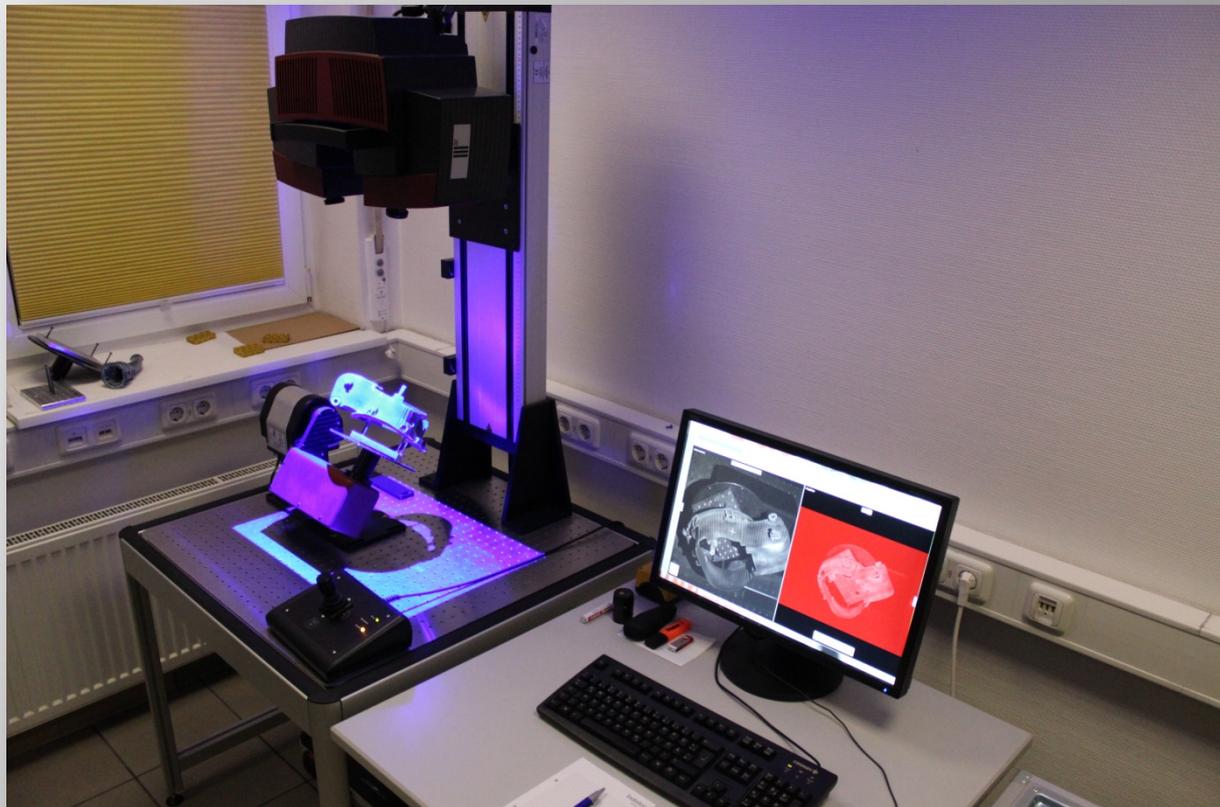
- 5 WorkNC workstations for 5-axis-milling
- 1 WorkNC workstation for programming electrodes (MPM)
- 5 Tebis licenses for building up electrodes
- 1 Tebis license for 2.5 programming

Scanning and measuring

- 1 GOM workstation

About 10 workstations are equipped with viewer software, placed all over the toolshop.



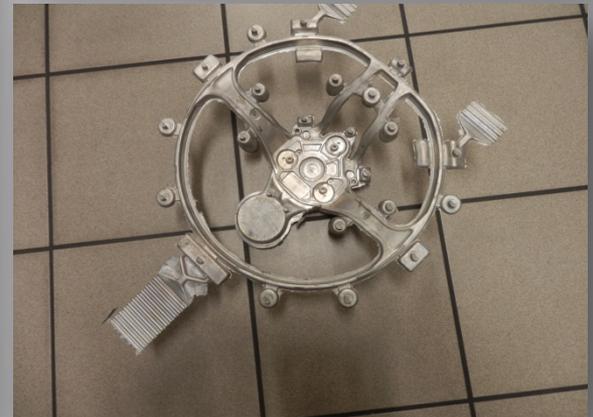


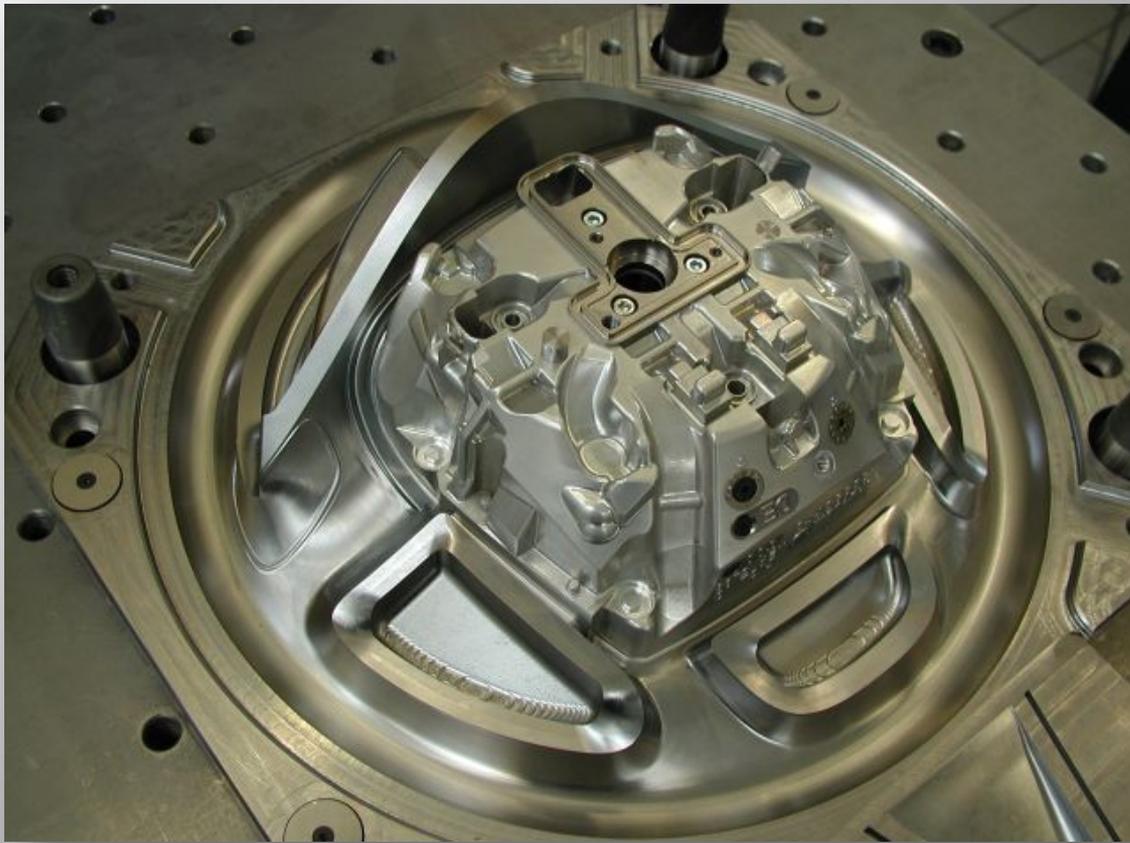
OUR CUSTOMERS

Almost all moulds build by Babilon are used to produce parts solely for automotive applications. Our customers are well known system suppliers for OEMs like **AUDI, Daimler, BMW, GM** and **FORD**.

The most important companies are
TRW (Germany, Romania, Czech Republic, France),
ITW (Germany, Czech Republic, France, United States),
KunststoffSchwanden (Switzerland),
Takata (Germany, Romania),
VERITAS (Germany) and
Andisheh (Iran).

We are **directly in contact** with the company main works as well as its subsidiaries and all responsible partners regarding design and production. We keep close contact to all of our customer departments in order to save time and expedite decision making.





Contact

Babilon GmbH
Werkzeugbau
An der Schulzenwiese 5
64747 Breuberg

Tel. +49 61 65 - 93 04 0
Fax +49 61 65 - 93 04 51

www.babilon-werkzeugbau.de
info@babilon-werkzeugbau.de

