PLASTIC-FORM

COMPANY PRESENTATION

Contents of presentation

PLASTIC-FORM

Introduction

PLASTIC-FORM

Plastic-Form Ltd’s main activities are the designing, making, repairing, modifying and maintaining of injection and blow moulding tools.

Plastic-Form Ltd was founded in 2001 with the objective of meeting the injection- and blow-moulding tool demand of Hungarian companies involved in the production of packaging, household and technical plastic products.

The founder is Mr. Janos Burai. He has over 30 years experience in mould making, and is now the manufacturing director.

The founder’s son Mr. Zsolt Burai is a mechanical engineer, and is currently the company's managing director. The founder’s daughter Ms. Eniko Burai is the company's financial director.

Shortly after the company’s foundation, it became a partner of many famous, well-known automotive suppliers.

Introduction

PLASTIC-FORM

The basis of our activities, over and above our machinery and equipment, is provided by the highly qualified and experienced team of professionals who have been involved in mould manufacturing for many years.

Our company, as a supplier of plastic injection and blow moulding products provides a full spectrum of services, from the designng of moulds, through their manufacturing right up to their servicing, as well as consultation.

Plastic-Form Ltd. and its 100% owned Arago Tools Ltd. together became leading companies in the Hungarian metal working industry.

Introduction

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Our new site since May of 2007 - Hungary, 4002 Debrecen, Jegvirag street 16.

Introduction

PLASTIC-FORM

Building extension in 2012 - Hungary, 4002 Debrecen, Jegvirag street 16.

Total area of tool shop: 1500 m^2

Organizational structure

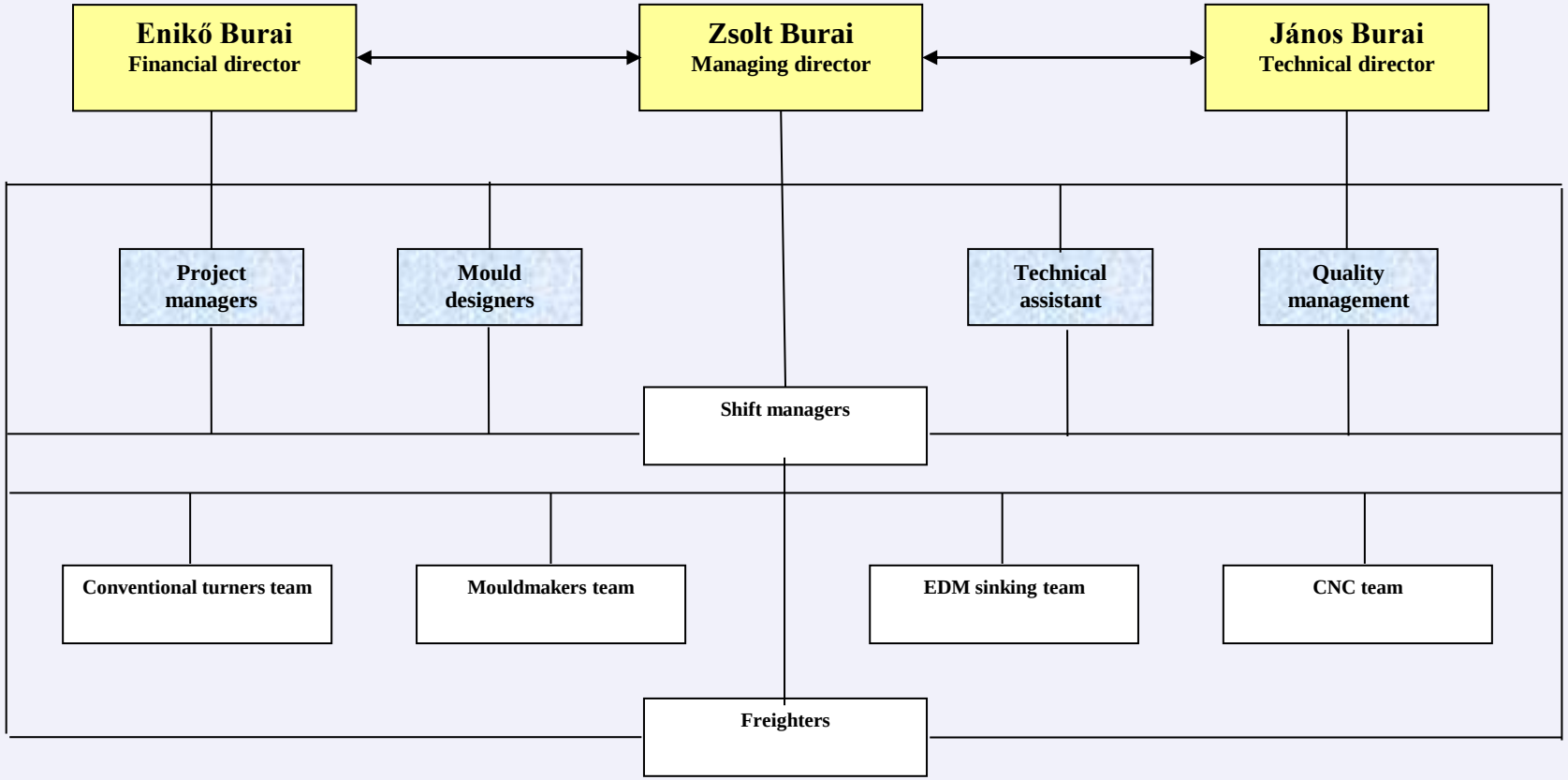
PLASTIC-FORM

Owner structure

B-Investments Kft.

A² IT ARAGO Felsőbb Technológiai Tudományok Intézete Zrt.

Organizational structure inside Plastic-Form Kft



Introduction

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Employees at Plastic-Form Ltd.

Management		
	Managing director	1
	Technical director	1
	Financial director	1
Managing assistant		
	Managing assistant	2
	Technical assistant	2
	Financial assistant	2
	Computer system administrator	1
Project management		
	Project manager	2
Designing		
	Mould designing	6
Manufacturing		
	Toolshop leader	2
	CNC milling	21
	Conventional milling	4
	EDM	3
	Mouldmaking	19
	Grinding	3
	Turning	3
	CMM	2
	Freighting	3
	Storage	1
	Plant service	3
Total		**82**

Introduction

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Conventional machines

Machine	Type	Year	Dimensions (mm)	Bearing capacity (kg)
bandsaw	SGMB 400 / II	1984	550 x 550 x 100	
bandsaw	OPTIMUM	2009	Ø 200 x 2000	
turning machine	E3N-750	1980	Ø 100 x 600	
turning machine	TOS SN 400 S / 1500	1985	Ø 1000 x 2000	
turning machine	TOS SUI 100	1985	Ø 600 x 1000	
turning machine	E3N-01-750	1986	Ø 100 x 600	
milling machine	FNG_J40_A	2012	300 x 300 x 200	
horizontal milling machine	NCT-HBM-9 CNC	2020	1000 x 1000 x 600	
surface grinder	PROTH	2020	1000 x 1500 x 500	
surface grinder	SPC 20 b	1981	200 x 500 x 100	
surface grinder	SPC 20 C	1987	200 x 500 x 100	
surface grinder	ELB	1987	300 x 500 x 200	
universal grinder	KU-250-04	1990	Ø 250 x 700	
standing drill	CSEPEL RF-20	1986	400 x 500 x 300	

Introduction

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CNC machines at Plastic-Form Ltd.

Machine	Type	Year	Dimensions (mm)	Bearing capacity (kg)
CNC turning machine	Masturn 550 i	2013	ø 300 x 800	
CNC milling center	KONDIA A6	2006	400 x 800 x 400	
CNC milling center	CME FS 0	2005	800 x 1000 x 600	
CNC milling center	Deckel Maho DMU 50	2001	300 x 300 x 300	
CNC milling center	MAS 1000 SPRINT	2012	500 x 750 x 500	2000
CNC milling center	MAS MCV 1210 ZPS	2013	1000 x 1080 x 602	3000
CNC milling center	MAS MCV 750 Rapid	2013	500 x 750 x 500	650
CNC milling center	KAFO-NCT-BMC 5AX	2016	2000 x 1400 x 800	6000
CNC milling center	Deckel Maho DMF 180/7 5AX	2016	ø700x700 / 1800 x 700 x 700	750 / 1500
CNC milling center	KAFO-620-5AX	2017	ø700 x 500	250
CNC milling center	MCV MAS 750 I	2020	500 x 750 x 500	650
CNC milling center	Deckel Maho DMC 1150 V	2020	1150 x 700 x 550	1500
CNC milling center	EmR 1200M-4H	2020	1200 x 610 x 610	1000
CNC milling center	Hermle C22U	2020	450 x 600 x 330	200
EDM	ONA QX-3	2020	500 x 300 x 300	
EDM	ONA QX-6	2020	1100 x 700 x 500	
EDM	Exeron EDM314 MF30	2016	1150 x 850 x 450	
EDM	Exeron EDM313 MF30	2016	1000 x 600 x 400	
Wire EDM	Fanuc Robocut Alpha C600iB	2020	800 x 800 x 300	
Wire EDM	Fanuc Robocut Alpha C600iB	2020	800 x 800 x 300	
Start hole drilling EDM	Excetek HD800C	2021	900 x 600 x 400	

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Other machines at Plastic-Form Ltd.

Machine	Type	Year	Dimensions	Bearing capacity (kg)
3D scanner	Gom ATOS 5	2020	1500 x 1500	
CMM	Zeiss Contura	2020	700 x 700 x 300	
Spotting press	MIL 163	2008	1600 x 1000 x 1400	20 tons / Pressure: 150
TIG welding machine	Fronius – Magic Wave 5000	2008		
Laser welding machine	Alfa Laser ALM 200	2006		
Laser welding machine	Sygma Laser	2019		
Laser welding machine	Alfa Laser ALM 300	2020		
Heat treating furnace		2005	300 x 300 x 400	25 kg
Heat treating furnace		2005	300 x 300 x 400	25 kg
Heat treating furnace		2005	300 x 300 x 400	25 kg
Crane	Konecranes HK-1356	2007		20 tons
Crane	Konecranes HK 1355	2007		5 tons
Crane	Konecranes HK 1539	2007		5 tons
Crane	Konecranes HK-2079	2012		5 tons
Crane	Konecranes HK-2431	2014		5 tons
Forklift	Mitsubishi FG-30	2002		3 tons
Forklift	CPCD100	2010		10 tons

Statistical information

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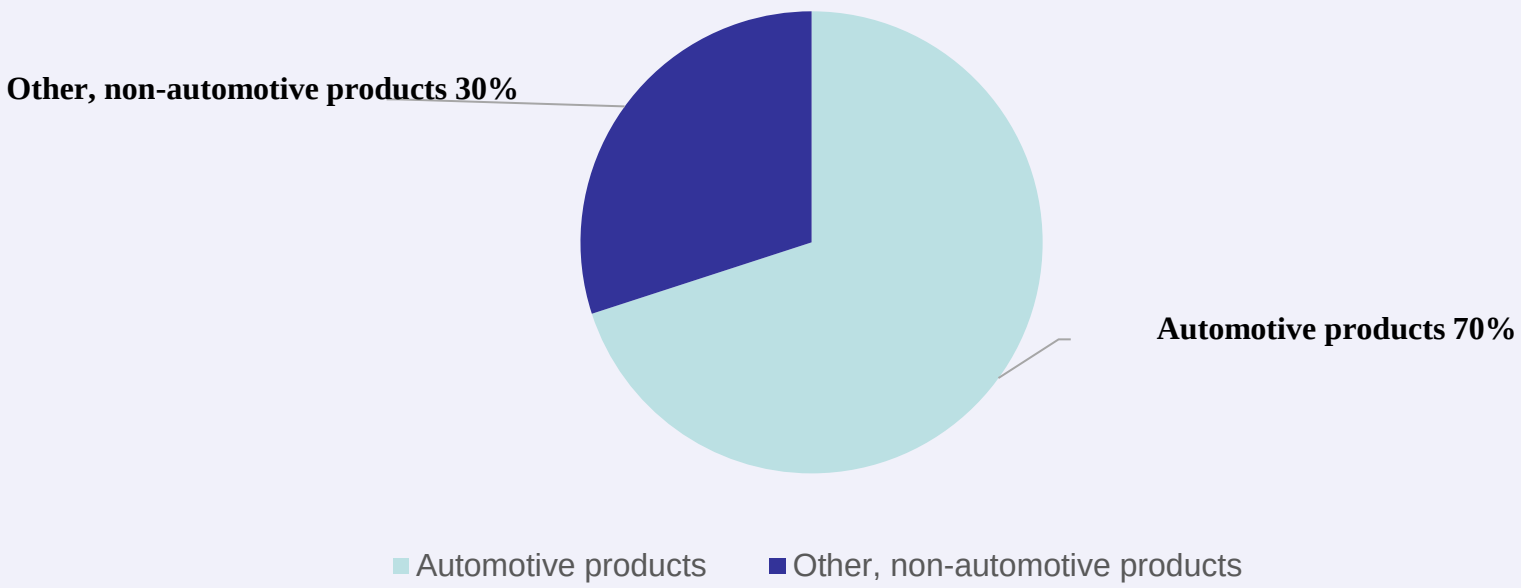
Division of turnover

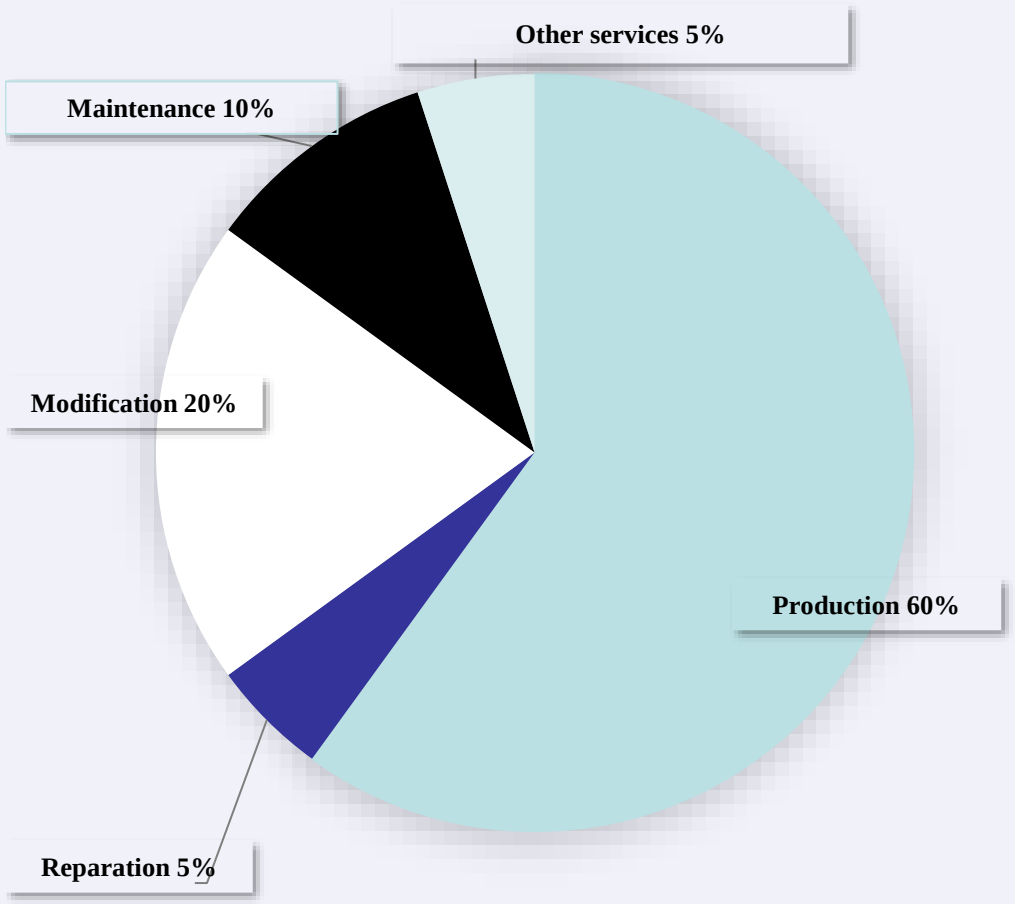


Statistical information

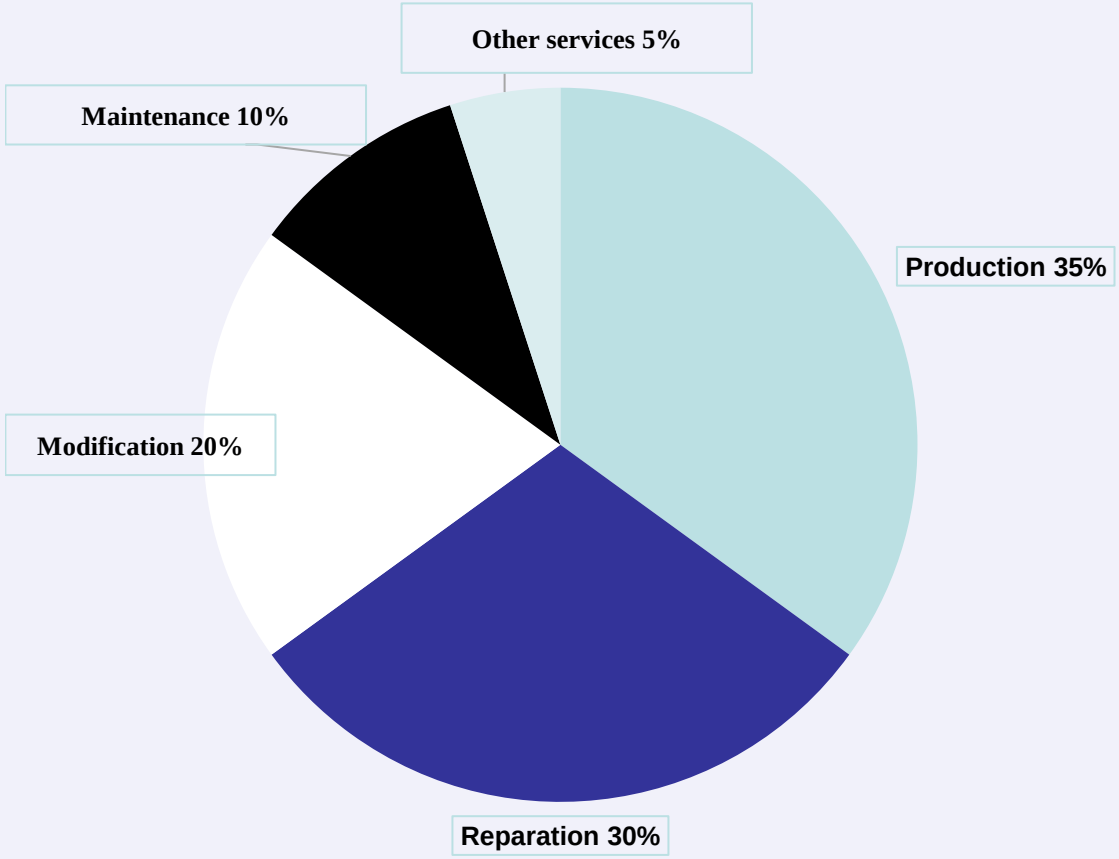
PLASTIC-FORM

Division of turnover from net sales

Automotive



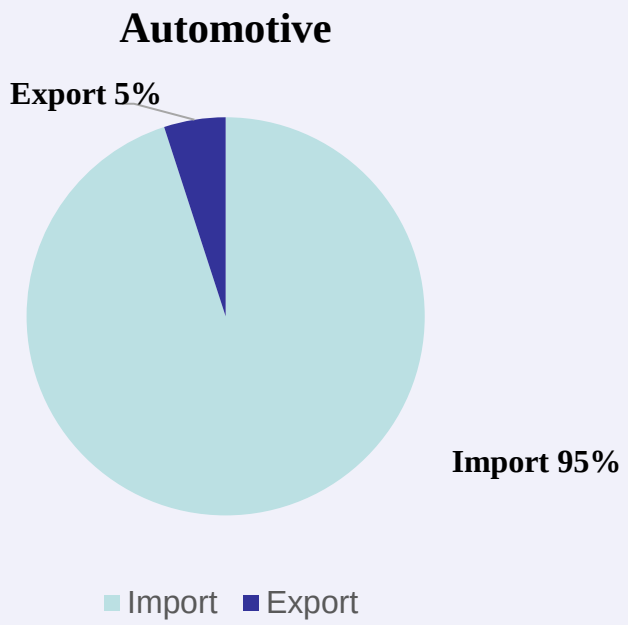
Other, non-automotive

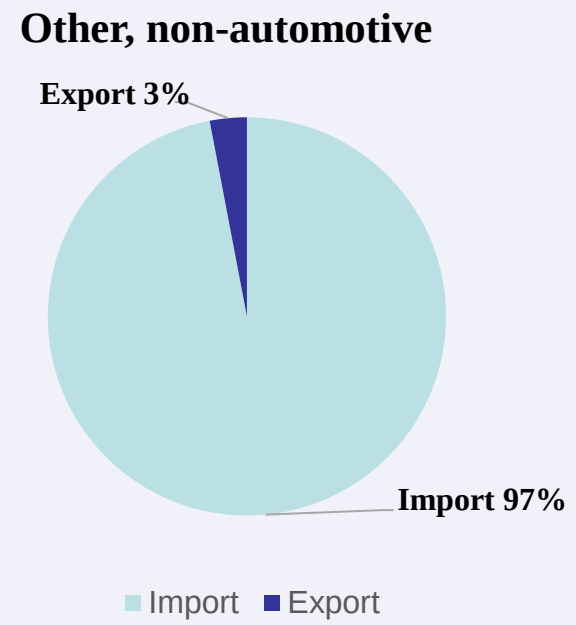


Statistical information

PLASTIC-FORM

Division of turnover





Statistical information

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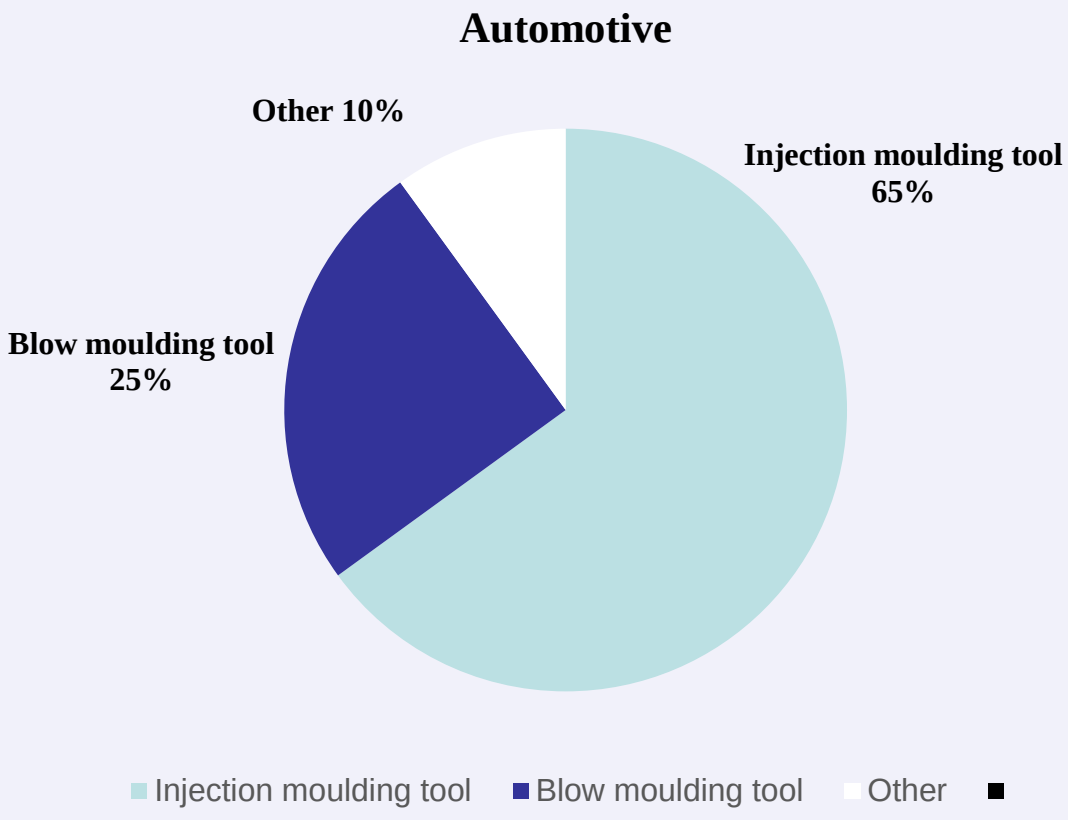
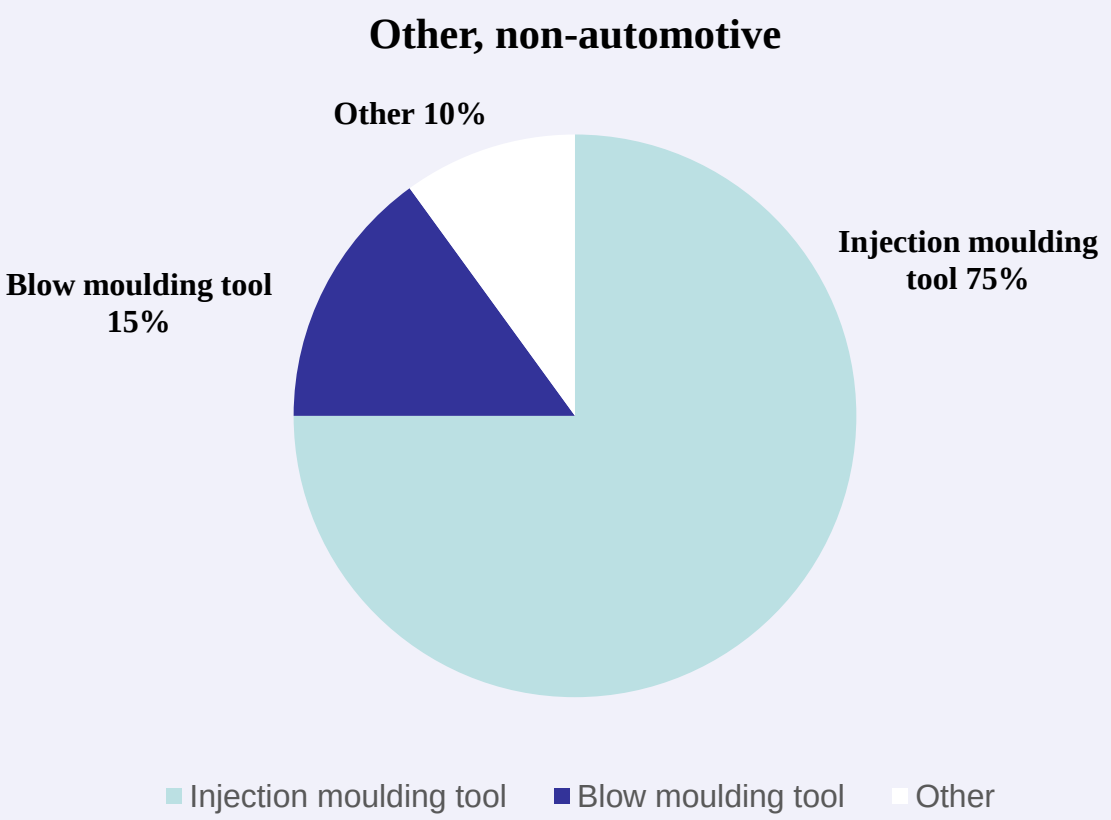
Division of injection and blow moulding tools production





Main profile

PLASTIC-FORM

1. **Total tooling management**
2. **Engineering**
3. **Making of new injection and blow moulding tools**
4. **Repairing, modifying and maintaining of injection and blow moulding tools**
5. **Making special pieces**
6. **Making special machines**

These activities are the main profiles of our company.

Total tooling management

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We offer our partners a comprehensive service by the following:

- Toolmaking
  - Designing, moldflow simulation and feasibility analysis with professional CAD-CAM softwares
  - 3D scanning and reverse engineering
  - 3D printing of plastic prototype products
  - 3D printing of steel workpieces
  - CNC machining (CNC milling, EDM, wire cutting)
  - Conventional machining (drilling, milling, grinding, turning)
  - Laser and TIG welding
  - Polishing, high-polishing
  - Tool assembly and spotting
- Project tracking with time schedules and detailed information to the Customers
- Tool testing, tool trials
- Plastic product moulding, sample making, if it is required.

Engineering

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Tool designing

Engineering at Plastic-Form Ltd is based on CAD files or unique technical specifications provided by the Customer.
Qualified, experienced professionals generate the optimum design using integrated CAD systems.
Planning of mould construction and milling programs are made by
Creo (PRO-ENGINEER) and **UNIGRAPHICS** software.

Engineering

PLASTIC-FORM

Moldflow analysis

Moldex3D helps us simulate versatile injection moulding processes to optimize product designs, increase manufacturability.
Moldex3D software provides the technology to decrease the number of trials and errors, which contribute to the waste of time, energy and money during the mould-making process.
Moldex3D help users to simulate and validate their part and mould designs before production.

Engineering

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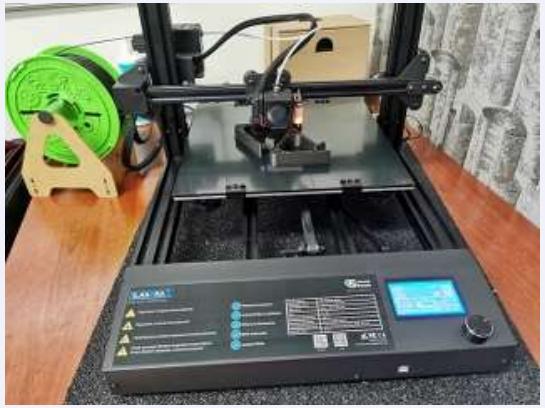
3D prototype printing

Sunlu S8 Filanora Edition



Objet 30 Prime

Stratasys F370

Stratasys Objet 500 Connex 3

Engineering

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3D scanning, 3D digitizing, Reverse Engineering

GOM ATOS 5 is an industrial, high resolution, optical 3D scanner with Blue Light Technology.
The ATOS 3D scanner is an accurate and cost-effective solution in a number of different application areas including:

- Quality Control, Quality Analysis
- Inspection
- Reverse Engineering

Engineering

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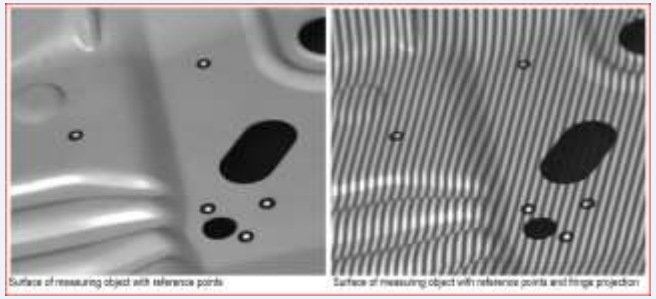
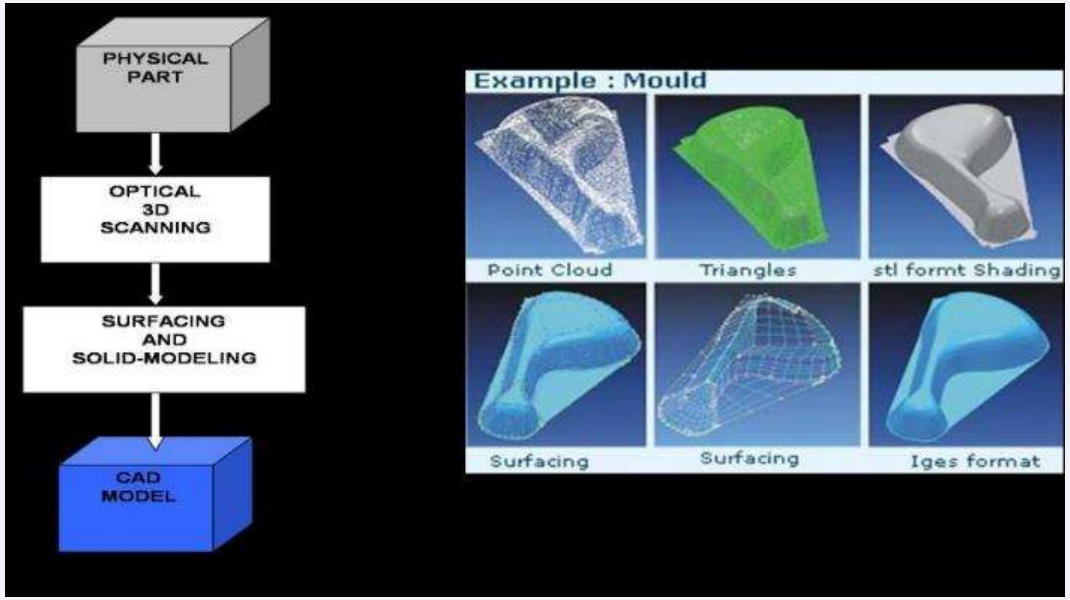
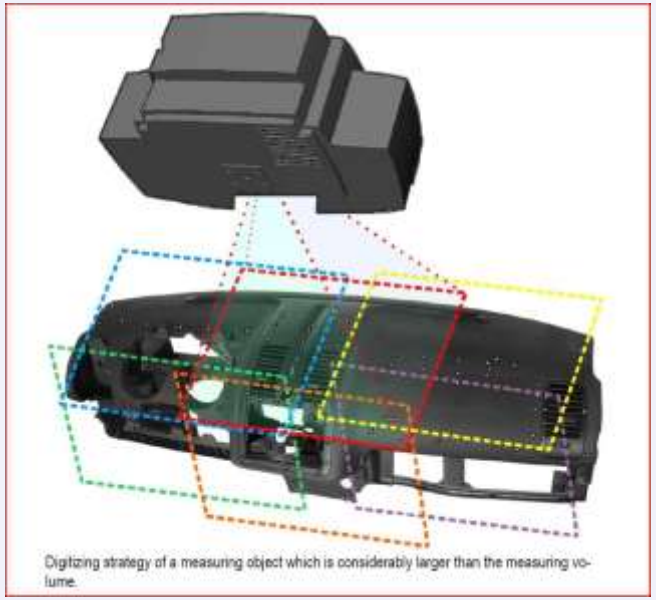
3D scanning, 3D digitizing, Reverse Engineering

Measurement and inspection software

ATOS Professional and **GOM Inspect Professional** software supports the measuring in quality control, manufacturing processes and reverse engineering.







Engineering

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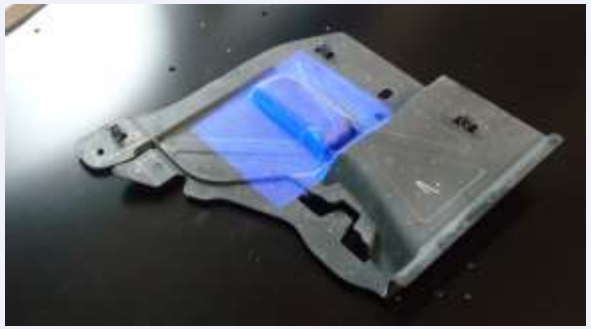
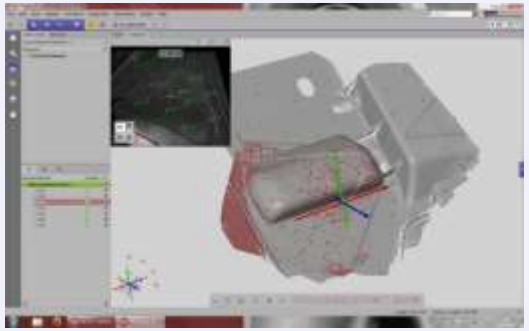
3D scanning, 3D digitizing, Reverse Engineering

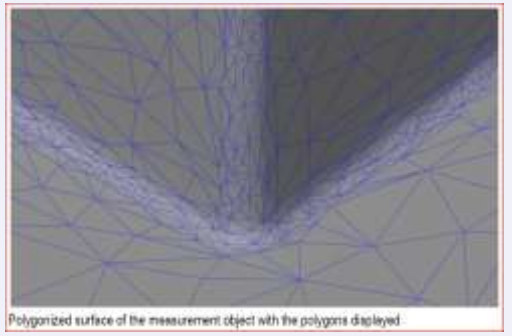
1., Positioning of sensor and blue light

2., Scanning



3., 3D model ready to measure and reverse engineering





The result of the scanning is a high resolution, dense point-cloud, or triangulated mesh surface (.stl file).
The reverse engineered model represents the physical object as a 3D CAD data with all surface and geometrical errors. During the process, the model can be redesigned with any kind of shape modification.
The complete 3D data set can then be exported using standard file formats (.stp file) for post-processing.

Making of new injection and blow moulding tools

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Plastic-Form Ltd designs and manufactures heavy-duty and long lifetime injection and blow moulding tools for difficult geometric 3D plastic parts in high quality.






Repairing, modifying and maintaining of injection and blow moulding tools

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- Damaged moulds are repaired with high precision and the use of the best materials.
- Engineering change/management to existing moulds based on the supply of new/revised CAD data.
- Tool maintenance can be supported on an ongoing regular plan based on supplier requirements.

Making of special pieces

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Some of our partners require special pieces, which we make by individual drawings.
These pieces are not accessories of any moulds.

Making of special machines

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For example cutting machines, holders, cooling fixtures and jigs.

Sourcing of materials

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Suppliers

1. RAW MATERIALS

1.1. Steel

- Böhler / Meusburger / Akrostal
- Tyssenkrupp

Raw material quality and hardness, raw material of cavity plates and inserts:

- 1.2311 and 1.2312 = 32 HRc
- 1.2343, 1.2344, 1.2767, 1.2842, and Moldmax = 50 HRc
- Toolox 33 & Toolox 44

1.2. Aluminium

- Amari / Alu-Cutting / Alfun
- Certal 380 HB

Selection of these materials depends on the plastic raw material and the desired lifetime of the plastic part.

2. STANDARD ELEMENTS

- Meusburger
- Hasco
- DME

3. HOT RUNNER SYSTEMS

- Hasco
- Thermoplay
- Synventive
- Yudo
- HRS
- Mold-Masters
- DME
- Incoe

Some working moulds operate with hot runner systems which were developed and made by Plastic-Form Ltd.

4. ELECTRONIC ELEMENTS

- Weidmüller
- Harting

5. PNEUMATIC ELEMENTS

- Bosch-Rexroth
- Hafner
- Camozzi

6. HYDRAULIC ELEMENTS

- Bosch-Rexroth
- Vega
- Roemheld
- Intertraco
- C-Matic

Most elements are available in Hungary.

Machining

PLASTIC-FORM

Conventional machining

- **Horizontal boring**

  The horizontal boring machine is used to machine holes and plane surfaces primarily on larger work pieces.

  Applications:

  Raw material preparation and drilling of water cooling channels.

NCT-HBM-9 CNC horizontal drilling and milling machine

Machining

PLASTIC-FORM

Conventional machining

- **Vertical boring**

  Applications:

  Drilling of water cooling channels and other necessary holes.

Machining

PLASTIC-FORM

Conventional machining

- **Turning**

  Turners work on conventional lathes and produce many kind of workpieces.

Machining

PLASTIC-FORM

Conventional machining

- **Grinding**

  The processing of fitting, guiding, shaping surfaces and heat-treated machine tools requires a high degree of accuracy. These accessories are made by a universal grinding machine and surface grinding machines.

Machining

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CNC machining

- **Grinding**

PROTH PSGP-1015 AHR surface grinder

Machining

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CNC machining

- **CNC turning**

Machining

PLASTIC-FORM

CNC machining

- **Metal 3D printing with Matsuura Lumex Avance-25 Hybrid Metal 3D Printer**

Machining

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CNC machining

- **CNC milling**

  Milling technology has a significant role in machining tool parts and making spark erosion electrodes. For efficient machining of parts, CNC-controlled milling centres are available.

KAFO-KFO-620-5AX

MCV MAS 750 Rapid

EmR-1200M-4H

Machining

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CNC machining

- **CNC milling**

MCV MAS 1210 ZPS

Deckel Maho DMC1150 V

KAFO-NCT-BMC 2015 5AX

Deckel Maho DMF180/7 - 5AX

MCV MAS 750 Rapid

Machining

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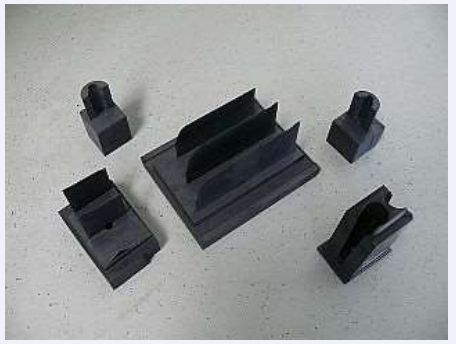
CNC machining

- **CNC milling of EDM electrodes from graphite only**

  HERMLE C 22 U – 5AX



Machining

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CNC machining

- **CNC milling of EDM electrodes from copper**

We are able to make electrodes for the EDM (Electrical Discharge Machining) technology. The electrodes can made of copper or graphite.

Machining

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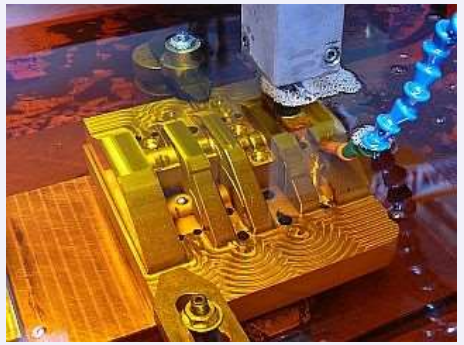
CNC machining

- **EDM (Electrical Discharge Machining)**

  EDM is a machining method primarily used for hard metals or those that would be impossible to machine with traditional techniques. The graphite or copper electrode, milled to the desired shape, works on the workpiece in the oil-based dielectric.



ONA QX3

ONA QX6

Exeron EDM313 MF30

Exeron EDM314 MF30

Machining

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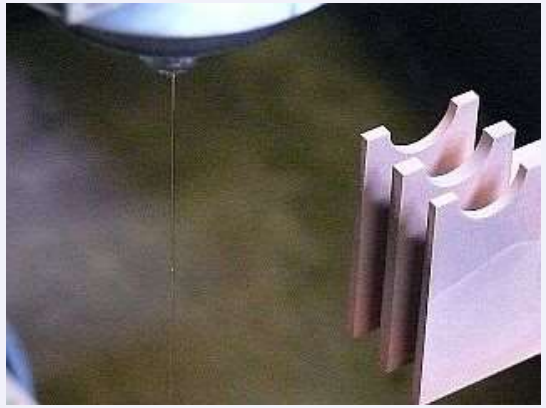
CNC machining

- **Wire EDM**

  In wire EDM a very thin wire serves as the electrode. Special brass wires are typically used. The wire is slowly fed through the material and the electrical discharges actually cut the workpiece.



Fanuc Robocut
Alpha C600iB

Fanuc Robocut
Alpha C600iB

Machining

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CNC machining

- **Start hole drilling**

Excetek HD800C

Assembly

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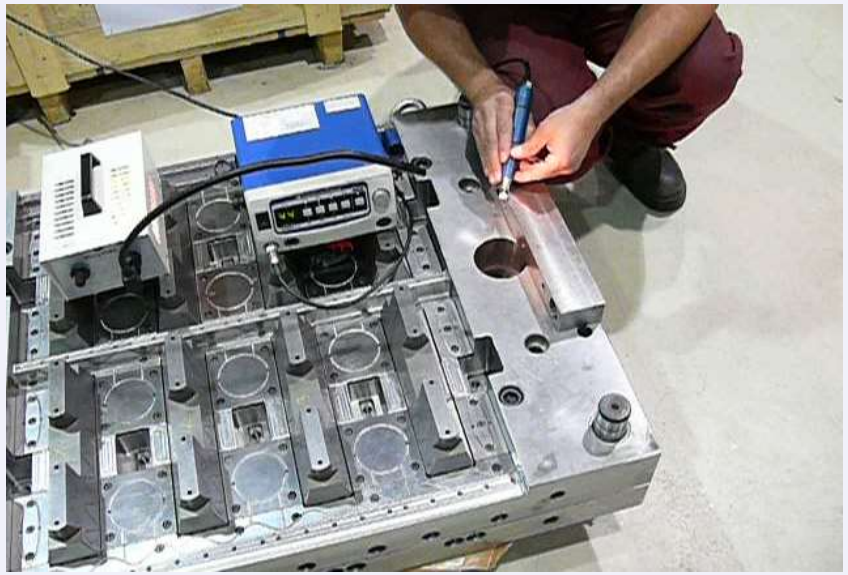
Assembly process

- **Manual works**

  Assembly of the work pieces by tool assembly specialists.



Assembly

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Assembly process

- **Polishing**

Assembly

PLASTIC-FORM

Assembly process

- **Polishing**

Assembly

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Assembly process

- **Spotting**

  Our spotting press is convenient to check many moulds which are under production, maintaining or repairing.

Table size:
X = 1600 mm
Y = 1000 mm
Z = 1400 mm (depend on the mould opening size)

Bearing capacity of table:
20 tons

Maximum press:
150 tons

Laser welding

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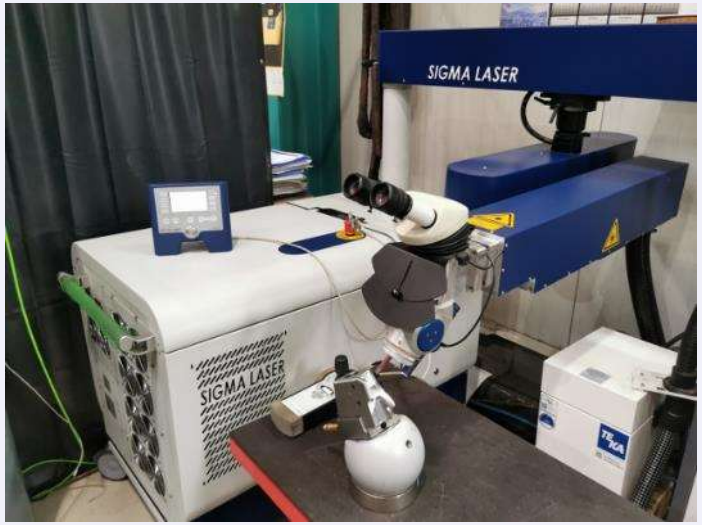
In case of repairing damaged tools or tool parts, the laser welding can be a more cost-friendly solution than producing new items.
We use a mobile equipment, so it is appropriate to repair heavy weight, big-sized tools or places which are difficult to access.
Laser welding can be used in the following areas:

- filling worn edges,
- repairing worn or damaged nozzles, tips or gates
- modification or reparation of damaged, worn tools
- repairing polished surfaces.

Alpha Laser ALM 200

Alpha Laser ALM 300



SygmaLaser MW 220

Quality

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Quality and environmental management system

The management of our company is constantly developing the management system. For the first step we integrated a special, production-registry software which is able to collect many information (for example: status of project, orders status, deadlines, efficiency tracking, machine hours etc.). The quality control is supported by a coordinate measuring machine (CMM) and a 3D scanner.

As a result of the continuous development PLASTIC-FORM Ltd. got the MSZ EN ISO 9001:2000 certificate in March of 2004. Since that date, our company has had a quality management system certified according to the current version of the MSZ EN ISO 9001 standard. Since November of 2022. we operate an integrated management system designed according to the requirements of the MSZ EN ISO 9001:2015 quality management standard and MSZ EN ISO 14001:2015 environmental management standard.

The management is committed to the effective operation and continuous improvement of the quality and environmental management system.

CERTIFICATE

MARTON
SZAKÉRTŐ IRODA KFT.

MARTON Szakértő Iroda Kft.
H-2040 Budaörs, Aradi u. 32. Hungary
hereby certifies that

PLASTIC-FORM Szerszámgyártó, Mérnöki, Szolgáltató és Kereskedelmi Kft.

Registered Office: H-4002 Debrecen, Jégvirág utca 16.

implemented and maintains quality and environmental management system applicable to the following scope:

Design, production, reparation, modification and maintenance of injection and blow moulding tools

Registration number of the certificate: 4022653

According the conducted audit has been assessed that the system

COMPLIES WITH
the requirements of
MSZ EN ISO 9001:2015 and MSZ EN ISO 14001:2015
standard.

This certificate is valid until date: 17 November 2025

only with the conduction of yearly surveillance audits.

Budaörs, 18 November 2022

MARTON SZAKÉRTŐ IRODA KFT.

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT
IAF

NAH-4-0047/2018
IRÁNYÍTÁSI RENDSZEREKET TANÚSÍTÓ SZERVEZET

MARTON Szakértő Iroda Kft.
Managing Director

* TANÚSÍTVÁNY * CERTIFICATION * ZERTIFIZIERUNG *

Administration

PLASTIC-FORM

Production management

Plastic-Form Ltd has a management system called Norma-X.

This is a special production management software, that helps to collect, and provides to the managers a lot of information about the following:

- current status of jobs
- fulfilments of purchase orders
- tracking of deadlines
- working hours of machines and professionals
- working hours in case of finished and current jobs

Quality assurance

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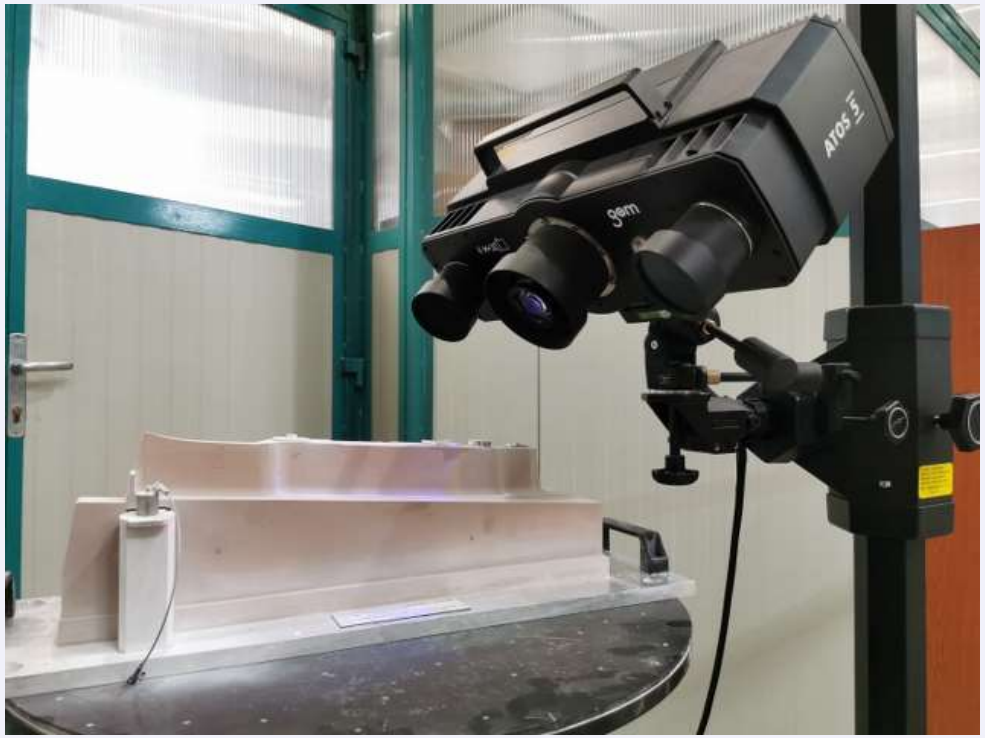
Measurements and inspections

Quality assurance is supported by a Coordinate Measuring Machine (CMM) and a 3D scanner which are available in a separate room at our plant. We can measure all surfaces in 3D. The results of measuring are presented in inspection reports.

Zeiss Contura

Gom Atos 5



Transportation

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Plastic-Form Ltd has the ability of transporting up to 16 tons.

External services

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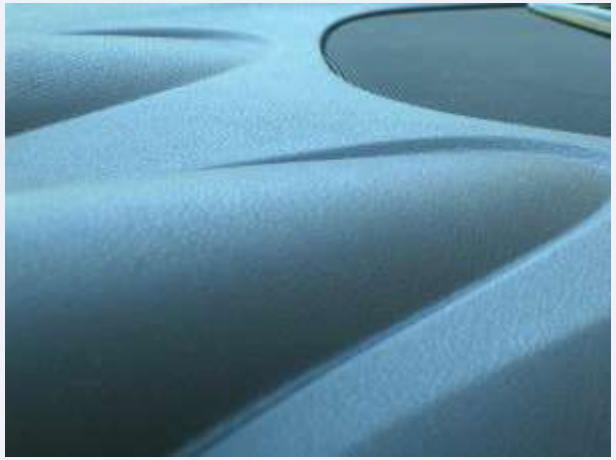
Surface treatment, finishing, texturing

We can offer many kinds of textured surfaces, so the result is a nice and resistant surface on the plastic product.
Texturing procedure is realized with the help of our Hungarian and foreign suppliers.

- Mold-Tech Standex
- Graphotex Kft



Tool trials, short shot production

Tool trials and low volume manufacturing are available at local companies, so we can provide the first plastic samples to the customer.
New, repaired or modified tools can be delivered with some plastic parts, if it is required.
Injection machines are available close to Plastic-Form Ltd, at Tisza Automotive Ltd up to 1200 tons.

References

PLASTIC-FORM

Plastic-Form Ltd has excellent references in toolmaking.

- **Automotive industries**

  Automotive industry products are characterized by sophisticated shapes, large freely-designed and difficult surfaces. Plastic-Form Ltd makes high quality moulds for the suppliers of many famous automotive industries to build injection-moulded, blow-moulded and surface-structured products in passenger cabins and engine cabins of cars.

- **Engineering plastics**

  This is where enhanced accuracy and a long lifetime are essential requirements. Complex surfaces and parts geometries along with technical engineering polymers can be supported.

- **Packaging technology**

  Plastic-Form Ltd has extensive experience in the area of producing tools for thin-wall containers and lids, where short cycle times and long lifetime are general requirements.

- **Household products**

  This is where aesthetic and ergonomic requirements have an increased importance.

  Plastic-Form Ltd can satisfy any demand in creating complicated and divided shapes.

  Plastic-Form Ltd has extensive experience in making of moulds for decorative and structured surfaces even of large sizes.

References in automotive industry

PLASTIC-FORM

Our partners in the automotive industry

- MAGYAR SUZUKI CORPORATION
- AD PLASTIK TISZA LTD
- THERMOPLASTIK s.r.o
- MOTHERSON
- MATE
- SMP
- SMR
- MSSL
- MMDL
- KALOPLASZTIK LTD
- MONO-IPOLYFABRIC LTD
- RÁK ANTENNA LTD
- INTERPLUS LTD
- PEMÜ LTD
- KARSAI PLAST LTD
- VIDEOTON PLASTIC LTD
- KUNPLAST KARSAI LTD
- BOSCH

References in automotive industry

PLASTIC-FORM

The companies below as well as their suppliers have repeatedly used our services for new moulds, modifications and repairs for the production of their plastic parts:

References in automotive industry

PLASTIC-FORM

New moulds for Suzuki

SUZUKI

- **Ignis – 16 moulds**

References in automotive industry

PLASTIC-FORM

New moulds for Suzuki

SUZUKI

- **Swift – 29 moulds**

References in automotive industry

PLASTIC-FORM

New moulds for Suzuki

- **SX 4 – 26 moulds**

References in automotive industry

PLASTIC-FORM

New moulds for Suzuki

- **Splash – 19 moulds**

Mould modifications for the NWA project

- Kaloplasztik
- Tisza Automotive Ltd
- RÁK Antenna Ltd
- Dekorsy Ltd
- Wegu

More than 70 mould modifications.

References in automotive industry

PLASTIC-FORM

New moulds for Suzuki

SUZUKI

- **Splash – 19 moulds**

Box Comp, Luggage Floor for Suzuki Splash

References in automotive industry

PLASTIC-FORM

New moulds for Suzuki

SUZUKI

- **Swift III – 42 moulds**

14 pcs of tools were made for visible interior parts, and other tools for exterior parts.

References in automotive industry

PLASTIC-FORM

New moulds for Suzuki

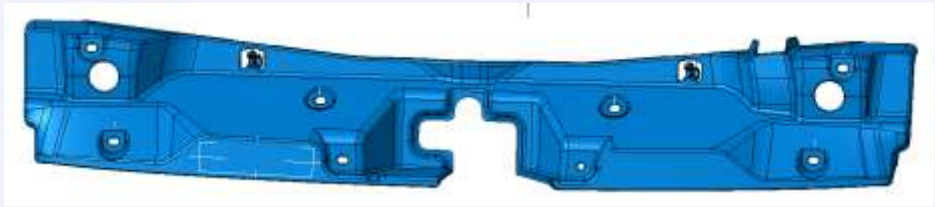
- **SX4 S-CROSS – 50 moulds**

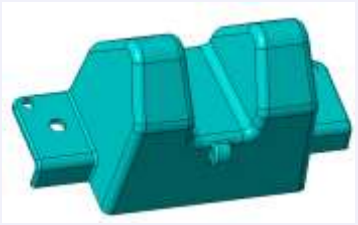
References in automotive industry

PLASTIC-FORM

New moulds for Suzuki

- **SX4 S-CROSS**





References in automotive industry

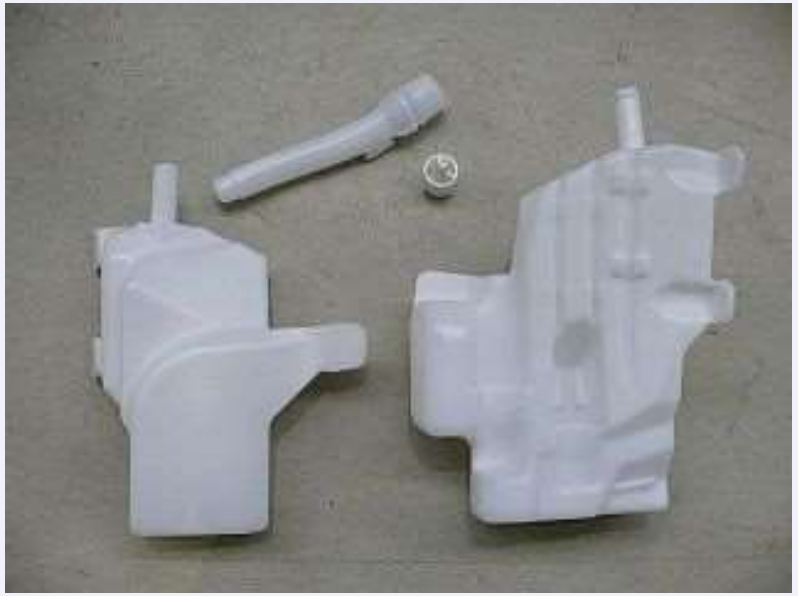
PLASTIC-FORM

New moulds for Opel Zafira

References in automotive industry

PLASTIC-FORM

New moulds for Opel Insignia



References in automotive industry

PLASTIC-FORM

New moulds for Opel Astra OPC 2017

References in automotive industry

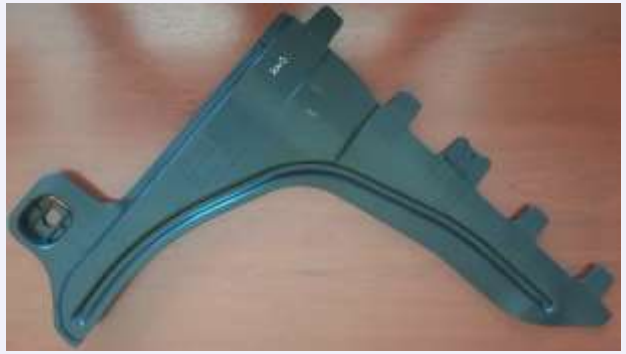
PLASTIC-FORM

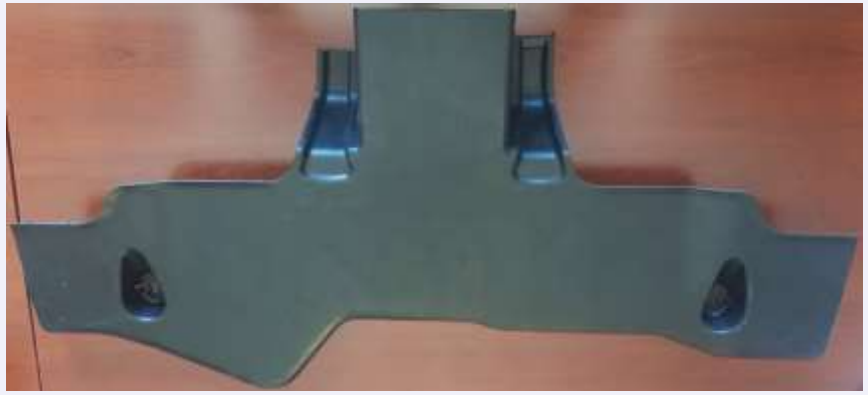
New moulds for VW Tiguan 2017

References in automotive industry

PLASTIC-FORM

New moulds for VW Touareg 2018





References in automotive industry

PLASTIC-FORM

New moulds for Bentley Mulsanne

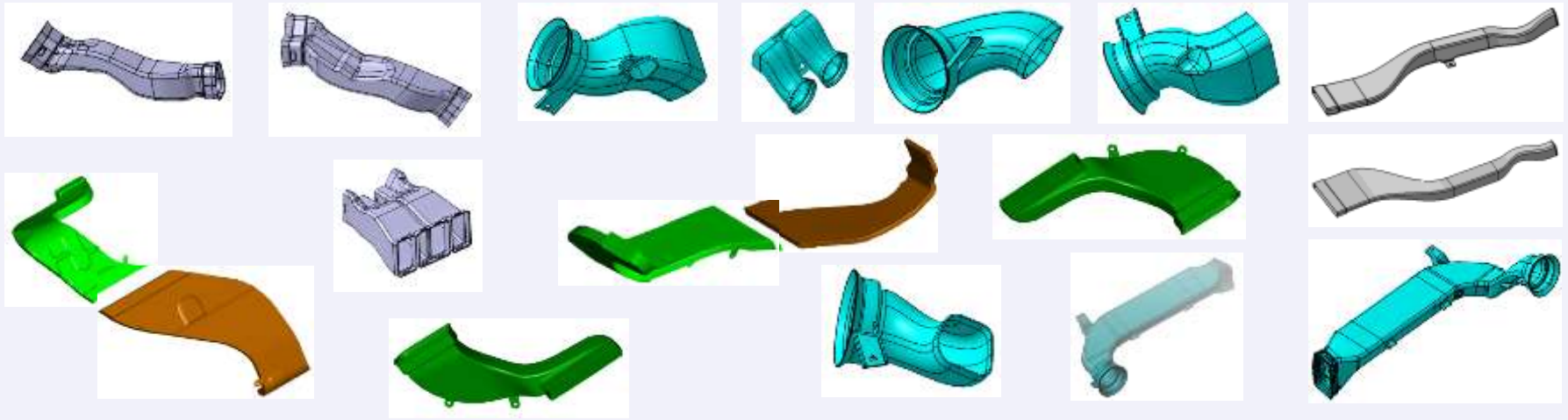
References in automotive industry

PLASTIC-FORM

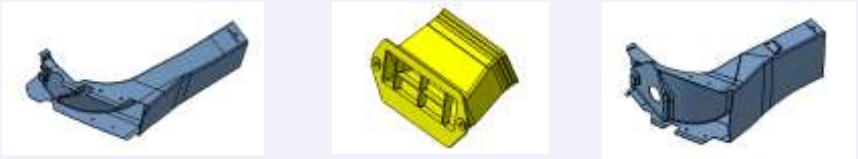
New moulds for Bentley Mulsanne

Projects:

- HVAC Ducts (14 blowing moulds)



- Brake Cooling Ducts (3 injection moulds)



- Cold air pick up lower & upper RH / LH (2 injection moulds)

References in automotive industry

PLASTIC-FORM

New moulds for Bentley Continental GT

BENTLEY

References in automotive industry

PLASTIC-FORM

New moulds for Bentley Continental GT 2018

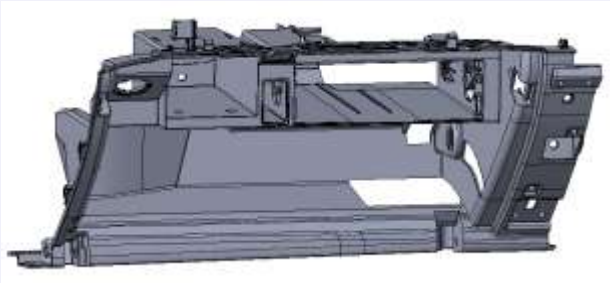
BENTLEY

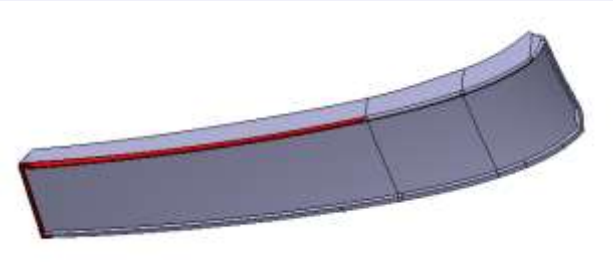
References in automotive industry

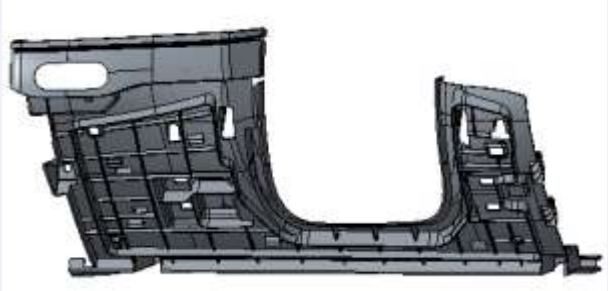
PLASTIC-FORM

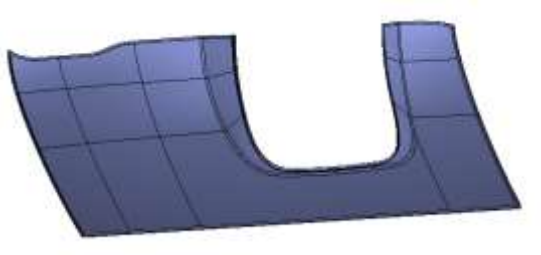
New moulds for Bentley Continental GT 2018

Glovebox and Kneeroll parts









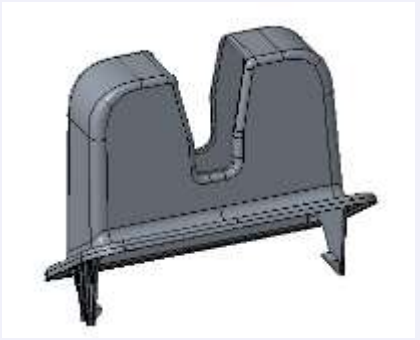
References in automotive industry

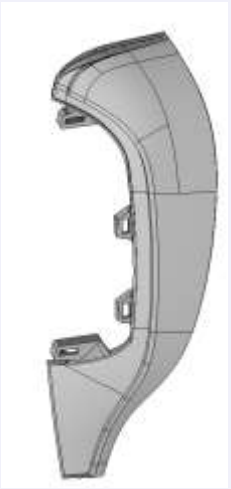
PLASTIC-FORM

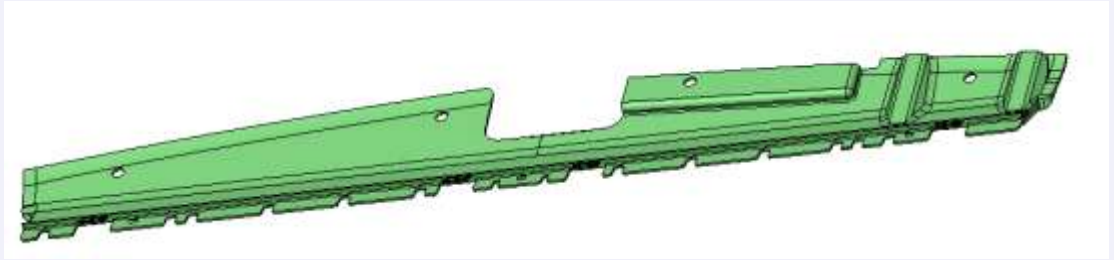
New moulds for Bentley Continental GT 2018

BENTLEY









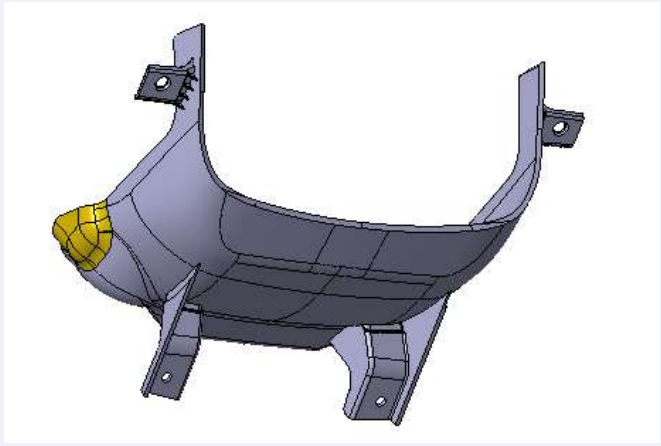
References in automotive industry

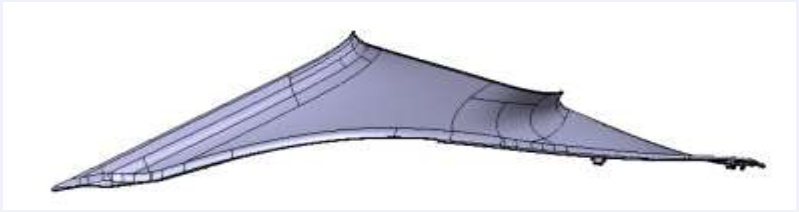
PLASTIC-FORM

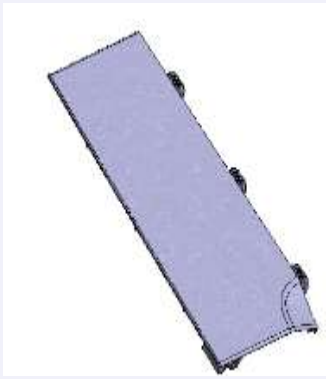
New moulds for Bentley Continental GT 2018

BENTLEY

Pillars





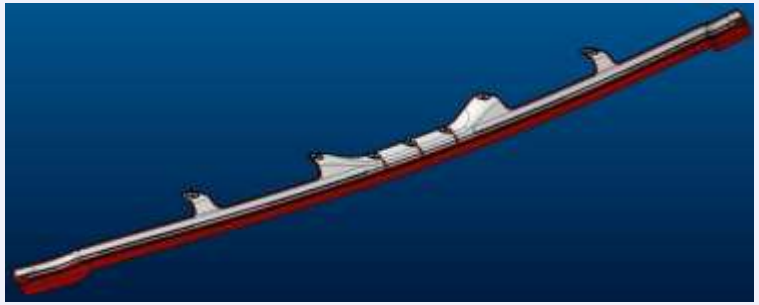


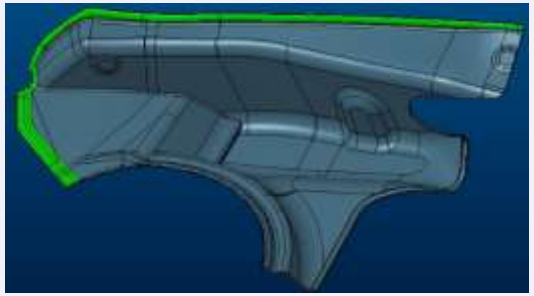
References in automotive industry

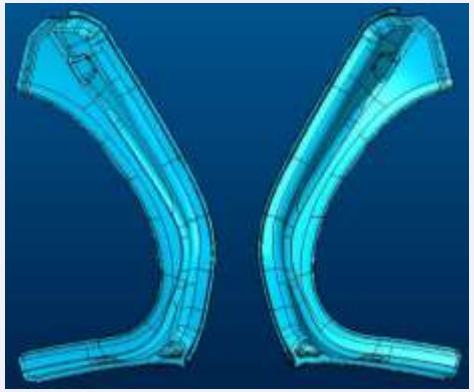
PLASTIC-FORM

New moulds for Bentley Continental GT 2018:

Drain channel and gap hider components



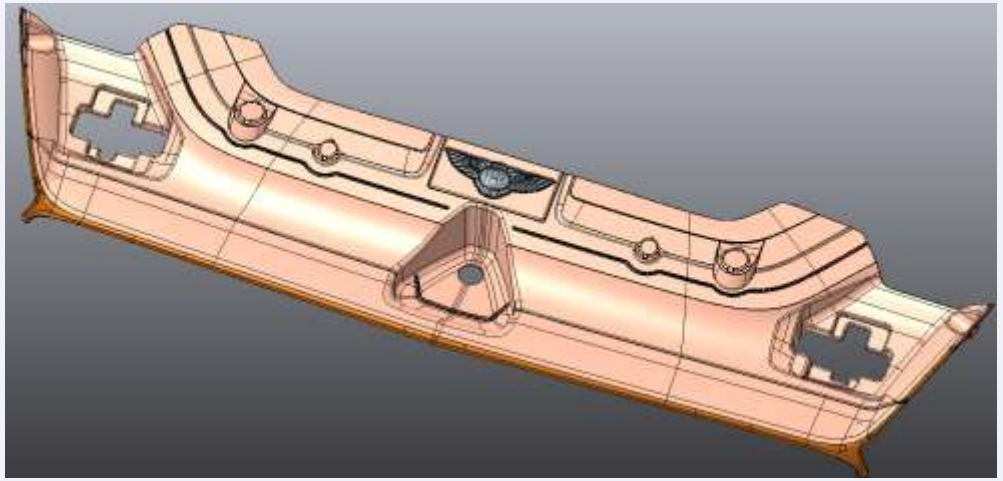




References in automotive industry

PLASTIC-FORM

New moulds for Bentley Continental GT 2018



References in automotive industry

PLASTIC-FORM

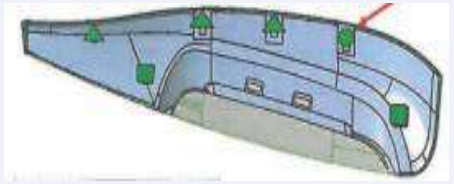
New moulds for Bentley BY736 SUV

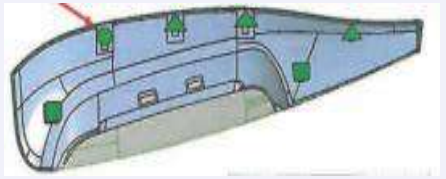
References in automotive industry

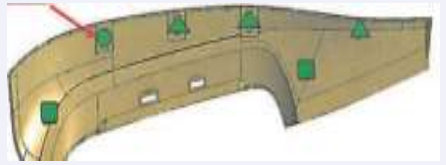
PLASTIC-FORM

New moulds for Bentley BY736 SUV

BENTLEY



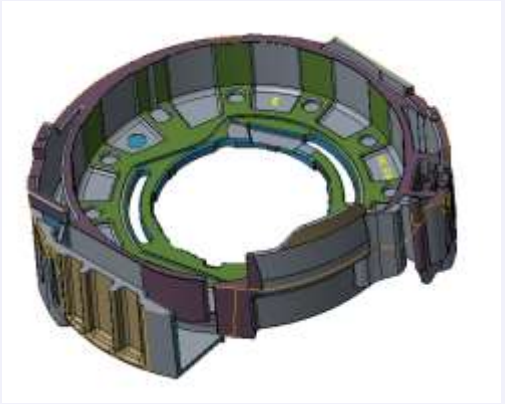




References in automotive industry

PLASTIC-FORM

New moulds for BMW 7



References in automotive industry

PLASTIC-FORM

New mould for Mercedes

Mercedes-Benz

Child lock button
Two-component plastic part, injected on a rotary table machine.

References in automotive industry

PLASTIC-FORM

New moulds for Mercedes BR 238 (Mercedes S-Class coupe 2018)

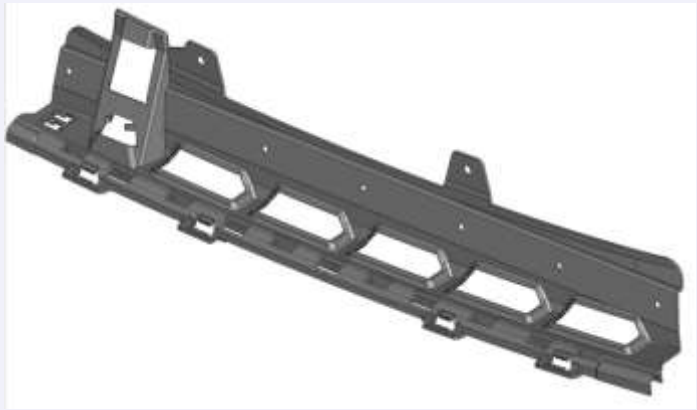
Mercedes-Benz

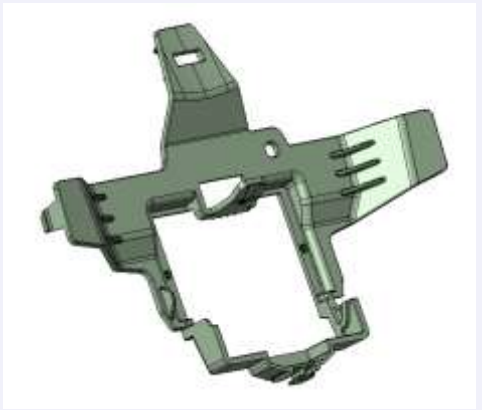
References in automotive industry

PLASTIC-FORM

New moulds for Mercedes CX118 CLA

Mercedes-Benz





References in automotive industry

PLASTIC-FORM

New moulds for Mercedes CX118 AMG

Mercedes-Benz

References in automotive industry

PLASTIC-FORM

New moulds for Audi RS3

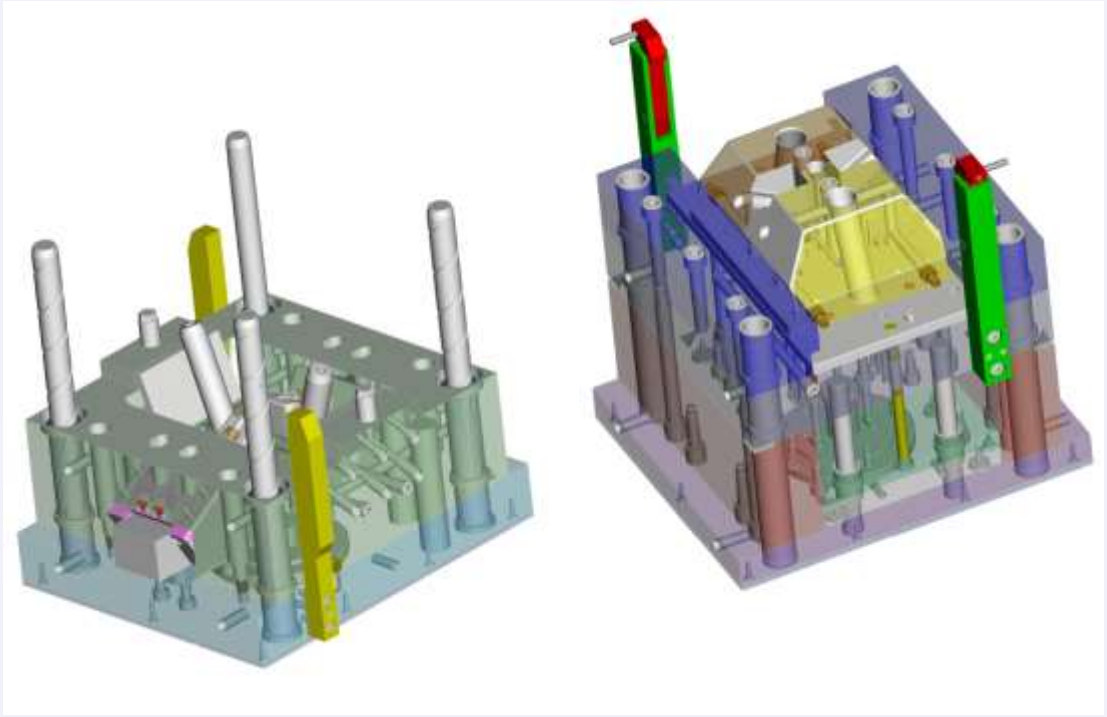
References in automotive industry

PLASTIC-FORM

New moulds for Audi E-Tron: Premium and standard Subbox

References in automotive industry

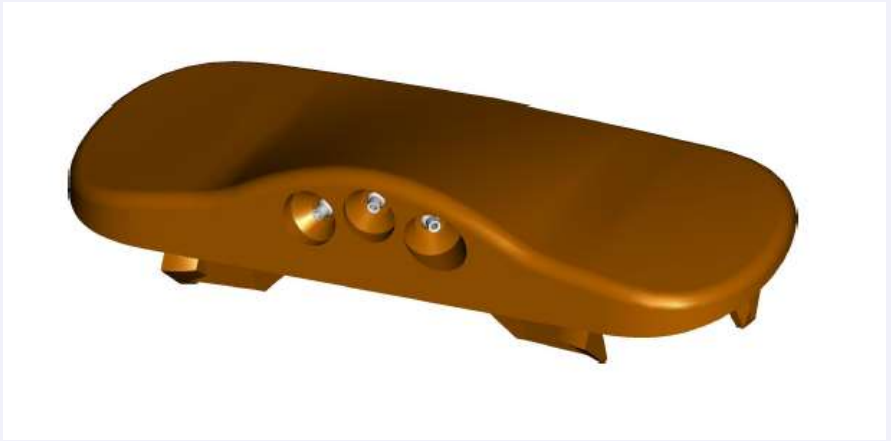
PLASTIC-FORM

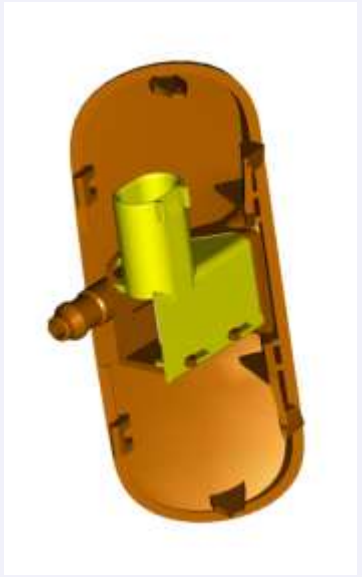


Night vision camera washer for Interplus Ltd

References in automotive industry

PLASTIC-FORM





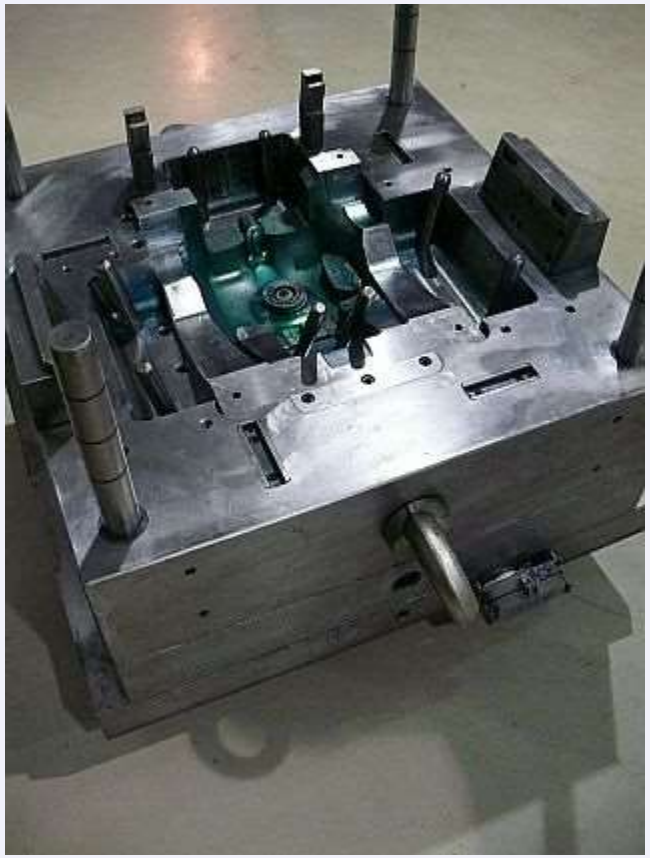
Audi Heated Nozzle for Interplus Ltd

References in engineering plastics

PLASTIC-FORM

Our partners in the engineering plastics

- PACCOR
- BOSCH
- NILFISK-ADVANCE
- POLIPACK LTD
- STAR-PLUS LTD



References in engineering plastics

PLASTIC-FORM

High pressure cleaning machine

Product development with Nilfisk-Alto in the Neptune 2 project.

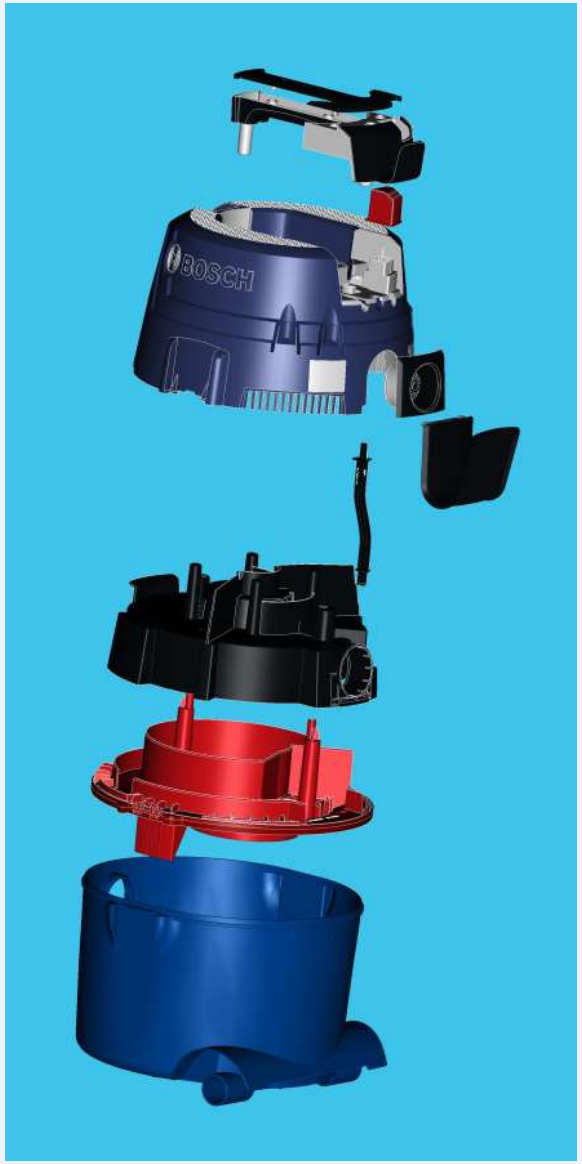
Nilfisk – E-box

References in engineering plastics

PLASTIC-FORM

Vacuum cleaner

Product development and making of new injection moulding tools in Nilfisk-Advance’s GAS15 project.



References in engineering plastics

PLASTIC-FORM

Case of drilling machine

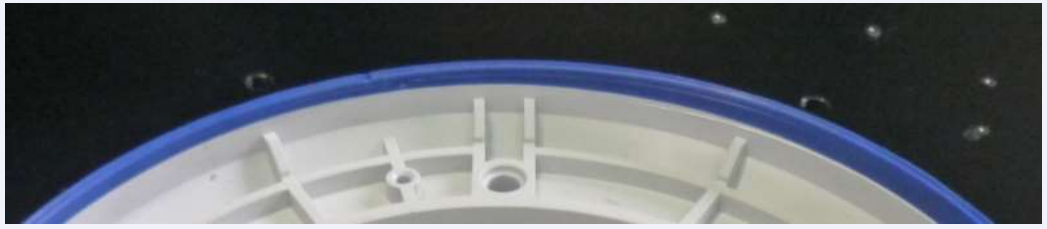
Product development and making of new injection moulding tool for the drill BOSCH PSR 10.8 Li.

References in engineering plastics

PLASTIC-FORM

Two-component plastic parts

Producing a single plastic part in two steps, using two injection moulding tools.



References in engineering plastics

PLASTIC-FORM

Nespresso coffee maker machine

New moulds of outside covers and cable covers.

References in packaging technology

PLASTIC-FORM

Our partners in the packaging technology:

- PANNONPLAST GROUP
- UNILEVER HUNGARY LTD
- MALMARKS INTERNATIONAL AB

References in packaging technology

PLASTIC-FORM

Blow moulding tools for petrol-cans.
Customer: Malmarks International Ab

References in household products

PLASTIC-FORM

Our partners in the household products:

- IL-PE LTD
- STAR-PLUS LTD
- POLIPACK LTD
- KETER HUNGARY Ltd. (formerly known as Curver Magyarország Ltd.)

Other references

PLASTIC-FORM

Repairing, modifying and maintaining of injection and blowing moulds

Other references

PLASTIC-FORM

Repairing, modifying and maintaining of injection and blowing moulds

Burr removing from lining moulds on the full circuit
at Karsai Plast Ltd

Other references

PLASTIC-FORM

Customer’s acknowledgement of our excellent support

Geographical position

PLASTIC-FORM

PLASTIC-FORM LTD GPS: N 47° 30’ 28.93” & E 21° 40’ 4.02”

Contact

PLASTIC-FORM

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+36-52 / 535-013

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Introduction of ARAGO TOOLS Ltd.

PLASTIC-FORM
ARAGO
TOOLS

ARAGO
TOOLS

Introduction of ARAGO TOOLS Ltd.

Employees

Management		
	Managing director	1
Managing assistant		
	Managing assistant	1
	Financial assistant	1
Manufacturing		
	Toolshop leader	1
	CNC milling	3
	Conventional milling	
	EDM	1
	Mouldmaking	1
	Grinding	1
	Turning	1
	Freighting	1
	Plant service	1
	Injection moulding plant	9
Total		**22**

Introduction of ARAGO TOOLS Ltd.

PLASTIC-FORM
ARAGO
TOOLS

Machines

Machine	Type	Year	Dimensions and technical information
DMG Lasertec 40	Sauer DMG	2010	Laser range: 400x300 mm, focus distance: 50 mm.
Lasertec 40	Sauer DMG	2010	400x300x500
Deckel Maho	DMU 50e Volution	2005	500x380x380, RPM 18.000/min
Deckel Maho	DMC 70V HI-DYN CNC	2001	700x550x500, RPM 16.000/min
MAS 1000	MCV 1000	1999	1000x610x720, RPM 6.000/min
Deckel Maho	DMC 105 Vlinear	2008	800x1100x560 mm, RPM 28.000/min
Deckel Maho	DMU75 monoblock	2013	750x650x560, RPM 18.000/min
Speed Hawk 550	Ingersoll	2013	550x400x400
Eagle 400	Powertec Ingersoll	2013	520x400x450
Eagle 400	Powertec Ingersoll	2013	520x400x450
Gantry 400	OPS Ingersoll	2005	420x300x400
Castek	HUBER MD 20 CE	2000	200x160x260
Sodick	AQ750LH LQ33W	2006	1050x750x600 mm
Sodick Premium	AQ327 LP33W	2008	570x420x230
Hitachi 355	MARK-10W	2002	500x350x300mm
Jung	Vario-D	2010	600x260
ELB grinding machine	ELB3-03-055	1990	340x650x400
Proth grinding machine	PSGS-3060BH	2008	340x650x400
Majevica grinding machine	Majevica BM-612	2007	1400x800
Alpha Laser	Laser 150W	2005	600x660, bearing capacity 160 kg
DMG ecoLine Gildemeister	CTX 310 eco	2008	D330x450, amount of driven tools: 6
Derby	Etalon 454	2002	457x508x406
Erowa CMM		2013	
Quantum	B40 GSP	2004	560x560x780
Optimum TU 2004 V lathe	TU 2004 V	2020	100x300x200

Injection moulding capabilities at ARAGO TOOLS Ltd

It’s possible to organise tool trials and produce plastic parts up to 450 tons of clamping force.
The machines are located on our site in Szigetszentmiklós.

Injection moulding capabilities at ARAGO TOOLS Ltd

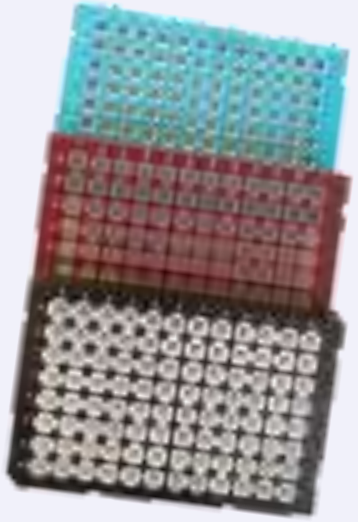
We have 4 type of Fanuc machine:

- 2019 S100-iA, electronic – 125 tons
- 2019 S130-iA; electronic – 130 tons
- 2020 S100-iA; electronic – 100 tons
- 2022 S450-iA; electronic – 450 tons

Injection moulding capabilities at ARAGO TOOLS Ltd

PLASTIC-FORM
ARAGO
TOOLS

References of plastic parts:



THANK YOU FOR YOUR ATTENTION!