





Video

# Our story

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- What we do
- Our divisions
- Our strengths
- Our heritage
- Facts and figures
- References



**What we do**

**Penne, pioneer in **metal forming** and **plastic injection****

**Our industrial expertise:**

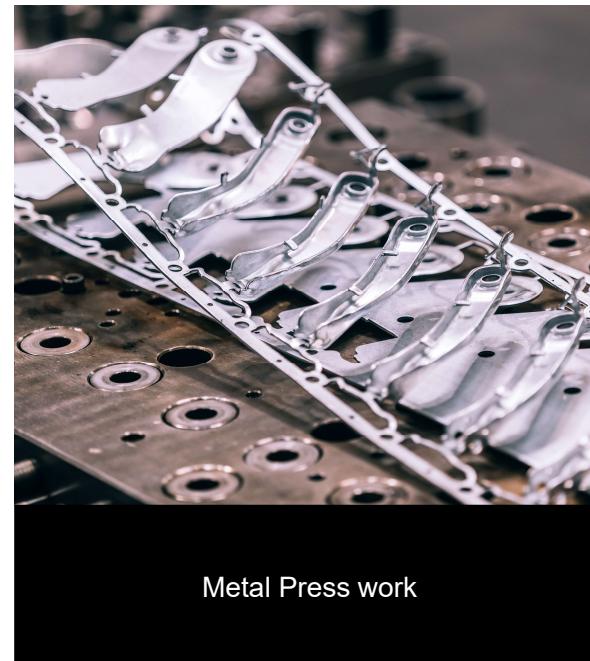
- Automotive
- Construction & industry
- Consumer goods



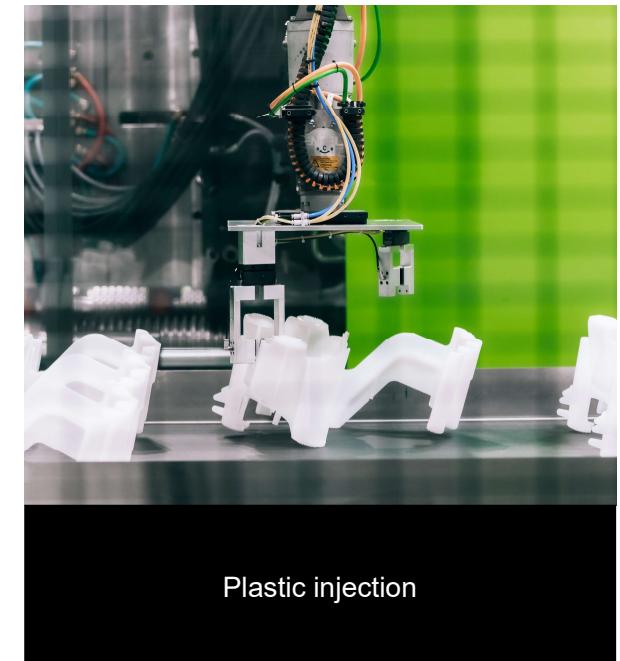
OUR STORY

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## Our divisions



One **integrated process**,  
from design to production



## Our strengths

- Competitiveness through manufacturing of large series with high quality
- **In-house design and manufacture** of stamping tools and molds
- Stamping and injection of the most **complex** parts for **high volumes** and with **exceptional precision**
- Experience as a foundation for innovation and excellence
- **Customization:** no standard dimensions, designs or specifications. **Everything is custom made**



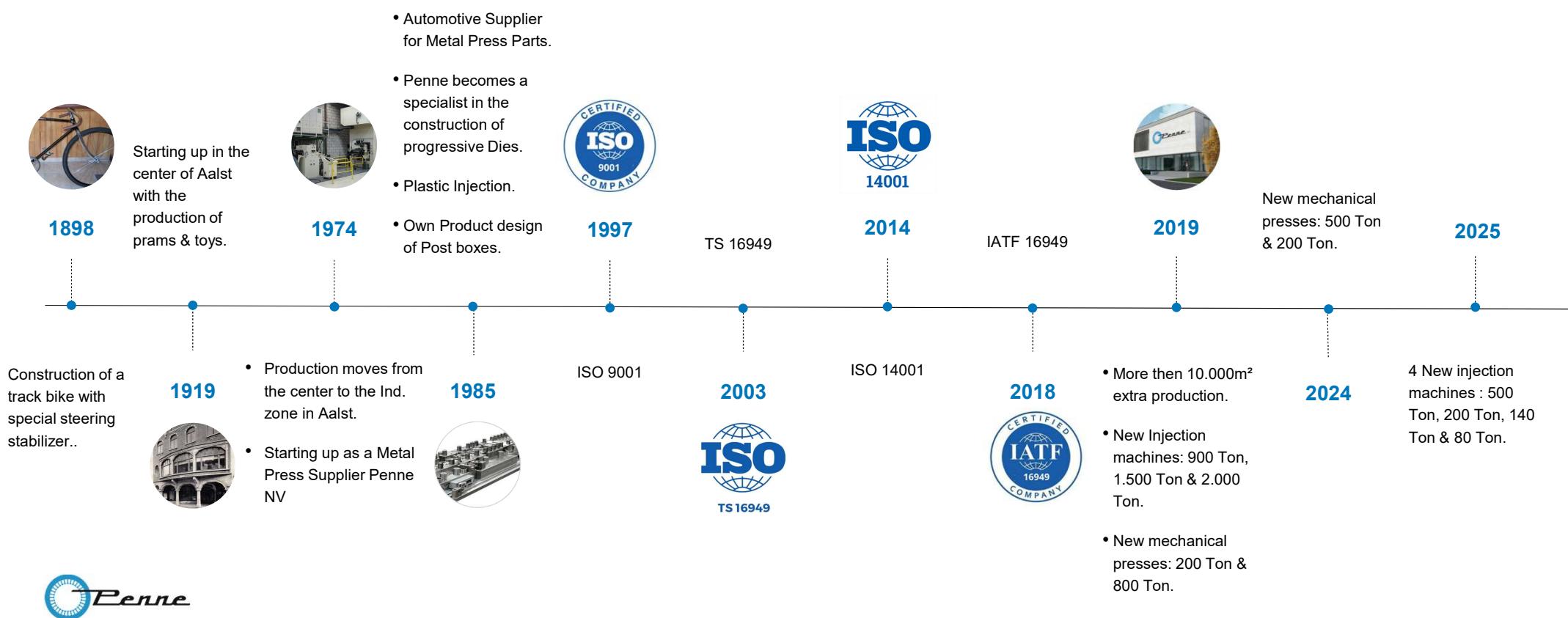
“ Penne, when **perfection** becomes a **guarantee** “



## OUR STORY

### Our heritage

**65+ years experience in  
tool design & manufacturing**



OUR STORY

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Our heritage

**65+ years experience in  
tool design & manufacturing**



The family business has built a reputation for long-term relationships with customers and partners and is known for its commitment and long-term vision in the Belgian market.

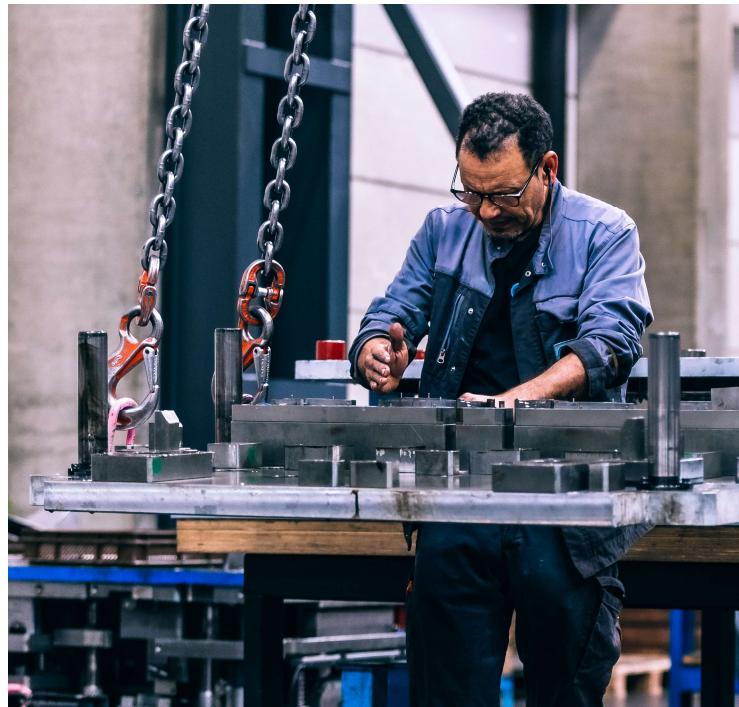


## Facts and figures

**1.4**

External PPM

- Custom parts in high volumes with exceptional precision.
- Through extensive automation and the elimination of additional operations and machining.



**130**

Employees

- Effort, spirit and wellbeing are important, distinguishing factors.
- Collective know-how leads to technological advantage.

## Facts and figures

**45.000m<sup>2</sup>**

Production site

- A true one-stop-shop for metal press work and plastic injection.
- Enhances competitiveness by lowering the total cost of ownership while increasing productivity and accuracy.



**86%**

Overall Equipment  
Effectiveness

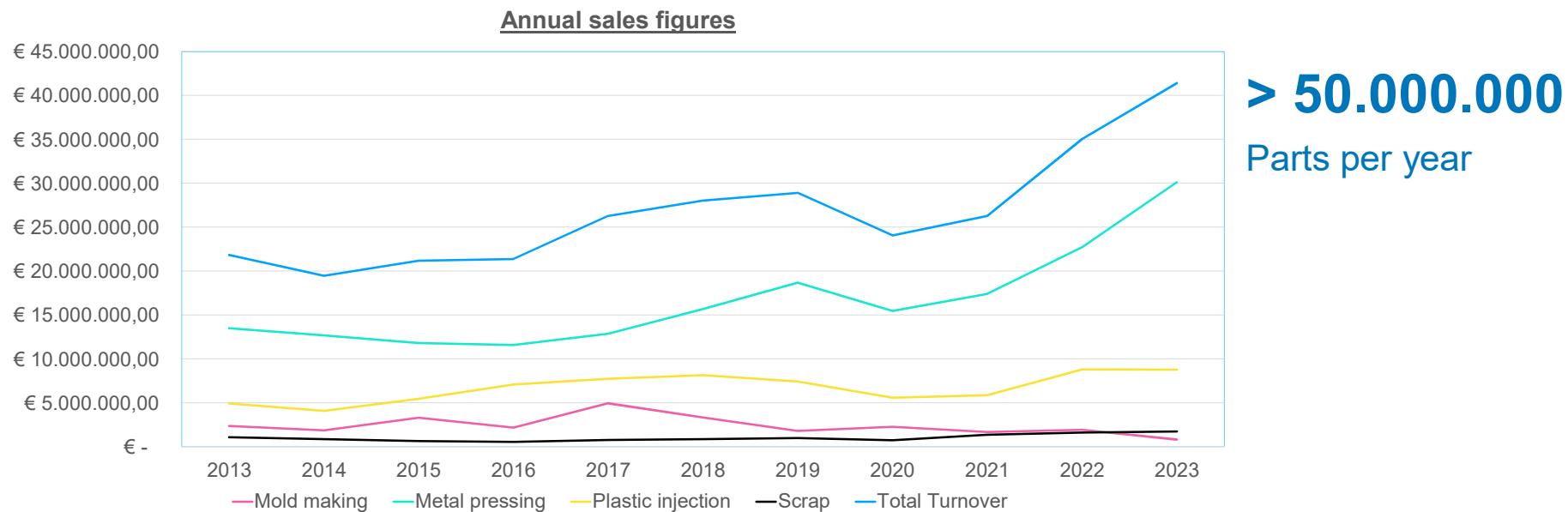
- State of art production facilities.
- Finely calibrated and specialized equipment.

## Facts and figures

**Outlook 2024: Total turnover = ca. 43.000.000 €**

**Outlook 2025: Total turnover = ca. 50.000.000 €**

- Stable growth of our customer's trust



## Facts and figures

### Active in **every** continent

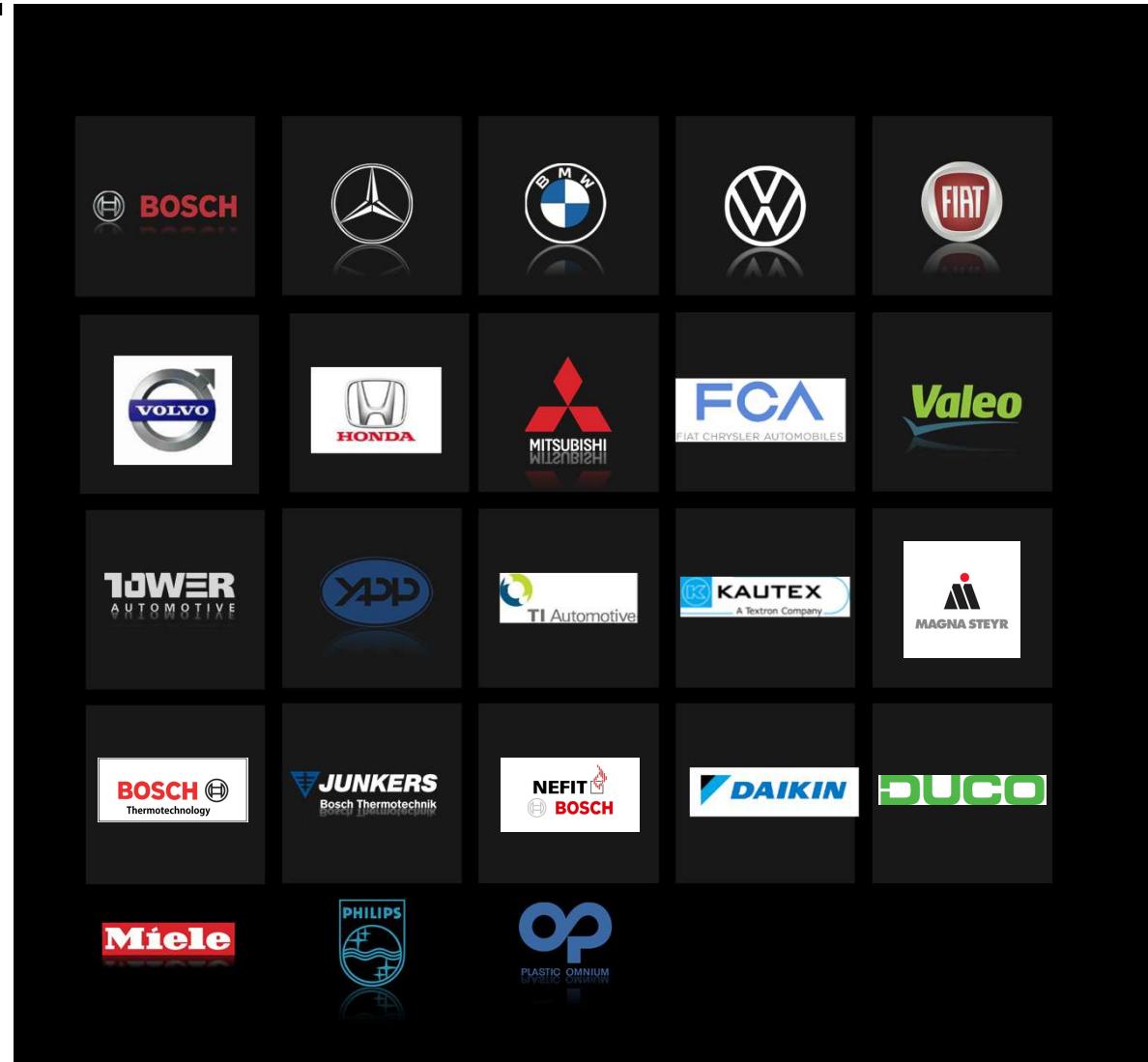
We are a global supplier and have become the trusted partner of a large, international and demanding client base.



## References

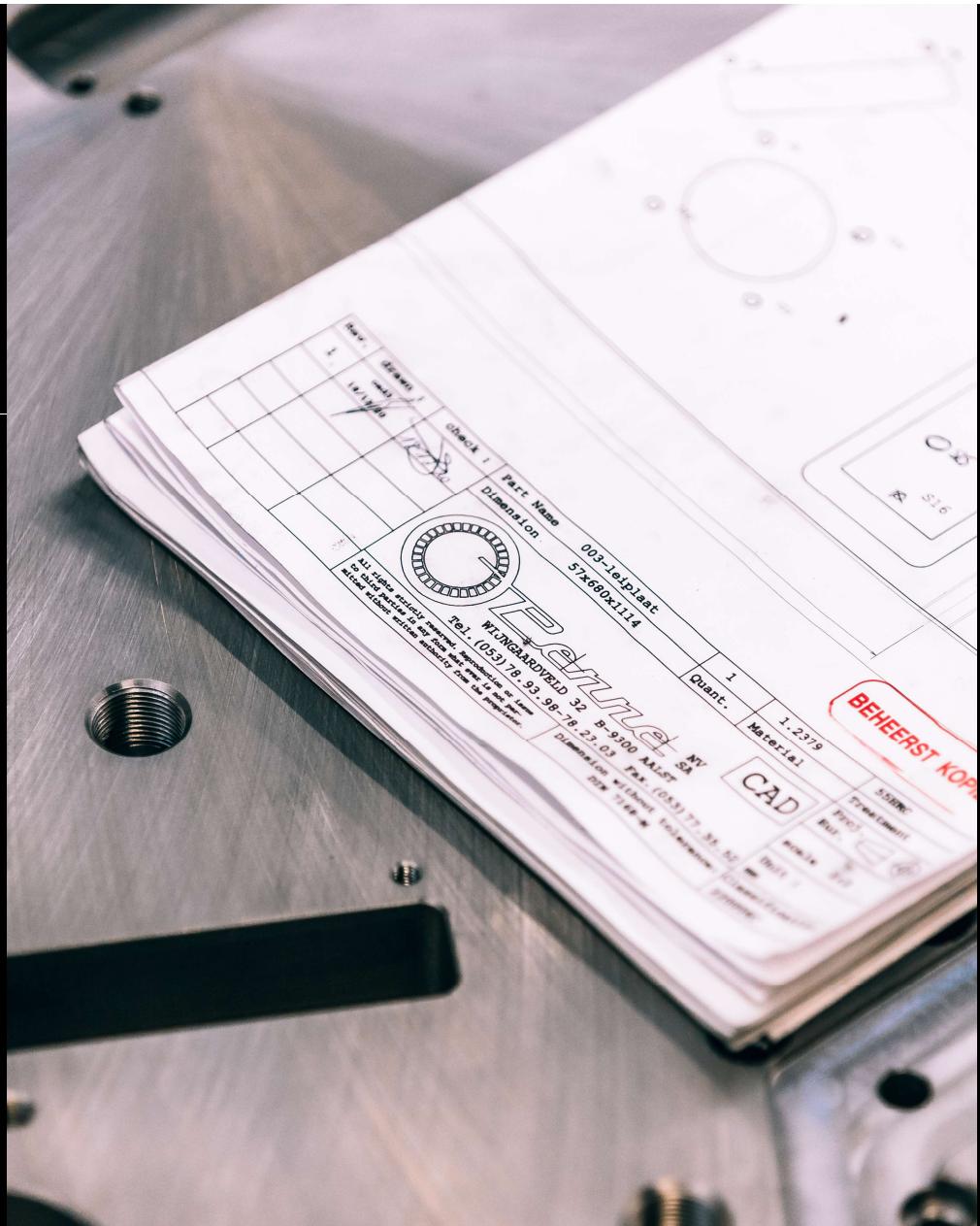
# Clients we're proud to work for

Our client base includes the world's leading automotive manufacturers, alongside with clients in the industry and consumer goods market.



# Design & production of stamping dies

- Designshop: we design your die
- Toolshop: we manufacture your die
- Key takeaways

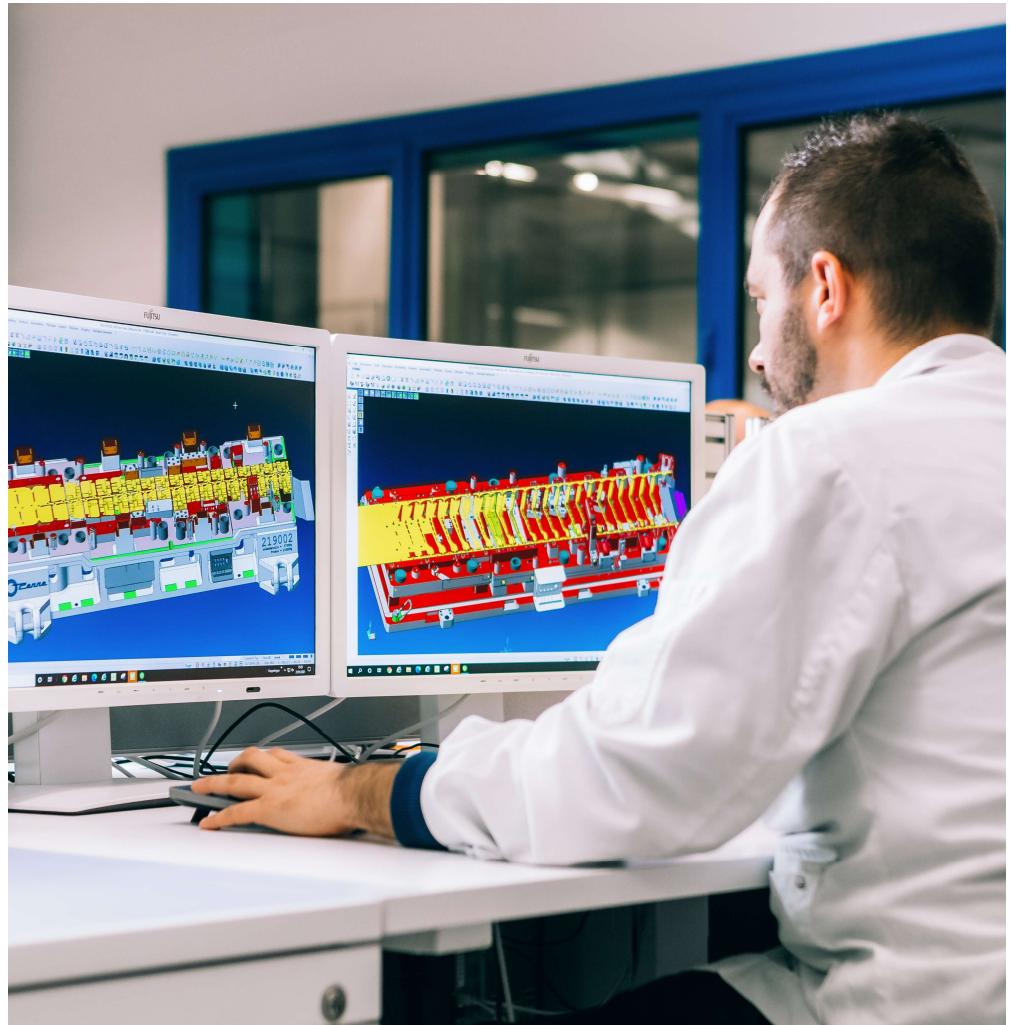


## Designshop

**We design your die**

### How we do it

- In house progressive and transfer tool design
- 65+ years' experience in tool design & manufacturing
- 3D-design with integrated process simulation software

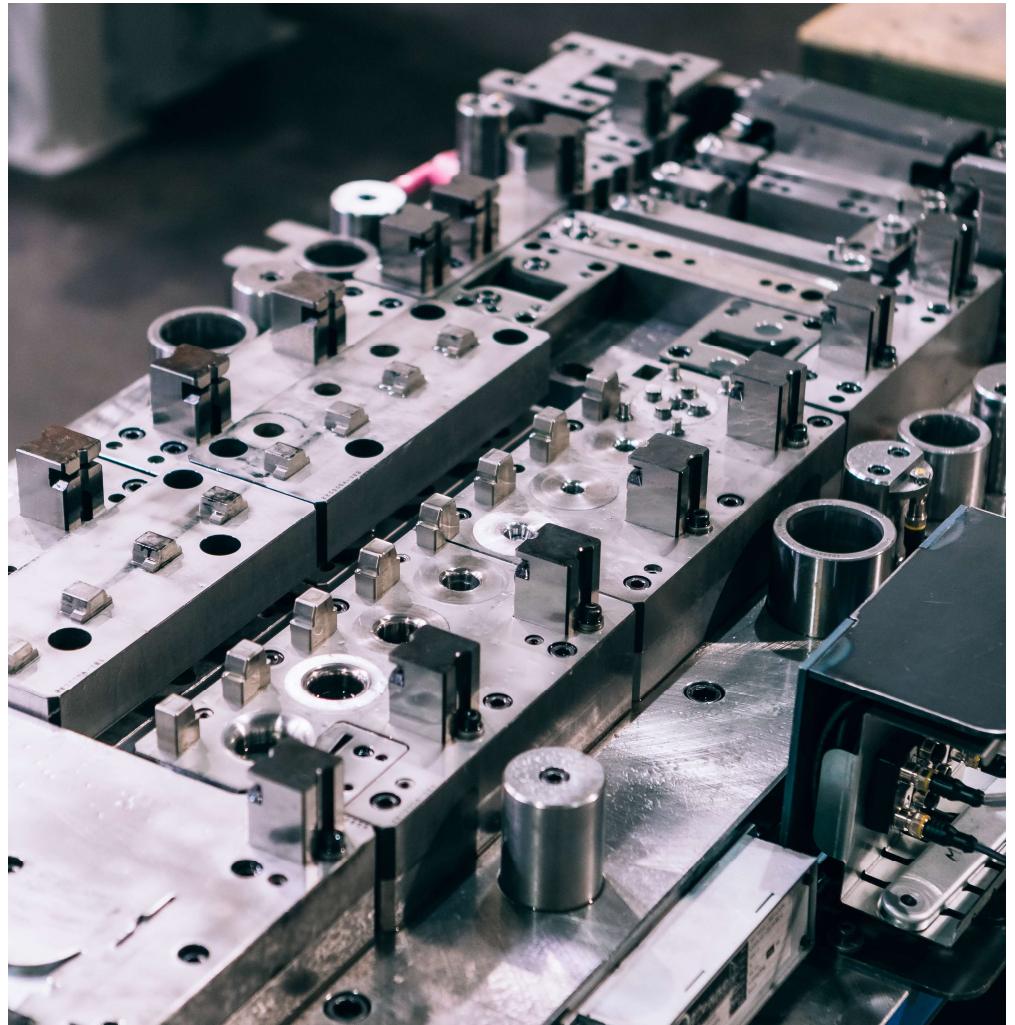


## Toolshop

# We manufacture your die

### How we do it

- High accuracy tool manufacturing
- Integrated in house try-out equipment
- Robotized erosion and milling centers
- Use of tool powder metallurgic, tool steel to ensure high durability



### Key takeaways

## Impression

### Features

- In-house engineering
- 3D-design, simulation and mold flow analyses
- State-to-the-art tooling shop
- 5-axes machining centers, High-precision turning centers
- Wire erosion (Wire EDM), Spark erosion (Die sink EDM)
- High speed milling machines, Profile grinding machines
- High precision tryout presses



# Metal press work

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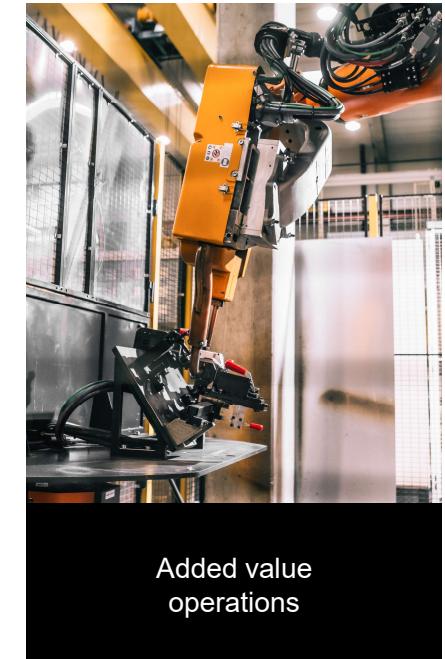
- Services
- Strengths
- Machine park
- Innovation
- Specialized work
- Extra services
- Cases



METAL PRESS WORK

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Services



**Our metal  
press services**

## Strengths

# Our expertise offers great advantages

- In die integrated assemblies
- Metal press work of the highest precision
- State of art production facility
- Progressive and transfer stamping tools
- Up to 800 ton



## METAL PRESS WORK

### Machine park

# State of art machine park and facility

Quantity	Type	L	W	H	Coil Width
1	800 ton AIDA	4.000	800	500 - 1.000	1.200
1	500 ton KAISER	3.000	1.250	300 - 700	1.000
1	500 ton SCHULER	3.000	1.250	300 - 700	1.000
1	400 ton KAISER	2.000	1.250	300 - 700	800
1	400 ton AP&T	3.000	1.100		Precuts
1	315 ton SCHULER	3.000	1.100	350 - 600	800
1	315 ton KAISER	3.000	1.250	310 - 600	800
1	250 ton RASKIN	2.200	1.000	320 - 420	400
1	250 ton RASTER	1.350	1.100	300 - 510	450
1	200 ton KAISER	1.500	1.000	300 - 500	400
3	200 ton SCHULER	1.800	1.100	300 - 600	500
3	160 ton KAISER	1.200	900	325 - 450	400
1	100 ton KAISER	1.000	650	240 - 320	320
1	125 ton RASKIN	1.000	750	245 - 325	-



## METAL PRESS WORK



Innovation

## Example of Process innovation by Penne

### Die casting process

- Requires 4 steps -

1. Aluminium die casting
2. Drilling
3. Assembly of bushing & pin
4. Polishing & cleaning

### Stamping process Penne

- Requires only 1 step! -

1. Completely finished product at a production rate between 25 and 60 pcs. per minute.



### 4 STEP PROCESS



### 1 STEP PROCESS



## METAL PRESS WORK



### Specialized work

## Combi of several **critical processes** in die

- High tollerance requirements
- Integration in the die of :
  - All kind of pins
  - Roller bushings
  - Press nuts in die treading
  - ...
- Critical visual aspect



### Specialized work

## Processing of **Pre-painted sheet metal**

### Advantages

- Substantial cost reduction
- Superior paint quality
- Shorter production times
- Greater flexibility



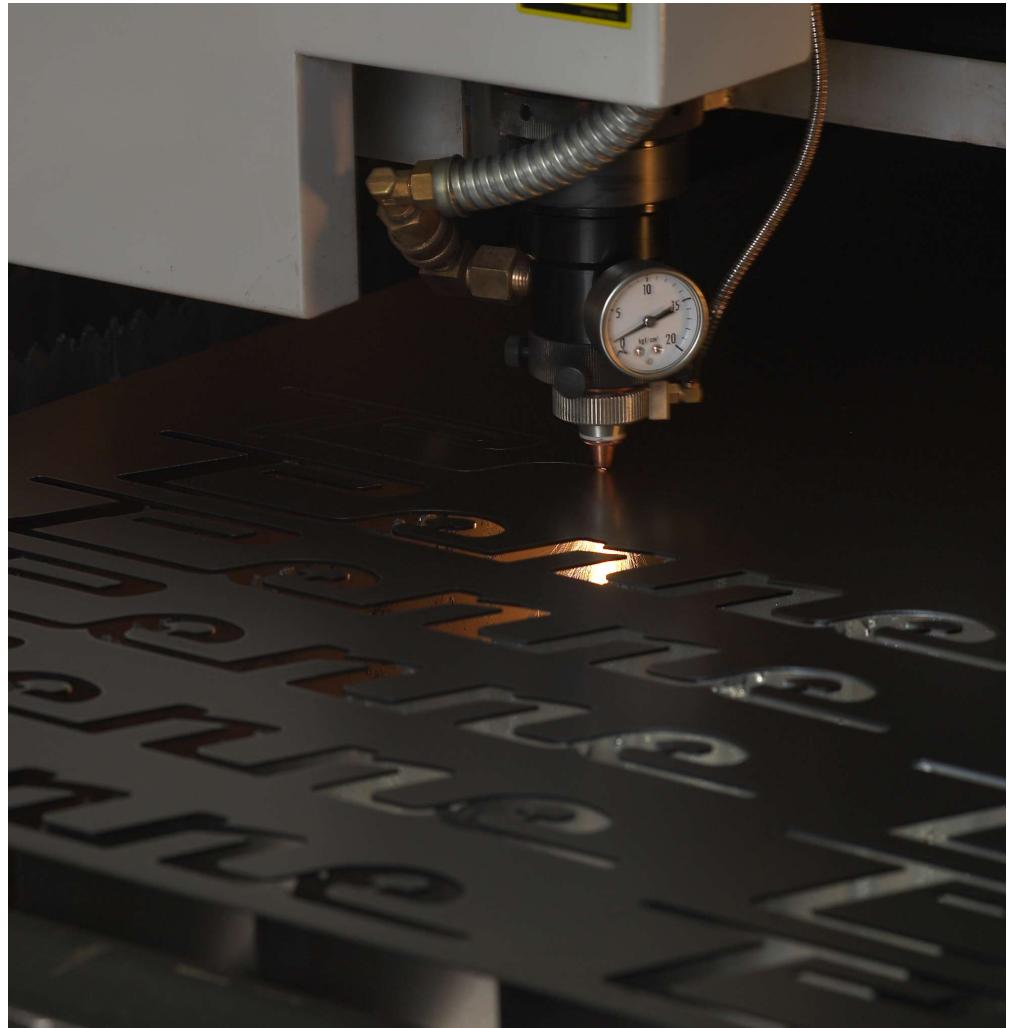
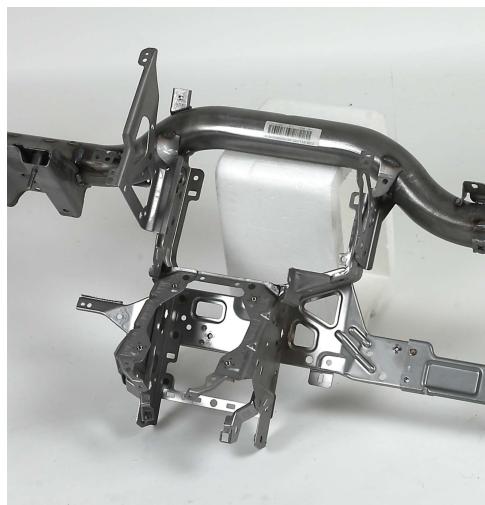
### Extra services

## Penne offers a **wide range** of **additional services**

- Part assembly
- Degreasing
- Deburring
- Spot welding nuts, bolts, stifts, ...
- As a separate operation or integrated in the die
- Welding assemblies
- Clinching operations
- Rivetting
- Screwing
- Powder coating
- KTL coating
- Zn-Ni treatments
- Electro-galvanizing



## METAL PRESS WORK



## Case 1 Automotive

### Wiper Arms

In the past, these components were produced through a time-consuming process: aluminum melting, casting into shape, machining to achieve surface smoothness, drilling holes, placing pins and finishing.



### Our solution

- At Penne, we have developed a process that finishes this part in 1 piece without post-processing.
- The pins are placed in the part automatically.
- Twice as accurate and we can produce up to 60 pieces per minute.



## METAL PRESS WORK

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### Case 1 Automotive

#### Folded fuel tank straps



#### Our solution

- Use of progressive tool that yields a completely finished part with every single stroke of the press.
- Inclusive the assembly of bolts and fixation of brackets  
=> part is ready for painting!



## Case 1 Construction & industry

### 3 mm heatshield

For this project the customer asked Penne to manufacture a heat shield in 3mm stainless steel. Because of the design, our competitors would have chosen to make a progressive die and the holes, that are difficult to reach, would have to be drilled manually.

### Penne's solution

- We start with a progressive die.
- In the middle of the die we switch to a transfer to turn the piece in such a way that the difficult holes can still be reached.
- We end with a washing and drying process so that the pieces would be ready for transport.



## Case 1 Construction & industry

### Partition plate (HVAC)

The customer wanted different variants of 1 part.



### Our solution

- Penne developed a die that could make the variants without the additional cost of changing dies.
- This results in a lower total cost for the customer's project.

METAL PRESS WORK

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**Case 1 Pictures**



METAL PRESS WORK

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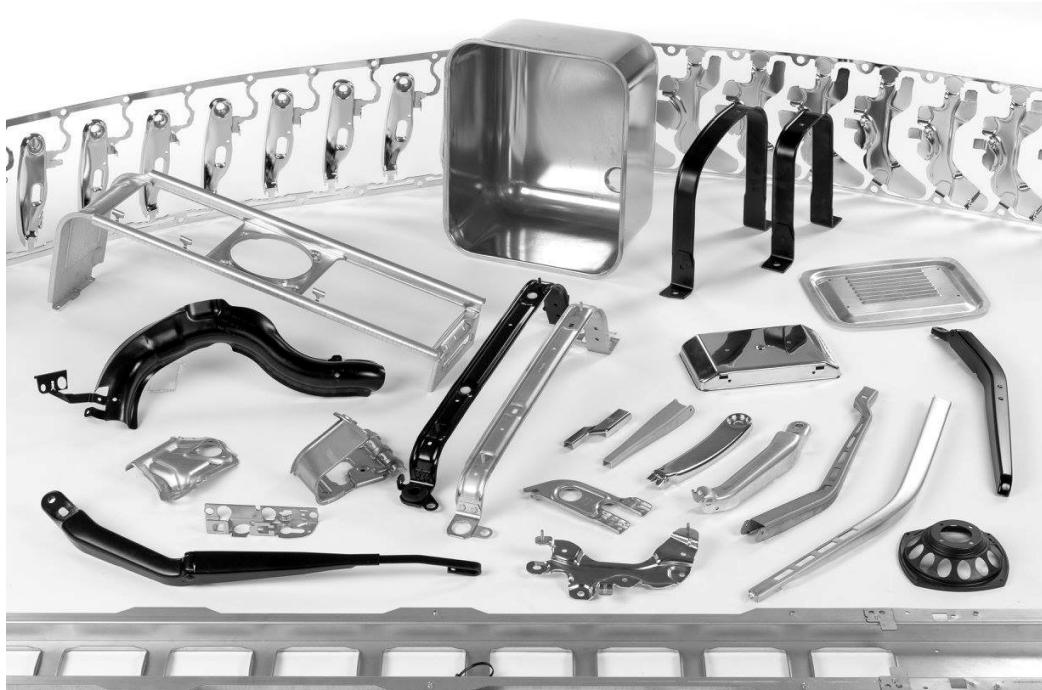
**Case 1 Pictures**



METAL PRESS WORK

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**Case 1 Pictures**



# Plastic injection

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- Services
- Strengths
- Machine park
- Cases



**Services**

## High quality custom plastic parts

- Plastic injection up to 3200 ton
- Manufacturing of small and larger pieces
- Over moulding
- Automotive, HVAC, consumer electronics, construction, ...
- Gasmelt injection
- Foaming
- Glass fiber filled material
- 2k injection
- Subassemblies
- Coatings



## Strengths

# Perfection true innovation

- In house mold design, production and maintenance
- Software supported injection process control
- Mold cycle time optimization
- Lowest cycle times by integrated 3D-cooling
- Experienced in processing a wide range of technical and reinforced plastics



## PLASTIC INJECTION

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### Machine park

# State of art injection plant

Quantity	Type	Ton
1	Engel Victory 210 / 80	80 T
1	Engel Victory 320 / 140	140 T
1	Engel ES 700 / 200	200 T
1	Engel Victory 1060 / 200	200 T
1	Engel 3550 / 400	400 T
1	Engel Duo 2460 / 500 WP	500 T
1	Engel Duo 5550 / 650	650 T
2	Engel ES 7050 / 900 K-ST	900 T
1	Engel ES 7050 / 1100 K-ST	1.100 T
1	Engel DUO 17060 / 1700	1.700 T
1	Engel 18000 / 2000 DK	2.000 T
1	Engel DUO 23050 / 3200	3.200 T



## PLASTIC INJECTION



## Case 1 Automotive

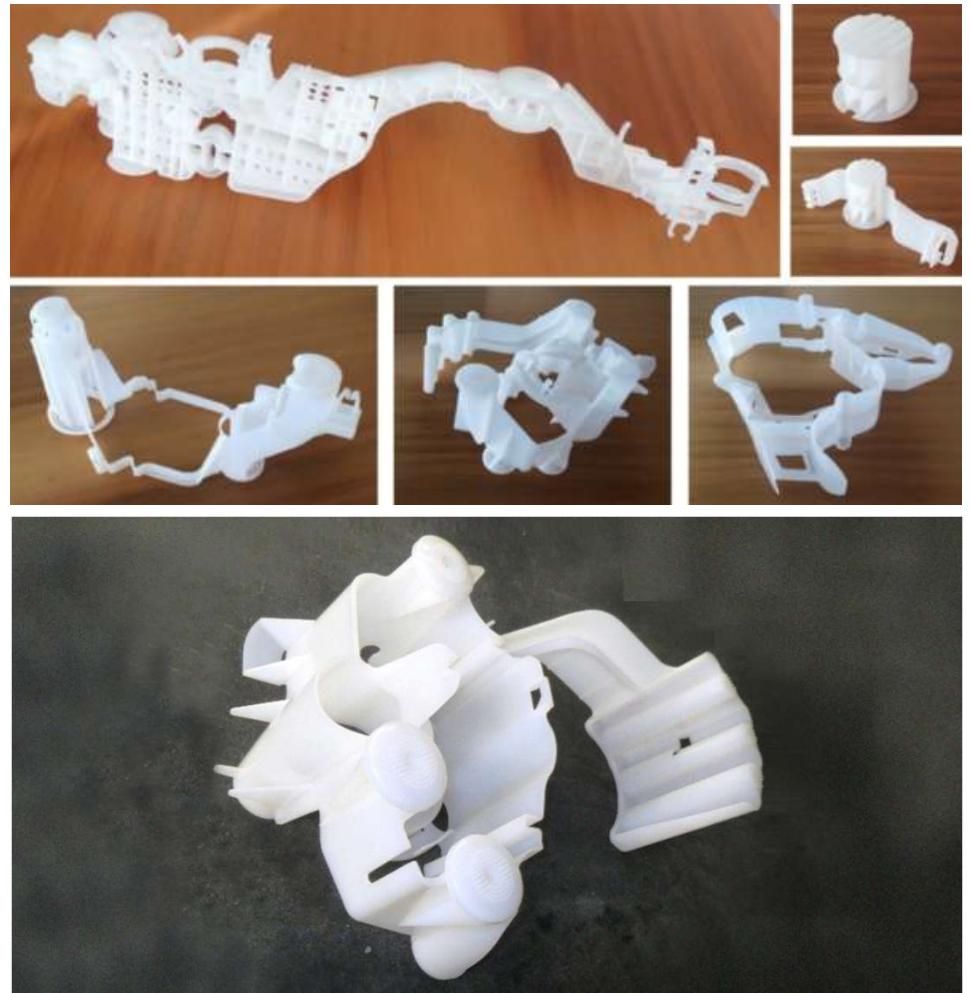
### Fuel tank parts

HDPE is an upgraded blow molding material, known to be difficult to retain its shape after production but with very high strain coefficient.

Those who succeed in using this material always end up with very high cycle times, this costs money.

### Our solution

- We have succeeded in making moulds that can process this material at low cycle times without deforming the finished product after production.



## Case 1 Construction & industry

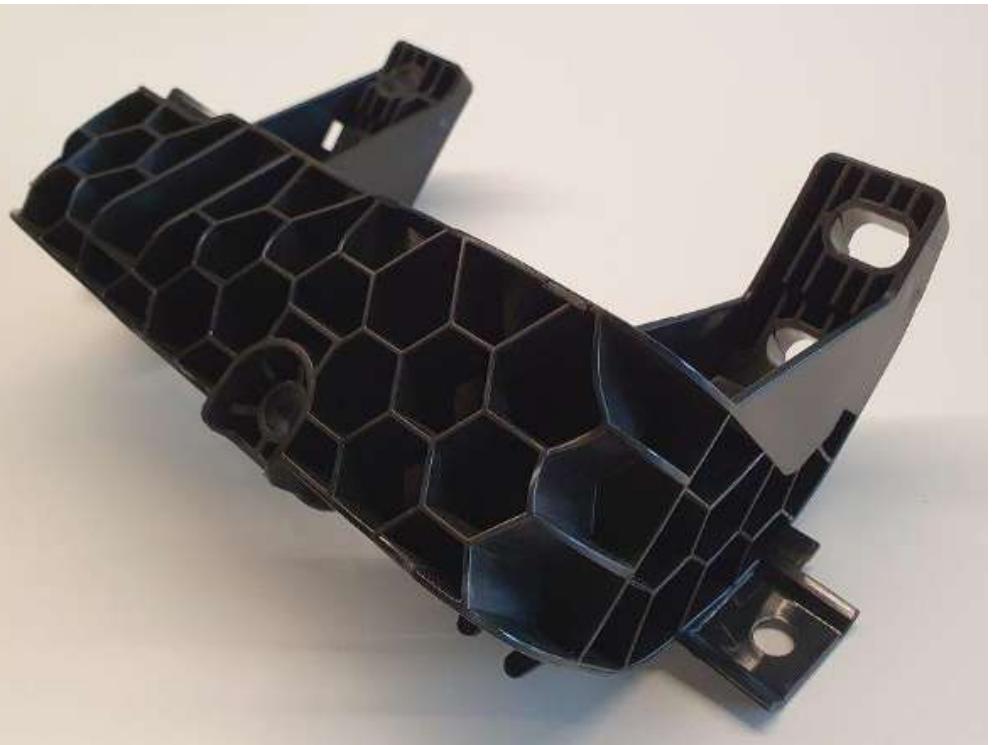
### EFR

This was a very complex die that was produced by a competitor with various difficulties and at a very high cycle time.

The customer came to Penne with the request to take over the production.

### Our solution

- Penne has succeeded in getting the production process under control at a cycle time half as high as the cycle time of the competitor.



## Case 1 Construction & industry

### Propellor (HVAC)

We manufacture propellers for the outdoor units of air-conditioning units.

### Our solution

- We spray a metal part with plastic, to create a propeller in perfect balance.
- Penne produces these parts in various shapes and sizes.



PLASTIC INJECTION

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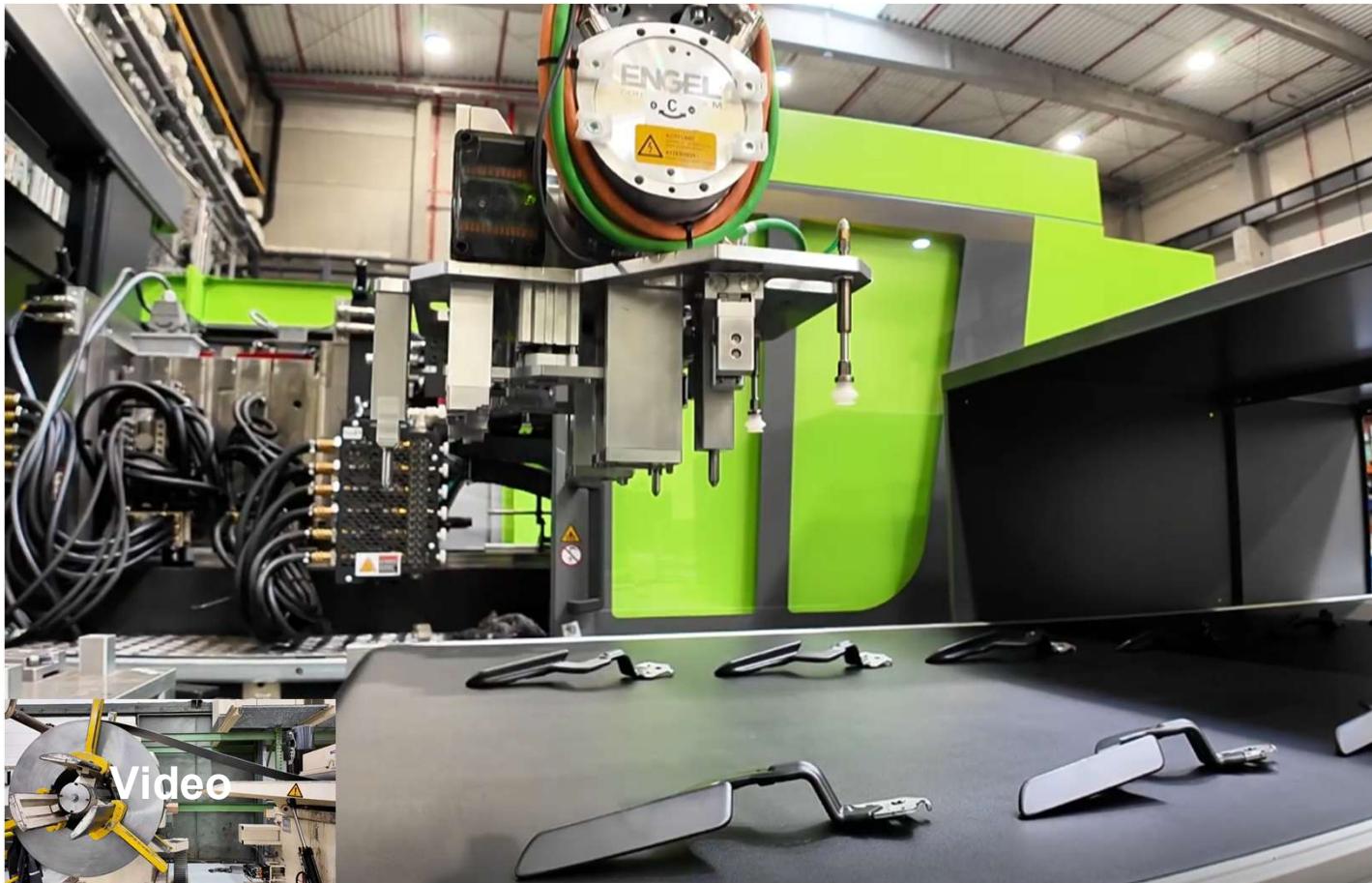
## Case | Impressions



## OVERMOULDING

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### Video overmoulding



OVERMOULDING

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**Case | Automotive**



OVERMOULDING

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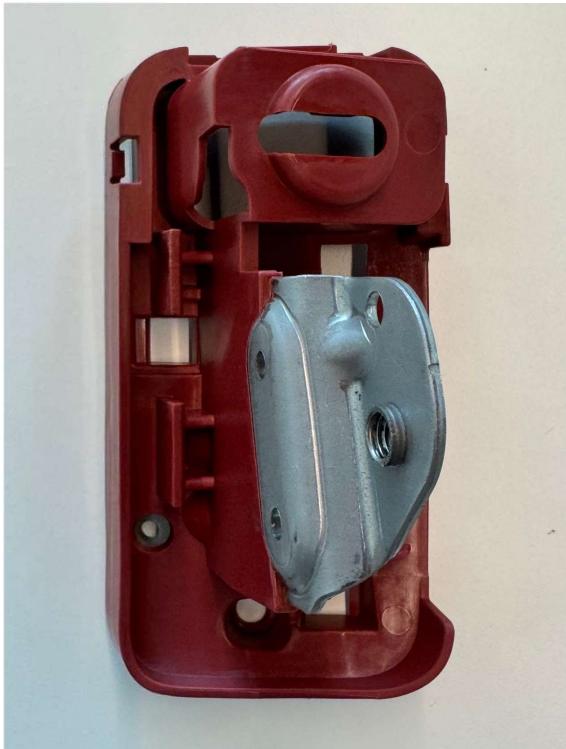
**Case | Automotive**



OVERMOULDING

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**Case | Automotive**



OVERMOULDING

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Case | Automotive



OVERMOULDING

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**Case 1 Automotive**



OVERMOULDING

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**Case 1 HVAC**



# Investing in the future

- Recent CAPEX
- Machines & facility



## Recent CAPEX

# We consistently **innovate** and **invest in the future**

### Last 5 years ...:

- New production area for plastic injection & warehouse
- New administration office
- Mechanical press Schuler 500 ton
- 3 Mechanical presses Schuler 200 ton
- Mechanical press AIDA 800 ton
- Plastic injection machine Engel 500 ton
- Plastic injection machine Engel 200 ton
- Plastic injection machine Engel 140 ton
- Plastic injection machine Engel 80 ton



# Contact us

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**Emiel Penne**

[emiel.penne@penne.be](mailto:emiel.penne@penne.be)

T: +32 53 21 44 19

**Pierre De Galan**  
**Key account Manager**

[pierre.de.galan@penne.be](mailto:pierre.de.galan@penne.be)

T: +32 53 21 44 19

**Rik Vaesen**  
**Sales Manager**

[rik@penne.be](mailto:rik@penne.be)

T: +32 53 21 44 19

M: +32 478 700 461

[www.penne.be](http://www.penne.be)

