



SMALL SERIES
BIG AMBITIONS

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ABOUT KUPRON



Turning ideas into products is what we do. As a specialist in making plastic prototypes and small series, we are at the forefront of new parts. We support our customers' design and development teams by taking the production process of plastic parts completely out of their hands.

Automotive and Non-automotive

■ INNOVATION

As a manufacturer of plastic parts, we already play a role in the far-reaching developments in the automotive industry. Now we're ready to break into other industries. Looking ahead is part of that role.

■ QUALITY

We have a wealth of in-house knowledge in the field of mould design, injection moulding and materials: knowledge we convert into high-quality products.

■ ONE - STOP SHOP

Our design and production processes take place at one location, and we have an open structure for easier communication. This set-up is designed to make our processes more efficient.

■ FAST DELIVERY

To guarantee a fast delivery time, our core business demands efficiency, insight into the process and a great deal of experience. We have a flat organisational structure, in which we can be flexible and dynamic in working with our clients.

■ SUSTAINABILITY

The sustainability of our company is reflected by our many certifications, the solar panels on our roofs, our closed water system, efficient waste management and the overall attitude of our team.



OUR VISION

Is it a bad thing to be ambitious and have a clear goal? For us, the answer is no! **Becoming the best at small series is our new goal!**

After 30 years of designing and developing automotive prototypes, we are adding a focus on small serial tools and the production of parts - automotive and non-automotive. We are happy to produce in quantities that may not interest other serial suppliers.

Prototyping and small series are two different worlds. To prepare ourselves for this new market, we have taken some big steps. What hasn't changed is our desire to be a one-stop shop and remain flexible for our customers.

Do you want to know more about the steps we have taken and what else we can offer? Read on to find out more.



MOLD INNOVATORS

PROTOTYPES

NEW

SMALL SERIES
FOUNDED JUNE
2019



METACO TOOLING
ACQUIRED JUNE
2019

In order to prepare our company for this new challenge we have made some important changes to our organisational structure

■ 1

To find out more about serial tooling and milling materials other than aluminium, Kupron took over all activities from Metaco Tooling - a company with a strong track record in the tooling and milling business.

Metaco Tooling BV has a wealth of knowledge in machining steel, copper, plastics and other materials.

This knowledge is a particularly important addition to our existing expertise in machining.

It will greatly broaden Kupron's horizons. For example, we can now also offer steel (serial) tools!

■ 2

We have founded a new business unit, solely focused on the production of small series. This business unit has been set up and operates in accordance with the automotive APQP process. This process can also be adapted to the production of non-automotive parts.

■ 3

We have created new positions to monitor the small series process and guarantee its quality.

STEP 2 - NEW MACHINERY



We have invested in modern machinery so we can keep producing reliable, high-quality parts. This machinery will expand our capacity and help us get ready to produce small series.



We have recently installed 3 new CNC milling machines, bringing our total number of machines to 17.



Engel 120-ton injection moulding machine with Linear robot

This state-of-the-art machine can be used to produce smaller injection moulded parts and can run fully automated due to its integrated linear robot system. We now have a total of 6 injection moulding machines.



[Download a complete overview of our machines from our website or scan the QR code](#)

WHAT WE CAN OFFER - TOOLING



All of our moulds are designed and produced by our expert in-house tooling department.

Why get in touch with Kupron for your tooling needs?

- In-house tool production, including design, milling and assembly
- Tool dimensions ranging from 250-2500 mm.
- In-house tool and hot runner maintenance and repair
- Weight up to 20 ton

Here's what our tooling department can do for you:

- Aluminium, steel or hybrid tools
- Fully or semi-automated tooling solutions
- All common surface treatments, such as grain and polishing
- Moldflow simulation
- Specific tooling solutions for the production of 100 to 100,000 parts - or even more

Having these processes and expertise in-house enables us to react quickly and work with you to come up with **tailor-made tooling solutions**. We provide the best tooling solution for your needs no matter your **quality demands** or how many units you need.

WHAT WE CAN OFFER - PART PRODUCTION



Our roots are in the plastics industry, so we have a lot of expertise in injection moulding and material technology.

Our injection moulding machines have a clamping force ranging between 120 tons and 2,000 tons, all with different capacities. This enables us to produce virtually any type of injection-moulded product for our customers.

Here's what our parts production team can do for you:

- Process most thermoplastic materials
- Produce products ranging from +/- 15 gr to 7000 gr
- Produce parts using foaming techniques such as MuCell
- Produce hybrid/overmoulded parts

Do you already have a tool and only want us to produce aftermarket parts?

We are happy to help, including tool transfer if needed.

We can also assemble parts for you!

We are happy to produce in quantities that may not interest other serial suppliers.



HIGHLIGHTED PROJECT

PHILIPS MRI SCANNER COVERS



Part info:

- Several parts for a Philips MRI scan device
- Part dimensions: over 2,000 mm
- Weight: 3,600 grams
- Flame-retardant ABS material moulded directly in colour

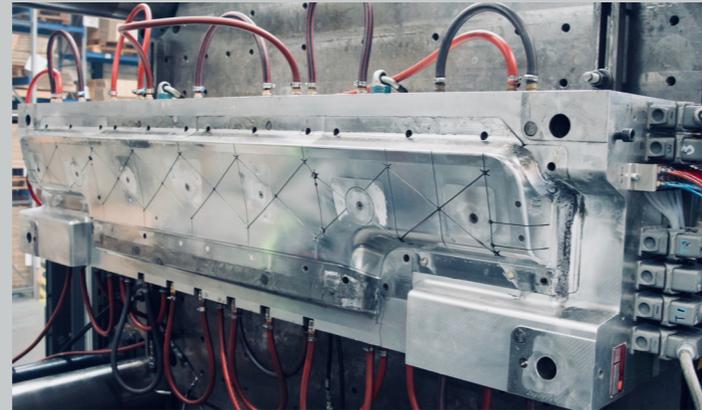
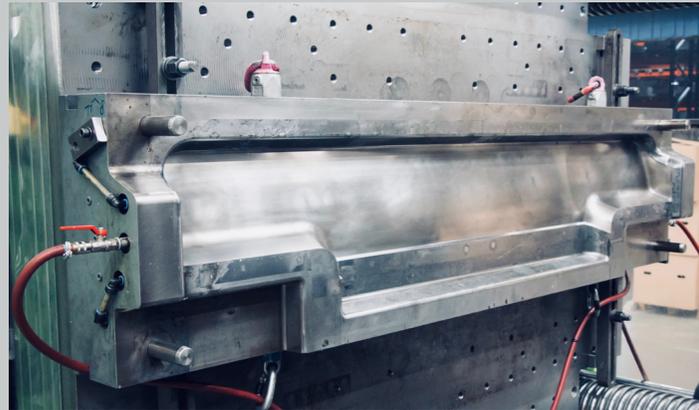
Tool info:

- Hybrid tooling
- More than 15,000 parts produced already
- Injection through the core side with Kupron sequential hot runner system

Material choices tooling:

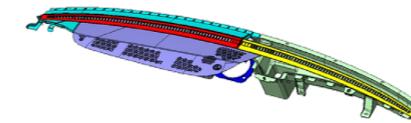
- Core: because we have to work with aluminium in low volumes, it is less expensive, has a better heat conductivity and can be better machined.
- Cavity: we used steel for the cavity side because of the appearance it offers. We needed a particular gloss level.

A good example of tailor-made tooling!



HIGHLIGHTED PROJECT

DAIMLER S-CLASS GUARD



Part info:

- Several parts for adjustment, from an instrument panel basis to guard variants
- Parts dimensions: between 130 mm and 380 mm
- Weight: between 40 grams and 360 grams
- PA6 Glasfiber-filled and PC/SAN-GF10

Tool info:

- Hybrid tooling
- Grained and spark-eroded
- Kupron sequential hot runner system
- 500 pieces a year for five years, excluding spare parts

Material choices tooling:

- Core: full aluminium with steel ejector pins and a steel exchangeable supporting frame.
- Cavity: full aluminium with steel inserts for the visible area of the part. Steel inserts are spark-eroded with a grained finishing.

The leanest solution for such a low volume with the highest possible quality!



HIGHLIGHTED PROJECT

JLR FOG LAMP COVER



Part info:

- Full visible fog lamp cover with high gloss finishing, not painted
- Part dimensions: 348 x 235 x 62 mm
- Weight: 126 grams
- ASA Black

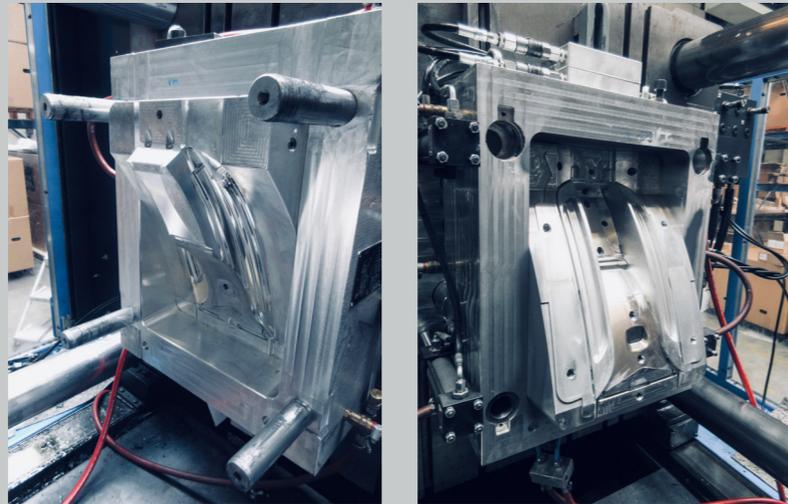
Tool info:

- Full aluminium tool
- High gloss finishing grade #3 Diamond Buff
- Production time of less than four weeks
- 9,000 parts were produced in three weeks to get the production going

Material choices tooling:

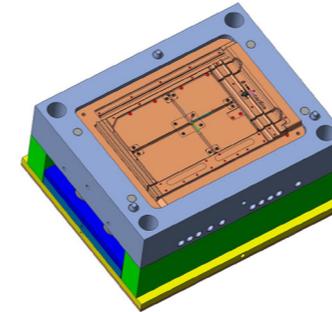
- Core: aluminium 5080
- Cavity: aluminium 7075 is stronger than 5080 and has a less open structure, enabling a better surface quality.

Super-quick tool and part production of high-gloss finished parts!



HIGHLIGHTED PROJECT

SOLAR ROOF TILE CARRIER



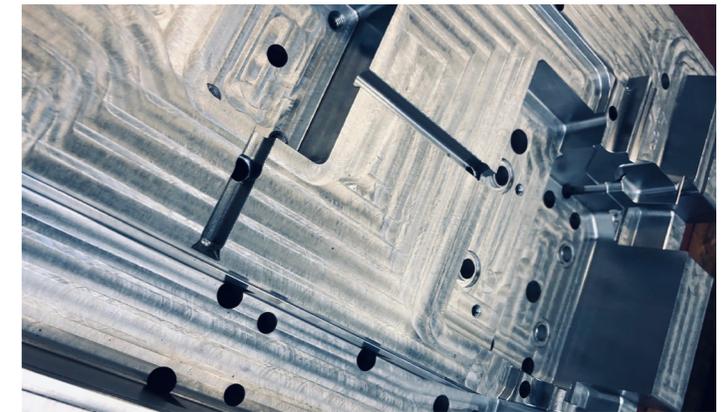
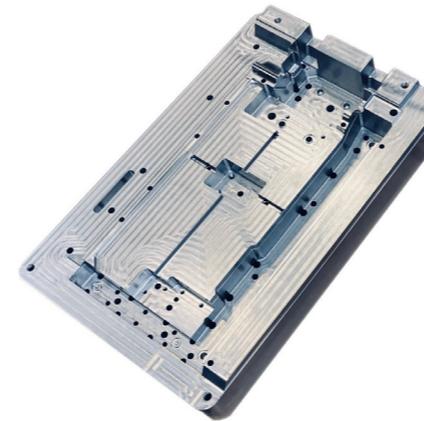
Part info:

- Thermoplastic carrier for a solar roof tile
- Dimensions: 490 x 300 mm
- Material: Flame-retardant PC/PBT
- Two product variants needed

Tool info:

- Serial tool for production at the customer's facility
- Designed according customer (machine) specifications
- Full 1.2312 steel tool to ensure high quality for the large quantities requested
- Changeable inserts for different variants
- Injection with one cold sprue
- Designed and produced within eight weeks after CAD release
- Designed to produce about 100.000 parts over a lifetime

Kupron is also your partner for the production of (steel) serial tools!



HIGHLIGHTED PROJECT

FAST FACE SHIELD



Part info:

- Face shield with partners within the automotive industry
- Head mount produced at Kupron
- Polycarbonate shield cut at Kupron
- Head mount is made of a high-quality PP that is strong, flexible and can be cleaned with ethanol - weighing 30 grams
- Assembly and packaging done in-house!

Tool info:

- 2 cavity aluminium tool
- Fully automated production possible
- Changeable insert to change company logos
- Injected with one cold sprue
- Designed and produced within two weeks!
- 25,000 parts have been produced so far!

Material choices tooling:

Cavity and core:

In this project, it was extremely important to have parts available as quickly as possible. To ensure this, we chose aluminium as a tooling material.

Even the production of large quantities has proven to be no problem for this aluminium tool!



HIGHLIGHTED PROJECT

UMBRELLA BASE MOULD LARGE PARTS

Part info:

- These two parts are used as moulds for producing concrete umbrella bases
- Dimensions: 500 x 500 mm
- Parts are produced, packaged and delivered by Kupron
- Produced with recycled ABS

Tool info:

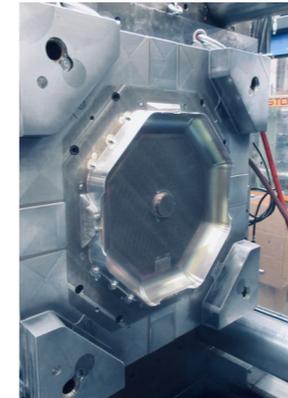
- Full aluminium tools
- Semi-automated
- Designed to produce 50,000 parts over a lifetime
- Injected with a heated nozzle
- Polished surfaces

Material choices tooling:

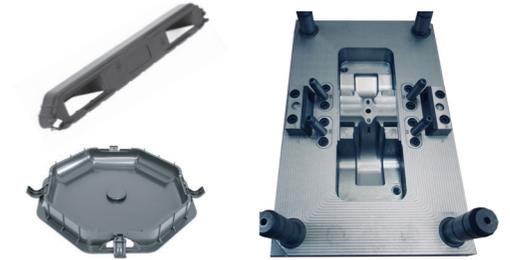
Cavity and core:

In this project, we chose to use full aluminium tools. The parts' geometry, requested quantities and surface finish made this the most suitable material.

Why pay for expensive steel tools when there is another option?



UMBRELLA BASE MOULD SMALL PARTS



Part info:

- Used to clamp the two mould halves together
- Products ranging between 37 x 15mm (15.5 grams) and 178 x 26mm (57 grams)
- Parts are produced, packaged and delivered by Kupron
- Produced with recycled ABS and recycled PP

Tool info:

- Full 1.1128 hardened steel tools
- Fully automated production process
- Two multi-cavity tools designed to produce 100,000 parts over a lifetime
- One multi-cavity tool designed to produce 1,000,000 parts over a lifetime
- Injected with heated nozzles
- Polished surfaces
- All tools are produced in-house!

Material choices tooling:

Cavity and core:

These tools are all produced with steel because the tool durability makes them suitable for the very large quantities requested. The small, vulnerable details also made steel the best option for this project.

For steel tools and the production of small parts in large quantities, Kupron is your one-stop shop!

HIGHLIGHTED PROJECT

ULTRASONIC WELDING GUN COVER



Part info:

- Welding gun cover
- Redesigned from metal parts to plastic to save weight
- PA6 GF15
- Moulded in colour
- Overmoulded threaded inserts
- Screws included with delivery

Tool info:

- Injected with one cold sprue
- 2 cavity aluminium tool built in-house
- 2,500 sets produced so far
- A-Surface sandblasted for a high-quality surface finish

Material choices tooling:

Cavity and core:

Because of the relatively low production quantities, aluminium was the chosen material for this project.

This was the most economical option for this tool while retaining its high quality!



HIGHLIGHTED PROJECT

AFTERMARKET PART PRODUCTION UNTERSIELDS



Part info:

- Undershield Ford Focus
- Material PP20%GFPP
- Part dimensions: 123 x 345 x 567 mm
- Weight: 2,400 grams
- Produced in accordance with PPAP standards
- Delivered with all necessary documents

Tool info:

- Steel production tools were used in serial and delivered to Kupron for aftermarket production
- Production of spare parts: approximately 1,000 pieces a year for eight years

Production numbers that are not interesting for you, are perfect for us!



WHY CHOOSE US

You can feel confident working with us because Kupron means quality. Producing the best tools and parts is important to us, and we make sure our operations are consistent with industry-leading standards such as the APQP processes.

All of our work is done in-house whenever possible. This means we have the highest possible degree of oversight over our products. This not only drives product quality but also maximises efficiency and allows our teams to work together as one team.

We're also extremely flexible. We love working with clients to solve their problems and come up with new ideas. We can produce whatever you need and as many of it as you need. If your batch is too small for serial producers, we're more than happy to help.



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