AUTO MOTIVE

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Elledi

YOUR TECHNOLOGY PARTNER

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ACCURACY AND PRECISION

THE MILESTONES OF ELLEDI SNC

SECTORS ▶ AUTOMOTIVE HYDRO RAILWAY

HOW WE ARE ▶

We are Elledi, since 1992 we have been working and learning together with some of the most influential companies involved in the automotive mold manufacturing business.

We strive to introduce innovative solutions that help businesses increase their effectiveness, thanks to our almost 3 decade-long experience we are able to provide high-efficiency and continuous improvement to every sector in which we are involved, as well as our range of products and services, working together with customers through the entire production process to create custom solutions that fit perfectly.

We manufacture high-quality, custom-sized Thermoforming and foaming molds for the Automotive and railway industries.

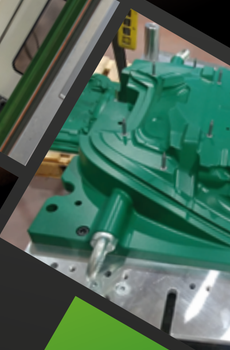
Whether you are looking for a reliable business partner in either the hydroelectric or automotive molding field, Elledi is the right choice for your business.

MISSION ▶

Since the beginning our main focus has always been to supply products and services capable of fulfilling the expectations of our customers in terms of quality and efficiency, in addition to keeping an eye out for safety and environmental sustainability.

OUR TEAM ▲

State of the art
for milling components



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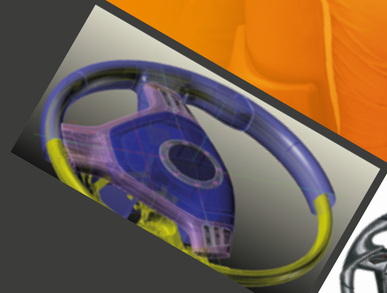
DESIGN

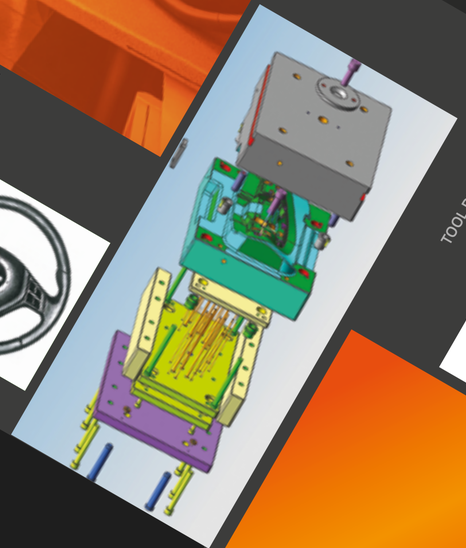
REVERSE ENGINEERING

The reverse engineering process, which uses 3D scanning technologies, grants us the ability to deduce how a physical product was made, to then digitally transfer its shape and rebuild it thanks to CAD programs which can also improve on the original object by removing uneven surfaces and improving symmetry.

Through the usage of surface modeling technologies, the mesh is used to produce a mathematical model according to the detected surfaces.

The said object is reproduced in a CAD 3D format, which can then be worked on and modified locally in a precise and timely manner





3D ADVANCED MODELING

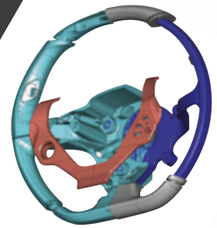
3D modeling programs are used to work on scans, which at first look like a set of points in a three-dimensional simulated space. A 3D designer can take that collection of points to manipulate and define edges, polygons and surfaces.

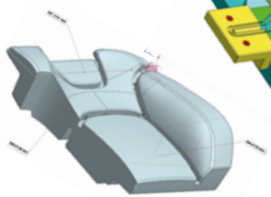
This process is done hand in hand with the customer, to make sure there is no misunderstanding about the project's requirements, and is essential to understanding the feasibility of a project, and proposing modifications to upgrade design quality to obtain a A-class model.

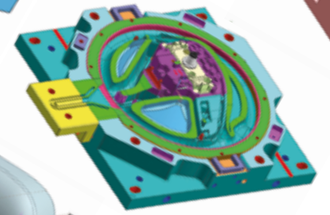
We are experienced in designing A-class surface 3D models.

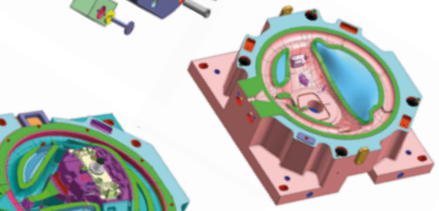
Cutting-edge technology and quality equipment

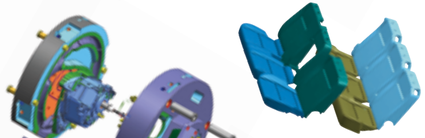
TOOL DESIGN

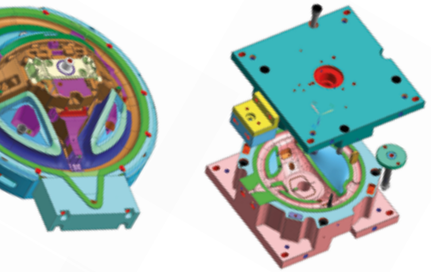


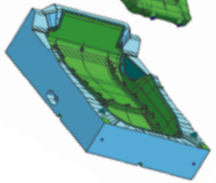


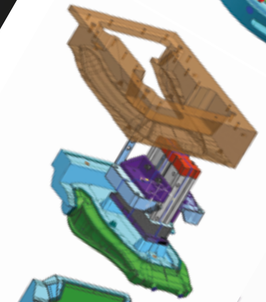












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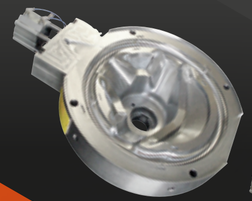
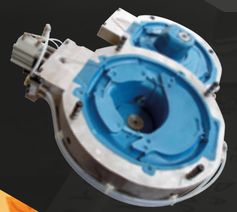
PROTOTYPE TOOLS





DESIGN

Prototype molds are perfect for short-term manufacturing and testing out new product's features.

Thanks to our expertise and equipment we manufacture our prototypes rapidly, while also being capable of fitting them with accessories like automatic vents.

Making high-complexity shaped tools is no problem for our 5 axis milling machine park, which ensures a higher degree of precision and a shorter lead time compared to traditional methods.

Tools made from full metal blocks are the ideal solution for manufacturing pre-series molds; This method grants a reduction in lead time and better flexibility in case modifications are needed.

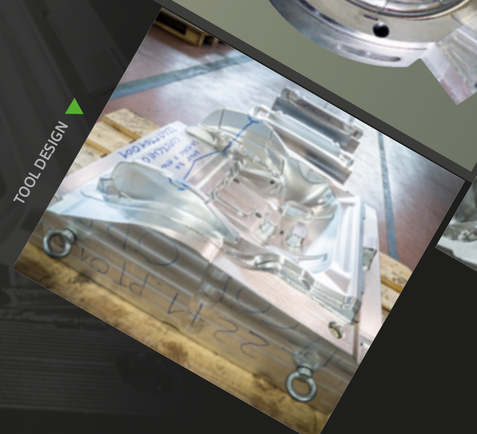
Every single prototype we make comes with a 3D dimensional report as a further proof of its quality.

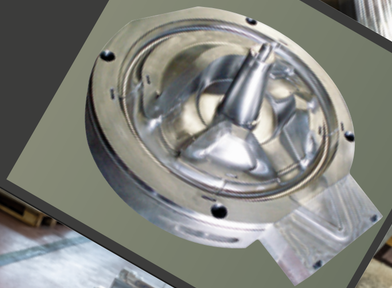
OUR PROTOTYPES

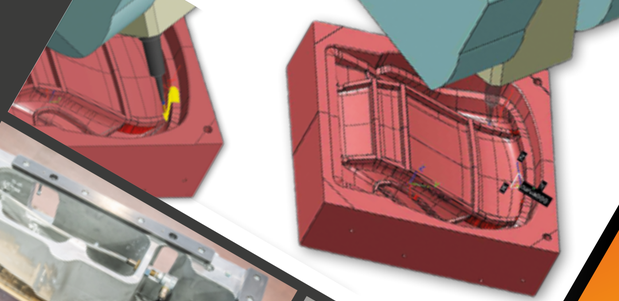
ELLEDI MANUFACTURES THE FOLLOWING PROTOTIPES:

- FOAM PROTOTYPES MILLED FROM SEVERAL FOAM DENSITIES
- RESIN MASTERS
- ALUMINIUM BODY SHELLS
- PROTOTYPE TOOLS

TOOL DESIGN







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SERIAL TOOLS

PRODUCTION

Serial tools are designed with long-term production in mind: durability, toughness and high-quality are a must to lengthen their expected lifespan.

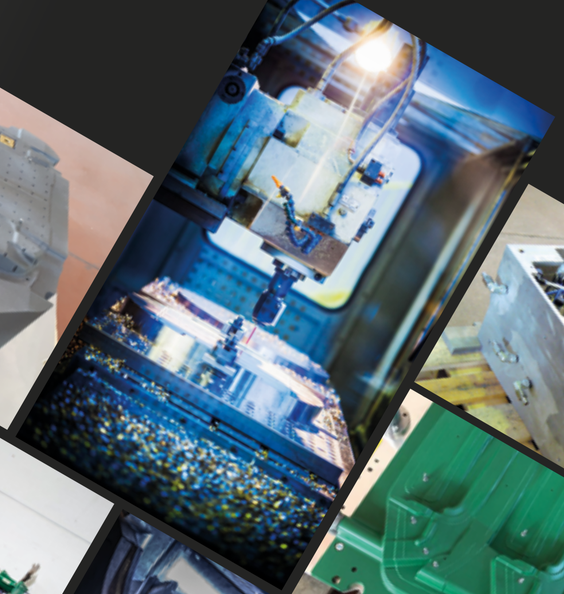
Equipped with 5 axles milling machines ELLEDI can produce high-complexity shaped tools from casting or full metal block, assuring high precision and lead time reduction compared to more traditional solutions.

Tools from full metal blocks are ideal for pre-series where there is no need for duplicates and ease of modification/ shorter lead time are essential.

TOOL DESIGN

Our premium-quality aluminum casting tools are the result of more than 20 years of experience and collaboration with our suppliers.

Furthermore, our molds are tested in our in-house trial press and can be customized with manual or automatic vents based on the project's need; 3D dimensional reports are supplied as further proof of their pinpoint accuracy



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DIMENSIONAL REPORTS

3D DIMENSIONAL REPORT

Every single product that leaves our factory comes with a 3D dimensional report, a document that certifies the superior quality of our products.

Dimensional reports are made by overlapping a 3D drawing of the project with a 3D scan, thus pointing out any deviation/difference which is shown on a chromatic deviation map.

3D SCAN

3D scanning leverages optical technologies to capture the shape and silhouette of a physical object to then recreate it in a digital environment without need of physical contact.

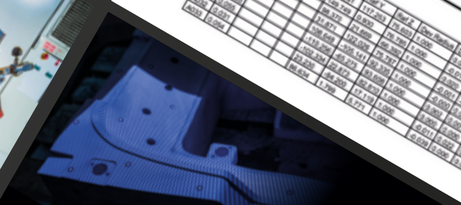
Compared to traditional methods, 3D scanning is much quicker and offers a higher level of precision.

When the scanning process in done, the program generates a "cloud of points", a rough outline of the object, which is then translated to STL, a file format that CAD designers can work on to refine it.

WE CAN SCAN OBJECTS STARTING FROM
100 x 100 mm
TO
5000 x 5000 mm

Our reverse engineering and prototype production times are unrivaled, thanks to the 3D optometric scanner ATOS Core.

Easy to transport and set up, ATOS Core can be used to scan objects at the customer's premises.



PRODUCT SHOWCASE

Our triple decade-long experience,
together with our long-time business relations with our suppliers enables us to manufacture high-quality aluminium casting tools, thoroughly checked and tested by our dimensional reports.

Equipped with 5 axis milling machines Elledi produces high complexity shaped tools, ensuring improved precision and lead time reduction compared to more traditional solutions.

LOGISTICS

EFFICIENT FORWARDING

PACKAGING

Elledi provides the right kind of packaging on request, for sea and air transport in order to avoid Turbine rusting and oxidation.

PACKAGING AND PRODUCTION

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PRODUCT SHOWCASE

STEERING WHEEL FOAMING MOLDS

Long-lasting and custom-made

- MAX SIZE : 1200 mm / 1800 mm
- MAX WEIGHT : 5 ton
- MATERIALS : 1.4313 – 1.4417
- PRODUCED : >500

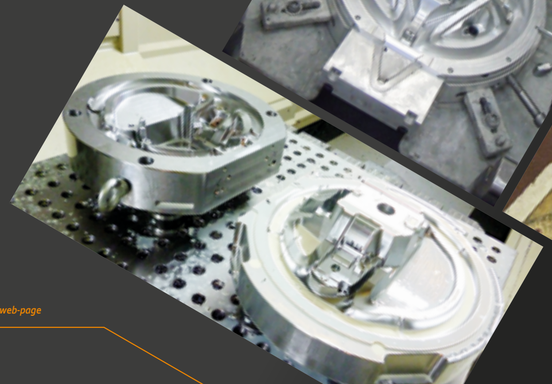
PROTO SERIES

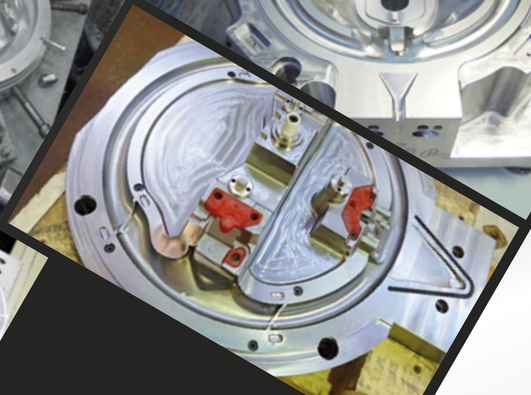
Our steering wheel foaming tools are designed to ensure top-level precision and toughness, with a special focus on high durability when it comes to molds made for high-production volumes.

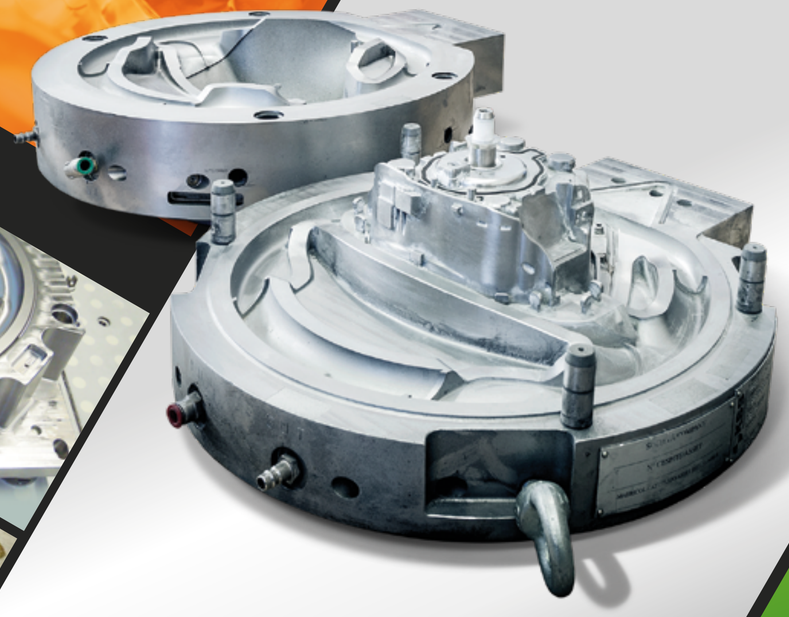
Every single detail is taken care of during the design stage to make sure that the foaming process is as efficient as possible, especially when producing molds with interior components that have to be printed together with polyurethane and require a previous feasibility consideration.

As further proof of our commitment, every single mold that comes out of our factory comes with a 3D dimensional report, perfectly compliant with all the tolerances requested.

STEERING WHEEL FOAMING MOLDS







CLICK&GO to related web-page

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PRODUCT SHOWCASE

FOAMING MOLDS

Precision and reliability

- MAX SIZE : 1200 mm / 1800 mm
- MAX WEIGHT : 5 ton
- MATERIALS : 1.4313 – 1.4417
- PRODUCED : >500

PROTO SERIES

Nowadays, there is an endless choice when it comes to plastic materials, but none of them offer the same degree of flexibility and range of application as Polyurethane, which is used in most products we use on a daily basis.

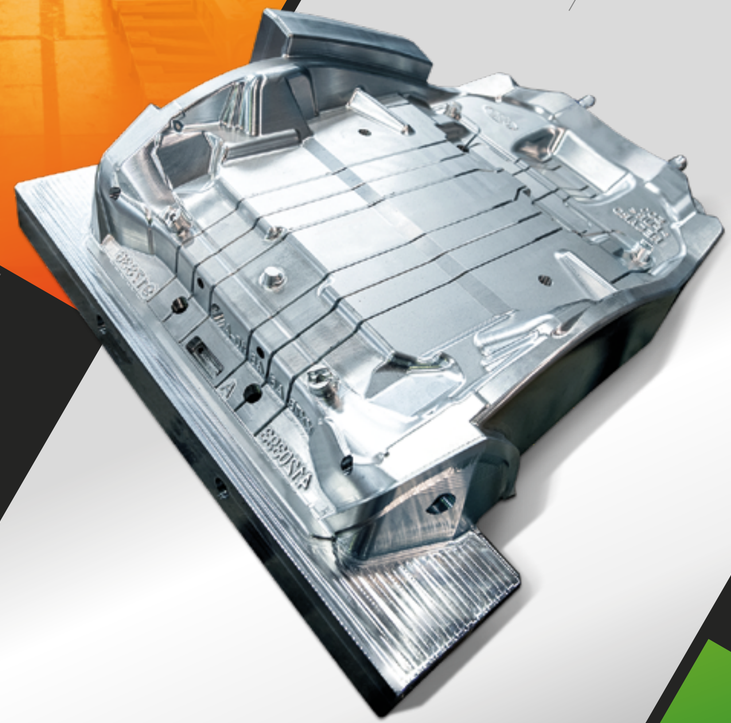
Our molding process allows for manufacturing from either aluminum block or forged casting.

Our quality products are well-known to our long-time customers; Our fusion molds are a perfect example considering the first-rate material used and high degree precision for foaming tool duplicates.

As of today, we have a portfolio of more than a thousand foaming molds manufactured.

CLICK&GO to related web-page

FOR SEATS FOAMING MOLDS



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PRODUCT SHOWCASE

THERMOFORMING MOLDS

Optimized for high output

- MAX SIZE : 1200 mm / 1800 mm
- MAX WEIGHT : 5 ton
- MATERIALS : 1.4313 – 1.4417
- PRODUCED : >500

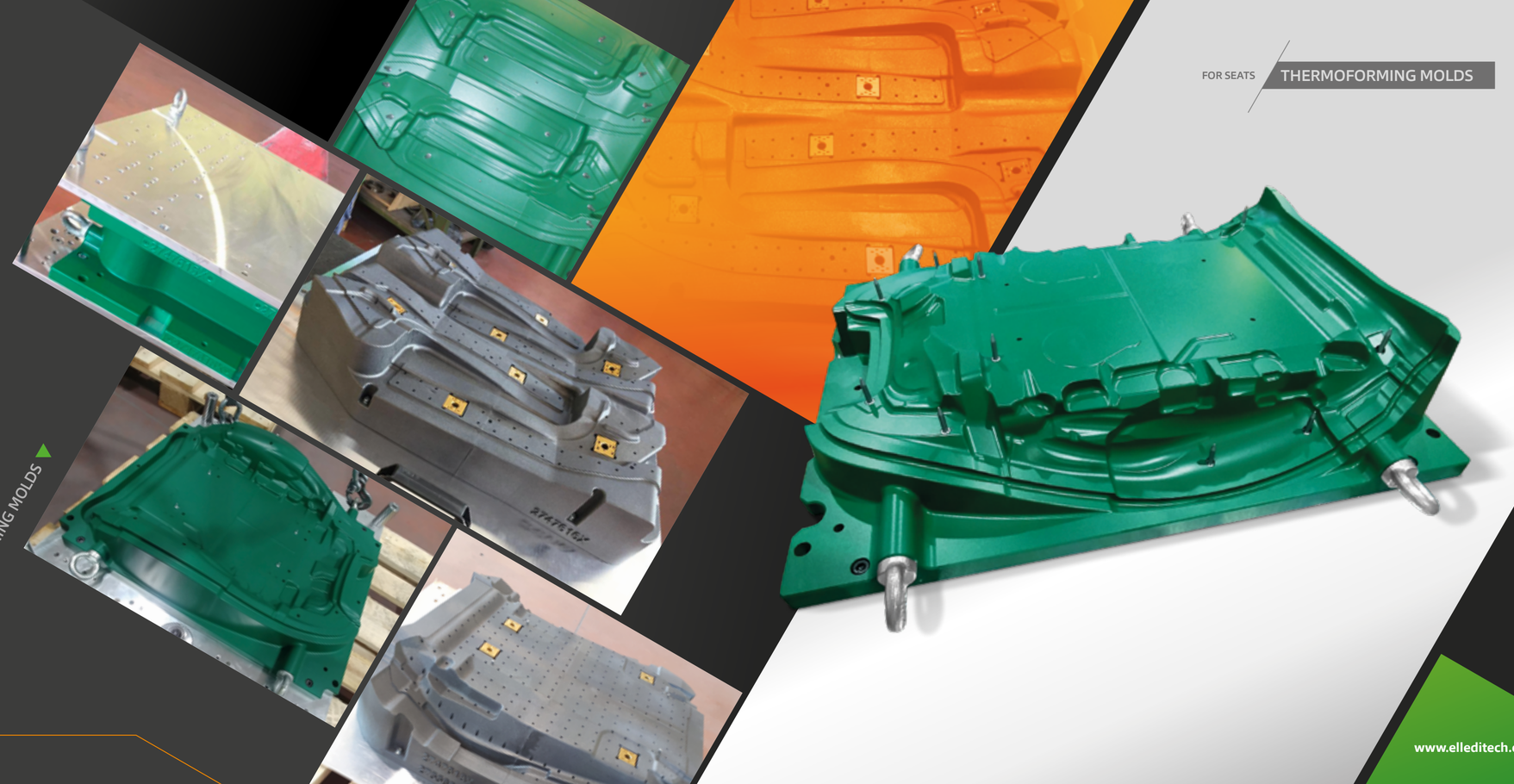
PROTO SERIES

Invented in the 50s by John Wesley Hyatt, Thermoforming is a time-convenient and easy process that involves high temperature molds that press fleeces into shape.

We focus on manufacturing first-rate Thermoforming molds that are most suitable for large production volumes, specifically for applications like Automotive and Railway componentry. For the most part Thermoforming molds are made from aluminum, but can be Teflon coated to further improve their production capabilities.

Every single mold comes with a 3D dimensional report as a proof of its high precision.

As of today, we have produced more than 150 Thermoforming molds.



THERMOFORMING MOLDS

CLICK&GO to related web-page

FOR SEATS THERMOFORMING MOLDS

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