



UPP
AUTOMOTIVE

ULTRA
PERFORMANCE
PERFORATING
SYSTEM

2
INDEPENDENT
MULTI-TOOLS
HEADS

TESEO
OPTIMIZEYOURBUSINESS

HIGH PERFORMANCE EQUIPMENT FOR
LEATHER AND SYNTHETIC MATERIALS
PERFORATION

2 INDEPENDENT
MULTI-TOOL HEADS



HIGH QUALITY

Perfect holes in size and shape.



LEATHER SAVING

UPP punches parts already
cut to size without trimming.



PRODUCTIVITY

High production capacity (up to 100
holes/sec) on any type of project.



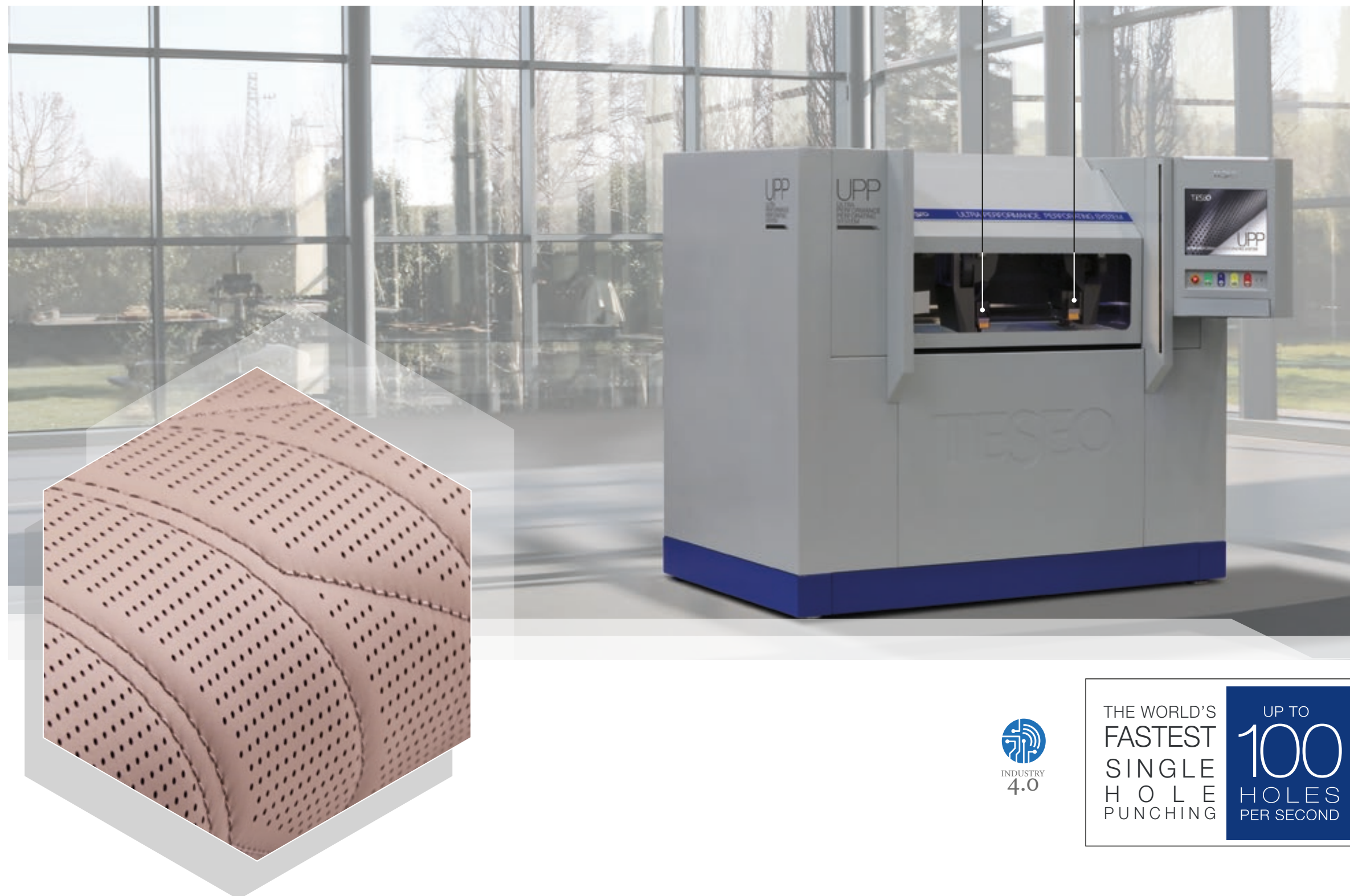
FLEXIBILITY

Up to 10 different punches at the
same time. Prompt and simple.



COMFORT

Soundproof and safe.



THE WORLD'S
FASTEST
SINGLE
HOLE
PUNCHING

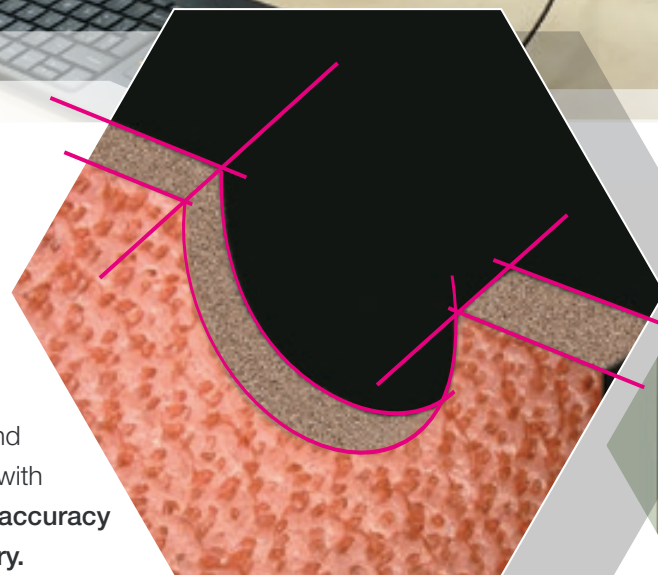
UP TO
100
HOLES
PER SECOND

UPP

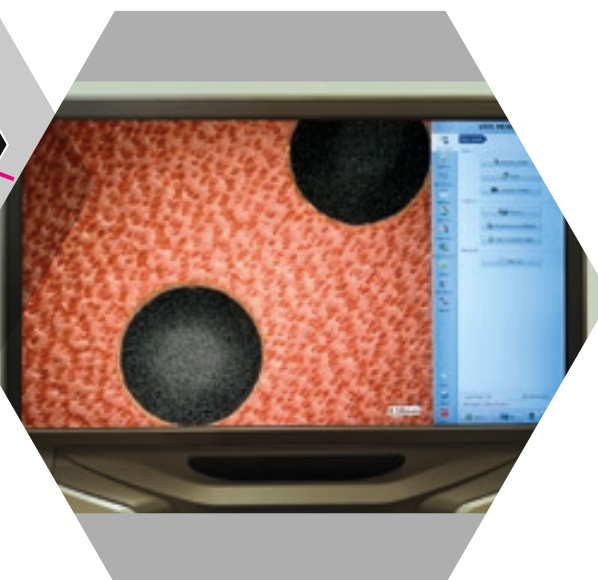


HIGH QUALITY MICROSCOPE-PROOF QUALITY

The diameter and shape of the tool are guaranteed for millesimal precision of the hole and **repeatability**.
Quality unachievable with other punching systems.



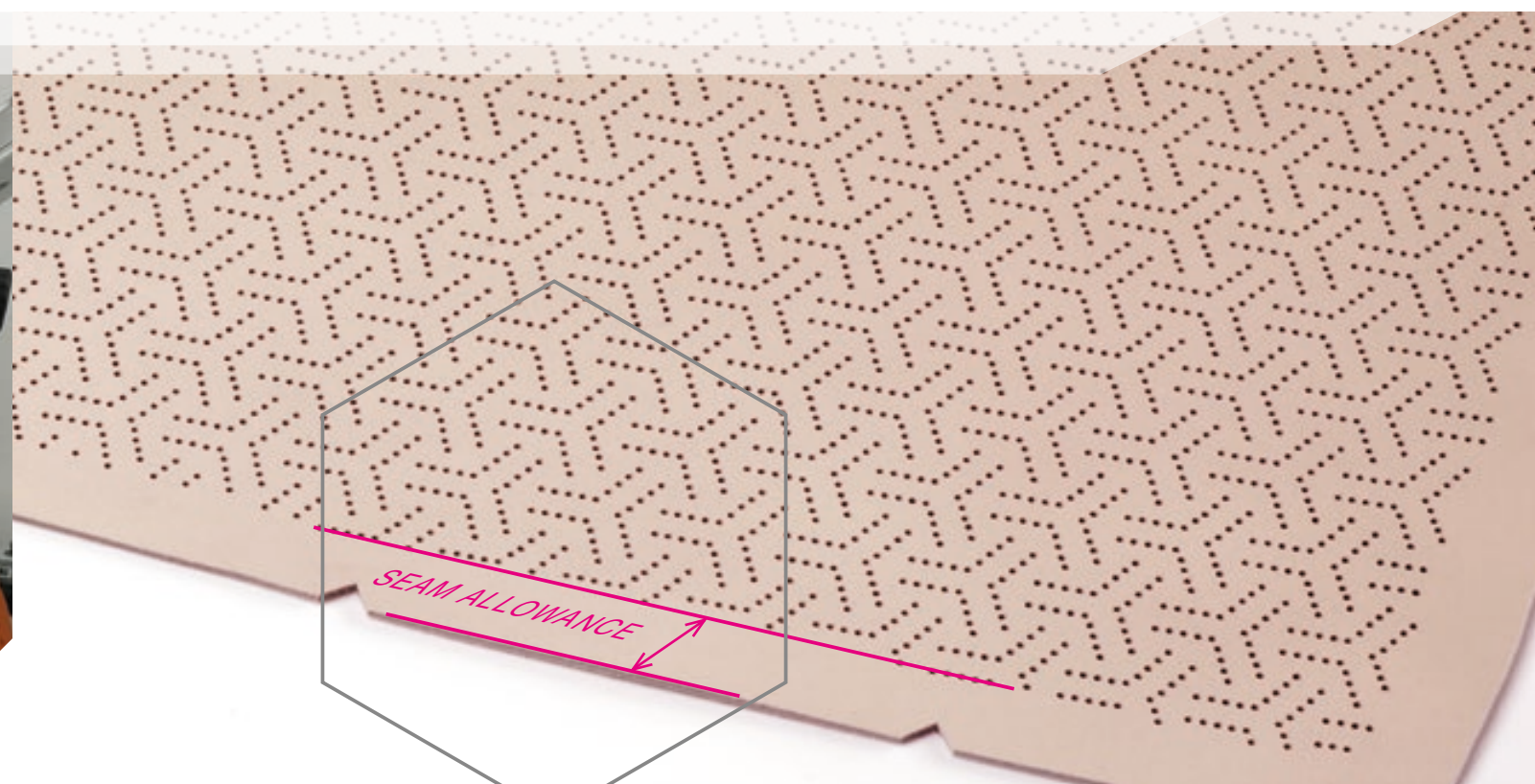
Perfectly round shaped hole with **impeccable accuracy** and **symmetry**.



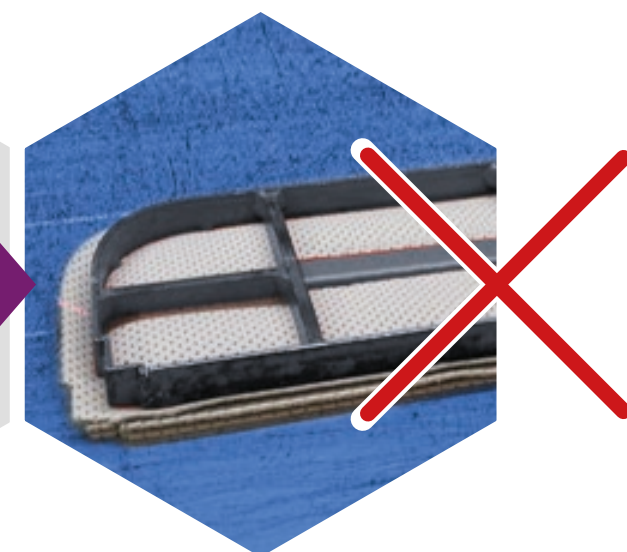
LEATHER SAVING

The UPP machine works on parts cut to size, the edge of the parts is not punched, making the seam allowance stronger and ensuring precise and flawless assembly.

No tooling or dies costs.



With traditional ways of cutting on pre-punched parts there is always waste of leather and the punched sewing allowance is weaker and can lead to unwanted breakage and assembly defects.



UPP



PRODUCTIVITY

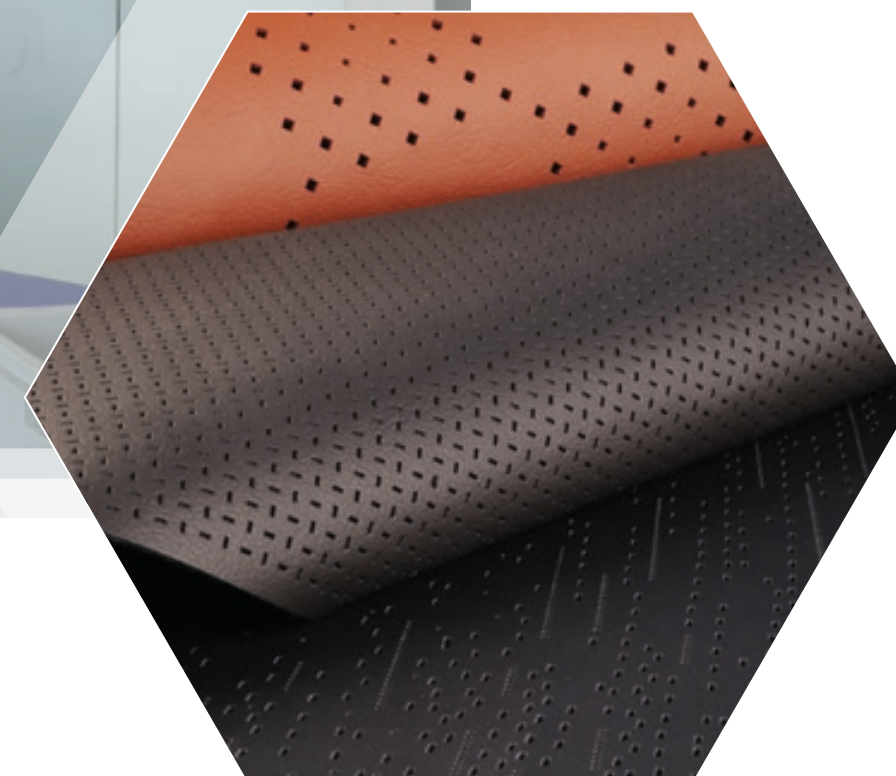
Innovative technologies and **high performance** (up to 100 holes/sec) make UPP a **strategic** tool for production in the Automotive industry. Its versatility allows its dynamic use for production and also for development and prototyping. Up to 2 million holes with a single pin, fast and simple to replace.

2 INDEPENDENT MULTI-TOOL HEADS

THE MACHINE CHOSEN
BY THE MAJOR
AUTOMOTIVE MAKES

RELIABLE
24/7

The UPP is engineered for **24/7 work**. Its solid mechanical structure, which uses materials derived from **aeronautics**, guarantees absolute reliability.



UPP

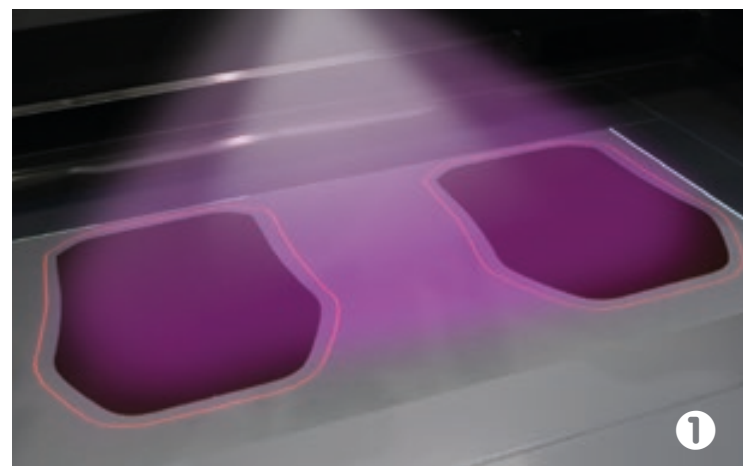
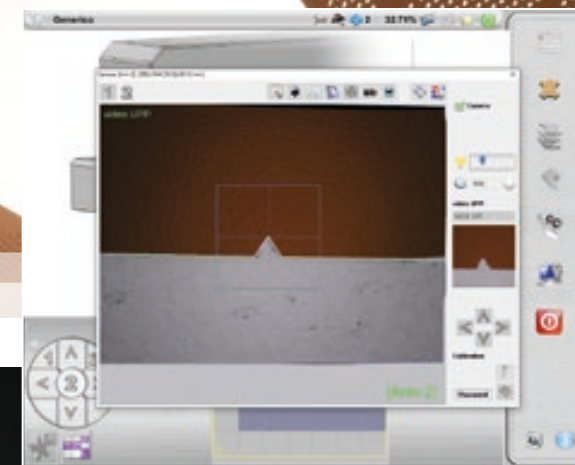
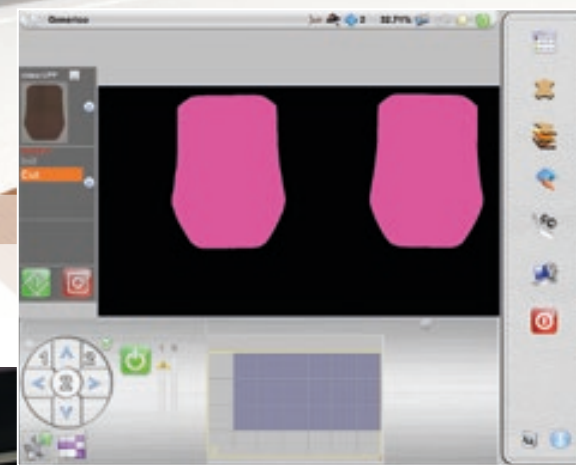
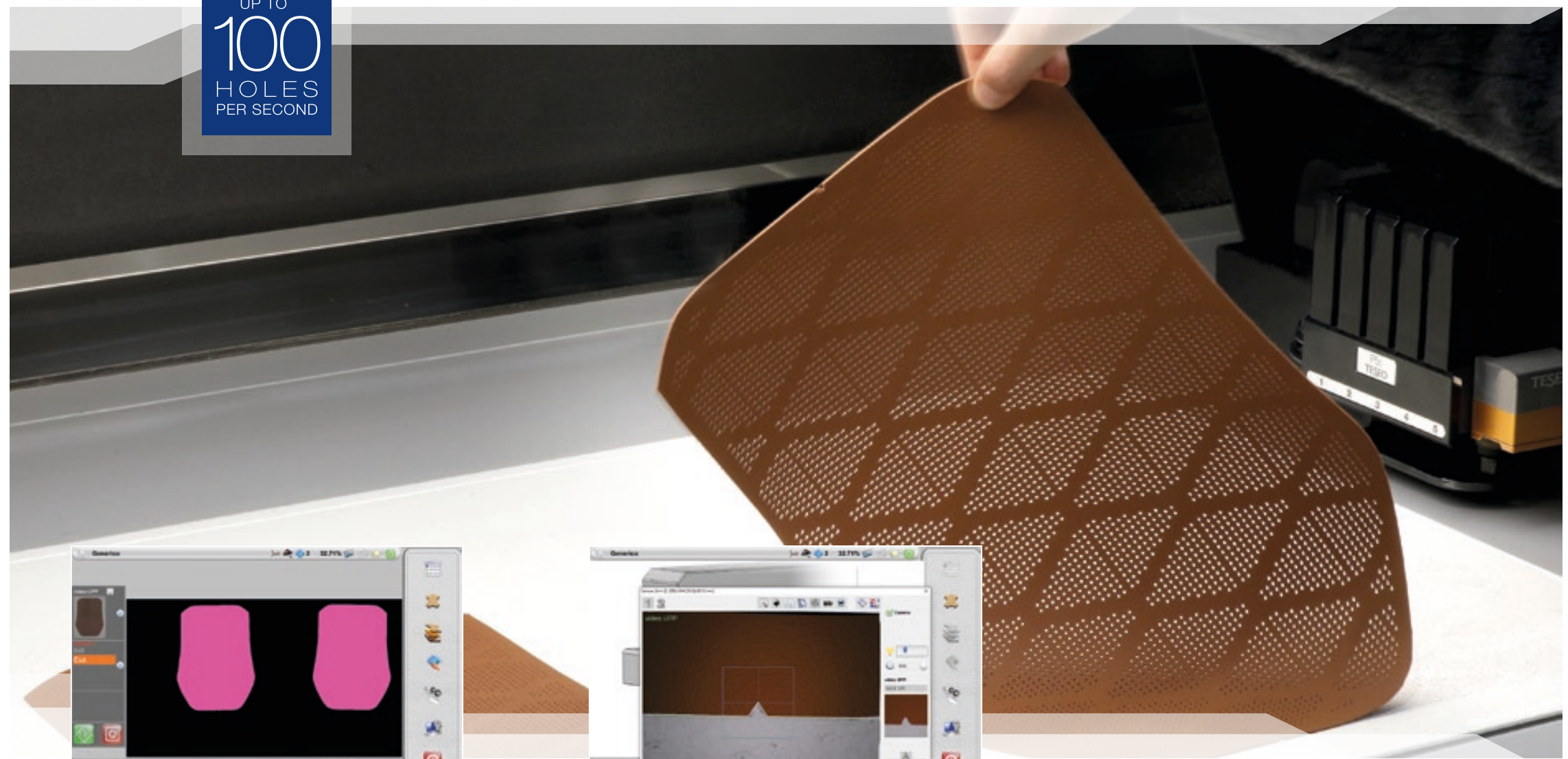


EASY TO USE

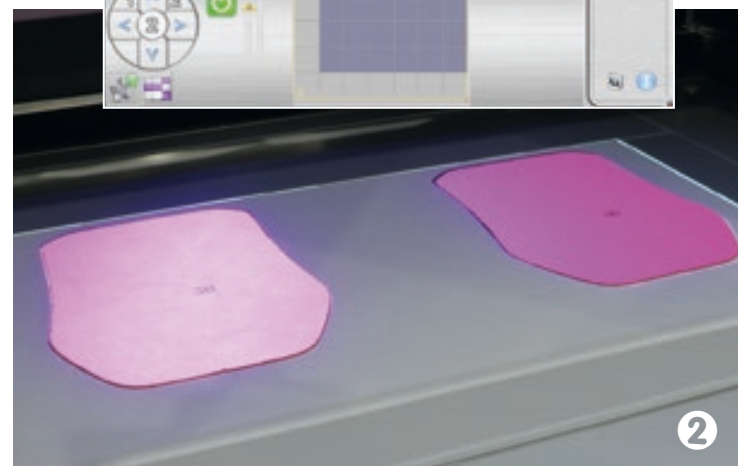
4 SIMPLE STEPS FOR
FAST AND PRECISE
AUTOMATIC PUNCHING

CHANGING DESIGN IS EASY
AND QUICK

UP TO
100
HOLES
PER SECOND



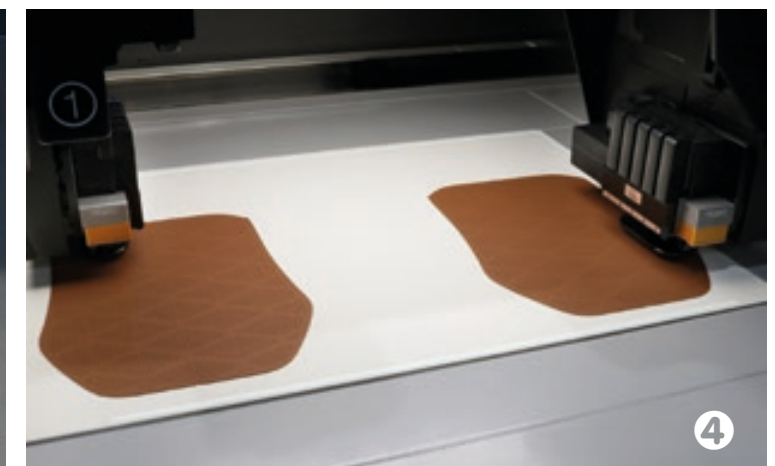
1



2



3



4

ASSISTED PLACEMENT

An ultra-high brightness projector allows **quick and intuitive placement** of the parts on the working area.

AUTO-CENTERING

UHD cameras **instantly** locate the parts placed in the working area.

FINE TUNING

ARGHON technology centers **with accuracy** the parts and automatically position the punching path.

PUNCHING

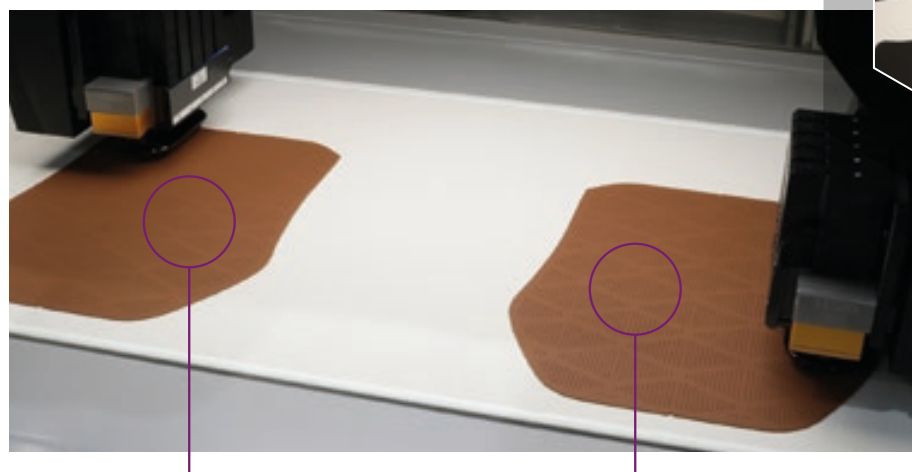
The part is held fixed on the punching area by the suction system and is **not stretched or deformed**.

UPP



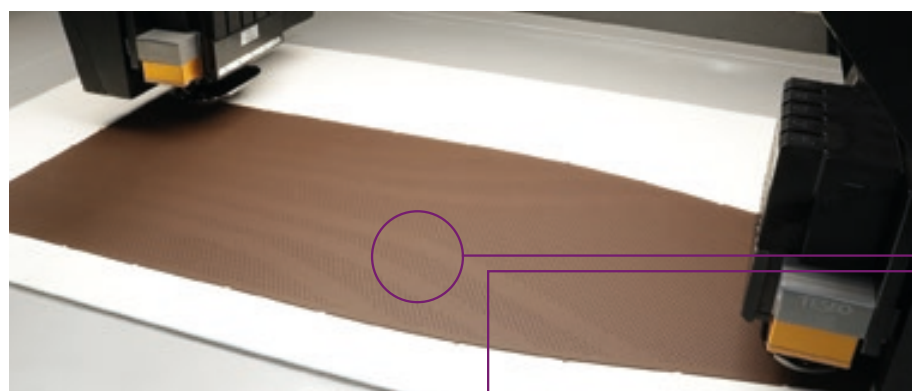
FLEXIBILITY

The **two heads** can work on one or more parts simultaneously.



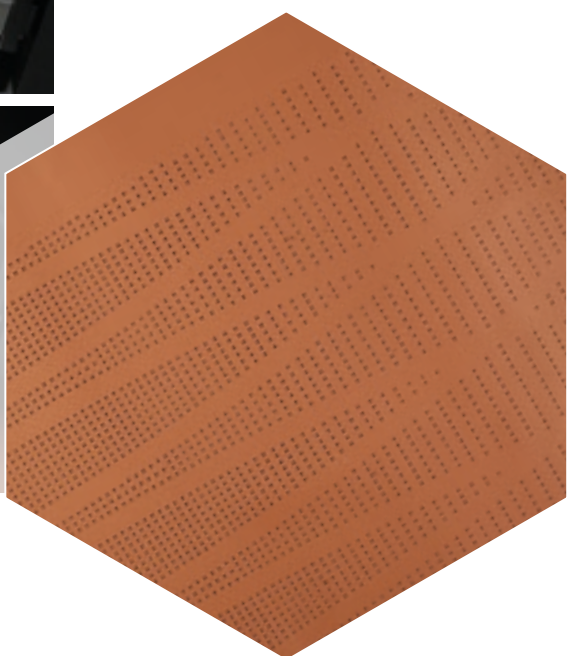
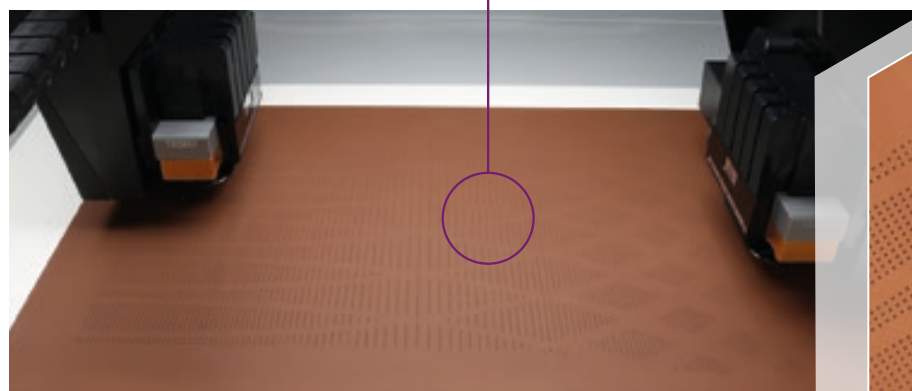
MULTI PANEL

The heads work **independently** on two or more small parts.

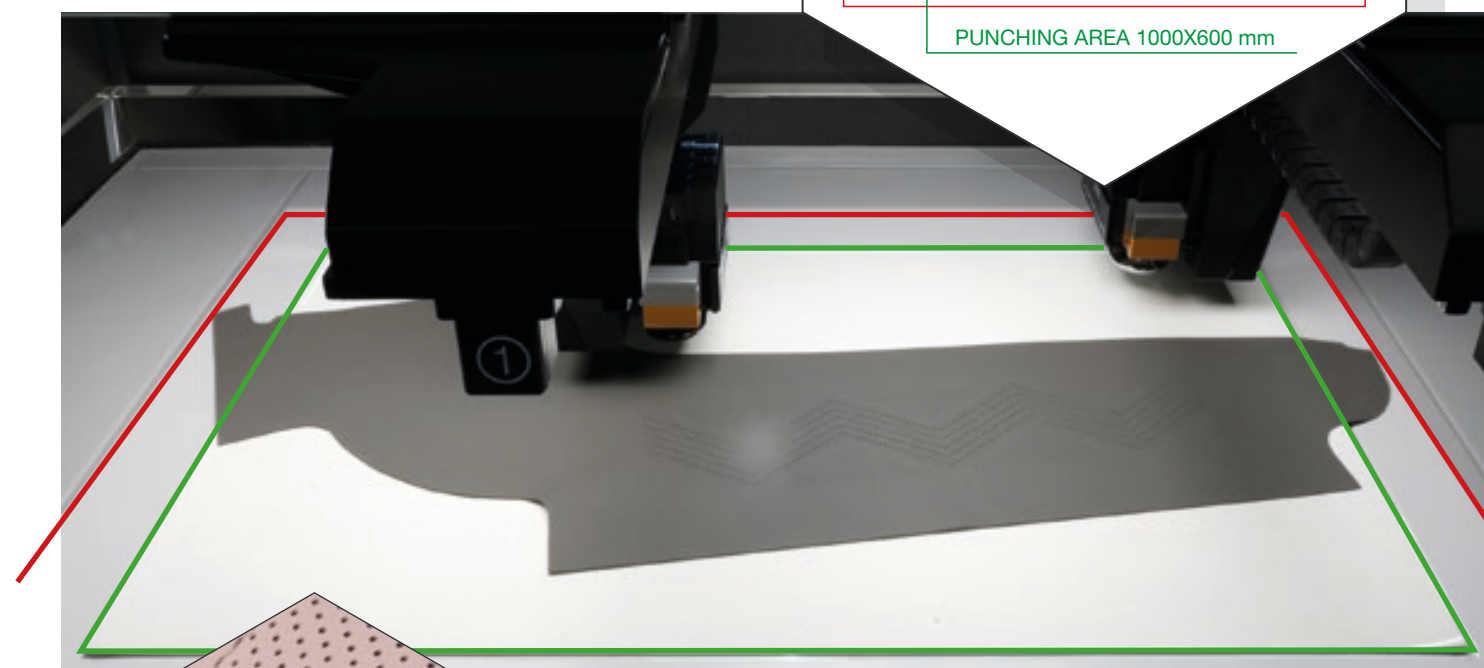
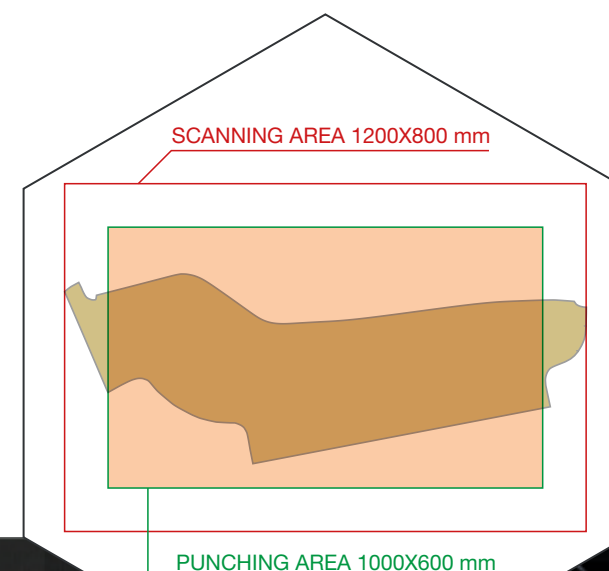


SINGLE LARGE PANEL

The heads work **simultaneously** on the same large part.

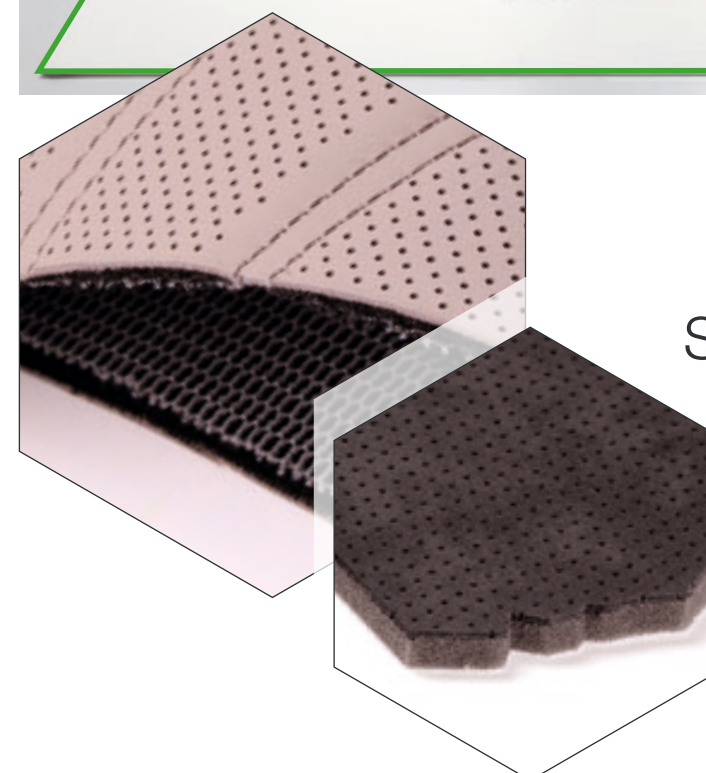


PROCESSING OF PARTS UP TO 1200X800 mm



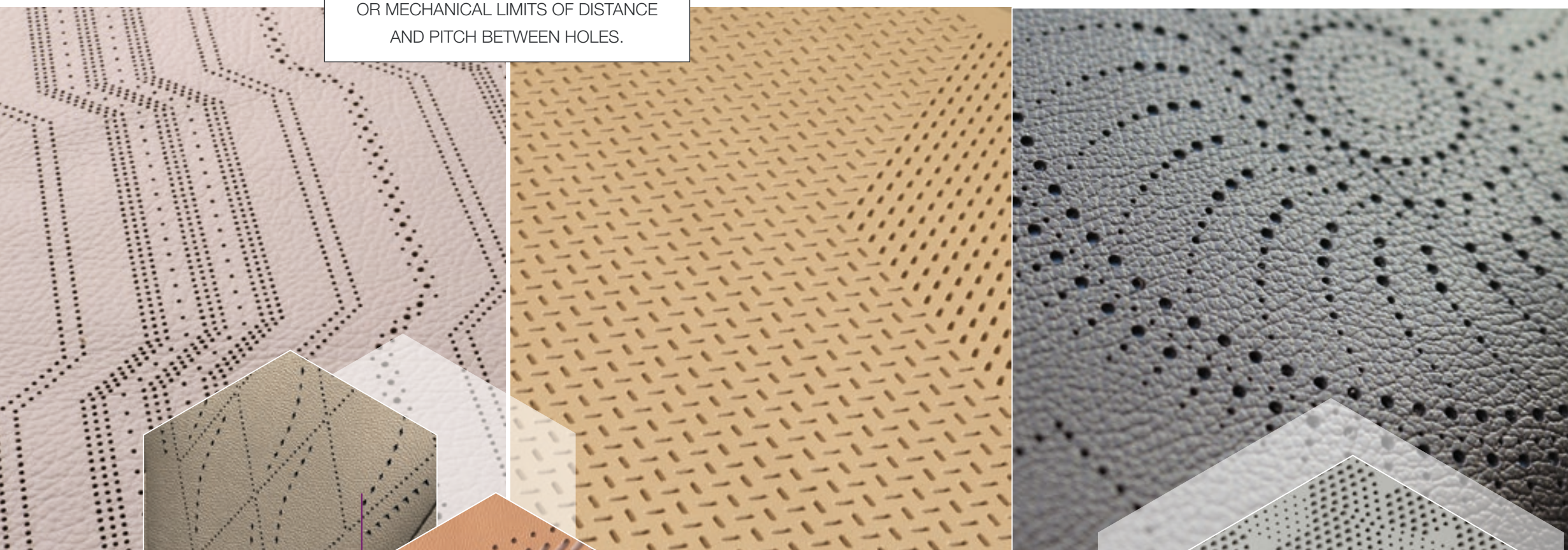
PUNCHING OF LAMINATED AND SYNTHETIC MATERIALS

The only solution on the market capable of punching laminated parts. Highest quality on a wide range of materials up to 8 mm thickness.



UPP

NO BOUNDARIES
OR MECHANICAL LIMITS OF DISTANCE
AND PITCH BETWEEN HOLES.



UP TO 10
DIFFERENT DIAMETERS
SIMULTANEOUSLY

NO NEED
OF DIES OR
PRESSES

Simultaneous use of pins with
different diameters and shapes
to realize any design and
customisation.

0,6 — •

0,7 — •

0,8 — •

0,9 — •

1,0 — •

1,1 — •

1,2 — •

1,3 — •

1,4 — •

1,5 — •

1,6 — •

1,7 — •

1,8 — •

1,9 — •

2,0 — •

2,1 — •

2,2 — •

2,3 — •

2,4 — •

2,5 — •

DIRECTIONAL
PUNCHING

Holes of different shapes such as
diamonds, squares, buttonholes,
etc. which can be oriented in
any direction for always new and
original punching effects.

23 DIAMETERS
AVAILABLE

All diameters from 0.6 to
2.5 mm and of 3.0, 3.5 and
4.0 mm are available.

UP TO 2 MILLION
HOLES

Super durable punches
up to 2 million holes with
a single pin.
Quick and easy tool change.

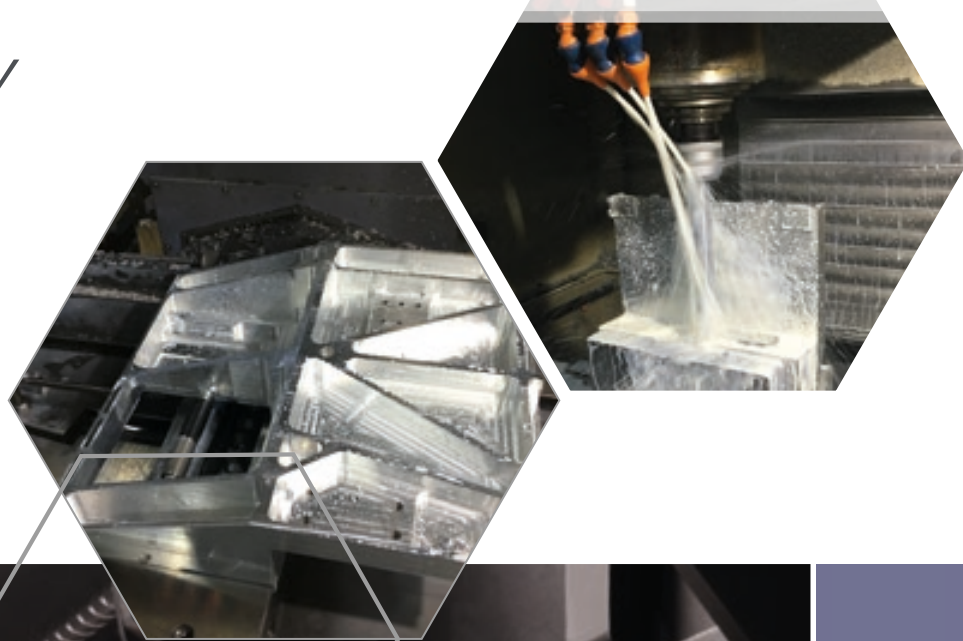
3,0 — •

3,5 — •

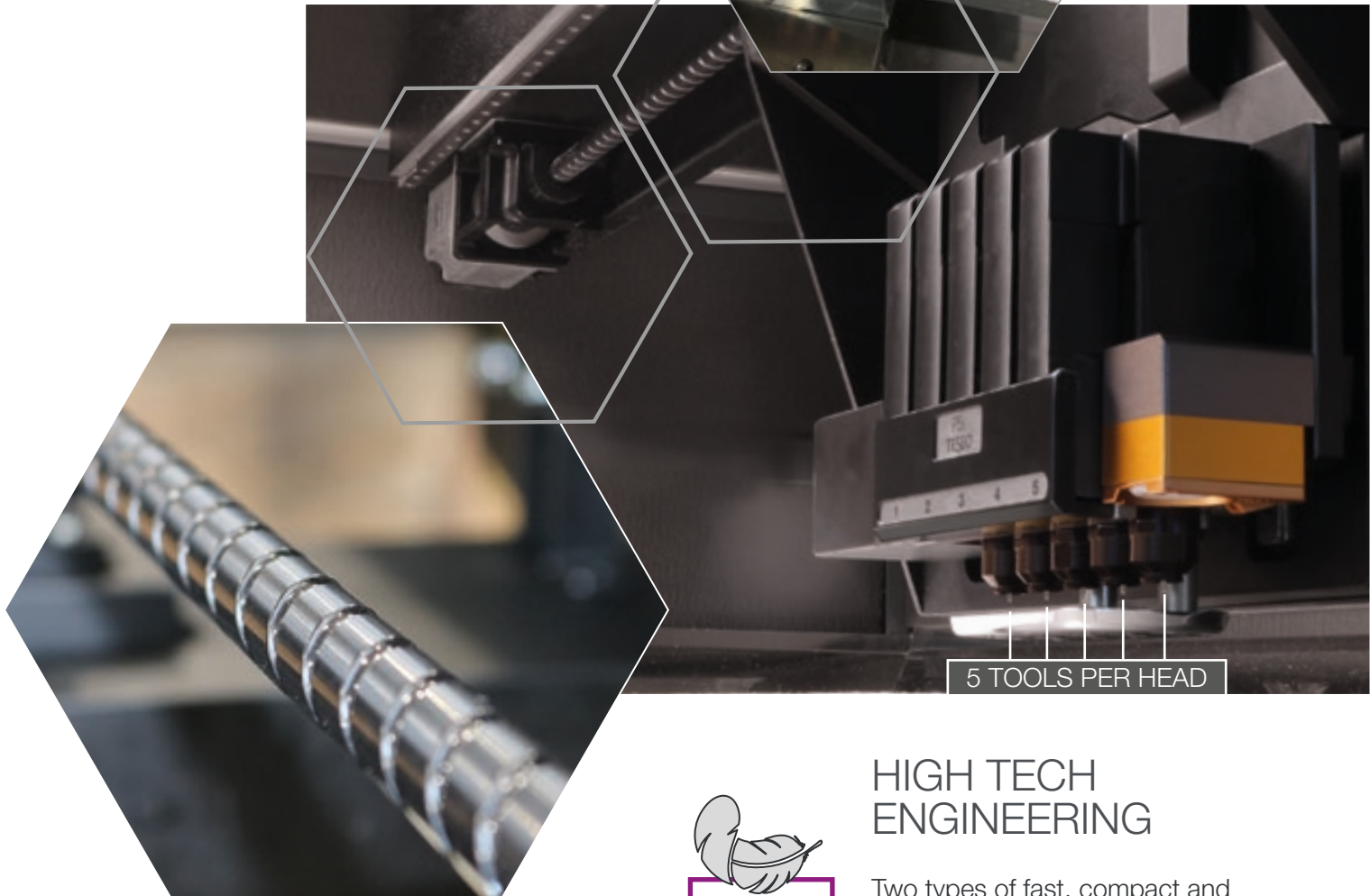
4,0 — •



HIGH TECHNOLOGY AT THE HEART OF HIGH QUALITY



Aeronautical and machined from **solid components** to reduce stress and vibration while punching. Durability, rigidity, speed and lightness guaranteed.



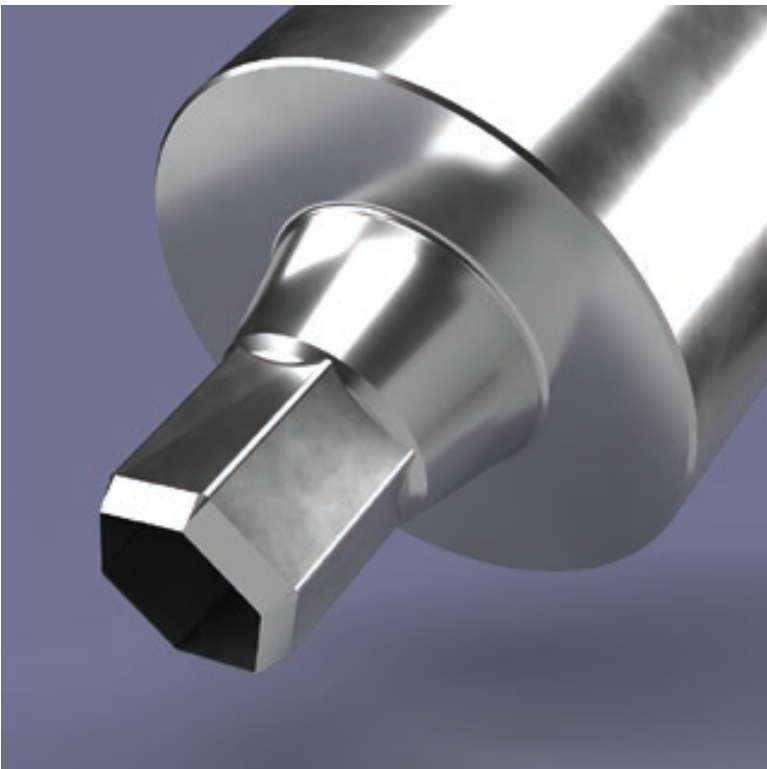
ACCURACY AND RELIABILITY

The quality and reliability derived from the characteristics of **precision motion system**: linear guides and ball screws adjusted to ISO 3 (error max 0.005 mm).



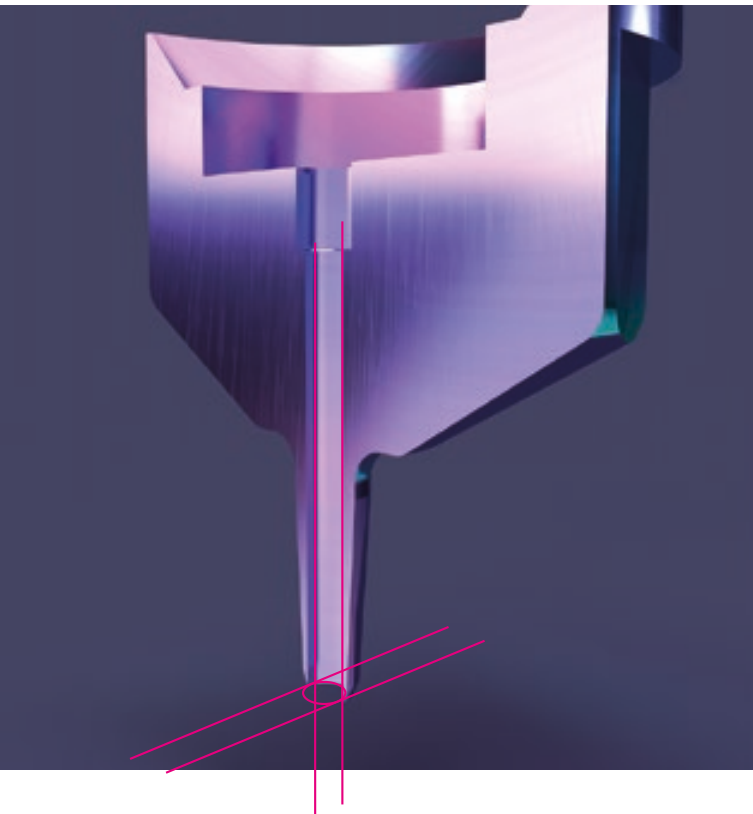
HIGH TECH ENGINEERING

Two types of fast, compact and ultralight heads. Top quality and precision punching. Engineered for 24/7 industrial production with the highest quality standards.



ENDURANCE

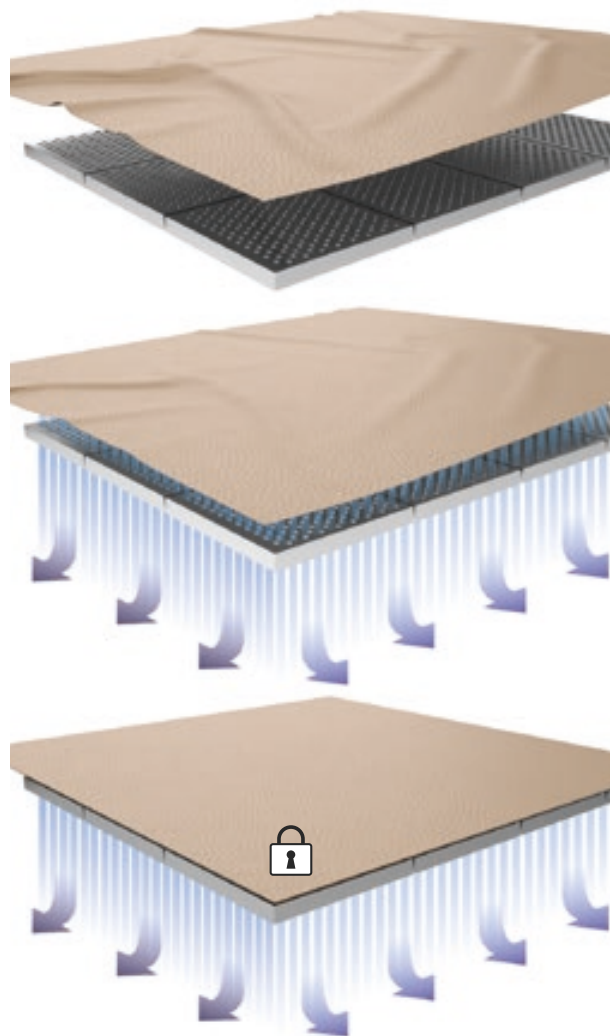
Excellent resistance to abrasion, wear and erosion. Pins manufactured in hard materials alloy from tungsten carbide and cobalt, **up to 2 MLN holes per pin**.



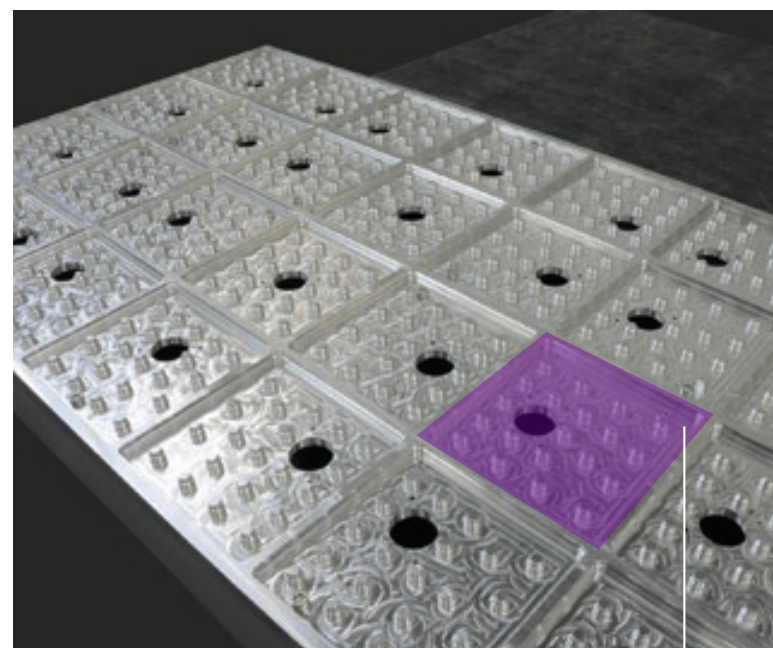
HIGH PRECISION

Perfectly straight pin. Exact hole size, no countersinking. Flawless quality also on laminated materials.

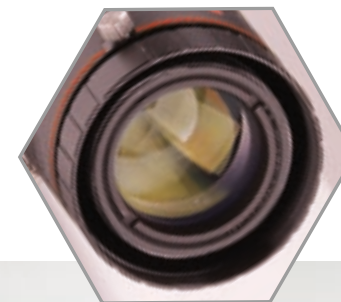
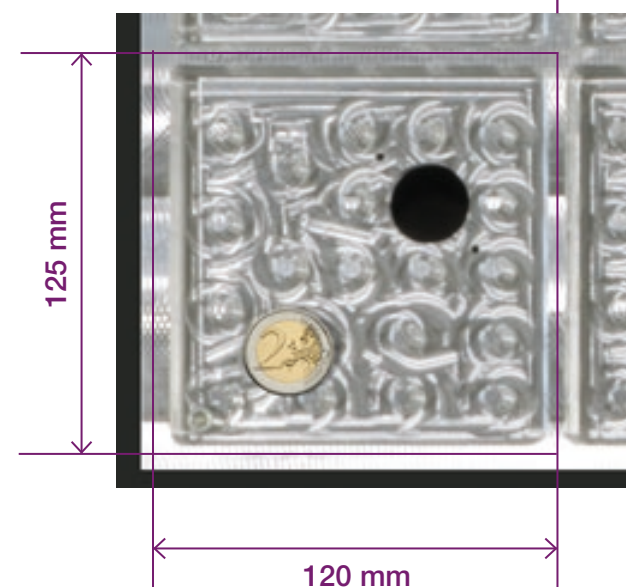
UPP



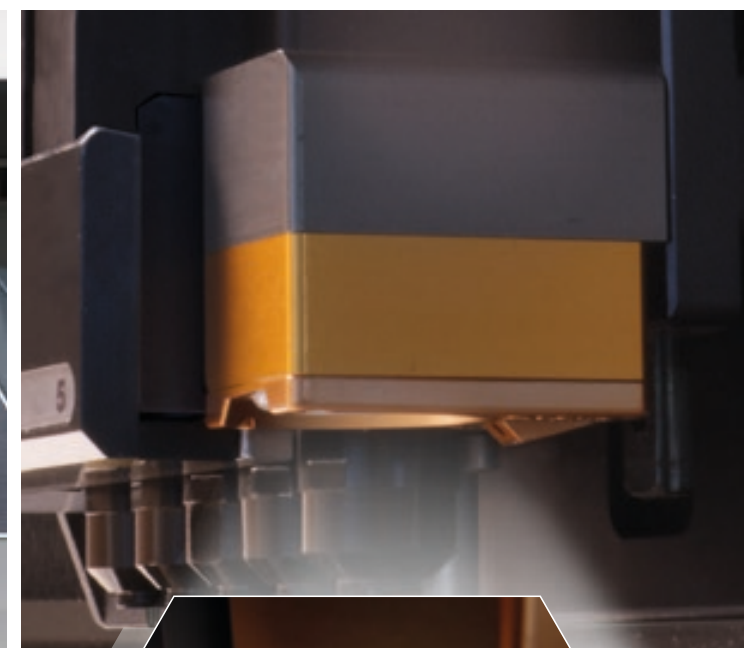
THE ONLY CNC EQUIPMENT IN THE WORLD THAT **AUTOMATICALLY** SECURES THE PART TO THE SURFACE WITH ITS POWERFUL SUCTION SYSTEM



Working surface machined from solid block and milled to size for maximum precision and stability. Sectorized in digitally controlled **micro suction sections** to ensure perfect stability of the parts while punching.



Automatic projection, scanning and centring of parts.
Integrated multi-camera UHD system, high definition projector and dimmable LED panels.



A SMART HD CAMERA ON THE HEADS

ARGHON is a smart **powerful HD camera installed directly on the heads**: equipped with two precision optical sensors, it is individually capable of acquiring images.

ABSOLUTE PRECISION
ARGHON recognizes details size smaller than 0.05 mm.



UPP



COMFORT

Automatic soundproof door for optimal work comfort (72 dB).



SAFE

Maximum security guaranteed by the automated door and safety optical barriers.



ERGONOMIC

Keyboard and touch screen for an intuitive and friendly use.



CLEAN

Scrap suction technology ensures an always clean work surface.

UPP IS
STRATEGIC
IN ALL OTHER
INDUSTRIES
TOO

FOOTWEAR AND
FASHION INDUSTRY



UPP MEETS THE **INDUSTRY 4.0** REQUIREMENTS



INDUSTRY
4.0

Every company that operates today faces a common challenge: the need for connectedness and access to real-time insights across processes, partners, products, and people.

Industry 4.0 represents a unique opportunity for an efficient and agile reorganization of production activities focusing on interconnectivity, automation, machine learning and real-time data.

It's about revolutionizing the way your entire business operates and grows. It's about choosing the best technology to **UPPgrade your business.**

That's where TESEO comes into play.

UPP meets the Industry 4.0 requirements for a SMART factory.

SMART PRODUCTION:

UPP is designed for integration with ERP, planning, design and product development systems. Process data collection, real-time reporting and statistical analysis.

SMART SERVICE:

Remote interaction via NESSO® software to collect operational data and to provide remote support and maintenance through augmented reality technologies (i.e. NESSO®Visual and NESSO®Real).

SMART ENERGY:

Energy consumption 40% lower than other solutions on the market.

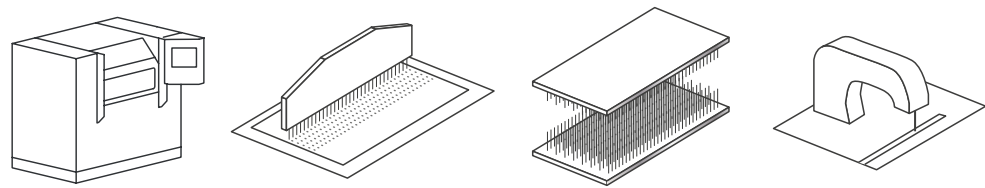
High performance as well as security and improved energy saving.



UPP

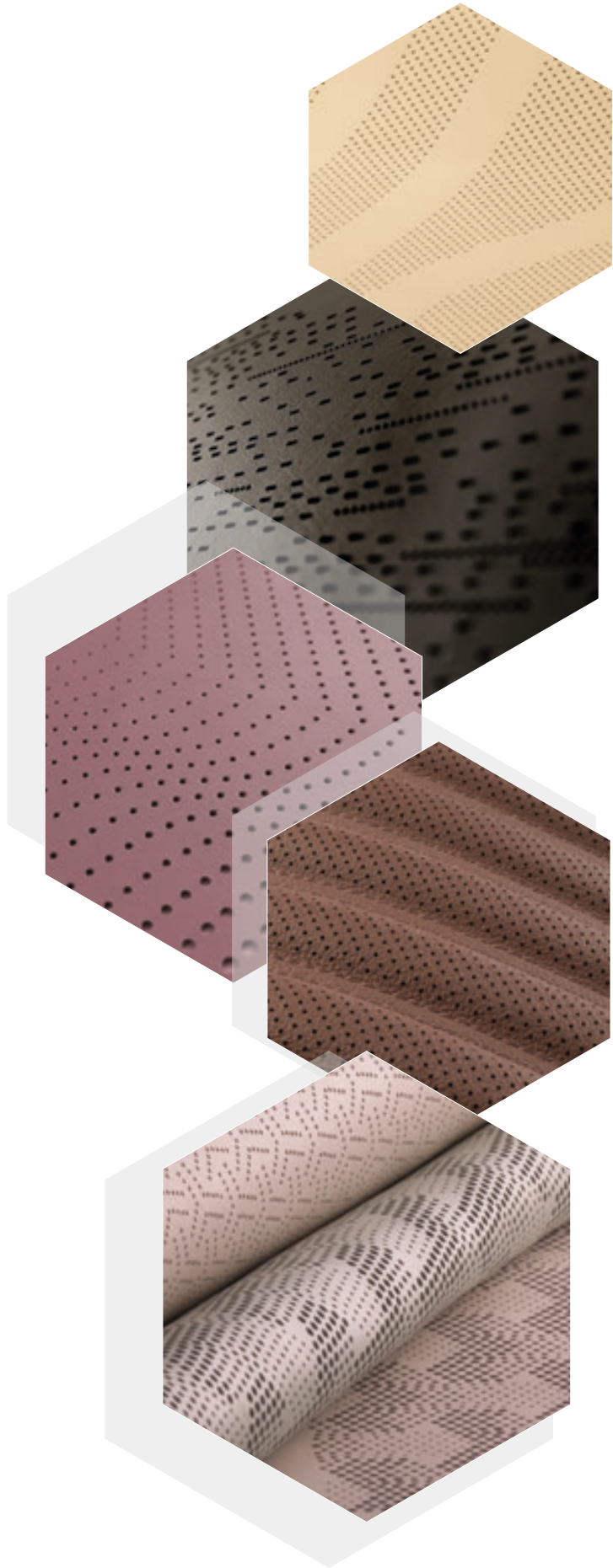
VS OTHER SYSTEMS

UPP is a unique solution on the market and its CNC technology offers great advantages over traditional perforating machines, be it needle, die cut systems or adapted sewing machines. Zero tooling costs and times, quick and easy project change, great variety of hole shape and size, absolute design flexibility, no deformation of the part after the punching process. Here are just a few benefits that make UPP the best solution to successfully achieve your projects.



UPP

INDIPENDENT HEADS	2	X	X	X
SUCTIONED WORKING AREA	●	X	X	X
NOT DEFORMED AND/OR STRETCHED PART	●	X	X	X
NO TOOLING COSTS	●	X	X	●
HIGH QUALITY	●	X	X	X
HOLE REPEATABILITY	●	X	X	●
UP TO 100 HOLES PER SECOND	●	X	X	X
UP TO 10 DIAMETERS SIMULTANEOUSLY	●	X	●	X
VARIABLE HOLE DISTANCES	●	X	●	●
DIRECTIONAL PUNCHES OF DIFFERENT SHAPES (DIAMOND, SQUARES, BUTHOLES...)	●	X	X	X
FLEXIBILITY AND DESIGN CHANGE EASE	●	X	X	●
MAXIMUM DESIGN FLEXIBILITY	●	X	X	X



2 fully independent arms equipped with compact multi-tools head.

HEADS:
P5S: 5 Ultra fast circular punching tools;
P5O: 5 Directional punches.

Movement on grinded precision guides and grinded re-circulating balls lead screws (ISO 3, max. error $\pm 0.005\text{mm}$).
Brushless motors with digital closed-loop position control.

METI software procedures for a parallel management of real-time perforation, loading and optimization of perforation files from SQL/MDX archives, work time statistics, cutting order management.



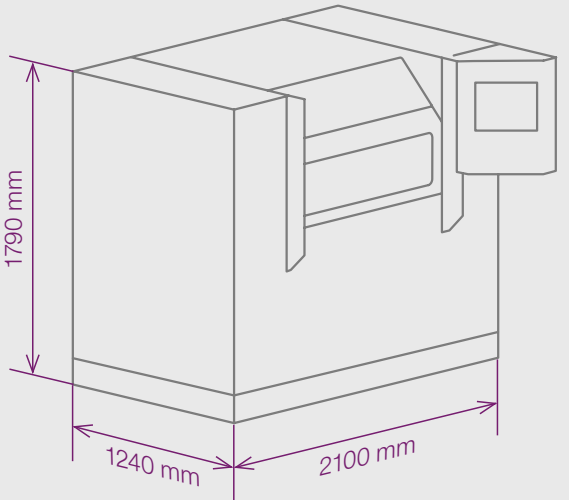
Working area sectorized with 40 micro-sectors of 120x125 mm each singularly activated by dynamically controlled valves (DVC, patent) for the optimal hold of the leather on the punching area.

Performances

SPEED	max 1.0 m/sec
ACCELERATION	max 4G (40 m/sec ²)
PERFORATION DIAMETER	from 0.6 mm to 4.0 mm
THICKNESS LEATHER	max 2.0 mm
THICKNESS LAMINATED	max 8.0 mm
PERFORATION SPEED	max 100 holes/sec

MODEL	UPP
HEADS	2
PUNCHING AREA	1000x600 mm
SCANNING AREA	1200x800 mm
UHD CAMERAS	8
COLOR PROJECTOR	1

The technical data shown are indicative. TESEO reserves the right to modify them, without notice, at any time.





pioneers and dreamers

TESEO
OPTIMIZEYOURBUSINESS

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INDUSTRY
4.0



ISO

9001 QUALITY
14001 ENVIRONMENT
45001 HEALTH & SAFETY

