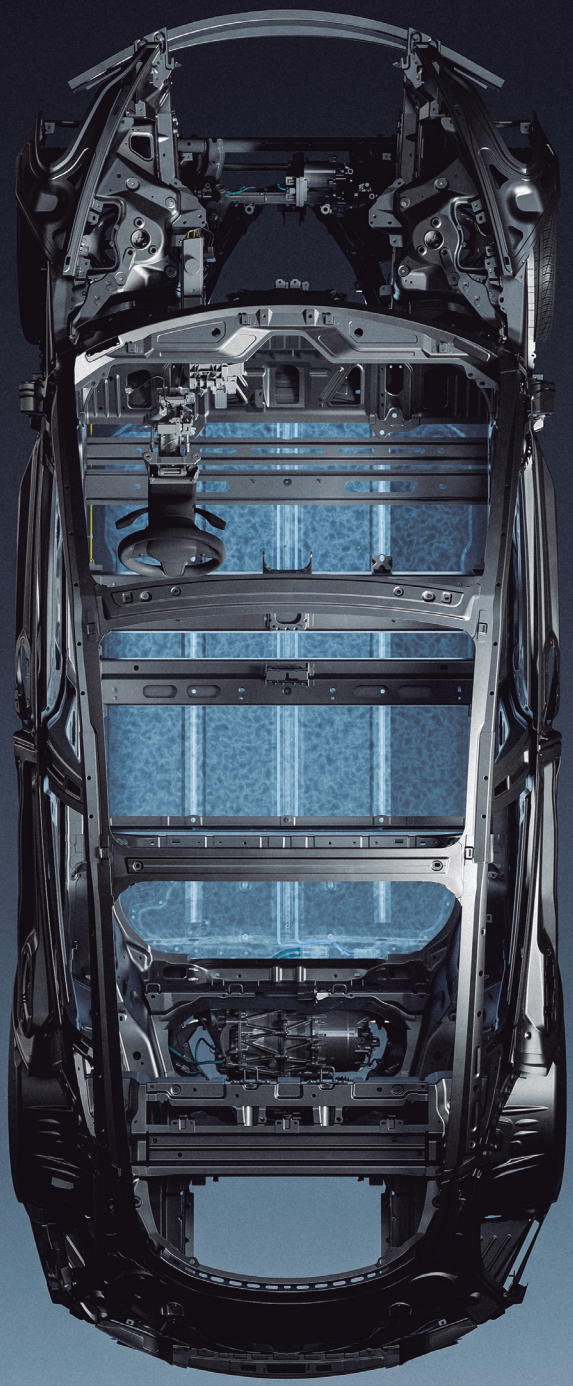
2025

E-mobility & Vehicle —Structures

Etxetar



Machining & Laser Cutting

EVS

01

About —Us

M

Machining

LC

Laser
Cutting

At Etxetar, we are a global leader in the design and manufacturing of highly productive machining solutions for complex and demanding applications in the automotive industry, with a strong focus on Chassis, Body-in-White (BIW), and Electric Drivetrain components.

With decades of experience and a strong commitment to innovation, we deliver high-value technological solutions that combine precision, efficiency, and flexibility.

Designed to meet the demands of an evolving mobility landscape, our modular systems—standard or fully customized—ensure top-tier quality, reliability, and scalability.

G. Cross Members

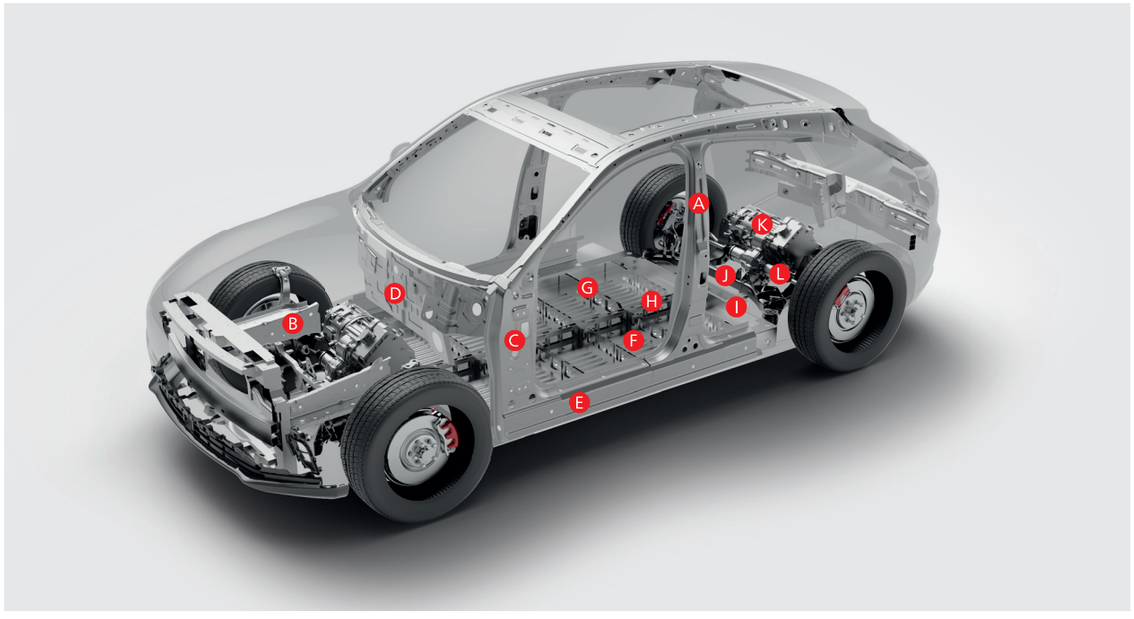
H. Rear Casting

I. Back Giga Casting

J. Back Subframe

K. Electric Motor Housing

L. Shafts



A. B-Pillar

B. Front Giga Casting

C. Door Ring

D. Front Casting

E. Rocker Side Sill

F. Battery Box

02

M

Machining

Xflex Family

Introduction:

The Xflex platform was created as a response to the need for flexible and adaptable solutions in CNC operations. Its design focuses on maximizing productivity in real industrial environments, offering a versatile concept capable of adapting to different part types and production requirements.

This approach has led us to develop products that combine efficiency, robustness and adaptability, ensuring optimal performance in diverse machining scenarios.

P
06

Benefits:

Machining center solution for various components and operations.

Diverse configurations possible for different production scenarios.

Compatible with Dry, MQL or high-pressure coolant machining.

Lay-out friendly.

P
07

Product
Catalogue

03

Xflex Twin

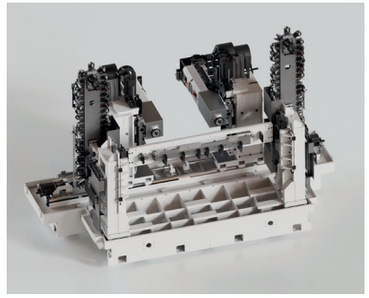
Multiple machining heads for maximum throughput. —Scalable over time.

All Xflex machines support multiple machining spindles—1+1, 2+2, up to 3+3—to boost productivity within a compact footprint. This modular setup allows simultaneous operations on one or more parts, increasing efficiency without sacrificing the precision.

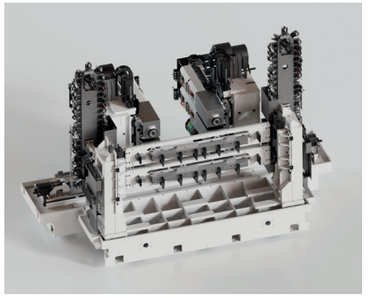
The machine can be initially configured with fewer heads and scaled up as demand increases, without modifying the base structure. Each unit operates independently, ensuring consistent performance and long-term flexibility.

M

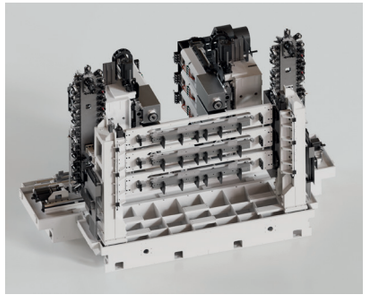
Machining



↑
1 + 1



↑
2 + 2



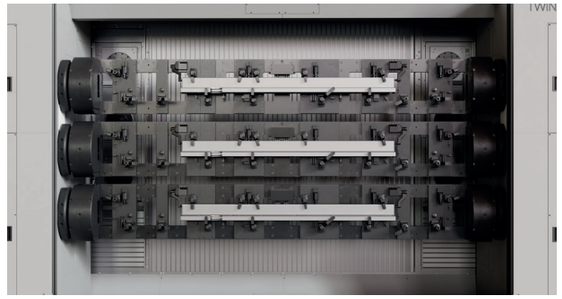
↑
3 + 3

Process more parts simultaneously. —With total flexibility.

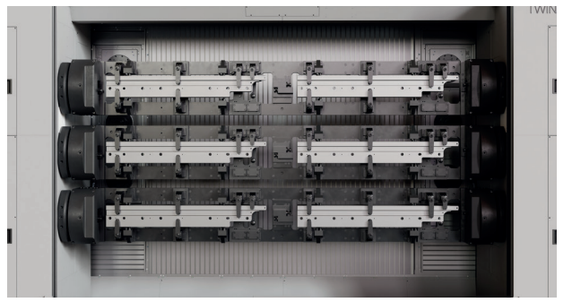
Xflex platforms are designed with configurable fixturing systems that allow machining or cutting of multiple parts in a single cycle—ranging from 1 to 6 parts depending on the machine type and part geometry. This multi-clamping capability supports efficient batch processing, reduces changeover time, and enhances overall machine utilization.

Quick-change zero-point systems ensure fast setup and adaptability to a wide range of part sizes and shapes.

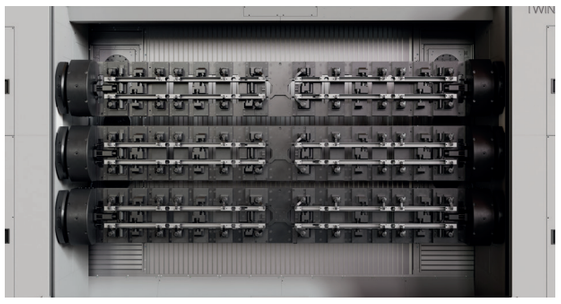
↓
1 large
part



↓
2 large
parts



↑
2 short
parts



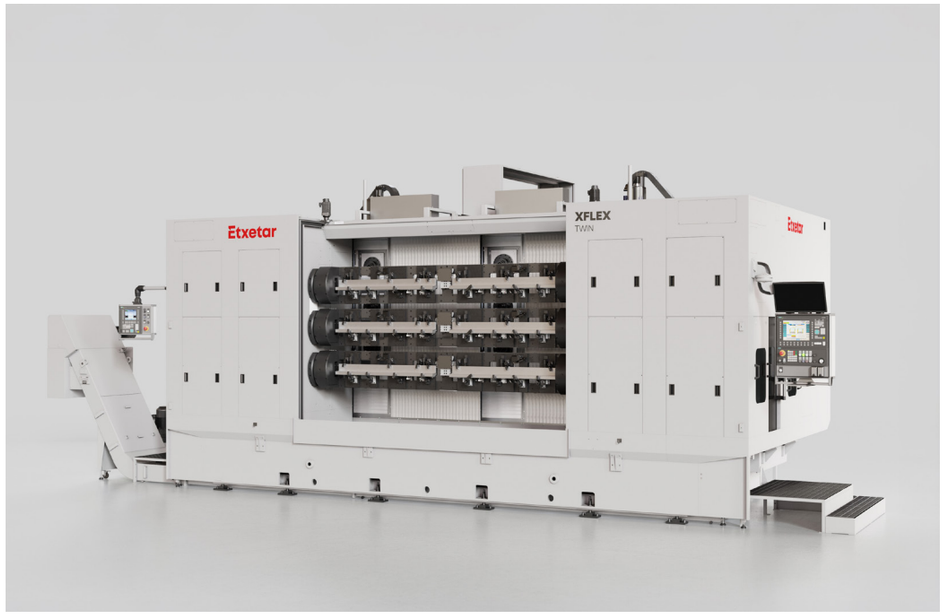
↑
4 short
parts

03

Xflex Twin

As part of the Xflex platform, the Xflex Twin is a solution with 2 adjacent units, that doubles the throughput with better floor space usage.

By doing so, we do not sacrifice any flexibility as each 3-axis unit is completely independent. The Xflex Twin is the ideal solution for high-productivity machining of aluminium extruded profiles or castings.



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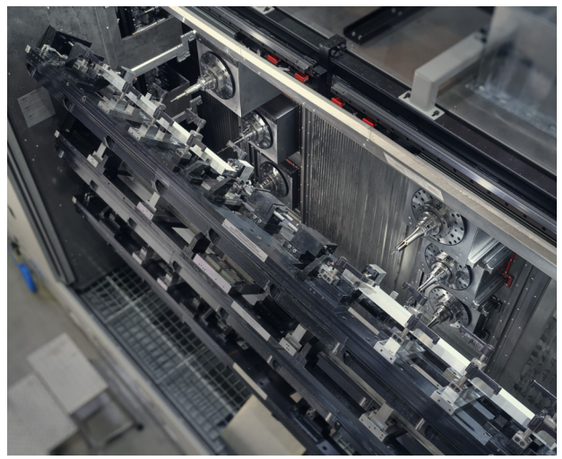
Xflex Twin



↑
Xflex Twin
detail

↑
Xflex Twin
detail

03

M

Machining

↑
Xflex Twin
detail

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P
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Product
Catalogue

04

Xflex Twin XXL

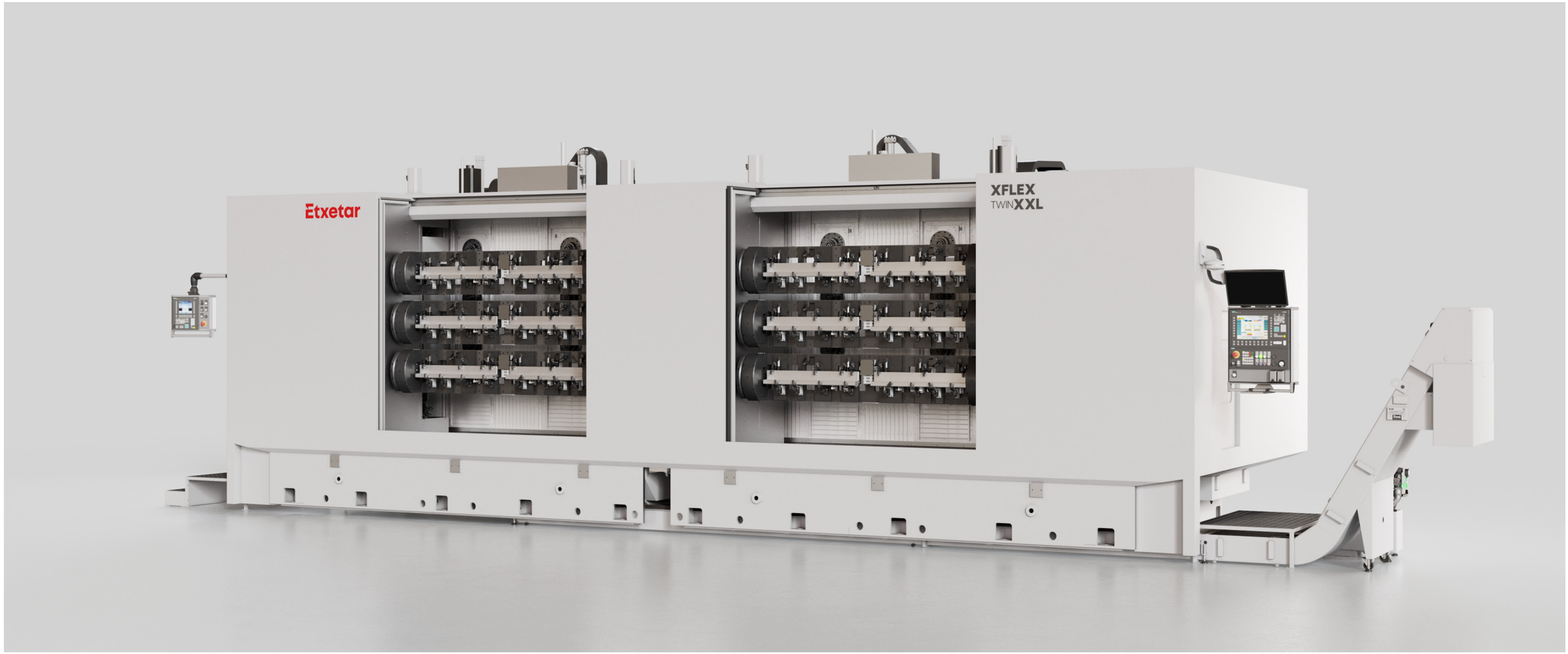
The Xflex Twin XXL redefines productivity by splitting the working area of a standard Twin into two mirrored working zones.

Instead of large fixtures, it operates with smaller ones, enabling faster loading/unloading and minimizing idle times.

By combining two machines into one shared structure, the Xflex Twin XXL delivers higher output, reduced footprint, and lower automation costs—all with a single robot serving both sides. It's like having two fully independent compact machines, sharing automation and infrastructure for maximum efficiency.

M

Machining



↑
Xflex Twin
XXL

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14

P
15

Product
Catalogue

05

Xflex Twin +

Based on the Xflex Twin, the Xflex Twin+ series is designed to machine frames and chassis parts under maximum production demands. It offers the same advantages as the Xflex Twin — high throughput with optimized floor space usage — while adding configurable fixtures to accommodate different sizes of frames and chassis parts.

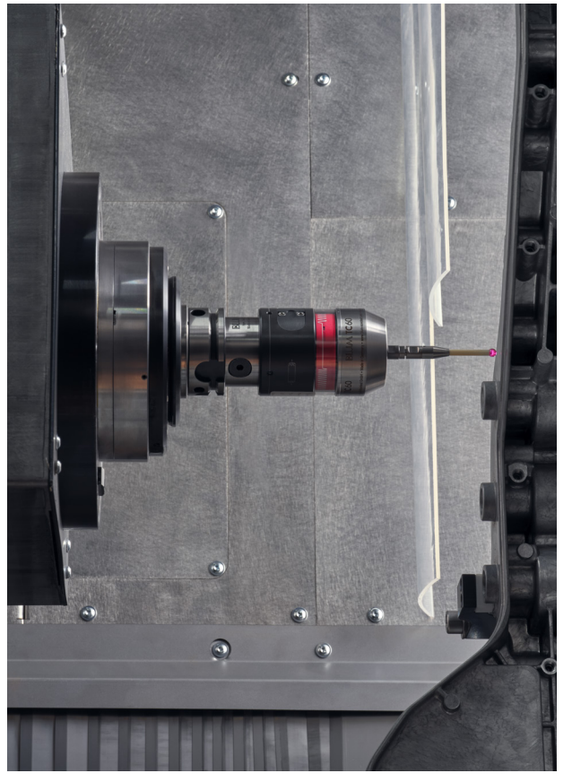
In addition, its spindles are equipped with independent Y axes, providing enhanced flexibility and machining capability for complex geometries.

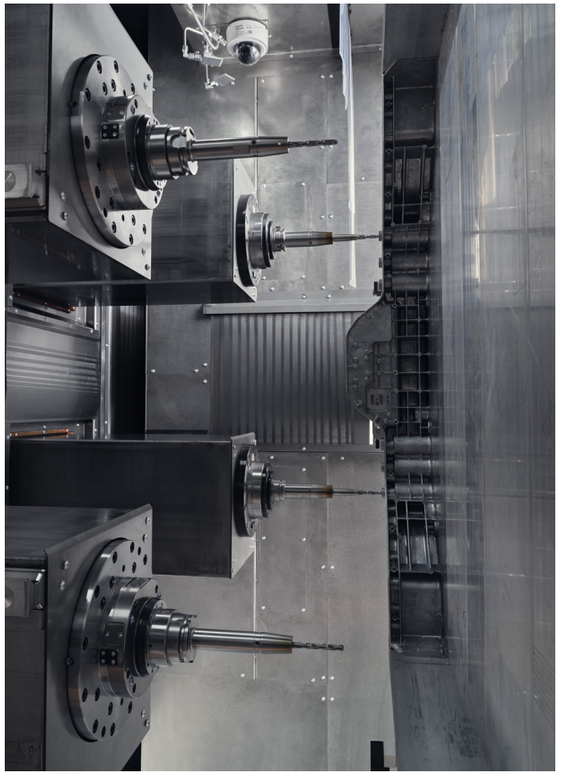
M

Machining

↑
Xflex Twin +

Xflex Twin +
detail
↓





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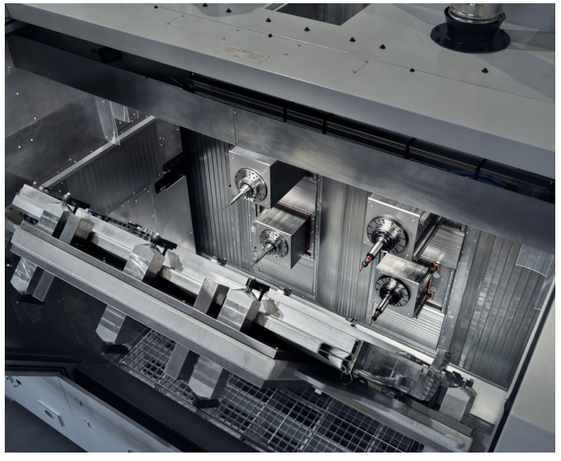
Xflex Twin +
detail



↑
Xflex Twin +
detail

05

M

Machining

↑
Xflex Twin +
detail

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19

Product
Catalogue

06 Xflex Twin Laser

Building on the proven architecture of the Xflex Twin, the Xflex Twin Laser introduces advanced laser cutting technology to deliver a new level of productivity and efficiency in machining aluminium extruded profiles and thin-wall components.

Thanks to the use of laser, the system eliminates cutting forces, simplifies fixturing, and removes the risk of tool breakage—all while maintaining CNC-level quality. Continuous power monitoring ensures consistent performance, even in demanding applications.

LC

Laser
Cutting

↑
Xflex
Twin Laser

Working Area:
Workpieces up to
3.0 m in length.

↑
Xflex
Twin Laser
detail

Laser Technology Advantages:

– Cost-effectiveness.
- Multi-laser machine solutions for higher productivity.
- Increased machine availability.
- Savings in cutting tools, coolant, and MQL.
- Competitive and scalable investment.

– Scalability.
- Flexible multi-laser configurations.
- Adaptable to different models, families, and thicknesses.
- Easy prototype testing and fast changeovers.

– Quality.
- CNC-level precision and repeatability.
- Zero cutting forces → simpler fixtures, no broken tools.
- Continuous power monitoring ensures process stability.

– Sustainability.
- Cleaner process with no chips, no coolant, and no MQL.
- Highest aluminium recycling value thanks to dry cutting.

07

Technical Data

M

Machining

LC

Laser
Cutting

Choosing the right solution for your process needs.

Each machine in the Xflex family is optimized to deliver high performance for specific manufacturing challenges. While they share a common foundation—modular architecture, multi-spindle capability, scalable fixtures, and high automation potential—each model brings unique advantages depending on the application:

Xflex Twin
Flexible and modular solution for machining aluminum castings and extrusions at medium to high volumes.

Xflex Twin XXL
Dual-zone architecture that maximizes output and minimizes idle time with shared automation in a compact footprint.

Xflex Twin +
Designed for large structural components, offering extended travels and high-output multi-spindle performance.

Xflex Twin Laser
A clean, fast and tool-free laser cutting solution—ideal for simple operations on single-layer aluminum profiles, with no chips, no coolant, and minimal maintenance.

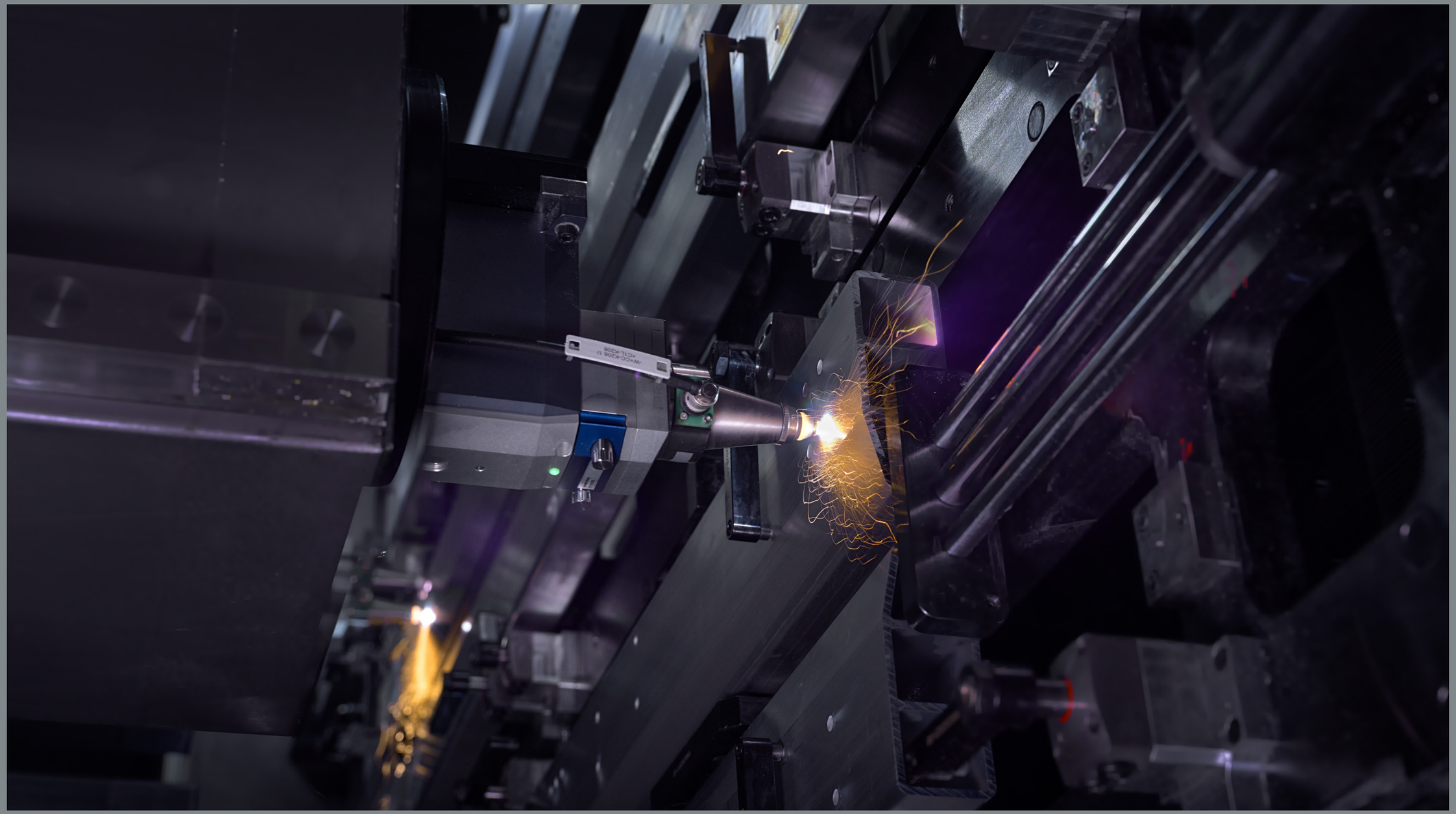
Technical data.

Specifications		Xflex Twin	Xflex Twin XXL	Xflex Twin +	Xflex Twin Laser
Machining Units	No. of machining units	2 (Twin)	2 (Twin)	2 (Twin)	2 (Twin)
	No. of parts/cycle [1]	2 / 3 / 6 / 8 / 12 (flexible*)	2 / 3 / 6 / 8 / 12 (flexible*)	1 / 2	2 / 3 / 6 / 8 / 12 (flexible*)
	Working volume (L x W x H, mm)	3,000 x 400 x 400	2,400 x 400 x 400	2,400 x 400 x 400	3,000 x 400 x 400
Working Spindles	No. of spindles/machining unit [2 3]	1/2/3	1 / 2 / 3	1 / 2	1/2/3
	Spindle type	Motorized spindle	Motorized spindle	Motorized spindle	Laser head
	Distance between spindles (mm)	500	500	640 —1800	500
	Tooling interface (DIN 69893)	HSK-A 63	HSK-A 63	HSK-A 63	N/A
	Power(S1: 100%)—(S6: 40%) (kW)	30 —35	30 —35	30 —35	Up to 6
	Torque (S1: 100%)—(S6: 40%) (Nm)	78 —80	78 —80	78 —80	N/A
	Spindlespeed (rpm)	15,000 —20,000	15,000 —20,000	15,000 —20,000	N/A
Axis	No. ofaxes / machining unit[4]	4 (X / Y / Z1 / Z2) / 5 (X / Y / Z1 / Z2 / Z3)	4 (X / Y / Z1 / Z2) / 5 (X / Y / Z1 / Z2 / Z3)	5 (X / Y1 / Y2 / Z1 / Z2)	4 or 5 (X / Y / Z1 / Z2 / Z3)
	X-axis travel (mm)	2,100	2,100	2,500 —3,000	2,100
	Y-axis travel (mm)	500	500	1,800	500
	Z-axis travel (mm)	700	700	630	700
	A-axis (number of indexes)	360,000	360,000	750	360,000
Tool Magazine	Type of tool magazine	NC drive	NC drive	NC drive	N/A
	No. of tool magazines	2	2	2	N/A
	No. of tools per magazine	Up to 60	Up to 60	24 / 36	N/A
	Maximum tool diameter (mm)	300	300	300	N/A

07

M

Machining



↑
Xflex Twin +
detail

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P
25

Product
Catalogue

08

BIW-3D Circular Concept

LC

Laser
Cutting

The BIW-3D Circular Concept introduces an innovative circular architecture that maximizes productivity while minimizing footprint.

The circular design features a single load/unload station, simplifying automation and reducing layout complexity. The rotary table indexes 120° in less time than conventional transfer shuttles, significantly shortening cycle times.

With two high-power laser heads working simultaneously in each machining zone, the system reduces idle waiting between stations and adapts more efficiently to the geometry and takt time of each part.

Designed for structural components up to 6 mm thick—such as door rings, pillars, rails, and cross beams—the BIW-3D Circular Concept delivers higher throughput, faster cycles, and a more compact production cell compared to traditional multi-station systems.

BIW-3D Circular
Concept
↓

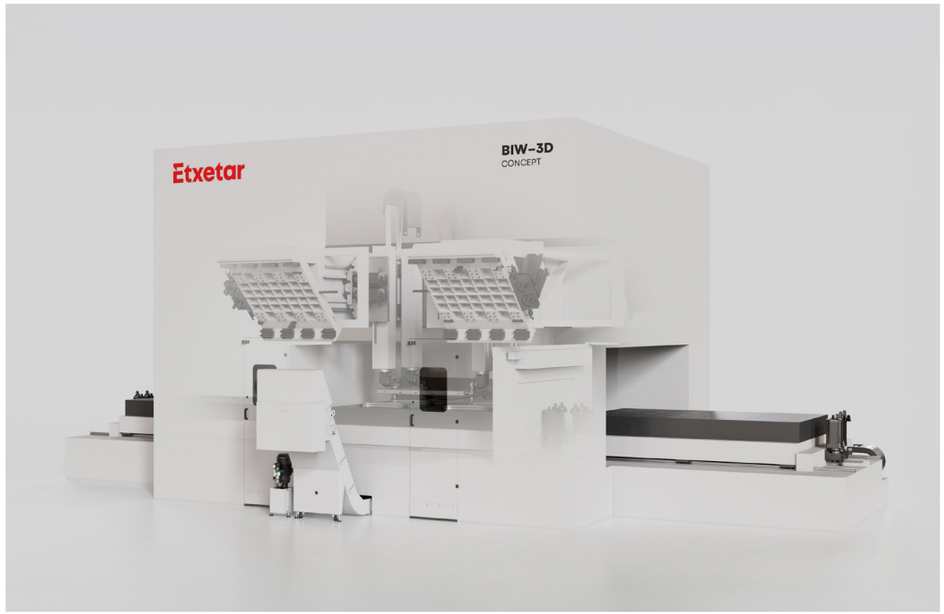
09

BIW-3D Concept

Designed for complex structural automotive components, the BIW-3D Concept integrates up to four high-power laser heads into a single 5-axis machine, enabling multi-part or single-part processing of elements up to 6 mm thick — such as door rings, pillars, rails, and cross beams.

By concentrating all operations in one machine with just one operator, the Etxetar concept dramatically reduces layout space, cycle-time, and overall operational investment, while maintaining the same laser capacity as traditional solutions that require up to four machines and operators.

LC
Laser
Cutting



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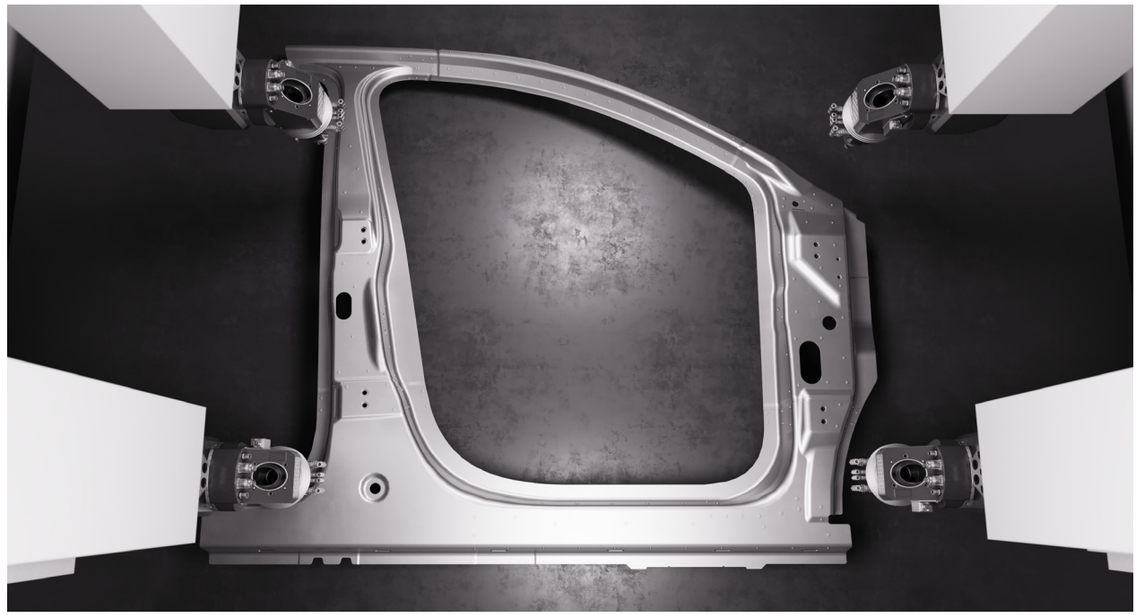
BIW-3D
Concept



↑
BIW-3D
Concept
details

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Product
Catalogue

10

Turnkey Solutions

M

Machining

LC

Laser
Cutting

At Etxetar, we don't just deliver machines — we deliver complete, turnkey production solutions.

Our turnkey approach goes beyond individual equipment. We design and integrate full manufacturing cells that combine machining, laser cutting, deburring, sawing, cleaning, welding, and automation into a single, seamless system. Every step is engineered to meet your specific part, process, and productivity requirements.

What sets our turnkey solutions apart:

Proven Experience.
Decades of delivering turnkey systems for top-tier OEMs and Tier 1 suppliers in automotive and industrial sectors.

Full Process.
Integration From raw material handling to final inspection, every stage is automa ted, traceable, and optimized for efficiency.

Reduced Footprint, Lower Costs.
Smart layouts and multi-functional machines reduce the number of units, simplify automation, and lower operational costs.

One Partner, One System.
We provide all hardware, software, fixturing, automation, and support—fully integrated, tested, and ready for production.

Built-in Quality & Traceability.
Inline measurement and process monitoring ensure consistent output and 100% traceability, even at high production volumes.

A.
Laser
Mark.

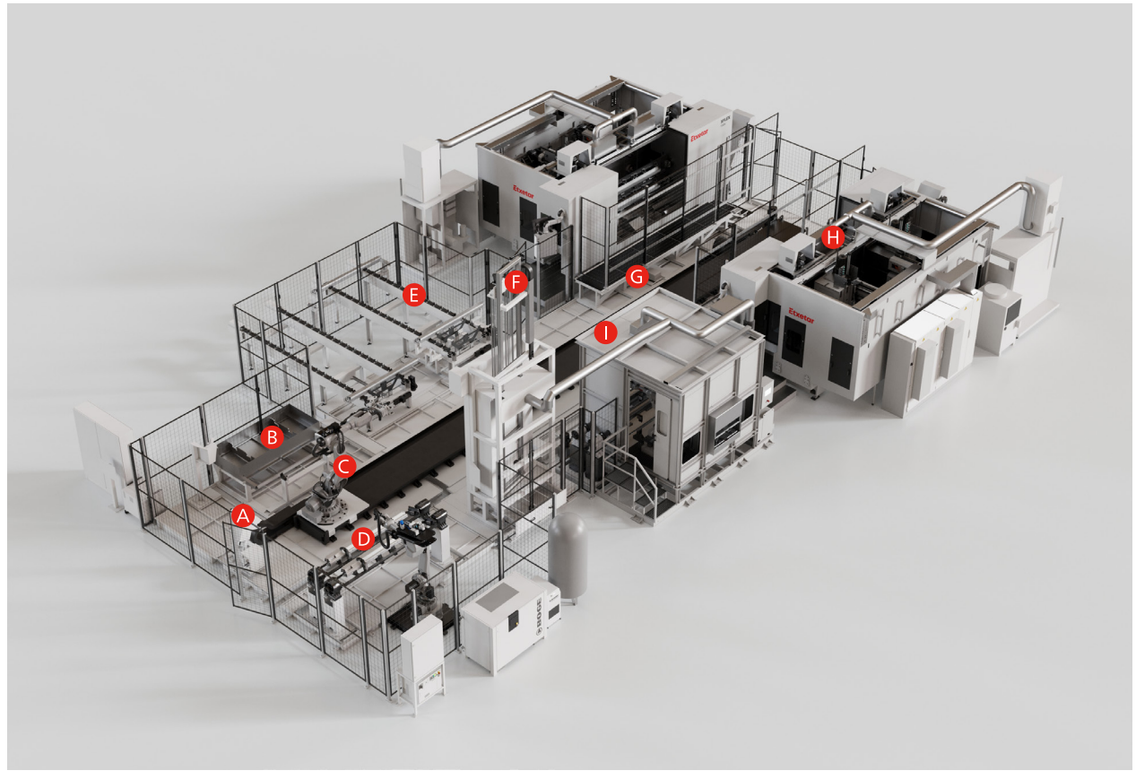
B.
Not oK
Parts.

C.
Automatic
Load / Unload.

D.
Vision
System.

E.
Infeed / Outfeed
Conveyors.

F.
Washer / Blow Off
Station.



G.
CNC Machining /
Laser Cutting.

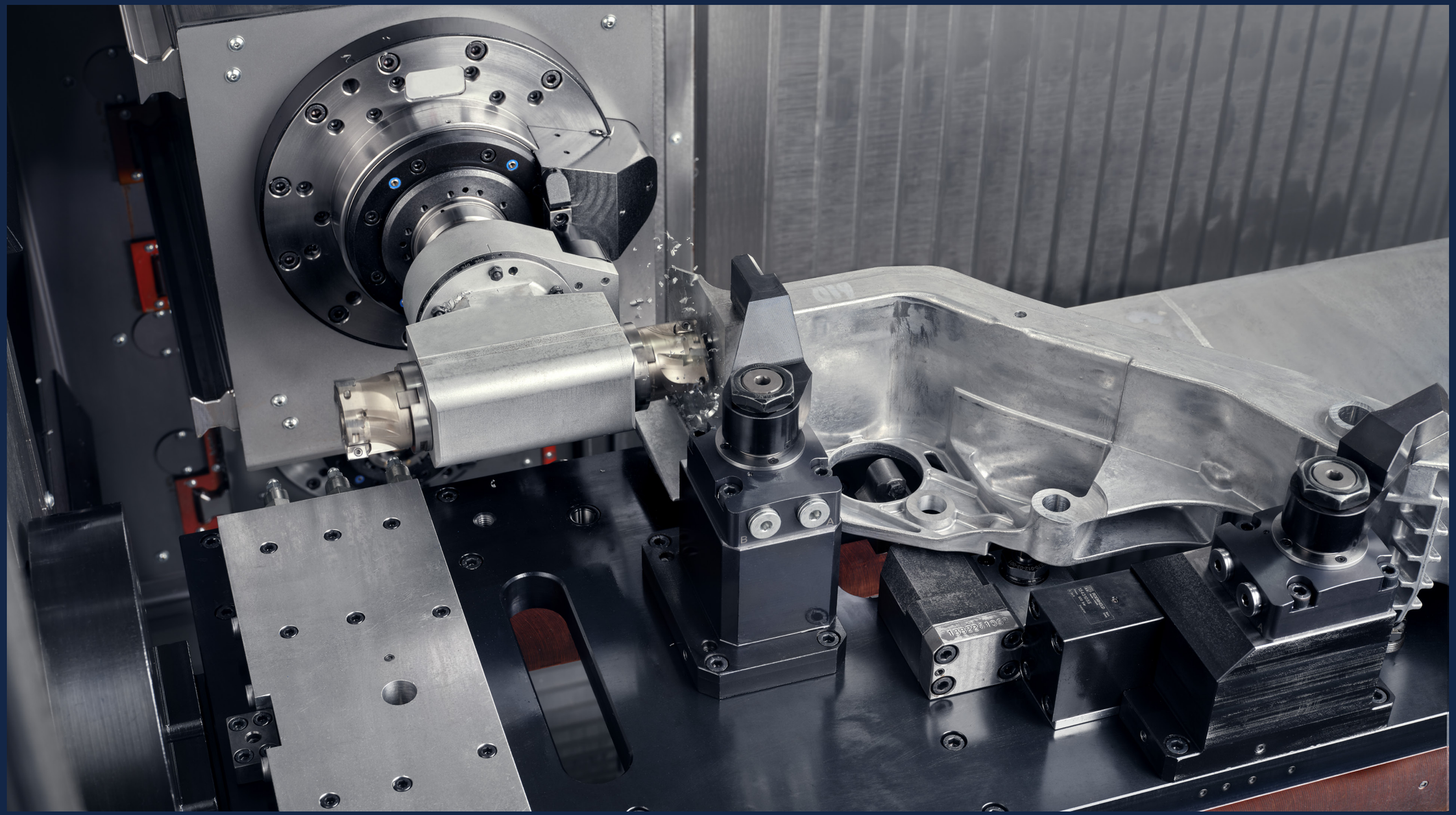
H.
Deburring
Stations.

I.
Others:
Lift Assist Devices.
Bin Picking.
Sawing / Cutting.
Quality Gages.

10

M

Machining



↑
Casting
machining
detail

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33

Product
Catalogue

Paper:
Fedrigoni Arena Smooth.
140 gr / 300 gr (Covers).

Inks:
CMYK and Pantone®.
485 / 877.

EVS

E–mobility &
—Vehicle Structures

inzugroup

Etxetar