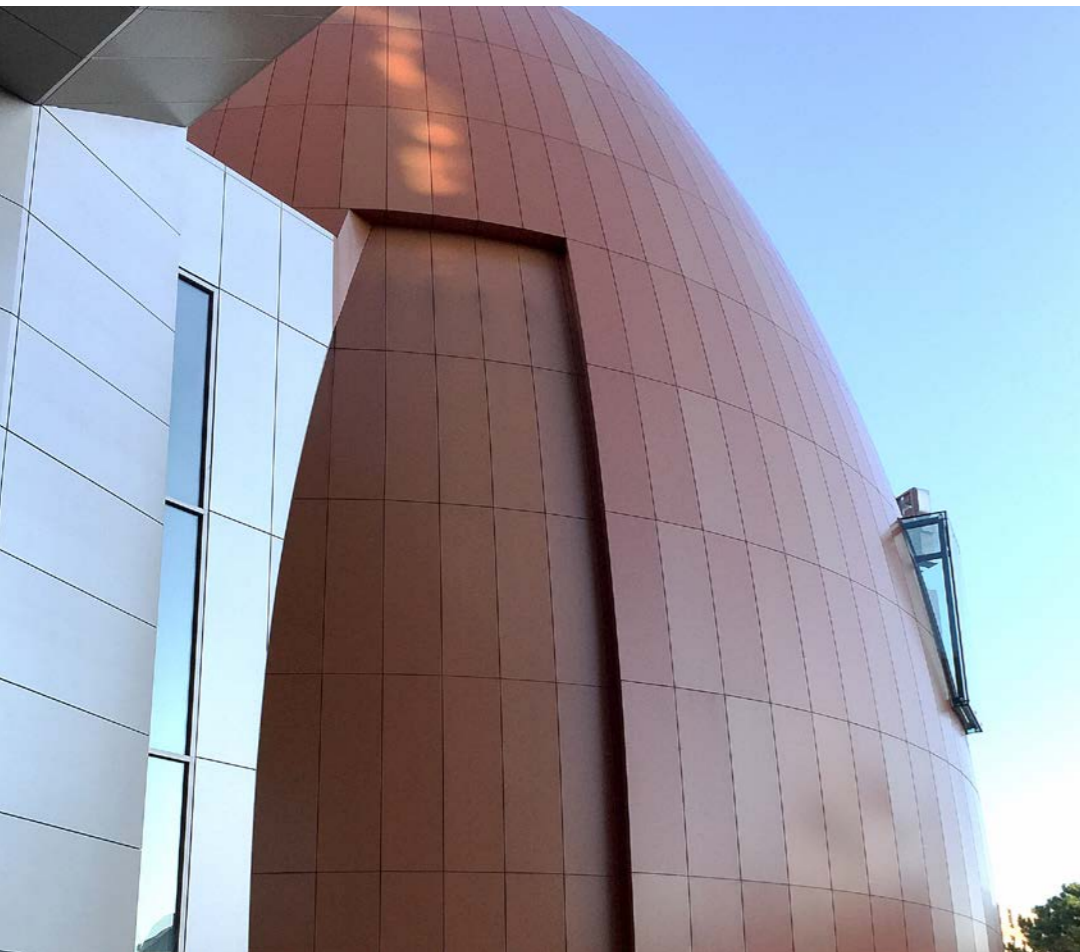




ALU Bender

Automatic multipurpose edge milling/bending machine for the edges of architectural panels

Automatic multipurpose **Milling / Ben ding machine**
to process straight edges on panels for
architectural facades, transport industry,
Interior Design and Visual Communication



"College Football Hall of Fame",
Atlanta, Georgia, Usa.
Realizzato da MillerClapperton
utilizzando ALU BENDER.



ALU BENDER

COMPATIBLE PANELS

ACM / ACP PE CORE MINERAL CORE

- ALUCOBOND®
- LARSON®
- ALPOLIC®
- ARCONIC®
- ALUBOND®
- ALBOND®
- SIBALUX®
- VITRABOND®
- STACBOND®
- ALUPANEL®
- NEOBOND®
-

SOLID ALU

- VITRADUAL®
- LUXE COAT®
- ALUCOLUX®
- FUTURAL®
-

ALU HONEYCOMB

- ALUCORE®
- LARCORE®
- PLASCORE®
- STARCELL®
- CELCOMPONENTS®
- HONYLITE®
-

ALUMINIUM CORRUGATED CORE

- METAWELL®
- DOLUFLEX®
-

FIBER CEMENT

- CEMBRIT®
- EQUITONE®
- COPANEL®
- SWISS PEARL®
-

HPL

- TRESPA®
- MAX EXTERIOR®
- POLYREY®
- RESOPAL®
- FUNDERMAX®
-

INDUSTRIAL PRODUCTIVITY

“**multifunctional** adj. [comp. by multi- and functional].-1 adj. having or fulfilling several functions, versatile, as for objects, machines, industrial plant...”

ACM / ACP PE CORE MINERAL CORE

ALUCOBOND®
LARSON®
ALPOLIC®
ARCONIC®
ALUBOND®
ALBOND®
SIBALUX®
VITRABOND®
STACBOND®
ALUPANEL®
NEOBOND®
.....

ARCHITECTURE, TRANSPORT, INTERIOR
DESIGN, VISUAL COMMUNICATION

The “face fix” panels when processed leave sharp edges, exposed to atmospheric agents and are not esthetically pleasing. A wider spectrum of applications can be utilized when the edges are covered and protected.

The Alu Bender mills the panel and bends the exposed skin, covering the core and protecting it from atmospheric agents. The bending radius on the edge is perfect for all types of aluminium composite panels.

ALU HONEYCOMB

ALUCORE®
LARCORE®
PLASCORE®
STARCELL®
CELCOMPONENTS®
HONYLITE®
.....

VENTILATED FACADES,
TRANSPORT

The alu honeycomb core is not corrosion resistant. The exposure to atmospheric agents can cause its deterioration by oxidation.

The Alu Bender by milling and bending one of the two skins improves the protection of the core from atmospheric agents and covers it up. The bending radius on the edge is perfect for all types of aluminium composite panels.

TRANSPORT

The alu honeycomb panels are coupled with aluminium profiles to make partition walls. Crushing along the edges allows them to be inserted into “H” profiles.

The Alu Bender automatically crushes the panel edge with amazing consistency and accuracy and can automatically feed panels without any length restrictions.

SOLID ALU

VITRADUAL®
LUXE COAT®
ALUCOLUX®
FUTURAL®
.....

VENTILATED FACADES

The “face fix” panels when processed leave sharp edges, exposed to atmospheric agents and are not aesthetically pleasing. A wider spectrum of applications can be considered when the edges are covered and protected.

The Alu Bender mills the panel and bends the precoated skin, covering the edge and protecting it from atmospheric agents. The bending radius on the edge is perfect for all types of solid aluminum panels.

HPL

TRESPA®
MAX EXTERIOR®
POLYREY®
RESOPAL®
FUNDERMAX®
.....

VENTILATED FACADES,
INTERIOR DESIGN

Processing of this material can create chatter-marks, chipping, edge opacity and sharp corners. Tying up your Machining Centre or CNC to clean up the edges is inefficient and will inevitably create production bottlenecks.

The Alu Bender is a quick and easy solution to create a perfect edge finish and will increase production. In one simple processing cycle, it is possible to obtain a clean finish and bevel both top and bottom of the edge.

FIBER CEMENT

CEMBRIT®
EQUITONE®
COPANEL®
SWISS PEARL®
.....

VENTILATED FACADES,
INTERIOR DESIGN

When cutting with a circular saw blade the fiber cement panels are left with a fragile, sharp edges that are easily damaged if not bevelled. In addition many manufacturers require that a special sealant be applied to the exposed edges to protect the panels from moisture. Currently this is done manually and is very time consuming.

The Alu Bender will bevel both top/bottom of the edge and automatically applies the LUKO® sealant (or similar), in just one single processing cycle!

ALUMINIUM CORRUGATED CORE

METAWELL®
DOLUFLEX®
.....

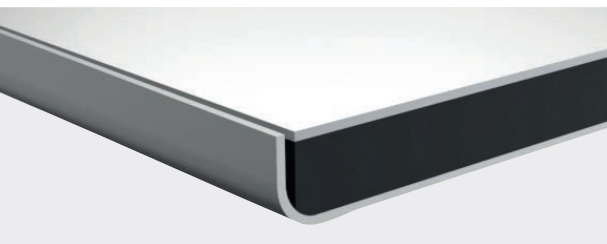
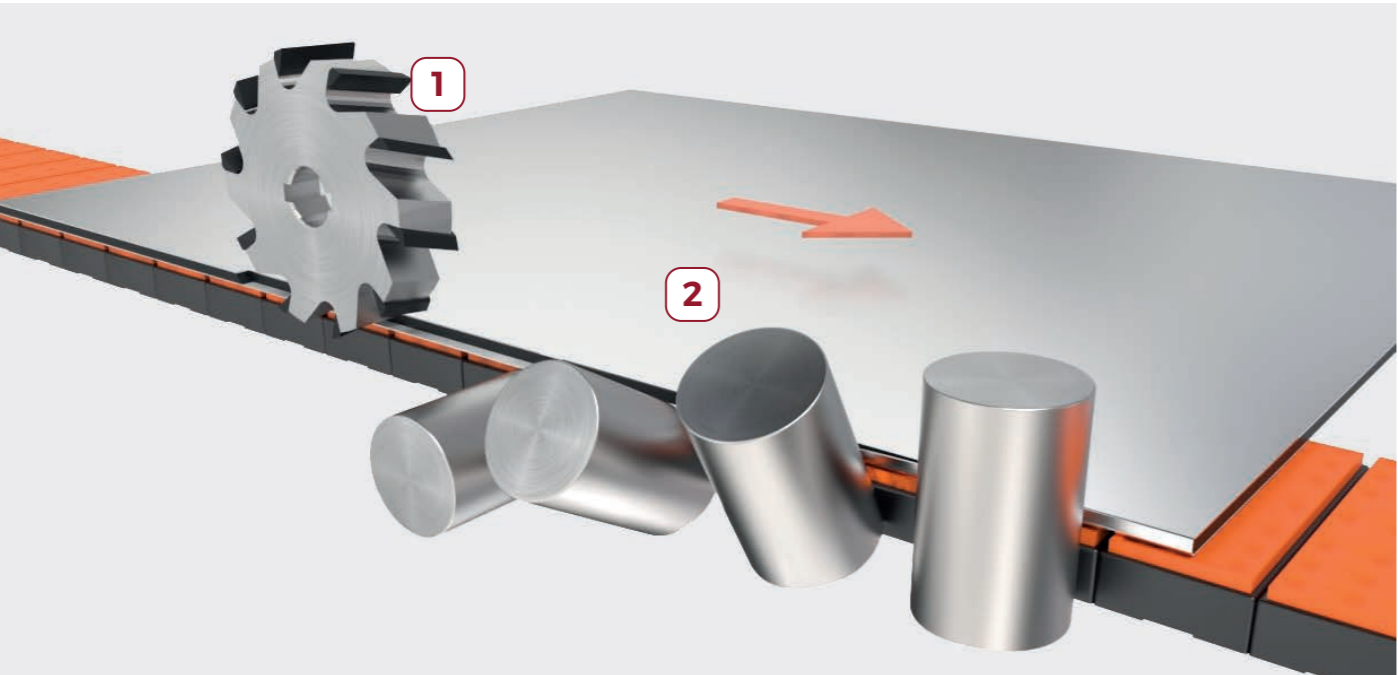
VENTILATED FACADES,
TRANSPORT

The aluminium corrugated core can not be treated as corrosion resistant. The exposure to atmospheric agents can cause its deterioration.

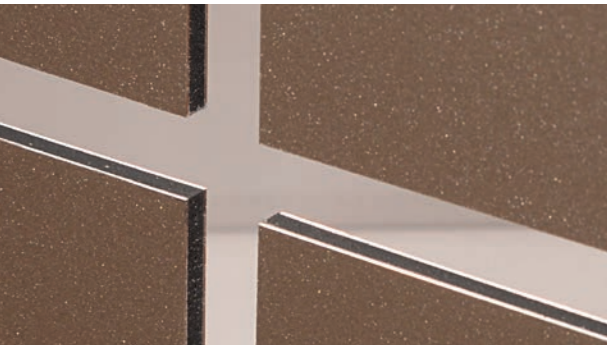
The Alu Bender by milling and bending one of the two skins improves the protection of the core from atmospheric agents and covers it up. The bending radius on the edge is perfect for all types of aluminium corrugated core panels.

EDGE HEMMING

ACM / ACP (PE CORE - MINERAL C ORE)
SOLID ALU



- 1 Aluminium skin and core milling
- 2 Bending from 0° to 90°



BEFORE

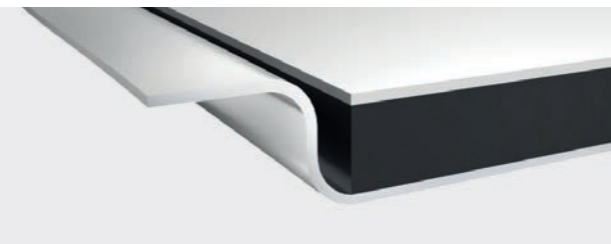
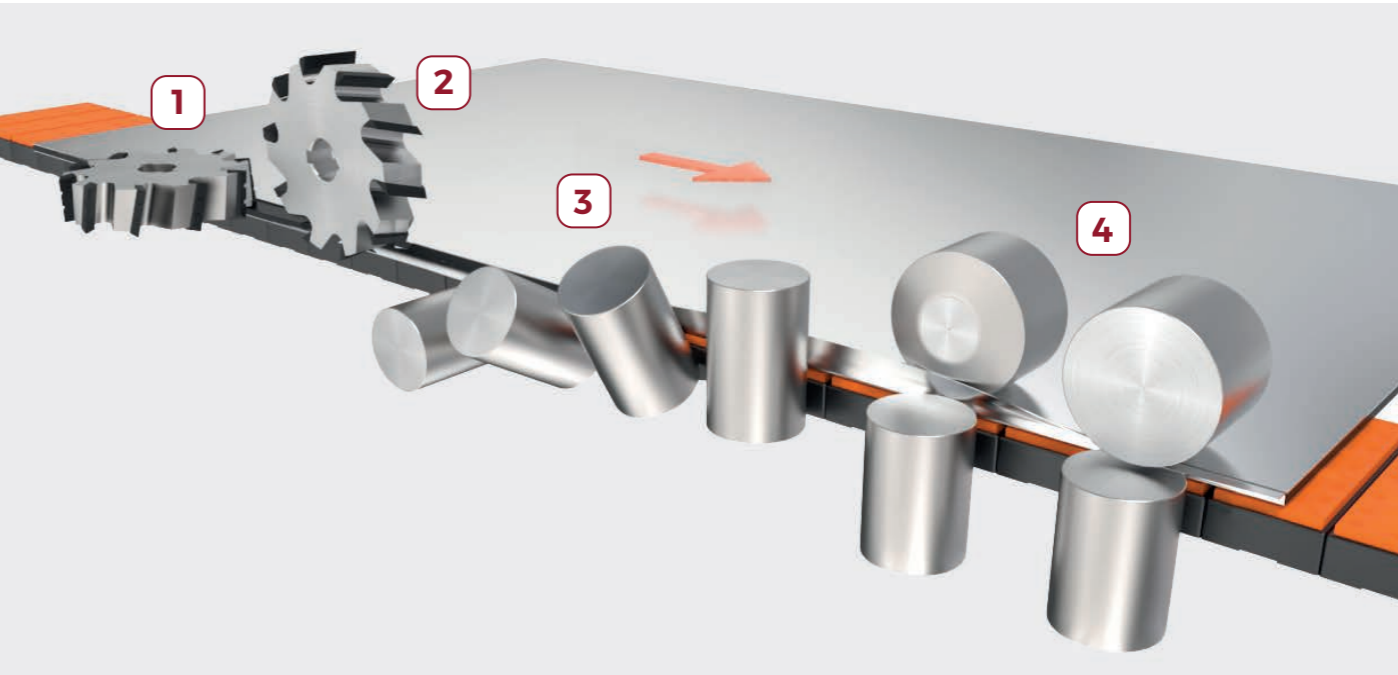


AFTER

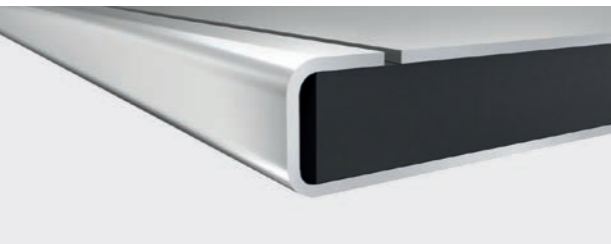
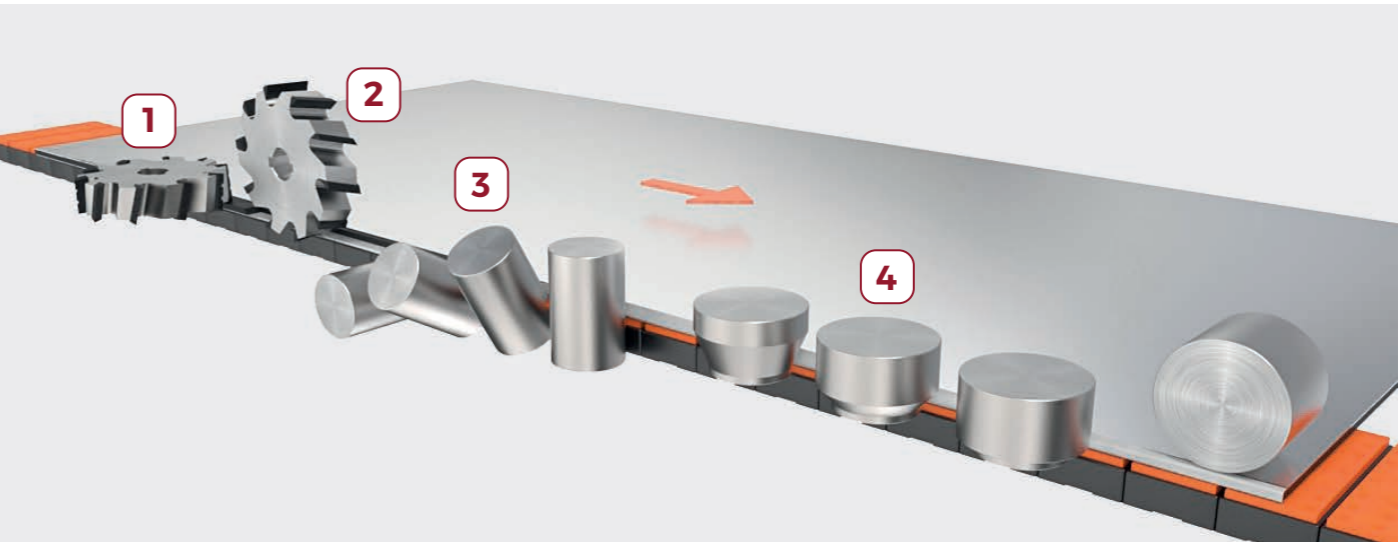


“College Football Hall of Fame”, Atlanta, Georgia, Usa.
Fabricated by MillerClapperton using the ALU BENDER

ACM / ACP (PE CORE - MINERAL C ORE)



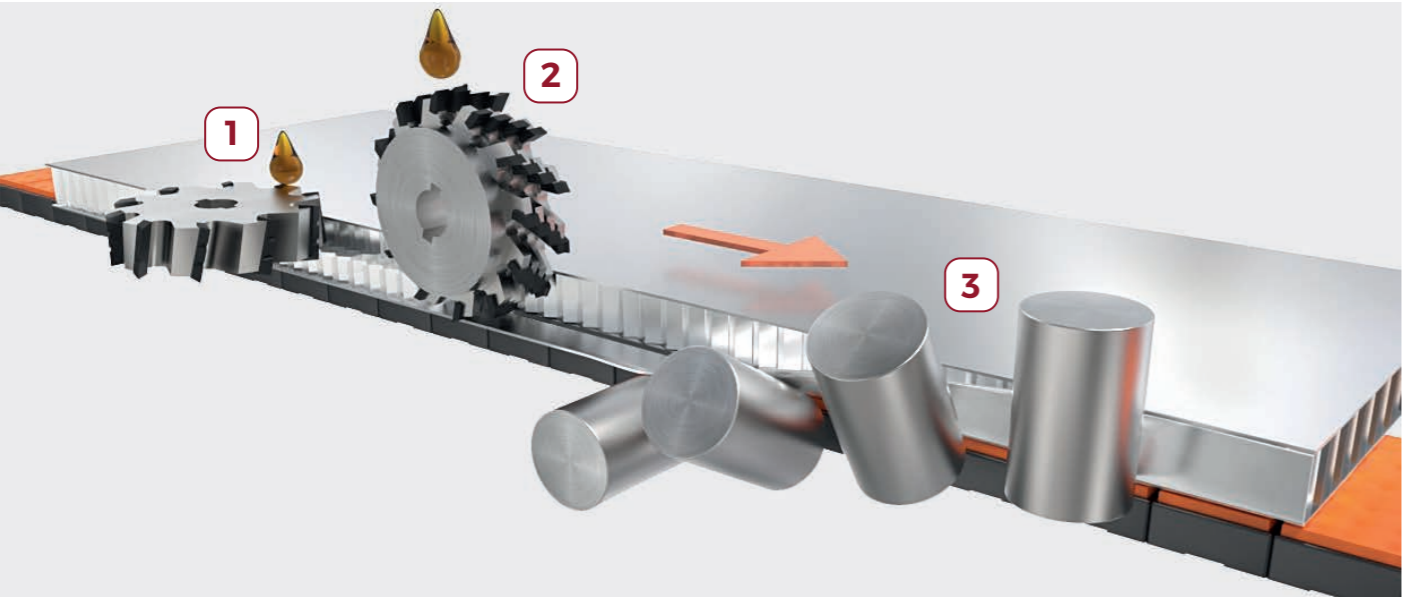
- 1 Aluminium skin milling
- 2 CORE milling
- 3 Bending from 0° to 90°
- 4 Double outside bending from 90° to 180° (Opt.)



- 1 Aluminium skin milling
- 2 CORE milling
- 3 Bending from 0° to 90°
- 4 Double inside bending from 90° to 180° (Opt.)

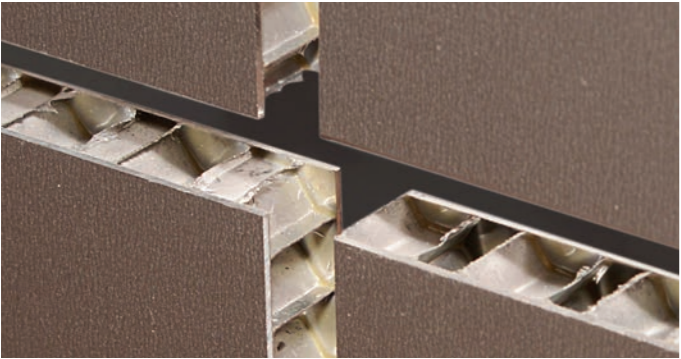
EDGE BENDING

ARCHITECTURE
ALU HONEYCOMB



ALU HONEYCOMB PANELS AHP
min 6 mm - 15/64 - max 25 mm 63/64
Skins thickness min 0,7 mm - 0,030"
max 1 mm - 3/64

- 1 Aluminium skin milling
- 2 CORE milling and V milling for bending
- 3 Bending from 0° to 90°
- Tool lubrication (Opt.)



BEFORE



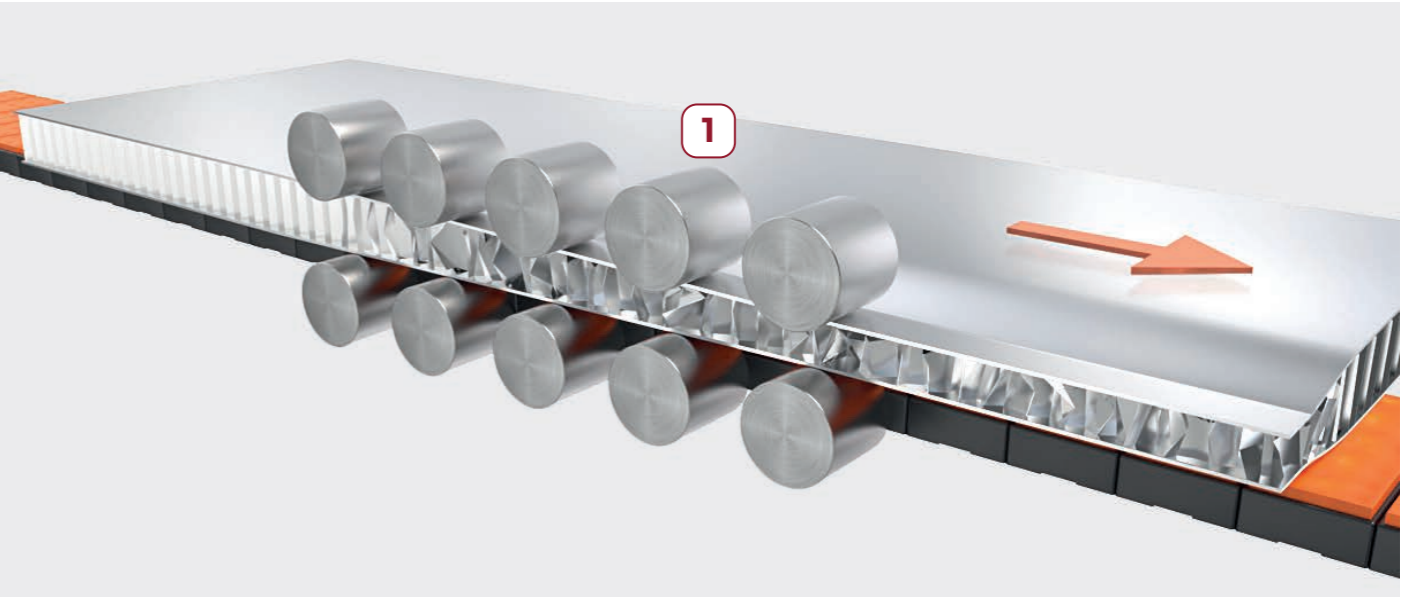
AFTER



"Eperia" made with ALU BENDER

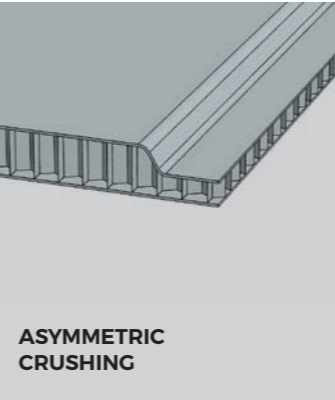
EDGE CRUSHING

TRANSPORT
ALU HONEYCOMB

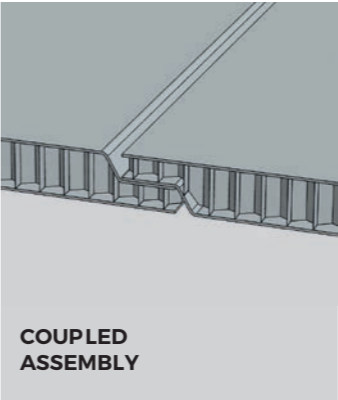


ALU HONEYCOMB PANELS AHP
min 6 mm - 15/64 - max 60 mm - 2" 23/64
Skins thickness min 0,7 mm - 0,030"
max 1 mm - 3/64

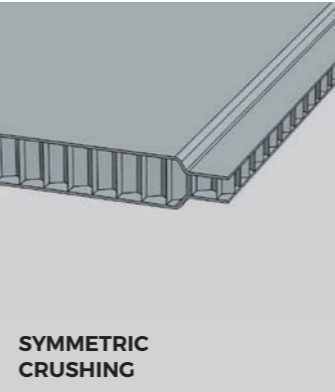
- 1 Continuous crushing (Opt.)



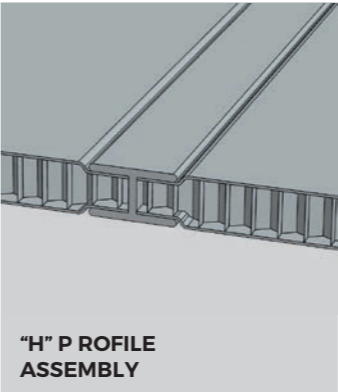
ASYMMETRIC
CRUSHING



COUPLED
ASSEMBLY



SYMMETRIC
CRUSHING

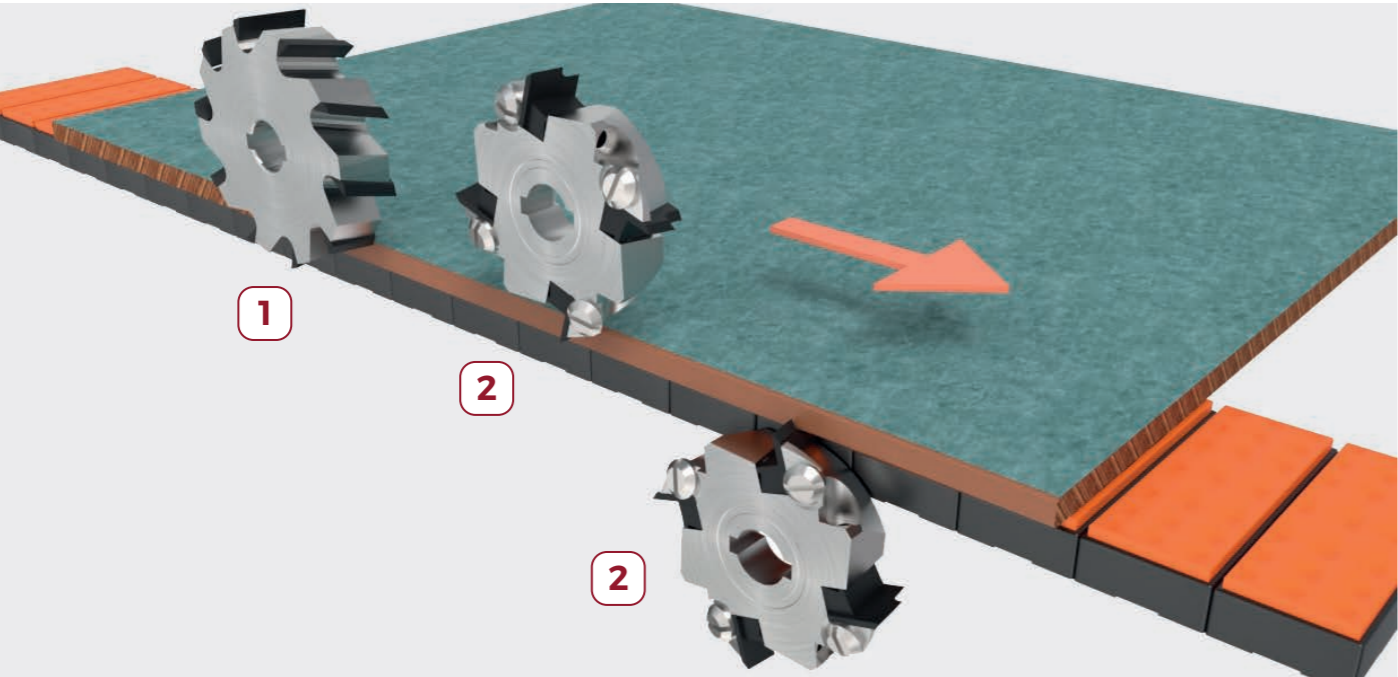


"H" P ROFILE
ASSEMBLY

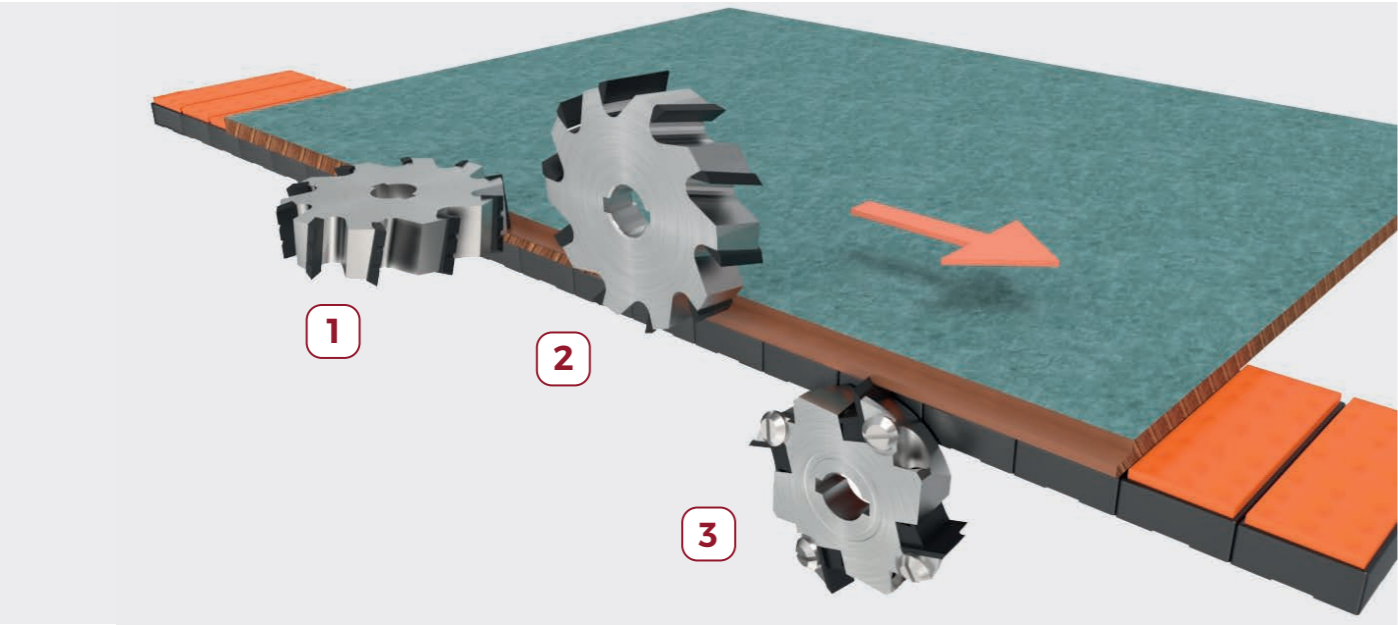


EDGE IMPROVING

HPL



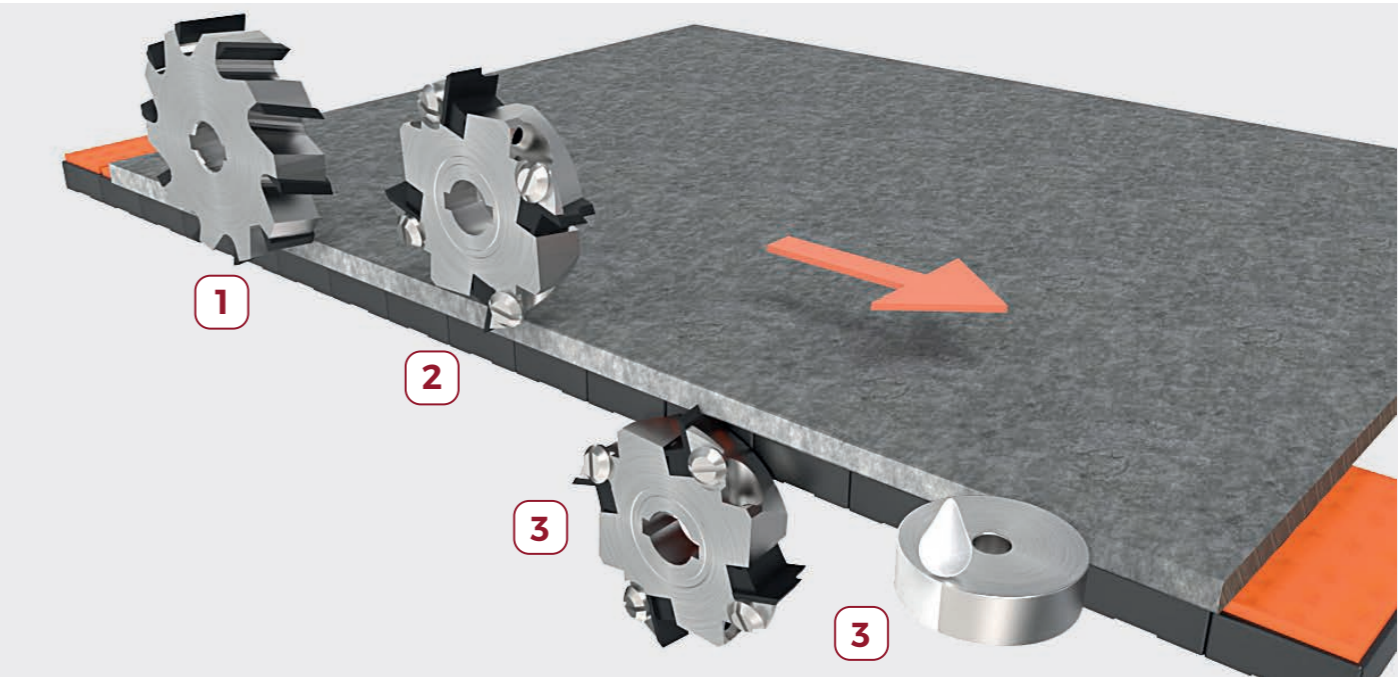
- 1 Milling/Cleaning of the edge
- 2 Top – Bottom bevelling (Opt.)



- 1 Milling for overlapping
- 2 Milling/Cleaning of the edge
- 3 Bottom bevelling (Opt.)

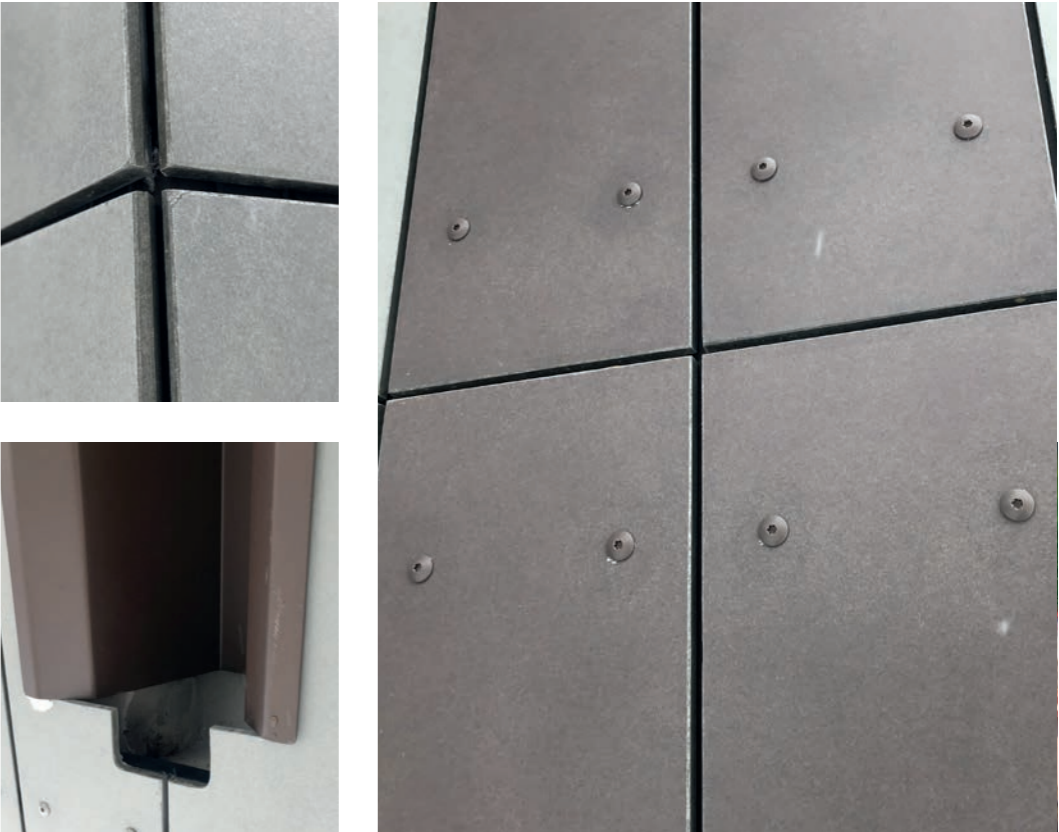
EDGE PROTECTING

FIBER CEMENT



- 1 Milling/Cleaning of the edge
- 2 Top – Bottom bevelling (Opt.)
- 3 Automatic spreading of the LUKO® liquid (Opt.)

FIBER CEMENT F ACADE



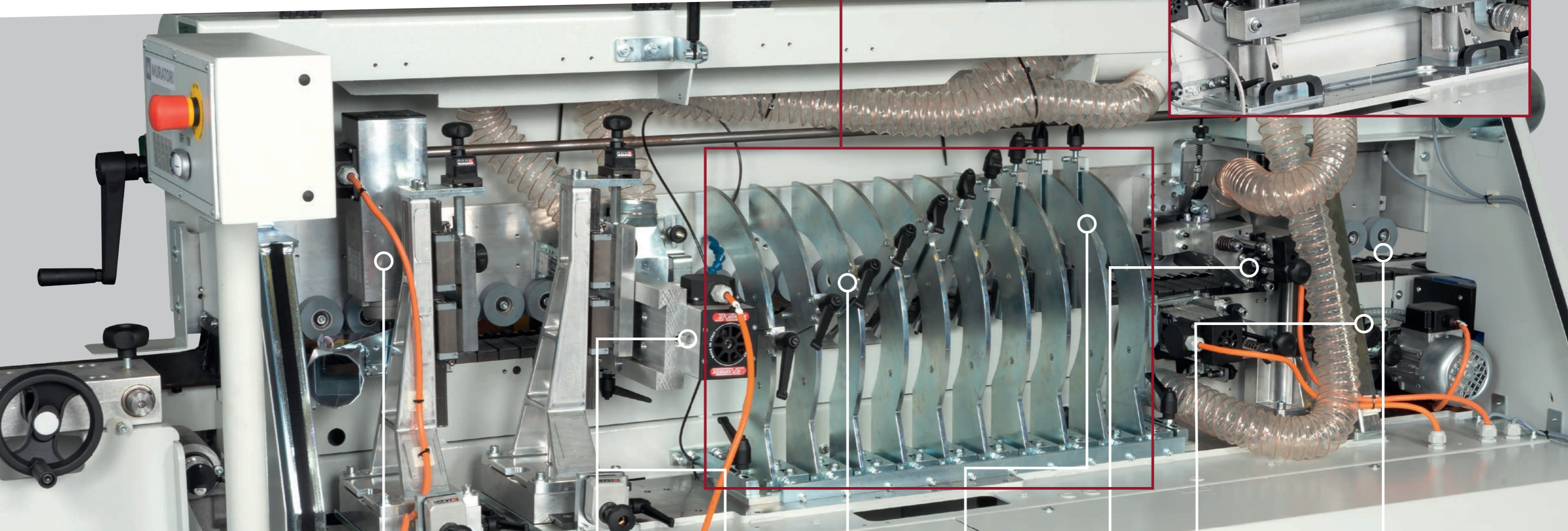
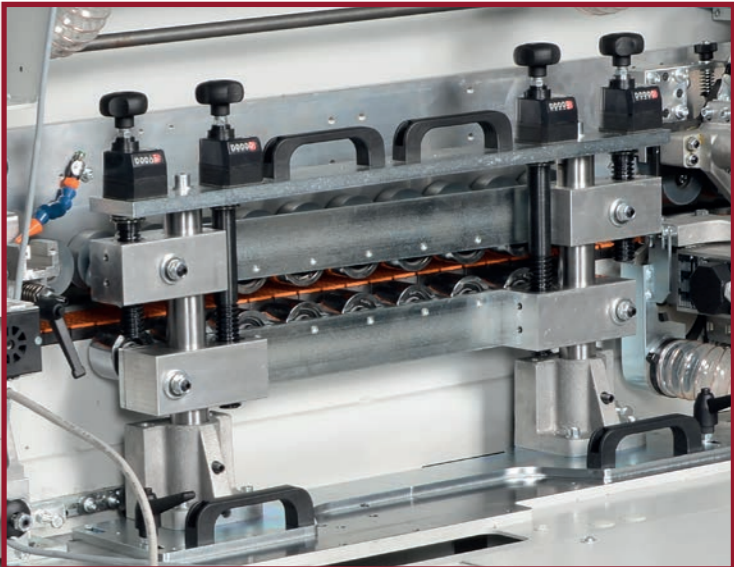
Alu Bender

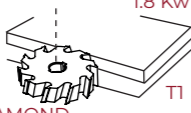
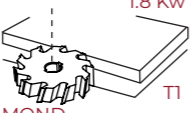
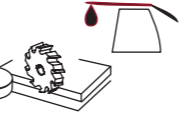
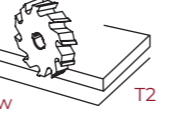
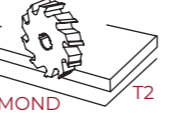


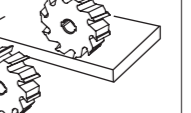

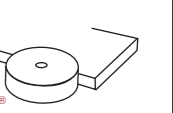
Automatic multipurpose edge milling/bending machine for the edges of architectural panels

BENDING UNIT

CRUSHING UNIT
OPT. (29)

The Crushing and Bending attachments are interchangeable.

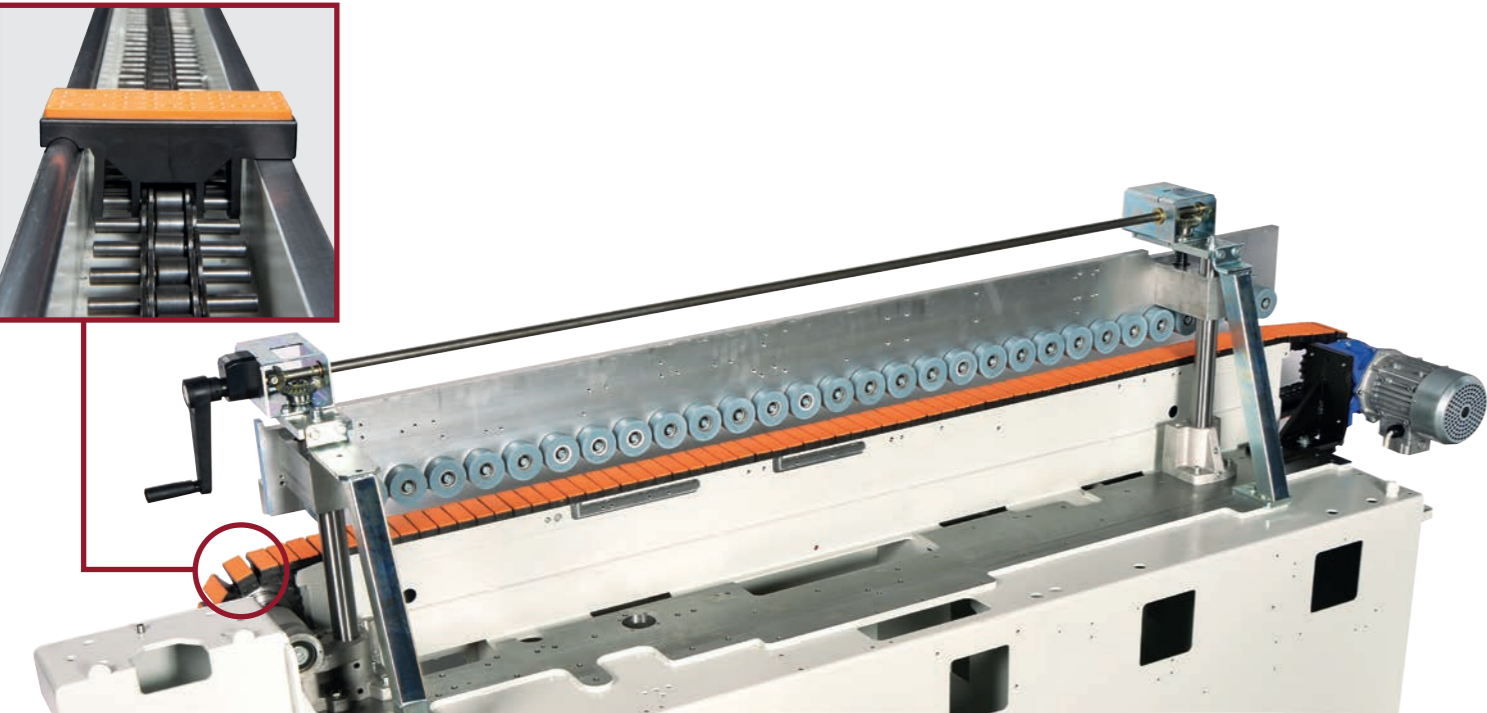


	 1.8 Kw DIAMOND T1	 1.8 Kw DIAMOND T1	 1.8 Kw DIAMOND T2	 1.8 Kw DIAMOND T2	 DIAMOND T2					 LUKO®
	STD	OPT.(36)	OPT.(4)	STD.	OPT.(45)	STD.	OPT.(12)	OPT.(3)	OPT.(10)	OPT.(32)
ACM PE CORE	✓	-	-	✓	-	✓	✓	-	✓	-
ACM MINERAL C CORE	-	✓	-	-	✓	✓	✓	-	✓	-
ALU HONEYCOMB	✓	-	✓	✓	-	✓	-	-	-	-
SOLID ALUMINIUM	✓	-	✓	✓	-	✓	-	-	-	-
HPL	-	✓	-	-	✓	-	-	✓	-	-
FIBER CEMENT	-	✓	-	-	✓	-	-	✓	-	✓

FEATURES

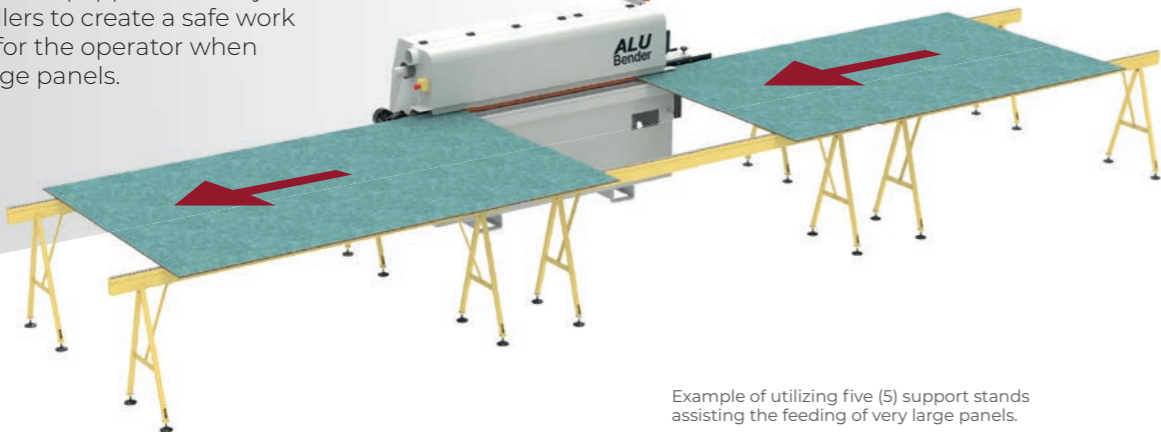
Industrial panel feeding

- Non-slip pad guarantees a firm grip of the panel. Double row of rubber rollers are assembled on a very sturdy beam to manually adjust the pressure placed on the panel.
- High quality, powerful gearbox for an adjustable continuous feed.
- The squareness of the panel feeding is guaranteed by the sliding track which has been manufactured with high precision.
- Long term reliability and accuracy are insured by the monobloc frame that is manufactured on precision CNC machines.



Option for large panels Opt. (6)

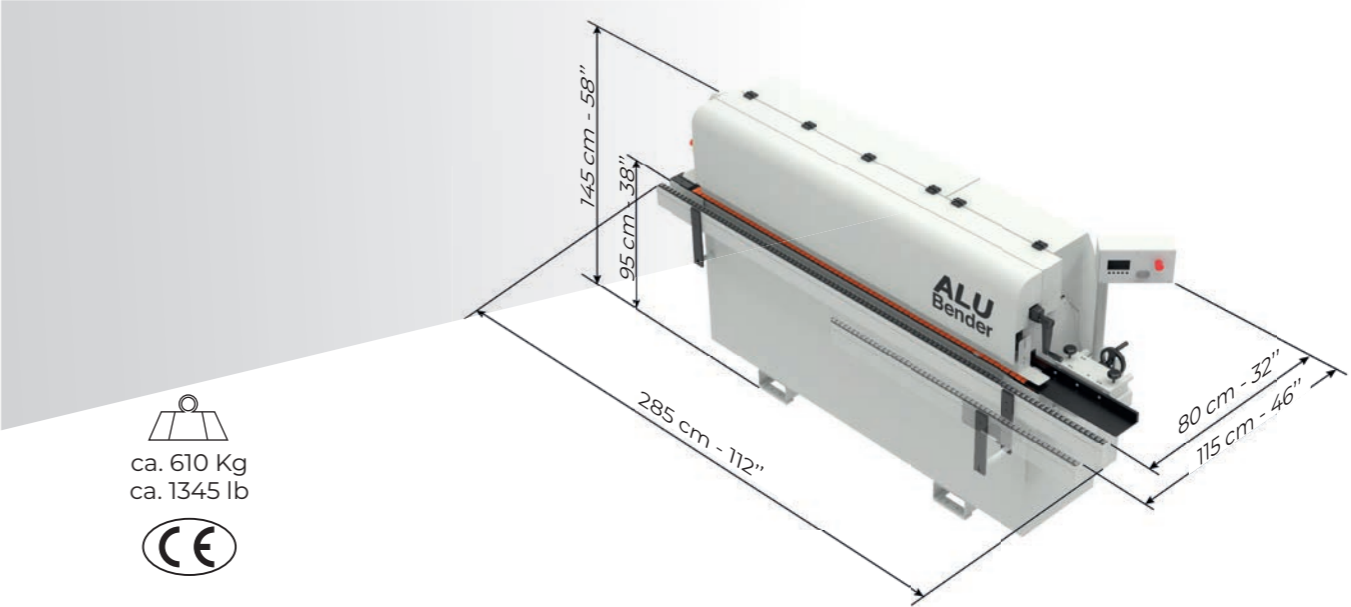
- To guarantee accuracy when processing larger panels, it will be necessary to employ additional supports when feeding the panels into the Alu Bender.
- The supports are equipped with adjustable feet and sliding rollers to create a safe work environment for the operator when processing large panels.



Example of utilizing five (5) support stands assisting the feeding of very large panels.

Panel thickness min-max ACM	min 3 mm (1/8) - max 6 mm (15/64)
Skin thickness ACM	min 0,3 - max 0,5 mm min (0.012") - max (0.020")
Panel thickness min-max AHP (alu honeycomb) mills and bends	min 6 mm (15/64) - max 25 mm (63/64)
Skin thickness AHP (alu honeycomb) mills and bends	min 0,5 mm (0.020") - max 1 mm (3/64)
Panel thickness min-max AHP (honeycomb) crushing	min 6 mm (15/64) - max 60 mm (2" 23/64)
Panel thickness min-max HPL	min 8 mm (5/16) - max 12 mm (15/32)
Panel thickness min-max Fiber cement	min 8 (5/16) - max 10 mm (25/64)
Min Width min	110 mm (4" 21/64)
Min Length min	120 mm (4" 23/32)
Panel Feeding Speed	adjustable on PLC from 2 to 6 mt/1' (6,6 to 20 fpm)
Chain Feeding motor	0,73 Kw
Milling motor T1 Standard (pre-bending rollers)	1,8 Kw - 200 Hz. - 12000 RPM
Motor T2 Standard (post-bending rollers)	1,8 Kw - 200 Hz. - 12000 RPM
Flush and bevel trimming motors – top-bottom	cad 0,22 Kw - 200 Hz. - 12000 RPM

We reserve the right to make modifications. The illustrated machines may show some units which are not included in the standard version. For photographic reasons some units are without protections. The use of the machine must be made with all protections installed.



MURATORI MACHINES



For three generations the Muratori family have been manufacturing machines for the wood processing industry, while evolving and diversifying its production to include machines for processing aluminium panels and composite materials. Suitable for architectural façade cladding, the transport industry, interior design and sign-making sectors.

Antonio Muratori received his training at and became an expert in the family business, where, thanks to almost three decades of experience, he has conceived, designed, and built the technology for automated handling and processing of composite panels.



About us

Muratori Machines was established and followed in the footsteps of the tradition and know-how acquired by Casadei Industria ALU. It now has a robust industrial organisation where, under the guidance of Antonio Muratori, its technologies, machines and CNC for the processing of ACM, solid aluminium, aluminium honeycomb, HPL and fibre cement panels are designed and built. Professionalism, expertise and with an open mind making it possible to meet the needs of customers. Introducing automation to the world of composite panel processing, while responding to production requirements. Totally committed the team at Muratori Machines focuses on innovation and quality with a view to finding ground-breaking solutions and revolutionising design and manufacturing models.

CNC machining innovation incorporating a Vertical Table

The innovation factor finds full expression in the vertical positioning of the working table. Thanks to automated panel loading, positioning and offloading systems, the integrated work cell achieves exceptional productivity levels.



The advantages of a vertical system assure tangible results

- Reduced space requirements
- Quality assurance during processing
- Enhanced ergonomics and safety
- Single operator for process control



VISION

We aim to break the status quo and revolutionise traditional design and manufacturing methods, with a view to maximising ergonomics, operability, and ease of use.

MISSION

We facilitate traditional production cycles for our customers. Using innovative technology within everyone's reach automating processes, involving composite material processing.



THANK YOU



On behalf of our employees and partners around the world, thank you for your interest in Muratori Machines.

Since the first ACM panel routed in 2006 we have one mission: to create and provide the best composite material panel handling and fabricating experience possible.

Muratori Machines have invested for the long term, consistently dedicating resources to researching and developing innovative panel routers, handling technologies and services that provide value to our customers.

This approach has culminated in our range: the Alu Ranger, Alu Loader, Double Loader, Off Loader, Alu Folder, Alu Bender, Alu Doubler.

In short, we have revolutionized the concept of panel routing and with it, the business of the panel fabricating industry.

Thank you again for your interest in exploring Muratori Machines.

We are ready to improve your business.

Sincerely,
Antonio Muratori
CEO
Muratori Machines



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