

ALU BENDER

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

MAIN SECTORS

WHERE OUR CUSTOMERS OPERATE



BUILDING, CONSTRUCTION, ARCHITECTURAL FACADES

The architectural facade or cladding sector comprises the external cladding of a building, which creates its aesthetics and provides protection, thermal and acoustic insulation, and is also sustainable and long lasting.



SIGN MAKING, SHOPFITTING

If the sign making sector is geared towards the design and manufacture of signs and signage of various types, shopfitting covers the outfitting and furnishing of exhibition areas, shops, showrooms and points of sale.



FURNITURE, INTERIOR DESIGN

Different materials are used in the furniture industry and the choice between wood, metal, glass and composite materials depends on style, environment, durability, maintenance and cost.



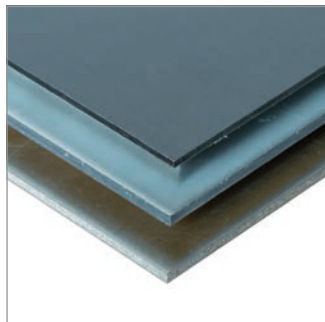
TRANSPORT INDUSTRY

The large transport sector includes the construction of trains, boats in general, and aerial transport cabins such as cable cars. The most commonly used materials are steel, Aluminum, plastic and composites.

PROCESSABLE MATERIALS

PANELS THAT CAN BE PROCESSED BY ALU BENDER

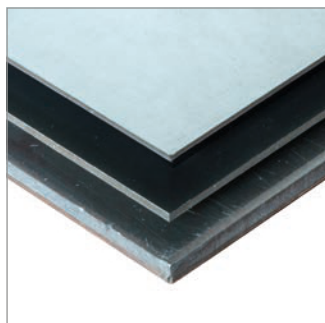
ACM/ACP



ALUCOBOND®
LARSON®
ALPOLIC®
STACBOND®
ARCONIC®
ALUBOND®

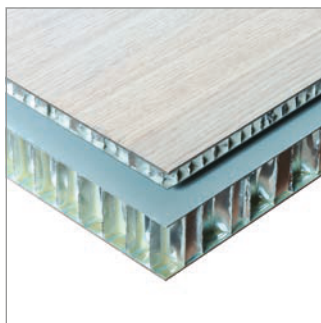
ALBOND®
SIBALUX®
VITRABOND®
ALUPANEL®
NEOBOND®
.....

Solid Aluminum



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

Aluminum Honeycomb



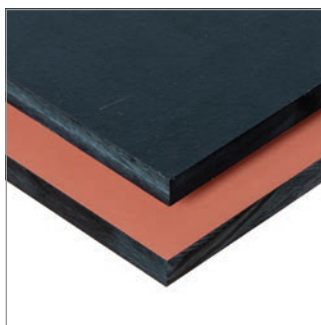
ALUCORE®
LARCORE®
PLASCORE®
STARCELL®
CELCOMPONENTS®
HONYLITE®
.....

Corrugated Aluminum



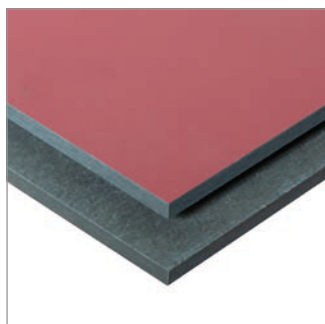
METAWELL®
DOLUFLEX®
.....

HPL



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

Fibre Cement



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

PVC Foam/Forex

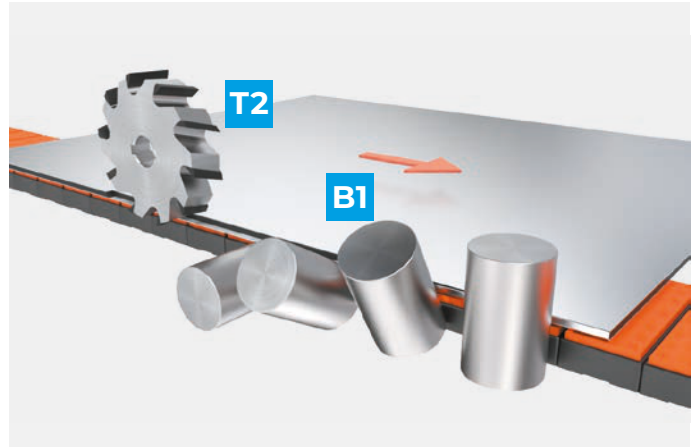
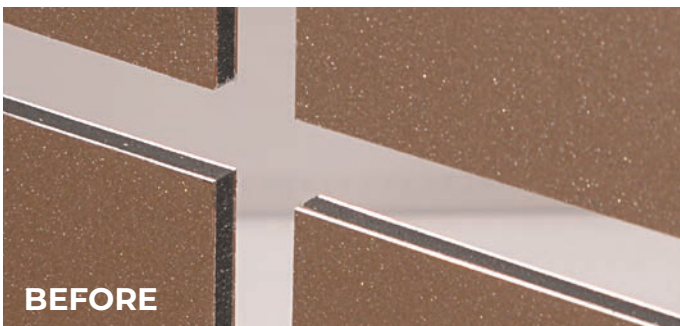
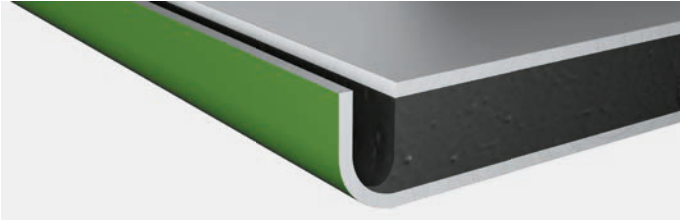


FOREX®
STADUR®
SIMONA®
PALOPAQUE®
.....

TYPE OF PROCESSING

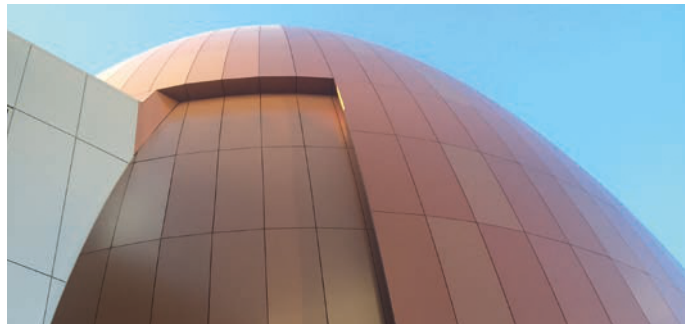
ACM / ACP

EDGE HEMMING



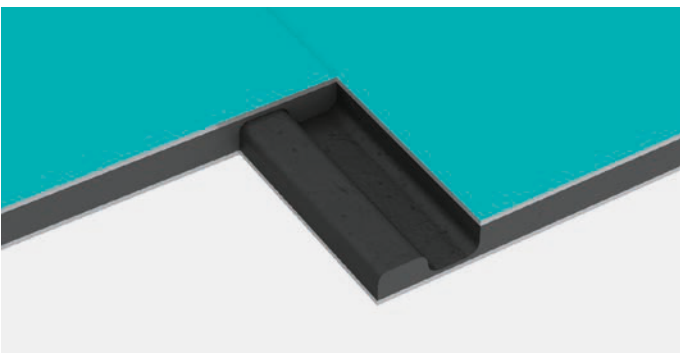
T2 Edge
Milling

B1 Bending from
0° to 90°



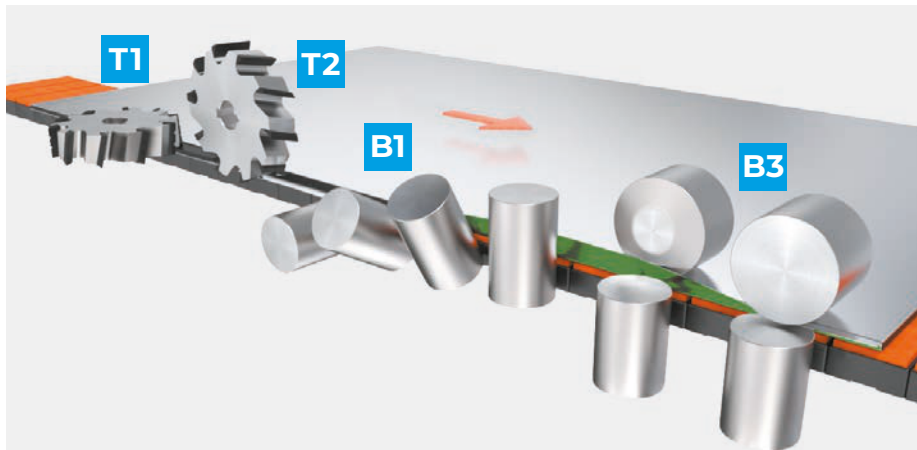
"College Football Hall of Fame", Atlanta, Georgia, USA. Fabricated by MillerClapperton using the ALU BENDER

EDGE PROFILING – INTERLOCK

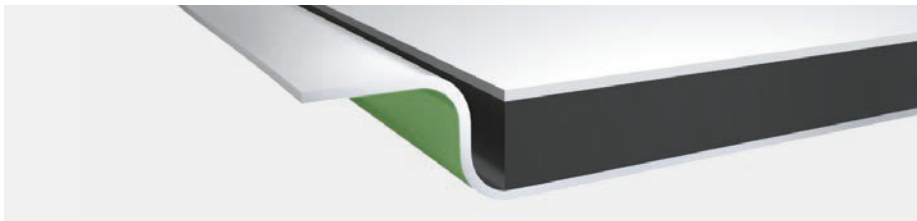


T2 Interlock Milling

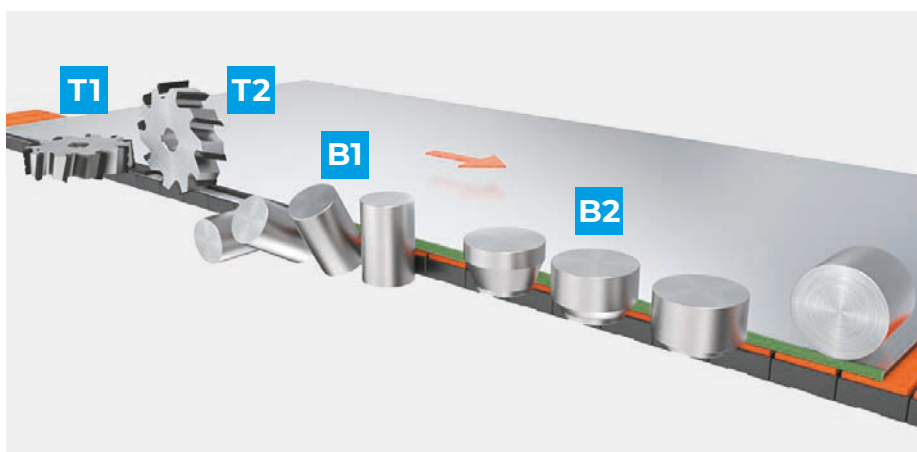
DOUBLE OUTSIDE BENDING



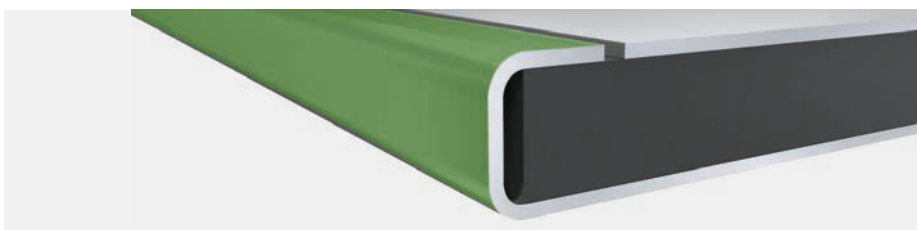
- T1** Edge Milling
- T2** Edge Milling
- B1** Bending from 0° to 90°
- B3** Bending from 90° to 0°



DOUBLE INSIDE BENDING

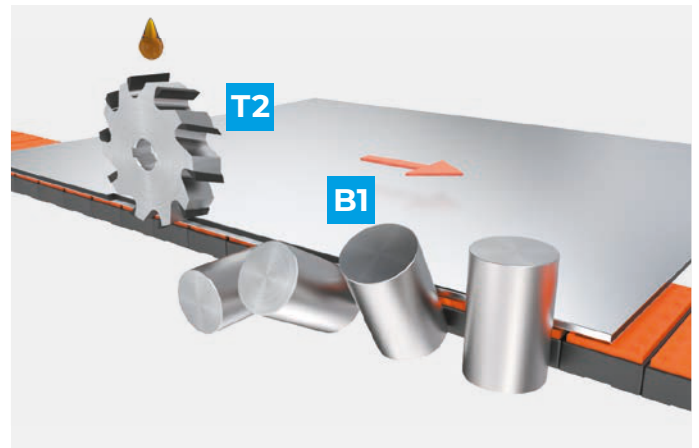
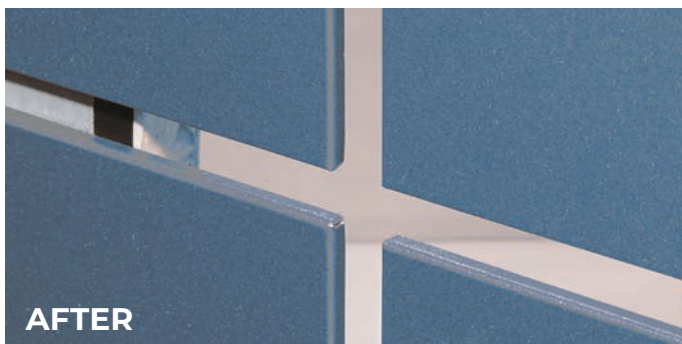


- T1** Edge Milling
- T2** Edge Milling
- B1** Bending from 0° to 90°
- B2** Bending from 90° to 180°



TYPE OF PROCESSING SOLID ALUMINUM

EDGE HEMMING

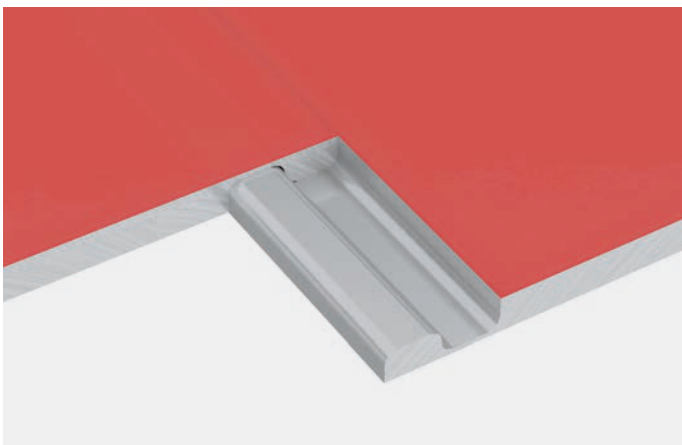


T2 Edge Milling

B1 Bending from 0° to 90°

 Tool lubrication

EDGE PROFILING – INTERLOCK

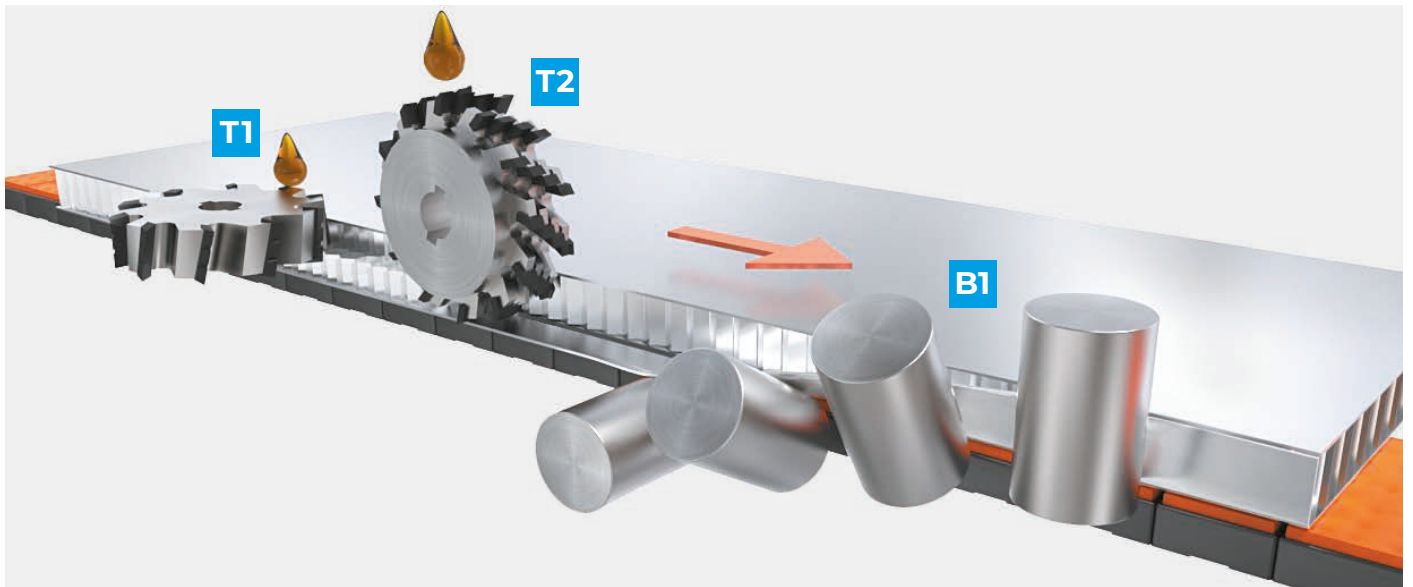


T2 Milling of the edge – Interlock

TYPE OF PROCESSING

ALUMINUM HONEYCOMB / CORRUGATED ALUMINUM

EDGE BENDING




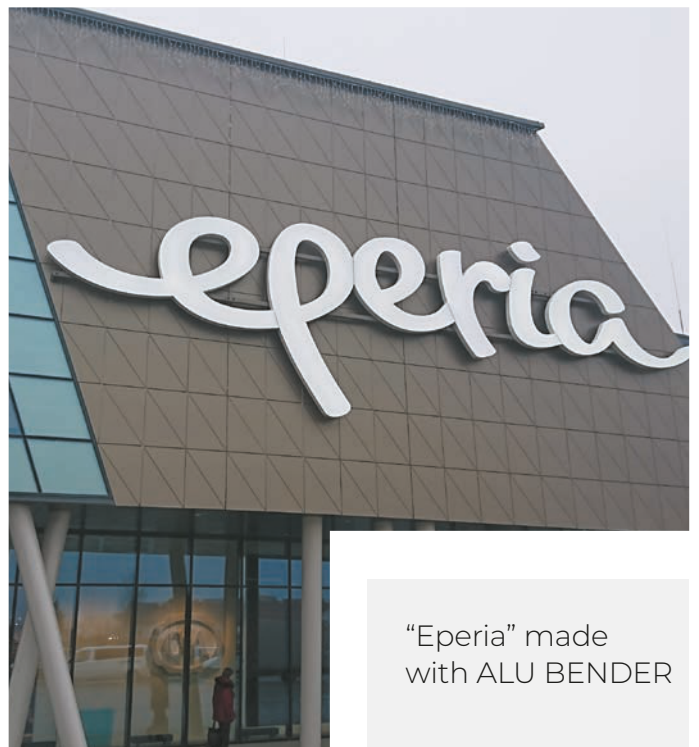
Aluminum Honeycomb panels

T1 Edge
Milling

T2 Edge
Milling

B1 Bending from
0° to 90°

 Tool
lubrication

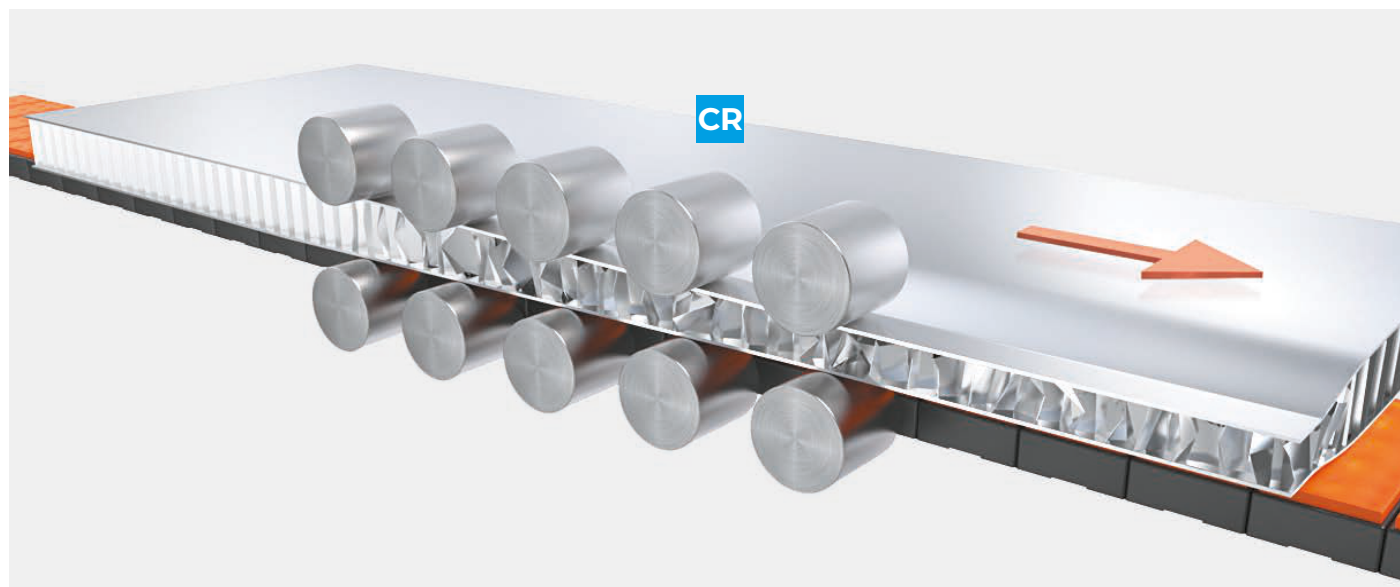


"Eperia" made
with ALU BENDER

TYPE OF PROCESSING

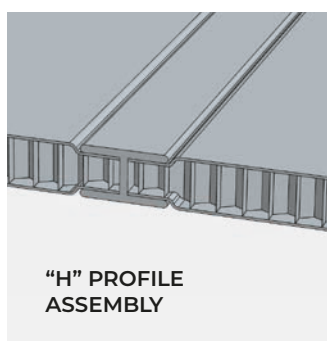
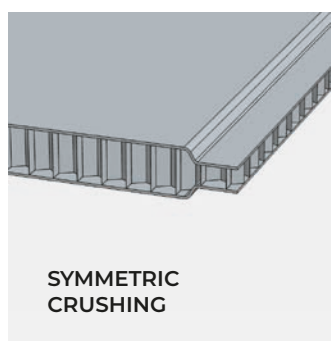
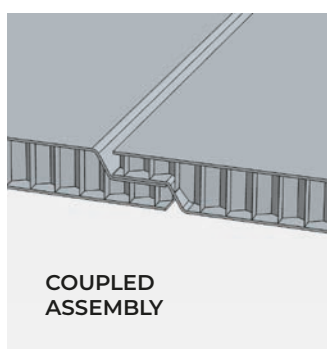
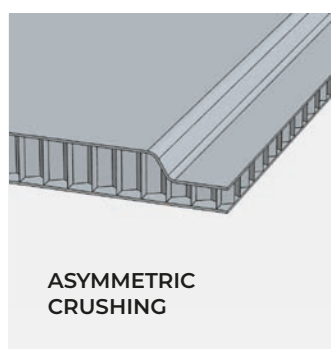
ALUMINUM HONEYCOMB

EDGE CRUSHING



Aluminum Honeycomb panels

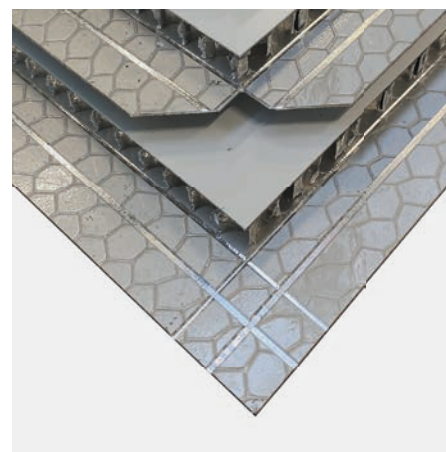
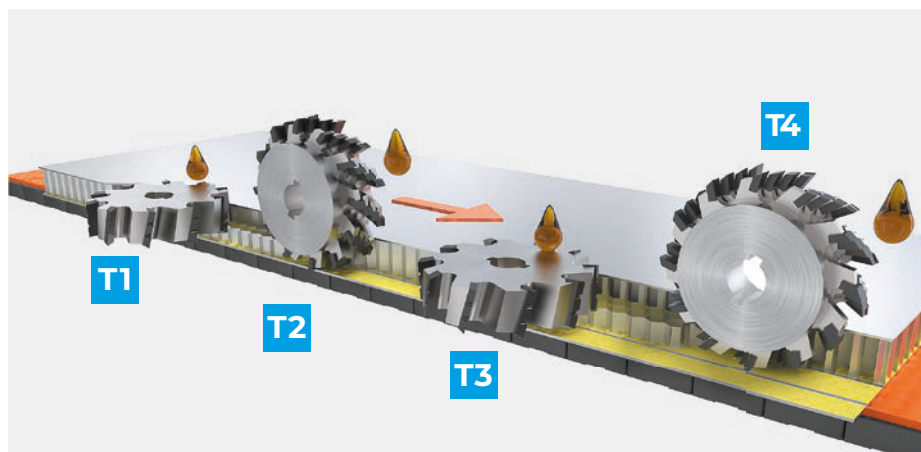
CR Continuous crushing



TYPE OF PROCESSING

ALUMINUM HONEYCOMB

DOUBLE INSIDE BENDING

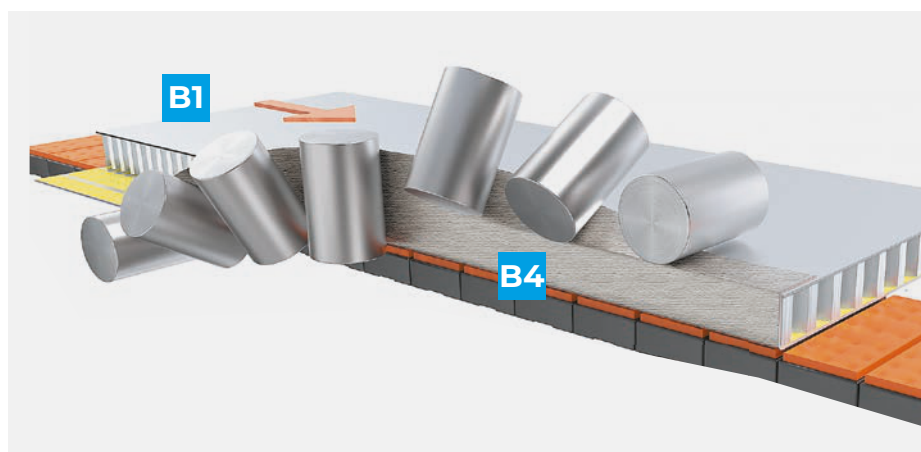


T1 Edge Milling

T3 Edge Milling

T2 Edge Milling

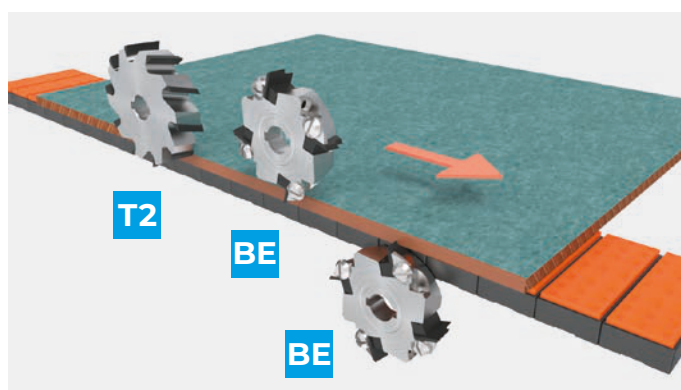
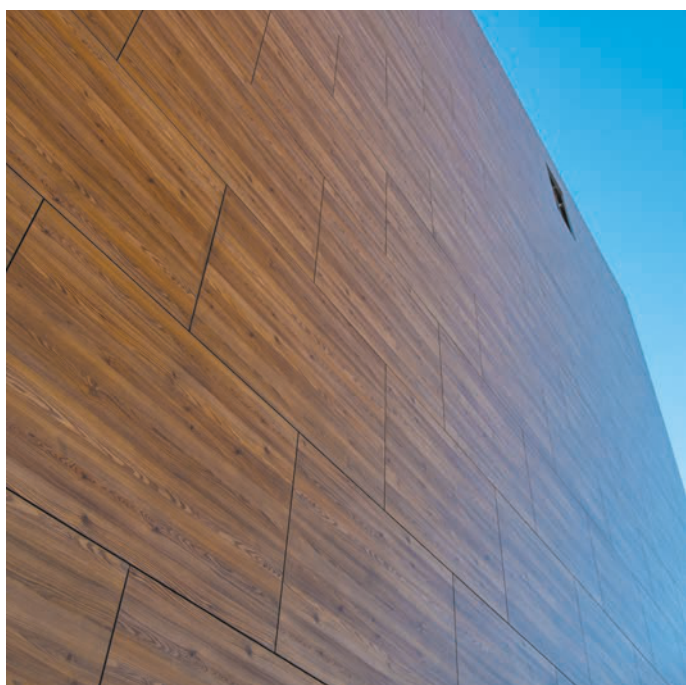
T4 Edge Milling



B1 Bending from
0° to 90°

B4 Bending from
90° to 180°

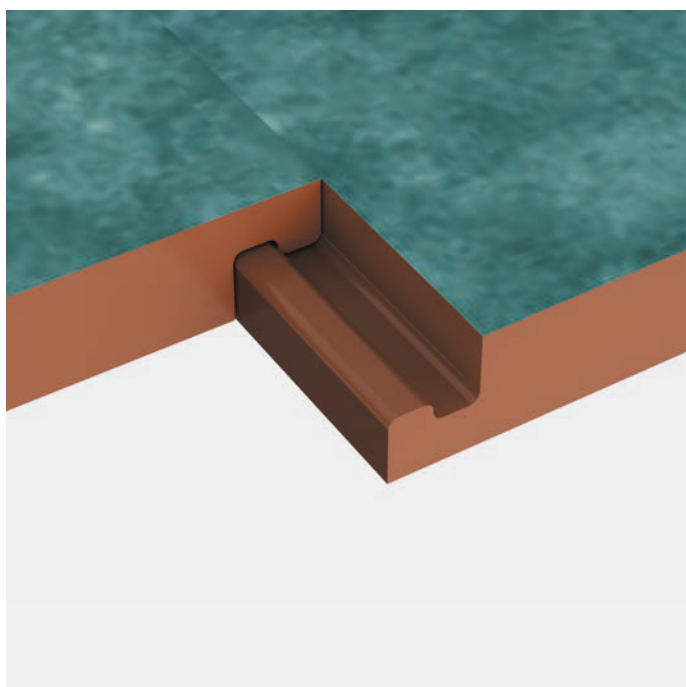
MILLING/CLEANING OF THE EDGE AND TOP – BOTTOM BEVELLING



T2 Milling/Cleaning of the edge

BE Top – Bottom bevelling

EDGE PROFILING – INTERLOCK



T2 Milling of the edge – Interlock

TYPE OF PROCESSING
HPL

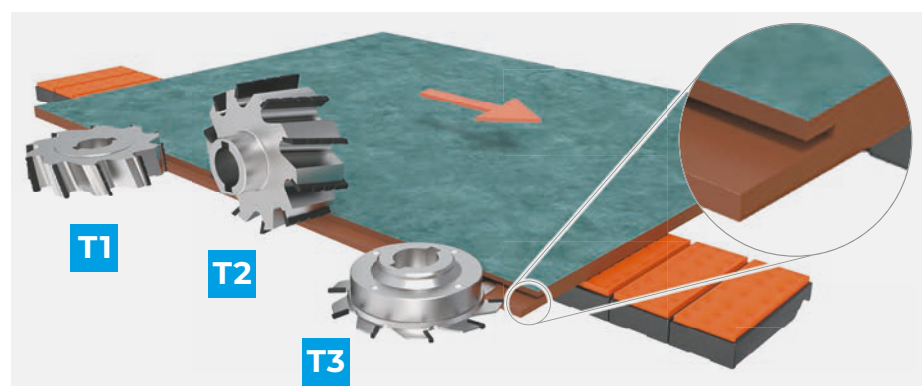
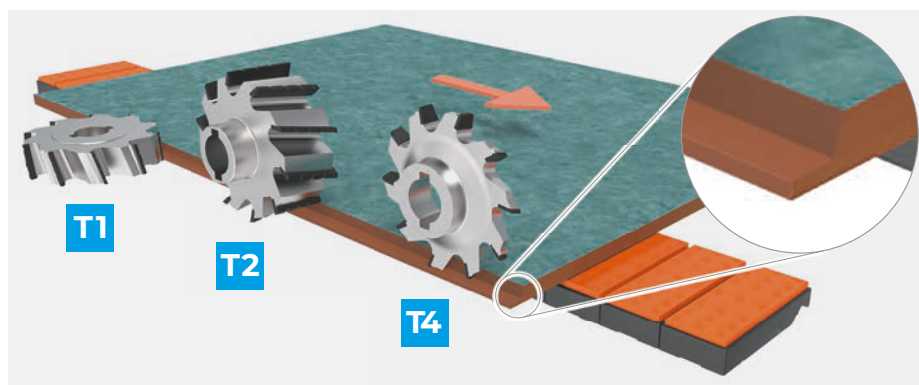
EDGE PROFILING “TONGUE & GROOVE”

TONGUE PROCESSING

T1 Edge Milling

T2 Edge Milling

T4 Edge Milling



GROOVE PROCESSING

T1 Edge Milling

T2 Edge Milling

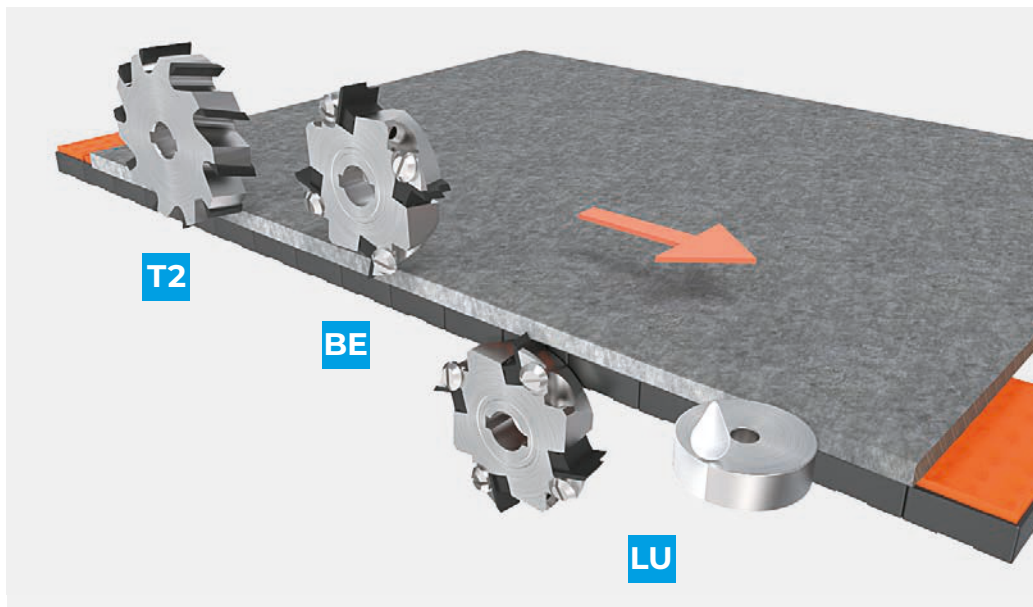
T3 Edge Milling



“Tongue & Groove”
installation example

TYPE OF PROCESSING
FIBRE CEMENT

MILLING/CLEANING OF THE EDGE AND
TOP – BOTTOM BEVELLING.
AUTOMATIC SPREADING



- T2** Edge Milling/
Cleaning
- BE** Top – Bottom
bevelling
- LU** Luko® liquid
automatic
spreading



Fiber Cement
facade

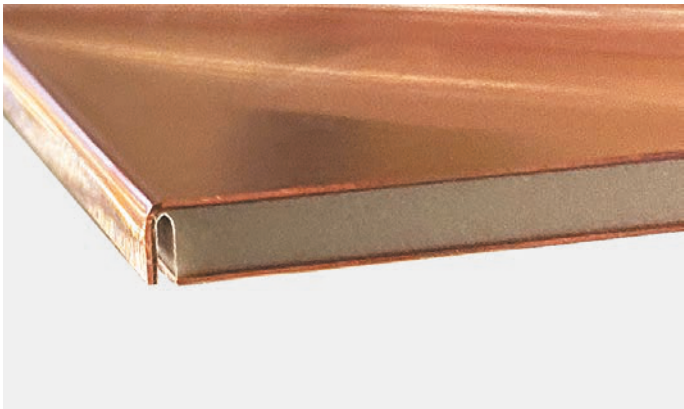
OTHER APPLICATIONS



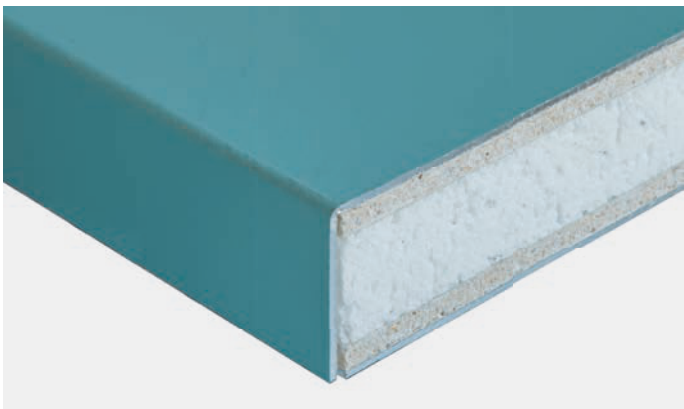
Interlock on Forex®



Interlock on foamed Forex®



Edge hemming on copper composite panel

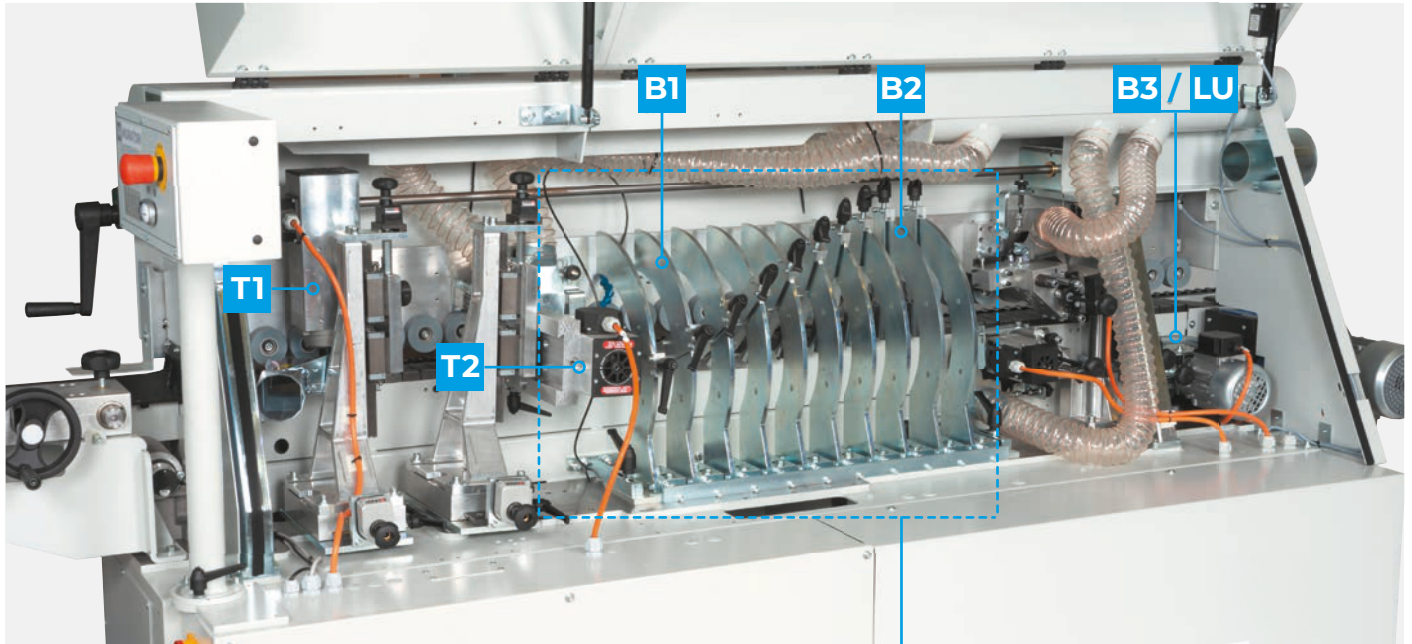


Edge Hemming on aluminum-fiber
cement-polystyrene panel



Edge hemming on printed Dibond®

MACHINE CONFIGURATIONS



T1 Vertical Milling Unit

B1 Bending from 0° to 90° unit

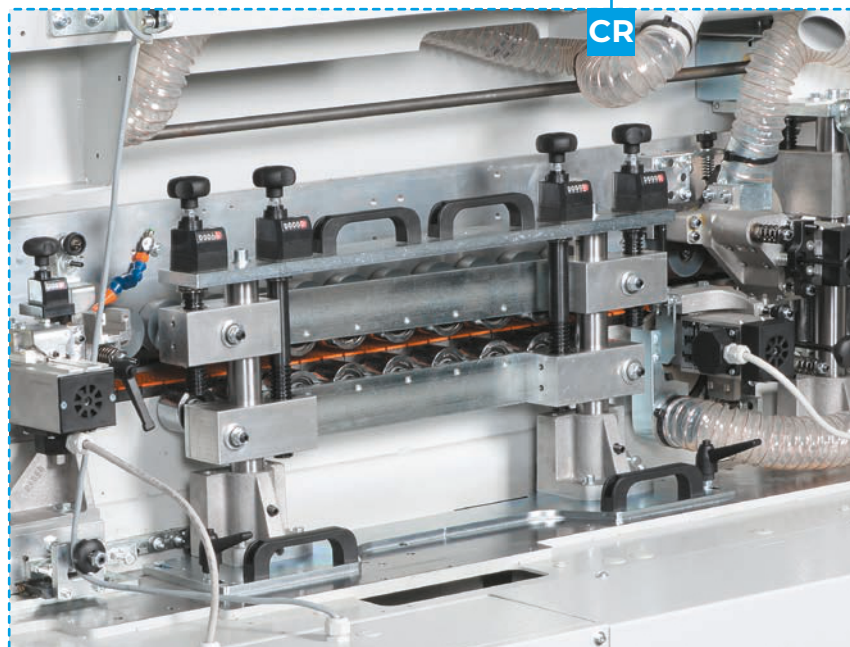
B3 Bending from 90° to 0° unit

T2 Horizontal Milling Unit

B2 Bending from 90° to 180° unit

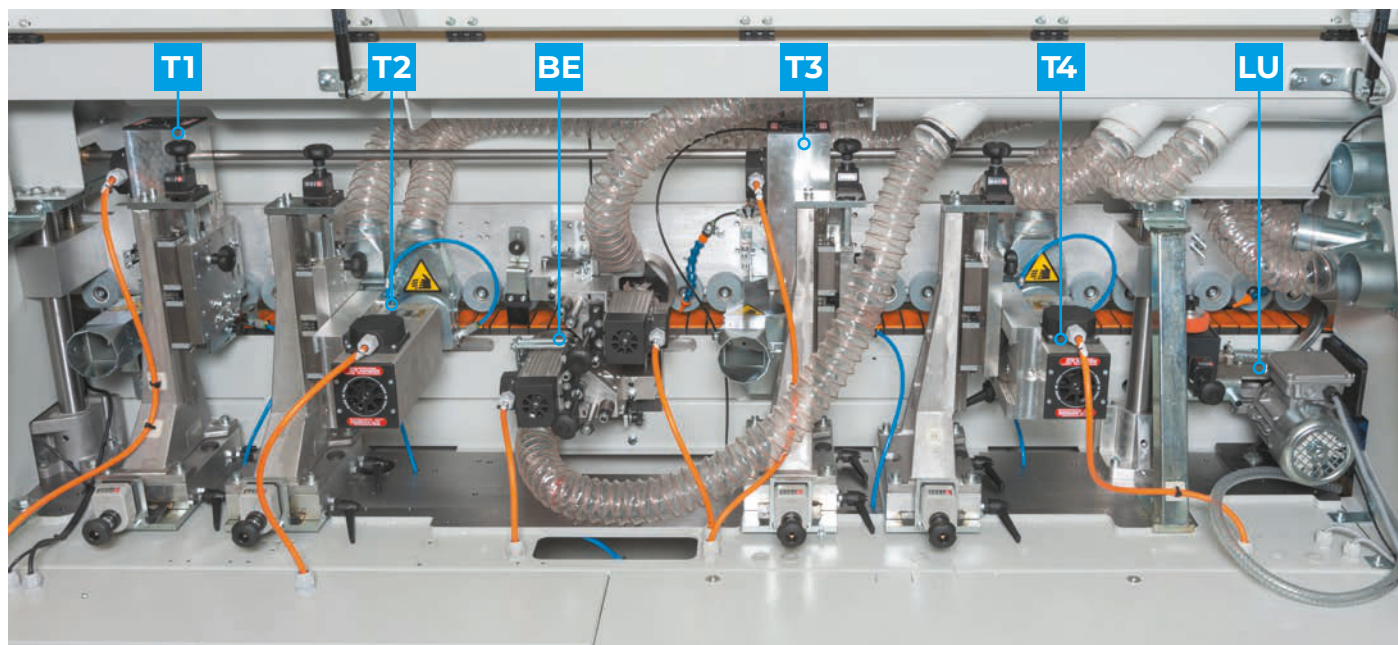
LU Luko® unit

ALTERNATIVELY:



CR Crushing unit

MACHINE CONFIGURATIONS



T1 Vertical Milling Unit

T3 Vertical Milling Unit

BE Bevelling unit

T2 Horizontal Milling Unit

T4 Horizontal Milling Unit

LU Luko® unit



B1 Bending from 0° to 90° unit

B3 Bending from 90° to 0° unit

B4 Bending from 90° to 180° unit

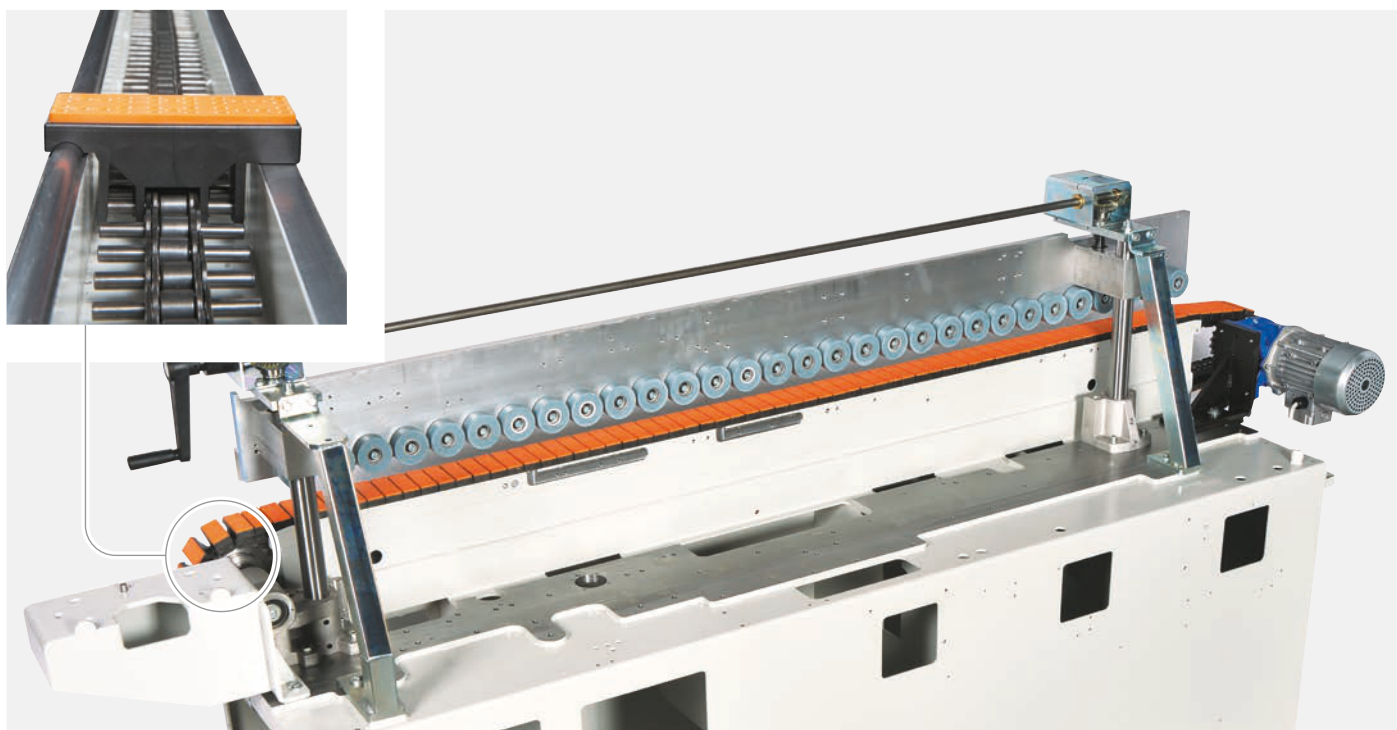
PANEL FEEDING

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.

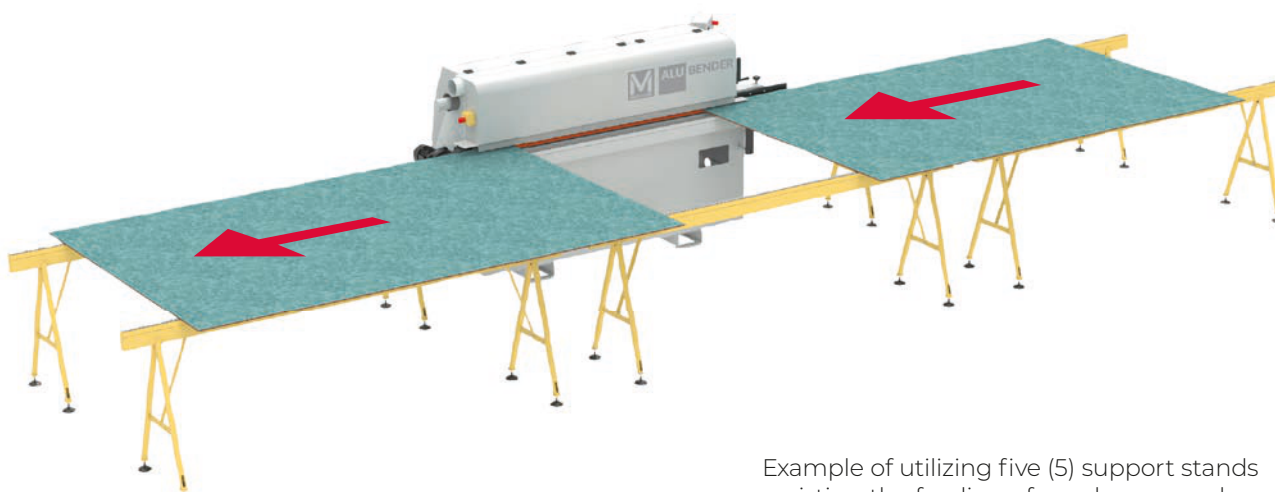
The squareness of the panel feeding is guaranteed by the sliding track which has been manufactured with high precision.

Long term reliability and accuracy are insured by the monobloc frame that is manufactured on precision CNC machines.



Option for large panels

- 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.

DUST COLLECTION

The milling units can create a wide amount of swarfs that can create some problems to the machine. Furthermore panels may result not clean during the feeding.

High efficiency dust collection hoods are installed on the milling units and are collected in one hose that can be attached to an efficient dust collection system.



Industrial dust collector RL 125

- Automatic cleaning of filter
- Max air volume suction 1900 m³/h (1118 cf m)
- Static pressure
- Inlet Ø125 mm - (5")
- Dust residue level: < 0.1 g/m³
- Filter surface 5 sqm - 53 sq/ft
- Chips' collector capacity - 200 Litres - 52.5 gal
- Compressed air required for filter cleaning system



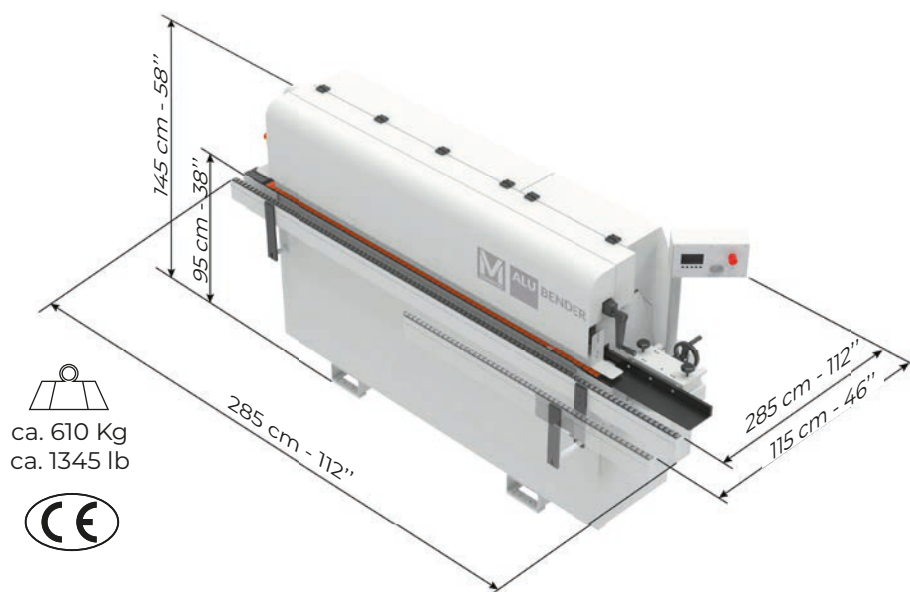
Industrial dust collector RL 160

- Automatic cleaning of filter
- AMax air volume suction 3200 m³/h (1900 cf m)
- Static pressure 2.400 Pa
- Inlet Ø160 mm - 6" 19/64
- Dust residue level: < 0.1 g/m³
- Filter surface 10 sqm - ca 100 sqft
- Chips' collector capacity - 400 Litres (2 x 200) - 105 gal (2 x 52.5)
- Compressed air required for filter cleaning system

FEATURES

Panel thickness min-max – ACM	min 3 mm (1/8) - max 60 mm (15/64)
Skin thickness – ACM	min 0.3 (0.012") - max 0.5 mm (0.020")
Panel thickness – Solid Aluminum	min 2 mm (3/32) - max 3 mm (1/8)
Panel thickness min-max AHP (Aluminum Honeycomb) mills and bends	min 6 mm (15/64) - max 25 mm (63/64)
Skin thickness – AHP (Aluminum 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 35 mm (1" 3/8)
Panel thickness min-max – HPL	min 8 mm (5/16) - max 13 mm (33/64)
Panel thickness min-max – Fiber Cement	min 8 (5/16) - max 12 mm (15/32)
Min Width	110 mm (4" 21/64)
Min Length	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, T2, T3, T4	cad. 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

ABOUT US

For three generations, the Muratori family has been manufacturing first woodworking machines, and then processing machines for panels made of solid aluminium, ACM, HPL, fibre cement and plastic, which are used in a variety of sectors, including architecture, industry, transport, interior design and visual communication.



Antonio Muratori grew up and specialised in the family business where, thanks to his thirty years of experience, he designed and built the technology for handling and processing panels, filing several patents for technological innovations related to Panel Routers and automation systems.

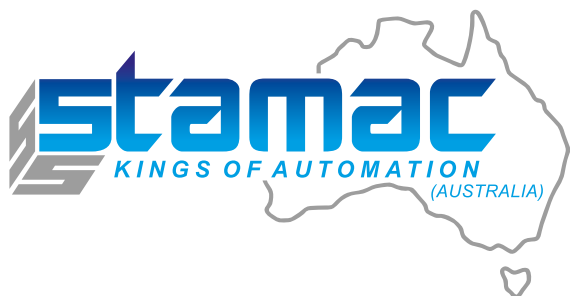
Muratori Machines was thus born from family tradition and know-how and represents the industrial reality in which we design and make innovative technologies, whilst actively listening to the market.

Professionalism, trained eyes and an open mind enable us to meet our customers' needs, while also innovating in the field of automation to respond to their production requirements.

Passionate about work and business, we focus on safety, quality and process efficiency to find solutions that disrupt the status quo and revolutionise traditional design and production paradigms.

Our Purpose

- We strive for quality for the business and for our team, customers, suppliers and everyone else we work with
- We make active listening and teamwork a priority
- We innovate continuously to improve the efficiency, ergonomics, safety and sustainability of panel processing technology



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