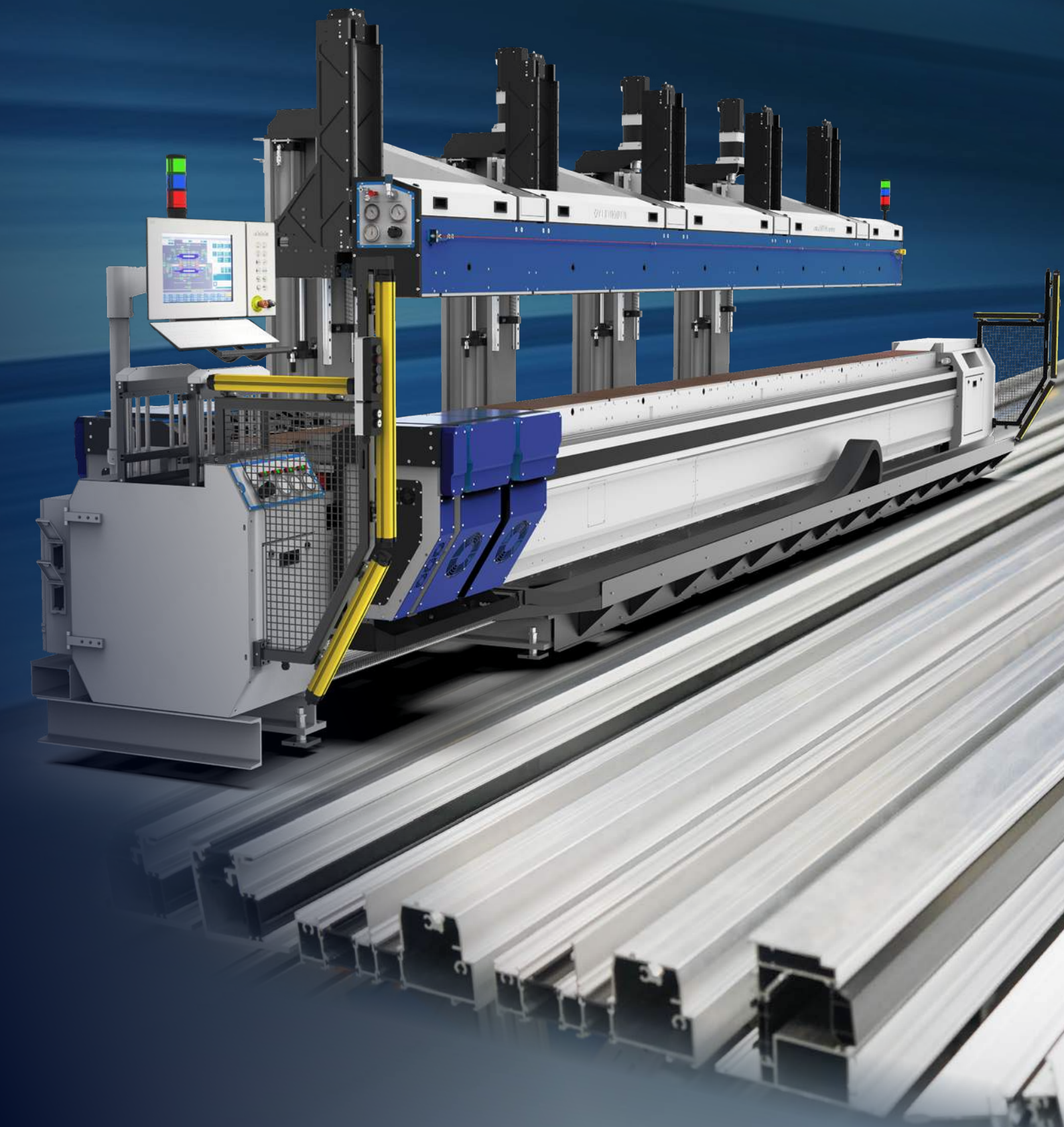
WOCDICO
WORLD DISTRIBUTION COMPANY

ALURO

THERMAL BREAK ASSEMBLY TECHNOLOGY



Who is Aluro?

Aluro is one of the Pioneers in designing machines for the assembly of aluminium profiles with thermal insulation. We've been developing, manufacturing and installing **thermal break** machines since 1985. Thanks to our complete focus, we have grown into a global market leader in the field of advanced Thermal Break Assembly.

We have been **developing and selling our unique 3-in-1 technology** of the Aluroller for more than 30 years now. The Aluroller avoids all the classic problems of thermal insulation processes. Thanks to the Aluroller, the first profile of each production batch will be straight immediately with virtually zero waste. No other machine that thermally insulates profiles even comes close.

No change means no progress. Which is why we launched the Aluroller EVO in 2015: the latest generation of the Aluroller. It came after years of R&D and talks with customers around the globe. The Aluroller EVO takes it even further to optimise your thermal break assembly process and offers faster changeovers, more flexibility and the highest quality.

SERVICE
Strong focus on global and fast service

- 40 Years of experience in global support, from New Zealand to the West coast of the USA.
- Regular regional maintenance tours.
- We deliver turnkey projects, including programmation of product suite, installation, training and tooling development. Your Aluroller EVO is fully operational from day 1.
- Deliver perfectly straight profiles from the first day.
- Help/support desk is reachable in the different time-zones.
- We only leave the site when the job is done.

R&D
Strong focus on R&D

Quality & flexibility - Futurproof

- Architectural profile designs keep on developing and geometries becoming more complex and diverse. That is why it is important that your thermal break assembly line is capable of assembling the most complex shapes without extensive operator experience, our R&D team is fully aware about this. We develop so that you can easily assemble any profile with a perfect quality, even the most exotic geometries.
- Our R&D department is consistently engaged in the refinement of the Aluroller EVO's technology. By integrating advanced technological advancements, we aim to optimize the production processes and elevate the precision and quality of thermally broken profiles.

Industry 4.0, LEAN & Automation

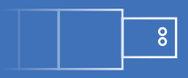
- Modern production environments have the focus on data and efficiency.
- We develop to provide more and deeper data insights and more automation in your production.

Open ERP integration

Unique 3-in-1 Technology

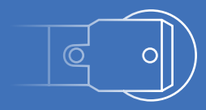
Knurling

Adaptive knurling → Anticipating to tolerances + consistent knurling over the etire length of the profile



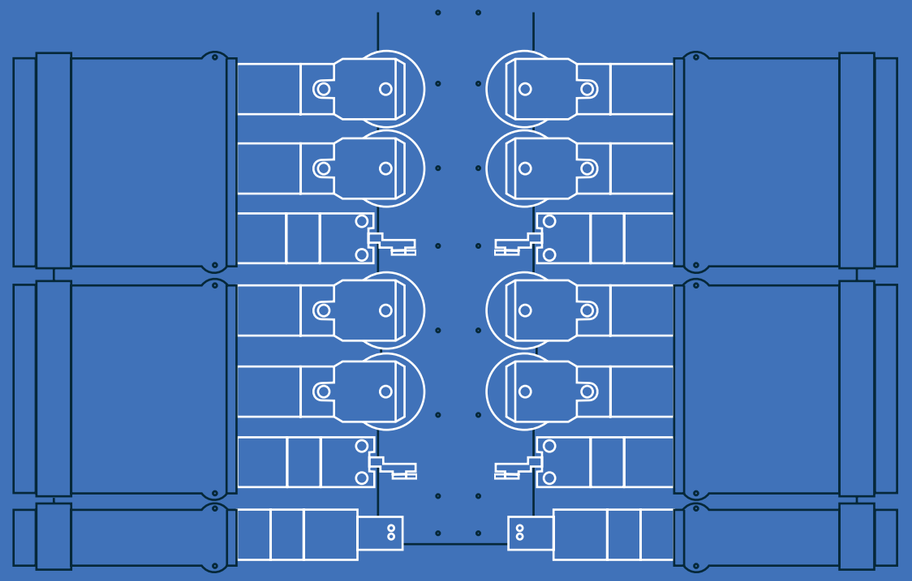
Strip-feeder

The Aluroller EVO's automated strip-feeder employs a pull mechanism, enhancing force and therefore reducing strip jamming risks during insertion. The feeder is CNC-controlled which allows for single-run assembly of 90° and multilayer profiles, auto-adjusting between steps.



Crimping

4 Pairs of crimping disks, individually controllable for upper- and lower extrusion providing faster changeovers, less tooling and more quality control.



First time right

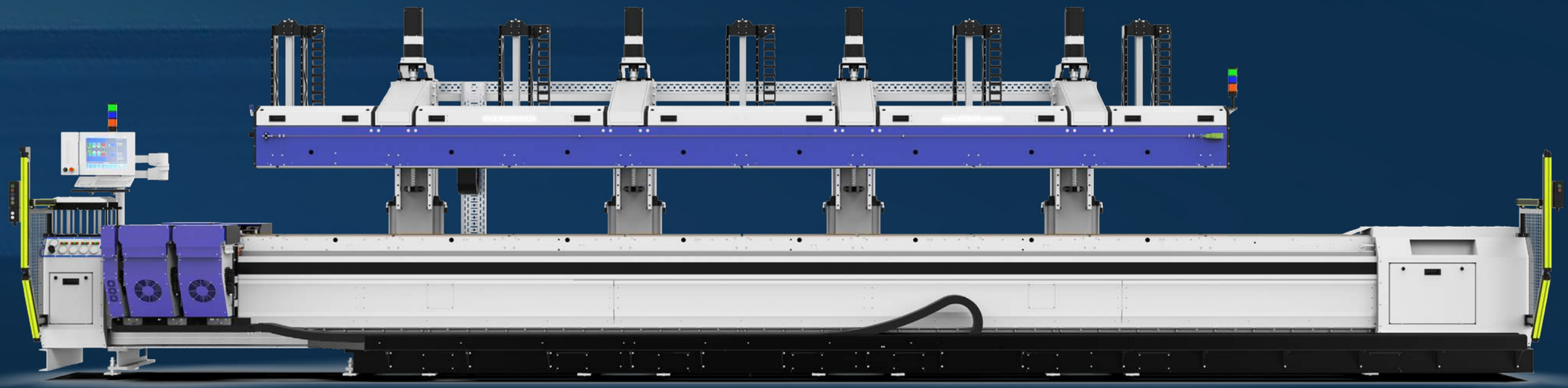
Aluroller EVO sets a new standard in profile manufacturing, delivering an unparalleled level of quality and efficiency. With its cutting-edge technology and innovative design, the Aluroller EVO ensures a 'First Time Right' production, every profile assembled on the Aluroller EVO should be straight and billable, starting from the very first profile

Fastest Changeovers

The Aluroller EVO sets a new industry benchmark with its exceptional changeover capabilities, offering the fastest times in the thermal break sector. The key to its remarkable efficiency lies in its all-in-one wagon, which is fully CNC controlled, enabling rapid and precise changeovers.

Lower operator cost

The Aluroller Evo offers the highest output per operator in the market, allowing manufacturers to achieve optimal productivity with **only two operators needed** to run the machine at full capacity.

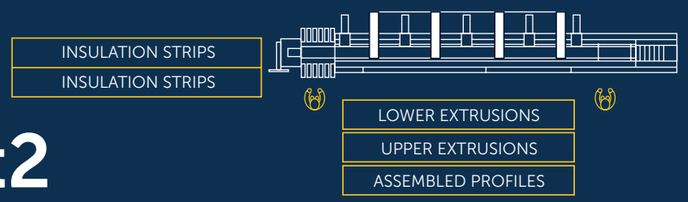


Compact configuration

The Aluroller Evo offers the **smallest footprint** in the market for comparable volume, ensuring that our customers can **optimize** their factory **spac**e usage without sacrificing output capacity.

Our compact set-up, with a total space requirement of only **1000 ft2**, including space for materials, the ideal solution for manufacturers who need to make the most of their available floor space.

This space-saving feature allows to reduce your operating costs and achieve a **better return on assets**, improving production efficiency in today's competitive market.



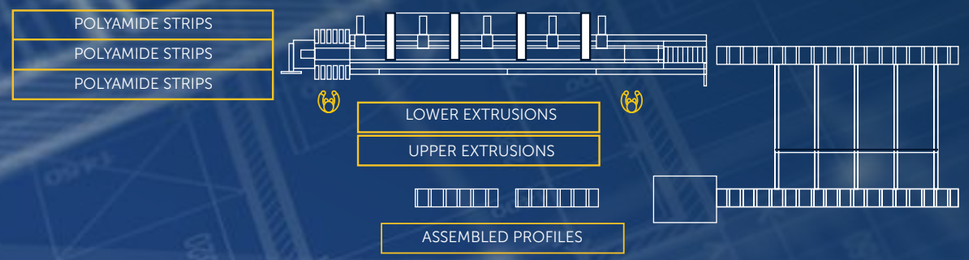
1001- Ft2

The optional 'Conveyor Return,' is taking the thermal break line's efficiency to new heights. This setup enables a capacity of 1 profile every 30 seconds, ensuring rapid production with just 2 operators.

The 'Conveyor Return' configuration enhances both speed and ergonomics. Optional features, such as a saw and t-tester, can be seamlessly integrated to minimize idle time during testing and further optimize the assembly production process. This comprehensive setup streamlines production, eliminating bottlenecks and maximizing overall efficiency.

Experience the power of space-efficient manufacturing with the Aluroller EVO. Its compact footprint and the optional 'Conveyor Return' setup provide manufacturers with the ultimate solution for maximizing output and optimizing efficiency in the thermal break line.

- Minimize idle time by buffering logistic changes
- Integrate other machines such as taping lines and packaging lines



First time right

The Aluroller EVO sets a new standard in profile manufacturing, delivering unmatched quality and efficiency. Its cutting-edge technology and innovative design ensure a 'First Time Right' production experience like never before. Every profiles assembled with the Aluroller EVO comes out straight.

The Aluroller EVO excels in handling increasingly complex geometries of aluminum profiles, without requiring extensive operator experience.

Whether the design is intricate or complex, this machine ensures consistency and excellence throughout the manufacturing process.

The Aluroller EVO significantly reduces waste, making it even more valuable as aluminum and polyamide strip costs rise.

By eliminating trial runs and minimizing errors, the machine optimizes material usage, resulting in cost savings and contributing to a sustainable future.

Faster Changeover time

The Aluroller EVO sets a new industry benchmark with its exceptional changeover capabilities, offering the fastest transition times in the thermal break sector. The key to its remarkable efficiency lies in its all-in-one wagon, which is fully CNC controlled, enabling rapid and precise changeovers.

Set-Up	Time	Operators
Total Set-Up Time	**< 5 min**	**2**
Standard Set-Up Time (changeover between standard profiles)	**< 1 min**	**1**
Total Cycle Time (19.6 ft profiles)	**24 sec**	**2**

With the Aluroller EVO, standard profile changeovers are completed in a matter of seconds, while even the most complex profiles can be switched in less than 4 minutes. This impressive speed empowers manufacturers to embrace Just-in-Time (JIT) and order-driven production strategies, eliminating the need for large stock inventories and optimizing production flow.

By minimizing downtime between profile transitions, the Aluroller EVO enables leaner manufacturing processes. Manufacturers can efficiently respond to varying customer demands, reduce waste associated with excess inventory, and optimize resource allocation. The result is improved productivity, reduced costs, and enhanced overall operational efficiency.

Lower operator cost

The Aluroller Evo offers the highest output per operator in the market, allowing manufacturers to achieve optimal productivity with **only two operators** needed to run the machine at full capacity.

With its ability to assemble a profile in approximately **30 seconds**, the Aluroller Evo delivers **unrivalled performance** at a rate of one profile per operator per minute.
This efficiency is critical for lean manufacturing, reducing costs and maximizing return on assets.

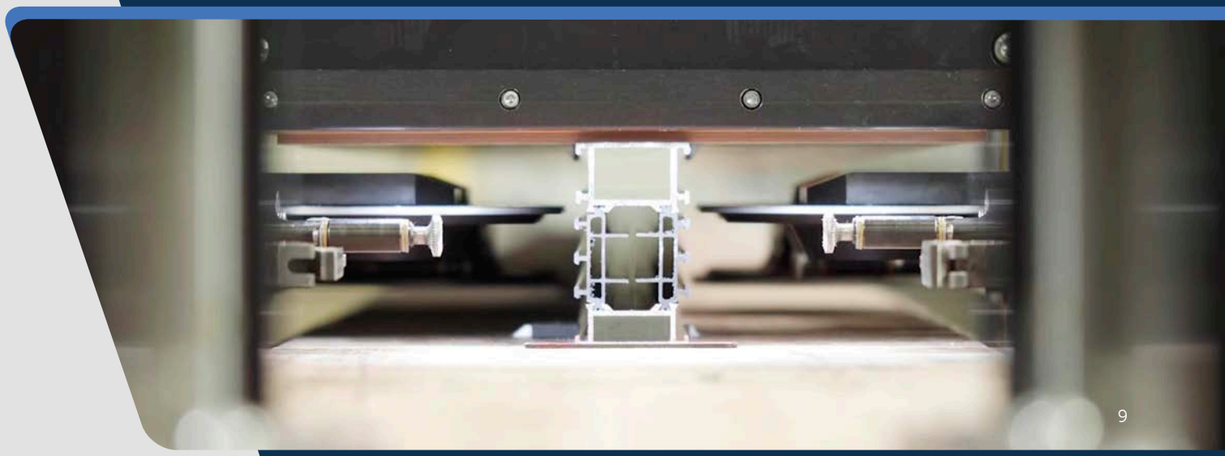
In a market where **labor scarcity** is an increasing concern, the Aluroller Evo enables your plant to achieve high productivity levels without excessive labor.

Effortless precision

The Aluroller Evo sets a new standard in thermal break assembly lines by offering **high-quality production** without the need for lengthy operator experience. Its **adaptive crimping and knurling** technology ensures that even complex geometries are assembled without any quality issues.

With less tweaking required during changeovers, the Aluroller Evo is always ready to produce **straight profiles** from the very first run.

After just a **short training period**, this machine is fully operational and produces perfect quality profiles right from the start, giving manufacturers confidence in their output. No extensive operator experience needed.

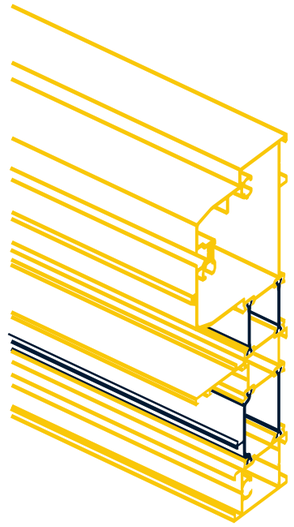


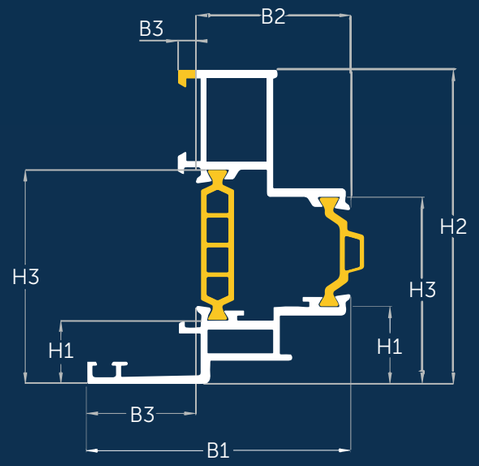
90° Profiles & Multilayer

Seamlessly assemble 90° and multilayer profiles in a single run, eliminating the need for multiple set-ups.

During the assembly process, the profiles remain stationary, which allows the Aluroller EVO to execute the different assembly steps in sequence. The assembly steps are pre-programmed and automatically executed during the assembly run.

This doesn't just increase the output capacity significantly for 90° or multilayer profiles, it also makes it easy to process.

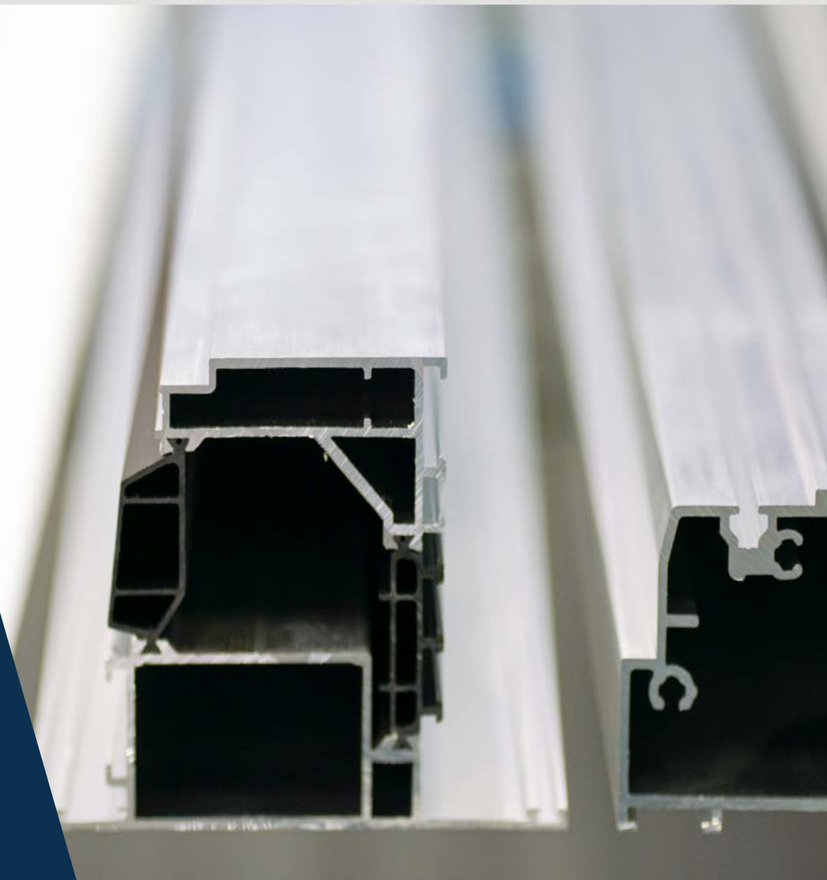




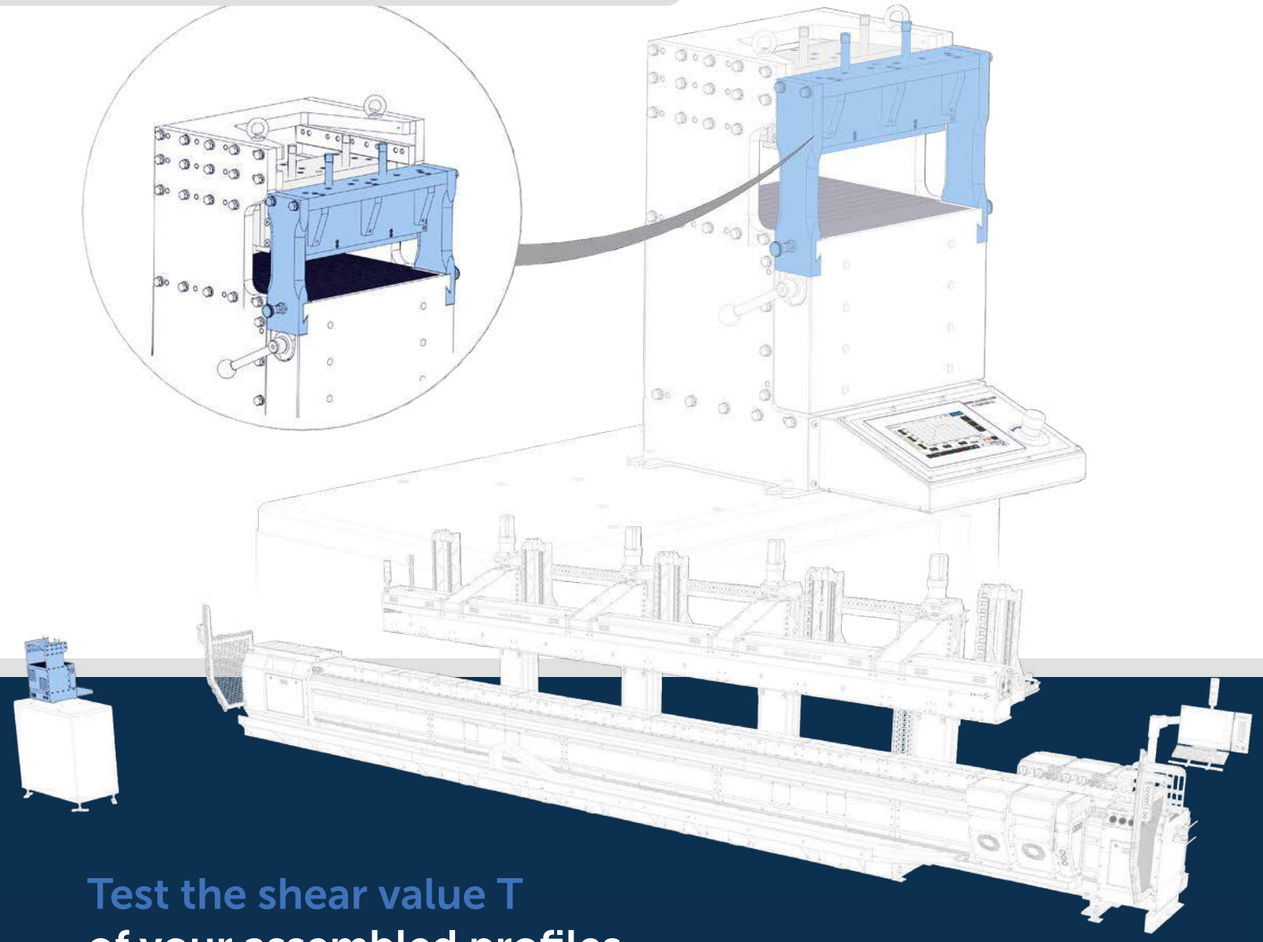
Profile dimensions	B1	B2	B3	H1	H2	H3
ALUROLLER EVO 19 in.	14,9 in.**	10.8 in.	/	0.12 in. - 5.7 in.	15.3 in.	0.12 in. - 5.7 in.
ALUROLLER EVO 27,5 in.	14,9 in.**	10.8 in.	/	0.12 in. - 5.7 in.	15.3 in.	0.12 in. - 5.7 in.

* Can be extended on request.
** From the centre (between the strips) 7.4 in. to the left hand and 7.4 in. to the right
/ Not relevant

TECHNICAL DATA ALUROLLER EVO		
ALUROLLER EVO	**Aluroller EVO 19 inch** - beam to table height	
	Length of the machine, ecluding conveyor	36.5 ft
	Width of the machine	8.2 ft
	Beam to table height	9.3 ft
	Aluroller EVO 27.5 inch - beam to table height (extended)	
	Length of the machine, ecluding conveyor	36.5 ft
	Width of the machine	8.2 ft
	Beam to table height (extended)	10.2 ft
	Total machine weight	21 Tonnes
	Electrical power requirements	AC 31 kW/ 3x400V + PE
	Air supply	87 Psi 0.52m³/min
	Wagon speed	Variable speed from 0 to 393.7 ft/min
	Diameter rolling discs	standard 5.5 inch
	Pressure on discs	from 0 to max 8000 N
	Proportional Pressure Control (new PPC) on discs, grips and knurling wheels	
	Max profile length	24 ft



T-TESTER XL module



Test the shear value T
of your assembled profiles

Standard profile dimensions and designs have been firmly relegated to the past. Profiles with geometries formerly considered ‘exotic’ now feature in many product ranges. In order to remain competitive, it is therefore vital to provide these profiles at the required quality and strength.

Our **T-tester XL** fully constrains both half-shells up to a **maximum width of 11.8inch**. Full clamping is essential to prevent the profile from buckling along the x-x’ or y-y’ axis and to ensure that the shearing occurs perpendicular to the x-y axis, or 100% parallel to the z-z’ axis. This is the only correct way to ensure that the measurement of the shear values meets the Industry norms NF standard. This standard specifies that the shearing must be perpendicular to the x-y axis; however, with larger elements, the deformation and buckling of Half-Shell A in relation to Half-Shell B will increase, preventing consistent testing.

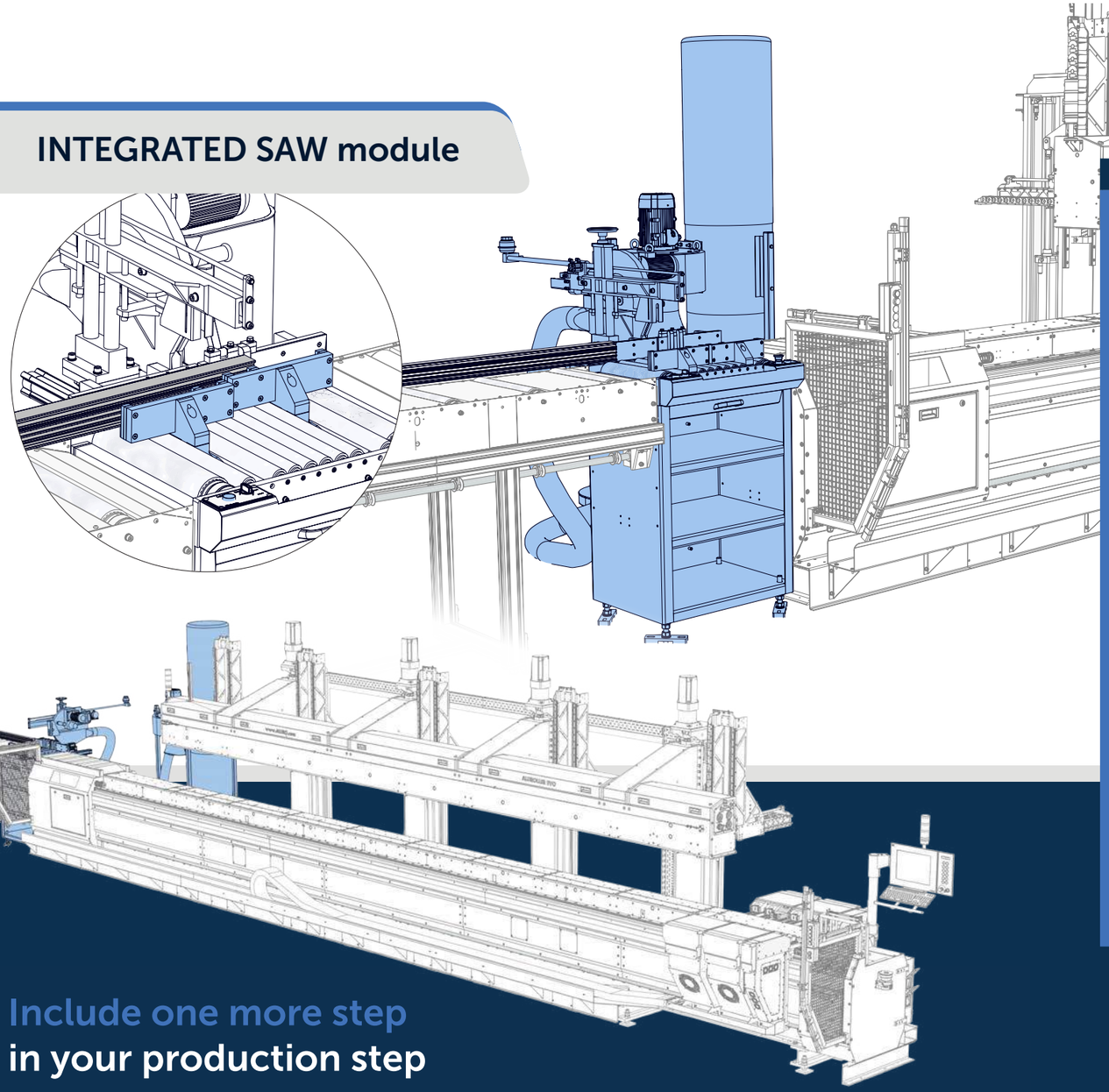
The operator terminal provides a graphic representation of the C curve, clearly displaying at which level of force the profile will shear. The measured data can be exported into an Excel file so it can be further processed.

GENERAL DATA T-TESTER XL	
T-TESTER XL	Force sensor 20kN
	Operator terminal 7” Touch screen
	Ethernet network connection
	USB 2.0 connection for mass storage
	Graphic XY chart (X=Time Y=Force)
	Data capturing (Force, Time, Speed, Distance)
	Measure: Maximum Force (Fmax), Distance
	File explorer (save, open, delete, rename)
	File format Csv (Excel)

	DATA
Weight	388 lbs
Width	17.3 inch
Height	23.8 inch
Depth	21 inch
Powersupply	110..230VAC - 150W
Max travel speed	2.36 inch/min (unloaded)
Measurement speed	0.05 inch/min
Max Force	15kN

MAX DIMENSIONS PROFILES	DATA
Width	Max 11.8 inch
Length	3.9 inch

INTEGRATED SAW module



Include one more step
in your production step

This system for integrated sawing can easily be integrated in your production process. It will result in significant time saving during your shear tests and further optimizes the flow in your production facilities.

Saw your assembled profiles at the requested length

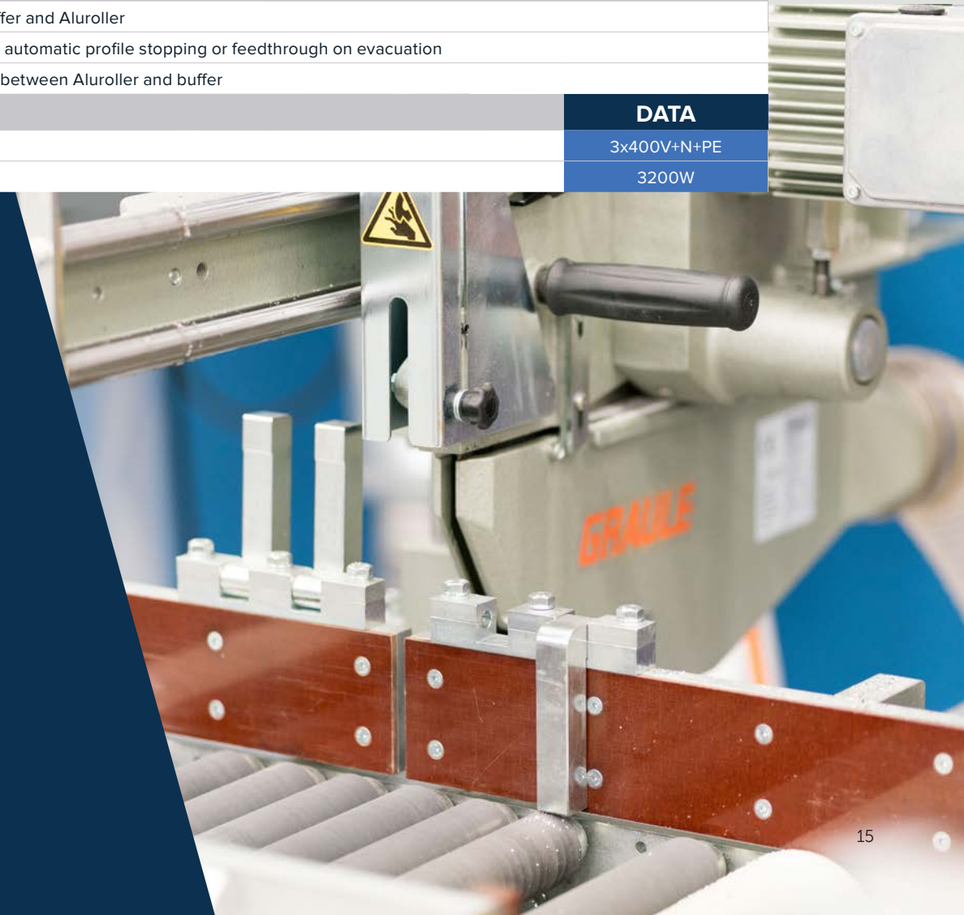
This Aluro outfit allows you to saw every selected profiles at the resuested length for a shear test. By installing this step in your production process immediately next to the Aluroller EVO, your will save significant time and further optimize your assembly process.

One more step towards the perfect production process

With the 3-in-1 technology of the Aluroller EVO, the integrated sawing machine, the buffer and the roller-tables, you have all the necessary building blocks for your perfect production process. You can use these building blocks to build your custom-made assembly line, including sawing and packing.

INTEGRATED SAW

GENERAL DATA INTEGRATED SAW	
SAW	**DATA**
Sawblade diameter	420mm
Sawblade speed	3500rpm
Motor	400V 2kW 50Hz
Weight	110kg
Extraction unit for chips	1100W
ROLLERTABLE	**DATA**
Length	700mm
2 clamps	
2 hand control for clamping	
Reduced pressure on initial clamping	
High pressure clamping while sawing	
Profile stoppers at fixed sawing length 100mm and 50mm	
Automatic Protection plate protects saw and operator during sawing from profile evacuation	
Tool shelves underneath roller table	
PROFILE	**DATA**
Max width	300mm
Max Height (single cut)	230mm
Max Height (dual cut)	370mm
Sample length	100mm and 50mm
ALUROLLER AND BUFFER INTEGRATION	
Interfacing with buffer and Aluroller	
Manual selector for automatic profile stopping or feedthrough on evacuation	
Perfect integration between Aluroller and buffer	
ELECTRICAL	**DATA**
Voltage	3x400V+N+PE
Power	3200W



Services

Tooling

Our design team performs a meticulous study on your entire product suite and develops the right tools to easily assemble all your profiles in perfect quality. Thanks to these tools, you are guaranteed to manufacture profiles that perfectly fit within required shape tolerances.

Training

- On-site training by our multi-lingual Service engineers
- Quick start-up of your production
- Better safety and efficiency
- Training using your own profiles and isolation strips

Maintenance

- Maintenance of your Thermal Break Machines and Outfit
- Relocation of your Thermal Break installations
- Intervention to repair defects
- Replacement of broken machine parts

Service support

Not only our Service team, but also our Commercial team and Tooling department are at your service. Get in touch with us today, and we'll be glad to meet with you.

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