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A420 Fully Automatic Aluminium Saw

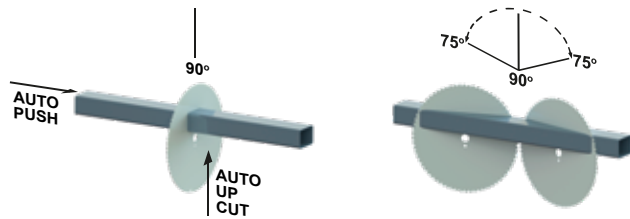
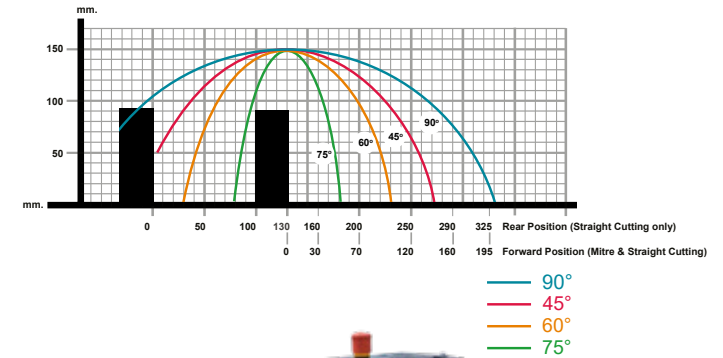
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Simple Fully Automated Cutting

Fully automatic cutting of small-medium aluminium profiles with simple-to-use automation. Put down any aluminium profile, the machine will automatically detect it and cut it into jobs tasked with high-accuracy servo motor material positioning. Excel job lists WIFI input for streamlined input of large cutting lists.

Optional fully automatic inline optimiser. Automatic measuring of aluminium profile lengths using a laser sensor and on-the-fly job list optimisation against the length measured for minimised wastage in offcuts. Automatic printing of job / part number labels for each part produced (optional).








- Fully-automatic cutting operation with bar feeding and cutting to length.
- Simple user interface for automatic operation, enter job and cut in seconds.
- Simplified part, batch, or large excel lists job cutting.
- Bundled / multi-bar cutting and counting.
- Remote WIFI excel job lists input with extensive data mapping capabilities.
- Fully adjustable saw cutting and aluminium feeding rates for maximum process productivity.
- Automatic optimiser mode with aluminium laser length measure and optimisation for minimum waste (optional).
- Automatic labels printing for parts using data from the job list (manual label application, optional).
- Inline direct-to-material printing with no operator action required (optional).
- Bar codes or QR codes printing or scanning for jobs input (optional).

Safety-Focussed Design

Machine design as per CE and AS / NZS 4024:2014 safety standards. Full saw guarding, including 1.8 m tunnels, with automated lifting of the guard up / down with a press of a button. Safety switch detecting the guard in the up position and disabling all machine operation.

Category 1 control / monitoring of the machine safety systems with a safety relay, suitable for light curtain integration. Mushroom and rope-pull emergency stops with a reset button press to re-enable the machine after e-stop.

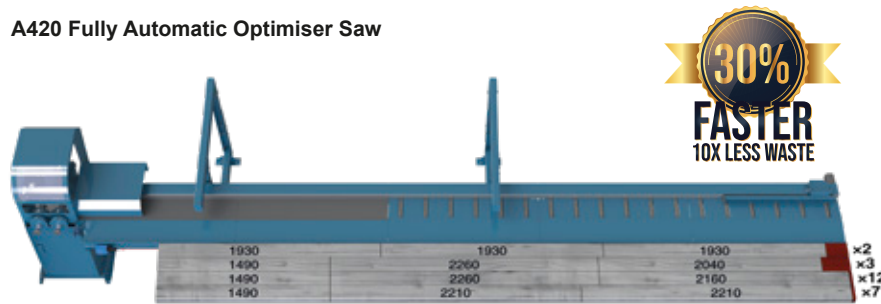
				
415V 3-phase, 15A max	2.2 kW	3000 RPM	420 / 30 mm	66 m/s



Inline Optimiser Saw

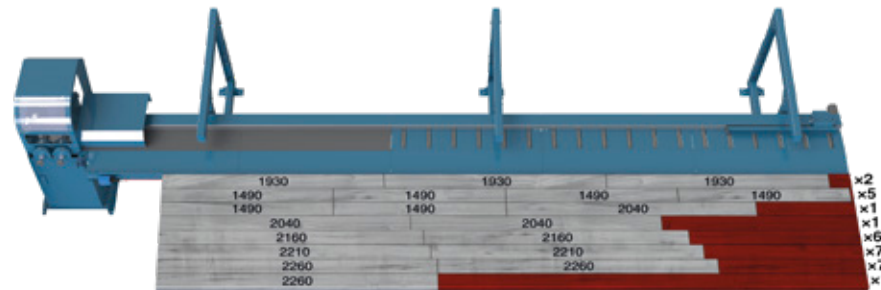
Your fully automatic saw can optionally come as an inline optimiser saw. For every piece of aluminium you place down to cut, no matter what length, a laser sensor will measure its length. Our powerful optimisation algorithm then takes your cut list and calculates the best order of parts to cut from this material so that wastage is minimised. All of this happens on-the-fly, during the machine operation process, and without needing any input from you.

A420 Fully Automatic Optimiser Saw



- |||| Total Parts: 72
- Aluminium required: 144 m
- Aluminium waste: 2.1%
- 🕒 Cutting time: 26 mins

A420 Fully Automatic Saw with FIFO Jobbing



- |||| Total Parts: 72
- Aluminium required: 180 m
- Aluminium waste: 21.7%
- 🕒 Cutting time: 35 mins

Save \$\$

You spend a lot on aluminium profiles and chances are it is the biggest expense in your production. An optimiser run production will result in significant material cost savings in comparison to typical first-in cutting.

Powerful algorithm

Our inline optimiser with a cut list containing a mix of long and short parts will produce 99%+ yield most of the runs, even with cut lists containing not many individual parts.

Zero hassle optimisation

No need to run any optimiser from the office, print dozens of pages, or pay attention to putting the profiles in the "right" order. Just send the Excel cut list to the machine, and put in your material to cut, of any length, in any order.

Use up offcuts easily

No more measuring and recording your offcuts for the office. Just return them into stock, and put them through the machine at the start of the next job.

Get something for nothing

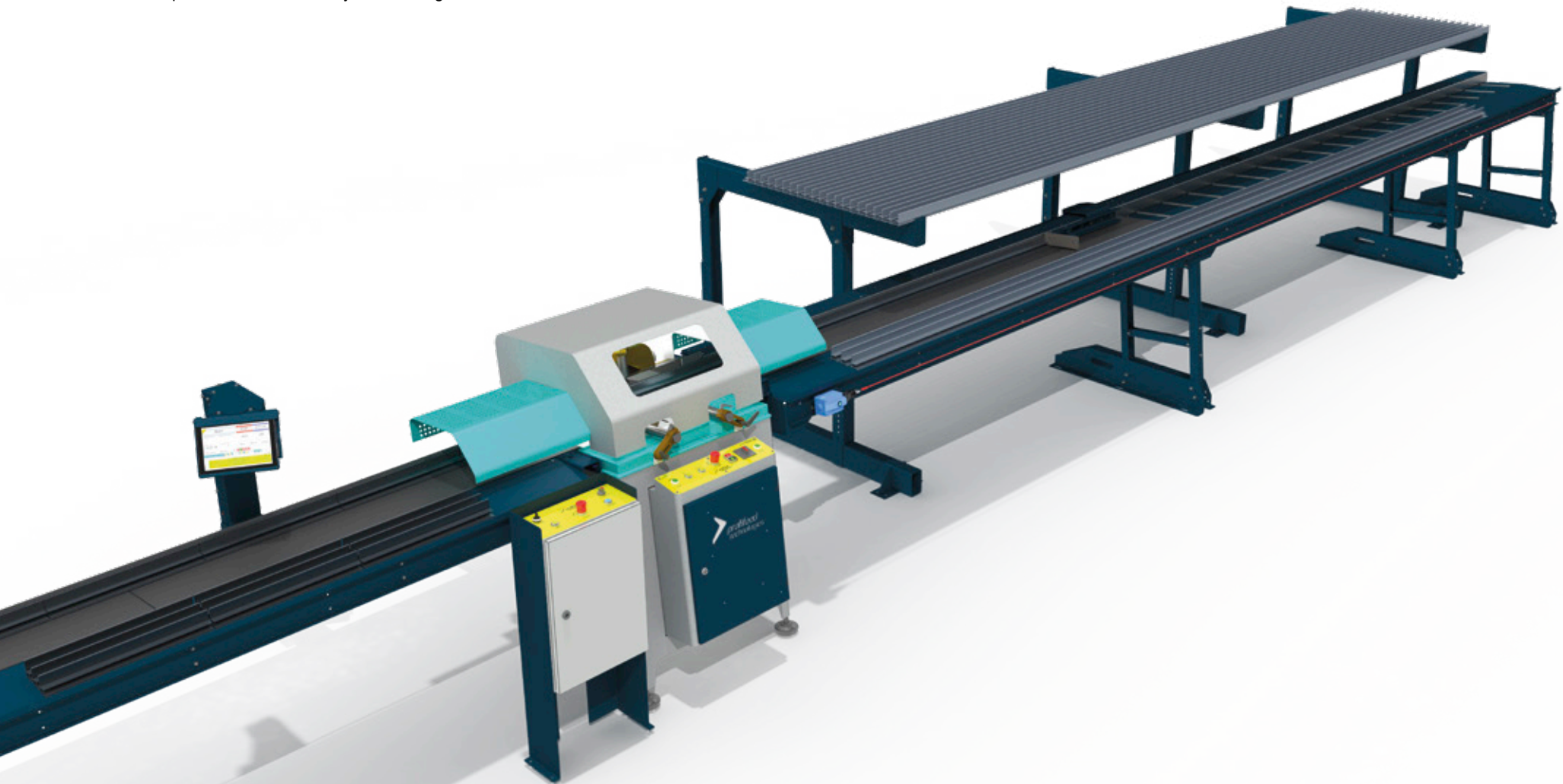
Your aluminium typically comes with extra 20-60 mm on each length you buy. With inline optimiser, this will automatically be used up to produce your parts, and without you needing to do any extra work.

Optimise ad-hoc cut lists

Our system allows you to optimise both complex Excel-prepared cut lists, as well as ad-hoc cut lists you just think up, easily and quickly.

High-Productivity Material Flow

Ergonomic tables and material loading frames allow preparation of the next aluminium profile for cutting while the machine is operating. This enables reduction of the machine wait time between cycles increasing your overall production rate. Additionally the aluminium storage / loading area incorporated into the machine space reduces your space needs and increases your factory space utilisation efficiency. The loading frames are forklift loadable from the front or back.



Signs You Need ProfiStop Automation

- Are you so busy you have to decline work?
- Do you have two, three or five saws in your production?
- Do you find parts don't fit right on-site?
- Is your best worker occupied with cutting?
- Do you have large, complex projects with strict delivery times?
- Are you constantly working in your production but projects still come together slow?
- Do you feel your production work is like doing chores?
- Do you have a junior employee tasked with cutting out parts from offcuts?
- Do you have many productivity ideas but no time to progress them?
- Are you burned out trying to juggle many things?
- Are you constantly busy, but struggling to progress profits?



Why ProfiStop Automation?



Exceptional ROI

Most users find that their automated ProfiStop® machines pay for themselves in under a year.



High accuracy and productivity

Our machines are high-productivity automation solutions for cutting, producing the parts you need consistently, and every time.



IT focussed production

In 2023 manufacturing is about data. Our machines are designed around IT and process solutions to supercharge your productivity far beyond mechanical automation.



Industry leading support

Our technical support is regularly rated the best in the business by our Customers. We are available to assist you no matter where in the World you are 24/7.



Unmatched expertise

We can assist you with any problem effectively and in minutes. Our IT and machine expertise is high because Engineers you speak to are the same people that design and build your machines.



Get more done, with less

ProfiStop automation is the key step in transformation of your production foundations from labour reliant, to productivity based.



Big picture focus

We make the World where your people produce like machines, without working like machines.



We have had a ProfiFeed Technologies auto mitre saw since 2018. We cut a mixture of straight and angled parts with 3° and 45° degree angles. This machines has enabled us to replace both our double-headed saw and the drop saw with one machine, saving space within our factory. It produces intermixed straight and angled parts all on one station so it has tremendously simplified the management and flow of cutting within our business. It is probably one of the most impactful investments we ever made.

Shaun Thorp
Director
SGA Architectural Window Solutions NSW
AUSTRALIA



A420 Fully Automatic Aluminium Saw | Technical Specifications

Linear Unit	ProfiStop Alpha					ProfiStop Omicron				
Linear Unit Length	3	4.5	6	7.5	9	4	6	8	10	12
Max Material Length (m)	1.68	3.18	4.68	6.18	8.58	3.23	5.23	7.23	9.23	11.23
Recommended Processing Material Weight (kg)	20 - 40 ¹					60 - 120 ²				
Typical Processing Rate (linear m per day)	2367 - 4019 ³					2469 - 4320 ³				
Footprint (3m out-feed table) (m)	7.25×1.7	8.75×1.7	10.25×1.7	11.75×1.7	13.25×1.7	7.79×1.6	9.79×1.6	11.79×1.6	13.79×1.6	15.79×1.6
Table Width (mm)	520	520	520	520	520	520	520	520	520	520
Roller Width	220 mm					220 mm				
Head Max Speed	1.2 m/s					1.3 m/s				
Head Acceleration	1.65 m/s ²					1.8 m/s ²				
Head Deceleration	1.35 m/s ²					1.5 m/s ²				
Job Memory	10,000+					10,000+				
Drive	belt, 30 mm, steel reinforced					rack-and-pinion				
Power input	415VAC 3-phase 20A max					415VAC 3-phase 20A max				
Positioning Accuracy	±0.1 mm @ 20 kg load / ±0.3 mm @ 40 kg load / ±1 mm @ 80 kg load					±0.25 mm				
Certifications	CE FCC					CE FCC				
Country of Manufacture	AUSTRALIA and SERBIA									

1. Material processing weight is dependent on the table configuration. Maximum processing material weight possible 80kg+ with reduced speed and positioning accuracy performance.
2. Maximum processing material weight possible 450kg+ with reduced speed performance. Max processing weight is dependent on configuration of table and drive gearing.
3. Processing rate expressed is for the speed of machine operation only. It does not include time required to unload completed parts and input new material in the machine for processing which always require additional time. The achieved processing rate will be dependent on how quickly the machine is serviced with material.