DELIVERING AUTOMATION

CUSTOMISED SOLUTIONS + EXPERT ADVICE

YOUR PARTNER IN THE TRUSS & FRAME INDUSTRY.

AUSTRALIAN MADE®

VEKTA
ADVANCED AUTOMATION

CUSTOMISED SOLUTIONS

What are you trying to achieve by automating?

A basic question but it is the first question Vekta Automation will ask you.

Increased efficiency?

Higher volumes?

Less waste?

Improved redundancy?

Safety?

Budget?

Each answer will be unique to your Truss and Frame plant. With Vekta the solution will also be unique.

EXPERT SUPPORT

Automated infeed, cutting, material handling- but what happens when something stops?

Vekta understands the complexity of issues that can arise in automation and we know what it can cost you when machines break down or start to show signs of wear. That's why Vekta has a global support network!

You can always find an experienced engineer eager to help you fix an issue, optimise your workflows or adjust your production priorities either by phone, email or in person.

Vekta prides itself on having the highest standard of service and support in the Frame and Truss industry. For Vekta, customer service and technical support are the highest priority- everything else comes second.

YOUR PARTNER IN AUTOMATION

At Vekta we firmly believe that by combining our customised automation with expert support we are able to build a partnership with our customers.

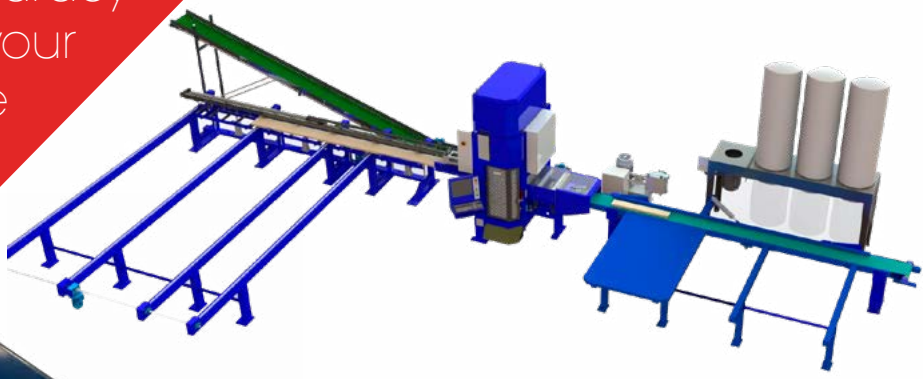
- As partners, we listen and take the time to understand your business, your objectives and your ideas.
- As partners, the relationship lasts well beyond the sales and warranty period.
- As partners, we have your back with our expert support.
- As partners, your individual needs and circumstances are always thoughtfully considered and given the highest priority.
- As partners, we want you to be as passionate about automation and Vekta machinery as we are.

AUSTRALIAN MADE®

> “The team at Vekta was instrumental in the design of this system and were able to open our eyes to possibilities we didn’t know even existed. The finished product has not only met, but exceeded our expectations. With the minimal footprint of the PackFeeder, the accuracy, speed and reliability of the Razer V5, the speed and efficiency of the Material Conveyor system, and the overall support by this team we are extremely pleased with the outcome.”
>
> *Josh Wright*
> *V.P. of Manufacturing*
> *The Truss Company, USA*

VEKTA RAZER

With maximum safety, improved production, greater accuracy and the flexibility to suit your space requirements, the Vekta Razer is your cutting solution.



Be it the Vekta Razer V5 or the Razer S5- no other linear saw offers you a cutting solution that can be completely customised to suit your factory, processes, achieve your objectives and is within your budget.

The Razer V5 is the full-featured version of the Razer saw, designed to have maximum flexibility and capability. The V5 can perform trench cuts, drilling, miter cuts at various angles, courtesy cuts (shallow cuts on the underside of wall bottom plates on either side of door openings) zero-overcut birdsmouth cuts and several other functions.

Vekta recognises that many truss plants do not require a number of these abilities. Therefore, the S5 was developed to suit a plant that was primarily interested in cutting common roof truss components and basic, non-raking wall frames. By replacing some of the servo-driven movements with pneumatic actuators and the hydraulic motor with a high power density servo motor for the saw blade itself, the result is a linear saw that is less expensive with features tailored specifically to truss plants- Why should you pay for features which you will never use?

Saw model	Razer Saw V5	Razer Saw S5
Height	2870mm (3180mm with top cover open)	
Depth - Saw chamber	1400mm	
Depth - with dust funnel & conveyor guard	1930mm	
Width - Saw chamber	1580mm	
Power Requirements	3ph, 415/480 VAC +/- 10%, 50 Amp , 50/60 Hz	
Air Supply	340 l/min at 690 kPa (12 cfm at 100 psi)	400 l/min at 690 kPa (14 cfm at 100 psi)
Saw blade drive	Hydraulic motor driven from dedicated power pack	4 kW Servo motor
Saw Blade details	350mm diameter	
Throughput - Trusses	250 - 350 Typical truss components per hour*	
Throughput - Frames	400 -550 Typical frame components per hour*	
Cut specifications:		
Cutting width - Maximum	350mm	
Cutting depth - Maximum	90mm (single or double stack)	
Cutting length - Maximum	Unlimited	
Timber length - Minimum	800mm	
Member length - Minimum	<1mm	
Main cut angle	0 to 180 deg	
Bevel cut angle	-67 deg to +67 deg (35mm Timber) -61 deg to +61 deg (45mm Timber)	45 deg
Cut types	Straight, Single/ compound bevel, Taper, Birdsmouth (zero overcut), Trenching (3 sides), Rip, Bevel rip, Notch, Drill.	Straight, Single/ compound bevel, Birdsmouth (under/ overcut), Rip, Bevel rip
Number of cuts per member	Unlimited	
Cut accuracy	+-1.5mm Typical*	

* Actual results are site dependent with consideration to timber condition and member geometries.

Features

- The Razer V5 and S5 are both compatible with ALL NAIL PLATE SOFTWARE! The Razer does not care who supplies the nail plates or even if you regularly change your supplier. Vekta software works with them all!
- Be it the V5 or the S5- they both have the industries smallest footprint.
- Both Razers can be customised to suit your factory processes- with the option of left-to-right or right-to-left material flow with the ability to use a 'U' or even 'Z' shaped infeed and kickoff setups.
- Automatic infeed, manual infeed or even a PackFeeder- the level of infeed automation can be customised to suit your business, processes and budget.
- Locations of the waste conveyor and dust extraction system can be customised.
- Manual outfeed, direct delivery system, kick off tables- again the level of automation on the outfeed can be customised.

THE P3 PRINTER

The P3 printer is a high resolution, highly configurable option for the Razer saw and is used to print position-dependent information onto the cut members in real time.

The P3 Printer helped make the Vekta Razer one of the most successful saws in the Australian and New Zealand markets! To answer the demands from customers for a more capable, less messy print system, Vekta became OEM partners with Hewlett Packard and developed a brand new print system for our industry! Despite the best efforts of many, no other saw manufacturer has been able to match the quality and the range of information achievable with the P3 printer!

The P3 printer is a high resolution, highly configurable option for the Razer saw and is used to print position-dependent information onto the cut members in real time. Stud marks, adjoining panels, fastener types, nail plate outlines, assembly information, logos (yours or your customers'), quality control checklists, bracket detail, opening sizes and so much more (far too much to list here) can be printed. Simply turn on and off the features you want to print! You can even control what information and what labels are printed on members based on the member type and length and a range of other variables.

The P3 Printer opens up a whole new world of possibilities for Vekta customers. It was designed in such a way as to let the range of printable information easily expand over time as our customers ask for more details. Every year, Vekta adds more options as to what can be printed in real time and with millimeter accuracy on the timber- one of the main reasons why our competitors haven't been able to catch up!

The printer incorporates 16 individual, disposable print heads and prints on two faces of the timber. It automatically adjusts for different thickness material and self-checks to ensure the printer is in the correct position to avoid a crash. As with all of the options for Vekta saws, existing Razer systems can be easily upgraded to include a P3 Printer.

Features

- 300dpi (photo quality) printing to millimetre level accuracy
- Highly configurable - print what you want, when you want it, and nothing more
- Low cost replacement parts
- Ever expanding list of printable features

Want to use printing to make the assembly of trusses and wall panels more efficient? Maybe add some printing to help your builder at the construction site - you know they'll love you for it! The P3 Printer is a must!

Print resolution	300dpi
Positional accuracy	1-2mm Typical
Printable faces	2 (top and side)
Grey scale photo printing (dithering)	Yes
Smallest printable member length	0mm
Longest printable member length	10m
Print speed max	1400mm/sec

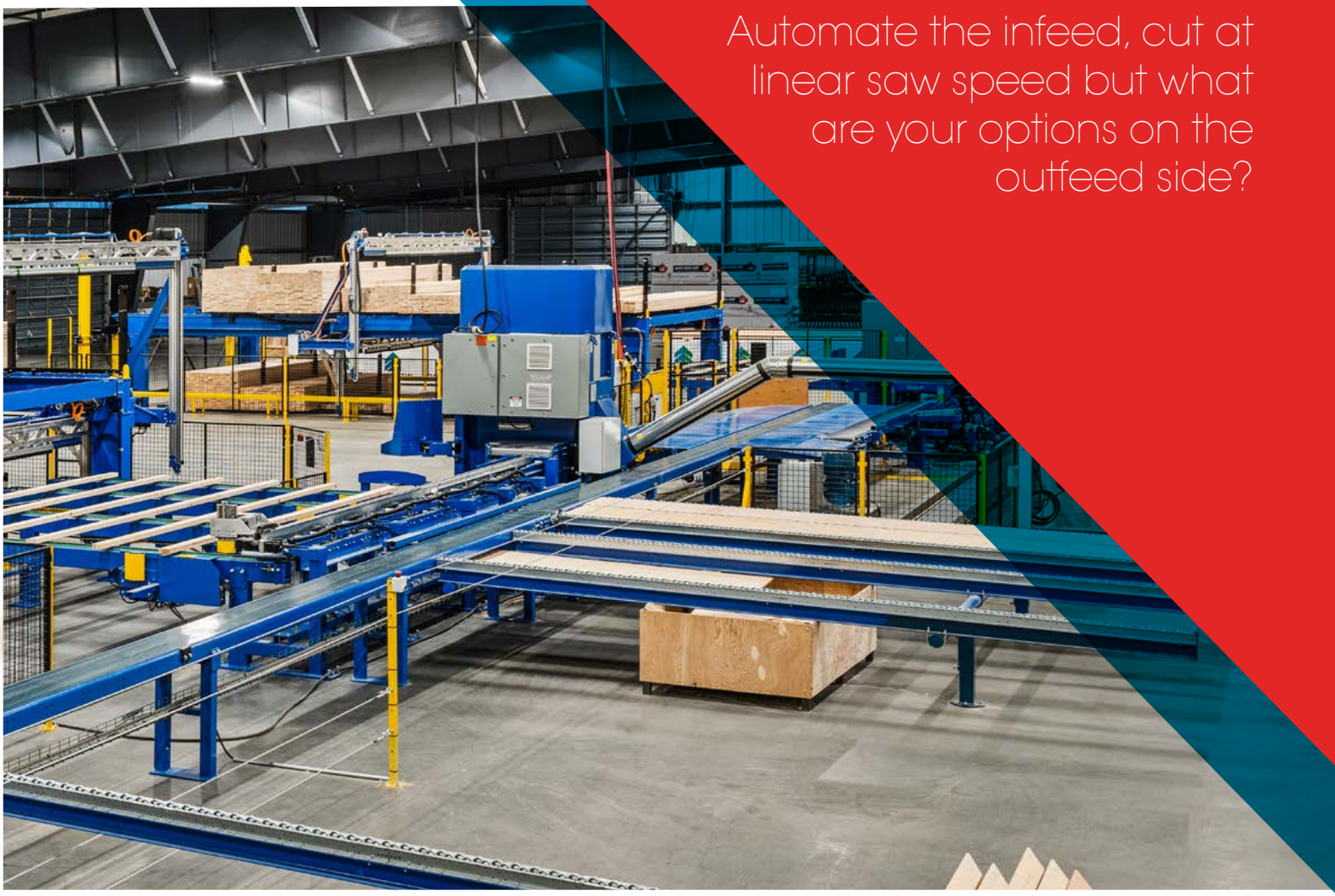
INFEED AUTOMATION

Vekta's Automatic Infeed Table is an easy option for automating the infeed side of your Razer. Simply load timber onto the AIT and the system takes care of the rest.

Height - Overall	1280mm
Height - Conveyor bed	850mm
Depth	960mm
Length	6210mm (Customisable)
Timber length - Maximum	6000mm
Timber width - Maximum	350mm
Timber thickness - Maximum	90mm (single or double stack)

VEKTA OUTFEED

Automate the infeed, cut at linear saw speed but what are your options on the outfeed side?



Vekta's outfeed solutions ensure that post cutting does not become your bottleneck.

From a standard manual outfeed to an outfeed with multiple kick off stations or even a rotator, with Vekta you have options for the post cutting treatment of members.

Vekta's Multiple Kick Off Station outfeed allows jobs to be sorted as they are cut.

- Flexible rules for kickoff location allows the saw to be configured to fit the best workflow for your factory.
- Multiple kick off locations allows jobs to be sorted as they are cut. They can be sorted so that members that are used together are grouped in the outfeed station. For example, if cutting multiple jobs simultaneously, you can send different jobs to different kick off locations.
- Reduce timber waste - by allowing multiple jobs to be cut simultaneously, better optimisation achieved than if each job was individually optimised and cut.

PACKFEEDER

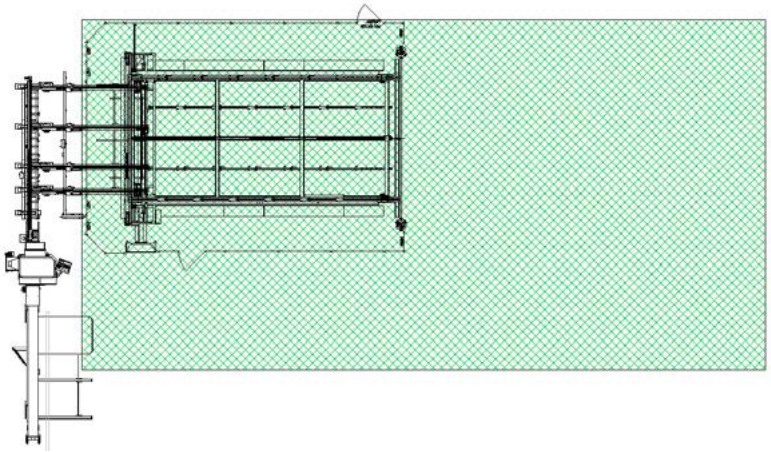
Get the most from your saw with the least amount of labour! The Vekta PackFeeder has the smallest footprint (by far), fastest pick rates, and is highly configurable!

The most common cause of downtime for an automated saw is a lack of timber on the infeed conveyors. Feeding a linear saw can be a very labour intensive process. Operators will fatigue and naturally slow down over the day and loading mistakes can cost a plant significantly in lost productivity. Vekta's PackFeeding solution addresses these issues in an extremely compact, clever manner- making it a viable option for both new and existing plants.

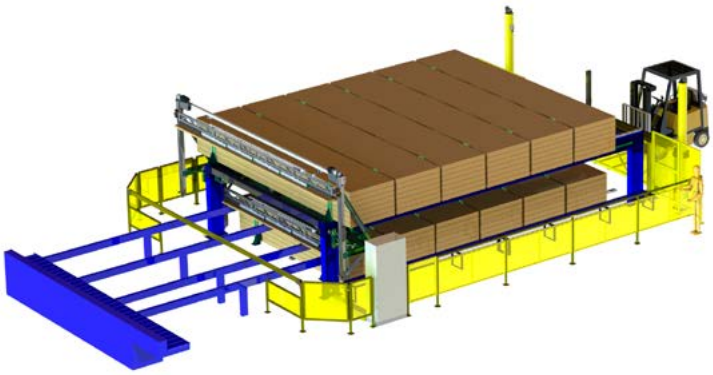
Packs of timber are loaded onto light-weight racks. Racks with longer timber are loaded on an upper row while those with shorter timber are loaded on a lower row. A vacuum head gantry then scans the location of each rack and the profiles of the timber in those racks. When called, a piece of timber of the correct length and grade is picked up with the vacuum head and delivered to the saw.

When a pack in the middle of the system is empty, the PackFeeder is placed into a safe mode while the saw continues to cut. The operator then manually removes the empty racks and loads a new rack of timber on the end. All of the subsequent racks are then shuffled forward to fill the gap created by the empty rack. Finally, the gantry rescans the new locations of the racks and starts picking timber from where it left off.

The PackFeeder can pickup up to two boards at a time and is designed to pick far faster than the typical requirements of a saw. When combined with a Stak-n-Gap, the system can automatically flip boards for bow and stack timber on top of one another. When combined with a Razer saw, even greater benefits are realised with seamless, product specific software to really take full advantage of this amazing product!



Size does matter! The image left highlights the difference between a Vekta PackFeeder and that of our competitors. The shaded area represents the amount of floor space that would be required for an equivelant size bunkfeeder.



Maximum number of packs	24*
Typical pick cycle time (up to two boards at a time)	15 seconds
Standard Packfeeder Sizes (Number of Bunks)	20 Typical Aus/NZ size*
Supported Lumber Sizes	70mm x 35mm x 2400mm lengths TO 300mm x 45mm x 6000mm lengths
Power Requirements	32A @ 415VAC / 480VAC

* The total number of packs is dependent on the physical size of the packs used.

Features

- Requires nearly **75% less space** than any other system of equivalent size
- Options to integrate with 3rd party saws
- Options for mini-magazines, configurable as required on site by the customer

VEKTA DDS

Keeping the staff you have, in the areas where they will provide the most value, is vital. The Vekta DDS - Direct Delivery System can remove one of the most labour intensive, least efficient steps in your plant- getting cut components from the saws to where they are needed at the jig for assembly.

The Vekta DDS- Direct Delivery System is highly configurable and is customised to suit each and every factory precisely. Unlike other systems on the market, the equipment itself is basic, easily maintained and repaired. You do not need to hire engineers to maintain the equipment!

So how does it work? Much of the logic takes place within the saws themselves - optimizing, orientation, order, and kickoff location considerations for example. The cut components are then handed over to the Direct Delivery System with the appropriate information. The DDS then handles conveying the cut components, tracking them along the way, and kicking them off at the correct final location. The aim is to deliver the components as close as possible to the jigs/assembly areas- in the correct orientation and order.

Power	415/480 VAC @ 32A
Air	15 CFM @ 100psi
Minimum number of kickoff locations	1
Maximum number of kickoff locations	99
Layout of conveyor line	Customised

Features

- The Vekta DDS is highly configurable to suit new and existing factory layouts
  - Acceptscutcomponentsfromone or more saws.
  - High speed rotation options for moving components to a conveyor line that is 90 degrees to the first conveyor
  - Ability to split the conveyor into multiple lines feeding in different directions
  - Dual and single direction kickoff mechanisms that can be positioned anywhere along the conveyor lines.
  - Allcutcomponentscanbejustified at the kickoff locations to best suit the factory layout - leading edge, trailing edge or centre justified.
- Printing locations on each member based on how the member will be justified at the kickoff location.
  - Kickoff components based on configurable rules (type of member, location in truss/frame, dimensions, etc)
- Streamline your factory by sending a job to your saw and knowing that moments later assembly can begin with the first components being available at the jigs almost instantly - no need to cut all or most of a job before assembly can begin.
- Maximum safety with minimal labour.
- Simple, reliable solutions that are easy to maintain and repair
- Operation and safety solutions are customised for each and every installation - not a one-size-fits-all.
- Scalable - add more conveyors and/or kickoffs in future as needed

ROLL, STACK AND LOAD

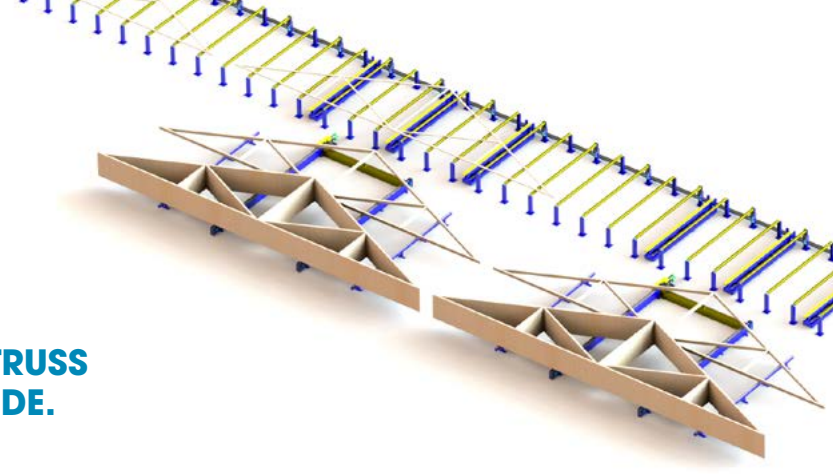
Your timber is cut, frames and trusses assembled, nailing complete… It's time to Stack and Load!

Vekta offers a variety of automation solutions to make the stacking and loading of your finished product safer, easier and more efficient.

Roll it with the Vekta Smart Roller Conveyor- A roller line with added intelligence.

The SRC is a conveyor system that automatically moves your trusses to the center of the required bay for stacking. When integrated with upstream systems, the conveyor knows exactly which bay each truss needs to be delivered to. The use of a handheld pendant allows the operator to perfect positioning and handle stacking at multiple bays making the process safer, easier and more efficient.

Width - Roller length (Truss can be wider)	4000mm
Height - Ground to top of roller	845mm (Typical)
Length - Roller conveyor line	To suit layout - Roller conveyors Typically spaced at 1200mm
Roller drive arrangement	Every second roller is driven by its own motor
Automation	Fully customisable at design stage. Includes zone control, multiple bays, auto-stacking, collision avoidance, upstream integration, safety systems



STACK THEM WITH VEKTA'S STAKPRO TRUSS OR STAKPRO FRAME- INSIDE OR OUTSIDE.

Why have many hands lifting when one operator can do the job?

The Vekta StakPro comes in two different versions- one for Trusses and one for Frames. They are an ejection and stacking system that allows one operator to safely stack any size truss or frame. The Truss version can be fitted to regular pedestal jigs or the Vekta SRC. The Frame verison is placed at the end of a framing line and has two arms that lift the assembled frames and stack them- all at the touch of a button.

StakPro Frame	
Safe working load (SWL)	250 kg
Width - Maximum footprint	3850 mm
Height - Static infeed conveyor	925 mm
Height - Maximum lift from floor	1570 mm
Length - Fully retracted	8850 mm
Length - At full extension	16000 mm
Extension Stroke	7600 mm
Spacing between extension beams	1700 mm
Complete cycle time	1.5 min*
Inclusions	Control: Manual operation via remote pendant and/or Automation Kit

* Can vary with or without table

Eliminate the bottlenecks in your yard! With Vekta equipment you can roll, stack and load with the touch of a button!

StakPro Truss	StakPro - Interior	StakPro - Exterior
Safe working load (SWL) of each boom	80 kg	80 kg
Width	775mm	775mm
Height - Overall	From 670mm	From 700mm
Height - Working height	From 520mm	From 700mm
Length - Fully retracted	4350mm	4250mm
Length - Fully extended	10100mm	10100mm
Extension Stroke	5860mm	5860mm
Spacing between each boom	Variable - Rail mounted	3600mm (Typical)
Cycle time	45 seconds	45 seconds
Inclusions	Control: Manual operation via remote pendant and/or Automation Kit	Control: Manual operation via remote pendant and/or Automation Kit

LOAD IT WITH VEKTA'S TRUSS TRANSFER

In a high volume, efficient facility, the last thing you want is for a stack of trusses to hold up production- even for just a moment. Vekta's Truss Transfer is a surprisingly simple product that takes the time pressure off your forklift drivers. And… It's built like a tank! (We know how forklift drivers can be…)

Vekta's Truss Transfers are a heavy-duty chain conveyance system designed to move full stacks of trusses. When a stack of trusses is complete, the Truss Transfers move the stack out of the way immediately. While a new stack is underway, the last stack can be strapped and fork lifted away as time allows. This eliminates a bottleneck at the stacking station or a rush to get a stack moved.

The Truss Transfers are controlled with a remote control. When combined with a StakPro Truss stacking system, or the Smart Roller Conveyor system, the Truss Transfer is controlled by the same remote control as the rest of the system.

Safe working load (SWL)	2500 kg
Width - Overall across two transfer chain beams	4380mm (Typical)
Width - Overall across two transfer chain beams & two skid beams	9330mm (Typical)
Height - Ground to top of chain	350mm
Length - Overall	7700mm (Typical)
Length - Transfer chain stacking zone	6440mm (Typical)
Transfer speed	0.3 m/s

FRAMING SOLUTIONS

From manual to fully automated, Vekta has a framing solution that will fit perfectly within your budget and factory layout.

With Vekta's recent acquisition of Framequip PTY LTD came the opportunity to share a tried-and-true framing fabrication solution to a wider market. We are proud to be able to build and support affordable and excellent quality framing solutions that have the backbone for framing fabrication in Australia for the last 18 years. Whether you are new to the framing game or a veteran looking to see what innovations a competitive market can produce, you owe it to yourself to give the Vekta Framing solution a go.

The Vekta Auto Nailer is our most widely used automatic framing solution and is built to suit your plant requirements and space restrictions. The Auto Nailer utilises smart frame progressing, one-touch top and bottom plate nailing and an ergonomic work flow to provide efficient wall frame fabrication. Intelligent guidance and control, through Vekta's proprietary software, allows operators to be led through the next steps whilst keeping track of building metrics and statistics.

The Standard Nailer is a more budget conscious framing solution. Utilising the same multi-axis clamping and plate-nailing modules as the Auto Nailer, the Standard Nailer forgoes the smart frame progressors and intelligent display to provide a more flexible manual framing alternative. Don't fret however, our Framing Nailers are completely modular, so any Standard Nailer can be fully upgraded to the newest specifications and abilities of the Auto Nailer.

The real power of this solution's efficiency and flexibility start to shine when we look at the supporting machinery. The Nog Nailer provides accurate and quickly produced stud-nog components for use on the Auto or Standard Nailers. Utilising pre-cut studs and nogs, the Nog Nailer uses one-touch clamping and nailing to provide a buffer of work to the main line operators.

Specs	Standard Nailer	Auto Nailer
Maximum Wall Height	Built to Customer Req.	
Minimum Wall Height	1500mm	
Maximum Wall Length	Unlimited	6.0m (Based on Progressor Length)
Timber Sizes	70-140mm Wide , 35/45 mm Thick	
Cycle Time*	<3 secs	
Production Capacity (8hour)**	150-300 Linear Metres	250-400 Linear Metres
Member Infeed Options	Gravity or Powered Conveyance (Multiple Options)	
Product Outfeed Options	Gravity Rollers, Frame Conveyors, Stak Pro Frame, Integrated Finishing Table	

* - Cycle time based off optimal conditions

** - Capacity ranges based on optimal number of operators with experience and training.

Features

- Customisable sizing and flexible delivery options allow a greater array of setup configurations to suit your existing production process and footprint requirements
- Intergratable with Vekta's Stak Pro Frame, Frame Conveyors and Integrated Finishing Tables
- Touch Screen intelligent guidance - guides operators and progresses through the program, showing material/member details for each step.
- Options for cutting noggins and stud components in-situ
- Minimal maintenance and upkeep

SUPPORT

Vekta understands that automated machinery in a Truss and Frame plant can become your best team member. If your saw is down- production, deadlines and reputation can also suffer. At Vekta, nothing takes a higher priority than a customer with a technical problem- NOTHING.

VEKTA PRIDES ITSELF ON HAVING THE HIGHEST STANDARD OF SERVICE AND SUPPORT WITHIN THE INDUSTRY.

Including

- Spare parts held in Perth, Melbourne, Auckland and Minnesota
- Parts can be dispatched on the same day as ordered
- Login and phone remote support available no matter where you are located
- Dedicated customer support team
- Follow-up visit after install to ensure you are getting the most out of your equipment
- Technicians and Engineers who receive extensive training on all Vekta equipment

VEKTA RESCUE- YOUR ONLINE GUIDE FOR VEKTA MACHINERY.

Including-

- Step by step information for problems with software, cutting issues, optimisation, printing
- FAQ's
- Maintenance procedures- daily, weekly, monthly
- Training checklists
- New information is continuously being added to support all Vekta products

SOFTWARE

At Vekta, we understand that an automated machine is ineffective unless the interface software is robust, flexible and easy to use. In other words- 'Simple', the Razer software.

Simple is rich in features and options that can be customised to the specific needs of your plant. With a dedicated software team, Simple is always evolving and improving with new features being released every 6 months.

- Simple has highly flexible optimising algorithms that processes thousands of different combinations of members to find the best way to cut a job- instantly! The program automatically runs through various scenarios, picking the best combination for your cutting requirements - be it truss by truss cutting, batch cutting or even a combination.
- There isn't a one-shoe-fits-all approach to optimising and systems must be configured to suit the individual needs of your plant. When your Razer is installed, an Engineer who understands your processes, set-up and needs will customise the software and provide training, ensuring you are confident in the software and your optimisation.
- Vekta is continuously investing in updating Simple. The regular updates ensure that Simple will meet the changing and growing needs of the truss and frame industry.

Features

- Extremely easy to use with various levels of access and functionality
- Integrates with factory management systems for all nale plate suppliers
- Detailed reporting on production rates, waste percentage and timber usage
- Continuously being updated and new features addedw

VEKTA
ADVANCED AUTOMATION

ED SERRANO

Ed Serrano is the Managing Director of Vekta Automation in Australia and Vekta USA in North America. Born in the USA, he moved to Australia to study Mechatronic Engineering at Curtin University, graduating with Honours in 2004. Ed's career with automation began with the Razer Linear Saw at PFP Technologies. In 2009, he purchased the IP and rights to the Razer saw and formed Vekta Automation.

Ed has over 20 years' experience with industrial automation projects specifically for the timber Truss and Frame industry. With a solid understanding of the conditions and needs of truss plants and his experience in industrial automation, he has helped many plants improve their production and business through automation.

WHAT YOU WILL ACHIEVE BY AUTOMATING WITH VEKTA

Increased efficiency! Higher volumes! Less waste!
Improved redundancy! Safety! Budget!

VEKTA - YOUR AUTOMATION PARTNER

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