



## Hundegger Australasia Pty Ltd

### December 2020 Newsletter

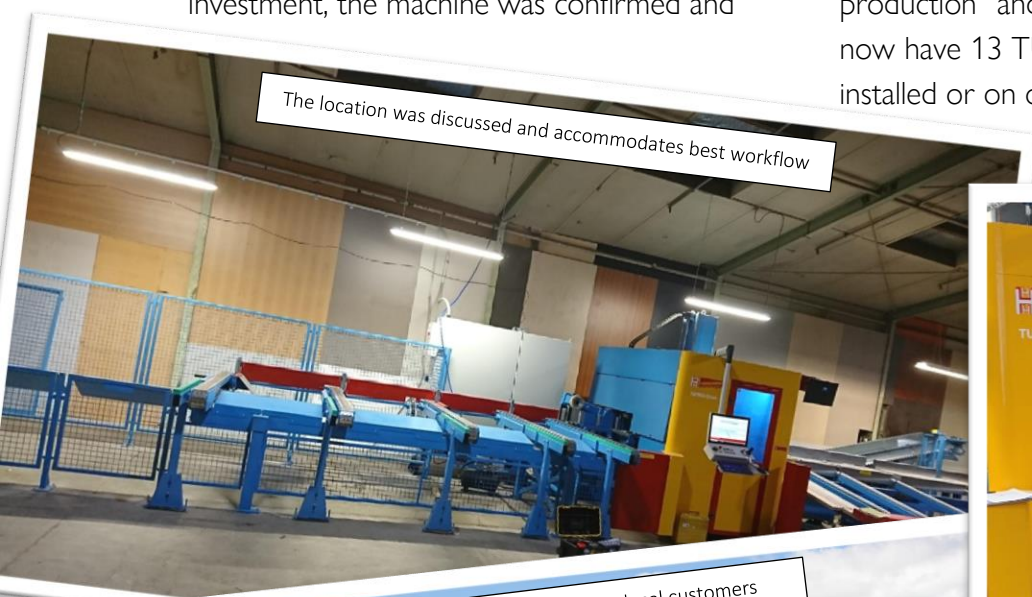
- P2. TURBO-Drive heads South to Invercargill, NZ
- P3. The “Smart” Case for a Fast Saw
- P4. Staff Profile – NZ now supported locally
- P5. Rise of the ROBOT - Woodspan PLT Panels in NZ
- P6. Recent Projects in the region
- P7. Double PBA production for Xlam Australia CLT
- P9. Hundegger SPEED-Cut and Trenching



# HUNDEGGER TURBO-DRIVE FLYS SOUTH TO NEW HOME IN INVERCARGILL, NZ

Niagara has been in operation since 1954 and are now major producers of high quality sawn and engineered timber products. One of the most efficient users of timber in the country, practically no part of the tree is not utilised into a timber-based product. With about 11 employees Niagara Frame & Truss are not a large fabricator but being part of the Niagara vertically integrated sawmill operation, they know to take their time to investigate and choose the best machinery for their processing operations. We first contacted Niagara in late March 2018 and through careful discussion and site inspections, Niagara settled on a Hundegger TURBO-Drive machine in the “CUT” specification. After an initial “hold” on the investment, the machine was confirmed and

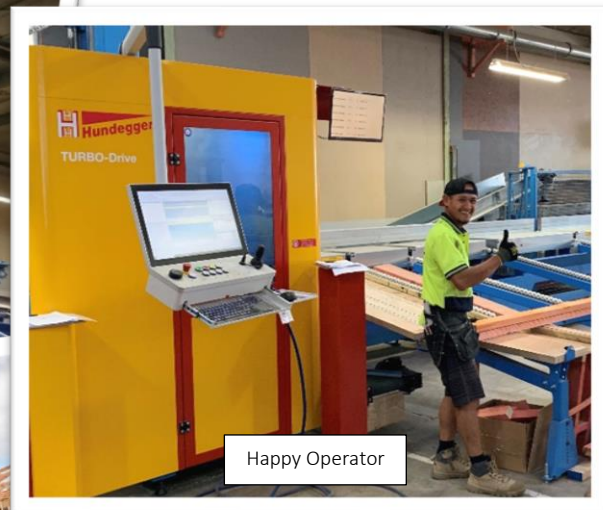
installed in June 2019. The installation has made a dramatic difference to the labour cost involved in the manufacturing of roof truss and wall frame components and assemblies. Peter Sherriff the Manager of the business tells us *“prior to the saw being installed, we regularly had at least one operator and sometimes a second, cutting components on a saw all day. Now, all the cutting is usually completed with just one person by around eleven in the morning and we can utilise that same person elsewhere in the plant, boosting overall production and output”*. The TURBO-Drive “CUT” machine can be upgraded with options in the future to increase capacity further if required and establishes a powerful benchmark entry point to automated saw production and optimisation. Hundegger now have 13 TURBO-Drive machines either installed or on order for New Zealand.



The location was discussed and accommodates best workflow



Local business – local customers



Happy Operator

# THE “SMART” CASE FOR A FAST SAW

How fast does a saw need to be to be fast enough? How do we measure speed? Is it cubic metres per shift, number of components per hour, lineal metres per shift? It doesn't really matter – whatever works best for you to assess the capacity and speed of a saw. For this article – we will just use components per shift as a unit of measure.

Regardless of the unit of measure, it is important that your linear saw has capacity – more than you need when you buy it. I have been involved in specifying timber processing machinery for 30 years and of the many things that do not change – machine capacity remains a key factor in decision-making for capital equipment. If your new linear saw capacity is “full” from day one – you have bought the wrong saw.

I regularly speak to fabricators who say “that Hundegger will cut all my timber in half a day – I don't need that, it's too much saw for my operation”. So, they may consider a slower cheaper priced saw. But there is a massive difference between lower price and lower cost. Let's look at two scenarios – Fabricator **Martin** and Fabricator **Hans**.

**Martin** looks for a slightly cheaper but lower capacity saw. He purchases a saw for \$330,000 on a 4yr, 0 residual lease. The cheaper, lower capacity saw is then used 8 hours a day. Things are good and in two years, **Martin** has seen his business grow, they are producing say 2000 - 2200 components per shift. However, the saw is now “maxed out” and **Martin** needs more capacity. The saw is still under lease and not a viable proposition to sell, so six months later, **Martin** must buy a second saw, doubling up on floor space and operator wages. He is now producing around 3500 components per shift with “net floor space” of 320m<sup>2</sup> with 4 operators. He is now paying off the old lease and the new lease with a combined saw debt of \$502K and repayments of \$15K per month.

**Hans** however decides to pay a little more and go with the fast saw from day one. He purchases a saw for \$380,000 also on a 4yr 0 residual lease. His lease repayments are \$50 a day more than Martins. **Hans's** fast saw is only used 3-4 hours a day and he can use those staff elsewhere in the plant assembling the components they produced earlier. Like Martin, **Hans** then finds his business grows and the fast saw is now producing 2200 components comfortably per shift. Happy days, **Hans** is now using the fast saw for 4-5 hours a day and still utilising the extra hours of his staff that the faster saw gives him. **Hans** is producing the same as Martin, but with less than two full time employees and in only half the floorspace. His power, air and maintenance costs are also lower. Two and a half years down the track and he is in a good place, knowing his fast saw can cut over 4000 components in a shift, so he still has no need to reinvest. **Hans** is happy. His single original lease is more than half paid off, his debt is \$198K and the repayments are only \$8.7K per month.

**Be smart – be like Hans, buy a fast saw.**



# HUNDEGGER DOUBLES SUPPORT IN NEW ZEALAND – MEET THE TEAM

In the past three years, with a renewed focus on New Zealand, Hundegger has nearly tripled its machine base in the land of the long white cloud. Machines from almost the whole Hundegger range, including the K2, ROBOT-Drive, SPEED-Cut and TURBO-Drive will now be in operation from Orewa to Invercargill and most major sites in between. Looking after the Product Support for this important customer base and machine portfolio are Ben Buerschgens (Regional Manager and Application Manager) and Dylan Noor (Service Technician). Though both quite new to the Hundegger Team, they bring many years of experience and offer a deep knowledge of timber processing machinery.



Dylan Noor



Ben & Isabella after the Auckland half marathon

In between a busy period installing Hundegger machines in Christchurch, Levin and Cromwell, Ben has also been in training and recently completed the Auckland “half-marathon” with wife Isabel. Being a true gentleman, Ben graciously followed Isabel over the line, coming in a minute behind her. Meanwhile, Dylan joined the team only a few months ago, but has already been involved in installations, and extensive service work on the growing customer base across New Zealand. In between the Hundegger learning curve, Dylan has also been increasing his language skills, learning Dutch.



Dylan & Ben during the Hundegger K2 install at Hector Egger, Cromwell

# RISE OF THE ROBOT – WOODSPAN AT TARANAKI PINE - NZ

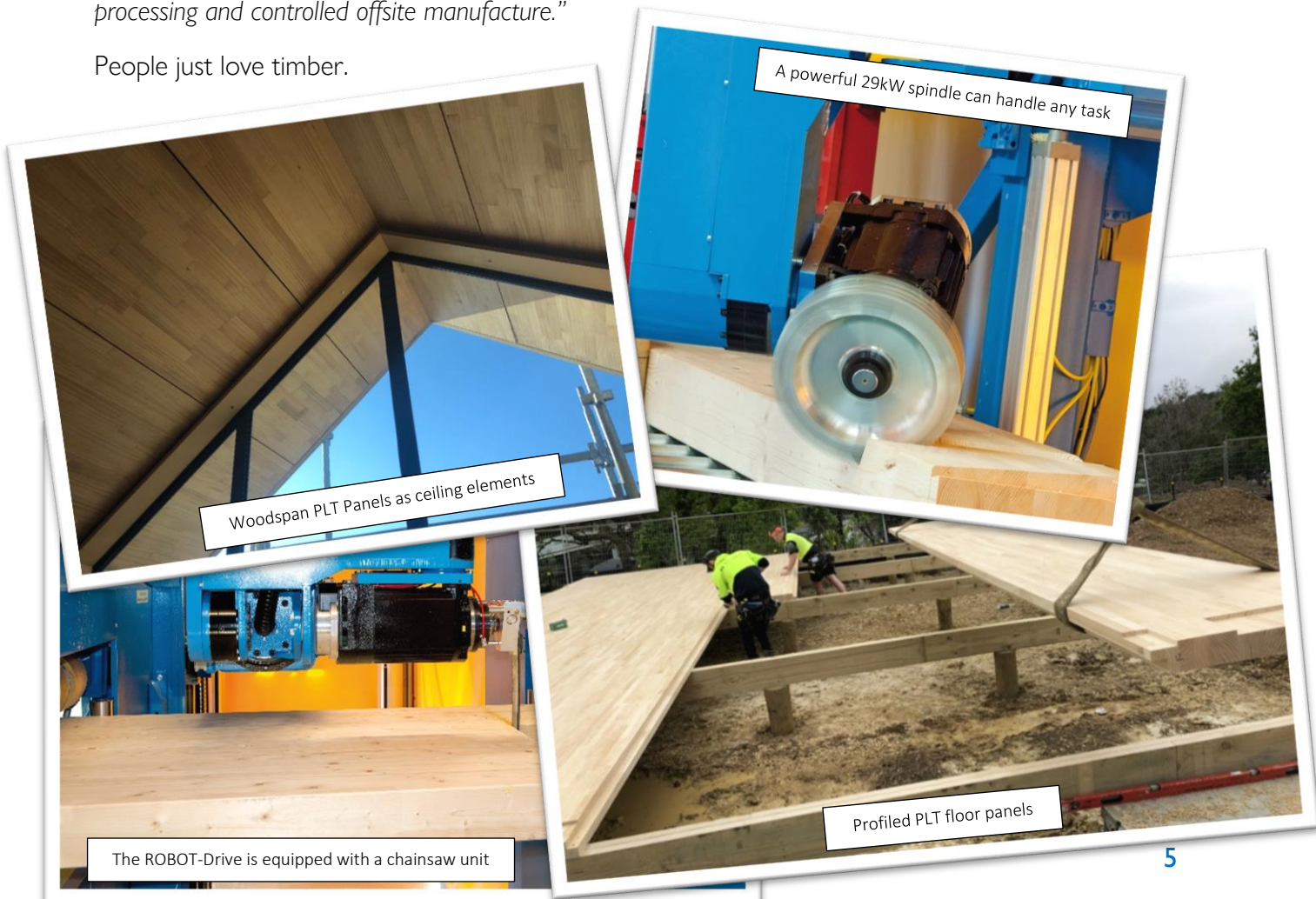
The Taranakipine owned [www.woodspan.co.nz](http://www.woodspan.co.nz) website tells a pretty complete picture of the Woodspan PLT panels product, and its heritage has come from a business that has been working with radiata pine for over 40 years and has evolved into a leading NZ producer of finger-jointed and glue laminated products. The Hundegger ROBOT-Drive has helped launch the Woodspan product cross the New Zealand construction market. Mass timber continues to gain market share, in part due to the carbon benefits, strength to weight ratio and renewable nature of the resource.

*“At Woodspan we fabricate our PLT panels and Glulam beams using the most advanced CNC processing technology available in New Zealand. Installed in 2019 our Hundegger Robot Drive has two processing spindles; an 800mm diameter 5-axis saw and a 6-axis robot head that can access all six sides of the timber component without having to turn the panel or beam over, greatly increasing production efficiency. The CNC machine is driven by CAMBIUM software developed specifically by Hundegger to aid DFMA (Design for Manufacture & Assembly) principles.*

*Our machine can process laminated timber cross-sections 300mm high, 1250mm wide and up to 10 metres long and can process a standard Woodspan PLT floor panel from start to finish in approximately six minutes to extremely precise dimensional accuracies.*

*For our customers there are two key benefits – reducing construction time at the building site due to significantly lower install time and improved building component quality due to the accuracy of CNC processing and controlled offsite manufacture.”*

People just love timber.



# RECENT PROJECTS FROM AROUND THE REGION

## New Zealand – Fast TURBO-Drive



VIP Frame & Truss in Auckland have been a proactive performer in the busy New Zealand construction scene since commencing operations only a few short years ago. Greg Harmon approached Hundegger with a view to increasing the output of their frame and truss plant and are now cutting around 350 components per hour on a regular basis on the new **Hundegger TURBO-Drive** machine. The positive Hundegger experience has initiated the purchase of a second **Hundegger TURBO-Drive** machine for their Christchurch site as well.

*Installation Feb 2020*

## Australia – SPEED-Cut with Trenching



About an hour directly west of Shellharbour, Wollongong, is the village of Moss Vale. Daryl Prothero runs Oxley Frame and Truss here and the most recent investment in this dynamic business is the **Hundegger SPEED-Cut** with dedicated trenching unit. Able to process all frame components (and truss components) with the 5-axis saw, it has the unique ability to also trench top and bottom plates at the same time, eliminating a separate process and removing potential errors from the manufacturing process.

*Installation May 2020*

## Australia – Panelised Pre-Fab components



Peter Ward from **Future Fit** has been an innovator and forward thinker for many years in the timber industry in Victoria. From early days sawmilling, to one of the first in the region to value add to Victorian Ash species with finger jointing and glue lamination, there is very little Peter has not been involved with when it comes to Timber Processing. A frame and truss plant was established and one of the very first **Hundegger SPEED-Cut** saws to come to Australia was installed. A second one later followed, as did an automated infeed system. Recently, a brand-new facility incorporating the Drouin West Timber and Truss business as well as the Future Fit panelised prefabrication building system was built, housing both business units on the one site. Again, a new **Hundegger** was utilised – this time a **Hundegger TURBO-Drive**, being fed with an 18-bay automated picking system.

*Installation Jan 2020*



# XLAM DOUBLES DOWN WITH HUNDEGGER

From fairly humble beginnings in Nelson, NZ back in 2010, the current XLam operations in Barnawartha, Wodonga is a testament to the vision of the owners and the potential and reality of the mass timber and burgeoning CLT demand in the region. Why CLT? It just makes sense. The growing acceptance and utilisation worldwide of this renewable resource based product is a reflection of the growing desire for people wanting to reside in a sustainable structure and engage in a more environmentally friendly lifestyle. And it is not just residential, in the growing timber building commercial space, developers and owners recognise that people prefer to work in an environment that is conducive to good health and a sense of wellbeing. Studies have repeatedly demonstrated that timber buildings do deliver this, and tenants will pay more for a timber based work space for lease or rent. So how do XLam go about delivering this outcome?



XLam CLT in The Seed House, NSW

This “front-end” Design part of the operation is of paramount importance and without this – nothing else happens. Once the front end is completed and the mechanical and aesthetic properties of the CLT products are determined, the “back end” manufacturing or Production process can begin.



Finished CLT panels off the Hundegger PBA

Production starts with the feed stock selection of timber boards from the Hyne Tumbarumba softwood mill. These are transported to the XLam site and a process of fingerjointing, planing, layering and then pressing into cross laminated timber billets begins. From when a stick of timber begins the value added journey at XLam, it takes about 30 mins until it is pressed and cured into a CLT panel up to 16,000mm long x 3500mm wide x 350mm thick – ready for the CNC process. So far, the XLam marriage of Design and Production has produced the final stage (before delivery to the building site) of the mass panel or billet for the CNC machine processing. The CLT panels are transported either to a buffer area or directly into the CNC machining area which consists of two massive, German made Hundegger PBA-D CNC machining centres. These machines can handle complex machining tasks – drilling, formatting, rebating etc, as well as producing openings for services, windows, doors etc. This will all be produced to millimetre perfect tolerances to facilitate installation on site without further work.

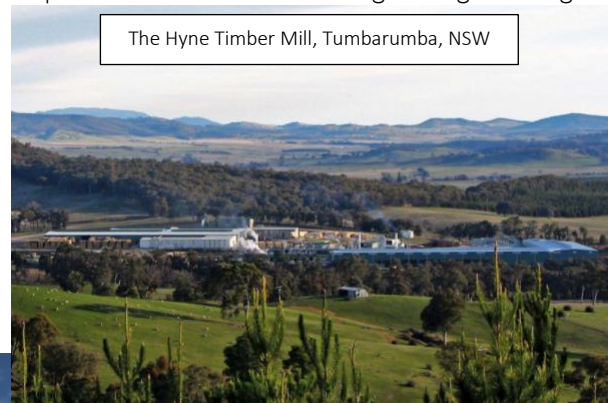
# XLAM DOUBLES DOWN WITH HUNDEGGER (CONTINUED)

The two Hundegger PBA machines are each equipped with several processing aggregates, with spindle motors rated up to 55kW and on-board automatic tool changers, so between the two machines, production rarely ceases and the site can process up to 60,000m<sup>3</sup> of material a year.

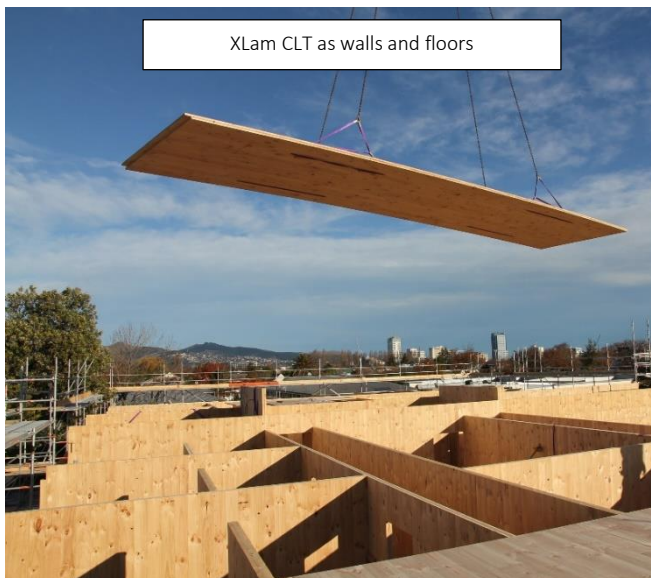


Brendon (Jack) Hoffman and Shane Jarvis, respective CNC Operator and CNC/CAMBIUM coordinator, between the two Hundegger PBA's

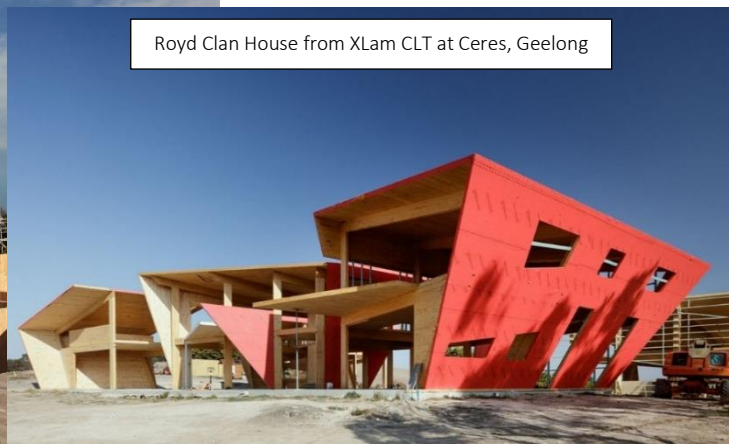
The beauty of XLam CLT is that all the material is sourced from sustainably managed softwood timber plantations and the whole supply, processing and logistics operations from the harvesting, haulage, sawing and processing of the feedstock and then the value added CLT manufacturing process employs several hundred people and supports communities and families in the process. And best of all...? - a handful of Pinus Radiata seeds planted and given sunshine and rainwater and little else will produce another few hundred cubic metres of timber again, whilst storing roughly equal volumes of carbon.



The Hyne Timber Mill, Tumberumba, NSW



XLam CLT as walls and floors



Royd Clan House from XLam CLT at Ceres, Geelong



# TRENCHING ON THE HUNDEGGER SPEED-CUT

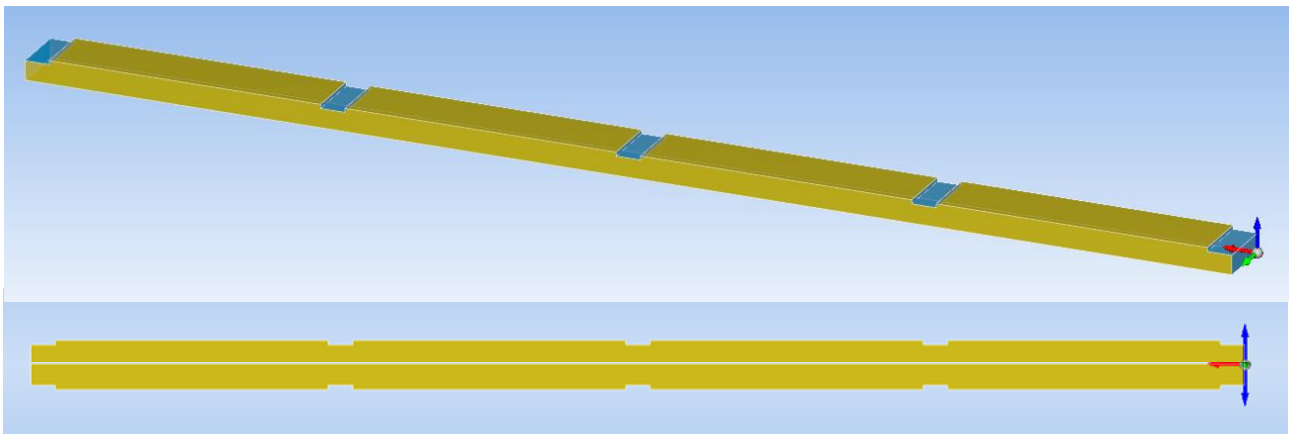
One of the earliest machines produced by Hans Hundegger AG in Germany was the SPEED-Cut. It immediately became a favourite in Europe amongst Carpenters and Joiners as the universal cutting and processing machine. As it developed, further options became available and its reputation grew as a true and trusted workhorse in the greater timber industry.

With the traditional strong travelling instinct of Antipodeans, the first “down-under” Hundegger customers discovered the Hundegger SPEED-Cut at the LIGNA Fair in Hanover, Germany. The robust and flexible 5-axis overhead saw aggregate on the SPEED-Cut was what first attracted the Australian and New Zealand market. These pioneering customers were generally from the Frame and Truss industry, and once these early machines were installed - many with the optional powerful Vertical End Mill for processing single or stacked double mitres, the game changed and the Hundegger SPEED-Cut became the heart of many Frame and Truss operations.



The Vertical End Mill was and remains an attractive option to timber importers and distributors as a machine that could be configured not for just 6-8m truss components, but 13m or longer for I-Joist feed stock. It could cut floor components with the required service openings on a job-by-job basis for the expanding mid-rise, multi-residential sector. Improving technology in printing directly on the components with ink-jet printers increased the flexibility and value of the SPEED-Cut even further. The SPEED-Cut became the linear saw of choice in Australia and across the Tasman. Further advancements such as the 3 head turret mill opened new doors for the SPEED-Cut in processing Glulam and other EWP.

However, one of the biggest advantages today of the Hundegger SPEED-Cut for the Frame and Truss industry, and one that often “flies beneath the radar”, is the option on the SPEED-Cut to configure it with the built in Double Trenching Unit. Particularly in NSW, where trenching of top and bottom plates for stud location/fixing is common practice, the Double Trenching Unit built into the saw is a real game changer. Importing data directly with the job file, the SPEED-Cut can cut and then trench single or back to back plates with mirrored or individual trench locations. Where a single-width trench may be required on the top, but a double on the bottom, that is also possible when running top and bottom plates together.



# TRENCHING ON THE HUNDEGGER SPEED-CUT (CONTINUED)

The Double Trenching Unit or the Vertical End Mill take up no more room on the SPEED-Cut footprint than when fitted as standard with just the 5-Axis Saw. The tooling for the Double Trenching Unit is designed for you to suit 35mm or 45mm material, and it takes a single stroke to perform the required trench. Cutting depth adjustment is simple to allow the trench depth you desire, and it is then automatic regardless of whether you are running 35mm or 45mm plates or any other size.



The current process on a saw of cutting all the frame components, then separating out those that need trenching, ensuring the data on the trenching machine is correct, and reprocessing pieces on the trenching machine is time consuming and open to errors.

A long-time owner of a SPEED-Cut with the Double Trenching Unit says *“our trenching attachment is great. Takes up no extra space, is fast, accurate and most importantly being part of the saw, all the information required on the plates for manufacturing and site assembly is printed on the plates as they are processed”*. A further advantage with the Double Trenching Unit is that it means downstream assembly machinery can be less automated and costly to purchase or maintain. The assembly process is greatly simplified by the visual prompt of the trenched plate.

The alternative is to have a standard linear saw taking up that same approximate 60m<sup>2</sup>, plus a separate mitre saw (about 22m<sup>2</sup>) and a separate trenching unit (another 16m<sup>2</sup>) and add in some space at each station for trolleys of work-in-progress material that has already been through the saw and you can easily lose another 60m<sup>2</sup> or more of valuable space in a workshop. All of a sudden, you need 120m<sup>2</sup> to accommodate all these separate processes. Plus, the material is handled many times more and the opportunity for mistakes increases.

The Hundegger SPEED-Cut is fast, reliable, and powerful. Easily the most flexible saw available in the region and a proven performer in the industry. Over 80 SPEED-Cut machines in operation in the region demonstrates the pedigree and there are over 1000 SPEED-Cuts installed worldwide.

