Innovation in timber engineering





Hundegger Australasia Pty Ltd

October 2019 Newsletter

- P2. TURBO-Drives head South Pt 1
- P3. Conference Wrap up MTC, FTMA
- P4. Staff Profile people make the difference
- P5. Recent Projects in the region
- P6. Hundegger TrussLinc
- P8. Hundegger LIGNA Tour
- P9. Recover Hidden Profit

HUNDEGGER TURBO-DRIVE – HEADING SOUTH – PT I

Not quite a migration in the normal sense of flying south for Summer, but South the Hundegger TURBO-Drive is headed regardless. With the latest installation at the bottom of Australia, on the outskirts of Hobart, **Total Prefabrication Pty Ltd** have taken delivery of a new Hundegger TURBO-Drive Saw installed in February 2019. Total Prefabrications are a young company but have many years of experience and pride themselves on using innovation and a fresh look at the application to develop the most cost effective and high-quality product they can.

The Hundegger TURBO-Drive has allowed them to speed up component production, reduce timber wastage and consumption via the effective optimisation, and eliminate one of the risks in any truss plant – proximity to the cutting tools.

The sophistication of the TURBO-Drive software will also allow Total Prefabrications to add further

value to their customers. For example, the saw is able to produce flooring elements (including services penetrations and openings) and stair components (treads and stringers – either mortised and tenon or a simple slot rebate). The ability of the TURBO-Drive saw to operate below "0" and at any angle means it can cut slots in laminated beams for architectural components, and the combi-unit can drill holes, profile ends of rafters and even trench if needed.

The powerful 10kW main saw motor is more than double the power of some other saws and the clean lines, replacement of old-style exposed chains for angle and bevel positioning with gear and enclosed belt drive, as well as central lubrication, means maintenance is minimal and low cost. A Serious Saw.

Hundegger TURBO-Drive: https://youtu.be/AGCI5rYzmRk

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The TURBO-Drive at home in Total PreFabrications
Combi unit can create openings for services



 Saw below "0" can create slots and more...
Treads with a tenon
Mortised stringers



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CONFERENCE WRAP UP - MASS TIMBER CONFERENCE (PORTLAND, OR) & FTMA (GOLD COAST, QLD)

The Mass Timber Conference, held in Portland, Oregon now in its 4th year has been an enormous success, and in March this year close to 1500 participants from over 70 companies in attendance from 28 countries. It doesn't take long to recognise that with around 70 presentations available to sit in on and 80 exhibitors the opportunity to learn about Mass Timber or understand more about its trajectory was unprecedented. The take-up of Mass Timber in buildings in Australia continues to grow exponentially with 2017 seeing about 5,000-7,000 m3 and 2018 about 25,000m3 of CLT used in construction. Andrew Dunn from the Timber Development Association also confirms that in less than 10 years, we have gone from no CLT and very little other Mass Timber in buildings in Australia to around 80 at the end of last year - mainly in the residential area. Hundegger machines such as the Hundegger PBA (CNC Bridge), Hundegger K2 Industry for panels and beams and the Hundegger ROBOT-Drive are leaders in CLT, DLT, and GLT processing.





Not so far away, in another great part of the world, the 2019 FTMA conference on the Gold Coast was extremely well organised by Kersten Gentle and was in fact completely SOLD OUT. 25 exhibitors, 15 presenters and 230 attendees in total made sure it was a rousing event and the new developments and all the many networking opportunities were a great part of the Hundegger had a booth proceedings. presenting the latest TrussLinc Systems, more about this on page 6. 3

STAFF PROFILE – PEOPLE MAKE THE DIFFERENCE

In any organisation, it is the people that are important, not the sign above the company doorway or the uniform they wear. At Hundegger we believe our people may join the company, but they stay for the team of people they work with. This month, we are doing a small profile on our Technical Support Team.



Karen Steyn - Service Manager

Karen has been involved with the Technical Support department since starting with Hundegger 10 years ago. Though it was as recent as December 2018 when Karen took on the overall management of the Technical Support Team, she enjoys the challenge and feedback from customers has been very positive. Karen also enjoys getting away with her family to the Victorian Bass Coast when the opportunity arises.



Aleks Radunkovic TrussLinc Project Manager Aleks has participated in training

programs in Germany and Australia and enjoys travel and good food. His favourite sport is yodelling and playing with flux capacitators.



Vigneshwar "Vish" Mohan Service Technician

Vish is the quiet achiever in the team. His ability to quickly grasp the situation and act accordingly is impressive and his calm demeaner wins him many friends. A strong family man, he enjoys travelling too.



Panha Ham Applications Specialist

Panha is the "Manu" of the Hundegger Team. Softly spoken with a love of food and life, Panha travels regularly to Germany for a bier and advanced software training.



Tony Gonn Service Technician (QLD)

Tony is the "wise old man" of the team. Able to diagnose and repair any issues electrical or mechanical, he is also a great "mechanical mentor" to the Technical Support Team



Jianjun "Jay" Jiao Senior Technician Jay is the Terminator. A creature of habit, he will eat the same menu for lunch for a week or more. "If you are on a good thing – stick to it" he says. A very capable and respected Team Member.



Andres Ruz Service Technician

Andres has a love of fast cars and fast food. Our newest team member. Again, a fast worker with broad ability and developing further electrical and software skills.

Interested in working for Hundegger? We are hiring...! Inquire: admin@hundegger.com.au

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SOME NEW PROJECTS FROM AROUND THE REGION

New Zealand

Niagara Frame and Truss in Invercargill needed a machine to enhance and secure the growth of the business and chose a Hundegger TURBO-Drive for the task. An important part of the decision-making process was software integration with the fabricator and a high availability of technical support due to the regional nature of the site.

Installation May 2019

Australia

Australian Sustainable Hardwoods (ASH) have long been great innovators in diversified hardwood timber production and manufacturing and at the fore of new technology integration. The expansion of their manufacturing capability at their site in Heyfield VIC will see a Hundegger K2 Industry 1300, with integrated 6-axis ROBOT-Drive unit installed to process large Glulam beams and columns. Product up to 1300mm x 3000mm and 450mm x 450mm will be processed in lengths up to 13m. This new machine will deliver ready to install products and support the growing mass timber market. ASH have the volume, availability and vertical integration to deliver the largest mass timber projects in Australia and New Zealand.

Installation planned for late 2019

Australia

CLTP Tasmania is becoming a well-known name in the industry and it is sure to become even more widely known in the coming months as production machinery arrives and is installed. The end product will be plantation sourced E.Nitens Cross Laminated Timber (CLT) and other glue laminated mass timber products. The existing production site is efficiently compact, on the outskirts of Wynyard, North West Tasmania and the potential to grow the plant is part of the strategic plan of CLTP Tasmania. The final step for the CLT and other Mass Timber products will be their processing in a **Hundegger ROBOT-Drive 1300**. This precision machine will process products up to 1300mm in width, 300mm in thickness and (in this case) up to 16,000mm in length. Drilling, slotting, creating openings and penetrations will be handled with ease on the heavy duty 6-axis Robot unit.







HUNDEGGER TRUSSLINC – THE FUTURE



Over the past 18 months, the world's largest and most advanced truss plant has been built in Corio, Geelong – South West of Melbourne. The heart of the system is the Hundegger "TrussLinc" software and operating system.

So, what is TrussLinc?

In short, it is THE complete mechanisation and software control solution for truss and frame component manufacturers – from timber packs at the infeed, to the puck table at the outfeed. Basically, all the area in RED in the above image, all from one source – Hundegger.

For Truss and Frame manufacturers the good news:

- Keep your existing fabricator MiTek, Pryda, MultiNail, we successfully work with all of them.
- Choose your own puck table or keep your existing ones, again we can work with all new or existing systems.
- Re-allocate your labour move them from manufacturing components into assembly and increase production with overall lower unit cost.
- Can be customised to suit new and existing layouts.
- Modular, scalable technology. Start simple and grow as required to futureproof your investment.

How can I find out more about this or see it in action?

Hundegger will soon offer a tour to the USA to see a couple of systems in operation. In the meantime, an example of an existing system can be seen here: <u>https://youtu.be/6G2szAJEmpQ</u>

HUNDEGGER TRUSSLINC – THE FUTURE IS NOW (cont'd)

The cornerstone of the TrussLinc system is the TurboDrive. The saw is able to cut boards in stacks of 4 at the same time. This can improve capacity **by as much as 300%.**

Its most modern technology is combined with a tailormade software solution which organizes the sorting in such an efficient way that the timber yield is improved to an absolute maximum.

TrussLinc's level of automation has not been seen before in the component manufacturing industry. Efficiency, productivity and material can be monitored an d adjusted in real-time. Production data can be easily customized to

report in real-time performance statistics that are critical to evaluating and motivating employees and managers in your organization. Evaluation benchmarks can be easily set. Accurate "predictive" scheduling is possible changing from a "push to pull" manufacturing strategy.

Customized reports focus on a single machine and operator or on multiple machines and overall production. Reports can be designed to focus on a single job or on all of the projects queued for production. We collect all the data, we just need to know what you want and need to track.

Monitor and make necessary scheduling adjustments in real-time from anywhere in the world with our cloud-based system access. Transform critical information into actual results with easy-to-understand reports

HUNDEGGER TrussLinc® from push to pull

One Control

- less labor
- better yield
- higher productivity
- maximum capacity
- less space
- less inventory
- higher flexibility



THE HUMDINGER OF A HUNDEGGER TOUR TO LIGNA 2019

It has been a long-standing tradition of Aussie and Kiwi timber producers and processors to travel to the LIGNA Fair in Germany and in 2019, this was no different.

However, Hundegger Australasia offered for the first time an all-inclusive trip through Germany, Switzerland (and a little of Austria) to see some world class timber processing plants in the week prior to the LIGNA Fair. Whilst tempted to actually call it the Humdinger Tour, we settled on Hundegger Mass Timber and Prefabrication Tour – Germany and Switzerland. The group consisted of a dozen people from seven leading businesses across the region and was organised and lead by Sam Rowe from Hundegger Australasia and Steffen Weber from Hundegger Germany. Its not easy to fully describe all that the tour encompassed, but over the six days, there were visits to 11 processing sites, a prefabricated home display village, the Hundegger manufacturing facility, 3 border crossings, two walking tours, 23 meals, 15 boomerangs given as presents to sites, 1300 klms travelled in comfortable bus and train journeys and even a handful of Biers squeezed in..! Feedback was overwhelmingly positive so it will be a fixture on the calendar for 2021.



RECOVER HIDDEN PROFIT

REPRINTED FROM FTMA NEWS, BY SAM ROWE

About 12 months ago I wrote an article for Timber Trader magazine, called "CNC Saw Operation – not Rocket Science", however the magazine changed it to "The Case for Ongoing Training". It was published in the October issue in 2018. My opinion at that time which remains largely unchanged, is that operating a CNC saw to its best is much <u>more</u> than rocket science. I have always been a strong advocate for continuous improvement and training – and have invested in that personally and in the businesses in which I have been involved, facilitating and encouraging both professional and personal development.

Without going over the earlier (but still current) ground of that previous article, I will summarise it as being about the gradual loss of essential Operator skill necessary to get the best out of a Linear/CNC saw. Not just operating it – really getting the best out of it. The best result is often not realised due to the decline in skills through staff movement and lack of ongoing training to maintain high levels of competency.

I also believe in investing in staff to ensure a base level care of the machine and maintenance is being managed – but in this article I want to build on the theme from the earlier article further by looking at it from a fundamental level and drawing a pretty basic comparison. The simple proposition is; Value Recovery through Skills Development = Profit.

If you operate a Frame and Truss business, be it a smaller operation, or a larger operation - possibly running multiple shifts, chances are you are either making use of an Accountant on a regular basis or have your own Accountant(s) employed in the business. They help your business by guiding your decisions, watching your cash flow and helping the business run profitably. Now when you chose to work with that Accountant (or employed them) you probably checked out their credentials. Currently to get a Batchelor of Accountancy takes about 4 years full time University study, and it's a pretty well rewarded job. A good Accountant can make a positive impact on your bottom line. So, let's just leave the Accountant doing Accounting things for a moment and look at the big costs of running a Frame and Truss plant.

Across Australia and New Zealand, roughly 50% of a wall frame is timber and its perhaps about 40% of a roof truss. I did a quick "vox pop" across four operations in the AUS/NZ region running one, two, or three CNC saws (of different types) and a mix of single or two shift operations. The value of timber purchased across those four sites was in excess of \$30M. Individual sites ranged from \$4.2M to \$14M per year in value of timber used.

The starting place, the very first thing, that happens to that timber in most plants is you put it to the CNC saw and cut it up into truss or wall components. Make a poor decision here and the value is lost – it cannot be recovered. Sure, not all of that timber you purchase may go through a CNC saw, but most of it will.

RECOVER HIDDEN PROFIT

The question is still "are you getting the best out of your CNC saw?" An efficient optimisation result by a skilled Machine Operator at the CNC saw (or in an Optimisation role) and subsequent improved timber yield of say 1.5% as an example, is \$63,000 - \$210,000 (based on above figures) straight to the bottom line. The recovery is effectively "free timber". So, are you getting the best optimising result, or are you in a mindset where you are just trying to get the job out the door as fast as possible and get paid for it? Why not have the best of both worlds? This is where a motivated, skilled, well trained Machine Operator comes into the picture. What does it cost for a week of training for an Operator? How much does the Operator get paid? Are you remunerating the position of Machine Operator commensurate with the value that a skilled, motivated, well trained person can recover for you? What is the hourly rate of the Accountant?

Let's go back to our Accountant. They have had 4 years of expensive University education, and yet through staff movements, the Machine Operator may have had no formal training on your saw at all. Does your Accountant know who the Machine Operator is?

So now the question is, "where is the logical place to invest in some training to unlock the hidden yield to gain an immediate improvement in the bottom line?"

Invest to achieve value recovery as early as possible in the process and that will start with the Machine Operators/Optimisers.

What else? I see a lot of advertisements about speed of saw cut, simplicity to use, footprint, service support and more, and I will agree that a saw should be fast and easy to maintain and that the software on your saw should certainly be easy to use. But it's no use flogging a dead horse, all the training in the world won't help you if the software on your machine cannot give you a range of optimising results through easy simulation and altering basic variables such as available material, price of that material, potential for processing stacked "like" components etc. Our Hundegger TURBO-Drive ticks all those boxes and with the "Truss UI" touch screen, it couldn't be any easier, but behind the simple operator interface, we have very powerful algorithms to calculate speed, yield and value optimisation to deliver the returns that are there. Without this, the gains from training will be harder to realise, it will be more of a challenge and may be time to upgrade.

