

Millwide

INSIDER

THE MAGAZINE FROM USNR | ISSUE 4 - 2011

BLENDING USED AND NEW

Nelson Forests selects a winning team to make it work

REFURBISHED LINE SPEEDS UP THE PROCESS

Carter Holt Harvey automates its planer line, ready for better markets

USNR & SKOOKUM: MARRIAGE OF TALENTS

International alliance sparks abundance of successful projects

USNR



USNR booth staff at Ligna 2011, left to right: Vern Pittman, Alan Knokey, Mike Dockter, Elena Belinson (interpreter), Dale Brown, Tim Fisher, Scott Norton, and Chris Blomquist.

USNR in international markets

USNR exhibited at the recent LIGNA show in Hannover, Germany and found the experience to be a huge success. Our broad product spectrum for the lumber, plywood and engineered wood industries attracted a wide variety of visitors from around the world.

Attendance was significantly improved from 2009, and we saw a dramatic increase in the number of visitors with plans for upgrades or complete new mills. Visitors came to USNR's booth from literally all corners of the globe including Russia, South America, Australia, New Zealand, India, Southeast Asia, Europe and Africa. We were pleasantly surprised to welcome more people from North American companies than expected compared with previous LIGNA shows.

Over the week, USNR received many requests for proposals or technical information, and several inquiries have already progressed to contracts. In this issue we relate international success stories with customers who realize these benefits of partnering with USNR.

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Sincerely,
Colleen Schonheiter
Editor

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The art of blending used with new

NELSON FORESTS CHOOSES THE RIGHT TEAM TO MAKE IT WORK

When opportunity knocked for this New Zealand (NZ) mill, the clear choice was to answer the call with an economical, yet competitive solution. Now 17 months later, a well-used but much-refurbished trimmer/sorter/stacker line is up and running, replacing a manual green chain with a solid, steady line that blends the right combination of old and new for this mill's requirements.

Nelson Forests' Kaituna mill is located in the northern region of New Zealand's south island. With a sustainable supply of high value, pruned plantation timber ready for harvest, the time was ripe to invest in automation to make the mill more efficient. The operation comprises a sawmill, dry kilns, planer mill and CCA treatment plant. Other USNR equipment at this site includes a Forano headrig, Schurman manual board edger, MillExpert LASAR carriage optimization system, and a CAE resaw.

Finding the right solution

In New Zealand it is common practice to source good, used machinery that meets the specific requirements of the mill and still has potential for long life. Often this leads to a blended solution of used and new, as was the case at Nelson Forests. The mill approached NZ's Skookum Technology to source the supply, thus began the quest for the right combination to bring the sawmill up to the desired level of production.

Nelson Forests' Bryan Phillips, process reliability manager, was heavily involved in the equipment selection and design for the mill's process improvements. "Typically, the cost of purchasing a new trimmer optimizer, bin sorter, stacker is too much for the mills here (NZ) to continue to be profitable. Generally there is not enough output to

warrant it. Most mills look for used equipment from Canada or the US, dismantle it, ship it back to NZ, and then reinstall it. That's what we've done here."

Geoff Strang, general manager at Skookum, took on the project and scoured his resources to find the best fit. The decommissioned mill at Weyerhaeuser's Aberdeen, Washington site was the final choice, and Geoff and Bryan made the trek to North America to take stock of the findings. The equipment was originally supplied by Newnes Machine (now USNR) in the early 1990's, and had been mothballed for about five years. Geoff noted that it was solidly built and held its value for production purposes, but required a number of design changes to accommodate the desired layout and unique processing specifications for the Kaituna mill. "Once we had all the mill's requirements specified, we worked with USNR to maximize reusing what we could, and complementing it with new to create basically a new line."

Bryan Phillips explained, "In some cases, such as the stacker, requirements differed from what had been supplied at Aberdeen, and we were unlikely to find a stacker that met our needs. In that particular case we purchased a new stacker from USNR. We also needed to put an 'S' shape into the equipment configuration, so we bought additional new equipment to get the configuration we required."

Blending used with new

The final design consists of the following blend of old and new. A new surge deck forwards the lumber to the new radius back unscrambler, fitted with a step feeder that enhances the unscrambler's ability to singulate the boards and transport them to the lug

Finding the right combination half a world away presents some unique challenges. Choosing the right team to make it happen is the basis for success.

"Once we had all the mill's requirements specified, we worked with USNR to maximize reusing what we could, and complementing it with new to create basically a new line."

The J-Bar bin sorter and its building were disassembled at the old millsite in the US (this page). Both were reconstructed at the Kaituna mill site in New Zealand (opposite).



loader elevation. An angled rollcase and speed up chains at the top of the unscrambler further assist to smooth the flow to the new surge table and backlog table feeding the used Newtronic lug loader. The first new 90 degree turn transfer directs the flow to a new lugged incline (Skookum supplied) ahead of the used grading and trimming section. A used grading transfer, equipped with automated turners, assists the manual grading process.

The original Newnes trimmer optimizer was updated to the MillExpert platform, while the scanning system employs Newnes LPS2 transverse sensors. (To learn more about this combination, go to page 7.) The scan frame was completely cleaned and refurbished prior to shipping. The MillExpert trimmer optimizer also complements the MillExpert LAZAR system on the carriage.

The used 3-stage trimmer fence was upgraded from hydraulic to electric actuation. The used sawmill and planer mill trimmers from Aberdeen were combined to create the desired configuration. Bryan describes the thinking behind this unusual solution. "We wanted to trim at 300mm intervals, so we needed twice as many saws as they

(Weyerhaeuser) had in one trimmer. So we used the base of the sawmill trimmer, and the top of the planer mill trimmer that was more modern." The trimmer top had also been set up to trim 5" thick material so it was a better fit for requirements.

A used smart gate drops out pieces to a resaw, while others are even ended and travel on a used incline transfer to the second new 90-degree turn transfer, completing the 'S-shaped' flow. A new lugged transition transfer (by Skookum) feeds the used 50-bin J-bar sorter. The used bin discharge decks and incline chains feed the used (modified) unscrambler, speed up chains and landing table that transports the sorted products to the new stacker.

A new stacker backlog table and stacker table feed the new Newnes-style low profile stacker and automatic slant hopper stick placing system. The stacker secondary hoist ensures minimal tier cycle interruption between loads. The mill installed two MillTrak lumber flow monitoring systems at the stacker; one monitors the flow at the backlog table while the other controls the pre-course makeup or tier staging. Geoff Strang explains the requirements for the new stacker.

"The mill wanted to make bigger packages than the Aberdeen stacker was designed for, and wanted course gapping to allow better drying quality for its thicker products. It also required pre-course makeup and alternate ending on the packages, and an automatic stick placing system. This new design meets the needs exactly." Geoff went on, "The stacker section also included a customized package re-entry system for re-filleting (stickering) all product from the treatment plant. This equipment was a combination of used ex-Aberdeen, and new equipment designed by Skookum."

The improvements to the sawmill have had a very large impact, both on the efficiency of the process and on the working conditions. Bryan commented, "Every stick of timber that went through the mill was handled at least twice, and probably 2-1/2 times. It was certainly a limitation on the ability to handle smaller lumber that had a very high piece count. Also, some of the logs are about 6 meters long (20'), we have quite a bit of 4" x 4" pieces and we do up to 2" x 12", so there is obviously a risk of injury when handling a 20' long piece of that dimension." He went on to explain that the speed of the manual



Pictured is one of two 90-degree turn transfers, part of the complement of new equipment that was included to meet the specific requirements for the mill's new layout.

"The mill wanted to make bigger packages than the Aberdeen stacker was designed for, and wanted course gapping to allow better drying quality for its thicker products. It also required pre-course makeup and alternate ending on the packages, and an automatic stick placing system. This new design meets the needs exactly."



process was about 14-16 lugs per minute. “Since the installation, the lumber-handling section is operating at around 40 lugs per minute because we concentrate on appearance rather than output.”

Challenges

When purchasing used equipment, particularly from half-way around the world, there are a host of additional challenges that come into play. That is where Skookum Technology’s expertise really shines in managing the scope of the complete project, as follows. Determining the mill’s exact requirements; sourcing the right equipment to most closely match the mill’s needs as well as constraints; liaising with the mill and various parties involved in the supply; engineering the complete design and layout of the equipment in its new environment; managing the dismantling, containerizing, transport, and government red tape; and finally, managing the reconstruction and installation.

Disassembly

Skookum’s Len Macaw, construction manager, was assigned to the project for the duration. He took charge of overseeing the disassembly in the US and loading the equipment into shipping containers. Len supervised a local contractor in Aberdeen to dismantle and containerize the equipment, which was a huge undertaking in itself that spanned three months. It was critical that the cuts to the equipment were made in the right places, and under Len’s oversight the task went as smoothly as possible.

One aspect of transporting anything from one continent to another is border inspection. Nelson Forests proactively determined the best way to ensure a smooth entry into New Zealand was to send a government inspector to Aberdeen to oversee the necessary equipment cleaning and inspect the loaded containers before they left the US. Bryan Phillips explains, “New Zealand is an agricultural-based country and it is imperative to keep any undesirable organisms from coming into our environment, so we have strict biosecurity border controls. As a safeguard we sent over (to the US) an

inspector to inspect and seal the containers prior to them leaving Aberdeen. All the equipment had to be cleaned before loading to ensure no living organisms were transported into New Zealand. The first 14 containers were inspected and sealed, and he set the standard for the second phase of containers to come into the site so we weren’t held up at the wharf (in NZ).”

After an eight week voyage, the containers were disembarked at the Port of Nelson, then trucked to the Kaituna millsite about two hours away. Besides the equipment, Nelson Forests purchased a steel-framed building that had housed the mill at Aberdeen. Then Len managed the reconstruction.

Reconstruction

Skookum’s engineers handled the building design, and Bryan described the process at the Kaituna site. “While the material was being freighted to NZ we installed the foundation. So we had the building layout ready to go prior to the containers arriving.”

He went on to explain that the containers arrived in two phases. The building components and all of the bin sorter components were removed and laid



Shipping containers were pre-cleared by a NZ inspector prior to shipping from the US.



A new stacker with slant hopper stick placer accommodates the mill’s requirement for pre-course makeup, course gapping, and larger packs, all features that were not available with the used stacker.

out around the site, then reassembled. "Fortunately there was sufficient room to put them all together. That was quite a logistical challenge, particularly early on when we had so much equipment on site. We coped really well to be able to keep producing at the same time."

Bryan said that, "The new equipment enabled us to build the whole new system offline. One of the challenges that we had was to be able to continue our normal production so that there was no loss of sales during the period when the reconstruction took place."

Relationships

Nelson Forests' appreciated the team's capability for bringing this scale of project to completion. Bryan says working with USNR and Skookum on this project has been very positive. "USNR staff that I've met and had dealings with have been very competent, right from when I met them at Woodland (USNR headquarters) and on site at Aberdeen. Geoff Wight (USNR lumber handling product leader) came down and looked at the equipment with us, and then he's been over to New Zealand once or twice during the course of the project. Jason Willey (USNR) was project manager. Our dealings with USNR staff have been very good. We've also known Geoff Strang of Skookum for a number of years, and we've had good support from him." Also involved from USNR's sales perspective was Account Manager John Reed who managed the commercial aspect of the project supply.

Poised to perform

Sourcing of the equipment got underway in December 2009, and the last of the equipment

became operational the first week of May 2011. Bryan explained that the stacker was commissioned first, in February of this year. Though not completely through the commissioning phase of the entire supply, Bryan says, "It looks as though it is going to handle it quite well. The equipment obviously has a lot of potential. Our main challenge will be keeping timber up to all of the equipment. The trimmer and bin sorter are rated at about 100 lugs per minute and we're going to be operating at about half of that."

Key to driving the project forward were the following Nelson Forests personnel. Matt Bond is the general manager of the site, Sue Ross is the mill accountant who handles budgetary aspects, Bryan Phillips acts as project manager and engineer for the mill, Willie Rae is the operations manager who is very much involved in taking ownership of production, and Chris Lambert who was heavily involved with the commissioning and manages the mill's controls systems.

Success fuels expansion

Bryan was proud to relate that Nelson Forests has very good products, and he described some of the key elements behind the company's success. "We're a niche market producer; ours is not a cyclical market so the recession hasn't really affected us. We've actually made more wood in the last few years than we've ever made. Because housing starts have been affected renovations are up, and our material goes into renovations and improvements." He also explained that, "We tend to do what we say we are going to do when it comes to marketing our product."

An environment of excellence at the mill is also a

fundamental reason cited for its success. "A couple of years ago we won the forest industry training award for outstanding business performance through people development. We've got a really enthusiastic and capable staff."

And this new sawmill line will help to fuel further growth and success. Bryan related that this is the first stage of an expansion project, and the mill is looking to substantially increase its capacity. The first step will be doubling production on a single shift, and if markets continue their support the next step will be to consider adding a second shift. With the sawmill ready to ramp up, the constraint moves ahead in the process. The Kaituna mill will soon have another dry kiln operational, and management is currently investigating new dry mill solutions. 🌐

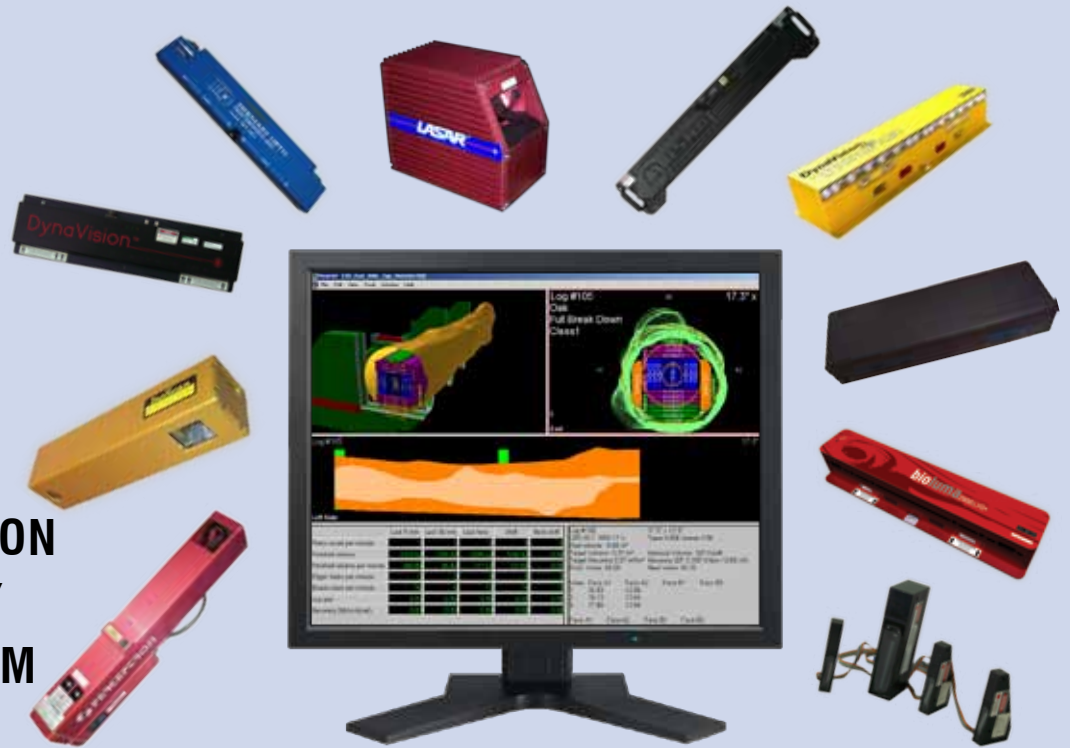


Course gapping is one of the features the mill incorporated into their new stacking system to facilitate drying thicker products.

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USNR's Allen Larsen is product group manager for secondary optimization, based at its Parksville, BC location. He weighed in on his recent experience combining MillExpert optimization and Newnes LPS sensors for Nelson Forests of New Zealand.

"The MillExpert system has a flexible sensor interface which makes it fairly straightforward to add additional sensor types to the system, so the work on the Nelson Forests project was fairly straightforward.

USNR currently has both edger and trimmer systems installed using MillExpert and Newnes LPS sensors, and we are preparing to install a couple of lineal systems using the Newnes LPL (laser profile lineal) sensors."

He went on to comment that a key strength of this combination for customers is familiarity. All of these customers have MillExpert optimization elsewhere in the mill so it is a familiar and comfortable environment for them.

Allen also related that both the Newnes Sawmill Suite and MillExpert are strong optimization platforms and, "A customer couldn't go wrong with either, but if they are used to one or the other then there is less to learn when making the choice for optimization on a new system. Going with what is familiar can help to make a smoother transition." To learn more call 1.800.BUY.USNR. 

Allen Larsen: "The MillExpert system has a flexible sensor interface which makes it fairly straightforward to add additional sensor types to the system."



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CHH takes its dry mill from slow to GO!

REFURBISHED LINE SETS THE STAGE FOR BIG OPPORTUNITIES

The Carter Holt Harvey (CHH) operation at Whangarei, New Zealand recently transformed its dry mill from a labor-intensive, highly manual line to a modern, automated one. The transformation was achieved by reusing some of CHH's existing equipment from other sites and blending it with new supply through innovative engineering and a collaborative approach.

Two sawmills and a planer mill occupy the Whangarei site. The Fortress sawmill has a HewSaw line feeding a USNR/Newnes trim/sort/stack line that was installed in 2008. It produces about 800 cubic meters of sawn lumber per shift. The Base sawmill has an older carriage line with MillExpert optimization, and produces 400 cubic meters per shift.

The planer mill has a Stetson Ross planer that fed a dry chain with men pulling timber into packages. Mill Manager Grant Arnold commented, "The main purpose of the investment was uplift in processing capacity through our dry mill. Prior to the upgrade it was just a simple process with a grading chain and a manual pull chain. The other aspect was to reduce the manual handling component which in turn improves the health and safety of our operation." By automating the process, adding trimming and sorting, the mill would realize an increase in throughput as well as quality and value of its products.

Established relationships

Grant had worked with Geoff Strang of Skookum Technology on other projects, and also had prior experience working with USNR. Grant said, "Over the years since we've owned the site, we've worked

with Geoff for a number of smaller projects. Geoff has knowledge of the site and our sawmilling process, and we also worked with USNR for an upgrade of our green chain at the Fortress sawmill back in 2008." The success of those projects led to the decision to contract the Skookum/USNR team for this major undertaking.

Geoff Strang explained, "The restraint on production at Whangarei was the dry chain. The mill was able to reduce its labor cost and increase the speed of the planer mill. A third benefit was improved grade by adding trimming capability. This resulted in a significant upswing in grade recovery by being able to trim off defects. The grading is currently done manually, but we designed the line so it can easily accommodate a lineal or transverse optimized grading system in the future."

"We utilized a lot of second-hand gear from our other sites, and it had to be upgraded and matched up with the new components we sourced out of USNR."

Grant Arnold, Carter Holt Harvey

A new USNR double radius-back unscrambler is situated just upstream of the grading area.





Above left and right: The trimmer line flows directly level into the redesigned sorter infeed.

“A third benefit was improved grade by adding trimming capability. This resulted in a significant upswing in grade recovery by being able to trim off defects. The grading is currently done manually, but we designed the line so it can easily accommodate a lineal or transverse optimized grading system in the future.”



Above: A dual-actuating smart drop out gate directly behind the trimmer drops out selected boards for rerouting.

Below: Cut-n-two clamps lift boards into empty lug spaces at the outfeed of the trimmer.



The work begins

Geoff related the overall plan for the project. “We relocated the 2003 Newnes trimmer optimizer line from Putaruru, and a used bin sorter and stacker from Kopu. The challenge was to engineer and construct an operational mill with equipment of varying capability and from several sources.” Grant reiterated, “We utilized a lot of second-hand gear from our other sites, and it had to be upgraded and matched up with the new components we sourced out of USNR.”

The scope of supply begins with a new USNR double radius-back unscrambler just upstream of the grading area. The unscrambler is outfitted with speed-up chains at the top to assist in singulating the boards. New angled ending rolls and sort table serve to end the boards at the lumber line. Geoff explained, “We put double unscramblers onto the infeed of the trim line because we had to elevate the lumber to get it into the trimmer. This also allows for a future automated grade scanner downstream from the planer in the flow. The double unscrambler also provides a buffer between the planer and the trimline, and it’s resulted in improved productivity. Lastly it allows for a drop out / planer bypass to combine flows upstream from the trimmer. The double unscrambler was a new concept, and has worked very well.”

An existing USNR backlog table and Quad Cam Board Feeder are next in the flow, and feed a new (Skookum) lugged grading transfer, an existing Newnes grade mark reader and a scanner transfer. Next comes the used positioning transfer, 3-stage fence, and multi-saw lineshaft trimmer, relocated from CHH Putaruru and modified to fit the new layout. At the trimmer outfeed is a new dual actuating smart drop-out gate and cut-n-two clamps. The trimmer transfer and ending roll transfer are part of the CHH Putaruru supply, and were also duly modified to accommodate the new design.

The used 50-bin J-bar sorter, relocated from Kopu, is next in the flow. Geoff said, “The bin sorter

came up the coast by barge. We did quite a lot of the modifications before it left Kopu so we could simply drop it into position when it arrived at Whangarei.” Grant explained that because of the building height restrictions, Geoff had to redesign the entire top of the bin sorter. The sorter infeed was brought in line with the trimmer outfeed, and USNR assisted with the integration from the trim line to the bins.

Next is a used double unscrambler that is fitted with speed-up chains. The stacker (from Kopu) also received major modifications. Geoff explained, “The green mill stacker (bellcrank style) was converted to a high speed planer mill stacker (low profile design) with an added vacuum lath placer. The stacker was also modified with pre-course makeup and servo lineal motors on the forks” The new rotary vacuum lath placer was installed with 8 pairs of adjustable width magazines to allow for variable package widths from 580mm to 1200mm. A new end tamper added to the stacker aligns the tiers so no endpress is required, and a new secondary hoist makes the most of the high speed fork modification ensuring a continual flow of lumber tiers are stacked with absolute minimal interruption between packs. A triple paper feeder and cutter completes the new USNR supply.

Skookum engineered the entire refurbished mill layout, and arranged the removal, modification, transport, reassembly and installation of the bin sorter and stacker from Kopu and the trimmer line from Putaruru. Skookum’s Wally Kappely was site construction manager at Whangarei. Geoff explained that much of the equipment was reassembled on the sub-steel in a separate building, then house-moving trailers transported it to the mill and lifted it up onto the new steel legs.

Ramping up

At time of writing the project is not completely finalized. Geoff explained that the plant has been operating successfully for several weeks now, and the next stage is to make a return visit to retune and

give focus to operator training. "As is typical with a major plant upgrade that is such a vast change to the process, the project has been a quantum leap for the site and the staff, and the plant is beginning to show its true potential."

The mill's engineering team were key in the process, collaborating with the USNR/Skookum team, and a number of local contractors. The dry mill managers and supervisors reviewed the designs at each stage in the process, and began taking over as the equipment was commissioned.

Products at the Whangarei mill include framing timber and machine stress-graded timber for the domestic market, in sizes ranging from 75x50 right up to 290x45. It produces industrial materials which are green sawn for export markets. The operation also produces outdoor products that are CCA treated (off site).

Looking ahead

Grant explained that the primary operating philosophy is based on health and safety of its personnel, while improving efficiencies and outputs, and the quality of the products. Once the dry mill project is wrapped up, Grant says the next challenge will be continuing to increase efficiencies of the plant to meet the uplift in demand it expects from the domestic market. With this most recent dry mill project the Wharangei operation is positioned to take advantage of greater opportunity. 🌐



Above and left: What was originally a bellcrank-actuated sawmill stacker was modified to become a high speed, low profile dry mill stacker, equipped with a lineal cylinder-actuated fork system.

"As is typical with a major plant upgrade that is such a vast change to the process, the project has been a quantum leap for the site and the staff, and the plant is beginning to show its true potential."



A new vacuum lath placer features 8 pairs of adjustable width magazines to accommodate varying package widths.



A new triple paper feeder and cutter was also installed.

USNR and Skookum *connect ‘down under’*



“Both teams understand and respect each other’s strengths and areas of expertise, and that goes a long way toward creating successful projects and satisfied customers.”

John Reed, USNR

STRATEGIC ALLIANCE OFFERS WINNING SOLUTIONS

USNR has forged several strategic international relationships with industry professionals that works to the betterment of both parties, but particularly to customers in those regions. The alliance between USNR and Skookum Technology, based in Auckland, New Zealand (NZ), is a prime example. This winning combination has resulted in an abundance of successful projects and satisfied customers in and

around NZ, Australia and the Pacific Islands.

Skookum Technology was created in the early 1990’s when John McLachlan, formerly of Kockums (NZ) Ltd. (now part of USNR), was approached by USNR to act as an agent in that region. The relationship took off and business flourished. Geoff Strang came on board in 2001, and today John and Geoff are the company’s major shareholders.

Geoff was schooled as a mechanical engineer, with experience in the building materials (gypsum) and forests industries. Prior to his tenure at Skookum, Geoff was based in Rotorua as engineering manager for Fletcher Forests.

Skookum’s principle focus is the wood processing industry, offering new and used equipment sales, aftermarket support and spare parts, supplemented by project engineering and management services. It sells and supports the full range of USNR, Newnes and COE products, as well as used equipment from Scandinavia and North America. Skookum is also active in the bulk handling industries, primarily with the transport and transfer of cement.

Success has allowed Skookum to expand from its headquarters in NZ to incorporate a sales team and workshop / warehouse in Kalangadoo, South Australia. Currently the company’s team of talented individuals and their key roles include the following. Based in NZ are John McLachlan, director and sales; Geoff Strang, director, engineering and project management; Jonathan McLachlan, sales and marketing; Donna Neil, administration and parts; Nagin Dahya, Mark Ash, Pete Martin and Darrin Ross, all in projects. Providing on site project support and supervision are site engineers Wally Kappely and Len Macaw. Wally was the site engineer on the CHH Whangarei project, and is now working in Fiji, and Len has just completed the Nelson Forests project.



Pictured are some key members of the talented team at Skookum Technology. Left to right: Geoff Strang, Nagin Dahya, Len Macaw, Mark Ash, Donna Neil and John McLachlan.



Skookum's responsibility frequently involves creative solutions to get the job done, on time and on budget. At left, the company arranged the transport of a used bin sorter that required barging the equipment up the coast until it could be trucked the final leg of the trip to its new home.

Below: Used equipment is often reassembled on sub-steel prior to being lifted onto steel legs in its new location.

Based in Australia at the Kalangadoo workshop and warehouse are Darren Ousey, engineering manager, and David Boyd, sales and parts.

A marriage of talents

In recent years the alliance has honed its flair for combining skills and capabilities to bring about the best system solutions for wood processing in the area, from log infeed through solid wood, plywood and panel equipment manufacturing. Two major trimmer / sorter / stacker line projects are featured in this issue of Millwide Insider; a green mill installation for Nelson Forests' Kaituna mill at Marlborough, NZ, and a dry mill installation for Carter Holt Harvey at Whangarei, NZ.

Other recent projects (all in NZ) undertaken by the Skookum / USNR duo have included a trimmer optimization and curve sawing gang installation and upgrade at Pukepine Sawmills, Te Puke; a green mill trimline upgrade at Carter Holt Harvey, Whangarei; planer mill infeed and several MillExpert upgrades at Red Stag Timber, Rotorua; CAE chipper head upgrade at Tenon, Taupo; several MillExpert carriage optimizers with LASAR scanning; and MillExpert optimization on a small log line and board edger at Kiwi Lumber, Masterton.

Geoff Strang is intimately involved with most of the projects taken on by USNR and Skookum, and expressed how well the two organizations complement each other in the marketplace. "USNR offers a diverse range of leading technology mechanical and optimisation products that are ideally suited to the NZ / Australian sawmilling industry. As well, USNR has a huge depth of experience in sales, engineering, product support, scanning optimisation, and more, which is readily available to assist and support Skookum and the customer base in this region." And Skookum brings local support in the way of technical expertise and spare parts, and local engineering, project management and fabrication to supplement USNR's new equipment orders.

Unique capabilities

Geoff went on to outline Skookum's unique capabilities. "Skookum endeavors to offer the best solution for customers' requirements, often including a combination of new and used equipment and technology. Our preference is to be involved from the feasibility stage of a project, to ensure that all options have been explored and evaluated." He said that in some cases used equipment can be utilized, but this needs to be carefully evaluated and all costs analyzed to ensure it is truly the best solution for the customer's application. "We are big on building relationships based on trust and success, the same basis that exists in our relationship with USNR."

He also explained that Skookum prefers to get the customers actively involved in all projects, and this enhances buy in during commissioning when it is time for the customer to take the reins. "We tend to veer away from turn-key projects, because by their very nature customers have less involvement."

John Reed, USNR senior account manager, has worked with Skookum Technology for many years and a multitude of projects. He says, "I've known John McLachlan since the Kockums CanCar days, in the 1980's. I have worked on many projects with the Skookum team over the years and we have an extremely good working relationship. Both teams (USNR and Skookum) understand and respect each other's strengths and areas of expertise, and that goes a long way toward creating successful projects and satisfied customers."

The USNR / Skookum alliance has resulted in many millions of dollars in projects. Customers are benefitting by the widest range of products and technologies available worldwide, local project management and engineering expertise, local support and parts warehousing, and by two solid, reliable suppliers committed to creating the best solutions to match customer requirements. 🌐

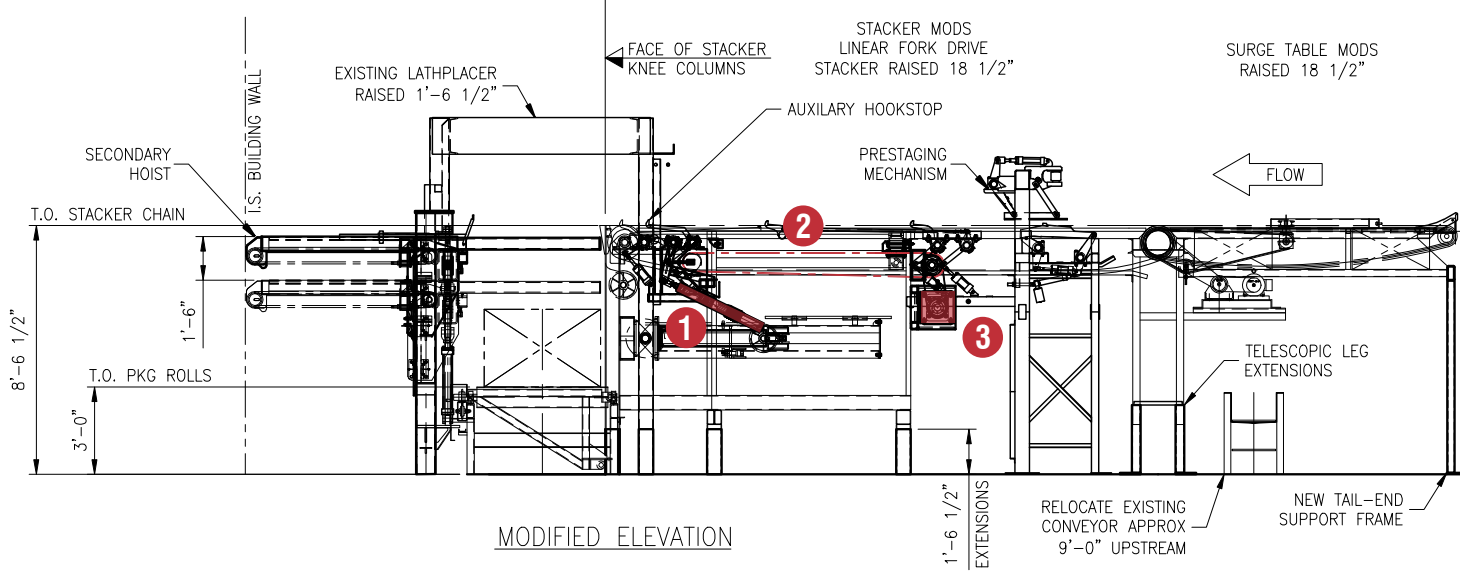


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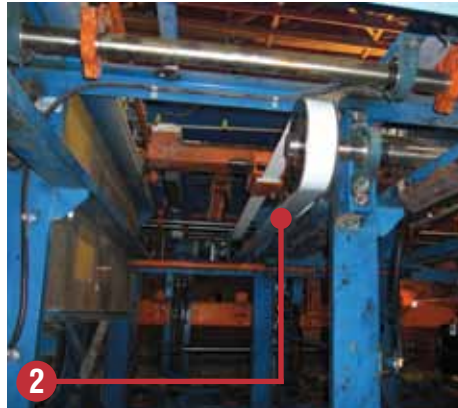
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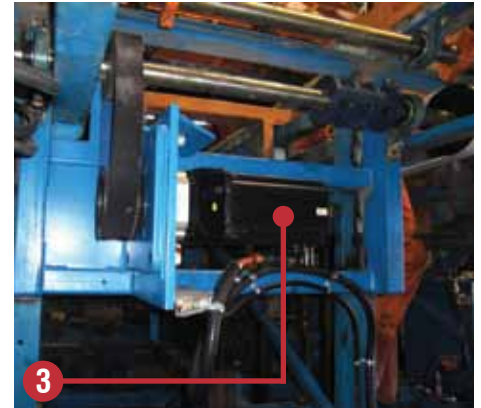
Stacker conversions: *speed, flexibility, control*



1. Exlar motion control cylinder actuates the forks' up and down movement.



2. New polyurethane fork drive belt is mounted on the fork mount tube.



3. Servo motor actuates the forks' backward and forward movement.

USNR has developed a stacker conversion that can economically improve the production and functionality of your existing bellcrank stacker.

One such conversion was recently done on the Carter Holt Harvey, Whangarei project where the old green mill stacker (Newnes bellcrank design) was transformed into a high speed planer mill stacker. The bellcrank mechanism was replaced with servo motor drives to actuate the carriage travel and raise/lower of the forks. The existing hoist and stacker fork carriage was reused.

This conversion transforms the stacker into an electrical servo-controlled machine that can be programmed and customized to suit each material size in the planer mill. Variable fork speed throughout the cycle allows full control of

the stacking recipe. Fork velocity and raise/lower positioning is configurable and variable by product.

The end result is higher production levels and much increased capability from an existing stacker. The added advantage is that the upgrade can be done in place, significantly reducing the cost and disruption of installing a new stacker.


Conversion benefits

- ▶ Increases stacking speed up to 22 cycles/min.
- ▶ Full stacking recipe control: motion control of fork lift rollers (raise/lower) is independent of the fork drive (forward/back)
- ▶ Forks controlled by hydraulic or electric servo drive for forward/back indexing, and lineal cylinder or Exlar for raise/lower motion
- ▶ Power assisted tier width adjustment allows for a variety of product and package widths
- ▶ Short stroke capability accommodates narrow tiers

You can add even more value with the following options that will increase the flexibility of your new or existing stacking system.

Stacker options

- ▶ Pre-staging with duckers or moving lug design, allows the operator to view each tier before it is stacked, for package quality control
- ▶ Boxing load or tier gapping spreads the tiers to the full width of kiln sticks
- ▶ A secondary hoist allows continuous stacking while a package is being discharged
- ▶ End boxing produces stable, square ended packages from random length lumber
- ▶ End tamping ensures lumberline end of package is square and even
- ▶ Tier retaining is also available to ensure a square, stable package
- ▶ Tier skewing can increase package stability for solid lumber stacks
- ▶ Automatic tier counter controls load cycles and activates the stick/lath placer

To evaluate how this conversion and the various options available can add new life and increased value to your existing stacking system, contact us at 800.BUY.USNR or info@usnr.com. 



Above right: Tier skewing can increase package stability when making solid lumber stacks.



Right: Boxing load or tier gapping spreads the tiers to the full width of kiln sticks.



Above left: End tamping ensures lumberline end of package is square and even.



Left: A secondary hoist allows continuous stacking while a package is being discharged.

Trimmer conversions: creating top performers



Above: The 'S' drive belt arrangement is a recent offering for new machines and a conversion for existing lineshaft trimmers.

Below: The quick change coupling is standard on all new USNR trimmers, and can be retrofitted to existing lineshaft trimmers.



Convert your existing lineshaft trimmer into a top performer with USNR's latest upgrade designs.

With well over 300 lineshaft trimmers operating in the field, USNR has a wealth of experience designing machines that meet a wide variety of applications. And we're constantly working to improve the trimmer's performance in ways that help you compete both effectively and economically.

Options for ultimate performance


These options are available for new trimmers.

- ▶ 'S' drive arrangement for speedy belt changes
- ▶ 1-ft. saws for maximum trim flexibility
- ▶ Precision End Trim (PET) saw for precise accuracy
- ▶ Clamshell-style top for supreme access

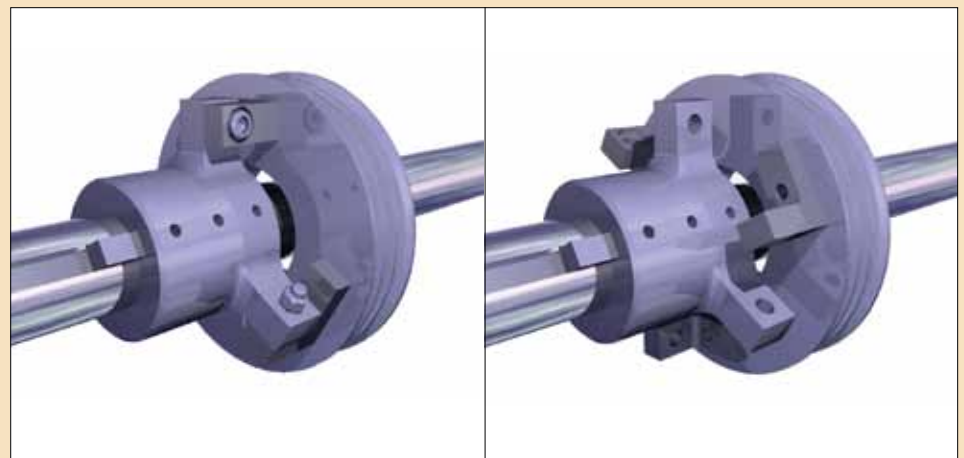
Upgrade your existing trimmer for added performance

These options and the following conversions are also available to upgrade your existing lineshaft trimmers.

- ▶ Eccentric conversion allows the use of smaller saws (17"), less saw mass can significantly increase line speed
- ▶ Quick change coupling speeds up belt changes
- ▶ High-speed Rex Roth air cylinders, for mills wanting to increase line speeds over 150 lpm

There are many more ways we can help you improve the performance of your trimmer and associated equipment. Contact USNR for an evaluation of your current trimmer line and let us help you turn it into a top performer. 

Below: The quick change coupling is shown in closed and open positions.



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Captures More Recovery.



Dramatically improves throughput

BlockPLUS™ is the most accurate block profile and lathe charger control system in the industry. BlockPLUS solutions go beyond the traditional "optimum cylinder" to capture more recovery and maximize throughput.

BlockPLUS delivers more results

- ▶ Highest density lathe scanning system with **500,000 data points**
- ▶ Reduces peeling cycle time by 5-7%
- ▶ Improves recovery by 2-5%
- ▶ Recovers veneer with the largest plant-acceptable voids
- ▶ Delivers more usable veneer

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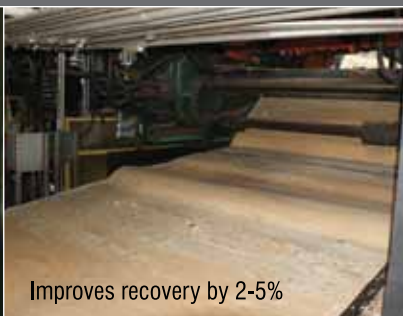
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The highest density lathe scanner



Reduces peeling cycle time by 5-7%



Improves recovery by 2-5%



Delivers more usable veneer



Millwide. Worldwide.

USNR

NEW PROJECTS

Arauco: Trimmer optimizer and WinTally upgrades

The Aserraderos Arauco Nueva Aldea mill in Chile has ordered upgrades to its Newnes trimmer optimizer and WinTally system. The trimmer will receive the latest MillExpert software version utilizing data collected from the new Newnes LPS3 scanning system. The WinTally sorter management system will be upgraded with the latest V7 software.

Canfor: LPL sensor upgrade

Canfor's Isle Pierre sawmill at Prince George, BC is upgrading its existing Newnes V6.3 lineal edger system to V7.1 software. At the same time the obsolete hydra sensors will be replaced with Newnes LPL sensors. The LPL sensors operate at a very high sample rate, allowing a tighter cross section scan down the length of the piece. They also achieve very high data point density around the circumference of the piece (approximately 0.035"), very accurately reproducing the geometric shape of the flitch and resulting in a highly accurate optimization solution.

Griffin Lumber: Primary breakdown optimization

The Griffin Lumber mill at Cordele, Georgia will be installing a new primary breakdown optimization system that will include scanning for auto rotation, precision geometric log rotation (PGLR) and final solution scan.

Interfor: Multi-Track Fence

The Interfor mill at Chase, BC has ordered a new planer mill Multi-Track Fence.

Tolko: Gang optimization upgrade

The Tolko, High Level, Alberta mill has ordered a new optimization system for its curve sawing gang. The system chosen is based on MillExpert optimization with Newnes LPL sensors replacing the existing hydra sensors in the lineal scan frame.

Tolleon Lumber: Trimmer top and smart gate

The sawmill at Tolleon Lumber, Perry, Georgia, will receive a new trimmer top that is designed to sit on the existing base, and will increase the throughput of the trimmer. A new smart drop out gate completes the retrofit.

Western Forest: Trimmer, positioning transfer and Multi-Track Fence

Western Forest Industries will be receiving a new lineshaft trimmer, positioning transfer and Multi-Track Fence for its planer mill at Duncan, BC. In addition to 17 regular saws, the trimmer will be outfitted with a P.E.T. saw for precise end trimming.

West Fraser: Gang optimization upgrades

The lineal curve saw gangs at West Fraser, Joyce, Louisiana, will be upgraded to the latest V7.1 software. As well the obsolete hydra (3rd party) sensors will be replaced with the Newnes LPL sensors.

West Fraser: Planer mill upgrades

This mill at Sundre, Alberta is upgrading its planer mill with the following equipment and modifications. On the main line a new positioning transfer and Multi-Track Fence will be installed, and the existing lineshaft trimmer will receive an eccentric conversion to allow for the use of smaller saws to increase the line speed. The existing sorter will be upgraded with a new pusher lug sorter top and the addition of 3 extra sort bins with live bin walls. A radius back unscrambler outfitted with speed-up chains will feed the pre-staging table. The existing stacker will be converted from hydraulic to electric drive, and end tampers and tier retainers will also be installed.

The stud line will receive a new radius back unscrambler with speed-up chains, an inclined trimmer transfer, 4-saw P.E.T. trimmer, live bin walls for 16 bins, a radius back unscrambler ahead of the stacker, pre-staging table, stacker electric drive conversion, and package outfeed equipment.



Left: Marlon Martinez (kneeling) of Solecia Ltda., Chile recently traveled to USNR's facilities at Salmon Arm and Parksville, BC to take part in training. Course material covered Newnes trimmer optimization, MillExpert trimmer optimization and WinTally. The training will assist Solecia, USNR's agent in Chile, to support customers in that region. Pictured with Marlon is Chris Marshall, optimization trainer, of USNR Salmon Arm.

The Coe roller bar



Protect your investment

The roller bars USNR manufactures today are better than the one that was originally installed with your Coe lathe. It was designed as a key component of your lathe, and we have improved on that original design through years of experience with a huge installed base of lathe systems operating worldwide.

Roller bars offered by other vendors are simply not designed as an integrated part of your veneer manufacturing system. They can create stresses that will shorten the productive life of your lathe.

Operate at the most productive level


Downtime reduces production, and Coe roller bars run longer between replacements. Our studies indicate they last more than 50% longer. You'll have less downtime and higher production.

Reduce maintenance costs

Because Coe roller bars run a lot longer you'll spend a lot less on replacement parts. Our roller bars can be refurbished several times before replacement. Your maintenance personnel will spend less time removing and reinstalling them, and that will free them up for other critical maintenance tasks.

Superior, long lasting design

- ▶ One piece bearing brackets
- ▶ Precision ground and bored
- ▶ Chromed and hardened center shafts
- ▶ Bronze washers instead of steel promotes longer bearing life
- ▶ Flame hardened sprockets
- ▶ High quality Timken bearings
- ▶ We do not use bearing inserts, which ensures proper alignment

For details on the Coe precision roller bar, contact us at 800.BUY.USNR or info@usnr.com. 

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PROFILE

John Reed is International Account Manager for USNR, based in Woodland, Washington.

With over 30 years of experience in the sawmill industry, John's extensive knowledge and expertise in sawmilling is well respected.

Early on, John spent five years as a Technician's Apprentice with focus on mechanical engineering in the United Kingdom, where he gained experience in heavy manufacturing before working five years in the nuclear power industry in Montreal, Canada. He has been with USNR for 15 years.

For the past several years John has travelled the globe working with customers in many regions to improve their operations. He comments, "I really enjoy meeting customers from different regions, and helping them create the best result for their mill and their budget."

UPCOMING EVENTS

SEPT. 5-7
NZ Forest Industries Expo
Rotorua, New Zealand

SEPT. 9-10
Wood Week
Quebec, Canada

SEPT. 15-16
COFI
Prince George, BC, Canada

SEPT. 21-24
NHLA
Nashville, Tennessee

OCT. 22-24
EWTA Info Fair
New Orleans, Louisiana