

Millwide

INSIDER

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TRIUMPH OVER TIMING

Coe Veneer Dryer was the right choice for TRVP

REINVESTING TO SUCCEED

WKO invests with Coastal Infeed and Bridge

SMARTER, BETTER, FASTER

USNR introduces new products

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Successful recipes.

What is it they say about timing – it's everything? Well maybe not everything, but it is a lot. There are many recipes for success, but the best ones have several common ingredients.

Our first story relates the experience of one young company that has been able to survive through "baptism by fire" by having the right elements. Thompson River Veneer Products was just getting on its feet when the industry downturn occurred. In spite of a precarious start it's determined to pull itself back into the black.

The philosophy that Bill Wilkins of Wilkins, Kaiser and Olsen (WKO) runs his company by is to continually reinvest. He began with the sawmill, and now he has turned his attention to the planer mill with the upgrade of his planer system. He has an instinct about sawmilling and he doesn't sway when he believes a product or technology is going to work for his operation.

USNR's success is built, in part, on having the right combination of great products and services. We believe the timing is propitious for some new innovations to propel the industry forward. We are excited to be launching several new products in 2010 that we believe will have a very positive impact. The Multi-Track Fence and Mismatch Eliminator that are described in this issue are two of our recent accomplishments, and there are more on the way. Bon appetit!

Sincerely,
Colleen Schonheiter
Editor

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TRVP triumphs over bad timing



“If we had gotten the dryer going in 2004 we’d have made a ton of money.”

THOMPSON RIVER VENEER MAKES THE RIGHT CHOICE WITH COE DRYER

The Coe veneer dryer is almost a household name in the wood panel industry, particularly in North America where a large majority of veneer dryers carry the brand name “Coe”. After four years of operation at a plant in the southern interior of BC, Canada, its reputation for being the best is shown to be no exaggeration.

Starting a new business in the wood products industry is never easy. Starting one just before a deep decline in the market, closely followed by a global recession is a challenge many could not weather. In the case of Thompson River Veneer Products Ltd. (TRVP) of Kamloops, BC, good management, sound business decisions and strong financial backing have prevailed. Now with light at the end of the tunnel, the future looks positive for this producer.

Doug Webb is general manager of TRVP. He has been immersed in the industry in BC – both solid wood and panel processing – since he finished university. Over time he worked for companies such as Kickinghorse Forest Products, Evans Forest Products, Ainsworth, CIP Inc. and Tolko throughout the interior of BC and on Vancouver Island, before becoming an industry consultant.

It was Doug’s vision in 2002 that led to the installation of a new Coe veneer dryer and a plywood press system on a site just east of Kamloops. He and a friend hatched the concept, Doug worked up a business plan, then they began the search for investors. The investment group they signed with also had ties to the wood processing industry, and funding was in place by 2004. The site that was chosen had previously been occupied by a small reman plant that was subsequently dismantled to make way for a new 75,000 sq. ft. L-shaped building to house the Coe dryer and plywood press line. Dryer erection began late 2005 and was completed and commissioned by April 2006.

The business concept

The business model Doug devised was to buy softwood veneer and use the capabilities of both the dryer and press line to merchandize the best value from the veneer. They would sell off the majority of the upper grades and a lot of the sheathing grades, and use the balance to manufacture Canadian-grade structural plywood. Doug said, “That’s how we started, and our initial emphasis was on producing more of our revenue from the dryer. That quickly went by the wayside when the economy went down, the requirements weren’t high, and then some of the other plants that we intended to supply fixed their dryers up so they became more self-sufficient, and that market went away. Then with the recession there was very little demand for anything, so it forced us into becoming a plywood manufacturer and less of a dry veneer seller, although we still do both.”

TRVP purchases its green veneer from plants in BC and Alberta, and when the currency is favorable, a fair amount from the US – mostly Washington, but also Oregon and northern California. The dry veneer is sold principally into Washington and Oregon, and some within BC. The plant also supplies hardwood plywood producers, engineered wood producers for the LVL market and visual grade users for other applications such as overlays. The plywood is sold mostly in Canada, and occasionally into the US when the market is beneficial.

The equipment and the technology

The dryer operation consists of a 20-section dryer, grading line, strength grading machine, moisture meter and a 12-bin stacker. Doug chose a Coe 4-deck jet dryer, as opposed to a 6- or 8-deck version, because he believes it requires less maintenance and is easier to clear when plug ups

occur. Also space requirement was not an issue. Doug had a lot of experience working with a variety of veneer dryer brands, and knew from the outset that he wanted a Coe dryer.

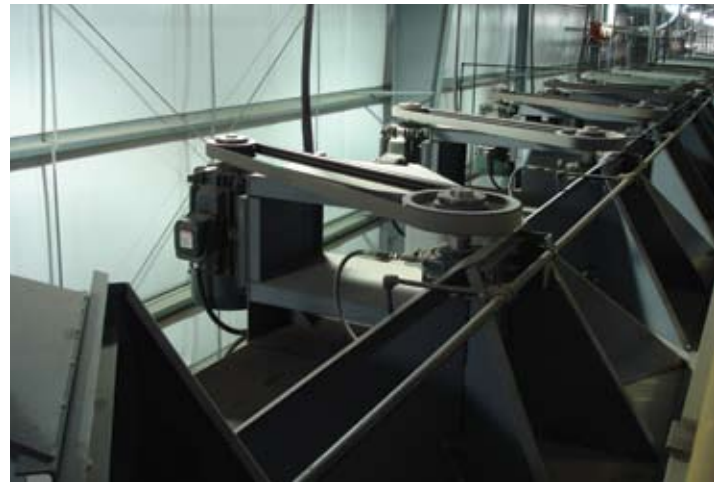
Doug said, “They were always very good dryers. You get good drying quality with them because of the nozzle configuration and the type of hole pattern they have in the nozzles. I believe the cross-flow dryers are just vastly superior to any other way you can dry. There are other companies that make jet dryers, but to me the Coe dryers were always the industry standard. So that’s why we went that route, as well as my familiarity with it and the quality of the machine.”

Alan Knokey, USNR VP with expertise in the plywood and panel sector, was involved throughout discussions with TRVP. Alan explained the nozzle, or jet tube technology this way. “Coe introduced jet drying technology to the industry in 1962. Since its inception over 20,000 design hours have evolved the jet tube orifice shape, size and spacing to the configuration recognized today. Coe and Weyerhaeuser evolved the early jet box to what is known as the dimple out design. Later NASA, with its vast arsenal of assets for testing out design concepts, theoretically reconfirmed orifice shape, size and spacing, and later proved performance in full-size test chambers.” He went on to suggest that many operators tend to underestimate the importance of this seemingly insignificant energy distribution system. “It is, however, what a modern veneer dryer is all about; uniform distribution of energy from side to side, top to bottom and precise diffusion of the energy under the full range of normal operating conditions.”

Doug was very impressed with the system’s design. “This dryer was engineered like a one-off. It’s got some features I don’t think any other dryer



Sheets of dried veneer exit the dryer's cooling section at TRVP.



Main dryer fans for heated sections on M-72 series (4-deck) dryer.

has in terms of the amount of heat capacity, and how this ADEC system works." The Automatic Dryer Efficiency Control system (ADEC) is very unique. It automatically controls the volume of dryer exhaust and ensures effective control of moisture venting and the virtual elimination of unheated air from entering the hot dryer sections. Doug said, "The benefits of it are pretty simple: better drying efficiency, better veneer quality. Just as importantly, the way the system works we are able to run this dryer in compliance with very tight particulate emissions levels without having a pollution control device on the dryer."

When asked about the dryer's performance, Doug had this to say. "We have very, very few plug ups in this dryer. I've been around lots of dryers and I think that is a testament to the design and the way we maintain it. More importantly, we get very few, if any, fires in this dryer. It is very air tight. The ADEC system keeps outside air from coming into the dryer and you do not get more oxygen in there than you need, so it inhibits fires. That's a good feature because I've had lots of dryer fires in my time." He also said, "There is very minimal particulate outfall from the dryer. With our temperature control we can really monitor the blue haze discharge from the veneer dryer so we are in compliance on that."

Throughput and yield

The plant runs around the clock. Drying capacity depends on the material. Doug explained, "We dry all the different sizes, but if we were to dry straight heartwood 4x8 sheets on this dryer 7 days a week, we would probably dry in the range of 170-180 million square feet. It's quite a machine."

TRVP's jet dryer has four levels of conveyors inside, each carrying three sheets of veneer the full length of the dryer. A dryer with 20 sections where each section is 6' long will accommodate 15 sheets lengthwise by 3 sheets across for a total of 170 sheets drying concurrently. With a veneer dryer, efficiency is measured not by how much energy or exhaust it expends but by how much product it can

dry per unit of time. The Coe dryer is proven to dry significantly more veneer per unit of time than its closest competitor.

Doug is more than satisfied with the dryer's throughput. "We get very good yield on any item we dry. We dry everything from 4' fishtails, random veneer, half and full-width veneer sheets, and thicknesses from 1/10" to 1/6" with very heavy sap, and the dryer is a 'horse'. We dry very heavy sap wood in eight minutes in this dryer; with a lot of dryers it would be double that."

The TRVP dryer is fueled by natural gas, with a capacity of 45-50 million BTUs of heat that can be delivered by the burners. "It is a super dryer. We use in the range of 11-18 million BTUs of energy per hour. We had calculated that we would be using twice that amount, so it is just that efficient."

At this point in time, Doug says TRVP is just trying to make money and, "dig itself out of the hole from the last few years". He says, "We've got

the equipment, we've got the plant and it runs well, so we're not embarking on any ambitious capital projects. We are looking to add more equipment to our finishing end so we can upgrade the value of our plywood. We're going to concentrate on running this thing hard, expanding our shipping capacity so we can drive more margin and profitability out of the plant and get our debt paid off." He also related, "If we had gotten the dryer going in 2004 we'd have made a ton of money. There is something to be said about going through a situation where it's dire. As tough as it is it brings out the best." 🌐



The controls system on the TRVP dryer makes it easy to set the drying "recipes" to maximize throughput.

COE DRYERS: GOOD DESIGN IS NO ACCIDENT

As the cost of energy continues to increase, USNR veneer dryers are becoming more energy-efficient. By using computational fluid dynamics (CFD) simulations to evaluate the thermal flow in our jet veneer dryers, USNR engineers have been able to refine the design in order to optimize the dryer process.

With this tool, we've been able to better control the thermal air mass in the dryer and increase the production of quality veneer in a cost effective and environmentally friendly manner. Subsequent design refinements have also resulted in a smaller overall size (foot print) of the dryer, which reduces the required size of the production floor as well as energy costs.

Energy efficiency is achieved with automatic exhaust controls that result in a more uniform application of thermal mass flow, a lower thermal energy

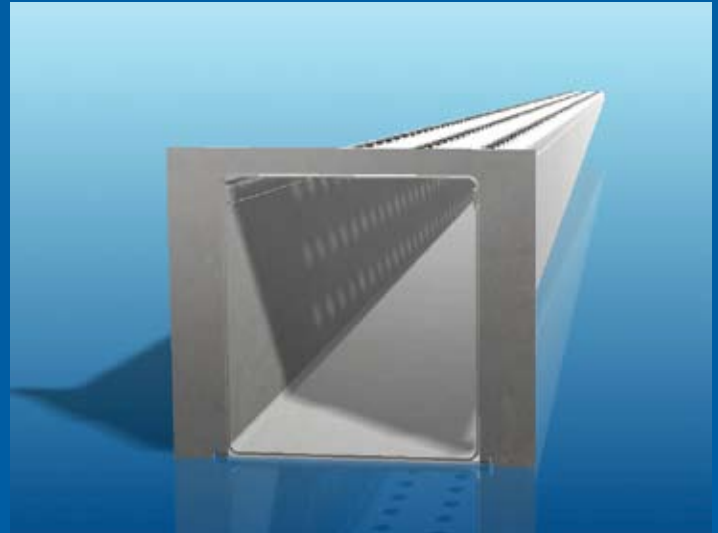
requirement and reduced volume of dryer exhaust.

Automatic Dryer Efficiency Control (ADEC)

The ADEC system automatically controls the total volume of dryer exhaust under all operating conditions. It ensures effective control of moisture venting and the virtual elimination of tramp, unheated air from entering the hot sections of the dryer. (Tramp air is unheated air that may leak into the heated sections of the dryer, adversely impacting the moisture and temperature balance and slowing down the drying process.)

Automatic Cooler Pressure Balance System

This system automatically controls the cooler exhaust volume under all operating conditions, minimizing the



flow of heated process air from the dryer into the cooler or cooler air into the hot dryer. The system minimizes pitch buildup which reduces maintenance and cleaning, and allows for automatic veneer temperature control into the dry stacking process.

The benefits associated with these controls include the following.

- ▶ Maximizes humidity ratio within the dryer
- ▶ Maximizes productivity per unit of dryer length
- ▶ Minimizes oxygen within the dryer for the best veneer color
- ▶ Eliminates in-plant dryer fugitives
- ▶ Eliminates cooler discharge fugitives
- ▶ Minimizes exhaust volume per unit of production
- ▶ Provides superior thermal efficiency per unit of production
- ▶ Provides a single exhaust discharge point for ease in piping to further processors

and controllability of the jet tubes' "impinging" air flow defines the efficiency of the drying process and the quality of the veneer that is produced.

The Coe jet tubes have been produced and refined for over 40 years, and the latest designs have evolved from over 20,000 hours of laboratory research. The nozzle design offers up to a 15% production advantage over other jet tubes in the industry.

Our jet tube design is based on the strict management and sealing of the airflow that goes into the nozzle, and a very well tested and researched hole configuration that not only speeds up the airflow but ensures a truly perpendicular impingement of the heated airflow onto the top and bottom surfaces of the veneer.

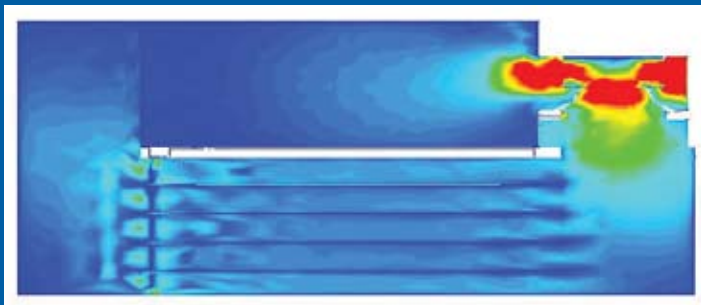
Customers have reported significant improvement in all cases where older jet tubes were replaced with this new jet tube technology.

New Plenum Design

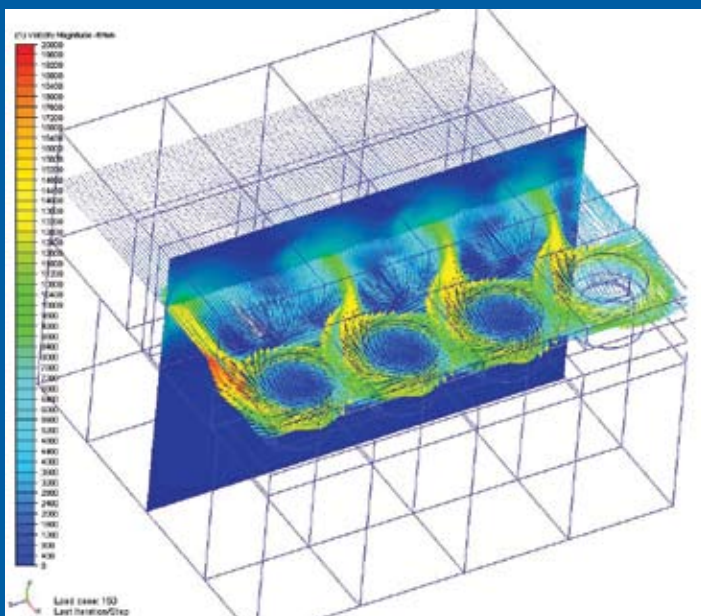
The veneer dryer plenums are designed for maximum airflow, strength, and safe access to jet tubes for easy cleanout and handling. The stainless steel construction ensures durability. Maximum thermal efficiency is achieved through refined insulation system design.

Jet Tubes

This is one of the most important aspects of the veneer drying process. The heat, speed, even-distribution,



Air velocities modeled in a cross section of the dryer show dramatic changes near the fan and uniformity in the drying chamber.



CFD air velocity vectors are modeled around the dryer fans.

6-Deck Jet Dryer

Productive. Efficient. Reliable.



World's best jet tube design

The Coe 6-deck Jet Dryer delivers the most cost-effective veneer drying system on the market. It's one more important innovation from the company that invented jet drying.

- ▶ 50% more dry veneer per foot of dryer
- ▶ Proven efficient and reliable humidity control produces uniform drying
- ▶ World's best heat distribution and diffusion system through patented jet tube design
- ▶ Get more high quality veneer

Experience counts

Our experience tells the story. We've likely already installed a system that meets your needs and applications.

- ▶ 300+ steam heated veneer jet dryers
- ▶ 200+ natural gas dryers
- ▶ 50+ direct-fired wood waste dryers
- ▶ 400+ longitudinal dryers

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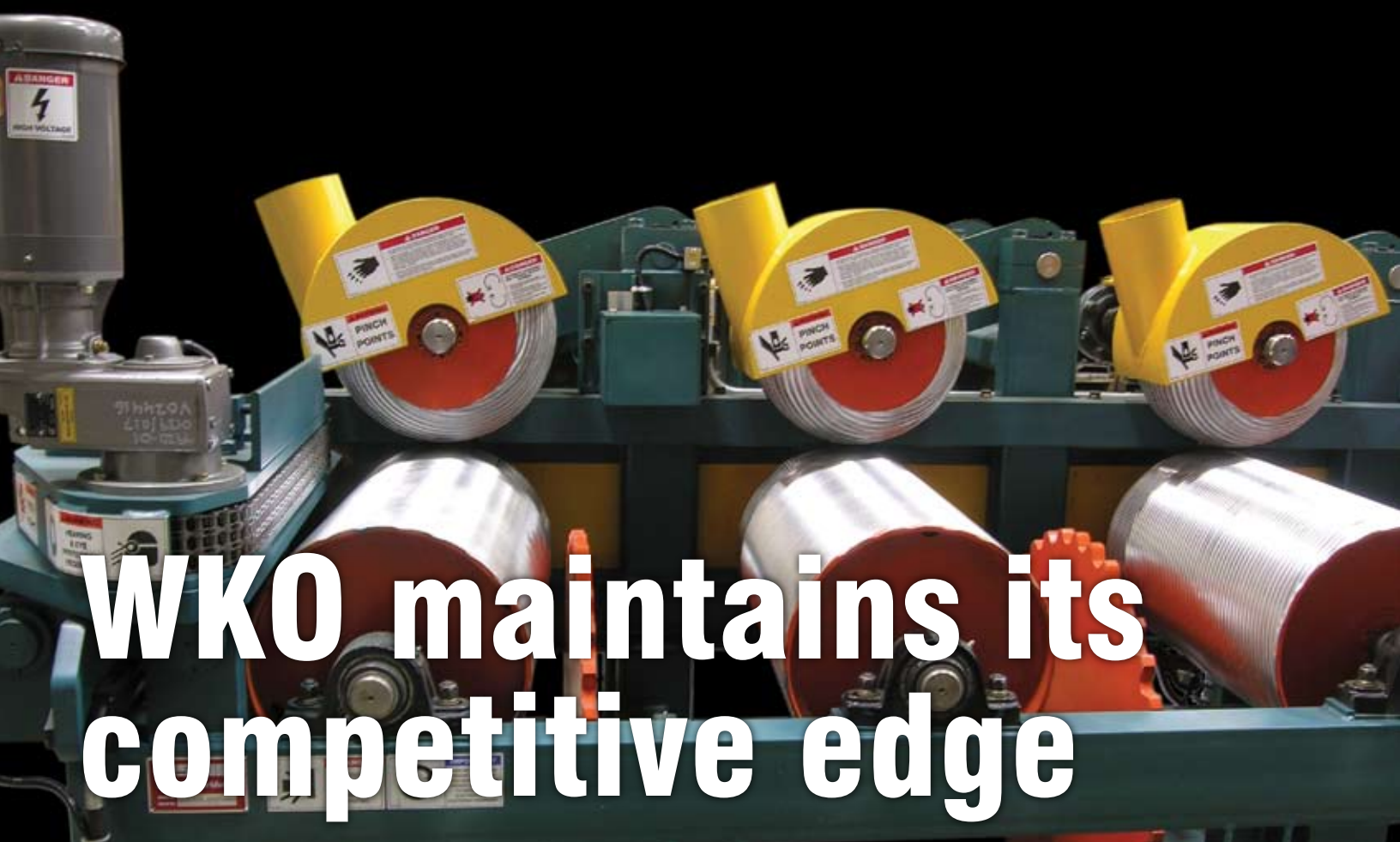
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WKO maintains its competitive edge

PLANER MILL UPGRADE INCLUDES NEW COASTAL INFEED AND BRIDGE

In past issues of Millwide Insider we've told you about the progress Wilkins, Kaiser and Olsen (WKO) of Carson, WA, has made in overhauling its operation with advanced processing systems. Though not a large company, WKO is committed to maintaining its competitive edge with technology solutions that allow it to adapt its products to a dynamic marketplace.

Sawmill upgrade

In 2008 WKO completed an upgrade to its sawmill, including a new USNR primary breakdown line. The line is comprised of a skewing and slewing extended length infeed (ELI) feeding a quad bandmill which, in turn, feeds an inline horizontal twin bandmill. The line allows the mill to process wides or narrows on-the-fly. The ELI optimizer directs the flow of the material; boards from the quad go directly to a board edger, all center cants continue through the horizontal twin with narrows (4" & 6") being processed by a 6" gang, and wides directed to a 12" double arbor gang.

Planer mill upgrade

With the sawmill upgrade complete, owner Bill Wilkins turned his attention to the planer mill. He explained, "We have been adding equipment to our planer mill since completing our sawmill upgrade

two years ago in order to match planer production to sawmill production, hour-for-hour."

The existing Stetson-Ross planer and infeed system was replaced with a used USNR planer and new USNR/Coastal infeed and bridge system. This follows closely on the heels of the installation of USNR's MillTrak vision-based material flow management system at the planer mill trimmer infeed and lug loader area as well as at the planer infeed. The MillTrak system replaces dozens of photoeyes and limit switches, reducing operating costs and improving material throughput.

Going Coastal

Bill was adamant about his choice of the Coastal planer infeed and bridge system. "We did not consider any other new planer infeeds other than Coastal. It is our opinion that, for our application the Coastal is the best equipment we could have purchased."

The planer system is designed to operate at speeds of 3000 fpm, and processes 4" to 12" wide material with thicknesses ranging from 1" to 4". Species handled are mostly Douglas fir and white fir, with occasional Ponderosa pine. The mill's output is high quality, kiln-dried dimension lumber.

The new Coastal planer infeed and bridge system is outfitted with 16" diameter rolls and closed-loop

Refurbished planer and new Coastal infeed and bridge system offer an abundance of features to get the most out of an expensive resource.

ensioning and positioning, so one push of a button sets all the feed rolls and pressures. It features automatic thin board control, whereby the system automatically senses a thin board and drops the pineapples to grab the board and shoot it off to the planer. The powered holddown and electric drive ensure a constant, smooth flow of material. WKO prefers to ribbon feed through the planer, as opposed to pulling a gap. With an abundance of high quality lumber and closely matched infeed and planer speeds, ribbon feeding provides optimum throughput.

Art Machado, Coastal planer engineering specialist with USNR, devoted much time and attention to this project. He explained some of the challenges. "The drive had to be custom built to fit in the tight space available. The infeed system had to be mounted to an existing sub-base assembly, and we had to match infeed chains on the infeed



The powered holddown assembly features 3 x 16" diameter knurled and chromed rolls. Dual hydraulic cylinders allow remote positioning and tensioning of the powered holddown.

deck, and get it to mate-up with the planer."

Art went on to explain that the used USNR planer also received an upgrade. "We changed the planer's existing side-lift tension and position to an overhead system. The side-lift system was located inside the planer, so it wasn't easy to access. The overhead system is much easier to maintain. We also added heavier pins and bushings on the cylinders and rods to beef up the planer."

Art gave much credit to WKO's Charlie Allen who worked directly with him and the USNR engineering team on the project. "USNR developed the design, and WKO carried out the customization to the planer system." Assisting with the project were WKO's Paul Anderson, Ron Gookin, Todd Slack and John Parish; from USNR were Paul Foby and Bill Peterkin in engineering, and Ben Whittaker as project manager.

Efficient processing and reduced maintenance

When asked about the performance of the new system, owner Bill Wilkins replied, "With the new infeed and bridge, newer planer and customization, we had hoped to increase our feet-per-minute through the planer and we have achieved our goals. We have improved our throughput, and done so with slower infeed/bridge speeds vs. the planer speed." With slower differential speed between the infeed/bridge and the planer speed, there are fewer jam ups and less force on the lumber and the equipment. The result is more efficient processing and less wear and tear on the system.

One of the goals Bill had when he implemented the MillTrak system at the planer infeed was to relocate the planer feeder further upstream where he can do a more effective job turning and trimming boards ahead of the planer. This has since been accomplished, and WKO has installed a MillTrak system at another of its mills ahead of the planer mill lug loader.

WKO has partnered with USNR on several recent projects. "USNR sales personnel are really good to work with on the front end of these projects. Then the project managers we have worked with after placing our orders have been very good to work with through completion."

Reinvesting: a way of life

Bill hasn't stopped investing yet. Soon to be installed at the Carson planer mill are USNR's Revolver lug loader, a newly released rotary-style paddle trimmer fence called the Multi-Track Fence, and a variety of other lumber handling pieces that will further improve downstream efficiency. The Carson, WA mill is the first installation for USNR's new fence design. For details about the new Multi-Track Fence, please turn to page 13 of this issue.

Bill's operational philosophy has stood the company in good stead. "Reinvesting in our mill has been a way of life for WKO. I always tell my employees don't worry if you see us investing in new equipment, worry if you don't. Sawmills

don't go broke by running out of logs, they go broke by paying too much for them. We're always looking ahead at the next project to improve our ability to compete." 🌐



High Cascade is the brand name for WKO's high quality lumber.

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- Fingerjoint, GluLam, OSB, MDF
- Broadest product line in the world
- European & North American style systems
- Largest installed base

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System Maintenance Program

PROTECT YOUR INVESTMENT AND ENSURE ITS BEST PERFORMANCE

You've invested a lot to provide your operation with equipment and systems that will service your process for years to come. Today's markets demand complex solutions, and the technical expertise required to keep these systems operating at their prime day-after-day can best be found with the supplier.

The System Maintenance Program (SMP) covers all USNR mechanical, optimization, and control systems in your mill. Schedule anything from preventative maintenance, to optimizer software upgrades, to system tuning and rest assured your equipment will continue operating at peak efficiency with minimal downtime. USNR has two package options available.

Silver Package

- ▶ Unlimited 7/24 phone support
- ▶ Access to all optimizer software upgrades
- ▶ 10% price reduction on all standard training courses
- ▶ Flat rate onsite labor, no overtime rates
- ▶ Flat rate travel labor, no overtime rates
- ▶ Membership in the USNR Optimizer Software User Group
- ▶ No reinstatement fee
- ▶ Available for all USNR/Newnes-McGehee optimization systems

Gold Package

- ▶ All the features of the silver package, *PLUS*
- ▶ 60 onsite service hours per year, available anytime for any discipline (optimization, controls, or mechanical)

With USNR service technicians just a phone call away, it's easy to access support whenever and wherever you need it. With a high-speed internet connection our trained technicians can quickly go on-line to troubleshoot any problems you may experience, or to walk you through a process you may be unfamiliar with.

The SMP also lets you take advantage of ongoing software upgrades to get the most value from your system and capture maximum yield from your fiber resources. Maintaining up-to-date capability over the life of your equipment lowers your capital investment and maximizes your revenue recovery.

We recently interviewed several customers to find out what aspects of the SMP they use the most, and what they find most valuable about the program.

Wespine, Bunbury, West Australia

James Szabadics is Technical Development Manager for Wespine at Bunbury, West Australia. The mill is under SMP contract for its optimized curve saw gang, two optimized trimmer systems and Lineal High Grader (LHG) automated planer mill grade scanner.

James says the mill uses the 7/24 phone support the most out of all the benefits provided under the contract. "Being on the opposite side of the world in both time and distance, means that during the day when most of our staff are here on site to deal with problems, USNR technicians are in a much different time zone so we are using your call-out procedures and getting support when it's your night time. If it's on our night shift it's a matter of just a phone call to get hold of someone. During our day we also call if we've



USNR technician, Mark Allert, adjusts parameters on Wespine's Lineal High Grader (LHG) automated grading system during an on-site visit. The LHG was installed at this site in 2005.

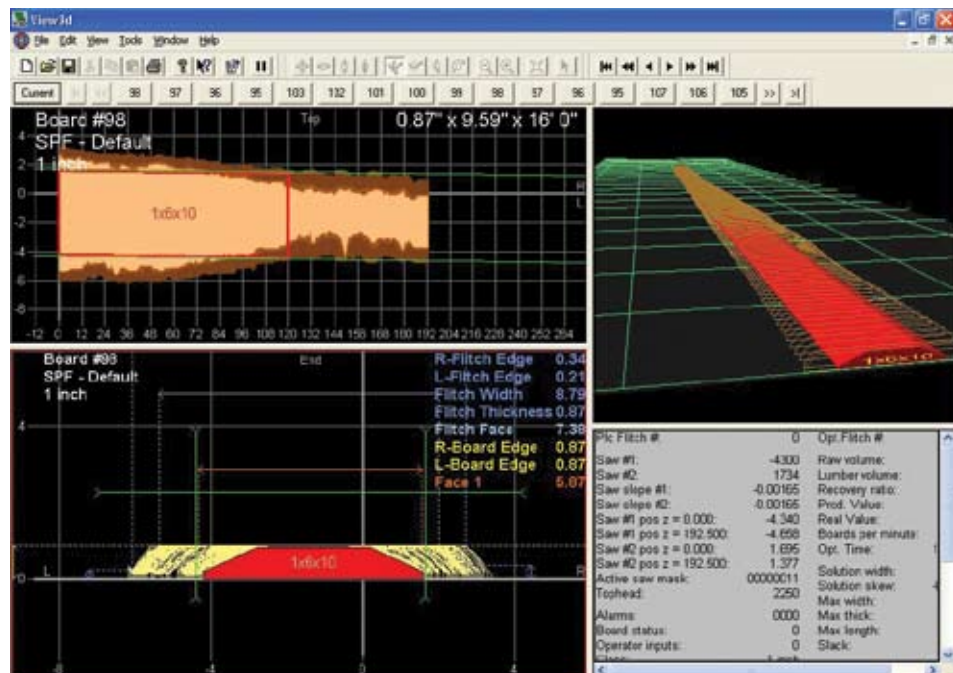
got a serious problem and wake them up out of bed.”

Many issues start with an initial phone call or (if not urgent) an e-mail. Subsequent follow up and investigation is generally done via remote connection, and changes can be made to address the problem or adjust configuration as the situation requires.

Wespine has set up a secure VPN (virtual private network) connection with USNR to support its USNR-supplied systems. This is a permanent connection to the internet where USNR technicians can remotely and securely control any of the USNR-supplied computers at the Wespine site.

James explained, “The best thing it (SMP support contract) does for us is it gives us access to the people who know these machine centers. It’s their ‘bread and butter’. They deal with these machines every day and they really know their stuff. We try and be as good as we can, but we’re never going to have the depth of knowledge of somebody who does start-ups and things like that. Just having access to that depth of knowledge at the end of the line makes a big difference to our operation.”

Wespine has had many incremental updates to fix a bug or change the way the program works slightly to fit the specific scenario that will work to their requirements. As an example, Wespine wanted to produce more cut-n-two with its LHG system. Initially, James placed a phone call to Brad McCallum, LHG service and installation technician at USNR based in Salmon Arm, BC Canada. Brad went on-line to remote-in to Wespine’s LHG system. After reviewing the parameters James had set for the system, Brad agreed that the set up was correct. At that point it was decided to bring engineering in to address the issue. Jim Edwards, a software engineer with USNR, was then assigned to ‘tweak’ the software program to facilitate Wespine’s request. According to James, “We’re very happy we got there. We’re now able to save significant labor hours.”



The SMP can help you get the most benefit from your system.

He went on to say, “We like the level of service that we’re getting, and so we’ve never been tempted to dispose of the service and go without it. If we weren’t under service contract it would add a great deal of delay with creating purchase orders and the like every time we call for support.” James also noted, “Operating from here (Australia), we have to hold spares, we have to be fairly self-sufficient. We’ve put a lot of effort into understanding our machines to a reasonably high level, and we make sure that we have contract support.”

Tolleson Lumber, Perry and Preston, GA

John Wills has been Project Manager for Tolleson at its Perry and Preston, GA operations for the past two years. In his earlier tenure at Tolleson he was intimately involved with the optimization systems, responsible for keeping them operating at their prime.

About 10 years ago Tolleson invested in a major equipment upgrade at both its mills. The mills each received a Newnes optimized sharp chain system, McGehee lineal curve saw gang system, and lineal edger system. Over the ensuing years Tolleson has made it a practice to take advantage of SMP software updates to keep the mills as competitive as possible. John says the systems continue to perform at peak levels. “Even though this equipment has been in service for 10 years, for the type of log we process there is not a machine available on the market that is any better. There is nothing above the performance level we’re getting right now.”

The 7/24 phone support is the service that John says is used most frequently under the contract. “We try to keep our optimizers in real top notch condition. We try to push the machines out to their fullest capability. A lot of times that leaves us with little nagging problems, little things we

need help with. We like to be able to call for help. We’ll have somebody come in over the internet (via modem with high speed connection), look at the system and help us to tune our machines to even higher performance levels. We do that quite frequently, especially in this trying market we have to get everything we can out of the machines. Having people available at a phone call is very advantageous to us.” Having a high speed internet connection greatly facilitates the ability to support USNR systems remotely. “Since high speed internet service it’s really made the in-house service visits a lot less required.”

John says the Tolleson mills have in-house expertise that is very adept at working with USNR technicians to make the most of their systems. “We can do a fair amount of troubleshooting when it comes to a down-time situation, but the vast majority of times when we have an idea we want to try, some type of new product set-up or manipulate what we’ve been doing, we almost invariably involve USNR people to help us implement it properly.”

John related an example of how his team has taken advantage of the SMP contract to improve system performance with the help of USNR technicians. “A few years ago we did a study on the curve parameters for our curve saw gang and manipulated the product set up to have a more tailored curve algorithm for each individual cant thickness. That gave us some additional yield improvement, and just a little more value out of the wood. We continually look for ways to do that.” This improvement was subsequently implemented at both Perry and Preston.

John believes it’s advantageous to have the option of on-site service when a phone call or modem hook up just won’t cut it. “Sometimes we’ll

run into a little problem that we want resolved that we can't really show somebody on a computer screen or tell them about it. That's when we need somebody to come by. On occasion we'll have somebody come in and just look the machines over and give us a status report on the overall operating performance."

Overall, John is pleased with the design of the SMP program. "It's always been something we could work with and kind of tailor the number of hours that we'd like to have as far as on-site service." In John's words, the value of the program to Tolleson is, "to make sure we stay competitive. Nobody in the production side was willing to give up the option for on-site service to have somebody come by. Overall I like the program the way it sits right now."

Carter Holt Harvey Timber, Tumut, NSW, Australia

Jon Baker is quality and technical supervisor for the green mill at Carter Holt Harvey Timber (CHH) in Tumut, New South Wales, Australia. It is essentially his job to maintain the optimizers and

he is the primary individual who works with USNR technical support under the SMP contract. CHH has a Newnes trimmer optimizer and Newnes edger optimizer, under SMP contract since 2003 and 2005 respectively.


CHH is signed up under the Silver SMP package, and the mill relies heavily on 7/24 phone support to keep their systems running smoothly. Jon says, "We mostly use the phone support. You people dial in and work on our systems whenever we have a breakdown. Phone support is one of the best things we've got going."

One instance where the SMP proved invaluable to CHH is described by Jon. "We had a WinTally computer crash, and we had to rebuild another computer to keep us going until we could get a replacement. The rebuild took 18 hours and USNR technicians stayed on the line with us all night, and dialing in to the computer to get it set up for us. This was a big job."

While the Silver package does not include on-site support, it does offer reduced labor and travel rates. Jon says, "At least once a year we get an optimizer

technician to come on-site for a week. That's also when we get most of our training." Jon is very happy with the SMP program, and says, "Just don't change it."

With USNR's System Maintenance program we're available when you need us. And more, it gives you a cost-effective way to keep your systems, and your operation, competitive.

If you would like more information about the program, please contact us at 800.BUY.USNR or info@usnr.com. 

RICHMOND, VA: SHOW HIGHLIGHTS



One of the events that USNR always enjoys attending is Expo Richmond held in Richmond, VA. This year's event was May 21-22 and was well attended by the industry in that region.

One of the highlights of USNR's display included the MillTrak 2D and 3D systems. MillTrak is a vision-based material flow management system. The MillTrak camera is mounted above the material flow. It replaces and out-performs dozens of photo eyes, optimizing material flow and minimizing maintenance.

Also displayed was the new Precision Geometric Log Rotation (PGLR) system. PGLR is a real-time rotation verification and correction system that ensures you get the best turn on every log, significantly improving cutting accuracy and increasing uplift and recovery.

For more information about any of these systems, contact your USNR representative or call us at 1.800.BUY.USNR. 



Ken Morgan, the owner of Morgan Lumber of Red Oak, VA, is a passionate race car driver. Like his mill, his race car has been VERY successful and is now one of the points leaders in its class/division. Pictured at left is USNR's Robert Wagner (on the left) and Ken Morgan with his race car.

Patent Pending

Introducing: Multi-Track Fence

NEW FENCE DESIGN INCORPORATES THE BEST OF THE BEST

USNR's new Multi-Track Fence incorporates the best features of many designs to provide the market's top solution for today's high speed mills. The launch of this new fence has given the rumour mill a second shift. Interest has been very high, and several orders are received or pending. The first production unit is due to be installed summer 2010 in a mill in the Pacific Northwest region of the US.

The Multi-Track Fence is a cost effective solution for mills that are not satisfied with their existing fencing system. This fence accommodates high speeds with very precise board positioning, an excellent choice for new high-speed optimized applications requiring 0.1" (0.254 cm) accuracy. The Multi-Track Fence allows wider lug spacing at higher speeds, with less critical timing than other rotary fence models. It operates without any air or hydraulics; all electric actuation. It is designed for retrofit into existing 3-stage fence locations.

Excellence in design

USNR's fence design team considered a variety of options while developing the Multi-Track design.

The Multi-Track Fence uses moving board bumpers to position the boards, and this allows several lug spaces for boards to come to the bumpers and settle into a fixed setback location prior to leaving the positioning system to be trimmed. The result is highly accurate, infinite board positioning, and often higher speeds.

The all-electric design eliminates system leakage and maintenance associated with air or hydraulics actuation. Operating costs are reduced with less maintenance required and lower energy consumption.

Simple

Similar to a railway switchyard, the rotary bumpers are directed down one of multiple tracks. The switchgear, actuated by electrical solenoids, quickly and smoothly directs the bumper cam into the appropriate track. Hardened cam followers attached to the bumper run along the precision trackways.

Fast

The bumpers are designed to be light-weight to reduce rotating mass. This allows faster speeds and wider lug spacing (more closely matched to Trimmer requirements).

Accurate

The rotating chain track is well guided to control moving bumpers through the entire loop. The bumpers retract on precision slideways, maintaining position accuracy.

The tracks are set 1.5" (3.8cm) apart, giving the initial setback position. The final position adjustment (to achieve the 0.1" / 0.254cm resolution) is with precision electric linear positioners mounted on a hinged section of trackway.

Easily maintained

Actuation is all electric – no hydraulics to maintain, and more economical to operate. Trackways are mounted over the lumber for excellent debris management, and the track table lifts for easy access and maintenance.

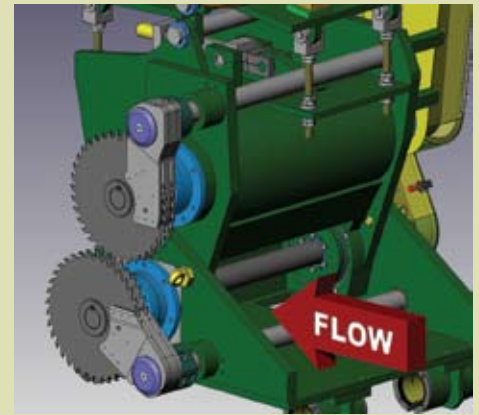
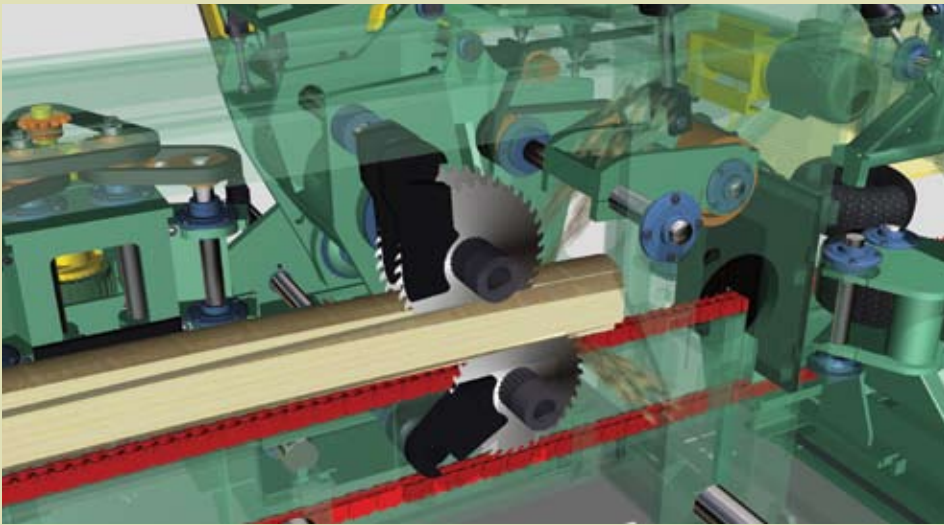
Features and benefits:

- ▶ Available in 12" (30.5cm) and 24" (61cm) setbacks; push or pull back configurations
- ▶ Fence bumper accuracy +/- 0.1" (.0254cm)
- ▶ Speeds to 200 LPM on dimension applications
- ▶ Non-critical timing; no air cylinder cushions to tune
- ▶ Simple PLC control
- ▶ Electric design reduces operating costs
- ▶ No fussy brakes internal to moving board bumpers
- ▶ Easy access to all components for maintenance
- ▶ Designed for retrofit into existing 3-stage fence locations (9'-0" / 2.74m min. roll)

The prototype fence has been operating in test mode at the USNR R&D facility at Salmon Arm, BC Canada, where several customers have visited to see it running. This facility is used for testing of some of our new products and enhancements, and where customers can come and see innovation at work.

Contact us for more information about how our Multi-Track Fence can benefit your operation. To view a video of the prototype in operation, go to: <http://www.usnr.com/media/Multi-Track-Fence.wmv>.





Cut-away shows an example of saw positions in double arbor sawing machines that can cause mismatch errors.

Introducing: Mismatch Eliminator

RE-ALIGN SAWS AND REDUCE MISMATCH ON-THE-FLY

Double arbor machines like gangs and quad arbor sawboxes are more prone to sawing mismatch deviations due to the nature of the saw positions. Extreme cases can cause your lumber to be downgraded. USNR has developed the Mismatch Eliminator as a simple solution that makes on-the-fly saw realignments easy!

Works without stopping production

The Mismatch Eliminator is an independent system that enables you to realign the saws without stopping production. It consists of an electric motor driving a cylinder through a gear box that moves the top guide bar to realign the saws. It is a quick and easy way to remove saw blade mismatch, and customers are reporting grade improvements.

In extreme cases where mismatch cannot be planned out of the boards, you end up losing grade.

USNR's solution is simple and effective. With the Mismatch Eliminator your lumber looks good and your operators are pleased with the simplicity of this solution.

How it works

ZEROING THE DISPLAY:

The anticipated use of this system is that the top and bottom saws will be aligned with each other using a straight edge. At that time the position display will be zeroed by pressing the "RST" button in the lower right corner of the display. This will record the position where the saws are aligned.

CORRECTING FOR MISMATCH:

If mismatch is noticed during production it can be measured and decision made which direction to move the saw and how much. The saw can then be moved

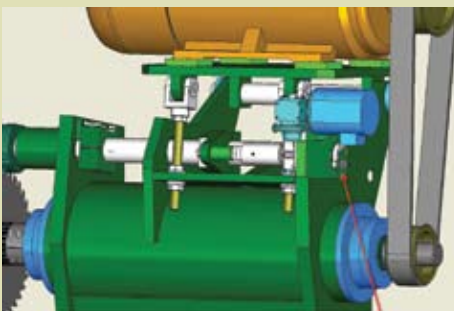
by using the direction selector switch on the operating console to move the saws either left or right. Left/right is defined by looking in the direction of flow.

AFTER SAW CHANGE:

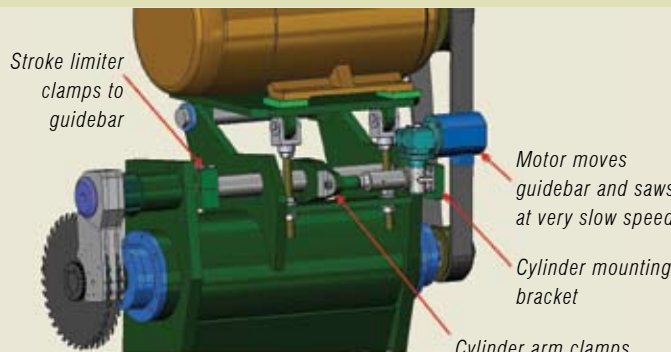
After the saws have been replaced the position readout and direction selector switch can be used to move the saw back to zero as a starting place for the next production run.

Benefits

- ▶ Easy method to realign saws without stopping production
- ▶ Independent system is separate from the main control system
- ▶ Prevents degrade due to saw mismatch
- ▶ Can be installed over a weekend



Sensor on guide bar tracks total saw movement



Cylinder arm clamps to guidebar

To learn more please contact your local sales representative, drop us a line at info@usnr.com, or call 800-BUY-USNR. 

NEW PROJECTS

Anthony Timberlands is upgrading its transverse Gang optimizers at Malvern and Bearden, AR to the latest software version, Newnes V7.1. The systems are both in the range of 10 years old, and the upgrades are expected to significantly improve decision processing speed and recovery.

C&D Lumber in Riddle, OR, has purchased a MillExpert upgrade for its M6 edger scanning system and a ControlLogix PLC upgrade. This will replace an obsolete scanner interface and PLC hardware on a clamp and scan style edger infeed. The upgrade is expected to increase both recovery and productivity for the mill.

Canfor's mill in Ft. St. John, BC, has chosen USNR to supply a complete new Coastal Planer system at its Fort St. John, BC planer mill operation. The new planer system replaces a vintage planer, and will operate in the range of 3000 feet per minute. This project complies with Canfor's initiative to take advantage of newer, high speed technology.

Canfor in Houston, BC has ordered new controls systems and lumber handling equipment for its planer mill operation. A key component to improving its productivity and profitability is the implementation of automated grading. The mill will be installing two Lineal High Grader (LHG) systems, outfitted with full automated grading capability and MSR lumber evaluation.

USNR's new Multi-Track Fence has garnered quite a bit of interest among customers. **Canfor** at Vanderhoof, BC recently ordered two of these rotary paddle-style fences for its mill.

The **Carter Holt Harvey** Morwell mill in Australia is upgrading its McGehee lineal edger with a fifth saw. The additional saw will increase recovery by adding more sawing options on wide flitches.

A new transverse optimized Edger Maximizer line will be installed at **J.D. Irving** at Dixfield, ME. The system will feature unscrambler with speed-up transfer chains and dual positioning pin infeed to accommodate high speed processing, a 4-saw edger and MillExpert optimization.

In 2008 a fire at **Millar Western** at Fox Creek, AB destroyed much of the sawmill. Now Millar Western plans to rebuild this mill. The company has ordered a new transverse Edger line including a Super-GII feed table and McGehee edger with Newnes optimization. A Newnes trimmer and optimizer is being relocated from the former Wapawekka mill near Prince Albert, SK and the Fox Creek mill will receive a new rotary paddle fence. The sorter will be outfitted with a new pusher style top and 30 additional bins. A low profile stacker with slant hopper stick placer will also be installed.

USNR is pleased to announce that **Morgan Lumber** of Red Oak, Virginia has ordered a new Counter-Flow Kiln system and a Direct-Fired Burner. This will add significant drying capacity to the operation. The lumber conditioning that is integral to the continuous process will also improve the quality of the mill's products.

Nelson Forests in Marlborough, New Zealand has placed a substantial order with USNR. The order consists of new machinery and optimization upgrades that will supplement the used Newnes machinery that Nelson purchased from a mill in North America.

Nelson Forests has been investing in its Marlborough mill to automate its operation. This project complements earlier upgrades to the mill's front end to now modernize processing from the trimmer through the stacker outfeed.

Red Stag Timber of Waipa, New Zealand is upgrading its sawmill with a trimmer line from USNR. New designs include a step feed style unscrambler, Multi-Track Fence, and clam shell design trimmer. The project also includes a new pusher style sorter top and bin addition.

USNR is supplying new sawmill equipment to **Rex Lumber** of Brookhaven, MS. The order includes an Extended Length Infeed (ELI) Reducer Twin primary line outfitted with USNR's new Precision Geometric Log Rotation system, Carriage optimizer, and Horizontal double arbor Shape Sawing Gang line. Also ordered are a Quad Cam board feeder, new Multi-Track Fence, a 60-bin drag chain sorter, and a MillTrak lumber flow management system.

Spearfish Forest Products in South Dakota has purchased a conversion package that will convert their GEN 1 McGehee curve sawing gang from a 12" double arbor configuration to an 8" single bottom arbor configuration.

Tolko Industries of Armstrong, BC is making significant improvements to its planer mill with new equipment and systems from USNR.

The order includes USNR's first production Gatling board feeder, new Multi-Track rotary fence, Lineal High Grader (LHG) with infeed bridge, WinTally™ sorter management system, and new MillTrak™ lumber flow management system.

Besides significant improvement in throughput and lumber flow, this project will add full automated grading capability to the mill's operation, improving the consistency and value of its products.

USNR is pleased to announce that **Tolleson Lumber** of Preston, Georgia has ordered a vision upgrade for its LHG planer mill grade scanning system. This will add full automated grading capability to the mill's operation, improving the consistency and value of its products.

Wilkins, Kaiser and Olsen (WKO) of Carson, WA has selected USNR to supply modifications to its planer mill. Included in the order are a Revolver lug loader, USNR's new Multi-Track Fence, high speed drop-out gate, cut-n-two assembly, and modifications to rework the existing transfers in the line. When complete, the project will significantly improve the speed and throughput of its planer line.



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PROFILE

Art Machado is an engineering specialist for USNR's Coastal Planer product, based in Woodland, WA.

Art has been involved with planers since 1984 when he went to work as a fabricator for Coastal Machinery. Prior experience was as a millwright, and building and servicing hydraulic power units.

At Coastal he took a turn at assembly, then field service where he was installing planers. He gradually worked his way through the ranks to engineering, where he found his passion working with equipment design.

With his role in engineering (now with USNR), Art says, "I have the best of both worlds. I get to work with customers, and I really like to be involved with a project from the ground up and see the drawings

evolve through manufacturing into operational equipment. It's very satisfying when it all comes together and becomes a success for the customer."

Art has seen many evolutions in planers. He noted the biggest one being the development of high speed planers in the 1990's.

Off the job Art enjoys woodworking in his "little shop" and restoring his old house.

UPCOMING EVENTS

JULY 14-17

SLMA

Naples, Florida

JULY 21-22/26-27

ScanTech

Rotorua, New Zealand
Melbourne, Australia

AUG. 25-28

IWF

Atlanta, Georgia

SEPT. 27-OCT 1

LESDREVMASH

Moscow, Russia

OCT. 17-19

APA/EWTA Info Fair

Tucson, Arizona