Millwide INSIDER

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ADAPTING WITH THE TIMES

Wise investments pay off for Griffin Lumber

ONGOING EVOLUTION

Technology upgrades for Hampton mill

DRY KILN PARTS AND SERVICE

USNR announces expansions

USNR



Staying ahead in the game.

When you're talking about technology there's one thing for sure, it's a moving target. Whether you're part of a large multinational or an independent entity you can't get away from the necessity to stay apprised and as current as you are able with what is newer, smarter and faster, always with an eye to providing better products for your customers and better profits for your continued survival.

Billy Griffin of Griffin Lumber has been in the sawmilling game for a lot of years and he knows how to make the most of a mill's assets - both equipment and people. He knows when and how to spend money to make the most prudent operating decisions. An independent producer, Griffin Lumber has managed to keep abreast of new technologies and processes in spite of the troubled times. In this issue you'll read about the mill's latest improvements.

Hampton Affiliates also makes it a priority to keep its people, processes and equipment up to date. The Hampton mill in Randle, WA has taken advantage of the slower markets to update critical systems and be ready for markets to improve. Read about Hampton's investment to improve its recovery and bottom line.

Domtar is another company that realizes sometimes you have to spend a little money, and in the long run it will save you a lot.

USNR and its various divisions are in this game with you. In this issue you'll read about ways we're continuing to invest to provide the best products, parts and services possible, so you and we can continue to be competitive and stay ahead in the game.

Sincerely,
Colleen Schonheiter
Editor

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Leveraging its Assets

GRIFFIN LUMBER ADAPTS WITH TECHNOLOGY

Griffin Lumber may be an independent and relatively small operation, but that's no reason not to keep current with new methods and new equipment. The Griffin mill was an early adaptor of curve sawing technology in the 90's, and over the past two years it has implemented automated grading and an upgrade to one of its large log carriages.

Griffin Lumber of Cordele, GA is very much a family owned and operated venture. The company was founded in 1948 by W.H. Griffin II who, even though is now in his 80's, is still active running the company's retail outlet, Cordele Sash, with grandson C.J. Griffin. The mill is run by Billy Griffin III, along with sons Will and Jesse. Jeremy Griffin, another of Billy's sons, is at Southland Wood Products, a distributor of southern pine products for Griffin Lumber and other producers. And Billy's wife, Cindi also works in the office at the mill in several roles.

A good team

Billy Griffin is very proud of the good team on board at Griffin Lumber. He says the philosophy at the mill is that everyone wears several hats and they don't concern themselves much with titles, more with getting the job done. Some of the key personnel mentioned include Will Griffin who handles sales for the mill; Cecil Riggs, CFO; Wayne Ward, a registered forester in charge of procurement; Jay Sudduth, in charge of the scale house as well as safety and environmental issues; Donnie Cravey, general manager; Ricky Rhodes, sawmill superintendent; Brian Rucker, sawmill scanning technician; Tommy Purser, dry end superintendent; Mandy Sudduth who handles by-product sales as well as personnel; and Jesse Griffin who is in charge of information technology and has a hand in pretty much all of the technical aspects of the mill.

Taking on a new challenge

The Lineal High Grader (LHG) is a versatile grading system that is operating in several North American regions as well as in Europe and Australia, with many differing applications and species. In 2007 the Griffin team selected the LHG to automate its grading line. Griffin's production is about 75% radius edge decking 5/4" x 6", and the company typically averages about 55 mmbf annually. At the time full autograding for decking was a new challenge for the LHG, but the mill's team had confidence and agreed to work with the Newnes team to test out and tune the system with their products. Tommy Purser, the mill's dry end superintendent, was heavily involved as was Mark McKenzie who is one of the graders and services, cleans and calibrates the LHG.

Billy explained, "Decking has some peculiar challenges for grading, not like construction lumber." An automated system allows the mill to program the machine to allow or eliminate whichever characteristics it chooses.

The LHG at Griffin is equipped with 4 laser triangulation profile sensors, an x-ray sensor system and 4 multi-channel vision sensors. Four LED light bars brightly illuminate each piece as it travels through the sensor frame. The laser profile sensors measure the geometric characteristics; combined vision and x-ray data detect and measure biological characteristics. The software correctly classifies each characteristic and makes decisions based on parameters input by the mill.

The Griffin mill also installed a new fence system allowing infinite fence capability. Combined with the LHG's profit-driven optimization, the fence allows for trim decisions that will achieve the greatest value from each piece.

Billy Griffin of Griffin Lumber has his eye on surviving through poor markets. "When our workers see us investing and increasing the yield it's good for morale. They know we're not giving up."



Using dimension and radius edge decking rules, the LHG system grades for wane, skip, crook and twist; shallow face and edge wane (cambium); planed bark; knot location, classification and measurement; decayed/unsound knots; bark encased knots; splits and shake; slope of grain; pitch pockets; classification of blue and heart-stains; and rate of growth.

A matter of trust

Committing to a new process and capital investment requires a large degree of trust; customer and vendor form a long term relationship for service and support that will last for the life of the equipment, often decades. Being an independent operation means when decisions need to be made it can be a very quick and streamlined process. Billy emphasized that relationships are most important when making decisions about capital spending, "We're not buying from the company (vendor) we are buying from the person sitting across the table." The mill had worked with USNR Account Manager Bob Tweedy when installing a McGehee curve sawing gang in 1999 and several other smaller projects, so they knew the kind of service and support they could expect.

When asked about the results he has achieved with implementing the LHG system, Billy said, "We're seeing 2-3% below grade now, which is well within the (grade rule) limits, with less than 1% above grade. We do trim tests 2-3 times each week and are seeing about 1% overtrim." Automating the grading process also allowed the mill to achieve some economies with raw material, which also helps the bottom line but makes it difficult to evaluate the exact benefit. Billy added, "We can cater better to our customers. Decking rules are peculiar, and to cater to what our customers want we need to tighten up more on some defects than the rule book demands. Our lumber inspector loves it."

Making the most of it

In July 2009 the Griffin mill started up a new MillExpert log optimization system utilizing LASAR sensors. Griffin has an old top dog C-frame carriage that had an AST snap-shot scanning system that was 15+ years old. While the AST system was a "Cadillac" in its day, the technology had become obsolete. The Griffin team considered a sharp chain system that would replace both large log systems (the mill has another carriage system utilizing Inovec optimization, and a manual small log system), but it would be expensive. They realized they already had a good machine and decided a few modifications and updated optimization would be money well spent. They visited another mill that had a C-frame, and then upgraded their machine with new chip heads and a narrower carriage that allowed the feed table to offset and skew according to the optimizer's solution.

Gary Middleton, another USNR account manager, advised them that a MillExpert system outfitted with LASAR sensors would be a great fit in their close-coupled sawing application. Piece count was not the main objective. Yield was falling due to a smaller log diet and recovery was crucial.

Glen Untereiner was USNR's project manager for this project, with USNR's Dennis Orem in charge of the PLC. Billy was impressed with the preparation and professionalism exhibited by the USNR team. He said, "When Glen arrived on site the programming had all been written and he didn't have much to do."

How it works

The C-frame system processes 8' to 16' long southern pine logs ranging from 6" to 20" diameter, with the average being 10-12" diameter. This is a traditional chipper/circle-saw top dogger machine. It feeds logs from both sides and has the ability to reciprocate. The operator loads the log onto the feed rolls and positions it typically horns down, then it is scanned by the two LASAR sensors that are mounted above and to left and right of the feed table. In a split second the LASAR sensors capture a full coverage 3D scan of the entire piece, while the previous cant

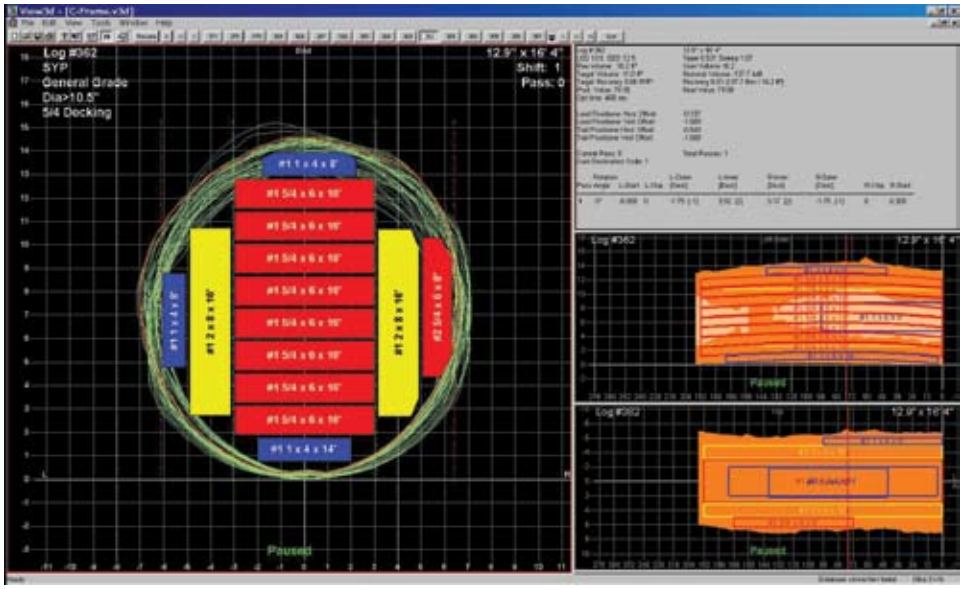


is being offloaded from the carriage. The powerful LASAR sensor is more like a RADAR sensor than a triangulation scanner (the name LASAR comes from combining laser and RADAR). This makes it immune to high levels of ambient light and offers unparalleled resolution and data density. It can be used on sharp chains, carriages, end doggers, chip-n-saws, gangs and merchandiser systems. Once scanned the MillExpert optimizer determines the best value/volume solution and instructs the PLC to shift and skew the feed rolls to optimal log position and adjusts the position of the cutting tools accordingly. The C-frame carriage dogs the positioned log and holds it securely while moving it through the chip heads and saws. The speed of the carriage is primarily operator-controlled on this system. The optimizer calculates the optimum processing speed based on chip area and saw depth of cut. This speed is treated as the maximum safe speed and the PLC will not allow the machine feed speed to exceed these values. The operator has the ability to process the log slower if he so chooses.

Griffin's circular saws are a double arbor arrangement with 4 saws each on top and bottom. The saw spacing is fixed and they shift independent of the chip heads. In a single pass the saws can take up to 4 sideboards. If the optimizer so decides, the system can reciprocate the piece back to a point ahead of the saws and take a second pass for up to 4 more sideboards.

Glen Untereiner, USNR's project manager, explained, "The LASAR scanning system offered the additional benefit over the original AST scanning system in that it can scan the log with the carriage in the home position. This wasn't possible with the AST cameras because the carriage blocked their view of the log."

Untereiner continued, "It is critical that the log does not move unexpectedly as it is being dogged onto the carriage. If it moves to the left or right the chippers and saws won't be in their ideal position to execute the intended optimizer solution. The result is always a lost lumber opportunity, both on a value and a volume basis." On earlier systems if the log moved after scanning the only option was for the operator to take control, undog the log, raise the rolls and start the process over again, causing a huge loss of productivity. Untereiner explained further, "A first for USNR on this type of machine was the ability to scan the log with the log dogged on the carriage. This gives the operator the opportunity to rescan the log if he notices minor movement during the act of dogging. If, on this second scan the optimizer decides the best solution is a slight adjustment of the setworks, the saws and chippers will reposition accordingly and the lost opportunity is greatly minimized." USNR also implemented the ability for the machine to reciprocate. This value-added opportunity allows the mill to cut multiple 5/4 flitches on the appropriate logs.



Untereiner also made the following comments about the Griffin project, "It is very gratifying to work with a customer this closely to breathe new life into an old machine. The mill worked tirelessly to bring all of the mechanical aspects of the machine up to original spec. They also did an excellent job designing and constructing the scanner support structures. The mill's team approach is second to none. Everyone involved had the knowledge, experience, and desire to make this project a success. This was one of the best assembled teams I've had the pleasure to work with. I look forward to the next project with Griffin Lumber."

Money well spent

Though the MillExpert system has only been in operation for a little over a month, Billy is well pleased with the results so far. "We're seeing 2% overall increase in yield, and $2 increase in sales value." Considering that's taking into account all 3 log breakdown lines the improvement attributable to the new optimization system is significant.

Upgrading to the MillExpert system was not a "bank buster" investment relative to replacing the complete machine center, and the Griffin team realized that with a relatively small investment they could easily get payback as well as a few more years out of the system. Billy said, "It was the best money we spent. Being an independent, any money you spend comes out of your own pocket. But when our workers see us investing in the operation and increasing the yield it is good for morale. They know we're not giving up."

Surviving the down market

Billy went on to say, "Anyone who's been in this business for a long time understands the seasonal and market downturns that happen, and knows you only have to hold on for a few months for things to turn around. This time is different. There are so many factors and uncertainty coming into play. Log costs are 65-70% of total cost of operating. You do what you can to reduce the costs of the other 30% but in a prolonged downturn you have to have a reduction in the cost of logs in comparison with lumber prices. With the typical short-lived down markets it's hard to get log suppliers to lower their prices, but now when you tell them about poor markets they believe you."

When asked if being an independent operation was beneficial or a detriment in tough times Billy explained. "It's more stressful spending your own money. You work harder. You do have more flexibility to make quick decisions and strategize. An independent can't be an absentee owner; I'm out in the mill every day and I have an open door policy. The company isn't the building or machinery or stock, it's the people. We try to get the right people on board and get them in the 'right seats'. We just need to survive these times so we can enjoy the good times."

LASAR CARRIAGE

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USNR's Carriage Optimizer system is completely configurable combining the industry's highest density scanning with extremely versatile optimization software.

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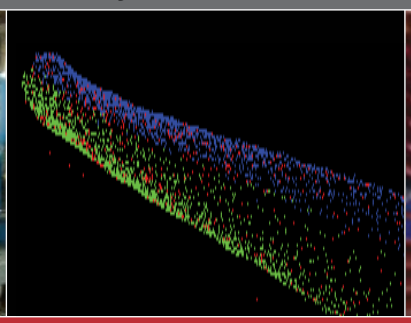
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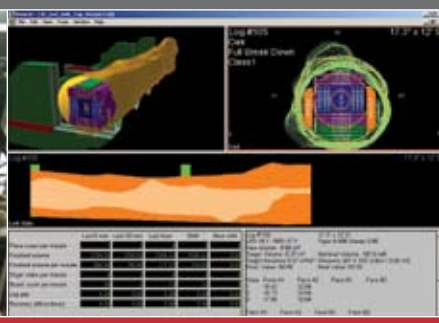
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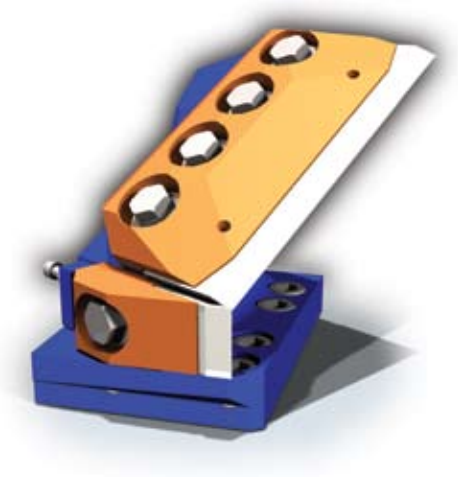


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Stay sharp: True Flow Knife conversion

DOMTAR LOWERS COSTS AND IMPROVES CHIP QUALITY WITH A NEW KNIFE SYSTEM



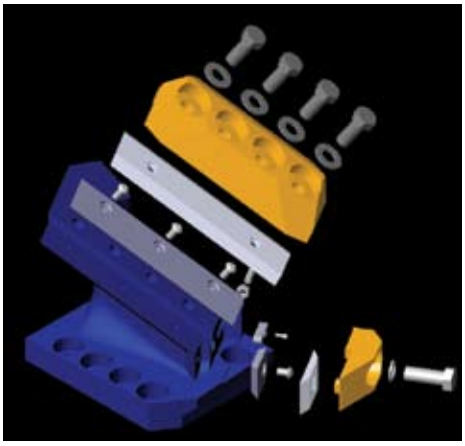
Looking for ways to "stay sharp" by reducing costs, the Domtar mill at Elk Lake, ON invested in USNR's True Flow Knife system in January 2008. The mill has a 10-year-old chipper-canter machine with conical head configuration. It was installed with a Key-Knife system and the knives were thrown away when they became dull. Domtar was looking to reduce costs by replacing the Key-Knife system with a babbitt style system that allows the knives to be sharpened a number of times.

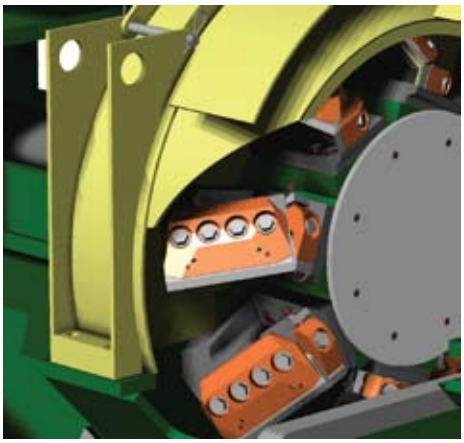
The mill selected USNR's True Flow Knife system that was developed by its Woodland, WA division based on many years of chipping system design experience with CM&E, Kockums Cancar and Forano chippers of yesteryear. It was designed from the ground up using sophisticated 3D solid modeling software. This knife system can be retrofitted to chippers from practically any manufacturer, and is standard on all new USNR chippers.

The True Flow Knife system is optimized for smooth feeding, high quality chips and low operating costs. The knife holder is designed for smooth chip discharge into the chute, not onto the floor. Interchangeable knife seats allow for quick and easy adjustment of chip thickness, and easily accepts either babbitted or dual-edge babbittless replacement chipper knives. Pull through the chipper is limited at the heel of the knife rather than at the knife clamp, resulting in smooth feeds and longer knife clamp life. A chrome-plated wear area extends the life of the knife holder. The design concentrates wear on the heel of the knife and the leading edge of the knife seat, which are much less costly parts to replace than the knife clamp or knife holder. All knives are heat-treated and ground to precision tolerances using only the finest chipper knife steel. The True Flow Knife system is available for conical or drum style chip heads and can be custom designed for any application.

Domtar chose to work with USNR on this project primarily for two reasons. They liked the design and economy of the True Flow system so they knew it would meet their objective to reduce the cost of replacement knives. They also had developed a good relationship and had confidence in USNR's Martin Vaillancourt and Réjean Fournier, who pitched the idea and performed the conversion from installation of the chip heads to machine alignment and final tuning. Martin is an account manager and Réjean is a service technician; both are based out of USNR's facility in Plessissville, QC. Installation of the True Flow system takes approximately 10-12 hours, including installation of the new chip heads. Réjean also assisted the Domtar mill's maintenance personnel for the first weeks to ensure the system's performance met their expectations.

After a full year of operation following are results noted by the mill. There is no sniping at the beginning of the log, and less knot tear and tear out. Over this





period the mill used 1,134 fewer short knives and 684 fewer long knives with the True Flow Knife system than with the previous Key-Knife system. According to Elk Lake's maintenance supervisor Robert Mailloux, this was a significant savings amounting to several tens of thousands of dollars. The system shows less wear than expected particularly with the knife seats; none needed to be replaced in the first year. Mailloux also commented on improved chip quality and size with the new knife system.

As a testament to its confidence and satisfaction with the True Flow Knife system installed at its Elk Lake mill, Domtar has scheduled another knife system conversion at its mill in Val D'Or, QC in mid-September.

For more information about the True Flow Knife system, please call 800.BUY.USNR.

Taking Advantage of Slow Times



Choosing when to spend the money to upgrade can be a difficult choice. If a mill is able to make the investment when markets are slow it can pay off with both improved performance now, and better positioning for the future.

EVEN IN SLOW TIMES TECHNOLOGY UPGRADES ARE AN ONGOING EVOLUTION AT HAMPTON AFFILIATES IN RANDLE, WA

In the November 2008 issue of Millwide Insider we told you a little about the Newnes-McGehee LPL sensors that replace obsolete Hydra sensors. Following is an example of a mill that recently upgraded its lineal curve sawing gang and lineal edger systems with the LPL sensors, as a follow-up to updating its Newnes-McGehee optimization on these systems to version 6.3.

Hampton Affiliates in Randle, WA processes primarily Douglas fir and hemlock, and some S-P-F to produce studs for the construction market. The mill originally installed the Newnes-McGehee gang and edger lines in 1999.

The McGehee "wiggle box" gang is a 6x36 bottom arbor configuration. The clamshell design allows easy access for guide changing and maintenance. The base of the saw module has the articulating (skewing) and side shifting (slewing) pivots and tracks, with actuating cylinders. The saw box houses the saws, guides and arbor drive motors, and is configured for one saw zone. The gang processes predominantly 10" wide cants that are 7' to 10'-6" in length.

Included in the edger system is a metering transfer that jogs to feed the unscramble pocket. The unscrambler is a radius back design, approximately 4' high. An ending transfer even-ends flitches to the lumber line where they are passed to a lugged sequencing transfer and wane sensor with auto-flitch turner. A rollcase feeder parks flitches on the linear scan belt. The board edger is a RoboGuide™ unit designed to edge 1" through 2" thick material with 4 shifting saws in a top arbor climb cut configuration. Rotating RoboGuide and shifter assemblies allow for skewing and slewing the saws in the cut. Tailing is handled by a 3-finger shifting tailer design.

The systems were originally installed with Hydra sensors, supplied by a third party vendor. As of February 2009 these sensors have reached the end of their lifespan and are no longer supported by the other vendor. Newnes-McGehee saw the opportunity to develop a replacement sensor that would provide much higher speed, resolution and accuracy to meet the stringent requirements of modern wood processing systems, and upgradeable to reduce or effectively eliminate the risk of obsolescence. The LPL (laser profile lineal) sensor was developed in-house to ensure its ongoing ability for upgrades and support. The LPL offers significantly improved solution accuracy over the Hydra – as much as 2.25%, and 5 times the point density*. Some of the features and benefits include the following.

- Higher accuracy scanning results in lower trim loss from products manufactured at the gang.
- The LPL positions the user to take advantage of future high speed, high accuracy scanning and/or vision data technologies.
- LPL is modeled after the lineal profile sensor used in our Lineal High Grader (LHG) that is designed to satisfy the precise scanning challenges of automated grading.

The LPL sensor is designed to support the entire range of Newnes sawmill lineal scan optimizers from bucking, primary breakdown, curve saw gang and board edgers. A single sensor design means many fewer spares required to support multiple systems.

The upgrade at the Randle mill involved changing out the Hydras with LPL sensors. The existing VME processors, VME communication cards and end-column panel with supporting hardware was also

**Results observed during a head-to-head test performed with the LPL vs Hydra sensor, with typical products on Pacific Northwest US fiber.*



Testing for the LPL upgrade was done at the Hampton, Darrington mill in June 2007. The head-to-head test was performed comparing the optimizer's solutions using scan data collected from scanning with the Hydra sensors vs scanning with the LPL sensors. A total of 900 cants were used for the test, with a product mix of 1x4, 1x6, 2x4, 2x6 - all 2&Btr.

Hydra sensors remained enclosed in the scan frame during the test.

LPL sensors were mounted downstream of the sensor frame to perform a second scan for comparison of data.

outdated and needed to be replaced. The project team installed a new workstation equipped with sensor communication cards and the latest Intel decision processor. They also updated the end-column panel with new hardware.

Terry Blattler is the mill's optimization technician. He has worked for Hampton for 17 years, first at Tillamook, OR and the past 9 years at Randle. One of Terry's roles is to maintain and calibrate the optimization systems, and input parameters like pricing that affect the optimizer's solutions for products being processed.

Terry described the performance of the gang and edger lines over the years since initial installation in 1999. "Performance has been great, even bulletproof. We took them past the quoted production numbers, and have increased the production and performance continually over the past 10 years." In 2006 the gang received a controls upgrade from PLC5 to the ControLogix platform, and the edger sawbox was updated with a Robo skew assembly frame. Terry described the benefits of those improvements. "The controls upgrade to the gang improved the piece count and throughput. The edger's Robo upgrade allowed us better control of our product quality; it allowed an increase in the skew capability so it helped increase recovery."

Hampton chose to retrofit these optimization systems to the newer technology because the Hydras were becoming obsolete, and because the company likes to continually improve its operational performance. The LPL sensors had previously been tested at Hampton's Darrington, WA mill, and subsequently installed at Hampton's Tillamook, OR mill with notable improvement in scan density and speed. Management at the Randle mill was confident of similar positive results. The LPL sensors were installed at Randle in the spring of 2009.

The version 6.3 software was installed earlier, in the spring of 2008. The mill chose to update the software at that time to stay current with software innovations, and being on the Newnes-McGehee Software Maintenance Program (SMP) facilitates ongoing software updates. Hampton also chose to take advantage of the slower markets to retrofit its gang and edger systems and be ready for an improved outlook.

Terry was very "hands-on" during the upgrades, as the optimization systems are ultimately his responsibility to operate and maintain on a daily basis. The Newnes-McGehee project team included Rob Seaman, project manager, Darcy Bolduc, service project lead, and Sam Pope, Newnes-McGehee's account manager for the Hampton operations at the time the projects were sold. Training was performed during and after the upgrade installation, and included sensor calibration, diagnostics and reruns of the optimization systems for Terry and the mill electrician.

Rob Seaman, Newnes-McGehee project manager, commented, "Working with Terry Blattler, and similarly with all Hampton representatives in my experience, enabled the projects to be scheduled, delivered, and installed without issue. During both upgrades our service technician was able to leave site within a day or two of production resuming because of Terry and his team's attentiveness and willingness to take ownership."

Rob went on to say, "Hampton worked well with us during the development of the LPL upgrade. They allowed us the use of their facilities at Darrington to do the initial recovery studies including comparison with the Hydra. We were pleased to be given the opportunity to upgrade the systems at Randle, allowing the mill to attain the same advantages we identified at Darrington."

Terry described the Newnes-McGehee project team as always positive. He went on to say, "Folks at Newnes-McGehee are always willing to go the extra mile to ensure we are satisfied. Every upgrade has shown a very short payback and a good investment." When asked what's next on the horizon for the Hampton Randle mill, Terry replied, "For now we just want to keep improving production and recovery, and stay up-to-date with technology."



The LPL sensor is a very compact design.



The LPL sensor easily mounts as a replacement to the Hydra sensor.

IMPROVE LOG LINE PERFORMANCE:
SWITCH TO 60° KNURLED ROLLS AND GROOVED ANVILS

Today's modern log lines employ Vertical Feed Modules, or VFMs, to hold and stabilize the log as it feeds through the saws. USNR has modified some key parts on this machine making it simpler and more effective.

60° knurled rolls and roll scrapers

Rolls with 60° knurl have sharper knurl points to provide more grip and traction than rolls with the standard 90° knurl. Roll scrapers are simple devices that you install and then forget about. They keep the knurled rolls clean and clear of sawdust and debris so you don't have to. These simple changes allow rolls to more effectively control the wood, preventing spinouts, sticking cants, and cant overfeeding.

Grooved anvils

Often the anvils are the only thing guiding cants into downstream saws, and we have found that decreasing anvil clearance also decreases sawing deviation. The simple change from smooth to grooved anvils enables the wood to keep moving and not get stuck in the anvil, so you can run with them positioned closer to the wood thereby increasing control and sawing accuracy.



Even chipper systems that do not use VFMs are benefitting from grooved anvils because they can be run with no clearance (very tight to the wood). On chippers with facing saws, the grooved anvils allow more side grinding of the saw teeth without having sticking problems in the anvil.

Grooved anvils, 60° knurled rolls and roll scrapers come standard on new primary breakdown systems with VFMs, bandmills, chipper-canters, circle sawing systems like the Quad Arbor Sawbox, and chippers that do not use VFMs.



So the next time you need to replace knurled rolls or chipper anvils, call us and ask about switching to these improved components. Sometimes improving performance is just that easy.

REDUCE MAINTENANCE TIME AT YOUR GANG:
MCGEHEE GEN-1 GANG UPGRADES

Striving for continuous improvement, design enhancements continue to be developed that assist wood processors to be more efficient in their day-to-day operation. Since its launch in the mid-90's, the McGehee gang has undergone various design improvements resulting in the second-generation release, GEN-II. But those with earlier machines can still take advantage of improved designs through upgrades and retrofits.

The GEN-I McGehee gang is equipped with pantograph arms that require periodic belt changes. In some cases changing the belts can take up to 2 hours, causing production downtime. Working in cooperation with customers our engineering team has developed an upgrade that greatly reduces the maintenance process to get you back to producing lumber.

The pantograph arm and pivot motor base upgrades are typically done in tandem, and are designed to deliver a quick return on your investment by providing ongoing time savings for your maintenance and production staff, extending belt life and improving access while maintaining safety features.

Extended Belt Life

Polychain belts are more durable, while larger belt sprockets also increase belt life expectancy and reduce maintenance downtime.

Reduced Maintenance

Due to the extended belt life, fewer belt changes are required. An eccentric pivot shaft is added to the drive bases allowing much faster belt changes, and reducing maintenance and downtime.

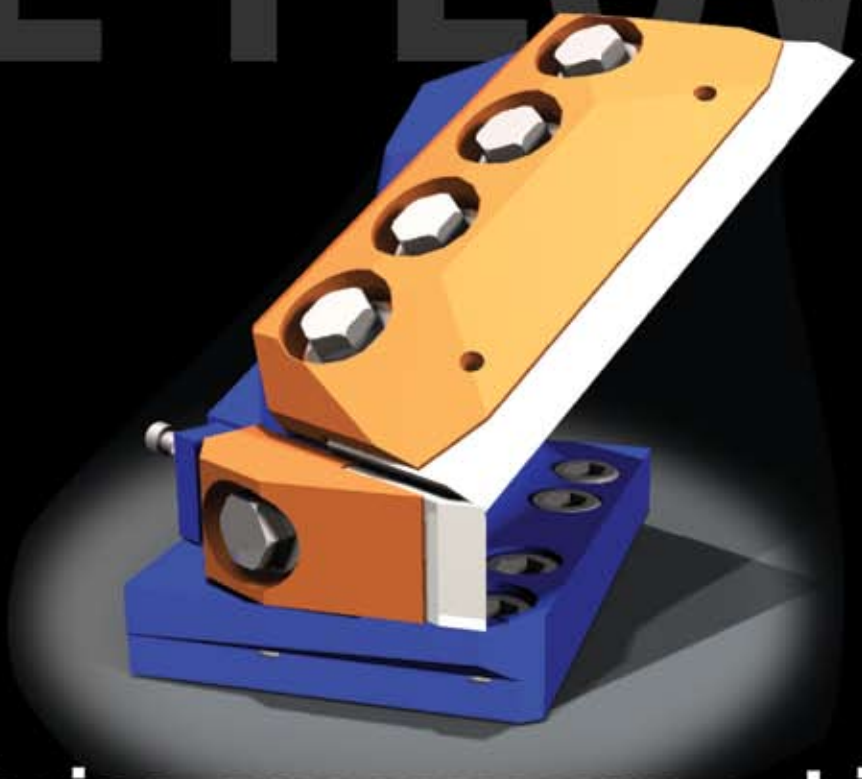
Improved Access

A new guard design improves access, allowing quicker belt changes while maintaining essential safety features.

Call 800.BUY.USNR for more information on these and other upgrades for McGehee GEN-1 gangs.



TRUE FLOW

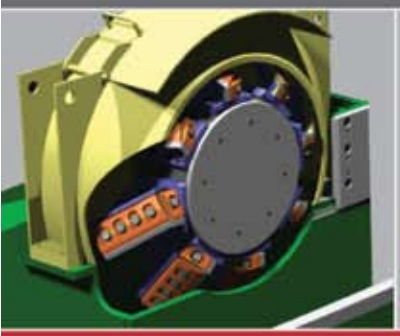


A sharp choice any way you cut it.

True Flow's high performance design delivers smooth feeding, high-quality chips and low operating costs. The re-honable system increases knife life and is flexible enough to accept both babbitted and non-babbitted knives. In fact, you can mix either type for finishing and roughing.

User-friendly features like interchangeable knife seats allow for easy adjustments to chip thickness. Even longer and wider knives can be securely clamped in the head – advantageous in extreme conditions. Most Chip-N-Saw systems can be retrofitted. Call us today.

800.buy.usnr www.usnr.com info@usnr.com









Millwide. Worldwide.

USNR



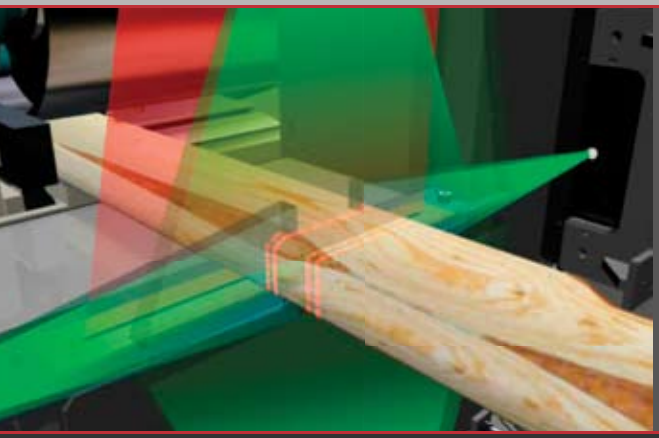
LHG

On Target.

Whether your target is to reduce labor costs, control below grade or reduce above grade in your packages, the Newnes-McGehee LHG offers the performance to help you hit your mark. On Grade. On Target.

Contact us at info@usnr.com
www.usnr.com

Lineal High Grader



Hit your target with LHG:

- ► Reduced trim loss
- ► Above grade reduction
- ► Below grade control
- ► Positive grade distribution shift
- ► No lug speed limits
- ► No elevation changes
- ► ALSC recognized
- ► 3000 fpm autograding
- ► Integrated MSR/MEL
- ► Cut 'N 2, 3 or 4
- ► 40+ sold
- ► Global installations
- ► Graderless

Millwide. Worldwide.

USNR

Edger Infeed Positioner Retrofit

RETROFIT ANY EDGER AND BOOST PIECE COUNT WITH THIS COST-EFFECTIVE UPGRADE

Advancements in optimized edgers coupled with an industry desire for higher piece counts have led to faster feed speeds. USNR specializes in all aspects of edger system design, and we know that a good infeed table is required to accurately position boards for the best possible recovery.

In the quest for speed, there has been a tendency to focus on feed speeds and ignore the infeed positioning system. But simply speeding up the center line chain addresses only half the equation and creates a bigger gap between pieces, unless you can also position faster.

USNR developed the pop-up positioner upgrade to close this gap and achieve maximum piece count at today's higher feed speeds. The popular upgrade can be retrofitted to any edger infeed, thus giving new life to existing systems with low relative cost.

USNR's pop-up positioner upgrade feeds more boards per minute than the bulkier up/down, in/out style head it replaces. The fast-acting pop-up design requires considerably less movement to position the boards, resulting in a faster and smoother operation.

The upgrade is available in single and dual positioner configurations, and both require only minimal modifications to the existing frame. The pop-up positioning head fits in the same space as the old style head with minor plumbing modifications.

The Pop-up Positioner upgrade provides many benefits including:

- Faster and more reliable feeding
- Proven piece counts up to nearly 60 pieces/min
- Feed speeds up to 1200 fpm
- Feeds gently and more accurately
- Significantly less maintenance

USNR's pop-up positioner has a smart design that can be retrofitted to any machine to improve reliability and increase piece count. With mills consistently reporting a noticeable reduction in maintenance, you owe it to yourself to investigate this simple and effective upgrade.

Ask us about these other low cost, high impact upgrades for the edger:

- Cushion cylinder upgrade
- Press roll / hold down roll upgrade
- Centerline chain tensioner upgrade
- Lug chain upgrade
- Parking ramp upgrade
- Servo valve upgrade

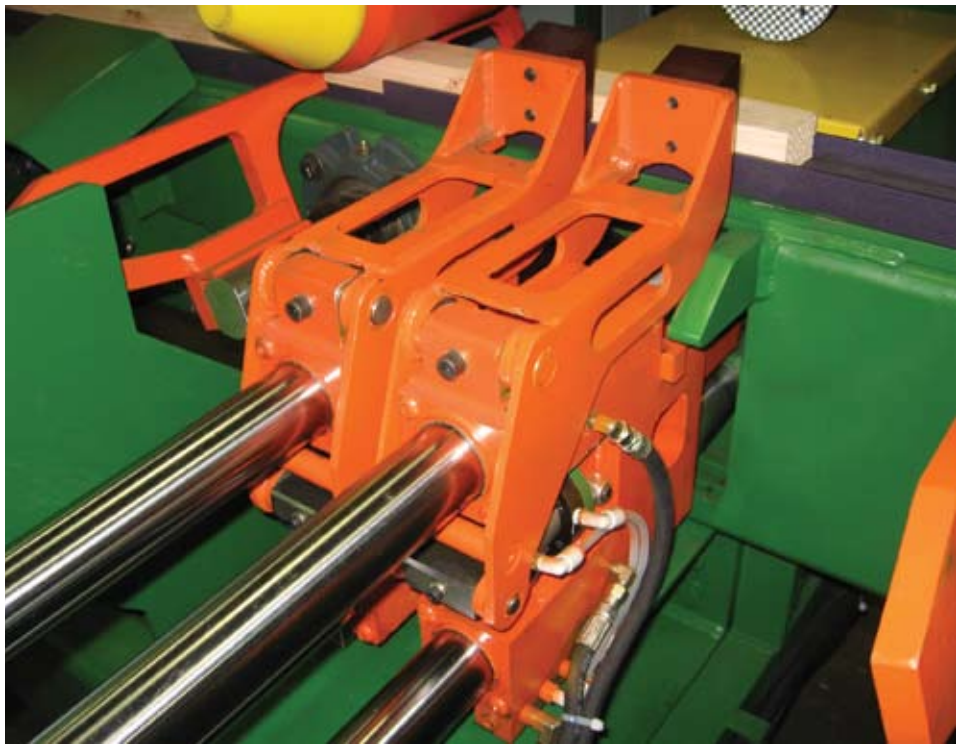
For more information on the Edger Infeed Positioner retrofit call 800.BUY.USNR.



Pop up positioner head in loading position.



Pop up positioner head in retract position.



Dual positioners, pictured below, allow for even higher piece rates.

USNR Expands Kiln Parts and Service

USNR is pleased to announce an expansion of dry kiln parts and service to more strategic locations in North America.

Dry Kiln Service

Our service personnel for dry kilns are now located and deployed from our facilities at Jacksonville, FL, Woodland, WA and Salmon Arm, BC Canada. Service is available for USNR, Coe and Irvington-Moore lumber dry kilns.

- Qualified technicians
- Low travel costs
- Fast service

We recognize that our dry kiln operators across North America need access to economical service resources, particularly during these difficult times. Over the past year we have been working to certify more dry kiln technicians through comprehensive training in lumber drying methodology and all aspects of kiln equipment. Our longer term goal is to have certified USNR dry kiln technicians stationed in or near to all major lumber producing regions.

Dry Kiln Parts

In order to better serve our customers, USNR is now stocking kiln parts at our facilities in Jacksonville FL, Woodland, WA, Salmon Arm, BC, Painesville, OH and Plessisville, QC.

- Parts for all Coe, Irvington-Moore and USNR kilns
- Parts for other kiln brands
- Same day shipment on most items
- Kiln consumables such as charts, inks, pens and wet bulb wicks
- Wheels, kiln trucks, wheel parts, RTD sensors, moisture needles and door parts

We are making it easier than ever for you to get quality kiln parts at great prices with low shipping costs. Because we stock on both sides of the border you can get these parts without customs delays and purchase them in the currency that you prefer. We're doing our part to help you cut costs and stay competitive. Give us a call at 800.BUY.USNR and let us quote your next kiln parts or service requirements.



NEW PROJECTS

A mill in Arkansas will install a MillWide log bucking system utilizing LASAR sensors, to replace an older AST scanning system.



Battle Lumber, Wadley, GA has ordered a MillExpert carriage optimizer utilizing 3 LASAR scan heads for its existing Salem carriage. This order includes G3 based PC controls which operate on the optimization computer, allowing the mill to run the carriage without a PLC. Battle Lumber is also upgrading its Inovec edger optimizer with MillExpert optimization that incorporates a hardware optimization method developed by Inovec.

Carrier Lumber, Prince George, BC has purchased a new large log processing line to replace its Chip-N-Saw line. The new line will include auto log rotation, quad roll log turner with rotation verification and correction, extended length infeed with slew/skew/tilt, log breakdown optimization, four sided canter, 2 quad arbor sawboxes with pivoting top heads, and PLC controls for the entire line. This new line will feature some unique designs to meet Carrier's desired log processing methods. The Carrier mill also has a USNR small log processing line and several Newnes-McGehee systems.

Shuqulak Lumber, Shuqulak, MS is upgrading its McGehee lineal gang optimizer with new LPL sensors to replace the obsolete hydra sensors. It is also upgrading its software to the Newnes Ver. 6.3 platform.

Stimson Lumber of Priest River, ID has ordered a 2-sided MillExpert LASAR optimizer for its existing dual carriage overhead end dogger machine. The upgrade will improve both recovery and productivity.

Remembering to lockout

Human error can cause accidents

This bulletin looks at one critical safety process that relies on human memory—lockout. If the unexpected energization or startup of machinery or equipment or the unexpected release of an energy source could cause injury, the energy source must be isolated and effectively controlled.

What happened?

A chip/n/canter operator left his work station for his regular break at 22:45 after waiting for confirmation that the chip/n/canter had powered down. When the operator returned to his work station at 23:00, he noticed that the control panel lights were active. He glanced up to the overhead monitor and saw that the trade-qualified millwright was inside the machine to install new knives. The chip/n/canter was not locked out. The millwright confirmed that he forgot to lock out before entering the machine.

Why did it happen?

There are three ways in which people's errors are brought to their attention. They can find out themselves through self-monitoring, something in the environment makes it clear that they have made a mistake, or the error is discovered by another person. In this incident, it was the chip/n/canter operator who alerted the millwright that he had forgotten to lock out. The human factor analysis reviewed what defenses were in place to help the millwright and others to remember to lock out.

The millwright was "blowing down" the area next to the chip/n/canter before the operator's scheduled break. He heard the chip/n/canter powering down. This audible feedback signaled that it was time for him to conduct the scheduled maintenance.

It is usual for millwrights to have the knives and tools needed for maintenance prepared and placed close to the chip/n/canter's entrance to save time. This meant that the millwright did not have to walk back through the main control centre (MCC) room to collect what he needed. The energy isolating devices for the chipping heads are on the main panel located in the MCC. To lock out the machine, a personal lock must be applied to the isolating device on the main panel.

On entry to the chip/n/canter at this mill, there is a wire mesh curtain strung across the point of entry. The millwrights draw back the curtain and then proceed into the machine. The chip deflector curtain's purpose is to deflect chips. It does not alert those entering as to the status of the machine, nor does it block access into the machine.

In order to be effective, a warning system must capture a worker's attention. On the path to and next to the chip/n/canter, there were no fixed signs to remind the millwright to lock out before entry. There were also no dynamic warnings such as visual or audible alarms that could have attracted the millwright's attention. There were no effective warnings to trigger his memory and remind him that he had not locked out.

When critical safety procedures rely on human memory, and a worker's memory fails—as human memory sometimes does—the outcome can be disastrous. The question that needs answering is: If a worker forgets, what is in the workplace system to help the worker remember?



Understanding human factors helps avoid workplace accidents

While there are company and regulatory requirements to lockout before conducting maintenance on equipment, usually the worker must remember to carry out the procedures. Without physical measures to block entry into a machine or to alert the operator to its status, the burden rests with the worker to remember and successfully lock out the machine.

However, memory is fallible. In this case, the millwright's memory failed, and he continued with his task. The curtain was an inadequate and ineffective means to alert him of his forgotten step, and there was nothing else in place to remind him.

A worker's memory should not be the primary line of defense for remembering to lockout. Job tasks that are potentially dangerous and life-threatening should not rely on human memory.

The workplace should be set up in such a way that effective engineering controls are in place to block onward progress when an error is made. Ideally, in situations where there is a severe risk of serious injury or death, something should be in place that prevents the action from continuing until the problem has been corrected.

WorkSafeBC Human Factors Bulletin 2008-03

Article provided courtesy of WorkSafeBC



PROFILE

Gary Middleton is Regional Sales Manager for USNR in the US Northeast and Midwest.

Upon obtaining his degree in electronics, Gary served for 12 years in the US Army and US Air Force as a Master Instructor. A family friend, Burton Hankins, asked him to provide night classes for the mill's maintenance personnel in preparation for a major upcoming project. "That's when I got bit by the sawmill bug."

As a sawmill Project Manager and later General Manager, Gary brings a unique perspective to the USNR sales team. "I learned early on what this industry is about; it's not about making lumber, it's about making money."

Gary manages the sales team whose focus is primarily in the hardwood sector and supporting the 30+ OEM that use USNR's MillWide optimization products.

"What has me most excited these days is the release of our bolt-on BioVision green end knot grading system. The combined experience of Newnes, Inovec, Perceptron and USNR has resulted in what may prove to be the most promising technological development for this industry in decades."

In his spare time Gary's other passions include flying, snowboarding, scuba diving, and long Harley rides with his wife.



UPCOMING EVENTS

SEPT. 9-11
SawTech
Rotorua, New Zealand

SEPT. 11-12
Wood Week
Quebec City, QC

SEPT. 14-16
SawTech
Melbourne, Australia

SEPT. 30-OCT. 3
Northern Hardwood Lumber Association
Boston, MA

NOV. 11-14
Expo-Corma
Concepcion, Chile

NOV. 14-17
Engineered Wood Technology Association
Amelia Island, FL

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