



Millwide

INSIDER

THE MAGAZINE FROM USNR | MARCH 2010

DOWN TO THE CORE

Murphy Plywood adds BlockPLUS to increase flexibility and volume

TAKING ADVANTAGE OF OPPORTUNITY

AddVantage chop saw optimizer improves fortunes for West-Wood Industries

THE BEST BOARD FEEDERS AROUND

USNR adds a new board feeder to its arsenal

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Millwide INSIDER

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Not resting on our laurels.

While times have been tough in this industry, USNR has not been resting on its laurels. We've been very busy coming up with new products and making new uses of existing technology to help you, and us, stay afloat.

Our Coe product line is alive and well with refinements to our BlockPLUS scanning system for veneer lathes, and improved jet tube designs for veneer dryers.

We've designed and installed a next-generation log rotation correction system in the sawmill, with three orders already on the books. This scanning system is designed to allow easy retrofit to existing roll turners and knuckle turner systems.

Our new MillTrak 2D and 3D systems are the first new solutions to deal with the ever-present photocell problems that customers face. These great new products can increase production and material flow, and reduce downtime. With several installations and lots of interested customers, this innovation is a clear winner.

Our BioVision technology is proving its worth in its first production installation on a transverse edger in a southern pine mill, with another project in the works for a trimmer system. The bolt-on upgrade option makes a quick and economical way for sawmills to add grading technology while keeping their existing transverse scanners.

The Lineal High Grader (LHG) is seeing much success with many users opting to upgrade their units to the full vision module. The machine's design makes it easy to upgrade to vision and/or scanning for MSR lumber.

Our latest product in the lumber handling arena is our new Gatling Feeder that operates at a very speedy 320 lugs per minute.

We're displaying many of these innovations at our Wood Technology booth in Portland, OR on March 9-11. But you're welcome to see or hear more about them anytime. Just give us a call.

Sincerely,
Colleen Schonheiter
Editor

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Getting down to the core

IMPROVING RECOVERY WITH ADVANCED PEELING TECHNOLOGY

A veneer plant in Washington state is reaping the rewards of a major lathe system upgrade resulting in a significant increase in throughput. USNR's BlockPLUS™ scanning system is attributed as one key factor in a combination of leading designs that contributed to this improvement.

Murphy Plywood's veneer plant at Elma, WA was the site of a major capital upgrade project that was completed in December 2008. The project included a 6-step log ladder (Linden), Coe M790 X-Y charger including LCS4000 BlockPLUS scanning system, M1396 core drive, M1484 roller bar with servo gap, vertical bar height and electronic pitch rails, and hydraulic digital lathe carriage drive. The controls system was also upgraded to the ControlLogix platform.

Murphy Plywood is a third generation company, currently owned and operated by John Murphy, grandson of the founder. The company evolved to veneer manufacture in the '60s and plywood lay-up in the '80s. John started with the family business in 1972 and led its transition to plywood manufacture.

The Elma mill was acquired from Weyerhaeuser in 2007. The drive behind the acquisition was the need to secure a stable source of Douglas fir logs for processing into high quality veneer to feed its state-of-the-art LVL plant at Sutherlin, OR. The western Washington region has a large concentration of fir forests managed by the state's Department of Natural Resources. Every year a

projected quantity of the logs is put up for bid, affording Murphy a predictable supply to feed the Elma plant.

Aside from the veneer plant at Elma, Murphy has another veneer plant, White City, OR, a modern LVL plant, Sutherlin, OR, a hardwood plywood plant, Eugene, OR, and recently acquired a plywood plant, Rogue River, OR, that will take the lower quality veneer produced from plants at Elma and White City.

The Elma plant is the company's largest producer of LVL-quality veneer. Approximately 90% of its production is 1/8" veneer for LVL. The rest is 1/7" and 1/6" hemlock that becomes inner ply for hardwood plywood. The veneer can be dried at Elma, but most goes out of the plant in its green state to Murphy's LVL plant at Sutherlin, about 350 miles south. Elma runs 2 shifts for a total of 100 hours weekly. Feeding its high quality veneer to the company's Sutherlin LVL plant has allowed the Elma plant to continue uncurtailed through the industry's downturn.

The decision to upgrade the lathe line at Elma was driven by the need to increase volume to allow economies of scale when buying logs, and higher yields through increased throughput which is the reason they selected the Coe BlockPLUS scanning system. The ability to use a broader range of block diameters (6" to 25") allows the plant to utilize a larger segment of the forest.

"So far I'd say we've seen 20% increase in volume, and quality is consistent in spite of running higher volumes."



Lathe charger, BlockPLUS scanning

The Model 790 high speed lathe charger with BlockPLUS profile scanning includes block rotation and positioning, and a precision pendulum block transfer device. Blocks are transported through the log ladder directly ahead of the lathe charger. They are unscrambled and individually presented geometrically centered to the lathe charger for scanning and positioning prior to peeling. The lathe charger chucks each block and rotates it for laser scanning while simultaneously raising and repositioning both ends for maximum veneer recovery. A computer controlled pendulum assembly precisely transports the block to the lathe spindles.

The rotating spindles with hydraulic chucking are arranged with servo positioners for precise vertical and horizontal positioning, controlled by the LCS-4000 integrated lathe control computer. The LCS-4000 system supports the BlockPLUS charger scanning and optimization software. It provides integrated lathe high speed motion control which coordinates all of the axes critical to the lathe peeling process.

The BlockPLUS system offers both increased recovery and production to the plant. Four 3D laser scanners mounted above, scan the block as it is rotated. The scanners will scan a continuous full length laser line on the block providing up to 500,000 measurement points on each block. Profile scanning provides data every 0.05" down the length, and every 1.5 degrees around the circumference of the block. A rotary encoder mounted on the spindle assembly, sends position data to the LCS computer during block rotation. Block dimensional data is accumulated and computation begins immediately upon completion of the rotation of the block. The BlockPLUS system calculates optimum centering



for the block, and hands the positions for each actuator and the ramping and velocities to be used in repositioning the block, to the motion control software to position all of the five charger axes to the proper orientation.

Core drive

The purpose of the Model 1396 core drive is to provide peripheral force to the log to assist in peeling. It minimizes deflection of the block in the lathe as the block is peeled to very small diameters. It also imparts a turning force to the block and substantially reduces spinouts at the chucks due to splits or soft ends of the veneer block. The core drive is designed to take advantage of diminishing average block sizes and aid in usable veneer

recovery. The core drive is configured to peel blocks up to 30" in diameter.

The LCS-4000 computer system provides precise servo control of the two cylinders positioning the upper and outer rolls, following the complex path required to maintain contact with the block as it is peeled.

Roller bar

The Model 1484 roller bar applies torque to the block surface, which reduces spinouts and plug-ups by allowing a free pass-through of slivers. The specially designed, fluted roll can improve recovery and production, particularly from low-quality blocks. When used with servo vertical gap control the system affords the opportunity to obtain good quality veneer while peeling to extremely small diameters.

The roller bar incorporates the latest precision roll direct drive arrangement. The drive housings, stub shafts, oil seals, and chains from previous designs have been eliminated and replaced with a single direct drive chain from the hydraulic drive motor at each end of the roll. This design permits the large lathe spindles to remain in the block longer without contacting the pressure bar drive housings. With added drive housing clearance, the large spindles at retract can be positioned closer to the block providing added support for the small lathe spindles and decreasing wood-to-wood time by remaining closer to the ends of the incoming block.

Knife pitch

Also known as electronic pitch rails, this axis provides complete programmable control of the lathe knife's rotational position or "pitch" as the block is peeled. Unlike traditional fixed pitch rails, knife pitch can be programmed to follow an electronic profile that varies as the block's diameter decreases including an assist in disengaging the block as core limit is reached.



Four 3D laser scanners mounted above, scan the block as it is rotated.

Roller bar height

Precise control of bar height is critical to stabilizing the block when peeling to very small core sizes, and maintaining veneer quality. Integrated dynamic optimization of roller bar height is automatically derived from user entry of a few simple measurements of the lathe knife configuration.

Hydraulic digital carriage drive

Precise veneer thickness is provided by the computer's control of the 2 hydraulic cylinders positioning the veneer knife. This allows the setup of gross roundup and roundup peel rates to speed roundup prior to getting to the point of the first salvageable piece of veneer when the system goes into target thickness peel rate. When used in conjunction with the BlockPLUS scanning system, the initial roundup peel start location can be precisely determined by the shape of the log, saving up to 7% of block cycle time depending on log size and profile. Peel thickness adjustments can be made in increments of 0.001" through 1.000".

User interface

The user interface provides an illustration of scan data, block solution and expected veneer production for each block when the block is transferred to the charger pendulum. The "charger spindles retracted" signal triggers screens that can be selected to display individually or all together, by the operator. The **3D View** plots all of the block scan data points about the axis of rotation and the resulting computer diameter cylinder. The **End View** stacks the scan data points from all scanners and plots the optimum cylinder. The **Production View** plots the veneer peel from roundup through trash gate clip to full width ribbon.



The decision to buy from Coe

Prior to the decision to award the project to Coe, the Murphy team traveled to the Boise plant at Willamina and viewed the Coe lathe charger with BlockPLUS in operation. John commented, "We had knowledge of other vendors, but frankly we've had very good success with Coe equipment. We've been peeling veneer on Coe lathes since 1968. We feel the Coe products lead the industry in processing western and southern US species." Murphy Plywood has also used Coe for parts and upgrade support in the past. USNR acquired the Coe product lines while the project was in process, and John said he was "very satisfied" with how USNR completed the project.

Key plant personnel involved in the project include Jim Langenberg, manager, Tim Maslen, maintenance, and Bill Thompson, engineer. USNR's

Tom Schroder managed the electrical portion of the project and worked with Tim Maslen to impart an understanding of how the system works and how to maintain it. USNR's Dave Roth managed the mechanical installation.

BlockPLUS results

Though they are still analyzing the results from the BlockPLUS system, John Murphy commented, "We feel it has good qualities. The system is running very well. We're working through refinements on the BlockPLUS scanning system to enhance recovery. So far I'd say we've seen 20% increase in volume, and quality is consistent in spite of running higher volumes." John Murphy has plans to put a second BlockPLUS system into the White City plant to better utilize the typically smaller logs the plant processes.

John said the industry needs vendors like USNR to stay in business and continue to invest in and support the technology. USNR's history of maintaining support and advancing product technology is a testament to its ongoing commitment to this industry. 



The BlockPLUS user interface provides an illustration of scan data and the solution for each block.

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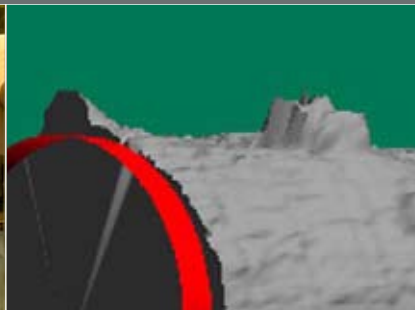
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Genuine Coe Parts and Service

USNR IS YOUR “GO TO” SUPPLIER FOR COE PARTS AND SERVICE

Above and beyond the legal assets obtained when acquiring a product line comes the responsibility to support existing systems, and to continue to grow the products. Having been down this road many times in the past, USNR is well aware of the responsibility and is well prepared to take it on.

When USNR acquired the Coe product lines it recognized the knowledge, expertise and contributions of many of the parts and service personnel who had made Coe products their life's work for many years. Hiring these individuals not only provided USNR with this in-house knowledge, but also maintained the support that customers were used to and depended on in their day-to-day operation.

We'd like to introduce you to some of the people who are working to support your Coe systems. Many you may have met and spoken with, but there are likely others you do not know. In this issue we feature some of the more senior veterans of the business. We will introduce you to other team members in future issues.

David Roth, Parts and Service Manager, Coe products – Woodland, WA

Dave is a veteran when it comes to the Coe product line. He started working at Coe in 1968 in the engineering department. Over the years he played a part in the design of most of the components and equipment pertaining to the peeling lathe, from the first M-777 X-Y charger through today's M-796 X-Y charger, and from the first M-1380 core drive to today's M-1396 model. He also did the preliminary design work on the M-296 lathe.

Dave could well be considered a “jack-of-all-



David Roth

trades”. Over the years he has installed many pieces of equipment around the peeling lathe including the complete small log peeling line at Boise Cascade in White City, Oregon with the first and only dual spindle mounted on an X-Y charger.

With Dave's vast knowledge of the Coe product line and ongoing contact with many customers, his experience has led him to his current role of manager for the parts and service teams in support of Coe products. Because of his knowledge and expertise he is called upon for close interaction with USNR engineering and sales teams for new projects and product developments.

Dave and his wife are very proud to say they have two daughters, a son and stepson, and nine grandchildren. When he gets the chance Dave enjoys snow skiing, bicycle riding, hiking and most outside activities.

Who do you call when your Coe equipment needs parts or repair? Look no further. USNR's commitment to the customers who believed in Coe equipment extends to ongoing support and continued product and technology development.

Greg Rigby: Parts Specialist – Jacksonville, FL

Greg Rigby is well known to many customers with Coe products. He started with Coe in May of 1977 in the Painesville, OH office in the export department under mentor and long-time parts manager, Burt Wilkinson. In 1981 he became inside parts sales representative in Coe's Tucker, GA office. In time the warehouse was moved to Stone Mountain, GA, where Greg was later promoted to facility manager.

“During my 30 years at Coe I have had the pleasure of working with and learning from veteran Coe engineers, shop personnel, and field service people. I have also gained a wealth of knowledge from many of the long-time Coe customers,” Greg expressed. Though well versed in all the Coe equipment, Greg primarily transacts parts orders for the Coe plywood and gypsum lines.

He went on to say, “I enjoy working with the customers. They are good people and very



Greg Rigby

appreciative of the assistance we provide. I enjoy working in this industry and with the interesting machinery that we manufacture."

Why should customers buy parts from USNR? Greg says, "We can offer them genuine Coe OEM manufactured parts, made to original specifications, at a competitive price. Along with the parts comes the knowledge of their machinery and the right part for their requirement."

Greg also enjoys spending time with family, particularly his three grandchildren, and is active in his local church. Greg says, "We also have two dogs that keep me busy walking and visiting the neighbors."

Bob Valentine: Parts and Service Specialist - Painesville, OH

Bob brings over 32 years of progressive growth and experience within the Coe product lines. He began his career with Coe in 1977 as a machinist, where he spent 9 years making many of the parts he now sells as a parts and service specialist. Bob is trained to handle all Coe product lines, but his specialty is the Washington Iron Works and Pathex press lines. Besides his extensive manufacturing experience, his knowledge includes scheduling and production inventory control. This knowledge base helps serve our customers by offering a personalized approach – one contact from order entry, through manufacturing, to shipping to our customers.



Bob Valentine

In addition to his knowledge of press lines, Bob has experience and expertise comprising field service and purchasing. With this combination of product knowledge, and manufacturing, scheduling and purchasing experience, Bob brings our customers a solid foundation for the kind of service and expertise our customers expect and deserve.

"I really enjoy the challenge of helping my customers find the parts they need." Bob went on to say, "I would like to think my product knowledge, along with the other parts people in our group, sets us apart when dealing with customers. We have a dedicated group that not only knows the products inside and out, but knows our customers."

Bob says racquetball and cross country skiing in the winter keep him in shape but, "My real passion

is sailing during the summer months. I crew on a variety of different local race boats on Lake Erie and am the 2010 commodore of our local sailing club."

Steve Antwine: Service Technician



Steve Antwine

Steve began his career with Coe Manufacturing-Moore Division in 1978 as a welder. In 1985, he moved to field service and has been doing field work ever since.

Steve has an extensive background in the assembly and installation of dryers (veneer, gypsum, and board), dry stackers and lathes. He also has experience with the installation and start-up of dry kilns, lumber handling equipment, and pre-dryers, and he has done refractory work on Energex burners.

Steve says his role requires, "skill in mechanical troubleshooting and promptly taking corrective action on dryers and dry stackers, reading and interpreting blueprints and bills of materials, and adhering to safety policies, procedures and codes."

When the time affords, Steve and his wife, Vicki, enjoy taking to the highway on their Harley Ultra Classic motorcycle with like-minded friends. They have two grown children, and three grandchildren.

Tom Schroder: Service Technician

In Tom's role as service technician for all of the Coe product lines, much of his time is spent on the road. At time of writing he had spent the past week at 3 separate mills. The first was an emergency mill-down situation that required a midnight flight from Portland to Louisiana to get things back on track, then trips to two other mills in the vicinity under service contract. And he's off again today to another mill. Such is the life of a service technician!

Tom's career at Coe Manufacturing began in 1980, installing and repairing X-Y chargers on lathe lines. His background is in electronics, and he came to Coe with experience installing and repairing veneer clipper scanners starting in 1972. Tom says, "To be able to fix a lathe line a person needs not only to do the electrical but also be able to correct hydraulic problems, perform the mechanical lathe setup and correctly diagnose most mechanical problems. I like my job because I enjoy fixing things and making machinery run." He added succinctly,

"And when I need help I know who to call."

Tom is generally on call 7/24/365. While some would find this schedule grueling, he likes it that way. And there are many, many customers who are glad he is so dedicated, because when they need him they know he'll be there!

Gary Winters: Service Technician

Prior to coming to Coe in 1986, Gary was shop foreman and erector for a metal fabrication shop. The call to travel brought Gary to Coe working closely with engineering in a field service role. His extensive experience includes veneer lathes, chargers, core drives, stackers, plywood lay-up lines and veneer dryers.

When it comes to his work, Gary most enjoys travel, working with customers and, "making their machines and products the best they can be. I've made many lifelong friendships with clients in many countries around the world. I enjoy seeing what our machines can do and the value they bring to the customers and to the people that operate them daily. It's fun to watch them run – awesome!"

He went on to say, "I believe we make the best spare parts on the market. We have terrific engineering and sales support, and I know through my tenure at Coe that we are committed to fix any problem that comes up. We will work with our customers and other vendors to ensure our products meet or exceed industry standards for operation."

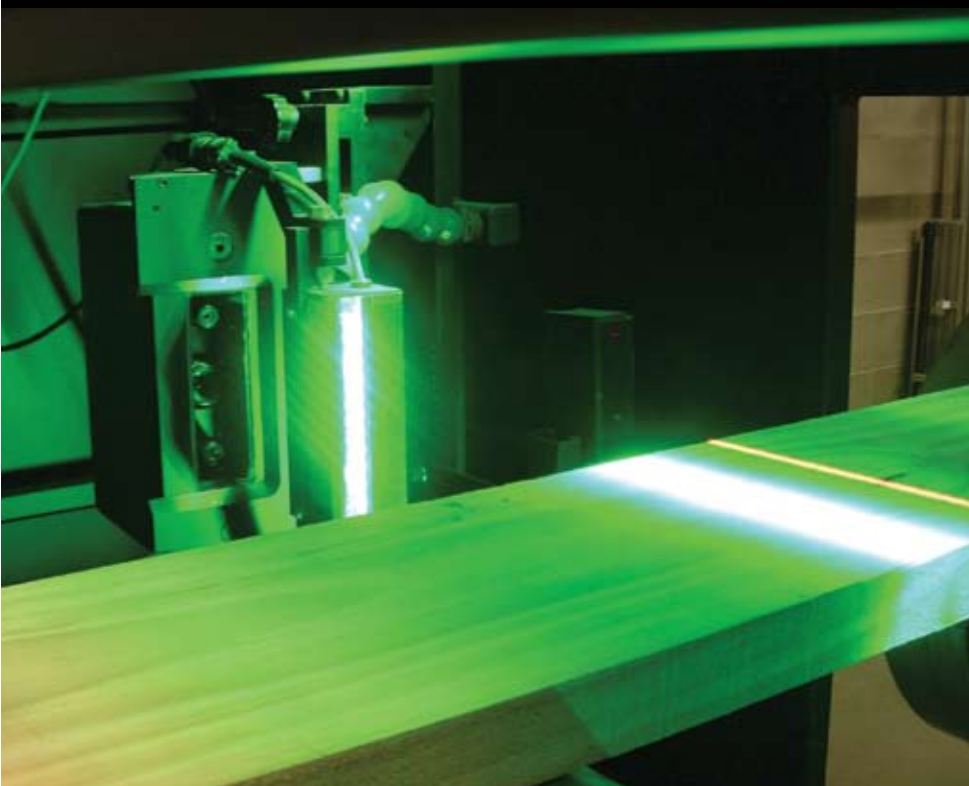


Gary Winters

When he has spare time Gary enjoys home improvement projects. He says he just finished a full bathroom remodel, and he also likes gardening, playing his Stratocaster guitar and driving his '71 Ranchero. 🚗

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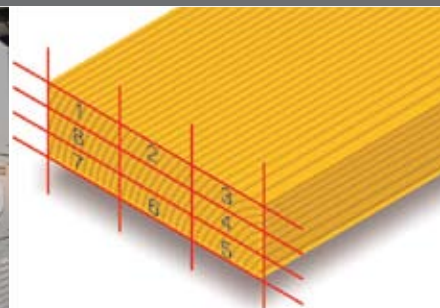
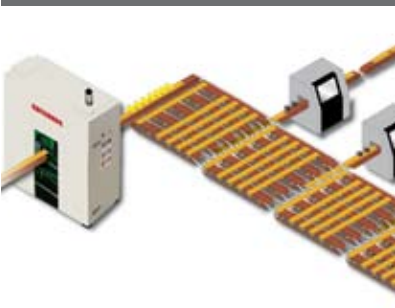
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Taking AddVantage of a niche market



WEST-WOOD INDUSTRIES UPGRADES USNR CHOP SAW OPTIMIZATION

West-Wood Industries, located in Scoudouc, New Brunswick, recently upgraded its millwork plant with a new AddVantage chop saw optimizer to improve throughput and recovery. The company is forging ahead with technology solutions to maintain a strong position in its niche market.

West-Wood Industries comprises a millwork and custom window and door plant in Scoudouc. Sister company West-Wood Manufacturing is a sawmill and planer mill with dry kilns located “just up the road” in Dieppe, NB. The companies are owned and operated by Leandre Cormier along with members of his family. Eldest son Stephane, is controller for the companies, and Marc runs the saw and planer mills in Dieppe. Leandre’s three brothers are also involved in the business in the roles of millwright, sales, and heavy equipment mechanic.

The plant in Scoudouc was purchased in 1996

after a closure. Today there are between 175 and 225 employees running 1-2 shifts, depending on the market. The slowdown in the lumber industry over the past several years had minimal effect on the West-Wood plant because of the niche market the company has developed for its highly custom windows and doors. While some producers were curtailing operations this plant was able to maintain its labor force with minimal layoffs.

Custom designs fuel market expansion

The Scoudouc plant manufactures the Norwood line of windows and doors for commercial as well as residential markets. Pretty much whatever the customer wants the plant can accommodate, from custom designs using exotic species, and finishings from paint to stain, to natural wood. Raw material includes pine, mahogany, maple, red oak, white oak, and more.



AddVantage opens wide for easy maintenance.

Donny Leblanc, maintenance manager, says, “Whatever the customer wants, we get it. Some of the windows are quite amazing.” Last September the company purchased a fiberglass line, and is now offering windows that are fully fiberglass and is working to design hybrid windows that will have fiberglass cladding on the outside and wood on the inside.

The market for Norwood windows and doors is mainly eastern Canada and US states, with the products sold through distributors. The company has its own trucks that make weekly delivery trips to Ontario, Quebec and New England states.

The AddVantage scanner is situated in the millwork area, feeding five Grecon-Dimter chop saws. This particular model is designed to accommodate both chop and rip processes with a maximum width of 16”, though the plant is using it strictly for chop solutions. Typical sizes at this plant are 1x3 through 2x8 and any size in between. This AddVantage unit is set up for Eastern white pine, but can be trained for various other species.

There are 20 AddVantage units operating in North America: 3 western red cedar, 11 pine window and door plants, one redwood window and door millwork plant, one pine millwork plant, one I-joist solid flange plant, one finger-jointed studs plant, one hardwood window and door plant and one hardwood flooring plant.

What's the AddVantage?

Donny said they looked at another competitive scanner, but chose to go with the AddVantage system. The new scanner is more flexible and trainable for different products and defects than the competitive unit that Donny and Leandre evaluated. Also, they have found the service they received from Newnes (now USNR) to be very good. This unit is a replacement for an early vintage AddVantage scanner that was purchased from Newnes and installed in 1998 when the technology was in its infancy. Over the years the technology has advanced substantially. Many of the components in the older unit have become obsolete, hence the need to upgrade.

The AddVantage, like USNR's Lineal High Grader (LHG) utilizes multi-channel vision and laser profile sensors to detect and measure defects. The DataFusion™ concept is what sets the USNR solutions apart from other scanners on the market. With DataFusion, false-positive defect detection is virtually eliminated because comparisons are

made of data from all four vision channels and laser profiles to verify the existence, size and location of the various defects in generating the solution.

The USNR connection


The sawmill and planer mill at Dieppe process pine that is used to feed the millwork, window and door plant, and also lumber that is sold on the open market. A USNR LASAR carriage optimizer was a recent addition to the sawmill in Dieppe. Donny Leblanc's role includes not only maintenance manager, but he is also in charge of all the automated technology. As such he was involved in the installation and start-up of the carriage optimizer. The West-Wood team was impressed with the quality of the system and developed a good rapport with USNR during that project, so they were pleased when USNR acquired the Newnes product lines, and happy to make their purchase decision in favor of USNR.

Effortless start-up

USNR's Chris Lafferty is a service technician specializing in the AddVantage product line and was onsite for the installation. Donny said, "Within a day of Chris arriving we were passing wood through it." The software is similar to the previous scanner model, so little operator training was required. Also involved on the West-Wood side was Bruce Lloyd, electronic technician, who did the electrical

portion of the installation with Donny. Chris had these comments about working with the West-Wood team during the start-up. "Donny was great, when we needed anything he got it done. He was already quite familiar with the system, so he was ready to hit the ground running."

When asked about results the plant is seeing from the new scanner, Donny remarked, "With our clear cutstock, over 95% is exactly what we are asking for. And the other 5% usually contains a defect of the type that we don't want to cut it out. Now in two hours we can process the same amount of high value material that would take two days with six manual choppers."

The West-Wood operation is looking to upgrade its paint system to remove that bottleneck in the manufacturing process. With the ability to soon offer fiberglass and fiberglass/wood products the plant is looking to continue expanding its niche market. 

Did you know...

USNR offers replacement parts on many brand-name industrial components for your equipment.

In addition to proprietary parts for equipment brands now affiliated with USNR, we also offer competitive prices on the following classes of components that are used on USNR systems and other equipment in your sawmill. USNR's buying power has enabled us in many cases to negotiate very favorable pricing for the brand-name industrial components that are widely used in the industry. Call your inside parts specialist at 800.BUY.USNR (800.289.8767) for a quote today!

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Belts

V-Belts, synchronous

Bushings

Split taper, taper lock, QD, XT, idler

Chain

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Computers / Software

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Couplings

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Cylinders

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Dry Kiln fans

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Bolts, nuts, pins, washers, retaining rings, keys, shims, hydraulic fittings, pneumatic fittings, industrial fittings

Gear reducers

Shaft-mount, helical-worm gear, inline, bevel gear

Hose

Hydraulic, pneumatic, tubing, quick disconnect couplers, hose assemblies

Hydraulic components

Cylinders, valves, servo valves, hose, pumps, motors, HPUs, filters, fittings, seals, O-rings

Kiln components

Wet bulb wicks, RTD sensors, steam traps, trucks, pens, probes, motors, valves, fin pipe, fans, gas burners, cast grates, baffles, carrier/hinged doors, vent bodies/air motors, trams, truck wheels/bearings/axles

Motors

AC motors, DC motors, gear motors, motor controls, encoders, motor brakes, extreme condition motors, VFDs

PLC components

Motion controllers, electronic eyes, switches, drives, servo motors, actuators, encoders, cables, displays, motor controls, relays, networking components, programmable controllers, buttons, 3D sensors, consoles

Pneumatic components

Cylinders, air bags, air springs, valves, dryers, filters, regulators, lubricators, separators, motors, fittings, distributed I/O components, seals, O-rings

Set collars

Set screw, clamping

Sheaves

Sheaves, pulleys, step pulleys

Sprockets

Chain sprockets, belt sprockets, gears

Valves

Hydraulic, pneumatic, servo valves, manual, motion control, seal kits



Board feeding at its best!



GATLING FEEDER: TOO FAST FOR HUMAN INTERVENTION

USNR is pleased to announce its latest lumber handling innovation. Our Gatling Feeder is indeed the fastest board feeder ever, consistently clocked at 320 lugs per minute during testing. This new patent-pending board feeder is designed for high speed stud mills, or many single-size batch board feeding applications.

Much of its design comes from the Newnes Stick Allocator (used to feed the Slant Hopper stick systems), and some similarities can be found to the Revolver Lug Loader. Its design is simple and cost effective, with little maintenance required. And with speeds like 320 lpm it is simply too fast for an operator.

With today's advancements in high speed fencing, sorting and stacking, the bottleneck in many operations becomes the board feeder. The Gatling Feeder alleviates that problem, and allows mills to streamline and significantly increase throughput while reducing the operator component.

The design features an overhead driven belt that positively directs boards from the infeed to the lug chain for smooth, efficient operation. A large computer-designed cam that raises and lowers the duckers presents minimal wear with little maintenance required. The rubber-tipped starwheel shoe adds to the positive board feeding and ensures operator-free



The computer-designed cam raises and lowers the duckers, with minimal wear and maintenance.



The starwheel shoe enhances positive board feeding.

operation with low maintenance. The design also features little rise of the board during loading into the lug space, offering very smooth and efficient board kinetics for high speed operation. These simple design elements add up to a reliable machine that will keep running, and running, and running.

Features

- ▶ Designed for single-size board applications, such as planer mills, with lengths from stud to 24'-0"
- ▶ Simple design – reliable, low maintenance operation
- ▶ Ultra-fast, operator free lug loading
- ▶ Competitive pricing

Seeing is believing! To view the Gatling Feeder in action, go to:

www.usnr.com/prod/model.asp?model_id=902..

The patented Gatling Feeder complements USNR's other board feeders, providing you one more option to solve your lumber handling challenges.

Quad Cam Board Feeder

The high speed Quad Cam Board Feeder is just plain fast. It tests at 200+ pieces per minute, with a guaranteed 98% lug fill. If you're looking for a way



Quad Cam Board Feeder

to really boost production, the patented Quad Cam deserves a spot at the top of your list.

The Quad Cam reliably feeds random width, thickness and length material, and is virtually jam-free leaving little need for an operator. The Quad Cam mechanism smoothly and gently feeds boards into lugs – low impact handling means less damage to the lumber and less wear and tear on machinery. That means less maintenance and higher profits!

Features

- ▶ Fiber optic sensing
- ▶ Chan-Ex runners
- ▶ AC / VF drive optional
- ▶ Split cam wheel design
- ▶ Anti-skew pawls
- ▶ Single / dual cylinder

To view an animation of the quad cam go to:
www.usnr.com/prod/model.asp?model_id=641.

Revolver Lug Loader

Since the Revolver's debut in 1997 the many successful installations and satisfied customers have proven the machine's value in the field. It is engineered to accommodate a wide range of products for sawmill and planer mill applications, and operates at speeds of 200+ lpm.

Revolver uses no hydraulics. The design is disc style, requiring pneumatic cylinder actuation only to engage or disengage board feeding, thus reducing wear components. Overhead infeed belts are easily adjusted for wood thickness and easily lifted for access. An optional variable thickness attachment, recently redesigned, assists in positively accelerating thin boards when the Revolver is set for 4" material. It can be easily disengaged when not required. The new design of this option is installed and running at a mill in Chile. You can view video of this system at:

www.usnr.com/prod/model.asp?model_id=872.

Features

- ▶ Accommodates sawmill products from 1x3" to 4x12", and any planer mill product mix
- ▶ Available in 10', 16' and 20' models
- ▶ Optional overhead feeding device (pogo stick) for dealing 1" and 4" thick products in a random mix
- ▶ Deal/stop ducker system for reliable singulation to suit your application




Revolver Lug Loader with variable thickness attachment.

Newtronic Lug Loader

The Newtronic was first released in 1980 and has proven itself over and over in the toughest of applications. It's rugged, modular design can be retrofitted to your mill on a weekend installation.

The standard offering features electronic width sensing and timing via photo-eyes. It is designed for sawmills and planer mills running in the range of 100 lpm, and consistently and reliably feeds random width, thickness and length material automatically.

When your application calls for the board feeding experts, look no further than USNR. Call us at 800. BUY.USNR for information on these and other lumber handling innovations. 

NEW PROJECTS

DL Structures of New Holland, PA manufactures cold set glue lam posts, and recently ordered a new Coe batch RF (radio frequency) beam press. The RF batch press provides the opportunity to reduce the mill's traditional cold set lamination time from several hours to nominally 20 minutes, which will significantly increase production volumes. The press will allow the manufacture of glue lams up to 48' long. Most of DL Structures product is pressure treated and used as posts.

Griffin Lumber Company of Cordele, GA has purchased an auto stick placing retrofit for their existing USNR Lunden-style stacker. The Griffin mill, though a relatively small SYP lumber producer, continually invests to increase yield and reduce production costs. This stick placer will automate the process, reduce labor costs and improve their drying efficiency.

A new AddVantage chop saw scanner will soon be installed at **Interfor's CedarPrime** mill at Sumas, WA. This system is expected to increase recovery for the plant which produces high-quality siding and paneling.

As part of the green biomass energy initiative, **Malheur Lumber** of John Day, OR is building a new pellet plant. The company has ordered a log shaver – a first for USNR. The shaver will process logs into shavings that can be used for animal bedding or as pellet fuel.

Pemberton Forest Products of Blackstone, VA is upgrading its carriage system with MillExpert optimization, LASAR scanning and the G3 PC-based controls system. This project will replace an Inovec YieldMaster system and EasAlign light curtain, improving lumber recovery and bringing hardware up to today's standards.

Salamanca Lumber Company of Salamanca, NY is a supplier of quality North American hardwoods offering a variety of thicknesses and species. The company has ordered an additional unit package aluminum frame kiln for their facility.

The **Tolko** mill at High Level, AB has ordered an upgrade to its 1992 vintage Newnes edger optimizer. The upgrade will bring the system up to the latest technology standards with the recent Sawmill Suite 7.1 software release.

Westervelt Lumber in Moundville, AL has purchased a MillExpert Edger upgrade to its existing Geo2 scanning system. This upgrade will replace obsolete hardware and improve lumber recovery of the system



What's new at USNR?

NEW PRODUCTS FROM USNR BOOST RECOVERY AND REDUCE OPERATING COSTS

USNR isn't waiting around for a rebound to happen, we're determined to help make it happen! We've used this slow period to develop a slew of new, cost-effective products that will help reduce your operating costs, capture more recovery, and deliver more productivity to your mill and your bottom line.

Replacement items like the new **replaceable-teeth sprocket roll** ensures log positioning accuracy while **MillTrak** effectively replaces dozens of photo-eyes with a single sensor to manage material flow.

Maybe you need high-speed lug loading? Try our new **Gatling Feeder** that operates at 320 LPM. If you need higher quality chips from your waste wood, check out our updated **log chipper**. Mills are noticing improved chip quality from this workhorse.

If you really want to change your game, look at our grading solutions. Advanced products like **BioVision** and the **Lineal High Grader (LHG)** bring automated grading to life in the sawmill and the planer mill. Many of these products will be on display at WoodTech 2010 in USNR's booth #723.

NEW: Precision Geometric Log Rotation ensures the best turn on every log

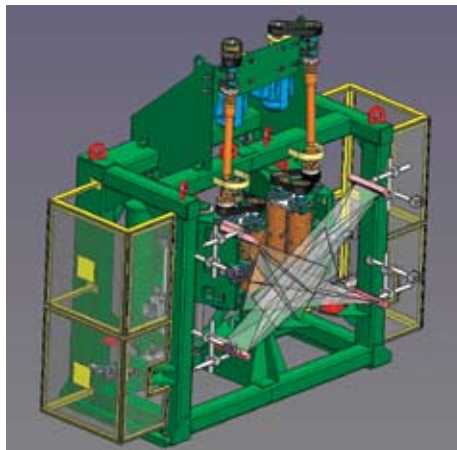
USNR's precision geometric log rotation is a real-time rotation verification and correction system that ensures you get the best turn on every log, significantly improving cutting accuracy and increasing uplift and recovery.

This new log rotation verification system works on dual or quad roll log turners, donut turners, sharp chain log turners and end dogger systems, enabling you to convert a manual system to a semi-automatic system or a semi-automatic system to a fully automated precision log turning system.

It uses the same standard TriCam scan zone that the MillExpert log turner uses, situated upstream or downstream of the turning rolls to actively monitor and correct positioning during and after the turn.

The precision geometric log rotation system simultaneously verifies the accuracy of your autorotation system and automatically makes any necessary correction turns, ensuring you get the best turn on every log.

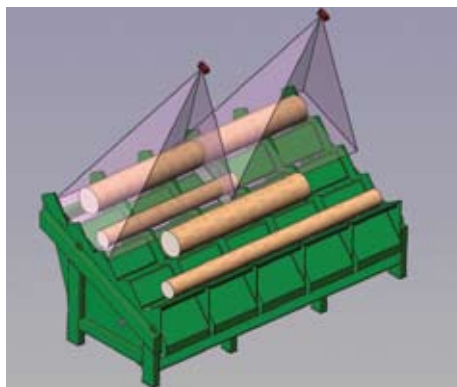
This simple solution to an often hidden problem



adds profit to your bottom line in the form of higher recovery and increased production of more boards, longer boards and more wane-free boards, all with no extra mechanical hardware!

NEW: MillTrak controls material flow with vision technology

USNR's MillTrak 2D and 3D are vision based material flow management systems that maximize the efficiency of material conveyance through your mill during processing. Mounted above the transfer, the 2D system recognizes the presence or absence of lumber as well as its width, length, and skew. The 3D system measures the diameter and length of logs. The MillTrak systems out-perform conventional photo eyes and proximity sensors. Cost effective and easy to install, MillTrak eliminates the expense of dozens of photo eyes while optimizing material flow and minimizing maintenance.



NEW: BioVision™ bolt-on upgrade improves grade in the sawmill

There was a time when almost every mill graded lumber at the edger and trimmer. But as production increased to upwards of 20ppm at edgers and 100+ lpm at trimmers, there was no time to input a grade. Times were good and margins allowed the compromise of production over value. But that was then.

Today, mills aren't asking, "How can I make more lumber?" but instead, "How can I make more money at my current production level?" USNR's BioVision bolt-on upgrade is the quick payback answer you're looking for.

BioVision combines color vision with your current geometric scanning to maximize the grade and value of every board. The BioVision scanner provides information on biological defects such as knots and splits. Cut decisions are made based on configured wane and grade allowances. It can be implemented with a bolt-on upgrade to an existing transverse geometric scanner, or through a comprehensive installation from the start.

Lineal High Grader (LHG) ensures your lumber packs are on grade

Whether your target is to reduce labor costs, control below grade or reduce above grade in your packages, USNR's LHG with DataFusion™ offers the performance to let you hit your mark.

DataFusion is the key to successfully integrating multiple technologies to ensure consistent, precise grading solutions. This powerful approach increases the optimizer's accuracy by confirming the defect type, size and location using two or more independent technologies.

Only LHG's multi-sensor, multi-spectral vision offers advantages over color vision. It detects fiber texture differences between the various vision channels, and allows the sensor architecture to pre-process the image data before it gets to the computer. It gathers less data but more information, resulting in lower computer requirements and faster solution times.

And since the LHG is designed to scan the fiber structure and fiber quality, this unique set of technologies provides much more accurate defect detection and thus allows the LHG to meet the market's most demanding performance levels.

Sign up today!

Complimentary Subscription

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NEW: Replaceable-teeth sprocket rolls ensure feeding accuracy, reduce operating costs

The overhead sprocket rolls in extended and double length infeed systems play an important part in log positioning accuracy. The sprocket roll teeth grip the log and hold it steady through the scan zone and during transport to the cutting tools. But when the teeth get dull they lose grip and the log loses position, significantly decreasing performance.

USNR has developed a solution much easier than replacing the entire roll. Our new sprocket rolls feature replaceable-teeth segments so you can simply replace the worn segments while the roll itself stays in place. Expensive bearings remain intact and the work is reduced to a one-man job.



Wastewood Chippers

USNR has been manufacturing disc chippers for decades, and recent enhancements have made a great design even better. The latest disc chipper is equipped with a kick-out anvil system that complies with stringent mill safety standards. Should a piece of metal enter the chipper, the anvil will kick-out rather than break.

The chipper also features a new fixed bearing design that reduces "end float", helping maintain the required knife-to-anvil clearances to improve chip quality and also the longevity of the chipper.

Mills are also very pleased with the quality of the chips; better quality chips produce better quality paper.

Veneer Dryers

USNR (formerly Coe) Veneer Dryers consistently produce high quality veneer with a uniform moisture content and aesthetic appearance that is supple enough to minimize damage during the stacking process.

With the world's best heat distribution and diffusion system, we can better control the thermal air mass in the dryer and increase the production of quality veneer in a cost effective and environmentally friendly manner.

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.

One of the most important aspects of the veneer drying process is jet tubes. The heat, speed, even-distribution, 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.

Our jet tubes have been produced and refined for over 40 years, the result of thousands of laboratory hours of research and development. The latest 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. 

USNR

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PROFILE

Gary Ely is Controls Manager

for the Coe product line at

USNR's headquarters in

Woodland, WA.

Gary Ely has enjoyed a long tenure as Controls Manager for the Coe line of machinery. He obtained an electrical engineering degree from Cal State Long Beach, then started his career designing control

systems for a heavy machinery company, and a stint as a plant engineer in a construction materials manufacturing plant.

After joining Coe in 1973, Gary led the pioneering development of hydraulic servo motion control to the veneer industry introducing new products including the core drive, hydraulic digital carriage drive, temperature compensated roller bar gap, servo bar height, electronic pitchrails and balanced servo lathe spindles. He has led systems design

for the X-Y charger since inception. Several US and foreign patents have been awarded for these innovations that brought optimization and full digital control to the veneer peeling process. A patent is pending for the BlockPLUS upgrade to X-Y chargers, a collaborative project with the Salmon Arm division.

Gary and his wife Sande enjoy fishing, hiking, kayaking, quad dirt biking, and especially time with their three children and six grandchildren.

UPCOMING EVENTS

MARCH 9-11
Wood Technology
Portland, Oregon

MARCH 10-12
Hardwood Manufacturers
Association
Tampa, Florida

MARCH 24-26
KFIA Kentucky Forest
Industry Association
Bowling Green, Kentucky

APRIL 28-30
TechniBois
Quebec City, QC

MAY 13-14
NELMA
Boston, Massachusetts

MAY 21-22
Expo Richmond
Richmond, Virginia