



Regrade. Repackage. Pressure-treat. Ship.

Exterior Wood purchases fine, construction-worthy lumber from sawmills throughout the Northwest, then adds worth to an already worthy product.

A BRIEF TOUR

Our Processing Facility



Located on 14 acres in Washougal, WA, the Exterior Wood processing facility sits between the Columbia River and the hills to the north. With state-of-the-art electronics located in a series of offices throughout the grounds, we incorporate quality and precision in everything we do – from setting our inventory schedules to determining the right retention levels for our treatment solutions.

We invite you to join us in a virtual tour. On this page, you'll get to know our facility, find out what we do every day, and follow our lumber through the Exterior Wood Treatment Process.

Our Location



[Click to see enlarge map](#)

Value-Added

What Regrading Can Do

We start with standard mill-grade quality lumber, and grade it to Exterior Wood standards.

- **PREMIUM**—This lumber is not only strong and sound, but absolutely beautiful—perfect for special applications or for the do-it-yourselfer.
- **PROFESSIONAL**—Performs flawlessly in the hands of an experienced builder, but may include aesthetic defects.
- **TIMBERS**— These are the backbone of many building projects, graded for structural integrity and appearance.
- **OUTDOOR WOOD**— For when a fine appearance is the only option. This product meets our toughest regrading standards.

But regrading is more than sorting. We go on to improve the actual value of the wood in its raw state.

For example, at times we'll find two or three defects in an otherwise good board. Instead of "demoting" the entire piece to a lower-quality status, we send it to our Recovery Area where individual boards are hand-cut to eliminate flaws.

As another example, during our sorting process, boards with an isolated defect are grouped with their flaws aligned on the same end. Later, using our Recovery Area's unit saw, we can trim the entire unit of lumber in a single cut - instantly eliminating the defects. The result is a unit of much higher value.

The unit saw can also be used to maximize the worth of an otherwise acceptable unit. For instance, if 14 footers aren't in as high a demand as 12 footers, we can remove 2 feet and upgrade the relative worth of the lumber.

Through careful analysis and flaw-elimination, we raise the raw quality of our lumber before pressure-treatment ever enters the game—offering our customers the quality they need, in all sizes.

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Special Cases

Treating and Drying for Other Applications

The pressure-treatment process described on the left is not always appropriate for every piece of lumber we handle. For instance, plywood requires a slightly different process than other pieces. First, like our other lumber, these units are treated in the retorts. Then they're brought to the sticker machine, which separates the plywood sheets (or rows), carefully placing spacers (or kiln sticks) between each. Providing space between rows allows for fast, effective drying. Later, a worker aligns the kiln sticks by hand to prevent the rows from warping, and they're ready to head to the kiln.

Another special case is our **Dricon** treatment, a fire retardant. Although **Dricon** is applied inside the same type of retorts shown in the photos on the left, the treatment itself has to be prepared in its own way. **Dricon** comes in a powder form and is mixed with warm water to the necessary chemical strength. It's then piped across the grounds to the retorts.

The lumber that's treated with **Dricon** must also be handled differently. After it's finished being treated and the lumber emerges from the retorts, it's then stickered and moved to our fan sheds to begin pre-drying--an energy-saving step. Three sheds stand side by side beyond the warehouse, one wall open for loading, another riddled with fans. After pre-drying, the lumber moves to the dry kiln, a shining silver building that reaches 140 degrees when in use. The main door slides upward on a track, opening an entire wall for loading. Fans circulate the air as it fires, and electronic monitors (placed strategically throughout the charge) ensure proper moisture content.

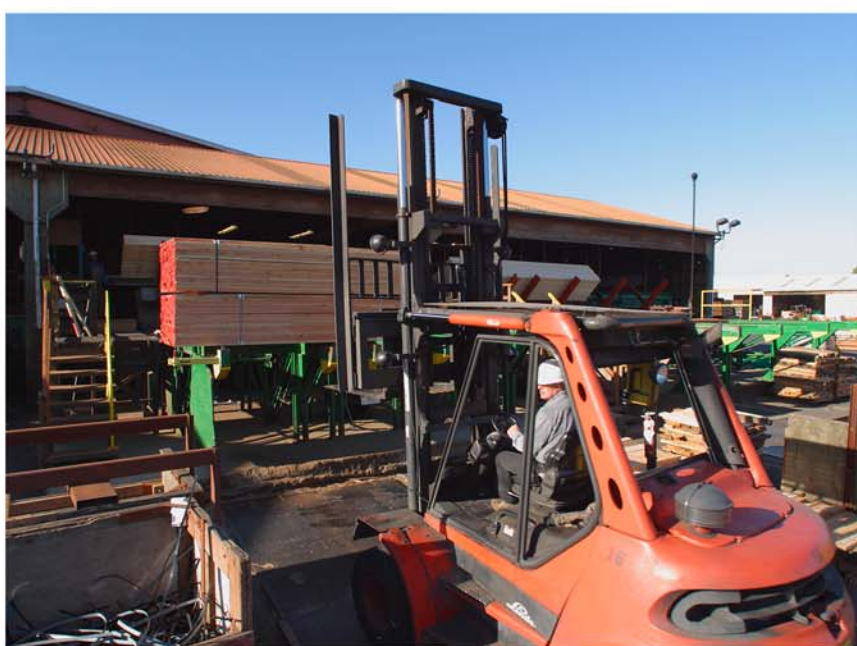
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PRESSURE-TREATMENT

From the Yard to the Retort



1. The first step in manufacturing a quality finished product is securing the right wood. Exterior Wood purchases only from sawmills that share our own standards for excellence. Our yard is stacked with units of high-quality raw lumber, wrapped in protective paper.



2. A worker removes the paper wrapping from each unit. The bands are cut, and a forklift driver moves the units to the lift hoist, which slowly heaves them upward to begin their journey through the mill.



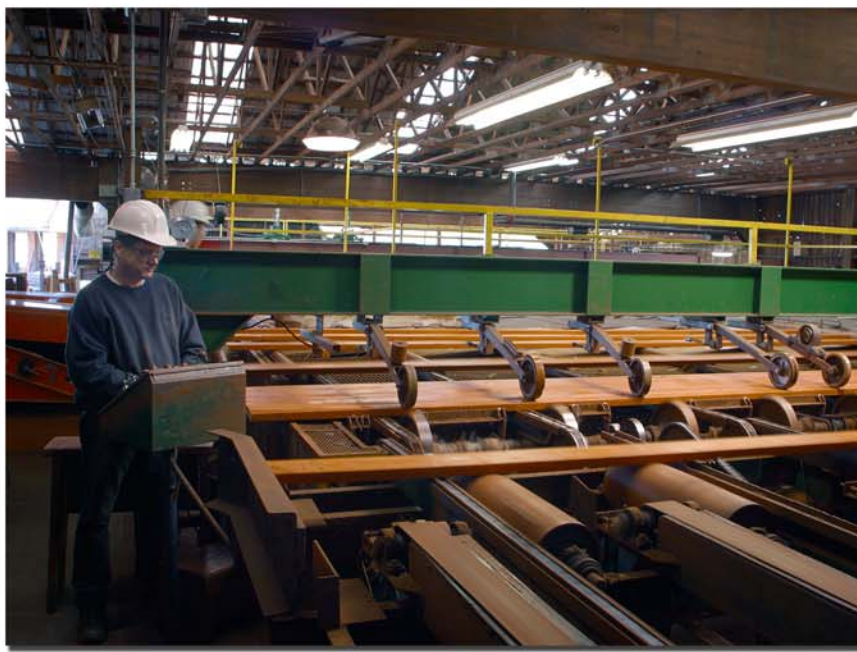
3. One row at a time, the loose boards fall onto the in-feed chain, where they begin to move through a maze of steps in preparation for pressure treatment. Each piece rushes down this line at high speeds, through the following steps.



4. The "first stop" is the incisor, a series of small knives on rollers, which instantaneously perforates each board on all 4 sides (guaranteeing maximum chemical penetration). Next they're "cedar-toned" with a water/clay based stain to protect and enhance the natural beauty of the wood.



5. A specialist visually inspects each board, quickly noting any defects with a grading mark. By grading our lumber personally, we ensure that every single piece meets the stringent standards which we've committed to uphold, and which our customers rely upon.



6. At this point, the chain-driven line breaks into four sorting trays. Boards that received the grade marks are sorted out, to be later manufactured into a more suitable product based on their grade and appearance. A switch operator sends each piece to the appropriate tray.



7. The next switch operator restacks the lumber into new units strategically sized to meet our customers' needs, and to guarantee thorough pressure treatment. The units are then bound with plastic bands and blocks to allow for ease of handling, and moved from the preparation line to the treatment area. At last, they're staged for the treatment process.



8. Unlike the relative maze mapped by the twists and turns of the in-feed chain, the treatment area (more commonly known as the drip pad) is a spacious section within the same large warehouse. Here, units are loaded onto tram cars and rolled into 1 of 4 giant retorts. This is where pressure treatment takes place.



9. The retort door is shut, and treatment begins inside. Meanwhile, supervisors monitor the process from advanced technological facilities located in an office nearby. Volume, pressure, absorption, and time are strictly measured to ensure that the lumber is fully equipped for its intended application.

INSIDE THE RETORT

The door is shut. A powerful vacuum is created within, sucking the air from the very cell structure of the wood. This step ensures that the lumber will retain its treatment: if air were allowed to remain in the wood, it would be compressed by the enormous pressure applied during treatment. Later, when the retort was reopened the air would expand, pushing the chemical back out of the wood.

Next the retort is flooded with a treatment solution. Based on the type of wood, the number of board feet, and the intended application, the right solution is piped from the tank farm just outside the warehouse, where huge cylinders store various retention levels alongside the concentrate.

The retort is pressurized to 160 pounds, and treatment begins. This can take up to several hours.

Finally the retort is drained and a vacuum is again created to draw any remaining liquid from between rows of boards. These excess fluids are carried back to the tank farm and stored as effluent water. Later, this effluent water is electronically tested to verify its exact retention level, at which point specific amounts of concentrate are added, recycling it into a fresh solution. By reusing every drop of water, we demonstrate a highly efficient, waste-free system.

The door opens, the rail car rolls out, and the units are unloaded to sit on the drip pad. Here the lumber stays until the chemical is fixed to its cell structure: that is, until it's completely dry. In fact, a comprehensive effort is made to prevent any solution from leaving the drip pad. Fans speed the drying process. The forklifts that operate in this area simply don't leave, unless maintenance is needed. Workers rinse their boots as they exit. By containing any excess fluids, we not only protect the safety of our team and our environment, but allow ourselves to collect the runoff. Drains carry the leftover solution back to the effluent water tank to be recycled.

After drying, the units are removed from the drip pad and paper-wrapped by hand. At that point they're moved to the Distribution Center, ready to ship!

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