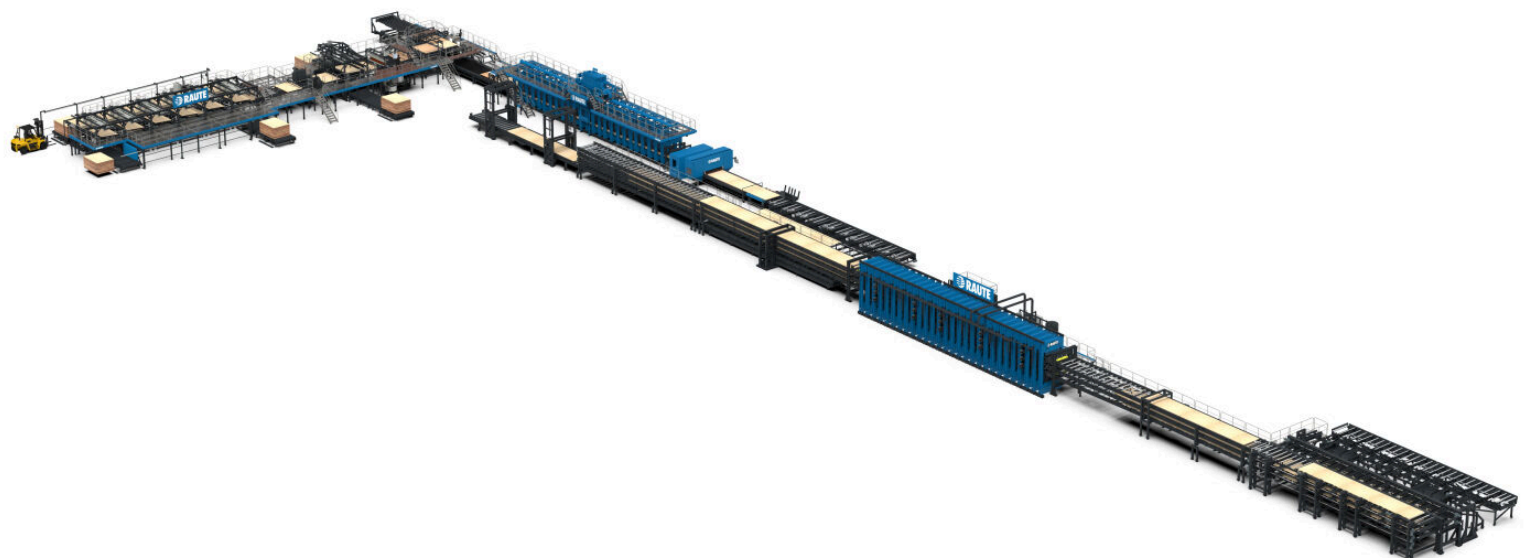




LVL Lay-up and Pressing Line R7

**THE SUPERIOR QUALITY LVL STARTS
HERE**



LVL Lay-up and Pressing Line R7 guarantees premium quality

The first steps of the LVL production process start from veneer scarfing followed by the lay-up. At this stage, the LVL gets its load-bearing structure, and the pressing line finalizes the product.

The LVL Lay-up and Pressing Line R7 is capable to manufacture LVL according to all international standards and all customer specifications. With our line, you can produce LVL products from the most common LVL raw materials – pines, spruce, and firs. Hardwoods can be sometimes added to increase the strength properties of an LVL product.

The Lay-up and Pressing Line R7 needs only three operators which makes this line almost fully automated and easy to use. Our process is continuous, and every production phase is intact in one line. The prepressing enables short stoppages for removing sheets or trash without harming the quality of the end product – on the contrary, this improves the quality because no defective material stays in the billet.

We use phenol glue to make the LVL products strong and glue lines permanent in any condition over the whole life span. The hot-pressed glue lines prevent the product from splitting or warping.

With Raute's experience of over 40 years in LVL manufacturing, you can be sure to have the best solutions for your needs. In addition, the line's hot-press is heated with the factory's by-products, which makes the line energy efficient. This adds value to what you get by choosing Raute's lay-up and pressing line R7.

The LVL Lay-up and Pressing Line R7 guarantees the producer the highest quality LVL products with a vast variety of options concerning the production capacity, dimensions, or state of automation and add-ons.

Key benefits

3

ONLY THREE OPERATORS NEEDED

24m

UP TO 24 M LONG LVL PRODUCTS

40+

OVER 40 LVL PRODUCTION LINES DELIVERED GLOBALLY

50%

OVER 50% OF LVL GLOBALLY PRODUCED BY RAUTE TECHNOLOGY



EFFICIENT AND ACCURATE PRODUCTION



References



Transforming LVL efficiency with smart monitoring and automated lay-up

Prime Fortune adopted Raute's LVL Lay-up Line R7 to overcome labor shortages and outdated production bottlenecks.



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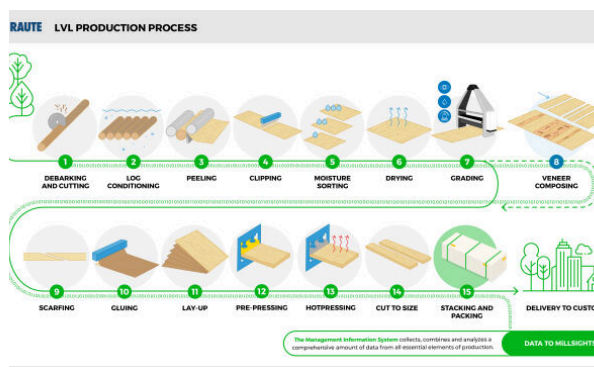
Driving sustainable construction with Raute's LVL technology

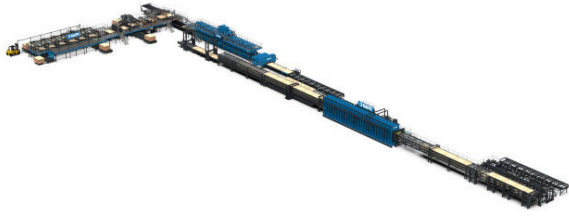
VMG Lignum takes a giant leap towards creating a sustainable home by adding LVL mill.



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Images and videos





VIDEO


Versatile LVL Manufacturing



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Downloadable material



R7-Series LVL Technology

GREAT QUALITY LVL REQUIRES HIGH-END MACHINERY

To manufacture high-quality LVL efficiently, you need to have the right equipment and optimized process. To get the complete LVL production from veneer to LVL, Raute offers two R7-Series lines: The LVL Lay-up and Pressing Line R7 and LVL Billet Handling Line R7.




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RAUTE POWERS SUCCESS FOR LVL MANUFACTURERS

Engineered wood products are opening up new market opportunities. Seizing them requires agility as well as the right technology. Meet Global LVL, a manufacturer that's already leading the way in meeting builders' evolving needs.

The 19th century was the era of iron. The 20th century's concrete. But the 21st century may well be the golden age for one of the world's oldest construction materials: timber.

If so – and present building trends strongly suggest it is – then engineered wood products such as laminated veneer lumber (LVL) will undoubtedly play a major role in both residential and commercial construction in the 21st century. And this is good news for Raute.

LVL Basics
LVL is manufactured from veneer sheets that have been laid up in a matrix made of resin and bonded with a water-resistant phenolic adhesive. In this way, the dimensions of the final LVL product are not limited by the dimensions of the original raw wood. Even small diameter logs can be used to produce large beams and panels.


Because of the high quality adhesive in LVL, its strength and weight ratios are extremely high. In fact, LVL is stronger than steel in proportion to weight. And, due to its laminated structure, LVL is dimensionally stable and consistently free of warps, splinters, and splits.

Finally, LVL is covered with the factory-applied moisture control, which eliminates the risk of shrinkage or swelling, provided the material is properly shielded from exposure to the elements.

In sum, LVL is a natural material, manufactured from certified raw materials. That also means that a large amount of energy is saved in the production of LVL, since no special carbon footprint is required. This makes LVL an environmentally friendly choice, particularly for



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With LVL we don't try to predict the future. WE BUILD IT.

What's driving the move to use more and more engineered wood, such as LVL, in buildings? Taller or low rise structures, residential or commercial, while cost per span effectiveness is usually viewed as the main reason to use LVL. In construction, most building professionals involved in this movement, include the environment, as being part of their inspiration. They are driven by the need to find safe, carbon-neutral, and sustainable alternatives to steel, brick, and concrete. LVL allows designers to achieve both of these objectives: higher density at efficient cost and a smaller carbon footprint for their projects.

In addition to environmental sustainability, new structural regulations in many markets across the world, continue to increasingly drive us to use innovative engineered timber, such as LVL, CLT, glulam and D-glue, compared to brick, concrete or steel, due to their lower thermal conductivity. LVL-laminated structures are easier to make more thermally efficient through its resin and lightweight adhesive. When used without cold bridging. This becomes more and more relevant as the cost of energy has come double digit per megawatt by the power companies, pushing many countries to cross the world into a fast power



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GET TO KNOW LVL

Laminated veneer lumber (LVL) is an engineered wood product used in a diverse range of construction applications. LVL beams, columns, and panels have become established as essential components in modern timber construction due to their numerous advantages, versatility, and proven structural performance.

Limited by the dimensions of the raw material, and even small diameter logs can be used to produce large beams and panels.

Although the production costs of LVL, like all engineered wood products, are higher compared to solid timber, with LVL the same construction can be designed with smaller LVL sections due to LVL's enhanced structural properties. Through LVL's manufacturing technology, the product can be made with continuous length and large dimensions and weight, allowing LVL to be used in applications where suitable solid timber sizes are not available.

The low deviation of LVL's high strength and stiffness makes that the engineering can be fully utilized in characteristic values in structural design. In addition, due to the lack of available defects, the strength to weight ratio of LVL is extremely high. LVL is twice as strong as steel in

LVL is made of veneer sheets, laid up in a resinous matrix, and bonded together with water-resistant phenolic adhesive. This means that the dimensions of the final product are not



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LVL Laminated Veneer Lumber Technology




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Technical specifications

Operators on the Line	3
Capacity up to (m ³ /h)	24
Daylight No. (max)	8
Daylight opening (max)(mm)	150
Product Thickness Range (mm)	15-90
Veneer sizes (ft)	6x6, 8x4, 8x6, 8x8
Line widths available (m)	1.2, 1.8, 2.5
LVL length (max)	24
Veneer grades	7
Parallel Ply (LVL-P)	●
Cross Ply (LVL-C)	●
Phenolic resin glue	●
Smart thickness control	●