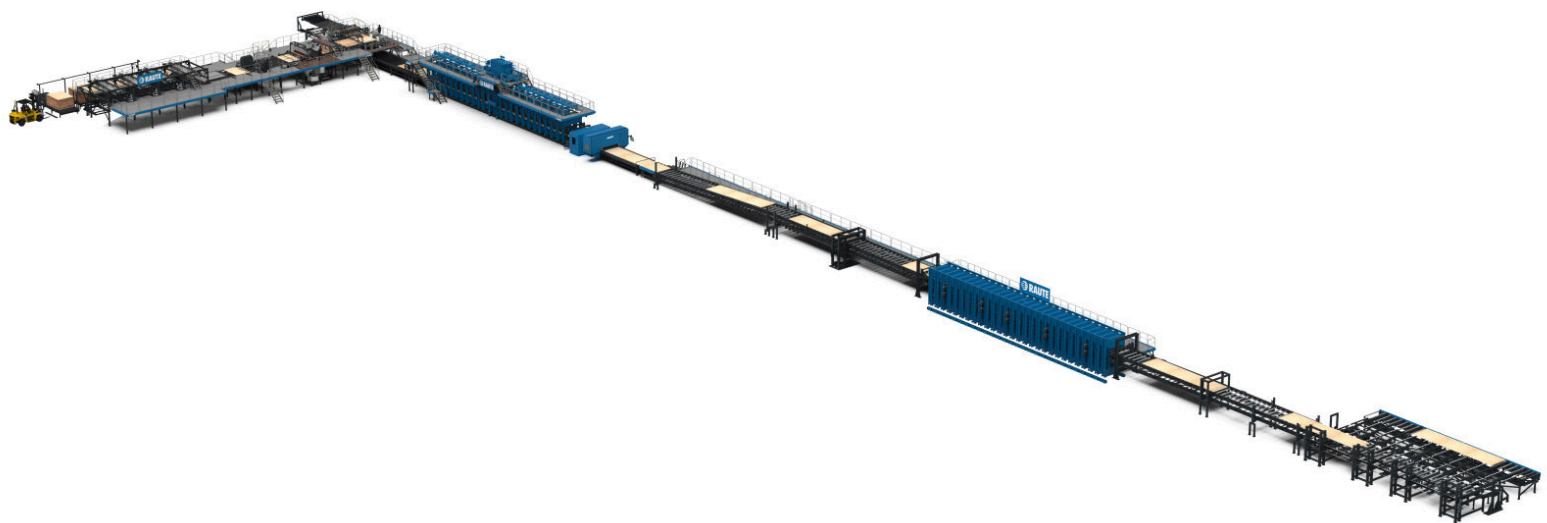


LVL Lay-up and Pressing Line R5

STANDARDIZED SOLUTION



LVL Lay-up and Pressing Line R5 is the standardized solution for LVL production

We have answered the increasing demand for production profit optimization globally with a standardized easy-start solution for basic LVL production – The LVL Layup and Pressing Line R5. The solution is always delivered with the LVL Billet Handling Line R5.

This solution is perfect for plywood producers seeking a new way to increase profit or for the producers who are planning on entering the LVL market. With the R5 you can produce a wide enough product repertoire that the common markets need.

The lines have been designed with standardized components, so the price tag is smaller, the delivery and commission time is short, and it is easy to operate. Yet, the high quality of the end-products meets the market demand.

LVL Lay-up and Pressing Line R5 uses the same well-proven technology that our R7-series has, but it is designed for lower capacity needs. The R5 produces high-quality LVL with a fixed veneer size of up to 14 meters long. Due to optimized capacity and features, we have been able to reduce the needed floor area by 40% and the line needs only three operators to function in full capacity.

With R5 Series LVL Lay-up and Pressing Line, you can produce parallel ply LVL-P of most common raw materials. Standard solution means ready setup for you to produce a single product with mediocre capacity.

Key benefits

3

ONLY THREE
OPERATORS NEEDED

14m

UP TO 14 M LONG LVL
PRODUCTS

50%

OVER 50% OF LVL
GLOBALLY PRODUCED
BY RAUTE
TECHNOLOGY



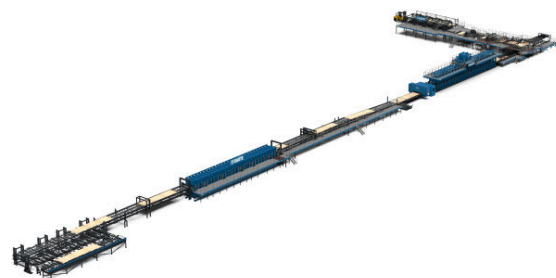
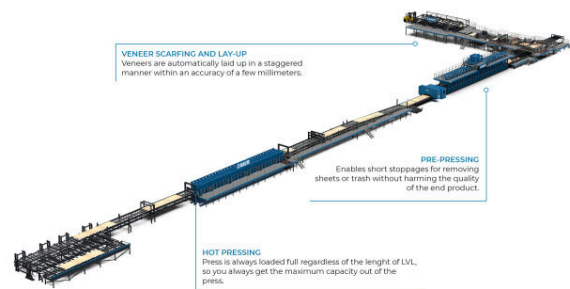
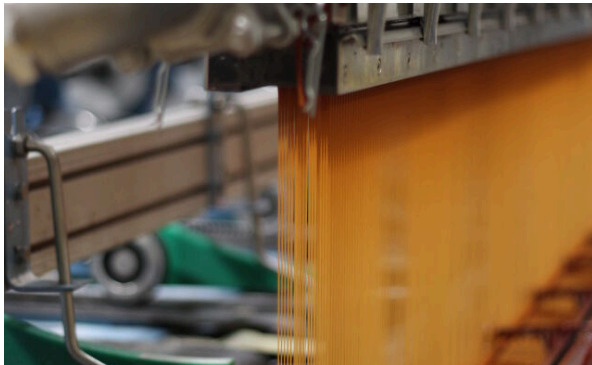
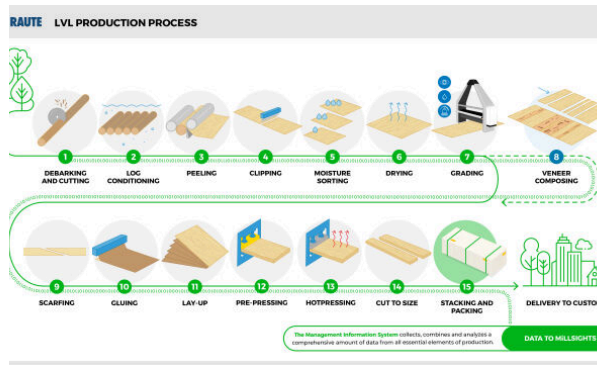
LOW INVESTMENT
COSTS




STANDARD
SOLUTIONS SECURES
FAST
MANUFACTURING,
COMMISSIONING &
RAMP-UP



Images and videos



Downloadable material




R5-Series LVL Technology

THE STANDARDIZED SOLUTION FOR LVL

We have answered the increasing demand for production profit optimization globally with a standardized easy-start solution for basic LVL production: The LVL Layout and Pressing Line R5 and the LVL Blot Handling Line B5.

This solution is perfect for plywood producers seeking a new way to increase profit or for the producers who are planning on entering the LVL market. With the R5-Series you can produce a wide enough product to replace the common market need. The lines have been designed with standardized components, so the price tag is smaller, the delivery and commission time is short, and it is easy to operate. Yet, the high quality of the end product meets the market demand.




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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.

been looking for a moisture resistant 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 lack of gluing defects in LVL, its strength and weight ratio is extremely high. In fact, LVL is stronger along its length 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 resistant to the factory built, solidified moisture content, which eliminates the risk of shrinkage or swelling, providing dimensional stability throughout its life.

In fact, LVL is a natural material, manufactured from certified raw materials, that also serves as a carbon storage building material. It's wood. One other note on LVL, our standard is based on a weight of 700 kg of LVL. The material is an environmentally friendly choice, particularly for

The 19th century was the era of iron. The 20th century, concrete. But the 21st century may well be the golden era 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 beyond.

LVL Basics

LVL is manufactured from veneer sheets that have



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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 the use of engineered wood products such as LVL, CLT, glulam and others, compared to brick, concrete or steel, due to their lower thermal conductivity. LVL-thin-walled structures are easier to make more thermally efficient through increased air-tightness, airtightness, whereas reduced cold bridging. This increases more and more relevant as the cost of energy has come double-digit price increases by the power companies, pushing energy consumers across the world to find ways to



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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 mass timber, with LVL the same construction can be designed with smaller LVL veneer sheets. LVL's enhanced structural properties. Through LVL's manufacturing technology, the product can be made with continuous length and large thickness and width, allowing LVL to be used in applications where suitable mass timber sizes are not available.

The low deviation of LVL's high strength and stiffness makes it a desirable material for fully utilized as a characteristic value in structural design. In addition, due to the lack of possible 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 moisture resistant and bonded together with water-resistant phenolic adhesive. This ensures 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) | 6 |
| Daylight No. (max) | 2 |
| Daylight opening (max)(mm) | 150 |
| Product Thickness Range (mm) | 15-75 |
| Veneer sizes (ft) | 8x4 |
| Line widths available (m) | 1.2 |
| LVL length (max) | 14 |
| Veneer grades | 4 |
| Parallel Ply (LVL-P) | ● |
| Cross Ply (LVL-C) | ● |
| Phenolic resin glue | ● |
| Smart thickness control | ● |

LVL lay-up and pressing

Good quality graded veneer sheets are the base for good quality LVL

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

On the LVL lay-up line the structurally graded veneers in correct order are scarfed and glued, and after the final quality check laid-up in a continuous manner. Under the supervision of one operator, an endless lay-up is formed and immediately prepressed to secure flawless gluing of veneers. Billets of desired lengths are then cut and transferred to the hot press, where heat and pressure secure waterproof glue bonds.

The veneer sheet goes through a scarfing saw where a joint is cut, and it ensures the correct and secure jointing of consecutive veneers. This increases the durability of the end product. With continuous lay-up, you can produce up to 75 mm thick and up to 24 meters of LVL material according to your needs. With this technology and hot pressing, the measurements stay unchangeable, and you can produce high-quality LVL with high recovery.

Raute, with over 40 years of experience, offers the highest quality and the most sophisticated R7 Series and the new R5 Series LVL lay-up and pressing machinery. The solutions add value to your production with modern and intelligent technology, sustainability, and energy efficiency.



raute.com

Making Wood Matter