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INTRODUCTION TO AUTOMATION

RANDEK™

BUILDING THE FUTURE



HOW AUTOMATION IS TRANSFORMING **OFFSITE CONSTRUCTION**

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Behind every successful construction or manufacturing business is a commitment to smarter, more sustainable ways of working. And for many, automation has been a game-changer.

If you're feeling the strain of labour shortages, rising costs, or inconsistent output, you're not alone. These are challenges we hear regularly. But what if there was a way to work smarter, increase productivity, and reduce risk, all while improving quality and consistency?

Automation isn't just a one-size-fits-all solution. It's a journey and transformation that grows with you. Whether you're starting with a single framing table or planning a fully automated line for walls, floors, and roof systems, our goal is to walk beside you with experience, care, and clarity.

With our shift management software and smart, efficient machinery, you'll take manageable steps toward building a more resilient and future-ready operation. Every improvement contributes to a better overall outcome: **less waste, consistent quality, stronger ROI, and a safer, happier workforce.**

Automation is the answer if you want to improve ROI, boost productivity, create a competitive edge, increase quality or reduce labour dependence.

BENEFITS OF AUTOMATION

Automation is more than just technology. It’s a powerful tool to transform your business, delivering value at every stage of your production process. Here’s how automation can make a difference:



Designing for automation with lean, repeatable processes further enhances your return on investment

Increased productivity: Automation allows you to consistently deliver products to market with exceptional accuracy and quality. By minimizing the need for human intervention, it reduces the risk of human error and keeps operations running smoothly. Greater efficiency in your manufacturing means lower costs over time, setting you up for long-term success.

Improved quality: With automation, your quality standards and product dimensions are integrated directly from your CAD system. This enables your machinery to produce precise, superior-quality products every time, leaving you with fewer defective items and reducing the need for time-consuming quality checks.

Flexibility: In a world that’s constantly evolving, staying adaptable is key. Our automated systems are designed with flexibility in mind, allowing you to manufacture a variety of product variations. This means you can easily adjust to changing customer and market needs while maintaining sustainability goals.

Optimized labour costs: As the cost of employment rises and skilled workers become harder to find, automation helps you do more with your existing team. It lets you increase volume or introduce new products without always needing additional labour, enabling immediate growth while keeping overheads in check.

Performance visibility: Our data-driven shift management software provides real-time insights into each machine’s performance, so you can measure progress and achieve your business KPIs with confidence.

Better safety: Automation reduces the need for physically demanding tasks, promoting a safer working environment for your team. With fewer risks of accidents, you can enjoy the added benefits of lower insurance costs and improved staff retention.

Enhanced ROI: Every step of the automation process is designed to improve efficiency, reducing resource-heavy processes, optimizing material use, cutting costs, and speeding up delivery. The result? A leaner, more productive operation that boosts your return on investment and sets your business up for success.

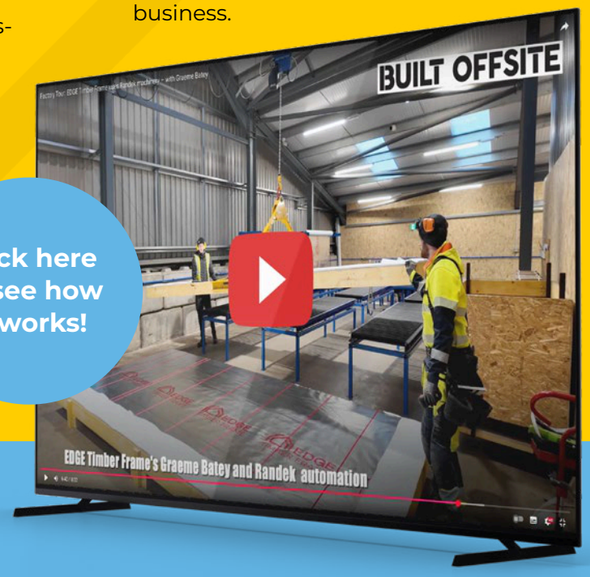
IS YOUR BUSINESS READY FOR AUTOMATION?

Making the decision to embrace automation can feel like a big step. It's natural to wonder whether it's the right move for your business. At Randek, we understand the importance of making thoughtful, strategic investments that align with your goals. That's why automation is more than a one-time decision, it's a journey.

You can approach it one step at a time, at a pace that works for you, and we'll be by your side every step of the way. If you can relate to three or more of the following statements, automation is the solution your business is looking for:

- Grow and expand our business.
- Manufacturing output needs to increase.
- Recruiting and retaining the right people when we need them is challenging.
- Defects in our products cost us valuable time and profit.
- We aim to increase efficiency and consistency.
- Improve long-term profitability.
- We want better accuracy and consistency in our products.
- A safer, more attractive working environment.
- We want to achieve a stronger ROI for our business.

Automation offers a pathway to address these challenges, empowering you to work smarter, not harder. By taking manageable steps toward integrating technology and streamlining operations, you're investing in the future of your business, and we're here to help you.



Click here to see how it works!

CONSIDERATIONS BEFORE YOU AUTOMATE

Whether you're just starting to explore automation or have been considering it for a while, asking the right questions is key to making a well-informed and cost-effective decision for your business.

At Randek, with over 40 years of experience working with businesses globally, we understand both the big picture goals and the finer details such as where the machinery will fit. Below is a helpful overview of key questions to guide your planning, and we're here to support you every step of the way.

Your factory and operations

• **Infrastructure and services:** Does your factory have the necessary infrastructure for an automated line? Are there any restrictions, such as access limitations or the type and depth of the slab?

• **Space availability:** Do you have sufficient space to accommodate new machinery? We can provide tailored guidelines based on the equipment that's best suited for your needs.

Your manufacturing data

• **Product output:** Do you have data that outlines what products you currently produce? Reports on product volume, the number of variants, operatives required for each component, and the percentage of wall types produced annually are invaluable in assessing ROI and machinery needs. Measuring output as units per year, or linear meters per hour or shift, will also help.

• **Process overview:** Is your current manufacturing process clearly documented? Written or visual insights into your operations can help identify areas for improvement and guide machinery specifications.

• **Product dimensions:** Are dimensions such as maximum lengths, heights, and depths of your products readily available? These calculations, along with the number of house types produced annually, help define system requirements.

Materials and insulation

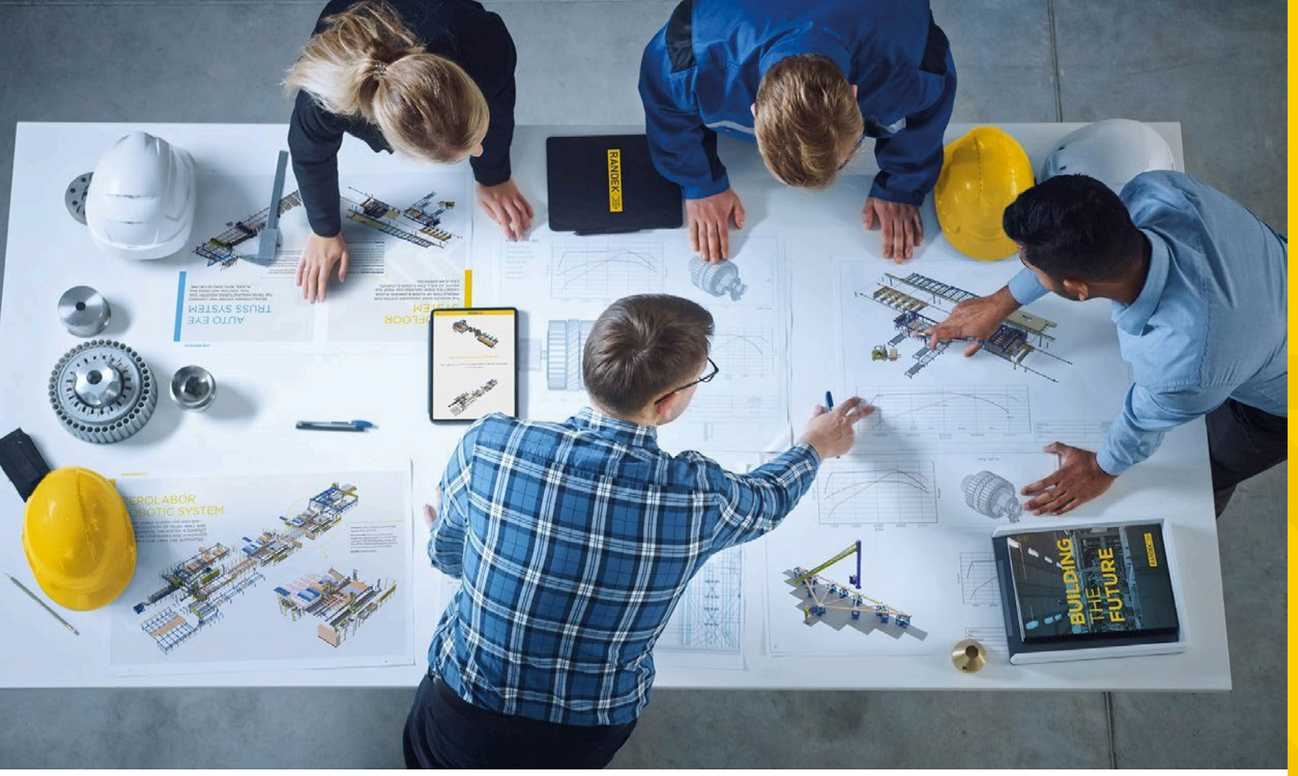
• **Insulation methods:** Is your insulation process manual, or do you produce insulated panels? Automation offers productivity gains through technologies like blown-in insulation.

• **Material variations:** Can your suppliers provide materials in different sizes, consistent quality, and variations? This flexibility can streamline processes and enhance automation compatibility.

Design for manufacture

• **Priorities:** What takes precedence when designing for manufacture: site installations or production line efficiency? Understanding your focus helps ensure your automation system is tailored to your needs.

Want to see our automated machinery and robotics in action? Visit our **website** to explore your options and find the solutions that perfectly align with your goals.



QUESTIONS TO ASK

When exploring your options and researching available products, asking the right questions can help clarify your goals, refine your requirements, and address any knowledge gaps. In fact, the questions you don't know how to ask often lead to the most valuable insights.

- **What challenges am I currently facing that automation could help solve?**
- **How might better quality and efficiency influence how my customers perceive my business?**
- **Could I adjust my product or materials to make them more suitable for automation?**
- **What are my long-term revenue goals?**
- **What production volume is necessary to achieve these goals?**
- **What does my current cost structure look like?**
- **What potential long-term savings could automation help me realize?**
- **How does the software work, and how can my team be trained to use it effectively?**
- **Why is design a critical element in this process?**

By addressing these questions, you'll gain a clearer picture of your objectives and uncover opportunities for growth and efficiency. These conversations are not just about finding answers, they're about shaping the future of your business with confidence and clarity.

CHOOSING THE **RIGHT MACHINERY**

By understanding investment levels, financing options, and the resulting ROI, you can make confident decisions, ensuring you've selected both the right machinery and the right financial approach for your business.

Explore our full range of automated systems and robotics on our website and discover how Randek can help you achieve your goals.







QUESTIONS TO ASK

Selecting the right machinery for your factory involves understanding key aspects such as space, dimensions, opportunities, and any compromises you may need to consider. To help us provide robust recommendations, it's useful to have detailed information about your current setup ready when we begin discussions.

Having a plan of your factory can make a big difference. It should ideally include details like floor levels, door locations, infeed and outfeed line directions, and the layout of your production space. These insights ensure we can tailor the solution to your needs. Here are some helpful questions to ask during the planning process:

- **Do we have enough space for the machinery?**
- **How could we reconfigure the current layout to optimize space?**
- **Are there ways to improve the setup to maximize efficiency?**
- **Will the new machinery integrate with existing systems or stand alone?**
- **Does the factory provide a sufficient height clearance of 6 meters?**
- **What are the floor load capacities?**
- **Can we use the roof space to accommodate LAP laser systems?**
- **Are we planning a new factory or an extension to the current facility?**
- **Can we design the factory layout around automation requirements?**
- **Do we have the flexibility we need for future adaptations?**
- **Are service requirements in place and accessible?**
- **Are there any restrictions to consider?**

Taking the time to answer these questions can help build a clearer picture of your factory's requirements and set the stage for a well-informed decision.

Key considerations

As you continue your research and engage with manufacturers, new insights will likely bring more questions to the table. Here are some key considerations that can help guide your decision-making process:

- What do I need to know now before I make a final decision?
- What should my expectations be for the output of the products I produce?
- Are there factors that could impact the output of new machinery I should be aware of?
- Does design complexity, such as multiple wall variations, play a role in our process?
- Will the types of materials we use improve or slow down production?
- Can we batch produce products that are identical for efficiency?
- What manual tasks will still be required after automation is implemented?
- What improvements can we make as a business to maximize the efficiency of the machinery? How can we upskill our factory team to effectively adapt to automation?

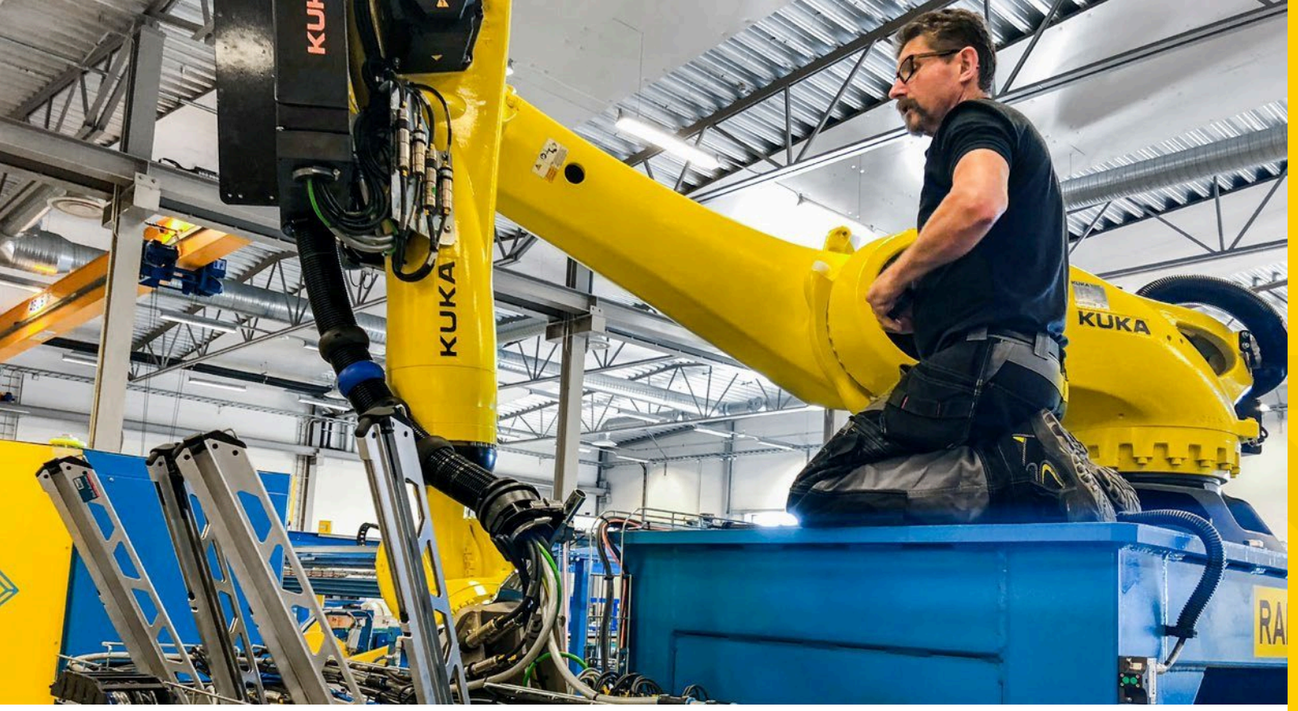
These questions can foster productive discussions and uncover valuable insights, enabling you to make informed decisions tailored to your specific goals and challenges.

Pre-installation

Clarity is essential at every stage of the process. We'll provide a comprehensive project plan that allows you and your team to track progress and take necessary actions. This detailed plan will:

- Highlight preparatory work and corresponding timescales.
- Outline roles and responsibilities so you understand what we're handling and what's required on your end.

Regular updates and advance notice of critical dates are integral to how we work. Clear communication with your team during this phase helps them understand what to expect so they feel prepared to operate the machinery once installed.



QUESTIONS TO ASK

When selecting machinery, understanding the finer details, such as warranties, service agreements, and insurance, is vital to making an informed decision. Below is a summary to guide your discussions, but don't hesitate to reach out for more detailed explanations.

What warranties do you provide?

Our warranty is **Orgalime SI14**, the European standard for machinery supply. This ensures you can trust in the quality and reliability of your investment.

What insurance do I need?

Insurance requirements depend on the delivery terms you choose. Typically, Randek covers the machinery during delivery but excludes unloading. We recommend pre-arranging your insurance policy to commence from unloading from the lorry onwards. Randek remains insured for the installation, training, and handover (upon customer sign-off).

Detailed insurance recommendations can be shared during the sales process to ensure you're fully prepared.

PLANNING YOUR **INVESTMENT**

When considering automation, financial planning is an important part of the journey. At Randek, we're here to help you align your investment with your business goals, offering guidance and support at every step.



What are your planned goals?

Start by clarifying your desired outcomes:

- What key performance indicators (KPIs) do you aim to achieve?
- What growth targets have you set?

Understanding these goals will help us tailor the right automation solution to meet your needs.

- Current vs target productivity

How can you achieve a better ROI from automation?

Identifying your drivers for change, whether it's streamlining operations, enhancing product quality, or scaling growth, will shape the right solution for your business. Together, we can outline how automation contributes to ROI based on your specific investment, timeline, and growth plans.

What are the options to finance the project?

Financing an automation project can be handled in several ways:

- Manufacturers often work with their preferred lender or allocate company funds.
- Randek can also connect you with external partners offering leasing or credit options. It's important to plan early for risk management measures such as insurance, bank bonds, or guarantees, as this can save time and streamline the process (subject to geographic region).

How do stage payments work?

Stage payments are structured to align with each phase of your project, from development to installation. Based on the chosen solution and given timeline, we'll provide you with the payment stages. This allows for better planning of cash flow or drawdowns from financiers.

Can plans be phased over time?

Absolutely. We understand that implementing new processes takes time. With our experience as long-term partners to manufacturers worldwide, we can collaborate on a phased strategy, delivering results over time to suit your specific needs.

YOUR TEAM'S AUTOMATED FUTURE

Your team plays a vital role in the success of your automation journey. Here are some key considerations to ensure everyone is aligned and empowered to embrace this change:

Upskilling your team

Does your factory team have a good understanding of automated manufacturing? Upskilling your existing workforce can be a valuable part of your strategy. Engaging them early in the process ensures smoother transitions and better outcomes for everyone involved.

Evolving roles and requirements

How might automation reshape roles within your team? Once your business goals are clear and requirements are assessed, you'll be able to pinpoint the changes needed to align your team's skills and responsibilities with your goals. Automation isn't about replacing people, it's about enabling them to contribute in smarter, more efficient ways.

Designing products for manufacture

How do you currently design products for manufacturing? If you rely on in-house or external designers, it's worth considering how training can be tailored for Design for Manufacture and Assembly (DFMA). By incorporating the needs of new production lines, your design team can confidently support your transition to automated processes.

Automation is not just about machines. It's about empowering your people and integrating their expertise into a modernized system. Together, these elements create the foundation for long-term success.

WHY RANDEK IS YOUR **IDEAL PARTNER**

We've been pioneers in developing, designing and manufacturing automated machinery for over 40 years, and in 2016, we proudly introduced robotics into our portfolio. With highly trained and experienced team members, our insights can guide you in making the right choices and exploring the best options from the outset.

At Randek, we understand that investing in machinery for the long term involves careful decision-making.

It's not just about changing working practices, it's about weighing the benefits and challenges of change to ensure the best outcome for your business.

A successful project isn't only defined by the machinery you choose. It's built on the partnerships you cultivate and the long-term relationships that provide guidance, advice, and ongoing support. Trust and confidence in your partner are essential to delivering a project where the entire team is onboard and aligned for success.

Click here to see our film



HERE'S HOW WE SUPPORT YOU AS YOUR PARTNER:

- Easy access to clear, robust information that outlines your options so you can fully assess your needs.
- Opportunities to see machinery in action, providing valuable insights into what to expect in your factory.
- A detailed understanding of cost parameters.
- Comprehensive details on products, services, support, warranties, lead times, required actions, and preparatory timelines.
- A well-communicated project plan, ensuring you know what's happening at every stage.
- A robust plan for your wider team, delivered well in advance of installation.
- Clear financing structure, paired with ROI contributions expected to support your financial requirements.
- Helpful and tailored talks for stakeholder discussions to give you confidence in your decision.
- Great communication and precise guidance at every step.
- Dedicated support throughout the journey, including specialist technical expertise from our highly experienced team during the full installation phase.

HOW WE MAKE IT EASY!



Collaborative kickoff

Our collaborative process begins with an initial meeting where we explore your ideas and understand your specific needs.



Pre-study

We assess your factory, review layouts, and identify how to optimize your solution.



Proposal

We present a tailored proposal and address all your questions before proceeding to confirm the order.



Project planning

While your solution is being manufactured in Sweden, we collaborate closely with your team to prepare for the next steps.



Operator and maintenance training

We conduct training for your operators and maintenance team to ensure understanding and build confidence. Super users are appointed.



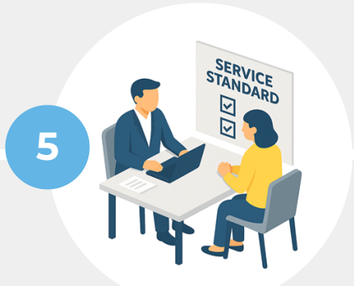
Commissioning

Our mechanical, electrical and software engineering teams take full responsibility for the installation of your solution.



Factory Acceptance Test (FAT)

We run functional tests on critical processes and components in Sweden, ensuring key operations perform as expected.



Service level agreement (SLA)

Randek Care™: we identify the service and support package that best fits your system and operational needs.



Site Acceptance Test (SAT)

As the machinery becomes operational, we work with your team and run system tests to ensure it meets all specifications.



Supervised production start

As standard, our engineers oversee a reliable and efficient start to your production.



MyRandek (IIoT)

The MyRandek platform enables efficient production monitoring, flow optimization, KPI analysis, and bottleneck detection.



Ongoing service & support

Randek Care™ service agreements ensure ongoing support while your team adapts to and integrates new processes.

THE SUPPORT AND SERVICE WE PROVIDE IS WHAT DEFINES US

Choosing the right partner is a crucial step, one that takes time and trust. You need a partner who delivers on their promises and truly understands your business. While you'll likely have plenty of questions, here are some key ones to consider when evaluating a potential partnership:

How would we work together?

We prioritize understanding and partnership, adapting our approach to suit your needs while following a robust process to cover every aspect of your project from the start. Since introducing robotics into our portfolio in 2016, our expertise and 40+ years of experience in automated machinery give us the confidence to guide you effectively and support your decisions.

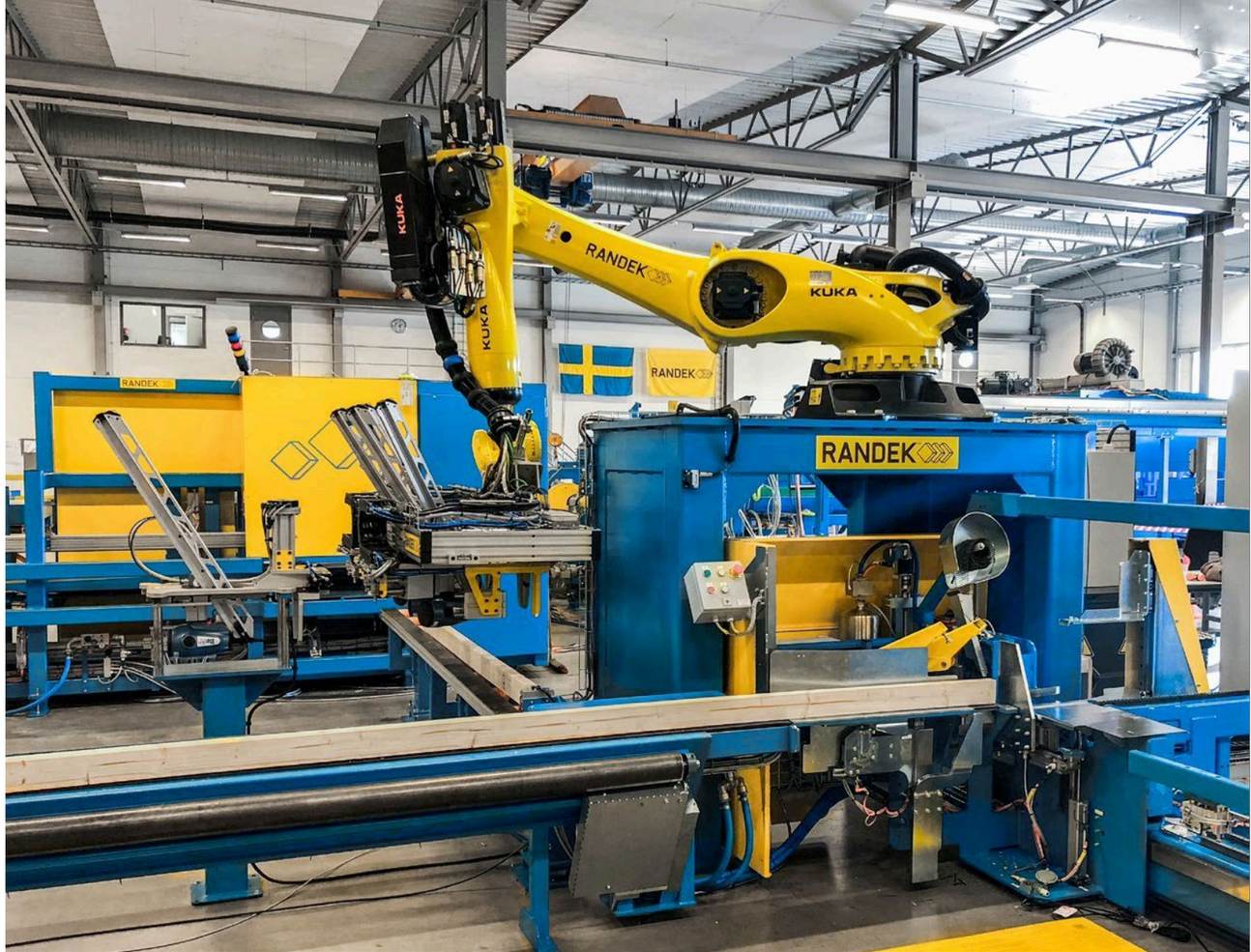
What's the process from start to completion?

Our collaborative process begins with early engagement, where we discuss your initial ideas, challenges, and opportunities. By understanding your long-term goals and operational parameters, we can develop tailored solutions to review with you.

We take the time to assess your factory layout, and identify obstacles or opportunities to optimize your solution. Once we present a proposal and address all your questions, we'll move forward with confirming the order.

During the manufacturing process at our Swedish facilities, we work closely with your team to prepare, from service M&E requirements to IT engagement, helping you set expectations and get ready for production.

We also invite you to visit Sweden to see your new automated machinery in progress, giving you firsthand insights into what's to come.



How do we ensure a smooth installation?

Our engineering team takes full responsibility for installation, drawing on their expertise in automation, digital systems, and software. Once the machinery is operational, we'll work with your team to support their hands-on experience and help them put their training into practice.

Before installation begins, we conduct a detailed pre-briefing with your team to build their knowledge and confidence. This briefing facilitates learning and ensures everyone is aligned. Long-term success relies on empowering your team to operate and maintain the machinery effectively, as well as setting you on the right path towards KPIs and your design team continuously optimizing designs (DFMA).

Our engineering team takes full responsibility for the installation phase. They will:

- Provide regular updates on completed tasks and planned activities.
- Engage regularly with your team on-site to ensure smooth day-to-day operations.

What ongoing support can we expect?

You'll receive a comprehensive Service Standard that outlines the support we provide, from annual services and interim PPMs to online assistance. With Randek Care™ service agreements you're partnering with a team committed to your long-term success.

RANDEK CARE™

With Randek, there's no need for compromise. Our range of service options is designed to meet your unique business needs, underpinned by transparent communication and clear, robust information.

Our terms and conditions, straightforward payment terms, and credible evidence provide the foundation of trust and confidence you need to make informed decisions. Randek Care™ clearly outlines everything we'll do for you, ensuring you feel supported and reassured throughout your journey with us.

Post-installation

Once the machinery is operational, your team will begin to understand its full capabilities. With MyRandek (IIoT), you can efficiently monitor production, optimize workflows, analyze KPIs, and detect bottlenecks. In other words, you gain clear visibility of the value automation brings to your operations.

Randek Care™ service agreements ensure continued support as your team integrates the new processes into their daily roles.

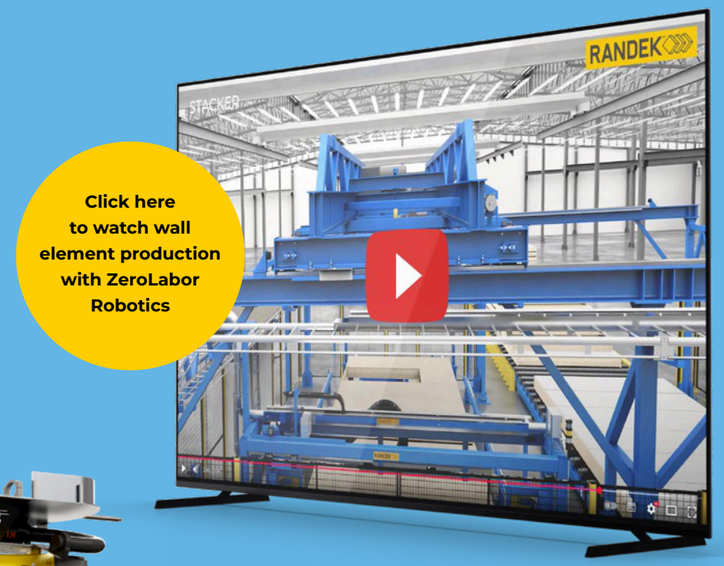
To help you continue improving, we recommend holding internal monthly performance reviews. These reviews provide valuable insights, allowing you to make adjustments and continually optimize production.

GETTING STARTED

Starting your automation journey is as simple as reaching out to us for information, guidance, or both. With just one call, we can quickly explore your options and provide you with an initial idea of what's possible.

From there, a more in-depth conversation will help narrow down your choices and identify the best solution for your business. No matter where you are in the process, whether you're planning a new factory, looking to integrate automation into an existing production line, or aiming to operate independently, our automated machinery and robotic systems are designed to help you expand capacity, deliver consistent quality, and meet your market demands.

We're here to support you, every step of the way!



Click here to watch wall element production with ZeroLabor Robotics

SWEDISH QUALITY LASTS

Randek has developed automation for the prefabricated house manufacturing industry since 1943. Today Randek supplies high-performance machines, robotic solutions and complete production lines to house manufacturers in 40 countries on four continents.

PRODUCTS/SYSTEM



SP720 SERIES CUT SAWS

Sturdy, reliable cut saws for house and roof truss manufacturers, with computer-controlled length stops.



WALL, FLOOR AND ROOF LINES

Tailor-made systems for prefabricated walls, floors and roofs. From manual to fully automated.



ROBOTIC SYSTEMS

Randek Robotics develops the ZeroLabor Robotic System: robot cells for sheathing, sub-assembly and insulation.



ROOF TRUSS SYSTEMS

Randek Truss System NT for traditional truss production and the AutoEye System for automated pressing.



BUTTERFLY TABLES

Wall-turning tables, a Randek invention from 1963. From a single manual table to a full line.

RANDEK SERVICES



RANDEK PRE-STUDY



MAINTENANCE



GLOBAL SUPPORT



MYRANDEK

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