



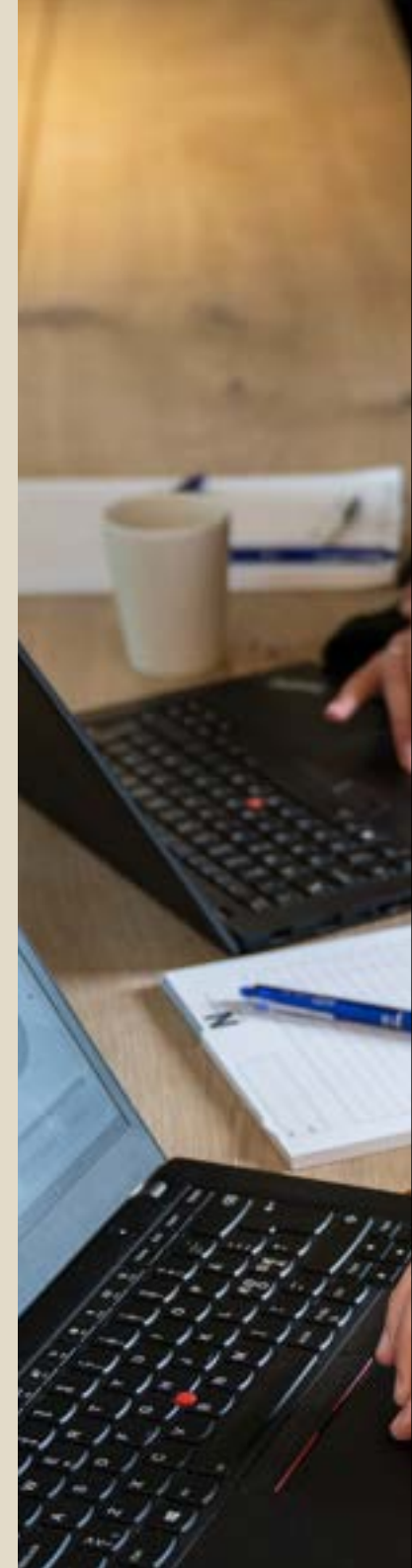
DOOR AND WINDOW INDUSTRY

CREATING VALUE FOR YOUR COMPANY — TOGETHER



INTRODUCTION

HELPING YOUR COMPANY SPREAD ITS WINGS





At Nicholaisen A/S, it is our vision to become the preferred and value-creating partner. Whether we provide advice on how to streamline the current production plant or deliver equipment in connection with new solutions, this is always our vision.

We make a virtue of challenging the usual way of thinking within our line of business, which manifests itself in various projects where a digital and fact-oriented approach is in focus. In addition, it is our mission to help you increase the production capacity and reduce costs by means of intelligent optimisations and profitable investments.

Do you want to get to know us better and see how we can make your company more competitive based on a sustainable foundation? Continue reading and get an insight into our approach and see examples of projects we have completed in collaboration with other customers.

- YOUR EFFICIENCY PARTNER

YOUR AMBITIONS — OUR SOLUTIONS

Nicholaisen A/S was established in 1993 with focus on sale and service of machines. For a number of years, there was a specific focus on sale of the best machines from German manufacturers, but since then, competencies and experience have been acquired across a very broad spectrum of machines.

Since the establishment, Nicholaisen A/S has been driven by a very strong customer focus. This has led Nicholaisen A/S to evolve into a solution provider, to better serve the needs of our customers. Based on close dialogue and collaboration, we now function as advisor and sparring partner for our customers – always with a focus on valuable solutions that can unleash untapped potential and on a sustainable foundation strengthen the competitiveness.



YOUR PREFERRED ADVISOR AND SPARRING PARTNER

We can ensure you that we always listen to you and your needs. In addition, we know that investments and optimisations in production are motivated by many different challenges. As a result, we have – in close dialogue and collaboration with our customers – developed various solutions. Among others:

- A software company, OptiPeople, that can assist with data collection and efficiency improvements.
- An analysis department that ensures the correct fact-oriented foundation for developing new solutions.
- Methods to find the best investments for increasing your company's competitiveness.
- A project department that ensures successful projects.

CASE

NICHOLAISEN A/S FUTURE-PROOFS THE PRODUCTION FACILITIES AT DANA VINDUER A/S

At Dana Vinduer A/S, they wanted to optimise their production and eliminate the manual processes with a new machine solution. Nicholaisen A/S has helped with exactly that.

We have provided the window manufacturer with guidance on the choice of machine solutions and advised them to invest in a new automatic aluminium processing plant that is able to both saw, drill and mill aluminium profiles for wood/alu windows.

Already now, Dana Vinduer A/S can see the benefit of the million-investment. After only 6 months in operation, the plant has led to a significant increase of production efficiency and increased the capacity by as much as 50 %.

First of all, manual processes with no value have been eliminated. Now, the processes are handled via one automatic aluminium processing plant, which not only creates higher efficiency and bigger precision, but ultimately also a better quality.

Secondly, the new aluminium processing plant has made the production more flexible and adaptable. And with the new plant, Dana Vinduer A/S has gone from being able to handle aluminium strips of three metres to now being able to handle aluminium strips of up to six metres - without any manual work. This is something that makes Dana Vinduer A/S very happy, as they see an increasing amount of the big glass sections in the order book.

The investment in the new plant is thus an investment in the future needs at Dana Vinduer A/S. Through competent guidance and close collaboration from start to finish, we have helped the window manufacturer with a solution that fits exactly Dana Vinduer A/S and their needs.



“Not only have we now future-proofed our production by being able to live up to the increasing demands to energy consumption, but we have also reduced the delivery time to our customers significantly.”

Kristian Orluff, Director, Dana Vinduer A/S



CASE

INCREASED EFFICIENCY AND REDUCED DELIVERY TIME

Exactly that has Dana Vinduer A/S achieved with the establishment of a new production plant – with help from Nicholaisen A/S.

When Dana Vinduer A/S moved into their new production area, we were in charge of establishing a whole new and fully automated production plant for processing and milling of wood profiles. The new production plant should prepare the facilities for the new requirements to energy consumption as well as optimise processes and future-proof the production.

Already now, Dana Vinduer A/S can see the effect of the investment in the new production plant that has replaced six worn-out machines and eliminated the manual processes that created a bottleneck in the production. The new production plant that can be used for both processing and milling of wood profiles has ensured a significantly higher efficiency. In addition, a faster turnaround time has reduced the delivery time on doors and windows by a whole week.

Not only is the production now future-proofed and able to live up to the increasing requirements to energy consumption, but Dana Vinduer A/S is now also guaranteed a faster delivery time to their customers.

The establishment of the new production plant was a quick process. Over the course of six weeks, service technicians from Nicholaisen A/S set up and implemented the plant with guidance from the Italian manufacturer. In this way, Dana Vinduer A/S could easily move the production to the new plant and resume the work.

All the way from start to finish, Nicholaisen A/S has been involved as sparring partner and advisor and together with Dana Vinduer A/S, the project has been completed successfully.

OUR EXPERIENCE — YOUR POSSIBILITIES

We have a great deal of knowledge within the door and window industry, and our long tradition and extensive experience within the field ensure you the right sparring and guidance when it comes to optimising processing of wood, aluminium, and PVC. We always work with a solution-oriented approach in relation to your needs, and we always bring both our own and external competencies into play when finding the best solutions.

In close collaboration with our customers within the door and window industry, we have, throughout the years, completed various projects resulting in innovative solutions in everything from planing, lacquering, assembly, and fitting to manufacturing processes and fully automatic door and window plants.

No matter the level of ambition or the extend of the project, we can help you with a solution. No doubt about that. For example, if you want to become more competitive, we will look at how automation and efficiency can be implemented in your production. Regardless of whether it is a single machine, a production line or a whole factory, our team of specialists is ready to find the best solution for you.

Throughout all our projects, we have gathered plenty of experience and knowledge that we always bring with us when starting up new projects. By doing so, we ensure the security of your investment.



1 – INNOVATION AND EFFICIENCY

YOUR SHORTCUT TO AN OVERVIEW OF THE COMPLEX

Our innovative approach and focus on data and analysis is your shortcut to innovative solutions and increased efficiency. We handle the complex and create an overview, and we always have a focus on optimising production, processes, and finances instead of machines.

A CUSTOMISED AND DATA-BASED SOLUTION FOR YOUR PRODUCTION

Based on data collection via OptiCloud-software and PLC-measuring equipment on machines, we create the foundation for making the right decisions tailored exactly to your production. In connection with onboarding in OptiCloud, we also ensure that your machine operators are trained in navigating and using the platform so that you will quickly gain high data quality and registration of the right stop causes.

DATA ENSURES OPTIMISATIONS

Based on the collected data, we will identify potential areas in the production where we see optimisation possibilities – so-called 'Quick Wins'. In collaboration with you, we always work towards unleashing the potential of your company. We provide you with an overview of the complex and enable you to make fact-based and rational decisions ensuring continuous development and growth of your company.

GET AN OVERVIEW OF THE FINANCIAL SITUATION AND FUTURE INVESTMENTS IN THE PRODUCTION

An analysis project of your company's potential can show you the way and provide you with the overview you are missing. Here, you will get a so-called **growth report** that reflects your company's situation, future goals as well as new initiatives that can help develop and move your company in the right direction.





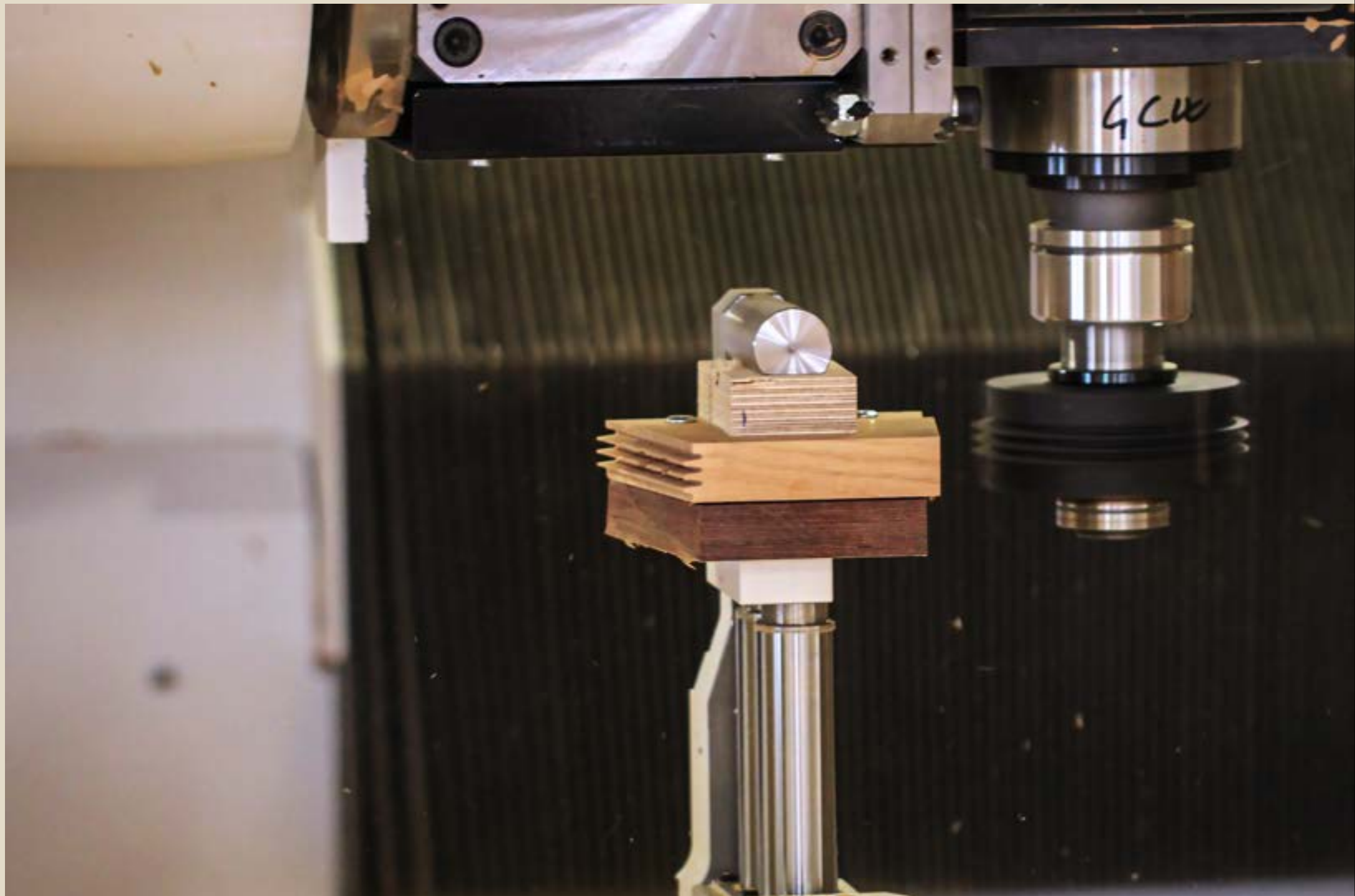
THE GROWTH REPORT FUTURE-PROOFS YOUR COMPANY

Among other things, **the growth report** ensures that the production capacity can keep up with sales. This is done by carrying out capacity calculations which highlight what your company can produce with the current production equipment and whether the equipment will become a bottleneck over time. These calculations are done with the use of the OptiCloud-software, which can map out the efficiency of the current production equipment (Overall Equipment Effectiveness). In this way, you will get the full overview of your production, which then can function as the basis for the investment plan.

A LONG-TERM INVESTMENT PLAN

The investment plan provides you with a clear overview of when it makes sense to invest in new machines. It does so both from a perspective of needs that will ensure that the production capacity can keep up with sales, but also from a financial perspective in relation to when it is most profitable to make the investment.

The growth report ensures you a digital and fact-oriented approach to optimising your production, your processes, and your finances. In this way, you have the right prerequisites for growing your company long-term.



2 – MACHINERY AND SOLUTIONS

OUR EXPERTISE AND EXPERIENCE – YOUR VALUE GUARANTEED

We know that investments in machines and optimisations are motivated by many different reasons depending on your company's needs. But we can assure you one thing – that we can always find a solution that fits your needs. The keywords for us are open dialogue and collaboration. And it has been this way since the beginning. Therefore, Nicholaisen A/S is a safe choice when seeking a business partner. We will be by your side from start to finish.

AT NICHOLAISEN A/S, NO TWO SOLUTIONS ARE ALIKE

We know that an investment in a new machine or a new plant is not just a matter of the purchase cost. Payback time, uptime, service, and much more are equally important and must be adjusted to you and your production's needs.

In collaboration with several manufacturers of machines and software, we always work with the newest technology and production methods. In this way, you are guaranteed state-of-the-art production equipment and competent sparring from our side from start to finish. In addition, our broad network of suppliers ensures that you are not tied to specific suppliers. Instead, you always have the option to choose the right suppliers for the solution.

Our solutions are not fixed in a standard concept of machines, which creates far more flexibility. We can supply the complete solution or individual machines depending on your needs – always with an eye for the increasing digitalisation in the production.

3 – PROJECT MANAGEMENT

WE ENSURE SUCCESSFUL PROJECTS

Through project management, we ensure that our customer's projects are always completed successfully and on time. To us, successful projects are all about bridging the gap between the customer's needs and the task at hand as well as involving all parties in the best way possible. No projects are the same, and it is always up to you as to how much you would like us to be involved and at what point.

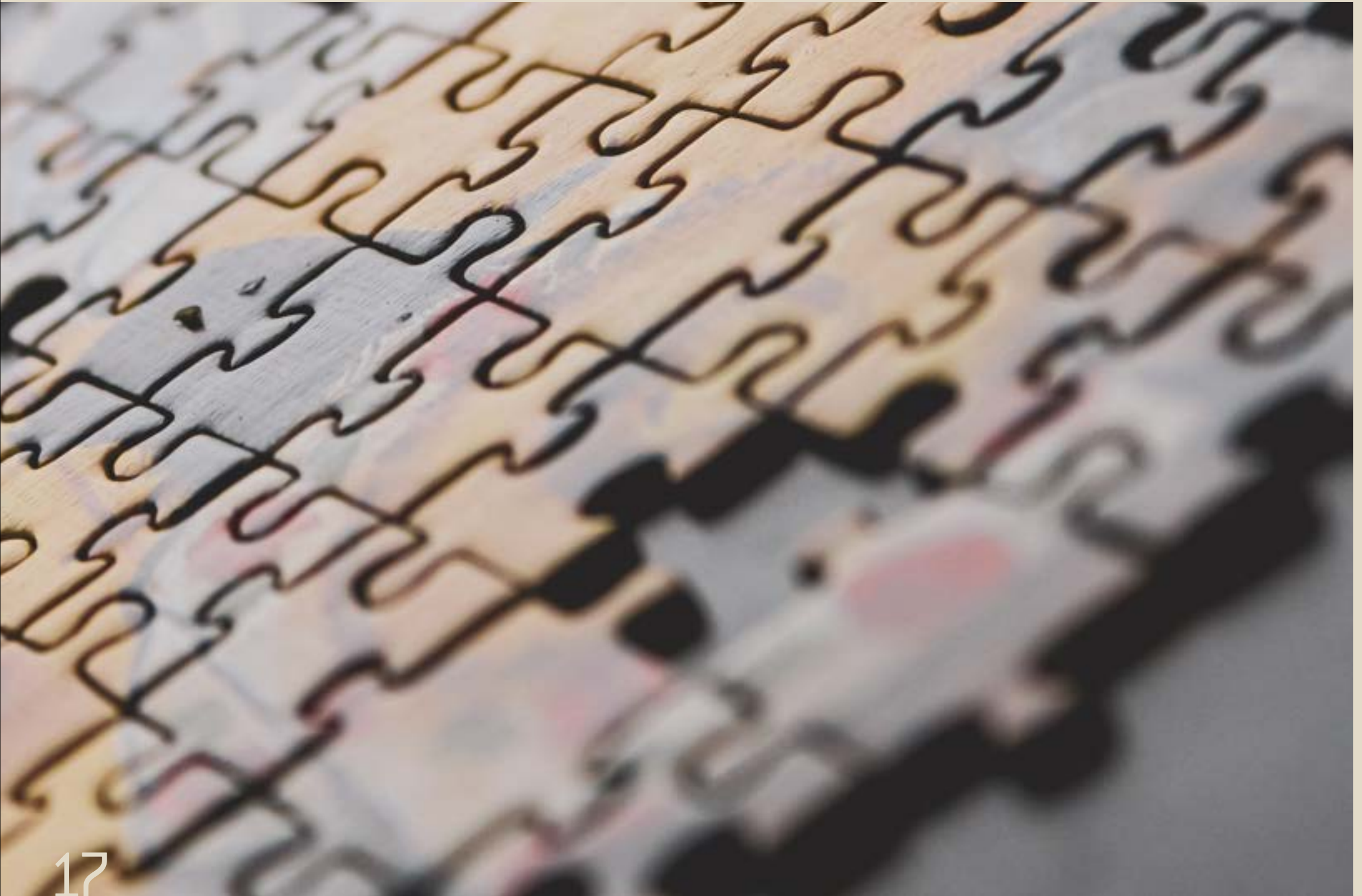
However, common for all projects is that we always start out by aligning the specifications of the task in accordance with your needs and wishes. In this way, we have the right prerequisites for finishing the project successfully.

THE NICHOLAISEN A/S MODEL

We have developed a stage-gate project model called the Nicholaisen A/S model. This model contains standardised stages and milestone meetings, which help ensure a high and consistent quality of our project work.

The Nicholaisen A/S model breaks down the overall goals into smaller and more operational sub-goals to provide you with a better overview. Depending on the extent of the project, we have different tools to ensure that we reach the final goal. In this way, you can easily follow the progress of the project – from start to finish. And we guarantee you, that we are involved and have the overview from start to finish of the project.

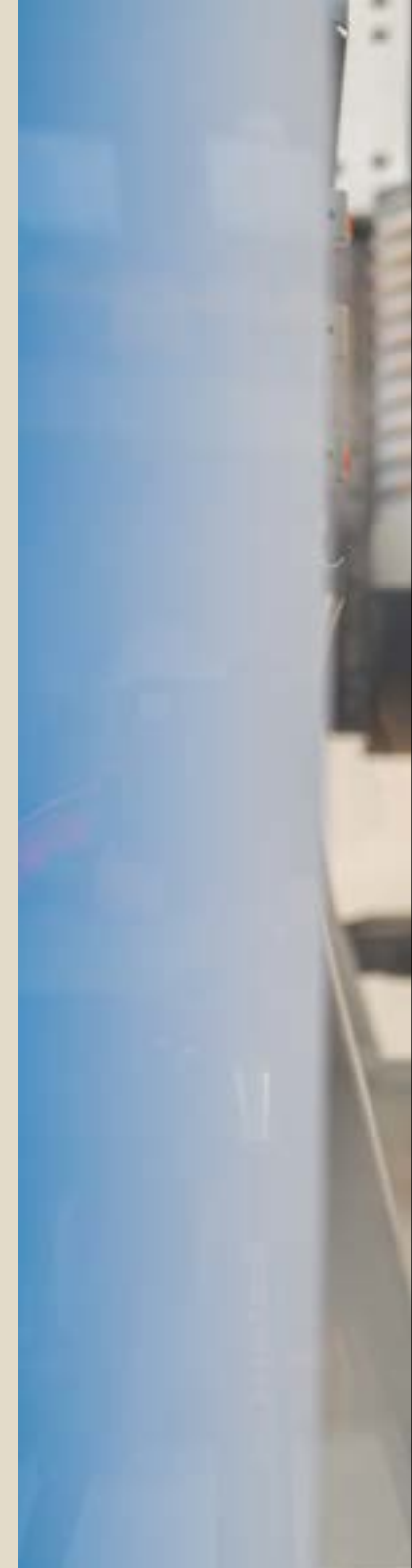




4 – SERVICE

SERVICE CONCEPTS ADJUSTED TO YOUR AMBITIONS

It is our goal to help you create a high-performance production through optimisations and maintenance. Therefore, we offer three different service concepts adjusted to your ambitions and needs.



**RUN TO FAILURE**

Run to failure means that we are at your disposal when you contact us. Here, we will help you to the extent you need within opening hours.

STABLE OPERATION

Stable operation means that we manage the specific service tasks that we in collaboration have agreed on in the partnership contract. Here, we are in continuous dialogue, and we schedule your service for you. Among others, this could be scheduled cleaning, continuous maintenance of machines or training of employees. By being proactive on your behalf, you will get the opportunity to get a higher production time on your machines as we are always one step ahead in terms of service and maintenance.

OPTIMAL OPERATION AND OVERALL ECONOMY

If you want both service and the full insight into your production via data, this service concept is the right choice for you. Here, we enter a partnership contract where we – via data on the machines – gain an insight into where the service efforts will create most value for your production. In this way, we ensure that a focused effort to continuously optimise your production is always in place. In addition, you will have access to our network of specialists always providing you with the right guidance.

Regardless of which service concept suits you the best, we always bring our great expertise and experience to the table when we guide you. Together, we create value for your company.



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