



CASE STUDY

Strategic automation in the laboratory: Ingenetix and HTI Automation success story

EFFICIENCY BOOST THROUGH AUTOMATION

Ingenetix is an established specialist in the field of molecular biology. The company develops and manufactures real-time PCR tests for the detection of various pathogens for human and veterinary medical applications and offers comprehensive molecular biology services.

The introduction of the X-TubeProcessor®_Basic (X-TP-Basic) marks an important milestone in production development: While the first devices primarily relieved the workload of employees, the expansion to four X-TP-Basics ultimately led to a significant acceleration of production processes and greater flexibility in order processing—a real game changer for Ingenetix.



PRODUCTION LIMITS DUE TO MANUAL PROCESSES

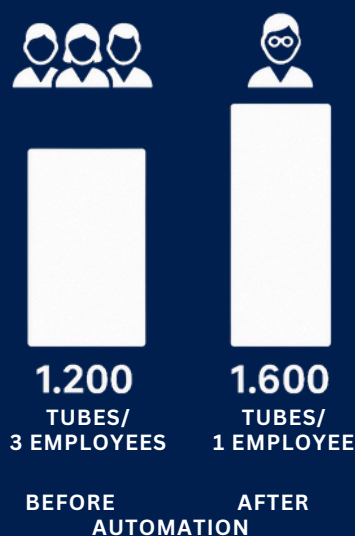
Before automation by HTI Automation, production at Ingenetix was heavily reliant on manual processes. Processing large sample batches was particularly time-consuming and resource-intensive. The manual labeling and screwing of tubes was a bottleneck in the production process and limited production capacity.

SOLUTION THROUGH AUTOMATION: STEP-BY-STEP INTRODUCTION OF X-TP-BASICS FROM HTI AUTOMATION

Ingenetix had already begun introducing its first automation steps in 2018 – a strategic move that proved to be a stroke of luck during the coronavirus pandemic. Even though production speed could not be significantly increased at first, automation brought noticeable relief for employees. By taking over time-consuming tasks such as labeling and screwing, employees were able to concentrate on more complex production and development tasks - a decisive advantage when demand for PCR tests suddenly skyrocketed during the pandemic.

The decisive breakthrough came with the gradual introduction of additional X-TPBasics. Today, four X-TPBasics from HTI Automation are seamlessly integrated into the production processes. The parallel use of several X-TPBasics led to a significant increase in production speed and capacity. The flexibility of the devices with regard to different tube types and volumes has further increased efficiency. An additional advantage was the ability to label tubes without caps, which further reduced processing time.

PRODUCTION PER DAY (NUMBER OF TUBES)



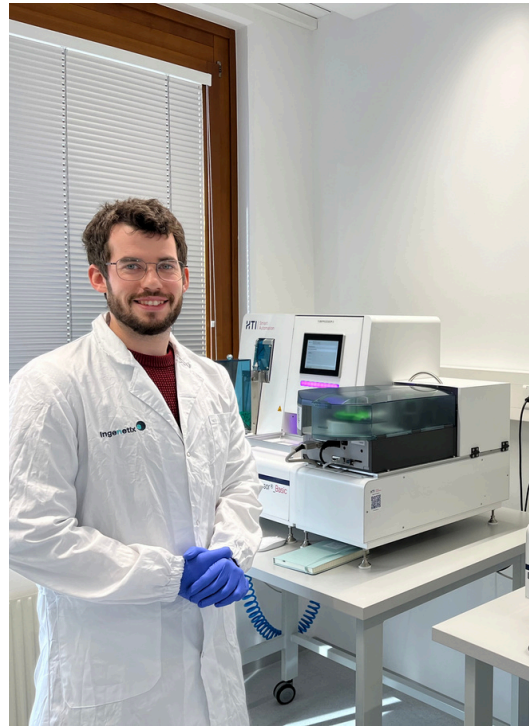
+33% MORE OUTPUT

-66% STAFFING

RESULTS AND ADDED VALUE: MORE OUTPUT, LESS STRESS

Working with HTI Automation has taken our production processes to a new level. Since installing the first device in 2018, we have been able to significantly reduce our employees' workload. The real breakthrough in production speed came with the introduction of several X-TPBasics. Today, one person processes around 1,600 tubes per day – we used to need three colleagues for this. Our batch sizes have doubled, even though the number of tubes in the products has quadrupled. The devices run reliably and the customer service is outstanding – fast response times and solution-oriented support have convinced us.

**Matthias Rauch, Head of Production
Ingenetix**

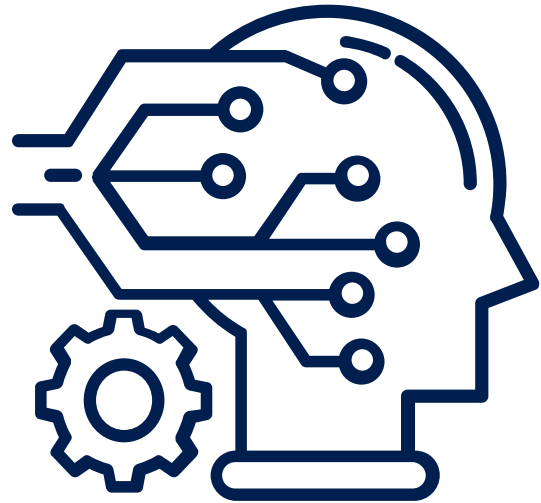


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| Increased production capacity | The production of large batches, which used to take several days, can now be completed by one person in a very short time. |
| Shorter delivery times | Faster processing has significantly reduced delivery times – a decisive advantage during the pandemic and still today. |
| Improved process control | The X-TPBasics enable flexible processing of different tube types and volumes without manual changeovers. |
| Reduced workload for employees | By automating routine tasks, employees have been able to focus on more complex and value-adding activities. |

LEARNINGS AND OUTLOOK: COURAGE TO AUTOMATE PAYS OFF

Automation has not only increased production capacity at Ingenetix, but also sharpened the focus on future optimization opportunities. The efficiency gains have encouraged Ingenetix to explore further automation steps, particularly in the areas of filling and quality control.

The successful collaboration with HTI Automation shows that automation is a strategic decision that should be carefully planned and implemented in close partnership with the supplier.



“Ingenetix is an excellent example of how targeted automation can sustainably improve a company's production capacity and efficiency. Close cooperation and open communication have contributed significantly to this success – we look forward to supporting Ingenetix with innovative and customized solutions in the future.

Dr. Wolfgang Heimberg
Owner & Managing Director, HTI Automation



About HTI Automation

HTI Automation is a family-run, global provider of solutions for laboratory and production automation. The company is characterized by high quality standards, flexible solutions, and a strong customer focus. With many years of expertise, HTI Automation supports customers, particularly in the pharmaceutical and life science industries, in optimizing their processes and increasing their efficiency. In addition to customized, customer-specific solutions, HTI Automation also offers proven standard X-TubeProcessor systems that impress with their reliability and efficiency. Highly qualified specialists support customers in every phase of the project, from planning and design to implementation and maintenance.