



# ROBOTIC SOLUTION FOR MATERIAL REMOVAL IN MACHINING PRODUCTION LINE

Increasing the efficiency of a production line is an immense challenge specific to every factory. Engineers and project managers identify bottlenecks and operations that hinder the work of their employees.

Once the problem areas have been identified, they can find solutions through logic and creative problem-solving. These professionals seek recommendations from consultants who have a different perspective on their situations. That's what our experts at Fives Liné Machines do every day!

In this case study, we will detail the optimization process that led to the implementation of a robotic solution on a material removal production line.

## DISCUSSING THE CLIENT'S NEEDS AND PROBLEMS

During the initial consultation, a member of our team got to know and understand the client's challenges. The main issue was linked to the capabilities of the current equipment. The existing machine was not able to process the raw material due to its irregular dimensions and the lack of repeatability of the part. To fix this problem, workers had to cut the material by hand before inserting it into the machine. This led to problems such as material waste, occupational health and safety concerns, increased takt time and staffing issues. The client was looking for an automated solution that could be integrated into their existing production line, improving its flow.

Based on collaboration work and expertise, we analyzed a range of automation possibilities that would meet all of the client's challenges.

## EVALUATING THE CLIENT'S OPTIONS

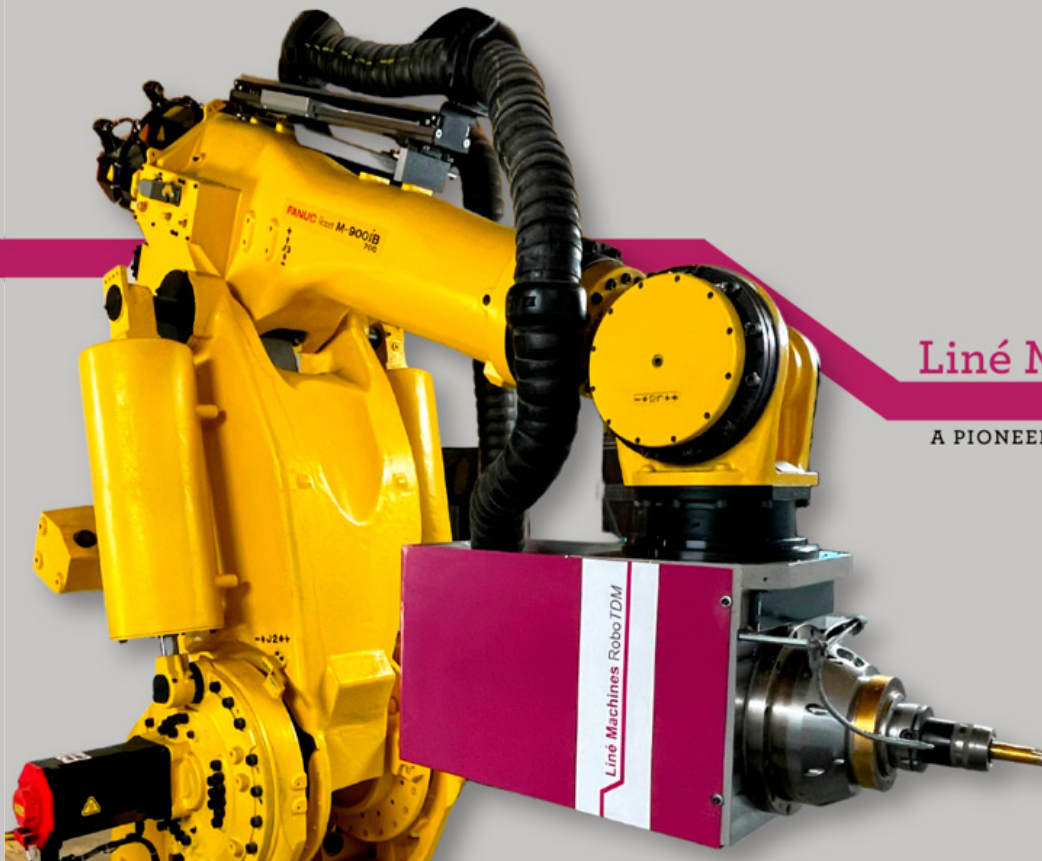
The joint effort with our client, led to two options, either a Cartesian machine or a robotic arm. We then presented these two options and created scenarios for the estimated costs entailed and the anticipated benefits.

After analyzing the pros and cons of each solution, we agreed with the client that the most appropriate one was a compact automated machining operation. Mainly because it requires little floor space and offers high capabilities on the production line. The best solution for the client's needs was the robotic arm rather than the machine for flexibility, cost and space reasons.



## PLANNING THE NECESSARY STEPS TO IMPLEMENT THE SOLUTION

We put a plan in motion to turn this client's issues and technical requirements into his greatest assets. Our Liné Machines RoboTDM solution is customizable, which makes its installation easier than any other equipment.



**Liné Machines RoboTDM**

A PIONEER IN ROBOTIC MATERIAL SOLUTIONS

## INTEGRATING NEW TECHNOLOGY IN THE PRODUCTION LINE AND SEEING THE FIRST RESULTS

Beyond the machine design which grafts perfectly to the production line, Fives Liné Machines brought their process expertise generating a leaner flow.

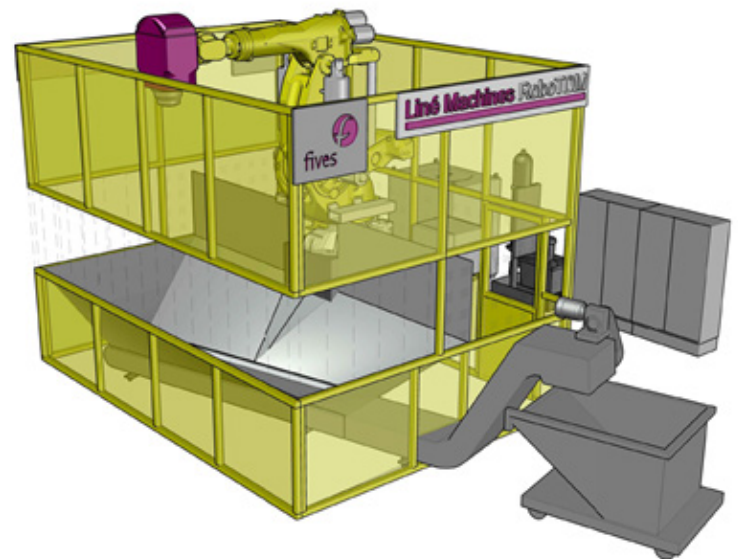
By automating a previously manual procedure directly on the production line, we have succeeded in increasing our customer's competitiveness while providing him with better precision for his existing machine, a reduction in takt time and a gain in productivity.

### CASE STUDY TAKEAWAYS

Robotic solutions have many ways of improving your plant's productivity by minimizing breakdowns and maintenance time. A robot can be beneficial to optimize the roughing processes in any industry. It works great in combination with a CNC that can offer more precision for finishing operations.

The required investment for these types of projects is also important to consider. In most cases, automated solutions can meet budget when it comes to roughing material.

These automated technologies allow you to enhance your factory capabilities as a response to the main challenges manufacturing industries are facing today: material waste, occupational health and safety issues, and labor shortages.



LOOKING FOR A MANUFACTURING  
AUTOMATED SOLUTION?

Book a call with our expert!