

AUTOMATION SOLUTIONS

**Innovations for the coil
processing industry**

- » Tool assembly robots
- » Automatic separator systems



SPEED AND PRECISION

The fastest tool assembly robot available worldwide.
It carries heavy as well as very narrow tools with absolute precision.

When will you own an NLT robot to increase your production speed?



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NLT Automation GmbH

NLT Automation GmbH, based in Norden (Germany), is your partner for automation, for steel service centres and for finishing in the rolling mill sector: Tool assembly robots, automated separator systems, packaging lines, special designs, stored program control...

Our machines, especially the robots and customised separation systems are world market leaders – how can we help to improve your business?

» more: www.nlt-automation.de ↗

In-House testing and production

Through the association with our sister company Norder Band AG we are in the advantageous position of being able to test our machines directly during operation since the formation of NLT in 1996. The machinery of the Stainless Steel Service Centre Norder Band AG is completely maintained, repaired

and modernised by NLT as a service provider. Nine robots are now in use at Norder Band AG, with further acquisitions already planned. Under these real conditions and with the wide range of specialists, NLT can exhaust the optimisation potential perfectly.

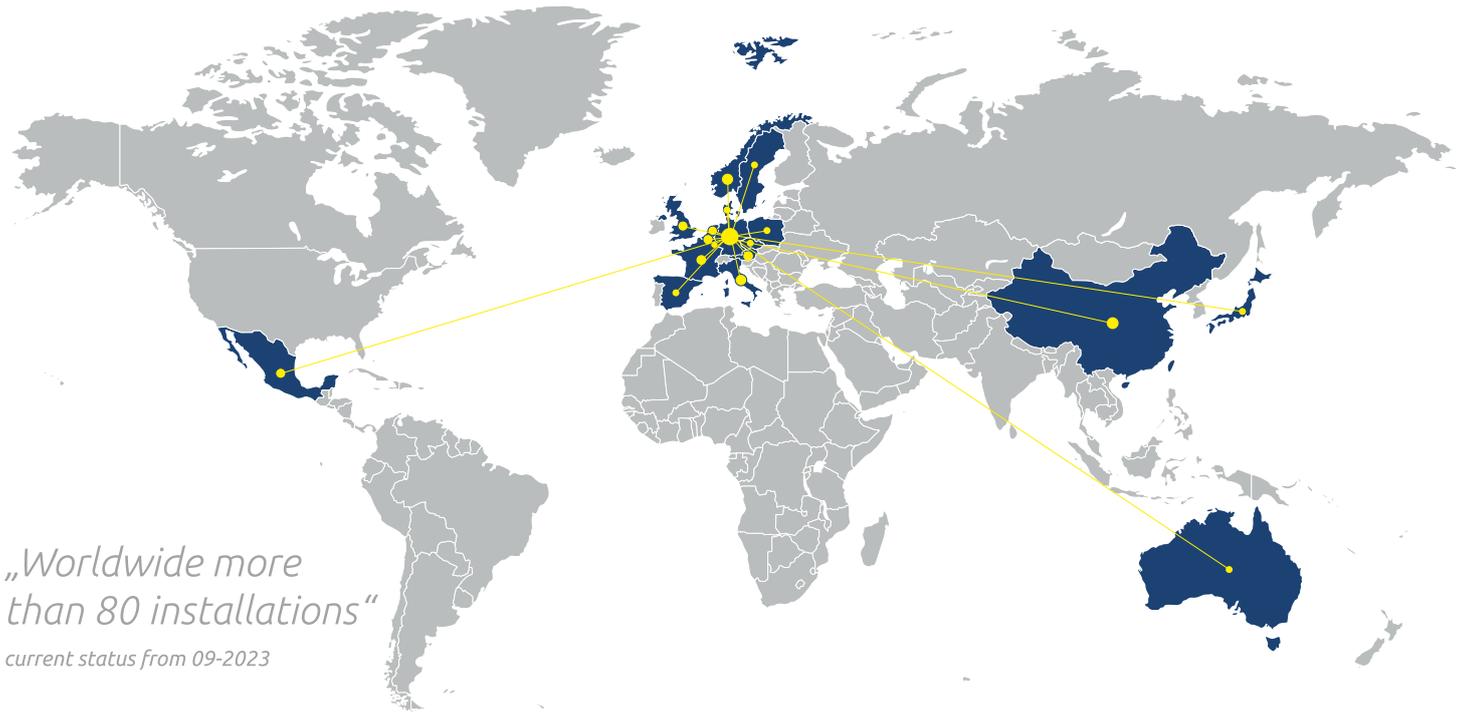


Mechanics



Electricians





„Worldwide more than 80 installations“

current status from 09-2023

Our employees in the areas of design, mechanical engineering, electrical engineering, programming and service benefit from the synergies that arise across divisions because we do as much as possible ourselves.

The great advantage for the end customer is the simple „plug-and-play“ assembly of the machines. Thanks to the experience gained from the ongoing testing of our own products under real conditions, we can carry out the assemblies without long disruptions to production.



Developer



Machining technicians



Slitter-setup-robots

More than 80 robot installations and over 25 years of experience makes NLT Automation GmbH the leading companies in the field of automation of tool assembly robots around the world.

Quality, reliability and speed are distinctive for a robot from NLT. A cycle time (build time per tool) of less than 5 seconds is possible with our product.

All robot systems are based on the same technology, further developed by NLT since 1996. Which model is right for you depends on your space, tools and speed.

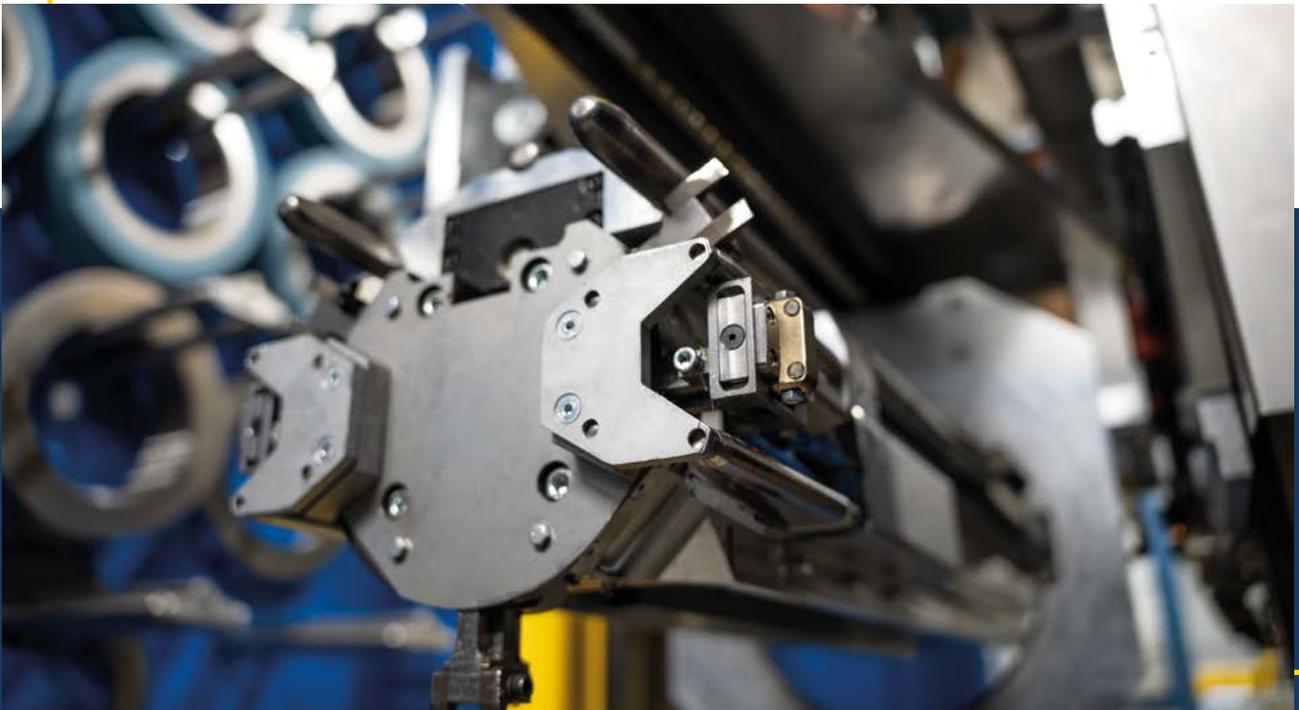
Talk to us about the amortisation of the robots as well, you will be pleasantly surprised.



Gripping system

The heart of every robot is our gripper system, which has been further developed for decades. Over the years, we have developed the 3-finger gripper to overcome the disadvantages of the vacuum holder. This patented technology makes it possible to carry and grip several tools at the same time. For tools without dirt groove we have designed the magnetic gripper.

The evaluation of downtimes proves our system right. Reliability pays off.



PRCS20

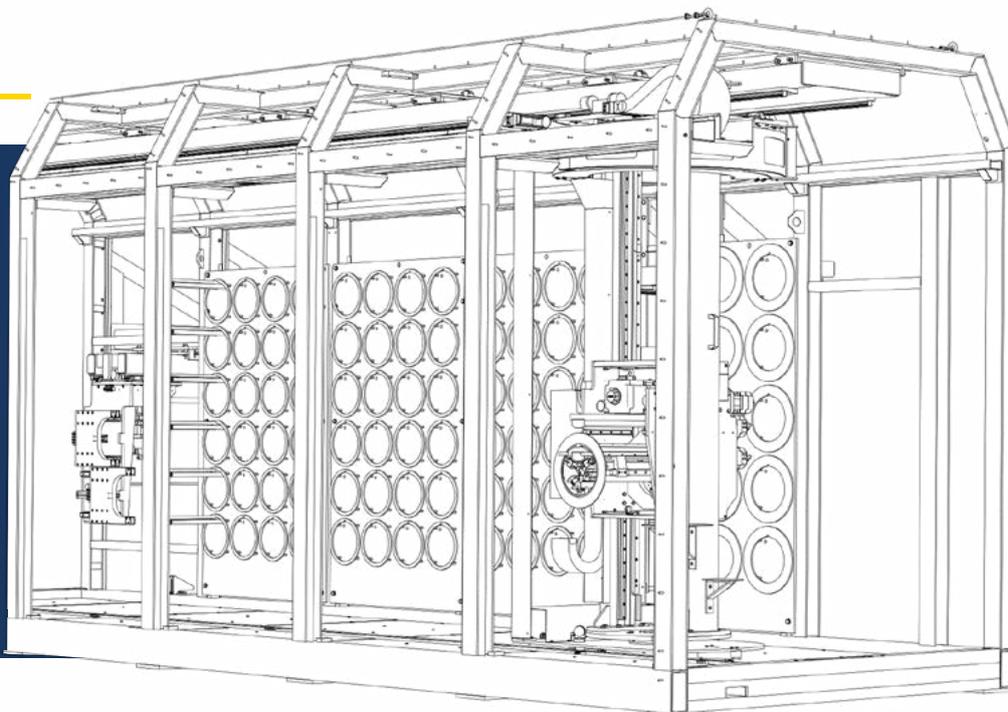
Gantry Robot Collecting System

The gantry robot PRCS20 is the all-purpose machine of our slitter-setup-robots especially for heavy tools and large diameters.

The stable construction of the robot has proven itself over the years and is one reason for its exceptionally long service life. A self-supporting steel structure forms the skeleton of the robot. The moving tower is guided and

driven by floor and ceiling rails. All three axles are moved via servo motors. As a result, the robot could achieve a cycle time lower than 5s per tool, making it one of the fastest slitter-setup-robots on the market.

The PRCS20 is fully enclosed, providing the best protection against dust and dirt for the tools in the stock warehouse.



The standard model has a length of 6 metres and can be extended by 1.5 metre elements as an option. Depending on the tool size, the robot thus offers up to 350 tool arms.

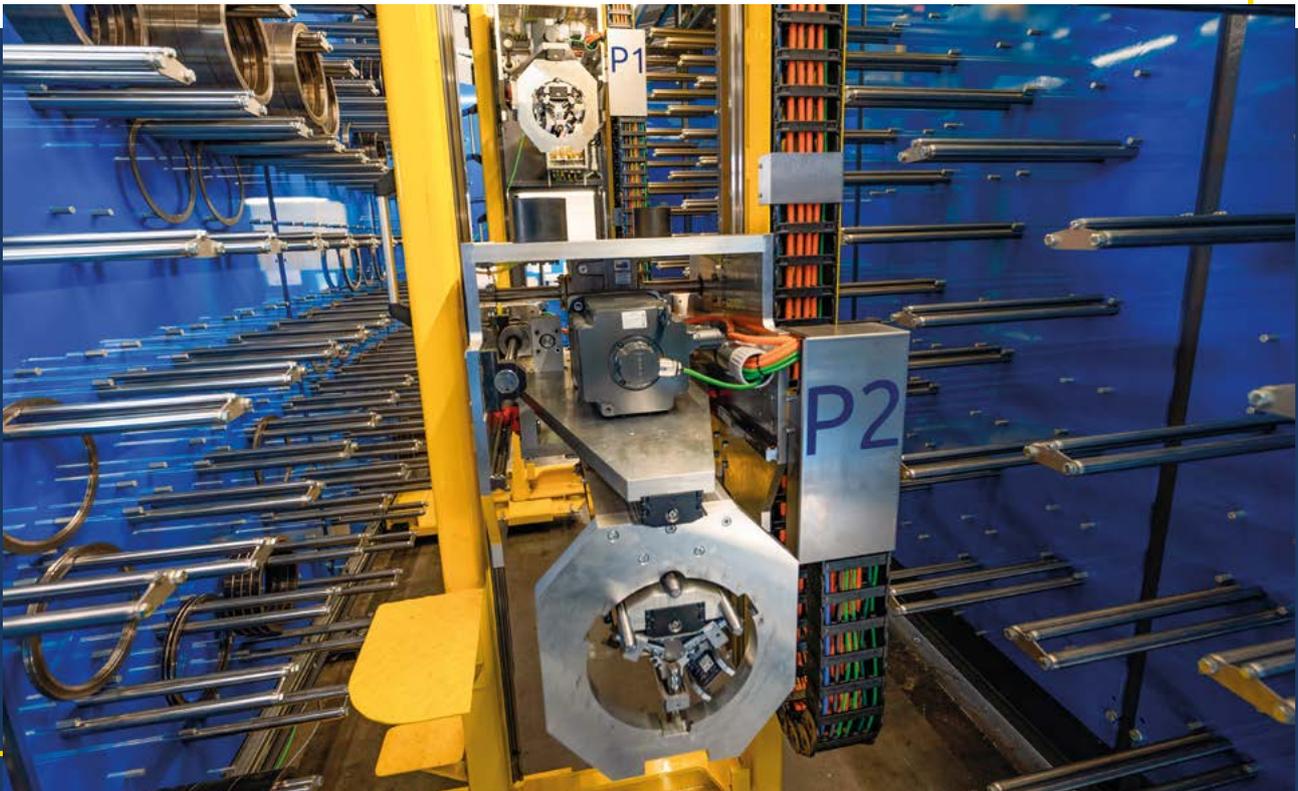
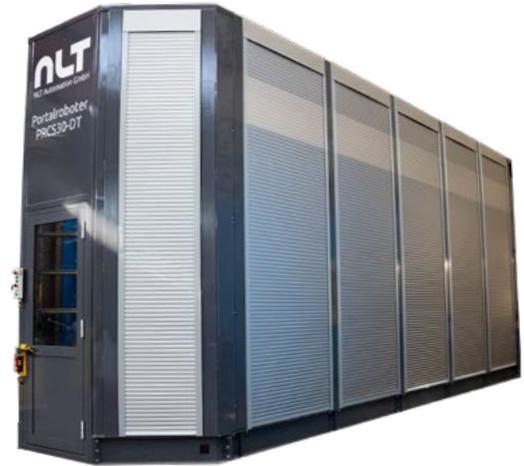
Integrated into the robot control is a slitter setup program that calculates the ideal composition for every possible strip width on the basis of its tools.



PRCS30

With the PRCS30 we have developed a solution for medium tool sizes. Thanks to a high degree of standardisation, we can also offer the PRCS30 for a smaller automation budget.

The PRCS30 is a real space saver. Up to 20% less space is required due to optimised storage.



A second portal can be built into the PRCS20 and PRCS30.



OCTO40

For smaller systems, the OCTO40 is the right solution. The new design has been specially created for smaller tool sizes. With its small dimensions, it is particularly suitable for confined spaces in the production area.

Repeatability and precision lead to consistent cutting quality and become an indispensable tool for your production.



The OCTO40 is a real space saver.



Additions

For all types of NLT Gantry Robots



Magnetic Gripper

The NLT robots can be equipped with a magnetic gripper system. This addition to the standard 3-finger gripper accurately and repeatedly grips and moves narrow spacers whenever they are needed.

ECU - Edge Control Unit 20

When dismantling a “used set-up“, the robot can transfer the knives to the automatic edge control unit. Here the quality of the knife edge is measured, checked for breaks and classified for further production. Depending on the version, the ECU is loaded either by a robot or by its own manipulator. The usual manual knife control is omitted and replaced by an objective measuring method.



Data Matrix Code System

Do you need accurate tool identification and data collection on tool usage? We offer a data matrix code reader to identify tools by their embedded code to track the usage and wear of each blade to analyze their role in the final product.





Tool cleaning system

The fully automated washing system is directly adapted to the NLT tool assembly robots. The tools are transferred by the NLT robot or an additional industrial robot. While the washing unit works in parallel with the NLT robot, it cleans and removes dirt, dust, oils and scale. After cleaning, the tools are retrieved by the robot and placed on the other storage arms.

Tool exchange station

An exchange station can be integrated into the robot for the intake and ejection of inspected or used knives. Consisting of a rigid box section, the control station is mounted on a 180-degree rotating gear rim and can be moved via linear guides. Four tool mandrels on both sides allow safe loading and removal of tools from the system.



Double Tower

A second tower can be installed in both the PRCS20 and the PRCS30. This increases the speed enormously, so that the construction time can be halved. It is also possible to equip two turnstiles at the same time to supply two independent slitting lines with tool set-ups.





Detail shot of a separator from our customer Norder Band AG.

ASS

Automatic separator systems

The automatic separator works with pneumatic spreading shafts. The separating discs are positioned by a two-finger gripper and then fixed by spreading the pneumatic shaft. The automated separator can be integrated into existing slitting lines by NLT as a turnkey project or supplied to slitting line manufacturers (mechanical supply only).

Manufacturing is carried out individually according to customer requirements and technical necessities. The spreading shaft is dimensioned according to the material thickness and tension.

Benefit from our experience and let us retrofit your existing systems.



„Worldwide more than 47 individual separator installations“

current status from 09-2023



A separator for a customer in Spain from June 2023.



A separator for a customer in Spain from June 2023.



Customer references



A PRCS20 at work at a customer in Japan.





AMAG ROLLING

„Since the beginning of 2019 we have been using the slitter-setup-robot from NLT. Due to shorter campaigns and product changes, we sometimes had very long waiting times due to the manual construction.

The NLT company supervised the entire implementation of the project and is still available with advice and action.

The robot runs 24/7 with us, and the process is very stable, we carry out minor repairs such as changing the gripper ourselves.

Especially worth mentioning is the fast and friendly support.

In summary, we made a very good experience with NLT and can recommend the company without hesitation.“

Daniel Löcklin
Head of Production


ArcelorMittal



Our new premises



The new NLT building will be completed in October 2023.

NLT Automation GmbH relocates! The new office building and two factory buildings will be completed in October 2023. The new building features the latest technologies and a high standard of climate friendliness. In addition to a green roof, it is also planned to plant an orchard next to the building. The new halls are fully equipped with a photovoltaic system.

We use the majority of the generated energy for our own consumption in order to get as close as possible to our goal of CO2 neutrality.

The workplaces are equipped with the latest machines and tools to enable efficient and high-quality work. This provides us with the necessary space for our future growth.



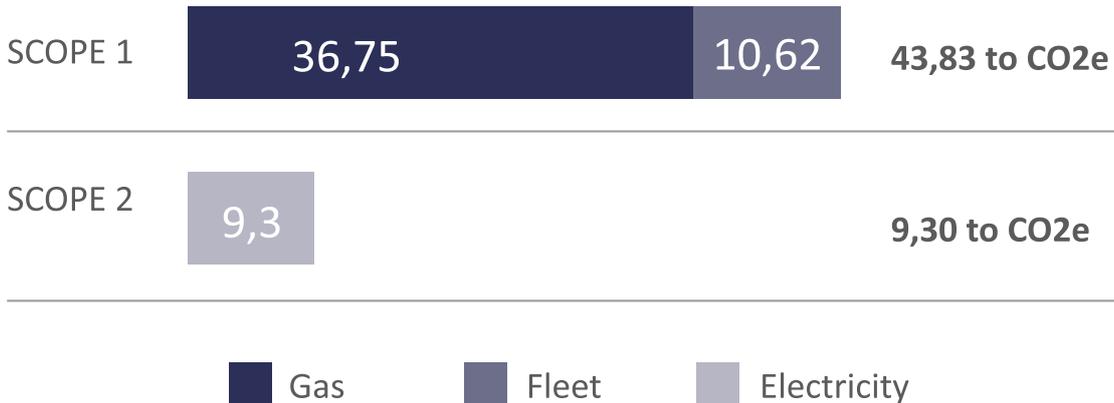
Sustainability

Our goals until 2025

In order to achieve our goal, we will rely 100% on electricity from renewable energies from 2023 onwards. We obtain the majority of our electricity needs from self-generated electricity using solar energy. By using highly efficient dark radiators in the production halls and an

air source heat pump in the administration building, we will reduce our gas consumption as much as possible. The remaining, unavoidable share of CO2 emissions is offset by selected climate protection projects.

Our climate footprint 2021/2022



For the year 2021/2022, we have prepared a carbon footprint in accordance with the GHG Protocol for the first time. This forms the basis for our goal of climate neutrality by 2025. The expansion to include Scope 3 is planned for next year.



Service

From us for you



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Service / maintenance contracts



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