

Cleaning systems for clean surfaces of coils and blanks



Efficient surface cleaning for smooth manufacturing processes

Clean product surfaces are an important quality requirement and a necessary condition for smooth manufacturing processes. Effective cleaning improves surface quality, reduces the rejection rate, and prevents costly production downtime. Wandres' compact cleaning systems can be integrated easily

into existing production lines and are in continuous use at many stages of the production process. The cleaning process is suitable for **sheet metal strips and blanks made of steel and stainless steel, as well as aluminum and non-ferrous metals.**



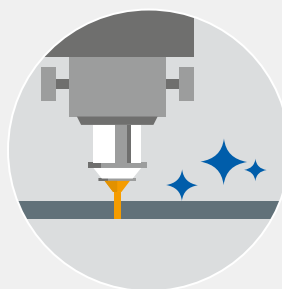
Typical cleaning applications



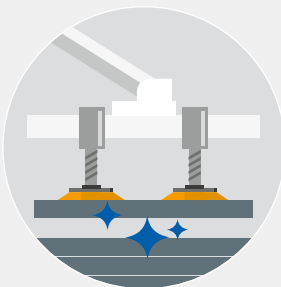
Before leveling



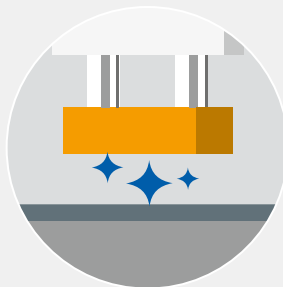
After punching



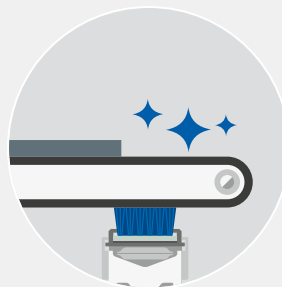
After laser blanking



Before stacking



Before forming



Belt cleaning

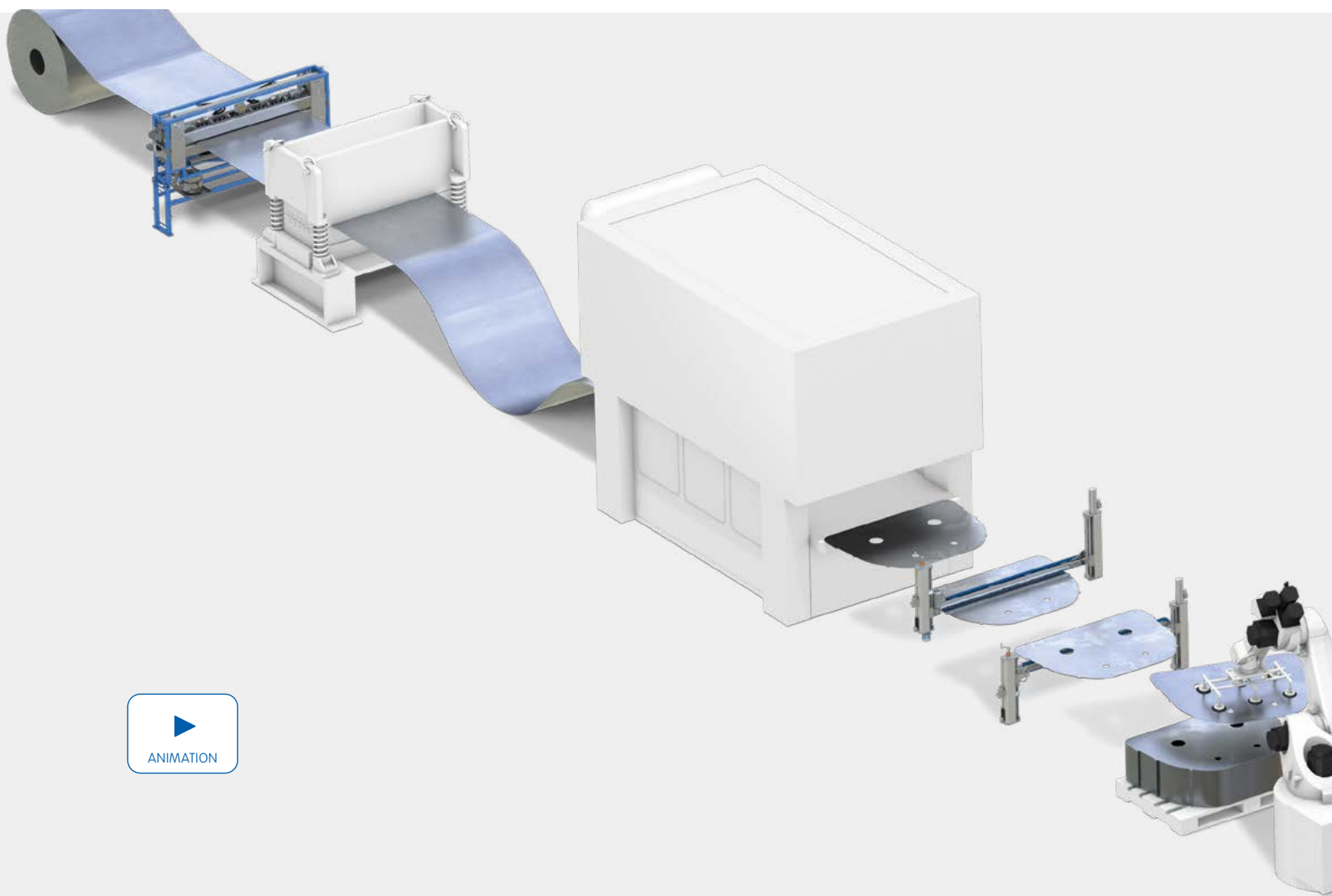


/// In continuous industrial use, Wandres cleaning systems deliver consistently high cleaning performance with remarkably low operating and maintenance costs.

Along the entire line: Cleaning from coil to blank

Clean surfaces are the foundation for stable processes and high-quality results in sheet metal processing. That is why Wandres provides sophisticated cleaning solutions for the entire production line—from the coil to the finished blank.

Cleaning **both sides of sheet metal strips** prevents particle indentations during leveling. Even slightly wavy or sharp-edged strips can be cleaned at high transport speeds.

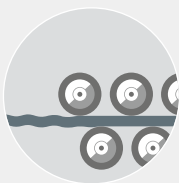


Unwinding



Coil cleaning

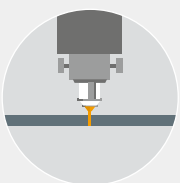
Cevomat® CVO



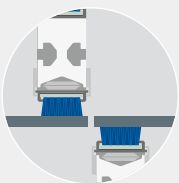
Leveling



Die cutting



Laser blanking

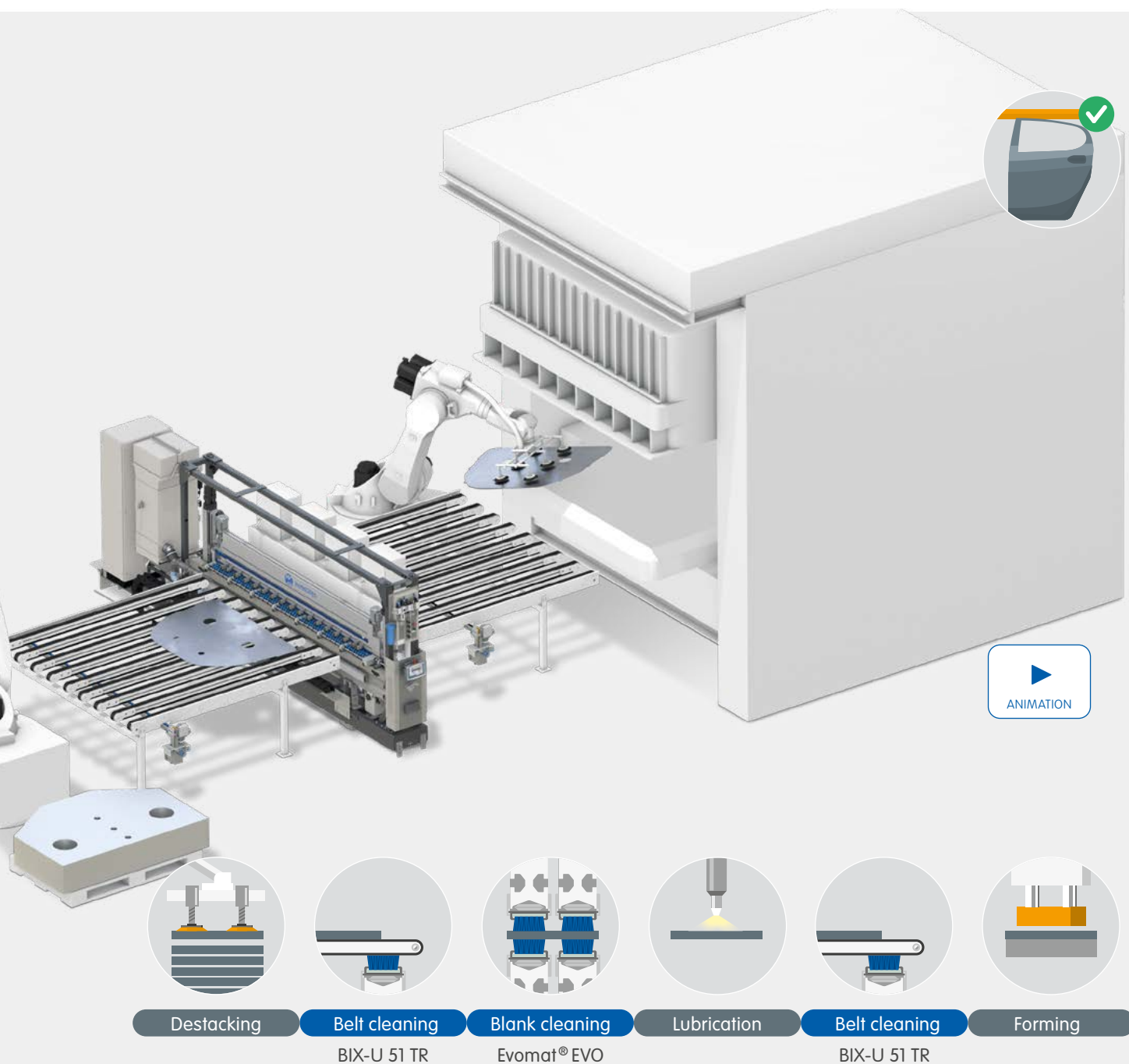


Blank cleaning

Una X-BO / X-BU

Blank cleaning prevents particle indentations when stacking blanks. Before the press, reliable cleaning of body skin panels and structural parts minimizes the rejection rate and prevents damage to the forming tools caused by particles.

The compact cleaning machines can be combined with the lubrication systems from our partners and are easy to integrate into any production line. Continuous cleaning of the conveyor belts prevents particles from getting back onto the blanks.

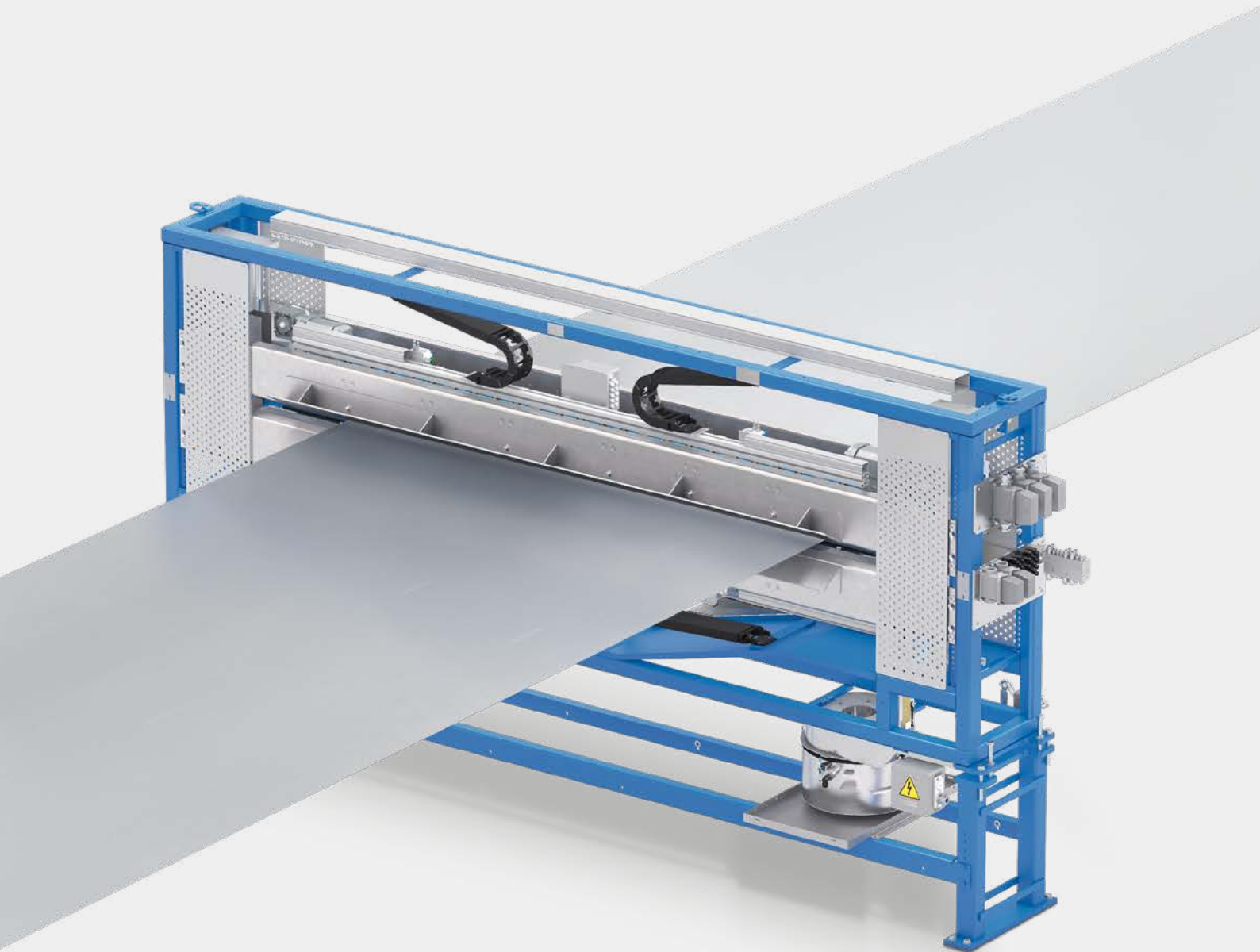


Clean metal strips for stable downstream processes

The **Coil Cleaner Cevomat® CVO** cleans metal strips on both sides at high transport speeds. Cleaning before leveling prevents particles from being pressed into the metal strip and avoids damages to the rollers of the leveling machine. Coil cleaning maintains the surface quality of the metal strips and guarantees stable downstream processes with minimal downtime.

Double-sided coil cleaning:

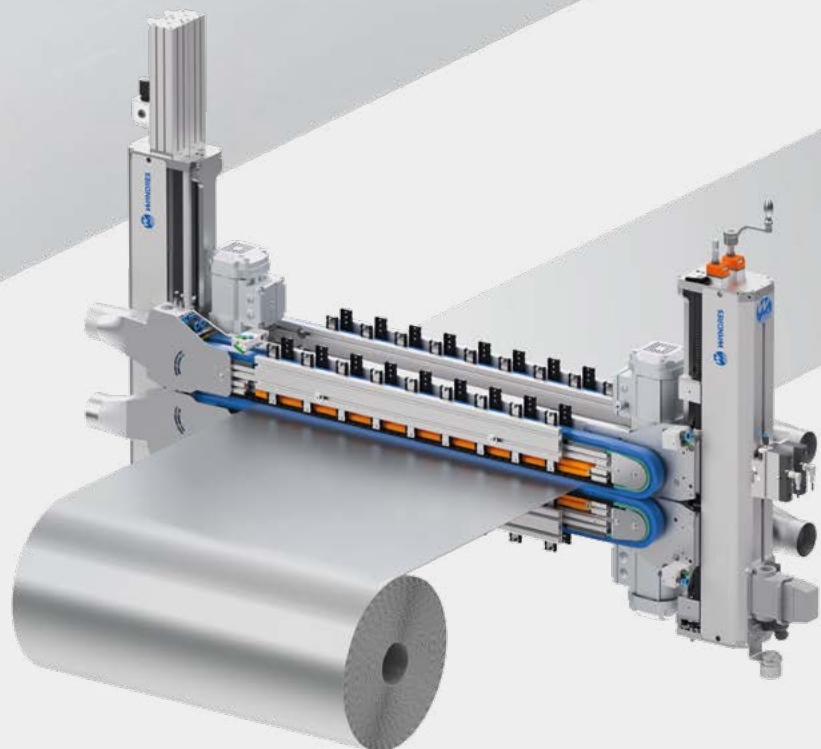
- 24/7 consistently high cleaning performance
- Prevents particle indentations
- Alternating use of aluminum and steel is possible
- Possible at high transport speeds
- Also suitable for sharp-edged and wavy strips
- Machine can be moved out of the production line while the strip is loaded (only for CVOC version with C-frame)



The **Combi Sword Brush Una XF 146** cleans thin or narrow strips on both sides, e. g., before forming the coil in the production of metallic bipolar plates for fuel cells or before stamping rotors and stators from electrical steel strips.

Double-sided cleaning of thin strips:

- High cleaning performance in continuous operation
- Stable downstream processes, e. g., forming
- No short circuits caused by metallic particles
- Less wear, e. g., on leveling rollers



Advanced technology for outstanding cleaning performance:



Four rotating linear brushes with flex buffers for consistent and effective cleaning



Lifting of brushes at the edges protects filaments on sharp-edged strips



Counter Wiping: Linear brushes rotating in opposite directions clean the entire surface



Regeneration of the linear brushes for stable 24/7 operation, optional: thermal elements

Watch animations

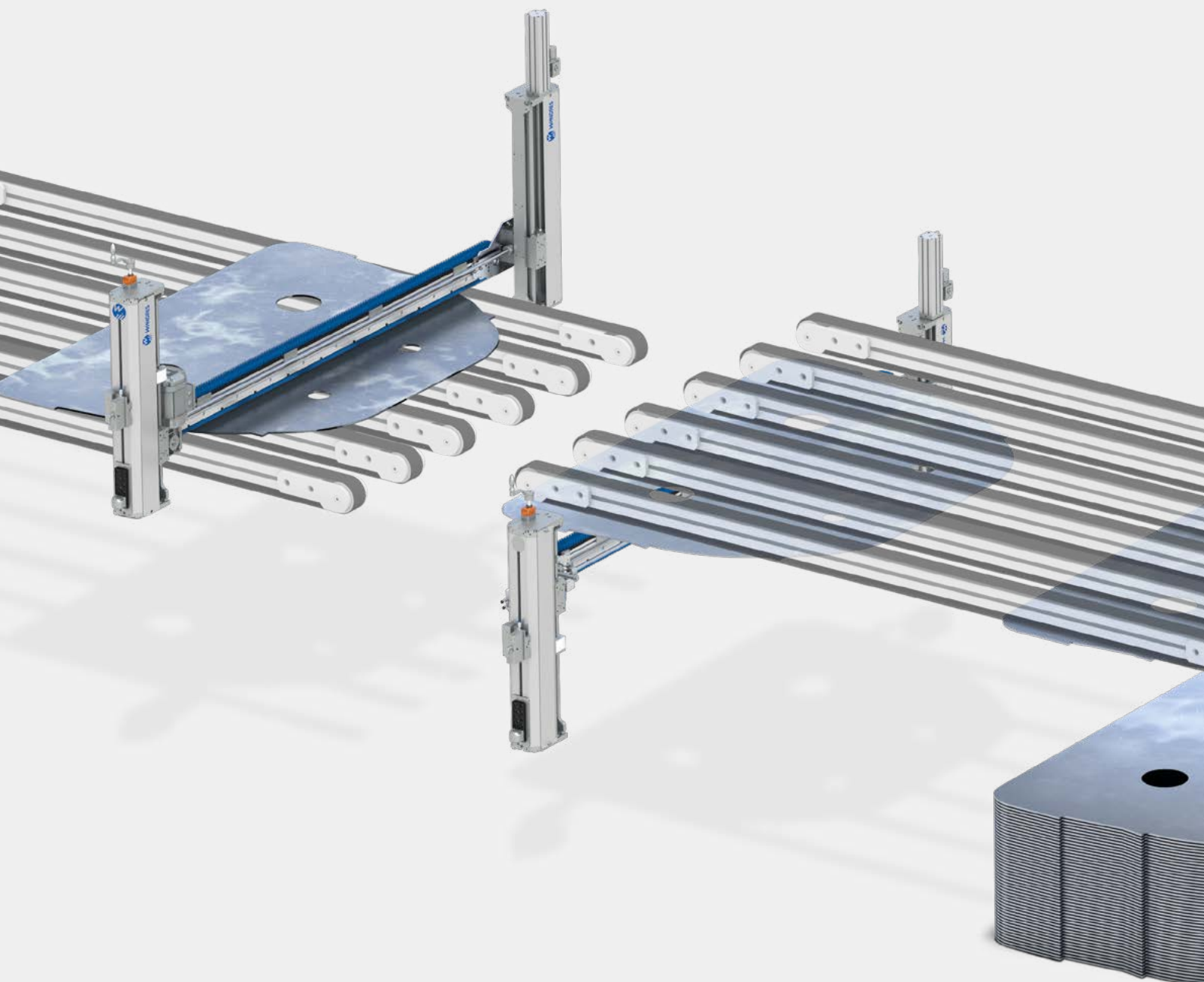


Particle-free blanks along the production line

The **Combi Sword Brush Una X BO** cleans metal blanks from above, while the **Una X BU** model cleans them from below, delivering consistently excellent cleaning results—for example, after the blanking press or after laser blanking. The compact design simplifies integration into existing cutting lines. During blank ejection, particle identations are reliably prevented, ensuring optimal surface quality of the blanks.

Blank cleaning before stacking:

- Easy integration into the blanking line
- Reliable cleaning of metal blanks
- Prevents particle identations
- 24/7 consistently high cleaning performance



The **Sword Brush®** type **BIX-U 51 TR** reliably cleans the lower side of conveyor belts during operation. Adhesive particles and lubricant deposits are continuously removed. This prevents carryover of contaminants and keeps the transported blanks clean.

Continuous conveyor belt cleaning:

- Clean conveyor belts for stable processes
- Prevents recontamination of blanks
- Even dry lube residues are removed
- For vacuum and magnetic conveyor belts

Advanced technology for outstanding cleaning performance:



Automatic thickness adjustment via synchronous servo drives



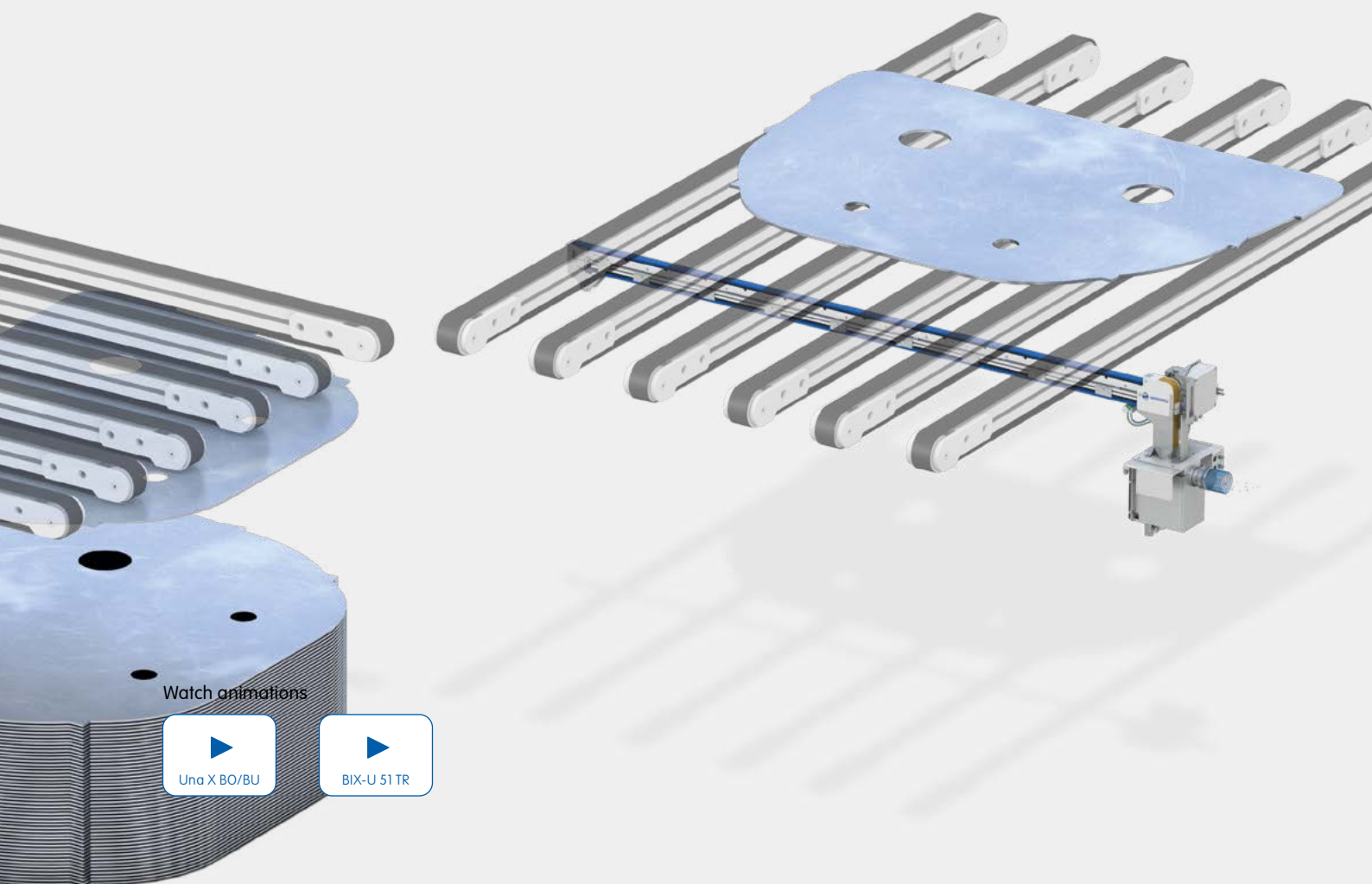
Consistent cleaning results due to constant brush pressure



Compact design for easy integration into production lines



Regeneration of the linear brushes for stable 24/7 operation, optional: thermal elements



Watch animations



Una X BO/BU



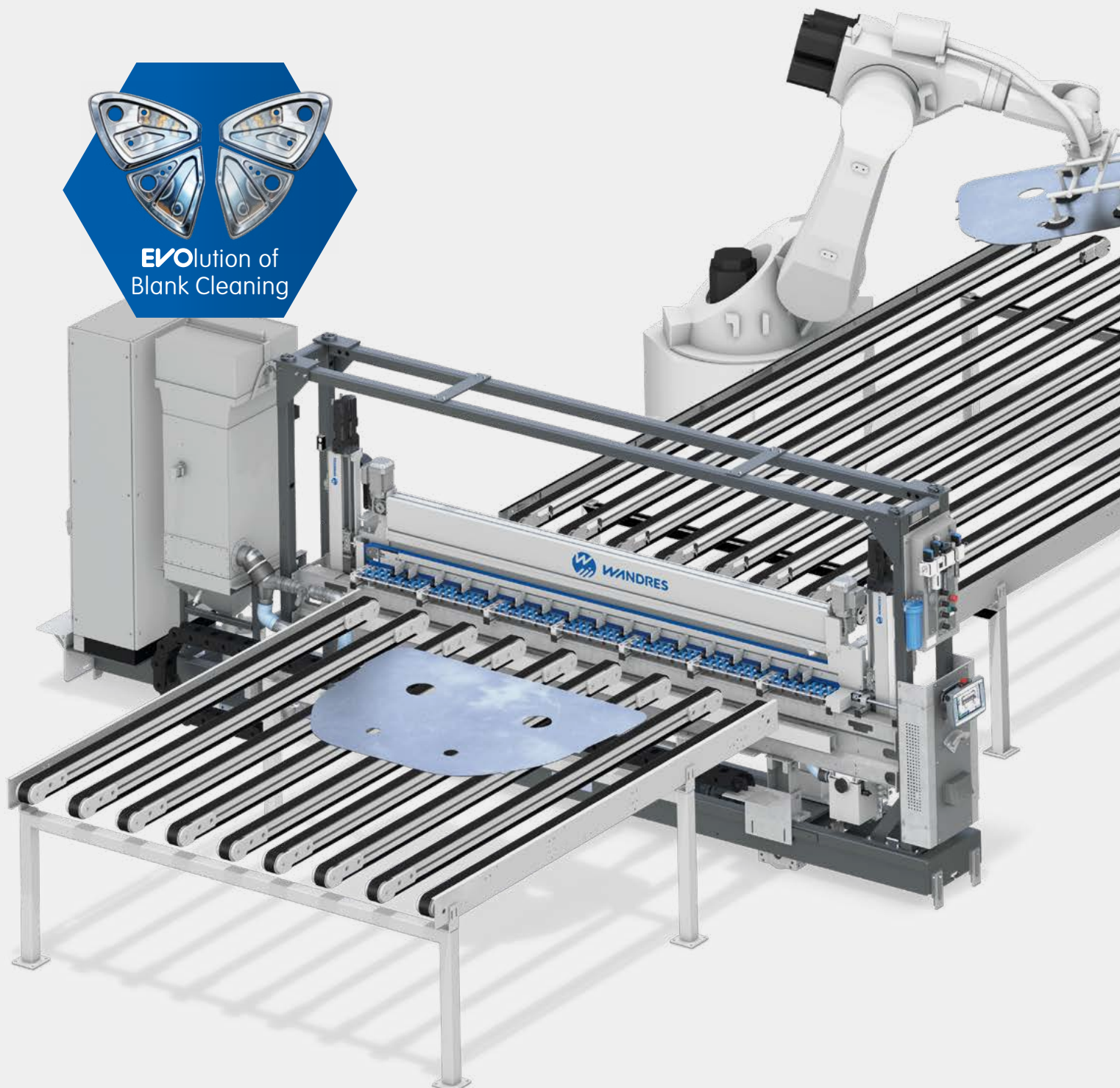
BIX-U 51 TR

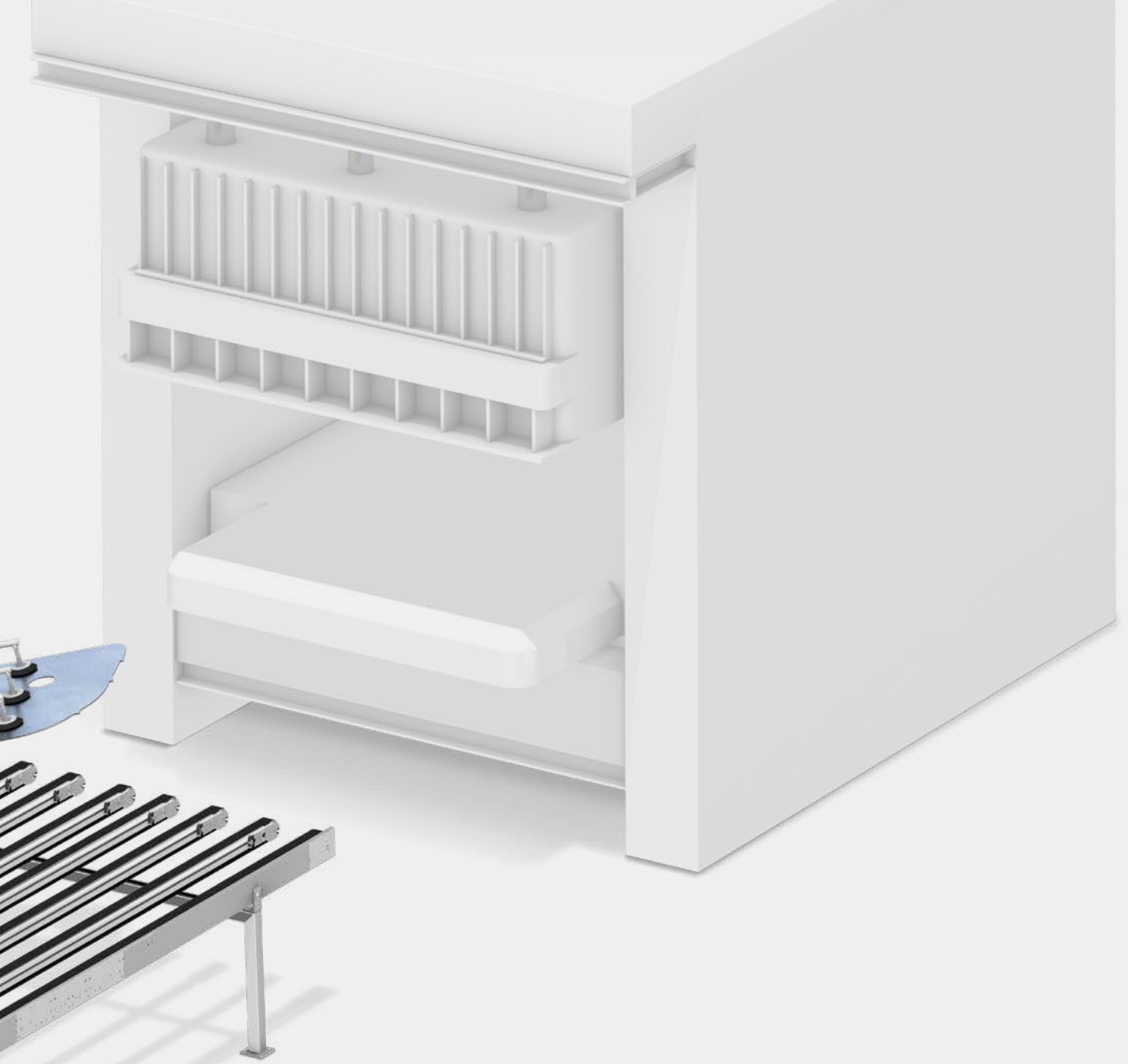
Perfectly clean blanks and protection of forming tools

The **Blank Cleaner Evomat® EVO 501** cleans blanks, including tailored blanks of various sheet thicknesses, very efficiently. Operating and maintenance costs are very low compared to conventional blank washers. The optional thermal self-cleaning function enables the cleaning of aluminum blanks with dry lubricants—even in alternating operation with oiled steel blanks.

Blank cleaning before forming:

- Consistently high cleaning performance
- Alternating use of aluminum and steel is possible
- Protection of forming tools
- No particle indentations in the blanks
- Low maintenance, low operating costs
- Rapid return on investment





Advanced technology for outstanding cleaning performance:



Counter wiping: Stable positioning of the blanks and improved cleaning performance



Consistent cleaning results due to constant brush pressure

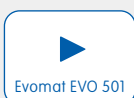


Complete solution: conveyor, extraction system, filter, control cabinet, optional: driven chassis



Regeneration of the linear brushes for stable 24/7 operation, optional: thermal elements

Watch animation



Application of the cleaning technology in continuous industrial operation

An experienced and highly committed team of Wandres employees based in the Black Forest manufactures the high quality **linear brushes** that are the heart of the brush-based cleaning machines. The linear brushes are characterized by their durability in continuous industrial use even under harsh production conditions.

The **Coil Cleaner Cevomat®** and the **Blank Cleaner Evomat®** can be easily integrated into existing or new cutting or pressing lines. The cleaning systems are supplied as a complete solution with a control cabinet, appropriate extraction system, and filter. With the optionally available driven chassis, the cleaners can be easily removed from the line during maintenance work.

Wandres technology pays off:

- Excellent cleaning performance
- Improved product quality
- Reduced rejection rate
- Increased productivity
- Clean production environment
- Low-maintenance, stable continuous operation
- Reliable service
- Low operating costs
- Quick Return on Investment (ROI)



Cleanliness that pays off quickly

The purchase of a cleaning machine pays for itself quickly due to low running costs, minimal rejection rate, excellent quality and consistent downstream processes.



In round-the-clock continuous operation

The self-cleaning mechanism ensures continuous regeneration of the linear brushes and a consistently high cleaning performance. Production downtime is reduced.



Minimal maintenance, excellent service

All machine components manufactured by Wandres have an exceptionally long service life. The service team is on hand to assist you with maintenance and service calls worldwide.



Clean production, reduced strain

A clean production environment reduces the strain on employees and promotes their health, e.g., by reducing the amount of aerosols in the air they breathe.



/// The commissioning of the new Blank Cleaner went smoothly, and we were impressed with the cleaning results. Since its installation, we have seen consistent cleaning quality and reliable machine operation.

Jan-Willem van Ganswijk, Manager Projects Press Shop, voestalpine Automotive Components Bunschoten B.V.

Surface Cleaning Technology Made in the Black Forest

Wandres specialises in the development and manufacture of cleaning systems for industrial production. Its international customer base ranges from the panel and furniture industries to the automotive and sheet metal industries, as well as to the glass, paper and converting industries.

Approximately 150 employees work at the production site near Freiburg im Breisgau. Wandres has been recognised as a great employer with the 'Great Place To Work' label. Its quality and environmental management system has been certified in accordance to ISO 9001 and ISO 14001.



A family business with a long tradition

Founded in 1981 by Claus G. Wandres, a graduate engineer, the company is now run by his daughters, Stephanie Wandres, a graduate engineer, and Sylvia Wandres, a business graduate, using modern methods.



Cleaning technology for industry

Wandres supplies efficient cleaning systems for industrial production that guarantee process reliability, ensure high product quality and significantly reduce waste.



Factory and assembly in the Black Forest

More than 80% of the machine components are manufactured in-house using advanced machinery. This ensures parts availability, a wide range of flexibility, and maintains high quality standards.



Sales and Service Worldwide

Wandres has a subsidiary in the USA and works internationally with professional sales and service partners who provide on-site support to customers worldwide.



/// Wandres is a modern family-owned company that develops and manufactures innovative cleaning systems for industrial production, combining experience with an inventive spirit.

Our certifications:



Wandres GmbH · Im Gewerbepark 8 · 79252 Stegen · Germany
www.wandres.com

