



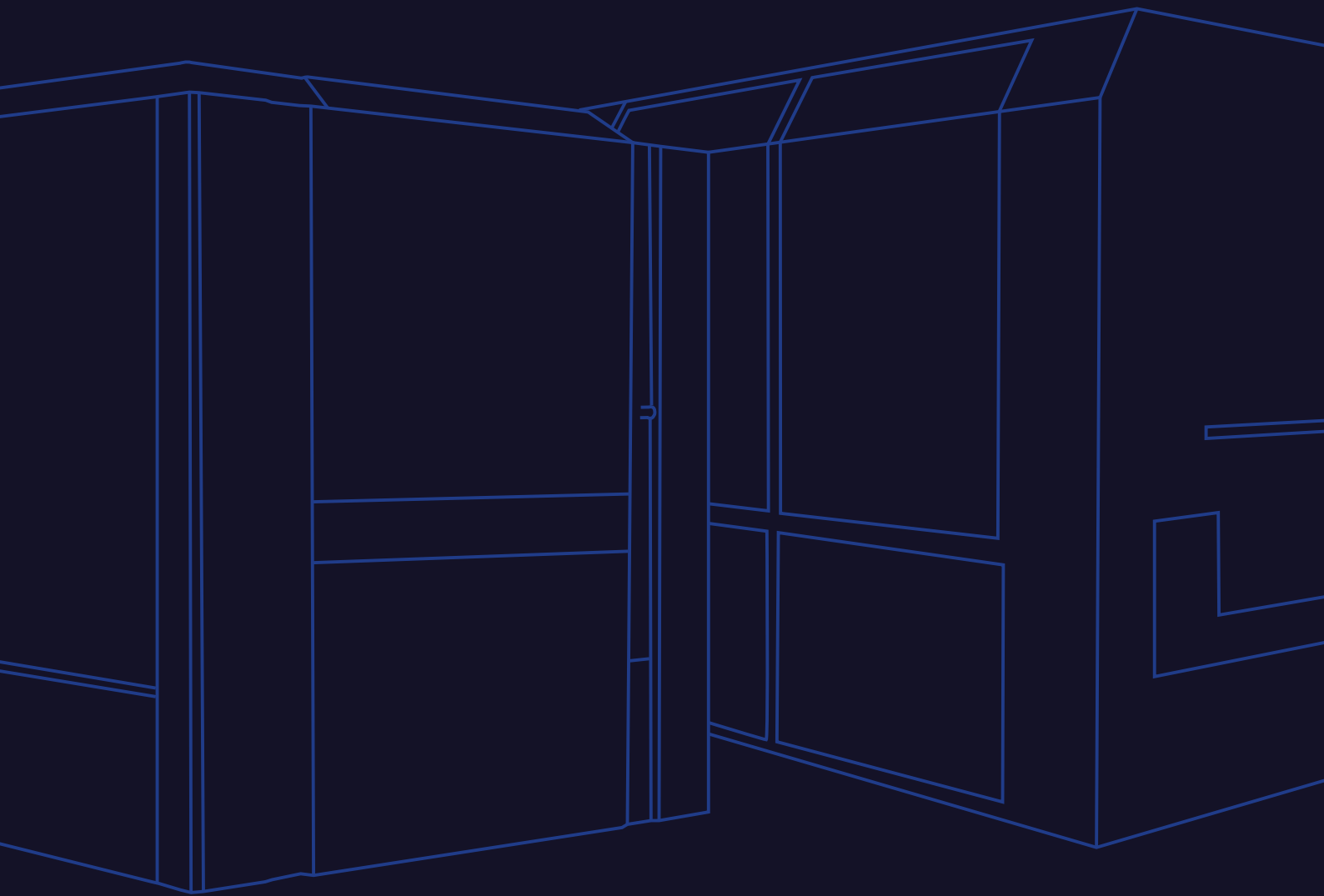
WORLD OF SANDING.



# profiRounder:

Heesemann machines for sheet metal finishing





**profiRounder** is the first freely configurable deburring system for the dry processing of sheet metal parts. It was designed for the dry mixed processing of steel, stainless steel, aluminum and copper.

# INDUSTRIAL MANUFACTORY

Heesemann – there is responsibility in this name.

Major industrial companies and small craft businesses throughout the entire world relied on our machines and our service for more than 80 years.

The perfect sanding result, the long-life cycle, the low maintenance requirement: there are many reasons for a Heesemann. These high demands on the machines have grown over time.

Founded in 1933, Karl Heesemann Maschinenfabrik has gradually developed into an industrial manufactory. We design and produce sanding machines for various areas of application and materials. The goal: to find the golden mean between modern sanding technologies, the highest technical demands on mechanical engineering and the very individual needs of each customer.

Our machines are suitable for owner-run craft businesses and for the major players in the world markets which manufacture large volumes around the clock.

We are especially proud of our high level of vertical integration in our manufacturing. We handle almost every process step that has an influence on the final sanding results. The machines are developed and configured by the design department. The machine body is constructed in our own welding shop. We also manufacture the units which we then install.

The control software and application programs are programmed by our development team. Our application engineers and service team then handle the delivery and acceptance of the finished machines. This means as a customer you will achieve the best results with our machines. Promised.

Heesemann – world of sanding.



# APPLICATIONS FOR METALWORKING

DESLAGGING

DEBURRING

OXIDE  
REMOVAL

EDGE  
ROUNDING

SURFACE  
FINISHING

The Heesemann brand – renowned as the world market leader of sanding machines – also offers state-of-the-art deburring systems. After an in-depth analysis of the requirements of the specific market, in particular with regard to workpiece edge rounding, we have developed units with cutting-edge technology equally suitable for applications where abrasive lamella and also abrasive discs demonstrate their full benefits.

This enables panels to be processed with absolute uniformity and high intensity. The system delivers convincing efficiency and high throughput.

Our customers work in the following industries:



Laser job shops



Equipment & mechanical  
engineering



Commercial kitchen tech-  
nology & food processing



Steel service centers



Laboratory & medical  
technology



Construction machinery,  
agricultural machinery, rail  
vehicles, vehicle construction

# PROFIROUNDER

## *Finishing System*

**profiRounder** is the first freely configurable system for the dry processing of metals. It was designed for the dry mixed processing of steel, stainless steel, aluminum and copper.

The complete design of the machine offers maximum flexibility. Contact roller units, brush rollers, disc brushes and lamella roller units can be freely combined. Machines can be configured with up to 6 units.

The **profiRounder** was developed to handle all industrial production applications in one machine: slag removal, deburring, edge rounding up to 2 mm, oxide removal, surface grinding and finishing.

The virtually maintenance-free design guarantees the greatest availability.



red**dot**  
winner



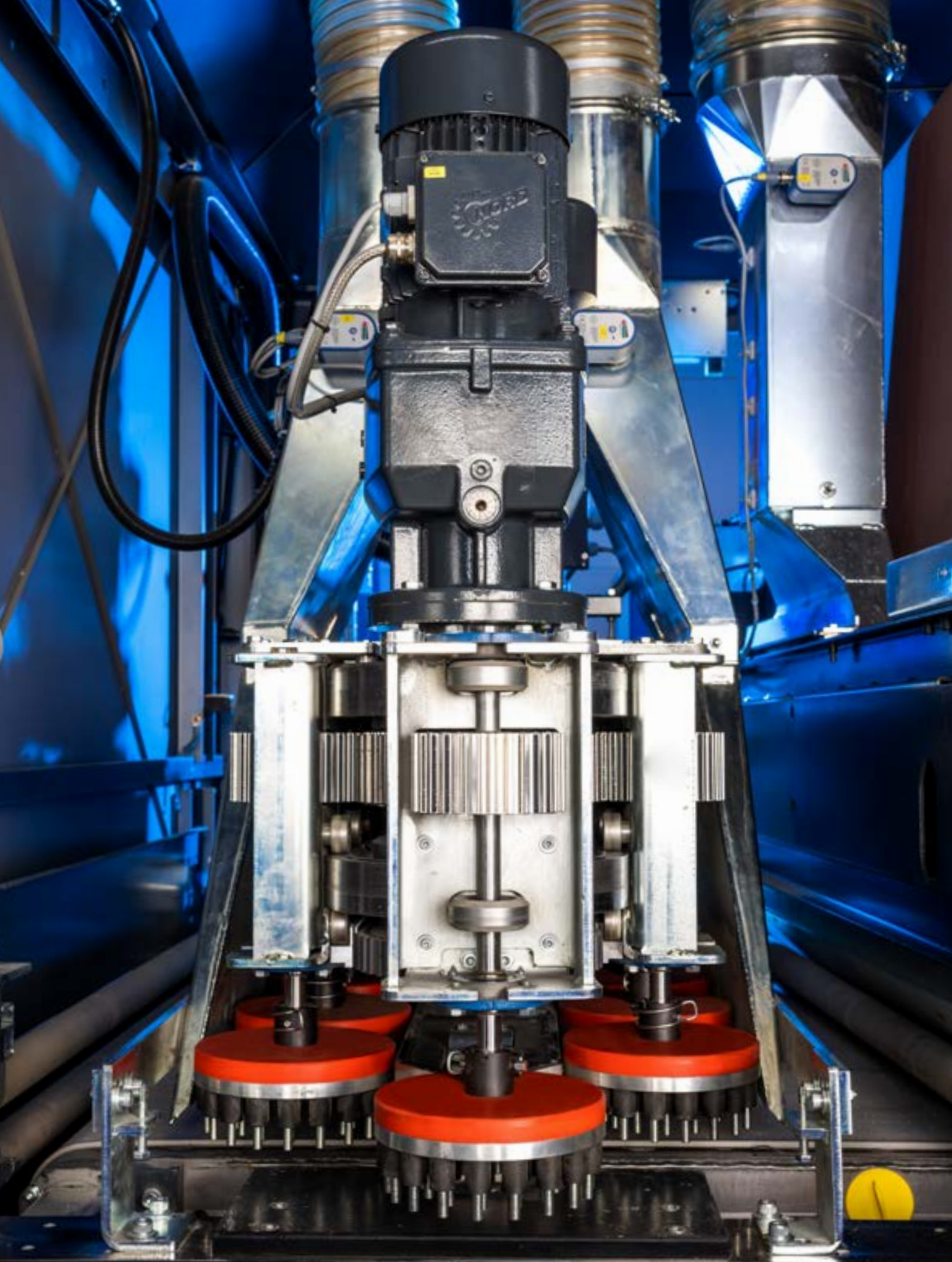


# THE PROFIROUNDER SLAG REMOVAL

With the profiRounder, we offer you a machine solution with which slag removal can be optimally implemented. The machine scores with high flexibility, which also shows its advantages when it comes to slag removal. Depending on your company's specific requirements, you can use the **profiRounder** as required and always tailored to your needs.

It pays off – with solid work results for even greater customer satisfaction. Slag processing can also be integrated via a RUT unit running with cup brushes with hardened steel pins, ensuring the optimal processing of your workpieces.



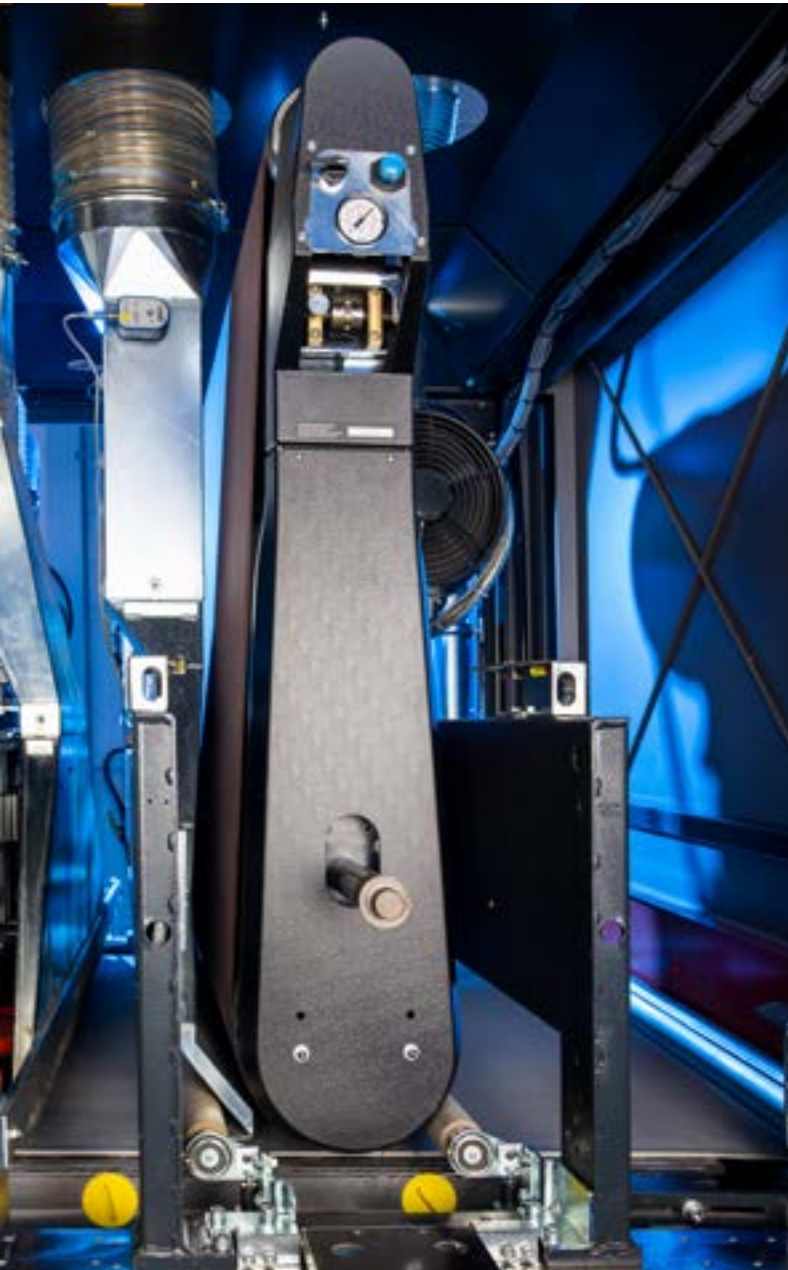




# THE PROFIROUNDER DEBURRING

The **profiRounder** deburring systems remove the main burr using a wide belt unit. Depending on the material to be processed and the nature of the burrs, grinding belts from K24 / K36 for flame-cut parts or K60 / K80 for laser parts are used. Suitably powerful and properly dimensions units are the key to success. For example, profiRounder deburring systems use Ø 250 mm and Ø 300 mm contact rollers combined with up to 22 kW drive systems. To remove the main burr, the contact roller unit is set very slightly below the parts surface.

When the workpiece passes under the contact roller unit, the rubber coating of the roller is compressed and the main grinding work takes place on the edges of the workpiece, where the burr is located.



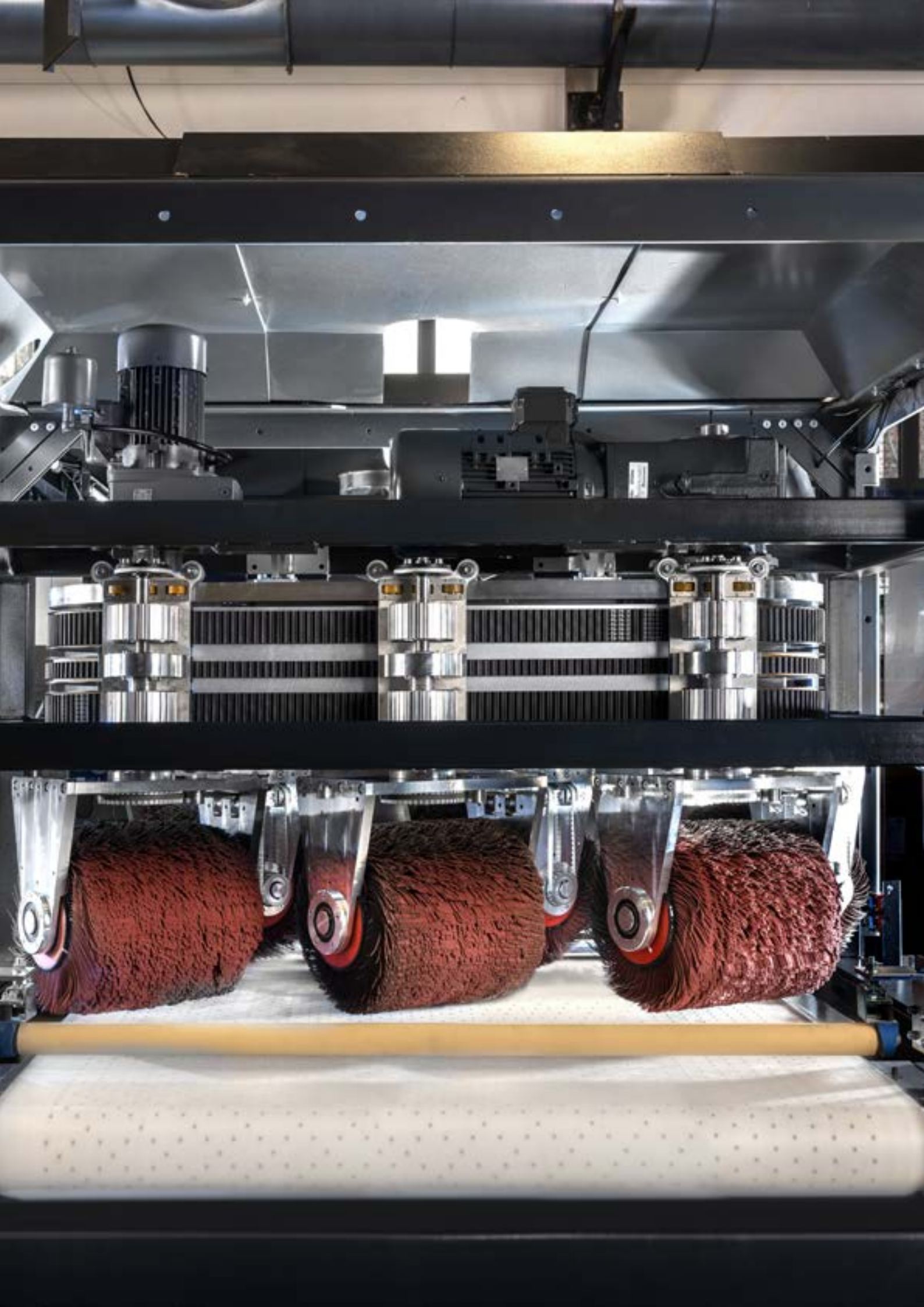


# THE PROFIROUNDER OXIDE REMOVAL

The disc brush with wire bristles is the most common tool for removing oxide. Cord wire is utilized and is capable of withstanding the alternating bending loads. The height of the brushes is set to a depth of slightly more than 50% of the workpiece thickness, thus completely removing the oxide layer in 2 passes.

At Heesemann, this tool is used on the RUT unit. The KinematIQ system on the unit ensures that all of the edges are processed with the same intensity. This guarantees that no “shadow areas” are created where oxide remains – an otherwise unavoidable result with cross brushing and planetary units due to the nature of the process.







# THE PROFIROUNDER EDGE ROUNDING

The profiRounder units for rounding edges are innovative systems featuring diverse grinding processes. RUL units with lamella grinding rollers and RUT units with grinding discs are available for intensive edge rounding. Both systems are distinguished by their 100% even processing of the workpiece edges. The RUL unit rounds the workpiece edges with lamella grinding rollers with a diameter of 350 mm and a width of 365 mm.

6 brushes rotate around both a horizontal and vertical axis.

The brushes orbit the conveyor belt, ensuring that all of the workpiece edges are processed with exactly the same intensity and guaranteeing 100% uniformity. Lamella rollers are also suitable for very big radii up to 2 mm along with galvanized and foiled sheets and work without damaging the zinc layer or foil. There are also suitable for parts with threaded holes, embossing or small bends. The design makes it the only unit on the market with pressure rollers in front of, between and behind the brushes, giving it the capability to securely hold long and narrow parts on the conveyor belt even without vacuum.

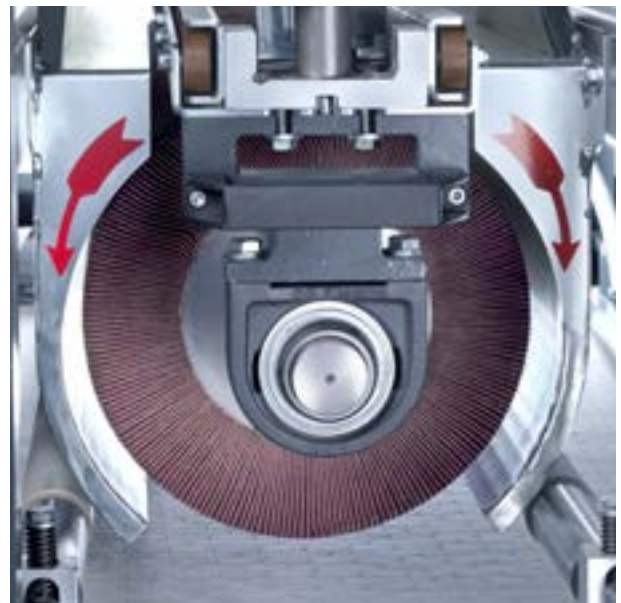




# THE PROFIROUNDER SURFACE FINISHING

To produce a surface finish during the pass, a suitably fine abrasive is used on the contact roller. This makes it a good solution for producing decorative ground surfaces. However, under ideal circumstances, finish grinding runs with significantly higher feed rates than with deburring. While the feed rate for deburring is typically between 0.5-3 m/min, surface grinding is performed at 8 m/min and more.

Consequently, the optimum results are achieved by running the sheets that require finishing (often only a few % of the total production) through the machine a second time. If the customer wants to grind during the same pass, then another wide belt unit with contact roller is integrated into the machine as the final or second-to-last unit.



## Especially fine surfaces with fleece brushes

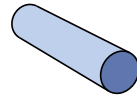
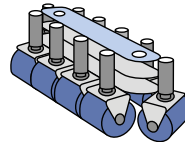
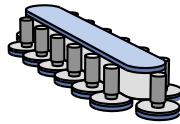
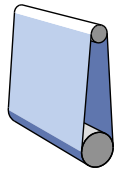
Very fine surfaces with correspondingly low roughness are essential for machines for the food industry and in industrial kitchen technology. Fleece brushes are the ideal solution because they remove the peaks after grinding and refine the surface highly efficiently.



# TECHNICAL DATA

## UNITS

Unit



	Contact roller	RUT	RUL	Brush rollers
<b>Working widths</b>	1.350 mm more on request	1.350 mm more on request	1.350 mm more on request	1.350 mm more on request
<b>Abrasives</b>	2.620 mm x 1.350 mm  2.620 mm x 1.400 mm	18 disc brushes	6 lamella rollers 365 mm wide	1.430 mm
<b>Diameter</b>	Rubberized Ø 250 mm Ø 300 mm	180 mm	350 mm	250 mm 300 mm
<b>Drive power</b>	15 kW FU 22 kW FU	22 kW FU	11 kW FU	11 kW FU 15 kW FU
<b>Grinding speed</b>	1.7 - 28 m / s	Grinding disc speed 200 - 1500 rpm  Orbit speed 5 - 20 m/min	Lamella roller speed 200 - 1.000 rpm  Orbit speed 5 - 20 m/min	10 - 40 m/s

Whether wood, metal or other materials, Heesemann offers high-end surface finishing. Convince yourself of the precision and evenness of our results!

# OVERVIEW SERVICES

Our service team continues to support our customers after delivery.

We guarantee that our customers enjoy maximum availability together with an excellent price-performance ratio through our comprehensive maintenance services. Our supplementary consulting services along with extensive upgrades help our customers to continuously improve their productivity. We can even supply 40- or 50-year-old machines with spare parts or upgrade them to the state-of-the art thanks to Heesemann Rebuild services.

Service and spare parts - you can only rely on the original!

Thanks to our numerous service sites around the globe, you will always receive fast and excellent service. At the same time, you can also purchase all wear and spare parts directly from us. In the process, you benefit from the best possible process reliability thanks to original equipment manufacturer quality, highly trained and experienced fitters, a practical subscription service for wear parts along with a loyalty program that rewards you with improved special conditions with every order.

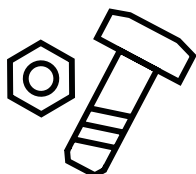
**Service makes the difference!**



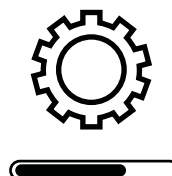
Commissioning &  
training



Virtual service



Spare parts &  
maintenance



Machine upgrade





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