

*Heeseemann*



# IMPRESSION

SANDING SURFACES PERFECTLY



THE WHOLE PRODUCTION OF  
HEESEMANN SANDING MACHINES IS  
LOCATED AT THE HEADQUARTERS IN  
BAD OEYNHAUSEN, GERMANY.

# HEESEMANN

## SANDING WITH PASSION

Heesemann has produced sanding machines for industry and handicraft for more than 80 years.

Numerous essential and trend-setting innovations were made during this time, many of which are now industry standards. Heesemann has consistently provided new impulses to the sanding technology and developed it further.

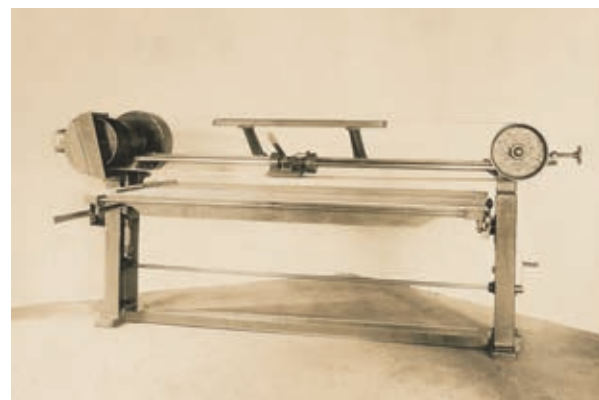
Our demand has always been to be the innovation leader in sanding technology and we do everything possible to comply with this demand.

Today Heesemann has about one hundred fifty employees in Bad Oeynhausen, Germany and is world market leader in the area of wood sanding machines. The production program includes machines for sophisticated handicraft as well as heavy duty industry machines.

A world-wide organized dealer network as well as distribution and service subsidiaries in the most important regions and markets provide appropriate contact persons on-site and guarantee short communication channels and highest-performance service.

We support our customers with diversified service offers covering the entire life-time of our machines. We offer all services starting with an extensive consultation, professional training of your staff and technical service up to functional upgrades.

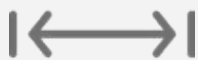
*One of the first Heesemann  
belt sanding machines.*







THE IMPRESSION OFFERS PROVEN TECHNOLOGY OF INDUSTRIAL MACHINES FOR HANDICRAFT, INTERIOR FITTING AND THE INDUSTRY IN A COMPACT FORM AND AT AN ATTRACTIVE PRICE.



**1 350 mm**  
Sanding width



**3 - 15 m/min**  
Feed speed



**up to 5**  
Sanding units

# IMPRESSION

## SANDING SURFACES PERFECTLY



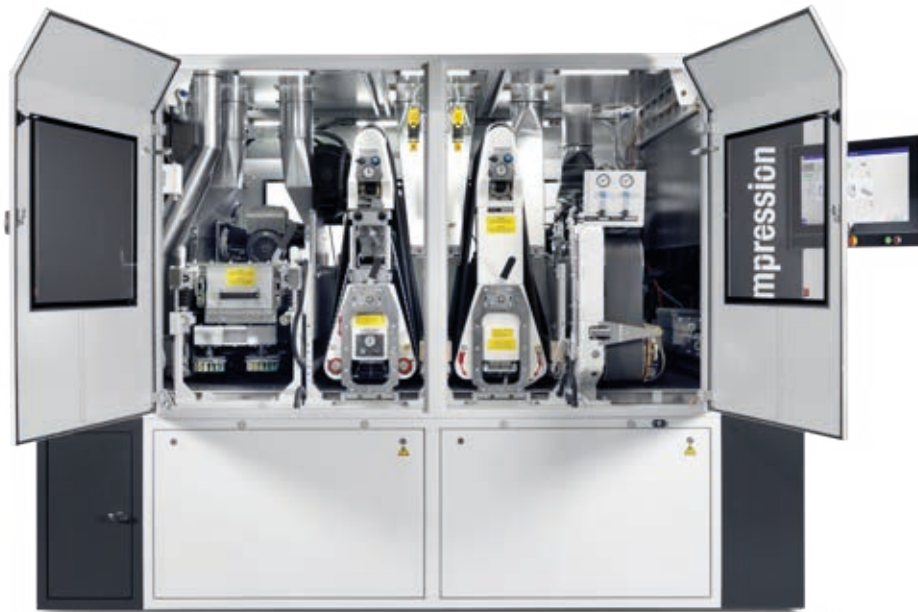
Proven and tested industrial machine technology for handcraft, high quality interior fitting and industry in a compact design at an attractive price.

Modular sanding groups - a compact, rigidly structured machine design can take up to 4 calibration, cross and longitudinal units, as well as additional brush units. The Impression thus provides a machine solution for every conceivable application.

This leads to a perfect sanding result. The belt access and operator side are eligible for election.



*All Heesemann sanding machines are operated via touch screen with an intuitive user interface based on Microsoft® Windows®.*



## IMPRESSION

### AVAILABLE SANDING UNITS



*Contact roller unit*



*Cross sanding unit*



*Longitudinal sanding unit  
(with or without pressure segment belt)*



*Planetary head unit DB-S*



*RUT disc brush unit*



*Brush unit*



# IMPRESSION EFFECT SANDING

Utilizing Heesemann surface sanding machines equipped with at least one cross sanding unit and one longitudinal sanding unit you can achieve stunning sanding effects. This is a brief description of what you can achieve and how it works:

## ROUGH SAW-CUT PATTERN

Utilizing a Heesemann cross sanding unit and a very rough abrasive grain you can create an outstanding rough saw-cut pattern onto the surface of veneered boards in through-feed operation.



## SCATTERED DEEPENINGS

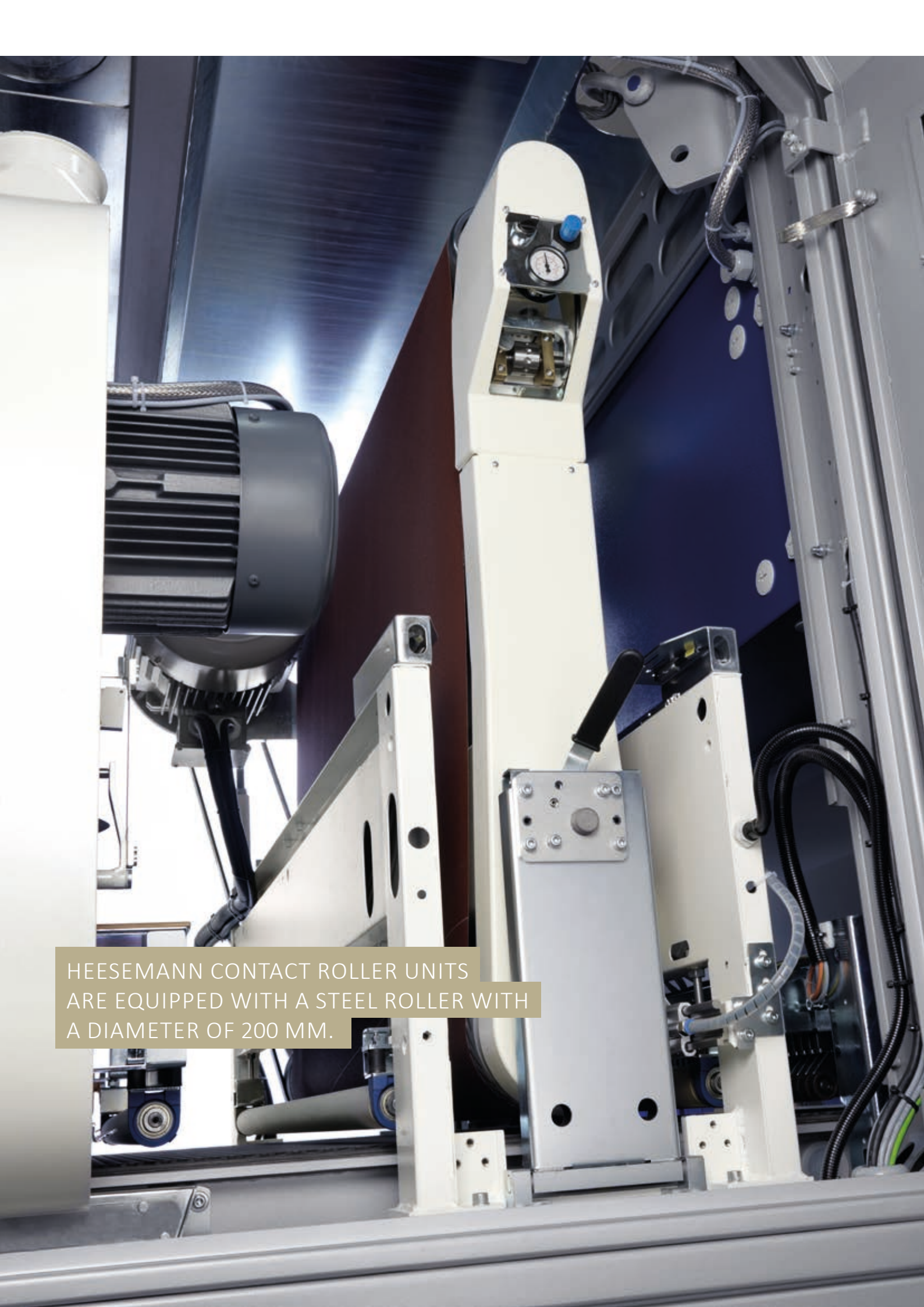
Using a Heesemann longitudinal sanding unit in combination with highly flexible sanding belts, a special steel plate and a special sanding program you can create scattered deepenings onto the surface of your work pieces.



## VINTAGE LOOK

You can achieve a vintage look of your work pieces using a Heesemann longitudinal sanding unit on a surface with two different lacquers. Work pieces primed with a dark paint and then lacquered with a lighter varnish can be processed using a special sanding program to create a deliberately irregular sanding result.





HEESEMANN CONTACT ROLLER UNITS  
ARE EQUIPPED WITH A STEEL ROLLER WITH  
A DIAMETER OF 200 MM.



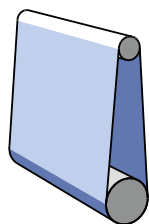
# HEESEMANN

## CONTACT ROLLER UNIT

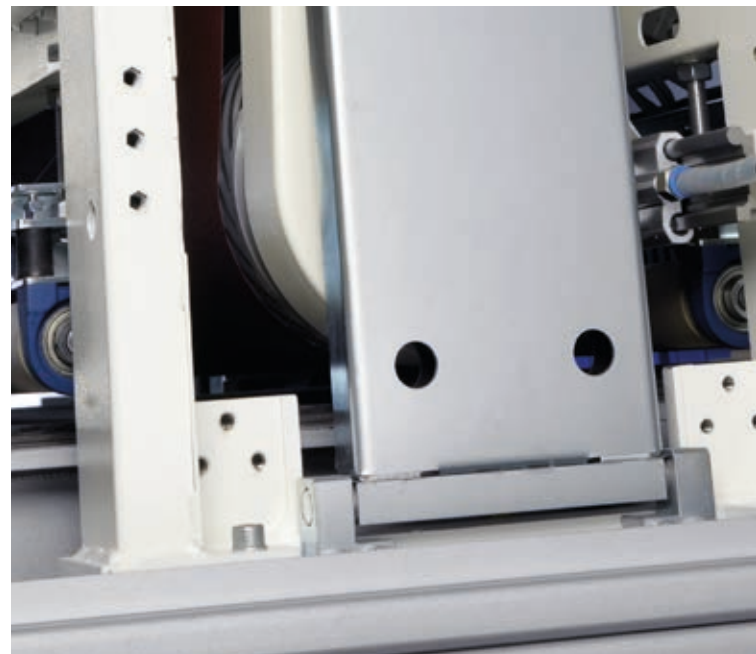
The contact roller unit with a 200 mm steel roller for example allows the exact calibration of materials like solid wood, particle boards, MDF or plastics. The surface of the roller is grooved in a spiral shape. This allows a better cooling of the roller and makes it easier to extract the generated abrasive dust.

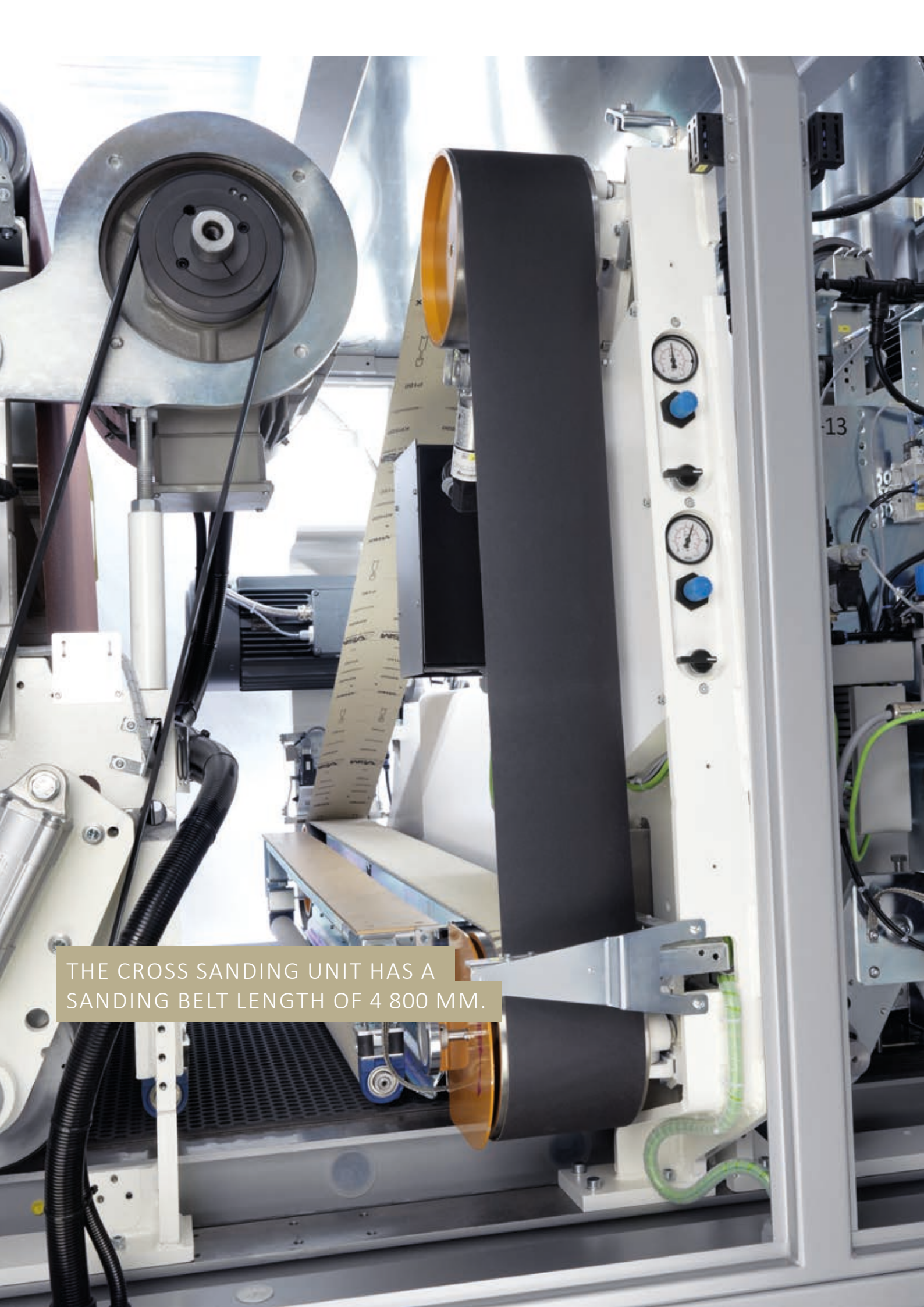
A rubber-coated contact roller with a diameter of 250 mm is also available.

The contact roller unit can be equipped with different kinds of press-on lips depending on the requirements.



*The contact roller unit can be equipped with different kinds of press-on lips depending on the requirements.*





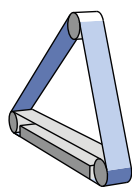
THE CROSS SANDING UNIT HAS A SANDING BELT LENGTH OF 4 800 MM.

# HEESEMANN CROSS SANDING UNIT

For wooden surfaces the cross sanding method achieves the worldwide accepted best sanding result. The work pieces are sanded crosswise to the grain direction first and are afterwards sanded in direction of the grain with one or more sanding units.

This way the upper harder areas of the annual rings are leveled and loosened fibres are sheared off whereby a wash out effect is avoided and the fibres cannot straighten up again after lacquering.

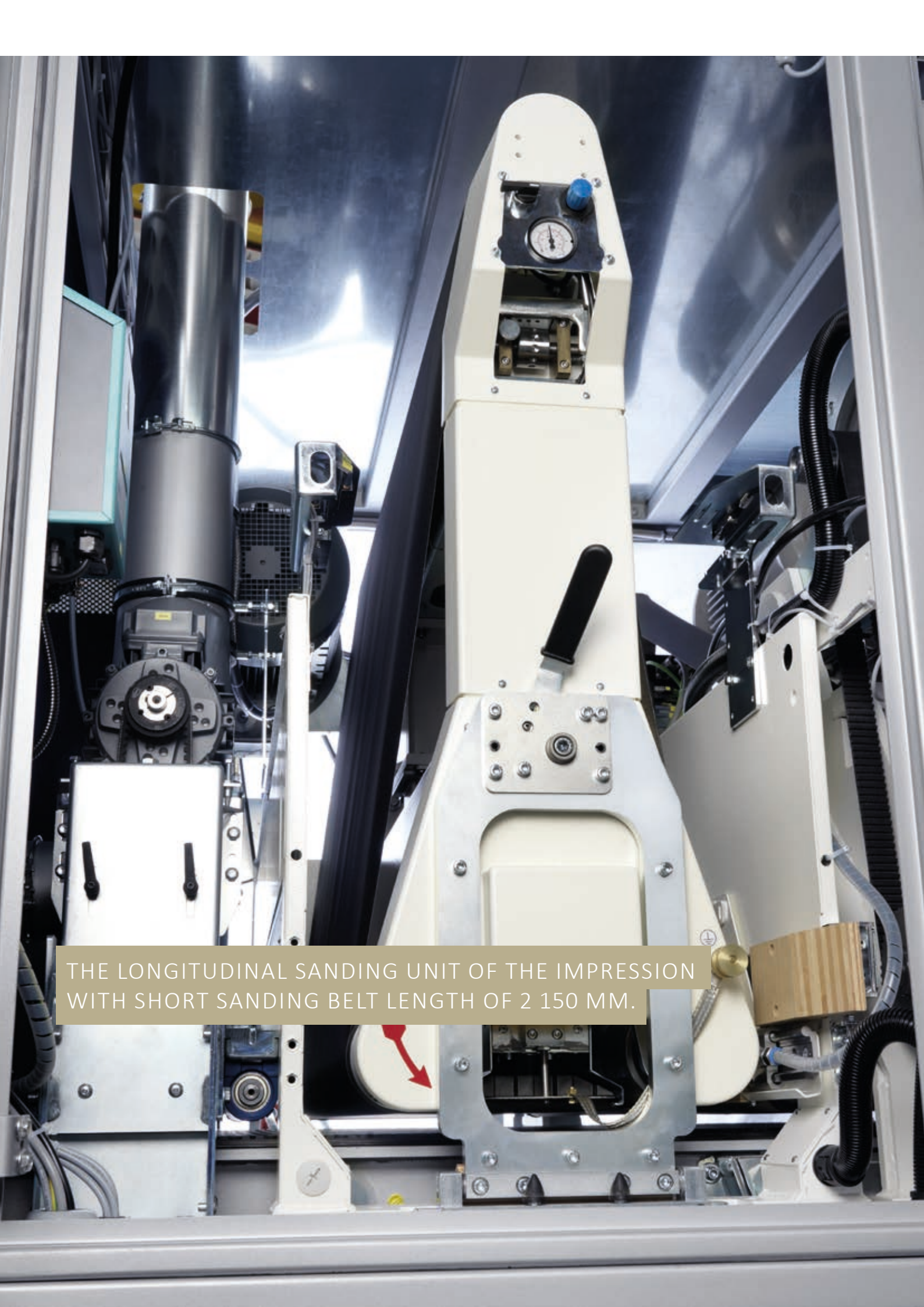
The Heesemann cross sanding units are equipped with the Heesemann CSD® magnetic pressure beam system and a pressure segment belt. They are available with sanding belt lengths of 4,800 mm and 5,400 mm.



*The sanding dust is removed from the sanding belt directly after the sanding process.*







THE LONGITUDINAL SANDING UNIT OF THE IMPRESSION WITH SHORT SANDING BELT LENGTH OF 2 150 MM.

# HEESEMANN

## LONGITUDINAL SANDING UNIT

A longitudinal sanding unit with an optimized distance between the lower return drums allows a large amount of a freely suspended sanding belt for a highly flexible pressure onto the work piece. This way a smooth sanding and high working speeds are achieved.

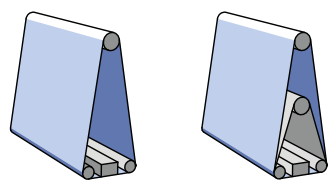
The longitudinal sanding units are available for sanding belts with belt lengths of 2 150 mm or 2 620 mm.

Optionally the longitudinal sanding unit can be equipped with an eccentric bearing of the front return drum for slight calibration work (**combi unit**). The return drum is activated via the terminal. The return drums may either be flat or grooved.

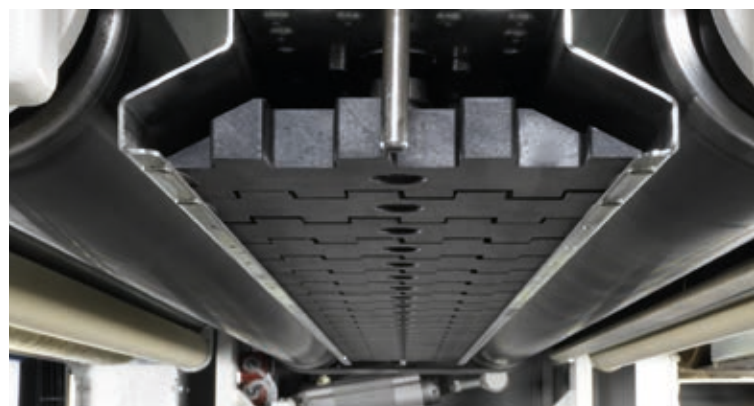
The **longitudinal unit with an internally running pressure segment belt** is a reasonable addition to many applications that makes sense. The pressure segment belt interrupts the sanding traces of the grit and thus offers a harmonious and more even sanding pattern.

If a particularly fine grit is being used for lacquer sanding, the pressure segment belt may significantly increase the lifetime of the abrasive material.

Two eccentrics are located on the unit by means of which the guide drums can be readjusted in accordance with the wear of the pressure segment belt. This compensates the wear on the pressure segment belt, and its lifetime is extended several times.



*The longitudinal sanding unit is equipped with the Heesemann CSD® system proven for more than 25 years.*







**ACHTUNG!**  
Gefahr bei laufender Maschine!  
Nicht in den Arbeitsbereich greifen!

**ATTENTION!**  
Danger when the machine is running!  
Never reach into working area!

THE PLANETARY HEAD UNIT DB-S CAN BE EQUIPPED WITH A TOTAL OF 10 DISC BRUSHES FOR PROFILE SANDING, EDGE BREAKING, STRUCTURING, POLISHING OR SURFACE FINISHING.



# HEESEMANN

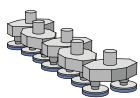
## PLANETARY HEAD UNIT DB-S

The high performance planetary sanding unit DB-S consists of five satellites, each accommodating two disc heads with a diameter of 150 mm. The speed and direction of both the satellites and the discs can be independently adjusted for ultimate application flexibility and performance.

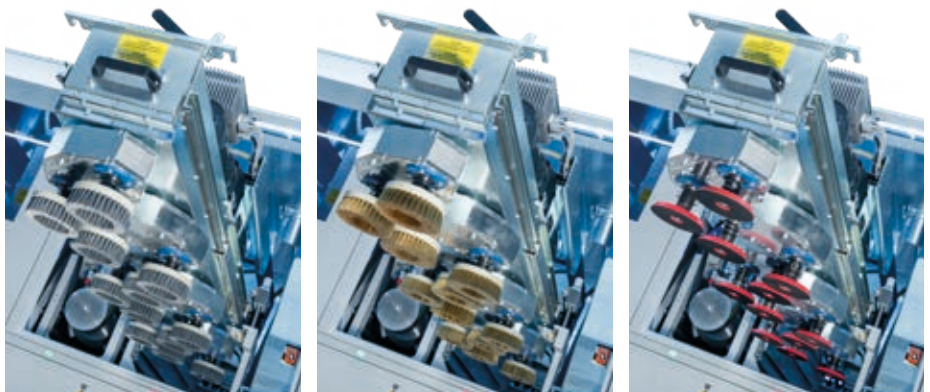
Depending on the application, different discs can be used. Discs with sanding brush strips for processing three dimensional work pieces, breaking edges or sanding in between lacquer coats, discs with Tynex or stranded wires for structuring or texturing or sanding pad discs for surface sanding and finishing.

The planetary sanding unit delivers a favorable surface finish, thus, the DB-S can be used as the last unit of the sanding machine. The result is a perfectly homogeneous surface. Whether sanding wood, lacquer, solid surface, plastics or metals, the DB-S can be used.

For quick tool changes or application changeover, the DB-S can be pulled out of the machine laterally on integrated rails so all discs are easily accessible. Thanks to the quick-release system, tools can be changed in just a few minutes.



*Depending on the application, the planetary head unit DB-S can be used with different disc brushes (Ø 150 mm).*





## HEESEMANN RUT DISC BRUSH UNIT

The RUT disc brush unit consists of 18 disc brushes. Their arrangement allows the sanding of contours in an up to now unreached quality. All areas are evenly sanded in different directions.

The frequency controlled drive system permits an infinitely variable regulation of the disc brushes rotation speed and their orbital velocity transversally to the feed direction.

The disc brushes can be equipped with two different abrasives at the same time. Thus the RUT unit can sand with different grits running in and against feed direction.

Due to the quick changing device replacing the disc brushes with trimmings for sanding for example by structuring brushes requires only minimal action.

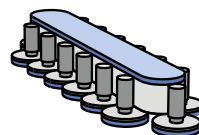




THE RUT DISC BRUSH UNIT CAN BE EQUIPPED WITH DISC BRUSHES WITH DIFFERENT TRIMMINGS FOR SANDING OR STRUCTURING.



*Due to the quick changing device replacing the disc brushes requires only minimal action.*



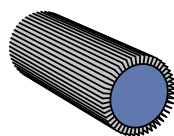
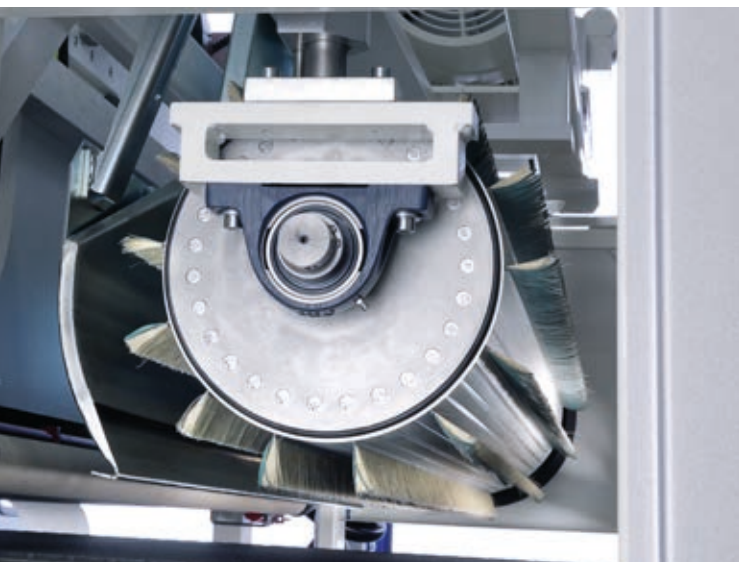


# HEESEMANN BRUSH UNITS

For Heesemann sanding machines a wide variety of brush units with different trimmings for sanding and structuring are available. The brush units can be mounted inclined to the feed direction or can be equipped with an oscillation.

Heesemann offers brushes with horse hair, fibre, sisal strings and mixed trimmings to clean the work pieces, fleece brushes for satin lacquered surfaces, brushes with Flex Trim abrasive trimmings to sand 3-dimensional work pieces and brushes with Anderlon or stranded wire trimmings as well as twisted knot brushes to structure the work pieces.

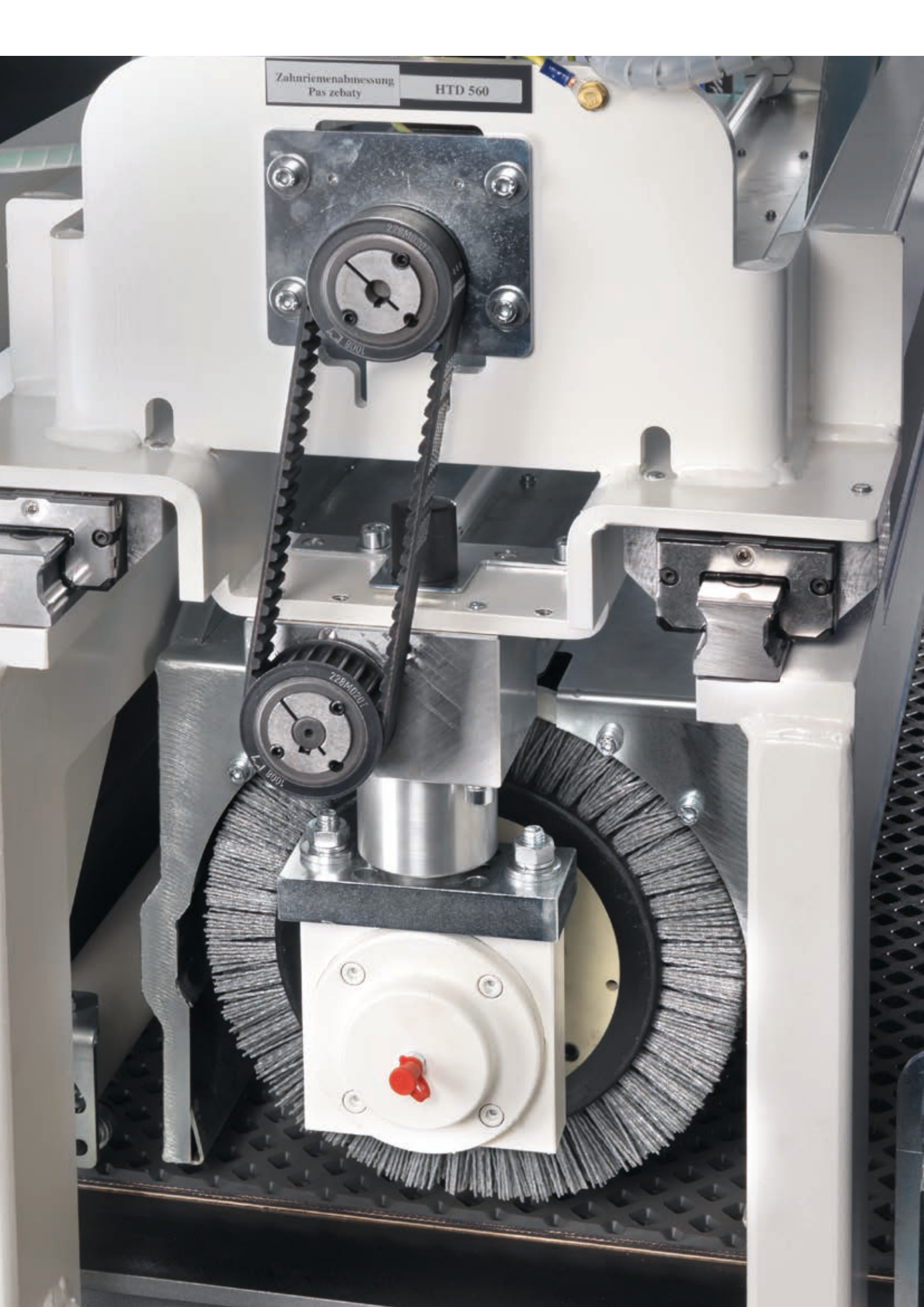
THE HEESEMANN BRUSH UNITS CAN  
OPTIONALLY BE EQUIPPED WITH AN OSCILLATION  
MECHANISM.



*The Heesemann brush units can be equipped with different trimmings for sanding, structuring and edge breaking.*



Zahriemenabmessung  
Pas zebaty HTD 560







Heeseemann



A LED STRIP IN THE INFEED OF THE MACHINE HELPS TO DETERMINE WHERE THE NEXT WORK PIECE SHOULD BE PLACED IN ORDER TO ACHIEVE EVEN WEAR OF THE SANDING BELTS.

WARNING  
Read the manual before operating the machine.  
The machine is equipped with a safety system that prevents the machine from starting if the safety system is not in the correct state.  
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# HEESEMANN

## MMI - INTUITIVE OPERATION

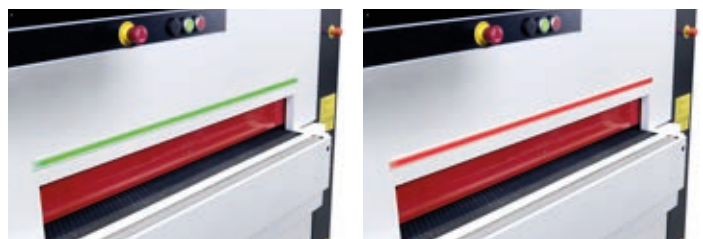
The optional MMI package equips your Heesemann with LED strips at the infeed and outfeed. The LEDs have two decisive functions: On the one hand, the strips indicate via simple color signals where the work piece should be inserted in order to optimize the wear of the sanding belts. The controller processes various parameters that can be influenced by the operator. This method reduces your tool costs immediately and significantly, as the belts wear out more evenly.

On the other hand, warnings or errors are also displayed via the LED strips. To recognize from afar, if something is wrong. With the help of the additional strips on the operating side of the machine, you can easily locate errors.

LEDs at the side of the machine indicate the status of the individual units. This allows simple localization of faults. The LEDs are updated in real-time, making it redundant to take a look at the operating terminal to check whether the fault has been eliminated.

Optionally, your machine can also be equipped with an additional camera. The operator receives a live image from the outfeed on the terminal and can react at any time if, for example, a work piece blocks the outfeed.

In this way, the MMI package gives you additional control and helps you to sustainably improve the profitability of your processes.



*The status of the machine is also displayed via the LED strips in the infeed and outfeed of the machine so that its status is always visible even from a greater distance.*



THE COMPUTER-CONTROLLED SELECTIVE PRESSURE REGULATION OF THE CSD® MAGNETIC BEAM SYSTEM INFINITELY ADJUSTS THE SANDING PRESSURE TO EVERY INDIVIDUAL ELEMENT IN THE PRESSURE BEAM WITHIN MILLISECONDS.

# HEESEMANN

## CSD® MAGNETIC PRESSURE BEAM

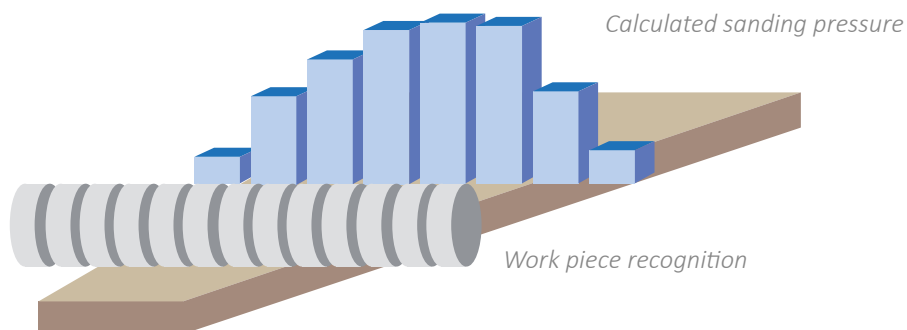
The precise control of the sanding pressure is decisive for a consistently high-grade sanding quality.

The computer-controlled selective pressure regulation of the CSD® magnetic beam system infinitely adjusts the sanding pressure within milliseconds to every individual element in the pressure beam. A highly sensitive sensing system at the infeed supplies the data for exact calculation of the required pressure.

The elastic pressure beam compensates for work piece thickness differences of 2 mm and more, whether the variation occurs within a single work piece or from one work piece to another.

A pollution of the pressure beam elements as it may occur on pneumatically working systems is impossible at the electromagnetically working CSD® pressure beam system.

The CSD® magnetic pressure beam is an integral part of all Heesemann cross and longitudinal sanding units.



*The elastic pressure beam compensates for work piece thickness differences of 2 mm and more.*





*From our EnergyManagement-System our environment and the machine-user benefit to the same degree. A diminished energy consumption unburdens the environment and reduces the cost.*

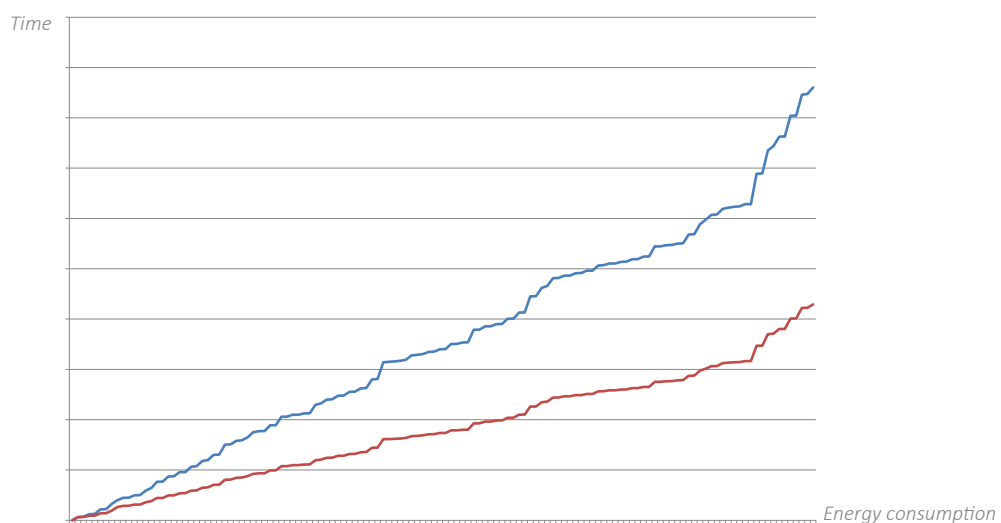
# HEESEMANN

## ENERGYMANAGEMENT-SYSTEM (EMS)

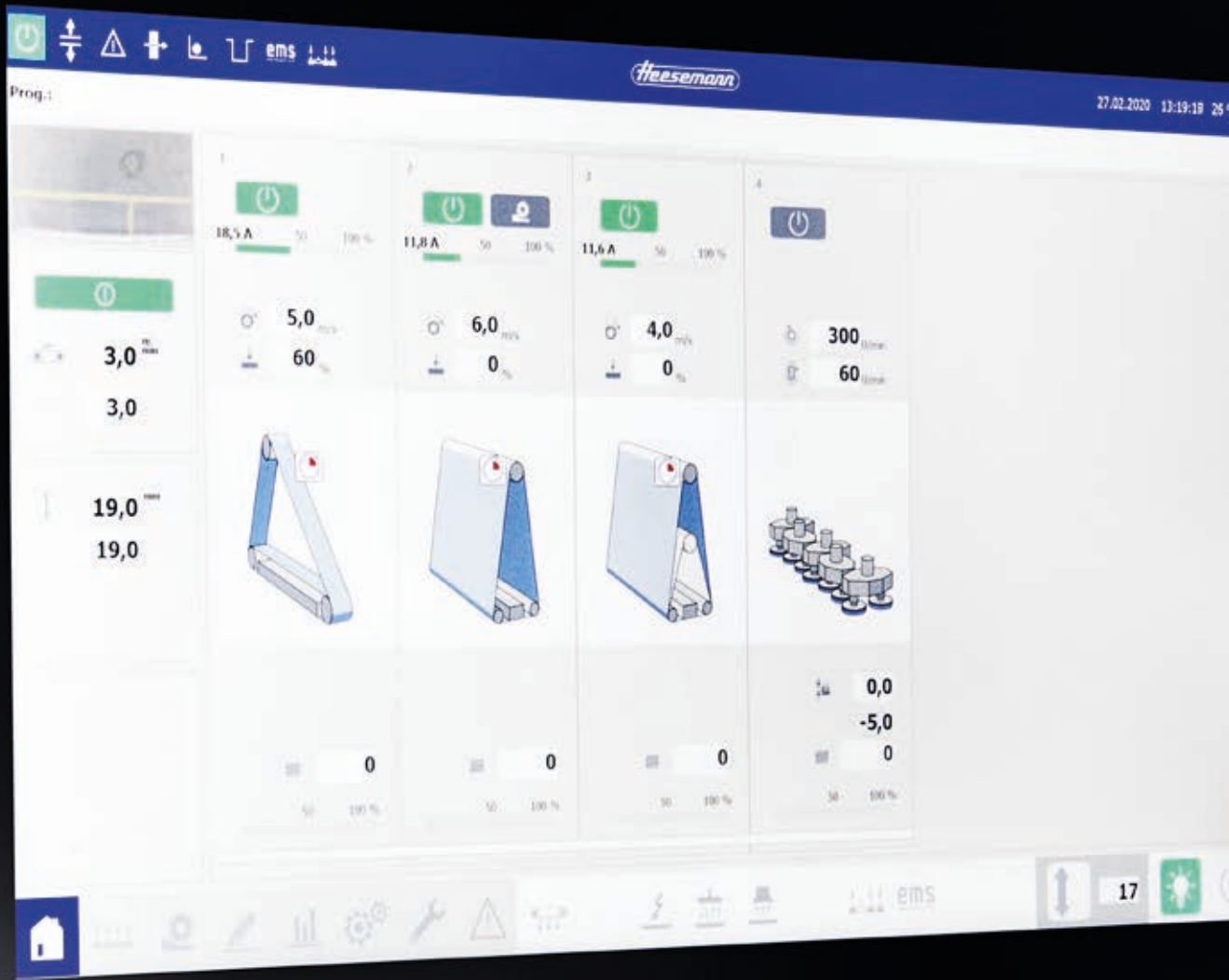
The Impression comes with the EMS system off-the-shelf. Both, our environment and our users, benefit from this energy-saving system to the same degree. A diminished energy consumption unburdens the environment and reduces the cost.

If no work pieces are being fed into the machine, the drive motors of the sanding units are run down to a low speed and a flap is closed on the suction blower in order to extremely reduce the air throughput. Depending on its actual load, this reduces the energy consumption of the machine quite considerably. When new work pieces are fed into the machine, all motors are rapidly started up again.

If the customer-supplied extraction system provides this option the machine can prevent the airflow through units that are not in operation by controlling closure flaps attached to the individual extraction hoods and thus make the extraction system save energy.



*The use of our EnergyManagement System leads to significant savings of power consumption of the machine and the whole installation.*



ALL HEESEMANN MACHINES ARE EQUIPPED WITH A POWERFUL AND HIGHLY FLEXIBLE INDUSTRIAL PC.





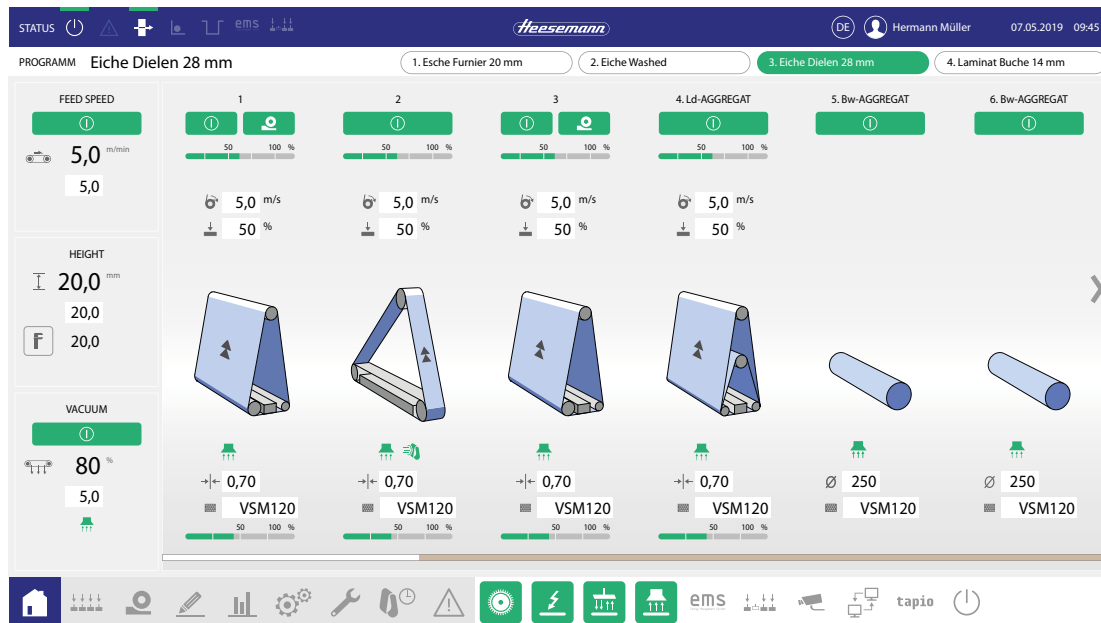
# HEESEMANN

## IPC WITH TOUCH SCREEN

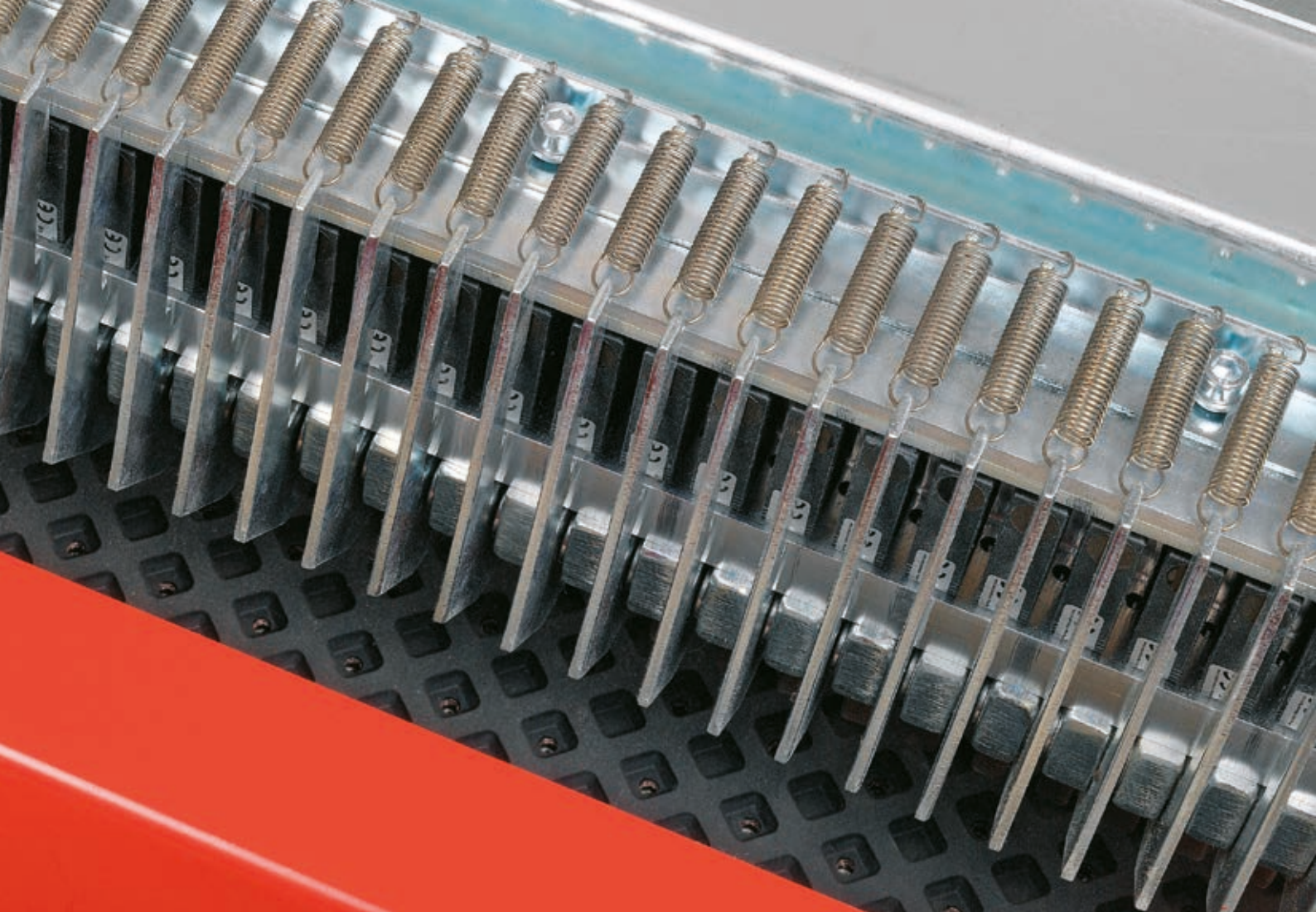
All Heesemann machines are equipped with a powerful and highly flexible industrial PC. All frequently repeated adjustment values are graphically displayed clearly on one screen page.

In addition, this industrial PC provides diversified applications for diagnosis and the ability to use peripheral equipment via standard interfaces. Furthermore, it can be connected to internal and external networks using Ethernet TCP/IP. The industrial PC acts like a web server and is diagnosable via standard browsers.

The industrial PC has a screen size of 21.5".



The industrial PC has a screen size of 21.5 inch and FullHD resolution.

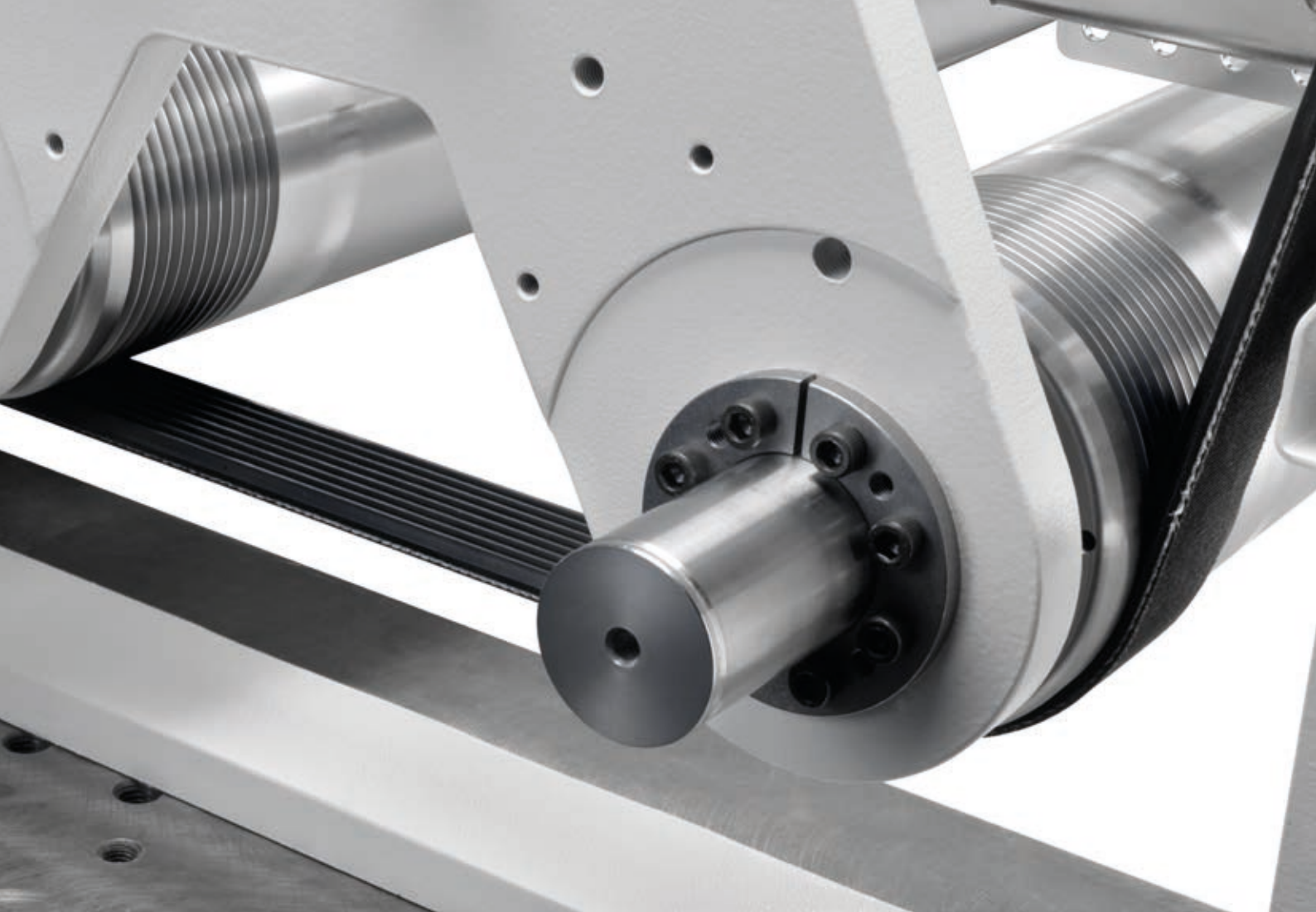


## **IMPRESSION**

### WORK PIECE DETECTION

The delicate work piece detection by means of control rollers at distances of 21 mm or optionally 16 mm provides the machine control system with information about the shape and size of the work pieces to be processed as well as its transport belt position.





## **IMPRESSION**

### POLY-V DRIVE BELTS

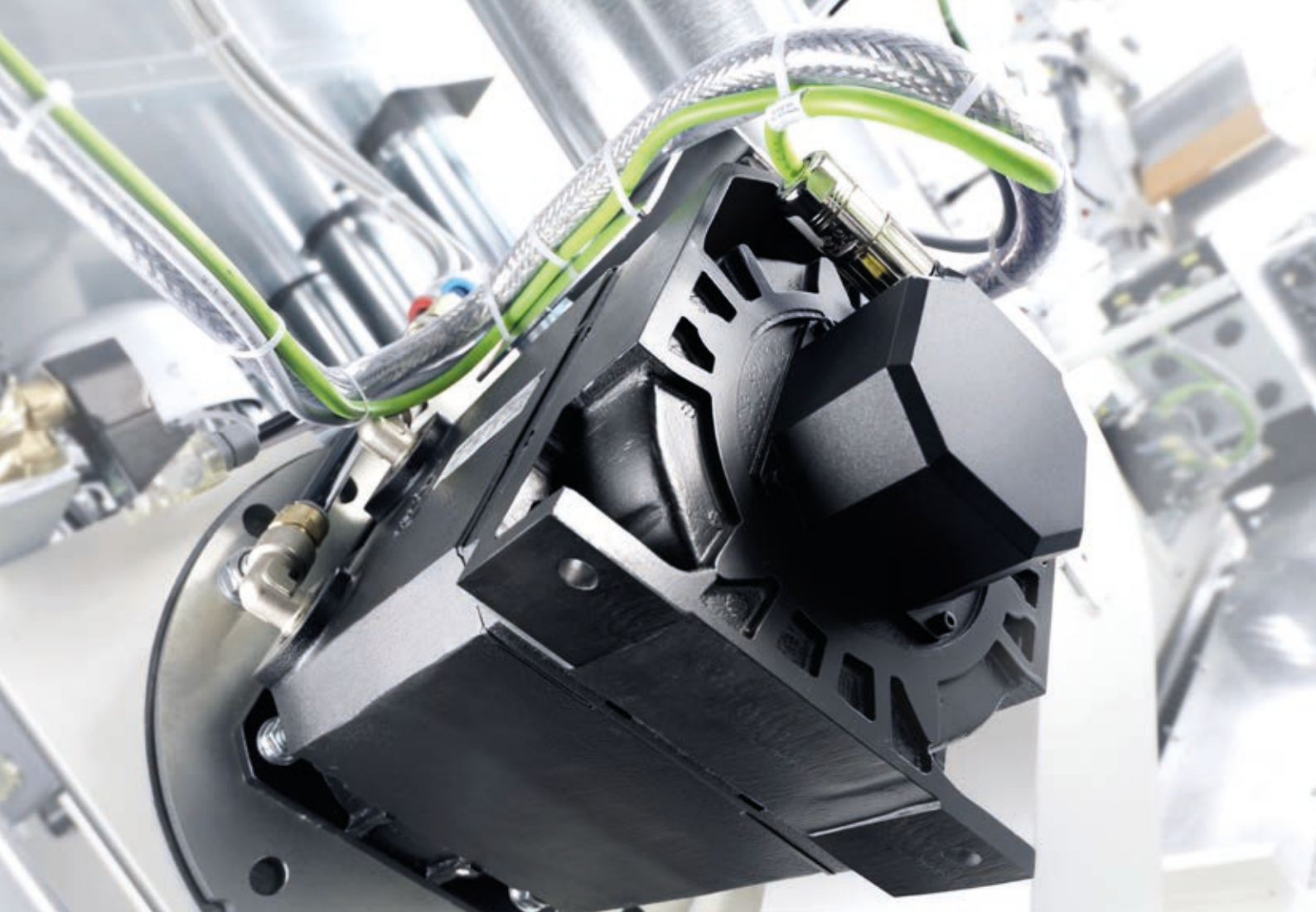
The units are driven by a vibration-free poly-V belt. The profile of the drive belt is integrated into the most finely balanced drive roller (quality class G1, cf. car tyre G40). This way a permanently low vibration run is ensured. All bearings have been lubricated for life; this excludes maintenance errors in the selection of the lubricant and the lubrication intervals as well as assembly faults; any maintenance work is not required.



## **IMPRESSION SANDING BELT CLEANING**

All sanding units are equipped with a cleaning device that loosens the sanding dust from the sanding belt and makes it ascertainable for the dust extraction. This cleaning takes place directly after the sanding process has been completed so that the sanding belt does not move the sanding dust through the machine.





## IMPRESSSION SERVO DRIVES

Due to the use of new and extremely thin lacquer systems it can become necessary to reduce the sanding belt speeds to lower speeds than generally achievable with frequency inverters. Water-cooled servo drives allow a constantly safe belt run with full sanding power at minimal sanding belt speeds of 0.1 m/s. Machines equipped with these servo drives can be used for water lacquer systems for example. The water-cooled servo drives are comparable to efficiency class IE 4.



OUR SERVICE TECHNICIANS TRAVEL  
WORLDWIDE, IF NECESSARY OUR SERVICE  
TECHNICIANS ARE ON SITE IN A FEW HOURS.

# HEESEMANN

## SERVICE - ONSITE WORLD-WIDE

As a manufacturer of technically mature and individual machines with a long machine life our customers' satisfaction is our highest priority. To prove our customers' confidence in our competence is one of our most important tasks.

Our technical customer service supports you discovering an effective solution for possible problems. If an advice by phone is insufficient, an online diagnosis via tele service can take place. If the intervention of a technician is necessary, no problem- our service technicians travel worldwide, if necessary our service technicians are on site in a few hours.

Heesemann offers their customers all classical service activities like installation, maintenance and repair. We ensure a fast supply of wear and spare parts by our extensive spare parts warehouse. In cooperation with our logistic partners we deliver worldwide, fast and reliable. Heesemann delivers original spare parts exclusively which meet our high demands in their fitting accuracy, material properties, durability and functionality.

Our inspection service provides a detailed evaluation of your machines' technical condition. On demand we prepare offers for further provisions, installation possibilities of latest sanding technology and control upgrades.

Such as our machines our customer service and spare parts are warrantors for quality and reliability "made in Germany".



Service hotline:



+800 188 188 19\*



+49 5731 188-300

*Our service team is available 24/7.*

*\* Free call.*

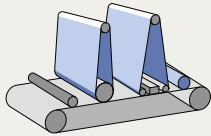






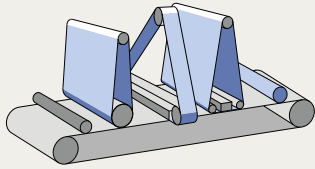
# MACHINE CONFIGURATIONS FREQUENTLY CHOSEN

## Solid wood sanding



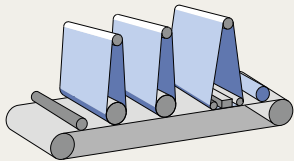
### Impression Lr/L

Calibration and fine sanding machine



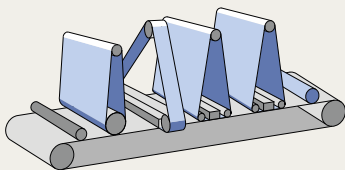
### Impression Lr/C/L

Calibration and fine sanding machine for very high surface qualities



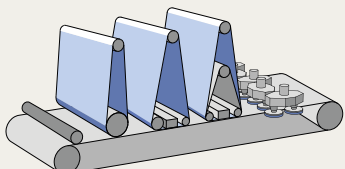
### Impression Lr/Lr/L

Calibration and fine sanding machine for high stock removal



### Impression Lr/C/L/L

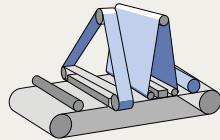
Calibration and fine sanding machine for high surface qualities with fine final grains



### Impression Lr/C/L/L

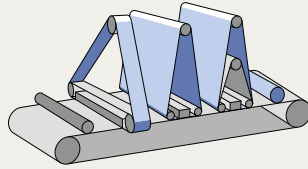
Calibration and fine sanding machine for high surface qualities with fine final grains

## Veneer sanding



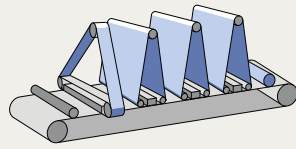
### Impression C/L

Cross sanding machine for low feed speeds



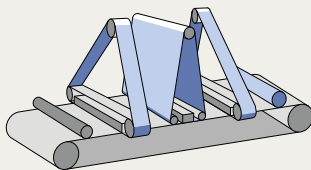
### Impression C/L/Lp

Cross sanding machine with pressure segment belt for medium feed speeds



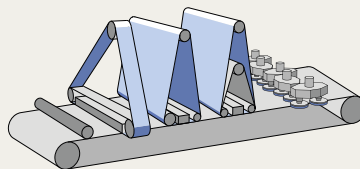
### Impression C/L/L/L

Cross sanding machine for high feed speeds



### Impression C/L/C

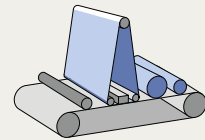
Sanding machine for work pieces with different veneer directions



### Impression C/L/C

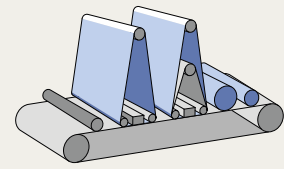
Cross sanding machine with pressure segment belt for medium feed speeds

## Lacquer sanding



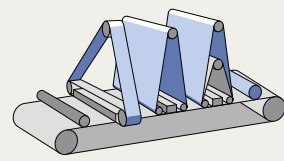
### Impression L

Sanding machine for low application quantities



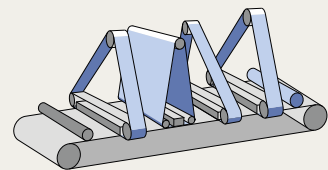
### Impression L/Lp

Sanding machine for higher application quantities



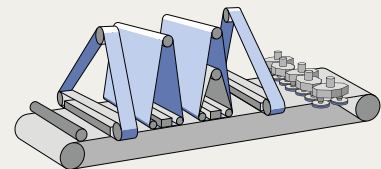
### Impression C/L/Lp

Sanding machine for higher application quantities



### Impression C/L/C/C

Sanding machine for high gloss lacquers

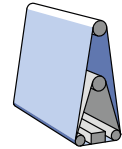
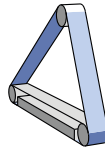
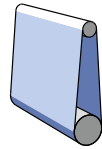


### Impression C/L/C/C

Sanding machine for high gloss lacquers

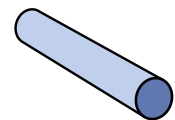
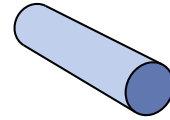
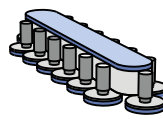
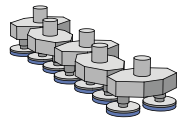
# TECHNICAL DATA

## IMPRESSION - UNITS



### Modules

	Contact roller	Cross unit	Longitudinal unit	Longitudinal unit with pressure segment belt
<b>Sanding belt dimensions</b> (LxW mm)	2 150 x 1 400 2 620 x 1 400	4 800 x 150 5 400 x 150	2 150 x 1 400 2 620 x 1 400	2 620 x 1 400
<b>Drives</b> Performance/Belt speed (kW   m/s)	22      24 30      24	15      2,0-20 19      0,1-20	15      1,8-18 19      0,1-18	15      1,8 - 9 (18) 19      0,1 - 9 (18)
<b>Extraction value</b> (m <sup>3</sup> /min.)	30,5	24	24	24
<b>Connection diametre</b> (mm)	∅ 180	∅ 160	∅ 160	∅ 160
<b>Air velocity</b> (m/s)	20	20	20	20



### Modules

	Planetary head unit DB-S	Disc brush unit RUT	Structuring brushes	Cleaning brushes
	10 / 12 disc brushes ∅ 150 mm	18 disc brushes ∅ 180 mm Sanding width: 1 350 mm	∅ 250 x 1 430	∅ 120 x 1 430 ∅ 150 x 1 430
<b>Drives</b> Performance (kW)	Satellite rotation: 1.5 kW FU ± 60 - 300 rpm  Disc rotation: 5.5 / 7.5 kW FU ± 260 - 1,300 rpm	Brush rotation: 7,5 kW FU 160 - 800 rpm  Brush movement: 1,5 kW FU 5 - 25 m/min	11 15	0,75 1,5 4,0
<b>Extraction value</b> (m <sup>3</sup> /min.)			18,0	18,0
<b>Connection diametre</b> (mm)	2 x ∅ 160 / 2 x ∅ 180	2 x ∅ 160	∅ 140	∅ 140
<b>Air velocity</b> (m/s)	min. 20	min. 20	20	20

Extraction value for the transport belt cleaning 18.5 m<sup>3</sup>/min.



# TECHNICAL DATA

## IMPRESSION

Machinery base: Working height 880 mm / Working width 1 350 mm

W 2 300 H 2 250/2 750	Length (mm)	Weight (kg)	Feed speed (m/min)	Suction device	
				(kW)	(m <sup>3</sup> /min)
<b>1 unit</b>	approx. 2 700	approx. 3 500	3 - 15	2,2	11
<b>2 units</b>	approx. 2 700	approx. 4 000		2,2	11
<b>3 units</b>	approx. 3 200	approx. 5 000		2,2	11
<b>4 units</b>	approx. 3 800	approx. 7 500		3,0	25
<b>5 units</b>	approx. 3 800	approx. 8 000			

Subject to technical modifications.

# PRODUCT MATRIX

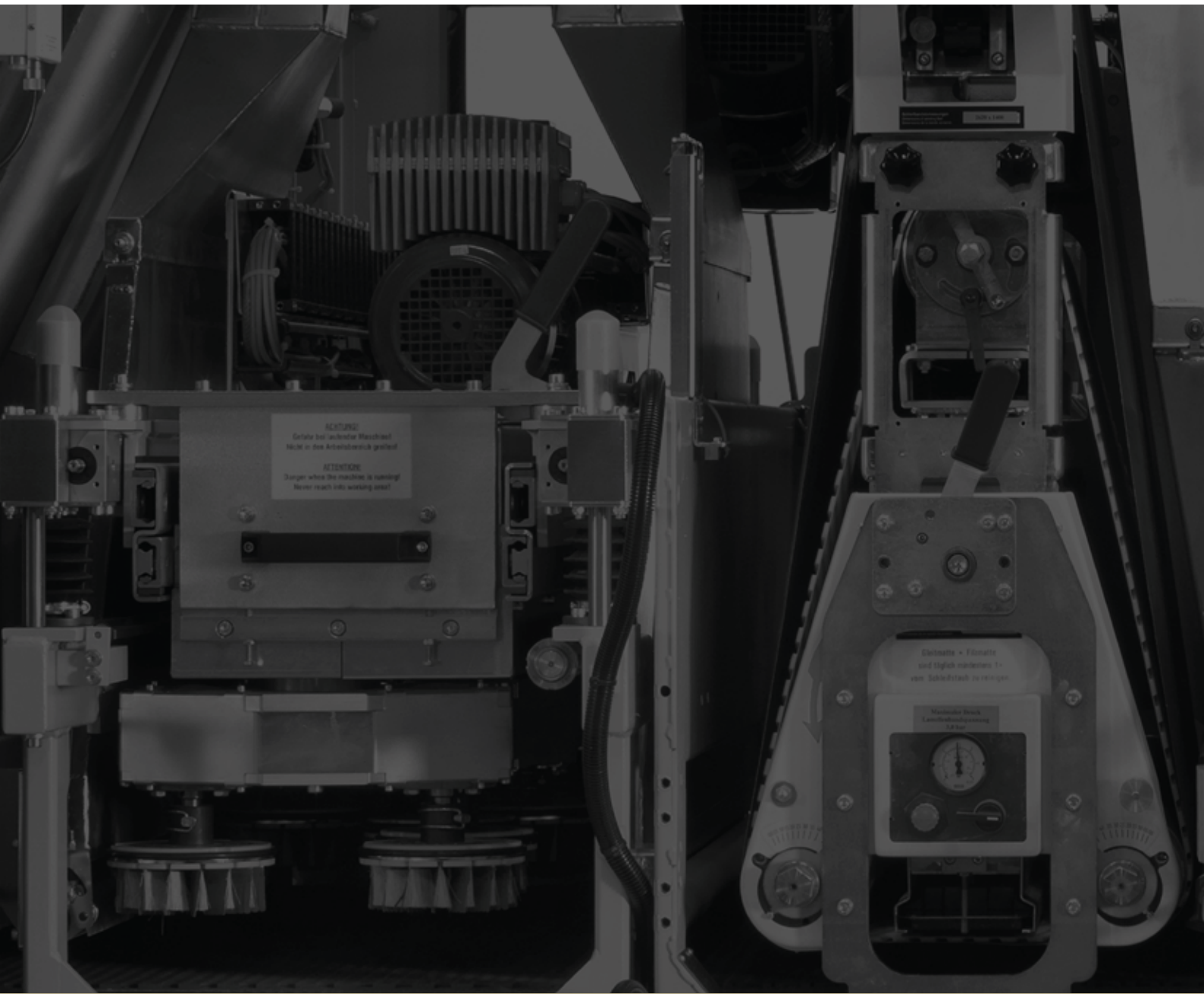
## SURFACE SANDING MACHINES

	 Sanding width	 Feed speed	 Sanding units
HSM	1 300 mm	3 - 15 m/min	2 or 3
Impression	1 350 mm	3 - 15 m/min	up to 5
MFA 10	1 350 mm / 1 600 mm	5 - 25 m/min	up to 8
BM 8	1 350 mm	5 - 25 m/min	up to 6
LSM 8	1 300 mm / 1 400 mm	5 - 25 m/min	up to 6
KSA 8	1 600 mm - 2 600 mm	5 - 25 m/min	up to 6
FBA 8	650 mm / 1 350 mm	6 - 30 m/min	up to 4









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- Surface sanding machines for wood  
*HSM .2/.3, Impression, MFA 10, LSM 8, KSA 8, BM 8, FBA 8*
- Deburring and edge rounding machines for metal  
*profiRounder*
- Edge and profile sanding machines  
*UKP 20*
- Sanding machines for 3D processing  
*BM 8, UKP 20*