



# LSM 8

THE SURFACE SANDING MACHINE



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

# HEESEMANN

## SANDING WITH PASSION

Heesemann has produced sanding machines for the wood industry 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 inventions and revolutionized sanding technology.

Our goal has always been to be the innovation leader in sanding technology and every decision we make is with this goal in mind.

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 the sophisticated handicraft as well as huge industry machines.

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

We support our customers with broad 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.*







A SANDING LINE COMPOSED OF A LSM 8 SANDING FROM ABOVE AND A LSM 8 SANDING FROM UNDERNEATH REDUCES THE HANDLING COSTS SIGNIFICANTLY.



**1 300 mm / 1 400 mm**

Sanding width



**5 - 25 m/min**

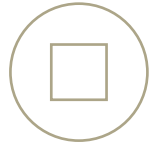
Feed speed



**up to 6**  
Sanding units

## LSM 8

# THE SURFACE SANDING MACHINE



The LSM 8 series fulfils highest demands in respect to power of performance and modern technique. Thanks to a variable modular design with up to max. 6 sanding units individual customer solutions may be arranged.

For this, calibrating, cross and longitudinal sanding units in different executions are available. Additionally, the possibility exists to adapt the sequence of the sanding units to the production requirements at a later stage. Due to respective execution and design the LSM 8 series is determined in view of operation time and performance demand for unlimited requirements.

The LSM 8 is available as a machine sanding from above and sanding from underneath.



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



## LSM 8

### AVAILABLE SANDING UNITS



*Contact roller unit*



*Cross sanding unit*



*Longitudinal sanding unit*



*Orbital sanding unit OSR*



*RUT disk brush unit*



*Brush unit*



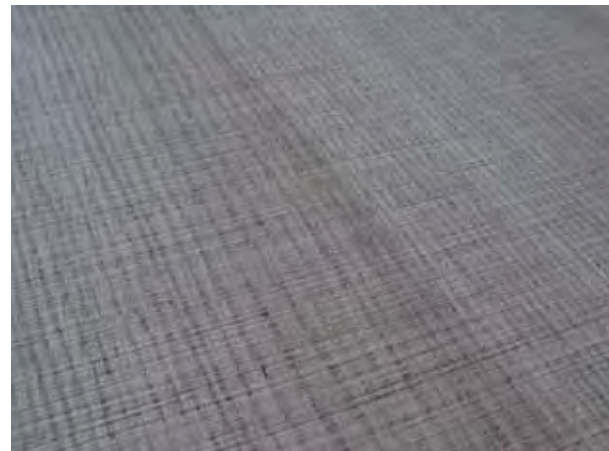
# LSM 8

## 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 willfully craggy sanding result.





THE HEESEMANN CONTACT ROLLER UNITS ARE OFFERED WITH STEEL ROLLERS AS WELL AS WITH RUBBER-COATED ROLLERS IN DIFFERENT SHORE HARDNESS'S.



# HEESEMANN

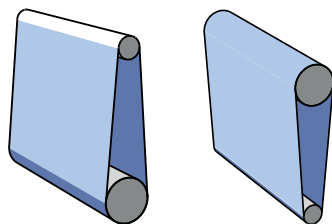
## CONTACT ROLLER UNIT

The Heesemann contact roller units are offered with steel rollers as well as with rubber-coated rollers in different Shore hardness's. Both models are deliverable with different roller diameters.

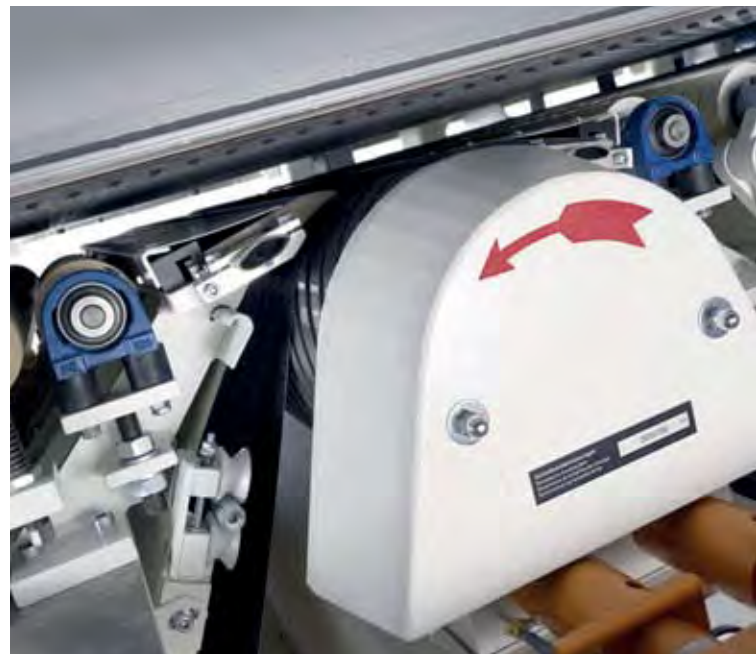
The contact roller unit with a 250 mm steel roller for example allows the exact calibration of materials like solid wood, flake boards, MDF or plastics. The surface of the roller is grooved in a spiral shape. This allows a better cooling of the roller and makes it easier to extract the generated abrasive dust.

Contact roller units with rubber-coated rollers can be delivered as well. Depending on their Shore hardness they can be used for varying sanding tasks.

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



*The contact roller unit of a  
LSM 8 sanding from underneath.*



A large industrial sanding machine is shown in a factory setting. A wide, black sanding belt is stretched between two large, orange-colored pulleys. The machine is mounted on a white frame. To the right, there is a large, silver-colored electrical control box with a fan. Various cables and hoses are connected to the machine. A vertical ruler is visible in the bottom right corner.

THE CROSS SANDING UNIT IS AVAILABLE  
WITH SANDING BELT LENGTHS OF  
5 400 MM AND 6 200 MM.



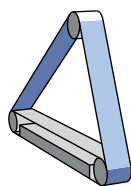
# HEESEMANN

## CROSS SANDING UNIT

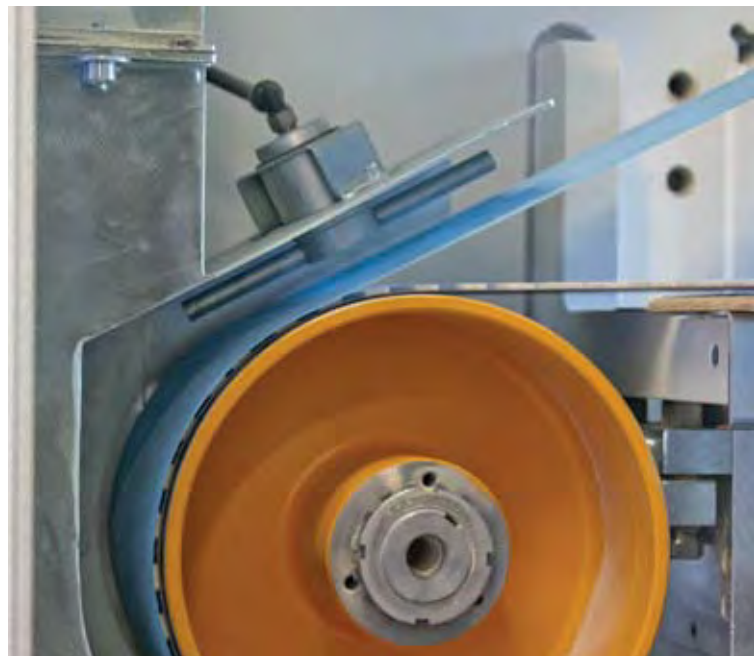
For wooden surfaces the cross sanding method achieves the worldwide accepted best sanding result. The work pieces are sanded crosswise to the grain direction first and are afterwards sanded in direction of the grain with one or more sanding units.

This way the higher standing harder areas of the annual rings are leveled and loosened fibres are sheared off whereby a wash out effect is avoided and the fibres can not 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 as three-point and four-point units as well as with commonly or separately driven pressure segment belt.



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



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

ATTENZIONE!  
Pericolo quando la macchina è funzionante!  
No authors le mani nel area di lavoro!

Druckverleumdungswarnung  
maximale Druck 10 bar  
maximale Drehmoment 10 Nm



THE LONGITUDINAL UNIT OF THE LSM 8  
IS BUILT EXTREMELY ROBUST AND BEARS UP  
UNDER HIGHEST DEMANDS.



Filzsohle 14 mm  
Suola di feltro 14 mm

Il tappeto antistatico - il tappeto di feltro vanno  
puliti almeno 1 volta al giorno dalla polvere  
di carteggiatura.

Gründmatte - Filzmatten sind täglich  
mindestens 1x vom Schleifstaub zu reinigen.





# 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.

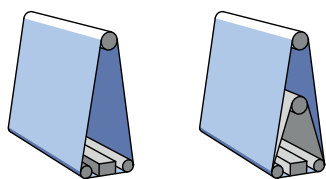
The longitudinal sanding units are available for sanding belts with belt lengths of 2 620 mm or 3 250 mm.

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 grooved or ungrooved.

The [longitudinal unit with an internally running pressure segment belt](#) is an 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 to be 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 for the wear on the pressure segment belt, and its lifetime is extended many times over.



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





## HEESEMANN

### RUT DISK BRUSH UNIT

The RUT disk brush unit consists of 19 disk brushes. Their arrangement allows the sanding of contours in an up to now unreachable quality. All areas are evenly sanded in different directions.

The frequency controlled drive system permits a continuous regulation of the disk brushes rotation speed their orbital velocity transversally to the feed direction.

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

Due to the quick changing device replacing the disk brushes with fittings for sanding for example by structuring brushes can be done with a few handles.

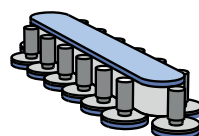




THE RUT DISK BRUSH UNIT CAN BE EQUIPPED WITH DISK BRUSHES WITH DIFFERENT FITTINGS FOR SANDING OR STRUCTURING.



*Due to the quick changing device replacing the disk brushes can be done with a few handles.*

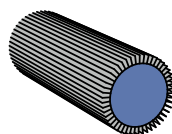
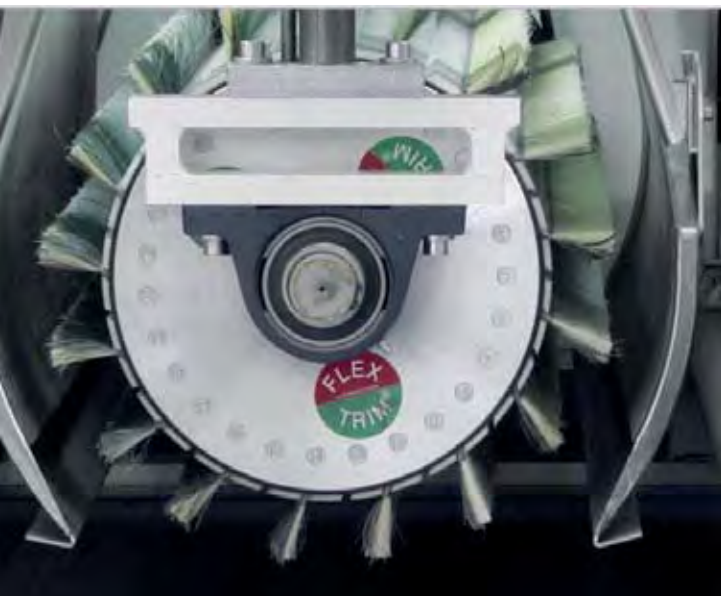


# HEESEMANN BRUSH UNITS

For Heeseemann 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.

Heeseemann offers brushes with horsehair, fibre, sisal cord and mixed trimmings to clean the work pieces, fleece brushes to 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.



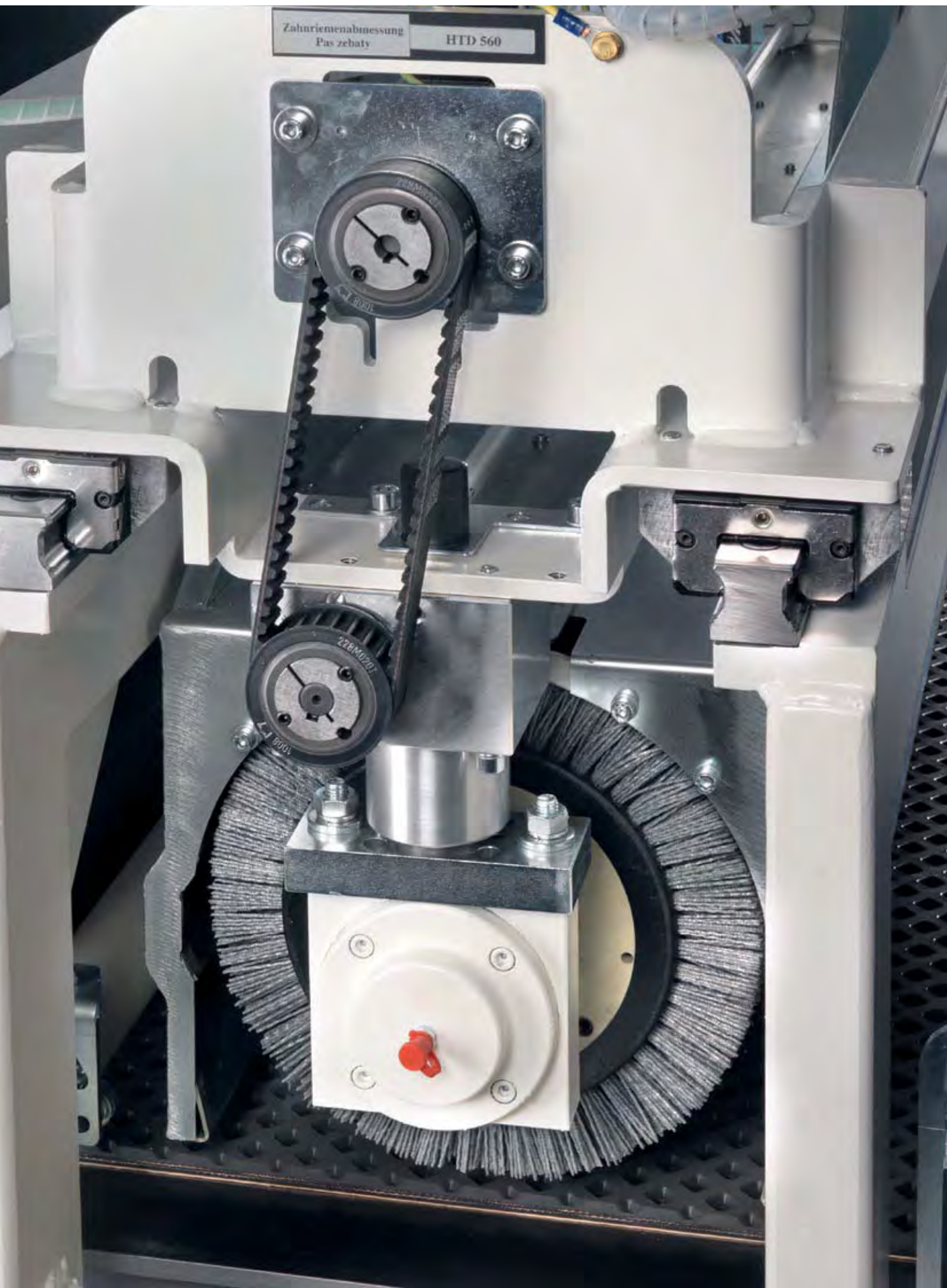
*The Heeseemann brush units can be equipped with different fittings for sanding or structuring.*






Zahnriemenabmessung  
Pas zabaty

HTD 560







THE ORBITAL SANDING UNIT IS DESIGNED FOR FINE  
SANDING OF WORK PIECES WITH CROSS OR LONGITUDINAL GRAIN  
(KITCHEN DOORS OF SOLID WOOD) AND TO REDUCE THE  
SANDING TRACES PRODUCED BY CROSS AND  
LONGITUDINAL BELTS SIGNIFICANTLY.



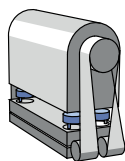
# HEESEMANN

## OSR ORBITAL SANDING UNIT

On sanding frames and other work pieces with different grain directions sanding crosswise to the grain direction cannot be avoided. The generated sanding traces are strongly in evidence especially if dark stains are used. The Heesemann orbital sanding unit removes these traces.

The unit works based on a frequency controlled eccentric vibration with big hub. An additional segment belt press-on system moves between the pressure beam and a vibrating sanding belt crosswise to the feed direction.

Hereby the sanding traces of the vibrating sanding belt are interrupted and a harmonious sanding result without any disturbing sanding traces is achieved.



*The static sanding belt of the orbital sanding unit OSR can be moved after a set length sanding meter at the push of a button.*





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



# HEESEMANN

## CSD® MAGNETIC PRESSURE BEAM

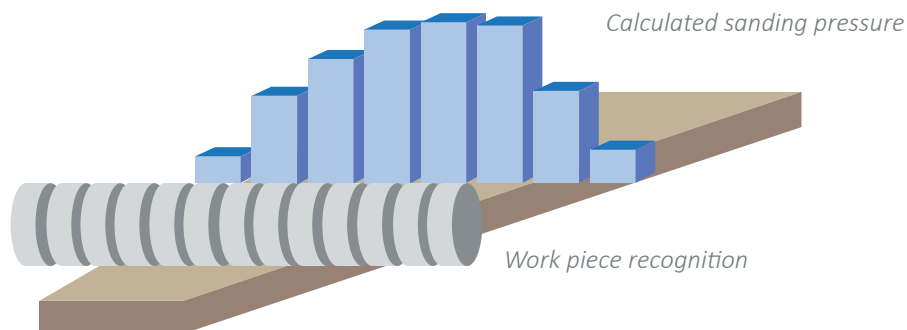
The precise control of the sanding pressure is decisive for a high-grade, uniform surface sanding quality.

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

The elastic pressure beam compensates for work piece thickness differences of 2 mm, 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 occurs 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.*



*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.*



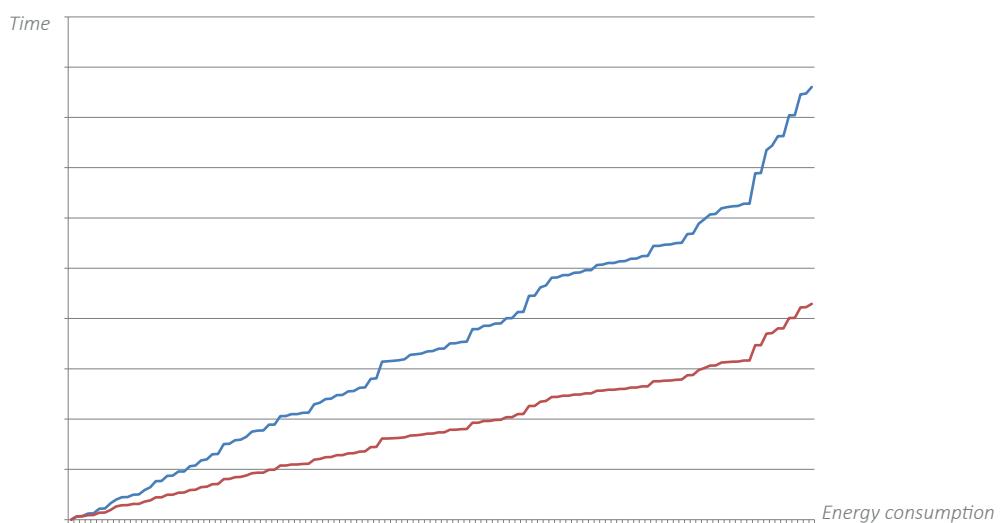
# HEESEMANN

## ENERGYMANAGEMENT-SYSTEM (EMS)

The LSM 8 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, they 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 at the 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 TOUCHSCREEN

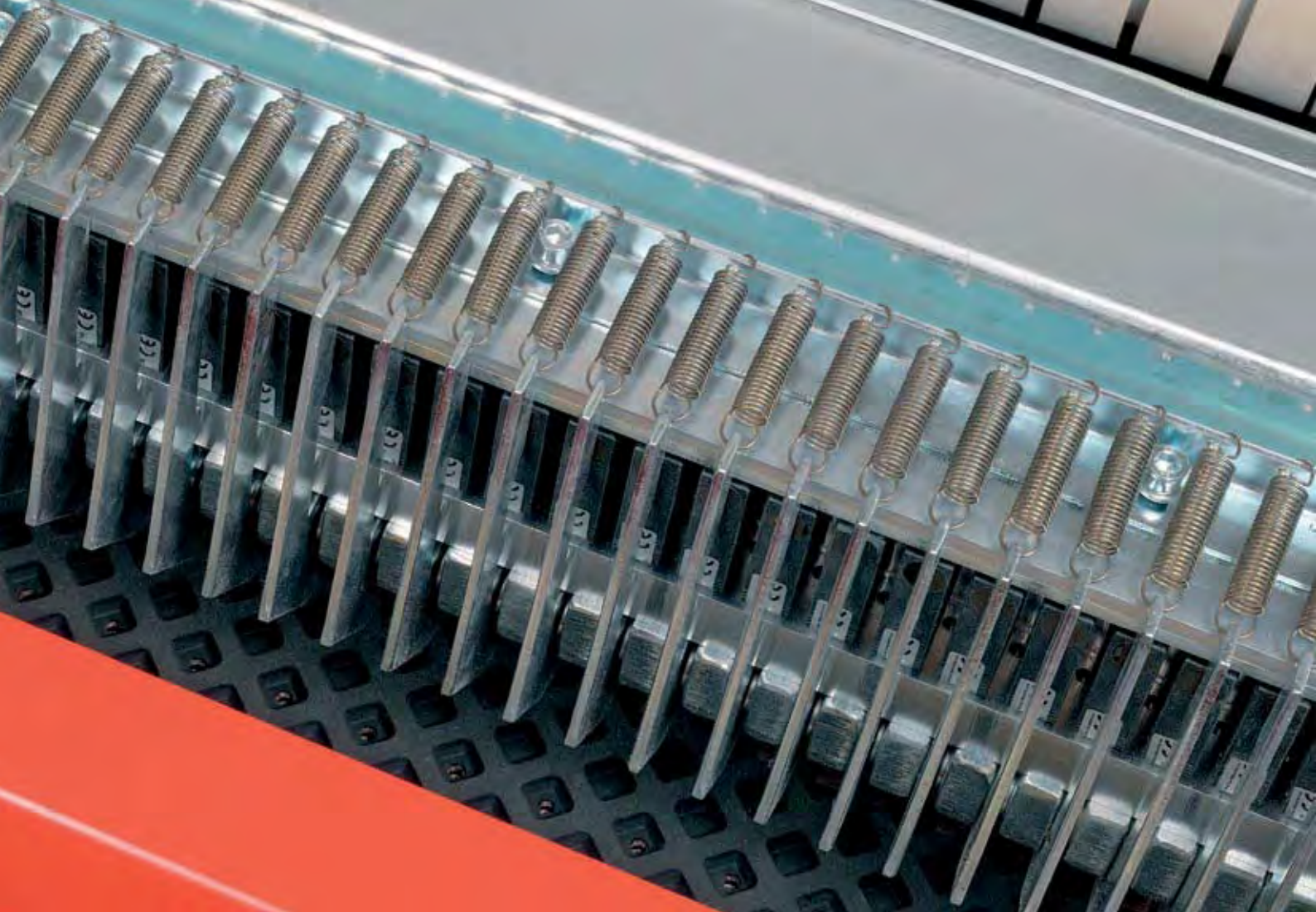
All Heesemann machines are equipped with a powerful and highly flexible industrial PC. All frequently repeated adjustment values are graphically displayed clearly on one screen page.

In addition, this industrial pc provides diversified applications for diagnosis and the ability to use peripheral equipment at 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 at standard browsers.

The industrial PC is available in 10.4" and 15" screen size. The 15" model provides an additional operating data recording and is moveable to the operators' eye-height by a pivot mounted arm.



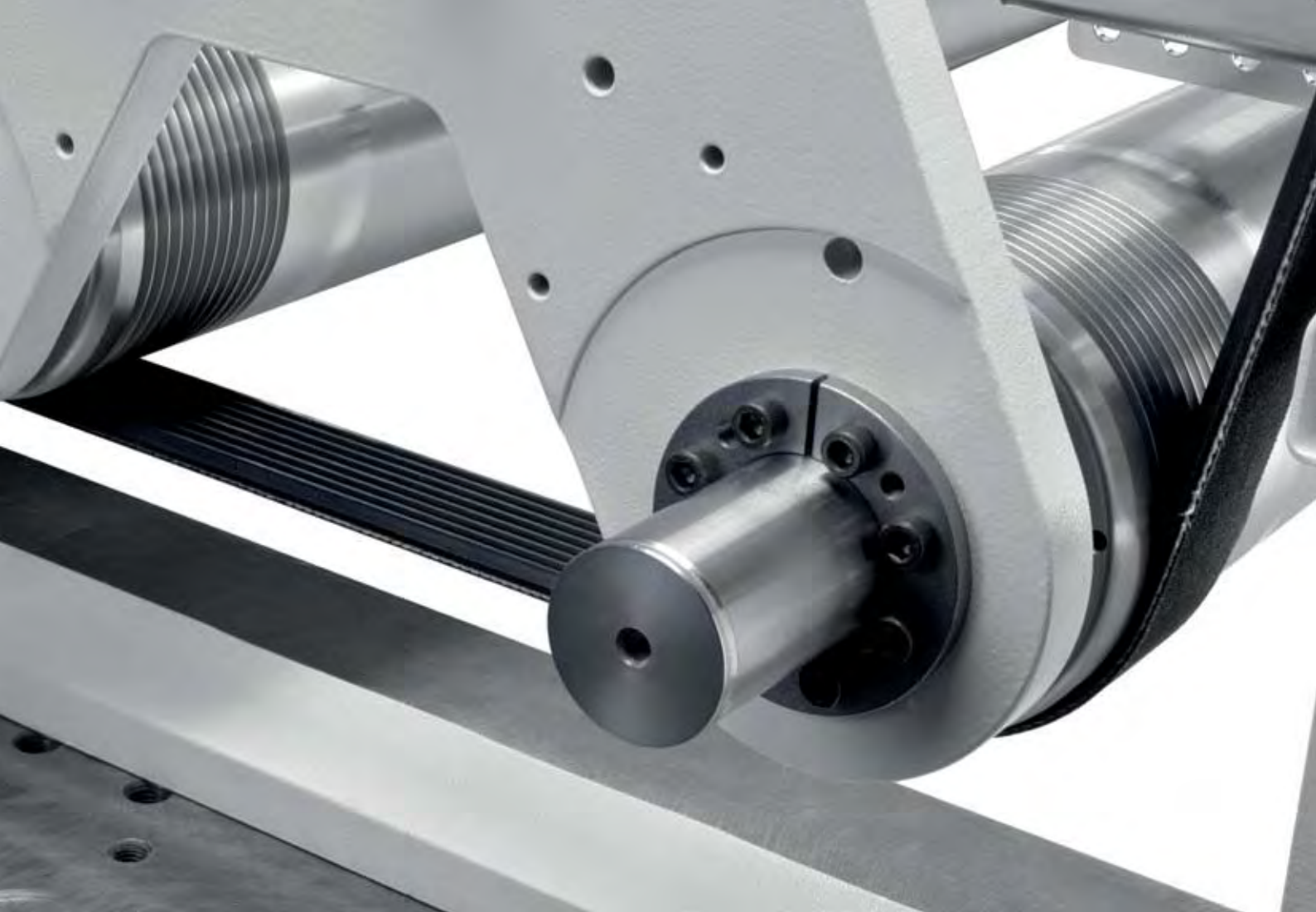
*The industrial PC is available in 10.4" and 15" screen size.*



## LSM 8

### WORK PIECE DETECTION

The finely graded work piece detection by means of control rollers at intervals of 21 mm or, optionally, 16 mm provides the machine control system with information about the form and size as well as the transport belt position of the work pieces to be processed.



## LSM 8

### 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. 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.





## **LSM 8**

### 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.



## LSM 8 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. As a trend-setting innovation for this purpose Heesemann offers equipment with most modern drive technology. Even at minimum belt speeds of 0.1 m/s the water-cooled servo drives allow a constant and safe belt running at full sanding power without any fluctuations in speed. 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 employment 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 with 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 only which bear 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 compile offers for further provisions, installation possibilities of recent sanding technology and control upgrades.

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.*

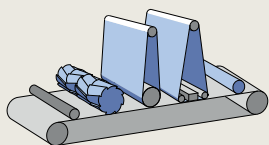




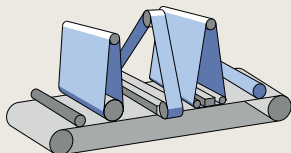


# MACHINE CONFIGURATIONS OFTEN USED

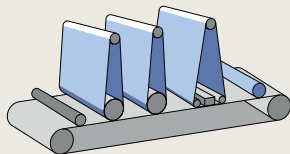
## Solid wood sanding



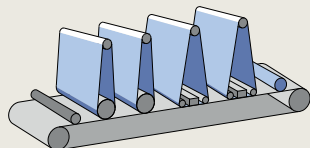
**LSM 8 Cu/Lr/L** Planing, calibrating and fine sanding machine in one pass



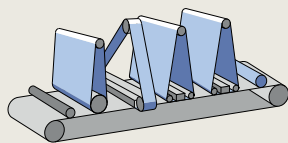
**LSM 8 Lr/C/L** Calibrating and fine sanding machine for high surface qualities



**LSM 8 Lr/Lr/L** Calibrating and fine sanding machine for high stock removal

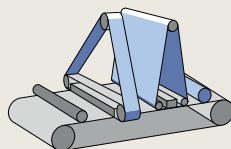


**LSM 8 Lr/Lr/L/L** Calibrating and fine sanding machine for high stock removal and higher feed speeds

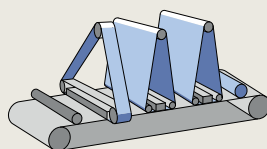


**LSM 8 Lr/C/L/L** Calibrating and fine sanding machine for high surface qualities with fine final grits

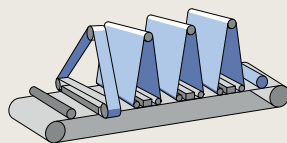
## Veneer sanding



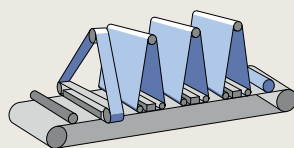
**LSM 8 C/L** Cross sanding machine for slow feed speeds



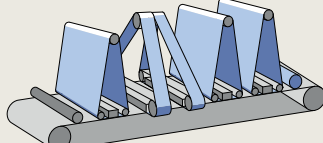
**LSM 8 C/L/L** Cross sanding machine for medium feed speeds



**LSM 8 C/L/L/L** Cross sanding machine for higher feed speeds

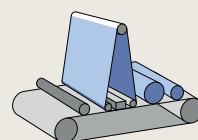


**LSM 8 C/L/L/L** Cross sanding machine for high feed speeds

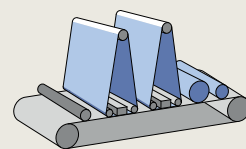


**LSM 8 L/C/C/L/L** Cross sanding machine for high feed speeds with a considerable proportion of cross veneered parts

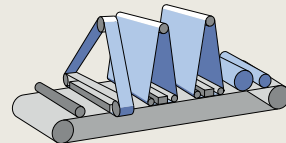
## Lacquer sanding



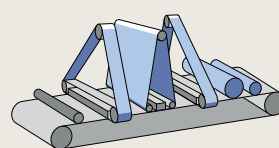
**LSM 8 L** Sanding machine for small application quantities



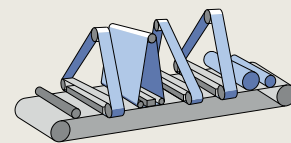
**LSM 8 L/L** Sanding machine for medium application quantities



**LSM 8 C/L/L** Sanding machine for higher application quantities

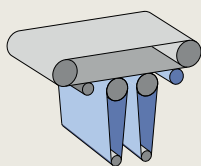


**LSM 8 C/L/C** Sanding machine for a higher gloss with finer grits

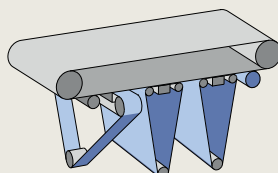


**LSM 8 C/L/C/C** Sanding machine for high gloss lacquers

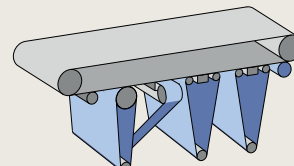
## Sanding machines working from underneath



**LSM 8-U Lr/Lr** Calibrating machine



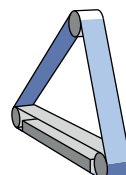
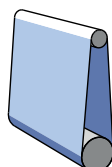
**LSM 8-U C/L/L** Cross sanding machine for medium feed speeds



**LSM 8-U Lr/C/L/L** Calibrating and fine sanding machine for high surface qualities and fine final grits

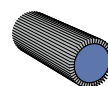
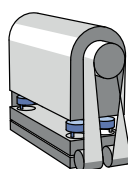
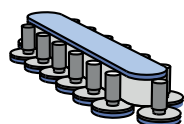
# TECHNICAL DATA

## LSM 8 - UNITS



### Modules

	Cutter head	Contact roller	Cross unit	Longitudinal unit
<b>Sanding belt dimensions</b> (LxW mm)	Ø 180 x 1 350 mm	2 620 x 1 350 3 250 x 1 350	5 400 x 150 6 200 x 150	2 620 x 1 350 3 250 x 1 350
<b>Ø Contact roller</b>		Steel Ø 250 mm Rubber Ø 300 mm Optional Ø 400 mm		
<b>Drives</b> Performance/Belt speed (kW   m/s)	22      30	22 - 75    24 / 30	13 / 17      12 / 24 16,5 / 21    12 / 24 11            0,5 - 12 22            0,5 - 24	13 / 17      10 / 20 16,5 / 21    10 / 20 11            0,5 - 12 22            0,5 - 20 30            0,5 - 20
<b>Connection diameter</b> (mm)	Ø 250	Ø 250	Ø 160	Ø 160
<b>Extraction value</b> (m³/min)	35,0	89,5	30,5	30,5
<b>Air velocity</b> (m/s)	20	20	20	20



### Modules

	Disk brush unit RUT	Orbital sanding unit OSR	Brushes
<b>Sanding belt dimensions</b> (LxW mm)		2 620 x 1 350	Ø 150 x 1 380 Ø 250 x 1 380
<b>Drives</b> Performance/Belt speed (kW   m/s)	22	5,5	1,5 2,2 4,0      4,0 5,5 7,5
<b>Connection diameter</b> (mm)	Ø 250	Ø 140	Ø 140
<b>Extraction value</b> (m³/min)		20	18,5
<b>Air velocity</b> (m/s)	20	20	20



# TECHNICAL DATA

## LSM 8

Machinery base: Working height 880 mm / Working width 1 300 mm					
W 2 300 H 2 250	Length (mm)	Weight (kg)	Feed speed (m/min)		Suction device (kW      m³/min)
1 unit machine	ca. 1 955	ca. 4 200	1,5 / 3,0	5- 25	5,5      25
2 units machine	ca. 2 955	ca. 6 000	2,2 / 4,0	5- 25	5,5      25
3 units machine	ca. 3 855	ca. 7 500	3,0 / 5,5	5- 25	7,5      40
4 units machine	ca. 4 455	ca. 10 000	4,0 / 7,5	5- 25	11,0      60
5 units machine	ca. 5 165	ca. 12 000	5,5 / 11,0	5- 25	15,0      66
6 units machine	ca. 5 865	ca. 15 000	7,5 / 15,0	5- 25	15,0      66

Subject to technical modifications.





# PRODUCT MATRIX

## SURFACE SANDING MACHINES

			
	Sanding width	Feed speed	Sanding units
BR 134	1 350 mm	3 - 15 m/min	2 or 3
Impression	1 350 mm	3 - 15 m/min	up to 4
MFA10	1 350 mm	3 - 25 m/min	up to 6
BM 8	1 350 mm	3 - 25 m/min	up to 6
LSM 8	1 300 mm / 1 400 mm	3 - 25 m/min	up to 6
LSM 8-C	1 300 mm	3 - 15 m/min	3 or 4
KSA 8	1 600 mm - 2 600 mm	3 - 25 m/min	up to 6
FBA 8	650 mm / 1 350 mm	3 - 30 m/min	up to 4



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