

# HSM The surface sanding machine



The HSM is the automatic surface sanding machine for **small** and **medium-sized craft and industrial** companies. Whether effect sanding, cross sanding, lacquer or high-gloss sanding, whether panels, solid wood or veneered workpieces - the Heesemann HSM is the optimally matched sanding machine for the craft! In its standard configurations with two, three or four units, the HSM New Edition is ideally prepared for all typical applications.



## TECHNICAL DATA HSM



	Units						
	Longitudinal sanding roller (Lw)	Cross sanding unit (Q)	Longitudinal sanding unit with pressure segment belt and calibra- tion roller (Ldk)	Longitudinal sanding unit with calibra- tion roller (Lk)	Longitudinal sanding unit with pressure segment belt (Ld)	Planetary head unit DB-S	Brush unit (B)
Sanding belt dimensions (L x W mm)	2,620 x 1,350	4,800 × 150	2,620 x 1,350	2,620 x 1,350	2,620 x 1,350	10 disc brushes Ø 150 mm	
Ø Contact roller (mm)	Steel: 200 Ruber: 250						200
<b>Drives</b> Performance / Belt speed in m / s	22 kW	15 kW 2 - 20 m / s	15 kW 1.8 - 18 m / s	15 kW 1.8 - 18 m / s	15 kW 1.8 - 9 m / s	Satellite- rotation: 1.5 kW FU ± 60 - 300 min <sup>-1</sup> Disc rotation: 5.5 / 7.5 kW FU ± 260 - 1,300 min <sup>-1</sup>	5.5 kW
<b>Connection</b> diameter (mm)	Ø 180	Ø 160	Ø 160	Ø 160	Ø 160	Ø 160 (2x)	Ø 160
<b>Extraction value</b> (m³ / min)	30.5	24	24	24	24	24	24
<b>Recommended</b> <b>Air velocity</b> (m / s)	20	20	20	20	20	20	

### Machinery base working height 880 mm / working width 1.350

W 2.260 H 2.250	<b>Length</b> (mm)	Weight (kg)	Feed speed (m / min)	<b>Vacuum</b> (kW m³ / min)	
2-Units	approx. 1,960	approx. 4,000	3 - 15	2.2 11	HS
3-Units	approx. 2,510	approx. 5,500	3 - 15		
4-Units	approx. 3,130	approx. 6,000	3 - 15		5

Subject to technical modifications.

## HEESEMANN STANDARD MACHINES: HSM

		MACHI	NE TYPE							
			HSI	м.2		HSM .3				
	VARIANT	Lk-Ld	Q-Ldk	Ldk-DBS	DBS-DBS	Lw-Lw-Ld	Lw-Lk-Ld	Lw-Q-Ld	Q-Ldk-DBS	
	CALIBRATION	• 0 0	• 0 0		000	•••	•••	••0	• 0 0	
	WOOD SANDING	••0	••0	•••	• 0 0	••0	••0	•••	•••	
	VENEER SANDING	••0	•••	• 0 0	• 0 0	• • •	••0	•••	•••	
	LAQUER SANDING	•••	•••	••0	••0	• 0 0	•••	•••	•••	
	HIGH GLOSS	000	••0	000	000	000	000	••0	••0	
HSM	STRUCTURING	optional	optional	••0	••0	optional	optional	optional	••0	
<u>⊢</u> 5⋈ 	3D/ BRUSHING	000	000	•••	•••	000	000	000	•••	
	EFFECT SANDING	• 0 0	••0	••0	000	• • •	• • •	••0	•••	



					HSM .4			
Q-Lk-Ld	M-Lw-Lk	Lw-Ld-DBS	Lk-Ld-DBS	Ldk-DBS- DBS	Lw-Lw-Lw- Ld	Lw-Lk-Ld- DBS	Lw-Q-Ld- DBS	Q-Lk-Ld- DBS
• 0 0	•••	••0	• 0 0	• 0 0	•••	•••	••0	• 0 0
•••	•••	••0	•••	••0	•••	•••	•••	•••
•••	• 0 0	••0	••0	••0	• 0 0	••0	•••	•••
•••	• 0 0	• 0 0	•••	••0	• 0 0	•••	•••	•••
••0	000	000	000	000	000	000	••0	••0
optional	optional	••0	••0	••0	optional	••0	••0	••0
000	000	•••	•••	•••	000	•••	•••	•••
•••	• 0 0	••0	••0	• 0 0	• 0 0	••0	•••	•••

HSM .4

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## DISC BRUSH UNIT DB-S

The DB-S consists of 5 satellites (6 satellites for a sanding width of 1,600 mm) and each satellite holds two disc brushes with a diameter of 150 mm. The direction and speed of rotation of the satellites and discs can be adjusted independently for maximum application flexibility and performance.

Different discs can be used depending on the specific application. Plates with sanding strips for processing three-dimensional workpieces, for breaking edges or for intermediate paint sanding, discs fitted with Anderlon or stranded wire for structuring or sanding pad plates for sanding and finishing the surface.

The disc brush unit produces a flawless surface. As such, the DB-S can also serve as the final unit of a sanding machine. This delivers a perfectly homogeneous surface. In addition to wood, the DB-S can also be used for sanding paint, solid surface materials or plastics.

The DB-S can be pulled out of the side of the machine on integrated rails, enabling easy tool or application changes and free access to all of the discs. Using the quick-release fasteners, the tools can be changed in only a few minutes.



HSM

# Different Disc Brushes can be used depending on the application

#### Grinding strips:

- Machining of three-dimensional workpieces
- Edge breaking
- Intermediate lacquer sanding

#### Anderlon or stranded wire:

• Structuring and texturing





#### Sanding pads:

• Grinding and finishing the surface



For easy mold or application changes, the DB-S can be pulled out of the side of the machine on integrated rails. All platens are thus freely accessible. Thanks to **quick-release fasteners**, this can be done within a few minutes.

## QUICK CHANGE BRUSH UNIT

#### Barrel brush head | 3D finish

- Fine sanding of wood and wood-based materials, as well as painted surfaces
- Refining the sanding patterns of upstream processes
- Suitable for machining three-dimensional workpiece surfaces

#### Structuring brush Anderlon

• Ideal for light to medium structuring of hardand softwood





#### Structuring brush Stranded wire

• Well suited for intense structuring of hard- and softwood



#### **Glazing brush**

• Recommended to smooth and to emphasize pores on lacquered surfaces



## APPLICATION AREAS EFFECT SANDING

## Individual effects for creative customer solutions

Incredible sanding effects can be achieved using a Heesemann surface sanding machine equipped with at least one cross and one longitudinal sanding unit. These are a few of the possibilities:

### Sawed surfaces

A Heesemann cross sanding unit and a very coarse sanding belt can create extraordinary saw surface structures on veneered workpieces in a continuous process.



### Vintage Look

A Heesemann longitudinal sanding unit can be used to create a "vintage look" on workpieces with two different coats of paint. Heesemann has developed a special sanding program to achieve an intentionally irregular surface effect on workpieces with a dark primer and a lighter topcoat.

### Planing

A Heesemann longitudinal sanding unit in combination with highly flexible sanding belts, a special steel plate and a special sanding program can produce random depressions on the surface of workpieces to create a planed look.





## OUR MACHINE STANDARDS



## IPC with touchscreen

All Heesemann machines are equipped with a powerful and highly flexible industrial PC as standard. All frequently used settings are clearly displayed graphically on a single screen page. In addition, this industrial PC offers a wide range of applications via standard interfaces for storage media and for remote diagnostics.

## Intuitive HMI operation

The optional HMI package equips your Heesemann with LED strips on the infeed and outfeed. The LEDs have two key functions: Firstly, the strips utilize simple color symbols to indicate where to insert the workpiece in order to optimize wear on the sanding belts. The control system utilizes various parameters that the operator can adjust. This process immediately and significantly reduces your tooling costs by ensuring more even belt wear. Secondly, the LED strips also display warnings or errors, enabling the operator to identify error messages from a distance.

HSM Optionally, you can also equip your machine with an additional camera. This provides the operator
10 with a live view of the outfeed via the terminal and the operator can react immediately if a workpiece blocks the outfeed, for example. The HMI package gives you an additional measure of control and helps to sustainably improve the profitability of your processes.



## HEESEMANN ENERGY MANAGEMENT SYSTEM (EMS)



## Benefits for the environment and users



With Heesemann's EMS energy-saving system our environment and users benefit equally: Decreasing energy consumption reduces both the burden on the environment and your costs.

When no workpieces enter the machine, the drive motors in the units reduce speed. This significantly reduces the energy consumption of the machine depending on the workload. When new workpieces are run in, all motors are quickly started up again.

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