Heesemann

Reliability by proven design

Sanding centre for irregularly formed and allround shaped edges SZ 2

The problem

The desire for individualized products increases the complexity of workpieces:

- in the **automobile industry** for decorative interior panelling
- in the **office furniture industry** for increasingly complex designed desk tops
- in the area of home **furnishings** for furniture fronts with curved edges
- in the **chair and frame industry**

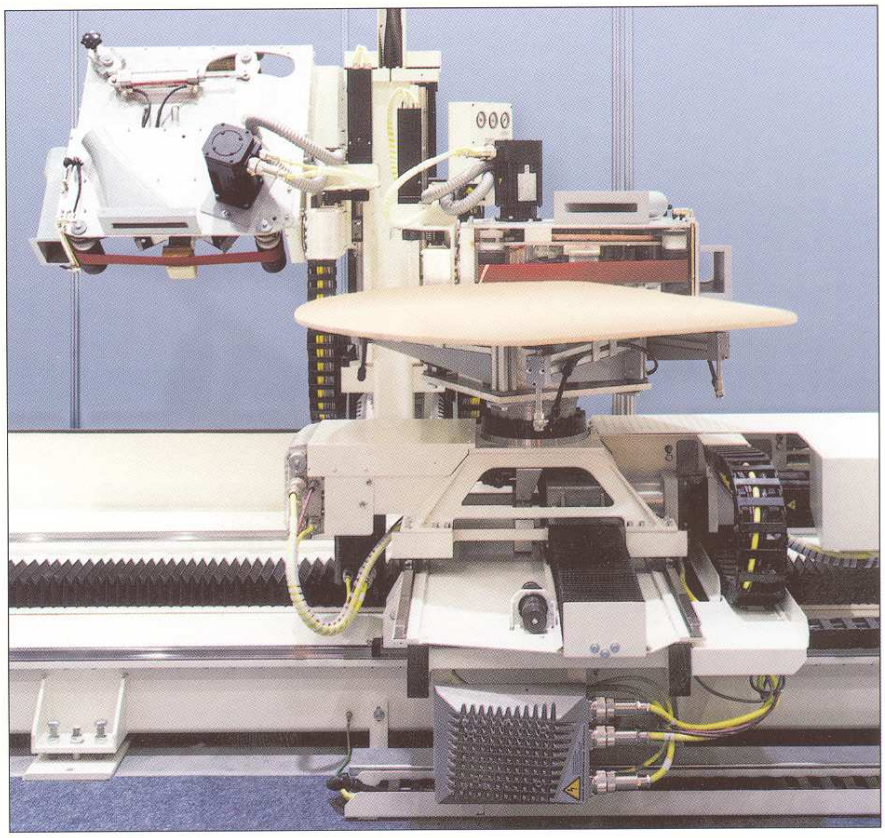
Whereas routing and edge-banding/ lipping operations are now perfectly performed by CNC top routers, a perfect solution for the sanding process has not yet been found. This is particularly true where lacquer intermediate sanding is additionally required.

The solution

Heesemann has developed a completely new **sanding centre** for this complex area of application. The main emphasis in application is placed on wood and lacquer intermediate sanding of workpieces with irregularly formed and allround shaped edges.

The centre`s operating range is designed to accomodate both small and large workpieces allowing processing of small parts in the automobile industry as well as large parts in office, table and furniture production. Unlike the additional units on CNC top routers operating with sanding disks, Heesemann uses sanding belts on their machines. In comparison to the sanding disk, this offers a considerably longer life time. In addition, a better sanding quality is achieved due to the high adaptability of the flexibly guided sanding shoe to the profile.
The Heesemann sanding belt solution makes time consuming and expensive profiling of sanding disks unnecessary.

Complicated profile shapes can be processed in one set up with 2 sanding units arranged opposite each other in the work room as well as with an integrated tool changer.
CNC adjusting axes on the units allow quick change-over to new profiles.
The workpiece clamped on the machine table is guided along the units line controlled. The **sanding centre´s** control system is based on a completely new control concept with decentral drives. Numerical control is performed directly from the PC.



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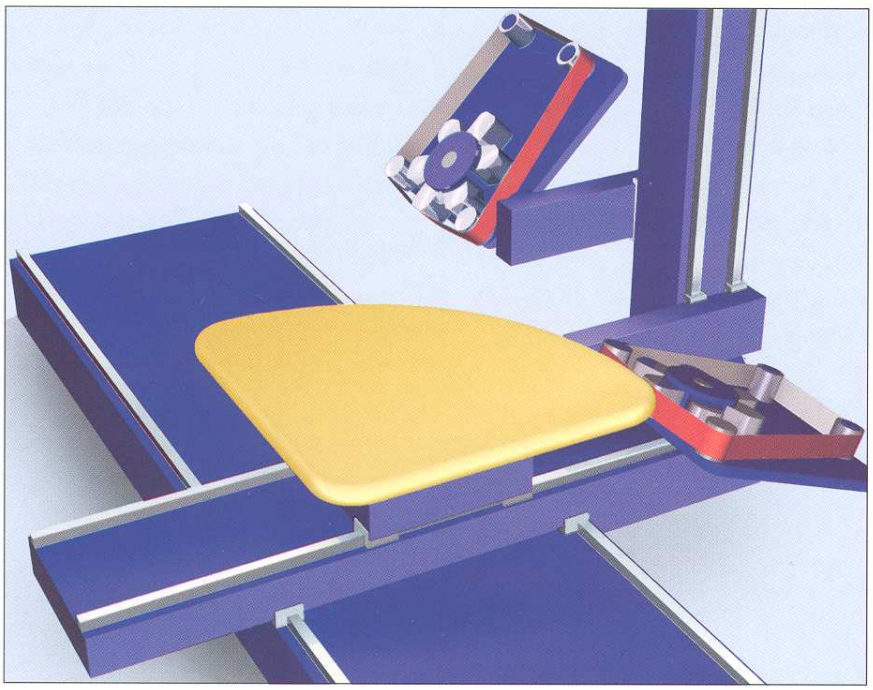
The line controlled axes are programmed via an external programming location or the PC on the machine. This opens up the possibility for workshop orientated programming and central PC programming from external programming locations. User supportive software requires only the geometrical data of the workpiece and information on the sanding task to be performed. The machine program itself is created by the control system on the basis of this data. The sanding centre is both suitable for 2-D processing and via additional axes on the units, also for 3-D processing for threedimensionally shaped parts.

Servo controlled sanding belt drives with a wide control range allow individual adaptation of the sanding belt speed to different wood and lacquer types as well as profile sections.



Heesemann
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Technical data

axis dimension	X-axis	Y-axis	rotating axis
machine table sanding units	3100 mm 550 mm	1250 mm	>360° -15° +90°
sanding units	**belt dimensions**	**motor power**	**belt speed**
2	2300 x approx. 60 mm	1,8 KW	servo controlled
dust extraction	**air speed**	**air requirement**	**compressed air**
	25 m/s	2 units: 40 m^3/min 1 unit: 20 m^3/min	20 m^3/h 10 m^3/h
CNC	**type of control**	**internal**	**external**
	continous line control	decentral structure	by external PC
options	**tool change**	**interfaces**	
	6 tools	V 24	