



3.0 Technical Data

KSF-3-1350 (COO)

92.445.80

Operating range

Operating height	<i>constant</i>	900	mm
Operating width		1350	mm
Max. workpiece thickness		120	mm
Min. workpiece thickness		4	mm
Space requirement for belt change		approx. 1800	mm

Machine dimensions

see installation plan

Weight		approx. 5000	kg
Width		approx. 2140	mm
Length		approx. 2690	mm
Height		approx. 2200 - 2320	mm

Scanning unit (mechanical)

grid		22	mm
number of rollers		61	pieces

Segmented platen

system		ISA 22/44	
number of pressure pieces		31	pieces

Drives

Cross belt (head 1)	<i>frequency controlled</i>	11,0	kW
Orbital head 1 (head 2)			
Drive Frame	<i>frequency controlled</i>	(at 50 Hz) 3,0	kW
Drive cushion	<i>frequency controlled</i>	(at 50 Hz) 4,4	kW
Orbital head 2 (head 3)			
Drive Frame	<i>frequency controlled</i>	(at 50 Hz) 3,0	kW
Drive cushion	<i>frequency controlled</i>	(at 50 Hz) 4,4	kW
Height adjustment		0,75	kW
Feed		(at 50 Hz) 2,2	kW
Cleaning brush (conveyor belt)		0,55	kW
Vacuum		5,5	kW

Sanding belt

Dimension cross belt head	4900 x 150	mm
Dimension orbital head	200 x 1830	mm

Conveyor belt

Speed	3 - 18	m/min
Dimension	1350 x 5200	mm



Supply / disposal

Connected value	63	kW
Operating voltage	3 x 460	Volt
Control voltage	24	Volt DC
Frequency	60	Hz
Supply line fuse	100	Amp.
Supply line cross section	35	mm ²
Compressed air connection	5,5 - 7,0	bar
Extraction socket diameter	1x120, 2x160, 3x200	mm
vacuum air quantity	approx. 11000	m ³ /h

Noise values (DIN EN ISO 11202)

workplace related emission value LpA	(KSF-4 + KSF-3)	approx. 87,36	dB(A)
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5.0 Construction of the machine

The machine contains the following main elements:

- frame
- drive
- workpiece conveyance
- height adjustment
- workpiece tracing unit (option)
- sanding heads
- sanding pad (segmented platen) (option)
- dust extraction brush (option)
- vacuum (option)
- workpiece blow off (option)

5.1 Frame

The frame is comprised of a welded, torsion free steel construction. It accommodates all components. Once the protective cover has been removed, all parts are well accessible.

5.2 Drive

The standard sanding machine is equipped with alternating current motors. The power transmission from drive motor to the head takes place by means of V-belts resp. toothed belts. A retightening of belt drives is normally not necessary. For orbital head is it possible to retighten via tension roll.

5.3 Workpiece conveyance

As a rule, the workpieces are conveyed by means of an endless conveyor belt mounted around the conveyor table. This belt is driven by the rear guide roller and is subject to a tension strain. In addition, different pressure elements, such as a vacuum system, vacuum clamping the workpiece onto the conveyor belt, ensure a safe conveyance and prevent the parts from slipping. Machines equipped with cross sanding units feature a pneumatic conveyor belt control that prevents lateral run-off of the conveyor belt.

5.4 Height adjustment

5.4.1 Design: gear unit:

Vertical height adjustment is carried out by four height adjustment gear units that are mounted to the bottom part of the frame and accommodate the top part of the frame.

5.4.2 Design: spindles:

Vertical height adjustment is carried out by adjusting spindles, which run on bearings positioned on the frame and on which the two table supports are fastened.

5.5 Workpiece tracing unit (option)**5.5.1 mechanical scanning unit**

The workpiece tracing unit detects the contour of the workpiece to be sanded. Tracing is effected with plastic rolls running in ball bearings; these rolls ensure accurate tracing without scratching the surface of the workpiece.

5.6 Sanding heads**5.6.1 Orbital head**

The orbital head consists of a frame firmly fixed in the chassis, the drive and the sanding shoe screwed. Sanding will be done via driven eccentrics which put the sanding shoe into a orbital oscillating motion.

5.6.2 Cross belt head (option)

The components of the cross sanding head are mounted directly in the frame without support beam. This makes for a very compact and space saving machine design. The sanding process is achieved by a segmented sanding pad (segmented platen).

5.6.3 Brush- / Scotch Brite – head (option)

The brush and the Scotch Brite head will be used by different tasks.
 e.g. Dralon brush: for surface structuring etc.
 Scotch Brite roller: for finishing lacquered workpieces
 Flex-Trim: for finishing lacquered and veneered workpieces

5.7 Sanding pad (option)**5.7.1 Segmented platen**

The patented segmented platen features flexible pressure elements that can be moved to all sides and compensate tolerances of up to 2 mm. This element ensures the exact adaptation of the sanding width (or length) to the specified workpiece dimensions. This guarantees consistent sanding while avoiding excess sanding intensity at the edges.

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5.8 Dust extraction brush (option)**5.8.1 Dust extraction brush for workpieces**

The workpiece dust extraction brush consists of individual segments 100 mm in length that are mounted on a shaft and secured by an axial toothing. This ensures simple installation and cost efficiency with spare and wear parts.

5.8.2 Dust extraction brush for conveyor belt

The conveyor belt dust extraction brush prevents dust from settling and accumulating on the belt surface. A clean conveyor belt is prerequisite for skid-proof workpiece feed.

5.9 Vacuum (option)

The vacuum system sucks the workpieces onto the conveyor belt and ensures skid-proof workpiece conveyance. In addition, the dust falling on the conveyor belt is extracted by the vacuum system and led to extraction unit.

5.10 Workpiece blow off (option)**5.10.1 blowing off die and suction die**

The workpiece blowing off unit is cleaning the workpieces from sanding dust which remains stucked by static charging. This happens via blowing off die and afterwards via suction die.

5.10.2 air nozzles

The workpiece blowing off unit is cleaning the workpieces from sanding dust which remains stucked by static charging, by blowing off by means of air nozzles.