



**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**

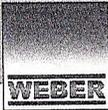
<b>Cross belt</b> (head 1)	<i>frequency controlled</i>	11,0	kW
<b>Orbital head 1</b> (head 2)			
Drive Frame	<i>frequency controlled</i>	(at 50 Hz) 3,0	kW
Drive cushion	<i>frequency controlled</i>	(at 50 Hz) 4,4	kW
<b>Orbital head 2</b> (head 3)			
Drive Frame	<i>frequency controlled</i>	(at 50 Hz) 3,0	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 <sup>2</sup>
Compressed air connection	5,5 - 7,0	bar
Extraction socket diameter	1x120, 2x160, 3x200	mm
vacuum air quantity	approx. 11000	m <sup>3</sup> /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.

**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.