

TECHNICAL DATA

Precision Surface Grinding Machine

manufacturer	ELB SCHLIFF
type	SWBDE 012 eT-PLC
control	eT-PLC
factory reconditioned	2016



Grinding range

Grinding length	1.200	mm
Grinding width	600	mm
Grinding height (from working table on)	600	mm
Table load (on magnetic plate)	850	kg

Magnetic table

Clamping area	1.200 x 600	mm
Height (ca.)	100	mm
Construction		cross pole pitches
Pole pitch	5	mm

X-Axis - longitudinal table movement

Work piece table		meehanite-cast iron
Guiding system		Prism flat guidance
Slideways		Plastic-coated
Table clamping size	1.600 x 550	mm
Table longitudinal stroke	max. 1.275	mm
Power X-movement		Hydraulic
Grinding way adjustment		by SPS-control

Z-Axis – cross movement grinding disk

Cross slide		Meehanite-cast iron
Guiding system		Prism flat guidance
Slideways		Plastic-coated
Automatical cross path	max. 560	mm
Power Z-movement		Ball srew
Displacement		Encoder
Resolution	0,001	mm
Rapid	max. 2.000	mm/min.

Y-Axis – vertical movement grinding disk

Grinding column		Meehanite-cast iron
Slideways		Linear guidance
Power Y-Movement		Ball screw
Displacement		Encoder
Resolution	0,001	mm
Rapid	max. 1.500	mm/min.

Electrical straight dresser

Positioninig	Mounted above the headstock	
Dressing width	1-105	mm
Diamond vertical adjustment max.	80	mm
Diamand taper		MK 0
Dresser diamond	0,75	Karat
Incl. automatic compensation		
Dresser feed rate stepless adjustable		
Diamond feed optionally per single or- double stroke		

Grinding spindle head

Motor – version	AC-Flanged motor
Power	22 kW
Grinding spindle speed	1.000 – 3.000 Min-1 Three-phase current
Spindle bearing	axial and radial back-lash free
Grinding spindle size	400 x 100 x 127 mm

Roller beared grinding spindle in block construction with preloaded high precision spindle bearings and live time grease lubrication, spindle axial und radial backlash-free preloaded

ELB grinding programme “Comfort”

- Grinding function surface grinding
- Grinding function infeed grinding
- Grinding function each with stored automatic grinding cycle
- Easy handling for manual and automatic grinding
- Digital positioning display
- Display of current settings
- Automatic dressing incl. dressing compensation

Dimensions, Weight

Length x Width x Height	3,6 x 2,5 x 2,4 m
Weight ca.	6.700 kg

Equipment

- Electro-Permanent-Magnet clamping plate 1.200x600mm
- Wet grinding device with coolant tank, tank capacity 280l, coolant pump, power 80 l/min., splash water protection, coolant nozzle with mounting
- Universal -paper filter unit, filter paper width 710mm, cleaning power 100l/min.
- Electronic straight dresser
- Magnetic plate supply facility with adhesion force regulation (30 – 100%)
- Internal flushing incl. spray gun
- Machine light

The machine was overhauled by the manufacturer in 2016 with the following essential scope of work:

- Complete geometric overhauled
- Dressing device overhauled
- Hydraulic system overhauled
- Table cylinder seal-set renewed
- Bellows renewed
- Grinding spindle with new bearings
- Vertical feed Spindle nut, worm wheel and worm shaft replaced
- Electrical partial overhaul, new SPS, new control ESYTOUCH-PLC
- New grinding spindle drive, 22 kW SIEMENS AC motor - frequency controlled
- Machine newly painted