

### TECHNICAL DATASHEET

### CNC – TRAVELLING COLUMN MILLING MACHINE

Make	<b>SORALUCE</b>
Type	<b>SLP-8000</b>
Control	<b>HEIDENHAIN TNC 640</b>
Built	<b>2016</b>



#### Machine Travels

Longitudinal movement (X-axis)	6.500 mm
Vertical movement (Y-axis)	1.800 mm
Transverse movement (Z-axis)	1.300 mm

#### Feeds

X, Y, and Z axes, infinitely variable	2 - 10.000 mm/min.
Rapid traverse in X / Y / Z	35.000 mm/min
Max. feed forces X-Y-Z	16.000 N

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CNC-travelling column milling machine

SORALUCE SLP-8000

### Clamping table

Clamping surface	8.000 x 1.100	mm
Max. workpiece weight	13.500	kg
Number of T-slots	7	pcs.
Size of T-slots	22	mm
Spacing between T-slots	140	mm

### Universal-NC-Milling Head H207

Front/rear plane swiveling	Automatically	
Indexing	2,5 x 2,5	° Hirth coupling
Constant power at S1 (100% duty)	37	kW
Speed range, infinitely variable	15 - 7.000	min-1
Max. torque	1.045	Nm
Tool holder	SK50	DIN 69871-AD
Tightening bolts	DIN 69872	Form A
Head cooling	Oil / Air mixture	
Internal coolant supply		Through the spindle center
Tool clamping force	20.000	N

### Automatic Toolchanger

Tool positions	60	
Max. tool diameter	125/250	mm Side seat free / occupied
Max. tool length	400	mm
Max. tool weight	20	kg
Permissible total weight in magazine	400	kg
Change positions at head	vertical / horizontal	

### Guides, drive and measuring systems

- All axis drives with digital controllers manufactured by HEIDENHAIN
- Direct measuring systems for X, Y, and Z axes manufactured by HEIDENHAIN
- X, Y, and Z axes guided by high-precision linear guides and roller shoes for maximum precision and dynamics
- Drive of the traveling column in the X-axis by means of a rack: Two servo motors with reduction gear and helical pinion engage directly with the rack attached to the base
- Precision ball screws with preloaded nuts for the Y and Z axes

### Coolant Tank with paper belt filter

- Two cooling circuits for internal and external cooling
- Frequency-controlled high-pressure pump for internal coolant supply, max. 20 bar
- Tank volume approx. 1,000 l
- Paper belt filter system with automatic feed

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### Dimensions and weight

Machine footprint	approx. 13,0 x 4,5 m	Without housing
Total height	approx. 4,4 m	
Machine weight	approx. 34.000 kg	

### CNC-Control HEIDENHAIN TNC 640

Digital numerical sequence control, including digital drive control, SSD hard disk storage, 19" color flat screen, 2 USB ports for data transfer, and Ethernet interface.

#### Machining cycles:

Drilling, thread tapping with and without compensation chuck  
Deep drilling, reaming, boring, countersinking, centering  
Longitudinal and flat trimming cycles, parallel to axis and contour (optional)  
Radial/axial grooving cycles (optional)  
Radial/axial grooving cycles (combined grooving and roughing movement) (optional)  
Milling of internal and external threads  
Turning of internal and external threads (optional)  
Cycles for gear hobbing and skiving (optional)  
Simultaneous roughing and finishing (optional)  
Interpolation turning (optional)  
Linear and oblique surface turning  
Complete machining of straight and circular grooves  
Complete machining of rectangular and circular pockets  
Point patterns on circles, lines, and DataMatrix codes  
Contour drawing, contour pocket  
Contour groove using whirl milling  
Manufacturer cycles (special cycles created by the machine manufacturer) can be integrated  
Engraving cycle: Engrave text or numbers on straight lines and circular arcs

Linear interpolation on 3 axes, circular interpolation on 2 axes and on 3 axes with rotated working plane, swiveling the machining plane

### Connection Data

Operating voltage	3 x 400 V
Operating frequency	50 Hz
Maximum current	103 A
Connected load	57 kW
Connection cross-section	50 mm <sup>2</sup>

### Equipment and Accessories

- Universal milling head, 2.5° indexable, positioning via Hirth coupling
- SK50 spindle, 37 kW, spindle speed max. 7,000 rpm
- HEIDENHAIN TNC 640 CNC control with HEROS 5 and HEIDENHAIN digital drives
- Manufacturer software "SSV - Spindle Speed Variation": Automatic regulation of spindle speed during the machining process for extended tool life
- Manufacturer software "Adaptive Control": Automatic feed control during the machining process for extended tool life and fewer tool breakages
- HEIDENHAIN HR520 electronic handwheel with display
- Automatic tool changer with 60 magazine slots
- Sturdy and spacious work table with 7 T-slots on the table surface and 2 T-slots on the front
- Coolant system with belt filter, 1,000 l tank volume and two coolant circuits, internal coolant supply with 20 bar
- 2 chip conveyors, one in front of and one behind the work table for optimal chip removal, ejection on the left
- Hexagon 3D touch probe (m&h)
- Light barrier monitoring
- Closed enclosure on the front with optimal accessibility thanks to wide-opening operator doors
- Operator platform traveling along the X-axis
- Work area cladding closed on the sides
- Lighting of the operator area
- Lighting of the work area
- Ground-level installation possible without contoured foundation
- Henninger Model 880-50 additional milling head – Manually indexable 90° angle milling head with SK50 mount and Hirth serration