

TECHNICAL DATASHEET

CNC – 5-Axis Machining Center

Manufacturer	HERMLE
Type	C50 U dynamic
Control	HEIDENHAIN iTNC 530
Built	2009



Working Area

X-Axis (horizontal)	1.000	mm
Y-Axis (cross)	1.150	mm
Z-Axis (vertical)	750	mm
Distance from spindle tip to table	950	mm
Y-Travel from table center	+ 500 / - 600	mm
Max. Workpiece diameter	Ø 1.000	mm
Max. Workpiece height	810	mm

NC-Rotary Table

NC swivel rotary table with bearings on both sides in the side walls of the machine bed and tandem drive in the A-axis.

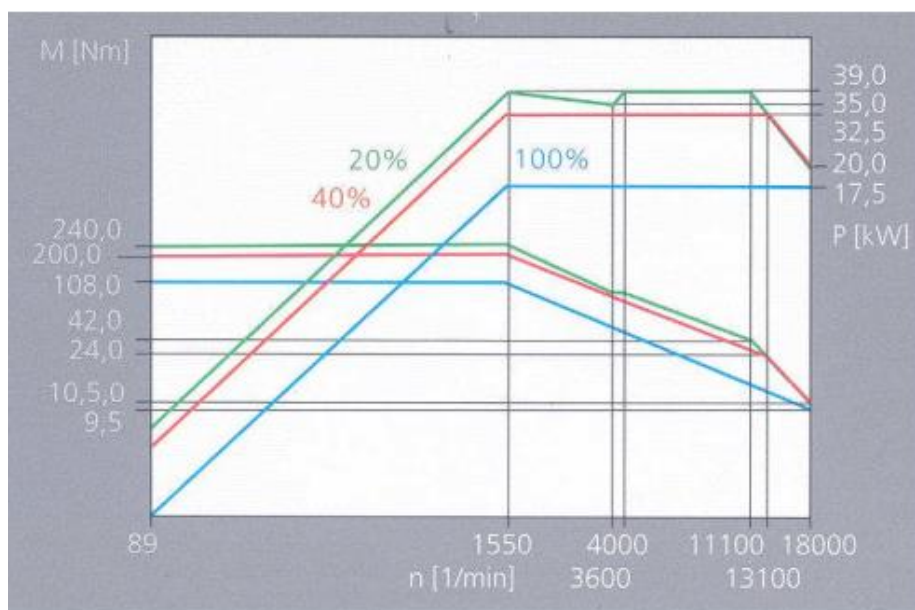
The maintenance-free, directly driven rotary table operates absolutely backlash-free.

The rotary drive of the C-axis with torque motor from Hermle (type SRT D700) is water-cooled

Diameter clamping surface	Ø 700	mm	
Max. table load	2.000	kg	
Interference circle	Ø 1.310	mm	
Number of t-slots (radial)	16	pcs.	14 H7
Rotation range C-axis	360	Grad	
Clamping torque C-axis	10.000	Nm	Hydraulically
Holding torque C-axis	1.190	Nm	
Swivel range A-axis	(+100/-130)	Grad	
Holding torque A-axis	9.130	Nm	permanent position control
Rotary feedthrough	15-fold		

Milling spindle, KESSLER

Max. Power (100% ED)	17,5	kW	from 1.550 rpm
Max. continuous torque (100%)	108	Nm	
Spindle speed	20 - 18.000	rpm	
Tool holder	HSK-A63		
Max. Tool diameter	Ø 160	mm	
Spindle diameter at the front bearing.	Ø 70	mm	
High pressure internal cooling	80	bar	



Spindle-Power-Diagram

Magazine and Toolchanger

Number of tool positions	60
Tool holder	HSK-A63
Max. tool length tool length	430 mm
Max. tool diameter	Ø160 mm
Max. Tool weight	15 kg
Max. Total load	480 kg
DIN / shape	DIN 69063

Feed and Rapid traverse

Acceleration in X-Y-Z axis	6 m/s ²
Feed force in X-Y-Z axis	16.000 N
Rapid traverse speed in X-Y-Z axis	60/60/55 m/min

Connection Data

Operating voltage	400 V	~50Hz
Installed rated power	152 kW	
Total connected load	97 kVA	
Control voltage	24 V	
Fuse protection	160 A	
Total connected load	97 KVA	
Supply line cross-section	70 mm ²	

Machine dimensions

Machine footprint	ca. 6,9 x 6,6 x 4,2 m
Weight	ca. 22.000 kg

Equipment and Accessories

- Main spindle KESSLER 18,000 1/min, HSK-A63
- Siemens SINUMERIK 840D control system
- KinematicOpt hardware
- Spline interpolation
- NC swivel rotary table Ø 700mm
- 60 tool stations HSK-A63
- Paper belt filter system for internal coolant supply 80 bar incl. Vario pressure relief valve, double cartridge filter and oil skimmer
- Scraper belt conveyor in reinforced design, discharge height approx. 1,100 mm
- Blow-off device
- Blowing air through the center of the spindle
- Automatic cabin door
- Automatic cab roof
- Rotating transparent window VISIPORT
- Electrical heat compensation
- Electric manual control unit
- 3D measuring probe Renishaw
- Blum Laser-Control NT tool measurement Gen. 3
- Chip flushing gun
- Air purge for scales
- Oil mist separator
- MDE data acquisition
- Unit for spindle cooling
- Additional hydraulic unit to supply the rotary joint on the rotary table
- Machine ON: approx. 108,000 h, spindle ON approx. 14,500 h



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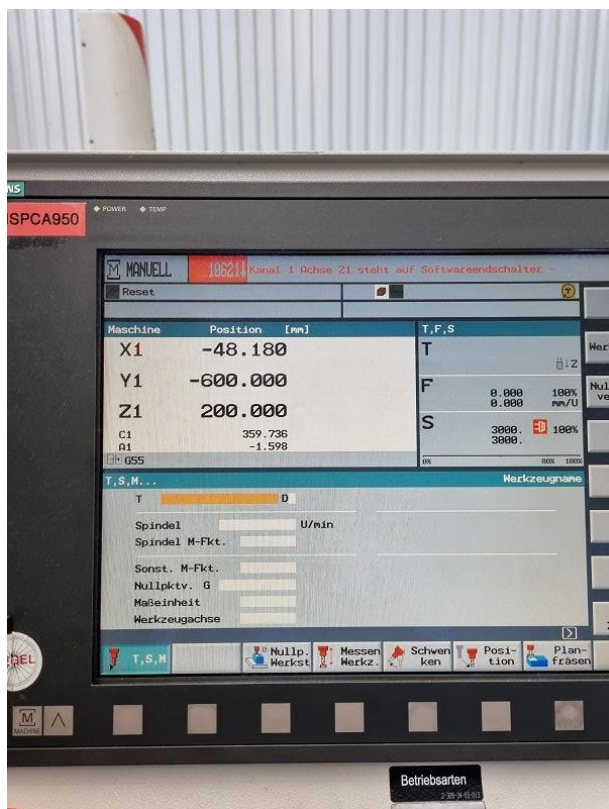
FLECKENSTEIN

Werkzeugmaschinen

Technical datasheet

5-Axis Machining Center

HERMLE C50U



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