4 axes horizontal machining center with 6-fold pallet pool

HELLER MCi 16.2

Manufacture	HELLER
Type	MCi 16.2
Year of manufacture	2004
Machine number	31-46374
Control	SIEMENS 840 D
Travels	X – 630 mm / Y – 630 mm / Z – 630 mm
	B axis 360.000°
Spindle	HSK 63, speed 16.000 rpm

New spindle in November 2021

INDEX

EQUIPMENT

Spindle HSK63, speed 16.000 rpm

B axis 360.000°

Tool magazine with 160 tool places

6-fold pallet pool

Internal cooling and high pressure unit Manufacture KNOLL Type AE 1110

Mechanical tool breakage control

Brankamp available

4 clamping towers Manufacture VISCHER & BOLLI 04/433505/Z

Filter system

Extraction system

Chip conveyor

Installation elements/Fixators BW

User guide / Documentation

Machine parameters on storage medium

All others accessories shown in the photos and videos are not included in the scope of delivery, so they are not part of this sale. The scope of delivery only includes the accessories that are expressly listed here, in the offer, confirmation of order and invoice.

TECHNICAL DATA

Working area	
Longitudinal stroke (X axis)	630 mm
Vertical stroke (Y axis)	630 mm
Transversal stroke (Z axis)	630 mm
Stroke position longitudinal to the center of the rotary table (X axis)	+315 bis -315 mm
Stroke position vertical over pallet clamping surface (Y axis)	+100 bis +730
Stroke position transverse to the center of the rotary table (Z axis)	+100 bis +730
Driving system	
Version	Linear compact ball roller guide
Size – longitudinal-/transverse axis	45
Size – vertical axis	35
Transmission elements	
Version	Accuracy ball srews
Diameter X slope – X & Z axis	Ø 50 x 35 mm
Diamter X slope – Y axis	Ø 40 x 25 mm
Feed drive system	
Three-phase servomotors	closed design
Feed forces	
X axis at DC S3 – 40%	10.000 N
Y axis at DC S3 – 40%	10.000 N
Z axis at DC S3 – 40%	10.000 N
Positioning time with accuracy stop	
for 50 mm	300 ms
for 100 mm	360 ms
for 500 mm	620 ms

Speeds in X, Y and Z axis	
Feed rate	1 – 90.000 mm/min
Rapid traverse rate	90.000 mm/min
Acceleration	12,0 m/s²
B axis (circular dividing table (360 x 1°) max. speed	40 rpm
Work unit 16.000 rpm	
Spindle diameter in front bearing	80 mm
Tool holder HSK 63 DIN 69893	Form A
Three-phase motor spindle package with hollow shaft motor	
Max. drive power at the spindle: at DC S1 – 100% / S6 – 40% from speed	 20 / 30 kW 2.000 rpm
Max. torque at the spindle: at DC S1 – 100% / S6 – 40% up to speed	 95 / 143 Nm 2.000 rpm
Speed range	45 – 16.000 rpm
Rump-up time at n_{max}	0,8 s
Tool chain magazine WZM 160/Ø150/320	
Magazine places	160
Magazin version	chain
Max. tool length - from spindle nose	320 mm
Max. tool diameter – all places occupied	72 mm
Max. tool diameter – occupancy see AP	150 mm
Max. bridge tool – occupancy see AP	227 x 150 mm
Poket code - selectable	fixed / variable
Max. loading weight – each place occupied with	3,5 daN
Max. tool weight	12 daN
Max. weight torque of the tool pick up by the gripper	1.000 Ncm

Chip-to-chip time according to VDI 2852:	
$t_{2,3}$ for tool weight up to 3 daN – nearest tool	1,8 s
$T_{1(160)}$ for tool weight up to 3 daN – most remote tool	7,6 s
$t_{2,3}$ for tool weight up to 12 daN – nearest tool	3,0 s

Rotary table	
Division	360.000 x 0,001°
Max. clamping weight	500 daN
Max. tangential moment – clamped	3.500 Nm
Max. tilting moment	8.000 Nm
Max. speed – B axis	40 rpm
Swivel time (without clamps) for 45°	0,7 s
Swivel time (without clamps) for 90°	1,0 s
Swivel time (without clamps) for 180°	1,4 s
Circular milling torque - at DC S3 – 40%	300 Nm

Pallet changing device	
Pallet version	Special
Pallet clamping surface	according to DIN 52201 A1
Pallet size	400 x 500 mm
Central fixing hole	Ø 65 mm H6
Alignment hole	Ø 20 mm H6
Mounting thread - numbers	61 x M12
Workpiece dimensions	
Swivel diameter in the working space x height	Ø 720 x 800 mm
Maximum dimensions with stroke restriction	Ø 850 x 800
Pallet change time	9 s

With hydraulic workpiece clamping, the pallet time is extended by approx. 0,5 s.

Thank you very much for your interest

We do not guarantee the accuracy and completeness of these documents. We further do not assure any characteristics and qualities. The named machine, which is up for sale, is used.