

4.1 Technical specifications of the machine

ZVH 55/L4000 s/n: 14816

Strokes:

X axis, length:	mm	4.000
Y axis, cross:	mm	800
Z axis, vertical:	mm	1.100

Working table:

Table length:	mm	5.600
Table width:	mm	850
Number of T slots:		7
Central T slot size:		1 x 18 H7
Rest of T slots size:	mm	6 x 18 H7
Distance between T slots:	mm	125
Maximum table load capacity:	kg/m²	2.000

Main spindle:

Taper of tool holder axis:	HSK A-100 DIN 69893	
Pull stud of tool holder according to following norm		
Electrospindle from KESSLER:	DS/000-12654	
Power in service S1 (100%):	kW	35
Total power available from (r.p.m.):	rpm	1.000
Torque in service S1 (100%):	Nm	334
Rotation maximum speed:	rpm	6.000
Rotation clamping axis, for turning		NO
Rotary joint		OTT 1KGD-V
Ready to work with inner cooling		Yes
Allows working with inner cooling by air during spindle rotation		Yes
Possible working dry		Yes

B axis:

Tilting system		Ibarmia
Strokes B axis	°	±105
SIEMENS B axis torque motor		1FW6130-0PB15-1JC2

C axis:

Stroke C axis	°	-
C axis motor		-

Feeds X-Y-Z:

Servomotors and regulators: FANUC		
X axis:	ALPHA IS40/4000HV with brake	
Y axis:	ALPHA IS30/4000HV with brake	
Z axis:	ALPHA IS30/4000HV with brake	
Speed of rapid feed for positioning X-Y-Z:	m/min	45

Measure system:

Heidenhain X axis glass scale		LB-382-C
Heidenhain Y axis glass scale		LS-187-C
Heidenhain Z axis glass scale		LS-187-C
Encoder B axis (Heidenhain)		ERA 4480C
Encoder IV axis (Heidenhain)		ERA 4480C
Resolution:	mm	0,001
Positioning accuracy according to VDI 3441 :	mm/m	+/- 0,01
Positioning repeatability:	mm	+/- 0,005

Magazine and automatic change of tools:

Tool management system		RANDOM
Taper of magazine:		HSK A-100 DIN 69893
Pull stud of tool holder according to following norm		-
Manufacturer		Aitek
Number of tools:		40
Maximum tool diameter:		125
Previous and following position taken (magazine 30 posts):	mm	100
Previous and following position taken (magazine 40/60 posts):	mm	175
Previous and following position empty:	mm	400
Maximum tool length:	mm	20
Maximum tool weight:	Kg	10"
Tool changing time:		12"
Chip to chip time:		Ibarmia
Changer arm		FANUC BiS4/4.000 without brake
Motor movement changer arm		Alpha SK+060-MF1-4-2E1
Reducer		

Greasing:

Automatic greasing central of guides and ball screws:	Intza
Automatic greasing central electrosindle bearings:	Intza

CNC Control: FANUC

CNC Control FANUC	31iB
Screen	15"
Auxiliary control panel	-
Portable control	-

Cooling and filtering system

Inlet filter type "basket" of 113 µm	YES
Outlet filter	40 µm
Pump inner cooling	Grundfos MTR
Theoretical maximum pressure pump inner cooling	22 bar
Pump external cooling	Grundfos MTH
Transfer pump coolant liquid	Grundfos MTH

Several:

Door linear guides	Rollon
Rollers and guides of axis	INA
Protection bellow X axis	Hema
Electrospindle and torque motors cooler	Kaukan

Standard paint:

RAL	7.021
RAL	9.006
RAL	4.008

Connections / weights:

Approximate weight of machine	Kg	27.500
Electrical connection		415 V / 50 Hz
Pneumatic connection		6 bar
Hydraulic connection		-----

4.4

Tool holder taper. Type and dimensions



WARNING!

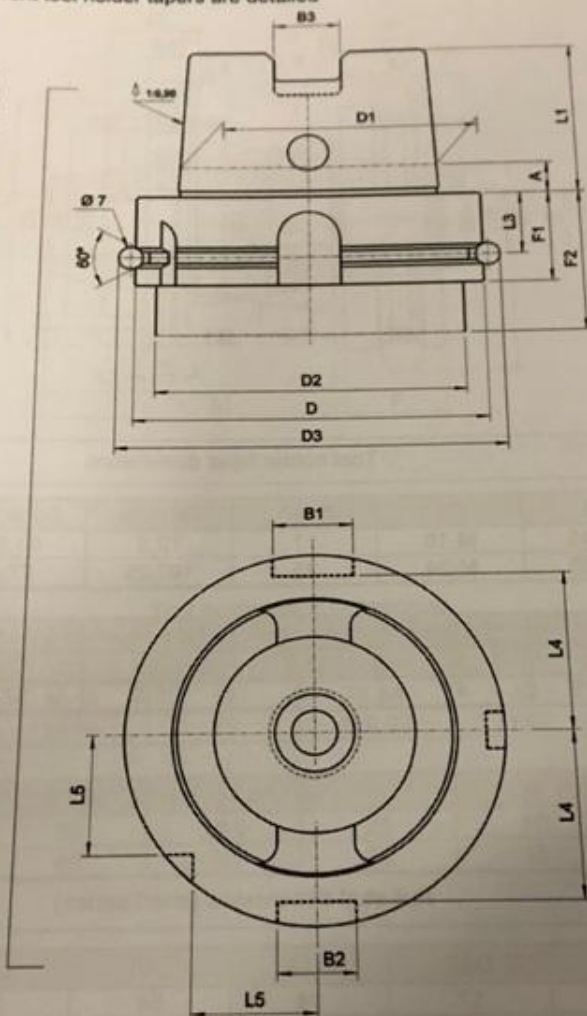
Danger: mechanical damaged in the machine!

Check the type of tool holder taper which must be used with the machine. It has been indicated under the technical specifications of the machine.

Next the measures of different tool holder tapers are detailed

HSK-A 63/100
STANDARD DIN-69893-1 / ISO 12164-1:2001

TOOL HOLDER TAPER
WERKZEUG-AUFNAHME
CÔNE PORTE-OUTIL
CONO DEL PORTAHERRAMIENTAS



	D	D1	D2 max.	D3 -0,1	B1 H10	B2 H10	B3 ±0,04
HSK A 63	63	48	53	72,3	18	16	12,54
HSK A100	100	75	88	109,75	22	20	20,02

	L1 -0,2	L3 ±0,1	L4 -0,2	L5 -0,3	F1 -0,1	F2 min.	A
HSK A 63	32	18	26,5	20	26	42	6,3
HSK A100	50	20	44	31,5	29	45	10