5 axes simultaneous machining center

OPS-INGERSOLL HSC SPEED HAWK 650

Manufacture	OPS-INGERSOLL
Type	HSC SPEED HAWK 650
Year of manufacture	2013
Machine number	665158
Control	3D path control ANDORONIC 3060
Spindle hours	ca. 5.800
Travels	X – 650 mm / Y – 550 mm / Z – 500 mm HSC-tilting-table A-axis -120°/+60° C-axis 60 rpm
Workpiece weight	250 kg

INDEX

EQUIPMENT

3D path control ANDRONIC 3060

22" screen with touchscreen operation

maximum feed rate 30 m/min., maximum acceleration 15 m/s^2

Absolute measuring system with glass scales in all axes

Precision package 1 with heat exchanger circuit ± 0,1° C and drive cooling

Precision package 2 with positions and geometry error compensation X-/Y-/Z-axis

T-slot table

Oil mist device for minimum lubrication

Automatic central lubrication for drive and guide system

Electronic handwheel

Full enclosure with dust and liquid protected guides and drive elements

Maintenance-free control cabinet air conditioning

Lamp workspace

Chip box

Screw conveyor with chip box

Preparation workpiece clamping system and extraction

Standard spindle

Standard tool changer

MultiControl light

Machine shoes

Painting: Textured in cobalt blue (RAL 5013), tele grey (RAL 7045),
rape yellow (RAL 1021)

ECOTEC energy saving function

Precision package 3 Temperature displacement compensation consisting of:
- ATDC compensation (AutomaticTemperatureDriftCompensation)
- 5-axis compensation
- 5-axis autocalibration
  (RTCP milling cycle and autocalibration of the machine zero point)
- Pallet with ceramic ball according to machine clamping system

Extraction system KELLER

Highfrequency spindle HSK E 40
- type MFW-1224/42
- Spindle power max. 17 kW
- Speed 1 up to 42.000 rpm
- Vector control for constant torque
- Precision package spindle with expansion compensation and variable interfaces

72 fold tool changer for HSK E 40

Integrated 4./5. axis
- Speed 40 rpm
- max. load 250 kg
- Absolute measuring system by means of precision encoder
- Compensation of position errors
- prepared for pallet clamping system
- standard T-slot table not required

Workpiece clamping system EROWA UPC Production Chuck
- incl. preparation and mounting

Adapter pallet for UPC Basis Chuck with EROWA ITS100

Laser system for tool breakage control and tool length-diameter compensation

Infrared measuring probe, manufacture RENISHAW

Automation preparation for connection to MultiChange easy handling system

MultiChange easy (Farbe: tele grey – rape yellow)
consisting of MultiChange easy basic unit with:
- Gripper ITS
- Magazine 40-fold ITS
- Workpiece change place coded
- Connection of max. (1) SPEED HAWK machine to the handling system

including 4 EROWA plates

User guide / Documentation

All others accessories shown in the photos and video 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

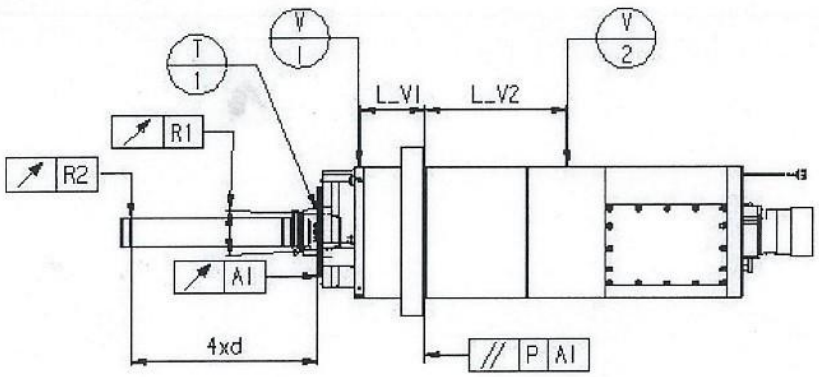
Axis-travel	X = 650 mm Y = 550 mm Z = 500 mm
Feedrates	max. 30 m/min
Acceleration	max. 15 m/s²
Clampingsurface table	X = 850 mm Y = 700 mm
Max. load: T-slot-table	up to 2.000 kg
Table	T-slot-table build over 4./5.-axis
T-slots	5 x 18 H12
Distance spindle nose – table min./max.	20 / 520 mm
Power requirements	32 kVA
Highfrequency spindle – selection	HSK E40: 1 - 42.000 U/min
Spindle power	15 kW/17 kW
Tool changer – selection	40 positions (HSK E40)

Oil mist lubrication	Included
CNC-Control	Andron 3060/Windows XP with Touch-Screen PC-NC/2 processors with electronic hand wheel Team Viewer
Type of drive	Ball screw spindle Direct coupled AC-servo motor Linear measuring system (Heidenhain)
Floor space	2.510 x 2.050 mm H = 2.850 mm
Total weight	8.600 kg
Options	HSC-tilting-table: A-axis -120 degree / +60 degree C-axis 60 U/min Work piece weight: 250 kg

SPINDLE

www.fischerspindle.com

FISCHER



Spindeltyp / Spindle type / Broche type:	MFW-1224/42/5 VC HSK-E40 PNP
Material Nummer / Material number / Nummero d' article:	103621
Spindel Nr / Spindle no / Broche no:	10013590
Kunde / Customer / Client:	OPS-INGERSOLL, D-Burbach
Einlaufzyklus / Test cycle / cycle de test :	94170-005
Parametersatz / Parameter set / Jeu de paramètre :	52223-700 A SIE Y 24/42 010
Pruefdrehzahl / Testing rpm / Vitesse d`essai :	42000 1/min
Einstellvorschrift / Adjustment instruction / Inst :	Z MR N00 02

Wasserdruck Spindel / Pressure water / Pression d'eau			max. 6 bar
Sperrluft / Air curtain / Rideau d'air			2-3 bar
SPANNSYSTEM / CLAMPING SYSTEM / SERREUR D'OUTIL			
Typ / Type / Modèle			HSK-E40
Einstellmass / Gauge dimension / Mesure d'ajustement pince			8.5 ± 0.1 mm
Spanndruck / Pressure clamping / Pression de serrage			min.5 max.40 bar
Lösedruck / Pressure unclamping / Pression de desserrage			min.80 max.140 bar
SCHMIERDATEN / LUBRICATION DATA / DONNÉE DU GRAISSAGE			
Oel / Oil / Huile			HLP-D68
Oelmenge / Oil quantity / Quantité d'huile	Q		150 mm^3/h
Geraetedruck / Pressure oil-air unit / Pression système air-huile	P1		5 bar
Eingangsdruck / Input pressure / Pression d'entrée	P2		4 ± 0.2 bar
OPTIONEN / OPTIONS / OPTIONS		**Sollwert / Index value / Valeur prescrite**	**Istwert / Actual value / Valeur effective**
119835 119835 Option DMD/SGS Mini MFW-1224/..			
Ausgangs Signal DMD 500U/min Spindel kalt / Output Signal DMD / Signal de référence DMD			5.3 V
Ausgangs Signal DMD nmax. Spindel warm / Output Signal DMD / Signal de référence DMD			5.9 V
		Datum	**Name**
Montage / Assembly / Montage		2019-09-03	M.De Lenart
ENDKONTROLLE / FINAL INSPECTION / CONTRÔLE FINAL		2019-09-13	M.Brandusanovic M.B

TRANSPORT

Transport SPEED *HAWK* 650 mit einem Kran

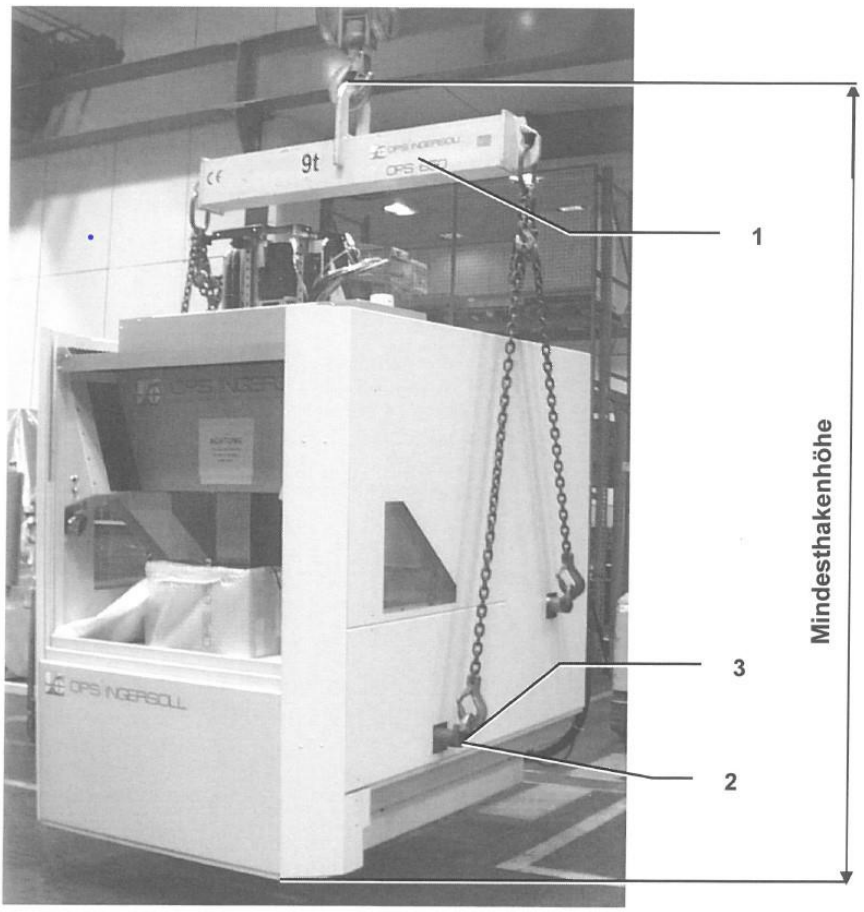


Abb. 4.4-2: Transport SPEED *HAWK* 650 mit einem Kran

1	Transportgeschirr	3	4x drehbare Transportringe
2	4x Transportbolzen		

Abmessungen beim Krantransport

Mindesthakenhöhe	3500 mm

GEFAHR!
Die SPEED *HAWK* 550 / 650 / 750 muss beim Transportieren in der Waagerechten bleiben.
Die Kettenlänge ist entsprechend einzustellen.

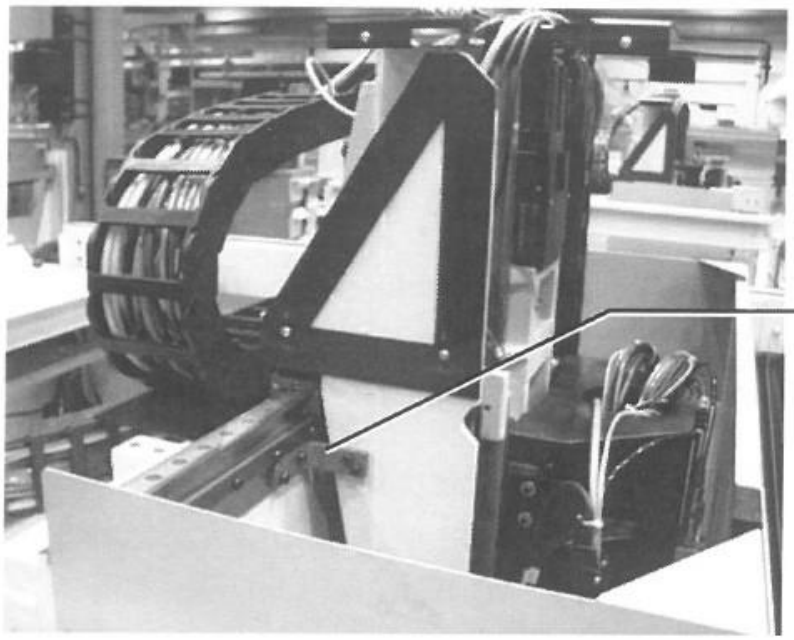


Abb. 4.6-3: Transportsicherung X - Achse SPEED HAWK 650 und SPEED HAWK 750

1 Transportsicherungen an den Achsschlitten

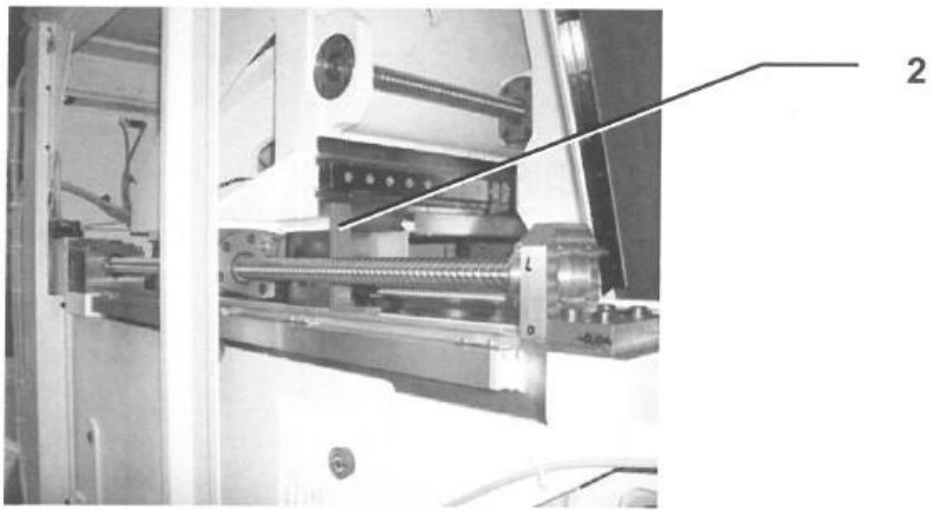
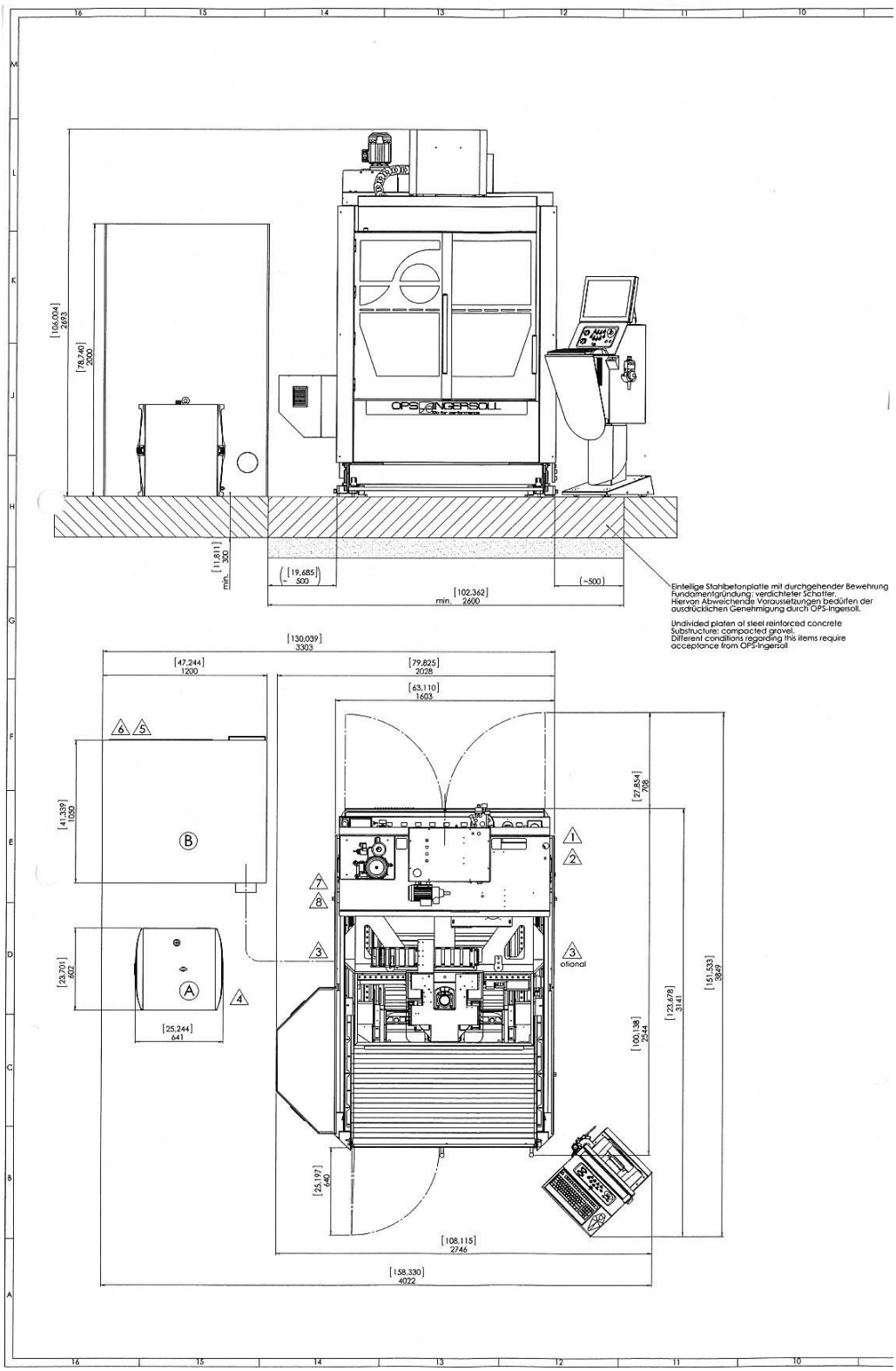
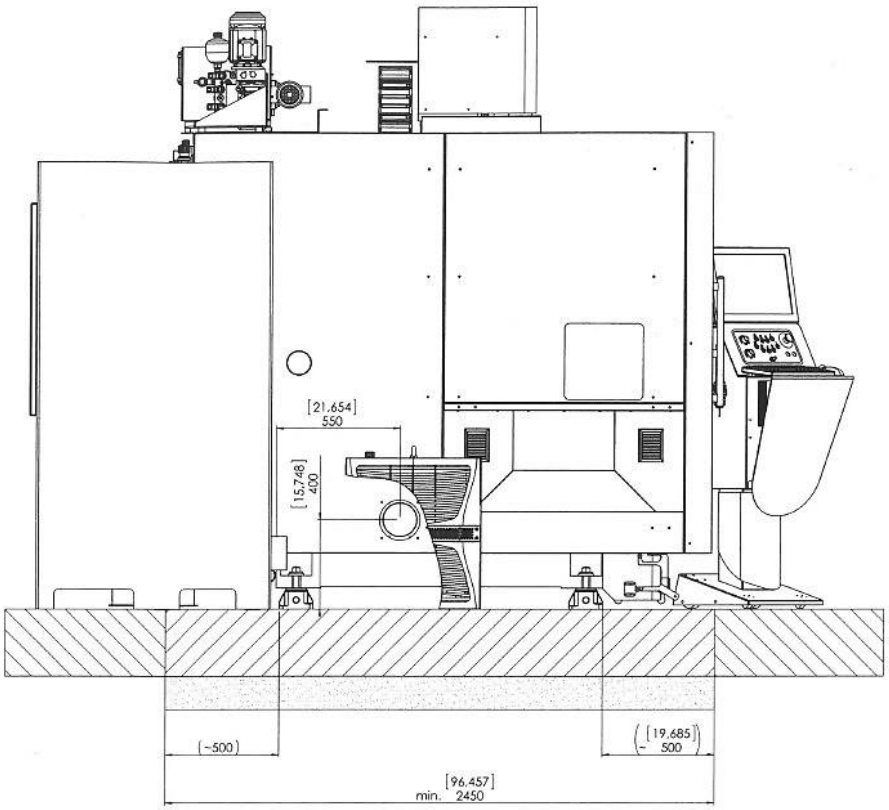


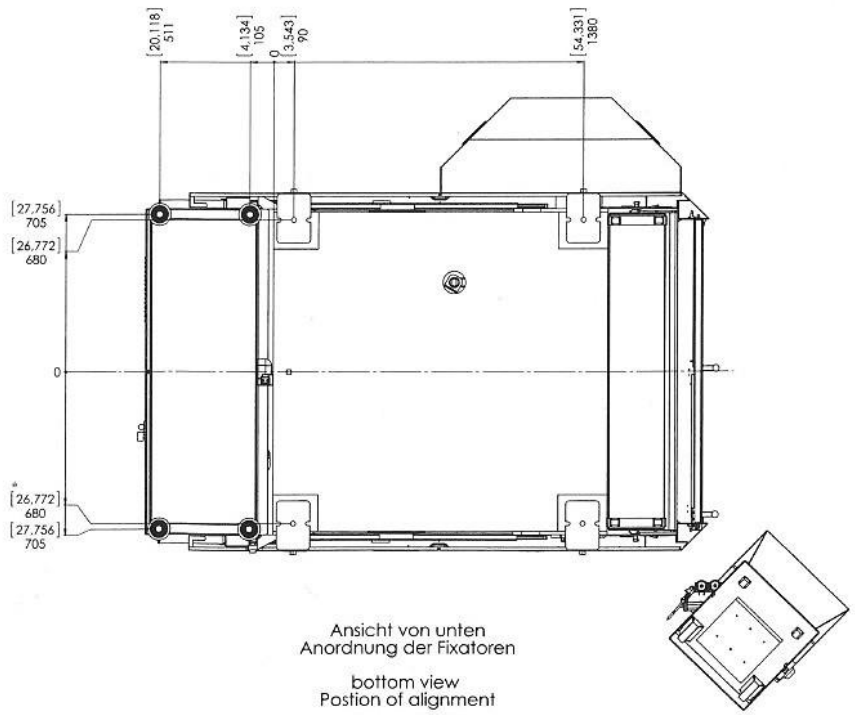
Abb. 4.6-4: Transportsicherung Y - Achse SPEED HAWK 650 und SPEED HAWK 750

2 2 x Transportsicherung (auf der linken und der rechten Maschinenseite)

FLOOR PLAN


OPS INGERSOLL
[106,004] 2693
[78,740] 2000
[11,811] min. 300
[19,685] 500
[102,362] min. 2600
(~500)
Einteilige Stahlbetonplatte mit durchgehender Bewehrung Fundamentgründung; verdichteter Schotter
Hiervon Abweichende Voraussetzungen bedürfen der ausdrücklichen Genehmigung durch OPS-Ingersoll.
Undivided platen of steel reinforced concrete substructure; compacted gravel.
Different conditions regarding this items require acceptance from OPS-Ingersoll
[130,039] 3303
[47,244] 1200
[79,825] 2028
[63,110] 1603
[41,339] 1050
[23,701] 602
[25,244] 641
[27,854] 708
[100,138] 2544
[123,678] 3141
[151,533] 3849
[25,197] 640
[108,115] 2746
[158,330] 4022
optional





Ansicht von unten
Anordnung der Fixatoren

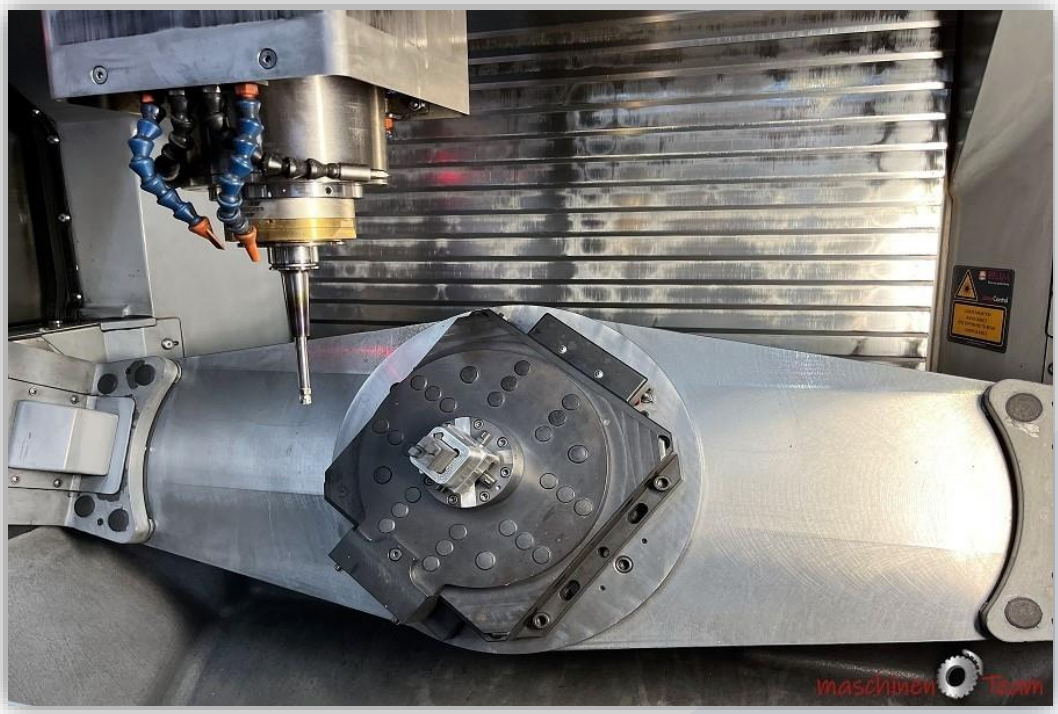
bottom view
Postion of alignment

Symbol	Bezeichnung - Description	Technische Daten - Technical Data	
		3-Achsig	mit A/C-Achse und Tisch
	Gewicht der Maschine leer weight of machine empty	8.600 kg	9.000 kg
	Bodentragfähigkeit load capicity of floor	min. 2.600 DAN/m²	
		Tisch	A/C-Achse
	Tragfähigkeit load capicity	max. 2.000 kg	max. 250 kg
1	Netzanschlussspannung Maschine mains voltage machine	3x 400V/N/PE ; 50 Hz	
	Leistungsaufnahme power consumption	32 kVA	38 kVA
	Vorsicherung back-up fuse	max. 63A	
	Länge Anschlusskabel: 5m length of power supply cable: 5m	mit 63-Ampere-CEE-Stecker with 63-Ampere-CEE-plug	
2	Druckluftanschluss compressed air		
	Anschluss connection	ID 9mm	
	Menge quantity	450 l/min	
	Druck pressure	min. 7bar	
3	Anschluss Absauganlage connection to exhaust system	NW 150 ID 150 mm	
A	Kühlaggregat cooling device	SK3334.609	
4	Netzanschlussspannung mains voltage	400V; 50Hz	
	Leistungsaufnahme power consumption	2,15kW / 3,7kVA	
	Vorsicherung back-up fuse	max. 16A	
	Länge Anschlusskabel: 5m length of power supply cable: 5m	mit 16-Ampere-CEE-Stecker with 16-Ampere-CEE-plug	
B	**Option** Absauganlage exhaust system	TEKA	KELLER
5	Netzanschlussspannung mains voltage machine	3x 400V/N/PE ; 50 Hz	
	Leistungsaufnahme power consumption	4,5 kVA	5,0 kVA
	Vorsicherung back-up fuse	max. 16A	max. 25A
	Länge Anschlusskabel: 5m length of power supply cable: 5m	mit 32-Ampere-CEE-Stecker with 32-Ampere-CEE-plug	
6	Druckluftanschluss compressed air		
	Anschluss connection	ID 9mm	
	Menge quantity	100 l/min	
	Druck pressure	min. 7bar	
	Option Anschluss an externen Wasserkreislauf connection to external cooling-water circulation		
7	Kühlwasser Eingang cooling water inlet		
	Anschluss connection	Rohr AD 18mm tube OD 18mm	
	Menge quantity	30 l/min 2 bar	
	Wasser-temperatur water temperature	15 Grad C 15 degree C	
8	Anschluss Kühlwasser Ausgang connectiong cooling water outlet	Rohr AD 18mm tube OD 18mm	

Dimensionierung des Fundamentes:
Die Fundamentdurchbiegung darf maximal 0,1mm betragen!

Specification for dimensions of foundation:
The foundation deflection can be at the maximum 0,1mm!

MACHINE PICTURES




SPEED HAWK 650
Andron-Produktversion: 7.05.03.03
SPS Version: 8.17.00 (F0011836-92)
F10 - Hilfe
OPS INGERSOLL
Fly with the eagle!
MultiChange easy
Übersicht X-Achse
Betriebsart
Manual
Position
2.0 mm
Geschwindigkeit
0
Status
Drive ready
Fehler löschen
*Schnellstopp
*Halt
Antrieb referenziert
Umrichter betr.bereit
Störung / Warnung
Zielposition erreicht
Übersicht C-Achse
Betriebsart
Manual
Position
19.6 °
Geschwindigkeit
0
Status
Drive ready
Fehler löschen
*Schnellstopp
*Halt
Antrieb referenziert
Umrichter betr.bereit
Störung / Warnung
Zielposition erreicht
Übersicht der Ein- und Ausgänge
E1.7: Z-Achse oben
A1.6: Z-Achse aufwärts
E1.6: Z-Achse unten
A1.7: Z-Achse abwärts
A1.2: Greifer schließen
E2.0: Beladetür geschlos.
A1.4: Beladetür schließen
E2.1: Beladetür offen
A1.5: Beladetür öffnen
A1.3: Greifer öffnen
E2.3: Futter belegt
A1.1: Futter prüfen
E2.2: Futter offen
A1.0: Futter öffnen
E1.5: Wechselplatz frei
E1.1: WSW-Tür verriegelt
A2.0: WSW-Tür entriegeln
E1.0: WSW-Tür geschlos.
E1.3: Taste WSW-Tür entr.
E1.2: Taste Tisch drehen
Referenz- / Grundstellungsfahrt
Referenz- / Grundstellungsfahrt
Referenz
Grundstellung
Werkstück in Maschine
Werkstück in Spannfutter der Maschine
Werkstücknummer
1
Werkstücknummer eingeben
Zurück
Fräser-reinigung
MultiChange easy
KKF
ECOTEC M700 / M701
Signalsäule
MMS für DDF
andron HMI
X
Y
Z
A
B
C
MOVE
ALL
SET
RTCP
OPS INGERSOLL
Fly with the eagle!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ALL
SET
RTCP
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maschinen Team

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.