## **VERTICAL MACHINING CENTRE**

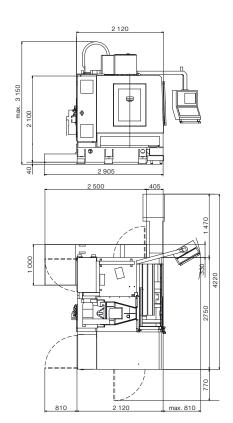
# MCFV 1060



- High performance
- Extra strength and rigidity
- High dynamic and thermal stability
- Long-lasting high accuracy
- High reliability
- Enclosure making workpiece handling easy
- Model flexibility

# MCFV 1060

The MCFV 1060 production vertical machining centre in the STANDARD, TREND and CONTOUR versions covers the complete range of technologies from the power up to the high-speed machining. The machine skeleton is formed by two stationary castings - by a base and a column fixed to it. All guideways are formed by the linear ways with roller packs. Their dimensions and positions allow the high loading of the table, saddle and spindle head while the workpiece hight dimensional accuracy and quality are kept even at an interrupted cut. This constructional solution also ensures the high service life of the machine. The wide application of the machine invites to the usage of abundant equipments.



## **SPECIFICATIONS**



Travels				
X-axis (work table)	1 016 m			
Y-axis (saddle)	610 mr			
Z-axis (spindle head)	760 mr			
Spindle nose to table distance	150 - 910			
Max. feed rate	15 m/m			
Rapid traverse	40 m/min			
Acceleration	5 m/s			
Work table				
Working area	1 270 x 590 mm			
Number of T-slots x width x span	5 x 18 mm x 125 mm			
Max. load	1 350 k			
Accuracy (VDI/DGQ 3441)				
Positioning (P)	0.010 mm			
Repeatability (Ps max.)	0.006 mm			
Measuring type	linear rule			
Spindle	STANDARD		TR	
Clamping taper	ISO 40 (HSK 80)	ISO 50	ISO 40	
Max. speed	10 000 rpm	8 000 rpm	12 000 rpm	

### STANDARD EQUIPMENT

- ▶ SINUMERIK 840 D control system
- ▶ Siemens digital drives
- ▶ Linear optoelectric measuring rulers
- ▶ Tool magazine with tool change arm
- ▶ Central lubrication system
- ▶ Tool holder automatic blasting with air
- ▶ Coolant unit with tool cooling system
- ▶ Telescopic covers washing-off
- ▶ Electronic compensation

Spindle	STANDARD		TREND		CONTOUR	
Clamping taper	ISO 40 (HSK 80)	ISO 50	ISO 40	ISO 50	ISO 40	HSK-A 63
Max. speed	10 000 rpm	8 000 rpm	12 000 rpm	8 000 rpm	15 000 rpm	18 000 rpm
Power continuously/at overload S6-40%	20/28 kW	20/30 kW	17/25 kW	17/25 kW	25/31 kW	25/31 kW
Max. torque/ at overload S6-40%	244/342 Nm	306/458 Nm	96/141 Nm	143/210 Nm	159/197 Nm	159/197 Nm
Transmission type	planetary g	jearbox	be	lt	electros	pindle

iviax. lorque/ al overioau 30-40 %	24	14/ 342 MIII	300/430 11	11 30/141 11111	
Transmission type		planetary gearbox			
Automatic tool change	r				
Number of tool pockets in ATC		30			
Tool exchange time		3.5 s			
Tool max. diameter:					
<ul> <li>at fully occupied tool changer</li> </ul>	80 mm				
<ul> <li>without adjacent tools</li> </ul>	160 mm				
Max. tool length	300 mm				
Max. tool weight		6.5 kg			
Max. weight of all tools in APC		160	kg		
Energy supplies	STANDARD	TREN	ND (	CONTOUR	
Operational power input	30 kVA	35 k\	VA	45 kVA	
Mains voltage requirement		3 x 400 V	/50 Hz		
Compressed air		0.6 - 0.8	3 MPa		
Complementary data					
Machine floor layout w/o chip convey	or	2 750 x 2	120 mm		
Machine max. working height		3 150	mm		
Machine weight		6 700	kg		
Control system		SINUMERII	K 840 D		

Description, illustrations and numerical data i	may not always correspond with the machine lat	est version.	
Manufacturer	Holding		0
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#### OPTIONAL EQUIPMENT

- ▶ Tool cooling with coolant through spindle axis
- ▶ Tool cooling with air through spindle axis
- ▶ Coolant unit with filtration unit for tool cooling through spindle axis
- ▶ High-speed spindle unit 50 000 rpm
- ▶ Clamping taper CAT 40, BT 40, CAT 50, BT 50
- ▶ Rotary table 4th and 5th controlled axis
- Workpiece measuring probe
- ▶ Tool checking probe
- ▶ Manual pallet changer, pallet size 760 x 460 mm
- ▶ Chip conveyor
- ▶ Chip bucket system
- ▶ Work zone upper washing-off
- ▶ Tool cooling with oil mist
- ▶ Centrifugal separator of oil mist and emulsion aerosol from work zone
- Collector of oil from coolant surface
- ▶ Control systems: HEIDENHAIN iTNC 530