TECHNICAL DATASHEET

CNC-Travelling Column Milling Machine

Manufacturer	**ANAYAK**
Type	**HVM-8000-PC**
Control	**HEIDENHAIN iTNC530**
Built	**2007**

Travels			
Longitudinal movement (X-axis)	7.300	mm	
Transverse movement (Y-axis)	1.500	mm	
Vertical movement (Z-axis)	2.000	mm	

Clamping table			
Clamping surface	8.000 x 1.200 x	mm	
Max. Workpiece weight	15.000	kg/m²	
T-slot number x size	9 x 22	mm	Distance 130 mm

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Feeds

X-, Y- and Z-Axis, stepless	2 - 10.000	mm/min.
Rapid traverse in X / Y / Z	20	m/min

Orthogonal-Indexierbarer-Fräskopf

Swivel range front/rear plane	1°/1°	360 x 1°/ +/- 135°
Power at S1/S6 ED	28/38	kW
Speed range, stepless	40 - 4.000	min-1
Max. Torque	2.240	Nm
Tool holder		SK 50 – DIN 69871-B
ZF - Gearbox		2 steps

Automatic toolchanger ATC

Tool places	40	pockets
Tool diameter max.	125/250	mm
Tool length max.	400	mm
Tool weight max.	20	kg
Change positions		Horizontal/Vertical

Guideways, drives and measuring systems

- All axis drives with digital drives Fabr. SIEMENS
- Direct measuring systems for X-, Y- and Z-axis Fabr. HEIDENHAIN
- X-, Y- and Z-axis guidance by means of high-precision linear guides for highest precision and dynamics
- Rack and pinion drive in X axis
- Precision ball screws with preloaded nuts in Y and Z axes

Coolant system with chip conveyor

- Coolant outlet at the front of the milling head via manually swiveling nozzles.
- Internal coolant supply through the spindle center
- Tank volume approx. 350 l with oil skimmer
- Normal coolant supply 30 l/min 5 bar
- High pressure pump for internal coolant 23 l/min 19 bar
- Coolant tank incl. and paper belt filter
- Hinged belt chip conveyor along the X - axis of the machine including coolant tank

Dimensions and weight

Machine footprint	ca. 14,5 x 7,4	m
Total height	ca. 4,80	m
Machine weight ca.	50.000	kg

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CNC-Control HEIDENHAIN iTNC 530

Digital numerical sequence control, including digital drive control, hard disk memory, 15" TFT - color screen,
Machining cycles:
Standard drilling and milling cycles, deep drilling, tapping with and without compensation chuck, milling of slots, rectangular and circular pockets, rectangular and circular tenons, boring, drilling milling (helical path), line-off, drilling patterns, head tilting, backward tilting, shifting and/or rotation of the coordinate system, mirroring, dimensional factor also axis specific,
Linear interpolation on 3 axes, circular interpolation on 2 axes and on 3 axes with rotated working plane, tilt working plane

HR 410 - Electronic handwheel for operation of all axes.

Electrical Power supply

Total power	59	kVA
Operating voltage	3 x 400	V
Operating frequency	50	Hz

Equipment and Accessories

- Machine bed, column and vertical saddle as cast iron construction, heat-treated for stress-relieve
- Milling slide as cast iron construction, heat-treated for stress-relieve
- Universal milling head, positioning via Hirth toothing, front plane 1°, rear plane 1° - changeable automatically
- oil cooling unit for cooling of ZF main gearbox
- spindle drive 28/38 kW
- spindle speed max. 4.000 min-1
- Axis drives by means of gear rack or precision ball screw spindles and digital servo motors
- 3-D measuring touch probe system
- CNC control HEIDENHAIN iTNC 530 incl. digital drive technology
- Portable electric handwheel HEIDENHAIN HR 410
- Travelling operator platform with second CNC control HEIDENHAIN iTNC 530
- Autom. tool changer with 40 magazine positions, change position horizontal/vertical
- Coolant system with external shower ring and IKZ through the spindle
- 1 chip conveyor lengthwise in the working area
- Precision linear guides in all axes
- Precision ball screws in all axes
- Direct measuring system in all axes
- Hydraulic counterbalance in the vertical axis
- Telescopic steel covers of the X-axis
- Milling unit closed with link aprons at the top and bottom of the vertical axis
- Air conditioning for electrical cabinet
- hydraulic system
- Working area lighting
- Approx. operating hours: Machine ON approx. 50,000 h, program run approx. 28,000 h