

For complete information on the VECTOR M with Heidenhain TNC 620 control, please visit: [www.knuth.com](http://www.knuth.com)



Actual machine may vary slightly



See this machine  
in action on  
YouTube



- Available with Siemens or Heidenhain control
- Tapping without compensating chuck (rigid tapping)
- Quick-action tool changer
- Powerful BT 40 spindle with speeds up to 10.000 rpm

**Compact All-in-One machining center  
for powerful 3-axis machining**

### Highlights

- Powerful BT 40 spindle with speeds up to 10,000 rpm
- Rigid machine structure with extra deep center of gravity and small footprint
- Compact all-in-one machining center with a standard configuration for various applications, ideal for the cost-conscious user



- Dual-arm tool changer with 24 stations ensures adequate flexibility and capacity for every day production needs
- The Vector Series features linear guides on X, Y and Z to ensure high accuracy made possible by lower friction
- 30-Bar internal cooling for optimum machining quality

## Standard Equipment

**control Siemens 828D with Shopmill**, coolant through spindle 30 bar with double filter, 24-station tool changer with dual-arm, main spindle motor 9 kW, BT 40 mount, spindle oil cooler, chain-type conveyor with chip container, electronic hand-wheel, oil skimmer, automatic central lubrication, coolant system flush gun, chip wash system, heat Exchanger for electric control cabinet, telescoping axis cover, RS-232 interface, USB port, CF card reader, totally enclosed work space, work lamp, 3-color signal lamp, coolant system, adjustable machine feet, operating tools, operator instructions

## Options

## Part No.

• Chip Wash System	253384
• Spindle Oil Cooler	253440
• Direct Drive 10.000 rpm spindle, CTStype with hollow shaft motor	252818
• 4th axis DR-250H f. VECTOR with Motor/Amp, installed	252886
• Arm Type BT40 upg. from 24 to 30 tools	252967

For additional options for this machine, visit our website.

## Specifications VECTOR

		650 M SI	850 M SI	1000 M SI
<b>Working area</b>				
Table dimensions	mm	800x550	1.000x550	1.100x550
Table load capacity	kg	600	800	800
Spindle nose-to-table surface distance	mm	150 - 700	150 - 700	150 - 700
Spindle center - column	mm	520	520	520
<b>Travels</b>				
Travel X-axis	mm	650	850	1.000
Travel Y-axis	mm	550	550	550
Travel Z-axis	mm	550	550	550
Guideway		Roller		Roller
<b>Headstock</b>				
Spindle speed	1/min	10.000	10.000	10.000
Spindle mount		BT 40	BT 40	BT 40
Torque, constant	Nm	45	45	45
Spindle bearing		7012 x 4	7012 x 4	7012 x 4
Draw bolts		MAS407	MAS407	MAS407
<b>Rapid feed</b>				
Rapid feed X-/ Y-axis	mm/min	36.000	36.000	36.000
Rapid feed Z-axis	mm/min	15.000	15.000	15.000
<b>Feed</b>				
Work feed X-axis	mm/min	10.000	10.000	10.000
Work feed Y-axis	mm/min	10.000	10.000	10.000
Work feed Z-axis	mm/min	10.000	10.000	10.000
<b>Tooling</b>				
Tool changer type		Twin arm	Twin arm	Twin arm
Number of tool stations	Pieces	24	24	24
Tool selection		Memory random	Memory random	Memory random
Tool size Ø x L (max.)	mm	80x300	80x300	80x350
Tool weight max.	kg	7	7	7
Tool-change time tool/tool	sec	1,8	1,8	1,8
Tool-changing time chip/chip	sec	3,9	3,9	3,9
<b>Accuracies</b>				
Repeatability	mm	± 0,003	± 0,003	± 0,003
Positioning accuracy	mm	± 0,005	± 0,005	± 0,005
<b>Drive capacity</b>				
Main drive, continuous load	kW	9	9	9
Total power consumption	kVA	15	15	15
Voltage	V	400	400	400
Mains frequency	Hz	50	50	50
<b>Measures and weights</b>				
Overall dimensions (length x width x height)	m	2,42x2,2x2,7	2,42x2,2x2,7	2,62x2,2x2,7
Weight	kg	4.000	4.300	4.600
Part No.		181272	181271	181270