

Vector 1000 M Si (15" Multitouch-Panel/SK40)

SKU : 422372

The Vector series is the compact all-in-one machining solution, designed and pre-configured for complex manufacturing challenges. This variant from the series corresponds to the standard machine in all data and dimensions, but is configured with different equipment. Further information can be found in details and standard equipment.

- Extra-wide Y-shaped Meehanite column for maximum stability
- 30-bar CTS to ensure optimum machining quality
- Designed for multi-shift operation
- With 15" multi-touch panel – more intuitive, faster and more convenient



TECHNICAL SPECS

WORKING AREA

Table dimensions	1100 mm x 550 mm
Table load capacity	800 kg
Spindle nose-to-table surface distance	150 mm - 700 mm
Spindle center - column	619 mm

TRAVELS

Travel X-axis	1000 mm
Travel Y-axis	550 mm
Travel Z-axis	550 mm
Guideway	Roller

HEADSTOCK

Spindle speed	10000 1/min
Spindle mount	SK 40 ISO 7388-1 (DIN 69871)
Torque, constant	57 Nm
Spindle bearing	7012 x 4
Spindle drive method	Riemenantrieb

RAPID FEED

Rapid feed X-/ Y-axis	36000 mm/min
Rapid feed Z-axis	15000 mm/min

FEED

Work feed	10000 mm/min
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TOOLING

Tool changer type	Doppelarm
Number of tool stations	24 positions
Tool selection	Memory random
Tool size Ø x L (max.)	80 mm x 350 mm
Tool weight max.	7 kg
Tool-change time tool/tool	1.8 sec
Tool-changing time chip/chip	3.9 sec

ACCURACIES

Repeatabilities	± 0,003 / ± 0.00012" mm
Positioning accuracies	± 0,005/ 0.0002" mm

DRIVE CAPACITY

Main drive, continuous load	9 kW
Total power consumption	15 kVA
Voltage	400 V
Mains frequency	50 Hz

MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	2.62 m x 2.2 m x 2.7 m
Weight	4600 kg

PRODUCT DETAILS

Highlights

- Rigid machine structure with extra deep center of gravity and small footprint

Machine Design

- 30 mm preloaded ball screws combined with a digital drive package provide a rigid table guide and high torque
- A major focus during development of this machine was a space-saving design
- 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

Spindle

- Spindle runs on multiple bearings to ensure excellent absorption and dissipation of forces during machining

Tool Changer

- Changing times (1.8 seconds tool-to-tool and 3.9 seconds chip-to-chip) increase spindle up-time and machine output

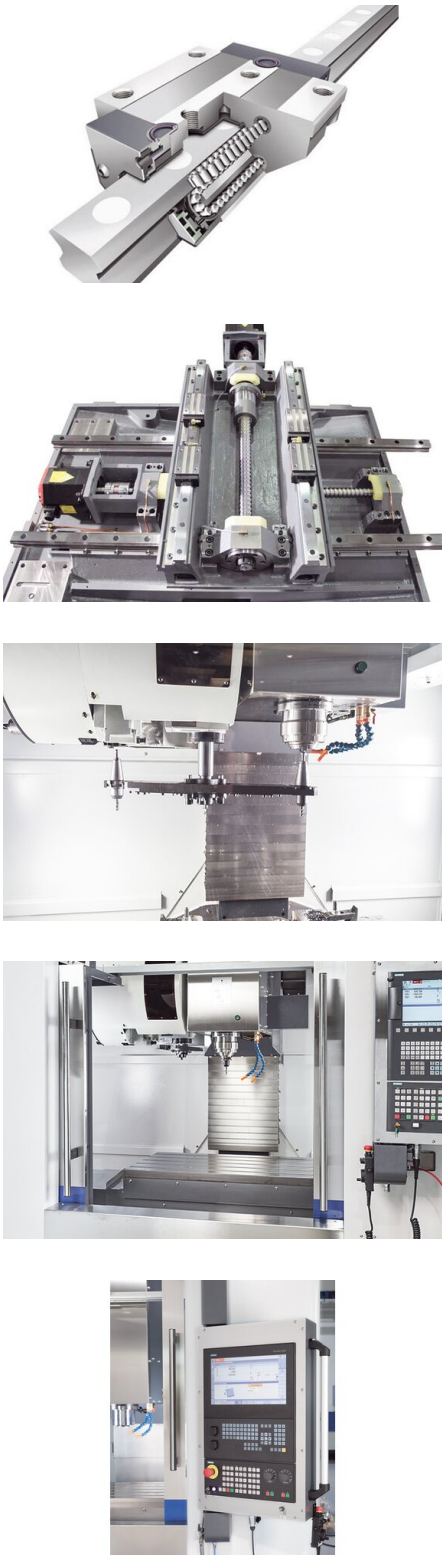
Control Siemens Sinumerik 828D

- The top specialist for demanding milling operations
- Compact, robust, maintenance-free control panel-based CNC
- Comfortable program and parameter input via QWERTY keyboard
- 100 adjustable zero offsets
- Synchronous actions, and quick output of help functions
- Siemens Sinumerik 828 D Milling
- Maximum machining precision
- Intelligent kinematic transformations for machining of cylindrical parts, and for angled workpiece levels
- SINUMERIK MDynamics with the new Advanced Surface feature: for perfect part surfaces and shortest machining times in mold making applications
- Highlights & CNC performance data and functions Siemens Sinumerik 828 D Milling
- ShopMill: shortest programming time for single parts and small batch productions
- ProgramGUIDE: fastest machining time and maximum flexibility for large series productions
- Unique spectrum of technology cycles - from milling contours with residual material recognition to process measurements
- Animated Elements: unique operation and programming assistance with animated sequences
- Modern data transfer options via USB stick, CF card and network (Ethernet)
- Easy Message: maximum machine availability due to process monitoring per texting (SMS)
- SINUMERIK MDynamics package with Advanced Surface for mold making applications
- Jerk-limited acceleration
- Dynamic feed-forward control
- 4-axis simultaneous interpolation (X, Y, Z and rotary axis)
- Linear, circular and helical interpolation
- Tapping without compensating chuck, plus thread cutting
- Oriented spindle hold
- Toggle between inch and metric units
- FRAME concept for individual coordinate transformations, rotations, scaling and mirroring

Includes option 253674: The Sinumerik 828D CNC control is equipped with a 10.4-inch monitor as standard. This machine has been upgraded to a 15-inch multitouch-panel..

Advantages:

- Larger display area and improved clarity
- Improved ergonomics and usability
- More information at a glance
- Higher productivity and efficiency



STANDARD EQUIPMENT

Siemens 828D control with Shopmill
Coolant through spindle 30 bar with double filter
24-station tool changer with dual-arm
Main spindle motor 9 kW
ST 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
Preparation for Renishaw TS 27 R
USB port
Ethernet port (LAN)
CF card reader
Totally enclosed work space
Work lamp
3-color signal lamp
Coolant system
Adjustable machine feet
Operating tools
Operator instructions

OPTIONAL EQUIPMENT

- Top cover for X.Mill/Vector 650-1000, SKU : 252819
- Connection for 4th axis (wiring only and axis chart), SKU : 253019
- Siemens Function: P25: 3D Simulation, SKU : 253378
- Siemens Function: P13: Residual Material Detection, SKU : 253379
- Siemens Function: P22: Simultaneous Recording, SKU : 253380
- Ø 170mm 4th axis (4th axis, servo motor, driver, air brakes)(Si), SKU : 253605
- Ø 210mm 4th axis (4th axis, servo motor, driver, air brakes)(Si), SKU : 253606
- Ø 250mm 4th axis (4th axis, servo motor, driver, air brakes)(Si), SKU : 253607
- manual tailstock ST-170T for rotary table for X.mill, SKU : 253618
- manual tailstock ST-255T for rotary table for X.mill, SKU : 253620
- manual 6" chuck for rotary table for X.mill, SKU : 253622
- manual 9" chuck for rotary table for X.mill, SKU : 253624
- Z axis travel upgrade from 550 to 800 mm for X.mill, SKU : 253625
- 200mm diam. 4th & 5th axis, SKU : 253682
- Spindle speed upgrade to 12000 rpm, belt-type, SKU : 253781
- Upgrade Spindle Taper from SK40 to BBT 40, SKU : 253951
- Upgrade Spindle Taper from SK40 to HSK63, SKU : 253953
- 12,000 rpm, direct drive CTS for Vector 650-1200(Si), SKU : 253956
- Renishaw OMP40-2T Workpiece Scanning Probe, SKU : 253288
- Renishaw SET OMP40-2T measuring probe +OTS Toolsetter (SK 40), SKU : 254026
- Renishaw OTS Toolsetter, SKU : 254285