



KEY to productivity

VTH Series

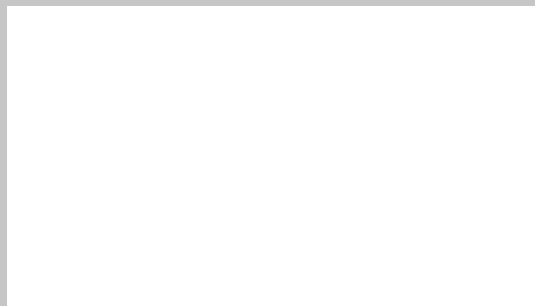
You Ji Machine Industrial Company Limited
CNC Vertical Turning Center



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Distributor



VTH Series
CNC Vertical Turning Center

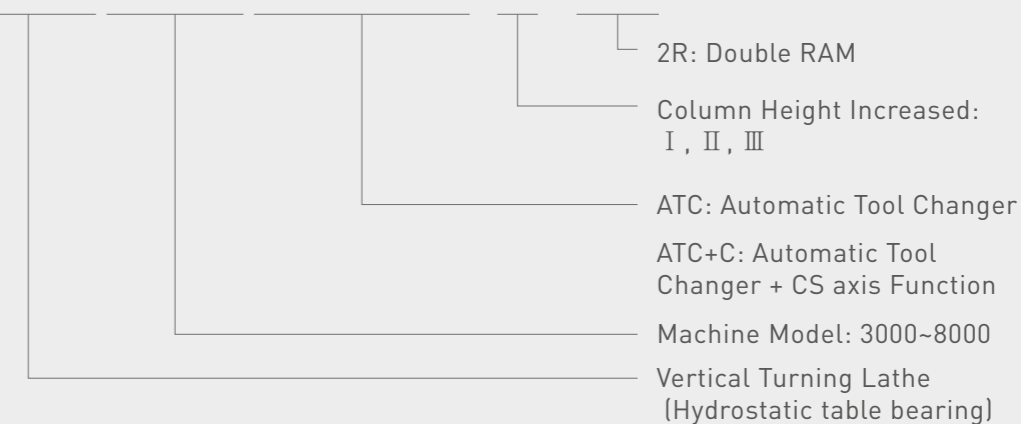


Leader of Vertical Turning Center

With over 37 years of experience, You Ji has a professional R&D design team offering customized integrated solutions to meet individual customers' needs, and excellent after-sales service and management, enabling us to establish lasting relationships with customers. We conduct technology exchange with large manufacturers in other advanced countries and continuously upgrade our technology to enhance our core technical capabilities and provide customers with better, faster, and more comprehensive services.

Machine Definition

VTH4000ATC+C-II-2R



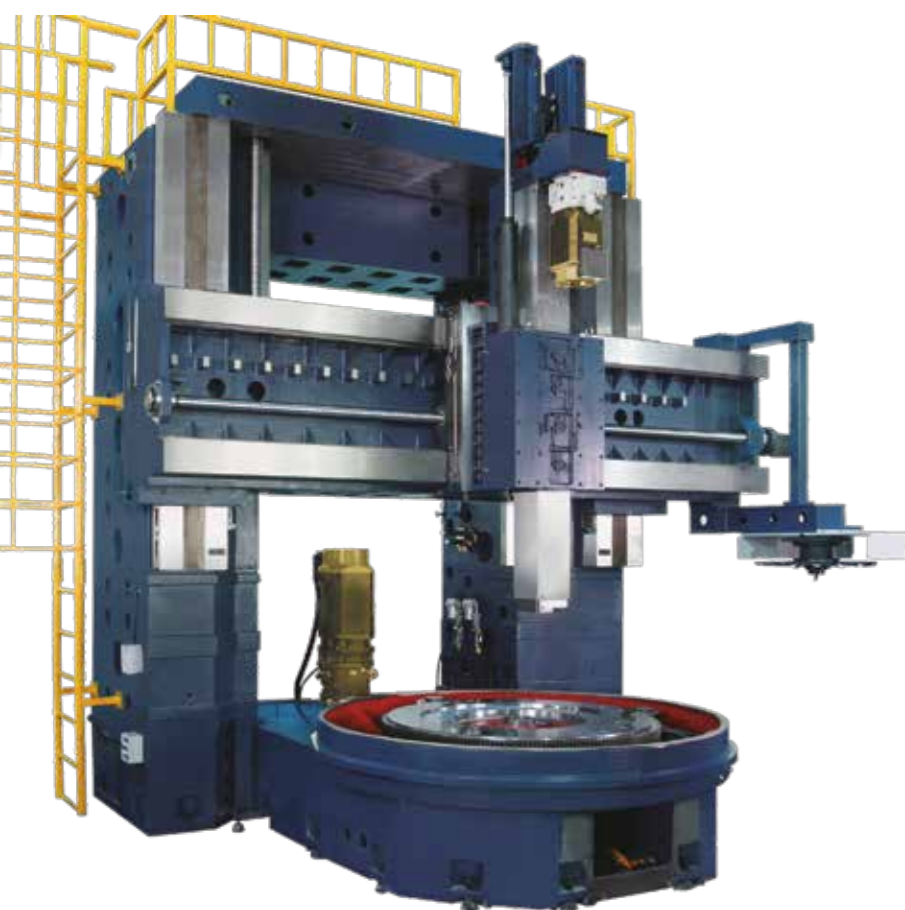


High loading weight for work table

High rigidity construction for high table loads

The thick work table can bear super huge work-pieces. 250 mm super thickness can support large work-pieces, redefining the carrying and cutting performance of vertical lathes.

Select high grade rigid materials



High rigidity box type structure design

VTH series parts are made of Meehanite cast iron with a symmetrical box type structure. Finite element analysis (FEA) is conducted to achieve optimized design. Thick ribbed slab and multi-ribbed slab designs can minimize thermal deformation, affording optimum rigidity to the machine, and the studs are detachable, making transportation more convenient and reducing delivery costs.

Box slideways structure

- The casting of X axis box slideway is heat treated and stress relieved, this design gives the best rigidity to ensure heavy duty cutting.
- The slideway lubrication is controlled by an automatic central lube feeding system. The volume and timing of lubrication is controlled by CNC and enhances the machine accuracy and life.
- The X and Z axes box guide ways are induction hardened and precision ground, the mating sliding faces are Turcite B coated allowing slide assemblies to move with ease and low friction.

Hand scraping for precision aesthetics

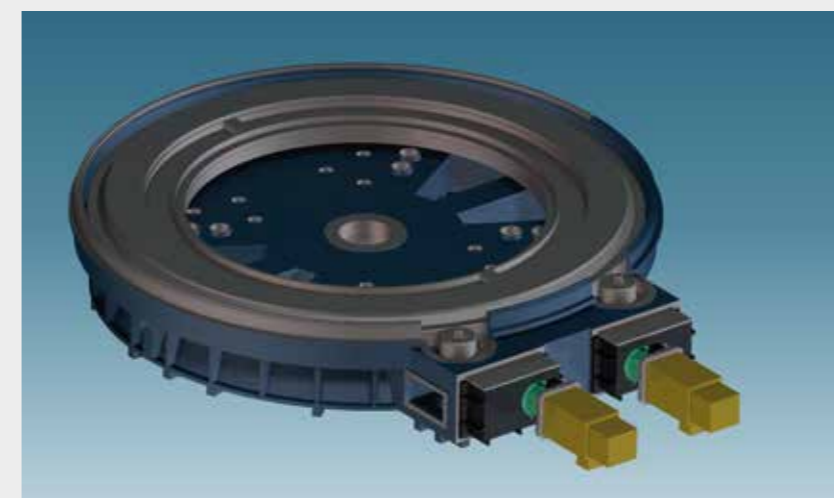
A high precision vertical turning lathe is not only the combination of technology and algorithms but also the professional experience of You Ji engineers accumulated over years. The strength at each single point guarantees a high precision and outstanding performance vertical turning lathe.





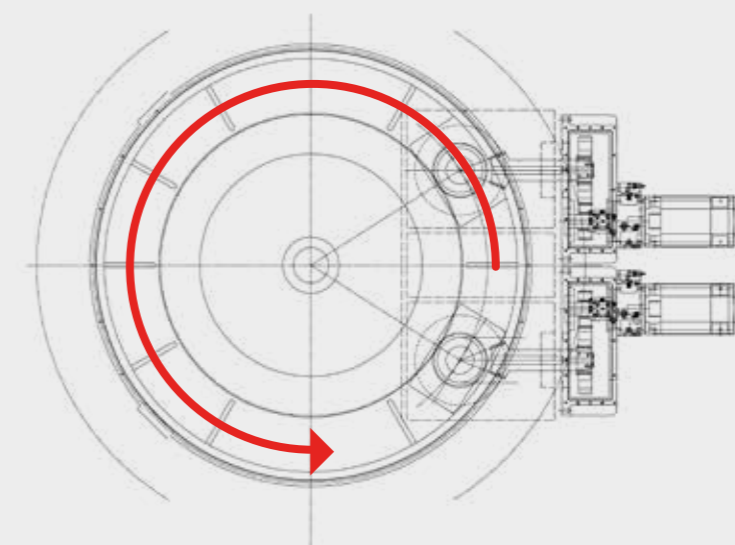
Hydrostatic oil film bearing features high vibration absorption and high rigidity so that delivers the best performance for hard turning of large size bearing. Surface roughness is similar like the ground level quality, and this design is superior to a roller bearing and semi-hydrostatic type machines.

Hydrostatic bearing features friction-free, less loss spindle output, coupled with dual-drive spindle system that provides high torque and horsepower at low speed for energy saving and heavy cutting.



CS axis bilateral automatic positioning – The pursuit of precise performance

Special dual-drive spindle system with CS axis indexing mechanism enhances spindle output torque and eliminates mechanical transmission backlash, the repeatability of indexing accuracy of the CS axis is 5 seconds, positioning accuracy 10 seconds, delivering the best complex turning and machining solutions.

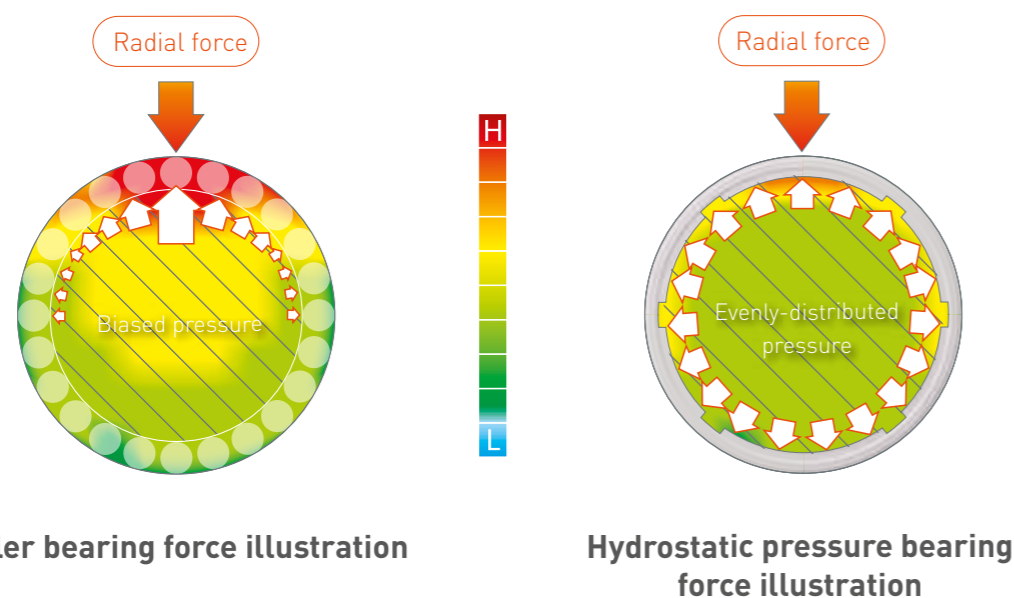


Hydrostatic bearing

Vibration resistant pressure-reducing streamline design sets new precision milestone

The vertical lathe combines the latest German hydrostatic and oil-film bearing technology. With full hydrostatic features, both the axial carrying capacity and radial precision achieve optimal stability. It is particularly suitable for processing ultra large and ultra heavy work pieces, with a maximum weight capacity of up to 300 tons (VTH8000).

Hydrostatic bearing features high vibration absorption and high rigidity, this design is superior to a roller bearing.





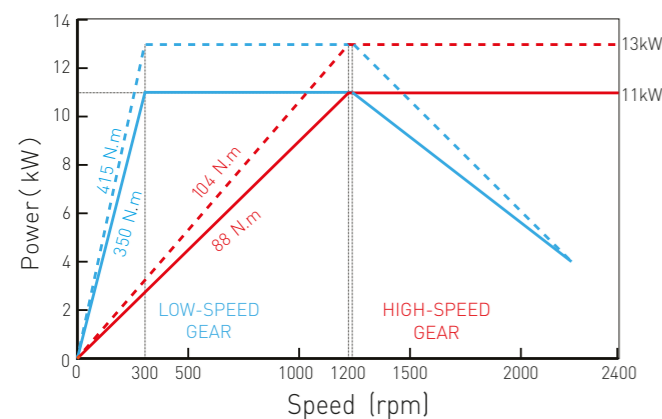
Siemens equipment with high-performance drive

Live spindle with high-performance drive

The live spindle motor, coupled with the dual speed gearbox is located on top of the RAM, driving the live spindle via drive shaft. The use of the dual speed gearbox on the live spindle enables high torque output. The model is mainly paired with Siemens high-performance spindle motors 1PH8131 and 1PH8137. The 1PH8 spindle motor has excellent output-volume ratio. Installed in a flange, the ultra-large contact surface serves as the auxiliary force for vibration dampening, and also features steady and saturated momentum. The motor comes in rated power of 11 and 22 kW. It is a perfect match to the cutting load borne by the power live spindle, enabling the machine with multiple processing techniques such as face milling, end milling, boring and tapping, high torque, and high rotating speeds.

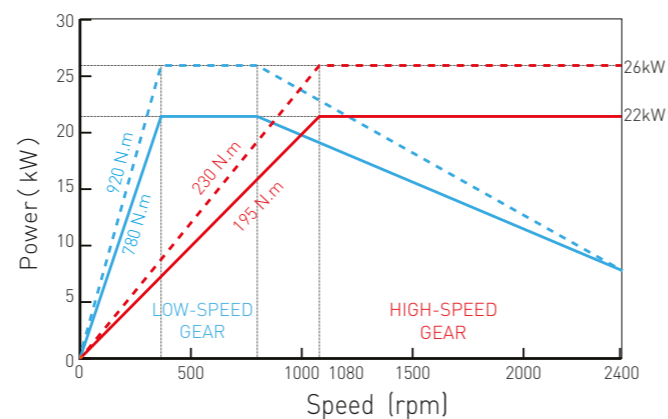


Siemens motor 1PH8131/1PH8137 (live spindle motor)



(Motor: Siemens 1PH8131-1DF) High-speed ratio: 1.25 Low-speed ratio: 5

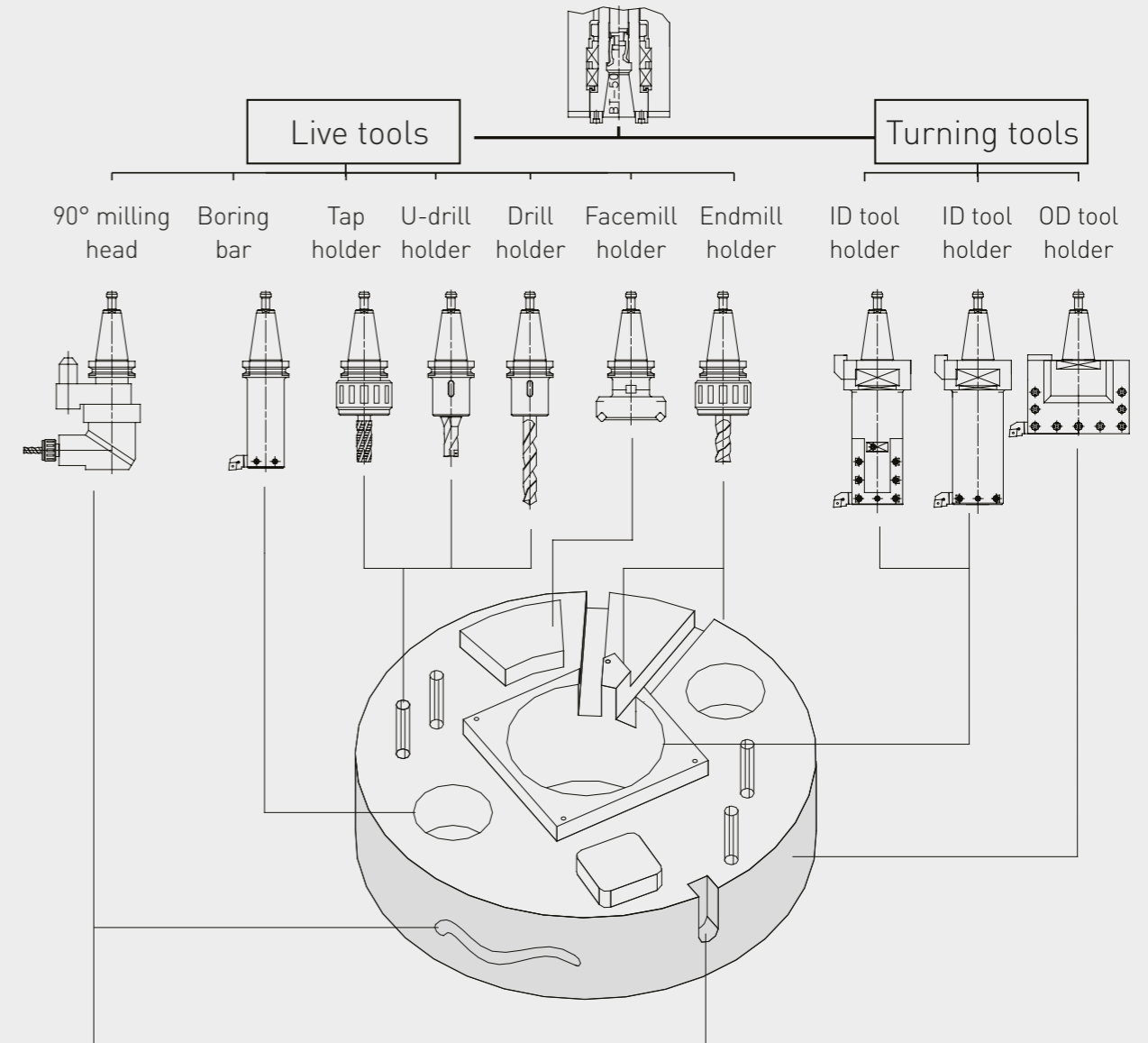
VTH3000/3500 ATC+C series



(Motor: Siemens 1PH8137-1DF) High-speed ratio: 1.25 Low-speed ratio: 5

VTH4000/8000 ATC+C series

Complex Machining



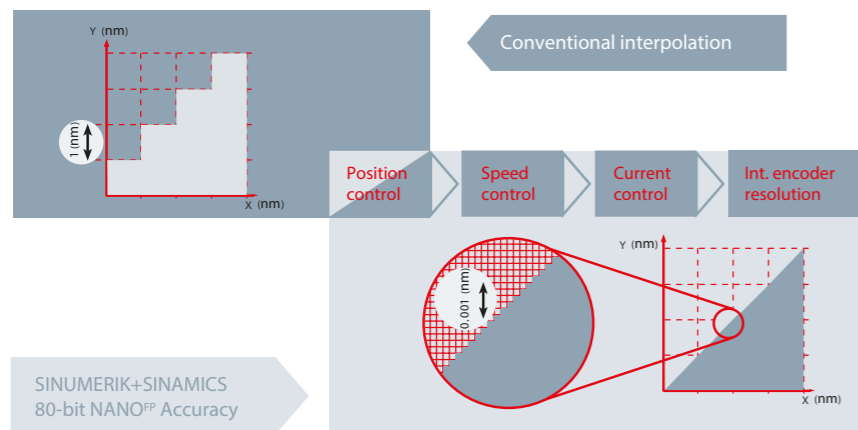
German equipment: SINUMERIK 840D sl



The ultimate in accuracy

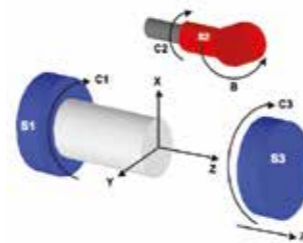
SINUMERIK and SINAMICS are equipped with 80-bit NANO^{FP} Accuracy. As a result, accuracy of well under a nanometer can be achieved. This precision is not just available for closed-loop position control but also for current regulation and closed loop speed control, as well as within the context of drive sensor evaluation.

Innovative machining for complete machining Milling and Turning



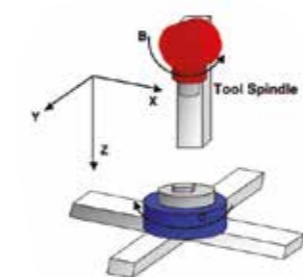
Turning-milling

- Machines with driven tools, Y axis, B axis and counter spindle use the complete milling functionality including plane and tool swiveling
- Use milling cycle support
- Convenient swiveling of turning tools
- 3D simulation also for milling



Milling-turning

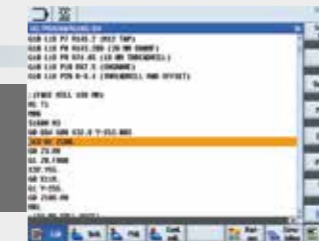
- Machines with B axis and rotary table in specific kinematics
- Machines with A axis in specific kinematics
- Replacement of C axis / A axis and spindle for rotary mode (application-specific by the OEM)
- Use of rotary functions (technology and turning tools, etc. in the programGuide and G code methods)
- Use turning cycle support



The SINUMERIK high-level language with programGUIDE was developed for maximum flexibility and short development times – and it is perfect for medium to large batch sizes. programGUIDE ensures an extremely high degree of productivity and programming flexibility, combined with innovative technology and processing cycles.

- CNC language with high-level programming commands
- programGUIDE with graphical cycle support images including tooltip (context-based short information)
- Online ISO dialect Interpreter available

ISO-Code with predefined cycles



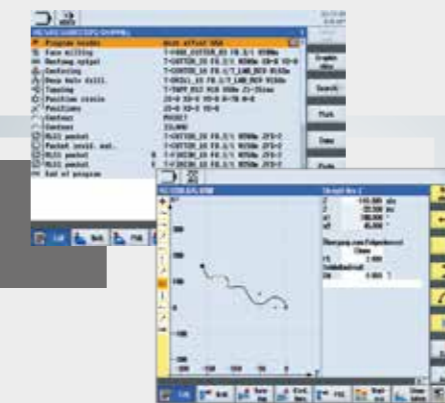
Designed for maximal ISO-Code compatibility

DIN & SINUMERIK high-level language with programGUIDE



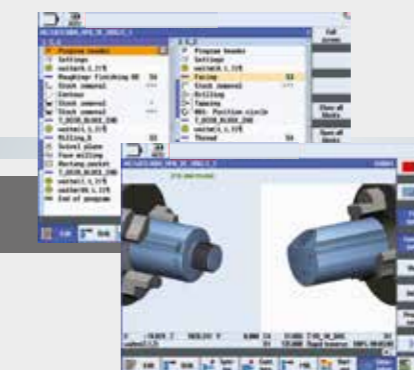
Designed for maximal flexibility and shortest machining times

ShopMill/ShopTurn work step programming



Designed for shortest programming times

ProgramSYNC



Designed for increased productivity for multi-channel machines

ShopMill/ShopTurn workstep programming

ShopMill and ShopTurn workstep programming is the tailor made programming solution for the production of individual parts and small batch sizes. In addition to programGUIDE, ShopMill/ShopTurn also offer unique step sequence programming for extremely short programming times.

- Clear display of processing steps without G-code knowledge
- Simple interlinking of technology functions with geometric elements
- Dynamic display of the workpiece during programming

Efficient programming for multi-channel machines

SINUMERIK supports multi-tasking machines when processing workpieces in one process step. New functions for complete processing are already being prepared.

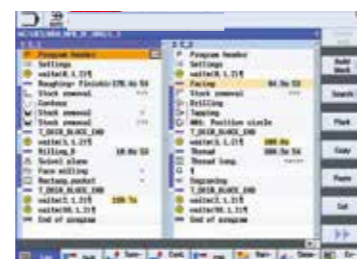
A user-friendly solution for multi-channel machines

SINUMERIK's numerous functions for easy operation include display via the dual editor, which shows a two-channel basic configuration. In milling processes, the second channel can be used to control and visualize handling modules or tool changes, for example – for even greater flexibility and cost-efficiency in production. With the programSYNC option, multi-channel processes can be synchronized quickly and easily. The simulation allows excellent visualization of multi-channel processing via SINUMERIK 840D sl. This allows multi-channel processes to be programmed with even greater efficiency:

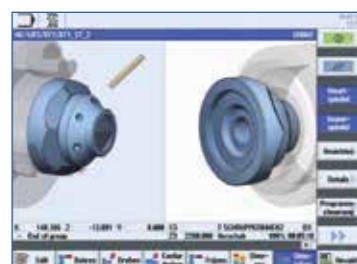
- Create part program structures
- Fill individual process steps (blocks)
- Simulate part programs
- Apply part programs (by channel or by spindle)



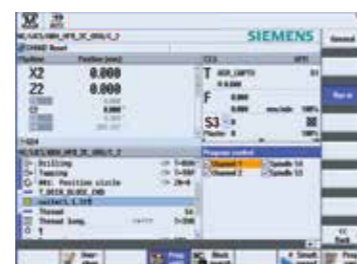
Dual Channel Machine Display



Dual Program & Sequence Editor



Dual Channel Program Simulation



Multi-Channel Program Control



Automatic variety tool magazine

Automatic tool changer ATC

The user-friendly and easily operated disc-type tool magazine houses 16 tools for quick bilateral selection. Chain-slat tool magazines with 32, 48, or 60-position options are also available.

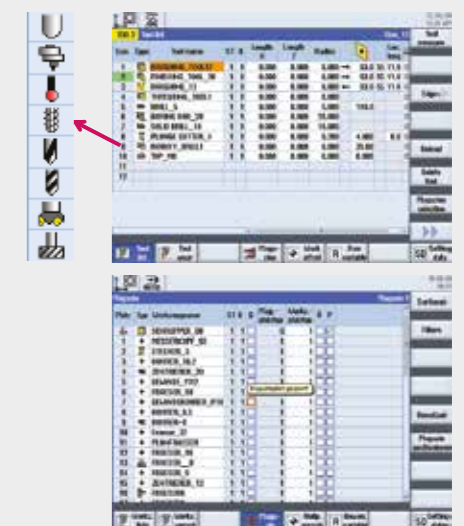


Tool management: Everything at a glance, everything under control.

Tool management made easy for higher production and easy operation

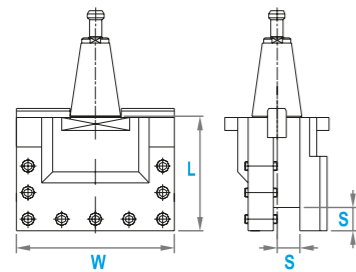
SINUMERIK offers a modern and clear system of tool management. The tools list has a configurable display and can be intuitively operated and displayed using context dependent functions and self-explanatory icons – for efficient management of tool data.

- Intuitive operation through graphic tool type symbols
- Tool and magazine data are displayed on one screen
- Tool name in plaintext
- Tool life monitoring by part count and cutting time are supported
- Easy replacement tool and big tool management and setup on the screen without additional effort



Dimension of Tool Holder

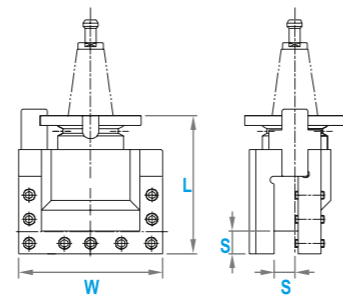
ATC series



※Dual contact

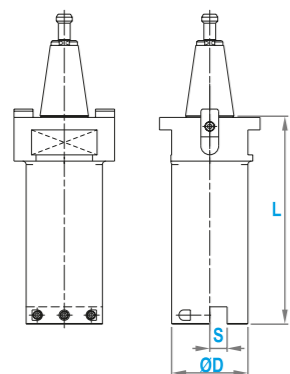
Model	W	L	S	Model	W	L	S
BT50-STST16032	220	160	32	BT50-DTST16032	220	160	32
BT50-STST16040	220	160	40	BT50-DTST16040	220	160	40
BT50-STMT16032	250	160	32	BT50-DTMT16032	250	160	32
BT50-STMT16040	250	160	40	BT50-DTMT16040	250	160	40
BT60-STST19032	290	190	32	BT60-DTST19732	290	197	32
BT60-STST19040	290	190	40	BT60-DTST19740	290	197	40

ATC+C series (Turning tool holder)



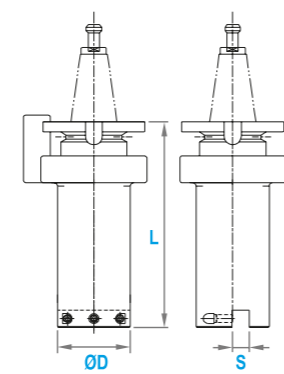
※Dual contact

Model	W	L	S	Model	W	L	S
BT50-SMST19732	220	197	32	BT50-DMST21032	220	210	32
BT50-SMST19740	220	197	40	BT50-DMST21040	220	210	40
BT50-SMMT19732	250	197	32	BT50-DMMT21032	250	210	32
BT50-SMMT19740	250	197	40	BT50-DMMT21040	250	210	40
BT60-SMST25032	290	250	32	BT60-DMST25032	290	250	32
BT60-SMST25040	290	250	40	BT60-DMST25040	290	250	40



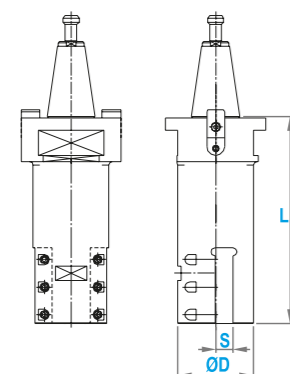
※Dual contact

Model	L	S	D	Model	L	S	D
BT50-STBB20025	200	25	100	BT50-DTBB20025	200	25	100
BT50-STBB30025	300	25	110	BT50-DTBB30025	300	25	110
BT60-STBB20025	200	25	140	BT60-DTBB20025	200	25	140
BT60-STBB30025	300	25	140	BT60-DTBB30025	300	25	140



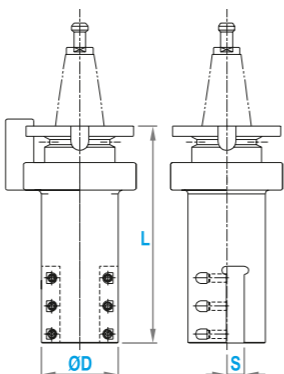
※Dual contact

Model	L	S	D	Model	L	S	D
BT50-SMBB20025	200	25	100	BT50-DMBB20025	200	25	100
BT50-SMBB30025	300	25	110	BT50-DMBB30025	300	25	110
BT60-SMBB20025	200	25	140	BT60-DMBB20025	200	25	140
BT60-SMBB30025	300	25	140	BT60-DMBB30025	300	25	140



※Dual contact

Model	L	S	D	Model	L	S	D
BT50-STBT20025	200	25	100	BT50-DTBT20025	200	25	100
BT50-STBT30025	300	25	110	BT50-DTBT30025	300	25	110
BT60-STBT20025	200	25	140	BT60-DTBT20025	200	25	140
BT60-STBT30025	300	25	140	BT60-DTBT30025	300	25	140

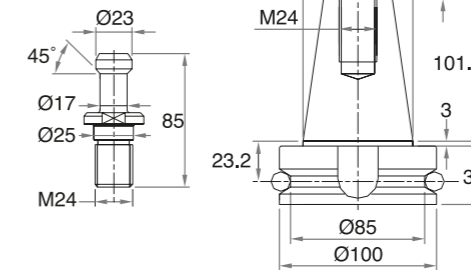


※Dual contact

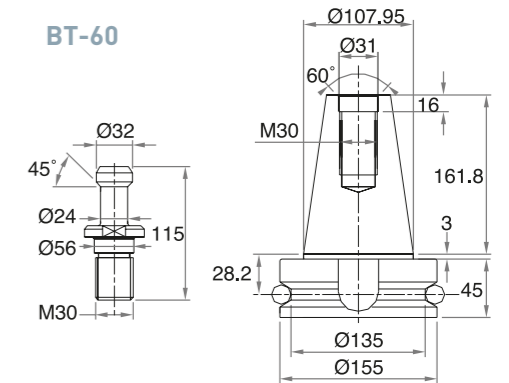
Model	L	S	D	Model	L	S	D
BT50-SMBT20025	200	25	100	BT50-DMBT20025	200	25	100
BT50-SMBT30025	300	25	110	BT50-DMBT30025	300	25	110
BT60-SMBT20025	200	25	140	BT60-DMBT20025	200	25	140
BT60-SMBT30025	300	25	140	BT60-DMBT30025	300	25	140



BT-50

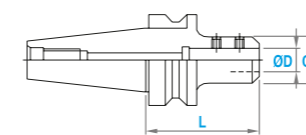


BT-60



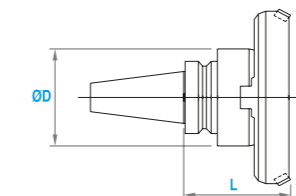
ATC+C series (Live tool holder)

Side lock chuck



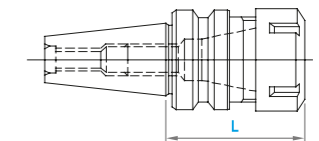
Model	L	C	D
BT50-SLA20-105	105	50	20
BT50-SLA25-105	105	55	25
BT50-SLA32-105	105	60	32
BT50-SLA40-105	105	80	40
BT50-SLA50.8-105	105	95	50.8
BT60-SLA20-105	105	50	20
BT60-SLA25-105	105	55	25
BT60-SLA32-105	105	60	32
BT60-SLA40-105	105	80	40
BT60-SLA50.8-105	105	95	50.8

Facemill holder (Milling cutter excluded)



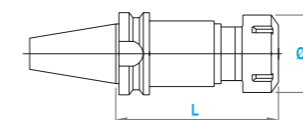
Model	L	C	D
BT50-FMA25.4-105	155	80	60
BT50-FMA31.75-105	160	100	70
BT50-FMA38.1-75	130	125	85
BT50-FMA50.8-75	135	150	95
BT60-FMA25.4-105	155	80	60
BT60-FMA31.75-105	160	100	70
BT60-FMA38.1-75	130	125	85
BT60-FMA50.8-75	135	150	95

Collet chuck



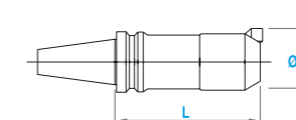
Model	L	Clamping range	Collet type
BT50-ER20-100	100	1-13	ER-20
BT50-ER32-100	100	3-20	ER-32
BT50-ER40-100	100	4-26	ER-40
BT60-ER20-100	100	1-13	ER-20
BT60-ER32-100	100	3-20	ER-32
BT60-ER40-100	100	4-26	ER-40

Tap holder



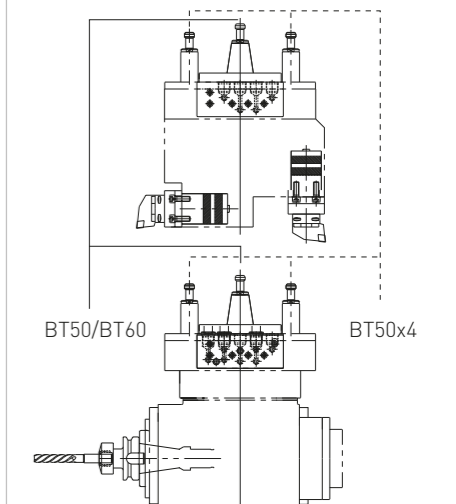
Model	L	D	Tapping range
BT50-TER16	80	28	M4-M10
BT50-TER40	117	63	M6-M27
BT60-TER16	83	28	M4-M10
BT60-TER40	126	63	M6-M27

Boring bar (Rough boring)



Model	L	D
BT50-BSB62-300	300	62~90
BT50-BSB72-285	285	72~110
BT50-BSB105-285	285	105~160
BT60-BSB62-300	300	62~90
BT60-BSB72-285	285	72~100
BT60-BSB105-285	285	105~160

VTH5000 ~ VTH8000 series

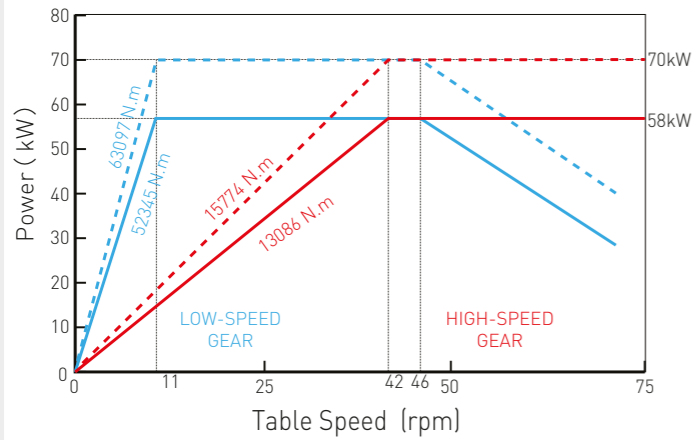


※Tool holders on VTH5000 and above Model are special specifications, please contact You Ji for detailed information.

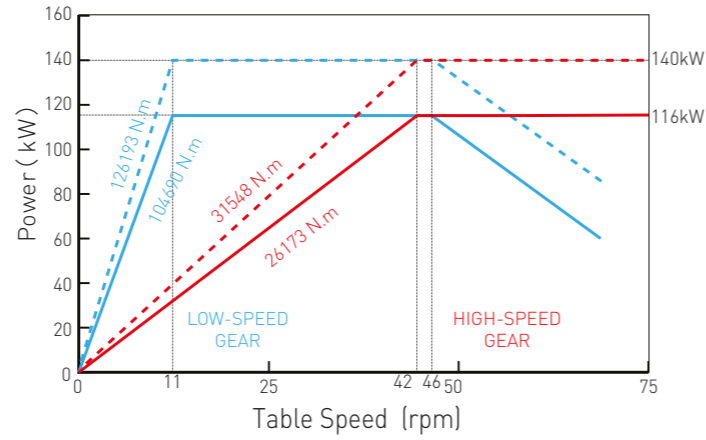
Torque chart

— low gear - - - - - 30 min operation zone
 — high gear — Continuous operation zone

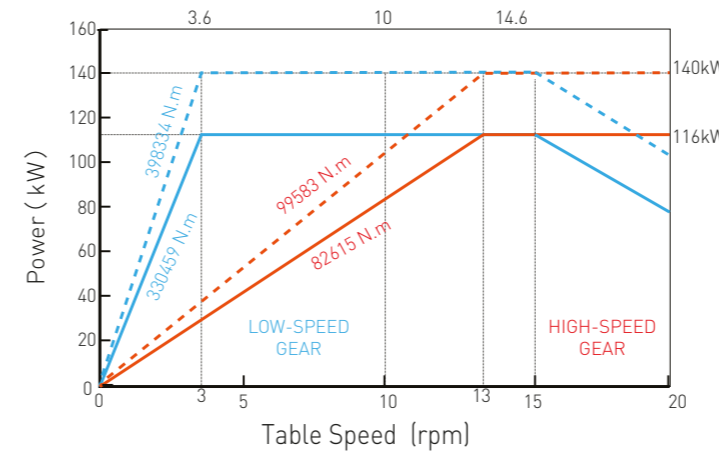
— low gear - - - - - 30 min operation zone
 — high gear — Continuous operation zone



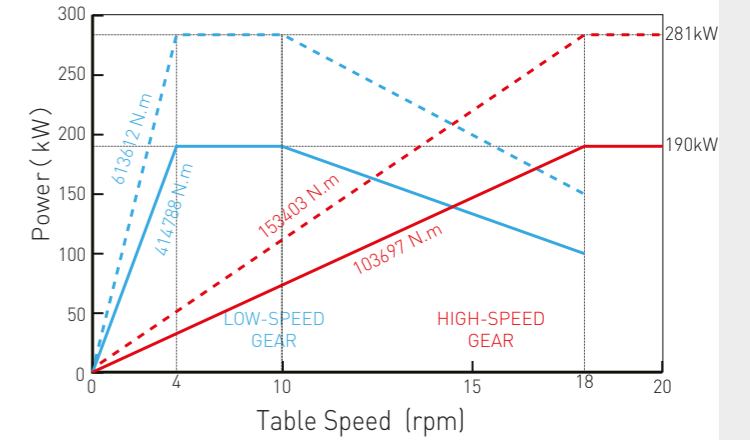
(Motor: Siemens 1PH8186-1DD03) High-speed ratio: 27.15 Low-speed ratio: 108.6
VTH3000/3500ATC



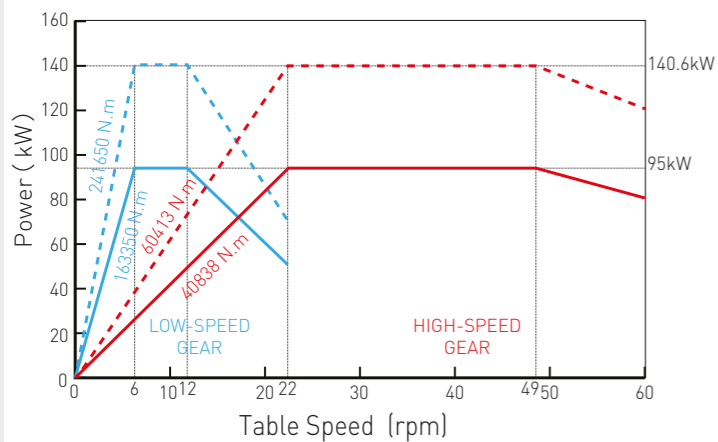
(Motor: Siemens 1PH8186-1DD03)x2 High-speed ratio: 27.15 Low-speed ratio: 108.6
VTH3000/3500ATC-2R & VTH3000/3500ATC+C-2R & VTH3000/3500ATC+C



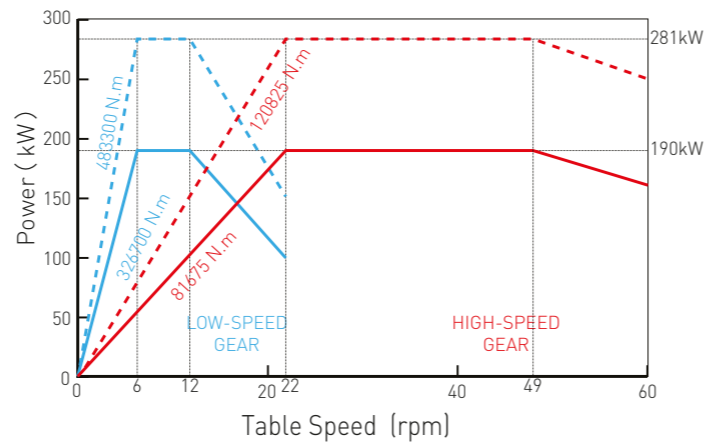
(Motor: Siemens 1PH8186-1DD03)x2 High-speed ratio: 85.7 Low-speed ratio: 342.8
VTH6000ATC & VTH6000ATC+C



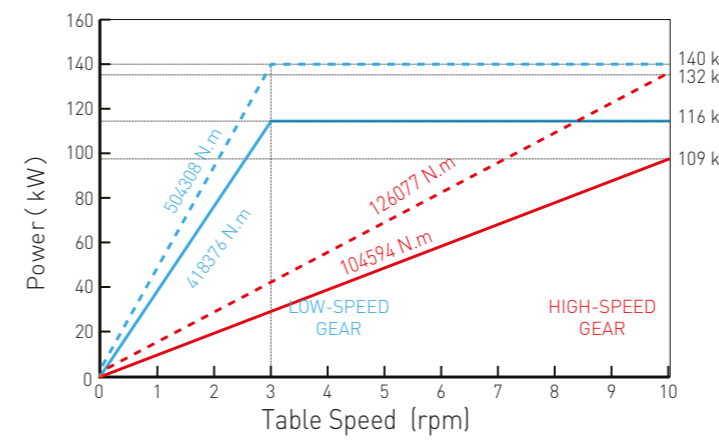
(Motor: Siemens 1PH8224-1DF03)x2 High-speed ratio: 85.7 Low-speed ratio: 342.8
VTH6000ATC-2R & VTH6000ATC+C-2R



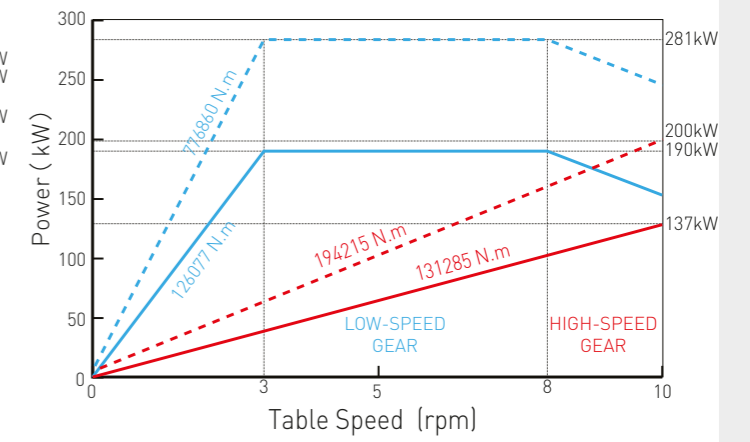
(Motor: Siemens 1PH8224-1DF03) High-speed ratio: 67.5 Low-speed ratio: 270
VTH4000/4500ATC



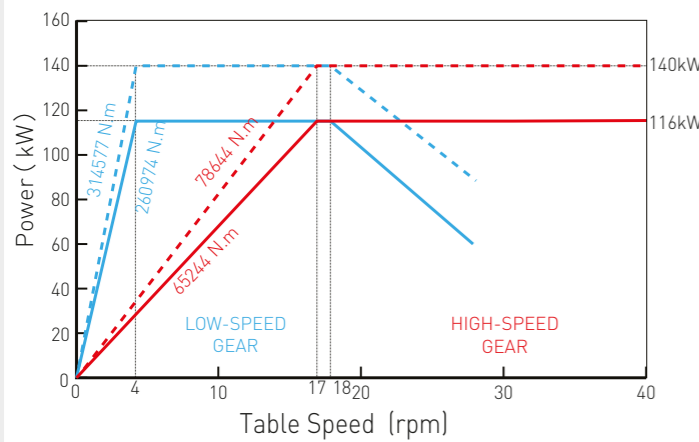
(Motor: Siemens 1PH8224-1DF03)x2 High-speed ratio: 67.5 Low-speed ratio: 270
VTH4000/4500ATC-2R & VTH4000/4500ATC+C-2R



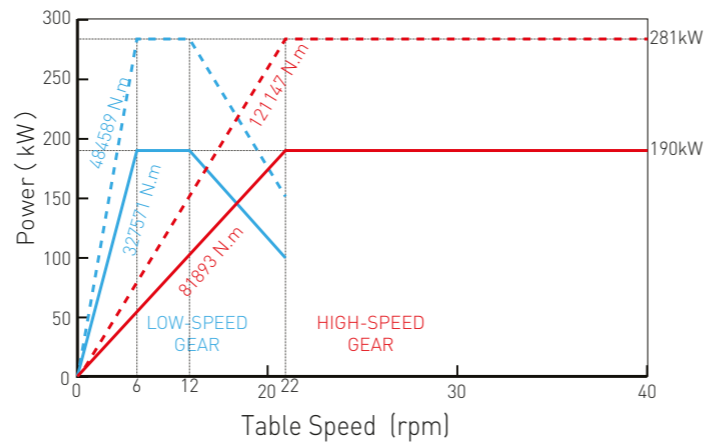
(Motor: Siemens 1PH8186-1DD03)x2 High-speed ratio: 108.5 Low-speed ratio: 434
VTH7000ATC & VTH7000/8000ATC+C



(Motor: Siemens 1PH8224-1DF03)x2 High-speed ratio: 108.5 Low-speed ratio: 434
VTH7000/8000ATC-2R & VTH7000/8000ATC+C-2R & VTH8000ATC

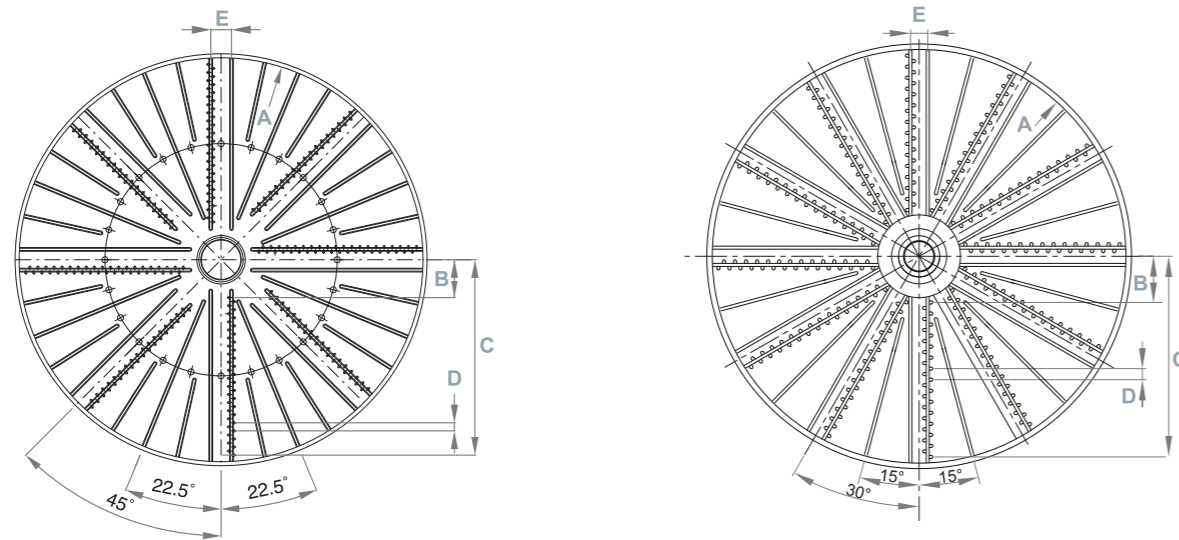


(Motor: Siemens 1PH8186-1DD03)x2 High-speed ratio: 67.68 Low-speed ratio: 270.72
VTH5000ATC & VTH5000ATC+C & VTH4000/4500ATC+C



(Motor: Siemens 1PH8224-1DF03)x2 High-speed ratio: 67.68 Low-speed ratio: 270.72
VTH5000ATC-2R & VTH5000ATC+C-2R

Diagram of Working Table



8 Jaws

Unit: mm

Model / series	A	B	C	D	E
VTH3000	Ø3000	375	1463	80	205
VTH3500	Ø3500	375	1703	80	205
VTH4000	Ø4000	375	1935	80	205
VTH4500	Ø4500	375	2175	80	205
VTH5000	Ø5000	500	2420	80	240

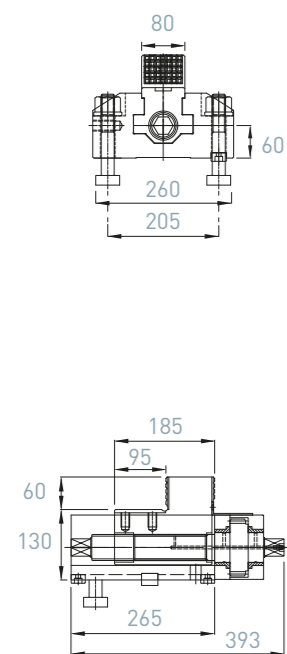
12 Jaws

Unit: mm

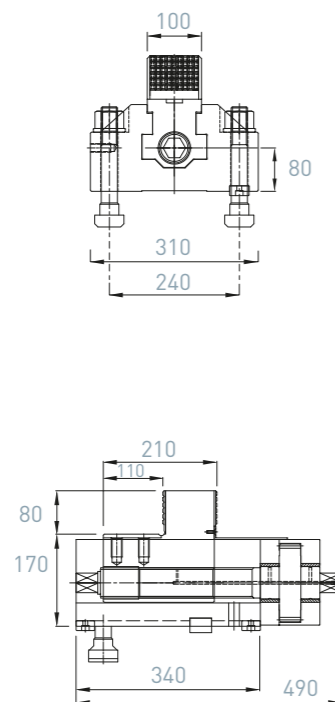
Model / series	A	B	C	D	E
VTH6000	Ø6000	800	2880	80	240
VTH7000	Ø7000	1325	3405	80	400
VTH8000	Ø8000	1325	3885	80	400

Dimension of Chuck Jaw

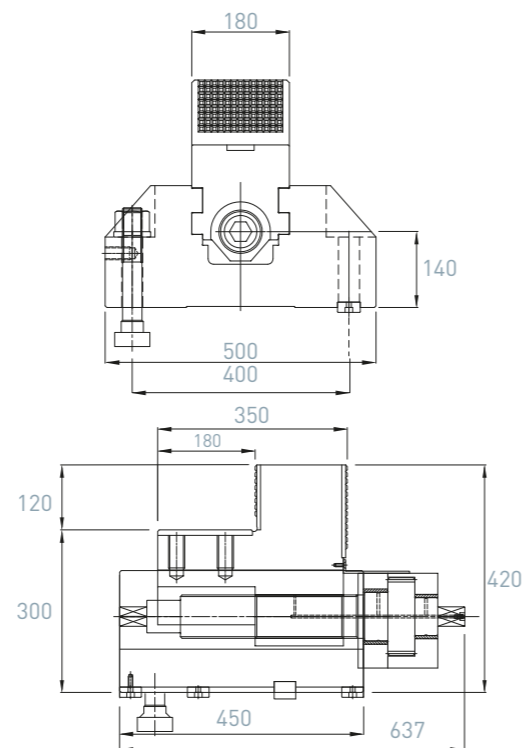
VTH3000/4000/4500 - 8T



VTH5000/6000 - 15T

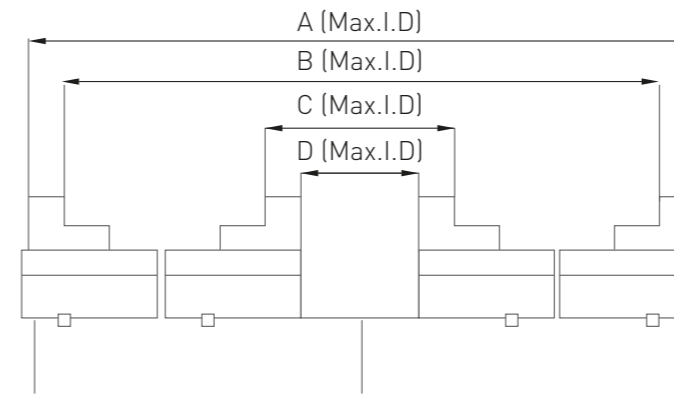


VTH7000/8000 - 20T



Inside & outside clamping for Chuck Jaw

Unit: mm



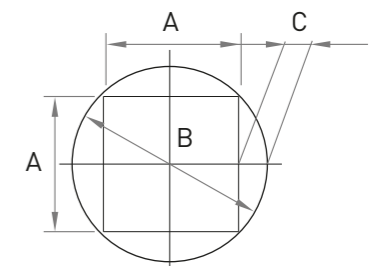
Model / series	A	B	C	D
VTH3000	2756	2585	1025	845
VTH3500	3425	3065	1025	845
VTH4000	3710	3530	1090	910
VTH4500	4190	4010	1090	910
VTH5000	4700	4500	1200	1000
VTH6000	5600	5400	1600	1400
VTH7000	6550	6200	2750	2400
VTH8000	7500	7200	2750	2400

RAM Specifications

Unit: mm

Model / series	Standard	Optional Accessories		
VTH3000				
VTH3000 - I	A	B	C	D
VTH3000 - II				
VTH3000 - III				
VTH3500				
VTH3500 - I	A	B	C	D
VTH3500 - II				
VTH3500 - III				
VTH4000				
VTH4000 - I	A	B	C	D
VTH4000 - II				
VTH4000 - III				
VTH4500				
VTH4500 - I	A	B	C	D
VTH4500 - II				
VTH4500 - III				
VTH5000	E	F	G	
VTH5000 - I				
VTH5000 - II	F	G		
VTH5000 - III				
VTH6000	E	F	G	
VTH6000 - I				
VTH6000 - II	F	G		
VTH6000 - III				
VTH7000	E	F	G	
VTH7000 - I	F	G		
VTH7000 - II				
VTH7000 - III	G			
VTH8000	E	F	G	
VTH8000 - I	F	G		
VTH8000 - II				
VTH8000 - III	G			

RAM Interference

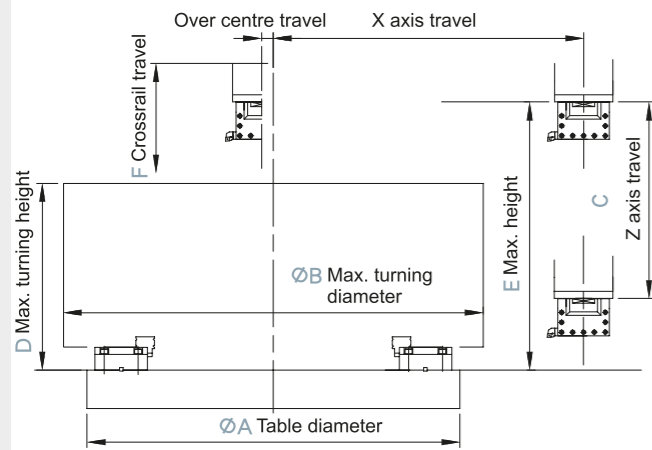


Unit: mm

RAM Type	Travel	A	B	C
A type BT50	1500	250	350	50
B type BT60	1500	280	400	60
C type BT50	1800	300	425	62
D type BT60	1800	300	425	62
E type BT50 + 4x BT50	1500	350	500	75
F type BT60 + 4x BT50	2000	400	570	85
G type BT60 + 4x BT50	2500	400	570	85

Machining Range

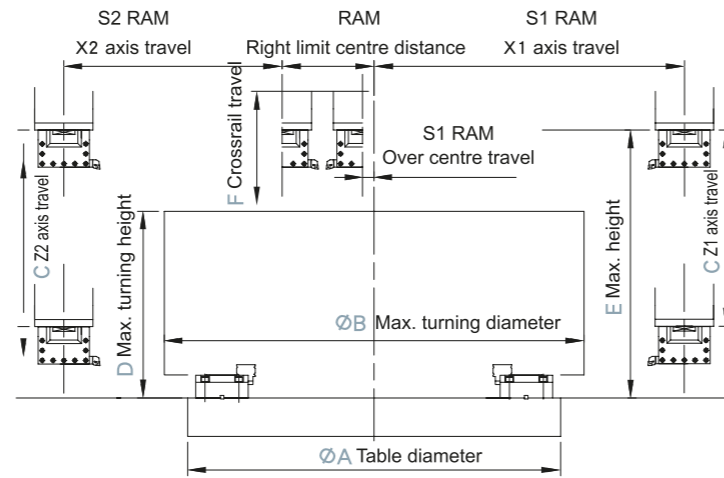
1R type



Unit: mm

Model / series	A	B	C	D	E	F
VTH3000ATC	3000	3300	1500	1600	1929	1200
VTH3000ATC-I	3000	3300	1500	2200	2529	1400
VTH3000ATC-II	3000	3300	1500	2800	3144	2000
VTH3000ATC-III	3000	3300	1500	3200	3529	2400
VTH3500ATC	3500	3800	1500	1600	1929	1200
VTH3500ATC-I	3500	3800	1500	2200	2529	1400
VTH3500ATC-II	3500	3800	1500	2800	3144	2000
VTH3500ATC-III	3500	3800	1500	3200	3529	2400
VTH4000ATC	4000	4300	1500	1500	1804	1200
VTH4000ATC-I	4000	4300	1500	2100	2404	1400
VTH4000ATC-II	4000	4300	1500	2700	3019	2000
VTH4000ATC-III	4000	4300	1500	3100	3404	2400
VTH4500ATC	4500	4800	1500	1500	1804	1200
VTH4500ATC-I	4500	4800	1500	2100	2404	1400
VTH4500ATC-II	4500	4800	1500	2700	3019	2000
VTH4500ATC-III	4500	4800	1500	3100	3404	2400

2R type

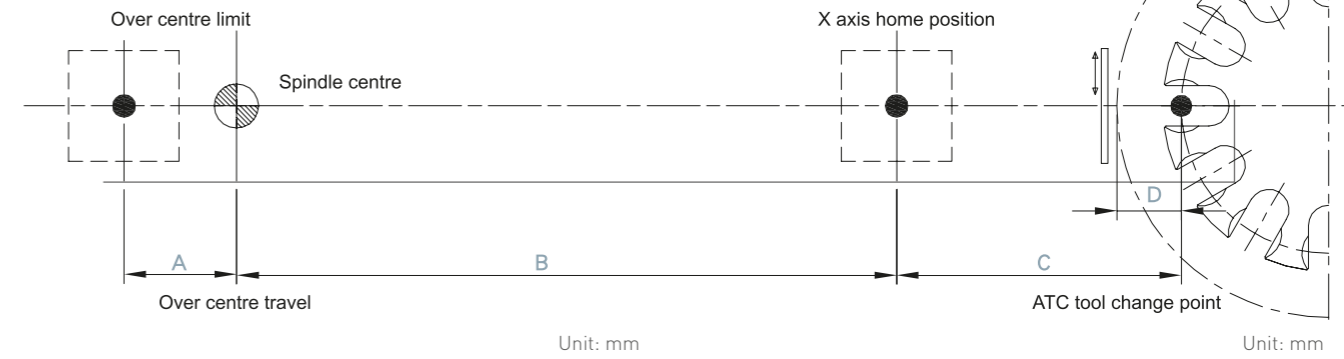


Unit: mm

Model / series	A	B	C	D	E	F
VTH5000ATC	5000	5900	1500	2100	2570	1400
VTH5000ATC-I	5000	5900	1500	2700	3170	2000
VTH5000ATC-II	5000	5900	2000	3100	3570	2400
VTH5000ATC-III	5000	5900	2000	3500	3970	2800
VTH6000ATC	6000	6900	1500	2100	2570	1400
VTH6000ATC-I	6000	6900	1500	2700	3170	2000
VTH6000ATC-II	6000	6900	2000	3100	3570	2400
VTH6000ATC-III	6000	6900	2000	3500	3970	2800
VTH7000ATC	7000	8500	1500	2600	3075	1600
VTH7000ATC-I	7000	8500	2000	3400	3875	2400
VTH7000ATC-II	7000	8500	2000	3800	4275	2800
VTH7000ATC-III	7000	8500	2500	5000	5475	4000
VTH8000ATC	8000	8900	1500	2600	3075	1600
VTH8000ATC-I	8000	8900	2000	3400	3875	2400
VTH8000ATC-II	8000	8900	2000	3800	4275	2800
VTH8000ATC-III	8000	8900	2500	5000	5475	4000

X axis Travel Diagram

1R type



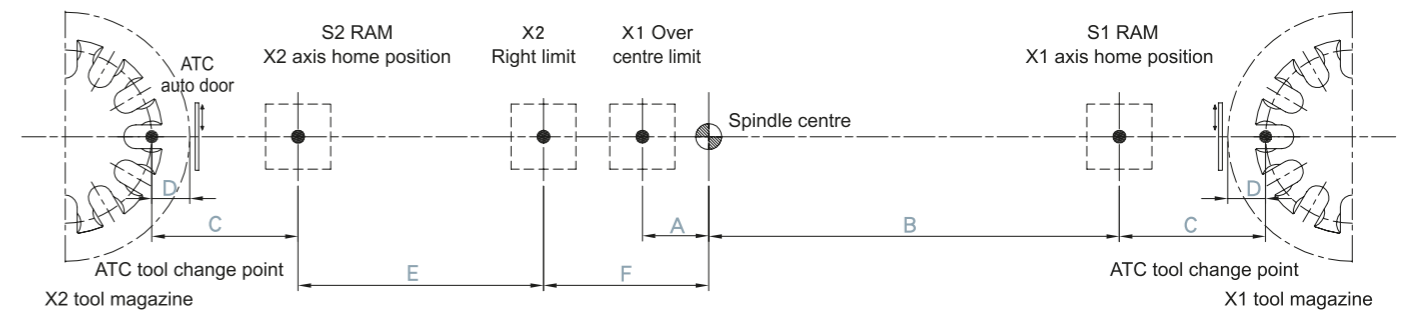
Unit: mm

Model / series	A	B	C	D
VTH3000	1500	1650	600	175
VTH3500	2000	2350	600	175
VTH4000	2000	2350	600	175
VTH4500	2250	2650	600	175

Unit: mm

Model / series	A	B	C	D
VTH5000	2350	3010	850	325
VTH6000	3000	3510	925	325
VTH7000	4300	5050	950	550
VTH8000	4300	5050	950	550

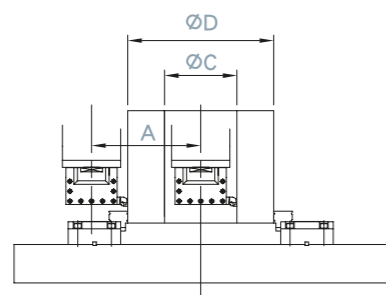
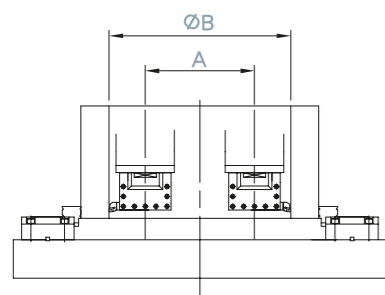
2R type



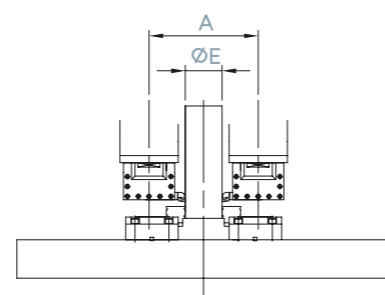
Unit: mm

Model / series	A	B	C	D	E	F
VTH3000-2R	50	1650	600	175	950	700
VTH3500-2R	50	2350	600	175	1650	700
VTH4000-2R	50	2350	600	175	1650	700
VTH4500-2R	50	2650	600	175	1950	700

Machining Range - 2R type



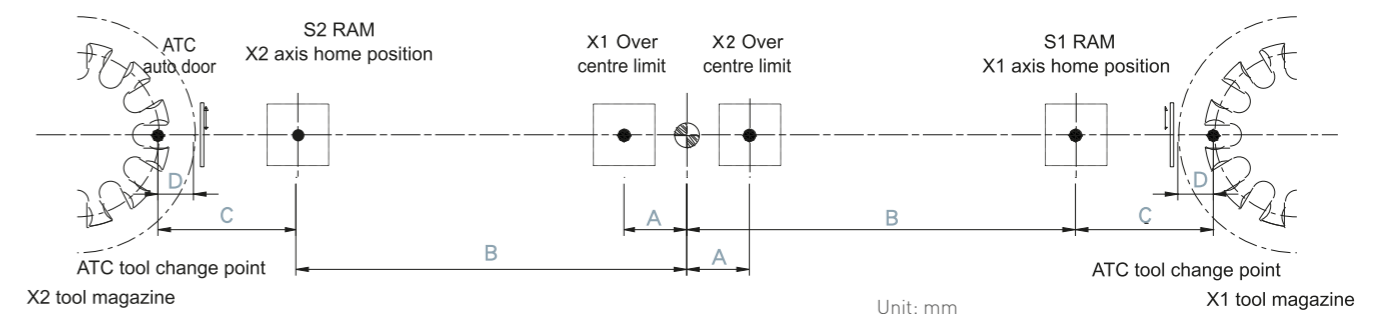
Unit: mm



Unit: mm

Model / series	A	B	C	D	E
VTH3000-2R	1400	1700	400	2500	1100
VTH3500-2R	1400	1700	400	2500	1100
VTH4000-2R	1400	1700	400	2500	1100
VTH4500-2R	1400	1700	400	2500	1100

Model / series	A	B	C	D	E
VTH5000-2R	1900	2430	530	3300	1400
VTH6000-2R	1900	2430	530	3300	1400
VTH7000-2R	2000	2530	530	3470	1470
VTH8000-2R	2000	2530	530	3470	1470

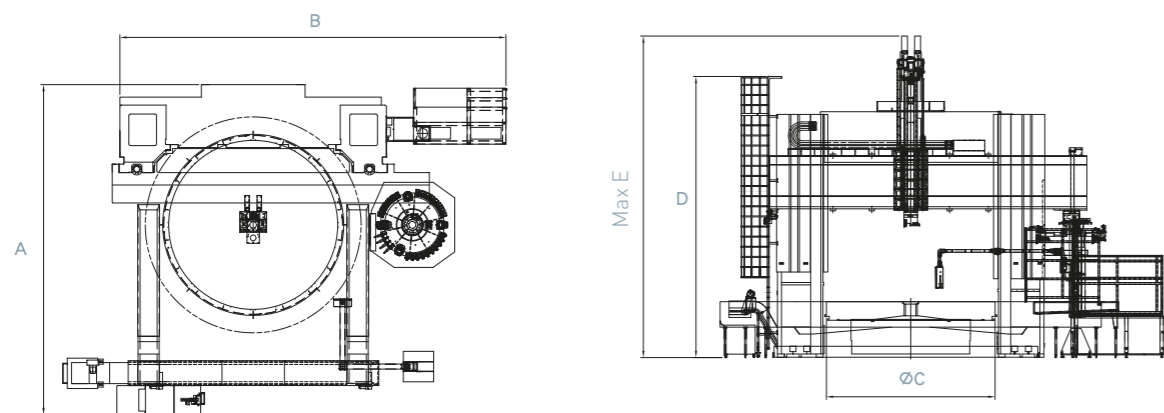


Unit: mm

Model / series	A	B	C	D
VTH5000-2R	250	3010	850	325
VTH6000-2R	250	3510	925	325
VTH7000-2R	250	5050	950	550
VTH8000-2R	250	5050	950	550

Machine Layout Dimension

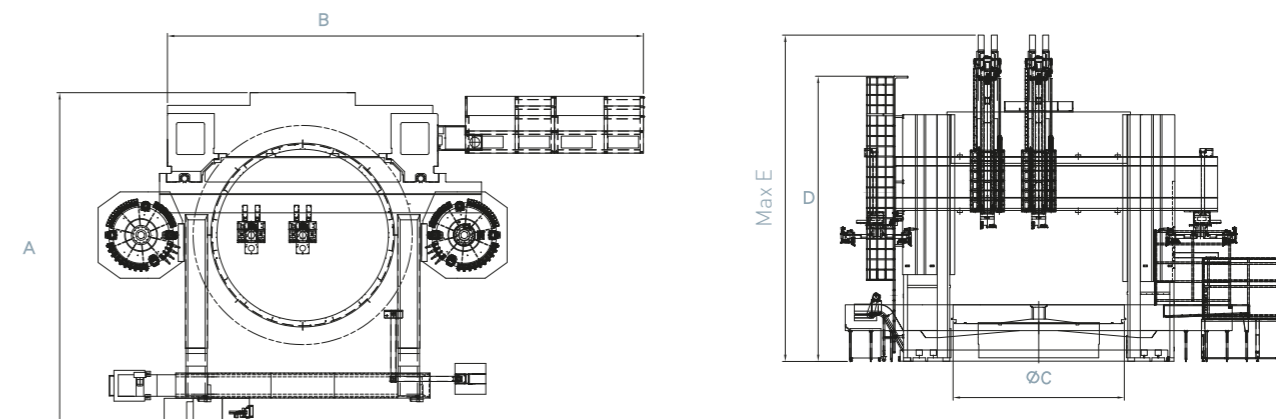
VTH3000-8000 Series: 1R type



Unit: mm

	A	B	C	D	E
VTH3000ATC	8500	13000	3000	5715	7400
VTH3000ATC - I	8500	13000	3000	6315	8000
VTH3000ATC - II	8500	13000	3000	6915	8600
VTH3000ATC - III	8500	13000	3000	7525	9000
VTH3500ATC	9600	14500	3500	5715	7400
VTH3500ATC - I	9600	14500	3500	6315	8000
VTH3500ATC - II	9600	14500	3500	6915	8600
VTH3500ATC - III	9600	14500	3500	7525	9000
VTH4000ATC	9600	14500	4000	5715	7400
VTH4000ATC - I	9600	14500	4000	6315	8000
VTH4000ATC - II	9600	14500	4000	6915	8600
VTH4000ATC - III	9600	14500	4000	7525	9000
VTH4500ATC	10000	15000	4500	5715	7400
VTH4500ATC - I	10000	15000	4500	6315	8000
VTH4500ATC - II	10000	15000	4500	6915	8600
VTH4500ATC - III	10000	15000	4500	7525	9000
VTH5000ATC	11500	18000	5000	8330	9700
VTH5000ATC - I	11500	18000	5000	8330	10300
VTH5000ATC - II	11500	18000	5000	8330	10700
VTH5000ATC - III	11500	18000	5000	9230	11100
VTH6000ATC	12500	18000	6000	8330	9700
VTH6000ATC - I	12500	18000	6000	8330	10300
VTH6000ATC - II	12500	18000	6000	8330	10700
VTH6000ATC - III	12500	18000	6000	9230	11100
VTH7000ATC	15000	21000	7000	9645	10400
VTH7000ATC - I	15000	21000	7000	9645	11200
VTH7000ATC - II	15000	21000	7000	9645	11600
VTH7000ATC - III	15000	21000	7000	10775	13300
VTH8000ATC	15000	21000	8000	9645	10400
VTH8000ATC - I	15000	21000	8000	9645	11200
VTH8000ATC - II	15000	21000	8000	9645	11600
VTH8000ATC - III	15000	21000	8000	10775	13300

VTH3000-8000 Series: 2R type



Unit: mm

	A	B	C	D	E
VTH3000ATC - 2R	8500	13000	3000	5715	7400
VTH3000ATC - I - 2R	8500	13000	3000	6315	8000
VTH3000ATC - II - 2R	8500	13000	3000	6915	8600
VTH3000ATC - III - 2R	8500	13000	3000	7525	9000
VTH3500ATC - 2R	9600	14500	3500	5715	7400
VTH3500ATC - I - 2R	9600	14500	3500	6315	8000
VTH3500ATC - II - 2R	9600	14500	3500	6915	8400
VTH3500ATC - III - 2R	9600	14500	3500	7525	9000
VTH4000ATC - 2R	9600	14500	4000	5715	7400
VTH4000ATC - I - 2R	9600	14500	4000	6315	8000
VTH4000ATC - II - 2R	9600	14500	4000	6915	8600
VTH4000ATC - III - 2R	9600	14500	4000	7525	9000
VTH4500ATC - 2R	10000	15000	4500	5715	7400
VTH4500ATC - I - 2R	10000	15000	4500	6315	8000
VTH4500ATC - II - 2R	10000	15000	4500	6915	8600
VTH4500ATC - III - 2R	10000	15000	4500	7525	9000
VTH5000ATC - 2R	11500	20500	5000	8330	9700
VTH5000ATC - I - 2R	11500	20500	5000	8330	10300
VTH5000ATC - II - 2R	11500	20500	5000	8330	10700
VTH5000ATC - III - 2R	11500	20500	5000	9230	11100
VTH6000ATC - 2R	12500	20500	6000	8330	9700
VTH6000ATC - I - 2R	12500	20500	6000	8330	10300
VTH6000ATC - II - 2R	12500	20500	6000	8330	10700
VTH6000ATC - III - 2R	12500	20500	6000	9230	11100
VTH7000ATC - 2R	15000	23000	7000	9645	10400
VTH7000ATC - I - 2R	15000	23000	7000	9645	11200
VTH7000ATC - II - 2R	15000	23000	7000	9645	11600
VTH7000ATC - III - 2R	15000	23000	7000	10775	13300
VTH8000ATC - 2R	15000	23000	8000	9645	10400
VTH8000ATC - I - 2R	15000	23000	8000	9645	11200
VTH8000ATC - II - 2R	15000	23000	8000	9645	11600
VTH8000ATC - III - 2R	15000	23000	8000	10775	13300

Standard Accessories

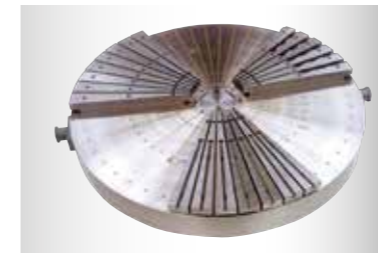
- Hydrostatic working table
- Siemens 840D sl controller
- Spindle dual speed gearbox
- 8 jaws independent manual chuck
- Hydraulic unit
- Coolant unit
- Working lamp
- Pressure relief automatic lubrication system
- Spindle oil chiller
- X & Z- axis linear scales
- Air conditioner for electrical cabinet
- Chip conveyor and chip bucket
- Signal tower light (3-stage)
- Tool box with tools
- Operation manual
- Square guarding
- 16 positions tool magazine

Optional Accessories

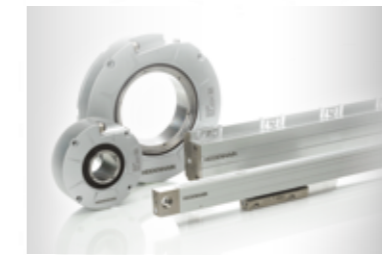
- FANUC 0i-TF controller
- FANUC 31i controller
- Magnetic chuck
- Hydraulic chuck
- Tool presetter
- Work-piece probe
- Full enclosure guarding
- Pendant control
- Door interlock
- Z-axis travel extension
- Grinding attachment
- Coolant through spindle system
- Paper filter
- Transformer
- Oil skimmer
- Coolant chiller
- Tool magazine for 24,32,48,60 tool position
- ATC series turning tool holder
- ATC+C series turning tool holder
- ATC+C live tools



Optional Accessories



Magnetic chuck



Linear scale



Machine monitoring system



3 jaws, 4 jaws, 6 jaws hydraulic chucks are available as options to reduce valuable set up time.



Tool magazine for 32, 48, 60 tool position



Grinding attachment



90°milling head



Work piece probe



Coolant chiller



Coolant through spindle system



Tool presetter



Oil skimmer

Machine Specifications

Item	Unit	VTH3000ATC	VTH3000ATC+C	VTH3000ATC-2R	VTH3000ATC+C-2R	VTH3500ATC	VTH3500ATC+C	VTH3500ATC-2R	VTH3500ATC+C-2R	VTH4000ATC	VTH4000ATC+C	VTH4000ATC-2R	VTH4000ATC+C-2R	VTH4500ATC	VTH4500ATC+C	VTH4500ATC-2R	VTH4500ATC+C-2R				
Capacity																					
Table diameter	mm	Ø3000				Ø3500				Ø4000				Ø4500							
Max. swing diameter	mm	Ø3400				Ø4100				Ø4600				Ø5100							
Max. turning diameter	mm	Ø3300				Ø3800				Ø4300				Ø4800							
Max. turning height	mm	1700 ; I : 2100 ; II : 2700 ; III : 3100				1700 ; I : 2100 ; II : 2700 ; III : 3100				1600 ; I : 2000 ; II : 2600 ; III : 3000				1600 ; I : 2000 ; II : 2600 ; III : 3000							
Max. work-piece weight	ton	45				45				60				60							
Travel																					
X-axis travel	mm	-1500,1650		X2: -700,-1650 / X1:-50,1650				-2000,2350		X2: -700,-2350		/ X1: -50,2350		-2000,2350		X2: -700,-2350 / X1: -50,2350		-2000,2650		X2: -700,-2650 / X1: -50,2650	
Z-axis travel	mm	1500 ; I : 1500 ; II : 1500 ; III : 1500				1500 ; I : 1500 ; II : 1500 ; III : 1500				1500 ; I : 1500 ; II : 1500 ; III : 1500				1500 ; I : 1500 ; II : 1500 ; III : 1500							
Cross rail travel	mm	1200 ; I : 1400 ; II : 2000 ; III : 2400				1200 ; I : 1400 ; II : 2000 ; III : 2400				1200 ; I : 1400 ; II : 2000 ; III : 2400				1200 ; I : 1400 ; II : 2000 ; III : 2400							
Spindle (Siemens motor)																					
spindle speed	Low	rpm 1~40				rpm 1~40				rpm 1~14				rpm 1~14							
	High	rpm 40~75				rpm 40~75				rpm 14~60				rpm 14~60							
Live spindle speed	Low	rpm 1~1200		rpm 1~1200		rpm 1~1200		rpm 1~1200		rpm 1~1200		rpm 1~1200		rpm 1~1200		rpm 1~1200					
	High	rpm 1200~2400		rpm 1200~2400		rpm 1200~2400		rpm 1200~2400		rpm 1200~2400		rpm 1200~2400		rpm 1200~2400		rpm 1200~2400					
Max. table torque	N·m (kgf·m)	63097 (6438)		126193 (12876)		63097 (6438)		126193 (12876)		241650 (24658)		314577 (32099)		483300 (49316)		241650 (24658)		314577 (32099)		483300 (49316)	
Spindle (FANUC motor) (Opt.)																					
spindle speed	Low	rpm 1~40				rpm 1~40				rpm 1~14				rpm 1~14							
	High	rpm 40~120				rpm 40~120				rpm 14~60				rpm 14~60							
Live spindle speed	Low	rpm 1~1200		rpm 1~1200		rpm 1~1200		rpm 1~1200		rpm 1~1200		rpm 1~1200		rpm 1~1200		rpm 1~1200					
	High	rpm 1200~2400		rpm 1200~2400		rpm 1200~2400		rpm 1200~2400		rpm 1200~2400		rpm 1200~2400		rpm 1200~2400		rpm 1200~2400					
Max. table torque	N·m (kgf·m)	67604 (6898)		135207 (13797)		67604 (6898)		135207 (13797)		256595 (26183)		334924 (34176)		513190 (52366)		256595 (26183)		334924 (34176)		513190 (52366)	
Feed rate																					
X-axis rapid traverse	m/min	6				6				6				6							
Z-axis rapid traverse	m/min	10				10				10				10							
Cutting feed rate	mm/min	1~2000				1~2000				1~2000				1~2000							
Manual feed rate	m/min	0~6				0~6				0~6				0~6							
Automation Tool Changer (ATC)																					
Number of tool position		16		16+16		16		16+		16		16+16		16		16+16					
Type of tool shank		7/24 Taper BT-50				7/24 Taper BT-50				7/24 Taper BT-50				7/24 Taper BT-50							
Max. tool length of ATC	mm	400				400				400				400							
Max. tool weight	kg	50				50				50				50							
Max. loading weight of ATC	kg	800				800				800				800							
Time of tool change (tool to tool)	sec	60				60				60				60							
Controller																					
Brand		SIEMENS SINUMERIK 840D sl				SIEMENS SINUMERIK 840D sl				SIEMENS SINUMERIK 840D sl				SIEMENS SINUMERIK 840D sl							
Siemens motor																					
Spindle motor	kW	58/70 (1PH8186)	58/70 (1PH8186)x2	58/70 (1PH8186)x2	58/70 (1PH8186)x2	58/70 (1PH8186)	58/70 (1PH8186)x2	58/70 (1PH8186)x2	58/70 (1PH8186)x2	58/70 (1PH8186)x2	95/140 (1PH8224)	58/70 (1PH8186)x2	95/140 (1PH8224)x2	95/140 (1PH8224)x2	95/140 (1PH8224)	58/70 (1PH8186)x2	95/140 (1PH8224)x2	95/140 (1PH8224)x2			
Live spindle motor	kW	11/13 (1PH8131)		11/13 (1PH8131)		11/13 (1PH8131)		11/13 (1PH8131)		11/13 (1PH8131)		22/26 (1PH8137)		22/26 (1PH8137)		22/26 (1PH8137)		22/26 (1PH8137)			
X axis servo motor	kW	7.7 (1FK7105)		7.7 (1FK7105)x2		7.7 (1FK7105)		7.7 (1FK7105)		7.7 (1FK7105)		7.7 (1FK7105)x2		7.7 (1FK7105)		7.7 (1FK7105)x2					
Z axis servo motor	kW	7.7 (1FK7105)		7.7 (1FK7105)x2		7.7 (1FK7105)		7.7 (1FK7105)		7.7 (1FK7105)		7.7 (1FK7105)x2		7.7 (1FK7105)		7.7 (1FK7105)x2					
Coolant pump	kW	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3				
Power capacity	KVA	130	150	245	260	130	150	245	260	130	160	290	310	130	160	290	310				
FANUC motor (Opt.)																					
FANUC Oi																					
Spindle motor	kW	60/75 (α60HVi)	60/75 (α60HVi)x2	60/75 (α60HVi)x2	60/75 (α60HVi)x2	60/75 (α60HVi)	60/75 (α60HVi)x2	60/75 (α60HVi)x2	60/75 (α60HVi)x2	60/75 (α60HVi)x2	100 (α100HVi)	60/75 (α60HVi)x2	100 (α100HVi)x2	100 (α100HVi)x2	100 (α100HVi)	60/75 (α60HVi)x2	100 (α100HVi)x2	100 (α100HVi)x2			
Live spindle motor	kW	11/15 (α12HVi)		11/15 (α12HVi)		11/15 (α12HVi)		11/15 (α12HVi)		11/15 (α12HVi)		15/18 (α15HVi)		15/18 (α15HVi)		15/18 (α15HVi)		15/18 (α15HVi)			
X axis servo motor	kW	5.5 (α40HVis)				5.5 (α40HVis)				5.5 (α40HVis)				5.5 (α40HVis)							
Z axis servo motor	kW	5.5 (α40HVis)				5.5 (α40HVis)				5.5 (α40HVis)				5.5 (α40HVis)							
Coolant pump	kW	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3				
Power capacity	KVA	115	130	225	235	115	130	225	235	235	130	150	260	285	130	150	260	285			
Tank capacity																					
Hydraulic tank	L	200		200+100		200		200		+100		200		200+100		200		200+100			
Coolant tank	L	2000	2000	2000	2000	2000	2000	2000	2000	2000	2500	2500	2500	2500	2800	2800	2800	2800			
Lubrication tank	L	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8				
Machine dimension																					
Floor dimension	mm	13000x8500				13000x8500				14500x9600				14500x9600							
Machine height	mm	7400 ; I : 8000 ; II : 8600 ; III : 9000				7400 ; I : 8000 ; II : 8600 ; III : 9000				7400 ; I : 8000 ; II : 8600 ; III : 9000				7400 ; I : 8000 ; II : 8600 ; III : 9000							
Machine weight	ton	70	75	80	85	90	95	100	105	100	105	110	115	125	130	135	140				

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Machine Specifications

Item	Unit	VTH5000ATC	VTH5000ATC+C	VTH5000ATC-2R	VTH5000ATC+C-2R	VTH6000ATC	VTH6000ATC+C	VTH6000ATC-2R	VTH6000ATC+C-2R	VTH7000ATC	VTH7000ATC+C	VTH7000ATC-2R	VTH7000ATC+C-2R	VTH8000ATC	VTH8000ATC+C	VTH8000ATC-2R	VTH8000ATC+C-2R		
Capacity																			
Table diameter	mm	Ø5000				Ø6000				Ø7000				Ø8000					
Max. swing diameter	mm	Ø6400				Ø7400				Ø9000				Ø9000					
Max. turning diameter	mm	Ø5900				Ø6900				Ø8500				Ø8900					
Max. turning height	mm	2100 ; I :2700 ; II :3100 ; III :3500				2100 ; I :2700 ; II :3100 ; III :3500				2600 ; I :3400 ; II :3800 ; III :5000				2600 ; I :3400 ; II :3800 ; III :5000					
Max. work-piece weight	ton	100				150				250				300					
Travel																			
X-axis travel	mm	-2350,3010		X2: 250,-3010 / X1: -250,3010		-3000,3510		X2: 250,-3510		/ X1: -250,3510		-4300,5050		X2: 250,-5050 / X1:-250,5050		-4300,5050		X2: 250,-5050 / X1:-250,5050	
Z-axis travel	mm	1500 ; I :1500 ; II :2000 ; III :2000				1500 ; I :1500 ; II :2000 ; III :2000				1500 ; I :2000 ; II :2000 ; III :2500				1500 ; I :2000 ; II :2000 ; III :2500					
Cross rail travel	mm	1400 ; I :2000 ; II :2400 ; III :2800				1400 ; I :2000 ; II :2400 ; III :2800				1600 ; I :2400 ; II :2800 ; III :4000				1600 ; I :2400 ; II :2800 ; III :4000					
Spindle (Siemens motor)																			
spindle speed	Low	5~16				3~12				3~9				3~9					
	High	17~40				13~25				10~20				10~20					
Live spindle speed	Low	1~1200		1~1200		1~1200		1~1200		1~1200		1~1200		1~1200		1~1200			
	High	1200~2400		1200~2400		1200~2400		1200~2400		1200~2400		1200~2400		1200~2400		1200~2400			
Max. table torque	N·m (kgf·m)	314577 (32099)		484589 (49447)		398334 (40646)		613612 (62613)		504308 (51460)		776860 (79271)		776860 (79271)		776860 (79271)			
Spindle (FANUC motor) (Opt.)																			
spindle speed	1 st	1~15		1~12		1~9		1~6		1~6		1~4		1~3		1~3			
	2 nd	15~40		12~27		9~20		6~13		6~14		4~8		3~7		3~7			
	3 rd			27~40		13~20		8~14		8~14		7~10		7~10		7~10			
Live spindle speed	Low	1~1200				1~1200				1~1200				1~1200					
	High	1200~2400				1200~2400				1200~2400				1200~2400					
Max. table torque	N·m (kgf·m)	235600 (24041)		361000 (36837)		496000 (50612)		760000 (77551)		706800 (72122)		1083000 (110510)		1615000 (164796)		1615000 (164796)			
Feed rate																			
X-axis rapid traverse	m/min	6				6				6				6					
Z-axis rapid traverse	m/min	10				10				10				10					
Cutting feed rate	mm/min	1~2000				1~2000				1~2000				1~2000					
Manual feed rate	m/min	0~6				0~6				0~6				0~6					
Automation Tool Changer (ATC)																			
Number of tool position		Opt.		Opt.		Opt.		Opt.		Opt.		Opt.		Opt.		Opt.			
Type of tool shank		Opt.				Opt.				Opt.				Opt.					
Max. tool length of ATC	mm	400				400				400				400					
Max. tool weight	kg	50				50				50				50					
Max. loading weight of ATC	kg	800				800				800				800					
Time of tool change (tool to tool)	sec	60				60				60				60					
Controller																			
Brand		SIEMENS SINUMERIK 840D sl				SIEMENS SINUMERIK 840D sl				SIEMENS SINUMERIK 840D sl				SIEMENS SINUMERIK 840D sl					
Siemens motor																			
Spindle motor	kW	58/70 (1PH8186)x2		95/140 (1PH8224)x2		58/70 (1PH8186)x2		95/140 (1PH8224)x2		58/70 (1PH8186)x2		95/140 (1PH8224)x2		95/140 (1PH8224)x2		95/140 (1PH8224)x2			
Live spindle motor	kW	22/26 (1PH8137)		22/26 (1PH8137)		22/26 (1PH8137)		22/26 (1PH8137)		22/26 (1PH8137)		22/26 (1PH8137)		22/26 (1PH8137)		22/26 (1PH8137)			
X axis servo motor	kW	7.7 (1FK7105)		7.7 (1FK7105)x2		7.7 (1FK7105)		7.7 (1FK7105)		7.7 (1FK7105)		7.7 (1FK7105)x2		7.7 (1FK7105)		7.7 (1FK7105)x2			
Z axis servo motor	kW	7.7 (1FK7105)		7.7 (1FK7105)x2		7.7 (1FK7105)		7.7 (1FK7105)		7.7 (1FK7105)		7.7 (1FK7105)x2		7.7 (1FK7105)		7.7 (1FK7105)x2			
Coolant pump	kW	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
Power capacity	KVA	165	185	290	310	165	185	290	310	165	185	290	310	165	185	290	310		
FANUC motor (Opt.)																			
FANUC Oi																			
Spindle motor	kW	60/75 (α60HVi)x2		100 (α100HVi)x2		60/75 (α60HVi)x2		100 (α100HVi)x2		60/75 (α60HVi)x2		100 (α100HVi)x2		60/75 (α60HVi)x2		100 (α100HVi)x2			
Live spindle motor	kW	22/26 (α22HVi)		22/26 (α22HVi)		22/26 (α22HVi)		22/26 (α22HVi)		22/26 (α22HVi)		22/26 (α22HVi)		22/26 (α22HVi)		22/26 (α22HVi)			
X axis servo motor	kW	5.5 (α40HVis)				5.5 (α40HVis)				5.5 (α40HVis)				5.5 (α40HVis)					
Z axis servo motor	kW	5.5 (α40HVis)				5.5 (α40HVis)				5.5 (α40HVis)				5.5 (α40HVis)					
Coolant pump	kW	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
Power capacity	KVA	150	160	270	290	150	160	270	290	150	160	270	290	150	160	270	290		
Tank capacity																			
Hydraulic tank	L	350		350+100		350		350+100		350		350+150		350		350+150			
Coolant tank	L	2000+750+750				2000+750+750				4000+1400+1400				4000+1400+1400					
Lubrication tank	L	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8	4.6+8		
Machine dimension																			
Floor dimension	mm	18000x11500		20500x11500		18000x12500		20500x12500		21000x15000		23000x15000		21000x15000		23000x15000			
Machine height	mm	9700 ; I :10300 ; II :10700 ; III :11100				9700 ; I :10300 ; II :10700 ; III :11100				10400 ; I :11200 ; II :11600 ; III :13300				10400 ; I :11200 ; II :11600 ; III :13300					
Machine weight	ton	200	205	230	235	280	285	310	315	400	405	430	435	420	425	450	455		

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