

Machine tools

The complete machine range for turning, milling and grinding

















# Model range 8/2019

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Tradition in Mechanical Engineering

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4	<b>PD series:</b> Ultra-Precision Lathe for micro-finishing and hard-turning
<u>6</u>	<b>MicroTurn:</b> Turning-Milling Centre for complete precision machining AND micro-finishing
<u>8</u>	<b>TC series:</b> Powerful Universal Lathe for high cutting performance
<u>10</u>	<b>TTS series:</b> High Productive Turning Center for simultaneous machining with up to three turrets
<u>12</u>	<b>U-Compact-Line series:</b> Travelling-Column Machining Center with 3, 4 or 5-axes- machining, the entrylevel to the superior milling class
<u>14</u>	<b>U-Advanced series:</b> Travelling-Column Machining Center with up to 5 axes, for high-end applications in the 5-axes simultaneous machining and the series production
<u>16</u>	<b>VC-3A series:</b> High-Speed Machining Center for demanding tasks in the workshop and in tool and mould making
<u>18</u>	<b>VC-5A series:</b> 5-Axes Precision Machining Center for large workpieces
<u>20</u>	<b>Bar feeders:</b> Specially for SPINNER CNC-Lathes designed bar- loading system
<u>21</u>	<b>SM100:</b> THE Universal Toolgrinder for each workshop
<u>22</u>	<b>Automation:</b> Integrated standard solutions with robot or individual solution, ALL FROM ONE SOURCE

We have been perfecting and improving our machine tools for more than 50 years. Today, more than 550 employees in the SPINNER GROUP complete more than 1,000 machine tools each year. SPINNER machines are successfully being used in more than 60 countries of the world.

In order to satisfy your requirements, we offer a wide range of Turning Machine and Machining Centre products. Tens of thousands of customers throughout the world trust in our CNC machine tools.

Our machine tools are always used where a particular demand in precision and reliability is required. Innovation and practical solutions in detail are guaranteed by our extensive construction department. We manufacture all important components and assemblies ourselves in our production plants in order to be able to supply you with machine beds, guideways, spindles and turrets that are perfectly matched to one-another.

Our machine tools are sophisticated seriesbuilt products manufactured at a high level. High precision standards in all areas of the production and assembly ensure for the optimum constant quality of our products. Each machine is subjected to a strict final inspection of all parameters.

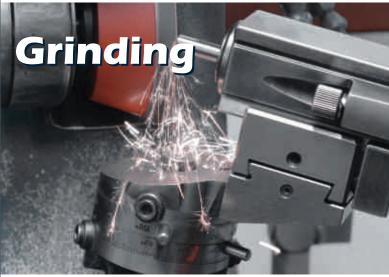
We supply turnkey projects with automation for large-scale production. In order to ensure that the use of our machine tools is successful, we offer training courses for the operation, programming and maintenance of our systems.

Our service hotline deals with technical queries concerning the programming and repair of your SPINNER machine tools at any time and at short notice.

Place your trust in our products as well and let us know what we can do for you.

## Turning







Micro-finishing and diamond turning Hard turning > 60 HRC Perfect surface finishing

#### **Ultra Precision Lathes**

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Most compact dimensions among precision turning machines

EPD-CN

- Hardened and ground precision sliding guideways with high vibration damping
- 0,1 µm resolution linear scales
- Micro-turning in sub µm-range
- The most precise spindles on the market with roundness < 0,1µm
- Best slide positioning repeatability
- High accuracy process reliability



Turret and sub spindle

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**Turret and tailstock** 



Linear tooling

Optimal geometric tolerances Precise clamping devices Made in Germany

### For Micro-finishing and Hard-turning

1/100

Wide range of standardized auto-loading available by robots or special made solutions according to customers workpieces, or bar feeder





ΡΓ







Part catcher

#### Model sizes

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		Collets/Chucks	Max. workpiece sizes
	PD32	32/125 mm	Ø ~120 x 250 mm
č	PD42	42/140 mm	Ø ~120 x 250 mm
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## Microturn



Micro-finishing Hard-turning Universal machining

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#### **Turning-Milling Centre for complete machining**



- In X 600mm and Z 350mm moveable spindles for high rigid and optimised positioning < 1 μm</li>
- Direct measurement system for all axes
- Static linear table for standard linear tooling or special tools
- High precision motor spindles "Made by SPINNER" of various sizes
- High-precision hard-turning

Linear tooling system for micro-finishing in combination with turret and Y axis for universal machining.

Expandable to a 5-axes Turning-Milling centre for machining all 6 workpiece sides.



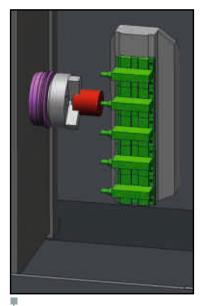


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## Microturn

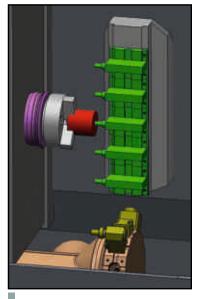
With Y axis With B axis and milling spindle Available with sub-spindle

### **AND micro-finishing**

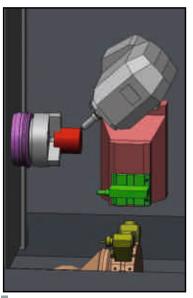


#### **L-Version**

Spindle with high precision positioning in X1/Z1 and linear tooling as optimal rigid hardturning and micro-finishing machine



**LT-Version** With additional turret with driven tools and Y1 axis in the lower part of the workspace



#### **LTB-Version** With additional milling spindle with Y2 and B axis in the upper part of the workspace and with tool magazine up to 72 tools

#### LTBS-Version\*

With two spindles on symmetrically positioned slides X2/Z2, also for simultaneous machining with subspindle

\* Starting first quarter 2019

		35		131-1146	
<u>Strokes</u>					10
	X axis	Y axis	Z axis	B axis	Turret
L-Version	600 mm	-	350 mm	-	-
LT-Version	600 mm	+/- 50 mm	350 mm	-	12 x BMT4
LTB(S)-Version	600 mm	+/- 50 mm	350 mm	+/- 180°	12 x BMT4

hard-turning machine in a single machine concept. spindle \* Starting

Unique combination of universal soft machining

up to 5-axes Turning-Milling AND high-precision



**Powerful Universal Lathes** 



Hardened and ground sliding guideways for best vibration damping

- Solid sliding guideways with high damping
- Monoblock rigid casting design of machine body
- Tailstock or sub spindle
- Optional Y axis and driven tools
- Modern motor spindles (up to 85 mm)
- Gearboxes for high torques (from 110 mm)
- Latest control system Siemens 840D or Fanuc 32i



Available with automation

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Turret VDI50 of TC800-MC



Y axis fully integrated in the machine bed

Reliable technology High precision Durable

## Turning length from 400 up to 1500 mm

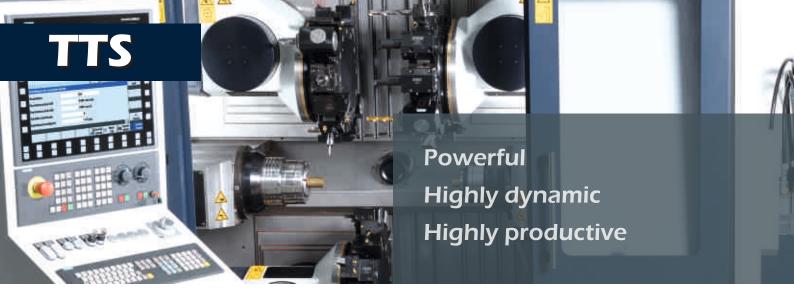


Model sizes

	Bar material up to	Chucks	Max. Turning length
ТС300	52/65 mm	160/210 mm	350 mm
TC400	52 mm	160/210 mm	500 mm
ТС600	65/85 mm	250 mm	650 mm
ТС800	85/110/175 mm	250/315/400/500 mm	900-1500 mm

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TC



Simultaneous machining from bar material or with automation



- THE productive turning solution for bar machining or with automation
- Reduction of cycle time by simultaneous operations with up to 3 turrets
- TRIPLEX-Version (3 turrets) with 2 Y axes
- **■** Each turret can work either on the main spindle or on the sub spindle
- Increased cutting performance by integrated passive vibration damping
- Perfect covers for guideways
- Integrated motor spindles with water cooling

Rigid turret made by SPINNER with high-precision toolholders BMT45 or with toolholders VDI25 Passive structure damping Increased cutting performance Made in Germany

### For complex turning AND milling parts



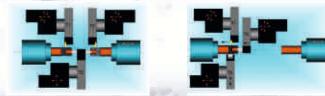
Perfect working area guarding

#### Perfect free chip fall

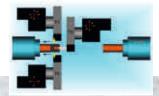
As all turrets can work either on the main spindle or on the sub spindle there are lots of machining possibilities for optimised turret utilisation.

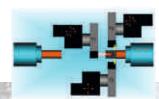


Turret 1 on left spindle, turret 3 on right spindle, turret 2 on left or right spindle

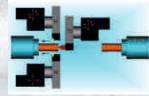


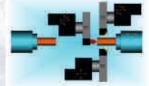
Turret 2 is drilling on both sides or turret 2 is used as steady rest





All turrets are working simultaneously on one spindle





Turret 1 or 3 is used as tailstock

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- Both side bearing for tilting-axis
- THE entry-level machine for 5-axes machining



# **U-Compact**

Dynamic Optimal access <u>Flex</u>ible use



### The entry-level machine for 5-axes machining

U1530 Compact available in 3 configurations

- U3-1530 Compact: 3-axes-version with large fixed table
- U4-1530 Compact: 4-axes-version with large rotary table and fixed table on left side in the working area
- U5-1530 Compact: 5-axes-version with integrated rotary/tilting table and fixed table on left side in the working area



	X axis	Y axis	Z axis	B axis
U630	630 mm	530 mm	465 mm	+110°/-90°
U1530	1530 mm	530 mm	465 mm	+110°/-90°

# **U-Advanced**



**Professional 5-axes machining Highly dynamic Compact and sealed** 

### **Travelling-Column Machining Center**

U1530 available in 3 configurations

- U3-1530: 3-axes-version with large fixed table
- U4-1530: 4-axes-version with large rotary table and fixed table on left side in the working area
- U5-1530: 5-axes-version with integrated rotary/tilting table and fixed table on left side in the working area





U5-1530 with Siemens 840D-SL and 24-inch Touch panel

- With high-precision rotary/tilting tables available with weight compensation
- Extendable up to 122 tools
- Available with pallet changer
- Most modern control systems: Siemens 840D-SL or Heidenhain TNC640
- With most modern digital drives
- Spindle speeds up to 20.000 rpm









Machining example U4 und U5

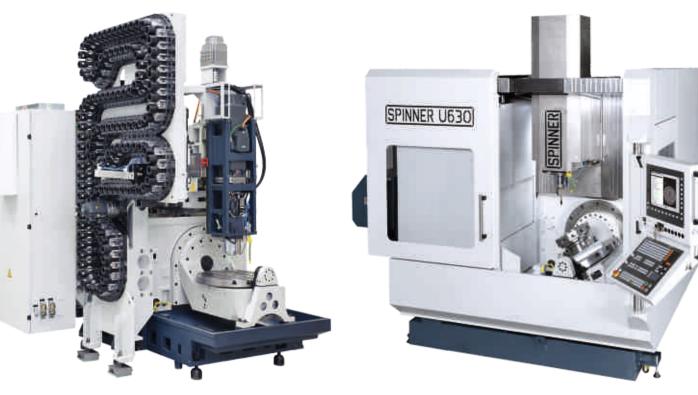
## **U-Advanced**

Optimal accuracy For tool making and mass producer Optimal ergonomics

### For High-End applications

U630 available in 3 configurations

- U3-630: 3-axes-version with fixed table
- **U4-630: 4-axes-version with large rotary table**
- U5-630: 5-axes-version with integrated rotary/tilting table



U5-630 with Heidenhain TNC640

A		ALLEN			
	Strokes	1. Brite			
-050		X axis	Y axis	Z axis	B axis
	U630	630 mm	530 mm	465 mm	+180°/-120° <sup>1) 2</sup>
1 al P	U1530	1530 mm	530 mm	465 mm	+180°/-120° <sup>1) 2</sup>



## **High-Performance Machining Center**





VC850 with Siemens 840D-SL and 24-inch Touch panel

- Full cast design with fixed column
- Mass optimised slides for high rapid traverse
- Large sized linear guides and high dynamics
- Spindle speeds between 8.000 and 24.000 rpm, according to the application

User interface of the 24-inch Touch panel

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Cast structure VC850

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High spindle speeds Rigid casting machine bed Powerful

### For tool and mould making and HSC machining





- Innovative guideway cover concept
- Small distance to the working table
- Adjustable control panel
- FEM optimised cast structure





#### **Strokes**

	X axis	Y axis	Z axis
VC750/VC750XL	760/950 mm	460 mm	460 mm
VC850	850 mm	510 mm	510 mm
VC1150	1150 mm	620 mm	600 mm
VC1650-3A	1650 mm	820 mm	820 mm



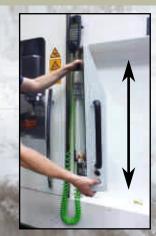
**5-Axes High-Precision Machining Centre** 



- New and patent-registered guideway cover concept
- Ideal for heavy workpieces
- Additional fixed table for 3-axes machining
- Optimal chip disposal by means of 4 worm conveyors
- Up to 138 tools in the tool magazine







Ergonomic operating panel adjustable in height and angle



### For large workpieces







Additional fixed table on the right side in the workspace

Small distance to the working table



#### **Strokes**

	X axis	Y axis	Z axis	Pivot axis B in the milling head
VC1650-5A	1650 mm	820 mm	820 mm	-1°/+110°



### Short bar feeders



■ For material up to 1200 mm

Max. bar diameter 80 / 110 mm



	Servo 80-1500	Servo 110-1500
Max. bar length	1500 mm	1500 mm
Bar diameter	6-80 mm	8-110 mm



#### **Universal Toolgrinder**



- For regrinding or producing new tools
- Special geometry quickly available
- Indispensable for every metal cutting workshop
- With quick changer for grinding wheels
- Always the correct grinding wheel in use



SPINNER

**Swivel holder** 



**Toolholding plate** 



**Quick-change-device** 



Fully automated production solutions for large-scale production



Your advantages at one glance

- Increase in productivity
- Cost reduction
- Optimal processes for your machining requirements
- All with certification according to CE







## **Automation**

Bulk material supply Integrated or external Palletising

### FROM ONE SINGLE SOURCE, SPINNER and SPINNER-Automation



- Most modern digital drive systems
- Convenient dialogue programming
- With special clamping devices and tools

## Ask us for your solution!











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**Regional Dealer** 

