

TRENS

Turning Centers

SBL 500



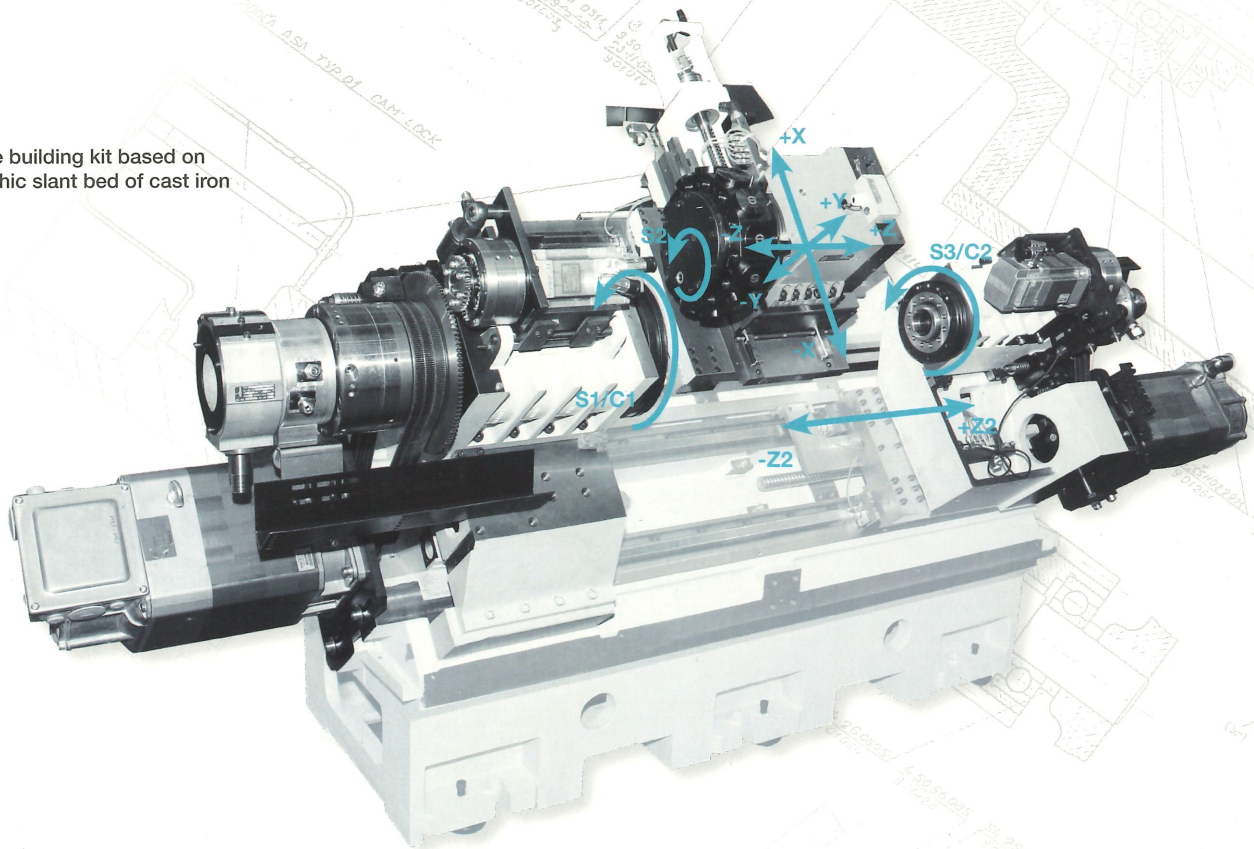
- Turning center with rigid construction slant bed is designed not only for heavy roughing but for demanding finishing operations with focus on high accuracy and surface quality too. Exceptional steadiness of cutting process is ensured by high stiffness of individual machine components. Long-term operational reliability designates this machine for turning workshops with continuous operation and high productivity demands. Turning center can be operated in full automated mode when equipped with devices for automatic workpiece manipulation.



➤ MAIN ADVANTAGES

- High precision and productive machining of simple as well as complex shape workpieces
- **Stable cutting process with high repeatable accuracy of machining**
- Remote diagnostics and data management
- **Modular concept of the machine allows configuration tailored to the customer's individual requirements**
- Variety of turrets with VDI couplings with or without live tools
- **Wide scope of executions and accessories – clamping devices, bar feeders, tool probes, automatic door opening, vapour exhaust system**
- The newest technologies in the field of drives bring savings of electrical energy

> Variable building kit based on monolithic slant bed of cast iron

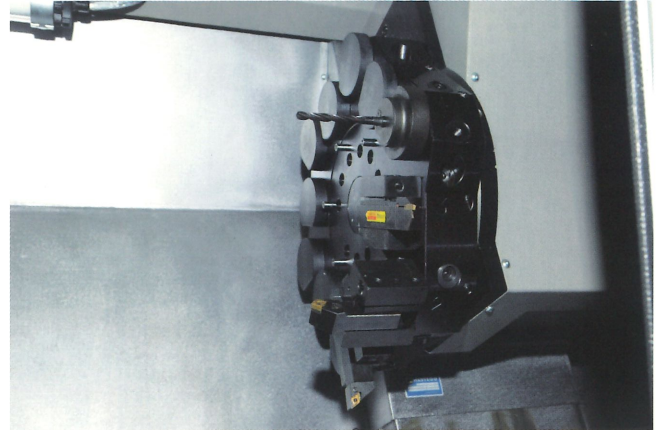


➤ STANDARD

- Control system SIEMENS 840D, software ShopTurn
- **Drives Simodrive with energy recovery**
- Vector controlled asynchronous motor for main spindle drive 22 kW
- **Direct angle and rotation measuring through magnetic disc sensor integrated in the main spindle**
- C-axis of the main spindle positioned through the motor of the main spindle
- **Spindle bore 92 mm**
- Hydraulic 3-jaw chuck, Ø 254 mm with inner passaging hole 75 mm, max. 4200 RPM
- **Electronic check of hydraulic clamping limit positions**
- Security locking system for hydraulic clamping systems
- **Double foot switch to open/close main spindle jaw chuck**
- Spindle brake
- **Turning length 750 mm**
- Without tailstock
- **Linear rolling guideways**
- Direct X axis measurement by linear scale
- **Automatic lubrication with controlled distribution of lubricant**
- 12-position axial turret SAUTER Orange Line, VDI40 with live tools
- **Chip pan**
- Complete cooling aggregate, pressure 0,3 MPa
- **Manual door opening**
- Positionable control panel
- **Entering input and output parameters in metric/imperial units**
- Input power 3×400 V/50 Hz
- **Transport device**
- Operating manual
- **CE execution**



▲ Machining area

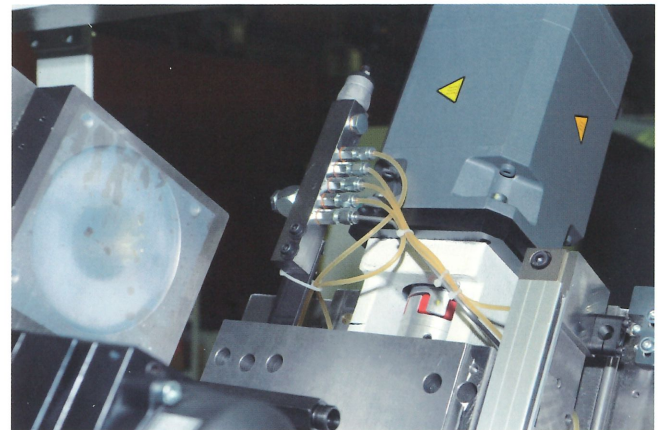
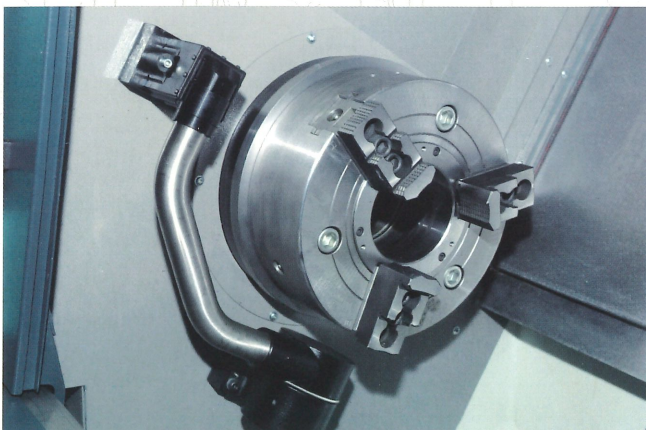


▲ Axial turret

➤ OPTIONAL EXECUTIONS

- Control system SIEMENS Sinumeric 840D SolutionLine, software ShopTurn
- Drives SIEMENS Sinamics S120 with energy recovery
- Control system FANUC Oi-TD, software Manual Guide i
- Spindle bore 92 mm, hydraulic 3-jaw chuck, Ø 315 mm with inner passaging hole 75 mm, max. 2500 RPM
- Increased spindle bore 133 mm, hydraulic 3-jaw chuck, Ø 315 mm with inner passaging hole 118 mm, max. 2500 RPM
- Hydraulic collet clamping of various dimensions for all sizes of spindle bore
- Spindle brake
- Turning length between chuck and tailstock 1500 mm
- Programmable tailstock
- Hydraulic steady rest, clamping range 15–170 mm
- Direct axis Z measurement by linear scale
- Chip conveyor on the right
- Cooling system with increased pressure 0,7 MPa
- Coolant filtration device
- Manual wash
- Oil mist collector

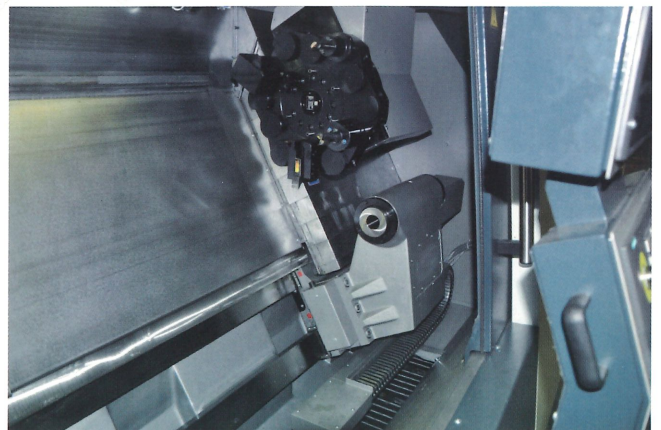
▼ Tool probe



▲ Central lubrication

- Pneumatic door opening
- Airconditioning for electrocabinet
- Preparation for bar feeder
- Bar feeder
- Tool probe
- Autotransformer for 220 V or 575 V
- 3-color warning light (operation signalization)

▼ Axial turret and tailstock



Machine type	Unit	SBL 500
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Working range

Max. swing over bed	mm	630
Max. turning diameter	mm	410
Max. turning length	mm	750/1500*
Max. bar diameter	mm	74/117*
Max bar diameter with bar feeder reduction bushing	mm	66/109*

Main spindle

Spindle nose (DIN 55026)		A2-8/A2-11*
Spindle bore	mm	92/133*
Spindle diameter in front bearing	mm	140/180*
Max. spindle speed	min ⁻¹	4200/2500*
Chuck diameters	mm	254/315*

Spindle drive

Main motor output S1	kW	22/30*
Main motor output S6	kW	30,8/42*
Torque (as per version) S1	Nm	196–490*

Carriages and drives

X-05

Cross slide feed range	mm.min ⁻¹	1÷10000
Cross-slide rapid traverse	mm.min ⁻¹	20000
Working travel	mm	270

Z-05

Longitudinal slide feed range	mm.min ⁻¹	1÷10000
Longitudinal slide rapid traverse	mm.min ⁻¹	30000
Working travel	mm	905/1655*

Turrets (VDI 40)

12-positional axial turret SAUTER

No. of tool positions		12
Tool shank diameter (according to DIN 69880)	mm	40
Max. tool cross-section	mm	25×25

12-positional axial turret SAUTER with live tools*

No. of tool positions		12
No. of driven tool positions		6
Tool shank diameter (according to DIN 69880)	mm	40
Coupling		B 17×14, DIN 5482
Max. tool cross-section	mm	25×25
Driven tools motor output	kW	6,1
Max. torque	Nm	13
Max. RPM	min ⁻¹	4000

Tailstock

Tailstock sleeve internal taper		MORSE 5
Tailstock sleeve travel	mm	125
Tailstock travel	mm	900
Clamping force range	daN	80–820
Tailstock control		NC programmable travel

Machine dimensions

Height	mm	1935
Width	mm	1980
Length with chip pan/with chip conveyor to the right side*	mm	3655/5460*

Weight

Weight – version with tailstock	kg	cca 6620*
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Control systems

SIEMENS 840D SolutionLine + ShopTurn		yes
FANUC OiTD + Manual Guide i		yes

* optional execution