

TECHNICAL PARAMETERS

Machine type	Unit	SE 520 SL
Working range		
Max. swing over bed	mm	520
Max. swing over castles	mm	700
Max. swing over castles (with turret)	mm	2000
Travel of turret in X-axis	mm	300
Max. work diameter	mm	192.5*
Main spindle		
Spindle nose diameter (Ø) D1-D2	mm	165/175**
Spindle nose diameter (Ø) D3-D4	mm	165/175**
Spindle nose diameter (Ø) D5-D6	mm	165/175**
Spindle nose diameter (Ø) D7-D8	mm	165/175**
Max. spindle speed - 1st gear	rpm**	4820
Max. spindle speed - 2nd gear	rpm**	2410/2200*
Max. spindle speed	rpm	2500/2500*
Spindle diameter	mm	57
Spindle drive		
SEVENETURBOFINANC		
Max. motor kW (HP)	kW (HP)	11 (15)
Max. motor rpm	rpm	150
Max. torque 1st gear (HP)	Nm	520
Max. torque 2nd gear (HP)	Nm	110
Max. torque 3rd gear (HP)	Nm	110
Max. torque 4th gear (HP)	Nm	110
Carriage and drives		
V-rod		
Carriage feed	mm/min**	1-1000
Carriage feed (max. speed)	mm/min**	3000
Worktable feed	mm/min**	250
Tool		
Tool length in tool holder	mm**	1-1000
Carriage tool height clearance	mm**	10-20
Worktable height clearance	mm	210
Tolerances		
Carriage change tool lead	mm	±0.01/0.02
Max. tool lead	mm	±0.02
Carriage change tool lead	mm	±0.01/0.02
Max. tool lead	mm	±0.02
Carriage change tool lead	mm	±0.01/0.02
Max. tool lead	mm	±0.02
Carriage change tool lead (with turret)	mm	±0.01/0.02
Max. tool lead	mm	±0.02
Carriage change tool lead (with turret)	mm	±0.01/0.02
Max. tool lead	mm	±0.02
Carriage change tool lead (with turret)	mm	±0.01/0.02
Max. tool lead	mm	±0.02
Automatic toolset		
Tool length compensation (TLCP)		
Max. tool length	mm	300
Tool length diameter accuracy (TLCP)	mm	±0.01
Max. tool diameter	mm	192.5*



TECHNICAL PARAMETERS

Machine type	Unit	SE 520 SL
Axis system		
Axis system		5-axis
Axis system accuracy (3D accuracy)	mm	±0.01
Tool length	mm	±0.002/0.003
Max. tool length	mm	300
Max. tool diameter	mm	192.5*
Max. workpiece	mm	800**
Toolblock		
Toolblock diameter	mm	165/175
Toolblock diameter	mm	165
Toolblock diameter	mm	165
Toolblock diameter	mm	165
Machine dimensions		
Height	mm	1950
Width	mm	1950
Length in the bed	mm	1950
Length in the castles	mm	2400*
Weight		
Weight (without optional accessories)	kg	1715/1900*
Control systems		
Control system		Yes
Control system		Yes
Control system		Yes



CNC universal center lathe

SE 520 SL



CNC universal center lathe is designed on the basis of SE 520 Numeric. Thanks to the new bed, the distance between centers was enlarged to 2000 mm. The fully covered working space allows to increase technological possibilities of long work-piece machining. The machine can turn simple, as well as complex shapes work-pieces. The machine can be customized in various optional executions and it can be equipped with various optional accessories. SE 520 SL works as a universal lathe in a manual mode, being controlled by the hand wheels or in the full CNC control to perform demanding technological operations. This enables new machining possibilities for piece production and increase the productivity of small series production.



OC universal center lathe SE 520 SL

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MAIN FEATURES

- Ideal machine for easier selection from universal lathes to CNC controlled machine
- Easy and comfortable control through large touch screen
- Low friction with losses on rotating high machining accuracy
- Smooth drive through belts - minimization of vibrations during machining
- Automatic gear shifting during the working cycle
- Bearings with lifetime grease filling - low operating costs
- Fully covered working space - high stage of operator's safety, the prevention of flying chips and coolant leakage, allows increased coolant pressure and cutting speed - increase in productivity
- Wide scope of attachments and accessories - hydraulic clamping, hydraulic tailstock control, hydraulic and manual controlled self-centering rests in various executions, bearing for hidden live tools, wide scope of face plates, 1 tool in and over steadily secure machine control

✓ Fully covered working space with safety and insipative glass - effectively protects the operator against flying chips and splashing coolant



STANDARD

SE 520 SL

Control system	SIMENS 840D Subroutine: SINUMERIC 802D
Spindle nose Bayonet BB for spindle bore dia	mm 77
Quick change tool post M16: Sinter C with tool holder	C 0259778

- Fully covered working space with safety and insipative glass effectively protects the operator against flying chips and splashing coolant
- Automatic locking of all the doors of working space
- Working space lighting to improve visibility
- Movable control panel with large 15 inch industry touch screen Siemens, resistant connection for difficult work shop conditions
- Digital drives with energy recovery

- Tailstock with manual controlled sleeve
- Complete cooling of cutting tool
- Automatic lubrication
- Chip cone
- Operator kit
- Operating manual

OPTIONAL EXECUTIONS

SE 520 SL

Control system	PARAD: DT Manual Guide I
Control system	DECEPHO MANUAL Plus GO
Spindle nose Bayonet BB for spindle bore dia	mm 77
Spindle nose Bayonet BT for spindle bore dia	mm 105

- 4 position manual rotating toolpost PARAD 2, 3
- 4 position manual rotating toolpost ALDRA 250, 300
- Quick change tooling system Constant Tooling Toolholder Capto: CAPTO M, D, H, C
- 8 position turret SAUTER with live tools and spindle brake
- 8 position turret Sinter without live tools
- Spindle brake
- Unusual spindle stop for precision boring without
- Hydraulic 3 jaw chuck dia. 210 mm with nose-passing hole for spindle bore 77mm
- Hydraulic cooler: clamping for core depth 60 mm for spindle bore 77mm
- Tailstock with hydraulic controlled sleeve
- Chip cone
- Electro-valved air conditioner
- Hydraulic self-centering follow rest
- Hydraulic self-centering follow dual rests - automatic tandem work
- Hydraulic self-centering steady rest



✓ Spindle nose CAMLOCK



✓ Hydraulic self-centering follow dual rests - automatic tandem working



✓ Tailstock with hydraulic controlled sleeve



✓ 4 way quick change turret PARAD



✓ 8 position turret SAUTER with live tools



✓ Direct drive of the ball screw

OPTIONAL ACCESSORIES

CLAMPING DEVICES



✓ 3 jaw chuck

✓ 4 jaw face-plate

✓ Soft jaw

✓ Hard jaw

✓ Face driving centers for clamping of shaft work pieces

STEADY RESTS AND ROLLING CONTACT BEARINGS



✓ Steady rest

✓ Follow rest

✓ Large steady rest

✓ Hydraulic self-centering follow rest

SE 520 SL

Steady rest ø	mm	150-175
Steady rest ø	mm	175-195
Large steady rest ø	mm	195-205
Large steady rest L x ø	mm	205-315
3 jaw manual passing chuck ø	mm	250-315
4 jaw manual passing chuck ø	mm	250-315
4 jaw face plate with independent jaws ø	mm	75-87/150/200

- Spare jaws and flanges for chucks
- Face driving centers for clamping of shaft work pieces
- Oil mist collector
- Spindle reduction sleeves
- Tool center
- Live center

- Anchoring screws and pads
- Utility device
- Operating manual
- Free contour programming
- Hot residual diagnostics
- Different languages

- Programming manual
- Autotransformer for different voltages
- Color warning light
- Remote diagnostics