

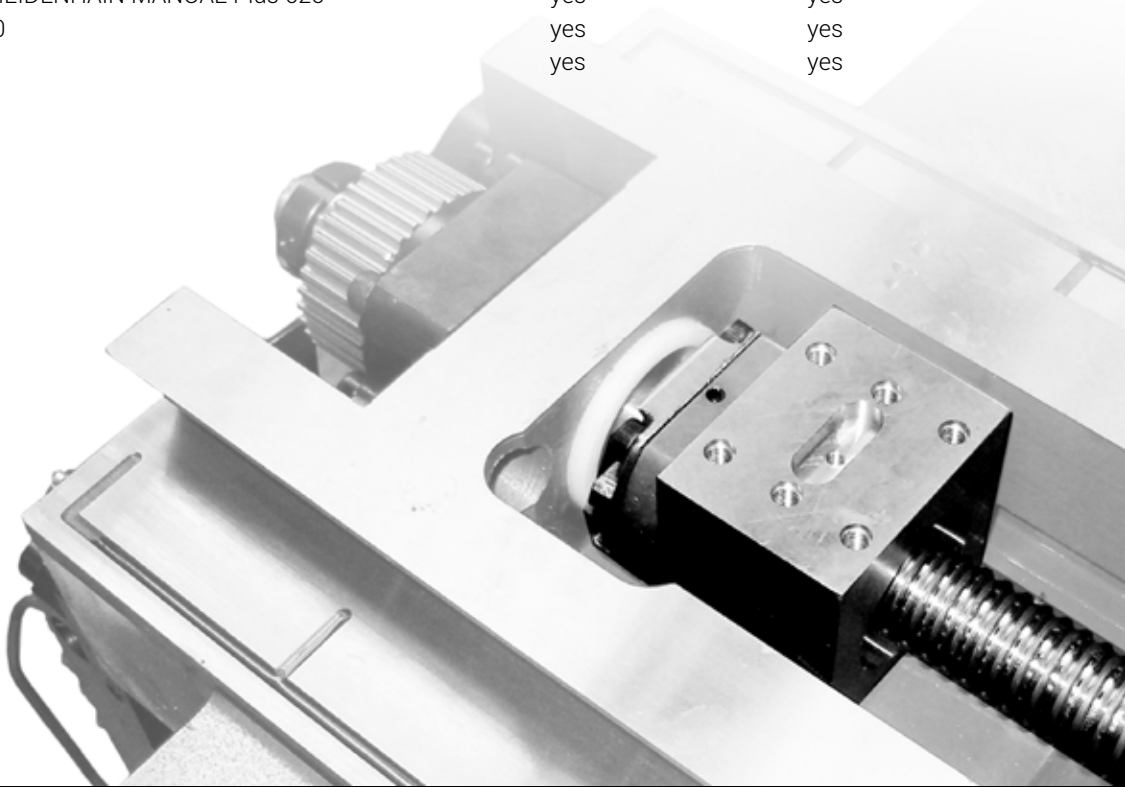
TECHNICAL PARAMETERS

Machine type	Unit	SE 320 series	SE 520 series
Working range			
Max. swing over bed	mm	320	520
Max. swing over cross slide	mm	170	290
Distance between centres	mm	750	950/1450/2110*
Height of centres over bed	mm	150	250
Max. bar diameter	mm	41/55*	75/103*
Main spindle			
Spindle nose		B5/B6*	B8/B11*
Spindle nose		D6*	D8*/D11*
Spindle bore	mm	42/57*	77/105*
Spindle diameter in front bearing	mm	70/90*	120/150*
Max. spindle speed – 1st gear	min-1	880	650
Max. spindle speed – 2nd gear	min-1	3500	2600
Manual clamping	mm	160/200*	250/315*
Hydraulic clamping*	mm	–	200*
Spindle drive			
Main motor output S1	kW	7	11
Main motor output S6	kW	10	15
Torque – 1st gear S1	Nm	210	525
Torque – 1st gear S6	Nm	285	715
Torque – 2nd gear S1	Nm	52	132
Torque – 2nd gear S6	Nm	70	180
Carriages and drives			
X-axis			
Cross slide feed range	mm.min-1	1÷3000	1÷3000
Cross-slide rapid traverse	mm.min-1	3000	3000
Working travel	mm	183	270
Z-axis			
Longitudinal slide feed range	mm.min-1	1÷5000	1÷5000
Longitudinal slide rapid traverse	mm.min-1	10000	5000
Longitudinal slide rapid traverse	mm.min-1	10000	5000
Toolposts			
Quick change tool post		MultiSuisse B	MultiSuisse C*
Max. tool size	mm	25×25	32×32*
Manual tool post systems*positions / 12 driven			
Quick change tool post			Parat RD 2*
Max. tool cross-section	mm		25×25
Quick change tool post			Parat RD 3*
Max. tool cross-section	mm		32×32
Quick change tool post			Algra TGA-R-250*
Max. tool cross-section	mm		25×25
Quick change tool post			Algra TGA-R-300*
Max. tool cross-section	mm		32×32
Automatic turrets*			
Axial turret with live tools*			
No. of tool positions		8*	8*
Tool shank diameter (according to DIN 69880)	mm	20*	30*
Max. tool cross-section	mm	16×16*	20×16*

TECHNICAL PARAMETERS

Machine type	Unit	SE 320 series	SE 520 series
Axial turret with live tools*			
No. of tool positions		–	8*
No. of driven tool positions		–	8*
Tool shank diameter (according to DIN 69880)	mm	–	30*
Coupling		–	B 15×12, DIN 5482*
Max. tool cross-section	mm	–	20×16*
Driven tools motor output	kW	–	4,5*
Max. torque	Nm	–	20*
Max. RPM	min-1	–	4000*
Tailstock			
Tailstock sleeve internal taper			
Tailstock sleeve diameter	mm	60	80
Tailstock sleeve travel	mm	120	160
Tailstock control		manual	manual
Clamping force range* (optional hydraulic tailstock sleeve travel)	daN	–	80–800*
Machine dimensions			
Height	mm	1760	1800
Width	mm	1490	1560
Length with chip pan	mm	2415	2790/3290/3930*
Length with chip conveyor to the right side*	mm	3300*	4110*/4610/5450*
Weight			
Weight (without optional accessories)	kg	cca 1600	cca 2700/2900/3800*
Control systems			
SIEMENS 840D SolutionLine + ShopTurn		yes	yes
FANUC 0iTD + Manual Guide i HEIDENHAIN MANUAL Plus 620*		yes	yes
HEIDENHAIN MANUAL Plus 620		yes	yes
FAGOR CNC 8060elite T		yes	yes
*optional execution			

preloaded ground
ball screws
- high dimensional
accuracy of workpieces



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CNC CENTER LATHES
SE320 series
SE520 series



SE320 Numeric Basic
SE320 Numeric T

SE520 Numeric Basic
SE520 Numeric T
SE520 Numeric T.M

MACHINE TOOLS PRODUCER

TRENS

... since 1937



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STANDARD

These machines combine advantages of universal lathes and CNC lathes. The machine works as an universal lathe, in manual mode, being controlled by the hand wheels. If required, the operation mode can be shifted to the full CNC control. Technological operations of machining can be programmed by simple filling-in the pre-defined cycles or eventually by standard programming.

Machines are therefore suitable for peace and small-series production of simple as well as complex shapes of the workpieces from metal and plastic. Geometric accuracy of the machines fulfills norms ISO 1708 and ISO 230-1.

Machine Features	SE320 Numeric	
	Basic	T
Manual tool post	YES	NO
Automatic tool head without live tools	NO	YES
Automatic tool head with live tools	NO	NO
Spindle brake	N.A.	N.A.
C axis driven by a servo motor	N.A.	N.A.

Machine Features	SE520 Numeric		
	Basic	T	T.M
Manual tool post	YES	NO	NO
Automatic tool head without live tools	NO	YES	NO
Automatic tool head with live tools	NO	NO	YES
Spindle brake	OPTIONAL	OPTIONAL	YES
C axis driven by a servo motor	NO	NO	NO

- Fully covered machining area preventing chip from flying and coolant from splashing
 - Automatic front door locks up
 - Machining area illumination
 - Movable control panel
- Cooling pump
 - Central manual lubrication
 - Chip pan
 - Operator’s tool kit
 - Operating manual set

		SE320 series	SE520 series
Spindle nose for o	mm	-	77
Spindle nose for o	mm	42	-
Quick change toolpost MultiSuisse with toolholder		BD25/120	CD32/170

OPTIONAL EXECUTIONS

- 4-way quick change turrets
 - 8-position turret with live tools and spindle brake (SE 520)
 - 8-position turret without live tools (SE 320, SE 520)
 - Hydraulic tailstock
- Pneumatic clamping
 - Hydraulic 3-jaw chuck ø 210 mm with non-passaging hole – for spindle bore 77 mm (SE 520)
 - Chip conveyor
 - Air conditioning
 - Warning light

		SE320 series	SE520 series
Spindle nose for spindle bore o	mm	-	77
Spindle nose for spindle bore o	mm	-	105
Spindle nose for spindle bore o	mm	-	105
Spindle nose for spindle bore o	mm	57	-

OPTIONAL ACCESSORIES

- Spare chuck jaws and flanges
 - Spindle reducing sleeves
 - Fixed center
 - Live center
 - Tool holders
 - Anchoring material
- Transporting device
 - Operating manual
 - Contour programming
 - Rest material recognition
 - Language localizations
 - Programming manual

		SE320 series	SE520 series
Follow rest o	mm	10–115	10–115
Steady rest o	mm	10–115	10–115
Large steady rest o	mm	-	100–205
Large steady rest o	mm	-	200–315
3-jaw mechanical chuck o	mm	160/200	250/315
4-jaw mechanical chuck o	mm	160/200	250/315
4-jaw face-plate o	mm	-	250/315
4-jaw face-plate o	mm	-	315

Clamping devices



3 jaw chuck



4 jaw face plate



live centre

Steady rests and rolling contact bearings



steady rest



follow rest



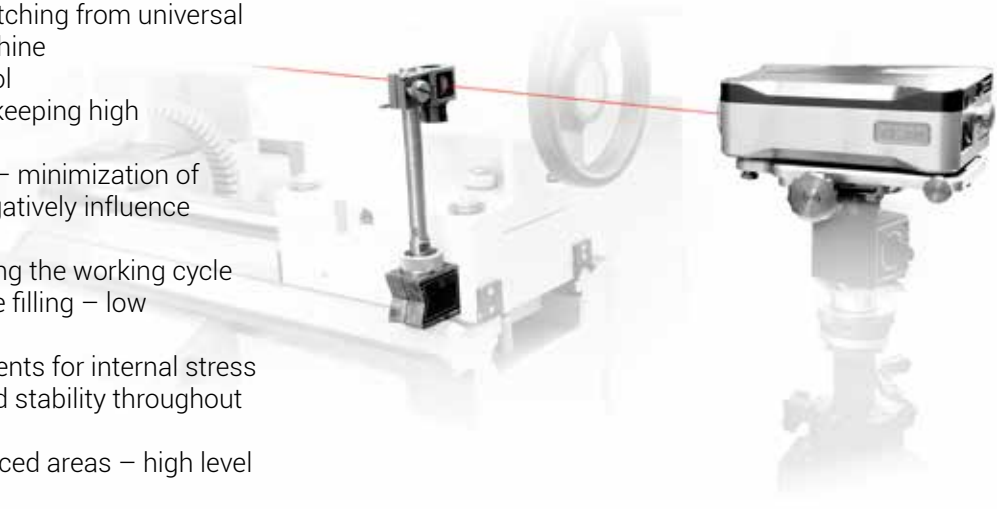
large steady rest



rolling contact bearings

MAIN ADVANTAGES

- Ideal machine for a user switching from universal lathe to CNC controlled machine
- Easy and comfortable control
- Long lifetime with focus on keeping high machining accuracy
- Spindle drive through belts – minimization of vibration level that could negatively influence turning
- Automatic gear shifting during the working cycle
- Bearings with lifetime grease filling – low operating costs
- Annealed machine components for internal stress removal – high accuracy and stability throughout lifetime of the machine
- Machine covers with reinforced areas – high level of operator protection
- Wide scope of executions and accessories – hydraulic clamping, hydraulic tailstock control, live tools, wide range of steadies and faceplates



machine geometry messurement by laser device
- exact setting of machine axis parametres



8-position without live tools



8-position with live tools (SE520)



4-way quick change turret