

■ Machining capacity

Item		Specifications	Remarks
Maximum turning diameter	SR-16	ø16mm	
	SR-20	ø20mm	
Maximum headstock stroke		205mm	1 chuck stroke
Maximum drilling capacity	Stationary tool	ø8mm	Maximum chucking diameter ER16: ø10 ER11: ø7
	Power-driven attachment	ø5mm	
Maximum tapping capacity	Stationary tool	M8×P1.25	
	Power-driven attachment	M5×P0.8	
Maximum milling capacity		ø10mm	When 500-63, 530-63 or 531-51 is used.
		ø6mm	When 531-63 or 531-64 is used.
Maximum die cutting capacity		M8×P1.25	Die outside diameter : ø20, ø25
Maximum slotting capacity		1.5mm width ×4mm depth	Cutter: ø50×ø13 (when 531-51 is used)

■ Machine configuration

Item		Specifications	Remarks
Operation mode		Right-handed machine	
Right-handed machine		Integrated mechanical/electrical structure	
Dimension	Length ×width ×height	2200×1255×1735mm	Except for leveling pads
	Center height	1060mm	Except for leveling pads
	Weight	Approximately 1700kg	

Item	Specifications	Remarks
Air pressure	0.1—0.3MPa (10—30N/cm ²)	

■ Headstock specifications

Item		Specifications	Remarks
Spindle speed	SR-16	500—10000rpm	
	SR-20	400—8000rpm	
Speed control	SR-16	S code+Direct 5-digit command	
	SR-20	S code+Direct 4-digit command	
Rotational control		Inverter control	
Minimum indexing angle		1°	Standard
		15° (24 divisions)	When 50454 or 53454 is used.
Spindle motor		2.2kw (continuous)	
		3.7kw (15minutes)	
Bore	SR-16	ø20mm	
	SR-20	ø24mm	

■ Tool post specifications

Item		Specifications	Remarks
Type		Gang tool post	2-axis control
Number of tools	Tools	5 tools	Standard
		6 tools	When 531-09 is used
	Power driven tools	2 tools	When 531-51 is used
		3 tools	When 500-63 or 530-63 is used
		4 tools	When 531-63 or 531-64 is used
Tool shank		□12×95—120	
Power-driven attachment	Spindle speed	Cross milling spindle :max.5000rpm	
		Slotting spindle :max.900rpm	
	Speed control	S code+Direct 4-digit	
	Rotational control	AC servo control	
Motor		0.5kw	

■ Broken cut-off tool detector

Item	Specifications	Remarks
Air pressure	0.1—0.3MPa (10—30N/cm ²)	
Min. detected part length	5mm	
Min. detected part outside diameter	ø2mm	
Detection load	5.9N	At 0.3MPa (30N/cm ²)

■ Sub-spindle specifications

Item		Specifications	Remarks
Maximum chucking diameter	SR-16	ø16mm	
	SR-20	ø20mm	
Maximum part length for front ejection		80mm	
Maximum parts projection length		30mm	Distance from collet end
Spindle speed	SR-16	300—6000rpm	
	SR-20	225—4500rpm	
Speed control		S code+Direct 4-digit command	
Rotational control		Inverter control	
Minimum indexing angle (OP.)		1°	When 50482 or 53482 is used.
		15° (24 divisions)	When 50484 or 53484 is used.
Spindle motor		0.55kw (continuous)	
		1.1kw (15minutes)	

■ Part ejection detector

Item	Specifications	Remarks
Max. detected part length	80mm	
Max. detected part outside diameter	ø20mm	

■ 3-spindle endworking attachment

Item	Specifications	Remarks
Number of tools	3 tools	Standard
Maximum drilling capacity	4 tools	When 50200D or 53200D is used.
Maximum tapping capacity	ø8mm	Maximum chucking diameter ER16:ø10
Maximum die cutting capacity	M8×P1.25 M8×P1.25	Maximum die diameter : ø25, ø20

■ 3-spindle unit for backworking

Item	Specifications	Remarks
Number of tools	3 tools	Standard
	4 tools	When 50200D or 53200D is used.
Maximum drilling capacity	ø7mm	Maximum chucking diameter ER16:ø10
Maximum tapping capacity	M6×P1.0	Maximum chucking diameter ER11:ø7

■ Collet chuck & guide bushing

Item	Specifications	Remarks
Collet chuck (main/sub)	SR-16 R-16	Schaublin Type F20 Art No.87
	SR-20 R-20	Schaublin Type F25 Art No.64
Guide bushing (stationary/revolving)	SR-16 R-16	Neukomm Type B Art No.39.001
	SR-20 R-20	Neukomm Type B Art No.22.001

■ Coolant unit specifications

Item	Specifications	Remarks
Installation method	Installed separately outside machine	
Coolant tank capacity	100L	
Coolant motor	0.18kw	
Safety device	Coolant oil flow control sensor	Detect lack of coolant oil flow
Coolant oil level detector	Coolant oil level detector	Detect lack of coolant oil in tank
Cutting oil	Water insoluble cutting oil	

■ Hydraulic unit specifications

Item	Specifications	Remarks
Hydraulic tank capacity	20L	
Normal pressure	3.4Mpa (343N/cm ²)	
Hydraulic pump motor	0.75kw	
Safety device	Pressure switch	Detect low pressure
	Relief valve	Detect high pressure
	Hydraulic oil level detector	Detect lack of oil in tank
Suitable hydraulic oil	Viscosity grade: ISO VG32	Recommended oil : Shell Tellus Oil 32

4-4 Standard machine specifications

NOTICE

- The above machining capacities apply to S45C (AISI 1045, DIN C45) material. The machining capacities may differ from the listed values depending on the machining conditions, such as the material to be machined or the tools to be used.

Control axis specifications

Item	Specifications	Remarks
Rapid feed rate	X 12000mm/min	When 500-63, 530-63 or 531-51 is used.
	Y 16000mm/min	
	Z 18000mm/min	
	XB 18000mm/min	
	ZB 18000mm/min	
Maximum turning feed rate	X 6000mm/min	Cutter: $\phi 50 \times \phi 13$ (when 531-51 is used)
	Y 6000mm/min	
	Z 6000mm/min	
	XB 6000mm/min	
	ZB 6000mm/min	
Minimum input increment	X 0.001mm/0.0001in (Diameter value)	Except for leveling pads
	Y 0.001mm/0.0001in (Diameter value)	
	Z 0.001mm/0.0001in	
	XB 0.001mm/0.0001in (Diameter value)	
	ZB 0.001mm/0.0001in	