

S20E and S22E – the New "Economical" Grinding Centers by Michael Deckel

▶ ▶ ▶ S20E

- ▶ 5-Axes Grinding Center
- ▶ Patented Vertical Design
- ▶ 6-station Grinding Wheel Changer as a Standard
- ▶ Fast Feed Rates of 10 m/min in all Linear Axes
- ▶ Most modern PC-Control
- ▶ Multifunctional Operator Panel (like S22)
- ▶ Optional:
PickUp-Loader with 16 Variable Tool Locations



▶ ▶ ▶ S22E

- ▶ 5-Axes Grinding Center
- ▶ Patented Vertical Design
- ▶ 4-station Grinding Wheel Changer as a Standard (Optional: 8-station)
- ▶ Powerful 10 kW Grinding Spindle
- ▶ Fast Feed Rates of 12 m/min in all Linear Axis
- ▶ Direct Drive in A Axis with up to 600 min-1
- ▶ Most modern PC-Control
- ▶ Optional:
PickUp-Loader with Various Disk Magazines
or
Chain Loader for up to 155 Variable Tool Locations



MICHAEL DECKEL

► Clamping and Grinding Range

	S20E	S22E	S22Pturbo/NUM
Maximum tool diameter	approx. 250 mm	approx. 250 mm	approx. 250 mm
Maximum tool length (without clamping shaft)	approx. 500 mm	approx. 900 mm	approx. 900 mm
Maximum grinding length	max. 340 mm	max. 400 mm	max. 400 mm

► Movement Range, MeasuringSystem

		S20E	S22E	S22Pturbo/NUM
X-Axis	grinding stroke	341 mm	400 mm	400 mm
	feed rate	10,000 mm/min	12,000 mm/min	20,000 mm/min
	drive	digital regulator with AC-Motor	digital regulator with AC-Motor	digital regulator with AC-Motor
	torque	2.2 Nm	2.2 Nm	6 Nm 7.4 Nm
	measuring system	indirect with encoder	direct/Glass-scales	direct/Glass-scales
	resolution	0.00026 mm	0.00015 mm	0.00015 mm
Y-Axis	grinding stroke	240 mm	310 mm	310 mm
	feed rate	10,000 mm/min	12,000 mm/min	20,000 mm/min
	drive	digital regulator with AC-Motor	digital regulator with AC-Motor	digital regulator with AC-Motor
	torque	1.6 Nm	2.2 Nm	6 Nm 6 Nm
	measuring system	indirect with encoder	direct/Glass-scales	direct/Glass-scales
	resolution	0.00026 mm	0.00015 mm	0.00015 mm
Z-Axis	grinding stroke	240 mm	305 mm	305 mm
	feed rate	10,000 mm/min	12,000 mm/min	20,000 mm/min
	drive	digital regulator with AC-Motor	digital regulator with AC-Motor	digital regulator with AC-Motor
	torque	1.6 Nm	2.2 Nm	6 Nm 6 Nm
	measuring system	indirect with encoder	direct/Glass-scales	direct/Glass-scales
	resolution	0.00026 mm	0.00015 mm	0.00015 mm
A-Axis	freely rotating, module function (0 to 360° counting)	360°	360°	360°
	feed rate (rapid feed rpm)	120 min ⁻¹	600 min ⁻¹	600 min ⁻¹
	drive	digital regulator with AC-Motor	digital regulator with AC-Motor	digital regulator with AC-Motor
	torque	2.2 Nm	25 Nm	40 Nm
	measuring system	indirect/encoder	direct/HR encoder	direct/HR encoder
	resolution	0.00080°	0.00018°	0.00007°
C-Axis	turning range	192°	224°	224°
	feed rate (rapid feed rpm)	20 min ⁻¹	40 min ⁻¹	60 min ⁻¹
	drive	digital regulator with AC-Motor	digital regulator with AC-Motor	digital regulator with AC-Motor
	torque	2.2 Nm	120 Nm	190 Nm
	measuring system	direct/encoder	direct/HR encoder	direct/HR encoder
	resolution	0.00036°	0.00018°	0.00007°

► Other important data

		S20E	S22E	S22Pturbo	S22PNUM
Control	type	PC-Control TurboPMAC 1	PC-Control TurboPMAC 1	PC-Control TurboPMAC 2 UL	NUM-Power1050
	comunication and system	hard wired	hard wired	Fiberoptics MACRO	Fiberoptics
	operating system	WINDOWS XP professional	WINDOWS XP professional	WINDOWS XP professional	
Grinding spindle	drive motor	direct drive asynchron	direct drive synchron	direct drive asynchron	
	output	7.1 kW at 70 % DR	10 kW at 100% DR	15 kW at 100% DR	
	coolant	water-cooled	water-cooled	water-cooled	
	rotating direction	right and left	right and left	right and left	
	speed	stepless 1,000–8,000 min ⁻¹	stepless 1,000–8,000 min ⁻¹	stepless 1,000–8,000 min ⁻¹	
Weight		approx. 2,200 kg	approx. 4,000 kg	approx. 4,000 kg	
Dimensions	Length x Width x Heigth (mm)	ca. 1,400 x 2,000 x 2,200	ca. 1,800 x 1,800 x 2,150	ca. 1,800 x 1,800 x 2,150	
Grinding wheel changer		6-stations	4-stations (optional 8)	8-stations	