

Machine specifications

Contents		MT12	MT20	MT25
Chuck size		φ 165 mm (6") (option : φ 210 mm)	φ 210 mm (8")	φ 254 mm (10")
Swing	Over adjacent tool	φ 146 mm (with plain head)	φ 225 mm (with plain head)	φ 267 mm
	Over turret face	φ 250 mm	φ 250 mm	φ 300 mm
Standard turning diameter		φ 160 mm	φ 170 mm	φ 220 mm
Maximum bar diameter	Standard	φ 45 mm	φ 65 mm	φ 65 mm
	Option	φ 51 mm	—	φ 70 mm
Maximum bar length		950 mm	1150 mm	1300 mm (without bar support)
Number of turret stations		15 / each turret (Total 30)	15 / each turret (Total 30)	15 / each turret (Total 30)
Turret index time		0.25 sec / 1 station	0.3 sec / 1 station	0.6 sec / 1 station
Standard tools	OD tool	□20 mm	□25 mm	□25 mm
	Boring bar (max.)	φ 40 mm	φ 40 mm	φ 40 mm
Spindle bearing I.D.	Standard	φ 90 mm	φ 110 mm	φ 110 mm
	Option	—	—	φ 120 mm
Diameter of hole through spindle	Standard	φ 62 mm	φ 77 mm	φ 77 mm
	Option	—	—	φ 83 mm
Draw tube I.D.	Standard	φ 46 mm	φ 66 mm	φ 66 mm
	Option	—	—	φ 71 mm
Spindle nose		JIS A2-5	JIS A2-6	JIS A2-6
Spindle speed	Standard	4,500 rpm	4,200 rpm	3,500 rpm
	Option 1	6,000 rpm	—	4,000 rpm
	Option 2	—	—	2,500 rpm
Spindle motor capacity	Standard (1:8)	7.5 kW / 30 min	15 kW / 30 min	15 kW / 30 min
	Option (1:8)	11 kW / 30 min	18.5 kW / 30 min	22 kW / 30 min (Left spindle only)
Stroke	X-axis	200 mm	230 mm	250 mm
	Z ₁ -axis	200 mm	250 mm	300 mm
	Z ₂ -axis	650 mm	810 mm	920 mm
	Y-axis(option)	—	± 50 mm	± 60 mm
Rapid traverse rate	X-axis	24 m / min (X1,X2-axis)	20 m / min	16 m / min
	Z-axis	24 m / min (Z1,Z2-axis)	24 m / min	18 m / min
	Work transfer	32 m / min	32 m / min	24 m / min
	Y-axis (option)	—	20 m / min	10 m / min
Hydraulic tank capacity		60 L	20 L × 2	20 L × 2
Coolant tank capacity		200 L (Chip conveyor right discharge)	210 L (Chip conveyor right discharge)	250 L (Chip conveyor right discharge)
		180 L (Chip conveyor rear discharge)	260 L (Chip conveyor rear discharge)	400 L (Chip conveyor rear discharge)
Machine floor space (Excl.chip conveyor)		2,700 mm (W) × 1,850 mm (D)	2,980 mm (W) × 2,100 mm (D)	3,700 mm (W) × 2,250 mm (D)
Gross machine weight		Approx. 5,500 kg (Incl. tools, excl. chip conveyor)	Approx. 10,600 kg (Incl. tools, excl. chip conveyor)	Approx. 10,000 kg (Incl. tools, excl. chip conveyor)

Live tooling specifications (Option)

Contents		MT12	MT20	MT25
Live tool motor		3 kW (9 Nm / continuous)	3 kW (12 Nm / continuous)	4 kW (22 Nm / continuous)
Maximum speed		4,000 rpm / 6,000 rpm	3,600 rpm	3,000 rpm / 6,000 rpm
Maximum live tool size		Milling : φ 16 mm Tapping : M12	Milling : φ 20 mm Tapping : M16	Milling : φ 20 mm Tapping : M16
Spindle positioning		C-axis control & brake		C-axis control & brake
C-axis positioning accuracy		±0.015°	±0.015°	±0.015°
C-axis maximum speed		200 rpm	100 rpm	100 rpm
C-axis least move increment		0.001°	0.001°	0.001°

CNC Gantry loader specifications

Contents		MT12	MT20	MT25
Maximum workpiece size		φ 120 mm × 100 mm	φ 170 mm × 140 mm	φ 220 mm × 170 mm
Maximum workpiece weight		3.0 kg × 2	5.0 kg × 2	8.0 kg × 2
Stroke	Z-axis(L / R)	2,380 mm	2,650 mm	3,250 mm
	X-axis(F / R)	—	150 mm	150 mm
	Y-axis(U / D)	585 mm	665 mm	850 mm
	α-axis(swivel)	90°(270°)	270°	270°
Rapid traverse rate	Z-axis(L / R)	100 m / min	120 m / min	100 m / min
	X-axis(F / R)	—	35 m / min	30 m / min
	Y-axis(U / D)	100 m / min	100 m / min	70 m / min
	α-axis(swivel)	0.8 sec / 90°	1.5 sec / 270°	1.5 sec / 270°
Loader chuck stroke		φ 30 mm	φ 33 mm	φ 40 mm