■ Machine specifications

Contents		MT12
Chuck size		ϕ 165 mm (option: ϕ 210 mm)
No. of turret stations		15/each spindle, 30/both spindles
Swing	Over adjacent tool	ϕ 146 mm (with plain head)
		ϕ 137 mm (with double bore head)
	Over turret face	ϕ 250 mm
Maximum turning diameter		ϕ 240 mm
Maximum turning length		180 mm
Maximum bar diameter		ϕ 45 mm (option: ϕ 51 mm)
Stroke	X1, X2-axis	200 mm
	Z1-axis	200 mm
	Z2-axis (right spindle)	650 mm
Rapid traverse rate	X1, X2-axis	24 m/min
	Z1, Z2-axis	24 m/min
Spindle	Spindle bearing I.D.	ϕ 90 mm
	Spindle nose	JIS A2-5
Spindle motor		7.5kW/30 min (Option:11 kW/30 min)
Maximum spindle speed		4500 rpm (option: 6000 rpm)
Standard tools	OD tool	□20 mm
	Boring bar (max.)	ϕ 40 mm
Live tooling (option)	Live tool motor	2.8 kW (rated torque)
	Max. speed	4000 rpm (option: 6000 rpm)
	Spindle positioning	C-axis control (0.001 degree)
	C-axis max. speed	200 rpm
	Max. live tool size	Milling: ϕ 16 mm
		Tapping: M12
Hydraulic tank capacity		60 ℓ
Coolant tank capacity	Chip conveyer right discharge	200 ℓ
	Chip conveyer rear discharge	180 ℓ
Machine floor space (excl. chip conveyor)		2700 mm (W) x 1850 mm (D)
Gross machine weight (incl. tools, excl. chip conveyor)		Approx. 5500 kg

■ Other standard functions

Auto zero return	X1, Z1, X2, Z2-axis
Cut-off sensor	Torque detection type
Work counter (LCD screen display)	8-digit Left/Right with preset function
Total counter (LCD screen display)	8-digit Left/Right
Soft tool counter (LCD screen display)	6-digit Left/Right 15 pairs
Foot switch	Left/Right 1 each
Manual pulse generator	0.001 mm, 0.01 mm, 0.1 mm
Work light	6 W, 2 nos. Light-up with power ON
Work light ON/OFF switch	LCD soft switch
Coolant nozzle near check	Left/Right one each (M8 coolant ON)
Coolant unit	Coolant tank, pump, piping
Reader/Punch interface	RS232C interface
Help menu	Operation, zero return information, M-code list
Alarm display	Alarm contents, measures, concerned LS Nos., DGN No. are displayed on LCD

* All specifications are subject to change without notice.

■ CNC specifications

Contents		Specifications
No. of axes controlled		2 axes (X1, Z1) + (X2, Z2)
X,Z axes position feed back		Absolute pulse coder
Least input increment	X-axis	0.001 mm (on diameter)
	Z-axis	0.001 mm
Least move increment	X-axis	0.0005 mm/P
	Z-axis	0.001 mm/P
Traverse rate	Rapid traverse	G00 X, Z- axis 24,000 mm/min.
	Cutting feed rate	G01 mm/rev, mm/min (inch/rev, inch/min.)
	Thread cutting	F: 0.001 - 500.0000 mm/rev
	Continuous thread cutting	Straight, taper, face thread
Manual jog feed rate		0 to 1386 mm/min.
Manual handle feed rate		0.001, 0.01, 0.1 mm/div.
Override	Cutting feed rate	0 to 110% (for every 10%)
	Rapid feed rate	0/25/50/100%
	Spindle speed	50 to 120% (for every 10%)
Tool function no. of sets of tool offsets		T4-digit (2+2) 32 sets
Program format		Absolute/Increment commands in 1 block
Assistant function		M-code (3-digit)
Memory capacity		40 m/each spindle
Maximum number of programs		63
Manual data input		MDI Multi-block command input/running
Reference point return		G27, G28
Tape code		EIA RS244, ISO 840 automatic judgement
Display unit		7.2" LCD, alphanumeric display, parameter setting, self diagnostics function
Program No.		4-digit Program name : 31 characters
Subprogram		4-fold nesting
Canned cycle		G90, G92, G94
Miscellaneous		Alarm description display, Help function, Parameter setting display, Self-diagnostics function, Alarm history display, Number of running spindle rotation display, Running speed display

■ Other CNC functions

● Optional block skip ● Dwell (G04: seconds unit)
● Emergency stop ● Machine lock ● Feed hold ● Optional stop
● Dry run mode ● Single block mode ● Program number search
● Sequence number display: 5-digit ● Sequence number search
● Second reference point return ● Chamfering and corner R
● Nose radius compensation
● Decimal point designation/calculator type
● Circular radius R designation ● Diameter/radius designation
● Auto coordinate system set ● Work coordinate system shift
● Work coordinate system direct input ● Stored stroke limit
● Data protect key switch ● Display of run time and parts count
● Synchronization M-code ● Multiple repetitive cycle (G70 - G76)
● Canned cycle for drilling (G80 - G89)
● Offset value program input (G10)
● Background edit ● Clock function