
V K 45 II
MACHINING CENTER
INSTRUCTION MANUAL

SEIKI-SEICOS MIII/E

(Edition 1. 4-1995)

MORI SEIKI
THE MACHINE TOOL COMPANY

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Extra accessories

1. Tool storage capacity of ATC 30, 60, 90, 120 tools
2. High speed spindle NT50:8000min⁻¹, NT40:12000min⁻¹
3. APC system (Parallel shuttle type)
4. A pallet itself
5. Pallet pool line (6PPL, 8PPL)
6. Pull stud bolt (45° MAS-1 type BT50, 30° MAS-2 type BT50, 30° MAS-2 type BT40)
7. Coolant device Jet coolant Coolant gun
 Oil hole coolant Spindle through coolant
8. Oil mist device Oil mist coolant, continuous type
 Needle coolant, one shot type
9. Mist collector
10. Tool nose air blow
11. Spindle through air blow
12. Internal chips conveyor (Operator side)
13. External chip conveyor, flat type, scraper type, for aluminum chips
14. Magnet roller conveyor (For anti-sludge)
15. Chip wagon (With caster)
16. Closed loop
17. Automatic measuring equipment, automatic centering
18. Measuring equipment on machine
19. Printer equipment for automatic measuring
20. Cleaning tool for automatic measuring
21. Tool length measuring equipment
22. Cutting monitor
23. Spindle load meter
24. Spindle tachometer
25. Additional call light
26. Buzzer alarm unit
27. Integrating timer
28. Work counter (Total 6 digits)
29. Weekly timer
30. Automatic extinguisher
31. Sub table for additional axis
32. Standard fixture (Box type, angle block, sub table)
33. Clamping metal
34. External power transformer 32KVA 65KVA

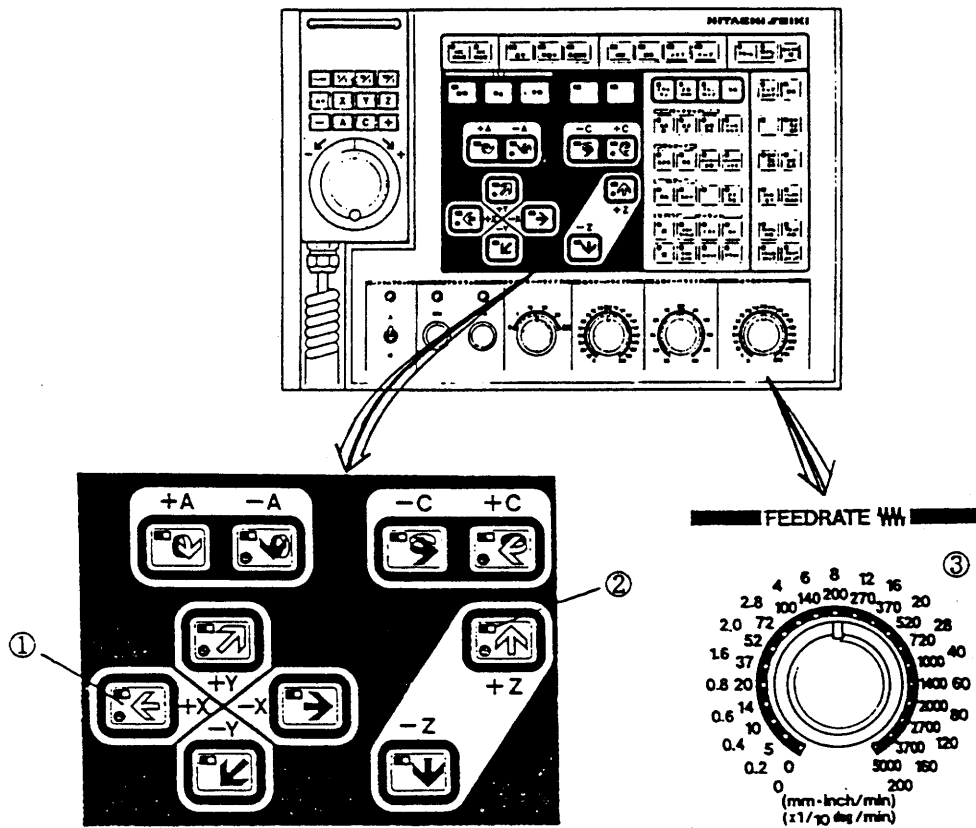
Note 1. Contents of accessories and optional equipments are subject to change without notice by reasons of production and usage, contact HITACHI SEIKI if any doubt about it.

4. Specification of NC Unit (SEICOS-MIII/E)

B: Standard O: Option

No.	Item	Specification	Di- vision
Controlled axis			
1	Controlled axis	3 axes: X, Y, Z	B
2	Simultaneously controlled axis	3 axes (Positioning, Linear interpolation) 2 axes (Circular interpolation)	B B
Input command			
1	Least input increment	0.001mm	B
2	Least motion increment	0.001mm	B
3	Maximum commandable value	+99999.999mm	B
4	Absolute incremental programming	G90/G91	B
5	Decimal point input		B
6	Inch metric conversion		B
7	Tape code	EIA/ISO automatic recognition	B
8	NC tape (Tape operation is not available)	8 channel black paper tape	B
Interpolation			
1	Positioning	G00	B
2	Linear interpolation	G01	B
3	Multi-quadrant circular interpolation	G02/G03: CW/CCW	B
4	Helical interpolation	Additional axis also available	O
5	Hypothetical axis interpolation		O
6	Polar coordinate interpolation		O
7	Cylindrical interpolation		O
8	Exponential interpolation		O
9	Normal direction control	G411 G421 G401	O

No.	Item	Specification	Di- vision
14	Exact stop	G09, G61 G64	B
15	Programmable data input	G10	B
16	Direct tapping	G741, G841	B
17	Label skip		B
18	Linear acceleration/deceleration before cutting interpolation		O
19	Linear acceleration/deceleration after cutting interpolation		O
20	Exponential acceleration/deceleration after cutting interpolation		O
21	Pre reading of acceleration/deceleration before interpolation	G611	O
22	Special fixed cycle by screen instruction type	Deephole drilling cycle, Hole pattern cycle, True circle cutting, Square type facing, Pocket cycle	O
Accuracy compensation of machine system			
1	Backlash compensation		B
2	Stored pitch error compensation		B
3	Uni directional positioning	G60	O
4	Inclination compensation		O
5	Straightness compensation		O
6	Thermal deformation compensation		O
Machine support function			
1	Built-in type PC		B
2	Axis interlock		B
3	External deceleration		B
Automatitization support function			
1	Skip function	High speed	O
2	Tool life management Spare tool call function		O
3	Cutting monitor	160m of program storage is required	O
4	Work checker function		O
5	DNC connection circiut		O
6	Macro print out function	By RS-232-C, Printer is required	O
7	Electronic absolute position detection		O



No.	Description	Function	Remark
①	AXIS MOVEMENT BUTTON	Move axis X, Y, and Z axes. Axis selection and moving direction depend each display on button. When executing zero return, keep pressing a zero (⊕) direction button until zero return lamp turn on.	Feed of each axis (Refer to page 5-27.) Procedure of zero return (Refer to page 5-25.)
②	ZERO RETURN LAMP	Turn of the lamp when an axis locating at machine zero point.	
③	FEEDRATE SWITCH	Select a feedrate at manual or dryrun operation.	0 ~ 5000mm/min (In case of C or A axis 10 ~ 1400deg/min)