

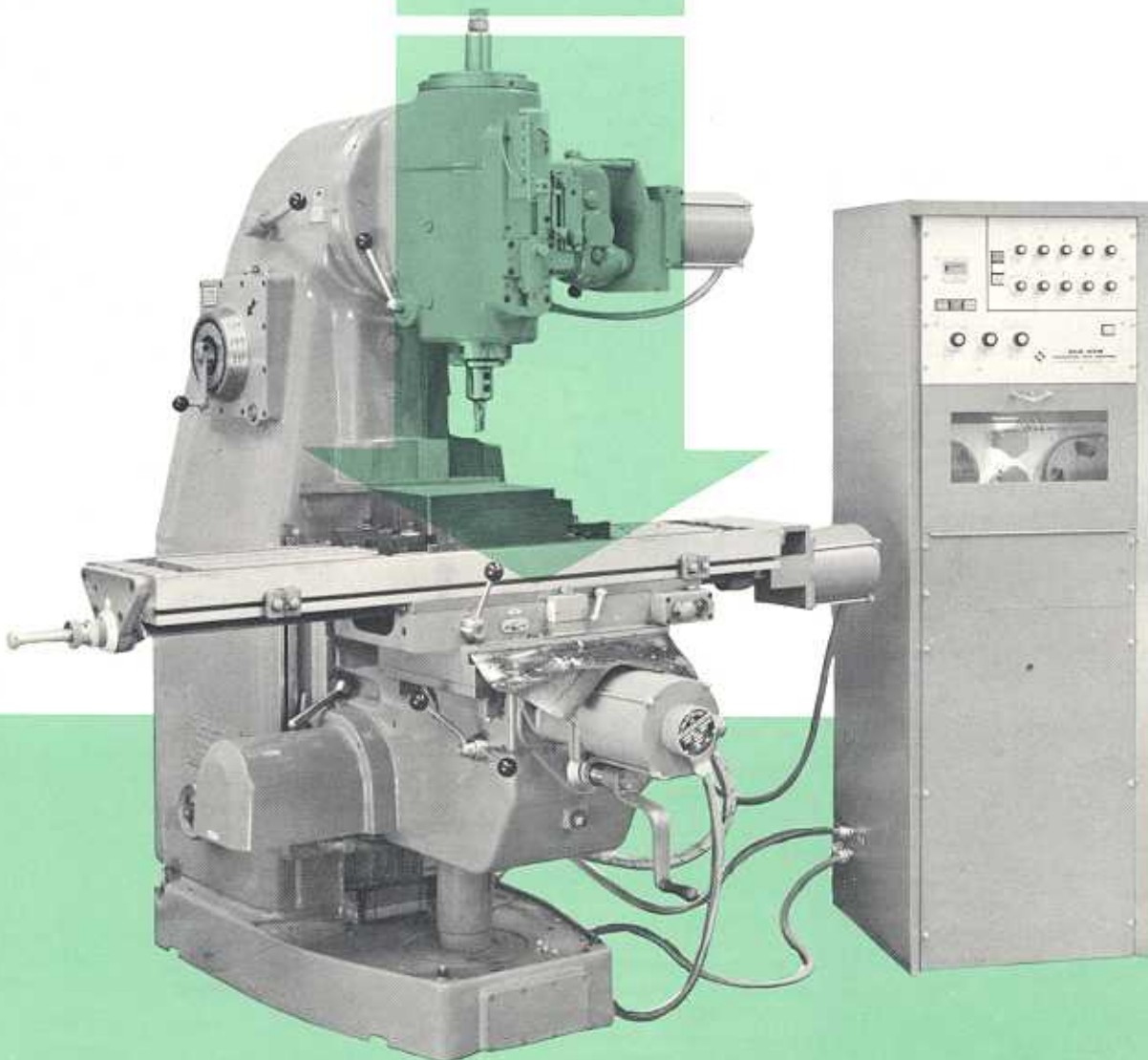


SUPERIOR ELECTRIC NEDERLAND N.V.

slo-syn[®]

NUMERICAL CONTROL EQUIPMENT FOR USE

WITH **METRIC** LEAD SCREWS



- FOR 4MM AND 5MM LEAD SCREWS ■ PROVIDE .01MM RESOLUTION
- CONTOURING AND POINT-TO-POINT SYSTEMS AVAILABLE

The SLO-SYN Numerical Control Equipment listed in this data sheet is designed specifically for machines having 4mm and 5mm lead screws. The SLO-SYN stepping motors which drive the lead screws provide .01mm positioning resolution and permit table speeds up to 600mm per minute. Both point-to-point and continuous path contouring systems are available. Motor coupling kits are available for most popular machines. Power spindle feeds are also offered for a number of machines, permitting tape control of the tool action.

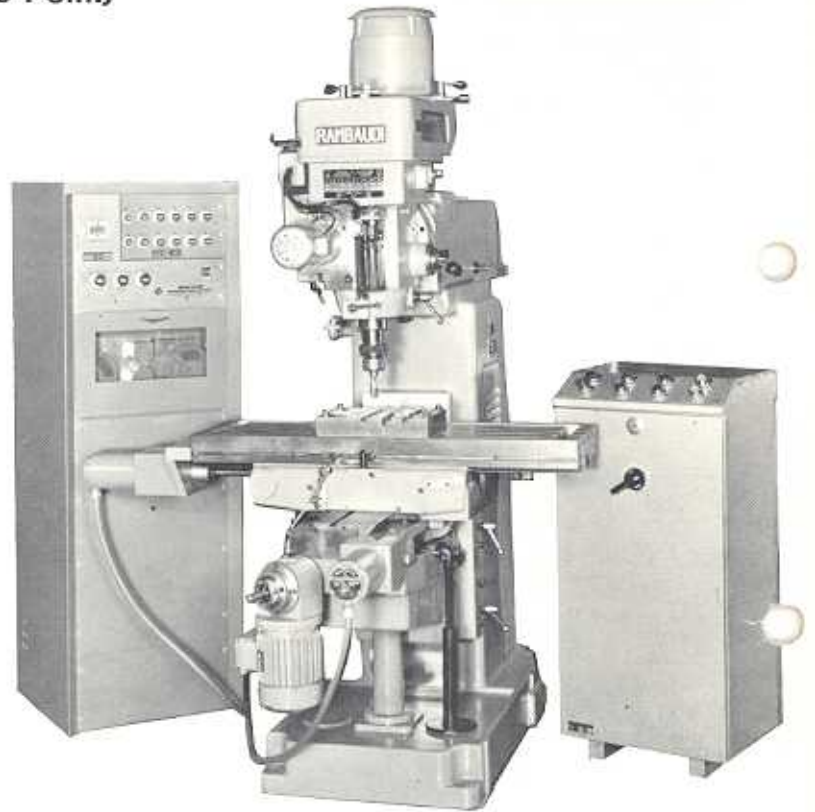
slo-syn[®] NUMERICAL TAPE CONTROLS

(Point-to-Point)

FEATURES

- Digital Solid-State Electronics
- Modular Construction
- Eye Level Control Panel
- Manual Data Input plus Jog Control
- Full Mirror Image
- 3 unassigned Miscellaneous Functions on Two-Axis Units; 2 on Three-Axis Units
- Sequence Number Display
- Backlash Take-Up Circuit
- Tape Actuated Rapid Traverse In Milling Mode
- True 45° Positioning
- Enclosed Photoelectric Tape Reader With Reelers
- EIA Code Standard — ASCII Optional
- Easily Retrofitted To Most Machines

SLO-SYN Numerical Tape Controls are low-cost two- or three-axis point-to-point N/C systems which are simple and easy to program and provide a host of standard features including manual data input, mirror image, automatic backlash compensation and photoelectric tape readers. The system consists of a console containing the tape reader, power supply and logic circuits and one drive motor for each axis. On three-axis models, the third axis operates on a time shared basis with the y axis. SLO-SYN Numerical Tape Controls have gained wide acceptance throughout industry for automating drilling, milling and boring machines, assemblers, welders, cutters, riveters, automatic drafting and wiring machines and inspection equipment.



SPECIFICATIONS

Power Input	200-240 volts, 50/60 hertz
Resolution	0.01mm
Maximum Table Travel per Command	999.99mm
Tape	EIA standard 25mm (one inch) wide, eight channel binary coded decimal
Tape Codes	EIA standard — ASCII optional on request
Miscellaneous Function Control	by relays; contacts rated 0.5 ampere, 240 volts resistive
Console Dimensions (approximate)	570mm wide, 1650mm high, 600mm deep
Shipping Weight (approximate)	170 kg.

MODELS AND RATINGS

TYPE		TORQUE (kg-cm)		MILLING SPEED RANGE (mm per minute)	HI FEED RANGE (mm per minute)	MINIMUM TABLE TRAVEL per command
TWO-AXIS	THREE-AXIS	MILLING SPEEDS	HI SPEED			
FOR USE WITH 4mm LEAD SCREWS						
NCIRX25-4	NCIRX35-4	45	25	6 to 180	300 to 600	.01mm
NCIRX25-4HT	NCIRX35-4HT	75	55			
FOR USE WITH 5mm LEAD SCREWS						
NCIRX25-5	NCIRX35-5	45	25	6 to 180	300 to 600	.01mm
NCIRX25-5HT	NCIRX35-5HT	75	55			



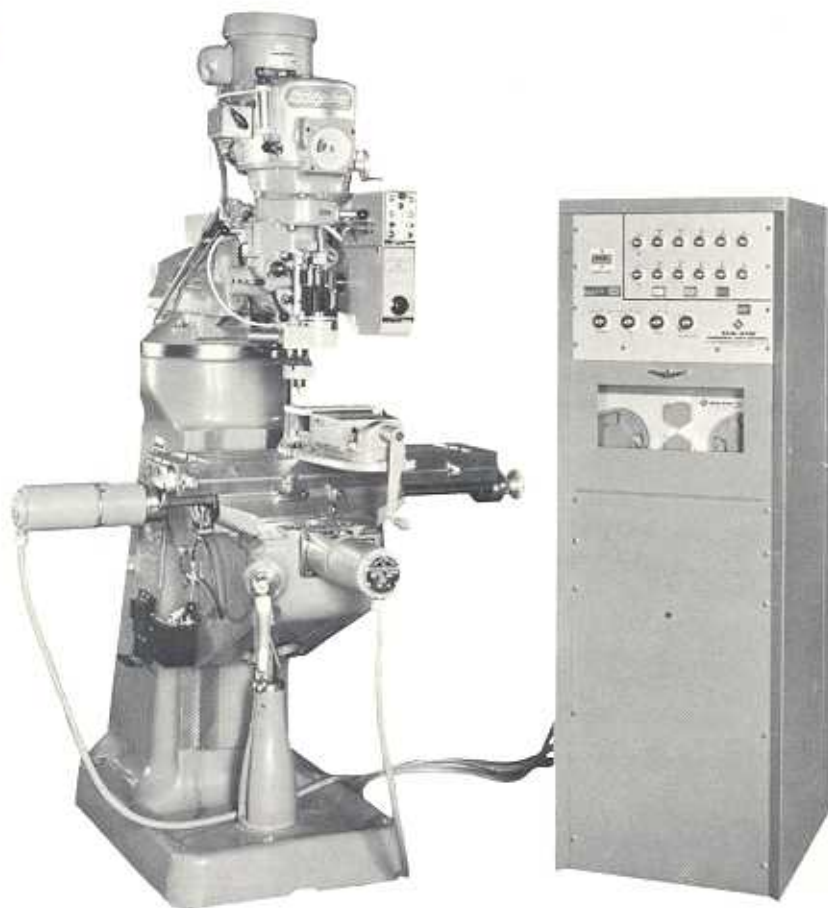
slo-syn[®]

FEATURES

CONTINUOUS PATH CONTOURING CONTROLS

- Continuous Path — No Tool Dwell
- Full Linear and Circular Interpolation in the LO Speed Range
- Infinitely Adjustable LO Speed Rate Accept Either EIA or ASCII Codes
- Buffer Storage
- 6 Unassigned Miscellaneous Functions on Two-Axis Units; 5 on Three-Axis Units
- Digital Solid-State Electronics
- Plug-In Circuitry
- Enclosed Photoelectric Tape Reader
- Manual Data Input plus Jog Control
- Mirror Image
- Sequence Number Display
- Tape Actuated Rapid Traverse When Milling
- Tool Inhibit Command

SLO-SYN Continuous Path Contouring Controls are two- or three-axis N/C units capable of making intricate forms. Full linear and circular interpolation allow complex table motions to be performed with a minimum of programming. All models have manual data input and mirror image, features normally provided only as extra-cost options. SLO-SYN Continuous Path Contouring Controls can add remarkably versatile performance to milling machines, lathes, welders, automatic drafting and wiring machines, and inspection equipment at surprisingly low cost. As with any contouring system, optimum accuracy requires the use of ball-nut lead screws for a backlash-free machine.

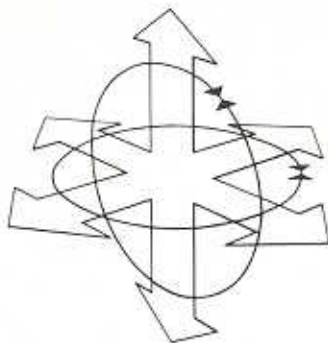


SPECIFICATIONS

Power Input	200-240 volts, 50/60 hertz
Resolution	0.01mm
Maximum Table Travel per Command	999.99mm
Maximum Radius of Programmed Arc	1,000mm
Contouring Accuracy	±.01mm
Tape	EIA standard 25mm (one inch) wide, eight channel binary coded decimal
Tape Codes	EIA or ASCII
Miscellaneous Function Control	By relays; contacts rated 0.5 amps 240 volts resistive
Console Dimensions (approximate)	570mm wide, 1650mm high, 750mm deep
Shipping Weight (approximate)	220 kg.

MODELS AND RATINGS

TYPE		TORQUE (kg-cm)		MILLING SPEED RANGE (mm per minute)	HI SPEED RANGE (mm per minute)	MINIMUM TABLE TRAVEL per command
TWO-AXIS	THREE-AXIS	MILLING SPEEDS	HI SPEED			
FOR USE WITH 4mm LEAD SCREWS						
NCCR25-4	NCCR35-4	45	25	0 to 180	300 to 600	.01mm
NCCR25-4HT	NCCR35-4HT	75	55			
FOR USE WITH 5mm LEAD SCREWS						
NCCR25-5	NCCR35-5	45	25	0 to 180	300 to 600	.01mm
NCCR25-5HT	NCCR35-5HT	75	55			



INSTALLATION

SLO-SYN Numerical Tape Controls and Continuous Path Contouring Controls are simple to install. All that is required is to mount the SLO-SYN motors, couple them to the lead screws and complete the wiring connections with the cables provided. No adjustments are necessary before operating the equipment.

Motor Coupling Kits are available to simplify motor mounting on many of the popular machines. The kits contain all parts necessary for coupling the motors to the x and y axes of the machine. Refer to the chart for the appropriate coupling kit for a specific machine.

POWER SPINDLE FEEDS

A wide range of pneumatically powered spindle feeds is also available for tape operation of tool feed and retract. Both

standard and deep hole drilling models are offered.

MOTOR COUPLING KITS

MACHINE		NC1RX25-4, NC1RX35-4 NC1RX25-5, NC1RX35-5 NCCR25-4, NCCR35-4 NCCR25-5, NCCR35-5	NC1RX25-4HT, NC1RX35-4HT NC1RX25-5HT, NC1RX35-5HT NCCR25-4HT, NCCR35-4HT NCCR25-5HT, NCCR35-5HT
MAKE	MODEL		
ACIERA	22 Sta	EM101596-G1	—
BEAVER	Mark II	EM101590-G1	EM101669-G1
BRIDGEPORT	98RJ, 12BRJ	GM101580-G1	—
CINCINNATI	HV Toolmaster Styles, 1B, 1C, 1D, 1E	EM101606-G1	EM101679-G1
ELLIOT	Milmor	EM101645-G1	—
FAMCO	120, 200	EM101600-G1	EM101666-G1
INDUMA	1/S	EM101601-G1	—
KONDIA	FV-1	EM101639-G1	—
MAJESTIC	JU-1½	EM101652-G1	—
U.S. BURKE	Millrite	EM101593-G1	—

For complete data on the full line of SLO-SYN Numerical Control Equipment, request complete N/C literature file.

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The right to make engineering refinements on all products is reserved. Dimensions and other details are subject to change. When dimensions are critical, detailed drawings should be obtained from the factory.

ALL PRODUCTS ARE MANUFACTURED IN THE U.S.A. BY THE SUPERIOR ELECTRIC COMPANY, BRISTOL, CONNECTICUT



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