

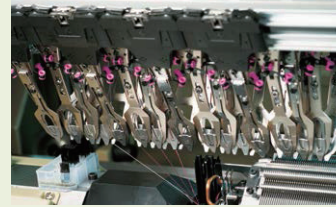
N.MACH2SIR

Computerized Flat Knitting Machine
N.MACH2®SIR®123

your choice
SHIMA SEIKI

THE ULTIMATE IN INTARSIA KNITTING TECHNOLOGY

SHIMA SEIKI's benchmark in intarsia knit production MACH2®SIR® has been renewed. As the name suggests, N.MACH2®SIR® offers exceptional speed and efficiency. Maximum knitting speed is 1.4 meters per second. The R2CARRIAGE® System achieves quicker carriage returns after each course. With a new lighter, more compact carriage productivity is improved even further. Intarsia knitting is performed with up to 40 intarsia carriers. In addition, as part of the latest generation of SHIMA SEIKI knitting machines, N.MACH2®SIR® carries over all the technological achievements for which SHIMA SEIKI is made famous: DSCS® Digital Stitch Control System; spring-loaded moveable sinker system; stitch presser; yarn gripper and cutter; takedown system; and more. An all-new full-color LCD touch-sensitive control panel greatly improves on the previous monochromatic display as well. Finally, N.MACH2®SIR® offers a blend of Made-in-Japan quality and reliability, productivity, user-friendliness and cost-performance that fulfills the high expectations already held by the global fashion industry.



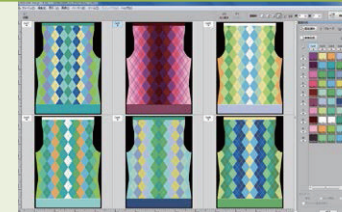
Intarsia Carriers

N.MACH2®SIR® machines feature capacity for up to 40 intarsia carriers. The intarsia carriers are more compact, fitting more carriers and thus allowing more color changes within a given knitting width.

Rapid Response R2CARRIAGE®System

The R2CARRIAGE® (R2=Rapid Response) System features an advanced carriage mechanism combined with improved software programming that achieves quicker carriage returns after each course.

R2CARRIAGE®
RAPID RESPONSE CARRIAGE SYSTEM



The New Intarsia Standard

New Automatic Yarn Carrier Setting software on our SDS®-ONE APEX series 3D design system reduces production leadtime dramatically, for up to 40 yarn carriers. The intarsia carriers are more efficient, capable of producing fine and sophisticated intarsia designs, such as 3-inch wide argyle patterns. Furthermore with the optional i-DSCS+DTC® Digital Stitch Control System "with Intelligence" and Dynamic Tension Control, as well as the Air Splicer, variable electronic control of yarn tension provides consistent quality

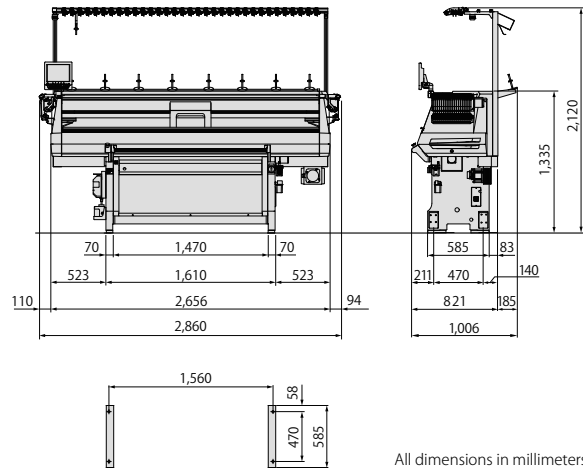
among different machines, production batches and repeat orders, and contributes to high-quality production of multi-colored intarsia products.

WideGauge® Knitting

N.MACH2®SIR®123 V-type features WideGauge® capability that allows a variety of gauges to be knit on a single machine. This allows the freedom to handle changing seasons and shifting trends without investing in a machine for every gauge or resorting to the complex, time-consuming task of gauge conversion.



N.MACH2®SIR® DIMENSIONS



Average Weight

N.MACH2®SIR® 854kg (1,878 lbs.)

Actual weight is dependent upon gauge and optional equipment.

SPECIFICATIONS

Type	NMSIR123	
Variation	V	C
Gauge	12 · 14 · 16	12 · 14 · 16 · 18
Knitting width	Variable stroke, max 48" (122cm)	
WideGauge®	Wide range of gauge knit on a single machine (V only).	
Knitting speed	Max 1.4m/sec. Knitting speed varies according to yarn, gauge and other knitting conditions. Speed can be programmed for 10 separate categories.	
Stitch density	120 levels, electronically controlled	
Racking	Motor-driven. Max 1-inch racking in each direction (2 inches total). 1/2 and 1/4 pitch also available from any position.	
Knitting system	Triple KNITRAN® system, Single carriage (R2CARRIAGE® system)	
Transfer	Simultaneous transfer, front or back, independent of carriage direction. Split stitch possible without exchanging yarn carriers.	
Sinker system	Spring-type moveable full-sinker system. Provides gentle holddown instead of forcibly pressing down yarn. v-Sinker™ standard on 14G, 16G and 18G.	
Stitch presser	Special motor-drive. On/off adjustment. Press-down amount can also be set according to knit, transfer, etc.	
Needle hook conversion	Conversion between LL-size and MM-size possible without exchanging cams (V12G and V14G only).	
Needle selection	Full jacquard selection via special solenoid actuators	
Setup device	Takedown comb with special setup needles	
Takedown device	Main/sub rollers. Changeable 99 levels, automatically adjustable on each level. Automatic opening and closing upon command.	
Yarn cutter	Single-unit system includes 1 yarn cutter and 2 yarn grippers. Both sides standard. Lint remover.	
Air splicer ¹	Instant color changes using pressurized air. 1 unit on each side. 8 colors per unit.	
DSCS®	Consistent loop length by digital control method. 8 lightweight, compact encoders. Left side standard.	
i-DSCS+DTC® ¹	DSCS® with Intelligence+Dynamic Tension Control. Actively controls yarn feed in both feed and retrieval directions. Electronic control of yarn-feed tension permits high-speed knitting. 1 unit on each side.	
Yarn feed roller	20 positions on each side. Left side double roller standard (C18G only).	
Yarn stopper device	8 positions on left side (C18G only)	
Side tensions	20 on each side. Brake disk with multi-step adjustable dials. Both sides standard.	
Yarn carriers	33 intarsia carriers (40 max.) ² + 1 plating carrier (accessory)	
Top tension	33 units ³ . One-touch easy threading. Large knots cause machine stop. Small knots cause 0-9 courses at specified knot detection speed, then automatically resume at set speed.	
Stop motion	Yarn break, large knot, fabric pileup, shock detection, piece count, over-torque, program error, etc.	
Drive system	Belt drive. AC servo motor. No lubrication necessary.	
Cleaner	Special blower operated cleaner	
Safety devices	Full safety cover for noise-suppression and dust-proofing with stop motion sensor and interlock mechanism. Emergency stop switch. Emergency power off device. Ultra-low speed "crawl" setting. CE Mark. Operation lamp (see below).	
Operation lamp	Green/normal operation. Flashing green/normal stop. Flashing amber/abnormal stop.	
CONTROLLER		
Data input	USB memory interface. Ethernet 10/100 BASE-T network interface.	
Pattern memory	25,165,824 bits (1,024 wales × 8,192 addresses)	
Control unit	Built-in controller. Stored program for flat knitting machine.	
Control display	10.4-inch color LCD touch panel (800 × 600 pixels). Editing possible via display panel operation. Help/Message function (for cleaning and lubrication). Available in English, French, Italian, Spanish, Portuguese, Turkish, Arabic, Russian, Vietnamese, Chinese, Korean and Japanese.	
Back-up power	Power supply for resuming knitting after power failure.	
Power	Single phase AC220V/230V (200V-250V) 2.2kVA (0.8-1.4kW: Power consumption varies according to gauge and knitting condition)	

OPTIONS: (1) Air splicer and i-DSCS+DTC® (available only as set for 12G, 14G and 16G only) (2) Additional intarsia carriers (3) Additional tension devices

your choice
SHIMA SEIKI

SHIMA SEIKI MFG., LTD.

☎ Sakata Wakayama, 641-8511 JAPAN
☎ +81-73-474-8210 FAX +81-73-474-8270

www.shimaseiki.com

Website



Global network



Fully Fashioned High Speed Knitting Machine

ISO14001 Certification: SHIMA SEIKI Headquarters is certified as an ISO14001 accredited company.

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SAFETY NOTICE

In order to ensure safe operation of the equipment, please review all operation manuals carefully before use.