

# N.SVR 183

WHOLEGARMENT® Computerized Flat Knitting Machine

## Entry-Level WHOLEGARMENT® Machine with Excellent Cost Performance

The N.SVR® series—SHIMA SEIKI's global standard in shaped knitting—now features a new model for producing WHOLEGARMENT® knitwear using every other needle in fine gauge (21G and 24G) for producing unprecedented fabrics. N.SVR®183 is equipped with the R2CARRIAGE® system and a compact, lightweight carriage for even higher productivity. The new full-color LCD touch-sensitive control panel located in the center of the machine replaces the conventional control bar for machine operation. A USB memory interface is provided as standard. N.SVR® 183 is the ideal computerized flat knitting machine for flexible, entry-level WHOLEGARMENT® production, with the versatility to respond to fluctuating market demand.



### Entry-Level WHOLEGARMENT®

N.SVR®183 is capable of producing WHOLEGARMENT® knitwear. With WHOLEGARMENT®, an entire garment can be produced on the knitting machine without linking or sewing. Aside from the cost-savings associated with eliminating post-knit processes, WHOLEGARMENT® reduces production time and offers on-demand support of new and repeat orders, consistent quality control and elimination of cut-loss and other material waste, realizing sustainable manufacturing. WHOLEGARMENT® products appeal to consumers because of their soft, lightweight comfort and fit brought about by 3D shaping and the elimination of annoying seams. These characteristics make WHOLEGARMENT® a candidate for mainstream knitting in the 21st Century, especially in major consumer markets worldwide. N.SVR®183 offers entry-level WHOLEGARMENT® production in preparation for this upcoming trend.

### The World's First Digital Stitch Device

Considered one of the most significant breakthroughs in modern-day knitting, SHIMA SEIKI's patented Digital Stitch Control System (DSCS®) continuously adjusts yarn feed and tension to yield loop consistency with tolerance to within a remarkable  $\pm 1\%$ . The result is quality control capability that is virtually impossible with conventional analog systems. In addition to being an essential element in quality WHOLEGARMENT® production, DSCS® allows consistency among different batches and repeat orders. DSCS® is the only digital knitting system field-tested and market-proven in the industry since 1984. No other manufacturer can claim this kind of experience or level of refinement.

### Lighter, More Compact Carriage

The R2CARRIAGE® (R2=Rapid Response) System features an advanced carriage mechanism combined with improved software programming that achieves quicker carriage returns after each course. Together with an improved knitting system and a lighter, more compact carriage, higher overall productivity can be achieved.

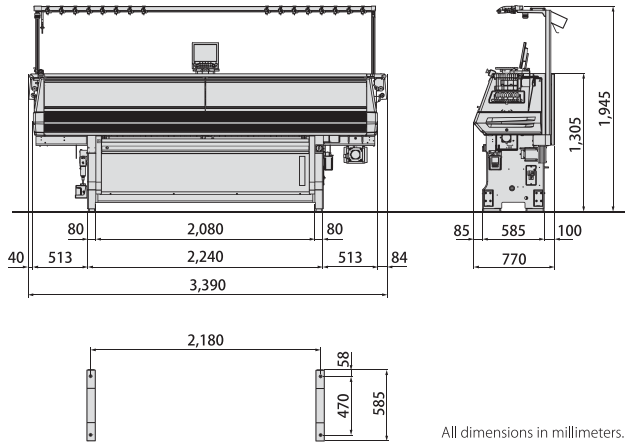
**R2CARRIAGE®**  
RAPID RESPONSE CARRIAGE SYSTEM

### New Type of Control Panel

N.SVR®183 features a full-color LCD touch-sensitive control panel at the center of the machine, allowing the user to perform operation while keeping an eye on the knitting process. Still at eye-level, the new control panel maintains established ergonomic benefits by carrying over function buttons for simultaneous use of both hands. Easily accessible USB interface and network connection continue to provide improved access in data transfer.



## N.SVR®183 DIMENSIONS



All dimensions in millimeters.

### Average Weight

N.SVR®183 1,100kg (2,420 lbs.)

Actual weight is dependent upon gauge and optional equipment.

SPECIFICATIONS	
Type	NSVR183
Variation	V
Gauge	18 · 21 · 24
Knitting width	Variable stroke, max 72" (183cm)
Knitting speed	Max 1.2m/sec (24G:1.1m/sec). Knitting speed varies according to yarn, gauge and other knitting conditions. Speed can be programmed for 16 separate categories.
Stitch density	120 levels, electronically controlled
Second stitch	Motor-controlled second stitch cam allows individual adjustment of loose/tight stitches.
Racking	Motor-driven. Max 1.5-inch racking to each side (3 inches total) for rear needlebeds.
Knitting system	Triple KNITRAN® system, single carriage (R2CARRIAGE® system)
Needle	Latch needle(LL hook)
Transfer	Simultaneous transfer, front or back, independent of carriage direction. Split stitch possible by exchanging yarn carriers.
Sinker system	Spring-type moveable full-sinker system. Spring-type moveable sinker provides gentle holddown instead of forcibly pressing down yarn.
Stitch presser	Special motor-drive. On/off adjustment. Press-down amount can also be set according to knit, transfer, etc. 21G&24G: Fixed press-down amount.
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.
DSCS*	Digital Stitch Control System. Consistent loop length by digital control method. 8 lightweight, compact encoders. Left side standard <sup>1</sup> .
Yarn feed roller	10 positions on each side <sup>2</sup> . 8 position yarn stopper device on left side.
Side tensions	12 on each side. Brake disk with multi-step adjustable dials.
Yarn carriers	9 normal carriers. Auto yarn carriers <sup>3</sup> : Independent motorized yarn carriers eliminate the need for empty carriage courses.
Top tension	16 units. 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.
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 100 BASE-T network interface.
Pattern memory	50,331,648 bits (1,024 wales x 16,384 addresses)
Control unit	Built-in controller. Stored program for flat knitting machine.
Control display	10.4-inch color LCD touch panel (800 x 600 pixels). Editing possible via display panel operation. Help/Message function. Available in English, French, Italian, Spanish, Portuguese, Turkish, Arabic, Vietnamese, Russian, Chinese, Korean and Japanese.
Back-up power <sup>4</sup>	Power supply for resuming knitting after power failure.
Power	Single phase AC220V/230V (200V-250V) 1.8kVA (1.4kW: Power consumption varies according to gauge and knitting condition), leakage current 13mA

OPTIONS: (1) i-DSCS\* 3 units on right side (2) Left side double roller 10 positions (3) Auto yarn carriers 3 pcs + normal carriers 7 pcs or Auto yarn carriers 6 pcs + normal carriers 5 pcs (4) Back-up power

*your choice*  
**SHIMA SEIKI**

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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.