

your choice
SHIMA SEIKI

SCG122SN

Computerized Flat Knitting Machine with Coarse Gauge Capability



The Specialty Machine for Ideal Coarse Gauge Knitting.

Over the years SHIMA SEIKI has supplied the world's knitting industry with specialized technology ideally suited to each application. Continuing that tradition is SCG™122SN available in 3 and 4 gauges. In addition to such priorities as speed, efficiency and consistent quality, market demand reveals that the computerization of traditionally hand-knitted low-gauge knitwear must place additional emphasis on fabric texture and feel. Incorporating SHIMA SEIKI's unique SlideNeedle the SCG™122SN 3 gauge can produce knitwear with robust, hand-crafted texture as low as 2 gauge. Optional Digital Stitch Control System with Intelligence and Dynamic Tension

Control (i-DSCS + DTC[®]) assures extremely high quality and consistency even with difficult-to-knit fancy yarns. Furthermore a double racking mechanism provides better racking control in both directions for realizing bold and interesting designs while reducing total racking movement by half. For all this capability, productivity does not suffer, with higher knitting efficiency achieved through a narrower needle pitch and quicker carriage returns using the Rapid Response R2CARRIAGE[®] system. SCG™122SN also comes with a long list of useful features including the spring-type sinker, takedown comb, USB memory interface and backup power supply.



SlideNeedle™

The SlideNeedle™ features a special slider mechanism that effectively eliminates the transfer clip and allows the needle to be mounted in the center of the needle groove, thereby achieving perfectly symmetrical loop formation for knitting the highest possible quality fabrics. The SlideNeedle™ opens the door to possibilities never imagined before through superior transfer capability and brand-new knitting techniques.



SCG122SN

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Knitting Width



KNITRAN[®] System



R2CARRIAGE[®] System



Tough Needle Bed



Gauge Range



Solenoid Needle Selection



SlideNeedle™



Stitch Presser



Full-Time Sinker



Yarn Gripper and Cutter



Double Racking



DSCS[®]



i-DSCS+DTC[®] option



Setup Device

R2CARRIAGE®

RAPID RESPONSE CARRIAGE SYSTEM

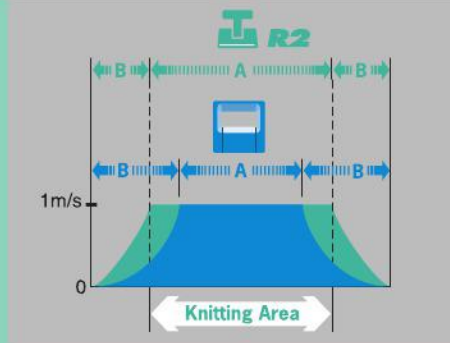
Rapid Response R2CARRIAGE® System

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



Double Racking Mechanism

Using a special motor-driven mechanism, racking for transfer is performed by both front and rear beds simultaneously in two directions, reducing total racking movement by half. The shorter racking stroke permitted by this setup results in better racking control and knit capability. It also contributes to a more compact machine size.



The World's First Digital Stitch Device

SCG™122SN comes standard with SHIMA SEIKI's proven Digital Stitch Control System (DSCS®). Considered one of the most significant breakthroughs in flatbed knitting technology, our patented 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 shaping and integral garment production, DSCS® allows consistency among different batches and repeat orders.



A User-Friendlier Knitting Machine

Space efficiency is improved during installation by integrating the fabric collection tray within the machine frame. The network connector is repositioned on the side of the controller for easier access when performing production data management with Shima Network Solutions. The USB interface is also positioned directly below the control monitor for improved access in data exchange. For those moments when power suddenly becomes unavailable, a backup power supply allows work to resume after power failures. This offers peace of mind that an entire garment will not be lost due to blackouts.

For a given knitting width, a larger and heavier carriage requires more space (B) at each end of the machine to decelerate, return and accelerate back up to speed, so the actual portion where the carriage runs at full speed (A) becomes very limited. With a compact, lightweight carriage, less space is required for the carriage to make returns, allowing more area for the carriage to run at full speed. This allows faster knitting per course, resulting in higher productivity.



Takedown Rollers



Dust Cleaner



Schedule Knit



Back-Lit LCD Panel



Network Interface



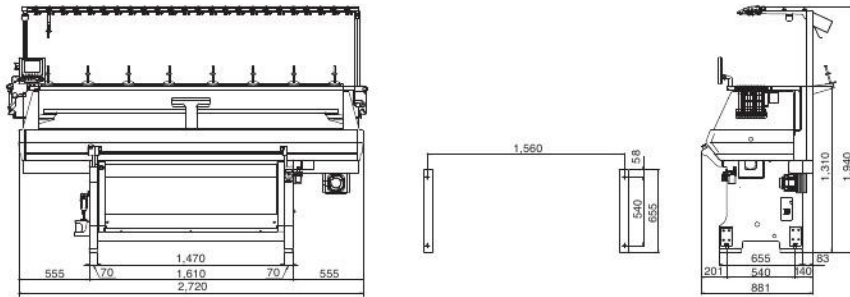
Pattern Memory



USB Memory Interface



Back-up Power



Average Weight

SCG™122SN 970kg (2134lbs)

Actual weight is dependent upon gauge and optional equipment.

All dimensions are in millimeters.

SPECIFICATIONS

Type	SCG122SN
Gauge	3 · 4
Knitting width	Variable stroke. Max 48" (122cm)
Knitting speed	Max 1.1m/sec. Knitting speed varies according to gauge and knitting condition. Variably adjustable speed levels. 10 additional programmable speeds.
Stitch density	120 levels, electronically controlled.
Racking	Motor-driven. Double racking. Max 10-pitch (4G-12-pitch) racking. 1/2 and 1/4 pitch also available from any position.
Knitting system	Double KNITRAN™ system. Single 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 for gentle yarn handling.
Stitch presser	Special motor-driven system allows individual on/off.
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.
Yarn cutter	Single-unit system includes 1 yarn cutter and 2 yarn grippers. Left side standard¹.
DSCS™	Consistent loop length by digital control method. 4 encoders. Left side standard.
i-DSCS+DTC™	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. 3 units. Right side. Optional¹.
Yarn feed roller	8 positions on Both sides standard. Left side double roller standard.
Yarn stopper device	8 positions on left side
Side tensions	12 on each side
Yarn carriers²	9 normal carriers
Top tensions	24 tension devices
	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, wraparound check, 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. Stop button. Power supply disconnecting device. Ultra-low speed "crawl" setting. CE Mark. Indicator lamps (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	25165,824 bits (1,024 wales × 8192 addresses)
Control unit	Built-in controller. Stored program for flat knitting machine.
Control display	Monochrome LCD panel. Editing possible via display panel operation. Available in English, French, Italian, Spanish, Portuguese, German, Turkish, Arabic, Russian, Chinese, Korean and Japanese.
Back-up power	Power supply for resuming knitting after power failure
Power	Single phase AC220V / 230V 2.0kVA

OPTIONS : (1) Right side yarn cutter. (2) i-DSCS+DTC™ (3) Intarsia device.

Fully Fashioned High-Speed Knitting Machine

your choice
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SAFETY NOTICE

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

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