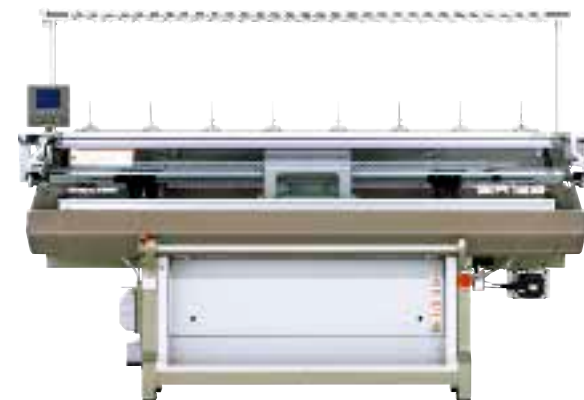


SIR 123

Computerized Flat Knitting Machine



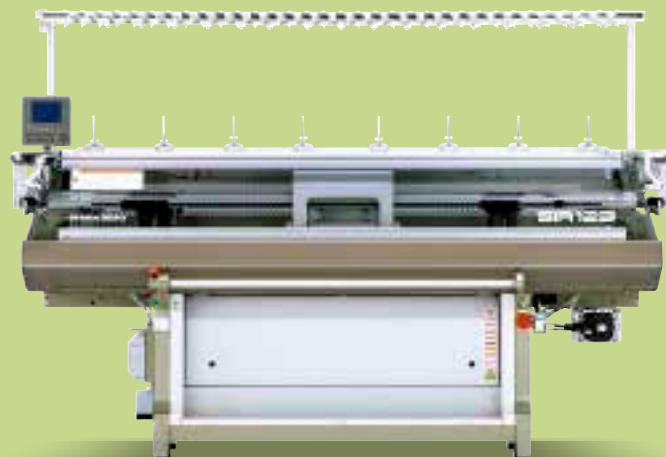
The Global Standard for Intarsia Knitting

As SHIMA SEIKI's newest generation of standard workhorse machines, the new SIR[®]123 is the global standard for Intarsia shaped knitting, having inherited the know-how and experience accumulated over the years as the leading manufacturer of computerized flat knitting machines. Productivity is increased with a maximum knitting speed of 1.4 meters per second, combined with the R2CARRIAGE[®] System that improves efficiency in each course through quicker carriage returns. It also carries over proven SHIMA SEIKI technology such as our renowned Digital Stitch Control System (DSCS[®]), spring-loaded Full-Time Sinker System, Stitch Presser, Takedown Comb and Yarn Gripper and Cutter which is now equipped with a new lint remover for reduced maintenance. Made-in-Japan quality, reliability, productivity, user-friendliness and cost-performance combine to satisfy the high expectations of the world's fashion industry.



Efficient Intarsia Knitting

Equipped with 21 intarsia carriers with an option for 30 total, SIR[®]123 allows great freedom in knitting intarsia garments, aided by tremendously capable design system software. Production leadtimes can be dramatically reduced using the Automatic Intarsia Carrier Setting software featured on our SDS[®]-ONE APEX3 apparel design workstation.



SIR 123

Computerized Flat Knitting Machines



Knitting Width



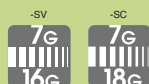
KNITRAN[®] System



R2CARRIAGE[®]
System



Tough
Needle Bed



Gauge Range



WideGauge[®]
Knitting



Gaugeless Knitting



Solenoid Needle
Selection



Stitch Presser



Full-Time
Sinker



Yarn Gripper
and Cutter



DSCS[®]



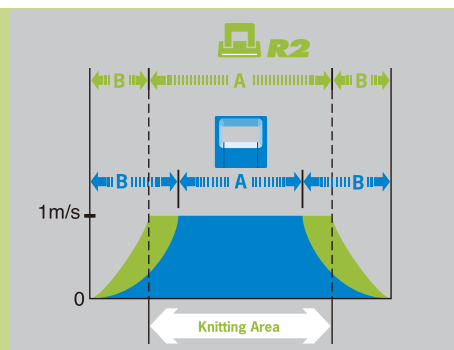
Setup Device

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.



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.

WIDEGAUGE®

WideGauge® Knitting

The SV variant of SIR®123 offers 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.

All Needle



Half Gauge



A wide range of production is possible, from tighter, finer-gauge fabrics using all-needle knitting to more airy, lower-gauge textures using half-gauge (1×1) knitting.



The World's First Digital Stitch Device

Considered one of the most significant breakthroughs in modern-day knitting, our patented Digital Stitch Control System (DSCS®) is the only proven digital system field-tested and market-proven in the industry for over 25 years. No other manufacturer can claim this kind of experience or level of refinement.

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.



Takedown Rollers



Dust Cleaner



Schedule Knit



Back-Lit
LCD Panel



Network
Interface



Pattern Memory

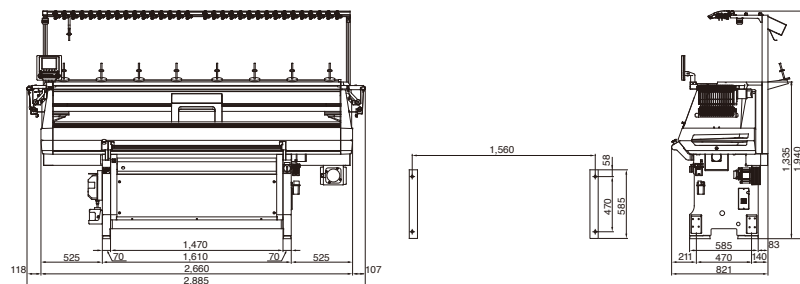


USB Memory
Interface



Back-up Power

DIMENSIONS



Average Weight

SIR®123 855kg (1,881lbs.)

Actual weight is dependent upon gauge and optional equipment.

All dimensions are in millimeters.

SPECIFICATIONS

Type	SIR123	
Variation	SV	SC
Gauge	7-12-14-16	7-12-14-16-18
Knitting width	Variable stroke. Max 48" (122cm)	
WideGauge®	Wide range of gauge knit on a single machine.	
Knitting speed	Max 1.4m/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 racking mechanism. Max 2-inch racking. 1/2 and 1/4 pitch also available from any position.	
Knitting system	Triple KNITRAN® system. Single R2CARRIAGE® system.	
Transfer	Simultaneous transfer, front or back, independent of carriage direction. Split stitch possible without exchanging yarn carriers.	
Sinkersystem	Spring-type moveable full-sinker system. v-Sinker® standard on 14G, 16G and 18G.	
Stitch presser	Special motor-driven system allows individual adjustment for on/off in knit and transfer.	
Needle hook conversion	Conversion between LL-size and MM-size possible without exchanging cams.	
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. Both sides standard. Lint remover.	
DSCS®	Consistent loop length by digital control method. Left side standard. 8 lightweight, compact encoders. Left side standard.	
Yarn feed roller	16 positions on each side. Left side double roller standard (SC18G only).	
Yarn stopper device	8 positions on left side (SC18G only).	
Side tensions	16 on each side. Brake disk with 3-way adjustable dials. Both sides standard.	
Yarn carriers	2 normal carriers + 21 intarsia carriers. (30 max. intarsia carriers) ¹ .	
Top tensions	32 tension devices.	
Stop motion	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.	
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	Monochrome LCD panel. Editing possible via display panel operation. Help/Message function (for cleaning and lubrication). Available in English, French, Italian, Spanish, Portuguese, Turkish, Arabic, Russian, Chinese, Korean and Japanese.
Back-up power	Power supply for resuming knitting after power failure.
Power	Single phase AC220V/230V(200V-250V) 2.2kVA

OPTIONS: (1) Additional Intarsia carriers.

SAFETY NOTICE

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

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Featured cover sample : I1084S009

Fully Fashioned High-Speed Knitting Machine

your choice
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