

SVR 123 SP

Computerized Flat Knitting Machine

Raising the Benchmark With New Loop Pressers

SHIMA SEIKI's SVR®-series continues to inherit the DNA of innovative technology that makes it the global standard in computerized shaping machines. Now with loop pressers, SVR®123SP is capable of producing unprecedented designs in knit fabrics, especially inlay patterns, which combine knit and weave characteristics to produce hybrid textiles. SVR®123SP carries over established SHIMA SEIKI technology such as the R2CARRIAGE® System, Digital Stitch Control System (DSCS®), spring-loaded moveable sinker system, stitch presser, takedown comb and yarn gripper and cutter system. Proven technology, along with Made-in-Japan quality, reliability, productivity, user-friendliness and increased patterning capability all combine to satisfy the high expectations of the world's fashion industry.

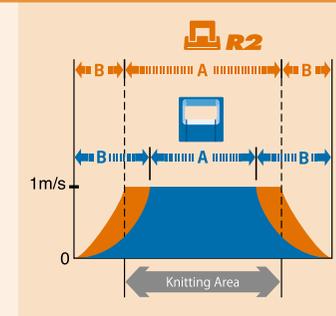


Loop Presser Bed

SVR®123SP features a loop presser bed placed above the rear needle bed. Along with the spring-loaded sinker and stitch presser, stable holddown of loops is achieved, allowing full control especially in producing inlay patterns. Inlay fabric is produced by inserting yarn into existing knit fabric in a weave fashion, yielding unique fabrics that are neither typically knit nor woven. Inlay also suppresses typical stretch characteristics of knitwear, and since new yarns and materials can be used for inlay structures, new applications in addition to fashion apparel such as sports and medical as well as other industrial applications can be anticipated.

Spring-Type Sinker System

Unlike conventional forced-operation type sinkers that tend to subject fabrics to unnecessary stress and cause compressed loops and even yarn breakage, SHIMA SEIKI's spring-type mechanism provides gentle holddown movement and yields ideal loop formation. Consequently, significant improvement in fabric quality for complicated patterns is achieved.



R2CARRIAGE®

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, higher overall productivity can be achieved.

R2CARRIAGE®
RAPID RESPONSE CARRIAGE SYSTEM

WIDEGAUGE® Knitting

Special knitting needles on SVR®123SP realize WideGauge® capability whereby a variety of gauges—from finer-gauges using all-needle knitting, to lower-gauges using half-gauge knitting—can 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.

WIDEGAUGE®

DSCS®

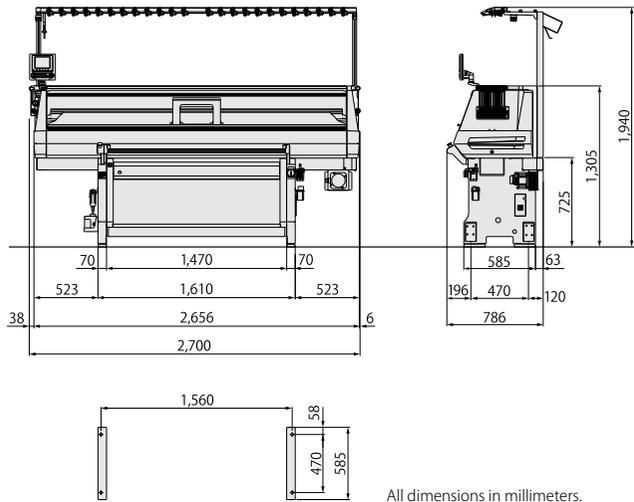
Considered one of the most significant breakthroughs in modern-day knitting, SHIMA SEIKI's patented Digital Stitch Control System (DSCS®) continuously adjusts yarn feed and tension to yield loop consistency with tolerance to within a remarkable $\pm 1\%$. The result is quality control capability that is virtually impossible with conventional analog systems. In addition to being an essential element in quality shaping and integral garment production, DSCS® allows consistency among different batches and repeat orders. DSCS® is the only proven digital system field-tested and market-proven in the industry for 30 years. No other manufacturer can claim this kind of experience or level of refinement.



A User-Friendlier Knitting Machine

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.

SVR®123SP DIMENSIONS



All dimensions in millimeters.

Average Weight

SVR® 123SP 855kg (1,881 lbs.)

Actual weight is dependent upon gauge and optional equipment.

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.

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SPECIFICATIONS

Type	SVR123SP
Variation	SV
Gauge	12 · 14
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 yarn 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 to each side (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 by exchanging yarn carriers.
Sinker system	Spring-type moveable full-sinker system.
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, L-size and MM-size hooks possible without exchanging cams. (SV12) Conversion between LL-size and MM-size hooks possible without exchanging cams. (SV14)
Loop presser	Individual selection possible. Positioned on upper rear loop presser bed.
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. Left side standard. ¹
DSCS®	Digital Stitch Control System. Consistent loop length by digital control method. 8 lightweight, compact encoders. Left side standard.
Yarn feed roller	10 positions on left side. ²
Side tensions	12 on each side. ² Brake disk with multi-step adjustable dials. Both sides standard.
Yarn carriers	16 normal carriers, 2 inlay carriers (accessory)
Top tensions	24 units. ² 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.
Supplemental yarn stand	Optional ³
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	Air for needle bed gap cleaner. Front carriage only.
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, Vietnamese and Japanese.
Back-up power	Power supply for resuming knitting after power failure.
Power	Single phase AC220V/230V (200V-250V) 2.2kVA (0.6-1.2kW: Power consumption varies according to knitting condition)

OPTIONS: (1) Right side yarn cutter. (2) Side tension (16 on each side) + Right side yarn feed roller + Top tension (8 additional units). (3) Supplemental yarn stand: 8 (1 row on top) or 16 (2 rows on bottom)