

Computerized Flat Knitting Machine SRY®123LP | SRY®183LP

New Proposals in Textiles Using Two Loop Presser Beds

SHIMA SEIKI's latest SRY®123LP and SRY®183LP are completely new computerized knitting machines that inherit SHIMA SEIKI's highly advanced mechatronics know-how based on the company's unique experience with four-bed knitting, beginning with the legendary SES®122RT, and continuing with SWG®-FIRST® and MACH2®X. Two loop presser beds improve on the stitch presser by controlling pressdown of individual loops. This presents unprecedented capability in knitwear, especially with flechage and inlay patterns. New fabrics with woven effects offer great opportunities in expanding into other markets. Specialty yarns such as metallic and monofilament yarns can be knit as well, opening new doors to areas other than fashion. A high level of productivity typical of SHIMA SEIKI is carried over, with a maximum knitting speed of 1.4 meters per second combined with quick carriage returns realized with the proven R2CARRIAGE® system. SHIMA SEIKI's original DSCS® Digital Stitch Control System, yarn gripper and cutter, and takedown comb all contribute to high quality and productivity as well.





Loop Presser Beds

Loop presser beds are placed above both front and back needlebeds, and feature the same number of loop pressers as the number of knitting needles. This yields loop pressdown capability that outperforms the conventional stitch presser. Individual loops can be pressed even for rib patterns, and flechage in all needles and inlay patterns are easy to knit. Inlay fabric is produced by inserting yarn into existing knit fabric in a weave fashion, yielding fabrics that are neither typically knit nor woven, but unique to SRY®. Inlay also suppresses typical stretch characteristics of knitwear, and since new materials such as metallic and monofilament yarns can be used for inlay structures, new applications in industrial textiles can be anticipated.



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®) is the only proven digital system field-tested and market-proven in the industry for over 30 years. No other manufacturer can claim this kind of experience or level of refinement.



Control Monitor

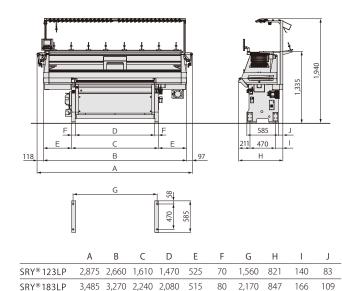
SRY®123LP and SRY®183LP features an all-new full-color LCD touch-sensitive control panel with a larger screen that greatly improves on the previous monochromatic display. User-friendly menu-interactive function buttons permit easy input and editing as well.

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 higher overall productivity.







All dimensions in millimeters.

Average Weight

SRY [®] 123LP	854kg (1,879 lbs.)
SRY®183LP	1,107kg (2,435 lbs.)
	1

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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SPECIFICATIONS						
Туре	SRY123LP		SRY183LP			
Variation	SV	SC	SV	SC		
Gauge	7 • 12 • 14	10•16	7 • 12 • 14	10 • 16		
Knitting width	Variable stroke,	Variable stroke, max 48" (122cm) Variable stroke, max 72" (180cm)				
WideGauge®	Wide range of gauge knit on a single machine (SV 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 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 without exchanging yarn carriers.					
Sinker system	Fixed sinker system					
Loop presser	Individual selection possible. Positioned on upper front and rear loop presser bed.					
Needle hook conversion	Conversion between LL-size and MM-size possible without exchanging cams (SV 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.					
DSCS®	Digital Stitch Control System. Consistent loop length by digital control method. 8 lightweight, compact encoders. Left side standard.					
Yarn feed roller	16 positions on each side. Left side double roller standard (SC16G only).					
Side tensions	16 on each side. Brake disk with multi-step adjustable dials. Both sides standard.					
Yarn carriers	2 normal carriers + 21 intarsia carriers (30 max) ¹ , 1 normal carrier for thick yarn (accessory), 1 plating carrier (accessory), 1 nlay carrier ²					
Top tension	32 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.					
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 x 8,192 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 (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 (1.0-1.4kW: Power consumption varies according to gauge and knitting condition)					

OPTIONS : (1) Additional intarsia yarn carriers (2) Inlay carrier

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