

New
SES122Si/123Si



Computerized Flat Knitting Machine with Full-Sinker System



New SES122Si/123Si

IDEAL SINKER KNITTING WITH IMPROVED INTARSIA CAPABILITY.

Based on our compact, space-saving NewSES S-type flat knitting machines, the NewSES122SI double-system and NewSES123SI triple-system machines feature Shima Seiki's original moveable full sinker system. As before, this ideal sinker system not only offers tremendous variation in dimensional fabrics, but does so with the gentle touch that only a spring-type system can offer. Intarsia capability offers multi-colored intarsia knitting with improved performance, efficiency and quieter operation. With available gauges ranging from E6 through E16, these new SI machines offer a wide range of production possibilities. This versatility is further enhanced with the latest in Shimatronic® computerized knitting technology, making these machines two of the most innovative products in the industry with their combined functionality, productivity and quality. The new SI machines also feature increased memory, Ethernet connectivity, a user-friendly control panel with improved interface, and easier maintenance, as well as a back-up power supply for resuming work after power failure.



Knitting
Width

122SI 123SI



Knitran® Systems



Ultra-
Lightweight
Carriage



Belt-Drive
Operation



Tough
Needle Bed



Gauge
Range



Gauge
Conversion



Solenoid
Needle
Selection



Stitch
Presser

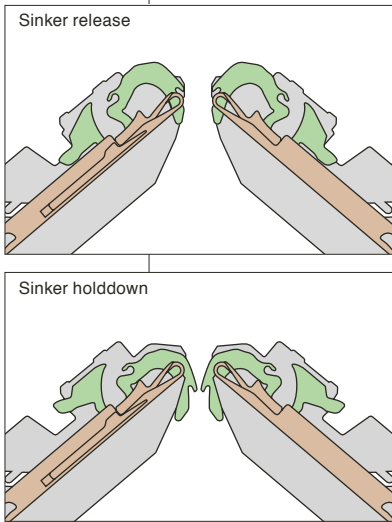


Full-Time
Sinker



Yarn
Gripper/
Cutter

The spring-type full sinker system

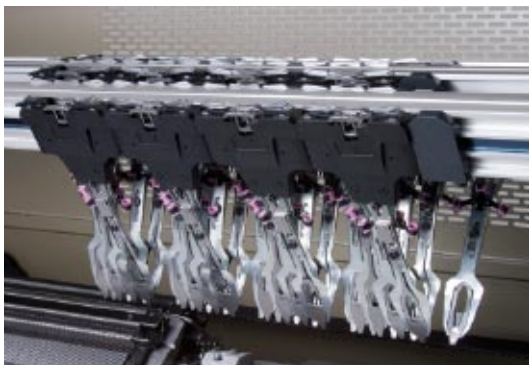


Conventional forced-operation type sinkers are only activated upon carriage traverse in each course, and subject fabrics to unnecessary stress, causing compressed loops and even yarn breakage. Shima Seiki's spring-type sinkers operate full-time regardless of carriage position, and provide gentle holddown movement, realizing significant improvement in quality and texture for complicated three-dimensional fabrics.

And since the continuous holddown movement requires less tension from the takedown rollers, it also prevents fabric distortion. With the spring-type sinker, high-quality as well as creative potential can be had.

Improved intarsia knitting

The NewSES122SI and NewSES123SI are both available with greatly improved intarsia knitting capability, with capacity for up to 30 intarsia carriers. The new intarsia carriers are more compact, fitting more carriers and thus allowing more color changes within a given knitting width. The improved intarsia system is also much quieter, averaging two-thirds (2/3) less noise than our previous intarsia system.



The world's first digital stitch device

Considered one of the most significant breakthroughs in flatbed knitting technology, our patented Digital Stitch Control System (DSCS®), the first of its kind, treats each stitch as digital data. Once a specific loop length is programmed, it continuously adjusts yarn feed and tension to yield consistency in every loop of each course, 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 shaping and integral garment production, DSCS® offers consistency among different batches and repeat orders as well.



The NewSES controller



The NewSES series line-up features a brand-new computer-control unit with a significant increase in memory capacity. The NewSES controller boasts 50% more capacity as compared with the previous SES line, at 12,582,912 bits

or 1,024 wales x 4,096 addresses. In addition to floppy disks, the new controller can accept USB memory input, further increasing data capacity for knitting complex knits. Another newly added feature is the standard network interface which opens up new possibilities in production management, including file-sharing, archiving, production monitoring and remote data access among up to 240 machines.



Digital
Knitting



Setup
Device



Takedown
Rollers



Dust
Cleaner



Schedule
Knit



BackLit
LCD Panel



Network
Interface



Pattern
Memory

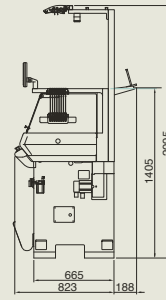
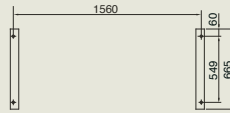
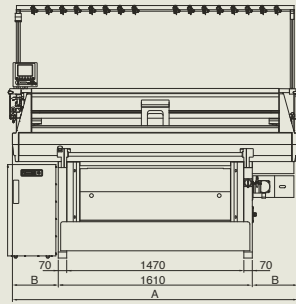


USB
Memory
Interface



Back-up
Power

DIMENSIONS



Average Weight

NewSES122SI	1,060kg (2,332 lb)
NewSES123SI	1,100kg (2,420 lb)

Actual weight is dependent upon gauge and optional equipment.

	A	B
NewSES122SI	2,370	380
NewSES123SI	2,720	555

All dimensions are in millimeters.

SPECIFICATIONS

Type	NewSES122SI	NewSES123SI
Knitting width	Variable stroke. Max 48" (122cm)	
Gauge	6. 7.8. 10. 12. 14. 16	
Knitting speed	Knitting speed varies according to gauge and knitting condition. Variably adjustable speed levels. 10 additional programmable speeds. 6-14G: Max 1.3m/sec. 16G: Max 1.2m/sec.	
Stitch density	60 levels, electronically controlled.	
Racking	Motor-driven racking mechanism. Max 1-inch racking in each direction (2 inches total).	
Knitting system	Double KNITRAN® system. Single carriage.	Triple KNITRAN® system. Single carriage.
Transfer	Simultaneous transfer, front or back, independent of carriage direction. Split stitch.	
Stitch presser	Special motor-driven system allows individual adjustment for on/off in knit and transfer.	
Sinker system	Spring-type moveable full-sinker system.	
Needle selection	Full jacquard selection via special solenoid actuators.	
Setup device	Takedown comb with special setup needles.	
Takedown device	Main/sub rollers. Changeable 31 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 only ¹ .	
DSCS®	Consistent loop length by digital control method. Left side standard. Left side yarn feed roller standard ² . Yarn feed: 8 positions.	
Side tension ^{3,4}	8 on each side	12 on each side
Yarn carriers ⁵	9 carriers	12 carriers
Top tensions ³	16 tension devices	24 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	Yarn break, large knot, wraparound check, shock detection, piece count, over-torque, program error, etc.	
Cleaner	Belt drive. AC servo motor. No lubrication necessary.	
Safety devices ⁶	Special blower operated cleaner.	
Operation lamp	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. Indicator lamps (see below).	
	Green/normal operation. Flashing green/normal stop. Flashing amber/abnormal stop.	

CONTROLLER

Data input	3.5" floppy disk. USB memory interface. Ethernet 10/100BASE-T network.	
Pattern memory	12,582,912 bits (1,024 wales × 4,096 addresses)	
Control system	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, Chinese, Korean and Japanese.	
Back-up power	Power supply for resuming knitting after power failure	
Power	3 phase AC200V ± 10%	2.2KVA
	2.0KVA	

OPTIONS: (1) Right side yarn cutter. (2) Right side yarn feed roller. (3) Additional tension devices. (4) Left-side yarn stopper device. (5) Intarsia device. (6) CE Mark.



SAFETY NOTICE

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

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Shima Seiki maintains a policy of continuous improvement for its products, and therefore specifications and appearances are subject to change without notice.
Please contact your nearest authorized sales representative for the latest information.



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