

*your choice*  
**SHIMA SEIKI**

EX



New

# SES122CS/124CS/234CS

Computerized Flat Knitting Machine with Coarse Gauge Capability

# TWO ORIGINAL TECHNOLOGIES FOR IDEAL COARSE GAUGE KNITTING.

The “CS” moniker of the NewSES®122CS, NewSES®124CS and NewSES®234CS stands for “Compound-Sinker” which symbolizes the marriage of two unique Shima Seiki technologies resulting in ideal coarse gauge knitting. Compound needles are used for their short stroke and high stability suited for coarse gauge applications, while our patented spring-type sinker system greatly increases pattern variety and at the same time assures gentle fabric holddown. The NewSES®124CS and NewSES®234CS both feature a four-Knitran® twin-carriage system allowing tandem operation for greater flexibility and productivity. In addition, the NewSES®234CS features a long 90-inch (229-centimeter) knitting width for wide items such as one-piece dresses and dolman sleeves. NewSES®CS-type machines remain the industry benchmark for high-quality coarse gauge shaped knitting.



## New SES122CS/124CS/234CS

Computerized Flat Knitting Machine with Coarse Gauge Capability

122CS; 124CS 234CS

48" 90"

Knitting Width

122CS 124CS; 234CS

2 4

Knitran® Systems

Ultra-Lightweight Carriage

124CS;234CS

Tandem Operation

Belt-Drive Operation

Tough Needle Bed

122CS 124CS; 234CS

3e 5e

Gauge Range

Solenoid Needle Selection

Compound Needles

Stitch Presser

Full-Time Sinker

Yarn Gripper and Cutter

122CS;124CS

Double Racking

## All-New Controller and LCD Monitor

The NewSES® CS-type machines feature 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×4,096 addresses. In addition to floppy disks, the new controller can accept USB memory input, further increasing data capacity for knitting complex knits. Also standard is a network interface which opens up new possibilities in file-sharing and production management using Shima Network Solutions. A backup power supply is also standard, allowing work to resume after power failures. The new control panel features a simple monochromatic LCD monitor with an improved graphic interface for intuitive operation. The eye-level display offers improved ergonomics, while menu-interactive function buttons offer easy input and editing. The menu also features multi-lingual capability, available in 11 languages.



## Needles Specifically Suited to Coarse Gauge Applications

Shima Seiki developed the world's first flatbed knitting machines to incorporate compound needles. The CS-type machines are the latest versions of this pioneering technology. Compared with conventional latch-type needles, the special compound design offers higher operational stability which is required for larger needle sizes.



Subsequently, our coarse gauge machines offer optimum uniform quality of finished items. Moreover, compound needles offer significant reductions in needle stroke to allow for similar reductions in needle bed and carriage size, further improving productivity and efficiency.

## Double Racking Mechanism

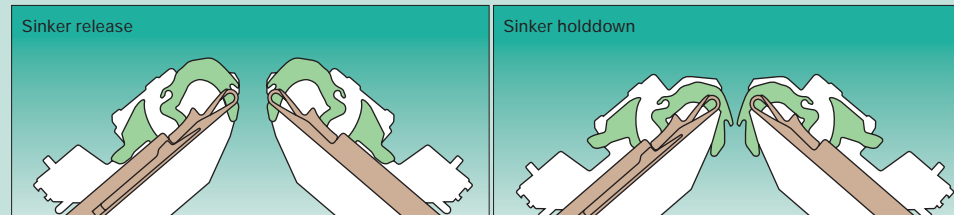
Using a special motor-driven mechanism, racking for transfer is performed by both front and rear beds simultaneously in two directions, reducing total racking movement by half. The shorter racking stroke permitted by this setup results in better racking control and knit capability. It also contributes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



## The Shima Seiki Spring-Type Moveable Full Sinker System

All CS-type machines feature our patented spring-type moveable full sinker system. Unlike conventional forced-operation type sinkers, the spring-type mechanism provides gentle hold-down movement which prevents the fabric from being subject to undue force. Consequently,

significant improvements in quality and texture for complicated structure patterns and dimensional fabrics are achieved. And with the combined use of our stitch presser, pattern variety previously unimaginable with conventional sinkers can now be had with ease.



## The World's First Digital Stitch Device

NewSES® 122CS and NewSES® 124CS come 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 ±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 optional on NewSES® 234CS.



122CS;124CS  
(234CS option)



Digital Knitting

122CS;124CS



Setup Device



Takedown Rollers



Dust Cleaner



Schedule Knit



Back-Lit LCD Panel



Network Interface



Pattern Memory

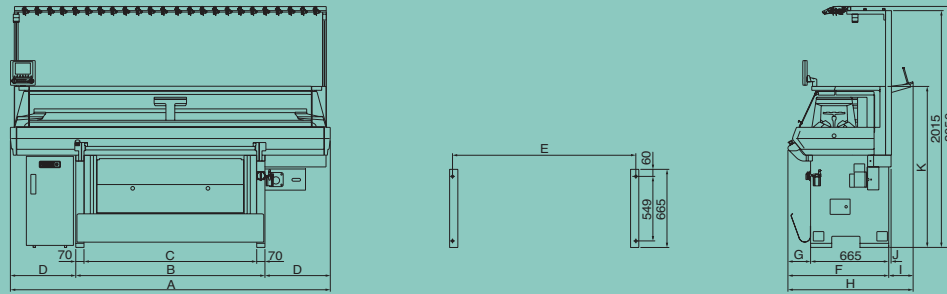


USB Memory Interface



Back-up Power

## DIMENSIONS



## Average Weight

NewSES122CS	1,120kg (2,464 lb.)
NewSES124CS	1,260kg (2,772 lb.)
NewSES234CS	1,530kg (3,366 lb.)

Actual weight is dependent upon gauge and optional equipment.

	A	B	C	D	E	F	G	H	I	J	K
NewSES122CS3G&4G	2,720	1,610	1,470	555	1,560	858	193	1,065	207	20	1,370
NewSES122CS5G	2,370	1,610	1,470	380	1,560	832	167	1,020	188	-	1,360
NewSES124CS5G	3,090	1,610	1,470	740	1,560	832	167	-	-	-	1,360
NewSES234CS5G	3,960	2,540	2,400	710	2,490	825	160	855	-	30	1,360

All dimensions are in millimeters.

## SPECIFICATIONS

Type	NewSES®122CS	NewSES®124CS	NewSES®234CS
Knitting width	Variable stroke. Max 48" (122cm)		Variable stroke. Max 90" (229cm)
Tandem width	-	16" (41cm) × 2	37" (94cm) × 2
Gauge	3 · 4 · 5	5*	5
Knitting speed	Max 11m / sec. Knitting speed varies according to gauge and knitting condition. Variably adjustable speed levels. 10 additional programmable speeds.		
Stitch density	60 levels, electronically controlled.		
Racking	Double racking. Motor-driven racking mechanism. Max 20-pitch racking (4G : 24-pitch). 1/2 and 1/4 pitch also available from any position.		
Knitting system	Double KNITRAN® system. Single carriage.	Double KNITRAN® system. Twin 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 roller : Changeable 31 levels, automatically adjustable on each level. Automatic opening and closing. Sub roller : Changeable 31 levels, automatically adjustable on each level. Automatic opening and closing.		Main roller : Changeable 31 levels, automatically adjustable on each level.
Yarn cutter	Single-unit system includes 1 yarn cutter and 2 yarn grippers. Left side only <sup>1</sup>		Both sides
DSCS®	Consistent loop length by digital control method. Left side standard. Left side yarn feed roller standard. <sup>2</sup> Yarn feed : 8 positions.		option <sup>3</sup>
Side tension	12 on each side		16 on each side
Yarn carriers <sup>4</sup>	9 carriers	12 carriers	16 carriers
Top tensions	24 tension devices		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	Yarn break, large knot, wraparound check, shock detection, piece count, over-torque, program error, etc. Belt drive. AC servo motor. No lubrication necessary.		
Cleaner	Special blower operated cleaner.		
Safety devices <sup>5</sup>	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).		
Operation lamp	Green / normal operation. Flashing green / normal stop. Flashing amber / abnormal stop.		

## CONTROLLER

Data input	3.5" floppy disk. USB memory interface. Ethernet 10 / 100 BASE-T network interface.		
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, Russian, Chinese, Korean and Japanese.		
Back-up power	Power supply for resuming knitting after power failure.		
Power	3 phase AC200V ±10%		
	2.0KVA	3.0KVA	3.2KVA

**OPTIONS :** (1) Right side yarn cutter (NewSES122CS only) (2) Right side yarn feed roller. (3) DSCS® (NewSES234CS only) (4) Intarsia device (NewSES122CS / NewSES124CS only) (5) CE Mark.

\*By special order only.

## Fully Fashioned High-Speed Knitting Machine

*your choice*  
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Please contact your nearest authorized sales representative for the latest information.



## SAFETY NOTICE

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