

*your choice*  
**SHIMA SEIKI**

EX



New  
**SWG-V**

WHOLEGARMENT<sup>®</sup> Computerized Flat Knitting Machine



# THE ORIGINAL WHOLEGARMENT® MACHINE KEEPS GETTING BETTER.

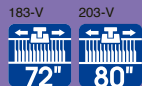
WHOLEGARMENT® is gathering more and more attention around the world as the future direction of knitwear. Whereas with conventional knitting methods individual body pieces must be knit separately and sewn together afterwards, WHOLEGARMENT® knitting technology provides the means to knit an entire sweater which can be worn straight off the machine with no linking or sewing\*. Shima Seiki's SWG®-V, the world's first commercial application of WHOLEGARMENT® knitting technology, has been in the midst of this garment revolution from the very beginning. Now, with our NewSWG®-V machine, we have carried over the proven productivity of the SWG®-V and enhanced its capabilities with new technology such as the yarn carrier kickback device (optional), increased memory for knitting larger, more complex items and improved ergonomics with the new LCD monitor-controller. With improved functionality and increased performance, the NewSWG®-V realizes the future of knitting, today.

\* Some designs may require partial stitching.



New  
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WHOLEGARMENT® Computerized Flat Knitting Machine



Knitting Width



Knitran®  
Systems



Ultra-  
Lightweight  
Carriage



Belt-Drive  
Operation



Tough  
Needle Bed



Gauge Range



WHOLEGARMENT®  
Knitting



Twin-Needle  
Configuration



Solenoid  
Needle  
Selection



Stitch Presser



Full-Time  
Sinker



Yarn Gripper  
and Cutter



DSCS®



option  
i-DSCS®



option  
Yarn Carrier  
Kickback  
Device

## Twin Needle Configuration

The NewSWG®V features WHOLEGARMENT® capability using conventional latch needles in a V-bed formation. What distinguishes the NewSWG®V from other V-bed machines however, is that the needles are mounted in pairs. This “Twin-Needle” configuration effectively mimics the SWG®X’s 4-bed setup while using only 2 needlebeds, permitting the complex transfers necessary to create quality WHOLEGARMENT® products.



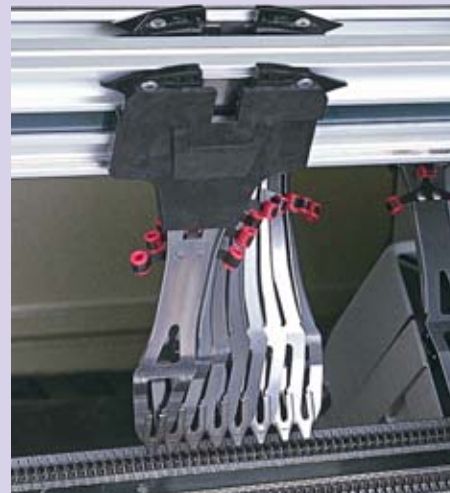
## i-DSCS (optional)

Available with the NewSWG®V is the i-DSCS® Digital Stitch Control System with Intelligence. It carries over the benefits of DSCS®, with even better performance. Whereas DSCS® is a passive system which controls stitch length and yarn tension by limiting yarn-feed, i-DSCS® has the capability to actively control yarn-feed in both feed and retrieval directions as necessary, resulting in even higher quality and greater productivity using a wider variety of yarns. Like its predecessor, i-DSCS® provides consistent quality among different production batches and repeat orders, and is crucial to the precision knitting required in WHOLEGARMENT® production.



## Yarn Carrier Kickback Device (optional)

When knitting integral garments and intarsia on conventional V-bed systems, the yarn carrier is positioned by carriage movement. After knitting the integral or intarsia portion for each course, the carriage must spend a dedicated course specifically for moving the yarn carrier out of the way in order to knit the next course, resulting in wasted “empty courses.” In sharp contrast, the NewSWG®V’s optional yarn carrier kickback device features a motor-driven active carrier system whereby the carrier lifts itself up and over to make way for the carriage’s next knitting course, eliminating the need for any extra empty courses and significantly improving productivity.



## All-New Controller and LCD Monitor

The NewSWG®V features a new computer-control unit and LCD monitor. The controller is equipped with a new USB memory interface for supporting complex WHOLEGARMENT® items that require large amounts of data. 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 multi-lingual menu is available in 9 languages, including English, Italian, French, German, Spanish, Portuguese, Turkish, Chinese and Japanese.



Setup Device



Takedown  
Rollers



Dust Cleaner



Schedule Knit



Back-Lit  
LCD Panel



Network  
Interface



Pattern  
Memory

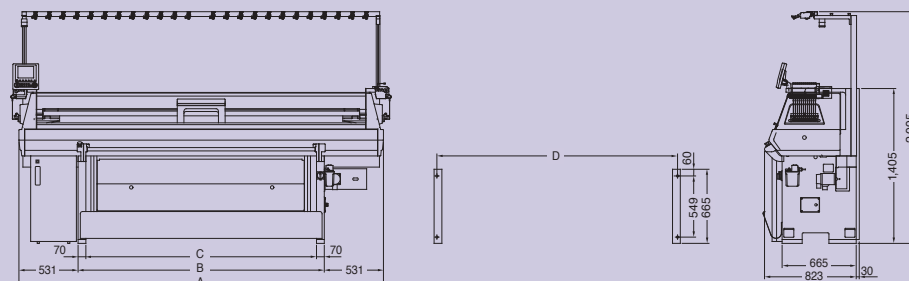


USB  
Memory  
Interface



Back-up  
Power

## DIMENSIONS



## Average Weight

NewSWG183-V	1,347kg (2,963 lbs)
NewSWG203-V	1,462kg (3,216 lbs)

Actual weight is dependent upon gauge and optional equipment.

	A	B	C	D
NewSWG183-V	3,272	2,210	2,070	2,160
NewSWG203-V	3,482	2,420	2,280	2,370

All dimensions are in millimeters.

## SPECIFICATIONS

\* By special order only.

Type	SWG®183-V	SWG®203-V*
Gauge	Special 5 (needle pairs equivalent to 4G pitch) - Special 7 (needle pairs equivalent to 6G pitch)	
Knitting width	Variable stroke. Max 72" (183cm)	Variable stroke. Max 80" (203cm)
Knitting speed	Max 1.3m/sec. Knitting speed varies according to gauge and knitting condition. Variably adjustable speed levels. 16 additional programmable speeds.	
Stitch density	70 levels, electronically controlled.	
Second stitch	Motor-controlled second stitch cam allows individual adjustment of loose/tight stitches for shaping.	
Racking	Motor-driven. Max 1.5-inch racking in each direction (3 inches total).	
Knitting system	Triple KNITRAN® system. Single carriage.	
Transfer	Simultaneous transfer, front and back, independent of carriage direction. Split stitch.	
Sinker system	Spring-type moveable full sinker system.	
Stitch presser	Special motor-driven system allows individual adjustment for on/off in knit and transfer.	
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.	
Air Splicer	Instant color changes using pressurized air. 8 colors per unit. Optional (7G only) <sup>1</sup> .	
DSCS®	Consistent loop length by digital control method. Left side standard <sup>2</sup> . Yarn feed rollers on both sides standard <sup>3,4,5</sup> . Yarn feed: 10 positions on each side.	
i-DSCS®	DSCS® with Intelligence. Actively controls yarn feed in both feed and retrieval directions. Both sides standard. Yarn feed roller on both sides standard. 16 positions. Optional <sup>6</sup> .	
Side tensions	12 on each side	
Yarn carriers <sup>7</sup>	13 carriers	
Yarn carrier kickback	Kickback device using servo belt drive. Eliminates the need for empty courses. 2 tracks on each side (4 tracks total) as basic configuration. Optional <sup>8,9</sup> .	
Top tensions	24 tension devices. 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, wraparound check, 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 <sup>10</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	USB memory interface. USB 3.5" MO disk interface. Ethernet 10/100 BASE-T network interface.
Pattern memory	25165,824 bits (1,024 wales × 8,192 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 and Japanese.
Back-up power	Power supply for resuming knitting after power failure.
Power	3 phase AC200V±10% 2.2KVA

**OPTION :** (1) Air Splicer. (2) Right side DSCS®. (3) Left side yarn feed double roller. (4) Left side yarn stopper device. (5) Right side yarn stopper device. (6) i-DSCS®. (7) Intarsia option. (8) Yarn carrier kickback device. (9) Additional yarn carrier kickback device (2 additional tracks on each side for 8 tracks total). (10) CE Mark.

## 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.

NewSWG-V

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