New SWG-V
WHOLEGARMENT® Computerized Flat Knitting Machine
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.

THE ORIGINAL WHOLEGARMENT® MACHINE KEEPS GETTING BETTER.
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.
DIMENSIONS

SPECIFICATIONS

**Type**

SWG "303-V"

**SWG "183-V"**

*By special order only.

**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 13m/rev. Knitting speed varies according to gauge and knitting condition. Variably adjustable speeds. 16 additional programmable speeds.

**Stitch density**

700 stitches, electronically controlled.

**Second stitch**

Motor-controlled second stitch cam allows individual adjustment of loose/tight stitches for shaping.

**Racking**

Motor-driven. Max 15-inch racking in each direction (3 inches total).

**Stitch system**

Spring-type removable full-sinker system.

**Stitch presser**

Special motor-driven system allows individual adjustment for on/off in knit and transfer.

**Needle selection**

Fully jacketed selection via special solenoid actuators.

**Setup device**

Takedown comb with special setup needles.

**Teardown device**

Main/sub units. Changeable 59 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 pressured air. 8 colors per unit. Optional (7G only).

**DCCC**


**FCCC**

Consistent stitch formation. Yarns are fed independently in both feed and retrieval directions. Both sides standard. Yarn feed roller on both sides standard. 61 positions. Optional.

**Yarn tension**

13 tensioners. 12 on each side.

**Yarn carriers**

13 carriers. 12 on each side.

**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.

**Top tensions**

24 tension devices. One-touch easy threading. Large loops cause machine stop. Small loops cause 9-9 courses at specified knot detection speed, then automatically resume at set speed.

**Stop motion**

Yarn break: Large knott, wraparound check, shock detection, piece count, over-torque, program error, etc.

**Drive system**

Belt drive. AC servo motor operation. 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. Stop button. Power supply disconnecting device. Ultra-low speed "crawl" setting, indicator lamps (see below).


**CONTROLLER**

- **Data input:** USB memory interface. USB 3.5" MO disk interface. Ethernet 10/100BASE-T network interface.
- **Pattern memory:** 256GB/24GB (1,024 bytes × 8,962 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.
- **Power supply:** Power for resuming knitting after power failure.
- **Power:** 3 phase 200V 20% 1.2KW

**OPTION:**

(1) Air Splicer. (2) Right side DCCC. (3) Left side yarn feed double roller. (4) Left side yarn stopper device. (5) Right side yarn stopper device. (6) FCCC. (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.

**SAFETY NOTICE**

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

**Average Weight**

<table>
<thead>
<tr>
<th>Model</th>
<th>Weight (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NewSWG183-V</td>
<td>1,347</td>
</tr>
<tr>
<td>NewSWG203-V</td>
<td>1,462</td>
</tr>
</tbody>
</table>

Actual weight is dependent upon gauge and optional equipment.

NewSWG-V Printed in Japan