

your choice
SHIMA SEIKI

SWG-X

WHOLEGARMENT® Computerized Flat Knitting Machine

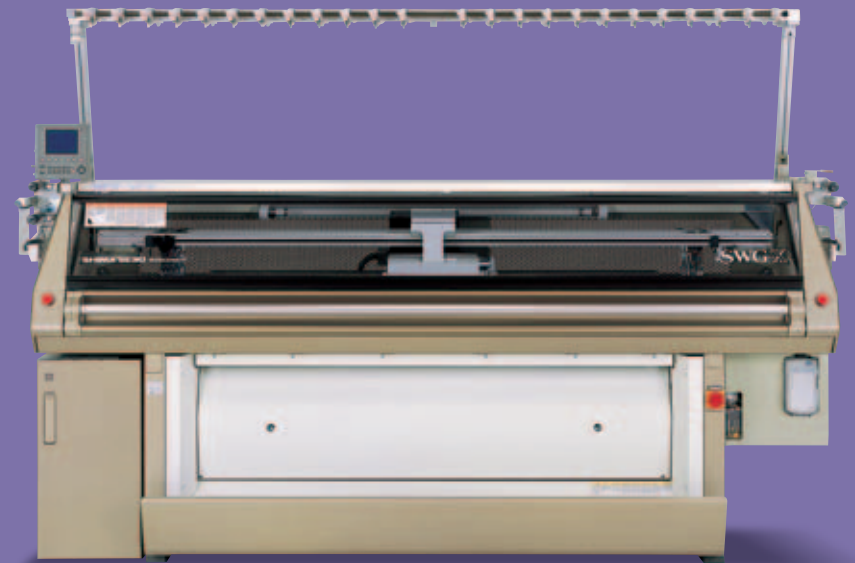


THE HIGHEST QUALITY WHOLEGARMENT® KNITTING AVAILABLE.

Specially configured for WHOLEGARMENT® knitting with 4 needle beds and an additional loop presser bed, Shima Seiki's SWG®X features vast improvements over the original SWG®-series machines. With a completely new design based on FIRST® "next generation" technology, the SWG®X is capable of producing beautifully shaped, high-quality WHOLEGARMENT® products which conform perfectly to the body for improved comfort and a more elegant silhouette. These are made possible through such innovations as the SlideNeedle™ and Pulldown Device, which adjusts takedown tension independently for front and back bodies, allowing unprecedented three-dimensional shaping control. The addition of 8G and 15G versions further enhances the SWG®173-X's capability, ranging from high-quality middle-gauge knitting to highly refined ultrafine gauge applications.

SWG-X

WHOLEGARMENT® Computerized Flat Knitting Machine



Knitting Width



Ultra-Lightweight Carriage



Belt-Drive Operation



Tough Needle Bed



Gauge Range



WHOLEGARMENT® Knitting



4-Bed Configuration



Electromagnetic Needle Selection



SlideNeedle™



Stitch Presser



Loop Presser



Yarn Gripper and Cutter



Double Racking

12&15G only



DSCS®

8G only;
12&15G optional



i-DSCS®

4-Bed Configuration

The SWG®X, like the flagship FIRST®, features SlideNeedle™ which are mounted on 4 needle beds, in effect attaching 2 extra beds on top of a conventional V-bed. This setup allows unprecedented capabilities in knit and transfer, significantly expanding design and patterning capability in WHOLEGARMENT® production. As a result, the SWG®X is the only machine in the world which is capable of producing fine gauge WHOLEGARMENT® knitwear with rib structures.



The All-New SlideNeedle™

Shima Seiki has reinvented the most basic element of knitting – the needle. The new SlideNeedle™ is the result of a thorough re-evaluation of the 150-year old design of the conventional latch needle, and offers knitting possibilities never imagined before. A flexible two-piece slider mechanism splits and extends beyond the needle hook for increased potential especially in complex transfers. Using the slider mechanism for transfer effectively eliminates the transfer clip, allowing the needle to be mounted in the center of the needle groove. SlideNeedle™ thereby achieves perfectly symmetrical loop formation for knitting the highest possible quality fabrics.

Pulldown Device

The SWG®X's new computer-controlled takedown system consists of front and rear panels over which tiny pins are distributed for separately controlling takedown tension for the front and back when knitting WHOLEGARMENT®. In addition, each panel is separated into 1.5-inch sections which can be individually controlled for specific tension control across the entire width of the garment. This precise control over takedown tension permits 3-dimensional shaping of WHOLEGARMENT® items—for example, by allowing shoulder lines for set-in sleeves to be positioned over the shoulder toward the back—resulting in a more dimensionally accurate garment which conforms better to the shape of the torso.



i-DSCS®

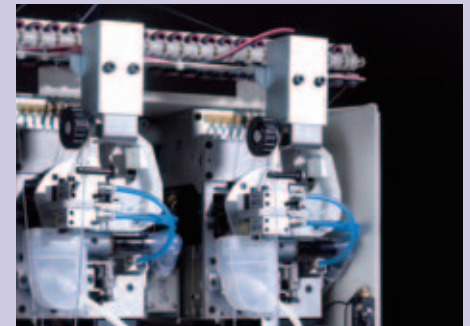
(8G: standard, 12&15G: optional)

Available with SWG®X 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.



Air Splicer (optional)

Unlike conventional knitter systems which mechanically tie together yarn ends, the Air Splicer cuts then twists together yarns with a burst of pressurized air with split-second accuracy. Working in precise coordination with our i-DSCS® Digital Stitch Control System with intelligence, the Air Splicer is able to time each splice so that perfect color changes can occur exactly as programmed. With the Air Splicer, high-quality multi-color WHOLEGARMENT® knitwear can be produced easily and with beautiful results.



Setup Device



Pulldown Device



Automatic Dust Cleaner



Schedule Knit



Back-Lit LCD Panel



Network Interface



Pattern Memory

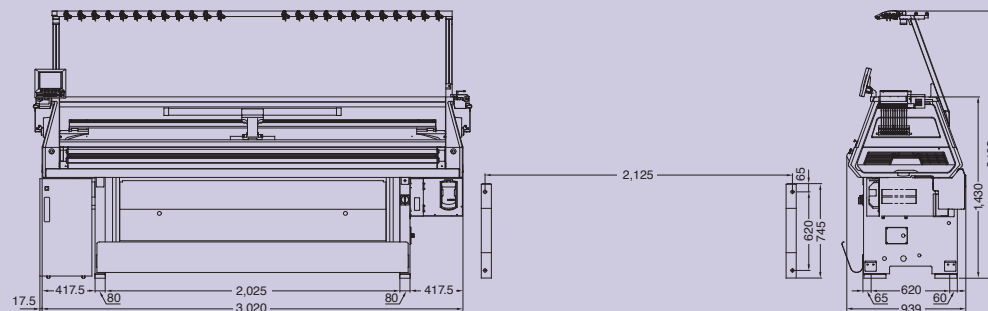


USB Memory Interface



Back-Up Power

DIMENSIONS



Average Weight

SWG173-X 1,484kg (3,265 lbs)

Actual weight is dependent upon gauge and optional equipment.

All dimensions are in millimeters.

SPECIFICATIONS

| | |
|-----------------------------|---|
| Type | SWG®173-X |
| Gauge | 8 · 12 · 15 |
| Knitting width | Variable stroke. Max 68" (170cm) |
| Knitting speed | Max 1.3m / sec. Knitting speed varies according to various knitting conditions. Variably adjustable speed levels. 16 additional programmable speeds. |
| Stitch density | 120 levels, electronically controlled. |
| Second stitch | Motor-controlled second stitch cam allows individual adjustment of loose / tight stitches for shaping. Lower carriage only. |
| Racking | Motor-driven. Double racking. Max 1.5-inch racking in each direction (3 inches total) for all four needle beds and loop presser bed. Front-Racking of upper and lower front beds are performed as one. Rear-Racking of upper and lower rear beds and loop presser bed are performed as one. |
| Knitting system | Ultra-compact 3-system (1 knitting system + 2 transfer systems). Single carriage. |
| Transfer | Lower beds: Simultaneous transfer, front and back, independent of carriage direction. Upper beds: Upper beds to opposite lower beds, independent of carriage direction. |
| Sinker system | Fixed sinker system |
| Stitch presser | Special motor-driven system allows individual on / off. |
| Loop presser | Individual selection and independent control. Loop presser bed positioned above upper rear needle bed. |
| Needle selection | Electromagnetic direct selection. |
| Setup device | Takedown comb with special setup needles. |
| Pulldown device | Special pulldown mechanism with independent operation of front and rear. Precise control over entire garment width in 1.5-inch increments. |
| Exit rollers | Special rollers for fabric pulldown and release. Consists of two rollers. |
| 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 ¹ . |
| DSCS® | Consistent loop length by digital control method. Left side standard ² . Yarn feed roller on both sides standard (left side: double roller). 8 positions on each side. Left side yarn stopper device ³ . 12 & 15G only. |
| 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. 8G only ⁴ . |
| Side tensions | 12 on each side (8G : 16 on each side) |
| Yarn carriers | 12 carriers |
| 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. Automatic operation available upon knitting a set number of pieces. Manual operation also available. |
| Safety devices ⁵ | 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 |
| 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 | 50,331,648 bits (1,024 wales × 16,384 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, and Japanese. |
| Back-up power | Power supply for resuming knitting after power failure. |
| Power | 3 phase AC200V ± 10% 3.0KVA |

OPTIONS : (1) Air Splicer. (2) Right side DSCS®. (3) Right side yarn stopper device. (4) i-DSCS® (12&15G only). (5) CE Mark.

Fully Fashioned High-Speed Knitting Machine

your choice
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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.



SAFETY NOTICE

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

SWG-X

Printed in Japan