

your choice
SHIMA SEIKI

SWG 021 N₂/041 N₂/061 N₂/091 N₂

WHOLEGARMENT[®] Computerized Flat Knitting Machine



EXPAND YOUR HORIZONS WITH FLEXIBLE WHOLEGARMENT® PRODUCTION.

A new "SWG®-N2" series has been added to SHIMA SEIKI's compact class of WHOLEGARMENT® knitting machines. Featuring our renowned SlideNeedle™ on a 10-, 16-, 24- and 36-inch wide needlebed respectively, the SWG®021N2, SWG®041N2, SWG®061N2 and SWG®091N2 are capable of producing a range of fashion accessories from gloves, socks, hats, mufflers, neck-ties and other small items, as well as childrenswear and even leggings and tanktops, all in their entirety, with no sewing or linking required*. As a result, the usable range of a given yarn can be expanded to include coordinated items from head to toe for all ages. The new SWG-N2 series features

the proven R2CARRIAGE® system for higher productivity. A larger number of yarn carriers and holding hooks for yarn cutting, as well as a separate yarn holder with increased capacity allows for even more flexibility in multi-color knitting. In addition to their established reputation in the fashion industry, SWG®021N2, SWG®041N2, SWG®061N2 and SWG®091N2 are also capable machines for technical textiles, such as industrial material, sports, medicine and safety, expanding your business potential far beyond present limits.

* Some designs may require partial stitching.



The Original SlideNeedle™

In pursuing ideal conditions for WHOLEGARMENT® production, 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. This effectively eliminates the transfer clip and allows the needle to be mounted in the center of the needle groove, thereby achieving perfectly symmetrical loop formation for knitting the highest possible quality fabrics. The SlideNeedle™ opens the door to possibilities never imagined before through superior transfer capability and brand-new knitting techniques. Used on our flagship MACH2®X and FIRST® machines, it is a proven technology that offers virtually limitless possibilities in WHOLEGARMENT® knitting.



SWG 021N₂ 041N₂ 061N₂ 091N₂

WHOLEGARMENT® Computerized Flat Knitting Machine

SWG021N2 SWG041N2 SWG061N2 SWG091N2



Knitting Width



R2CARRIAGE® System



Tough Needle Bed



Gauge Range



WHOLEGARMENT® Knitting



Solenoid Needle Selection



SlideNeedle™



Full-Time Sinker



Yarn Gripper and Cutter



OPTION
i-DSCS+DTC®



OPTION
Air Splicer

Spring-Type Sinker System

SWG®021N2, SWG®041N2, SWG®061N2 and SWG®091N2 feature SHIMA SEIKI's original sinker knitting system. Conventional forced-operation type sinkers are only activated upon carriage traverse in each course, and tend to subject fabrics to unnecessary stress and cause compressed loops and even yarn breakage. In sharp contrast, SHIMA SEIKI's spring-type mechanism works full-time regardless of carriage position, and provides gentle holddown movement. Consequently, significant improvements in quality and texture for complicated patterns are achieved.

Top Tension and Elastic Yarn Advance Device

The top tension device on SWG®021N2, SWG®041N2, SWG®061N2 and SWG®091N2 employs a convenient one-touch threading system for quick and easy setups. When a knot is detected during knitting, the machine stops for large knots, while small knots cause the machine to slow down. The top tension therefore serves as an effective quality control sensor. The elastic yarn advance device furthermore features a motorized unit for controlled advancing of elastic yarns, which allows production of various supporters and braces for the sports and medical fields. Yarn advance is performed from above for greater reliability and efficiency.

Control Monitor

SWG®021N2, SWG®041N2, SWG®061N2 and SWG®091N2 features an all-new full-color LCD touch-sensitive control panel with a larger screen that greatly improves on the previous monochromatic display. User-friendly menu-interactive function buttons permit easy input and editing as well.



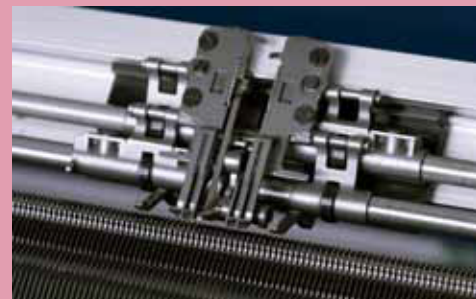
Yarn Feed Roller

The yarn feed roller prevents yarn breaks when knitting delicate yarns. The yarn feed roller is standard on SWG®061N2 and SWG®091N2, and available as an option on SWG®021N2 and SWG®041N2.



Edge Yarn Insertion

With an all-new yarn insertion device, edge yarns can be cleaned up not only at the fingertips but also between fingers and toes for gloves and socks. SWG®021N2, SWG®041N2, SWG®061N2 and SWG®091N2 feature a motor-driven insertion hook and cutter which ensure reliable insertion.



R2CARRIAGE®

RAPID RESPONSE CARRIAGE SYSTEM

R2CARRIAGE

SWG®021N2, SWG®041N2, SWG®061N2 and SWG®091N2 are equipped with SHIMA SEIKI's proven R2CARRIAGE® (R2=Rapid Response) System. Advanced carriage mechanism combined with improved software programming achieves quicker carriage returns after each course, resulting in higher productivity.

Auto Yarn Carrier

For SWG021N2, SWG041N2, SWG061N2 and SWG091N2, the number of auto yarn carriers is increased. Together with a separate yarn holder with higher capacity, even more flexibility in multi-color knitting can be had. Auto yarn carriers are motorized and move independently, eliminating the need for extra carriage courses to move carriers out of the way during intarsia knitting. This dramatically improves productivity and efficiency.



i-DSCS+DTC® (optional)

Optional on SWG®021N2, SWG®041N2, SWG®061N2 and SWG®091N2 is i-DSCS+DTC® Digital Stitch Control System "with Intelligence" and Dynamic Tension Control. i-DSCS+DTC® carries over the benefits of DSCS® while achieving the ultimate performance in digital knitting. Whereas DSCS® is a passive system which controls stitch length by mechanically limiting yarn-feed, i-DSCS+DTC® has the capability to actively control yarn-feed in both feed and retrieval directions as necessary, through variable electronic control of yarn tension. These result in even higher quality and greater productivity using a wider variety of yarns, including high-speed knitting of challenging yarns such as fancy yarns, stretch yarns, slub yarns and delicate cashmeres. Precise electronic control means i-DSCS+DTC® provides consistent quality among different machines, production batches and repeat orders, and is crucial to the precision knitting required in WHOLEGARMENT® production.



Takedown Rollers



Dust Cleaner



Schedule Knit



Full-Color Touch Control LCD Panel



Network Interface



Pattern Memory

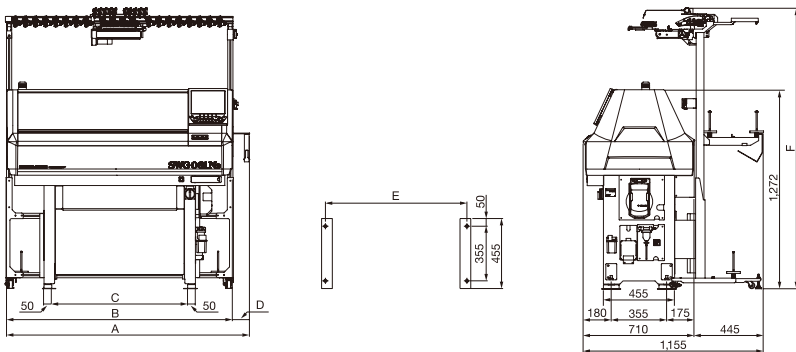


USB Memory Interface



Back-Up Power

DIMENSIONS



Average Weight

SWG [®] 021N2	Machine 315kg (694lbs.)	Creel 35kg (77lbs.)
SWG [®] 041N2	Machine 315kg (694lbs.)	Creel 35kg (77lbs.)
SWG [®] 061N2	Machine 358kg (789lbs.)	Creel 37kg (82lbs.)
SWG [®] 091N2	Machine 424kg (934lbs.)	Creel 39kg (85lbs.)

Actual weight is dependent upon gauge and optional equipment.

	A	B	C	D	E	F
SWG [®] 021N2	1,362	1,250	870	112	920	1,815
SWG [®] 041N2	1,362	1,250	870	112	920	1,815
SWG [®] 061N2	1,557	1,450	870	107	920	1,797
SWG [®] 091N2	1,857	1,750	1,020	107	1,070	1,797

All dimensions are in millimeters.

SPECIFICATIONS

Type	SWG021N2	SWG041N2	SWG061N2	SWG091N2
Gauge	7 • 10 • 15 • 18			
Knitting width	Max 10" (25cm)	Max 16" (40cm)	Max 24" (60cm)	Max 36" (90cm)
Knitting speed	Max 1.5m/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	Tight stitch for tuck in intarsia and heel knitting.			
Racking	Motor-driven, 7G: Max 4-pitch racking to each side, 10G: Max 5-pitch racking to each side, 15G: Max 8-pitch racking to each side, 18G: Max 9-pitch racking to each side.			
Knitting system	Single system with transfer cams on both sides. Single R2CARRIAGE [®] system.			
Transfer	Back to front during right traverse, front to back during left traverse. Selectable normal transfer or holding.			
Sinker system	Spring-type moveable sinker system. Sinker reset, Sinker stroke adjustment.			
Yarn guide	Moveable yarn guide.			
Fabric presser	Equipped on both front and back carriages.			
Needle selection	Full jacquard selection via special solenoid actuators.			
Takedown subroller	Adjustable. Automatic opening and closing. Adjustable in 10 levels (1-10) with additional fine adjustments in 9 levels (0.1-0.9) possible (SWG [®] 061N2/091N2 only).			
Yarn cutter	On right side of both front and back needle beds.		On right side of both front and back needle beds.	
	4 yarn holding hooks and 2 cutters		5 yarn holding hooks and 2 cutters	
Yarn insertion	2 yarn insertion hooks and 1 cutter above needle bed.			
Elastic yarn advance device	Stepping motor controlled. Feed amount up to 500% of full knitting width (adjustable for each knitted part). Right side standard 1.			
Air Splicer	Instant color changes using pressurized air. 8 colors per unit. Optional 2.			
i-DSCS+DTC [®]	"DSCS" with Intelligence+Dynamic Tension Control. Actively controls yarn feed in both feed and retrieval directions. Electronic control of yarn-feed tension permits high-speed knitting. Optional 3."			
Yarn feed roller	Prevents yarn breaks when knitting with delicate yarns.			
	Optional 4		10 positions.	
Auto yarn carrier	Independent motorized yarn carriers eliminate the need for empty carriage courses.			
	8 carriers.		10 carriers.	
Top tensions	8 tension devices.		10 tension devices.	
Yarn break sensor	One-touch easy threading. Large knots cause machine stop. Small knots cause 0-99 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, delivery error, etc.			
Drive system	Belt drive. AC servo motor. No lubrication necessary.			
Cleaner	Special blower operated cleaner.			
Safety devices	Full safety cover for noise-suppression and dust-proofing with interlock mechanism. Emergency power off device. Ultra-low speed "crawl" setting. CE Mark. Operation lamps (see below).			
Operation lamp	Green/normal operation. Flashing green/normal stop. Flashing amber/abnormal stop.			
CONTROLLER				
Data input	USB memory interface. Ethernet 10/100 BASE-T network interface.			
Pattern memory	25,165,824 bits (1,024 wales x 8,192 addresses)			
Control system	Stored program for flat knitting machine.			
Control display	10.4-inch color LCD touch panel (800 x 600 pixels). Editing possible via display panel operation. Help/Message function. Available in English, French, Italian, Spanish, Portuguese, Turkish, Chinese, Korean and Japanese.			
Back-up power	Power supply for resuming knitting after power failure. Optional 5.			
Power	Single phase AC220V/230V (200V-250V)	1.1kVA	1.3kVA	1.4kVA

OPTION: (1) Elastic yarn advance device on left side. (2) Air Splicer (7G, 10G and 15G only) 1 unit, 2 units (SWG[®]061N2 and SWG[®]091N2 only) (3) i-DSCS+DTC[®]. (4) Yarn feed roller (SWG[®]021N2 and SWG[®]041N2 only). (5) Back-up power.

SAFETY NOTICE

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

SHIMA SEIKI, MACH2, FIRST, SWG, WHOLEGARMENT, SlideNeedle, R2CARRIAGE, DSCS and i-DSCS+DTC are either registered trademarks or trademarks of SHIMA SEIKI MFG., LTD. in Japan and / or other countries. 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.

Featured cover sample: M0857W00F

SWG021N2/041N2/061N2/091N2

your choice
SHIMA SEIKI

SHIMA SEIKI MFG., LTD.

85 Sakata Wakayama, 641-8511 Japan
TEL +81-73-474-8210 FAX +81-73-474-8270

SHIMA SEIKI EUROPE, LTD.

Sills Road, Willow Farm Business Park,
Castle Donington, Derbyshire DE74 2US U.K.
TEL +44-1332-814770 FAX +44-1332-850272

SHIMA SEIKI ITALIA S.p.A.

Via Redecesio 11-20090 Segrate (MI) ITALY
TEL +39-02-216621 FAX +39-02-2139410

SHIMA SEIKI SPAIN, S.A.U.

Poligono Industrial Can Salvatella, Calle Comadran 35
08210 Barbera Del Valles, Barcelona, SPAIN
TEL +34-93-7293727 FAX +34-93-7180626

SHIMA SEIKI PORTUGAL, UNIPessoal LDA

Rua S. Juliao 241, Apartado 3142, Avintes 4431-801, PORTUGAL
TEL +351-22-787-8580 FAX +351-22-787-8589

SHIMA SEIKI U.S.A. INC.

22 Abeel Road, Monroe Twp., New Jersey 08831 U.S.A.
TEL +1-609-655-4788 FAX +1-609-655-3989

SHIMA SEIKI (HONG KONG) LTD.

1901, 19/F, Lu Plaza No. 2 Wing Yip Street,
Kwun Tong, Kowloon, HONG KONG
TEL +852-2898-8339 FAX +852-2558-8332

SHIMA SEIKI KOREA INC.

Seojung Bldg. 1F, 2F, 590-9, Guui-Dong,
Kwangjin-Gu, Seoul KOREA 143-200
TEL +82-2-2216-4057 FAX +82-2-2216-4711

SHIMA SEIKI MFG., LTD., TAIPEI BRANCH

1F, 30, Lane 583, Ruey Kuang Rd., Neihu, Taipei 11492, TAIWAN
TEL +886-2-8752-3388 FAX +886-2-8797-5522

URL <http://www.shimaseiki.com>