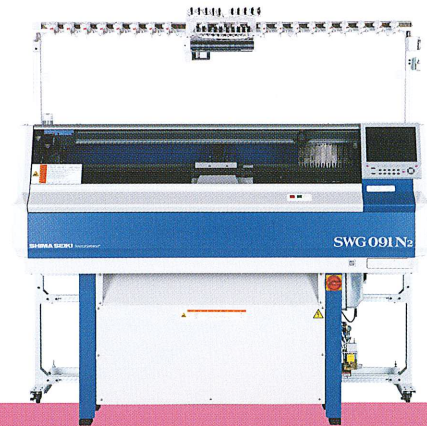


# SWG 021N<sub>2</sub>/041N<sub>2</sub>/061N<sub>2</sub>/091N<sub>2</sub>

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



## EXPAND YOUR HORIZONS WITH FLEXIBLE WHOLEGARMENT<sup>®</sup> PRODUCTION.

A new "SWG<sup>®</sup>-N2" series has been added to SHIMA SEIKI's compact class of WHOLEGARMENT<sup>®</sup> knitting machines. Featuring our renowned SlideNeedle<sup>™</sup> on a 10-, 16-, 24- and 36-inch wide needlebed respectively, the SWG<sup>®</sup>021N2, SWG<sup>®</sup>041N2, SWG<sup>®</sup>061N2 and SWG<sup>®</sup>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<sup>®</sup> 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<sup>®</sup>021N2, SWG<sup>®</sup>041N2, SWG<sup>®</sup>061N2 and SWG<sup>®</sup>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<sup>™</sup>

In the pursuit of ideal WHOLEGARMENT<sup>®</sup> production, we performed a thorough re-evaluation of the 150-year old design of the conventional latch needle. The result is SHIMA SEIKI's own SlideNeedle<sup>™</sup>. 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<sup>™</sup> thereby achieves perfectly symmetrical loop formation for knitting the highest possible quality fabrics.

### R2CARRIAGE<sup>®</sup>

RAPID RESPONSE CARRIAGE SYSTEM

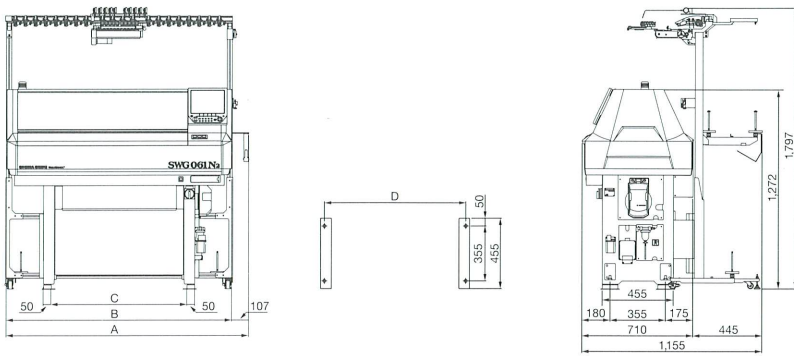
SWG<sup>®</sup>021N2, SWG<sup>®</sup>041N2, SWG<sup>®</sup>061N2 and SWG<sup>®</sup>091N2 are equipped with SHIMA SEIKI's proven R2CARRIAGE<sup>®</sup> (R2=Rapid Response) System. Advanced carriage mechanism combined with improved software programming achieves quicker carriage returns after each course,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

### Auto Yarn Carrier

SWG<sup>®</sup>021N2, SWG<sup>®</sup>041N2, SWG<sup>®</sup>061N2 and SWG<sup>®</sup>091N2 feature all-new yarn carriers that are motorized and move independently. This eliminates the need for extra carriage courses for moving carriers out of the way during intarsia knitting, dramatically improving productivity and efficiency.



**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
SWG®021N2	1,362	1,250	870	920
SWG®041N2	1,362	1,250	870	920
SWG®061N2	1,557	1,450	870	920
SWG®091N2	1,857	1,750	1,020	1,070

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. 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 feeder	Stepping motor controlled. Feed amount up to 500% of full knitting width (adjustable for each knitted part). Right side standard <sup>1</sup> .			
Air Splicer	Instant color changes using pressurized air. 8 colors per unit. Optional <sup>2</sup> .			
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 <sup>3</sup> .			
Yarn feed roller	Prevents yarn breaks when knitting with delicate yarns. Optional <sup>4</sup>		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.			
<b>CONTROLLER</b>				
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 <sup>5</sup> .			
Power	1.1kVA	1.3kVA	1.4kVA	1.4kVA

**OPTION:** (1) Elastic yarn feeder (Left side). (2) Air Splicer 1 unit (7G, 10G and 15G only), 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.

Fully Fashioned High-Speed Knitting Machine

*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 Redecasio 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, Guul-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, Ruay Kuang Rd., Neihu, Taipei 11492, TAIWAN  
TEL +886-2-8752-3388 FAX +886-2-8797-5522

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

**SAFETY NOTICE**

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

SHIMA SEIKI, 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.