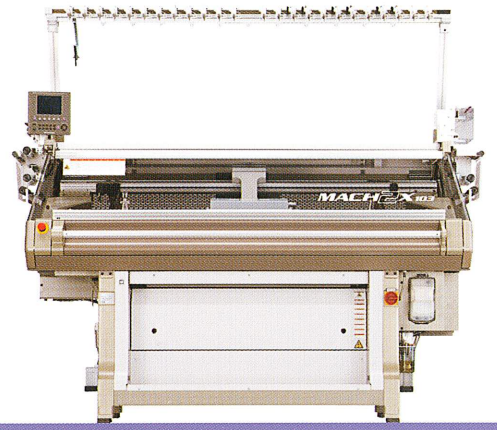
your choice SHIMA SEIKI

MACH2X 103/123

WHOLEGARMENT® Computerized Flat Knitting Machine



COMPACT MACHINES IDEAL FOR HIGH QUALITY WHOLEGARMENT® PRODUCTION.

SHIMA SEIKI's MACH2®X103 and MACH2®X123 are the latest addition to SHIMA SEIKI's MACH2®X series of WHOLEGARMENT® specialty machines that features 4 needle beds and SHIMA SEIKI's original SlideNeedle™. The combination of 4 needle beds and SlideNeedle™ is considered ideal for producing high-quality WHOLEGARMENT® knitwear, and MACH2®X103 and 123 meet those expectations when performing all-needle knitting of ladies' wear, children's wear as well as smaller accessory items. As their "MACH" name suggests, speed and productivity are dramatic. MACH2®X103 and 123 achieve a maximum knitting speed of 1.6 meters per second. The R2CARRIAGE® system furthermore permits quicker carriage returns for higher efficiency per knitted course. Split Stitch technique also allows efficient WHOLEGARMENT® production by eliminating empty courses. Additionally, MACH2®X123 features 18L gauge capability whereby a special large-hook version of the SlideNeedle™ are mounted at 18-gauge needle pitch for knitting 15-gauge fabrics with very high productivity while knitting ultrafine gauge garments. The tighter needle pitch also allows for a tighter fabric especially for ribs, contributing to higher-quality WHOLEGARMENT® items. Additional improvements include a control unit that is built-in to the machine for simplified shipping and installation, easier maintenance, and more efficient use of space. A USB memory interface and a backup power supply are standard. With SHIMA SEIKI's WHOLEGARMENT® knitting technology concentrated into a single compact package, both MACH2®X103 and 123 are the ideal machine for high-quality production of smaller-sized WHOLEGARMENT® fashion.

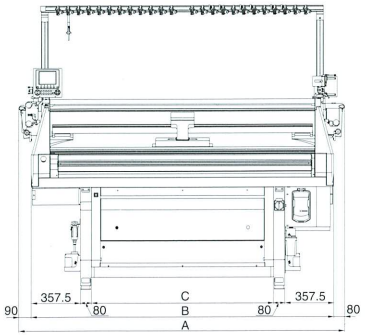
R2CARRIAGE®

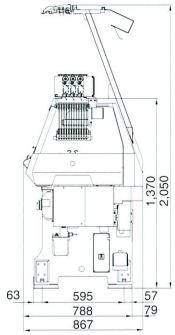
The R2CARRIAGE® (R2=Rapid Response) System features an advanced carriage mechanism combined with improved software programming that achieves quicker carriage returns after each course for higher overall productivity.

i-DSCS+DTC®

Standard on MACH2®X103 and 123 is i-DSCS+DTC® Digital Stitch Control System "with Intelligence" and Dynamic Tension Control. i-DSCS+DTC® carries over the benefits of DSCS®, with even better performance. Whereas DSCS® is a passive system which controls stitch length and yarn tension 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.

DIMENSIONS





Average Weight

MACH2®X103	1,000kg(2,200lbs.)
MACH2®X123	1,100kg(2,420lbs.)

Actual weight is dependent upon gauge and optional equipment.

	A	B	C	D
MACH2®X103	2,370	2,200	1,325	1,425
MACH2®X123	2,620	2,450	1,575	1,675

All dimensions are in millimeters.

SPECIFICATIONS

Type	M103X	M123X
Gauge	8L (L:Large hook)	8L •15L •18L (L:Large hook)
Knitting width	Variable stroke. Max 40" (100cm)	Variable stroke. Max 50" (125cm)
Knitting speed	Max 1.6m/sec. (8L:Max 1.4m/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. Max 1.5-inch racking in each direction (3 inches total) for rear needle beds and loop presser bed. 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 R2CARRIAGE® system.	
Transfer	Lower beds: Simultaneous transfer, front and back, independent of carriage direction.Split stitch possible without exchanging yarn carriers (15L and 18L only). 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 adjustment for on/off in knit and transfer.	
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. Lint remover.	
Air Splicer	Instant color changes using pressurized air. 2 units on left side; 1 unit on right side. 8 colors per unit . Optional [1].	
DSCS®	Consistent loop length by digital control method. 8 lightweight, compact encoders. Left side standard.	
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. 3 units. Right side standard [2]	
Yarn feed roller	8 positions on each side. Left side double roller standard. 8 positions on left side yarn stopper device.	
Side tensions	12 on each side. Brake disk with 3-way adjustable dials. Both sides standard.	
Yarn carriers [3]	12 normal 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	Full safety cover for noise-suppression and dust-proofing with stop motion sensor and interlock mechanism. Emergency stop switch. Emergency power off device. Ultra-low speed "crawl" setting. CE Mark. Indicator 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	50,331,648 bits (1,024 wales x 16,384 addresses)
Control unit	Built-in controller. 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	Single phase AC220V/230V 3.0kVA

OPTIONS : (1) Air Splicer (8L and 15L only). (2) i-DSCS+DTC® (Left side). (3) Plating Carrier.

Fully Fashioned High-Speed Knitting Machine

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

MACH2X103/123 Printed in Japan ABJD.CL.SP