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Multi-head Automatic Embroidery Machine

The highest quality in the world, born in Shanghai

Tajima's products are made with no compromise of quality.
The new embroidery machines now make a debut in Shanghai,
fully loaded with the craftsmanship and the latest technology.

Pride of the world's best quality

Shanghai factory has established consistent machine production system from processing and assembling of parts up to quality control of the machines on the basis of Tajima's strict production control and quality standard.

Equivalent quality to that of Japan-made machines

Major production facilities are imported from Japan for in-house production of major parts in dedicated processing lines to keep up the same accuracy as in Japan.

Superior cost performance

As a result of drastic review of the functions and costs from development up to production, embroidery machines with excellent cost performance are brought to reality.

■ FACTORY OUTLINE

Corporate name : Shanghai Tajima Embroidery Machinery Co., Ltd.
Address : Nanhui Industrial Zone, Shanghai, China
Factory site area : 48,900m²
Factory floor area : 17,926m²

In pursuit of ultimate accuracy, closer to perfection

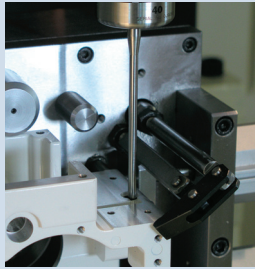
Major production facilities have been brought from Japan to materialize in-house production of major parts.

Introduction of the production technology and quality control, having been accumulated through many years, enables consistent manufacturing of the products from processing and assembling of parts up to inspection.



Part processing, supporting the world highest quality

To work up the embroidery machines of the "world highest quality", the quality level of the component parts is very important. Tajima has introduced major production facilities from Japan in pursuit of quality maintenance at the same level as in Japan for processing higher precision parts.



Production lines to create the world's highest quality

The most important process in the production of embroidery machines is the core sector from machine assembling to inspection. Our long-accumulated production technology and quality control have been introduced to Shanghai factory and established the production lines to manufacture the embroidery machines of the world's highest quality as is done in Japan.



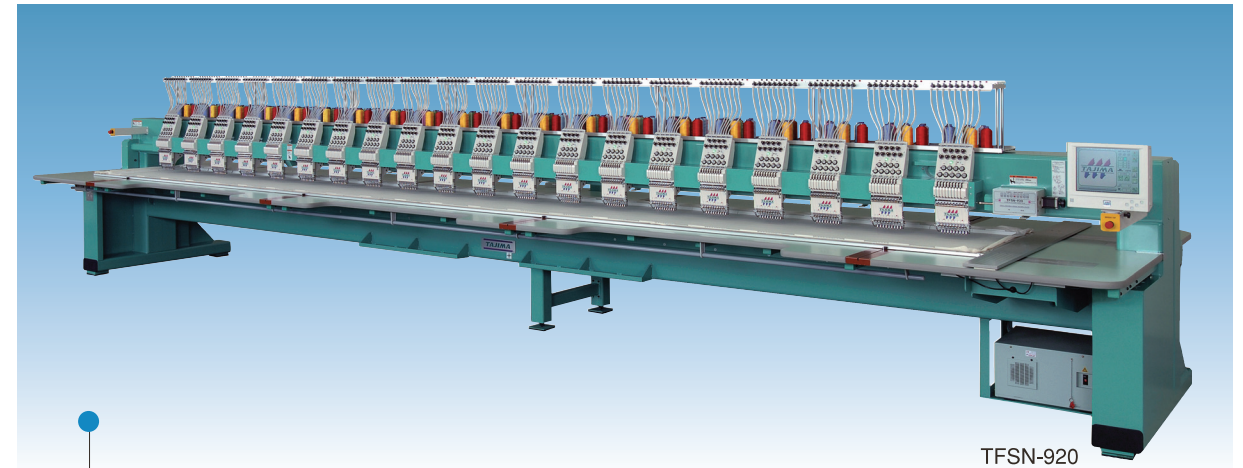
Both the world's highest quality and cost reduction

Development division of the Tajima Group is making development of embroidery machines, being well aware of the customers' needs and cost competitiveness through plenty of our experience in the global network. The new TFSN Series are born in Shanghai factory in full consideration of cost performance as well as the quality from the very beginning of development.



TFSN Series, the essence of all the Tajima's technical experience and brand loyalty

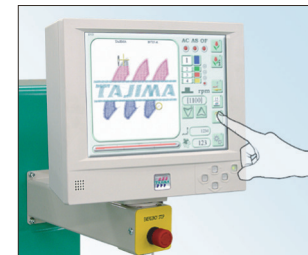
Invested with all the latest technology, the TFSN Series has brought both the high quality and cost reduction to reality.



TFSN-920

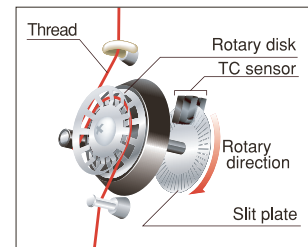
Operation panel

A 12.1 inch color LCD monitor, exclusive graphical user interface (GUI) and touch panel <PAT> are put together to improve operational convenience even more. Also a 32bit CPU is installed to increase image-rendering speed on the screen (improved by 80%, compared with our conventional product). A more comfortable, user friendly working environment is brought to you by Tajima.



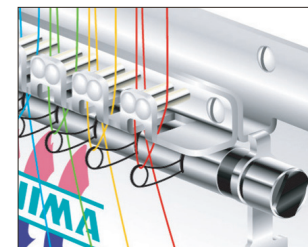
Thread breakage detection system

A new electronic sensor has been adopted as a thread breakage detecting mechanism to monitor thread movement at all times. If the upper or under thread is broken, this system detects it in an instant and stops stitching to prevent embroidery production from continuing with broken thread. The sensitivity of the sensor is adjustable on the operation panel, depending on the embroidery conditions. <PAT.P>



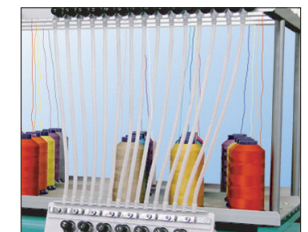
Middle thread guide with thread take-up spring <PAT>

The thread take-up spring picks up excess thread and stabilizes the balance of upper and lower threads at high speed and improves thread tension. Thread breakage due to extra fine satin stitches (2mm or less), needle tip or thread untwisting, etc. has been reduced by 30 - 50% (compared with our conventional specification), and productivity has been drastically improved.

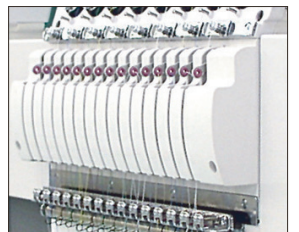


Spiral tube, Take-up lever guard <PAT>

Spiral tubes between the upper thread course stand and individual tension base protect the upper threads against environmental wind, a breeze generated by an air conditioner, etc. and causing threads entangling. Furthermore, originally developed covers are mounted over the take-up levers to prevent threads from being entangled during high-speed operation and to improve safety in work surroundings.



Spiral tube



Take-up lever guard <PAT>

The most advanced and reliable high-tech functions and mechanisms

Memory

Standard memory capacity: 2,000,000 stitches to register Max. 99 design.

"Condition memory" function, including stitch conditions

Stitching conditions (design start position, color sequence etc.) can be output to a floppy disk along with the design data. The saved stitch conditions are applicable to reproduction as they reduce setting time.

Scale up / down, Rotate

You can scale your designs down to 50 or up to 200% in increment of 1%, and rotate in 1-degree increments.

Automatic repeat

A design can be automatically repeated up to 99 times, front to back or side to side respectively. The repetition can be set to a maximum by inputting the embroidery space.

Design editing

Modify, insert or delete your embroidery design data stitch by stitch.

Satin stitch length compensation

The embroidery finish of satin stitches may sometimes differ in values, compared with original design data, depending on the embroidery conditions like very stretchy fabrics. Satin stitch length can be increased or decreased for compensation with ease on the operation panel.

Cleanup function

A simple setting on the operation panel removes unnecessary fine stitches (0.5mm long or less) contained in the design data. Removal of these fine stitches will decrease thread breakage that leads to decreased production due to machine downtime.

Frame back / forward

Frame back / forward is available in units of stitches, stop codes or designated stitch count.

Production management function

Production management information like stitch counts of memorized designs, time required for embroidery process, remaining stitches up to preset halt (preliminarily set stop position) can be checked on the operation panel. This will help you get a better grasp of production efficiency.

Embroidery space trace function

This function moves only the frame on the contour of an embroidery design and helps you check if a design will fit in a desired embroidery space before sewing it. This will prevent needles from hitting the frame by mistake during the embroidery operation.

Origin return

The frame can be either manually or automatically returned to the design starting point (while the machine is stopped), even if the end point is different from the starting point.

Automatic offset/Manual offset

The frame can be returned to the previous position, using the operation panel, even after a temporary moves (for frame exchange or applique arrangement) during embroidery.

Marking

Design starting point can be easily positioned for placement of embroidery.

Automatic upper / under thread trimming device : ATH

Automatically operates by commands in the design data.

Power failure control measures

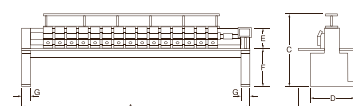
Even if the power supply is cut off in the middle of embroidery due to power failure or other reasons, the embroidery position is saved in memory so the machine can resume with a simple operation after the machine is reset. The embroidery process can be resumed in the position just before the power failure to save product loss.

Specifications

Models	Heads	Head interval	Needles	Emb. Space (Per head/All heads) mm		A	B	C	D	E	F	G
				DXWmm	Continuous Design							
TFSN-	12	360	9	680×360	4,320	5,500	1,800	1,639	1,300	430	833	200
TFSN-	15	400	9	680×400	6,000	7,205	1,800	1,639	1,300	430	833	200
TFSN-	20	330	9	680×330	6,600	7,755	1,800	1,639	1,300	430	833	200

[Example of model code] TFSN- $\frac{9}{a}$ $\frac{20}{b}$ $\frac{20}{c}$ Contents of model code
a = model name
b = number of needles
c = number of heads

Stitch length	Ternary scale: 0.1~12.1mm, Binary scale: 0.1~12.7mm
Speed	Max. 1,000rpm
Motor	Inverter Motor×1, Pulse Motor×2
Electricity	3-phase 200/220/380/415V 50Hz/60Hz
Power consumption	1.3kw



※ Consultation for orders of special embroidery machines is also available by specifying embroidery space, number of heads, number of needles etc.

※ We reserve the right to change the specification for improvements without previous notice.

※ Rotational speed may vary, depending on the applicable conditions, Machine models or frame types.

※ No design or registered trademark of the products contained in this catalog may be used without the prior permission.

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