

melco EMT16X

NEXT GENERATION COMMERCIAL EMBROIDERY



High-Tech is Standard!

Many of these core, foundational technologies can only be found on Melco embroidery machines.

The features listed here have been a staple of the Melco embroidery machine platform since 2002. Some features, like barcode scanning, are included where other brands may offer it only as an option at additional cost.

Simple PC-Based Interface, **Barcode-Ready!**



16 Needle Commercial Embroidery Machine, Single or Multi-Head

Acti-Feed™ Thread Control

Precise Laser Registration

Adjustable Presser Foot

High Speed Pantograph (1500 Stitches per Minute)

Scalable—Easily Add Machines to the Embroidery Network

Small Cylindrical Lower Arm for Embroidery on Hats and Pockets

Sturdy, Wheeled Cart for Easy Mobility

Removable Table Top



Understanding Acti-Feed™ Thread Control

Thread feed is controlled by the patented Acti-Feed™ thread control system, delivering the precise amount of thread automatically. Conventional machines require manual thread tension adjustments. With Melco EMT16X, enter a few simple inputs such as fabric type and hoop selection, and this intelligent system will do the rest!



melco

Find your local Melco Distributor here: www.melco.com/distributors

Real Modular Functionality

Nearly 20 years ago, Melco redefined efficiency with the first networkable, modular embroidery system. Melco EMT16X is the latest generation of the most efficient, productive system in the world.

What does a "modular" embroidery system do? With the Melco Operating System (MOS), you control every machine on the network from a single computer. This enables management of individual machines as needed, without interrupting production on the entire network. No other system gives you this level of control and flexibility! More on this below.

Modular Embroidery Network

With Melco EMT16X, you decide how many machines are needed and when, and how you want to use them. Run just one machine, or multiple. Sew tote bags on three machines, and a hat on one. Produce different designs, or all the same. Grow your business slowly, one machine at a time, or add multiple machines, whenever you like.

The Melco Operating System (MOS) acts as your network interface, providing performance monitoring for each machine. This gives the operator control of individual machines from a single computer. Conventional multi-head machines do not provide performance feedback on individual machines from a singular point.

- Use the MOS to load design files, monitor machine performance, and manage machine settings.
- Add or remove individual machines as needed to optimize embroidery production.
- Start and stop individual machines without interrupting production on the entire network.
- Run different designs on different products at the same time.
- Enjoy the benefits of a single-head embroidery machine and a multi-head embroidery machine from one awesome, flexible system.

Simple, User-Friendly Operation

One of the many core features that sets Melco apart from other machines is the patented Acti-Feed™ thread control technology. This automatic thread feed system is easy to use, unlike systems that rely on manual thread tensioning adjustments.

With Acti-Feed™, most EMT16X functions are automated. User input is only required for basic actions such as loading a design, selecting a hoop, and choosing a material. Acti-Feed™ and MOS handle the rest! Thread feed and speed are monitored and adjusted automatically, delivering fast, precise, high-quality embroidery. Melco EMT16X is a truly intelligent system!

Up to 100% more productive than conventional multi-head machines

- With independent machines, it is possible to run at much higher speeds of up to 1500 SPM because, unlike on a traditional multi-head machine, only one hoop has to be moved. This is much lighter and can thus be done much faster.
- Rather than stopping the whole production, a thread or needle break will only stop one machine - no need to rush to fix it, the rest of the production is still up and running.

Adjust production to order sizes

The modular system allows an operator to use exactly as many machines as needed for a job. Here is how this helps:

- Even small orders become profitable - no heads need to be turned off, instead they can run another job already.
- When a customer orders 6 pieces to be produced on a conventional 4-head machine, two heads will have to be switched off for the second production run. However, with a modular 4-head system, the two heads can already start with the next job - meaning you will not have to hope that your customers order in multiples of your amount of heads to work efficiently.

Grow your production with your business

When an embroidery business starts out, the cost of a conventional multi-head machine is often times too high and so they end up buying a conventional single-head machine or still settle for multi-head machine with too much capacity. Once their demand grows they will have to trade in their old single-head machine and will have to decide yet again how many heads they want to buy this time. With the modular system, your production grows with your demand and allows for a minimal initial investment. Start with one head and once your demand grows, you can add more machines as needed.



New Grabber Blade



New Thread Tube Assembly



New Hoop Arms



Melco EMT16X Feature Enhancements!

Outstanding performance and efficiency!

Thanks to enhanced «Melco Stitch Dynamics», the frequency of “thread issues” is minimized. This means more run time per machine, and greater ROI potential.

Incredible Stitch Quality

«Melco Stitch Dynamics» doesn't just improve machine performance, it also pushes the stitch quality to new heights. Small letters are perfect and edges are super-clean – your customers will love it!

Automatic Tie-In and Tie-Out Stitches

Tie-In and Tie-Out stitches are critical for quality finished embroidery. Normally, this process requires manual editing. With Melco EMT16X, at user discretion, these critical stitches can be automatically added to the design, improving sew quality and durability.

Fast And Reliable Auto Trimming

Melco EMT16X includes a new auto trimming system that is durable and reliable. Overall trim time has been reduced dramatically, which in turn reduces overall sew time. The self-sharpening carbide knife assembly consistently slices poly, rayon, metallic, and thick Burmilana thread. It's also virtually maintenance-free.

66% Reduction in Bobbin Tail Length

At a tiny 6mm, these short bobbin tails produce tight, clean embroidery, reducing the time needed for finish-trimming by hand.

New Needle Plate Design

Melco reengineered the needle plate, creating one with more surface area to secure fabric and reduce material flagging. Not only does this help produce high-quality embroidery, it also reduces the appearance of marring or shine on the fabric caused by contact with the presser foot and needle plate.

New Hoop Arms

New, ultra-rigid hoop arms enable smooth performance and optimal stitch quality.

Redesigned Thread Tree

Extended thread tubes and new thread cone stabilizers deliver secure, smooth, consistent thread feed. The new design is compatible with a wide variety of thread cone shapes.

New Grabber Blade

Machine operators will appreciate this new feature for easy needle changes and threading. The new grabber blade features a refined shape and matte black finish to reduce glare, making it easier to change and thread needles.

Easy Bobbin Case Access

When it's time to change the bobbin, simply flip the new panel down for quick, easy access. When it's time to install the cap driver for hat embroidery, simply turn a thumb screw to remove the access panel. No tools required!

New Optional Accessory – XL Hoop

Say bye to large wooden hoops that are subject to warping and splintering! Designed by Melco, this high-quality composite hoop enables you to utilize the full sew field of Melco EMT16X. It's sure to become a favorite for those who embroider large designs on jacket backs and other large items. Includes extended hoop arms.

New Lower Arm Assembly with Redesigned Trimming System



New "flat" needle plate design for optimal sew quality.

Self-sharpening knife assembly is virtually maintenance-free!

New bobbin case cover for easy access.

Sew What **You** Want!

Say "yes" to business that other embroidery shops may have to turn away.

In addition to bread-and-butter items like polo shirts, tote bags, jackets, and hats, Melco EMT16X is ready to tackle more unique or challenging items. When you pair Melco's advanced technology with amazing accessory items like the popular Melco Fast Clamp PRO, you open up a vast world of possibility. Check out some of the accessories below that expand the capabilities of the machine.

Melco Fast Clamp PRO (optional)

Ask a Melco client what their favorite accessory is, and they're likely to start telling you all about Melco Fast Clamp PRO! This highly adjustable system enables embroidery on items and in small areas not possible before.



NEW XL Hoop Kit (optional)

Go big and take advantage of the full sew field Melco EMT16X has to offer! Designed by Melco, this hoop is made of sturdy composite materials that are impervious to warping, something you can't say for traditional wooden hoops. The kit includes wide hoop arms (not pictured here).



Cap Driver and 2 Cap Frames

Included with new Melco EMT16X packages, the cap driver and frame kit will have you stitching up high-quality embroidery on hats in no time. The frames are strong, designed to hold hats of many shapes and sizes securely for high quality embroidery. The wide angle frame boasts a 270° sew field, and a maximum height of 82 mm.



Find your local Melco Distributor here: www.melco.com/distributors

Melco Calculator

Calculate production times and costs!

The Melco Calculator is a free online embroidery tool. It is used to calculate production times and costs for an embroidery job and can also be used for the analysis of an overall production. If you have several embroidery machines, it will also calculate which embroidery machine is the most efficient and how much could be saved. This is done on the basis of the following factors: Operating costs, manual work, investment and maintenance costs and the data of the embroidery design.

Go to calculator.melcocloud.com – set up an account today and improve your productivity and control your costs!

Melco Webservices

Personalize and automate easily, efficiently and cost-effectively.

Would you like to offer your customers personalized garments? Would you like to make your embroidery more efficient and thus more cost-effective? With our solutions for personalization and automation in embroidery, industry 4.0 is making its way into your business! We offer you two different solutions for this:

Melco Fusion

Melco Fusion is the ideal solution for your webshop or POS terminal. Thanks to the 3D visualization of the embroidery on the desired garment, your customers will immediately see what their custom item will look like. At the same time, the system automatically creates production-ready embroidery files for you. It is also suitable for printing and engraving.

Melco EFS

Melco EFS is the ideal solution for automation in embroidery — especially for the production of customized garments, badges and name badges. It automatically creates production-ready embroidery files from .csv, .xls and .xml files, and integrates easily into existing workflows.

Contact your Melco Distributor for more information!



MELCO EMT16X KEY SPECIFICATIONS

Type/# of Heads	Upper Arm-Lower Arm/1 to 30 Modular
Number of Needles	16
Maximum Tubular Frame Size (XxY)	19.7"x 16.9" (500mm x 430mm)
Maximum Sew Field/Tubular Frame (XxY)	15.7"x16.1" (400mm x 410mm)
Wide Angle Cap Frame	14.1" x 3.25" (360mm x 82mm)
Conventional Cap Frame	5.9"x 2.75" (152mm x 70mm)
Min/Max Sew Speed Flats	300-1500 stitches per minute
Min/Max Sew Speed Caps	300-1200 stitches per minute
Stitch Length Range	Dependent on Hoop Size
User Interface	Melco Operating System (MOS)
Machine Configuration	Up to 30 individual machines, connected by Ethernet
Self-Diagnostics Capability	Retrieves relevant machine data for troubleshooting
Design Memory	Dependent on hard drive, Max file size 500k
Pre-Sew Trace	Laser
Needle to Garment, Garment to Hoop Position	Laser Positioning System
Thread Feed Technology	Patented Acti-Feed™
Thread Break Detection	Upper & Lower Electronic Force Gauge Sensor
Automatic Stitch Backup	Yes
Automatic Trimmer	Yes
Lighting Type Cold Bright	Cold bright LED
Power Supply (V)	90-260V (Single Phase, 50/60 HZ, 4A), Class I (Grounded)
Power Consumption (W)	Typical: 200 Watts Max: 650 Watts
Temperature Range	15-40° C
Humidity	Max 85% Relative Humidity
Installation Category (over-voltage)	II
Pollution Degree	2
Motor Type(s)	Servo, Stepping
Motor Capacity (kW)	X and Z: 100 Watts Y: 250 Watts
Machine Construction Material	Aluminum

MELCO EMT16X PHYSICAL SPECIFICATIONS

With Cart	
Width	28.5" (724mm)
Height	65.7" (1669mm -3mm) damper compression
Depth	30.7" (779mm) front caster w/ brake extended
Weight	210.5 lbs (95.5kg)
Without Cart	
Width	28.5" (724mm)
Height	37.48" (952mm) (-3mm damper compression, thread tubes 70mm extended)
Depth	29.2" (741mm)
Weight	164.5lbs (74.6kg)