

Starfleet Machine – L'EPEE 1839 by MB&F

It's nothing new to see one of L'Epée 1839's high-end, Swiss-made timepieces flying over the Atlantic at twice the speed of sound: L'Epée's beautifully-crafted wall clocks were chosen to furnish Concorde cabins when the supersonic aircraft entered commercial service in 1976. Unfortunately Concorde is no more. However, thanks to the aero-horological design team at MB&F, there is now another supersonically-themed L'Epée clock, which will not only traverse the stratosphere, but explore deep space and beyond: Starfleet Machine!

Starfleet Machine is engineered and crafted by L'Epée 1839, Switzerland's only remaining specialised high-end clock manufacture, founded in 1839. Starfleet Machine is an intergalactic spaceship-cum-table clock, featuring hours and minutes, double retrograde seconds and power reserve indicator. The highly visible, superlatively finished in-house movement boasts an exceptional power reserve of 40 days (you need a large fuel tank for long space voyages). Starfleet Machine has been designed by MB&F, the award-winning artistic and micro-engineering laboratory.

Hours and minutes are indicated on the central black dome by hand-polished hands that follow the dome's curved contours. Behind that, a smaller rotating dome, accompanied by a revolving radar dish, provides an intuitive view of remaining energy: five bars indicates the movement is fully wound (40 days of power); one bar means Starfleet Machine is running low on propellant (eight days of remaining power) – it's all relative – most table clocks have a maximum power reserve of only eight days.

Below 12 o'clock on the central hour-minute dome are the double retrograde seconds in the form of turret-mounted laser cannons. The cannons start in parallel and cross over one another before rapidly flying out again, an action marking off 20-second intervals. The red-tipped cannons provide eye-catching visual animation, and perhaps just as importantly, fend off enemy attacks against the core of the craft just underneath: the regulator, which has deliberately been placed in full view for all to admire.

One of the biggest challenges for L'Epée was respecting the movement configuration required by MB&F's spacecraft design. L'Epée's calibre – featuring five mainspring barrels (in series for optimal performance) – usually equips vertically standing clocks, but here it is laid flat. The escapement platform also had to be set horizontally to be protected by the turret-mounted laser cannons. Naturally, the movement beats with a precision that Starfleet would be proud of, for an impressive accuracy of -2 to +2 minutes over 40 days!

Every component (except the 48 jewels) of the superlatively finished palladium-treated brass movement is designed and manufactured at L'Epée's Swiss atelier. The gears and mainspring barrels are on full display thanks to the skeletonised mainplate and concentric C-shaped external structure in stainless steel. Starfleet Machine can rest on both ends of its vertical landing gear; useful for when you turn it over to wind the mainspring and set the time.

When conceiving Starfleet Machine, MB&F founder Maximilian Büsser set out to boldly go where no clock designer had gone before, and L'Epée has enthusiastically enjoyed the ride. CEO Arnaud Nicolas says: "MB&F's idea for Starfleet Machine blew my mind. Like Max, I am a big sci-fi fan so when MB&F came to us with the design, we had to accept the challenge. Our team has been really inspired by this piece, and we think others will be too."

Starfleet Machine is limited to 175 pieces and is available in 'light' or 'dark' editions, the latter with ruthenium-finished components.



Starfleet Machine: it's a table clock, Jim, but not as we know it!

In the image of Star Trek's Captain James T. Kirk, one of his childhood heroes, Maximilian Büsser set out to explore strange new (horological) worlds when he developed the concept for Starfleet Machine with ECAL design graduate Xin Wang. Büsser says: "We looked at one of L'Epée's stunning, high-end clock movements and thought 'Mmm, we could do something with that', by giving it an MB&F twist. So we worked long and hard on a design that L'Epée has now brilliantly turned into a reality."

An out-of-this-world display

Next to even contemporary table clocks, Starfleet Machine stands out like a Vulcan at a terrestrial dinner party... Suffice to say this is the first creation bearing the distinguished L'Epée name to feature cosmically sleek, domed indicators and laser-cannon retrograde seconds. The central hour and minutes dome bears MB&F's signature numerals, while the bars on the power reserve indicator are framed by the dome's supporting dark, hand-finished arc. As the massive 40 days of power runs down, the dome slowly rotates 270°, and rotates back the other way when the clock is wound up. The accompanying radar dish rotates at the same speed as the power reserve indicator.

Table clocks – just like big watches?

Starfleet Machine is an ultra-exclusive table clock, featuring essentially the same mechanisms as a wristwatch, only larger: gear train, mainspring barrel (well, five in series), balance wheel, escape wheel and anchor. L'Epée's regulator also features an Incabloc shock protection system, something generally only seen in wristwatches, which minimises the risk of damage when the clock is being transported.

Larger components, however, make finely finishing the movement much more challenging than finishing a wristwatch, because of the bigger surface areas. L'Epée CEO Arnaud Nicolas explains: "It's not just a case of double the size of the components, double the time it takes to finish them. The complexity increases exponentially. For polishing you need to apply the same pressure as you would finishing a watch movement, but on a bigger surface, and that's more challenging. It's thanks to the experience and dexterity of our clockmakers that Starfleet Machine can feature such superlative fine-finishing."

Form follows function

The details of the polished movement can be fully appreciated by the naked eye, thanks in large part to Starfleet Machine's unobtrusive concentric C-shaped external structure, to which the mainplate is attached. The outermost C-shape has triangular notches next to, and in between, the three vertical arcs. These graceful supports are a stunning design feature, but also have a very practical application: to enable Starfleet Machine to be placed upside down for time-setting and rewinding. A special double-ended key fits into a cleverly designed tube in the back of the movement: one end of the key enters far enough to wind the movement; the other end penetrates the tube more deeply and allows time-setting.

Transparent 'biosphere' dome

Starfleet Machine comes with its own transparent biosphere dome, fitting over the top and following the contours of the vessel's three graceful arcs. In intergalactic missions, the dome creates a life-supporting habitat for the vessel and its crew on inhospitable planets. Here on earth, it protects Starfleet Machine from potential environmental hazards incompatible with high-end clocks: dust and curious fingers! The dome is made in polished glass which, given its smooth profile and handle-free form, makes it light and easily removable when turning the clock over for time setting and winding.



Starfleet Machine: Technical Specifications

Starfleet Machine is limited to 175 pieces and is available in 'light' or 'dark' editions, the latter with ruthenium-finished components.

Display

Hours and minutes: Curved, hand-polished hands rotate to indicating hours and minutes on a polished, central dome. The dome features MB&F's signature numerals.

Retrograde seconds: 20-second intervals indicated by double retrograde fly-out cannons emanating from central dome.

Power reserve indicator: a dome indicator, framed by a hand finished arc, provides an intuitive view of remaining energy as it turns 270°: 5 bars, 4 bars, 3 bars, 2 bars, 1 bar (1 bar = 8 days). Complemented by a 'radar dish' that also revolves 270°.

Main structure

Height: approx. 21cm Diameter: approx. 29cm

'Light' version: Inner C-shaped structure, external C-shaped structure, support arcs and screws: all in stainless steel

'Dark' version: Inner C-shaped structure, external C-shaped structure and support arcs: ruthenium-treated stainless steel Screws in stainless steel

Movement

L'Epée in-house designed and manufactured movement Balance frequency: 18,000 vph / 2.5Hz Barrels: 5 in series Power reserve: 40 days Jewels: 48 Incabloc shock protection system Manual-winding: Double-ended key to set time and wind movement

'Light' version: Mechanism and main plate in palladium-treated brass

'Dark' version: Mechanism in palladium-treated brass Main plate in ruthenium-treated brass

Transparent 'biosphere' dome

Material: polished glass Height: 27cm Maximum diameter: 31.5cm



L'EPEE 1839 – the premier clock manufacture in Switzerland

For 175 years, L'Epée has been at the forefront of watch and clock making. Today, it is the only specialised manufacture in Switzerland dedicated to making high-end clocks. L'Epée was founded in 1839, initially to make music box and watch components, by Auguste L'Epée who set up the business near Besançon, France. The L'Epée hallmark was that all parts were made entirely by hand.

From 1850 onwards, the manufacture became a leading light in the production of 'platform' escapements, creating regulators especially for alarm clocks, table clocks and musical watches. By 1877, it was making 24,000 platform escapements annually. The manufacture became a well-known specialist owning a large number of patents on special escapements such as anti-knocking, auto-starting and constant-force escapements and the chief supplier of escapements to several celebrated watchmakers of the day. L'Epée has won a number of gold awards at International Exhibitions.

During the 20th century, L'Epée owed much of its reputation to its superlative carriage clocks and, for many, L'Epée was the clock of the influential and powerful; it was also the gift of choice by French government officials to elite guests. In 1976 when the Concorde supersonic aircraft entered commercial service, L'Epée wall clocks were chosen to furnish the cabins, providing passengers with visual feedback of the time. In 1994, L'Epée showed its thirst for a challenge when it built the world's biggest clock with compensated pendulum, the Giant Regulator. At 2.2m high, it weighs 1.2 tons – the mechanical movement alone weighs 120kg – and required 2,800 man-hours of work.

L'Epée is now based in Delémont in the Swiss Jura Mountains. Under the guidance of CEO Arnaud Nicolas, L'Epée 1839 has developed an exceptional table clock collection, encompassing a range of sophisticated classic carriage clocks, contemporary design clocks (Le Duel) and avant-garde, minimalist clocks (La Tour). L'Epée clocks feature complications including retrograde seconds, power reserve indicators, perpetual calendars, tourbillons and striking mechanisms – all designed and manufactured in-house. Ultra-long power reserves have become a signature of the brand as well as superlative fine finishing.

MB&F – award-winning concept laboratory

In 2005, after seven years in the senior management team of Jaeger-LeCoultre and another seven years as managing director of Harry Winston Rare Timepieces in Geneva, Maximilian Büsser created the world's first horological concept brand: MB&F – Maximilian Büsser & Friends. MB&F is dedicated to developing radical horological concepts by working in small, hyper-creative groups composed of people Büsser enjoys working with. Respecting tradition without being shackled by it enables MB&F to act as a catalyst in fusing traditional, high-quality watchmaking with cutting-edge technology to create three-dimensional mechanical sculptures.

In 2007, MB&F unveiled their first Horological Machine. Its sculptured, three-dimensional case and beautifully finished Engine set the standard for the idiosyncratic Machines that followed – Machines that tell the time, rather than Machines to tell the time. In 2011, MB&F launched their round-cased Legacy Machine collection. These more classical pieces (classical for MB&F that is) pay tribute to 19th century watchmaking excellence by reinterpreting complications from the great horological innovators to create contemporary objets d'art. Since 2011, MB&F alternate between launching an exciting new Horological Machine and an historically-inspired Legacy Machine.



At the Grand Prix d'Horlogerie de Genève in 2012, MB&F's Legacy Machine No.1 was awarded the Public Prize (voted for by horology fans) and the Best Men's Watch Prize (voted for by the jury). At the 2010 Grand Prix, MB&F won Best Concept and Design Watch for HM4.