



INTRODUCING

MASTER HYBRIS MECHANICA ULTRA THIN MINUTE REPEATER TOURBILLON

AN OPEN-WORKED MASTERPIECE COMBINING A FLYING TOURBILLON
WITH A MINUTE REPEATER IN AN ULTRA-THIN AUTOMATIC MOVEMENT

KEY FACTS:

- **Beyond skeletonised movement:** artistic open-working and sapphire bridges reveal the beauty of the calibre's 593 components
- **Ultra-slim calibre:** a high-complication automatic calibre 5mm thick, in a case 8.25 mm high by 41.4 mm in diameter
- **Complex case construction:** a new 60-part case, masterfully adapting the iconic Master Grande Tradition codes – a first exclusive tailoring for Calibre 362
- **The thinnest automatic minute repeater tourbillon:** conceived as a fully integrated movement where the minute repeater forms an intrinsic part of the architecture

Jaeger-LeCoultre presents the Master Hybris Mechanica Ultra Thin Minute Repeater Tourbillon, a new interpretation of the Maison's celebrated ultra-thin calibre that unites a minute repeater with a flying tourbillon. Set in an 18K Pink Gold case (750/1000) measuring just 8.25 mm thick, the entire mechanism is open to view, its movement revealed by utilising the transparent property of sapphire, and the pared-back dial that forms an open-worked ring encircling the movement. The subject of seven patents – six of which were developed specifically for the launch of Calibre 362 in 2014. The watch unites some of horology's most notable feats, including a fully flying one-minute tourbillon and a beautifully sonorous minute repeater.

A GREAT LEGACY: CHIMING WATCHES, ULTRA-THIN CALIBRES, TIMING PRECISION

Representing a major technical breakthrough and an innovative aesthetics when it was introduced in 2014, Calibre 362 draws upon Jaeger-LeCoultre's remarkable heritage in two key areas: chiming complications and precision timekeeping. It remains the world's thinnest automatic minute repeater tourbillon.

Jaeger-LeCoultre's expertise in ultra-thin movements dates back to the collaboration between Jacques-David LeCoultre and Edmond Jaeger, which resulted in the record-breaking 1.38 mm-thick Calibre 145, introduced in 1907.

Since creating its first tourbillon movement in 1946 and its first tourbillon wristwatch in 1993, the Maison's quest for ever-greater timekeeping precision has resulted in multiple inventions in both the construction



of tourbillon cages and the shape of hairsprings, optimised for different forms of regulating organs. Since 1870, when La Grande Maison introduced its first minute repeater, Jaeger-LeCoultre has crafted more than 200 different repeating calibres. The Manufacture's investment of time and energy into researching striking complications and the quality of their sound, timbre, volume and cadence has resulted in many patents, including several incorporated into Calibre 362.

Rather than superimposing separate layers for each complication, Calibre 362 was conceived from the outset as a fully integrated movement. The minute repeater is not added onto a base calibre; it forms an intrinsic part of the architecture. This integration is fundamental to achieving the exceptional thinness of the movement.

The striking mechanism was entirely re-engineered to occupy minimal vertical space. Its optimised construction accounts for approximately one third of the calibre's total volume, demonstrating how carefully each component was calculated to reduce thickness without compromising acoustic performance. By rethinking the layout of the racks, hammers and gongs within the main plate, Jaeger-LeCoultre's engineers eliminated the need for additional layers traditionally required in repeater constructions.

Equally instrumental to the slender profile is the flying tourbillon that comprised 59 components and weighs 0.248 grams. Suspended without an upper bridge, the one-minute flying tourbillon reduces structural height while enhancing visual lightness. The absence of an upper support not only contributes to the aesthetic transparency of the movement but also removes superfluous material, optimising vertical space.

The oscillating mass also plays a decisive role. Instead of a conventional central rotor, Calibre 362 is equipped with a peripheral oscillating mass that encircles the movement. This ingenious solution eliminates the additional thickness of an overlaid winding rotor, preserving the ultra-thin profile while ensuring efficient automatic winding.

Minute repeater integration, flying tourbillon construction and peripheral winding system - each element was conceived not as an addition, but as a structural contributor to thinness.

LIGHTNESS, TRANSPARENCY AND VISUAL CONTRAST

This Hybris Mechanica edition of Calibre 362 has been designed to showcase the entire movement - its assembly alone requires seven weeks - revealing the delicacy of its 593 components, including the entire operating sequence of the minute repeater mechanism and the captivating dance of the tourbillon.

To reveal and amplify this beauty, skeletonisation – meaning creating openings within the existing bridges of the Calibre – would be the traditional means. However, for Jaeger-LeCoultre, this was not sufficient, as the structural parts of the bridges and plates, which are essential for a movement's function, would still limit the visibility of part of the Calibre.



Sapphire Bridges, an innovative solution: Three bridges, essential for the structural stability of the movement, are meticulously constructed from transparent sapphire crystal rather than metal. This represents a significant accomplishment for the Maison, as creating sapphire bridges directly within the movement presented several technical challenges, notably the precise setting of its all-important 11 ruby jewels. Since direct setting into the sapphire was not feasible, 18K Pink Gold (750/1000) chatons were ingeniously employed – a technical feat that not only resolved the challenge but also enhanced the calibre's aesthetic beauty. To enhance their transparency and visual purity, the sapphire bridges are finished with polishing, anti-reflective coating, and an anti-static treatment.

14 different decorative techniques: The calibre's aesthetic brilliance is underscored by various finishes, including those on the case: sandblasting, perlage, polishing, flat polishing, straight graining, linear brushing, circular brushing, Côtes de Genève, diamond polishing, snailing, sunray brushing, bevelling, and guilloché. The exceptional precision of this hand-finishing is evident across all components, from the hand-bevelling and perlage to the varied brushing and polishing on diverse surfaces. This dedication to detail is exemplified by the 48 inner angles and 60 hand-bevelled components that adorn the movement.

An exceptional dial: The dial is elegantly complemented by an 18K Pink Gold (750/1000) case, distinguished by a variety of surface finishes that enhance the play of light across its contours – an aesthetic approach newly introduced for this calibre. Encircling this intricate display, the dial is pared back to form an open-worked ring of 18K White Gold (750/1000) around the movement's periphery, revealing the elegantly guilloché in-house 18K Pink Gold (750/1000) winding rotor, a masterpiece crafted within Jaeger-LeCoultre's Métiers Rares™ ateliers. To create visual contrast, the applied hour markers in 18K Pink Gold (750/1000) and the Jaeger-LeCoultre logo are matched with the hands and the winding rotor.

The art of integration: The complex case, designed and reinterpreted for the ultra-slim Calibre 362, is composed of 60 parts. Developed for the original Calibre 362, an innovative alternative to the conventional slide that activates a minute repeater combines a patented, retractable button at 10 o'clock that activates the function with a second button at 8 o'clock that locks and releases it. These buttons have been redesigned particularly for Hybris Mechanica Calibre 362 to integrate perfectly into its new case.

A MASTERPIECE OF TECHNICAL INVENTIVENESS AND THINNESS

Testament to the Manufacture's enduring quest to create the 'perfect' chime, the minute repeater of Calibre 362, made of 187 components, features a striking mechanism designed from its inception in harmony with the regulating organ and automatic winding system. This design enables both exceptional acoustic performance and extreme thinness. Integrated directly into the calibre's main structure, the minute repeater features one-piece, square-profile gongs optimised for tonal purity and resonance. These are paired with articulated trebuchet-style hammers that strike the gongs with greater velocity and precision, generating a sound that is at once powerful and refined.

Invented specifically for Calibre 362, the Manufacture's patented silent time-lapse reduction mechanism further exemplifies this philosophy of integration. By dramatically minimising the pause between the hour



and minute chimes – particularly in the absence of a quarter-hour strike – it ensures a fluid, uninterrupted acoustic sequence.

The transparency of the flying tourbillon is enhanced by both the cutaway in the base plate and the absence of cocks or bridges holding it in place, as well as the patented flying balance wheel. To ensure slimness while ensuring the most concentric ‘heartbeat’, and therefore timekeeping accuracy, Jaeger-LeCoultre’s engineers invented and patented the S-shaped hairspring, which is also fully visible thanks to the absence of a tourbillon bridge. The invention of this novel spring shape was necessitated by the particular construction of the tourbillon and the requirement for overall slimness of the calibre.

Three key innovations have made the technical beauty and complexity of Calibre 362 possible within an ultra-thin self-winding movement measuring just 5 mm in height.

The oscillating weight that winds the mainspring is designed as a peripheral rotor, with the dual benefit of adding no thickness to the calibre while also making the beauty of the movement fully visible from both the dial side and the back of the watch. Mounted on 36 specially conceived ceramic ball bearings and activated by the movement of the wearer’s wrist, it moves freely in both directions for optimal winding efficiency.

TECHNICAL CHARACTERISTICS

MASTER HYBRIS MECHANICA ULTRA THIN MINUTE REPEATER TOURBILLON

Case: 18K Pink Gold (750/1000)

Dimensions: 41.4 mm x 8.25 mm

Calibre: Automatic Jaeger-LeCoultre Calibre 362

Functions: Hours and minutes; minute repeater with silent-timelapse reduction, one-minute flying tourbillon

Power reserve: 42 hours

Front dial: White Gold, open-worked

Back dial: Transparent sapphire crystal

Water resistance: 30 metres

Strap: Brown alligator leather with small-scale lining; 18K Pink Gold (750/1000) pin buckle

Reference: Q13125S2

Limited edition: 10 pieces

ABOUT THE VALLEY OF INVENTIONS

Celebrating Jaeger-LeCoultre’s origins in the Vallée de Joux, which remains its home to this day, The Valley of Inventions pays homage to an isolated valley where, 600 years ago, refugees from elsewhere in Europe found safe haven. The challenging environment and brutally cold winters required its early inhabitants to develop resilience, patience and inventiveness in order to survive. Ten generations later, in the early 19th century, a self-taught watchmaker, Antoine LeCoultre, began to invent machines that laid the foundations of modern watchmaking by



enabling the measurement and cutting of watch components to an unprecedented degree of precision. From the first LeCoultre watchmaking atelier in 1833, this spirit of inventiveness and pursuit of precision have defined the Maison. A series of inventions and technical breakthroughs resulted in calibres that were sought after by many other leading names for use in their own watches, giving rise to the Maison's designation: The Watchmaker of Watchmakers™. Marked by the award of more than 430 patents to date, these ongoing inventions continue to nurture Jaeger-LeCoultre's pursuit of precision, guiding it to this day and into the future.

ABOUT JAEGER-LECOULTRE – THE WATCHMAKER OF WATCHMAKERS™

Since 1833, driven by an unquenchable thirst for innovation and creativity, and inspired by the peaceful natural surroundings of its home in the Vallée de Joux, Jaeger-LeCoultre has been distinguished by its mastery of complications and the precision of its mechanisms. Known as the Watchmaker of Watchmakers™, the Manufacture has expressed its relentlessly inventive spirit through the creation of more than 1,400 different calibres and the award of more than 430 patents. Harnessing over 190 years of accumulated expertise, La Grande Maison's watchmakers design, produce, finish and ornament the most advanced and precise mechanisms, blending passion with centuries-old savoir-faire, linking the past to the future, timeless but always up with the times. With 180 skills brought together under one roof, the Manufacture creates fine timepieces that combine technical ingenuity with aesthetic beauty and a distinctively understated sophistication.

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