



A NEW EXPRESSION OF THE MASTER HYBRIS MECHANICA CALIBRE 362 WITH A MIDNIGHT-BLUE DIAL

UNITING A MINUTE REPEATER AND FLYING TOURBILLON IN AN ULTRA-THIN AUTOMATIC CALIBRE

Key facts:

- *A new aesthetic highlighting the contrast between midnight-blue and polished white gold*
- *A technical tour-de-force representing eight patents, including six inventions developed specifically for this watch*
- *An innovative flying tourbillon and a superlative chime*

Marking a decade since the Master Hybris Mechanica Calibre 362 was first introduced, Jaeger-LeCoultre presents a new interpretation of the ultra-thin minute repeater in a five-piece limited edition with a deep midnight-blue sunrayed dial in an 18k white gold case (750/1000).

Universally acclaimed not only for its technical ambition but also for its aesthetic purity, the Master Hybris Mechanica Calibre 362 is testament to La Grande Maison's inventiveness and exceptional watchmaking skill. It was, at the time of its launch, one of the world's thinnest minute repeater wristwatch with a tourbillon in production, and it is still today Jaeger-LeCoultre's thinnest minute repeater in collection, at 7.8 mm – all the more rare for being a high-complication movement with automatic winding. The calibre itself, comprising 566 parts is only 4.7 mm thick.

Harnessing a legacy of sound and precision

To create the Master Hybris Mechanica Calibre 362, Jaeger-LeCoultre harnessed its remarkable heritage in two key areas: chiming calibres and precision.

Since creating its first minute repeater in 1870, La Grande Maison has developed more than 200 different chiming calibres, ranging from relatively simple alarms to the most complex Grandes Sonneries and Westminster chimes. The Manufacture's watchmakers have worked ceaselessly to redefine acoustic quality, by improving both the efficiency of the chiming mechanisms and the clarity and beauty of the sound being produced.



The quest for precision has been a core value of La Grande Maison since it was founded in 1833 and has been pursued in two key areas. The first being the precision of production – enabling the miniaturisation of components and the development of ultra-thin calibres – and the second being the precision of timekeeping - through intensive research and innovation in the regulating organ, including the shape of hairsprings and different forms of tourbillon.

The Maison's distinguished history of ultra-thin watchmaking derives from its philosophy of always marrying technical sophistication to aesthetic refinement. A milestone in this development, which has inspired the continuing pursuit of thinness and elegance for more than a century, was the association between Edmond Jaeger and Jacques-David LeCoultre, which gave birth to one of the world's thinnest pocket watch in 1907.

A masterpiece of technical sophistication enhanced by aesthetic refinement

The Master Hybris Mechanica Calibre 362 represents eight separate patents, two for previous inventions related to chiming mechanisms – crystal gongs (2005) and trebuchet hammers (2009) – and six for inventions developed specifically for this timepiece:

- Flying balance wheel;
- Flying balance wheel in a flying tourbillon;
- S-shaped hairspring;
- Fixed winding stroke on the minute repeater;
- Retractable push-button on the minute repeater;
- Silent-timelapse reduction on the minute repeater.

Achieving the goal of thinness required a complete re-think of the regulating organ and for Calibre 362, Jaeger-LeCoultre developed and patented a new form of flying tourbillon – one that is fitted with a flying balance wheel. This structure also required a re-think of the balance spring and the result is the patented S-shaped hairspring, which is fixed above the balance wheel, in full view of the observer. As well as reducing the overall thickness of the calibre, uncaging the tourbillon allowed for a larger balance wheel, which, with the oscillation rate of 21,600vph (unusually fast in a tourbillon movement with such a large balance wheel) creates greater stability and thus further enhances the precision of the timekeeping. Not only a technical feat, the design of the flying tourbillon brings an aesthetic benefit: with no bridge or upper cage, there is no visual impediment to the display of its mesmerising oscillations.

To provide the convenience of automatic winding to the wearer, Calibre 362 was conceived as a self-winding movement. However, this required Jaeger-LeCoultre's watchmakers to re-think the design of the winding rotor, which normally sits on top of the movement, adding thickness. Their solution – entirely new in such a high-complication wristwatch – was to develop a peripheral rotor. Encircling the calibre, it has a section in Platinum 950/1000 to create the necessary weight and is mounted on ceramic ball



bearings to ensure that it swings freely, with minimal friction. This positioning of the rotor also has aesthetic benefits: it can be observed through the slots around the dial as it rotates, adding visual intrigue, while the view of the movement through the transparent sapphire case-back is completely unimpeded.

Crystal gongs and trebuchet hammers enhance the quality of the chime. Being attached directly to the glass of the watch, the gongs turn the sapphire crystal into a resonator, exploiting the superior acoustic qualities of that material. The articulated hammers recoup the great majority of the energy lost in traditional minute repeater construction, thus enabling a chime of unprecedented strength.

The watchmakers supplemented these elements with a new invention: silent-timelapse reduction. Integrated into the strike train, this reduces the pause between the chiming of the hours and minutes when there are no quarter-hours to be struck. In a traditional minute repeater, when there are no quarters to be struck, there is a lengthy pause between the chimes for the hours and the minutes; this new feature diminishes the silence and chimes the minutes rapidly after the hour strikes.

Turning their attention to the aesthetics of the watch, Jaeger-LeCoultre's engineers developed and patented a new mechanism to activate the minute repeater: a discreet unlocking button at 8 o'clock on the case side and a retractable push-button at 10 o'clock. When the locking button is moved, the pusher pops out; when the pusher is pressed in, the striking mechanism is activated and the pusher remains recessed until activated again, thus preserving the pure lines of the round case. This repeater activating system also delivers a performance benefit, enabling the case to be made water-resistant more easily. Water-resistant minute repeaters are rare indeed, and the Master Hybris Mechanica Calibre 362 is water-resistant to 3 bar.

The contrast of a midnight-blue dial and polished white gold case

At 41mm diameter and just 7.8 mm thick, the case of the Master Hybris Mechanica Calibre 362 was inspired by the elegance of the Maison's early 20th-century ultra-thin pocket-watches – in particular the 1907 couteau (knife) pocket watch.

The Manufacture chose white gold because of the metal's superior acoustic qualities and, in the new interpretation of the timepiece, the midnight blue sunrayed dial contrasts dramatically with the hand-polished bezel, sides and tapering lugs.

Against the deep blue background, the simplicity of the dial indications also pays subtle tribute to Jaeger-LeCoultre's historic pocket watches: elongated Dauphine hands, hours marked with simple batons and minutes marked by white dots.

Haute Horlogerie finishes abound, including Côtes de Genève on certain bridges, and hand-bevelling, with the characteristically sharp internal angles bearing testimony to the Métiers Rares™ atelier's



craftsmen's skill and attention to detail. Further evidence of that attention to detail is evident on the dial side, where sections of the peripheral oscillating weight have been delicately snailed.

With eight patents, including six inventions developed specifically for this timepiece, the Master Hybris Mechanica Calibre 362 is an eloquent testimony to the Manufacture's perpetual quest for pushing the boundaries of horological innovation.

TECHNICAL CHARACTERISTICS

MASTER HYBRIS MECHANICA CALIBRE 362

Case: White gold 750/1000 (18k)

Dimensions: 41mm diameter x 7.8 mm thick

Calibre: Automatic Calibre 362

Functions: Hours, Minutes, Tourbillon, Minute Repeater

Power Reserve: 42 hours

Dial: Deep blue sunrayed

Water resistance: 3 bar

Strap: Blue alligator leather with small-scale alligator lining

Reference: Q1313581

Limited edition of 5 pieces

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.