



## **JAEGER-LECOULTRE REFINES THE ART OF MECHANICAL MASTERY IN THE MASTER GRANDE TRADITION RÉPÉTITION MINUTES PERPÉTUELLE**

With close to two centuries of horological expertise, Jaeger-LeCoultre stands alone in its command of complicated watchmaking. This includes unparalleled in-house experience in chiming watches, the most prestigious and exalted domain of mechanical savoir-faire. As a matter of fact, La Grande Maison du Sentier has the distinction of being the only manufacture in the world to have over 200 chiming watch calibres in its historical and modern inventory.

In May 2019, following the success of the Master Grande Tradition Gyrotourbillon Westminster Perpétuel at the Salon International de la Haute Horlogerie (SIHH), Jaeger-LeCoultre debuts a timepiece that once again brings new levels of excellence to its mastery of chiming watches.

The Master Grande Tradition Répétition Minutes Perpétuelle features an innovative gong system that resurrects the idealised chime of antique pocket sonneries, paired with an evolutionary case design that transmits timelessness and modernity.

### **Key points of the Jaeger-LeCoultre Master Grande Tradition Répétition Minutes Perpétuelle**

- A new gong system that replicates the richness and strength of antique sonnerie pocket watches
- Evolutionary case design that redefines the timelessness and modernity of the Master Grande Tradition timepieces
- Heightened focus on customer experience with automatic winding system and intuitive perpetual-calendar setting

### **A new chime**

Innovation in the domain of chiming watches has been one of the foundation stones of mechanical expertise at Jaeger-LeCoultre since 1895, when the company was awarded a patent for the world's first silent strike regulator. In the 21<sup>st</sup> century, Jaeger-LeCoultre channelled its creativity in sonnerie watches towards producing the most energy-efficient and volume-optimised chime possible.

The Master Grande Tradition Répétition Minutes Perpétuelle represents the next generation of chime-related innovation at La Grande Maison. Its movement, the automatic calibre 950, unites the two apex values of chime quality that were previously thought to be incompatible — power and beauty. This combination of qualities has largely eluded the best watchmakers in history, the understanding being that one can come only at the cost of the other.



The research and innovation team of Jaeger-LeCoultre have achieved this idealised chime by creating an entirely novel gong configuration, unlike any other. Instead of lying flat in overlapping coils like the most commonly seen minute repeater gongs, the gongs of the Master Grande Tradition Répétition Minutes Perpétuelle depart radically from convention by incorporating unprecedented height and space. Two gongs, welded together at their base, travel in the same direction around the periphery of the movement, making one near-complete tour before dramatically arching upwards, traversing the entire height of the movement. They then diverge and take a terminal semi-arc around the other side of the movement, stopping just before their ends meet.

By maximising the space occupied by the element that creates sound vibrations — the gongs — the calibre 950 boosts its capacity for sound transmission. Further increasing this capacity is the proximity of the gongs to a larger proportion of the watch case, according to the acoustic principles that instinctively guide us where to position a relatively weak audio source in relation to an resonator (such as when a personal music player is placed in a glass dish to amplify the sound).

Signature chime innovations of Jaeger-LeCoultre, such as the square gong cross-sections and the articulated “trebuchet” hammers, ensure that the gongs are struck with the greatest possible impact and the least interference from hammer recoil. These set the stage for the meticulously engineered acoustic profile of the Master Grande Tradition Répétition Minutes Perpétuelle chime.

The lower-pitched gong takes a helical path from gong heel to tip. Though irregular in shape, its unidirectional flow allows it to vibrate in a way that creates the harmonic overtones giving fullness and balance to bass notes.

The higher-pitched gong switches direction, effectively folding back on itself like the tines of a tuning fork. This configuration emphasises the fundamental vibration of the gong, producing a purer tone that imparts the clarity and brilliance prized in treble notes.

This new optimised combination of chime volume and acoustic quality marks out new territory for Jaeger-LeCoultre in sonnerie watches, an expansion that is fully supported by the other customer-centric aspects of the Master Grande Tradition Répétition Minutes Perpétuelle.

### **Focus on the wearer**

Perpetual calendars are among the most practical and useful mechanical complications that can be incorporated into a timepiece. Their ability to display the correct calendar information, taking into consideration the varying lengths of the months — even during leap years — provides everyday convenience for the wearer, especially when combined with an automatic winding system for low-maintenance upkeep when worn regularly.



Traditional-style perpetual calendars are mostly hand-wound, as the prestige of a high complication generally demands that the finely finished movement should be fully visible for admiration. Automatic minute repeaters are even rarer, with occasional exceptions such as the Jaeger-LeCoultre Master Ultra Thin Minute Repeater Flying Tourbillon and the Jaeger-LeCoultre Rendez-Vous Ivy Minute Repeater.

The winding rotor of the calibre 950 is hidden within the movement, positioned between the perpetual calendar and minute repeater mechanisms, in order to have full view on the mechanism at the back of the watch. The Master Grande Tradition Répétition Minutes Perpétuelle is thus continuously supplied with energy without the need to obscure a single finely finished component, whether chamfered, satin-finished, decorated with côtes de Genève, or any combination of the above.

Another feature of the watch that puts the needs of the wearer foremost is the intuitive Security zone that appears in a dial aperture near the axis of the hour and minute hands. This indication appears between the hours of 10pm and 1am, when adjusting the time or calendar is not advised due to the possibility of stressing or even damaging the movement. This reminder takes the onus off the wearer to remember when the time and calendar indications can be adjusted.

Despite the multiple complications and the automatic winding system, all of which are known to add bulk to a timepiece, the Master Grande Tradition Répétition Minutes Perpétuelle is highly compact, with a diameter of 43mm and a height of 13.72mm.

## **Design evolution**

The Master Grande Tradition collection has always been a platform for high watchmaking at Jaeger-LeCoultre, emphasising classic design in order to let the sophisticated mechanisms take centre stage. In the Master Grande Tradition Répétition Minutes Perpétuelle, Jaeger-LeCoultre recalibrates the balance of technical prowess against aesthetic refinement to arrive at a new equilibrium of power and beauty.

A new case, comprising more than 80 separate hand-finished parts, was created for the Master Grande Tradition Répétition Minutes Perpétuelle. Particular attention was paid to the ergonomics of the case, from the deeply convex bezel and broad bevels on the lugs to the smoothly tapered minute repeater slide.

Parts are alternately polished, satin-finished or sandblasted, the latter being highly challenging to execute on the exterior segments of a watch. The extremely porous surface of a sandblasted component causes it to easily pick up oils from even the slightest contact with human skin, leaving a mark that can be seen as unsightly (though easily removed) blemish. In its finishing and Métiers Rares ateliers, Jaeger-LeCoultre has perfected the technique of applying a sandblasted finish that is resistant to such oil transfer.



The Master Grande Tradition Répétition Minutes Perpétuelle comes in two dial variations, a neoclassical silver-grained dial and a deep blue translucent guilloche enamel dial that is produced by hand in the Atelier des Métiers Rares.

A dial of solid white gold is first decorated with guillochage on century-old rose engines, each round of guilloché work repeated several times in order to achieve the correct depth of engraving. The perpetual calendar counters are then precision laser-welded onto the dial, before the remaining spaces are filled with translucent enamel in another multi-stage process. The enamel is then polished, resulting in the final dial of shimmering vitreous blue that changes in hue with the light and angle.

The Jaeger-LeCoultre Master Grande Tradition Répétition Minutes Perpétuelle is the result of 149 years of experience in sonnerie timepieces, combined with an unparalleled patrimony in mechanical innovation and the most exalted levels of miniature decorative arts. With this latest masterpiece, La Grande Maison du Sentier recommits itself to furthering the frontiers of 21st-century watchmaking.

### **Master Grande Tradition Répétition Minutes Perpétuelle**

Dimensions: 43 mm

Thickness: 13.72 mm

Calibre: 950 – Automatic

Case: White gold

Water resistance: 5 bar

Functions: Hours/Minutes, Minute repeater, Perpetual calendar (Day, Date, Month, Moon phase, Year)

Power reserve: 38 hours

Dial: Blue guilloché enamel / Silver grained

Case-back: Open

Reference: Q52334E1 (Limited to 30 pieces), Q5233420 (Limited to 30 pieces)

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### **Jaeger-LeCoultre**

Since its creation, Jaeger-LeCoultre has made precision an art form in its own right, balancing skills and artistry with sophistication and esthetic finesse. In keeping with the inventive spirit initiated in 1833, the artisans of the Manufacture create collections which have been at the forefront of fine watchmaking: Reverso, Master, Jaeger-LeCoultre Polaris, Rendez-Vous and Atmos – this rich legacy built by the Grande Maison over centuries serves as a constant source of inspiration in ever so pushing the boundaries through unprecedented timepieces.

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