

TECHNICAL SPECIFICATION OF THE AUTOMATIC CALIBER FLYBACK CHRONOGRAPH RM 60-01 REGATTA

CALIBER RMAC2: automatic winding movement with hours, minutes, running seconds at 3 o'clock, oversize date, month, annual calendar, Flyback chronograph with central seconds counter, and 30 minute countdown timer at 9 o'clock, 24 hour totalizer at 6 o'clock, UTC function and adjustable rotor geometry.

Diameter: 50.00 x 16.33 mm.

MAIN FEATURES

POWER RESERVE

Circa 50 hours (±10%).

Actual power reserve results will depend on the period of time the chronograph is utilised.

BASEPLATE BRIDGES AND BALANCE COCK MADE OF GRADE 5 TITANIUM

These components are in grade 5 titanium with black PVD coating. This provides the whole assembly great rigidity, as well as precise surface flatness that is essential for the perfect functioning of the gear train.

FLYBACK CHRONOGRAPH

By using the pusher between 4 and 5 o'clock, the running chronograph can be reset without first having to stop the mechanism. This was originally developed for pilots in order to not waste time (and therefore accuracy) from stopping, resetting and starting the chronograph whilst crossing a navigational point.

While the chronograph function is activated, the hours and minutes show up the elapsed time thanks to the counter at 6 and 9 o'clock, the seconds are indicated by the central hands.

Function: the user can start or stop the chronograph function via the pusher located between 1 and 2 o'clock. The flyback function can be continuously reset by depressing the second pusher located between 4 and 5 o'clock.

COUNTDOWN

Located at 9 o'clock, the hand is replaced by a skeletonised 60 minutes-marked disc. The pilot can read minutes elapsed but also remaining minutes.

UTC FUNCTION

The RM 60-01 features a UTC hand that can be used either as a second time zone indicator or in combination with the sun and the rotating bezel to orientate the points of the compass. It can be easily adjusted using the pusher at 8 o'clock.



OVERSIZE DATE DISPLAY

Semi-instantaneous, placed in a red outlined horizontal aperture under 12 o'clock with automatic adjustment for months of 30 or 31 days.

MONTH DISPLAY

Semi-instantaneous indicated by Arabic numerals, placed between 4 and 5 o'clock.

FREE SPRUNG BALANCE WITH VARIABLE INERTIA

This type of balance wheel represents the ultimate in innovation. It guarantees greater reliability when subjected to shock and also during movement assembly and disassembly, hence better chronometric results over time.

The regulator index is eliminated and a more accurate and repeatable adjustment is possible thanks to 4 small adjustable weights located directly on the balance.

ROTOR WITH VARIABLE GEOMETRY

- Arm in grade 2 titanium
- Flange in grade 5 titanium
- 6-positional adjustment via grade 5 titanium screws
- Ribs in 18K white gold, high palladium content
- Weight segment in white gold
- Ceramic ball bearings
- Unidirectional anti-clockwise winding direction

This exclusive Richard Mille design allows the rewinding of the mainspring to be adapted most effectively to the user's activity level. By adjusting the setting of the rib's placement, the rotor's inertia is modified to either speed up the winding process in the case of leisurely arm movements, or slow it down when sporting activities are pursued. As a result, this invention allows the movement's winding mechanism to be optimized.

DOUBLE BARREL SYSTEM

The double barrel system contributes to the torque stability over a longer period. This is achieved by using more rotations of the barrel, thereby reducing pressure and wear on the teeth, bearings and pivots, hence an improved long-term performance.

SPLINE SCREWS IN GRADE 5 TITANIUM FOR THE BRIDGES

Due their design, these screws offer better control of the torque applied during assembly.

These screws are therefore unaffected by physical manipulation during assembly or disassembly and age well.



OTHER FEATURES

- Diameter of the movement: 39.15 mm

- Thickness: 9.00 mm

- Jewels: 62

- Balance: Glucydur, 4 arms, inertia moment 4.8 mg·cm², angle of lift 53°

- Frequency: 28,800 vph (4Hz)

- Balance spring: ELINVAR

- Shock protection: Incabloc 908.22.211.100 (transparent)

- Escapement wheel jewels: Rubifix (transparent)

- Stem with three positions: manual winding, date adjustment, time setting

CASE

The case features a unique four-part structure. The system is completed by the incorporation of horns in the case assembly. The four-part case of the RM 60-01 is very difficult to make. After a turning operation lasting 1 hour and 40 minutes, no less than 800 milling operations are required, taking several hours. Machining demands nearly 11 hours of separate operations. It is followed by a meticulous quality control procedure that takes a full day for each case. The 3 pushers, their components and the crown of the RM 60-01 require 10 days of machining, during which they undergo numerous tests for water-resistance and quality control, followed by the manual brushing and polishing of the entire case. All of these stages are vital in producing the characteristic ergonomic quality of Richard Mille watches.

BIDIRECTIONAL BEZEL WITH COMPASS

The RM 60-01 has been conceived to allow navigators to orient themselves at sea thanks to the rotating bezel featuring the display of the four cardinal points, a measuring disc of 360° and a 24-hour scale.

Its functioning principle relies on 2 factors: the knowledge of the local time and the position of the sun in the sky. First, the UTC hand is placed pointing towards the sun. Then the rotating bezel just needs to be set in order for the UTC hand to indicate the local hour displayed on the bezel. North, East, South and West are then shown to the user. What differentiates the RM 60-01 from the other "regatta" watches is that it can be used for orientation in both the northern and the southern hemispheres without any calculation, simply by selecting the appropriate scale.

SPLINE SCREWS IN GRADE 5 TITANIUM FOR THE CASE

This permits better control of the torque applied to the screws during assembly. These screws are therefore unaffected by physical manipulation during assembly or disassembly and age well.



LOCKING CROWN

In order to avoid accidental actuation resulting from an error of manipulation, Richard Mille developed a secondary locking crown that is able to lock both pushers simultaneously with a simple turn.

The green and red indexes respectively show whether the locking mechanism is in operation or deactivated. This complex, innovative mechanism is exclusive to Richard Mille.

UPPER FLANGE

In carbon fiber with a black surface treatment with index points filled with approved luminous material. Lower flange in black galvanized metal.

DIAL

In sapphire (thickness: 0.40 mm) with anti-glare treatment (on both sides), protected by 8 silicon braces inserted in the upper and lower grooves.

CRYSTAL

- Bezel side: in sapphire (1800 Vickers) with anti-glare treatment (on both sides).
- Thickness: 2.20 mm
- Case back: in sapphire with anti-glare treatment (on both sides)
- Thickness: at the center 1.00 mm and at outer edges 1.91 mm

FINISHING

MOVEMENT

- Baseplate and bridges in hand-ground grade 5 titanium, wet sandblasted, top face polished by hand PVD treated
- Burnished pivots
- Diamond polished sinks on the bridge side
- Pinions with undercuts
- Sandblasted and rhodium-plating, beveled wheels (before cutting)
- Minimum correction applied to the wheels in order to preserve geometry and performance.

STEEL PARTS

- Sapphire blasted and hand-drawn surfaces
- Screw slot and screws beveled and polished with rounded and polished tip

