**INSIGHT MICRO-ROTOR**

**Efficiency has never looked so elegant**

With Insight Micro-Rotor, Romain Gauthier has created a high-end, automatic timepiece that offers the best of all worlds: Elegance and efficiency, precision and power, simplicity and splendour.

Insight Micro-Rotor’s hour, minute and small second indications are powered by a beautifully hand-finished, in-house calibre built from the ground up and boasting bidirectional micro-rotor made from 22k gold. This compact oscillating weight – visible dial side and through the display back – turns fluidly and noiselessly between two bridges, each fitted with a friction-minimising, wear-resistant ruby bearing.

However subtly and in whichever direction the micro-rotor swings, it is working away, winding a double mainspring barrel that, when fully wound, offers a generous 80 hours of power. The two barrels are in series for more constant power to the regulator, meaning the movement’s rate holds up whatever the state of wind.

It is not just the mechanical efficiency that is elegant: Insight Micro-Rotor’s open dial is a harmonious picture of details, depth and mesmerising animation.

Sweeping around the centre are the small seconds surrounded by the hour-minute subdial at 12 o’clock, beating balance at 6 o’clock and, at 9 o’clock, the swaying micro-rotor, framed within a remarkable void created by a circular cut-out in the mainplate. A plaquette with Romain Gauthier logo provides a smart visual counterpoint to the micro-rotor, while the curvaceous, hand-bevelled bridges evenly spaced around the periphery glint in the light, their arcs marrying with the inner contours of the case.

In a neat design touch, the bombé sapphire crystal covering the dial gradually rises towards 12 o’clock before steeply dropping again. And the case’s modest 39.5mm diameter ensures that Insight Micro-Rotor sits very comfortably, even on slimmer wrists.

The observer is treated to more views of the movement through the display back. Here the micro-rotor continues to steal the show as it sets the visible train of gears in motion, starting with the reversing gear that lends the mechanism its bidirectionality. The gears and ratchets stand out for their circular arms that feature eye-catching bevels. Meanwhile, the bridges are decorated with hand-made, hand polished bevels and jewel countersinks and are fixed in place using Romain Gauthier’s signature screws with aesthetic S-slot. The sinuosity of the bridges is superbly counterpoised by the four linear plaquettes adorning them.

Romain Gauthier has designed Insight Micro-Rotor’s movement to be highly visible so the viewer can gain an instant appreciation of the spectacular mechanics and fine finishing, giving rise to the name “Insight”.

*“Insight Micro-Rotor is a haute horlogerie creation, but also a daily timepiece that can be enjoyed for its simplicity of use,”* explains Gauthier. “*You can wear it every weekday and almost forget that you have it. It’s very comfortable to wear, and the micro-rotor winds the barrels quickly, efficiently and silently so you don’t have to worry about winding them by hand. You can take Insight Micro-Rotor off Friday evening, put it on again Monday, and there will still be plenty of power stored with precision guaranteed.”*

Insight Micro-Rotor red gold and Insight Micro-Rotor platinum are both available in three 10-piece limited editions: with oven-fired white enamel dial, oven-fired black enamel dial and oven-fired blue enamel dial.

**INSIGHT MICRO-ROTOR IN DETAIL**

**Why an automatic timepiece with micro-rotor?**

Romain Gauthier’s first in-house calibres feature ‘flat’ caseback crown (Prestige HM and Prestige HMS) and caseband winding pusher (Logical One), thoroughly original mechanisms that increase winding efficiency and provide a certain aesthetic and tactility. Designing and building a movement that boasts a bidirectional micro-rotor is in keeping with Gauthier’s *haute horlogerie* ethos of developing daring, in-house movements from scratch, as well as with his quest to create atypical, ultra-efficient winding mechanisms.

**Why this particular micro-rotor system?**

In automatic watches, a bidirectional micro-rotor converts kinetic energy – motion from the wearer’s arm – into potential energy for the mainspring, no matter the direction the micro-rotor is turning in. It is this efficiency that appealed to Romain Gauthier when he designed Insight Micro-Rotor. This should come as little surprise: Gauthier is a qualified constructor of precision machinery who brings, among many qualities, an engineer’s approach to his designs for the brand’s in-house movements.

The bidirectionality of the micro-rotor is achieved through a reversing gear. The axis of this gear glides side to side, guided by a curved aperture cut within two arc-shaped steel plates which are block-polished to facilitate the gear’s lateral movement and rotation. When the micro-rotor changes direction, it drives the toothing of the reversing gear in the opposite direction, making the reversing gear slide this way too.

Gauthier has designed the micro-rotor so that it turns between two bridges, each fitted with a ruby bearing, thus harnessing the watchmaking principle of avoiding metal against metal by putting metal against ruby*.* Rubies have a low coefficient of friction and high wear resistance, here helping to produce a smooth, inaudible rotation of the micro-rotor compared to, say, metal ball-bearings which can entail noise and wear.

Given the relative weight of the micro-rotor (3.86g/0.14oz), Gauthier decided to eschew a ‘flying’ rotor supported by just one bridge from beneath and instead design the micro-rotor so it is sandwiched between two bridges, from above and from below, for superior stability.

**Power, precision and fine hand-finishing**

Insight Micro-Rotor’s movement was designed, developed, produced, decorated, assembled and regulated at Manufacture Romain Gauthier in the Vallée de Joux, Switzerland. The movement’s two mainspring barrels combine to offer 80 hours of energy at full wind. The barrels are in series for more constant power to the regulator that features the Romain Gauthier balance wheel with curved arms and calibrated eccentric weights plus hand-assembled pallet lever that is triangular for maximum rigidity. Chronometrically, Insight Micro-Rotor is very stable, falling well within the accepted tolerances of precision for *haute horlogerie*.

The spectacular decoration on Insight Micro-Rotor’s movement includes hand-made and hand-polished bevels, snailing, straight-graining, circular-graining, hand-frosting as well as hand-made and hand-polished jewel countersinks.

**Elegant case**

The 39.5mm diameter of the three-part case – caseband, bezel and back – makes Insight Micro-Rotor a perfect fit for both male and female wrists. The crown is placed at 2 o’clock to free up space for wrist movement. The soldered lugs gracefully meet with the caseband. And the bevel in the front sapphire crystal is another subtle design touch that helps to make Insight Micro-Rotor a horological tour de force.

**INSIGHT MICRO-ROTOR BY ROMAIN GAUTHIER: RED GOLD AND PLATINUM LIMITED EDITIONS**

**Technical Specifications**

**Editions**

18k red gold case with NAC-treated movement – 3 x 10-piece limited editions

- 10 pieces with oven-fired white enamel dial on 18k gold base, complemented by flame-blued steel hands

- 10 pieces with oven-fired black enamel dial on 18k gold base, complemented by 18k red gold hands

- 10 pieces with oven-fired blue enamel dial on 18k gold base, complemented by 18k red gold hands

950 platinum case with palladium-treated movement – 3 x 10-piece limited editions

- 10 pieces with oven-fired white enamel dial on 18k gold base, complemented by flame-blued steel hands

- 10 pieces with oven-fired black enamel dial on 18k gold base, complemented by 18k white gold hands

- 10 pieces with oven-fired blue enamel dial on 18k gold base, complemented by 18k white gold hands

**Features and indications**

Off-centre hours, minutes and small seconds; in-house, bidirectional, automatic movement featuring 22k solid gold micro rotor and double mainspring barrel in series for generous 80-hour power reserve

**Dial and hands**

Oven-fired enamel dial on 18k gold dial base, with 18k gold hands or flame-blued hands, depending on which edition

**Movement and finishing**

Dimensions: 32.1mm x 6.8mm

Power reserve: 80 hours

Number of jewels: 33

Number of components: 206

Balance frequency: 28,800 vph / 4Hz

Components in: 22k gold micro rotor, steel, stainless steel, beryllium copper, brass and German silver

Finishing: Highest-level *haute horlogerie* hand-finishing

**Case**

Dimensions: 39.5mm x 12.9mm at highest point

Water resistance: 50m/5atm/170ft

Sapphire crystal with interior anti-reflection coating, front and display back

Crown for winding and time-setting at 2 o’clock

**Strap and buckle**

Alligator leather strap hand-stitched in Switzerland with red gold pin buckle where case is red gold, and white gold pin buckle where case is platinum

**PROFILE OF ROMAIN GAUTHIER**

**Romain Gauthier**

Founded in 2005, Romain Gauthier is a high-end watch brand based in the Vallée de Joux, Switzerland, led by its passionate founder Romain Gauthier. Gauthier marries the know-how that he has developed living, studying and working in this picturesque valley – the heart of fine Swiss watchmaking – with a no-compromise approach to *haute horlogerie* to create exceptional timepieces.

These timepieces have been hailed for their eye-catching designs, innovative in-house movements and extremely high level of hand-finishing. Their exclusivity is ensured by the very small numbers in which they are created – about 60 pieces per year.

**The man who built the brand**

Romain Gauthier was born in 1975 in the Vallée de Joux, Switzerland, the cradle of fine Swiss watchmaking. It was here that Romain developed his passion for traditional *haute horlogerie*, his grasp of mechanics and engineering, and his eye for design.

Having studied precision-mechanics at technical college, Romain qualified as a constructor of precision machinery in 1997. A year later, he started his first job as machine programmer-operator at a horological components manufacturer that he helped turn into one of the best-performing facilities in Europe.

Determined to build from scratch not just his own high-end watch, but also his own high-end watch brand, Romain completed an MBA in 2002. His final thesis was the business plan for his own watch company.

After working behind closed doors on his own timepieces for three years, he launched the Romain Gauthier brand in 2005, unveiling its first timepiece Prestige HM at Baselworld 2007. This was followed by Prestige HMS (2010), Logical One (2013), Logical One Secret (2014) and Insight Micro-Rotor (2017). These encompass classically refined pieces, contemporarily casual creations and ethereal *objets d’art*, all featuring supremely finished in-house movements.

In 2013, the jury of the Grand Prix d’Horlogerie de Genève – the Oscars of watchmaking – awarded Romain Gauthier’s Logical One the prize for Best Men’s Complication.

**Manufacture Romain Gauthier**

Romain Gauthier’s ability to create exquisite timepieces is in large part thanks to his *manufacture*, based in Le Sentier, Switzerland, that he has steadily built up.

The *manufacture* blends skilled craftsmen and time-honoured watchmaking tools with experienced technicians and cutting-edge production methods, allowing Romain Gauthier to design, produce, decorate, assemble and regulate in house all movements for the brand’s timepieces.

While this savoir-faire means that quality is uncompromised and precision is impressive, it also imbues Romain Gauthier timepieces with a rare beauty and unique soul.