**LOGICAL ONE NATURAL TITANIUM**

**The titanium timepiece that ultra high-end collectors can covet**

Gold, platinum, stainless steel and… Well, just gold, platinum and stainless steel. Collectors of ultra high-end watches rarely deviate from these traditional case materials when choosing the next addition to their timepiece collection. Titanium? For all its merits – strength, lightness and biocompatibility – this material is more often associated with tool, sport or avant-garde watches rather than exquisite dress timepieces. Ultra high-end collectors just don’t seem to go for titanium. At least, those were the thoughts running through Romain Gauthier’s head when he had the idea for Logical One Natural Titanium.

*“In my experience, most ultra high-end collectors enjoy their timepieces in gold, platinum or steel,”* says Gauthier. *“Titanium is still a step too far for many. I respect that, but I believe that in time high-end collectors will move over and eventually won’t think twice about acquiring an haute horlogerie timepiece in titanium. For Logical One Natural Titanium, my instinct was ‘build it, and they will come’. Personally, I really wanted to see Logical One Natural Titanium become a reality, not least because I think Logical One and natural titanium were made to go together.”*

A paragon of fine Swiss watchmaking, Logical One is Romain Gauthier’s Grand Prix de Genève-winning creation that contains a revolutionary snail cam and friction-minimising ruby-link chain, plus sapphire-lined mainspring barrel, to offer nearly two days of constant force – the holy grail of precision watchmaking. Its beautifully hand-decorated, in-house movement can be admired dial side and through the display back, and is wound using an ergonomic winding pusher integrated into the caseband. It features hours and minutes on an off-centre subdial, small seconds, and a 46-hour power reserve indicator on the back.

Part of Logical One Natural Titanium’s splendour lies in the contrasts created by the various finishes applied to the case and movement: light and dark, polished and satin-finished. The mainplate, mainspring barrel bridge and lower bridge for the constant force mechanism bear a deep anthracite ADLC finish. Yet, the balance bridge, escape wheel bridge and power reserve indicator bridge are in a bright, palladium-treated brass that brings out the fine hand finishing of these parts. Likewise, the upper ‘bar’ bridge for the constant force system is in light-hued natural titanium.

As for the titanium case, the lugs, bezel, caseback, pusher and time-setting crown are satin-finished, creating a gentle sheen that forms a fine counterpoint to the gleaming caseband, which has been highly polished. The alligator leather strap is in casual matte black with light grey stitching.

The result is a real high-end collector’s timepiece, yet one boasting all the advantages of titanium: Its robustness makes for a durable case; its light weight provides an eminently comfortable wear; its biocompatibility means those with nickel allergy need not worry. And on the wrist, it makes a real visual statement. There is a hint of casualness, a soupçon of sportiness, but not quite overpowering enough to eclipse its credentials as an exquisite dress timepiece.

Logical One Natural Titanium is available with oven-fired white enamel dial with flame-blued steel hands, oven-fired black enamel dial with 18k gold hands, or black clous de Paris dial with 18k gold hands.

**LOGICAL ONE IN DETAIL**

The majority of machines run on constant force: Cars and planes don’t start running more slowly as fuel runs low and machines receive the same voltage no matter how much electricity is produced. Yet, the power that runs and regulates most high-precision mechanical timepieces varies greatly according to the state of wind of the mainspring.

Constant force, or constant torque, is one of the holy grails of horology and with Logical One, Romain Gauthier has reinvented the chain-and-fusee − one of the oldest methods of supplying constant force to a horological movement − making it more reliable, more effective… and more constant.

Logical One’s pioneering, multi-patented in-house movement features Romain Gauthier’s 21st-century reinterpretation of a traditional chain-and-fusee style constant force mechanism, on display to the left of the hour-minute subdial.

Gauthier’s invention contains an innovative snail cam connected to the mainspring barrel by a ruby-link chain. With the snail cam and mainspring barrel configured so they are ‘flat’ – i.e. on the same plane – force is transmitted in a straight line for an ultra-efficient transfer of energy.

The relatively short length of the chain allows it to contain strong, generously sized links in steel featuring rollers made from low-friction, hard-wearing synthetic rubies. The chain is joined together via a smart snap-clip system.

To eliminate potential uneven friction within the mainspring barrel, Gauthier has placed the mainspring between synthetic sapphire plates. Sapphire has a low coefficient of friction with steel making it the ideal material to use.

Winding Logical One is a veritable tactile pleasure thanks to Romain Gauthier’s innovative push button winding system, with the pusher set into the caseband at 9 o’clock. Another demonstration of Gauthier’s clever engineering, the pusher efficiently transmits force to the barrel on the same plane. That the pusher protrudes just slightly from the caseband and follows the curve of the case is an aesthetic tour de force.

Virtually every component of the movement bears Roman Gauthier's distinctive touch: The highly visible balance wheel with curved arms and calibrated eccentric weights; the curvaceous balance bridge; bespoke gear wheels with graceful circular arms for maximum strength; hand-decorated bridges; high-efficiency profiles of the gear teeth; polished screw heads with s-slot for more torque; and Romain Gauthier-invented triangular pallet lever for maximum rigidity. All these elements can be admired dial side, while more of the movement can be viewed through the display back.

Logical One’s movement was conceived, developed, produced, decorated, assembled and regulated at Manufacture Romain Gauthier in the Vallée de Joux, Switzerland. The spectacular decoration includes hand-created and hand-polished rounded bevels, hand-frosting, snailing, straight-graining, circular-graining as well as hand-polished jewel countersinks.

So accomplished is it that Logical One was awarded the prize for Best Men’s Complication watch by the jury of the 2013 Grand Prix d'Horlogerie de Genève – the Oscars of watchmaking.

**LOGICAL ONE NATURAL TITANIUM BY ROMAIN GAUTHIER**

**Technical Specifications**

**Edition**

Grade 5 natural titanium case with anthracite ADLC and palladium-treated movement

**Features and indications**

Hours, minutes, small seconds; 46-hour power reserve indicator; push-button winding; innovative chain-and-fusee style constant force system featuring snail cam and ruby-link chain

**Dial and hands**

Oven-fired white enamel dial on a 18k gold base complemented by flame-blued steel hands, or

Oven-fired black enamel dial on a 18k gold base complemented by 18k gold hands, or

Blackened brass dial featuring clous de Paris guilloche complemented by 18k gold hands

**Movement and finishing**

Dimensions: 35.5mm x 10.5mm

Power reserve: 46 hours

Number of jewels: 63 in total, including 26 for the constant-force chain

Number of components: 359

Balance frequency: 28,800 vph / 4Hz

Movement components in: steel, stainless steel, beryllium copper, brass, titanium and German silver

4 patents: The specific composition and construction of the chain; the constant force system; the push-button winding system; and the high-efficiency profiles of the gear teeth

Finishing: Highest-level *haute horlogerie* finishing

**Case**

Case material: Polished and satin-finished natural Grade 5 titanium

Dimensions: 43mm x 14.2mm

Water resistance: 30m/3atm/100ft

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

Crown for time setting at 2 o’clock

Push button for winding at 9 o’clock

**Strap and buckle**

Matte black alligator leather strap with light grey stitching, hand-stitched in Switzerland with titanium pin buckle