



RESSENCE

The new experience of Time – more intuitive, more functional, more playful, more pure.

The dial is often referred to as “the face of the watch”. RESSENCE has made this image a reality with a unique horological complication that at every moment visually expresses the course of time.

PHILOSOPHY

RESSENCE, an acronym serving as a maxim establishing the brand’s mission statement: the Renaissance of the Essential, a return to the primary source when astronomers scrutinized the movement of the stars to unravel the mysteries of time.

In conceiving his first horological creation, industrial designer Benoît Mintiens considered what it might look like if the mechanical watch was a 21st century invention based on today's cognitive technologies and sciences. In response he opted for a holistic approach, placing the end user at the heart of his work. He becomes the ultimate criterion for evaluating an approach designed to express the course of time in the most intuitive way possible with an ergonomic focus at the service of the function.

CONCEPT

The vector is Haute Horlogerie which like a Red Line crosses five centuries of history. However, RESSENCE reverses the traditional mode of thought. RESSENCE watches are designed from the outside to the inside. Although strikingly innovative, the technologies implemented are relegated behind the scenes. What is more important is the user experience on looking at a watch that seems to project the temporal indications onto the glass. Its mono-surface dial is composed of discs and rings adjusted to the micron.

Exit the physical hands. They are replaced by graphical lines in order to reproduce the angles through which we are accustomed to reading the time. All RESSENCE watches share the same inimitable DNA. The main dial, as well as the auxiliary dials, revolve continuously, behaving like moons around a planet. This means that the face of the watch changes continuously - which is the essence of Time.

Quality and excellence are imperative for the success of this approach.

A RESSENCE watch is the result of years of research and development.

Each watch is subjected to an internal certification procedure (R500H) - 500 hours of rigorous examinations and tests applying 6 crucial criteria.

Thanks to its freedom to think differently, RESSENCE has already gained international recognition. Awards include: Horological Revelation Award at the 2013 Grand Prix d’Horlogerie de Genève (GPHG) and Design Star at the Watchstars Awards 2015. In 2016, the Fondation de la Haute Horlogerie (FHH) certified RESSENCE as one of the 64 brands in the world belonging within the perimeter of Haute Horlogerie.



RESSENCE MICROMECHANICAL INNOVATIONS

RESSENCE watches have so far capitalised on 6 technical solutions based on physical principles. Each of these innovations, never before seen in watchmaking, contribute to the same product relevance - great readability – and to the augmented user experience.

1. DISPLAY BY DISCS (all models)

It was in 2011 on the ZERO SERIES watches that RESSENCE unveiled for the first time the patented invention on which rests its new expression of Time: ROCS which stands for **R**essence **O**rbital **C**onvex **S**ystem. Fully designed and developed in-house, this unique horological complication module is composed of co-planar discs and rings of different sizes, curved to match the bend of the glass that covers them. Recto, the discs create a flush dial. Verso, they serve as platina and bridges to the module with a large number of components - from 107 components for the basic version - ROCS 1 - up to 215 components for the ROCS 3 which drives a six-fold display complication. Each of the time indications of the RESSENCE watches is generated by the ROCS from a single piece of information provided by the automatic base movement: the minute.

With the ROCS, time-information is displayed on a single surface, both eyes see a same image (like words on a sheet of paper), while on a traditional watch, where the hands and dial are superposed, the projected image is different for each of the two eyes because of its 3D nature. The choice to focus on the minute disc is also dictated by a concern for legibility. In most cases, this is the information you first look for when checking your watch. Every minute that passes, you observe a different dial.

2. NO CROWN (all models)

In the pursuit of improved ergonomics, the fluid organic design of the RESSENCE watches becomes imperative in obtaining a completely sleek surface. The case is virtually invisible and the crown has disappeared from the scene. Right and left-handers are now equally well-served. On TYPE 1, TYPE 3 and TYPE 5 the crown is replaced by an alternative of ingenious simplicity, namely, the rotating back of the watch made of sapphire crystal, which assumes the functions of manual winding and time setting.

Behind the easy setup/winding system also lies the logical principle that the watch only needs to be set when it has stopped. Simply setting the watch winds it at the same time.

3. THE "WATER DROP" EFFECT (TYPE 3, TYPE 5)

For the first time in the history of watchmaking, RESSENCE introduces a liquid inside a mechanical watch. On the TYPE 3 and TYPE 5, the entire upper part containing the ROCS is immersed in 35 ml of oil. Invisible to the eye, the fluid eliminates the refraction between the glass and the dial. The multiple components of the ROCS are permanently lubricated and are relatively lighter since, according to Archimedes' Principle, they are suspended in liquid. The use of oil improves chronometry in addition to readability.

The presence of the oil under the glass of the watch creates a never before seen "drop of water" effect. Regardless of the angle at which the dial is viewed, its readability is optimal, even underwater (this is a world premiere for a mechanical watch). On the TYPE 5 the oil also guarantees protection against overpressure equivalent to that of a tool watch without the need to reinforce the case and use a thicker glass.



4. BELLOW SYSTEM (TYPE 3, TYPE 5)

The volume of oil in the upper part of TYPE 3 and TYPE 5 varies depending on the ambient temperature. RESSENCE has developed a self-compensation system operating in the range of -10 to +60 degrees Celsius (14°F to 140°F) (while the Swiss watchmaking standard requires a watch to be able to withstand a range of +10 to +40 degrees Celsius). The system consists of a series of 7 small bellows which retreat when the oil expands under the effect of heat, or compensate the contraction of the oil under the effect of cooling.

The oil volume self-compensation system prevents the formation of an air bubble on the surface of the dial. It is indirectly connected to the temperature gauge of the oil present on the dial. The latter can therefore be seen as a graphical and mechanical representation of the position of the bellows. It should be noted that temperature variations do not affect the correct operation of the watch.

5. MAGNETIC TRANSMISSION (TYPE 3, TYPE 5)

To maintain the oil-filled upper part of the watch leak free, the horological complication module, ROCS, is hermetically separated from the automatic base movement by a Grade 5 Titanium membrane. Since the physical connection between the two is no longer possible, RESSENCE has developed an ingenious device based on magnetism, with micro magnets placed on either side of the membrane.

In addition to this system RESSENCE has set up a series of extra protections of the regulating organ against the effects of magnetism (using magnetic conductors and shielding). The guarantee of perfect chronometry under all circumstances. (tested in laboratories, the residual magnetic fields are practically equal to earth magnetism)

6. SHOCK ABSORBER (TYPE 5)

The magnetic transmission from the base movement to the ROCS ensures that in the event of a significant lateral shock, the micro magnets located on either side of the membrane can momentarily decouple. To compensate for this phenomenon, on its TYPE 5, RESSENCE has introduced a hydraulic shock absorber. It is a small disk that is an integral part of the ROCS 5 the underside of which has blades. Equipped with a gear ratio 1/40, it starts to turn very quickly in the event of a shock and acts like a turbine. The oil is sucked in and can only escape by the microscopic space left between the discs. The whole ROCS is then slowed, which prevents it from being disconnected from the base movement. The shock absorber is manifested visually by the rapid rotation of the runner disc integrated in the dial.

Without any real consequence in normal use, a brief decoupling of the mechanism is not conceivable on a diving watch for the obvious safety reason of the need to indicate to the wearer the precise duration of the time spent under water.



NOVELTIES 2017

TYPE 5G “Grey”, At the leading edge of horological innovation.

With an all-titanium structure and true underwater capability at its heart, the TYPE 5G is the ideal watch for the gentleman diver, whether he’s in the water or around town.

TYPE 5 is the only mechanical watch to be perfectly readable underwater regardless of the viewing angle.

The use of oil (37.5ml) inside the upper part of the watch (dial and module) cancels out what is known as Total Internal Reflection. Typically, when under the water, a traditional diver’s watch needs to be viewed straight on in order to be read properly - otherwise refraction turns the glass into a mirror. But not with an oil-filled watch: this gives it complete legibility whatever the angle of view. This is a world first for a mechanical watch.

The use of oil has been done for another good reason. Since the laws of hydraulics state that a liquid cannot be compressed, the oil compensates for pressure underwater (rather than protecting the watch by using an over-sized case and thick glass).

There are other advantages too: the oil keeps the 142 components of the ROCS (in-house patented complication module) constantly lubricated. And since they are suspended in a liquid, they are lighter and hence require less power to move, which in turn improves time-keeping.

The result is a watch both functional and more ergonomic than traditional diver’s pieces.

The TYPE 5G is designed to be able to withstand extreme conditions - but to do so with the modernist sophistication characteristic of RESSENCE.

Dial and case become one. The titanium discs, rings and bezel are all microbilled and amplify the visual impact of the unique all grey look. The watch’s fresh and modern appearance is complemented by the use of extra strong blue Superluminova. The readability of the TYPE 5 is therefore as simple and efficient during the day as during the night.

The organic design of the TYPE 5 takes its inspiration from nature, specifically sea turtles. Their distinct aqua-dynamic shape means they are best able to propel themselves easily through the water - so what better shape too for an amphibious watch, right down to its seamlessly integrated uni-directional bezel?

TYPE 5 capitalises on the 6 RESSENCE technical solutions based on physical principles: Display by discs, No crown, Oil-filled, Bellow system, Magnetic transmission and Hydraulic shock absorber (see above for more details).

Each of these innovations, never before seen in watchmaking, contribute to the same product relevance - *ultimate legibility* - and to the augmented user experience - *every minute that passes, you observe a different dial* -.

3 Versions

The TYPE 5 is available in three executions:

- TYPE 5B, black dial and polished/satin titanium finish.
- TYPE 5BB, black dial and black DLC finish.
- TYPE 5G, grey dial and polished/microbilled titanium finish.



FUNCTIONS

Hours
Minutes
Shock absorber (90 Seconds Runner)
Oil Temperature

MOVEMENT

Patented ROCS 5 - Resence Orbital Convex System - driven by the minute axle of a specially customised 2824/2 calibre
Caseback winding and time setting with RCLS – Resence Compression Lock System
Magnetic Transmission
Compensating Bellow System for the oil (7 Bellows)
Hydraulic Shock Absorber
Self-winding
36 hours power reserve
28,800 vibrations per hour
41 jewels
25 gears

DIAL

Convex microbilled grade 5 titanium dial (125mm radius) with 3 eccentric biaxial satellites inclined at 3° (hours), 4.75° (thermal gauge and seconds)
Engraved indications filled with Superluminova

CASE

Microbilled grade 5 titanium
Two separate sealed chambers with the upper one filled with 37.5 ml of oil
Domed sapphire crystals top and bottom with both sides anti-reflective coating
Uni-directional bezel
46mm (diameter) x 15.5 mm (thickness)
10 ATM water-resistance

BUCKLE & STRAP

Ardillon Buckle in grade 5 titanium
Brown cordovan or grey alligator (24/22mm)

TOTAL COMPONENTS

324

PRICE

31.500 EUR (incl 20% VAT)