HYT / Mission Hastroid

Hastroid Green Laser: a green ray

Across time and space, a new kind of spacecraft is relentlessly exploring the watchmaking galaxy on the lookout for new unique expressions of the watchmaker's art...

Contemporary timepieces designed by HYT, exclusive owners of mecafluidic technology, the symbiotic marriage of science and micromechanics, are propelling the creativity of luxury watchmaking into a new universe. Transforming usual perceptions, HYT develops extraordinary time measurement instruments. With HYT, preparations are on for the future and watchmaking is undergoing a transformation.

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Get on board now for a new opus in the HYT saga: Mission Hastroid Green Laser.

Mission objective*: Show the Hastroid's rays*

Flight plan*: Launch and orbit on 17 March 2022.*

Instrument*: HYT Hastroid Green Laser.*

After the "Green Nebula", HYT is presenting a new interpretation of its favourite colour: "Green Laser".

For the launch of the new watchmaking craft, the Hastroid, HYT has developed special colour ranges with new shades, in particular an iconic green for the contemporary watchmaking brand.

Bold, bright, provocative, the Hastroid Green Laser is presented in a composite green casing, highlighting the green tone of the time graduations or the central minute hand. A powerful shade, that immediately evokes the colour of laser beams. Offering an attractive contrast effect, and allowing optimal readability, the fluid showing the retrograde indicator of the passage of hours is black. This fluid, in its extra-fine capillary, is the remarkable unique feature of the mecafluidic timepieces designed by HYT.

"*We are engaged in a process of brilliant craftsmanship that flawlessly integrates fluidic technology and mechanical complexities*", states Davide Cerrato, the new CEO and Creative Director of HYT.

Drawing its strength from the greatest traditions of watchmaking knowledge, the new HYT Hastroid Green Laser combines the ambitions of luxury watchmaking of tomorrow. An art as traditional as it is ground-breaking, from the earliest time, instruments for measuring time have been the product of human genius, supported by science and formal creativity and design. The fluidic time indicator is inspired by the clepsydra, a primitive type of clock from Ancient Egypt, whose innovative principle was to allow water to flow from one jar to another to measure the passage and "flow" of time.

HYT Hastroid: a new watch tailored for the future

A new iconic craft in the HYT fleet, the Hastroid has been conceived and designed to meet new expectations. It has a 48 mm diameter casing, with a total length of 58.3 mm and a 13.3 mm case thickness. It is shaped from the most modern or contemporary high-quality materials: titanium, titanium and carbon or an original composite and titanium alloy.

Custom-made for new adventures, the multi-layer middle case presents subtle openwork, while the sandwiched construction method of the watch overall, waterproof up to 50 metres, with a central protective titanium case for movement, allows optimal handling of the missions assigned to this new spacecraft.

Like a flight deck, the watch is topped by domed sapphire crystal offering a largely unobstructed view of the overall dial. The centrepiece of the mecafluidic mechanism remains, of course, the fluidic system, with two central "bellow" reservoirs, whose design, unique to HYT creations, reinforces the character and feeling of power and the capillary surrounding the dial.

Retrograde hours and large minute hand

The coloured fluid it contains performs the function of indicating the retrograde hours. The components of the manual winding mechanical movement reveal themselves subtly through openwork workmanship at the back of the dial or plate.

This calibre was designed by Eric Coudray, a well-known master in the field. Under the guidance of the Tec Group, and with the assistance of Paul Clementi, Prix Gaïa winner, the movement has developed a finer aesthetic and finish, with elegant satin finish or laser-treated or bead-blasted parts.

Detailed work went into improving the readability of the dial and thus it has a large central pointed hand for the immediate reading of the minutes, whereas the two subdials, arranged as instruments on a dashboard, provide essential additional information: on the one hand, a small second movement, and on the other, the power reserve.

This same concern for clarity and readability led to special work on the luminescence to make the Hastroid bright even in the deepest darkest depths of outer space. Such technical elements simply reinforce the allure of this pioneering watch.

Rare and original, only 27 copies of the new Hastroid Green Laser will be produced.

HYT, the UFO of luxury watchmaking

Returning to the very sources of the concept of the clepsydra and the passage of time, HYT's designers wanted to apply a contemporary vision to it. It took more than ten years to develop fully the patented mecafluidic technology owned by the Neuchâtel brand, established in 2012.

That year, the Grand Prix d'Horlogerie de Genève [Geneva Watchmaking Grand Prix] innovation prize rewarded the brand's inventiveness.

Sometimes described as the UFO watchmaker, HYT watches, with their style and enhancements, have brought a breath of fresh air to luxury watchmaking. First spacecraft of the new HYT fleet, the Hastroid heralds a new era and explores broader horizons, without limitations or boundaries and, as always, with this same pioneering spirit driving it. No technical or stylistic limitations hold it back: the Hastroid is a watch for the future.

Davide Cerrato, a visionary designer takes the controls

Often introduced as a "master of neo-vintage watchmaking", Davide Cerrato has produced numerous outstanding creations for well-known first-class watchmaking companies. However, Davide Cerrato is anything but nostalgic, and he who is known as the "master of vintage" among the watchmaking elite has decided to demonstrate that he can also be a designer with his eye on the future.

By joining HYT to guide not only style but also strategy, through his double role as CEO and creative director, at the company recently acquired by KTS (Kairos Technology Switzerland SA), Davide Cerrato is particularly excited to be able to express his creative inspirations freely. They draw their power from multiple transgenerational references, taking in the most daring or fun aspects of pop culture, such as the epic of space exploration or modern symbols of science fiction.

At a time when the dream of discovering the universe is once again finding its magic and strength, at the very time in which the desire to travel to space is becoming a tangible and concrete reality, the HYT Hastroid is an ode to the dream of interstellar travel.

Today, HYT is ready for take-off and preparing to go into hyperspace mode. Are you in?

HYT's mecafluidic technology

"*Mecafluidic technology is a new term in science and research, harnessed for use in luxury watchmaking. We have the ability to highlight the symbiotic nature of these two - mechanical and fluidic - technologies*" says Davide Cerrato, HYT CEO and creative director.

What is mecafluidic technology based on?

There is no need to sit down with a "Textbook on Mecafluidic Watchmaking" to understand the concept, especially as such a volume does not yet exist. Since the beginning of the new

millennium, HYT has been writing a new page of it every day, particularly through its discoveries and the observations of its engineers and watchmakers. Because, while each HYT product is at the cutting edge of technology, each one is above all an item of mechanical luxury watchmaking dedicated to the pleasure of knowledgeable connoisseurs.

Thus, the new Hastroid model is driven by a manual winding mechanical movement (41 rubies) at a frequency of 28,800 vibrations per hour (4 Hertz) and with 72 hours' power reserve.

This mechanical beating heart gives its power and strength to the precise functioning of the watch. This precision is clear in the reading of the time settings. All the originality of HYT watches lies in the specific nature of this time indication: no classic hands, but instead the observation of the movement of the two fluids.

The perfect circulation of the fluids in microcapsules or "capillary tubes", at the boundary between the micromechanical and chemical realms, gives HYT its uniqueness and originality: the first and only mecafluidic watch.

A quarter of a human hair, but 10,000 times more airtight than a classic watch.

How does it work? Observing the watch dial offers some insight. Two flexible reservoirs (called "bellows") are attached to each end of a capillary. The thickness of the walls of this reservoir is of an extraordinary fineness of hardly a quarter of a human hair. The active, coloured fluid is in the first reservoir; the passive fluid is in the other reservoir. It is transparent.

The working principle relies on a mechanism that drives the two bellows. To keep the fluids separate, while controlling their progress through the bellows, engineers have tamed the physical phenomenon based on the repulsive force of the molecules in each fluid and the capillary walls. Immiscible fluids, meaning that they do not mix, and which are in permanent interaction, are at the heart of the watch.

To ensure the whole watch works with optimal reliability, the fluidic module must be perfectly airtight. In practice, its airtightness is 10,000 times greater than that of a diver's watch. This is also the reason why the fluidic modules are permanently sealed.

A question that definitely arises for hi-tech fans is how do you offset the fluid expansion due to variations in temperature?

This is an important question about a valuable item, such as a wristwatch is - which is thus subject to body temperature - and naturally exposed to the changes and uncertainties of everyday life, both indoors and out. The key component is the thermal compensator inside one of the two bellows.

A trusted and optimised luxury watchmaking calibre

The other serious issue is clearly the synchronisation between the functioning of mechanical watchmaking and the movement of the fluids.

The movement of the new Hastroid is the 501 CM calibre designed by Eric Coudray.

Among the most remarkable aspects of this exceptional watch calibre is its ability to provide constant displacement and distribute enough energy so that the liquids flow at the desired speed inside the glass capillary. An increase by a minute of the liquid inside the glass tube is equivalent to a movement of 1.5 micron of the bellow. The choice of a manual winding movement is not insignificant: it ensures regular and seamless operation.

To allow a link between the fluidic system and the watch calibre, the movement has an oversized lever, called the "sensor", which serves as a bridge as it allows a link to be made between the functioning of the cam, which transforms a circular movement into a straight-line movement, and that of the bellow, whose role is to regulate the movement of the two liquids. This cam, innovation introduced by Eric Couderay, allows a perfect synchronisation between the fluid time and the mechanical time.

In practice, once the lever is activated, the movement drives against a bellow allowing the uninterrupted flow of fluids for twelve hours. When it reaches 6 o'clock, the two liquids return to their initial position, giving a retrograde reading of the next six hours.

It should also be noted that during the retrograde backflow, the liquids are completely disconnected from the mechanism. The fluidic system itself regulates the return to the initial position in a fascinating way.

These technical features, complex at first, are in fact a real eye-catcher as the watch dial is constantly in action.

The sharp eyes of experts, collectors and lovers of luxury watchmaking will also rest on the finish of the calibre and the new casing of the overall piece. HYT's teams have paid very special attention to this. The outcome is obvious and clearly shows that the Hastroid has some of the best standards of contemporary luxury watchmaking with exacting requirements of the workmanship of components. Such a quest for perfection, supported by the masterful expertise of traditional Swiss watchmakers, is combined by HYT with creative boldness, as demonstrated by the exclusive black finish.

Everything has been thought of carefully and in symbiosis: the finish of the watch calibre and the technological and modular casing. Overall, the entire quality chain process in watch production has been rethought and refined with the development of these new timepieces, relying on over a decade of practical experience. The perfect efficiency of the 501 CM calibre has also been tested to ensure its reliability.

Additional proof that the knowledge of this outstanding technology, as well as the exceptional unique nature of the ultra-efficient contemporary materials used, are also elements that boost the captivating and sensual allure of these watches, designed to stimulate the imagination.