



## BACKGROUNDER

# ROLEX: A MANUFACTURE AT THE SERVICE OF EXCELLENCE

**“My enthusiasm knew no bounds, however, when I let my fancy wander in the realms of possibility regarding the wrist-watch. The whole future and the world itself lay wide open before me, for the wrist-watch did not yet exist anywhere.”**

**Hans Wilsdorf**

## SUPERIOR WATCHMAKING ACCORDING TO ROLEX

Since 1905, Rolex has maintained the founding vision of its creator, Hans Wilsdorf, who saw the wristwatch as an object of the future, emblematic of the modern era. At a time when standard timepieces were pocket watches, which by their very nature always remain in the same position, he decided to develop a wristwatch capable of keeping up with the movements of individual wearers and the vagaries of their increasingly active daily life.

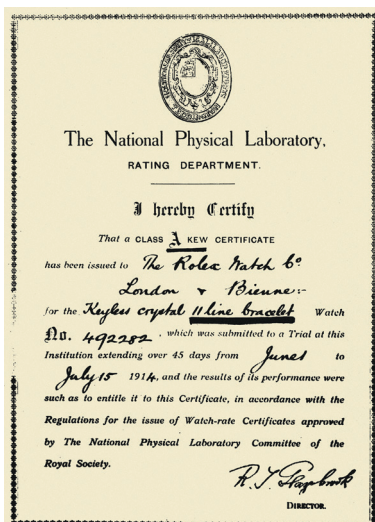
In the early 20th century, the success of the wristwatch was far from a foregone conclusion. These imprecise, fragile and cumbersome objects were regarded more as jewellery than reliable timepieces. Hans Wilsdorf revolutionized the world of watchmaking by overcoming three major challenges in order to turn wristwatches into genuine instruments for everyday use. The first was to be able to produce small movements as precise as marine chronometers, the absolute references of the period. The second, to develop a robust and waterproof case to protect the movements from external factors such as dust, moisture, splashes and perspiration. And the third, to fit the watch with a self-winding system that would offer the wearer greater convenience on a daily basis.

For Hans Wilsdorf, there was no doubt that his brand’s superior watchmaking would benefit the wearer by guaranteeing the performance and reliability of every watch for as long as possible.

## THREE CHALLENGES AND THREE KEY DATES IN ROLEX HISTORY

### THE CHALLENGE OF PRECISION

**1914:** When the Kew Observatory in England – the highest authority for chronometric precision at the time – awarded a Class ‘A’ precision certificate to a Rolex wristwatch, the watchmaking world received the news with astonishment. This was a certification that involved extremely rigorous tests carried out over 45 days and had generally been reserved for large marine chronometers. For the first time, Rolex had proved that a wristwatch could rival the most precise of timepieces.





### THE CHALLENGE OF WATERPROOFNESS

**1926:** Rolex unveiled the Oyster case. The hermetically sealed case provided optimal protection for the movement via an ingenious patented system of a screw-down bezel, case back and winding crown. Thanks to this, the watch could accompany its wearer throughout their day and in all their activities. If Hans Wilsdorf presented the Oyster as “the most important invention regarding watches of recent years”, it was down to the fact that its dust- and waterproofness also helped maintain its chronometric precision over the long-term.



### THE CHALLENGE OF SELF-WINDING

**1931:** Rolex registered a series of patent applications on a self-winding mechanism with a free rotor called ‘Perpetual’, which would later become the standard adopted by the entire watch industry. With this system, the movement winds itself while the watch is being worn, as every movement of the wrist turns the rotor which drives a mechanism that winds the mainspring. The device also has another advantage: regularly winding the mainspring ensures it always has enough energy to guarantee greater regularity and precision of the movement rate. By freeing the wearer from the constrictions of regular manual winding, the Perpetual rotor system also limits handling of the winding crown, thus contributing to the watch’s waterproofness.



### INTEGRATING ALL AREAS OF EXPERTISE

This desire to always push beyond the limits could not be achieved without the guarantee of total industrial independence. By integrating and developing all areas of watchmaking expertise, Rolex is able to impose its own rules and perpetuate its quest for excellence. The choice of autonomy has shaped the identity of a brand at the crossroads of pure tradition and state-of-the-art technology, and is expressed at its four production sites, all located in Switzerland.

The components of the movement, from the Parachrom and Syloxi hairsprings to the Microstella nuts, escapements, oscillating weight, main plates, bridges and gear trains are all manufactured and assembled in Bienne.

In Chêne-Bourg, *métiers d’art* (artistic crafts) such as gem-setting and enamelling coexist with cutting-edge techniques, particularly for the production of the Cerachrom ceramic components and of the dials.

In Plan-les-Ouates, the properties of raw materials are put to the test. 18 ct yellow, white and Everose gold are created here, then, like Oystersteel, 950 platinum and RLX titanium, inspected, stamped, cut, drilled, and transformed into middle cases, case backs, bezels and bracelet links, before finally being satin-finished or polished.

The movements and cases are then assembled at the Acacias site. The watches also undergo a series of unparalleled tests developed by Rolex which allow them to receive Superlative Chronometer certification, thereby guaranteeing their extraordinary precision and reliability.

A fifth site in Bulle, in the canton of Fribourg (Switzerland), is in the planning stages.



**PERFORMANCE UNDER PRESSURE**

Rolex has always been committed to demonstrating the superlative ‘performance under pressure’ of its watchmaking creations. Tests under real-life conditions subject the watches to extremes on the wrists of pioneering explorers, adventurers and elite athletes who are constantly pushing back the boundaries of their discipline.

This use of the world as a ‘living laboratory’, in accordance with the wishes of Hans Wilsdorf, is one of the brand’s founding principles.

**KEY DATES:**

- **1927:** Rolex provided British swimmer Mercedes Gleitze with an Oyster watch for her crossing of the English Channel.
- **1933:** Oyster watches accompanied the Houston Expedition as it made the first-ever flight over Mount Everest at an altitude exceeding 10,000 metres (33,000 feet) in extreme weather conditions.
- **1935:** With his faithful Oyster on his wrist, Sir Malcolm Campbell became the first man to break the legendary speed barrier of 300 mph (approximately 482 km/h) at the wheel of his *Bluebird*.
- **1947:** Chuck Jaeger, the first pilot to break the sound barrier (Mach 1), at the controls of an X-1 rocket-powered aircraft, was wearing a Rolex Oyster.
- **1953:** Rolex equipped the British expedition in which Sir Edmund Hillary and Tenzing Norgay became the first people to reach the summit of Mount Everest, at an altitude of 8,848 metres (29,028 feet).
- **1960:** In the Pacific, the bathyscaphe *Trieste*, piloted by Jacques Piccard and Don Walsh, reached the record depth of 10,916 metres (35,814 feet) in the Mariana Trench. Attached to the exterior, an experimental Oyster, the Deep Sea Special, withstood the colossal pressure of more than one tonne per square centimetre and returned to the surface in perfect working order.
- **1968-69:** Rolex accompanied the British Trans-Arctic Expedition which successfully reached the North Pole by land for the first time, after a journey of nearly 6,000 km and a winter spent in a camp erected on drifting ice.
- **2012:** During the Deepsea Challenge expedition, James Cameron descended to a depth of 10,908 metres (35,787 feet) in the Mariana Trench. An experimental Rolex Deepsea Challenge watch was attached to the submersible. It resisted phenomenal pressure, equivalent to a weight of approximately 12 tonnes on the crystal of the watch, returning intact.



## **A SUPERLATIVE APPROACH TO WATCHMAKING**

The uniqueness of the Rolex *Manufacture* is expressed in the promise of unfailing reliability. It is a pledge of trust between the brand and its wearers, symbolized by the green seal and accompanied by a five-year international guarantee.

Inside Superlative Control, the in-house unit that tests all watches before they leave the *Manufacture*, the requirements are draconian. The criteria relating to chronometric precision even surpass applicable industry standards.

But the brand's staunch pursuit of reliability is also expressed throughout the manufacturing process. In order to guarantee the performance of the watch once assembled, meticulous checks are carried out on each timepiece at every stage of the manufacturing process, from the blank to the final assembly, as well as component storage, which is managed by a fully automatized system. These exacting standards are also apparent in the kind of constant communication that takes place between the various departments. The requirements and constraints of the after-sales service watchmakers, for example, form an integral part of the creation process, as early as the design phase.

The 'Superlative' signature, which appears today on the dials of Rolex watches, is therefore much more than a promise of quality and reliability. It is also a perfectionist mindset that permeates every department of the company and drives every individual working for Rolex, whatever their role.

Rolex has always pursued a perpetual quest for excellence, ceaselessly pushing back the technical and technological limits in the production and testing of its watches in order to guarantee their exceptional performance. This is achieved through constant industrial and human effort, based on a permanent questioning of what has been learned and the constant improvement of techniques, tools and tests. This innovation is inherent to the brand, as evidenced by the numerous patent applications filed by Rolex since its creation.

## **INNOVATION IN MOTION**

Established at the Rolex world headquarters in Acacias, the Research and Development Division groups dozens of employees into four areas: innovation, materials and technologies, the watch (case and bracelet) and the movement.

Since the early 1970s, Rolex has diversified its recruitment process in order to make research and development a truly multidisciplinary division, capable of exploring the field of fundamental research. Physicists, chemists, astrophysics researchers, mechanical and microtechnology engineers, materials engineers, tribologists and statisticians: the diversity of these backgrounds allows Rolex to develop new ideas, from fundamental research to micron precision, and to patenting new devices.

In the course of its history, Rolex has registered over 600 patents.

## THE FUNDAMENTAL QUALITIES OF ROLEX WATCHES

Every Rolex watch is designed, produced and tested with constant attention to the tiniest of details. This 'superlative' approach is expressed through eight fundamental qualities that characterize every Rolex watch: precision, waterproofness, autonomy, robustness, simplicity, craftsmanship, comfort and durability. These major technical and aesthetic principles have always guided the work of the Rolex *Manufacture*. They also promise the wearer the experience of an exceptional watch, whose features express the excellence of unique expertise.

### 1. PRECISION

**"I was convinced that my life's success revolved around precision."**

**Hans Wilsdorf**



Chronometric precision holds a central place in the history of Rolex. Since the earliest days of the *Manufacture*, its founder Hans Wilsdorf viewed it as a major form of differentiation. In 1910, a Rolex became the first wristwatch to obtain a certificate for chronometric precision from an official rating centre. In 1914, the brand received a Class 'A' certificate from the Kew Observatory in England, the highest authority on chronometric precision at the time. Today, every Rolex movement is certified by the Swiss Official Chronometer Testing Institute (COSC) before it is cased. In order to be declared a 'Superlative Chronometer', the finished and assembled watch must then pass the Superlative Control tests. This certification, unique to the Rolex *Manufacture*, guarantees an exceptional precision of  $-2/+2$  seconds per day.

This chronometric performance is the result of a continuous focus on the improvement and production of the movement components (such as the balance wheel, hairspring, escapement, self-winding system, and shock absorbers) as well as the casing procedure. At Rolex, precision is not just about watch mechanics. It also relies on the study of 'human mechanics'. The combination of these two elements forms a unique discipline: the science of the ways a watch is worn. Rolex engineers are the ultimate makers of wristwatches, never ceasing to refine their expertise in order to determine, anticipate and fully understand the movements of the wrist and their influence on the performance of the timepiece.



## 2. WATERPROOFNESS

**“We must succeed in making a watch case so tight that our movements will be permanently guaranteed against damage caused by dust, perspiration, water, heat and cold. Only then will the perfect accuracy of the Rolex watch be secured.”**

**Hans Wilsdorf**



For the Rolex *Manufacture*, waterproofness and sealing against dust remain a constant focus for innovation. More than a fundamental property, these qualities represent the pinnacle of an entire chain of expertise that goes from the initial design to the final assembly of the watch.

Since the launch of the revolutionary Oyster in 1926, the world’s first waterproof wristwatch, Rolex has developed multiple innovations that have consolidated its status as a pioneering brand and its unique expertise in terms of imperviousness to dust and water. The Twinlock (1953) and Triplock (1970) crowns, as well as the Ringlock system (2008) have further optimized the resistance of Rolex watches to all forms of intrusion.

These decisive technical advances are supported by a real ‘culture’ of waterproofness that governs the entire production chain. Beyond design and machining, Rolex controls the entire working environment at every stage of the manufacturing process by monitoring the humidity level and air purity in its workshops. The impregnability of the watches is also the result of manual procedures, of the assembly processes and of storage methods that are constantly being perfected. In a final guarantee of the incomparable waterproofness of every Rolex, all watches are tested once again at the end of the production process in the Superlative Control’s hyperbaric tanks.

All Rolex watches in the Oyster Perpetual collection are therefore waterproof to a depth of at least 100 metres (330 feet). As far as divers’ watches are concerned, the guaranteed waterproofness has been pushed to 300 metres (1,000 feet) for the Submariner, 1,220 metres (4,000 feet) for the Sea-Dweller and 3,900 metres (12,800 feet) for the Rolex Deepsea.

While Rolex watches with an Oyster case are guaranteed waterproof to a given depth, they are actually subjected to higher pressure during testing stages. This safety margin is up to a maximum of a further 10% for models waterproof to 100 metres (330 feet). For divers’ watches, the margin is increased to 25% as required by the standards for this type of instrument. The ultimate culmination of this expertise, the Deepsea Challenge presented in 2022, is guaranteed waterproof to a depth of 11,000 metres (36,090 feet). This performance is monitored in an ultra-high-pressure tank, designed in partnership with Comex (Compagnie Maritime d’Expertises), as are all other test tanks used by Rolex. Every Deepsea Challenge timepiece tested is subjected to pressure equivalent to that exerted at a depth of 13,750 metres (45,112 feet).

### **3. SELF-WINDING**

**“It has long been my belief that the watch of the future is the ‘perpetual’ watch.”  
Hans Wilsdorf**



A corollary of precision and waterproofness, autonomy was an essential factor in the development of the wristwatch for Hans Wilsdorf. This third pillar of Rolex’s expertise was to complete the Oyster concept and take on a very broad meaning that linked time and movement.

In the 1920s, mechanical wristwatches still needed to be hand-wound regularly in order to continue working and keep time. In 1931, Rolex was to revolutionize the watchmaking world with the invention of a self-winding system via the Perpetual rotor. From then on, it was the movements of the wearer that powered that of the watch. With this Rolex invention came the promise of freedom for the wearer from the daily task of winding the watch.

From a technical point of view, self-winding relies on a meticulous understanding of human movement. The movements of the wearer drive the central oscillating weight which turns in both directions. From this moment on, the movement is powered by movements and the kinetic energy thus created is transmitted to the mainspring. The latter is therefore constantly wound in order to guarantee optimal power reserve for the calibre. Today, the autonomy of Rolex movements when the watch is off the wrist can reach 72 hours.

#### **4. ROBUSTNESS**

**“Every watch must be an ambassador for quality.”**

**Hans Wilsdorf**



In its quest for robustness, the Rolex *Manufacture* is as attentive to extreme, exceptional shocks as it is to the hazards of everyday life in order to guarantee the durability of its watches and preserve the integrity of their movements under all circumstances.

Robustness is one of the most difficult qualities to predict in the long term because once the watch leaves the *Manufacture*, it will inevitably be subjected to harmful elements in the outside world. Extreme care is therefore devoted to raw materials and their machining. Materials like Oystersteel, 18 ct gold, 950 platinum and RLX titanium, which guarantee sturdy cases, bracelets and clasps. And like high-technology ceramic, which allows the production of Cerachrom bezel inserts and bezels. Or like the extremely hard and practically scratchproof sapphire crystal that protects the dial. Similarly, Rolex is constantly increasing the shock resistance of its movements. That is how the optimized Paraflex shock absorber came to be developed. Dedicated to protecting the regulating organ and, in some cases, the escape wheel, it was progressively introduced to the brand's movements from 2005 onwards.

The constant improvement of this far-reaching expertise is made possible through careful observation and analysis of all possible shocks, which are replicated in the Research and Development laboratories using dedicated test machines. Statistically, it is everyday life that poses the greatest danger to a watch and the precision of its movement. During the initial qualification stages prior to large-scale production, Rolex watches are subjected to everyday shocks, simulating, for example, the repetitive movement of a person typing on a computer or an accidental one-metre fall to the ground.

The robustness of Rolex watches is also assessed through tests that reproduce exposure to extreme conditions. There is a device that subjects the watches to a pressure of 4.5 tonnes; one that drops them from 20 different positions; as well as one that pounds them mercilessly. These tests ensure that the superlative performance of each watch will remain undiminished, whether it is strapped to the wrist of a mountaineer, a navigator, a deep-sea diver or a polar explorer.



## 5. SIMPLICITY

**“Rolex must continuously strive to think and act differently from the rest.”**

**Hans Wilsdorf**



Since its creation, Rolex has been driven by the conviction that mechanical simplification is a measure of performance and reliability. During the research and development stage, the philosophy of the *Manufacture's* engineers is guided by a constant quest for the greatest simplicity in order to achieve optimal watch performance, increased reliability and optimized production methods. This is the case regardless of the technical complexity of the problem to be solved.

The Cosmograph Daytona's movement is therefore distinguished by its physical simplicity (just 314 components), which enables it to ensure first-rate precision and remarkable reliability. The same goes for the development of the Saros annual calendar. Unveiled in 2012 on the Sky-Dweller, this annual calendar requires only an additional four gear trains and two gear ratios to display the date.

The Sky-Dweller illustrates an additional facet of the quest for simplicity, one concerning the use of the watch itself: it is fitted with the Ring Command system. This revolutionary function selector makes setting the date, month, local time and reference time easy and intuitive through interaction between the rotatable bezel, winding crown and movement.

These are watchmaking inventions of rarely equalled design. Seemingly obvious, they are the result of unique expertise that is constantly being passed on and perfected. Simplicity, the hallmark of Rolex, is always at the service of performance and excellence.

## **6. CRAFTSMANSHIP**

**“Produce nothing but beautiful work!”**

**Hans Wilsdorf**



At the Rolex *Manufacture*, beauty has never been considered a superficial quality. The brand’s founder Hans Wilsdorf believed that, like reliability and precision, it was a concrete result of masterful craftsmanship.

Today, to everyone working at the Rolex workshops, the harmonious appearance of a watch must convey its intrinsic quality as a timepiece. It is therefore the expression of the deep reflection and meticulous care devoted to every stage of production. Aesthetic emotion is sought in the smallest of details by optimizing the geometry of the watches and the human touch that allows them to take shape. The unique way in which the middle cases of Rolex watches reflect light bears witness to this. Over the decades, work on the curves, relief and finishes of watch cases has been continuously perfected.

Beyond the talent of the designers and polishers, beauty also emanates from the expertise of master craftsmen. For example, the work of the gem-setters who enhance the models with the highest-quality precious stones, selected with the greatest care by the *Manufacture’s* gemmologists.

The beauty of Rolex watches is expressed from every angle. The regularity of every reflection highlights the curvatures of their middle cases, while the sparkle of gemstones illuminates the dial, underlining the design of a bezel or the structure of a bracelet.

## 7. COMFORT

**“We would never sell a single timepiece (...) that does not give full and complete satisfaction.”**

**Hans Wilsdorf**



The comfort of the wearer, a quality brought to the fore by the advent of the wristwatch, has become an essential part of the quest for excellence that Rolex has embarked upon. Bracelets and clasps play a full part in the unique pleasure of wearing a Rolex watch. Their carefully considered ergonomics form an integral part of the watch's personality. That is why their design, production, assembly and rigorous testing involve the use of the most advanced technology, coupled with exceptional craftsmanship. Designed in the 1930s, the Oyster bracelet has been continuously perfected and remains the emblem of the *Manufacture's* specific expertise. It was joined by the Jubilee (1945), President (1956) and Oysterflex (2015) bracelets, which all meet specific requirements in terms of fit and style. The same goes for the Oysterlock safety clasp and the additional Easylink, Rolex Glidelock and Fliplock extension systems.

These adjustment mechanisms developed by Rolex do not require any tools to operate and allow wearers to enjoy their watch in all circumstances. Integrated into the clasp, the Easylink rapid extension system allows the bracelet to be adjusted by approximately 5 mm by means of a fold-away link for greater everyday comfort. As for the Rolex Glidelock, it features a toothed system designed to extend the bracelet by up to an additional 20 mm so that divers' watches may be easily worn over a diving suit. Combined with the Rolex Glidelock, the Fliplock extension link – a device with three folding blades – provides an additional extension of approximately 26 mm so that the watch may be worn over the thick suits designed for extreme dives.

The Rolex *Manufacture's* expertise in the field of comfort is difficult to measure and yet indisputable and unanimously recognized in the watchmaking world.

## **8. DURABILITY**

**“You just keep your Oyster on your wrist whatever happens and it will never fail you. Is this not wonderful?”**

**Hans Wilsdorf**



A key factor in Rolex’s reputation, durability is as much about the movement as it is about the watch case and bracelet. It has been at the heart of the *Manufacture’s* philosophy and at the centre of its manufacturing processes from the outset.

Friction is an integral part of the functioning of a movement. Mobile components, such as the escapement and the balance staff, will therefore be subjected to wear-and-tear over time. To combat this, Rolex has developed exclusive lubricants. Following specific application procedures, highly precise quantities of oil are applied in strategic locations. These oils are able to remain effective through varying temperatures, over several years. They are essential to the smooth running of the movement and contribute directly to the reliability and long-term performance of Rolex watches. As a result, this reduces the frequency of maintenance.

At Rolex, it is also possible to speed up time. Machines are specially designed and built to simulate the ageing of watches over a period of years in as little as a week and to optimally test their reliability over time. There is one that shakes the bracelets, relentlessly. One that constantly opens and closes the clasps. One that soaks them in chlorine and salt, one that sprays them with sand, one that heats them, and one that freezes them. A watch is unlikely to experience such rough handling and extreme environments throughout its life, but Rolex engineers nevertheless study and anticipate these events.

Finally, there are certain types of deterioration that no machine can recreate. The watch is put through its paces by means of the ultimate test: wearing the model in real time. Prototype watches are worn for years before they are ready for series production. Rolex is the only watch manufacturer to subject itself to this extremely long test, in order to better guarantee the superlative performance of its watches over time.



## SUPERLATIVE CHRONOMETER CERTIFICATION

**“We work to a gauge that cannot be measured by any instruments excepting our own.”  
Hans Wilsdorf, 1927**

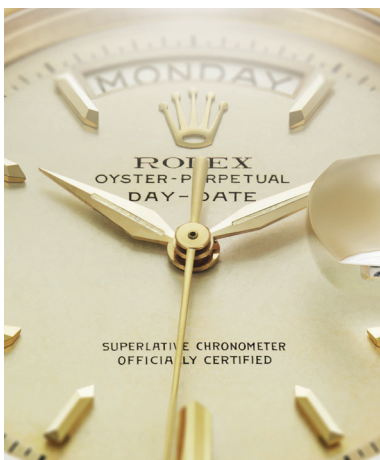
Rolex has always been committed to designing and manufacturing watches of the highest quality. The dial of each one is inscribed with the word ‘Superlative’, which testifies to its high level of performance. This designation confirms that every watch leaving the *Manufacture’s* workshops has passed a series of particularly demanding tests conducted by Rolex in its own laboratories, according to its own, very particular criteria.



### THE ORIGINS OF A HISTORIC SIGNATURE

The inscription on the dial of Rolex watches has evolved over time. From ‘Chronometer’, it was changed to ‘Officially Certified Chronometer’ in the late 1930s, before attaining its definitive form ‘Superlative Chronometer Officially Certified’ some 20 years later. These various designations attest to the brand’s ability to continuously innovate as well as to the high degree of precision of its timepieces.

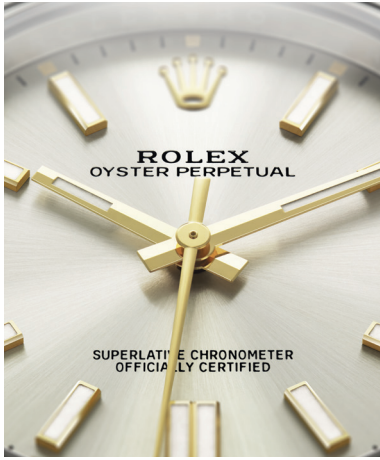
In watchmaking, the word ‘chronometer’ is given to a watch whose precision has been officially certified by an independent entity according to international criteria. In Switzerland, it is the Swiss Official Chronometer Testing Institute (COSC) that measures and checks the precision of the watch movements in different positions and at different temperatures. A movement that passes the eliminating tests receives Chronometer certification, attesting to its capacity to measure time without deviating from atomic time by more than a few seconds per day.



In 1957, Rolex launched a new generation of movements. Equipped with a balance wheel with gold Microstella screws (Microstella nuts since 1983), the calibres of the 1500-family provided excellent chronometric performance, even surpassing the criteria required for certification at that time. To mark these exceptional qualities, Rolex created the term ‘Superlative Chronometer’. This designation would thereafter be combined with the ‘Officially Certified Chronometer’ marking which already featured on the dial of Rolex watches, giving rise to the well-known phrase ‘Superlative Chronometer Officially Certified’.

This inscription on the dial – ‘Superlative Chronometer Officially Certified’ or simply ‘Superlative Chronometer’ as on the Perpetual 1908 model, launched in 2023 – perpetuates the notion that Rolex chronometers surpass existing standards. They are the result of the brand’s expertise and technical advances as well as its unparalleled testing methods.





## **A NEW STANDARD OF EXCELLENCE**

The notion of 'Superlative Chronometer', first formulated in the late 1950s, was reinforced in 2015 with the application of stricter criteria in order to establish a new standard of excellence for mechanical watches. Rolex has developed unparalleled testing methodologies and high-technology equipment to certify every one of its watches and guarantee their reliability in all circumstances, both in everyday life and in the most extreme conditions.

The tests are conducted by Rolex in its own laboratories, following the official certification of the movements by the Swiss Official Chronometer Testing Institute (COSC). They not only apply to the calibre, but to the fully assembled watch after casing the movement, guaranteeing superlative performance on the wrist.

These final controls systematically complement the qualification testing performed during the development stage and throughout the manufacturing process. They are carried out in order to guarantee the watches' reliability, robustness and durability.

The Superlative Chronometer status is symbolized by the green seal that comes with every Rolex watch and is coupled with an international five-year guarantee.

## **'SUPERLATIVE': MORE THAN A CERTIFICATION, A STATE OF MIND**

In everyday language, the adjective 'superlative' refers to that which possesses the characteristics of excellence. It expresses the highest degree of a quality. The term entered the brand's vocabulary in the late 1950s, following the introduction of a new generation of movements whose chronometric performance exceeded the standards of the time. Rolex therefore coined the term 'Superlative Chronometer' to highlight the exceptional qualities of its chronometers.

In 2015, the criteria for Superlative Chronometer certification were tightened. They apply to all the brand's watches and cover chronometric precision, waterproofness, self-winding and the power reserve.

By extension, all the components of a Rolex watch can be described as 'superlative'. In fact, every one of them is subjected to continuous, rigorous checks, from its design to its final assembly.

The term 'superlative' therefore refers to much more than a chronometric certification. It expresses a state of mind. A perfectionist approach that defines every department in the company and drives everyone who works for Rolex, regardless of their role.



Today, all Rolex models enjoy the Superlative Chronometer certification, redefined in 2015, which covers the areas of expertise relating to key performances: chronometric precision, waterproofness, self-winding and the power reserve.

### **PRECISION**

Each Rolex movement is first sent to the Swiss Official Chronometer Testing Institute (COSC) for 15 days and 15 nights of testing, involving seven eliminating criteria in five static positions and at three different temperatures. All Rolex calibres obtain the official Swiss Chronometer certification.

After casing the movement – an operation that can affect precision by several seconds per day – Rolex then tests each watch in its own workshops over a 24-hour cycle in seven static positions using an exclusive methodology that simulates real-life wearing conditions which are more representative of the wearer's everyday experience. The precision of a Rolex Superlative Chronometer must not deviate by more than  $-2/+2$  seconds per day. The average rate deviation tolerated by the *Manufacture* for a finished watch is therefore much stricter than that accepted by COSC for official certification of the movement alone ( $-4/+6$  seconds per day).

### **WATERPROOFNESS**

The waterproofness of each Rolex watch is tested in a hyperbaric tank. These tests are performed according to an exclusive methodology, developed by Rolex, which yields precise and reliable results. Watches guaranteed waterproof to a depth of 50 or 100 metres (165 or 330 feet) are tested at a water pressure up to 10 per cent greater than that exerted at their rated depth. Meanwhile, divers' watches – waterproof to 300, 1,220, 3,900 and 11,000 metres (1,000, 4,000, 12,800 and 36,090 feet) – are tested with a safety margin up to 25 per cent, in strict accordance with the standard in effect for this type of watch.

### **SELF-WINDING**

A testing methodology also exclusive to the *Manufacture* is used to verify the efficiency of the Perpetual rotor's winding power. All the components of the self-winding movement must be able to move freely and work together optimally once the movement has been cased.

### **POWER RESERVE**

Every watch is fully wound at the beginning of the tests to ensure that it runs for the entire length of its stated power reserve. Depending on the calibre that powers them, the autonomy of Rolex watches can reach approximately 72 hours.