

# Ferdinand Berthoud

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DAVID CHOKRON

## Of **legacy** and earnestness

*Legacy and genuine passion hold one to the highest standard. That is certainly true of Karl-Friedrich Scheufele. When the co-president of Chopard and head of that brand's watchmaking division decided he would revive the incredibly rich heritage of Ferdinand Berthoud, he knew how demanding that would be, and how demanding that would make him. Yet, four years after launching its seminal Chronometer FB 1.1, the scarce and high-end Chronométrie Ferdinand Berthoud has successfully put itself on the map... which is only fair given how deeply Berthoud is linked to high-seas navigation.*




**F**erdinand Berthoud is one of few legendary names of watchmaking's defining period, the second half of the 1700s. That is when most of what still makes a mechanical watch was invented, or perfected. Born in the Swiss Jura, in the same Val-de-Travers where Chopard's horological operations are based, Berthoud ended up working in France. There, made popular by the reliable and inventive clocks he designed and manufactured, he became Clockmaker and Mechanic by appointment to the French King and the French Navy, thus playing a major part in the epic arms race that was the quest for the longitude. His production of marine chronometers helped kings Louis XV, Louis XVI and Emperor Napoleon Bonaparte keep up with the British Empire in navigating and conquering the globe.

### THE COLLECTION

No wonder then, that Karl-Friedrich Scheufele ended up buying the rights to the name in 2006, then launching a contemporary brand he called Chronométrie Ferdinand Berthoud, in 2015. Himself a knowledgeable collector, a true devotee of classic watchmaking and more generally a passionate individual, he had already proved how invested in the preservation of watchmaking history he was by creating the L.U.CEUM. A sister project to his Louis-Ulysse Chopard collection of high-end timepieces (hence the name), this museum located in an old dwelling in Fleurier is home to no less than 40 items bearing the Berthoud name, including timepieces and first edition books.

### THE INSPIRATION

An original Berthoud marine chronometer stands for accuracy, stability, reliability and also a certain sense of style, albeit surprising in a scientific instrument. A contemporary

Ferdinand Berthoud chronometer lives by these exact same rules. Manufactured in Fleurier, according to extremely strict quality guidelines and high standards, systematically certified as chronometers, these wristwatches are produced in very small quantities. As Karl-Friedrich Scheufele once told us, "We have sought to transpose what Ferdinand Berthoud might have created if he was living now." 





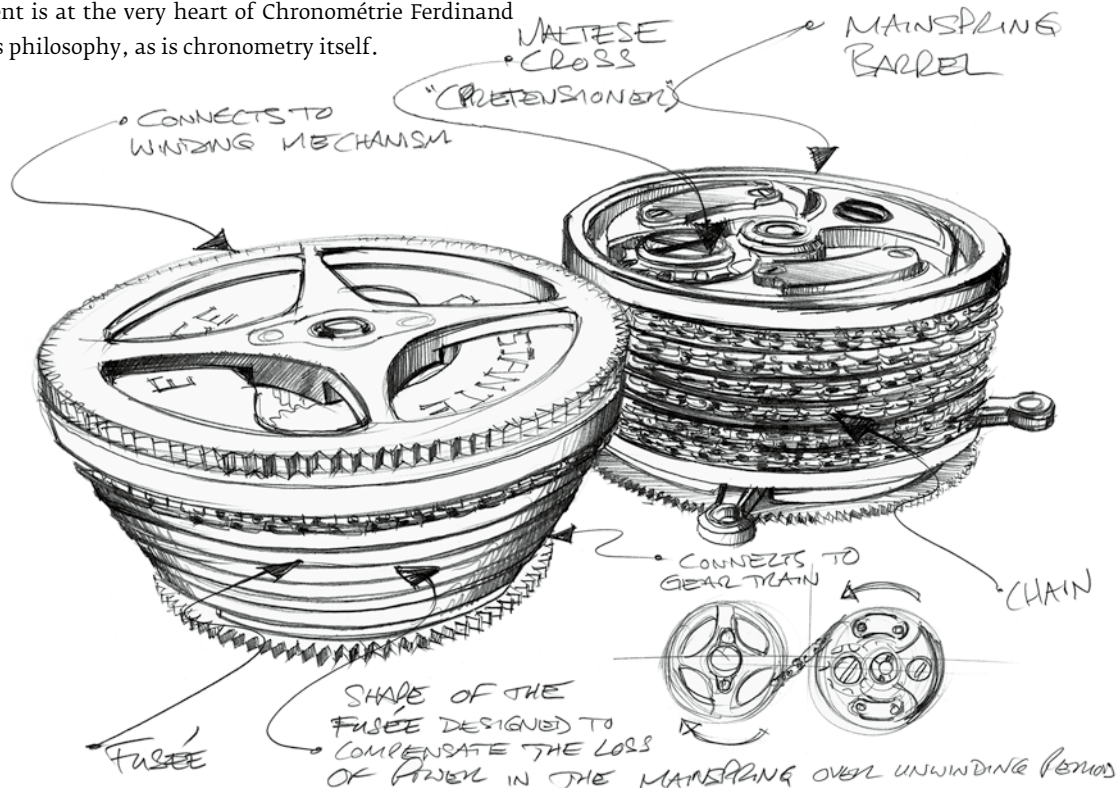


## Bound by a sense of heritage

In 1760, Ferdinand Berthoud submitted to the French Académie des Sciences his *Mémoire sur les principes de construction d'une Horloge de Marine*. Its construction principles for a marine clock laid the foundations for Ferdinand Berthoud's first marine chronometer, which was completed in 1761. For more than 45 years, Ferdinand Berthoud perfected its movements in order to achieve the highest possible chronometric precision. His work is therefore to be read as a narrative of how, in a few short years, timekeeping made an enormous jump in accuracy, which enabled secure high-seas navigation and consequently changed the face of the world. This spirit of constant progress, improvement and achievement is at the very heart of Chronométrie Ferdinand Berthoud's philosophy, as is chronometry itself.

### ENHANCED KNOWLEDGE

In order to bring some of Berthoud's original principles to today's standards, Chronométrie Ferdinand Berthoud gathered a large set of skills, built some from scratch, including rare know-how, tricks of the trade and otherwise complex operations. Combined with his utmost reverence for the works of the past, this transmission process raised Karl-Friedrich Scheufele's awareness and led him to partake in an education initiative, and in a cultural program.





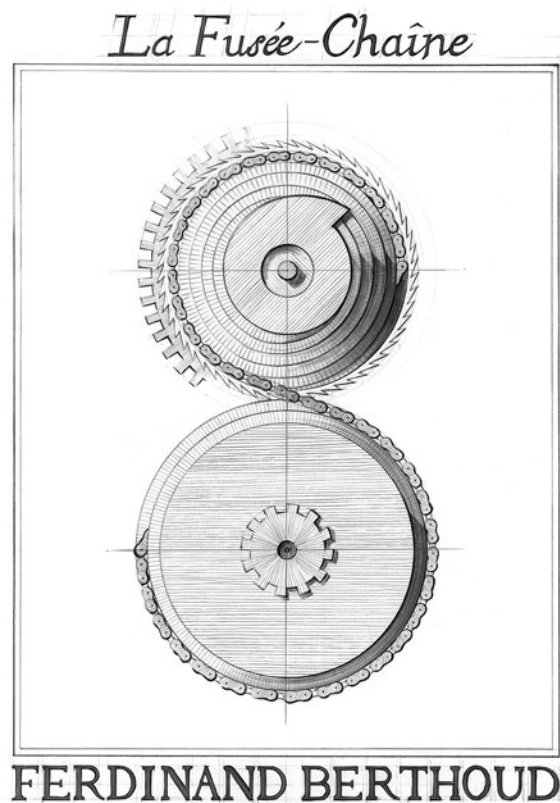


### SKILLS DEVELOPMENT

The education initiative is called Time Æon Foundation, a project aimed at the transmission of rare or even nearly lost horological crafts, which come together as a single timepiece, made by one artisan. Chronométrie Ferdinand Berthoud's involvement will include several craftsmen, who will learn to manufacture a timepiece together over five years. Featuring a fusée and chain transmission system, in the spirit of Ferdinand Berthoud's creations, it will be made entirely by hand, with no automated or electronic systems involved.

### ART PATH

The cultural program is Art en Vieille-Ville, which brings together 13 prestigious art and antiques galleries as well as three renowned cultural institutions: the Barbier-Mueller Museum, the Art and History Museum, and the Baur Foundation, all of which are based in Geneva. Created in 2007, it aims to establish the Old Town of Geneva as a major destination for art, by building on the diversity and expertise of its members, as well as promoting a selection of high-quality works. Chronométrie Ferdinand Berthoud is now a part of the AVV association, which will set up visits of the brand's workshops and of the L.U.CEUM in Fleurier. 





## Contemporary interpretations



Standing out in the current high-end watchmaking design environment has been an easy task for the Chronométrie Ferdinand Berthoud team. Ferdinand Berthoud's past work provided a distinctive frame to build off of. As was the case then, movement architecture and features are quintessential, and form follows function. Chronométrie Ferdinand Berthoud's watchmakers took a cue from the master's work and used a fusée and chain transmission system. It evens out the torque throughout the 53-hour power reserve and plays a major part in Chronométrie Ferdinand Berthoud timepieces' paramount requirement: accuracy. The latter is enhanced by a one-minute tourbillon, held by a long arrow-shaped bridge that is a unique signature in and of itself. Uniquely, this tourbillon doesn't double as a seconds hand. Chronométrie Ferdinand Berthoud's are the only tourbillons with a central sweep-seconds hand. The movement's structure was also a key proposition, as its bridges are not screwed on top of one another, but rather held between titanium pillars. This construction creates free lateral spaces, which enable the wearer to peek inside the movement through portholes situated on the caseband.





### Chronometer FB 1.1 & 1.2

**CASE:** 18ct white or rose gold, titanium or ceramic lug bars, domed sapphire crystal, sapphire caseback, 4 sapphire portholes, water-resistant to 100 feet (3 bar)

**DIMENSIONS:** 44 mm in diameter, 13 mm thick

**MOVEMENT:** mechanical, hand-wound, caliber FB-T.FC with 53-hour power reserve, 3 Hz, one-minute tourbillon regulator, constant force with fusée and chain, COSC-certified chronometer **INDICATIONS:** off-centered hours and minutes, center seconds, power reserve indicator

**DIAL:** silver-gray or black, satin-brushed, engraved, openworked, blued or golden hands **STRAP:** double face black alligator with a rose or white gold folding clasp

**50-PIECE LIMITED EDITION**

### DESIGN

The shape the Chronométrie Ferdinand Berthoud designers and Karl-Friedrich Scheufele chose was that of a round clock case mounted on gimbals. Chronometer FB1 and its following iterations therefore present a unique octagonal case with straight flanks. So far, it has been made of rose gold, gray gold, platinum, titanium, bronze at various stages of patina, carburized steel and ceramized titanium. The bars between the lugs are a distinct component and can be carved from a different material, in order to create more contrast or closer harmony with the appearance of the various models and especially with the dials. Chronométrie Ferdinand Berthoud watch faces are indeed a rare sight to behold. Most of them are openworked in order to provide a view on a set of wheels that lead from the tourbillon to the central seconds hand. The chamfers of that opening provide a fantastic playground for what is perhaps Chronométrie Ferdinand Berthoud's most distinctive trait: finishing.



### SURFACES

Usually, in any workshop, surface finishings such as beveling, satin-brushing, *Côtes de Genève*, *grenage* and machine-turning are implemented and verified with a x3 loupe. Chronométrie Ferdinand Berthoud uses a x6 loupe. That fact alone suffices to explain the impeccable polishings of the tourbillon, the perfect satin-brushing on the barrel and fusée, the gorgeous shimmer of the bezel and case in any of the brand's timepieces. Not to mention the demanding brushing and beveling carried out on every single one of the chain's 790 components...






### Chronometer FB 1 Oeuvre d'Or

**CASE:** 18ct 5N rose gold, domed sapphire crystal, sapphire caseback, 4 sapphire portholes, water-resistant to 100 feet (3 bar) **DIMENSIONS:** 44 mm in diameter, 13 mm thick **MOVEMENT:** mechanical, hand-wound, caliber FB-T.FC-3 with engraved rose gold bridges, 53-hour power reserve, 3 Hz, one-minute tourbillon regulator, constant force with fusée and chain, COSC-certified chronometer **INDICATIONS:** off-centered hours and minutes, center seconds, power reserve indicator **DIAL:** solid 18 ct white gold, engraved and patinated by hand, openworked, blued hands **STRAP:** double face brown alligator with an 18 ct 5N rose gold buckle **FIVE-PIECE LIMITED EDITION**

### COMPLICATIONS

Building upon that flourishing basis, Chronométrie Ferdinand Berthoud proceeded to offer several variations, all of which have been, and will continue to be, manufactured in a very limited numbers. The variations include the material used for the case but also the way some of the movements bridges are finished. Some are satin-brushed, others are engraved and they have been known to be carved from transparent sapphire crystal. The dials themselves are a distinctive part of any variation, but Chronométrie Ferdinand Berthoud's preferences lean towards satin-brushing or matte surfaces, combined with hand engraving of noble materials such as German silver, a dark gray, very unforgiving alloy, typical of high-end watchmaking. The latest creation from Chronométrie Ferdinand Berthoud is a sophisticated lunar indication. The Chronomètre FB 1L features a unique age and phase of the moon display that is one of the most accurate ever with a cumulated error of one day every 577 years. 




#### Chronometer FB1.4-4 Night Star

**CASE:** ceramized titanium, domed sapphire crystal, sapphire caseback, 2 sapphire portholes, water-resistant to 100 feet (3 bar) **DIMENSIONS:** 44 mm in diameter, 13 mm thick **MOVEMENT:** mechanical, hand-wound, caliber FB-T.FC-2 with 53-hour power reserve, 3 Hz, one-minute tourbillon regulator, constant force with fusée and chain, COSC-certified chronometer **INDICATIONS:** off-centered hours and minutes, center seconds, power reserve indicator **DIAL:** black, frosted, engraved and openworked **STRAP:** double face black alligator with gray stitching, secured by a ceramized titanium folding clasp **UNIQUE PIECE.**

#### UNIQUE GRAY

As a company dedicated to the release of very limited series and often unique pieces, Chronométrie Ferdinand Berthoud was bound to sense a kinship with the Only Watch auction. The charity dedicated to research against Duchenne Muscular Dystrophy has become famous for its Christie's-led auction exclusively comprising unique pieces, designed specifically for and donated in support of the association. But the mindset of the brand's founder played a major part in this decision. Karl-Friedrich Scheufele made Chopard a participant in the process since its inception in 2005, now adding Chronométrie Ferdinand Berthoud to the fold. "We are very happy to support a major cause of scientific research that still affects so many children and adults," explains the Co-President of Chopard and President of Chronométrie Ferdinand Berthoud. "This enduring commitment has enabled us to develop bold unique pieces, stemming from lengthy aesthetic and technical research, reflecting powerful choices that our collectors did not necessarily expect. The Chronomètre FB 1 'Night Star' reflects the same perspective. It enables us to present an original aesthetic that is sophisticated and different from our more traditional models."

#### DARKNESS AND LIGHT

Chronometer FB1.4-4 Night Star may just be Chronométrie Ferdinand Berthoud's most appealing and yet functional timepiece. It is the darkest, although it is not black. It is also the brightest in a way, since it is the very first Chronométrie Ferdinand Berthoud timepiece to feature Super-LumiNova®, hence the name. Its case is made of ceramized titanium, which is very light, scratch-proof and requires a highly technical manufacturing process. The outer layer of the case is transformed into a hard ceramic, of which titanium is a natural component. The case therefore retains the metal's original weight and is enhanced by the unique resistance of ceramics. The comfort on the wrist of the 44mm wide and 13mm thick watch greatly benefits from this choice. This unique piece features the extremely appealing version of the FB-T.FC caliber in which the lower bridges are made of transparent sapphire crystal, thus enhancing the sense of depth and volume which is the movement's natural effect. Furthermore, it is entirely rhodium-plated in order to complete the all-gray look which is part of Chronometer FB1.4-4 Night Star's unique charisma. 





## The regulator case study

Ferdinand Berthoud's marine chronometers were scientific instruments, dedicated to high-precision timekeeping in extreme environments over long durations of time, i.e. several years on the high seas. Design, ornament and style were no concern of Berthoud's. Yet, one of his most famous chronometers, the Marine Clock No. 7, testifies to the master's definite flair for aesthetics, however involuntary. This regulator, as timepieces of great accuracy which showed hours, minutes and seconds in dedicated areas were called, stood out with hours on a disk under the dial, and minutes and seconds sub-dials next to each other. It is therefore only logical that Chronométrie Ferdinand Berthoud chose to tweak his seminal design in order to welcome this legacy-piece into the family.

### SPECIFICS

The Chronometer FB 1R.6-1 furthers the technical nature of that 20-piece edition with a dial... that is no dial. Its face is in fact the back of the complication module used to display the timepiece's specific indications. It is








made of German silver with a black rhodium finish. It accommodates a completely new and unique display for the caliber FB-T.FC.R power reserve, which is housed in a recess of the dial, hiding nothing of its technical nature. A long lever and a spring reveal how this function takes stock of the energy available in the towering barrel linked to the fusée and chain mechanism. The series is manufactured from carburized stainless steel. The naked case is left in a high-pressure, high-temperature chamber with a high-carbon content plasma, which creates a deep surface layer of enhanced steel. The end result is darker, and also much more resistant to scratching, up to 10 times more so than the original steel alloy. Given how Ferdinand Berthoud was keen for innovation, new solutions and any improvement made available to his own timepieces, there is no doubt he would have appreciated such technology.

## PATINA

He would doubtless likewise have valued the subsequent five unique pieces, all of which were made of solid bronze. These five regulators' cases underwent a special patina process, giving each a different color, a different feel. The oxidized cases were then stabilized in order to retain their specific look... much like a well-preserved navigation instrument of yore. 

## Chronometer FB IR.6-1

**CASE:** carburized stainless steel, domed sapphire crystal, sapphire caseback, 2 sapphire portholes, water-resistant to 100 feet (3 bar) **DIMENSIONS:** 44 mm in diameter, 13.95 mm thick

**MOVEMENT:** mechanical, hand-wound, caliber FB-T.FC.R with 53-hour power reserve, 3 Hz, one-minute tourbillon regulator, constant force with fusée and chain, COSC-certified chronometer

**INDICATIONS:** off-centered hours and separate minutes, center seconds, power reserve indicator **DIAL:** engraved, satin-brushed black-rhodium German silver **STRAP:** double face black alligator with titanium folding clasp



# FERDINAND

1753

# BERTHOUD



## 1768. IN THE CONQUEST OF THE OCEANS, EVERY MINUTE COUNTS.

Tossed about on the waves of the Atlantic Ocean a corvette sailing ship belonging to the King of France, heads for Santo Domingo. On board are two marine chronometers created by Swiss watchmaking genius, Ferdinand Berthoud. Helping to calculate longitude to the nearest half-degree, these timepieces would guarantee the success of this 12-month expedition on the high seas. The era of great scientific exploration is born. Two and a half centuries after this feat, the timepieces of Chronométrie FERDINAND BERTHOUD live on, in a contemporary interpretation of these extraordinarily precise measuring instruments. The Chronometer FERDINAND BERTHOUD FB1 in white gold was awarded the "Aiguille d'Or" by the Grand Prix d'Horlogerie de Genève 2016.



Chronomètre FB 1 Œuvre d'Or (Ref. FB 1.2-1)

PRECISION FOR EXPLORERS

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