

CHRONOMÈTRE FB 1 – ŒUVRE D'OR

AN ALLEGORY OF HERITAGE CONSERVATION

Chronométrie Ferdinand Berthoud unveils the “Oeuvre d’Or” collection, a new artistic interpretation of its original creation, the Chronomètre FB 1.

This model previously existed in two gold versions: white gold with titanium lugs (FB 1.1) and rose gold with black ceramic lugs (FB 1.2). The collection now welcomes two additional variations, reprising the precious metals of their predecessors, white gold (FB 1.1-2) and rose gold (FB 1.2-1) respectively, while adorning them with original decorations.

These new entirely hand-crafted decorations are lavished on both the dial and its engravings, as well as the movement half-bridges, entirely crafted in 18-carat gold. The white gold version is also the very first gemset creation from Chronométrie Ferdinand Berthoud.

These two new editions are issued in exclusive five-piece limited editions. They are directly inspired by a model created by Ferdinand Berthoud, astronomical pocket watch No. 3, assembled and adjusted in Paris in 1806 by his student, Jean Martin. It is now part of the L.U.CEUM collection in Fleurier.

A PHILOSOPHICAL APPROACH

The Chronomètre FB 1 is the first creation from Chronométrie Ferdinand Berthoud. Entirely crafted within the Manufacture in Fleurier, it stems from many years of development.

Its slant-edged case is inspired by the architecture of the marine chronometers designed by Ferdinand Berthoud from 1760 onwards. It was on December 13th of that year that he submitted to the French *Académie des Sciences* his *Mémoire sur les principes de construction d’une Horloge de Marine*. This description of the construction principles for a marine clock laid the foundations for Ferdinand Berthoud's very first marine chronometer, which was completed the following year, in 1761. For more than 45 years, Ferdinand Berthoud perfected its movements so as to achieve the highest possible chronometric precision.

The FB 1 collection of Chronométrie Ferdinand Berthoud pays tribute to this work and to the movements that pioneered chronometric precision. Its case is inspired by Ferdinand Berthoud's marine chronometers, in particular their gimbal suspension that served to maintain on-board chronometers in a permanently horizontal position.

The movement is placed in the centre of a watertight container and has a characteristic pillar-type structure. This technique of affixing bridges to the mainplate was no longer in use until this new revival. It lightens the structure of the movement and at the same time enables a very open view of its details and finishes. This 100% in-house movement has three distinctive features.

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A DARING TECHNICAL CHOICE

First of all, the movement comprises an original suspended fusee-and-chain transmission system. The latter serves to deliver constant force to the escapement throughout the running time of the movement, from its first turn of the crown through to complete winding, thereby serving to achieve 53 hours of power reserve.

Secondly, the calibre is equipped with a direct-drive seconds tourbillon. The tourbillon itself makes it possible to compensate for the variations in movement induced by the different positions to which a wristwatch will have to adapt, several dozen times a day. This direct-drive seconds display is made possible by the correlation between the fourth wheel and the wheel driving the tourbillon carriage, both perfectly identical and visible on the dial side.

Finally, the FB-T.FC calibre is equipped with a power-reserve indicator operating in an atypical manner. It rests on a mobile cone which, in association with the rotation of the cylinder, moves up and down according to the state of wind. A jewel-tipped mobile arm (feeler spindle), takes an extremely accurate measurement, which it then transmits to a visible hand on the dial side.

The accuracy of each movement is attested by a chronometry certificate issued by the Official Swiss Chronometer Testing Institute (COSC).

Four patents have been filed for the unique features of the Ferdinand Berthoud movement.

These two new five-piece limited editions entirely reproduce the original movement of the Chronométrie FB 1, while adding totally exclusive decorations. The first limited edition, named FB 1.1-2, features several new finishes.

HAND-ENGRAVED PATINATED GOLD DIAL

The first appears on the dial side: the Chronomètre FB 1.1-2 harmoniously combines an 18-carat white gold case with an 18-carat yellow gold dial. The distinctive design of the watch face offers a broad surface on which to express an exclusive finish: a hand-crafted patina. This patina is created using a combination of engraving techniques that require great manual dexterity. First of all, the gold is finely grained with a graver. The surface is then crafted at length using a tool called a "rocker", enabling the light to glide across the dial to the rhythm of the shimmering reflections of the moiré effect thus created. A symbol of the passing of time and of Ferdinand Berthoud's legacy, this combination of artistic techniques recalls the natural patina of the dial of the astronomical pocket watch No. 3 that inspired the Chronomètre FB 1.

Each of the five dials in this limited edition is hand-engraved and then subtly coloured to perfect the overall legibility. The FB 1.1-2 model, like Ferdinand Berthoud's original creations, is adorned with manual engravings that make it unique: "Ferdinand Berthoud - Chronomètre - Val-de-Travers - Suisse", followed by the individual limited-edition number, "N° X/5". Opposite these engravings are those indicating the power reserve of the movement: "Haut" and "Bas" (High and Low).

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PYRAMID ENGRAVING

Another style of original finishes appears on the case-back side. For the first time, the FB 1 collection features a "pyramid" motif decoration adorning the entire surface of its three half-bridges, an authentic artisanal feat demonstrating the know-how of the Manufacture's engravers. The material is cut free-hand with flawless precision and regularity using a graver.

Already adorning two elements of the Regulator FB 1R, this "pyramid" decoration is inspired by the base of a clock by Ferdinand Berthoud, kept at the L.U.CEUM, in Fleurier. It is an astronomical measuring instrument, just like the astronomical pocket watch No.3 which inspired the FB 1.1-2 model. The latter thus reinforces its astronomical filiation by deploying the "pyramid" decoration on the back of the movement, offering an expressive new touch to the reverse side of the calibre which reveals the tourbillon, the barrel, as well as the fusee-and-chain transmission system

This decoration also includes 18-carat gold cartouches bearing the inscriptions "*Ferdinand Berthoud, Chronomètre Suisse 45 rubis*". This is Chronométrie Ferdinand Berthoud's first use of invisibly-screwed cartouches. They lend a new dimension to the back of the timepiece as well as aesthetic coherence, reflecting the finish of the tourbillon bridge.

FIRST GEMSET CASE FROM THE MANUFACTURE

The new FB 1.1-2 model in 18-carat white gold stands out in terms of the case itself, since some of its faces are adorned with baguette-cut diamonds for the very first time.

There are four in all: on either side of the crown and alongside the engraving of the limited-edition number facing it at 9 o'clock. In other words, the FB 1.1-2 model is the first creation in its lineage to feature gemsetting instead of the sapphire crystal portholes that historically revealed the key movement components.

This new five-piece limited edition radiates a sparkling, exclusive jewellery design. The crown is also set, a first for Chronométrie Ferdinand Berthoud. The exclusive choice of baguette-cut diamonds evokes the vertical pillar-type construction of the movement beating at its heart.

The second limited series, called FB 1.2-1, displays most of the characteristics of the 1.1-2 model. The movement, finishes and dial engravings are similar.

The differences lie in the fact that its case is entirely made of 18-carat rose gold, as are the dial, lugs, fastening screws and three half-bridges visible through the back. For the first time, Chronométrie Ferdinand Berthoud has applied the use of rose gold to all these elements, thus ensuring a perfectly consistent appearance of the five FB 1.2-1 timepieces while giving a new glow to the FB 1 collection.

To accompany this unprecedented chromatic development, the Manufacture has chosen a set of hands in blued gold for the hours, minutes and power reserve and in blued bronze for the central sweep-seconds hand. The blue colour is reminiscent of the blue steel hands on the astronomical pocket watch No. 3 of 1806.

Finally, for a smoother transition between dial and movement, the chamfers surrounding the tourbillon have been polished by hand, as have those around the power-reserve indication. Within these openings (tourbillon and power reserve), the Manufacture alternates between straight-grained and circular satin-brushed decorations, thereby individually highlighting each component according to its



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position, material and function.

HERITAGE CONSERVATION: AN INHERENT PART OF PURSUING FERDINAND BERTHOUD'S LIFEWORK

Even before acquiring the rights required to revive the illustrious name of Ferdinand Berthoud, Mr Karl-Friedrich Scheufele had already built up an important collection of books and timepieces within the L.U.CEUM. It has been constantly enriched ever since and it is now one of the world's most important private. Its preservation is an integral part of the Maison's renaissance and its primary inspiration.

The restoration of these pieces is a long-term endeavour, undertaken in harmony with the noblest rules of the profession. The company works in collaboration with specialised craftsmen to restore Ferdinand Berthoud's clocks to full working order. In a spirit of complete respect for ancestral techniques, with the help of historical documents and by comparing them with timepieces preserved in museums, these objects are meticulously and passionately cleaned and restored.

The Manufacture's latest acquisition, longitude clock No. XXX, has been the object of just such attentive restoration work. This undertaking lasted approximately eight months and called for the skills of a clockmaker, a historian and a cabinetmaker, among other trades. At the beginning of 2019, longitude clock No. XXX once again appears very much as it was back in 1787.



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AN ALLEGORY OF HERITAGE CONSERVATION

REF. FB 1.1-2
NUMBERED FIVE-PIECE LIMITED EDITION IN GEMSET 18-CARAT WHITE GOLD

CASE

- Octagonal 18-carat white gold case set with 20 baguette-cut diamonds (1.99 ct)

Total diameter 44 mm

Thickness 13 mm

Water resistance 30 metres

Crown diameter 9 mm

Numbered edition 1/5 to 5/5

- Dynamometric system (coupling system) in 18-carat white gold with a black ceramic medallion, set with 14 baguette-cut diamonds (0.8 ct)
- 18-carat white gold screw-in exhibition back fitted with a sapphire crystal pane
- Black ceramic lugs and black DLC-treated titanium fastening screws
- Domed and arched sapphire crystal, glareproofed on both sides

DIAL

- 18-carat (3N) yellow gold dial, engraved and patinated by hand
- Hand-bevelled dial centre and power-reserve indicator, rhodium-plated chamfers
- Offset circular satin-brushed silver-toned gold hours and minutes subdial, black Arabic numerals
- Circular satin-brushed silver-toned gold seconds track
- Power-reserve indication engraved on the mainplate: "0_1/4_1/2_3/4_1"
- Autonomy indicated by an arrow pointing to the words "HAUT" (high) and "BAS" (low)
- Hand-engraved inscriptions: "Ferdinand Berthoud" "Chronomètre Val-de-Travers Suisse" and the limited edition number

HANDS

- Black nickel-plated 18-carat gold dagger-shaped faceted cut-out hours and minutes hands
- Black nickel-plated 18-carat gold arrow-shaped power-reserve pointer
- Black nickel-plated bronze central seconds hand

STRAP AND BUCKLE

- Hand-stitched rolled-edge alligator leather made from a single piece of leather (115 x 75 mm, with a 20 mm buckle) – Various sizes available on request
- 18-carat white gold pin buckle

INDICATIONS

- Hours, minutes, seconds and power reserve



CHRONOMÈTRE FB 1 – ŒUVRE D'OR

AN ALLEGORY OF HERITAGE CONSERVATION

MOVEMENT

Mechanical manual-winding	Calibre FB-T.FC-3
Diameter	35.50 mm
Thickness	7.96 mm
Lignes	15 ³ / ₄
Jewels	45
Frequency	21,600 vph (3 Hz)
Power reserve	53 hours

TECHNICAL CHARACTERISTICS

- Tourbillon with fusee-and-chain (constant-force) transmission
 - Suspended fusée – differential winding system (PATENT)
 - Suspended barrel – Maltese cross stopwork system (PATENT)
 - Suspended power reserve – mobile cone system (PATENT)
 - Tourbillon with direct-drive seconds (PATENT)
- Variable-inertia balance wheel featuring four gold-plated nickel silver inertia blocks
- Balance spring with hand-crafted steel Phillips outer terminal curve (overcoil)
- Swiss lever escapement
- Three 18-carat (3N) yellow gold half-bridges, hand-engraved with the “pyramid” motif and fitted on stylised titanium pillars
- Hand finishing in keeping with the highest watchmaking standards

Components	1,119 (including the chain)
Chain	790 components
Length of the chain	285 mm
Half-bridges	18 including three in 18-carat (3N) yellow gold
Pillars	six

Tourbillon

Rotation	1 /minute
Components	67
Tourbillon carriage	Ø 16.55 mm (titanium)
Tourbillon carriage fixed to	three polished titanium pillars
Tourbillon carriage poised by	two 18-carat gold inertia blocks
Balance wheel	Ø 12 mm in copper-beryllium

Officially chronometer-certified by the COSC



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REF. FB 1.2-1 NUMBERED FIVE-PIECE LIMITED EDITION IN 18-CARAT ROSE GOLD

CASE

- Octagonal 18-carat rose (5N) gold case

Total diameter 44 mm

Thickness 13 mm

Water resistance 30 metres

Crown diameter 9 mm

Numbered edition 1/5 to 5/5

- Dynamometric system (coupling system) with 18-carat (5N) rose gold medallion
- 18-carat (5N) rose gold screw-in exhibition back fitted with a sapphire crystal pane
- 18-carat (5N) rose gold lugs and fastening screws
- Domed and arched sapphire crystal, glareproofed on both sides

DIAL

- 18-carat (5N) rose gold dial, engraved and patinated by hand
- Hand-bevelled dial centre and power-reserve indicator, rhodium-plated chamfers
- Offset circular satin-brushed silver-toned gold hours and minutes subdial, black Arabic numerals
- Circular satin-brushed silver-toned gold seconds track
- Power-reserve indication engraved on the mainplate: "0_1/4_1/2_3/4_1"
- Autonomy indicated by an arrow pointing to the words "HAUT" (high) and "BAS" (low)
- Hand-engraved inscriptions: "Ferdinand Berthoud" "Chronomètre Val-de-Travers Suisse" and the limited edition number

HANDS

- Blued 18-carat gold dagger-shaped faceted cut-out hours and minutes hands
- Blued 18-carat gold arrow-shaped power-reserve pointer
- Blued bronze central seconds hand

STRAP AND BUCKLE

- Hand-stitched rolled-edge alligator leather made from a single piece of leather (115 x 75 mm, with a 20 mm buckle)
- 18-carat rose gold pin buckle

INDICATIONS

- Hours, minutes, seconds and power reserve



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MOVEMENT

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 - Suspended power reserve – mobile cone system (PATENT)
 - Tourbillon with direct-drive seconds (PATENT)
- Variable-inertia balance wheel featuring four gold-plated nickel silver inertia blocks
- Balance spring with hand-crafted steel Phillips outer terminal curve (overcoil)
- Swiss lever escapement
- Three chamfered and engraved 18-carat (5N) rose gold half-bridges, hand-engraved with the 'pyramid' motif, fitted on stylised titanium pillars
- Hand finishing in keeping with the highest watchmaking standards

Components	1,119 (including the chain)
Chain	790 components
Length of the chain	285 mm
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