



FERDINAND BERTHOUD

Nautical heritage

In modern times Ferdinand Berthoud is noted for one watch, the superb Chronometer Ferdinand Berthoud FB 1, a classically looking, award-winning design, of which only 50 will be made. It is a highly sophisticated tourbillon chronometer, a hand-wound watch that pops with more than enough horological interest to pique a connoisseur's interest. Its distinctive white or rose gold octagonal case and movement comprising 1,120 components are inspired by marine chronometers, particularly the highly finished mechanisms of Ferdinand Berthoud the person, and therein lies the history of the brand.

Berthoud is almost the last of the great 18th-Century watchmakers to have his name brought back into use and the FB 1 is the first watch to reintroduce the name, which was acquired in 2005 by Karl-Friedrich Scheufele, the co-president of Chopard. Scheufele, who oversees the horology side of the Chopard business, has a passion for anything mechanical, and had stumbled upon a piece by Berthoud as he was looking for historical timepieces to exhibit in the Chopard L.U.Ceum museum. Chopard's horology is based in Fleurier and one of Fleurier's most famous sons is Berthoud himself.

The heritage is important to the revival of this marque as Berthoud was the first watchmaker to get close to the precision of John Harrison's marine chronometers – and this might have been the result, it has been suggested, of some early industrial espionage.

Berthoud was born in 1727 near Fleurier and was apprenticed locally before moving to Paris in 1745 to further his studies. Eight years later



at the age of 26 he was admitted as a Master Clockmaker on the orders of the French king. In 1754 he submitted his inventions to the French Royal Academy of Sciences, including his first marine clock project. His reputation was built on his technical advances in the production of chronometers, such as pioneering the use of jewelled bearings, and for his equation systems – equation clocks are mechanical clocks that can read or calculate solar time.

He wrote extensively on these subjects and rose quickly in his profession, first appointed Clockmaker to the French Navy in 1762 and later Clockmaker to the King in 1773. Aware of Harrison's life work in developing a marine chronometer to help sailors calculate longitude, Berthoud was sent to London in 1763 to see what he could find out. He became friends with the eminent clockmaker Thomas Mudge who, perhaps inadvertently, revealed some of the secrets behind Harrison's famous H4, which was being examined at the time by the Board of Longitude. However Berthoud came by the information, it was to set him on course to become one of the fathers of marine chronometers, sharing the credit for devising a

way to produce them in reasonable numbers at a reasonable price. As a talented watchmaker and engineer, he was a pioneer of the lever escapement that Mudge invented, which is the forerunner of today's Swiss Lever, but he is especially noted for his extremely accurate marine chronometers. Berthoud was instrumental in enabling France to vie with Britain for maritime supremacy.

Scheufele's 21st-Century vision is to develop a line of bold and technical timepieces, starting with the exciting and innovative new FB 1, which has been imagined as if it were the continuation of Berthoud's work, and created as a tribute to the great clockmaker. With a special team at Chopard's LUC Manufacture working exclusively on the timepiece – including Chopard's head of design, Guy Bove – Scheufele set about researching Berthoud's published works and archives. "Berthoud was an elegant engineer, and we wanted to follow that spirit as well as the detail," says Scheufele.

The bold octagonal shape of the 44mm case was inspired by the gimbal suspension system typical of ship's chronometers. The movement is constructed in the same way as the original marine chronometers, with pillars separating the plates, albeit using modern techniques and materials including titanium. Through the sapphire crystal case back and portholes around the outside you can see the intriguing regulating device: the central seconds tourbillon comes with fusée-and-chain transmission that provides a constant force. There are technical advances in the mechanism, such as the unique suspended mobile cone indicating power-reserve. The sophistication and engineering of the timepiece honours one of the great names in nautical watchmaking.

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Right: Karl-Friedrich Scheufele, inspired by Berthoud's marine chronometers.

Top: The octagonal case of the FB 1, priced from around €220,000.

Inset: Berthoud's Horloge de Marine 6 from 1777; Ferdinand Berthoud, with his Légion d'Honneur.



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