

sm+

INNOVATION

MB&F STRIKES WITH HOROLOGICAL MACHINE No. 1

a three dimensional machine which tells the time

by Massimiliano Pantieri





Maximilian Büsser

Hor-o-log-i-cal Ma-chine
 a device consisting of fixed
 and moving parts which modifies
 energy and transmits it to a
 more useful form, i.e., ti-
 mekeeping.


While most people absent-mindedly doodle, read or sleep on long flights, Maximilian Büsser lays the foundation for horological innovations.

It was on a long flight four years ago that Büsser, then managing director of Harry Winston Rare Timepieces, doodled a three-dimensional device radically different from any existing timepiece. The sketch would become the blueprint for the Horological Machine No. 1.

HM 1 represents the first creation issued by MB & F, a firm created by Büsser in 2005 that allows watchmakers to work in groups creating "machines that tell time" as opposed to mere timepieces. The HM 1 features a new design and construction housing a completely original movement with 376 parts and 81 functional jewels. The company expects to make 30 of the machines per year for the next three years.

The case features two overlapping circles, one representing the time and the other offering limited possibilities for the independent watchmaker. In this way, the case shape reflects the same principles as MB&F says Büsser who honed his watchmaking skills training under Henri-John Barmont at Jaeger-LeCoultre before joining Harry Winston.

Another striking visual aspect of the HM 1 is its rotating one-minute tourbillon located not inside the dial. This placement adds a new level to the dial and allows the viewer to see into the center of time, to see the watchwork, and the painstaking care and attention that went into its creation. The case measures 42 millimeters long, 14 millimeters wide and 13 millimeters in



Inspired by Human Body

SM Where did you get inspiration for Horological Machine No. 1?

MB "There are two main inspirations: first the shape of the case stems from the idea of two worlds coming together (on the same principle as MB&F). Secondly the whole construction of the movement is for the first time based on the human body: two lungs (two barrels) on each side, which propel their energy to the heart (the regulating system with the tourbillon). The heart then drives the hands on each side (hours and minutes independently functioning on each side of the dial)."

The four mainspring barrels in parallel allow lower torque in each mainspring, decreasing wear, improving synchronism and increasing movement longevity, while maintaining a seven-day power reserve.

Watch designer Eric Giroud, movement engineer Lauren Besse

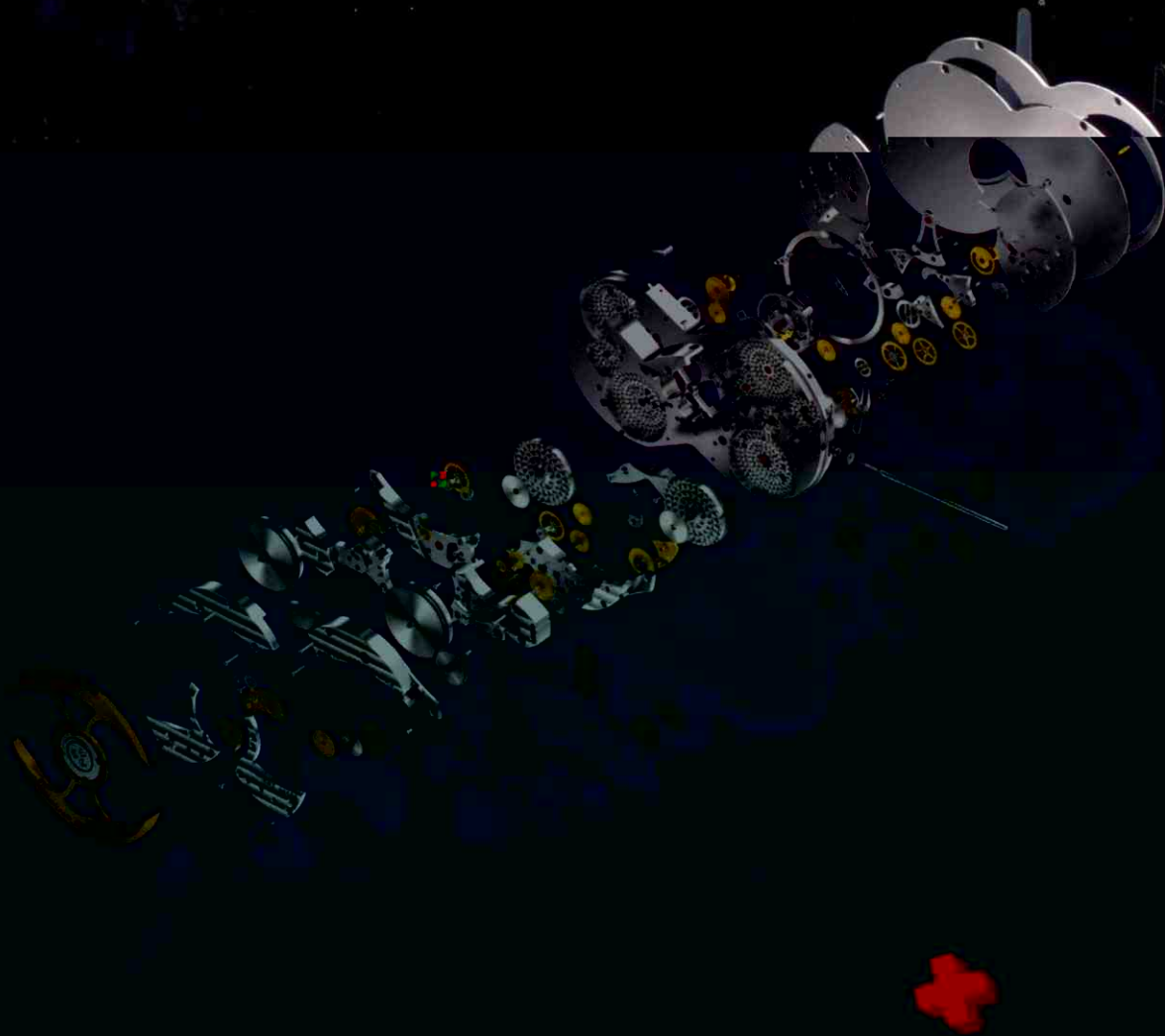
and independent watchmaker Peter Speake-Marin brought Büssers concept to life and created the micro-mechanical work of art that is HM 1.

The synthesis of Besse's engineering background with Speake-Marin's roots in classic horology ensure that, although the movement has an ultramodern feel, it has a solid foundation in traditional haute horlogerie. Despite its complexity, HM 1 has a water resistance of 30 meters.

But bringing the design to fruition meant overcoming many obstacles.

SM What challenges did you face creating it?

MB "From philosophy to reality there is often a large divide. Since the HM 1 represents the only movement in the world where



the energy approaches the regulating system from two sides instead of one, the watchmakers had to find a way to ensure that all four barrels wound up at the same time so the energy remains equal on both sides. The solution: a sophisticated gear train with differential that powers up equally through either the automatic rotor or the crown."

The creators of the HM1 synchronized the hour and minute hands in either side of the machine (which run autonomously on either side of the tourbillon) by using a large wheel that gyrates around the tourbillon. Flat and mirror-polished, the wheel floats between two layers of precision-adjusted jewels.

Furthermore, the HM 1 features a modular construction that allows for every part to be independently refurbished as needed in the future.

"I am very happy to say that two years after starting this project, not only have all challenges been met, but all 16 watches delivered to date are working perfectly," Büsser says.

The watchmaker expects the HM 1 to appeal to collectors as well as consumers who feel an emotional connection to it.

HM 1 also features a custom-designed deployment clasp. Its presentation case comes with an additional alligator strap and a special screwdriver that allows owners to change straps without visiting a jeweler. For the lucky owners, the Horological Machine N.1 comes in a pinstriped flannel and leather carry bag by Italian designer ETRO and wood and leather presentation case.

Available in 18-karat white or rose gold, the HM1 retails for 180,000 Swiss Francs and is currently offered at retail partners in Dubai, Kuwait, Los Angeles, Paris, Singapore and Tokyo.