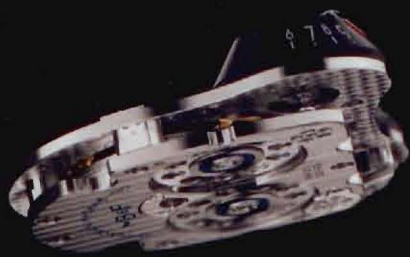
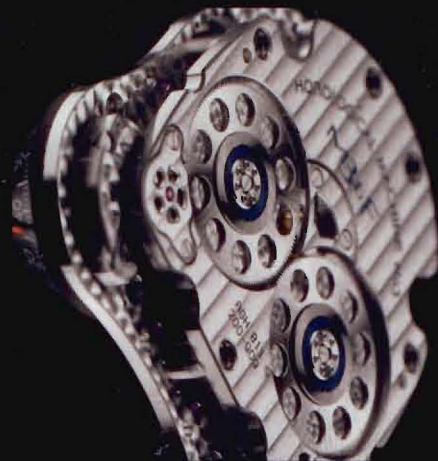
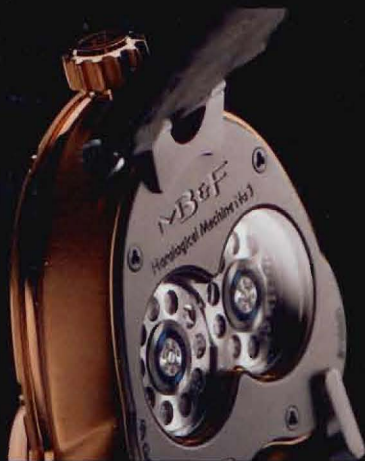




Horological Machine N°3

Warning! The Horological Machine N.3 by MB&F is so far outside existing timekeeping references that it may cause sensory overload.



"The Earth is a cradle of the mind, but we cannot live forever in a cradle."

—Konstantin E. Tsiolkovsky, Father of Russian Astronautics, 1896

The mind first attempts to take in the kinetically active movement, paradoxically seen in all its glory on the top of the watch and partially circumscribed by a ring of large numerals. However before that information can be processed it is assailed yet again, this time by twin cones rising majestically from the sculptured three-dimensional case. No wonder many struggle to reconcile the reality that this dynamic sculpture is actually a highly technical wristwatch that tells the time and date.

Individualists demand choice, so HM3 is available in two versions: 'Sidewinder', with cones lined perpendicular to the arm and 'Starcruiser', with cones in line with the arm. Each version has its own very distinct visual characteristics and each offers its own angle on telling the time.

The twin cones respectively indicate hours and minutes, with the hour cone capped by a day/night indicator. An over-sized date wheel allows for large, legible numbers with the date indicated by a neatly engraved triangle on its perimeter.

However, it is the spectacular open-air theatre presented by the finely finished movement, with its swinging battle-axe shaped automatic rotor and fast oscillating balance wheel, which mesmerises the eye and astounds the senses.

Turning the watch over reveals the technical secret behind HM3's inverted movement: two large high-tech ceramic bearings efficiently transmitting power up to the cones and date wheel.

Technical Innovations:

Ceramic Bearings: Time indications are usually located on the top, or dial side, of a movement. As the movement of HM3 is inverted to display its operation, an efficient solution was needed to bring power from the bottom of the movement to the timekeeping cones and date wheel at the top. Standard pinions set in jewels would have required complex, friction-generating gearing, and would require support top and bottom – a factor which would increase the height of the movement, and thus the watch. So instead of standard jewelled pinions, HM3 features two large-diameter (15mm) high-tech ceramic bearings. These minimize the number of gear-wheels (and thus friction) because of their large diameter and, as they only require support at one end (the base) due to the rigidity resulting from their ultra-high precision design and manufacture, they allow for a thinner movement.

Large Date: The over-sized date ring has a diameter larger than the movement. While the design allows for large (2.5mm high) easy-to-read numbers, the considerable distance between each number, while aiding legibility, required great ingenuity in enabling the date to be adjusted. Technical constraints in using the crown to operate the date meant that a pusher was called for; however, a pusher has an approximate travel of only 1mm – far short of the 4mm needed to move the date wheel from one day to the next. An ingenious system of amplifying the pusher's travel was developed using efficient gearing to multiply by four the distance travelled by the pusher.

Sapphire cones: Three-dimensional cones have never been used to display time before, and no wonder as their manufacture was said to be impossible. Fortunately the impossible just took a little longer. The difficulty lay not in actually fabricating the cones, but in polishing the interior of their (originally) translucent surface until transparent. The caps of the truncated cones are brazed (a high temperature soldering technique) to their gold rims, a technique which is aesthetically pleasing and ensures a solid and waterproof construction.

Screw heads: Perfection lies in the details, form follows function. Those two statements explain both the reason MB&F has gone to the effort of redesigning the slots of the case screws and their unusual cloverleaf shape. Sharp-edge shaped screw slots require sharp-edge shaped screwdrivers, a tool tailor-made for scratching polished gold screws. The rounded cloverleaf pattern in the head of HM3 screws is not only pleasing to the eye, it reduces the chances of damage to the screw. Horological Machines are micro-mechanical works of art and demand that each and every component both looks superb and functions impeccably.

Case and finish: Though totally original in design, the double indications, idiosyncratic play of matt and polished finished surfaces, iconic mystery rotor and slope-sided case ensure that HM3 is unmistakably, 100 per cent pure Horological Machine.