

KERBEDANZ is granted two patents for its Maximus The largest Tourbillon is also an innovation laboratory

The two patents granted to KERBEDANZ for its Maximus timepiece, which already holds the title of the *world's largest tourbillon*, demonstrate that this micromechanical masterpiece is completely in keeping with the history of chronometry.

A new energy generator system pairing 4 barrels and an innovative raquetterie device are the two patented innovations that add to the outstanding quality of the Maximus model by Kerbedanz. A piece recognizable by its domed sapphire crystal protecting the world's largest Tourbillon mechanism in a wristwatch.

Magnitude and measurement of time

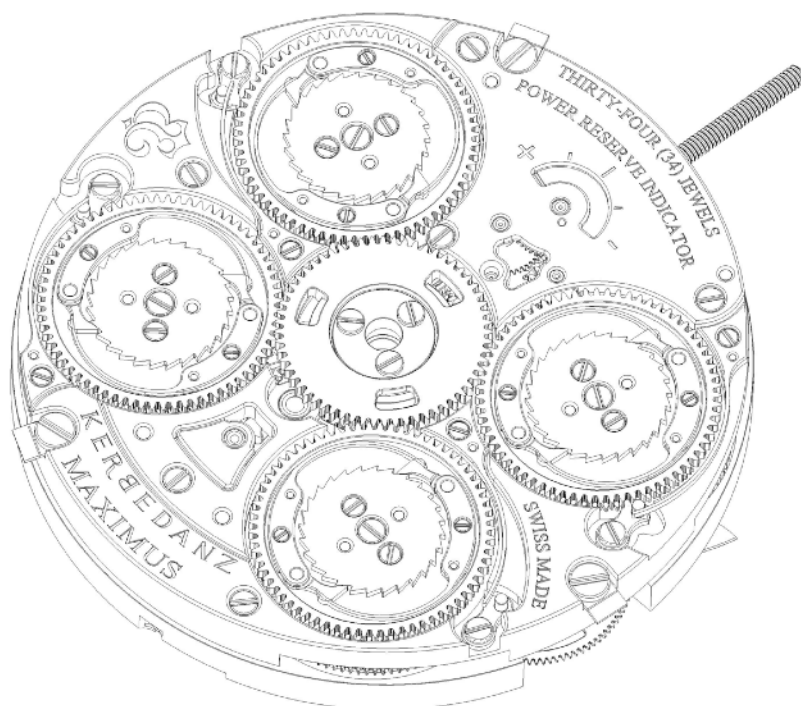
Since its launch, it has been difficult to avoid the media hype surrounding Maximus, this Kerbedanz masterpiece embodying complicated watchmaking excellence that has not compromised on extraordinary chronometric performance. Reliable and highly precise, this timepiece is in itself the epitome of a well managed challenge, an amazing micromechanical feat.

It is now official, the patent applications have been successful: the Maximus is not only a world record, it is also the scene of two innovations that demonstrate that there are still territories of innovation in a universe where history would like to convince us that everything has already been invented. Who would believe that within the tiny space of a watch case, even if it is 49 mm in diameter, creativity can be challenged to such an extent?

Patent CH 713 607, revolutionary four barrel system

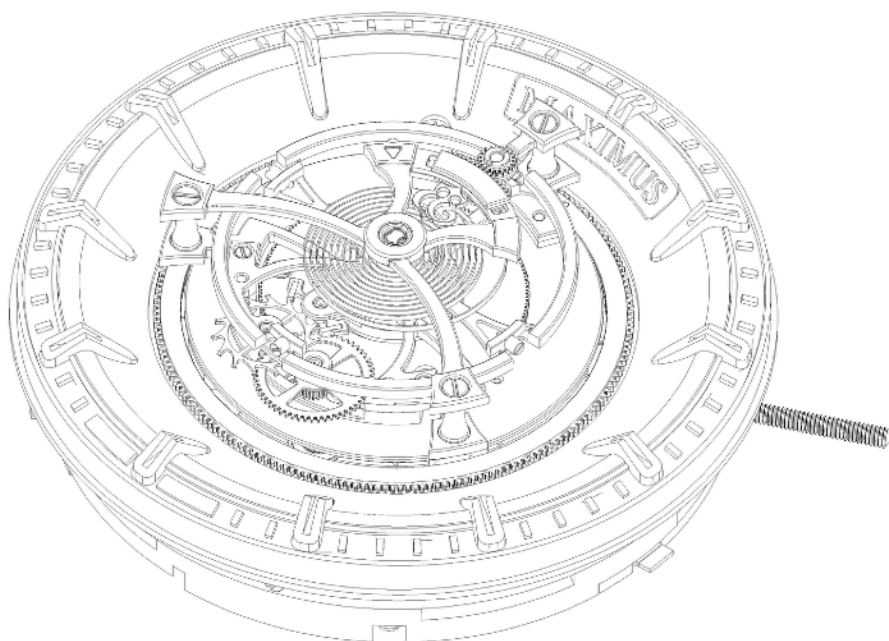
The Kerbedanz Maximus Model is powered by the KRB-08 caliber, with its giant central flying tourbillon, featuring a straight-line lever escapement and a 27 mm diameter cage. Its power is supplied by this patented system of 4 independent and coplanar barrels operating in parallel, built around a central mobile wheel on a ball bearing, supplying the required torque to power a tourbillon of such a size. Above all, this configuration does not increase the thickness of the watch, but it does increase the precision of the caliber.

The timepiece is running at a frequency of 2.5 Hertz, or 18,000 oscillations per hour (4.5 Hertz), and its power reserve, which is displayed in a separate indicator, offers a remarkable autonomy of 54 hours. The watch has a total of 415 components, 73 of which belong to the tourbillon cage made of titanium and weighing 1.35 grams. It should be noted that titanium is lighter than steel, that it resists well to magnetic aggressions and that the cage revolves in 6 minutes instead of the usual 60 seconds.



Patent CH 713 605 A2, innovative racquetry mechanism

So much research has already been done on these caliber components in connection with the balance spring, the mysterious soul of any mechanical watch, that it seems impossible to innovate any further. The challenge was successfully met at the heart of the Maximus, with this patented invention which includes a movable racket with pins and cogs that can be driven in rotation by a cogwheel. A distinctive construction is that the racket is slidably installed on a bridge.



For those who have been following the many developments in this field since 1968, or even two years before, as well as the more recent advances towards devices that adjust the active length of the balance-spring by modifying its free extremity, it is obvious that the invention patented here explores a completely different approach.

The Winding Ritual

In addition to these patents which attest to the expertise of the master watchmakers in charge of the conception and the manufacturing of this XXL tourbillon caliber, there is what the visuals do not always show at first glance: beyond the accomplished aesthetics signed Kerbedanz, when one turns over a Maximus, one discovers through a sapphire crystal case back that the interlacing of its ultra complex caliber is recovered by a kind of mechanical star. This is its unusual manual winding system, which must be held with two fingers and rotated. A subtle ritual that is particularly impressive for aficionados, especially since it is accompanied by a very pleasant clicking sound.

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Kerbedanz, a new era is coming up

Much sought after by watch lovers around the world, the Swiss watch brand located in the heart of the watchmaking cradle of Neuchâtel is today conquering new markets with a global offer open to a broader audience. New CEO Guillain Maspétiol invites us to an unveiling of the new 2021 models. As for the Maximus, the brand's icon model, it will continue to amaze the purists. It is the brainchild of experienced master watchmakers with a science and expertise in chronometry's fundamentals. Its status of "the world's largest tourbillon" is now enhanced by patented innovations.

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Maximus Flying Tourbillon

Limited edition of 99 pieces / 2 patents

Tourbillon, master complication of mechanical watchmaking

For the record, the tourbillon is a movable cage that rotates on its own axis and houses the movement's regulating organs, also known as the balance wheel-spring couple. By adjusting to the variations in position linked to this rotational motion, it counterbalances the variations in precision of a wristwatch due to the influence of



gravity on the regular running of the watch, and due to the non-concentric unwinding of the balance-spring and its attachment point to the clamp. Rarely has a tourbillon had such a didactic function as the Maximus by Kerbedanz. Thanks to its unusual size and the unhindered viewing of the mechanism, and thanks to the fact that it takes six minutes to revolve instead of the usual 60 seconds, it provides valuable information about a phenomenon that is as fascinating as it is complex to produce.