


Beat Haldimann

H2 Resonance Tourbillon

by [Sutbert Walter](#)
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 The upcoming "Baselworld", traditional meeting point and "*jour fixe*" especially for members of the AHCI, will see another highlight: Thun based master watchmaker Beat Haldiman will reveal his new "**H2 Resonance Tourbillon**".

Beat Haldimann is already reknown for his "H1" piece; a watch sporting a large (if not the largest example in a wrist case) tourbillon centered above the dial which results in a most unique appearance.

The new "H2" is promising to push the borders even further: as in "H1", the new models boasts a "flying" tourbillon; not only in the technical sense but also in terms of the appearance! This stunning achievement appears to be ready to take off! Furthermore, the H2 tourbillon exceeds the approach of a central tourbillon by far. The cage actually carries two lever escapements: two large balances with hairsprings, two pallets and two escape wheels fitted with spiral springs creating an escapement remontoire, resulting in a constant force escapement!





Haldimann H2 - first completed and running prototype!

The hairsprings of both systems are connected by a unique "resonance coupling spring". Both escape wheels have an integrated constant force escapement with overcoil hairsprings! The base movement is called "H-ZEN-B" - a modified version of his three barrel movement found in H1.



red:resonance coupling spring - green arrows: hairspring point of attachement

Both hairsprings feature a very unusual outer terminal curve. A "conventional" overcoil is calculated to let the hairspring "breathe" as concentrically as possible. Alas, the "H2" is not a conventional piece by any means and here a perfectly concentric or even conventional breathing is *not* the aim of the overcoils. But the outer ends on both are attached to the "resonance coupling spring" and therefore the hairsprings outer terminal curve is optimized for best interaction by this connecting element.

I have to say Beat Haldimann's resonance interpretation appears most appropriate and resembles the famous resonance pendulum clocks surprisingly well, which is a feat in and of itself, as replacing pendulums with balance wheels isn't any near an easy aim to achieve. Beat's approach of coupling the hairsprings outer point of attachment seems most logical and he is for sure relying on experience - probably not a surprise for those who are already familiar with his much lauded resonance double pendulum clocks.

Although I've not had the pleasure of watching the H2 in action, I imagine what a fantastic contemplative object this could be - two large balances, vibrating and corresponding at a relaxed 18.000 beats per hour...for me it somehow possesses the charme of a pendulum clock that lives on my wrist .



*tourbillon carriage base with escape wheels and pallets
note: the remontoire spiral springs concentric, below both escape wheels*

Some technical data of this fantastic creation: the case measurements do not exceed the H1 of 39mm in diameter and 10mm in height. The case is completely hand made and available in platinum, yellow, rose or white gold with a curved sapphire crystal. A hand stitched alligator strap with either traditional tang buckle or a deployment clasp complete the package.

For sure the "H2" by Beat Haldimann is a piece not to be missed during Baselshow 2005!

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