

# Pushing the Boundaries

By Keith W. Strandberg

The Fine Art of Skeletonizing at Vacheron Constantin.

MANUFACTURE: VACHERON CONSTANTIN

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Hand carving the Vacheron Constantin Malte Tourbillon Openworked



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Preparing for assembly of the Vacheron Constantin Malte Tourbillon Openworked

People who love mechanical watches love movements. They love to talk about them, to learn everything there is to know about them and, most of all, they love to look at them.

Movements are the engines of watches. Just like Ferrari owners love to see their engines through the engine covers, watch lovers want to see the mechanical hearts of their timepieces beating.

There is something mesmerizing about a mechanical movement in operation. Just looking at the balance wheel spinning is a reminder that a watch is not just another piece of electronic equipment. Take off your mechanical watch and look through the exhibition back, and you'll see the living, breathing motor, a testament to the skill of the hands that assembled it. It's an engine that lives on your wrist, touching your skin, almost like another heart beating.

A trend that has been developing over the past decade has been to open up watch dials, whether through complete skeletonization or via windows into the movement.

**"What is very important is the partnership between the designers and the engineers. It's not just about removing the most material. The play between light and shadow has to be considered, too." —Christian Selmoni**

## THE PROCESS

Skeletonizing a watch involves intensive work, as all the surfaces visible to the eye have to be finished, decorated and polished so they catch and reflect the light.

The best skeleton timepieces are designed from the start to be opened up. "When we design a movement, we usually think about a possible evolution of it into a skeleton version," Christian Selmoni, Vacheron Constantin's artistic director, notes. "We try to prepare the groundwork for a skeleton version. What is very important is the partnership between the designers and the engineers. It's not just about removing the most material. The play between light and shadow has to be considered, too. You also have to make sure the movement will still be reliable. There are many ways to openwork a movement, from a design point of view, by playing with different shapes and architecture."

As soon as the raw parts are produced, as much material as possible is removed with computer-controlled machines. Then, the bevelers, anglers and polishers take their turn, making each part gleam and catch the light. At Vacheron Constantin, the engravers then step in, decorating just about all the visible—and often times the invisible—surfaces.

"Skeletonizing a movement is using a mechanical movement in a decorative way—it is a technical feat and a craftsmanship challenge," explains Selmoni. "The goal is to remove as much material as possible and expose the movement, without impacting the performance or reliability of the watch. Openworking creates a challenge from a decorative point of view, creating a kind of mechanical lace. There is no technical reason behind skeletonizing a movement, it's just a matter of aesthetically pushing the boundaries. It's also a way to create a decoration that is not feminine, as openworking is one of the few métiers d'art that a man can wear."



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Architectural details are highlighted by the play of light and shadows on the Malte Tourbillon Openworked

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Vacheron Constantin first made skeleton watches in the 1920s. These early skeletonized pieces were pocket watches from the Art Deco era. It wasn't until the 1960s that the manufacture added engraving. This extra step has become a signature of Vacheron Constantin. "We wanted to take openworking further and this is why we have a very special kind of 3-D engraving," Selmoni says. "If you look at this year's offerings, we have not only engraved the surface of the bridges, but we have created a very interesting sculpture in order to do something new. It's a very creative and very different approach compared to what other brands are doing."

Skeletonizing is more popular than ever before, as customers recognize the work that goes into it. "Our skeleton watches have always been exclusive, production-wise, because they require a lot of hand work," Selmoni points out. "When you speak about a complication, some clients don't immediately understand how complicated it is. In a skeleton watch, you immediately feel there is complexity involved, so clients can really admire and understand the intricacy of the work in front of them. The success of fine watchmaking has put a spotlight on many aspects of high watchmaking, including skeleton watches. This is a very particular way of decorating watches that is very exclusive and unique."

[vacheron-constantin.com](http://vacheron-constantin.com)



Assembling the Malte Tourbillon Openworked

