



Jaeger-LeCoultre,
Reverso Gyrotourbillon

The light touch

Titanium timepieces were launched by many of the big watch brands at the Swiss shows this year. Sarah Carpin highlights some of the best and discovers the advantages of this lightweight metal for watches

It has been called the space age metal, mainly because until some 30 years ago more than 85% of all titanium produced was used in the aerospace industry.

Titanium's unique properties, which include a density that is half that of steel, excellent strength retention and corrosion immunity superior to that of other metals, made it ideal for the construction of planes and spacecraft, but it was not widely used for other applications because of its high price.

Since the 1970s, however, the price of titanium has dropped and it has been used much more extensively. IWC was reportedly the first watch brand to use titanium – manufacturing a titanium bracelet in the 1970s. Since then, titanium's unusual features have been incorporated into many watches.

Citizen, the world's largest manufacturer of titanium watches, points out that the metal is particularly suited for sports and divers' watches because of its corrosion-resistance.

Titanium watches are also very comfortable because they are surprisingly light on the wrist. The metal is hypoallergenic, nickel-free and because it is stronger than steel, titanium watches are more durable.

There are two drawbacks, however. It is more expensive than steel and can be stained and scratched quite easily. Citizen, for example,

compensates for this by using a patented glass multi-layer coating on its titanium models, which the brand says makes them scratch-resistant.

While large dials and chunky sports watches continue to get bigger each year, titanium is a popular choice for designers who can make oversized watches that do not weigh heavy on the wearer's wrist.


The Divers Regulateur by Oris is the brand's largest ever watch with a dial that measures 49mm and a titanium case. Clerc's Odyssey and Hydroscah watches are large, broad set watches, inspired by space travel and exploration and both feature black titanium with ceramics, carbon and rubber for a rugged but high-tech look.

Oversized tourbillons also use titanium cases and bridges: Guy Ellia's Tourbillon Magistère Titanium has also been skeletonised for ultra-lightness.

For sports- and motor-inspired watches, titanium can be combined with carbon fibre. Perrelet uses this combination in its Double Rotor Titanium watch, as does the Manometro S by Giuliano Mazzuoli.

Titanium is also often combined with other metals to make the watch more substantial and precious. Jaeger-LeCoultre uses titanium to great effect in its innovative Reverso Gyrotourbillon 2, while Girard-Perregaux has

produced a titanium watch for the financial world with a 43mm titanium case and a dial that indicates the opening hours of the world's major stock markets.

And while titanium is most frequently used in sports watches aimed at men, German fashion watch brand Boccia Titanium combine the metal with white enamel in a light summery feel collection for women. 

Titanium facts

- Titanium is ideal for making tough watches as it is 30% stronger than steel yet up to 50% lighter
- Titanium is 30% more elastic than steel
- It is resistant to salt water, perspiration and acids
- Titanium has a low magnetic signature and so cannot be picked up by metal detectors
- Titanium does not become magnetised
- Titanium can only be worked with extremely hard tools and has a very high melting point of 1800 degrees Celsius
- Titanium is believed to be the earth's crust's ninth most common element (about 0.6%) but never occurs in nature as a metal
- Pure titanium is hypoallergenic and will not irritate or discolour skin
- Titanium graded 1 to 4 is pure titanium, other grades are alloys



Guy Ellia, Tourbillon Magistère Titanium



Porsche Design, Worldtimer



Oris, The Divers Regul



Perrelet, Double Rotor Titanium



Clerc, Odyssey



Boccia Titanium

Giuliano Mazzuoli, Manometro S



Girard-Perregaux, Financial Timer

