

Press release

Rhodium has become the most expensive metal in the world.

What is the alternative for watchmaking?

In just a few months, rhodium's price has reached historic highs, recently reaching CHF 690 per gram! Rhodium, which is used to coat specific watch movement components, is presenting the watchmaking industry with a new challenge in becoming the most expensive precious metal in the world. Fortunately, STS Saulcy Surface Treatment, the largest consumer of rhodium in Switzerland, is able to offer alternatives.

La Chaux-de-Fonds, 28 January 2021. At the beginning of January 2021, the price of rhodium rose by 24% to CHF 690,000 per kilo in just a few days. That's an amount 13 times the price of gold! It's a surge that in 2020 had already made rhodium the most expensive metal in the world. According to the unanimous opinion of experts, this explosion in price is no coincidence, and it could continue to increase.

The demand for rhodium has exploded in recent years because of new anti-pollution vehicle emission standards. Diesel cars are disappearing in favour of petrol and hybrid vehicles; rhodium is used in catalytic converters in these vehicles to reduce toxic emissions from their exhaust systems. This is just one example of the wide range of applications of rhodium (reflectors, lighting, mirroring, nuclear applications) despite the fact it is very rare (about 20 tons is produced every year), mainly coming from mines in South Africa. Therefore, everything suggests that this inflationary trend won't stop here, as shown by the continued increase since the beginning of 2021.

Alternatives with the same properties

The inflation in the price of rhodium is bad news for watchmaking and jewellery. Rhodium is used as an anti-scratch finish for jewellery, especially white gold. But it is for the watchmaking industry that this recent steep price rise has more unfortunate consequences. A rhodium layer is applied to several parts of the watch movement, especially to an *ébauche* movement.

The Swiss company STS, which has specialized in this type of operation in watch movements for many years, has mobilized its R&D teams to find alternative solutions to rhodium at much lower costs.

"Over the course of one year, we developed and tested two alternatives to rhodium in a laboratory and then in production," explains Frédéric Saulcy, CEO of STS. "Among these two alternatives, the use of white platinum enables us to produce a large amount of coating with the same technical characteristics and colour as rhodium. This is a chemical and technological innovation that aligns perfectly with our company's values and history."

An innovation much less expensive than rhodium

As opposed to rhodium, whose worldwide extraction seems limited, STS's alternative solutions, like platinum, show significant reserves and much more stable prices.

Aware of the manufacturing costs of watch components at a time when the sector is going through an unprecedented crisis, several major Swiss manufacturers have already expressed their interest in these technological alternatives to respond to the incredible surge in the price of rhodium.

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About STS

STS's main activity is electroplating. The company has become one of the most important suppliers in the field of surface treatments for the watchmaking industry. It also offers additional treatments such as varnishing, heat treatments, polishing and watch decoration. STS diversifies its activity into other sectors, such as connector and automotive technology, by offering galvanic treatments adapted to these sectors and precision anodizing of aluminium. The company currently has four production sites in Meyrin (2017), Develier (2016), La Chaux-de-Fonds (2010) and Vallée de Joux (2006).

www.sts-galvano.ch

About the Acrotec Group :

Acrotec is an independent group created by micromechanics professionals. Its main objective is to be a reference subcontractor by offering a wide range of manufacturing processes for precision components. Its strategy is both to provide "Swiss Made" quality products to the entire watch industry as well as to the automotive, electronics, medical, jewelry and aeronautics industries. Acrotec distinguishes itself by the extent of the know-how exercised under the same roof, in **precision machining** (CNC turning, CNC multispindle turning, cam-operated turning, 3 & 5 axis milling, micro-turning, transfer and machining of precious metals), by **support processes** (surface treatment, cutting, assembly, heat treatment, decoration and laser engraving) and by **specific processes** (realization of components by UV-Liga, wire erosion/sinking, machining of synthetic stones, lamination, shaping of springs, realization of machines and tools and engraving on silicon - DRIE). Currently, the Group has more than 1,200 employees.

www.acrotec.ch/en/