

# A 'hot' new application for copper

Copper is a very versatile non-ferrous metal. Its most prominent features are very high thermal and electrical conductivity, corrosion resistance and easy machinability. It is therefore used as a constituent of various metal alloys. The leading Swiss processor of such metal alloys is Swissmetal Industries Ltd. The highly innovative metal processing business offers high-quality speciality products made from copper and copper alloys. The latest product novelty is 'Designed Energy' – aesthetic roof tiles that supply the house with heat and make conventional solar power modules redundant. The Swiss company has thus opened up a completely 'hot' new market for copper.

Swissmetal manufactures and sells a wide diversity of first-rate special products which are made from non-ferrous metals, particularly copper and copper alloys. "Our products are used by a broad range of industrial sectors, including electronics, telecommunications, aviation, petroleum, automotive, stationery, watch making and construction," explains Chief Development Officer Sam V. Furrer. Depending on the individual application, Swissmetal's products

variety, which, again and again, leads to new applications and processing methods for copper and over 100 copper-based alloys, and its clearly stated vision, which aims to make Swissmetal the partner of first choice for metal-based precision solutions in high-tech markets. "Our philosophy is to develop new solutions in close cooperation with the customer, based on our in-depth knowledge of the customer's individual product applications and processing techniques," states Mr. Furrer.

## Concise business strategy

In particular, the development strategy of the Swiss copper specialist is based on three pillars: high operational performance in all business functions, from R&D to production to selling, as well as active mergers and acquisitions in the global copper processing industry in order to emerge as a winner in the current consolidation process. Swissmetal's three production operations are in Switzerland and Germany. The Dornach plant in Switzerland includes a modern foundry – metallurgy is one of the company's distinct strengths – as well as continuous extrusion, pressing, rolling and drawing equipment. It manufactures solid and hollow rods, profiles, tubes and strips in medium-sized and large dimensions. The second Swiss plant is located at Reconvilier. It is equipped with its own wire casting foundry, spray forming, drawing machinery and specialises



The Dornach plant is equipped with a modern foundry and continuous extrusion, pressing, rolling and drawing machinery

in wires and rods in small and medium-sized dimensions. Swissmetal's third plant is based in Lüdenscheid, Germany. Provided with a foundry and pressing and drawing equipment, it focuses, like Reconvilier, on wires and rods in small and medium-sized dimensions. The three plants employ a total of 630 people and generate annual revenues of 325 million CHF. The export share is a high 70%, with the main export markets being Europe, North America, China and India.

## Processing metal for over 150 years

Swissmetal is exceptionally rich in tradition. The company's first plant, Swissmetal Boillat in Reconvilier, was established back in 1855. The

rolling mill and foundry, just like the second facility at Dornach, was erected in response to the Swiss watch industry's growing demand for brass. In the early 20<sup>th</sup> century, press and drawing shops were added to the mills, and the product portfolio gradually expanded. From the 1950s, both plants produced not only brass but also other alloys such as low-alloy copper, nickel silver and bronze. At the same time, exports to Western Europe grew rapidly. Swissmetal, as it exists today, was formed in 1986 as a merger of the two plants at Dornach and Reconvilier. In 1990, a third manufacturing operation was set up, following the acquisition of Busch-Jaeger Metallwerke GmbH in Germany, which was specialised in smaller pressed and drawn products. "Today, the three plants coop-

erate on a close basis and enable us to reap significant synergies," states Mr. Furrer. In 2007, Swissmetal took over the US trading company Avins Industrial Products. "This step enabled us to broaden our product offering by products from external suppliers," explains Mr. Furrer. The same year, Swissmetal presented a number of significant product innovations, including two high-performance alloys for the watch making industry and the aviation sector.



ATMOVA roof tiles are also perfectly suited for listed buildings such as the 'House of the Environment' in Lucerne

## Designed Energy

The latest innovative product is ATMOVA which was developed in 2007. Marketed by the Swissmetal subsidiary Swissmetal Design Solutions AG, ATMOVA is a unique new heating energy generation system for both private and public buildings. The concept includes highly efficient roof tiles or façade elements collecting energy from the environment. The ATMOVA system makes this energy available for heating purposes with a heat-pump. It covers the entire heating requirements of a house and thus can replace all other heating systems. At the same time, the tiles or façade elements are highly aesthetic in their

design and integrate perfectly into any roof or façade, even in the context of listed buildings. "ATMOVA is 'Designed Energy'," says Mr. Furrer. "It provides the ideal combination of highly efficient heat recovery and aesthetic design." The attractive product innovation, which also helps save CO<sub>2</sub> emissions, was honoured with the 2009 Design & Technology Award for CO<sub>2</sub> Efficiency at the Materialica International Trade Fair in Munich. The award distinguishes successful products that provide functional, aesthetic and manufacturing impulses using innovative materials. Not resting on its laurels, though, Swissmetal is determined to continue innovating. "We shall continue developing our technical know-how and investing in research and development," concludes Mr. Furrer. ■

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meet the most stringent requirements as regards precision, electrical or thermal conductivity, mechanical strength, corrosion resistance or machinability. In Europe, the company ranks among the top metal processing businesses. "Our goal is to sustain our leading position in Europe while at the same time entering new, attractive growth markets such as North America and China in order to expand our global market penetration," says Mr. Furrer. Swissmetal's growth strategy is supported by the company's outstanding inno-

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