



A Tata Steel Enterprise



## Case Study

### New building for GF Machining Solutions in Biel, Switzerland

**Products:**

9'000 m<sup>2</sup> SWISS PANEL® SP 45/900 and SP 45/900A  
2'000 m<sup>2</sup> MONTAWALL® MK 140/500 and MK 140/600

**Building owner:**

GF Machining Solutions, Biel, Switzerland

**Client:**

Ediltecnica AG, Schönbühl, Switzerland

**Architect:**

GLS Architekten AG, Biel, Switzerland

**General contractor:**

HRS Real Estate AG, Gümligen, Switzerland

**Realisation:**

2017 – 2019





# Everything under one roof

**Gigantic new building in Biel unifies sites and needs of GF Machining Solutions.**



Cost-effective production in low-wage countries is commonplace these days. Swimming against the current and depending on "Swiss Made" quality requires courage and trust in your own capabilities. Machine tool specialist GF Machining Solutions on the construction of its new Swiss site. The company has had its new headquarters built in the centre of Biel – the "Silicon Valley of machine engineering". Because first impressions really count, the facade construction had to be practical and representative in equal measure. With steel liner trays and perforated zig-zag design aluminium profiles from Montana Building Systems Ltd. from Villmergen, GF opted for a modern look with plenty of daylight, and banked again on Swiss values and value.

The Swiss GF Machining Solutions is an established player in the mechanical engineering sector: The company, with registered office in Geneva, employs over 3250 employees at 50 sites worldwide. With its extensive offer in the areas of tool and mould making and in the production of precision parts, GF plays a leading role in the global competitive market. And all this needed to be expressed in the new headquarters in Biel/Bienne. So, over two years, a building was constructed on an area of around 44,000

square meters which more than met the requirements. Measuring around 14,000 square meters, the new building, constructed by GLS Architekten also based in Biel, is all that the machine manufacturers could have wished for. As well as plenty of space for offices, production and assembly, it has its own research and development centre and a state-of-the-art application centre for practical presentations. In the process the former sites in Nidau, Ipsach and Luterbach have been merged so that the new headquarters houses

the entire Swiss milling machine and laser production of GF Machining Solutions.

## **Form meets function**

The building's appearance needed of course to reflect GF Machining Solutions reputation and the building's use. Imposing and yet restrained, linear yet bold. It sounds contradictory but this is what has been achieved harmoniously by the architects and the construction company.



Generous use of natural light, to increase the comfort and wellbeing of its employees in its project rooms, open plan offices and relaxation zones, was important for the client. A further challenge, especially for the facade design, was posed by the enormous dimensions of the new building. At 180 x 100 x 15 meters it proved to be a real mammoth project.

The challenge was solved with MONTAWALL® liner trays from Montana Building Systems Ltd. This versatile system of load-bearing liner trays made of steel is available in a range of designs and dimensions. There is also a choice of depth and height of the elements which is reflected in the nomenclature for easy orientation. The MK 140/500 and MK 140/600 versions, depth 140 millimetres and height 500 or 600 millimetres, were used in Biel to fit the opulent dimensions of the building.

#### Loves light, swallows sound

In general, MONTAWALL® liner trays enable not only simple and excellent-value facade construction, but also almost unlimited design freedom, with a huge range of cladding variations. Because the 180-meter-long southwest side of the new building in Biel offered particular scope for design, a striking zig-zag appearance with a minimum of edged corner panels was chosen. This was achieved with another Montana product: the SWISS PANEL®. Originally intended for improving acoustics, ever more architects are also experimenting with the visual characteristics of these perforated profiles. Particularly striking is the selective translucency of the aluminium profiles. These not only provide for the required light admittance but also allow artificial light to penetrate from the interior

outwards. Thus, particularly in the dark, the building obtains a stunning transparency which lends the building shell an additional dimension and lightness. In the case of the Biel headquarters, the high proportion of holes in the profiles also ensures a uniform appearance in front of the also round, "perforated" windows of the production area. The entire façade in the "titanium-look brushed" colour scheme, has a timeless elegance with metallic anthracite that blends in harmoniously with the surrounding buildings.

Both MONTAWALL® liner trays and SWISS PANEL® profiles nevertheless offer a further benefit: Thanks to their uneven surfaces the system panels guarantee high sound absorption values. This plays a vital role, not least for the unloading yards inside the new GF building, which now offers employees a place





of calm in which to gather new, innovative ideas. And in terms of insulation performance, together with market-leading partners like ISOVER, SWISSPOR or SFS, Montana is constantly refining and optimising its tried and tested liner tray systems. Thus, in Biel 140 millimetre-thick ISOVER Cladisol glass wool panels were installed with additional facing insulation to ensure compliance with developing energy requirements. Now the rear-ventilated façades with breathable thermal insulation ensure a balanced moisture level and high thermal comfort in the building.

### Thinking ahead

GF Machining Solutions invested more than 100 million Swiss Francs in total in the construction of the ultra-modern complex. Particular focus was paid to the themes of energy efficiency and sustainability. E.g. a precooling system enables the efficient distribution of heat in the production zones and is enhanced by a central cooling water system for optimal use of resources. However, it is not only on the construction level that GF is thinking ahead. Bringing together different teams in one

place allows the company to accelerate the travel of its innovative solutions to market and stay competitive, despite being situated in a high-cost country. "In all this, developing exciting innovations and banking on Swiss quality is in the foreground. Just as in our building project where of course we clearly placed value on 'Swissness' with Swiss expertise and products", explains Hanspeter Lüdi, project manager at GF Machining Solutions. "In this sense, the construction of our new headquarters is a milestone in our company history but it also marks the start of our continued journey."



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