

Dornbirn Exhibition Grounds: a Place of 1000 Possibilities

Vorarlberg, April 2017 / “A Place of 1000 Possibilities”: the Dornbirn Exhibition Grounds (Messe Dornbirn) in Austria is advertising with this motto. At the beginning of April 2017 – just in time for the start of the spring SCHAU! trade fair – three newly built halls numbered 9 to 11 were unveiled to the public in a special pre-opening preview. Featuring recessed ellipsoid entrances and a red foyer, the new buildings aren’t just striking in appearance – they have also been designed to very flexibly accommodate a vast range of events.

The Dornbirn Exhibition Grounds are the biggest marketplace in Vorarlberg, Austria’s westernmost federal state. Year after year, it hosts not only major trade-only and public fairs but also a wide variety of sporting competitions, concerts, corporate events, balls and exhibitions. Around 200 events a year attract a total of more than 400,000 visitors and over 1600 exhibitors from all over the world.

Architecture: Striking Ellipses and Brilliant Red

After 40 years of use, the old halls were no longer able to meet today’s requirements. The city of Dornbirn and the state of Vorarlberg, which co-own the exhibition grounds, therefore decided to invest a total of 28 million euros to erect state-of-the-art new halls for holding trade fairs, exhibitions and events. The highly reputed architects of Marte.Marte in Feldkirch created the plans for a monolithic structure comprising two halls and a foyer that is characterised by three striking ellipsoid recesses. Brothers Bernhard and Stefan Marte won the contract by submitting the best draft in a competition held by the owners. The owners had requested creative ideas for halls for

hosting market and marketing events and fairs that lived up to today's standards while strengthening the Vorarlberg region's reputation for innovative architecture.

In its assessment, the jury wrote this about the winning design:

"The submitted plan excels with a markedly original and thoroughly convincing interpretation of the assignment. It comprises a monolithic structure that meets the specifications by being divided by a small number of distinctive recesses. Its spatial organisation is intriguing yet highly pragmatic, opening up new possibilities for use while exuding a unique character. (...) Its sequences of rooms forge an unmistakable identity and add considerable value throughout."

The outside of the entire complex is clad with matt black corrugated sheet metal, providing a striking contrast to the elegant curves of the red entrances. Their shape and colour are reflected in the "Red Foyer", with walls, ceiling and floor sharing the same shade of red and arches between the rooms echoing the exterior ellipsoidal recesses.

Hall 11, boasting 4,800sq.m of floor space and a height of 11 metres, can accommodate 9,000 persons standing up or 4,000 sitting down. The smaller Hall 9, with 3,000sq.m of floor space, is also quite spacious. The halls' capacities are attuned to market requirements. "The architects have succeeded in designing a fantastic timber structure that ideally merges practicality, aesthetics and functionality," says Uwe Jöst, Managing Director of SWISS KRONO GmbH.

Timber Construction: a Roof Spanning 8,000 sq.m

Halls 9 and 11 are being built using modern timber construction methods. "We are very happy indeed with how well the architects of Marte.Marte have managed to build large

parts of the new halls using wood,” says Herbert Rella, who is responsible for the project at Messe Dornbirn. “This emphasises our commitment to Vorarlberg as a timber construction and architectural hotspot and highlights the capabilities of local firms.” The loadbearing structures and the wall and ceiling claddings are all executed in wood. The roof construction consists of 65 enormous beams, each of which is 4.5m high and up to 66m long. They rest on 11m-high posts that are spaced 1.8m apart and double as the skeleton of the exterior walls. Without any additional supports in the middle, the roof spans a total area of nearly 8,000sq.m. Its large size was necessitated by the architects’ innovative plans and structural requirements. Nothing comparable exists anywhere in Central Europe.

Kaufmann Bausysteme, based in the nearby town of Reuthe, was charged with prefabricating the beams. In January 2016 the firm assembled and successfully tested a prototype roof with the 66m-long beams weighing a total of 17.5 tonnes.

The company’s timber specialists covered and glued the loadbearing roof members with SWISS KRONO OSB/3 EN300 ContiFinish® (25mm, sanded) panels. To make the exterior walls as a continuous shell, prefabricated timber-frame elements were bolted to the outside of the glulam posts. The ceilings, resting on the bottom chords of the square timber trusses, were used to install cables, the heating and ventilation systems and so on. Only a small part of the bottom chords is visible.

Wood is innovatively used for various purposes: for the supporting structures of the walls, for the roof trusses resting on them and for the interior cladding of the halls. “There are many benefits to building new structures with wood,” stresses Herbert Rella. “Foremost among them are an excellent price/performance ratio and a positive carbon footprint.” This highlights the project’s importance to the timber construction industry.

The interior cladding of both halls also consists of wood. And in every respect, the involved timber builders from Vorarlberg impressively demonstrated the outstanding suitability and performance of wood as a construction material.

The Pre-Opening: Just in Time for SCHAU!

Although parts of the halls were inaugurated and used by exhibitors during the 2016 autumn trade fair although construction was actually still ongoing, the pre-opening ceremony didn't take place until the start of SCHAU! on April 6, 2017. The work will be definitively completed in the summer of 2017. Sabine Tichy-Treimel, Managing Director of Messe Dornbirn, says that "the new halls will turn our exhibition grounds into a place of a thousand possibilities serving the region and beyond. We expect contemporary commercial and communication events to find a new home here." In addition to hosting events organised by Messe Dornbirn, the exhibition grounds double as the region's largest sporting centre. Nor is that all: it can also be hired for gala events, company celebrations and balls.

The first fairs from elsewhere are also expected to be held in the new halls in 2017, including BABYWELT and GESUND & WELLNESS. A major international fair, Comic Con Bodensee, has confirmed that it will take place here in 2018. Two stars of the comedy scene, Luke Mockridge and Mario Barth, have booked halls for performances in 2017. Exciting sporting events will also take place, including the Indoor Cycling World Championships and the World Gymnaestrada.

The Dornbirn Exhibition Grounds now has total exhibition and event space of 34,000sq.m in 15 halls, and the outdoor area adds another 18,000sq.m. The investments

made to build the new halls with a sophisticated timber supporting structure are key for ensuring a successful future for the facility, as is already apparent in the avid interest that various organisers have expressed in using it. The highly functional, architecturally attractive halls have given the exhibitions a sensational upgrade.

The construction of the new halls has been documented in a German-language blog posted by Messe Dornbirn at <http://www.messedornbirn-neubau.at/>.


Facts at a Glance

Type of building	New exhibition halls
Owner	Messe Dornbirn GmbH, Messeplatz 1, 6854 Dornbirn in Vorarlberg, Austria, www.messedornbirn.at
When built	September 2015 - April 2017
Architects	Marte.Marte Architekten ZT GmbH, Neustadt 37, 6800 Feldkirch, Austria, www.marte-marte.com
Project management	Gbd Projects ZT GmbH, Steinebach 13, 6850 Dornbirn, Austria, www.gbd.at
Involved timber construction companies	Consortium comprising: <ul style="list-style-type: none">- Kaufmann Bausysteme GmbH, Vorderreuthe 57, 6870 Reuthe, Austria, www.kaufmannbausysteme.at- Kaufmann Zimmerei und Tischlerei GmbH, Baien 116, 6870 Reuthe, Austria, www.kaufmannzimmerei.at- Sutter Holzbau GmbH, Dorfstraße 189, 6713 Ludesch, Austria, www.sutterholzbau.at- Kaspar Greber Holz- und Wohnbau GmbH, Ellenbogen 632, 6870 Bezau, Austria, www.kaspargreber.at


Images

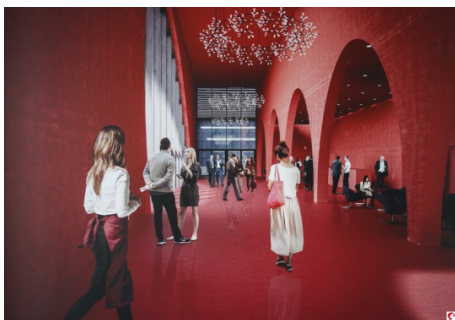
The following photographs are available for downloading in print-ready resolution and may be used in press publications and periodicals free of charge **provided that they are credited as indicated.**




 Visualisation of the draft by Marte.Marte: an arched red entrance that is visible from afar (image courtesy of: Marte.Marte Architekten ZT GmbH)



 Visualisation of the draft by Marte.Marte: vision of a monolithic structure (image courtesy of: Marte.Marte Architekten ZT GmbH)



 Visualisation of the draft by Marte.Marte: the “Red Foyer” (image courtesy of: Marte.Marte Architekten ZT GmbH)



The halls going up: 66m-long beams without any supports in the middle (photograph courtesy of: Messe Dornbirn GmbH)



Both the loadbearing walls and the ceiling construction are being made using timber and engineered wood products (photograph courtesy of: Messe Dornbirn GmbH)




Loadbearing structure of wood with high structural strength (photograph courtesy of: Messe Dornbirn GmbH)




The impressive dimensions of the halls were already apparent during erection of the framework (photograph: SWISS KRONO GmbH)




 Closure of the building envelope using timber-frame elements and panels (photograph courtesy of: Messe Dornbirn GmbH)




 OSB boarding resting on the bottom chords of the roof truss for installing pipes, cables and so on (photograph courtesy of: Messe Dornbirn GmbH)



 Space and surfaces for installations above the bottom chords of the roof truss (photograph courtesy of: Messe Dornbirn GmbH)



 Installation shafts beneath the roof members along the upper chords of the roof truss (photograph courtesy of: Messe Dornbirn GmbH)



Prefabrication of the roof members in the plant of Kaufmann Bausysteme (photograph: SWISS KRONO GmbH)



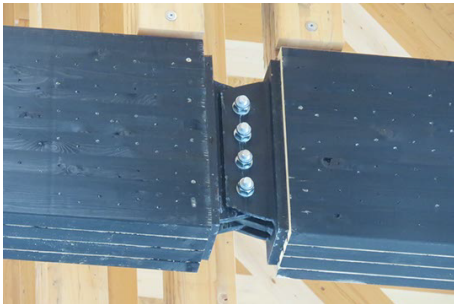
Boarding the roof members with SWISS KRONO OSB/3 EN300 (photograph: SWISS KRONO GmbH)



Connecting eye of steel braces for reinforcing a wall (photograph: SWISS KRONO GmbH)



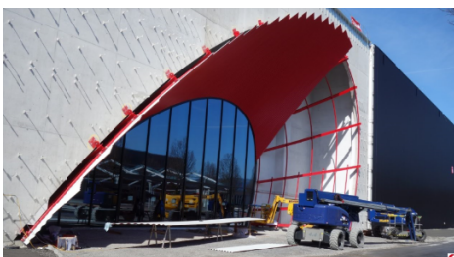
Details of the loadbearing glulam posts for the exterior walls (photograph: SWISS KRONO GmbH)



Bottom chord joint with slotted plates and dowels (photograph: SWISS KRONO GmbH)




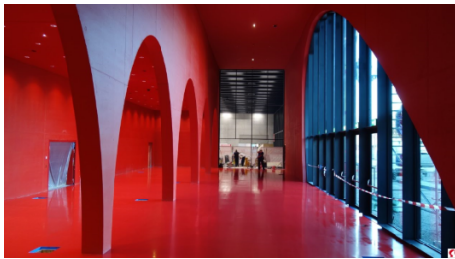
The typical shape of the recesses is already recognisable (photograph courtesy of: Messe Dornbirn GmbH)




Red cladding of the ellipsoidal entrances: Messe Dornbirn GmbH)




 The main entrance as a contrast-rich eye-catcher
(photograph courtesy of: Messe Dornbirn GmbH)




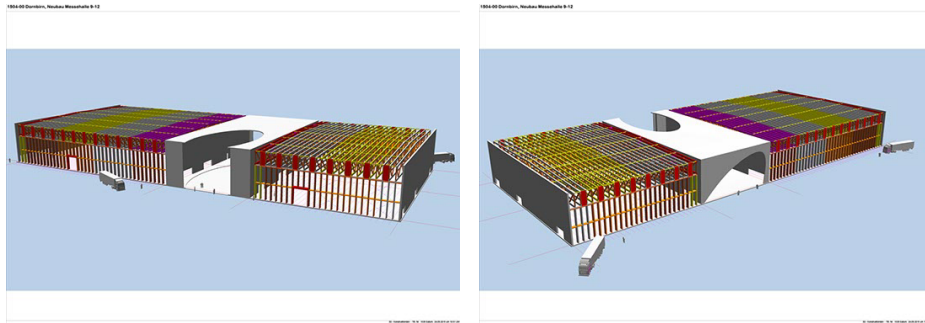
 The colour and shape of the ellipsoidal exterior recesses reappear in the foyer (photograph courtesy of: Messe Dornbirn GmbH)



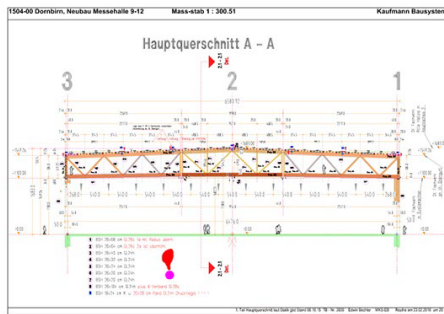
 Guests at the opening event in the "Red Foyer"
(photograph courtesy of: Messe Dornbirn GmbH)



 At the official inauguration (from left to right): architect Bernhard Marte, Dornbirn's Mayor Andrea Kaufmann, Governor Markus Wallner of the state of Vorarlberg, Managing Director Sabine Tichy-Treimel of Messe Dornbirn, Otto-G. Mäser, member of the Supervisory Board of Messe Dornbirn, architect Stefan Marte (photograph courtesy of: Messe Dornbirn GmbH)



3D views of the loadbearing structure and timber constructions (image courtesy of: Kaufmann Bausysteme GmbH)



Cross-section through the halls (image courtesy of: Kaufmann Bausysteme GmbH)

About SWISS KRONO GmbH

Established in 2000 as KRONOPLY GmbH, SWISS KRONO GmbH in Heiligengrabe, Germany belongs to the SWISS KRONO GROUP, one of the world's leading producers of engineered wood products. SWISS KRONO GmbH ranks amongst the most successful manufacturers of OSB boards in Europe. Its other core competencies include MDF, HDF and high-quality wood-fibre insulation products. The firm provides customer-focused solutions with innovative eco-friendly products backed by comprehensive support and advice. It relies on more than 700 staff in Heiligengrabe to manufacture bespoke materials from wood, a natural raw material, in full awareness of its responsibilities to society. www.swisskrono.de

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