

Gallery



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informa

No. 13

Year 2005

- TrimoRaster
- Iridescent paint
- New Trimo software packages
- Projects



Prestigious recognition for INNOVATIVENESS at the BAU 2005 fair in Munich

Architektur und Bauwesen

MultiVario Characteristics:

- Limitless combinations
- Allows individual creations
- Flexibility of design
- Aesthetic
- Excellent fire resistance characteristics
- Fast and simple to assemble
- Energy efficient
- Environmentally friendly
- Possibility of combination with other Trimoterm fireproof façade panels

Innovationspreis

Die Produkt- und/oder Projekt orientierte Zusammenarbeit zwischen Architekten und Industrieunternehmen im Bereich Büroausstattung ist eine Form des Zusammenwirkens mit höchstem Innovationspotenzial. Dabei liefern das gemeinsame Ziel und die unterschiedlichen Voraussetzungen der Produktentwickler eine sichere Grundlage für ein Erfolg versprechendes Ergebnis. Der von den Architekten Fachverbänden AIZ, AIZIT und Intelligente Architektur ausgeladene Innovationspreis Architektur und Bauwesen zeichnet diese Form der Zusammenarbeit aus.

Die Jury:
 Dipl.-Ing. Elisabeth Trebn von Stanca, Architektin, München
 Dipl.-Ing. Zhangs DDL, Architekt, H&K, München
 Dipl.-Ing. Julia Meier-Lohmann, Innenarchitektin BDA, München
 Dipl.-Ing. Johann Spengler, Architekt, Steinhilber/Architekten, München
 Dipl.-Ing. Christof Teigs, Architekt, Steinhilber/Architekten, München

Urkunde

In der Kategorie Produkte von hoher architektonischer Qualität

wird der Firma Trimex GmbH

für das Produkt TRIMO MultiVario Fassadenpaneele

eine Auszeichnung verliehen.

München, 17.01.2005

[Signature]
 Dipl. Kaufmann Karl Heinz Weidmann, Verleger Verlagsgesellschaft Alexander Koch
 Dipl. Stefan Bauer, Redaktions AIZ, AIZIT und Intelligente Architektur

THE FREEDOM TO DESIGN

Introduction



MultiVario2

Complete solutions

TrimoRaster - Luxurious minimalism4

Iridescent paint - coated panels6

New Trimo software packages8

Trimo in architecture

Würth, spol s. r.o.8

National tennis centre10

Sports centre11

Welcome to this new edition of Informa No. 13, which highlights some of Trimo's many exciting new products and services that have helped position the company as one of Europe's leading manufacturers and suppliers of complete solutions in the area of steel buildings.

The construction industry has undergone something of a renaissance in recent years as architects push back the traditional design boundaries by combining colour, texture and form to create the most exciting buildings. However, more significant is the contribution made by construction companies like Trimo that have risen to the challenge of developing the materials and methods to bring these designs to life.

Unique in the construction industry is Trimo's an innovative 'secret fix' TrimoRaster panel that is a self supporting, insulating, fire-proof façade, yet its external appearance is that of pure seamless luxury emphasising the architectural form.

Colour is increasingly being used an integral design tool in architectural expression but the use of iridescent paints is both innovative and unique to Trimo. Trimo's innovative process allows new levels of architectural freedom as buildings come alive through changing light, viewing angles and by combining with different profiles. The landscape has just got a whole lot more colourful and vibrant.

2005 Trimo Architectural Awards

For the second successive year Trimo is running the Trimo Architectural Awards 2005 for Most Creative Performed Solutions, using Trimo products. The award scheme should further enhance and encourage the excellent international cooperation that exists between architects and designers, as well as encouraging them to use Trimo products for the the most creative modern architecture.

Two new software packages, TrimoDesigner Win and TrimoExpert, have been developed and provide quick and simple answers to the many technical questions that are frequently asked by the most demanding customers. They also allow a building to be visualised, and provides all the specialised technical information before going to construction.

The future of construction is filled with both challenges and opportunities and only those companies like Trimo that invest in research and development to meet the creative demands of architects, yet also the increasingly important regulatory and environmental issues will succeed. For those that do the creative and design possibilities are endless.

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Complete solutions

TrimoRaster - Luxurious minimalism

In the sixties the American architect Robert Venturi divided buildings into a façade and volume. He believed the façade is more complex than the building's volume because it is the interface with the surrounding environment which may be a town, a street or the people passing by. It is an autonomous information board that may or may not relate to the structure of the building and it is this façade that becomes a vehicle of communication and which changes the building into a symbol.

When skimming through the pages of international architectural journals and researching modern technologies it is obvious that present architecture focusses far more with the surface and details than with its structure. This is, of course, excellent, if the said architecture is designed well, precisely and in a refined manner. Buildings, with their smooth surfaces, are similar to cut diamonds and the world of architecture gets in a fever of excitement when showing this glittering luxury. Trimo has also met the architectural and market

demands for smooth façades without any visible fixing elements; its new TrimoRaster panel - a premium product - for the construction of the most exclusive and luxurious buildings. In addition to shopping centres, warehouses and industrial buildings, but also banks, hotels and other high profile architectural constructions will be proudly wrapped in this new smooth façade panels. TrimoRaster is the perfect solution to modern minimalism that requires simultaneously light, strong and quickly assembled façades. In contrast to similar existing cassette systems where

Panel Characteristics

- Thickness: 80, 100, 120, 150, 200 mm
- Width: 1000 mm
- Length: 1200 ÷ 6500 mm
- External profile: smooth
- Panel core: mineral wool
- Internal profile: V-profile

the aesthetic design is the primary function and does not serve as a load-bearing cladding, the TrimoRaster panel is a self-supporting, insulating and fire-proof façade, where the external appearance remains smooth and luxurious. Such a façade emphasises the purity of the architectural form.

In spite of their abstract appearance TrimoRaster panels meet numerous fundamental conditions. The façade with an emphasised joint, where the longitudinal and transverse joints are equally wide (2.5 cm), has all the fundamental characteristics of existing Trimo panels, it is available in various sizes and in different colours. Possibilities are also expanded as the panels can be used horizontally and vertically. They can also be used in an alternate manner with bricks. Using the panels imaginatively can help design solid and fine, elegant and spectacular, or smooth and structured architecture, which constantly changes depending on perception. Externally, the façade may convey various messages from the simplest such as: "Look at me! I am a luxurious building," to more complex where the architecture speaks about its contents through its surface, but its cladding is an active factor when experiencing the wide environment.

Maja Vardjan



Complete solutions

Iridescent paint - coated panels

It is a well-known characteristic that surfaces coated with an iridescent paint change colour with respect to the viewing angle and depending on the kind and position of the light source.

Although iridescent paint is used widely on some other products, such as in the car industry where luxury car makes benefit from the application of these colour varnishes, its use within the construction sector on buildings represents a real innovation. Its use should enable architects to use additional expressive possibilities and it is in harmony with modern trends of façade design that not only emphasises the individuality of the solution, but also adds to the dynamic character of a façade shell and blurs the borders between the interior and the exterior.

The innovative use of panels painted with iridescent colours, together with various panel profiles offers an almost infinite number of available optical effects on façades. These may range from emphasising vertical or horizontal colour shades, as may be required by high or long buildings to changes in the appearance of a building with respect to the speed of movement of passers-by or with respect to the kind of lighting (e.g. direct sun light, diffused light in cloudy weather or artificial light at night). Additional application of different kinds of iridescent paints together with various profile types can only increase the number of possible expressive solutions and optical effects that can be achieved by the use of this product.

We at Trimo believe in innovation and are confident that this product presents many interesting and exciting new approaches to design and individualisation of the façade shell. It will also stimulate a

whole new era of new and interesting architectural solutions.

Miloš Ebner



Colour changing of façade at different times.

Complete solutions

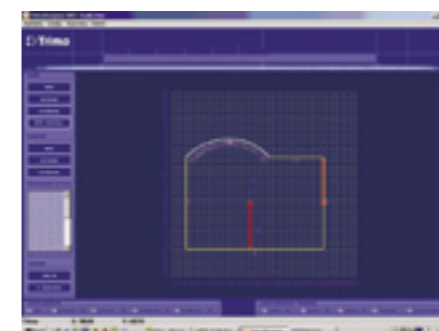
New Trimo software packages

At the conference Solid-Works World 2005 in Orlando, Florida, the participants focused on the power of 3D planning and its influence on everyday life. Trimo has recognised this and has developed a new suite of complementary software packages called TrimoDesigner and TrimoExpert, designed to increase the level of technical support and knowledge sharing. Specifically, the software packages provide quickly and simply answers to numerous technical questions that are frequently asked by the most demanding customers. They also allow the building to be visualised, including any specialised technical information before construction.

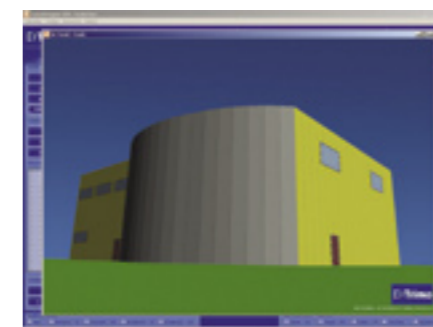
TrimoDesigner Win

TrimoDesigner Win is a simple and independent Windows-based application that allows elaborate 3D building models to be created on-screen based relevant to materials specification, at the design, inquiry or offering stages of a project. TrimoDesigner is unique in the market place being specially developed for customers, architects and designers as a tool for improving the presentation and visualisation of a planned building.

The software also enables customers to enter investor's or customer's ideas in a simple and quick manner and to check data and specifications, including material quantities in the 3D model. It allows the selection from horizontal facades (1000 and 1200), vertical facades (standard joint and INVISIO) and SNV roofs possible. TrimoDesigner Win also



allows user to select from a variety of options such as panel thicknesses, panel profiles, sheet metal thickness and colours. The programme has also a function that allows the selected characteristics to be checked and also calculates the mutual compatibility of elements and



automatically issues a warning in case of inappropriateness.

It draws a floor plan, individual façades and presents the building in 3D-form on the basis of the data entered. On the elaborated 3D model the user can adjust and change colours of individual or all elements at once. Selection from horizontal or vertical assembly of panels, rib profile of the SNV roof and changing of corner closing elements and openings assures additional differentiation of a building. TrimoDesigner Win allows users to focus in on specific areas of the individual roofs and façades allowing selection of various possible detail performances. The drawn 3D model is visible from optional sides and furnished by lists of quantities. TrimoDesigner Win allows users to printout all specification details and all materials required for an individual building. Quotations can be prepared and inquiries automatically sent by e-mail. The program also forms the basis from which the TrimoExpert software package uses for the calculation of building physics and heat characteristics.

TrimoDesigner Win will be available in September 2005

TrimoExpert

TrimoExpert software program is an aid to designers and building physicists in Slovenia and is very specialised software. It represents a professional tool for the calculation of building physics for structures and for the determination of optimal thermal characteristics and energy consumption for building heating.

The program's concept is to allow transparency and easy guidance among various program aggregates.

The software has been made in accordance with the Rules on thermal protection and efficient of energy consumption in buildings and the Rules on ventilation and air-condition of buildings (Official Gazette of the R of Slovenia No. 42/2002). Calculations prepared by the TrimoExpert software package can be used for the calculation of building and physical characteristics of a certain building, needed for the issue of a building permit in compliance with the new Construction Act-1.

The software concept is completely open and allows the creation of own materials is easy to navigate, as well as allowing basic entered data about the project to be changes even in the subsequent part. In addition to the software is compatible with TrimoDesigner, which simplifies and eases the work of designers.

TrimoExpert is available only in Slovenia.

Jože Kambič, Janez Drčar, Miha Kavčič

Trimo in architecture

Würth, spol s. r.o.

Würth, spol s. r.o., is a construction company currently trading with 95 states, in which it is mainly involved in the building of domestic and distribution centers. They offer not only standard designs but also unusual architectural projects, such as the new Würth site in Nepřevázka by Mladá Boleslav, which is now open.

The project consists of administrative buildings for a new commercial area that comes under the regional authority Nepřevázka, township Mladá Boleslav, close to the highway D10 and I38, 7 km far from Mladá Boleslav on the way from Prague.

Building preparation took over 4 years. Reinhold Würth, the company owner, was in charge of design and favoured a more unusual architectural style of construction to define the main supporting structure outside and to maximise the internal space and the dimensions of the supporting members of the steel hall were designed according to architectonic requirements.

A rugged and coloured construction system was chosen; single silver-gray metal-plastic siding in horizontal orientation Trimo façade panels were chosen for the project, which the designer was familiar with.

The first designs for the construction did not include any provisions for office buildings and was therefore without windows. After the investor suggested building two more floors for the administrative offices, the architect worked on looking for a convenient shape for windows that would match the original architectural plan. Circular windows were chosen, which symbolize the top of a screw, the main product of the Würth company.

The roof was designed to be single-case construction (mineral heat-insulation on wide bent girders, covered with mPVC). Binding rafters holding the roof case are hung over rods on huge binding rafters outside the object. They managed to eliminate the a heat bridge by minimising the hanger section (rod). Windows are rounded, and it is possible for them to be either open or casted down, with split bar.



Project Information:

Country: Czech Republic, Mladá Boleslav
Stakeholder: Würth, spol s.r.o.
Designer: Fabionn s.r.o.
HIP: Ing. Zora Šlapánková
Architect: Ing. arch. Roman Roupec
Surface: 1,500 m²
Elements:
Façade: Trimoterm FTV, HF3 profiles

Casting is in white with bridge and tinted glass.

The storage hall's siding is made of Trimoterm FTVms 1000 mm façade panels. The exterior colour is 9006 (white aluminium), inside colour 9002 (off-white). Panels are supported and placed horizontally. For covering vertical air space were used aluminium cover rails HF3 in silver and white colour. The architectural façade design was required to eliminate the amount of vertical air space, which is why panel lengths up to 10 m were chosen. These panels end with HF3 cover rail and inside panel supports with bulb-tite. Thanks to this fastening you can't see any rivets or screws.

Even though the panel assembly proceeded in high summer temperatures, which can cause panels to bend, the supplier did a great job.

Ing. Zora Šlapánková



Trimo in architecture

National tennis centre

Slovak tennis has achieved individual as well as group success during the period of its independency. Its existing facilities would not meet the requirements of international tennis union and therefore it was not easy to take part in either domestic matches, as a part of the DAVIS and FEDERATION CUP or to arrange any international tennis matches. As a result, the decision was taken by the tennis union and state financial fellowship, to build a sports and leisure hall that would meet all the technical requirements for arranging top tennis competitions and would also be ideal hosting other functions and cultural events.

The national tennis center is situated near to a number of other sport centers for football, hockey, cycling and near to where the swimming pool and outdoor tennis courts are located.

The national tennis center consists of 4 buildings; the first is the main hall and auditorium, the second is for administrative purposes; the third offers 5 training courts, business offices, restaurant and fitness center. The fourth building is for accommodation purposes. All buildings have their own underground parking lots.

The central hall's design is very reminiscent of a blunted cone. All façade claddings were Trimoterm panels and were chosen as the most suitable and for meeting all the required characteristics for thermal and aesthetical parameters.

The thickness of the panels used for FTV Invisio, Gladio were 120 mm, of lengths between 6.2 m and 11.85 m and the outside façade profile was flat. Due to the conical shape of the panels, it was necessary to make vertical panel cuts.

For panel connection used both hidden "invisio" joint and atypic joints covered by an aluminium triangular profile where the panel was cut. An elliptical profile was used on the façade as the final element of a verge parapet and for the external gutter, the triangular profile was used. The façade for the final construction met the designer's expectations.

The final building was approved in September 2003 and the DAVIS CUP match between Slovakia and USA was played right after. The whole project was completed in April 2004 and has since hosted many sporting and cultural events.

In the 10th annual all-state public anonymous competition "Building of the year 2004" the "National tennis center" was awarded 1st prize.

Ing. Alexander Braxatoris
Main designer



Project Information:

Country: Slovakia, Bratislava
Project: National tennis center Prikopová, Bratislava
Investor: Slovenský tenisový zväz, Bratislava
Architectural design:
Ing. Arch. Viktória Cvenegrošová,
Ing. Arch. Virgil Droppa
General designer: Parner-Projekt s.r.o.
Realized by: Sibamac a.s., Bratislava
Elements:
Façade: Trimoterm FTV; 2,300 m²



Trimo in architecture

Sports centre

Design of the new building is a challenge for any architect, but reconstruction and finishing of the existing building represent an even more extensive and demanding project.

Our task in scope of the project Sports centre (Dom sportova) Pula was to adjust the existing hall to new dimensions and functionally. The old building is surrounded not only by sports buildings, but also blocks of flats. Due to the age, poor condition, old-fashioned principles of functionality of the space and installations as well as old materials the existing hall was completely reconstructed and supplemented by new programmes. The hall comprises the existing and the new reconstructed main hall with side and both-sided tribunes with a capacity of 2400 seats. The load-bearing ceiling has been completely maintained in the hall (steel structure of AB tribunes).

The existing aluminium sheet metal on the facade of the building and the complete parapet and bottom section round the lower roof of the building have been completely replaced by new Trimo panels. An extension was built along the main hall – an auxiliary »small« hall. The roof of the small hall is made of Trimo SNV 150 panels that are placed on space bar structure.

In the extension and at the level of the extension parking lots were made in two levels. Access to the parking lot is assured through ramps, directly from the existing road. The load-bearing segment of the floor in the parking lot is made as a steel structure of pillars and beams with large spans that are fixed with the AB slab. The capacity of the ground floor and floor of the parking lot is 234 parking places.

The complete reconstruction and construction were completed in six months.

Ljiljana Radulović-Modrušan,
B.Sc. (Arch.)



Project Information:

Country: Croatia, Pula
Investor and constructor: Energoplan d.o.o. Zagreb
Architect: Ljiljana Radulović-Modrušan, B.Sc. (Arch.)
Surface:
7,297 m² + parking lot 6,000 m²
Elements:
Façade – hall: Trimoterm FTV 120; 1,530 m², Trimoterm FTV 60; 1,024 m²
Roof – extension of the hall; Trimoterm SNV 150; 743 m²
Parking house: steel structure 151,800 t