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Dynamics meets simplicity

#17
Architectural Magazine
by Reynaers Aluminium

FOUR SEASONS HOTEL
Unusual composition

"The strong design makes a statement, it's a kind of gateway to the city"

REPORT

REYNAERS
aluminium

#17

Edition Autumn 2015

Publisher responsible:
Birgit Huybrechs
Production:
A10 Publishers B.V.

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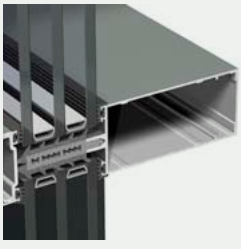


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INVESTING IN THE FUTURE TOGETHER

Reynaers Aluminium is proudly celebrating its 50th anniversary. For this Report, we chose to focus on a fascinating city close to home: Leuven. Fuelled by one of the oldest European universities, the city houses a wide variety of international companies, from the world's largest brewing group to leading developers of software applications and biomedical solutions.

The city of Leuven seeks to create space for the vibrant student community while preserving adequate facilities for researchers and a large variety of personnel active in administration and business. The combination of a diverse population living together in a medieval city with a long industrial heritage is both challenging and inspiring.

The '7even Tuinen' project illustrates this perfectly. Originally a factory for tobacco production, the building has been transformed into a multi-purpose complex. As architect John Eyers observes, 'What people want today is to be able to spend time outdoors in a pleasant enclosed environment. They don't want the feeling of being out in the busy streets. This design is about feeling at home in the city'.

The vision of architect Eyers matches perfectly with Reynaers' mission to enhance the living and working environment of people. This mission had its origin in 1965 with the foundation of Reynaers Aluminium.

In 1965, Jan Reynaers developed his own aluminium system and started producing windows and doors in his home town, Duffel. Soon thereafter, other aluminium fabricators called upon his technology and thus contributed to turning our company into the one you know today: an internationally renowned aluminium systems company with a global presence, based upon a strong partnership with our customers. Today, with our team of more than 1600 people in 40 countries, and in partnership with all of you, we are proud to carry on this tradition. We look forward to further strengthening these bonds in the decades to come, and to create together extra-ordinary buildings like those featured in this edition of Report.

50R
YEARS REYNAERS

50 years of partnership

Martine Reynaers

Martine Reynaers

LEUVEN (BE)

DEMOGRAPHY

- 98,539 inhabitants (including at least 35,000 students)
- Area 57 km²
- 1,713 inhabitants per km²
- 5 sub-municipalities

LOCATION





HOUSING
- 81,000 homes (35% single-family dwellings (houses), 26% flats, 39% student lodgings and studios)
- Average price of a home is €292,517 (15% more than in the larger Flemish cities)

BUILDING SECTOR
- 275 architectural firms
- 179 construction firms
- 836 building permits in 2014

EDUCATION
- 57,071 students at KU Leuven (University of Leuven)
- 9,747 international students at KU Leuven
- 3,000 additional student lodging units to be completed in 2016
- The normal minimum standard floor space of student lodgings is 12 m²

ECONOMY

The service sector is an important economic motor with 1,000 shops, 600 hotels, restaurants and catering establishments, and 500 service-providing firms.

- 180,000 m² of retail trade space
- 11,544 employees at KU Leuven
- The growth of Leuven primarily comes from service sectors, such as the hotel and catering industry, tourism and retail.

WELL-REGULATED STUDENT CITY

The relatively small provincial capital of Leuven is famous for having the oldest (1425) and largest university in the Low Countries, and for being the home of the world's largest brewing group, AB InBev, founded in 1366 as Interbrew. The fact that beer and academia have been a source of mutual inspiration and stimulus over the centuries remains an entertaining view held by many Flemish people.

Text **Dominique Pieters** Photography **Dreamstime**

What is undeniable, however, is that apart from the topography and favourable location 25 kilometres to the east of Brussels, Leuven's urban development was also influenced by the student population and the clustering of intellectuals around the university, such as teachers, lecturers, professors and researchers.

Like many other Flemish cities, historical growth took place in four phases. First there was a period of slow growth of the mediaeval settlement characterised by university buildings and colleges around the University Hall. This was followed by the industrial phase with the construction of the canal and the railway and the emergence of industries such as tobacco, canning and brewing. Because of the geography – Leuven is situated in a basin between the hills of the Hageland and the Brabant Plateau – the industrial and brewing infrastructures are located close to the compact city centre.



Nightlife on the Old Market in Leuven

KU LEUVEN NOW OCCUPIES MORE THAN A MILLION SQUARE METRES IN LEUVEN

A focus on housing in nearby districts heralded a period in which people's homes and jobs were spread across an expanded urban structure. In this phase in particular, it was clear that Leuven had to contend with a powerful force that opened up new urban areas for expansion: the university. It is notable that the breweries, including Interbrew (now AB InBev) grew steadily at the same pace as the university.

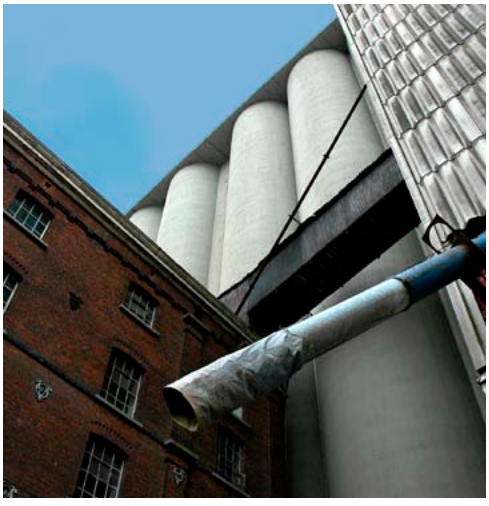
COMPACT CORES

At the end of the 1960s, the university's functions were spread over more than 500 buildings, including some outside the city limits.

The splitting off and departure of Leuven's French-speaking university (UCL) to the newly-created Louvain-la-Neuve in 1968 provided an opportunity for spatial reorganisation.

Leuven University's expansion plan consisted of the development of three campuses: compact 'cores' with sites in the city centre, the Dijle Valley and Gasthuisberg.

Between these cores, 'connection zones' were created including important housing centres, cultural and leisure facilities and other services for students. The democratisation of education in Leuven was responsible for a sharp increase in the number of students to one-third of the total population. The university has gradually left its student accommodation to the private sector. Science parks now also provide space for research centres, knowledge-intensive activities and innovative spin-offs. With its fourteen faculties, fifty departments, thirty libraries and five hospitals, KU Leuven now occupies more than a million square metres in Leuven. Including the science parks, it accounts for forty percent of the jobs. With regard to employment, there is a further parallel with beer: even after the city's transition to a service and knowledge economy, AB InBev provides almost all the food-sector employment in Leuven. ■



Breweries are located close to the city centre



Old abandoned industrial areas make way for housing projects

REVITALISATION OF A CENTURIES-OLD CITY

'Luvanium' originated in the ninth century as a settlement at the point where the trade route between Flanders and the Rhineland crossed the River Dijle.

Text **Dominique Pieters** Photography **Dreamstime, Rob Stevens/©KU Leuven, Sarah Blee © Neutelings Riedijk Architecten**

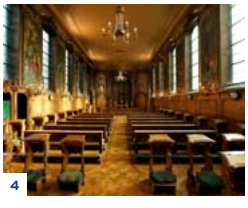
Transport by cart and ship helped shape the capital of the Duchy of Brabant, causing it to develop around a core. Along the watercourses significant buildings arose such as Arenberg Castle.
After the decline of the once thriving textile industry, the emergence of brewing followed by the founding of the university heralded a new golden era. Architects skilled in the construction of churches and university buildings started building houses outside the city.
Leuven had a difficult time in the two World Wars, the destruction of the university library in the First World War was a low-point. Rebuilding gradually took place, including the Gasthuisberg University Hospital project. From 1968 to 1974, the architects Paul Felix, Jan Tanghe and Jan Delrue designed the first part, followed by two extensions; the Gasthuisberg became known as a city in itself.

Since the development plan for the station area in 1992, the renovations, redevelopments and revitalisations of industrial sites and inner-city districts have fitted in with the centuries-old city. ■


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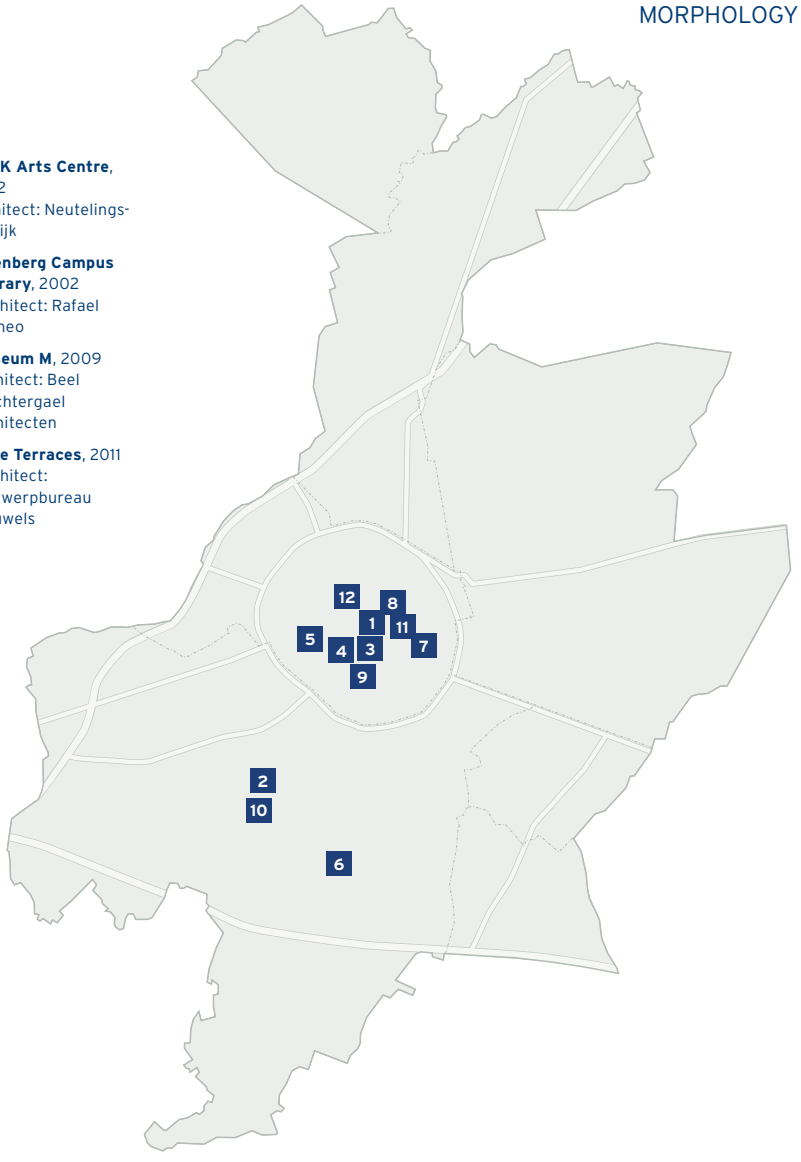

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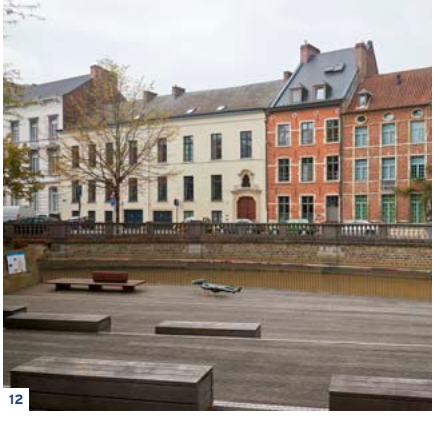

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1. **'Front House'** of the City Hall, 1448-1469
   Architect: Matthijs de Layens
2. **Arenberg Castle**, 1545, 1763 and 1855
   Architect: restoration by Johannes Josephus Claes from 1872
3. **St Michael's Church**, 1650-1671
   Architect: Willem Hesius
4. **Chapel of Holland College**, 1757
   Architect: Jacques-Antoine Hustin
5. **Orangery van de Kruidtuin (botanical garden)**, 1821
   Architect: Charles van der Straeten
6. **Villa Les Tilleuls**, 1905
   Architect: Augustin Van Arenbergh
7. **University Library**, 1921-1928
   Architect: Whitney Warren
8. **Tweebronnen Library (formerly Technical School)**, 1937-1940
   Architect: Henry Van de Velde
9. **STUK Arts Centre**, 2002
   Architect: Neutelings-Riedijk
10. **Arenberg Campus Library**, 2002
    Architect: Rafael Moneo
11. **Museum M**, 2009
    Architect: Beel & Achtergael Architecten
12. **Dijle Terraces**, 2011
    Architect: Ontwerpbureau Pauwels




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STAY CONNECTED TO REALITY

In contrast to most contemporary architects, who are constantly striving to achieve eternal innovation or even a utopia, John Eyers takes a more realistic approach to architecture. It is a strategy that has served Jaspers-Eyers Architects well. Over the past fifty years, the bureau has completed hundreds of projects, making a clear name for itself in Belgium and achieving success in Eastern Europe and Asia as well. A number of these projects are located in Leuven, where John Eyers lives.

Text **Kirsten Hannema** Photography **Jaspers-Eyers Architects**

Most architects in Europe have been hit hard by the economic crisis. But Jaspers-Eyers Architects has become one of the hundred largest architecture bureaus in the world, and you have a very full portfolio. How have you managed this?

"It's really very simple. We meet three particular needs. People who come to us want certainty in regards to their budget, they want a contemporary design, and they want their project to be completed on time. These three basic elements are of fundamental importance to our clients, who - let's not forget - are making a major investment. We respect those interests to the best of our ability. That's what our bureau is known for, particularly in Belgium; but we also carry out projects in Poland, China, and Vietnam.

We put saleable projects on the market. We have been active for fifty years, and I am proud to say that not a single building of ours has ever been demolished, and not a single square metre is vacant. That's our secret: living up to the realities of the economy."

What are those realities? What trends are you noticing?

"These days, the way space is experienced is the most important issue, much more so than previously. That is the foundation for our designs. Recently, we won the contract for the National Stadium in Brussels, a complex with a parking structure located in a park measuring eleven hectares. That's much more than just a sport stadium. The design is based on a principle of constant movement through space.

Also in Leuven there has been a clear shift in the importance of public space as compared to ten years ago. At that time, investments were primarily made in private developments; now people are looking for ways to integrate public functions into private developments. For instance, consider the freely accessible interior garden in the 7even Tuinen (see project page 18), or a sky bar at the top of a hotel with a view out over the city.

This is the new message which has resulted from the crisis: What can architecture mean to society? How do you give something back to



Jean-Michel Jaspers (l) and John Eyers (r)

"OUR SECRET: LIVING UP TO THE REALITIES OF THE ECONOMY"

the public? And of course it's important to pay attention to ecology, although personally I find it self-evident that an architect in 2015 should build sustainably."

What project is a perfect example of this age?

"The Warsaw Spire creates a new kind of space in the city in a very real way. The building is a landmark, but it is also open to the public. The project comprises not only offices, but also an art gallery in which artists can display their work, and it is designed around a large green square. There are restaurants and places to relax - it is definitely a mixed-use project. In fact, that's true of nearly all our projects these days. It is important to combine functions, as it offers more possibilities for both present and future use. Problematic situations in cities - and we see this in Leuven as well - often arise at single-use locations, which are abandoned after five o'clock when everyone goes home. We are constantly searching for ways to create an urban dynamic at these locations."

You live in Leuven. What is your wish for this city?

"We need families to return to the city, and we need more children and young people in the city centre. We need to stop focusing on attracting students to the city centre and banishing families to the suburbs. The city is beautiful, specifically because of the mix of different people living there. In addition, urban living helps improve mobility. On the basis of that idea, a lot of work has been done in recent years on the neighbourhoods surrounding railway stations in Flanders. That is a positive development."

Is there a message you could give to young architects?

"Stay connected to reality. You have to make sure that you respond to today's needs - that is where things often go wrong. And of course, those needs evolve over time. That is what is exciting about architecture - it pays attention to what is happening in the world." ■



Arenbergpark in Heverlee is one of Leuven's "green lungs"

DYNAMIC CITY WITH GREEN LUNGS

Since the end of the last century, a number of Belgian cities have undertaken major redevelopments of railway land or transformations of disused port areas. A great deal of attention has been paid to public spaces in these infrastructure adaptations. Leuven not only encourages these visionary revitalisations, it also plays a prominent role in stimulating such developments in Belgium.

Text **Dominique Pieters** Photography **Dreamstime**



Kristine Verachert
Head Spatial Planning
Department City Leuven

This capital of Flemish Brabant has seen a succession of master plans. The station area and the Rector De Somer Square, for example, have been renovated. The transformation of De Vaartkom from an industrial area to a residential project with commercial services has almost been completed.

Kristine Verachtert, head of the Spatial Planning department of the City of Leuven, sees high-profile developments taking place on a smaller scale. "Now that the major redevelopments have gradually been completed, attention is focused on the compaction issues. We're trying to get a grip on the unstructured permits from the past. The market is also calling for compact building and sustainable expansion."

COMFORTABLE POSITION

Verachtert can explain how and why Leuven's approach differs in this regard from that of other Belgian cities. In the first place, she highlights the character of the city. "Leuven is a green, dynamic and therefore attractive city, so a lot of people want to invest in property here. That puts departments such as Spatial Planning in a comfortable position: they can oblige project developers and investors to make available part of the land they have purchased and/or to include community facilities, such as a public swimming pool or a square."

GREEN CITY

Behind Verachtert's resolute words is a tangible affection for Leuven as a special city. "Leuven is certainly not a large city, but it does consist of various cores. These individual communities have their own character, but even more importantly they each have a 'green lung', particularly in the form of city parks. A 'green lobe city' – which many cities in Flanders and even in Europe itself aspire to be – is something that Leuven has always been."

"Another special feature", she says, "is the combination of heritage and modern architecture both in Leuven city centre and on the periphery." In that context, she cites Museum M of Beel & Achtergael Architecten as the leading project in recent years due to the flowing integration of historical buildings and squares amid minimalist contemporary architecture. She also believes Naamsestraat is worthy of mention, with its succession of old and new and the recent prominent transformations of De Hoorn brewery and the Openbaar Entrepot voor de Kunsten (OPEK). ■

THE HIDDEN TREASURES OF

JOHN EYERS

1 **The market square** (Markt) with the City Hall. The central square and city hall is a strong defining factor for the character of a city. A visit to Leuven is incomplete if you haven't been to that spot, and the same is true in Brussels or Ghent. The city centres in Flanders have been greatly improved by pedestrianising them.

2 Another beautiful place that I love to visit is **Leuven city park**. The public setting is very important for me. Streets, squares, and parks define a city more than the buildings.

3 I'm enthusiastic about modern architecture. Attractive examples are **Museum M**, designed by Stéphane Beel and the **City Pavilion** (Stadshal) on Korenmarkt in Ghent, designed by Robbrecht & Daem and Marie-José Van Hee.

4 Leuven offers many great restaurants, but **Luzine**, located in the sub-municipality Wilsele, I can heartily recommend.



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EARTHQUAKE RESISTANT

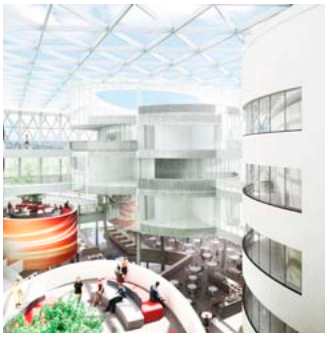
CHRISTCHURCH (NZ) - On the Avon River in the centre of Christchurch, Warren and Mahoney Architects has created the Awly building. The complex comprises three striking, interconnected office buildings including various ground-floor facilities such as shops and a public garden.

The offices can be flexibly arranged thanks to the depth of 18 metres. Each building is governed by the position of the sun; the large glass façades admit a great deal of daylight. To counter the earthquake risk in the region, the Reynaers project team closely worked with the fabricator to produce special profiles and seals that meet the stringent seismic requirements. A customised sunscreening system was also developed to combat overheating. The Awly building was designed to obtain the five-star 'Green Star' certificate, an environmental rating system used in Australia, South Africa and New Zealand.

AWLY
Architect: **Warren and Mahoney, Christchurch**
Client/Investor: **Awly Investments Limited, Christchurch**
Main contractor: **Arrow International, Christchurch**
Fabricator: **Miller Design, Auckland**
Reynaers systems: **CW 86-EF bespoke solution, bespoke sunscreening solution**
Expected completion date: **Autumn 2015**



TECHNOLOGY CAMPUS



KORTRIJK (BE) - Global technology company Barco is extending its facilities on Kennedy Park. The design by Jaspers-Eyers Architects features a circular shaped, 25 metre high main headquarters and two smaller, rectangular shaped buildings that will be interconnected through passageways.

Reynaers designed several bespoke solutions for the different façade designs. The fully glazed circular shaped façade allows an optimal entrance of daylight into the building. The existing and new buildings will form one major 60,000 square metre technology campus and include an auditorium, R&D centre and administrative functions. Given the technological nature of the company, the new headquarters will be a true showpiece and display the newest multimedia innovations.

BARCO ONE CAMPUS
Architect**: Jaspers-Eyers Architects, Brussels**
Engineering: **VK Architects & Engineers, Merelbeke**
General contractor: **Cordeel, Temse**
Investor: **Barco NV, Kortrijk**
Fabricator: **Belgo Metal NV, Wetteren**
Used Reynaers systems: **CW 50, bespoke solutions based on CW 50 and CW 50-RA, CS 77 windows**
Expected date of completion: **2016**



NEW MULTIFUNCTIONAL CITY

BRATISLAVA (SK) - Benoy architects and HB Reavis Group have been working on Twin City since 2011, which is set to be the largest multifunctional complex in Central and Eastern Europe. The triangular master plan connects the old centre of Bratislava with the Ružinov district and combines cultural and commercial functions with entertainment. The development of Twin City is phased into twelve parts that will be built gradually. At the heart of this extensive project three modern buildings with a total rentable area of 60000 square metres are being built with Reynaers solutions. A modern business centre, shops and restaurants form an integral part of this Breeam 'Excellent' rated extensive project that will spring up as a significant new city within the city.

TWIN CITY
Architect: **Benoy Architects, London, CEPM, Bratislava, AKJ, Bratislava**
Main contractor: **HB Reavis Management s.r.o., Bratislava**
Fabricator: **Nevsimal a.s., Nymburk**
Investor: **HB Reavis Management s.r.o., Bratislava**
Reynaers systems: **CW 50-HI+, bespoke solution based on CS 86-HI/HV**
Expected completion date: **winter 2015-2016**

MUSEUM HOTEL

HATAY (TR) - The Antakya Hilton Museum Hotel is located alongside the ruins of the Church of St Peter, a well-known place of pilgrimage. Archaeological excavations carried out at the start of the construction work on the five-star hotel brought to light all kinds of ancient artefacts. The hotel's construction was modified as a result of that important find. The building was raised to make room for a museum creating the first museum hotel in Turkey. The cube-shaped hotel rooms were stacked under the steel frame and the protective covering. Bridges and walkways connect the hotel rooms to terraces, gardens, the swimming pool. The lobby, the restaurant and the lounge are located directly above the archaeological museum.



ANTAKYA HILTON MUSEUM HOTEL
Architect: **Emre Arolat Architects, Istanbul**
Façade consultant: **Axis Facades, Istanbul, Turkey**
Main contractor/Investor: **ASF Otelcilik, Hatay**
Fabricator: **Nasakoma, Istanbul**
Reynaers systems: **CS 68, CW 50**
Expected completion date: **2016**



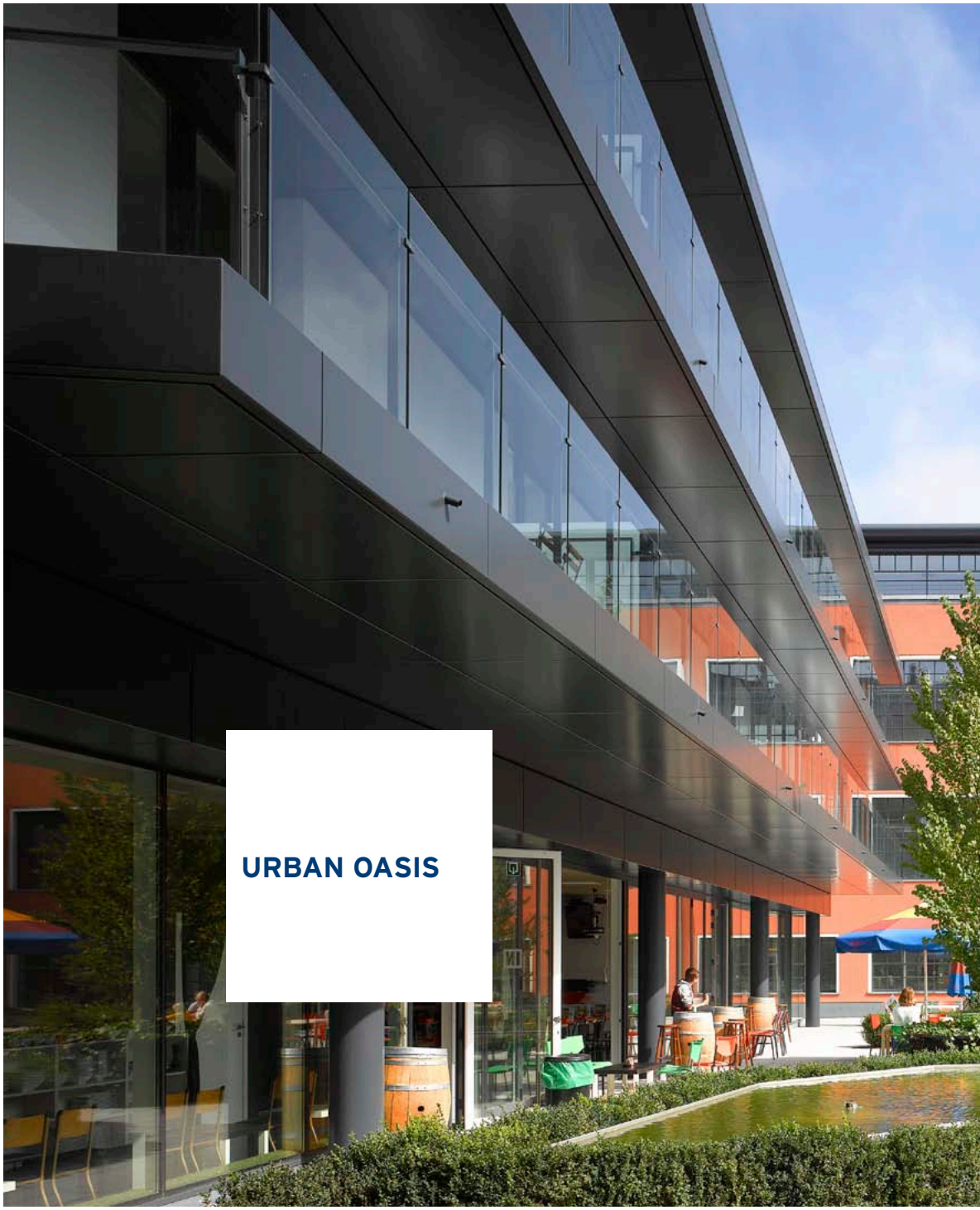
ORGANICALLY STACKED

LONDON (GB) - The eye-catching Vista luxury apartment complex brings a powerful new architectural statement to the London skyline. The unusual organic way in which the architect has stacked the two modern buildings with near-transparent residential layers resembles the structure of an animal skeleton. Located in an enviable location near Chelsea Bridge, the large glass frontages of many of the apartments afford outstanding views of Battersea Park. The apartments have spacious, glazed terraces and patios that are seamlessly interconnected both inside and out. The development also features two extensive courtyards.

VISTA
Architect: **Scott Brownrigg, London**
Engineering office: **Cladtech, Farnborough**
Main contractor: **Berkeley Homes (Central London) Limited, London**
Fabricator: **Architectural Aluminium Ltd, London**
Reynaers systems: **CW 50, CS 77, CP 155, CF 77**
Expected completion date: **Spring 2017**

PROJECT

7EVEN TUINEN (7EVEN GARDENS)



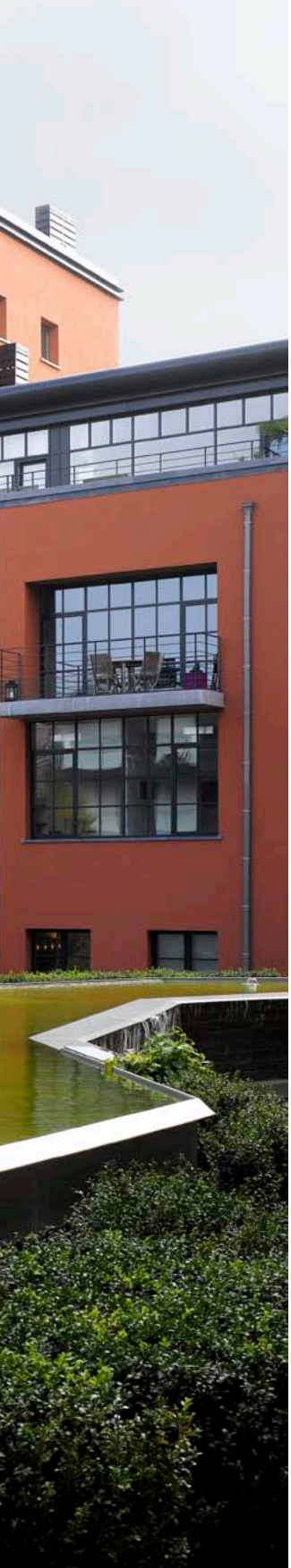
URBAN OASIS

LEUVEN, BELGIUM – Architect: **Jaspers-Eyers Architects** Fabricator: **Couwenberg & Schellens NV**





→
7Even Gardens is an urban oasis: a mix of residential units, offices and green gardens



The former Van der Elst cigar factory in Leuven has undergone a metamorphosis. Where the roar of machinery and the aroma of tobacco used to dominate, Jaspers-Eyers Architects has now created an urban oasis: a mix of residential units, offices, and shops around a succession of green outdoor areas.

Text **Kirsten Hannema** Photography **Yvan Glavie, Philippe van Gelooven**

"The site lies within walking distance of the centre of Leuven," explains architect John Eyers as he describes the design. "The first question that we asked ourselves was: how can we create a function that will reintegrate this spot within the city? How do you turn an old factory into a pleasant living environment? The public passage through the complex plays a crucial role in this, as does the decision not to allow car parking above ground, and instead to construct a series of green courtyards and gardens; hence the name: 7even Tuinen, or '7Even Gardens'."

The factory complex dates from 1875 and has been expanded many times over the years. A number of buildings have been demolished in order to create space for the gardens. These gardens are constructed around the three renovated buildings and a new-build block. "That gives the interior area a certain vivacity," explains Eyers. For that reason, the project combines a mix of functions: offices, other business premises, and apartments, ranging in size from fifty to two-hundred square metres, with strikingly high ceilings and an abundance of daylight entering the properties.

INDUSTRIAL LOOK

From an urban development perspective, Eyers was looking for a new dynamism while still trying to preserve the original character of the building. "We have left the existing column structure and the technical features as visible as possible with the intention of reinforcing the industrial look rather than eliminating it. After all, this is what distinguishes the building from new-build projects, and the reason why people specifically choose this spot."

JASPERS-EYERS ARCHITECTS



Architect John Eyers was born in Leuven, Belgium in 1961. He studied architecture at the Faculty of Architecture, Sint-Lucas in Brussels. John Eyers and Jean-Michel Jaspers now jointly run the firm set up by Jaspers in 1960. With a team of 120 employees, the architects work on a wide range of assignments from three locations: Brussels, Leuven, and Hasselt. In recent years, the firm has become international, expanding into Eastern Europe, China, and Russia. 'Designing communicative, people-friendly, and ecological architecture that focuses on community, context, and environment' is John Eyers' aim.

www.jaspers-eyers.be

"WE HAVE LEFT THE EXISTING COLUMN STRUCTURE AND THE TECHNICAL FEATURES AS VISIBLE AS POSSIBLE WITH THE INTENTION OF REINFORCING THE INDUSTRIAL LOOK RATHER THAN ELIMINATING IT"

The CS 38-SL system by Reynaers was chosen in order to imitate the look of the original steel window frames. "This profile is very slender, at just forty millimetres thick, while still satisfying all modern requirements with regard to matters such as energy conservation," explains Sophie Hayen, who as project leader from general contractor Kumpen, was responsible for the execution of the construction. The profile was specially improved and further developed for this project. The Reynaers system CS 77 was used for the new-build section, for the glass façade cladding of the rooftop units.

MAJOR CHALLENGE

The combination of renovation, new-build, and the construction of an underground car park made 7even Gardens a complex project. Hayen explains: "We had to deal with an inner-city location, whereby the logistics relating to the delivery and removal of construction materials are by no means self-evident. In addition, in the case of renovation work you always encounter unexpected hitches, and you need to come up with solutions on the spot as they arise. For instance, we wrestled with the levels of the buildings. Once these had been measured in order to link them up with the new-build element, it became clear that there was still a little too much play between them. The project has seen



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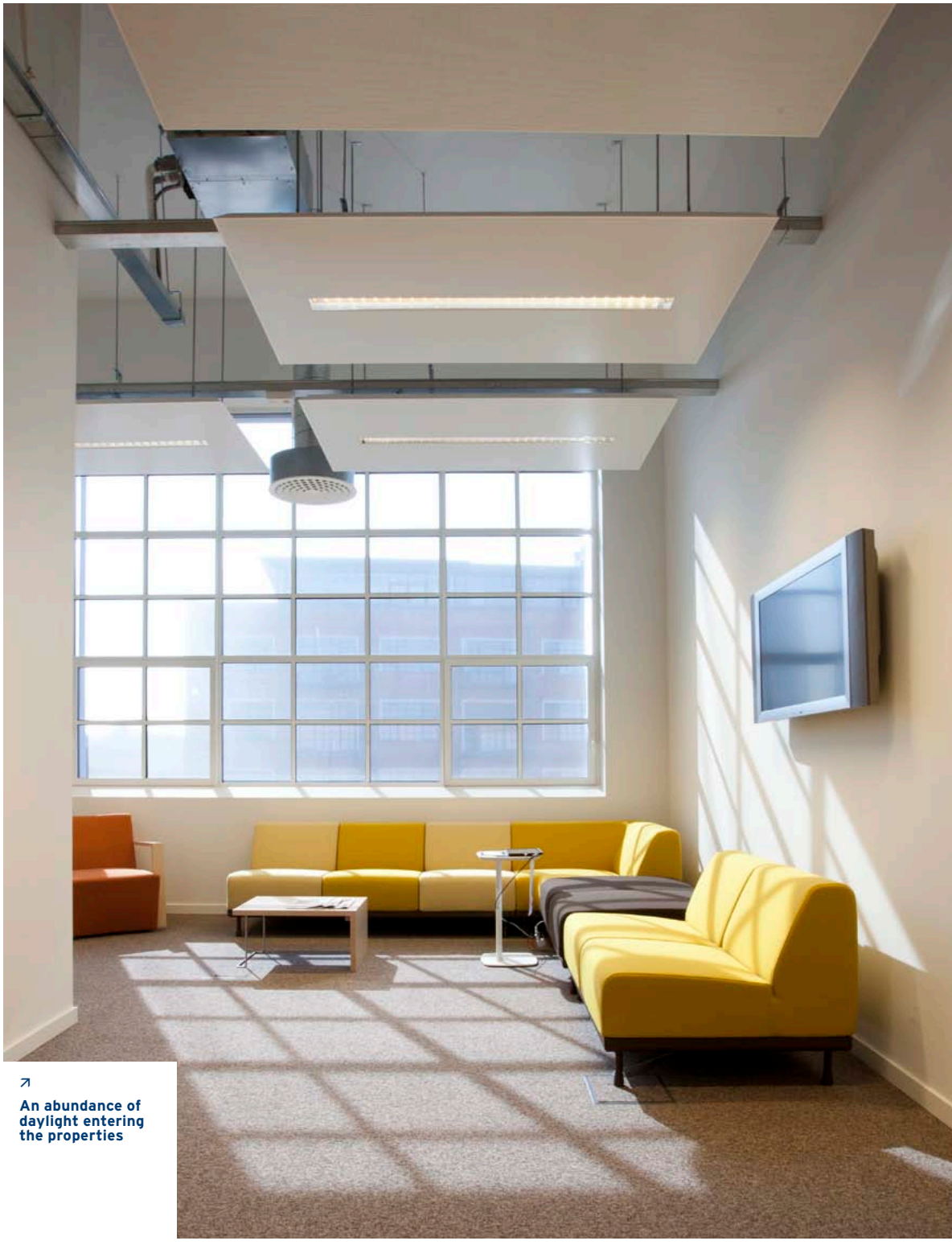
An old factory is turned into a pleasant living environment



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The CS 38-SL system by Reynaers imitates the look of the original steel window frames





↗
An abundance of daylight entering the properties

"THIS PROFILE IS VERY SLENDER, WHILE STILL SATISFYING ALL MODERN REQUIREMENTS WITH REGARD TO MATTERS SUCH AS ENERGY CONSERVATION"

a great many changes along the way. The biggest challenge was to resolve problems and implement changes as well and as efficiently as possible and to stick to the original time schedule. We are proud of the fact that we were successful. This also resulted in a high visual quality: the apartments have a very high level of finish, and the façade is a success."

"And then there's the gardens," Eyers reminds us. "There is an English-style square with benches and an eatery, and we have created attractive steel café terraces. It is an area with a very diverse character - a world in itself. What people want today is to be able to spend time outdoors in a pleasant enclosed environment. They don't want the feeling of being out in the busy streets. This design is about feeling at home in the city." ■

7EVEN GARDENS
Architect: **Jaspers-Eyers Architects, Leuven**
Client: **Van der Elst Vastgoed NV, Leuven**
Contractor: **Willemen-Kumpen, Hasselt**
Fabricator: **Couwenberg & Schellens NV, Weelde**
Reynaers systems: **bespoke solution based on CS 38-SL, CS 77**

KUMPEN NV

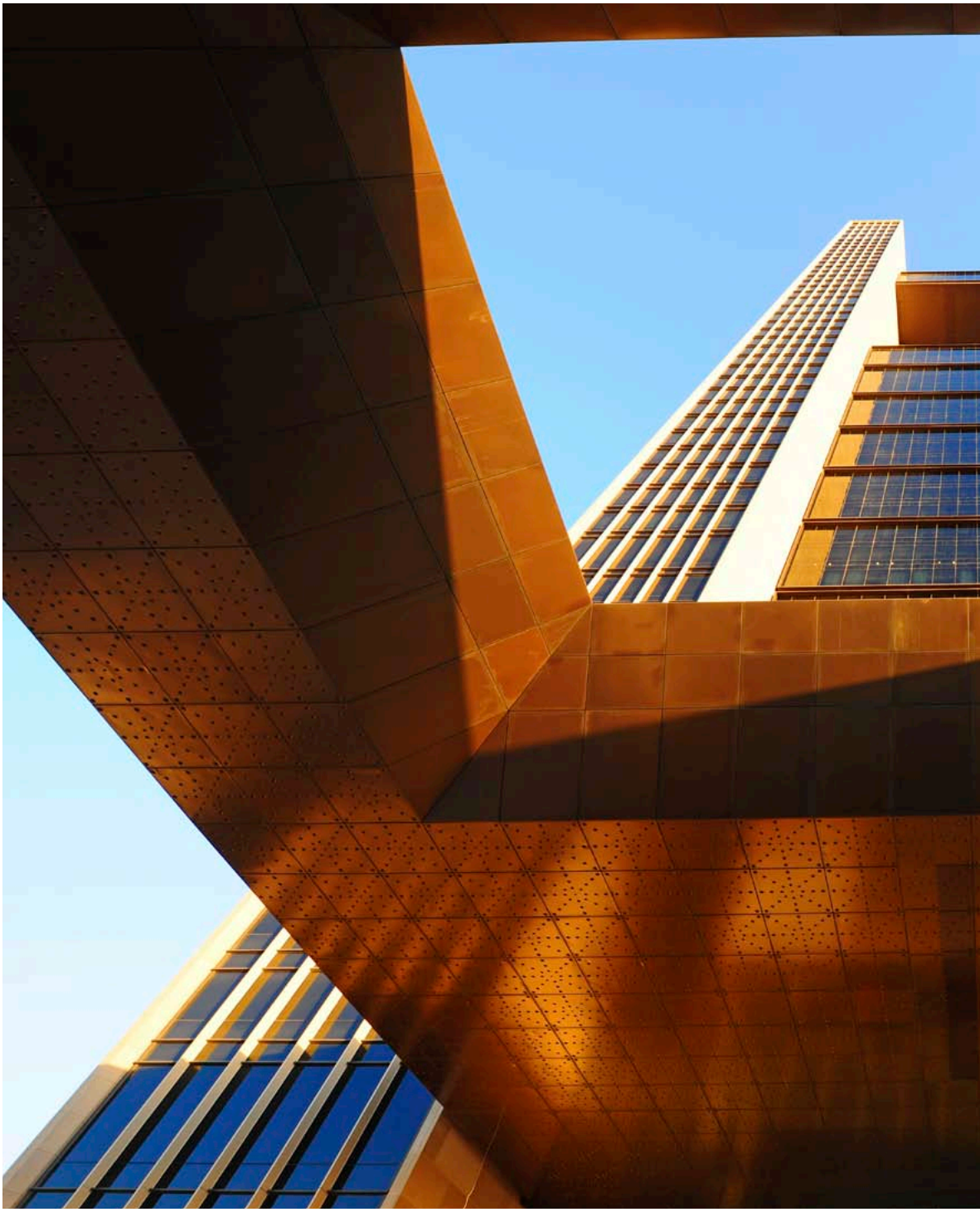


Sophie Hayen was born in 1983. She studied at KU Leuven university, graduating first in 2006 with a Master of Science in Engineering: Architecture and then in 2008 with a Master of Science in Engineering: Building Engineering. She started out as a project leader at Probam. Since 2011, she has worked as a construction project leader at Kumpen, the property development and contracting firm for infrastructural projects. 'Every day at the building yard is a new challenge. My goal is to combine quality, good planning, safety, and client satisfaction to ensure a successful result.'

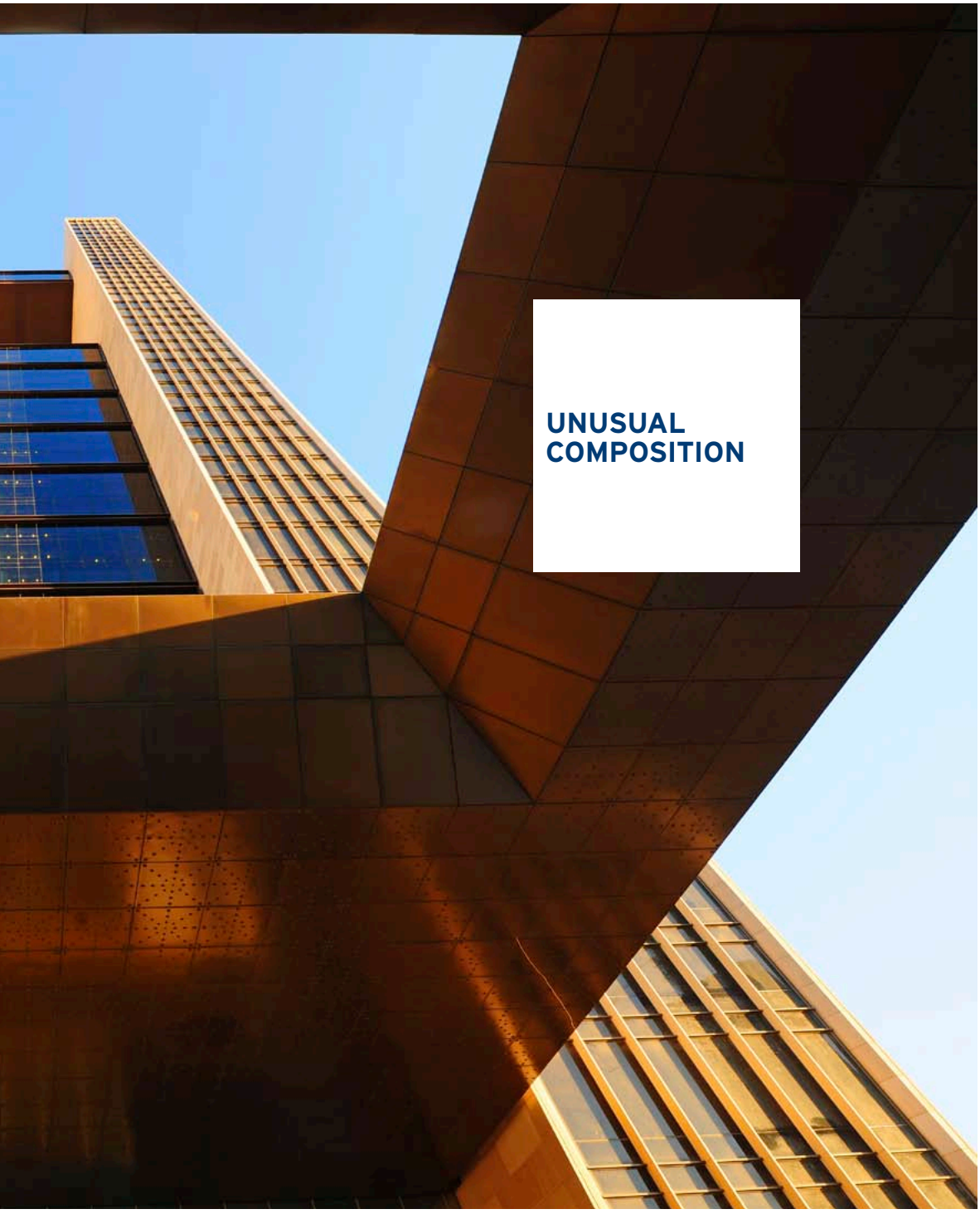
www.kumpen.be

PROJECT

FOUR SEASONS HOTEL



MANAMA, BAHRAIN – Architect: **Skidmore, Owings & Merrill LLP** Fabricator: **Jungbluth Alu Partners**



UNUSUAL COMPOSITION

SOM's 273-bedroom Four Seasons Hotel in Bahrain is a new visual anchor in the city with it's unusual composition of concrete piers and suspended volumes. It opens up a new world of luxury, and is a story of dreams and changing fortunes.

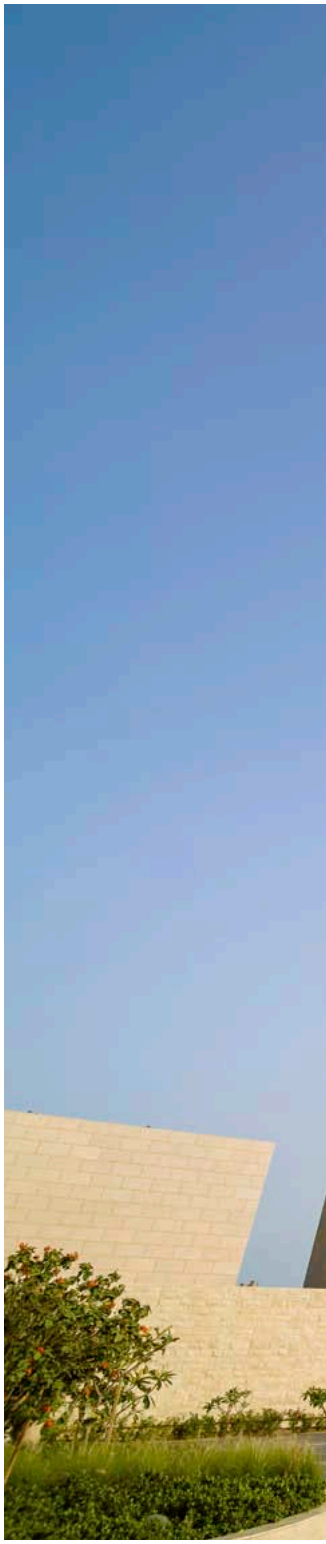
Text **Isabelle Priest** Photography **Waleed Alabbas, Four Seasons Hotel Bahrain**

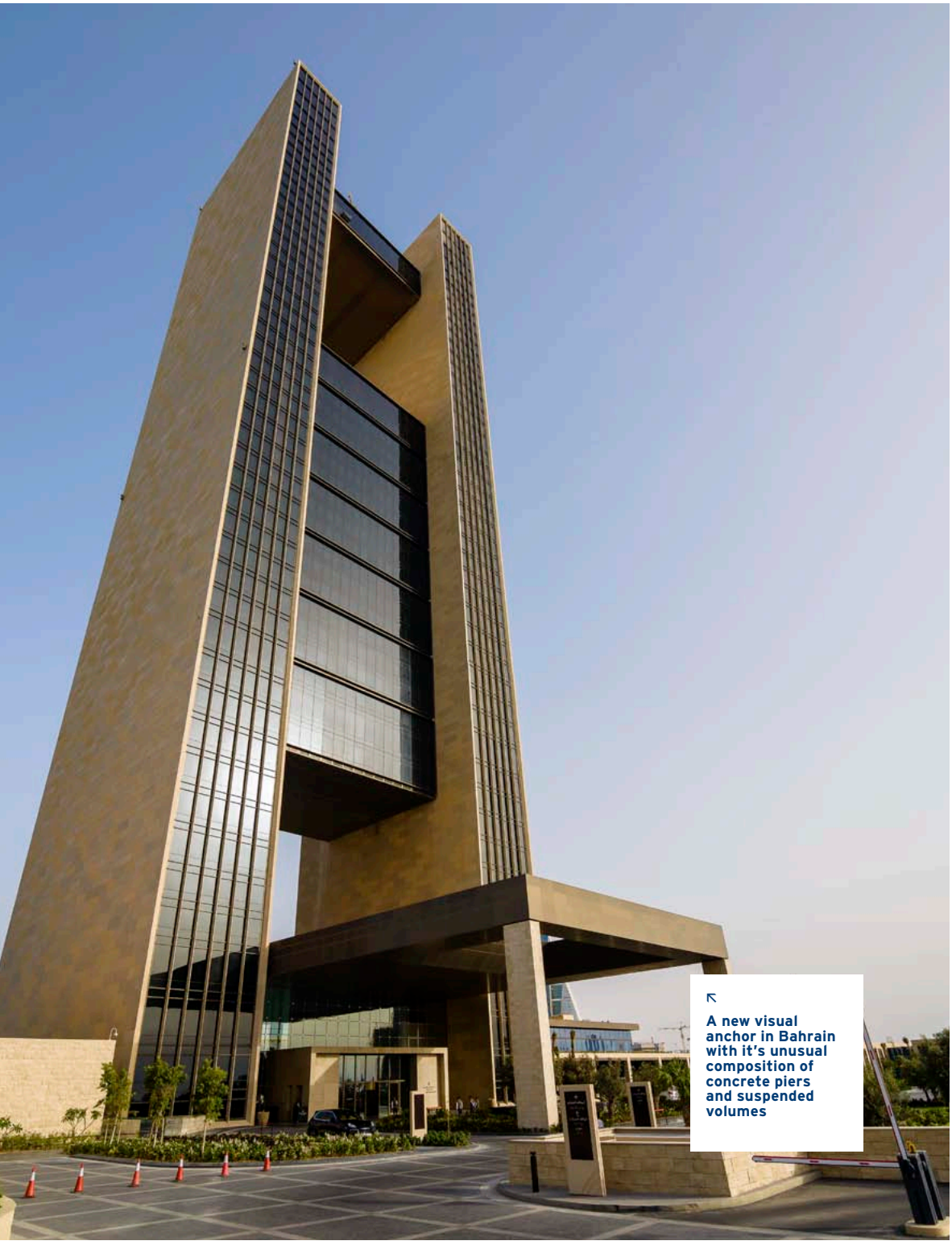
Architectural firm Skidmore, Owings & Merrill (SOM) sees the newly completed Four Seasons Hotel in the capital city of Manama, Bahrain, as a series of opportunities. "It's not very often that you design the masterplan and then get to build on it. And there aren't many standalone hotel projects either," says project architect Thomas Behr. "We are building a relationship with the city and we hope this project is part of the legacy, and that it leads to other projects like it."

SOM designed its first project in Bahrain, the captivating United Gulf Bank, nearly thirty years ago and Behr says that these early schemes are still referenced to as some of the nicest in town. At The Four Seasons Hotel, the stakes were particularly high – to design an iconic waterfront hotel on a prominent 432,000 square meters plot, known as Bahrain Bay, that didn't yet exist.

STRIKING AND INTIMATE

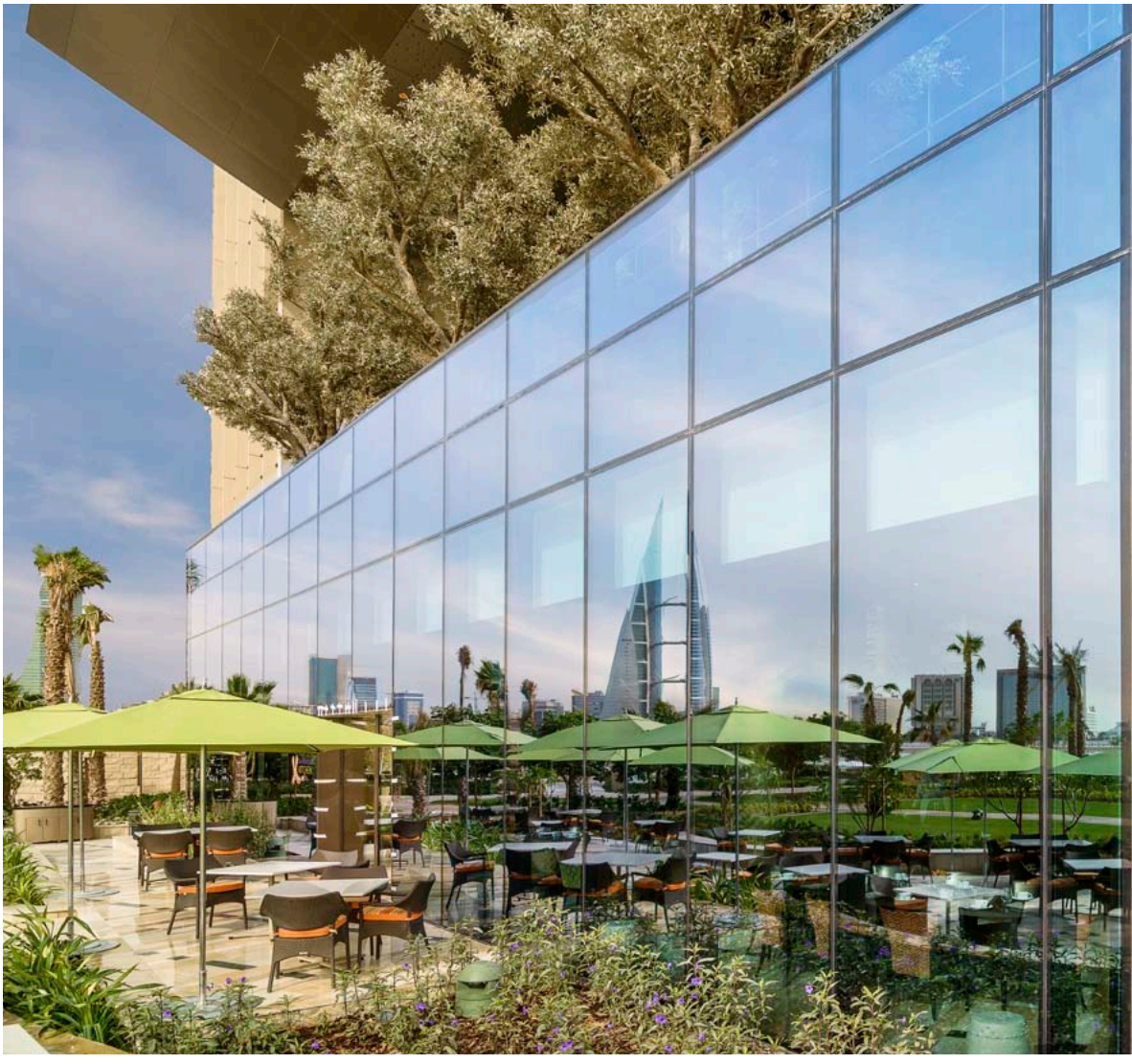
Commissioned by Signature Hotels Management Company S.P.C. the project began in 2004 with a masterplan for re-claimed land arranged from the mainland in concentric circles. The 68-storey Four Seasons Hotel is at the heart of this plan. It's lining up with the water canal to the sea behind, on its





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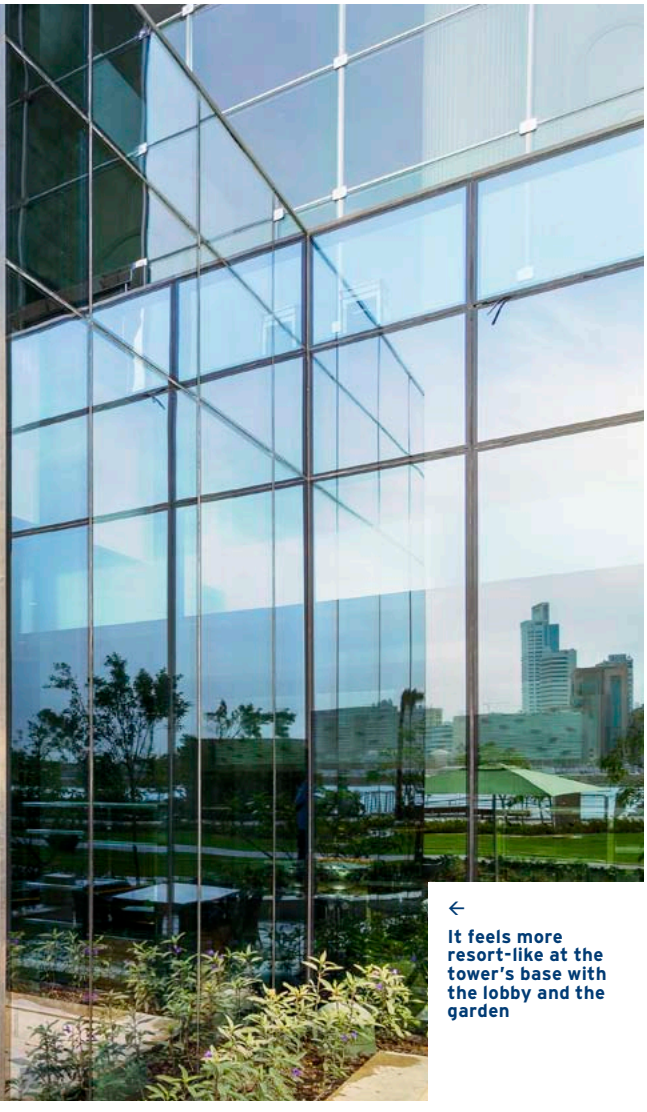
A new visual anchor in Bahrain with it's unusual composition of concrete piers and suspended volumes



"IT IS A VERY STRONG DESIGN IN THE BAHRAIN SKYLINE BECAUSE IT IS SIMPLE"

own private twelve-acre island accessible by bridge or boat. Behr explains: 'The building's design is informed by the need to make it striking on an urban scale, yet intimate for guests so it feels like a resort."

"It is a very strong design when you look at it in the Bahrain skyline because it is so simple. The concrete clad 'piers' or 'walls' are very dominant. It makes a statement, it's a kind of gateway to the city," says Behr. "You can read



← **It feels more resort-like at the tower's base with the lobby and the garden**

the programme of the building from the exterior. The so called 'skypod' restaurant is in the suspended volume at the top, the guest bedrooms in the middle and the lobby at the bottom."

RESORT-LIKE

The urban ambitions come together to feel more resort-like at the tower's base; through the landscaping, massing and materiality. Textures and patterning on the concrete walls, as well as the limestone-clad podium, create an earthy, natural

SKIDMORE, OWINGS & MERRILL (SOM)



Thomas Behr was born in Aachen, Germany in 1969. He graduated from the University of Technology in Aachen with a Bachelor in Architecture. Now he's a director at SOM's New York office. He joined the firm in 2000 and has since then worked on a diverse range of international projects. After predominantly working on European projects in his early years, Behr shifted his focus to the Middle East, where he oversees and coordinates all SOM's efforts. He is currently managing the Kuwait University Student Activity and Athletic Facilities, Thakher City in Mecca and the Sheikh Khalifa Medical City in Abu Dhabi. Behr: "I believe that architects have a social, environmental and economic responsibility, and understanding these responsibilities allows me to unlock the true value of a project."

www.som.com

JUNGBLUTH ALU PARTNERS



Roland Jungbluth was born in 1953 in Raeren, Belgium. He has more than thirty years of experience in the business, working as administrative-director for almost twenty years at one of Belgium's leading aluminium façade manufacturers Pomel Alu. In 2002 he set up Jungbluth Alu Partners sa (JAP) together with the technical director and now partner André Muller. JAP is a specialist façade company that provides technical solutions for the external building envelope in the fields of design, engineering, work management and construction. It is known for its cost-effective and flexible methods, including erecting onsite factories for each project. The company has completed projects all over the world including the 300 meter tall Aspire Tower in Doha, the Qatar National Convention Centre and Ferrari World in Abu Dhabi, all in partnership with Reynaers.

www.japsa.be

"IT MAKES A STATEMENT, IT'S A KIND OF GATEWAY TO THE CITY"

finish that prevents it from being 'bland and monolithic'. The entranceway is made more intimate through the addition of an external bronze powder-coated aluminium ceilinged porte-cochere, which continues into the lobby. The impact of the 200 meter tall tower is softened by a series of pavilions for the spa and conference facilities on either side, as well as a Mediterranean-style garden planted with olive trees and wild flowers.

The Reynaers products, selected by façade contractor Jungbluth Alu Partners because "the company has a long-standing good relationship with Reynaers and the service is very pro-active", says lead engineer Roland Jungbluth, add to this striking appearance and individual cosiness. Each bedroom has full-height windows overlooking the bays, while the aluminium panels throughout the building visually connect the disparate volumes.

In all, as Behr explains, The Four Seasons Hotel was a very important project to get built: "With all the difficulties Bahrain went through as a result of the global economic crisis, many projects got cancelled. This is the first major project since, and has kickstarted a new wave of development." ■

THE FOUR SEASONS HOTEL
Architect: **Skidmore, Owings & Merrill LLP (SOM), New York**
Main contractor: **Besix Group NV, Brussels**
Structural engineer: **Werner Sobek, Stuttgart**
Developer: **Signature Hotels Management Company S.P.C., Bahrain**
Fabricator: **Jungbluth Alu Partners, Herstal (BE)**
Reynaers systems: **bespoke solution based on CW 86-EF and CW 50-SC, CP 96, CS 77-FP**



↗

The first iconic waterfront hotel on a private twelve-acre island

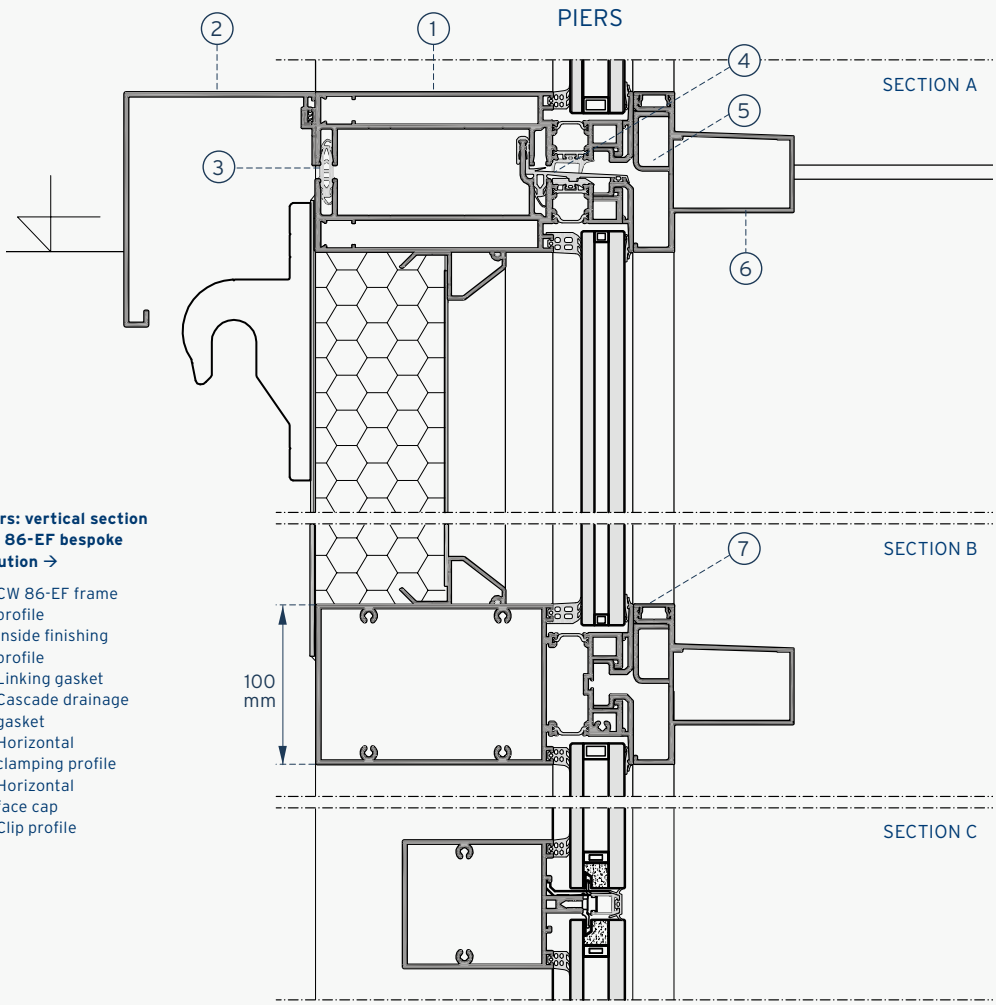
PROJECT SOLUTION

Systems:
Bespoke solution based on CW 86-EF and CW 50-SC, CP 96, CS 77-FP

Project description:
- 15.000 m² of façade
  - 13.000 m² of CW 86-EF
  - 2.000 m² of CW 50-SC, windows and doors
- Development of bespoke façade solutions based on the architect's aesthetic requirements
- Piers: CW 86 unitised façade
  - VERTICAL face caps :
    - Flat caps beside the concrete cladding
    - Intermediate caps: Very large face cap (400 mm D x 50 mm W) in two parts. Composition: profile + adjusted glazing bead + clamping profile + base profile face cap & second part face cap screwed together.
  - HORIZONTAL face caps:
    - 1st part cap: 25 mm D x 100 mm W
    - 2nd part cap: 75 mm D x 50 mm W
    - Same glazing bead with smaller clamping profile fixed on one part of the frame
- Guest rooms: CW 86 unitised façade
  - Structural glazed façade with additional double row 'finishing cap' every 3 floors
  - Glass glued on small profile screwed on bearing structure
  - Finishing cap: 400 mm D x 100 mm W
- Podium (building base): CW 50-SC
  - Steel reinforced CW 50 Slim Line
  - Mullions in two parts mounted on steel core
  - Combined with different standard transoms

Elements:
- Piers: 1675 mm W x 3800 mm H (typical element)
- Guest rooms: 1750 mm W x 3800 mm H
- Skypod (top level floors): 2000 mm W x 5425 mm H

Glazing:
- 8/16/10 (vision glass)
- 8/9/10 (panel glass)

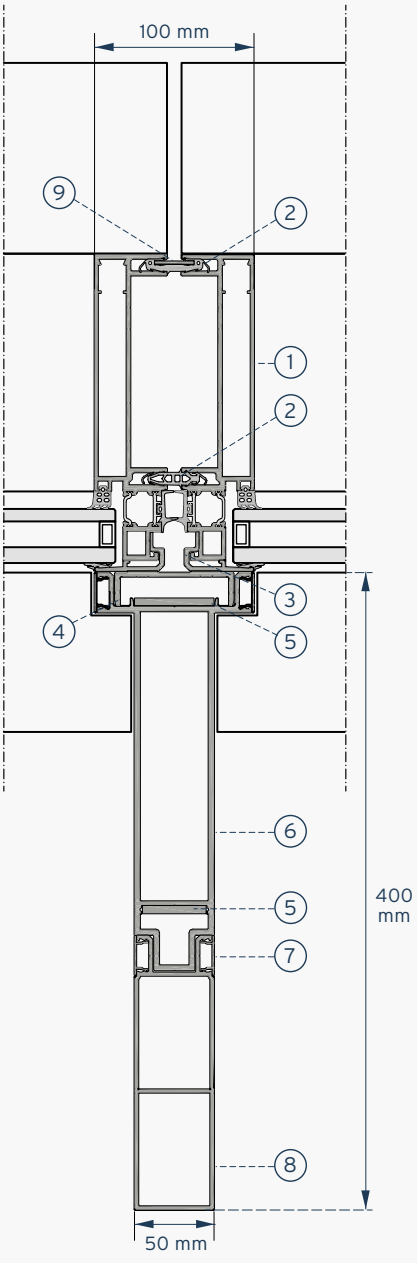


Piers: vertical section CW 86-EF bespoke solution →

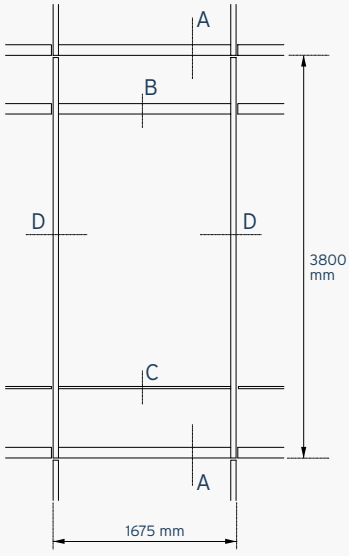
1. CW 86-EF frame profile
2. Inside finishing profile
3. Linking gasket
4. Cascade drainage gasket
5. Horizontal clamping profile
6. Horizontal face cap
7. Clip profile

SECTION D

PIERS



Typical element CW 86-EF bespoke solution



PIERS

← **Piers: horizontal section CW 86-EF bespoke solution vision glass**

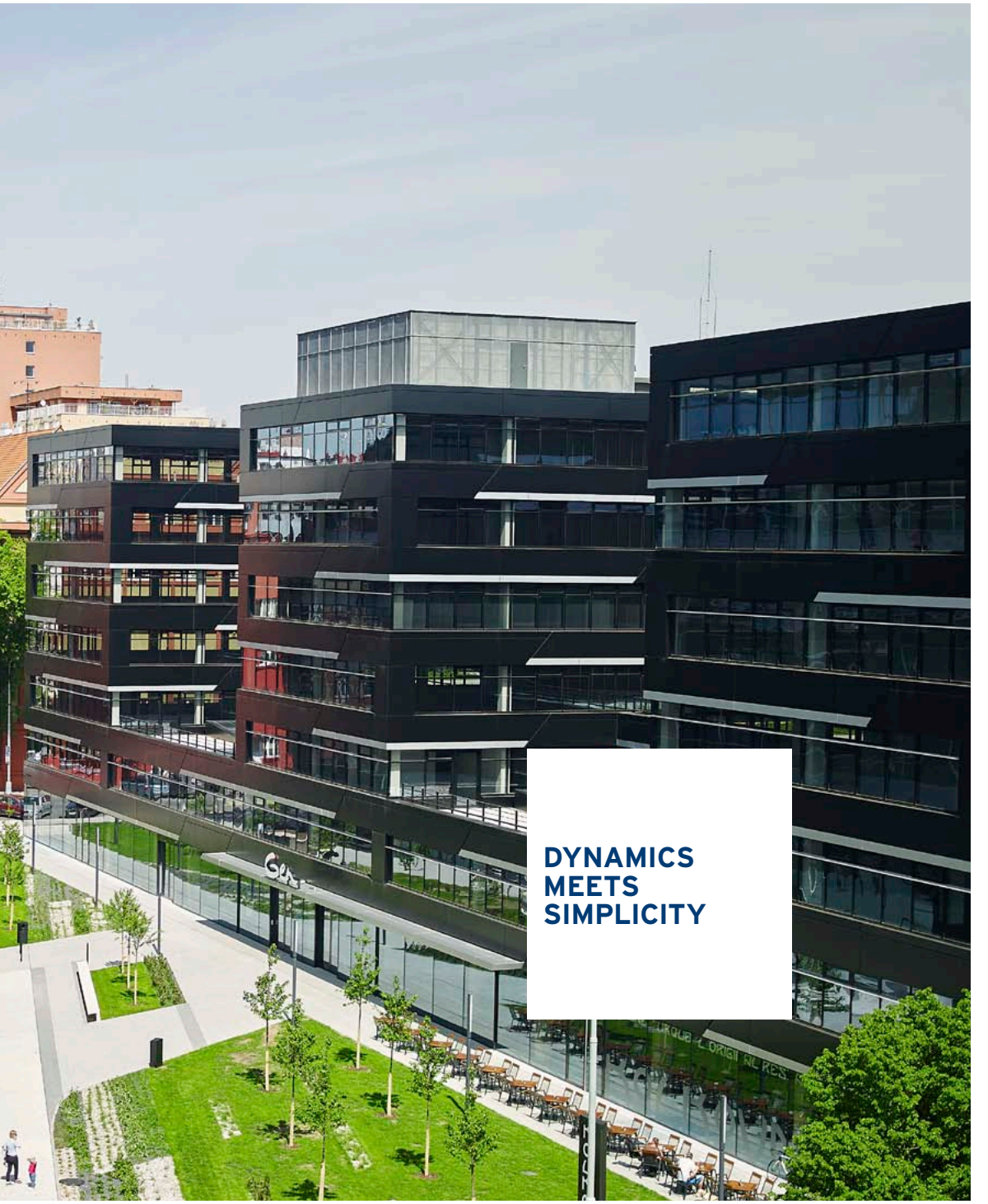
1. CW 86-EF frame profile
2. Linking gasket
3. Glazing bead
4. Clamping profile
5. Alignment spigot
6. Base cap
7. Clip profile
8. Second profile
9. Aesthetic alu sheet

PROJECT

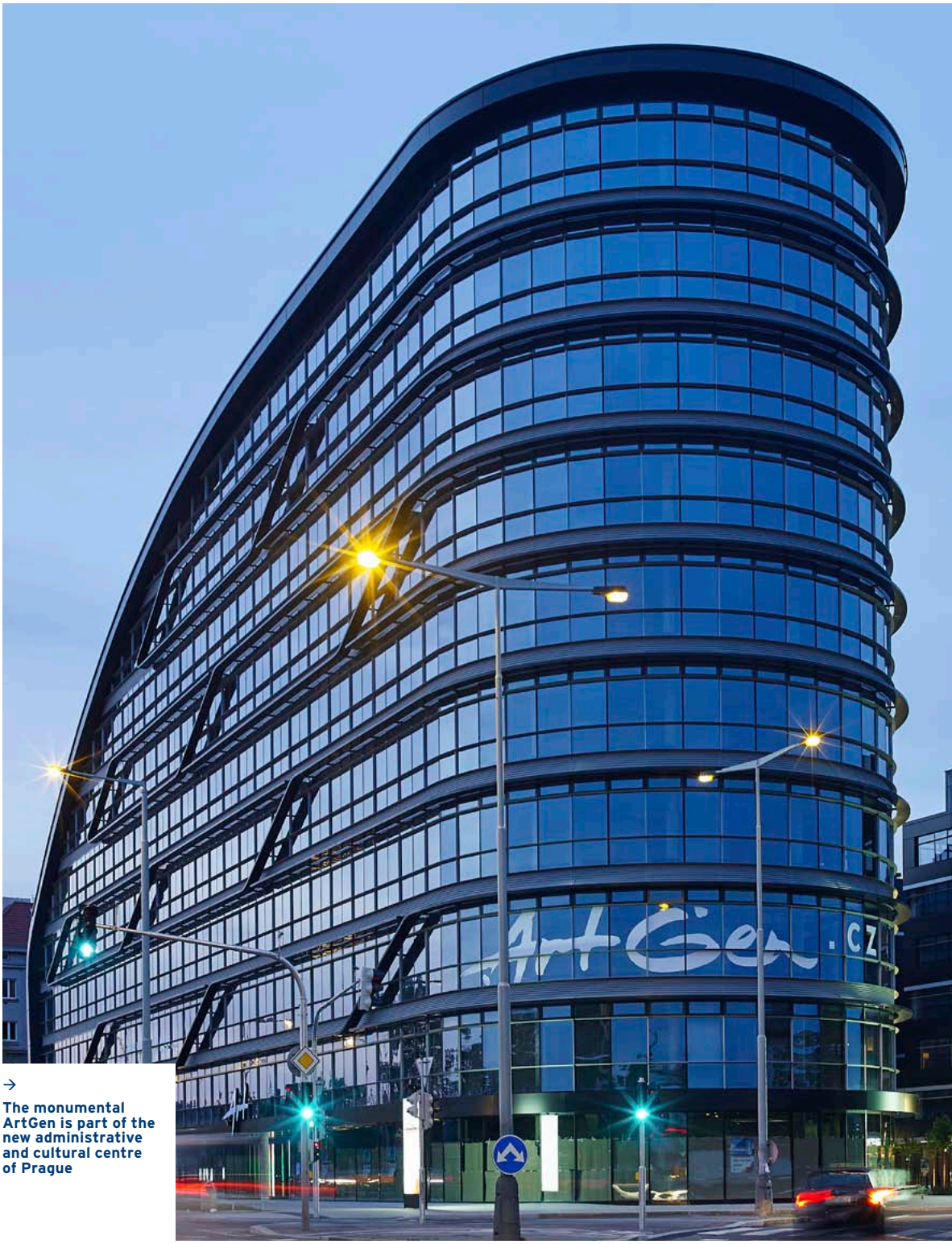
ARTGEN



PRAGUE, CZECH REPUBLIC – Architect: **David Chisholm, CMC architects** Fabricator: **Mechanika a.s.**



DYNAMICS MEETS SIMPLICITY



→

The monumental ArtGen is part of the new administrative and cultural centre of Prague



Prague's Holešovice district, located on a peninsula in a meander of the Vltava River, has changed dramatically since the last century. The old industrial working class district has become the administrative and cultural centre of Prague. Within the regular grid urbanism of the area we now find several architectural accomplishments that have been developed during the last twenty years, including the prestigious DOX art centre and the reconstruction of an old brewery complex into offices. The latest completed project is the monumental ArtGen administrative centre, creating a place for work, art and leisure.

Text **Adam Štěch** Photography **Marek Hrubý**

ArtGen, developed by PPF Real Estate, has found its place on the undeveloped space on Argentinská Boulevard, very close to Holešovice marketplace. The office complex provides 23,000 square metres of leasable units and consists of two separate buildings - the geometrically disciplined 'Gen'- three six-storey blocks connected into one structure - and the dynamic nine-storey 'Art' that separates the busy traffic of Argentinská Street from the quieter residential area behind the complex.

Between these two components, a green square was created that gives the place new urban qualities. "We conceived ArtGen as an urban space that is constantly alive. We wanted the building to be unique, personal and optimistic. That's why we created plenty of places where you can sit down to read a book or chat with your colleagues."

ARTWORK

PPF Real Estate asked CMC architects, one of the largest and most active Czech architectural firms today, to design an open and flexible administrative building, which will attract sophisticated clients because of its advantageous location, free-minded spirit and the art-related concept of the building. The project also showcases several artworks outside as well as inside the building, including

"GEN CONTRASTS WITH THE MOVEMENT ENERGY OF ART AND WAS CONCEIVED IN A MORE RATIONAL AND CONTROLLED EXPRESSION"

art by prolific Czech artists Jakub Berdych, Jan Uldrych and Jan Novotný.

"Since the beginning our philosophy was to bring art into office spaces. In this area of Prague we connect art, modern architecture and a timeless approach, combined with excellent access to the city center. Art accompanies all communications related to ArtGen and is also part of the architectural design of both buildings, "explains Michal Dostál, marketing manager at PPF Real Estate.

"Positioned in this exciting, transforming part of Prague, the urban strategy of the location was clear: exceptional morphology in a sculptural, tower-like, gateway building, combined with a smaller block-like structure assimilating the scale of the neighbourhood," says CMC-architect David Chisholm, who founded CMC with colleague Vít Máslo.

The Art building dominates the project. The architects imprinted an expressive dynamic appearance into its steel and glass façade. It looks almost as if the static façade of the building moves, like architecture changed into a liquid emulsion. This dynamic form was created by using steel profiles placed in the diagonal direction of the façade. It creates a strong graphical quality in the building. The rounded edge and sloping roof of Art echo a natural, organic form which now dominates the skyline of the Holešovice area.

RATIONAL EXPRESSION

"Gen contrasts with the movement energy of Art and was conceived in a more rational and controlled expression, as it closes the block and holds the street edge with the neighbouring buildings. The Gen building is inspired by the simplicity and



CMC ARCHITECTS



David Chisholm was born in 1960 in the United States. Together with Chech architect Vít Máslo (1964) he established CMC architects (Chisholm Maslo Company) in 2003. This international studio, based in Prague, is engaged in environmental design, urban planning and architecture. The studio realizes various projects in different countries: besides Czech Republic, also in Germany, Montenegro, Romania, USA, Ukraine and Vietnam. CMC's team exists of engineers, architects and artists and collaborated with well known companies like Atelier Jean Nouvel, MVRDV, ARUP and Norman Foster. "Architecture is a way of life, a philosophy of positive interaction with this complex world, people and places. We aspire to inspire, leaving in our lifetime vestiges of the energies and atmospheres created by our works", Chisholm says.

www.cmca.cz

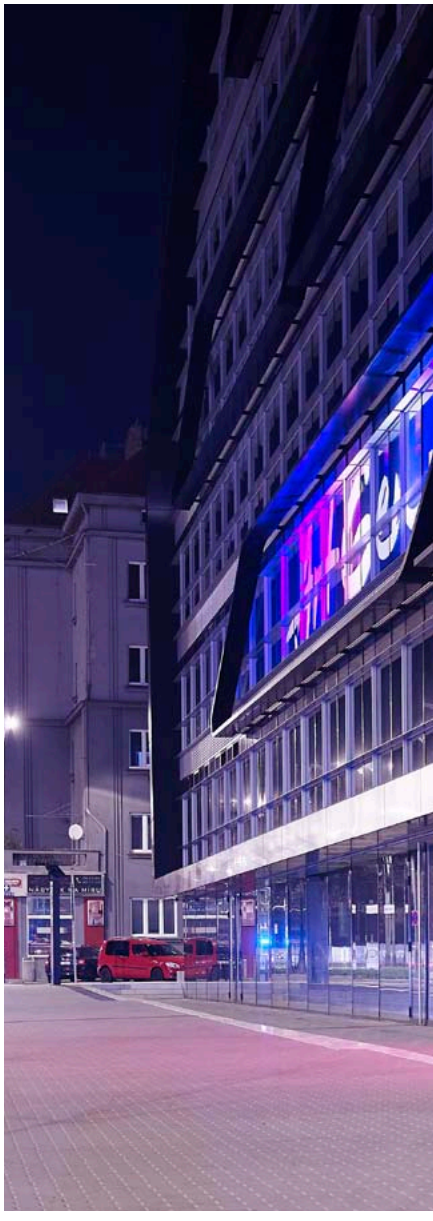
←
The geometrically disciplined 'Gen' building



functional premise of the entire district with its industrial heritage," tells Chisholm.

The two juxtaposed buildings have contrasting forms, yet sensitively complement each other, especially with their muted industrial colour scheme. Between them is the airy and open green outdoor area, which balances the architectural volumes of ArtGen with the surrounding area. It creates the ideal place for relaxation and enjoyment. "The central plaza has a perimeter of smaller streets and green islands where people can find refuge at midday under the shade of trees, or interact with co-workers on an afternoon break", adds the architect. "ArtGen uses a variety of modern and environmentally friendly technologies - including, for example, rainwater used for toilet flushing", adds Dostál. "The prestigious Leed Gold certification means that the ArtGen building achieves the best possible results. This gives our clients the certainty that the building is not only environmentally friendly, but it also confirms the high quality", he says. ■

ARTGEN
Architect: **CMC architects, Prague**
General contractor: **Syner, Liberec**
Fabricator: **Mechanika a.s., Prostějov**
Investor: **Art Office Gallery, Gen Office Gallery (members of PPF Real Estate), Prague**
Reynaers Systems: **bespoke solution based on CW 50, CS 86-HI**



↗ **The nine-storey 'Art' building with its steel and glass façade, is dynamic and expressive**



"THE GEN BUILDING IS INSPIRED BY THE SIMPLICITY AND FUNCTIONAL PREMISE OF THE ENTIRE DISTRICT WITH ITS INDUSTRIAL HERITAGE"

PROJECT

ORUZHEYNIY



MONUMENTAL ART DECO STYLE

MOSCOW, RUSSIA – Architect: **Mikhail Plekhanov** Fabricator: **Miwel-Baswell**





↑
Reinventing the Moscow architecture with the Art Deco style



The iconic building on Oruzheyniy Lane is the latest high-rise project in the city centre of Moscow. The 166,000 square metre multifunctional administrative and commercial complex is just starting to acquire its finished appearance. In the ten years of design and construction, the complex has managed to become a prominent site in the city.

Text **Nikolai Vassiliev** Photography **Zlobin Nikolai**

The 28-storey building towers over the north side of the Garden Ring, marking the southern boundary of the area of new construction in the 2000s. Architect Mikhail Plekhanov from Mosprojekt2 explains: "When the investor himself reviewed the project, he said that he wanted something fitting for Moscow, something that, even if not quite traditional, would continue the convention of creating urban accents along the Garden Ring. We were participants in an informal competition where we proposed to 'reinvent' the architecture of Stalin's skyscrapers by analysing the origins of the Art Deco style."

According to the initial visual landscape analysis, the building was intended to be lower. The architects made several variants with different crowning elements for the top part. However, the investor thought of profits, that every metre was worth money, and he therefor wanted a flat roof. Later, for the new investor, prestige came first. "Our proposal for the top was not a functional part, but rather a decorative one, and it will add another 36.5 metres. Basically this is an external form creating a silhouette," explains Plekhanov.

ALTERNATIVE HISTORY

When the reinforced concrete frame without the façades was erected in the early 2010s, the building gave rise to many negative comments. Most of them concerned the inadmissibility of constructing 'yet another Stalinist skyscraper' in the city centre (the first investor, Donstroy, built a pseudo-Stalinist skyscraper in the city in 2002). However, when the building finally began to acquire

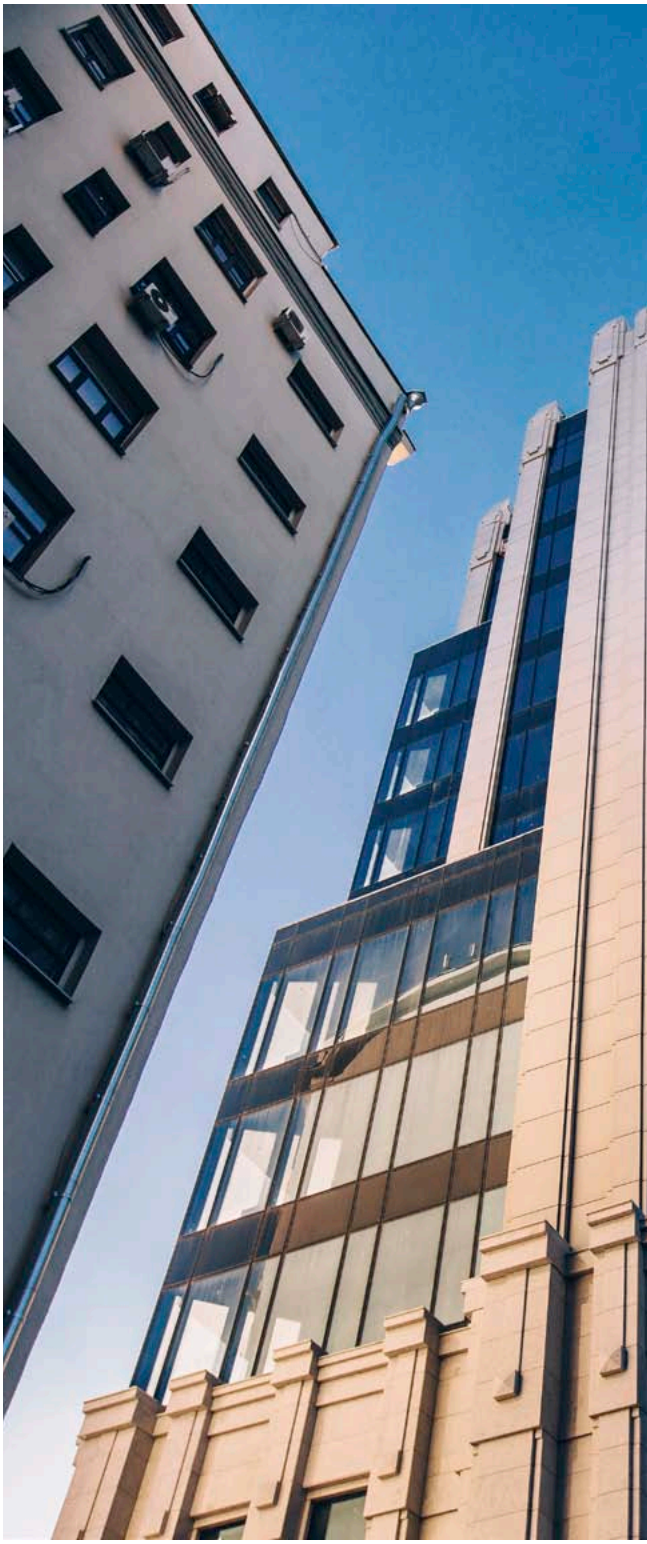
"WE PROPOSED TO 'REINVENT' THE ARCHITECTURE OF STALIN'S SKYSCRAPERS BY ANALYSING THE ORIGINS OF THE ART DECO STYLE"

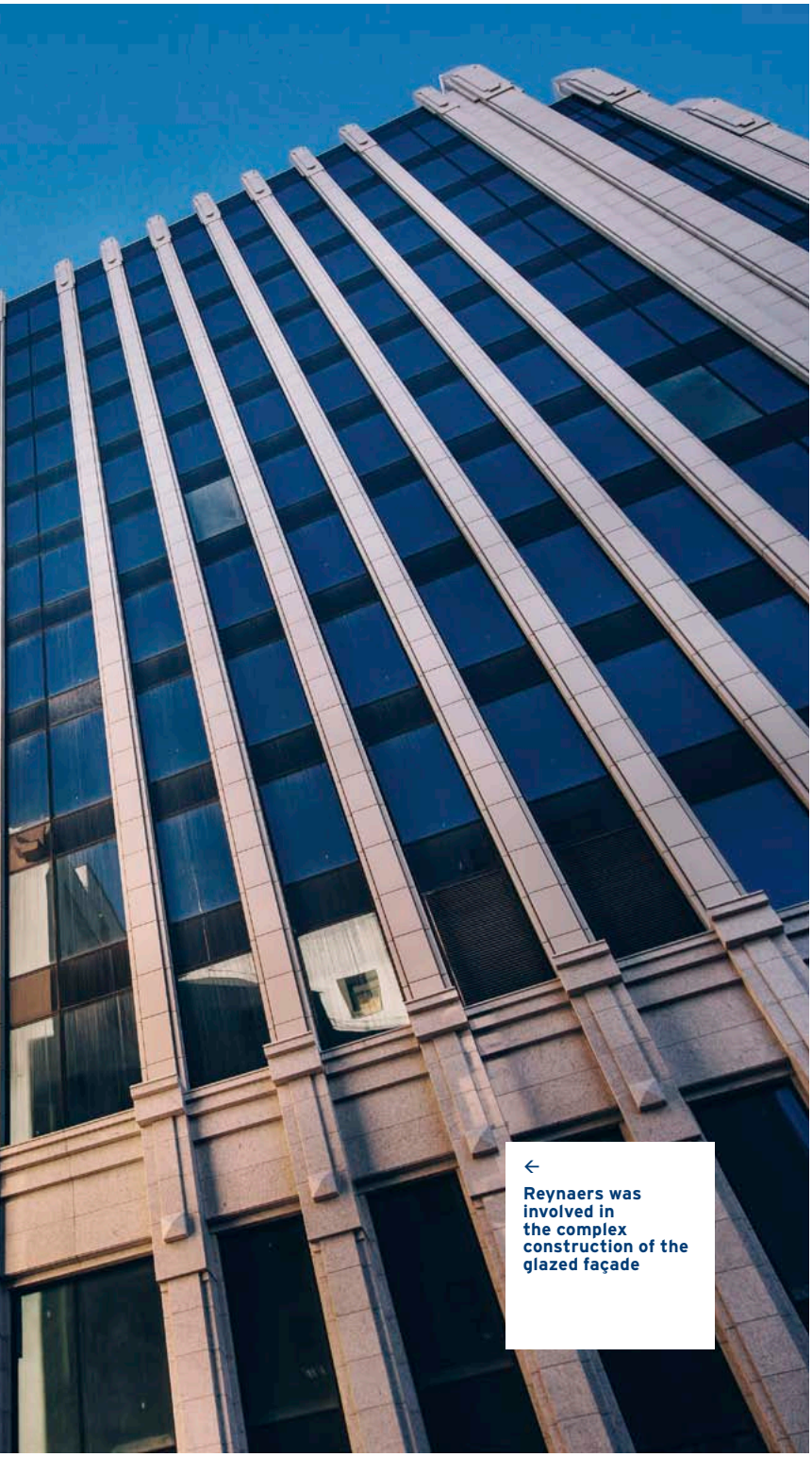
substance by 2015, the glass planes and vertical aluminium ridges became visible, and it become clear that Oruzheyniy was not a retro imitation, nor an ultramodern manifesto, but a kind of 'alternative history' of Moscow architecture.

"We tried to preserve the traditions, while coming up with a contemporary look," says the architect. They used two types of finishes: for the three bottom storeys it is stone and white granite, and on the upper storeys an aluminium facing.

Reynaers was involved in the construction of the fully glazed façade and Plekhanov is very pleased with the collaboration. "This is very laborious work due to the complex shape of the pylons. And the metal repeats all of these forms and even the division of the stone facing along the length, height and width. Each pylon also has a top – an Art Deco inspired light, like a beacon."

The building has great significance for Moscow's urban landscape. The overall volume is traditional for Moscow in terms of its massiveness and monumentality.





← **Reynaers was involved in the complex construction of the glazed façade**

MIWEL



Aleksandar Veljanovic was born in Belgrade in 1967. He represents the second generation of the family business Miwel as the general manager of the Moscow office. The company was founded in Nicosia, Cyprus, in 1993 and offers state-of the-art building equipment and an accomplished team of professionals to respond to the complex challenges in the construction process. The company's activities are spread globally through its offices in Moscow and Belgrade. "We have been at the top for more than fifteen years. We plan to remain there," says Veljanovic.

www.miwel.ru

MOSPROJECT2



Mikhail Plekhanov was born in 1955 in Moscow. He graduated from the Moscow Architectural Institute in 1979. Since then he has worked at Mosproject-2. Today he leads the largest design team in the office, working mainly on high-class residential and office projects. Among the latter is Aquamarine-II, a multifunctional complex on the Ozerkovskaya embankment of Moscow. His motto is: "Modern architecture needs to be done really well – or it is better not to do it at all."

www.mosproject2.ru

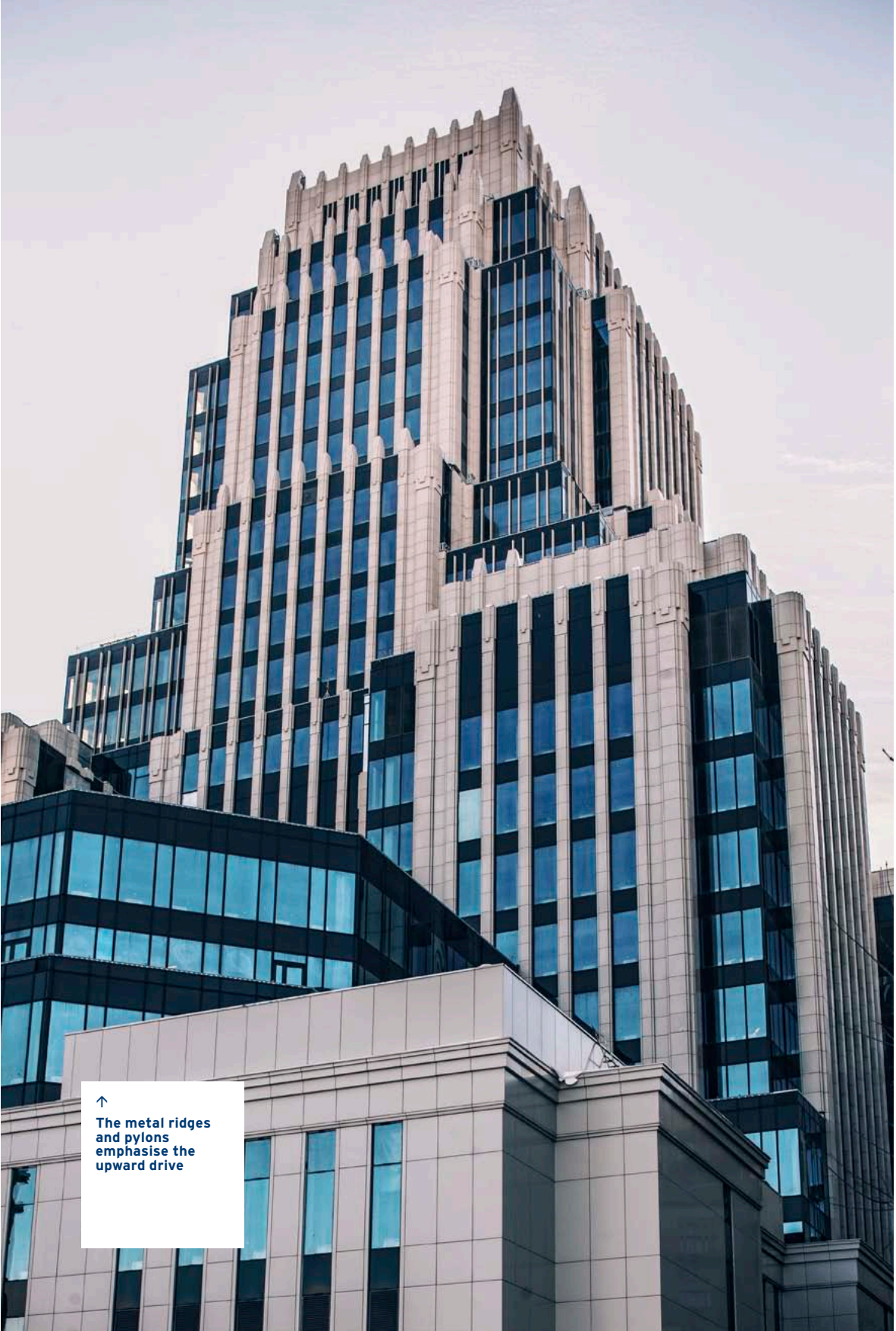
"ORUZHEYNIY IS NOT A RETRO IMITATION, NOR AN ULTRAMODERN MANIFESTO, BUT A KIND OF 'ALTERNATIVE HISTORY' OF MOSCOW ARCHITECTURE"

The building has almost no horizontal components. All of its materiality is in the metal ridges and pylons, which emphasise the upward drive and visually break down the mass.

CHALLENGING

The architect was also pleased with the result of the collaboration with Miwel, the fabricator of the building's exterior. "Alexandar Veljanovic, director of Miwel Russia, openly embraced our ideas and taste." Veljanovic: "This particular project was very challenging to us. The building has a very complicated shape with many assemblies. The architects made a draft design of the shapes and we developed them right through to production and installation." Miwel owns an aluminium production factory near Belgrade. For this project it established a special experimental facility there to produce special parts and façade systems. Veljanovic: "We invented many things from scratch and we are really proud of the success." ■

ORUZHEYNIY
Architect: **Mosprojekt2 - Mikhail Plekhanov, M.Posohin, A.Levitina, E.Tarasenok, Moscow**
Project Director: **Jovica Blagojević**
Fabricator: **Miwel–Baswell, Moscow - Belgrade**
Investor: **LLC Sberegatelnii Capital, Moscow**
Reynaers systems: **bespoke solution based on CW 86-EF, CW 50-SL, CS 77**



↑
The metal ridges and pylons emphasise the upward drive

PROJECT SOLUTION



Systems:
CW 86-EF bespoke solution,
CW 50-SL, CS 77

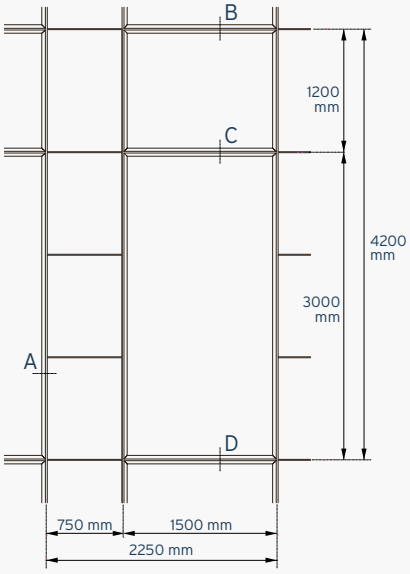
Project description:
- Façade: Bespoke solution based on CW 86-EF
- Complicated distribution of wind loads
- Crossflow propagation direction of some neighbouring floor structures
- Building height: 130 m
- Three bottom floors and central atrium: CW 50-SL (Slim Line)
- Windows on ground floors and terrace doors (104 pcs.): CS 77

Elements CW 86-EF:
- Transom to transom connection
- Steel spigots for high wind loads (15mm)
- Reinforcements for the corner elements
- Varying heights between 4200mm and 5800 mm
- Typical element: 2250 W x 4200 H mm
- Total project = 40050m²
  - CW 86-EF: 34,150 m²
  - CW 86-EF fireproof EI60: 1,400 m²
  - CW 50-SL: 3,950 m²
  - CS 77: 550 m²

Glazing:
- CW 86-EF, CW 50-SL, CS 77:
  - Composition of glass: AGC STOPRAY VISION 8 mm + 15 AIR + STRATOBEL 6.6.2 (6 mm PLANIBEL CLEAR + 0,76 CLEAR PVB + 6 mm PLANIBEL LOW E G-FAST)
  - Max. glass dimensions: 1,444 x 3,424 mm
  - Max. weight of glass panel: 250 kg
  - Max. weight of the panel: 600 kg per element / 950 kg EI60 fireproof panels

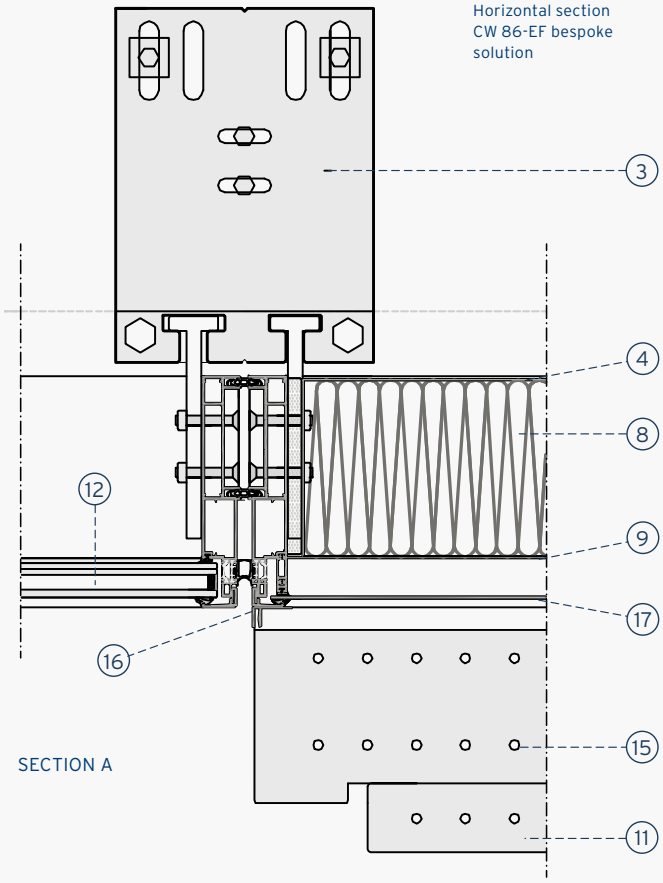
Testing:
- Wind loads up to 2000 Pa
- Fireproof up to 60 min. (EI60), directly tested via fabricator Miwel, in Moscow Institute

Typical element CW 86-EF bespoke solution



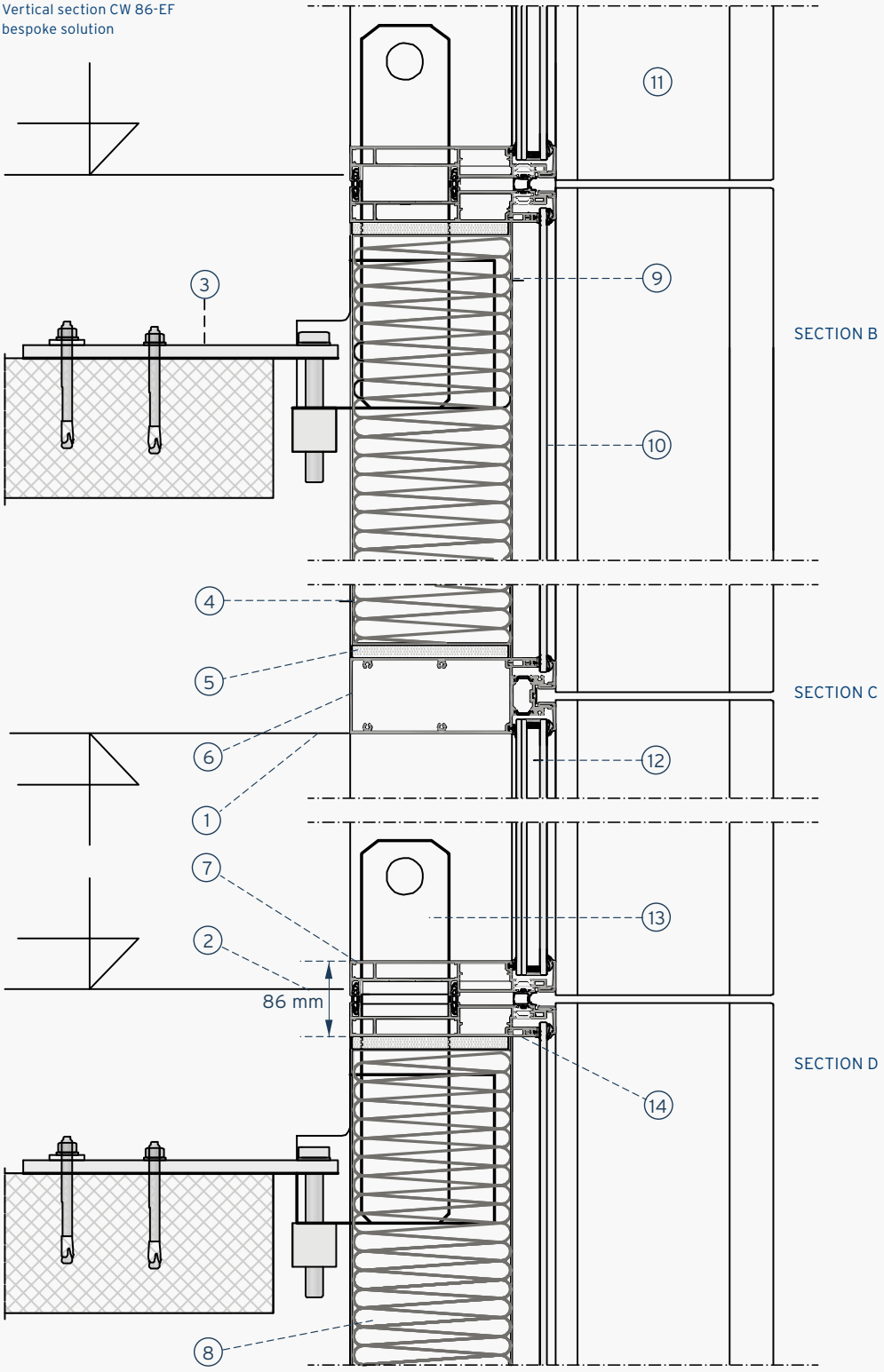
1. Ceiling
2. Floor
3. Steel anchor
4. Inner steel plate
5. Gipsum plate
6. Transom profile
7. Outerframe profile
8. Insulation - mineral wool
9. Outersteel profile
10. Tempered enamelled glass
11. Shaped Aluminium cassette
12. Double glazing
13. Spigot
14. PVC spacer
15. Decompression and water drainage holes
16. Adapter profile
17. Outer secondary steel sheet

Horizontal section CW 86-EF bespoke solution



SECTION A

Vertical section CW 86-EF
bespoke solution





SLIM LINE 38 SERIES: DESIGN VERSATILITY MEETS COMFORT

Reynaers' unique aluminium window system has been re-launched with an advanced version: the Slim Line 38 series. With its ultra slim profiles and improved energy efficiency, SL 38 and SL 38-HI are the appealing successors of the CS 38-SL system.

↑ Slim Line 38 Classic

The highly insulated Slim Line 38 has a 'steel look' and is ideal for modern architecture. The system is available in three unique design variants (Classic, Cubic and Ferro) and is perfectly suited for new buildings, where the unique slim lines allow for an abundance of light. It is also perfectly suited for the retention of existing structures, for example an older conservatory, allowing users to preserve the vintage appearance, or for renovation projects where steel frames have to be replaced. The profiles' appearance give a strong industrial and minimalistic architectural appeal to buildings.

↑ Scan the QR code to watch a movie about the new Slim Line 38 series.

Highly insulated

The Slim Line 38 series feature a highly insulated 3-chamber system with ultra-slim profiles for increased thermal characteristics. The solution is available in fixed, turn, and turn-tilt variations with Uf values down to 2.3 W/m²K (1.9 W/m²K for the HI version). The system is suitable for both double and triple glazing without losing the minimalistic look.

All windows and window-doors are available with hidden hinges to further add to the system's excellent design. In combination with its superior insulation capabilities, the system provides the perfect harmony between durable material, timeless design and demanding architectural challenges.



← Slim Line 38 Cubic



← Slim Line 38 Ferro



CW 50-HI INSULATION & INSTALLATION UPGRADE



NEW BARREL HINGE

Many years ago, Reynaers developed an entirely new type of hinge for doors: the first-generation of barrel hinges.

Since then, this type of hinge has conquered a large share of the market, mainly thanks to its aesthetically-pleasing and elegant design. Today, it's time for a second generation of this barrel hinge, which Reynaers launches for the series CS 68, CS 77, and CS 86-HI.

This type of hinge has made great leaps forwards, in terms of the technical characteristics, a quicker and simpler installation method, and a wider choice of profile combinations.

The new, improved Concept Wall 50-HI (High Insulation) system offers even better thermal insulation properties combined with an improved installation technique. Additionally it offers a higher air- and water-tightness level of up to 1950 Pa.

High insulation value
This variant of CW 50 makes use of improved insulation profiles, resulting in an insulation value (Uf) down to 0.65 W/m²K with a glass thickness of 60 millimetres. (Previously, this was 0.73 W/m²K, while for the standard CW 50 system a Uf value of 1.7 W/m²K applies).

Optimal glass support
As this variant doesn't require an extra thick glazing gasket, it can support the glass closer to the aluminium profile. This offers an essential advantage towards the use of heavy-duty triple glazing up to a maximum of 61 millimetres thickness.

Ease of installation
An additional advantage of the new CW 50-HI system is the ease of production and installation. The insulation profile used in the HI system, consists of a hard and a soft part. The soft part is pre-cut, so that drainage canals can be incorporated in a simple manner. The hard part offers ideal guidance for the screws. Lastly, the installation is made even more convenient because the glass doesn't require waterproof taping to obtain the high levels of air- and water tightness.

The CW 50 system offers unlimited design freedom and allows maximum transparency and superb thermal efficiency. The CW 50 is available in several design and glazing variants, but also includes different technical variants to comply with specified levels of fire-resistance and thermal insulation. Various opening types can be seamlessly integrated with the CW 50, such as the top hung window (THW), parallel opening windows (POW), hidden vent turn&tilt windows (HV-TUTI) and flush roof vents (FRV).

This new type of hinge can support heavier doors with larger dimensions. The maximum bearing capacity is now 250 kg, which is a hundred kilograms more than the first generation of barrel hinges.

GREAT LEAPS FORWARD IN TERMS OF A QUICKER AND SIMPLER INSTALLATION METHOD AND A WIDER CHOICE OF PROFILE COMBINATIONS





CS 86-HI NEW DOUBLE PANELLED DOOR

With CS 86-HI, Reynaers offers excellent insulation performance levels for windows and doors. The system is one of the most energy efficient solutions available. It also meets the highest requirements concerning safety and stability.

The insulation concept not only ensures its extreme stability and its elevated water- and air tightness, but also makes it perfectly suitable for triple glass applications. The overall insulation value (Uf) of the CS 86-HI+ variant for windows goes down to 1.0 W/m²K. The Uf value for frame/vent sections are as low as 1.4 W/m²K for both window sections of 117mm visible width and door frame/vent sections.

Contemporary entrance door design
As an answer to the contemporary design needs for entrance doors, CS 86-HI includes a double panelled door with panels glued both on the inside and the outside. This door is available in maximum dimensions of 2500 x 1100 mm. The design is very sleek with its slim three mm aluminium panels with thirty mm insulation in between.

→
The invisible hinges add to the design appeal

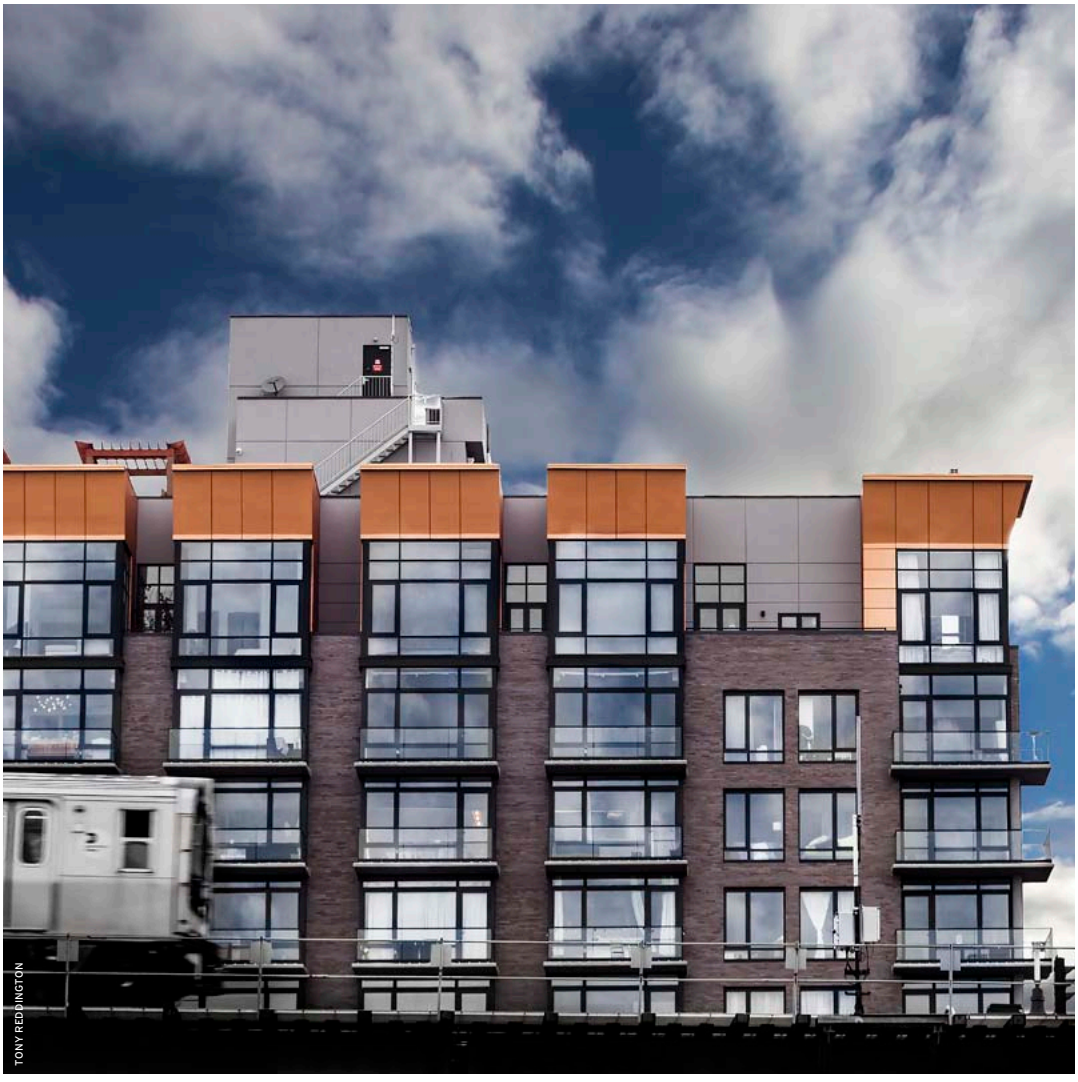


THE COMPLETELY INVISIBLE HINGES AND REYNAERS' BEAUTIFULLY STYLED PURITY HANDLES CAN ADD TO THE DESIGN APPEAL

The completely invisible hinges and Reynaers' beautifully styled PuRity handles can add to the design appeal.

Safety
Moreover, the door can be equipped with a fully integrated door closer and can be fitted with a finger scanner for controlled access to your building. A spy glass window can also be integrated in the door, answering to both design and safety demands.

← Scan the QR code to watch a movie about the CS 86-HI double panelled door with finger scanner.


TONY REDDINGTON

NEW YORK, UNITED STATES OF AMERICA

The sturdy, modern apartment building on 146 South 4th Street in Brooklyn is comprised of 113 luxury apartments. The orange sloping soffits above the glass frontages on the top floors are a striking feature.

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146 SOUTH 4TH STREET
Architect: **ND Architecture, New York**
Project developer: **Rabsky Group, New York**
Façade/glazing installer: **AGM Deco, New York**
Reynaers systems: **CS 68, CW 50**



ALEXANDRINSKY THEATRE

ST PETERSBURG, RUSSIA

Alexandrinsky is a multifunctional cultural complex with a theatre, a media centre and a school on the banks of the Fontanka River. The architects have conceived a transparent building with a glazed atrium that perfectly complements the historic urban environment.

ALEXANDRINSKY THEATRE
Architect: **Zemtsov, Kondiain and Partners, St Petersburg**
Fabricator: **Europanorama, St Petersburg**
Reynaers systems: **CW 50-SC, CW 50-VL, CS 77**



FILIP DUJARDIN

TERSCHELLING, THE NETHERLANDS

The carefully chosen colour combination and materials of the luxury, semi-sunken 'dune house' have been adapted to the landscape of the island of Terschelling in the Wadden Sea. Key features of this energy-efficient house are large windows, a glass roof and the unusually-shaped modular solid wood structure. The 'Wooden Diamond' is another eye-catching feature, resulting from the exterior use of the CW 50-On Wood curtain wall system.

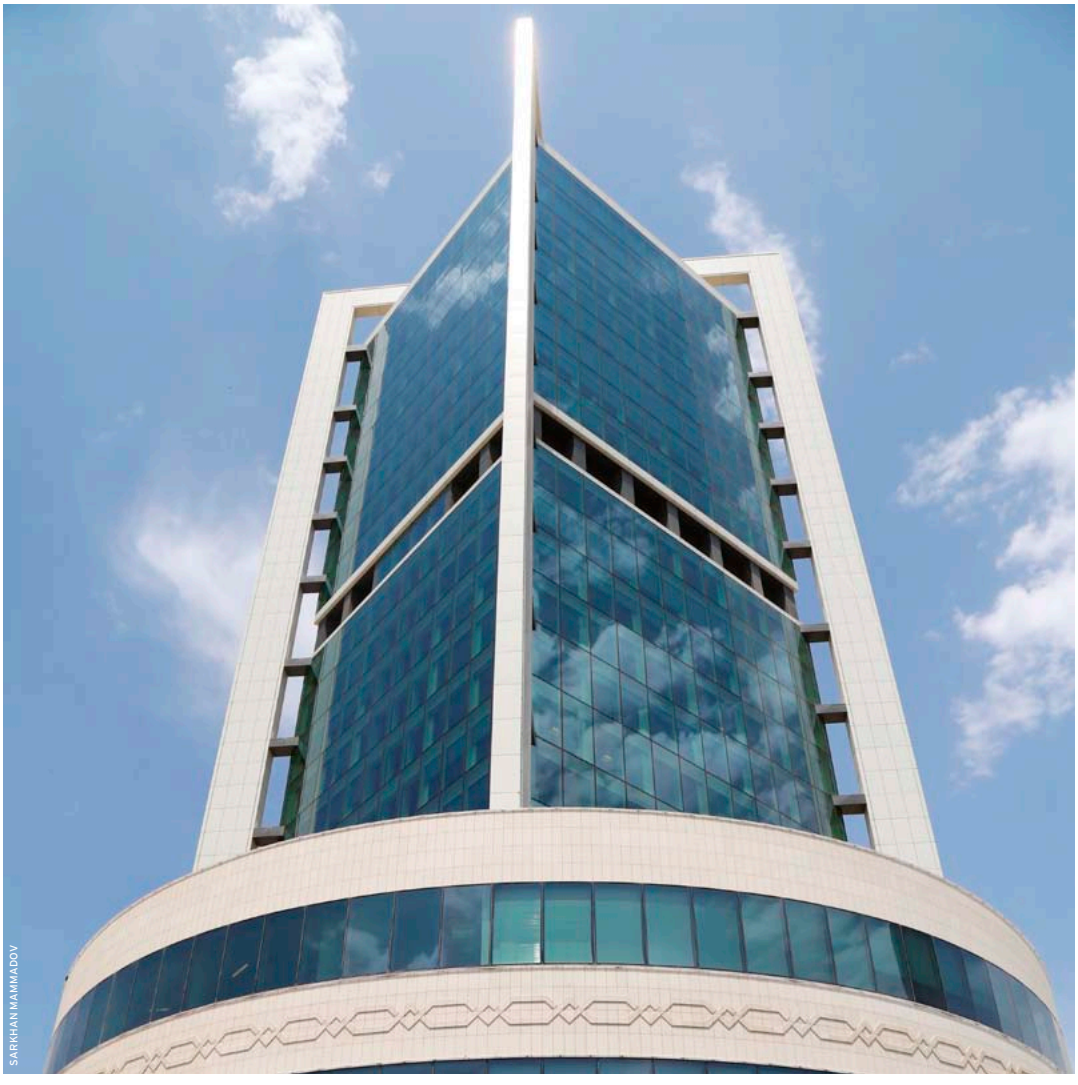
DUNE HOUSE
Architect: **Marc Koehler Architects, Amsterdam**
Main contractor: **Gatze Wiersma, Leeuwarden**
Fabricator: **Huijberts Gevelbouw, Opmeer**
Reynaers system: **CW 50 on wood**



DNIPROPE-TROVSK, UKRAINE

Festival, a new residential complex, is the final part of Krutogorny, a city within the city. Magnificently located beside Shevchenko park, Festival comprises nine buildings set around green recreational and pedestrian spaces, shops and a fitness centre and stands out with its colourful façade structure.

FESTIVAL
Lead architect: **Dolnic & Co, Dnipropetrovsk**
Executive architect: **Pischany S., Dnipropetrovsk**
Main contractor: **Tower Development, Dnipropetrovsk**
Fabricators: **Bipos – stroyservice, Building company Olvia, Dnipropetrovsk**
Investor: **Corporation Perspective, Private Bank, Dnipropetrovsk**
Reynaers systems: **CW 50-HI, CS 77-HI**


SARKHAN MAMMADOV

BAKU, AZERBAIJAN

The remarkable 24-storey quadrangular office building of Sofaz (State Oil Fund of Azerbaijan Republic) stands on a three-storey round podium. Reynaers worked with Jungbluth Alu Partners (JAP) to create the customised double-glazed façade. Once completed the project will become the first BREEAM-certified building in Azerbaijan.

SOFAZ TOWER
Architect: **Inter Art Etudes, Paris / Arch.Vugar Hasanov MDM group, Baku**
Project management: **Aecom, London**
Main contractor: **Besix, Brussels**
Fabricator/Façade consultant: **JAP, Brussels**
Reynaers system: **bespoke solution based on CW 86-EF**



JORDI MIRALLES

BARCELONA, SPAIN

For the renovation of an office complex comprising two 8,200 m^2 buildings of 8 and 7 floors, the architect playfully used LED strips to cast an unusual light on the fully glazed façade that changes according to the external light. These are the figures that support the office complex as a sustainable project: -40% of water consumption, -40 % CO^2 emissions and -35% energy saving power consumption. The building was awarded with the gold LEED label.

OFFICE BUILDING TRAVESSERA
Architect: **Octavio Mestre Arquitectos (OMA), Barcelona**
Main contractor: **Obres i Contractes Penta, SA, Barcelona**
Fabricator: **Acieroid, Barcelona**
Reynaers systems: **CW 50-SL/SC, CS 68, CS 68-HV**



ČESKÉ BUĚJOVICE, CZECH REPUBLIC

This architectonically remarkable BREEAM building has two main functions. On one hand it offers an eight level car park that helps the historic centre of southern Bohemia's city to breathe again. On the other hand it provides 4500 m² of modern designed offices most of which are positioned along the outer perimeter of the façade. A smaller portion is illuminated from the covered inner aluminium atrium. The ground floor will be used for commercial activities.

CITY GREEN PARK
Architect: **Atelier EIS s.r.o., České Budějovice**
General contractor: **David Servis spol. s r.o., České Budějovice**
Fabricator: **Nevšímal a.s., Nymburk**
Reynaers systems: **CW 50, CW 50-HI, CS 86-HI, CS 59Pa**

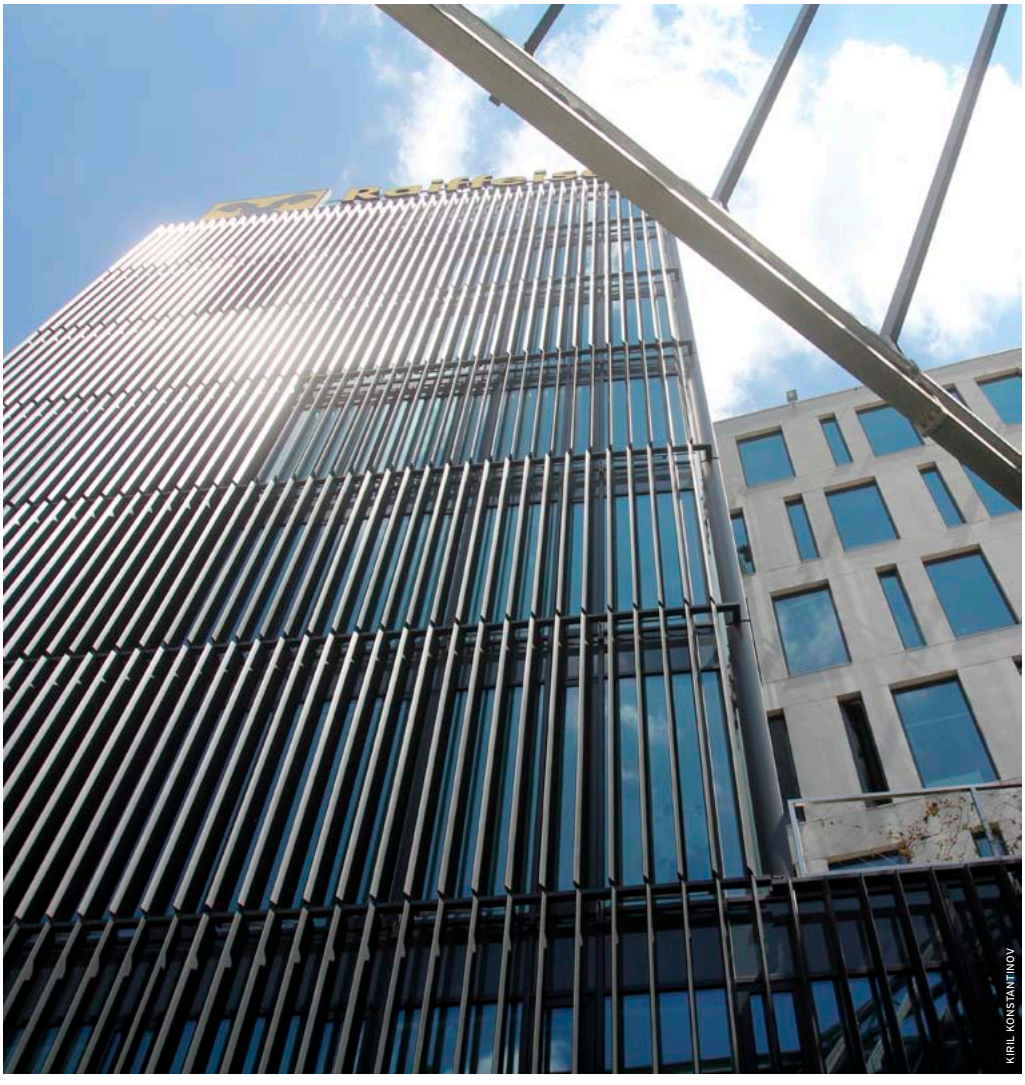


HENDRIK BLEGS

KONTICH, BELGIUM

The skin of the detached house features a surprising choice of materials, with the interior and exterior forming an interwoven whole. The rust-covered corten steel cladding filters the light to produce an interplay of shade and transparency whilst providing additional privacy.

PRIVATE HOUSE
Architect: **DMOA architecten, Heverlee**
Main contractor: **Hein De Buyst, Halle**
Fabricator: **Moors NV, Houthalen**
Reynaers systems: **CP155-LS/HI, CS 86-HI**



SOFIA, BULGARIA

For the Expo 2000 office park, Reynaers was involved in the implementation of the third phase of the project: three adjoining buildings with a total area of 7,200 m^2. Various curtain wall systems were applied together with a customised Brise Soleil solution with vertical motorised louvres. Procedures to obtain the LEED Platinum environmental certificate and gold DGNB certificate for sustainability are ongoing.

EXPO 2000
Architect: **Maya Yovcheva, Sofia**
Main contractor: **Strabag EAD, Sofia**
Fabricator: **Preciz AI Energy Ltd, Rousse**
Investor: **Raiffeisen Property Management LTD**
Reynaers systems: **CW 50, CW 60-SC, CS 77-HV, motorised BS 100 bespoke solution**

RICCIONE, ITALY

Architect Igor Macrelli and designer Marco Gabellini transformed Hotel Petronio into a modern, minimalist ensemble, stylishly combining glass, stone and wood. The architects designed the renovation of the hotel according to a specific philosophy that focuses on the emotional feeling of the end user. The result is a smart play of atmosphere and an intelligent articulation of the spaces.

HOTEL PETRONIO
Architect: **Studio Undici, Riccione**
Fabricator: **R.S SNC Di Rossi Sandro & C., Gatteo**
Reynaers system: **CP 130-LS**


GIANNI ANGELINI

LYON, FRANCE

For the façade of the Ilot6 office building, Reynaers developed a bespoke, technically complex system combining CW 50 and CW 86. Specific profiles and joints were developed to offer an economical solution that facilitates ease of installation.

ILOT 6
Architect: **Scau, Paris**
Main contractor: **Mandelaure Immo, Lyon**
Fabricator: **Lenoir, Villeurbanne**
Reynaers systems: **CW 50 & CW 86 combination bespoke solutions**


AURÉLIE LEPLATRE

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