

» PUSHING THE LIMITS OF ALUMINIUM FAÇADES

SINCE 1948

**Mit unserer Leidenschaft für Innovation überzeugen –
und das weltweit!**

**Convincing with our passion for innovation –
around the world!**

**Convaincre par notre passion de l'innovation –
dans le monde entier !**

**¡Convencidos de nuestra pasión por la innovación –
en todo el mundo!**

**Med passion för innovativa lösningar –
över hela världen!**

创新引领世界

**Dukë ju bindur me pasionin tonë për inovacion –
për rreth Botës**

Uvjerljive inovacije sa našom straću po cijelom svijetu!

**Prepričamo z našo strastjo do inovacij –
po vsem svetu!**

Met onze passie voor innovatie overtuigen wij wereldwijd!

**Overbeviser med vores passion for innovation –
i hele verden!**

Įtikinama mūsų aistra inovacijoms visame pasaulyje!



WICONA was founded in 1948. In over 70 years, it has grown from what was once a small business into a brand that stands for highly specialised know-how and technical competence in aluminium system solutions.

As a systems company with many years of experience, we supply the market with realistic and achievable concepts for people and the environment. Reconciling user comfort with environmental requirements is what motivates and drives us daily in the development of energy-efficient system solutions for sustainable building envelopes. Numerous WICONA projects around the world have already been awarded internationally recognised certificates for sustainable construction, such as DGNB, LEED or BREEAM. At the beginning of 2017, our system solutions received the Bronze C2C Certificate and, two years later, the Silver Certificate. It was another important step for us to be able to practice our guiding principle of "sustainability" even more actively.

"Technik für Ideen" is our brand slogan, but it is also our guiding principle and our promise. At WICONA, we are convinced that no limits should be placed on modern

building architecture. We implement complex building envelopes with special technical challenges with individual special structures, in a sustainable and future-oriented way. That is our core competence and the basis for our global success. That is what WICONA stands for.

But WICONA also stands for so much more. On the next few pages we would like to offer you a glimpse behind the scenes and introduce the people who represent the company and who impress us every day with their passion for technical challenges. We would like to show you how the brand has developed internationally from Germany – with its technically ambitious concepts and innovations which have achieved real progress in the design of building envelopes. You should discover which project solutions WICONA is at home with in the world's major cities. Projects that we have implemented in close and intensive cooperation with you. A cooperation that is based on mutual trust and shared values: know how to impress with passion – on a global scale. All this is WICONA.

Isabelle Fabbro
Project House Director

» TECHNIK FÜR IDEEN

“Aluminium façades, windows and doors,
technically and creatively perfect,
are our hallmark.

With WICONA, architects, planners and
project developers can transform their ideas
into an ambitious constructed reality.

Qualified façade companies and fabricators
implement these specifications, supported by
systems, tools and service from WICONA.”

06

This is us

Around 800 employees represent the WICONA brand worldwide. Different people, who all have one thing in common: every day, they work for the shared success – of WICONA and its partners.

The history of WICONA

The brand name is linked with a long tradition: Over its 70 years, the company has evolved into a leading aluminium systems company for energy-efficient façade, window and door solutions.

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If it rings at WICONA

Anyone visiting the WICONA head office in Ulm would probably wonder what the large brass bell in the foyer is all about. When it rings, it means something quite special.

From first patent to global player

Over more than 70 years, countless products and patents have been developed at WICONA. Today, the WICONA product range includes around 11,000 items.

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A brand emerges

It is not just the aluminium system solutions that are subject to continuous development. The WICONA brand has continually evolved during its 70-plus years of existence.

How proven profile systems emerge from aluminium bolts

In the Bellenberg extrusion plant, extruded profiles for aluminium building systems are produced. The Test Centre offers options for testing and certification. Shipping takes place from the Service and Logistics location in Gerstungen or Courmelles.

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NEXT – the multi-functional studio for façades and design

NEXT is a unique industry project from WICONA and eight partners at present. International architects, planners, project developers and fabricators meet here to discuss new ideas and generate future trends.

Aluminium in Architecture

Over the past decades, many distinguished architects have created impressive building projects where aluminium plays a key role.

66

90

Aluminium – a sustainable building material

Aluminium is often infinitely recyclable, and can be used over and over again without any loss in quality or properties. Ideal prerequisites.

WICONA is a brand of Hydro

Hydro is one of the most prestigious Norwegian companies. Globally, around 35,000 people are employed in more than 40 countries.

96

102

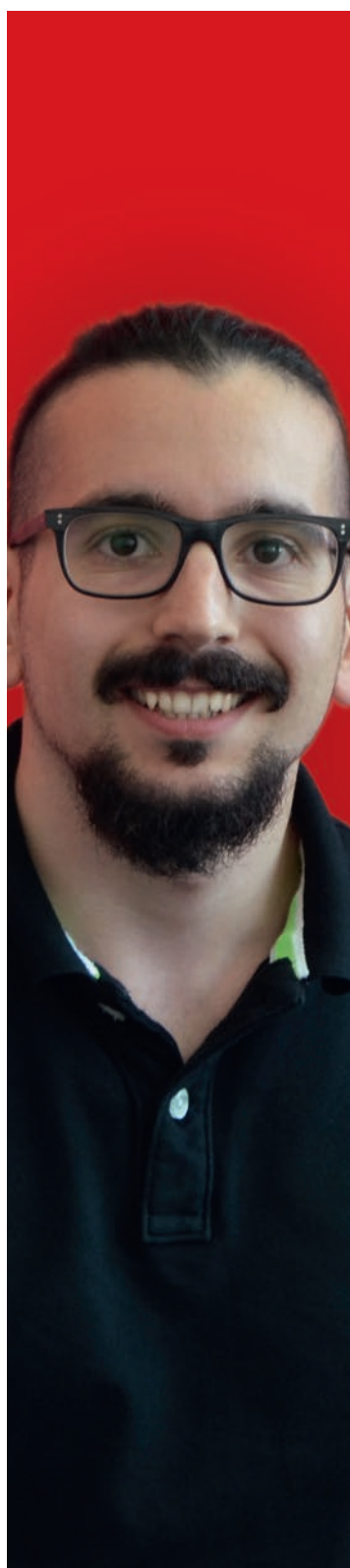
A glimpse into the future

An interview about future prospects with Henri Gomez, Business Unit President Building Systems.

» This is us

Around 800 employees represent the WICONA brand worldwide. Different people, who all have one thing in common: daily, they work for the shared success – of WICONA and its partners.







Name: Britt Van Gorp
Position: Customer Service Officer
Location: Landen/Belgium
At WICONA since: 2015

Why I work at WICONA:

WICONA develops sustainable and innovative products. I am proud to represent this high-end brand and its products.

What my working day looks like:

I am the customer contact person in Belgium for questions about orders, deliveries and complaints. I also have daily contact with my WICONA colleagues in the Gerstungen Service Centre and the Head Office in Ulm (procurement).

Favourite work activity:

I like the variety of tasks, the excellent cooperation and partnership with

customers and colleagues, and the opportunity to use my skills in foreign languages every day.

What my leisure time looks like:

My partner and I are currently building a house and are therefore very busy. When we do have a bit of free time, we enjoy watching films or TV series and spending time with our friends and our dog.

What is your wish for the future (personally/professionally)?

I value honesty. That's how I see myself and therefore I would like to stay true to my life's motto: "What you see is what you get."



Name: Isabelle Fabbro
Position: Project House Director
Location: Ulm/Germany
At WICONA since: 1998

Why I work at WICONA:

I started at WICONA in France and have been at WICONA in Germany for a few years now. I like the work in an international and innovative team ... and because we at WICONA develop fascinating solutions that are both technically ambitious and design-orientated. It's exciting to develop strategies taking into consideration the environmental impact of our business and to push the limit in this field.

What my working day looks like:

For me, there is no "typical" working day – and that's exactly why I love my job!

Favourite work activity:

I like the international, multicultural environment and all the opportunities to be innovative in different areas, such as in the development of new products or in communication ...

What my leisure time looks like:

I have two children, I am also a member of an international theatre group and I am learning German.

What is your wish for the future (personally/professionally)?

To travel the world and its Seven Seas.



Name: Mick Kuenemann
Position: Project Manager
Location: Bonneuil sur Marne/France
At WICONA since: 2010

Why I work at WICONA:

We are a fantastic team with highly skilled colleagues! WICONA is a strong brand in an internationally successful business.

What my working day looks like:

There is no typical day – every day is different. But my first priority is always the customer: supporting the customer, finding technical solutions for their building projects and managing the process in a structured way ... and, above all, building trusting partnerships!

Favourite work activity:

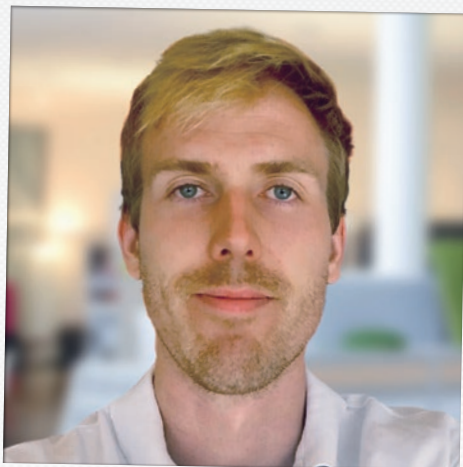
Looking for technical solutions and thus achieving the customer's wishes.

What my leisure time looks like:

I try to go to the theatre or to concerts as often as I can, visiting exhibitions and, of course, spending time with my family.

What is your wish for the future (personally/professionally)?

Professionally, I would like to deepen my technical know-how in the long term. Personally, nothing specific, but perhaps one day to buy a holiday home in Portugal.



Name: Kristian Sivertsen
 Position: Prescription Sales Manager
 Location: Kjeller/ Norway
 At WICONA since: 2015

Why I work at WICONA:

With my engineering knowledge, WICONA offers me the opportunity to create ambitious façade solutions for stunning projects. That makes work so exciting! And, of course, here in Norway we have a great office with great colleagues and a good atmosphere.

What my working day looks like:

It's not easy to describe a typical working day. Every day is different. Normally, my day consists of meetings with architects and construction companies, or technical support for customers. Sometimes I spend all day at my desk offering our customers technical support. And then there are days when I visit an architect at short notice. What rarely happens: boring days!

Favourite work activity:

I like the creative work with architects. Having the opportunity to discuss and plan

large, exciting projects with architects is definitely my favourite part of my work. And last, but not least, it's a really good feeling to complete a successful project and to know that you were involved.

What my leisure time looks like:

In my free time, I spend time with my girlfriend and with my friends. I also love football – whether playing it myself or watching it. I also enjoy travelling, preferably always to new and exciting places.

What is your wish for the future (personally/professionally)?

For the future, I wish for WICONA to further expand in Norway and worldwide, and for us to continue to develop positively in the project area. Personally, I would like to learn more and develop myself further.



Name: Ulrich Schick
 Position: Team Leader Project Development
 Location: Ulm/Germany
 At WICONA since: 1991

Why I work at WICONA:

I have worked at WICONA since 1991, because here, with a great and, most of all, very committed team, I can contribute to the success of large, international projects.

What my working day looks like:

As a designer, I develop project-based window and façade elements, as well as special designs for exceptional construction projects. I manage the technical tests of these newly developed solutions and create all the documentation for their manufacture.

Favourite work activity:

My passion is developing new, ambitious structures.

What my leisure time looks like:

Running, classic cars (Fiat 500), model aircraft.

What is your wish for the future (personally/professionally)?

Health!



Name: Roland Weiss
 Position: BUMM
 Location: Mägenwil/Switzerland & Ulm/Germany
 At WICONA since: 1980

Why I work at WICONA:

At my job interview, I was told that they were looking for someone that would stay for the long term – that was in 1980! Now, WICONA is more than just an employer – WICONA is my baby!

What my working day looks like:

As a BUMM (Business Unit Marketing Manager) I work in different areas: from Marketing to Technical to Logistics – everything falls under my day-to-day area of responsibility. But my most important task, as I see it, is to support my colleagues with my years of WICONA experience, to make the WICONA brand even more successful in the market.

Favourite work activity:

To lead constructive, purposeful conversations that contribute to the success of WICONA and of all partners involved.

What my leisure time looks like:

My top priority is of course my grandchildren and family. I like travelling and I am a passionate photographer.

What is your wish for the future (personally/professionally)?

Professionally: sustained success with WICONA. Personally: more time!



Name: Hubert Kühner
Position: Senior Consultant Project Service
Location: Ulm/Germany
At WICONA since: 1982 - 87, since 2000

Why I work at WICONA:

Developing technical project solutions is a creative task. At WICONA, we identify with our products. We don't just perform a job – there is passion and loyalty there, too. We sell technology which is very diverse and which requires a lot of knowledge about mechanical engineering, civil engineering, physics, electrical engineering, plastics, etc. That already interested me when I was studying!

What my working day looks like:

We develop special structures for large international construction projects. Close cooperation with our sales team, to recognise our partners' needs and to then develop customised solutions for them, is one of my day-to-day tasks. As Senior Consultant Project Service, I am the contact person for technically demanding special structures, but also for complaints or for projects that are borderline technically.

Favourite work activity:

Identifying, evaluating the challenges and risks of a project and then finally finding a solution with the team.

What my leisure time looks like:

I love sports – cycling, skiing and playing football. I also like to do handicraft work, I like forestry work (maintenance, logging) and enjoy spending time with my grandchildren.

What is your wish for the future (personally/professionally)?

Personally: Health – time for hobbies.
Professionally: That the WICONA Project Service Department continues to be as successful and designs creative solutions for exciting construction projects.



Name: Eduardo Egea Luna
Position: Pre-Sales North Spain
Location: Barcelona/Spain
At WICONA since: 2006

Why I work at WICONA:

Technology excites me and WICONA offers an unbelievable amount of technical solutions.

What my working day looks like:

Visiting customers, evaluating projects and recommending the correct technical solutions for them.

Favourite work activity:

The cooperation with architects, engineers and customers, to find innovative solutions for new challenges.

What my leisure time looks like:

I love spending time with my family. I like trail running, diving and motor sports.

What is your wish for the future (personally/professionally)?

Professionally I would like to reach a position that would enable me to pass forward my knowledge of the brand. Personally, I would like to continue to play an active role in the education of my children.



Name: Aaron Dehara
Position: International+Major Project Consultant
Location: London/UK
At WICONA since: 2015

Why I work at WICONA:

Because I have a passionate interest in the innovative and customised project solutions we develop for building projects ...and because I enjoy working in an international environment – with a focus on the British market.

What my working day looks like:

There's no typical day here! But primarily I am busy with advising façade designers and project architects and with developing solutions for their building projects.

Favourite work activity:

The thing I like best is working together with my colleagues on new, project-specific solutions. Then subsequently presenting them to customers and showing them how innovative we are, which makes me particularly proud.

What my leisure time looks like:

When I'm not trying to keep up with my 9-year-old daughter, I like to play football and golf. I love travelling to unknown places and experiencing new cultures.

What is your wish for the future (personally/professionally)?

Professionally, I would like to develop myself further and build on my technical knowledge. For WICONA, my wish is that WICONA continues its successful growth in the British market. Outside of work, I'm looking forward to seeing my daughter grow up. In addition, I would also like to tick off some countries from my travel wish-list.



Name: Armin Bäumler
Position: Team Leader Special Projects
Location: Ulm/Germany
At WICONA since: 2007

Why I work at WICONA:

For me, WICONA stands for innovative spirit, exciting projects and teamwork, for a super team of colleagues in a great working environment and flat hierarchies – that's why I work at WICONA!

What my working day looks like:

Switch on my PC, have a coffee to help me focus on the early-morning daily planning, then get cracking ...

Favourite work activity:

I love change! Changing things, doing something different, thinking differently

and developing new and innovative technologies for our window and façade solutions together as a team, that's what motivates me! As well as struggling for projects and solutions and successfully implementing them.

What my leisure time looks like:

Time with family and friends.

What is your wish for the future (personally/professionally)?

Health for me and my family, challenges and variety at work.



Name: Peter Järpemark
Position: Salesman
Location: Vetlanda/Sweden
At WICONA since: 1991

Why I work at WICONA:

Because WICONA is a fantastic company with premium products, which is continually evolving. And because I really like my colleagues.

What my working day looks like:

Meeting customers, supporting them in every way, creating calculations and quotations ... And winning new customers.

Favourite work activity:

Winning over new customers for WICONA and supporting customers in large building projects.

What my leisure time looks like:

I spend a lot of time with my family, and I am also a drummer in a band.

What is your wish for the future (personally/professionally)?

For my family and friends to all be fine and for me to be in the position to play the ultimate "Drum Fill" (Editor's note: the drum makes the transition between the verse and the chorus). Professionally, I wish for continued success for WICONA and our customers.



Name: Ranka Ezgeta
Position: Area Sales Manager CSEE
Location: Bjelovar/Croatia
At WICONA since: 2009

Why I work at WICONA:

I started working in the world of aluminium 20 years ago, and this decision has shaped my career path. To be honest, WICONA found me, and that has completely changed my life. I like challenges, I like to do something different, and I like making things better. WICONA allows me to do all of that.

What my working day looks like:

Every day brings new challenges: new people, new tasks, a lot of decisions, but also a lot of fun. If, at the end of the day, I see a smile on my colleagues' faces, then I know I have had a good day.

Favourite work activity:

When I see which projects we as a team have achieved and I see that something of my team and me remains, that makes me proud.

What my leisure time looks like:

I enjoy going for walks and playing sports, I like a good book and cooking for my family. I particularly love skiing in winter.

What is your wish for the future (personally/professionally)?

Health. When you feel good, everything is possible. And in my work life, I would like to have new challenges every day.



Name: Luo Qi
Position: Supply Chain Manager
Location: Beijing/China
At WICONA since: 2006

Why I work at WICONA:

WICONA is a fantastic brand with technically ambitious products. We are proud to be WICONA!

What my working day looks like:

Working with the sales team on ongoing construction projects, working with the warehouse on deliveries for large projects, customer deliveries and working with suppliers.

Favourite work activity:

The cooperation with the motivated team here in China.

What my leisure time looks like:

I enjoy listening to music or going to the cinema. At the moment, my most time-consuming hobby is my baby.

What is your wish for the future (personally/professionally)?

For my baby to grow up quickly so that I have a bit more time for myself. Professionally, I hope that WICONA in China will become the Number 1 in system providers.



Name: Philipp Müller
Position: Head WICONA Development
Location: Ulm/Germany
At WICONA since: 2001

Why I work at WICONA:

Technik für Ideen, for modern sustainable architecture – this for me is a great working environment with many opportunities to fulfil your dreams. When I first started at WICONA, I just wanted to work for an international company. Over the years I have noticed how important our history and the WICONA brand are in our global market activities. I am proud of that and it motivates me when I can play my part in promoting WICONA. And last but not least: because we are one super team!

What my working day looks like:

In cooperation with my project leaders and management colleagues, I am constantly striving to make the relevant information available to all project stakeholders as well as identify bottlenecks and problems in time, and clear them. My approach is to have an open door for everyone. I obviously also like to get involved in discussions for finding solutions.

Favourite work activity:

Developing new ideas in a creative process together with my colleagues, sparking enthusiasm for something and then also implementing it. And not forgetting the cooperation with WICONA and HBS (Hydro Building Systems) colleagues worldwide.

What my leisure time looks like:

To achieve a balance with our WICONA red, doing outdoor sports is what I love best. I also love getting to know interesting places and people, learning from them, sharing with them – simply to constantly discover and experience something new.

What is your wish for the future (personally/professionally)?

Professionally my wish is that we as WICONA businesses would network and collaborate more closely, both locally and globally, and that we strengthen our feeling of "togetherness". Red is also a basic colour that is used everywhere.



Name: Roland Miller
Position: Head of Software Development
Location: Ulm/Germany
At WICONA since: 1996

Why I work at WICONA:

Since 1990, WICONA has developed its own software solutions for architects, planners and fabricators. I have been working on that (almost) since the beginning. Since then, obviously, a lot has changed and continued to develop. IT tools are fast-moving and must be continually adapted to current requirements and developed. That's the interesting thing about my job. There's no standing still, but just pushing development forward. After all, WICONA stands for professionalism in every phase of the construction process. And last but not least, WICONA offers a good working environment.

What my working day looks like:

As Head of Software Development, I am responsible, together with my team, for the development of innovative, userfriendly

software solutions. The focus is always on each respective user and on the objective that he or she can work more efficiently with our software. Cooperation with our colleagues in Sales is therefore hugely important.

Favourite work activity:

Translating requirements, regardless of their complexity, in a way that is simple and userfriendly.

What is your wish for the future (personally/professionally)?

That our partners can work even more efficiently with our software solutions – whether that is architects creating individual 3D BIM models using WIC3D or planners and fabricators using WICTOP for the complete technical work preparation, estimates or calculations.

WELCOME TO **WICONA**[®] WORLD*



... een wereld van bouwplannen en projecten, waarin u terecht veeleisend mag zijn. Wij vervaardigen hoogkwalitatieve alu-systemen voor gevels, ramen & deuren, schuifelementen en veranda's. Met unieke oplossingen zijn wij wereldwijd actief in 28 landen en hebben wij ruim 100 jaar ervaring in huis. Loepzuivere kwaliteit en vakmanschap, innovatie en veiligheid, uitblinkers in topkwaliteit ... welkom in de WICONA-wereld.

LOEPZUIVERE KWALITEIT VOOR TIJDLOZE DUURZAAMHEID

Hydro Building Systems B-2200 Herentals T +32-(0)14-24.99.99

Hydro Building Systems

WICONA[®]
A L U M I N I U M

www.wicona.be info@wicona.be



Germany

WICONA Head office Ulm

Since: 1948

Locations: Leipzig, Ratingen, Ulm, Bellenberg (Extrusion plant & Test Centre), Frankfurt (NEXT Studio), Gerstungen (Service and Logistics Centre)



Albania

Since: 2004



China

Since: 2006

Locations: Beijing (incl. Showroom), Shanghai (incl. Showroom)



Kosovo

Since: 2004

Location: Pristina



The Baltic States

Since: 2002

Locations: Vilnius, Lithuania, Tallinn, Estonia



France

Since: 1967

Locations: Toulouse, Courmelles (Showroom, Service and Logistics Centre), Bonneuil-sur-Marne (Warehouse for accessories)



Croatia

Since: 2004

Location: Bjelovar



Benelux

Since: 1992

Locations: Landen, Belgium (incl. Showroom), Drunen, Netherlands (incl. Showroom), Windhof, Luxembourg (incl. Showroom)



Macedonia

Since: 2004



Republic of Ireland

Since: 2004

Location: Dublin



Montenegro

Since: 2004



Bosnia-Herzegovina

Since: 2004



Italy

Since: 1981

Location: Cernusco sul Naviglio (MI)



Austria

Since: 1974

Location: Seekirchen



800

employees worldwide



in
48
countries



Romania

Since: 2004
Location: Bucharest



Slovakia

Since: 2000
Location: Bratislava



Hungary

Since: 2000
Location: Budapest



Switzerland

Since: 1975
Location: Mägenwil



Slovenia

Since: 2004
Location: Zgornja Kungota



UK

Since: 1982
Locations: Wakefield,
London (Showroom)



Serbia

Since: 2004
Location: Belgrade



Spain

Since: 1980
Locations: Barcelona, Madrid
(incl. Showroom)



USA

Since: 2018
Location: New York



Poland

Since: 1992
Location: Łódź



Czech Republic

Since: 2000
Location: Brno



**United
Arab Emirates**

Since: 2004
Location: Dubai



Scandinavia

Since: 1978 (DK)
1992 (SE & NO)
Locations: Risskov, Denmark
Kjeller, Norway, Vetlanda,
Sweden



Turkey

Since: 2018
Location: Istanbul

» WICONA: more than 70 years

The brand name of WICONA is linked with a long tradition: Over its 70 years, the company has evolved into a leading aluminium systems company for energy-efficient façade, window and door solutions.



The former Wieland-Werke Plant in Berliner Platz (now Willy-Brandt-Platz) in Ulm. WICONA was located here until 1971.

» 1948 – 1960

The beginning ...

It all began with an art and bell foundry in Rosengasse in Ulm (Germany). Aged just 27 years old, Philipp Jakob Wieland took over the business from his uncle, Thomas Frauenlob.

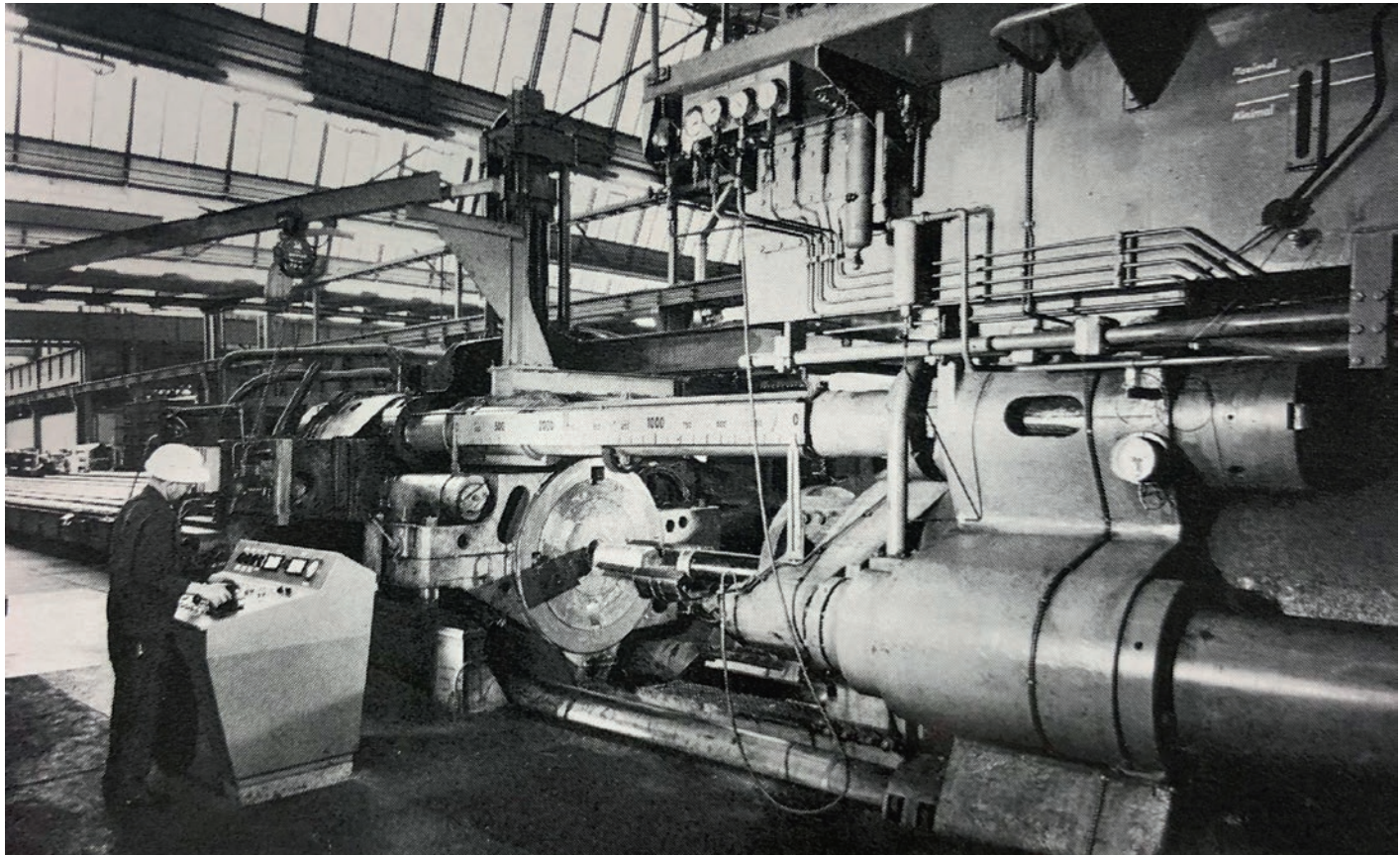
Wieland started by manufacturing utensils made from copper alloys. The company continued to grow, and in 1865 a plant in Vöhringen was commissioned. At the beginning of the 20th century, around 250 people worked for "Wieland & Cie". In 1919, the company changed its name and so Wieland-Werke AG was born. Its core

competencies: Non-precious metal semi-finished goods with a focus on copper materials.

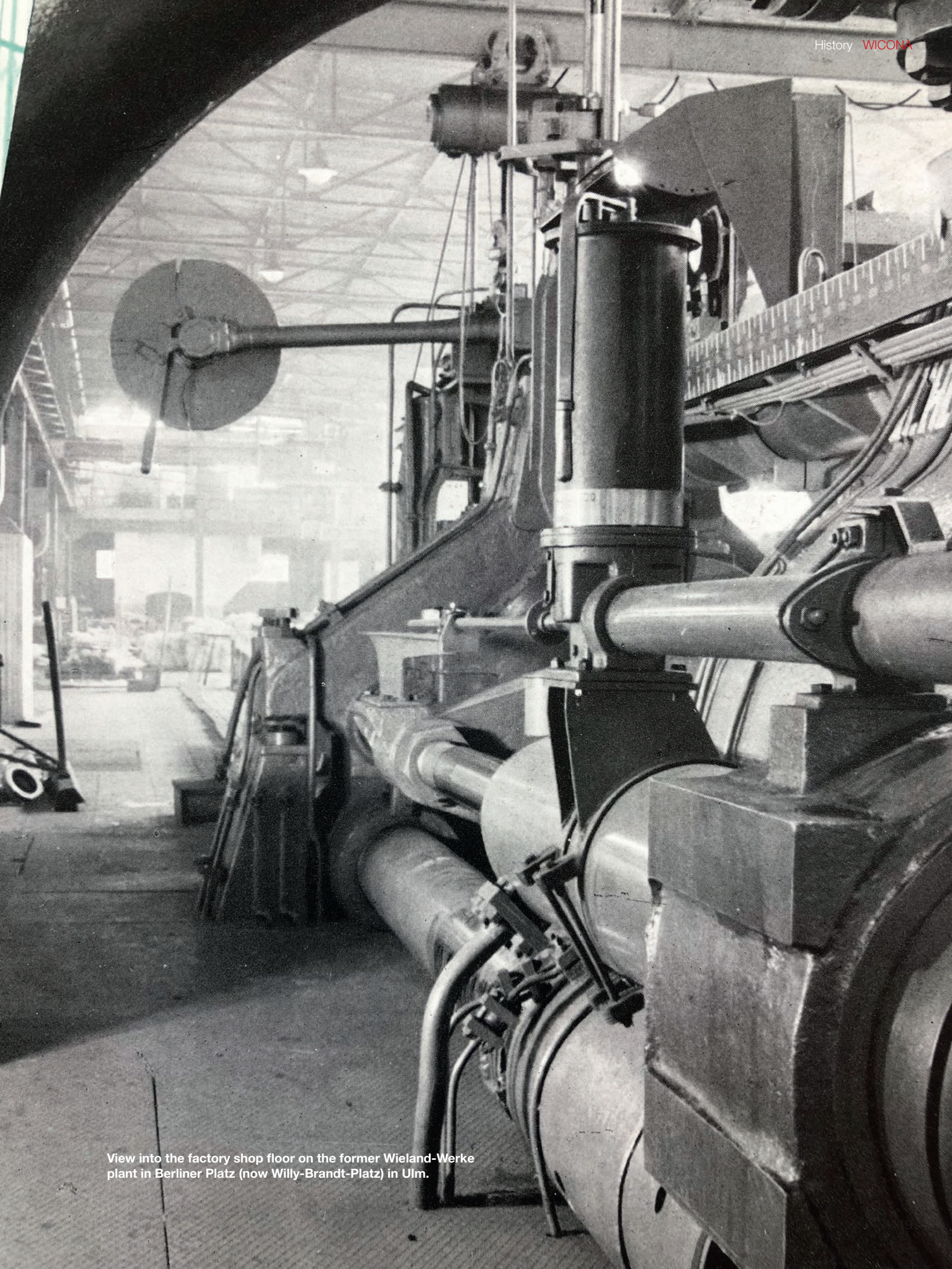
In 1948, there was a new beginning

During the Second World War, the long-established Ulm company produced, among other things, aluminium components

for the aircraft industry. After the war, the new beginning gained success in the aluminium sector, with construction profile technology. In 1948, Wieland-Werke established WICONA as a design office for extruded profiles for the building industry – and thus begins the company's history.



WICONA profiles made from extrusion presses, and with a shear force of up to 5,500 tonnes, were manufactured by Wieland-Werke.



View into the factory shop floor on the former Wieland-Werke plant in Berliner Platz (now Willy-Brandt-Platz) in Ulm.



Typical WICONA products from the 1950s: Shop window, like this jeweller's shop in Saarbrücken.

From display cabinets to doors and windows

WICONA's aim: to transfer its expertise previously gained from manufacturing profiles from architectural bronze in the main plant to using aluminium materials.

The name WICONA stands for "Wieland Constructions in Aluminium". Initially, the design office in Ulm was located on the former Wieland-Werke site in Berliner Platz (today: Willy-Brandt-Platz). In the early years, WICONA's focus was primarily shop windows, display windows and roller shutters, handrail and stairguard profiles, standard profiles, standard components and aluminium alloy sheets. Products were

sold directly to locksmiths and joineries in the Ulm area. From 1950, the extensive WICONA product range was available as an annual stock list.

The first self-supporting door profile

Year after year, there was steady increase in the range of profiles. The founding fathers, engineer Karl Rottler as design manager

and initiator Dr. Albert Wieland, executive of Wieland-Werke AG, energetically drove development. As no long-term financial success with shop window profiles could be guaranteed, they now wanted to be part of the rapidly expanding door and window market.

WICONA was established within Wieland-Werke: The name WICONA stands for "Wieland Constructions in Aluminium"

1948

In the USA, President Harry S. Truman abolishes racial segregation

From 1950, an annual stock list was available

1950

Korean War (until 1953)

WICONA was registered as a brand

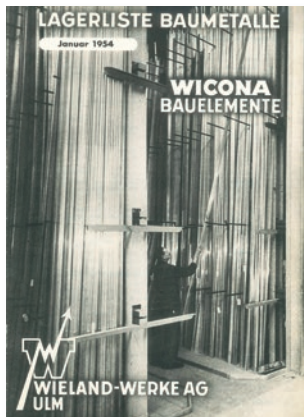
1953

1951

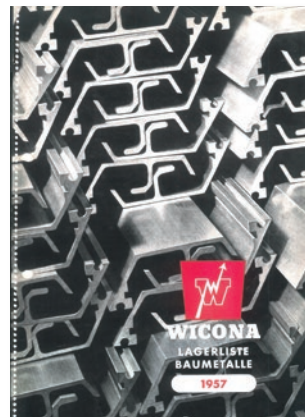
Japan becomes a member of UNESCO

1952

Television is introduced in Germany, with the broadcasting of different programmes



1954



1957



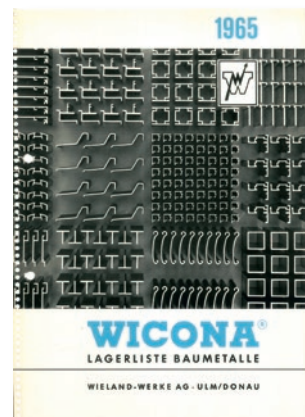
1963



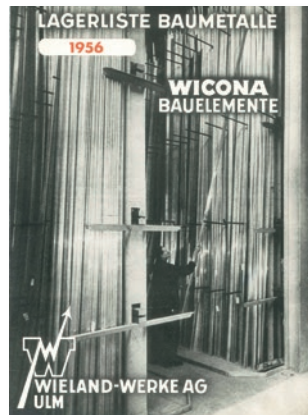
1955



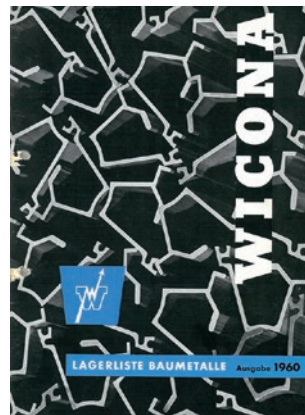
1958



1965



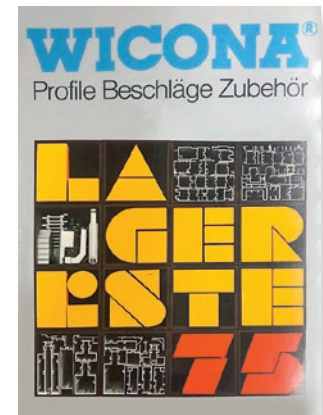
1956



1960



1968



1975

From 1950, there was a WICONA stock list, which was increased annually.
At first, the cover page was the same, but later the list would get a new picture every year.

*Creation of the
distributor network in
Germany begins*

1954

1955

With his visit to Moscow, Federal Chancellor Adenauer achieves the establishment of diplomatic relations with the Soviet Union and the return of the last remaining German prisoners of war

1957

European Unification with the Treaty of Rome

1958

The world economy experiences the first recession of the post-war period. In France, the constitution of the French Fifth Republic comes into force.



In the 1950s, new technical achievements were presented in this display cabinet in Ulm.

Durable quality

At the beginning of the 1950s, shop windows and display cabinets made up a large part of the WICONA product range.

WICONA display cabinets from the 1950s still form a part of it today – only their use is different. For example, there are some display cabinets in the main Post Office in Ulm. In 2017, the cabinets were moved because of the construction of the new railway area, and they are now being put to new use in the Culture Centre called “Stiege” on the Ulm City Walls. So those visiting the “Stiege” can, for example, turn their deposit from the bar that they don’t need into a donation stamp and throw it into the cabinet. One donation stamp equals one Euro. The amounts collected in this way are then donated to charitable causes. In return, the donor receives a small piece of wisdom on paper. Some display cabinets from yesteryear are even being used as flowerpots – they are indestructible.

Today, the cabinets are used as craft objects.



This cabinet is used to collect donations for a good cause.



Vitrinen Modehaus Hettlage München

Ausführung: Audorff & Co. München

Ausführung: Reg.-Baumeister Mayr München • Foto: Foto-Technik

WIELAND-WERKE AG. ULM

» 1961 – 1980

It is all about energy

In the 1970s, the second generation of WICONA structural elements entered the market: “WICONA 2” – a small revolution.

In the 1960s, lifting sliding doors and windows were introduced to the product range. In 1962, the “M” aluminium window came onto the market. And the distributor network, which hitherto had been limited to the Ulm area, was extended nationwide across Germany. Since the middle of the 1960s, the majority of sales were made through Carl Spaeter GmbH in Duisburg. From 1966 the technical customer consultancy expanded, which until then had been a part of another Wieland branch, the development department. At that time, WICONA employed 25 people. In 1971, WICONA finally moved from the Wieland-Werke site to Gaisenbergsstraße in Ulm. Only a short time before, in 1967, Wieland-Werke and the French company Ets Descours et Cabaud (Lyon) had signed a WICONA licence agreement. As a result, WICONA was now also sold in France.

Energy saving becomes an issue

In 1972, WICONA brought the second generation of the proven construction elements to the market. The “WICONA 2” product range included aluminium profile systems for doors, windows, sliding doors and windows and fixed glazing. “What has previously been a conglomeration of shop window profiles, designs, door and window systems was now amalgamated into a single system. That was a revolution”, states Reinhard Hirnig, who came to WICONA in 1972 as Technician. “Only a single hole was needed, that was the thing”, says Reinhard, who is now in his 70’s. “We were leading, and WICONA was the

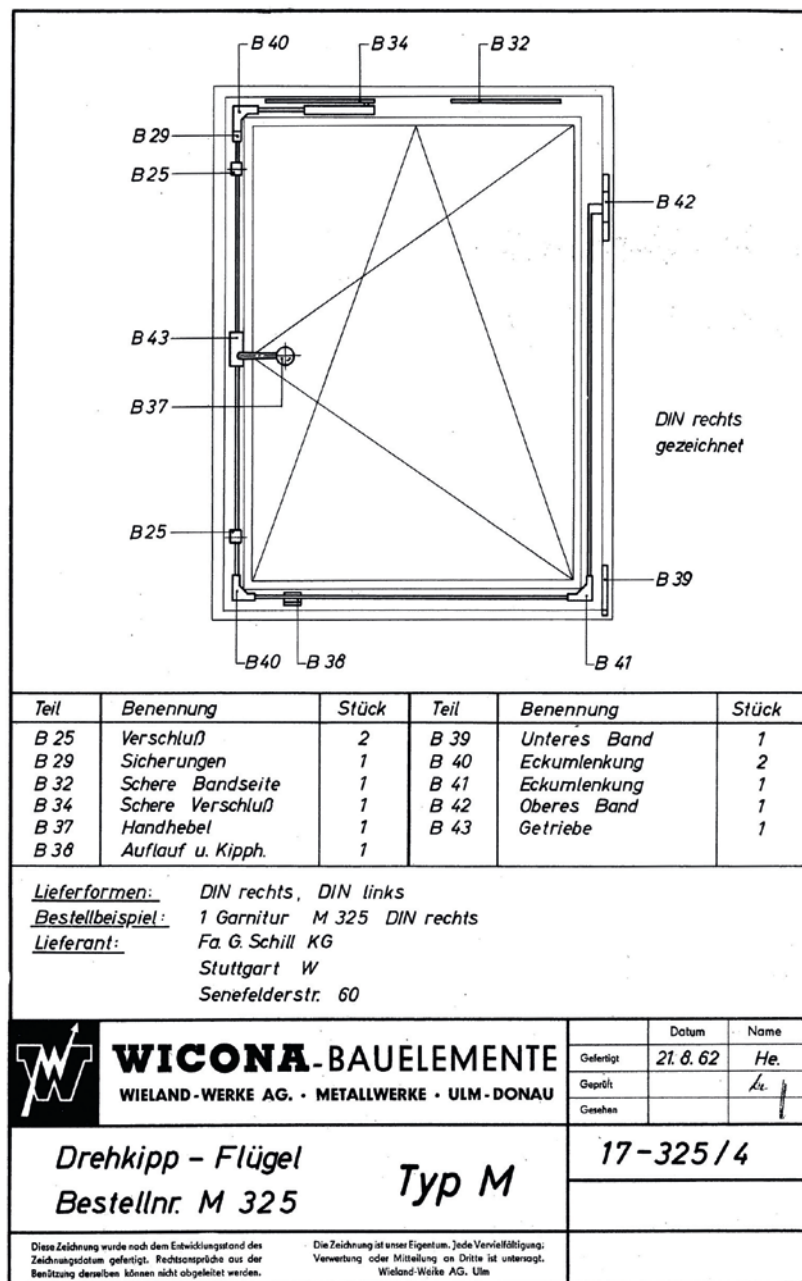
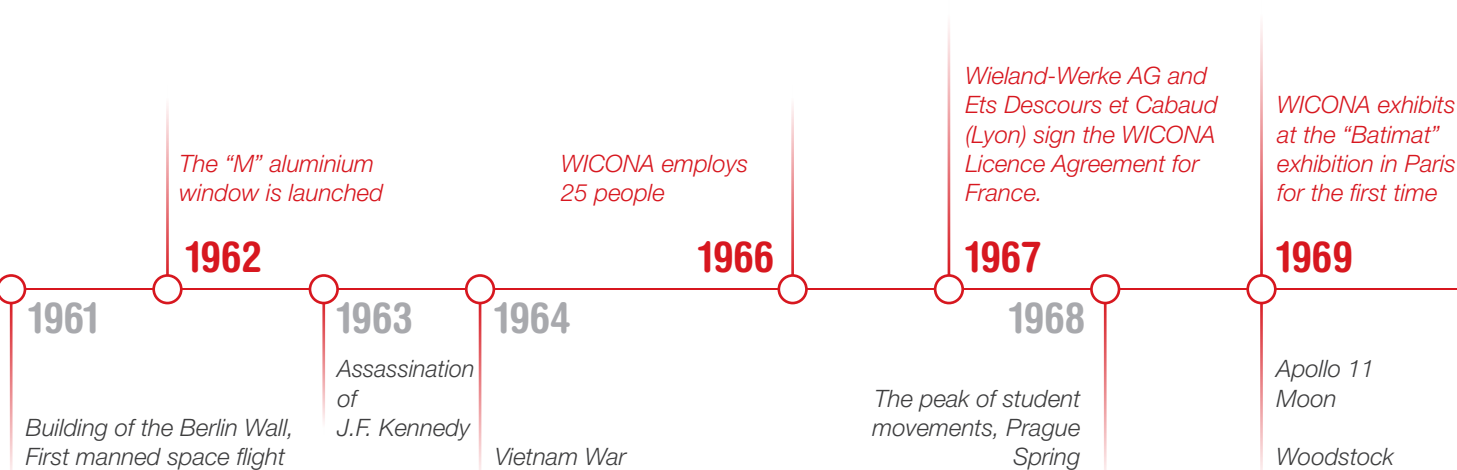


Diagram of the “M” aluminium window from 1962.





From 1971, Gaisenbergstraße in Ulm was to be the new home of the WICONA offices.



Technical inspection in the Gaisenbergstraße basement in Ulm.



The WICONA field sales team who worked in Germany.

Number 1 system manufacturer in the German market." Against the backdrop of the energy crisis in the mid-1970s, the subject of "Energy Saving in Construction" became the focus, as a result of sharp increases in the price of oil. The endeavour to improve the energy balance of the building envelope drove the development work at WICONA, and a durable thermal

separation profile for aluminium profiles systems was created.

14 Architectural consultants throughout Germany

The thermal separation of the metal profile was based on insulating barriers made from polyamide, whose thermal expansion coefficient is equivalent to that of aluminium.

In 1974/1975 several types of thermally insulated windows appeared and WICONA employed 14 architectural consultants across Germany. "At that time, we had a lot of projects, there was a real hype", says Hans-Jörg Frank, who worked at WICONA from 1966. "Previously, it was a day's work to install a window. Now it is faster."

WICONA introduces WICONA 2, a new generation of systems, whose development places the emphasis on energy saving

1972

First prototype of a TGV is exhibited

WICONA products are sold in Austria (via "Danninger Metall & Technik", which was taken over by Hydro in 1999)

1974

Watergate Affair
Resignation of Richard Nixon

WICONA products are sold in Switzerland for the first time (via "Kisling AG"), Customers are managed directly from Wieland-Werke in Ulm

1975

1st Thermal insulation regulations come into effect

WICONA products are sold in Spain for the first time (via "Coalsa" in Sabadell)

Licence Agreement with "Nippon Aluminium Mfg.Co.Ltd" in Osaka, Japan

1980

1977

1979

Oil price shock: Crude oil becomes 70% more expensive, the oil crisis follows



The extrusion plant in Bellenberg.

» 1980 – 2000

The years of upheaval

In 1988, WICONA was divested from Wieland-Werke AG; a company arose from the WICONA brand – WICONA Bausysteme GmbH.

Wieland retained 75% of the company shares. Hydro Aluminium Extrusion, a wholly-owned subsidiary of Norsk Hydro in Oslo, initially acquired 25%. In 1991, WICONA was wholly owned by Hydro Aluminium which, with 27 extrusion plants in Europe, Asia and the USA was one of the largest producers of extruded aluminium profiles in the world. The most significant area of application for extruded aluminium profiles has always been doors, windows and other fields in construction. In 1984, Hydro represented this market with its own building system; however, this move was not particularly successful. In 1985, Hydro took over an unprofitable extrusion plant in Châteauroux from Alcoa and quickly turned

it into profit. This was considered to be an important signal. Hydro's extrusion group did not have the best start, but after more than 15 years, there was a silver lining to the cloud.

An unusual request

The insistence of the senior management to hold on to the strategy of establishing an international extrusion press business was a decisive factor for its success. Especially at a time when, among its competitors, the belief in this business was slowly waning. In 1988, WICONA was put up for sale by Wieland-Werke: at the Hydro Aluminium Extrusion company headquarters in Lausanne, the request was greeted without any surprise.

Requests from companies to be sold were not unusual. "However, this was somewhat different. The business was always technically oriented and profitable – we were impressed with its competence and were of the opinion that a stronger market orientation could make the business even more successful", states Arve Sund, who was part of the management at the time. So Hydro bought WICONA from Wieland-Werke. This was an important step for Hydro Aluminium Extrusion in the building systems sector. Sund was proven right in his prognosis: the newly acquired operation launched a whole range of new products in its domestic market and was profitable.

WICONA products are sold in Italy for the first time (via "Alumit", Bozen)

1981

Ronald Reagan becomes the President of the United States

Assassination attempt on Pope John Paul II.

WICONA products are sold in the United Kingdom for the first time (via "Brentford Aluminium" in Brentford)

1982

Falklands War

1985

Mikhail Gorbachev becomes General Secretary of the CPSU

» Interview

with Ivar Hafsett on the acquisition of WICONA

„It was an opportunity“

In 1988, Hydro acquired WICONA. It would become clear that this was a good decision.

Ivar Hafsett was head of extrusion operations at Hydro Aluminium from 1980 until 2000 and also closely involved in the integration of WICONA into the Hydro Group. Hafsett was 38 years old when he was appointed head of extrusion operations. He began by establishing the fundamental guidelines which would make things more systematic and at the same time more socially responsible. As his business was steadily growing, he placed great value on competent employees. „Our sector was always extremely dependent on people, because we gave them the opportunity to work independently“, explained Hafsett in an interview. He always gave his employees the necessary freedom to achieve success and to be proud of their own performance. Moreover, within the company, he had the reputation of being harsh but fair. Source: Book „Our Way“

„Many businesses have not dared to take this step.“



Photo: Terje Knudsen

Ivar Hafsett, Head of Extrusion Operations at Hydro, 1980–2000.

An interview with the 76-year-old:

Why did you decide at the time to acquire WICONA shares?

Hafsett: „First and foremost, we decided on WICONA because WICONA was available. The owner wanted to withdraw from this business sector. And we wanted to make a major step within this field. When the proprietor wanted to leave, we had the opportunity to strike a good deal. WICONA was one of the major players in Europe, in the whole world, for that matter. The business was strong in terms of quality and innovation, and that was important to us, especially the innovation. It was the opportunity that we grabbed.“

Did you also consider other systems companies?

Hafsett: „Yes, but availability was an important factor at the time. And, as I mentioned, WICONA's outstanding quality and strong spirit of innovation impressed us. For us, the opportunity with this company was good, and the timing was right.“

In 1988, why did you acquire only 25 per cent of WICONA?

Hafsett: „For us, it was primarily a strategic decision to exploit new geographical sectors and areas of business. This was uncharted territory for us, and we had to ensure that it would really be as successful as we had expected it to be.“

What were the reactions from WICONA's competitors, who were also customers of Hydro?

Hafsett: „Obviously there were some major discussions. Many industrial companies at the time decided not to risk taking this step. And hence a sideways move, as they would also be competing with customers. One of the largest major customers at the time was a competitor of WICONA. Therefore, of course, the question arose as to whether we would really risk it. The afternoon before the announcement (about the acquisition of WICONA) myself and my Managing Director met with our major customer, to inform him of the decision. We had a good, professional discussion. It mainly involved the performance of our extrusion plants, and thus our commitment to continue to deliver good service, performance and quality, and therefore to remain a good supplier for their profiles.“

WICONA is divested from Wieland-Werke and is established as a independent company: WICONA Bausysteme GmbH

Hydro Aluminium Extrusion purchases 25 % of the shares, and the remaining 75 % stay with Wieland

Hydro builds a new extrusion plant in Bellenberg

1986

Chernobyl disaster

1988

1989

Fall of the Berlin Wall

1990

Wicona-Dokumentation als CD-ROM-Serie

Praktische Hilfe für Verarbeiter

Langwieriges Suchen nach Informationen in dicken Katalogen und technischen Dokumentationen gehört bei Wicona der Vergangenheit an. Der Anbieter von Aluminium-Profilsystemen präsentiert seine gesamte Dokumentation als komfortable CD-ROM-Serie. Damit wurde eine Lösung gefunden, die nicht nur technisch überzeugt, sondern auch zukunftsweisend ist und den Berufsalltag des Metallbauers erheblich erleichtert

Bereits 1996 hatten die Verantwortlichen bei Wicona eine Lösung gesucht, die Berge von Papier in den Griff zu bekommen. Gemeinsam mit dem Software-Unternehmen IMP (Interaktiv Multimedia Produktion) wurden die technischen Dokumentationen, Zeichnungen und Kataloge auf einer CD-ROM umgesetzt. Auf der BAU '99 hat Wicona dann die gesamte Produktpalette vorgestellt. Die aktuelle CD-ROM-Serie bietet zahlreiche Möglichkeiten und hohen Benutzerkomfort. Eine Kopierfunktion ermöglicht das Überspielen der CD-Inhalte auf die Festplatte. Damit entfällt das lästige Wechseln von CDs, der Zugriff wird beschleunigt und dem Anwender steht ein kontinuierliches Arbeitsmittel zur Verfügung.



Früher und heute: Aus vielen Aktenordnern...

Die digital aufbereiteten Daten des Profil-Programms eignen sich nicht nur für die Tagesarbeit des Metallverarbeiters, sondern unterstützen und entlasten ihn schon in der Vorbereitungsphase. Mit einer integrierten Update-Funktion steht das gesamte Wiconaprogramm immer auf dem aktuellen Stand zur Verfügung. Das Hin- und Herbliättern zwischen den einzelnen Serien, dem dazugehörigen Zubehör und den Beschlägen fällt weg. Hinterlegte

Querverweise führen den Benutzer zu Anwendungsbeispielen, statischen Werten und Auswahltabellen. Die Kalkulation erfolgt über die ebenfalls hinterlegte Preisli-



... werden wenige CDs, wie Geschäftsführer Walter Lonsinger demonstriert

Digitaler »Warenkorb«...

Ein weiteres Plus der digitalisierten Daten ist ihre Interaktivität. Über Hyperlink-Verknüpfungen lassen sich schnell und sicher alle Informationen, Artikel, Werkzeuge und Verarbeitungshinweise abfragen. Es bedarf keiner langwierigen Suche mehr, die Entscheidung der richtigen Artikelzuordnung wird dem Anwender kontrolliert abgenommen.

Entering the new millennium:
At the end of the 1990s, the use of ring binders was abandoned and technical documentation was saved onto CD-ROMs.

50 Years of WICONA

In 1998, the company celebrated its half-centennial. Even though the economic situation was not rosy then, important strategic milestones for the future were established at this time.

After the leap in the German building systems market, Norsk Hydro built one of the most modern extrusion plants in Europe, in Bellenberg. The first extrusion billets in the new extrusion plant were pressed in July 1990. Hydro Aluminium Bellenberg GmbH was Hydro's first plant to exclusively supply a building systems manufacturer. It was geared to providing for WICONA. The plant produced special lengths for WICONA using customised equipment. The annual capacity was around 10,000 tonnes.

It was known that WICONA's success was viewed in terms of its technical competence. Therefore, Hydro decided to construct a Technology Centre. The Centre would create a framework for developing innovative ideas, testing new products and for practical and theoretical training.

Prerequisites for a unified market

At the beginning of the 1990s, the sales team at WICONA Bausysteme GmbH was also reorganised. The Duisburg-based company, Carl Spaeter GmbH, established Carl Spaeter Aluminium Bausysteme Vertriebs GmbH, with its headquarters in Viernheim. Thus the prerequisites for a unified market presence and a strong sales organisation were created.

It focused exclusively on the consultancy sector and sales of system products. From April 1992, WICONA took sales under its own management. In 1998, WICONA's 50th anniversary was celebrated in the Ulm Congress Centre. The then Managing Director, Walter Lonsinger, said that, despite the prevailing recession and more moderate construction activity in the European market: "we can confidently look forward to the next

hundred years, provided that we focus on our market, offer good products and nurture contact with our customers". Another milestone was also the opening of the Service Centre in Gerstungen in 1999. With an investment in the double-digit million range, this was brought into operation on a site with an area of 21,000 square metres. Mill-finished aluminium profiles could now be stored here and the distribution of both uncoated and coated profiles for customers in Germany, Austria and Switzerland be streamlined. Furthermore, deliveries to WICONA companies in Italy, France, the Iberian peninsula, Scandinavia and Eastern Europe could be carried out. With its central warehouse, the Service Centre could meet the market requirements for shorter lead times and an even greater punctuality with Just-in-Time delivery. Despite stagnating markets, WICONA continued to grow.

International outlook

WICONA also paved the way in European markets and beyond. In 1991, the German WICONA Bausysteme GmbH, now a wholly-owned subsidiary of Hydro, assumed responsibility for the European market (excluding Italy, Spain, Portugal and Greece) as well as for the existing Hydro building systems in Scandinavia (Hydro Integral Profilsystemer), the business in Belgium (in Herentals) and the licence agreement with the French company Ets Descours et Cabaud in Lyon. From 1992, WICONA took the sales activities under its own management. The Scandinavian company Hydro Integral Profilsystemer was renamed and now became "WICONA Scandinavia". Just a year later, Hydro acquired the

Opening of the WICONA Technical and Certification Centre in Bellenberg

Establishment of "WICONA Scandinavia", "WICONA Benelux N.V.", "WICONA Bausysteme AG" in Switzerland (by taking over Kisling AG) and "WICONA Sp. Z.o.o." in Poland (Joint Venture between Hydro and the building systems distributor Comma Bbus Corporation Sp.Z.o.o.)

WICONA exhibits at the "Polyclose" exhibition in

Establishment of WICONA France (by taking over DESCAL from Ets Descours et Cabaud)

Portugal: Hydro acquires a building systems supplier and sells WICONA products, among others, via this company WICONA

WICONA becomes a 100% owned subsidiary of Hydro

1991

1992

1995

1994

After the ending of apartheid Nelson Mandela is elected first black President

Second Gulf War

Service-Center feierlich eröffnet



Schlüsselübergabe mit (v. l.) Ivar Hafseth, Staatssekretär Roland Röhren und Walter Lonsinger.

in unserer Firmengeschichte" betonte Walter Lonsinger in seiner Eröffnungsrede vor den fast 400 Festgästen stolz, und der Präsident von Hydro Aluminium Extrusion, Ivar Hafseth, dankte „... unseren Mitarbeitern unter der Führung von Herrn Lonsinger und allen Partnern, die bei der Verwirklichung dieses zukunftsweisenden Service-Centers mitgewirkt haben, ... für diesen gelungenen zentralen Knoten unseres Netzwerkes. Der WICONA Bausysteme wünsche ich nicht nur zufriedene, sondern begeisterte Kunden und allzeit ausreichend Aluminiumprofile in den Hochregallagern, mit einem häufigen Umschlag.“

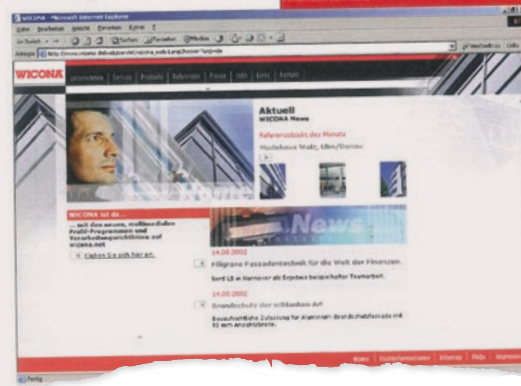
Impressionen von der Feier auf der nächsten Seite und der komplette Wortlaut der hochinteressanten Rede von Ivar Hafseth ab Seite 3.

In 1999, the Service Centre in Gerstungen was opened. It proved a great success in the area of logistics.

WICONA's online presence at the beginning of the 2000s.

Die neue Website kommt voll gut

Modern, rot, informativ, „Klasse“ (O-Ton eines Marktbeteiligten), so präsentieren wir uns seit Anfang April im World Wide Web. Schon im Jahre 1996, als wir als Erste unserer Branche mit einer Website erschienen, hörten wir ähnliche Komplimente. Das hatte sich dann aber doch relativ schnell überholt, und so wurde es dringend Zeit für ein generelles Facelifting.



Von der inhaltlichen Konzeption...
... es sich eher um eine PR...
... werden also Informationen abg...
... die auch für das weitere Umfeld...
... Geschäftstätigkeit von Interesse...
... da z. B. wären unsere Marketing...
... Norsk Hydro, aktuelle und...
... Presseinformationen oder Refe...
... Gerade Letztere werden beson...
... besucht, von Architekten, Pla...
... Bauherren. Deshalb bieten si...
... tes Spektrum, vom Privathaus...
... werbliche und öffentliche Baut...
... zu den spektakulären Highl...
... denen wir Kompetenz für ze...

Norwegian company Raufoss Aluminium SA, which was integrated into WICONA Scandinavia. And the Belgian building systems company in Herentals, which Hydro had acquired from Alcan in 1986, now operated under the corporate name of "WICONA Benelux N.V.". In the same year, Hydro took over Kisling AG in Switzerland, which up to this point had represented WICONA in Switzerland. The company was renamed to "WICONA Bausysteme AG".

In 1992, following the expansion of sales in Scandinavia, Benelux and Switzerland, came the entry into the Polish market via a building systems distributor, a joint venture between the distributor Comma Bbus Corporation Sp.Z.o.o. and Hydro. Initially, Hydro held only 35%, but later increased

its share to 49%. WICONA was active in Poland via this distributor until 2003. Since the beginning of 2005, the Polish market has been represented by a subsidiary company.

New markets developed

In 1994, licence agreements were concluded for the production of WICONA products in Israel, Saudi Arabia and Japan. In 1995, Hydro acquired the French company that until then had represented WICONA in France. The strategic outlook of the Hydro Group also paved the way for WICONA in Portugal, where Hydro acquired a building systems supplier who would, among other products, sell the WICONA branded building systems. Even the Austrian company Danninger Metall & Technik, the sole agent for WICONA for more than 25 years, was taken

over by Hydro in 1999 and renamed Hydro Danninger GmbH. In 2000, Slovakia, the Czech Republic and Hungary were added to the list of existing overseas markets. In 2001, the Ulm-based aluminium systems company was present in 19 countries across four continents. WICONA's international outlook pushed forward, and markets such as Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Hungary, Serbia, Romania and Slovenia were added to the list. Since 2002, WICONA has had its own companies in the Baltic states and in the United Kingdom, and since 2004 in Dubai, 2005 in Spain and 2006 in China. In 1990, WICONA moved to the "Nixdorf Building" in Söflinger Straße 70 in Ulm, where the company headquarters would remain until 2013.

WICONA's first online presence goes live. At the beginning of the 2000s, the website was even in Swabian

1996

WICONA celebrates its 50th anniversary

1998

The International Space Station (ISS) is built

The Service Centre in Gerstungen is opened

Establishment of Hydro Danninger GmbH (via the takeover of "Danninger Metall & Technik")

1999

Yeltsin resigns and hands over operations to Putin



WICONA's office building in Einsteinstraße in Ulm.

» 2001 – present

The new millennium

Times are changing – but the WICONA brand remains on the course of success.

From 2004, the company introduced a new corporate name – “Hydro Building Systems GmbH”. In parallel, WICONA was successfully established as a brand in additional countries. In the Bellenberg location, its own Test Centre was formed in 2009, which was the most modern in the whole of Europe. Until 2009, WICONA systems were tested at the Rosenheimer Institute for Window Technology, but now the experts came to Bellenberg. To date,

2 areas of which each offers 100 square metres allow various tests, to see if building façades are waterproof and windproof, and sufficiently stable. If the façades pass all the tests, they obtain the CE Certificate, which confirms that the façade complies with the European guidelines and can be sold throughout Europe.

WICONA becomes a premium brand

In 2013, a joint venture was formed

between the Norwegian companies Hydro (hitherto WICONA's parent company) and Orkla, to establish the Norwegian company Sapa AS. Orkla and Hydro had agreed to merge their activities in the areas of profiles, building systems and pipework into a joint venture (Sapa AS), which was 50 % owned by each company. WICONA became the premium brand of its integrated building systems group, “Sapa Building Systems”. The Ulm/Bellenberg location became the

In the Czech Republic, “Hydro Building Systems Cz spol.s.r.o” is established (a joint venture between WICONA Bausysteme and private owners), and is later fully taken over by Hydro

2000

The “Dot.com” bubble bursts

2001

Terrorist attack on the World Trade Center in New York

2002

Introduction of the Euro

Establishment of a WICONA company in Dubai

2004

Devastating tsunami with 3000,000 dead in Indian Ocean

Establishment of a WICONA subsidiary company in Poland

Establishment of a WICONA company in Spain

2005

The Kyoto-Protokoll comes into force. It sets target values for the emission of greenhouse gases



The Test Centre in Bellenberg.

"WICONA Brand Centre" with centralised product and software development, the international Project Service, brand management, Test Centre and training. Fabricators, architects and investors do not need to change to new brand(name)s, as the sales structure and contact people remain the same. In 2017, there was another change of ownership: Norsk Hydro, which had hitherto held 50 % of WICONA's parent company Sapa AS, now bought out the other half.



2009: Let it rain! With a live test, Svein Richard Brandtzæg, President and Chief Executive Officer Norsk Hydro AS (right) and Jarand Felland, Norwegian politician and political adviser in the Norwegian Oil and Energy Ministry, officially open the WICONA Test Centre in Bellenberg.

Establishment of a WICONA company in China

WICONA exhibits for the first time at "Expo Build China 2006" as well as at the "Veteco" exhibition in Madrid.

2006

According to the US Census Authorities, the world population hits the 6.5 billion mark

WICONA exhibits for the first time at the "Construmat" exhibition in Barcelona

2007

The Apple iPhone is launched

New brand slogan „Technik für Ideen“

Its own Test Centre is created in Bellenberg

In France, WICONA merges with the French brand „Architectural Systems“

2009

2008

Barack Obama is elected as the first African-American President of the USA

WICONA Finder wins the iF communication design award

Stand concept for the BAU 2009 achieves an entry in the "Exhibition Design Yearbook 2009 – 2010"

2010

Total solar eclipse, visible in the south of South America

In Courmelles (France) a Service and Logistics Centre

2011

Accident at the Fukushima I nuclear power plant



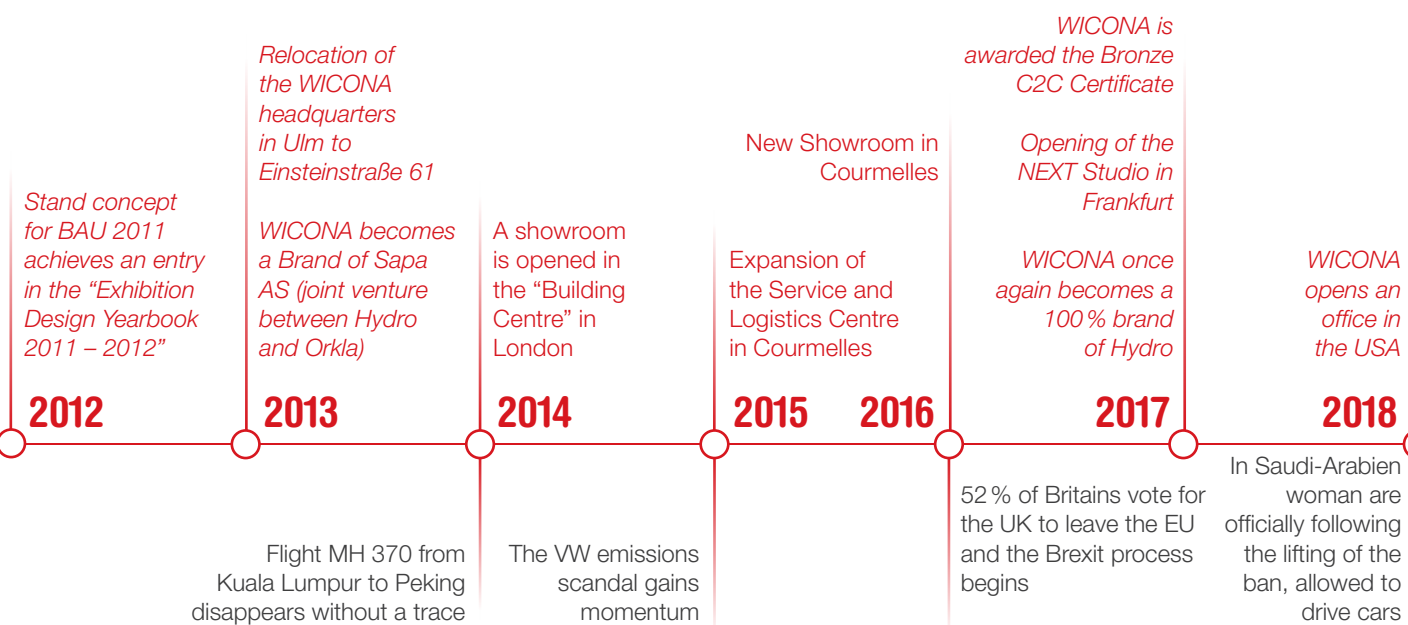
In recent years, WICONA has opened several showrooms, including in London and China. In 2016, the showroom in Courmelles was opened.

WICONA becomes an important location for the business sector

The company established by Norsk Hydro and Orkla in 2013 was incorporated into Hydro as the "Extruded Solutions" business sector for extruded products. The extrusion plant in Bellenberg, the Test Centre and

the WICONA headquarters in Ulm all remain important locations for the Extruded Solutions business sector. Hydro thereby made it clear that it was continuing to grow. Germany was considered the key market. "We are investing heavily in our production facilities in Bellenberg and Gerstungen, to

support our growth", explained the then WICONA Managing Director Henri Gomez about the change. An impressive example of the dovetailing of manufacturers and users is the NEXT Studio in Frankfurt, which was opened in June 2017.



...um Längen voraus



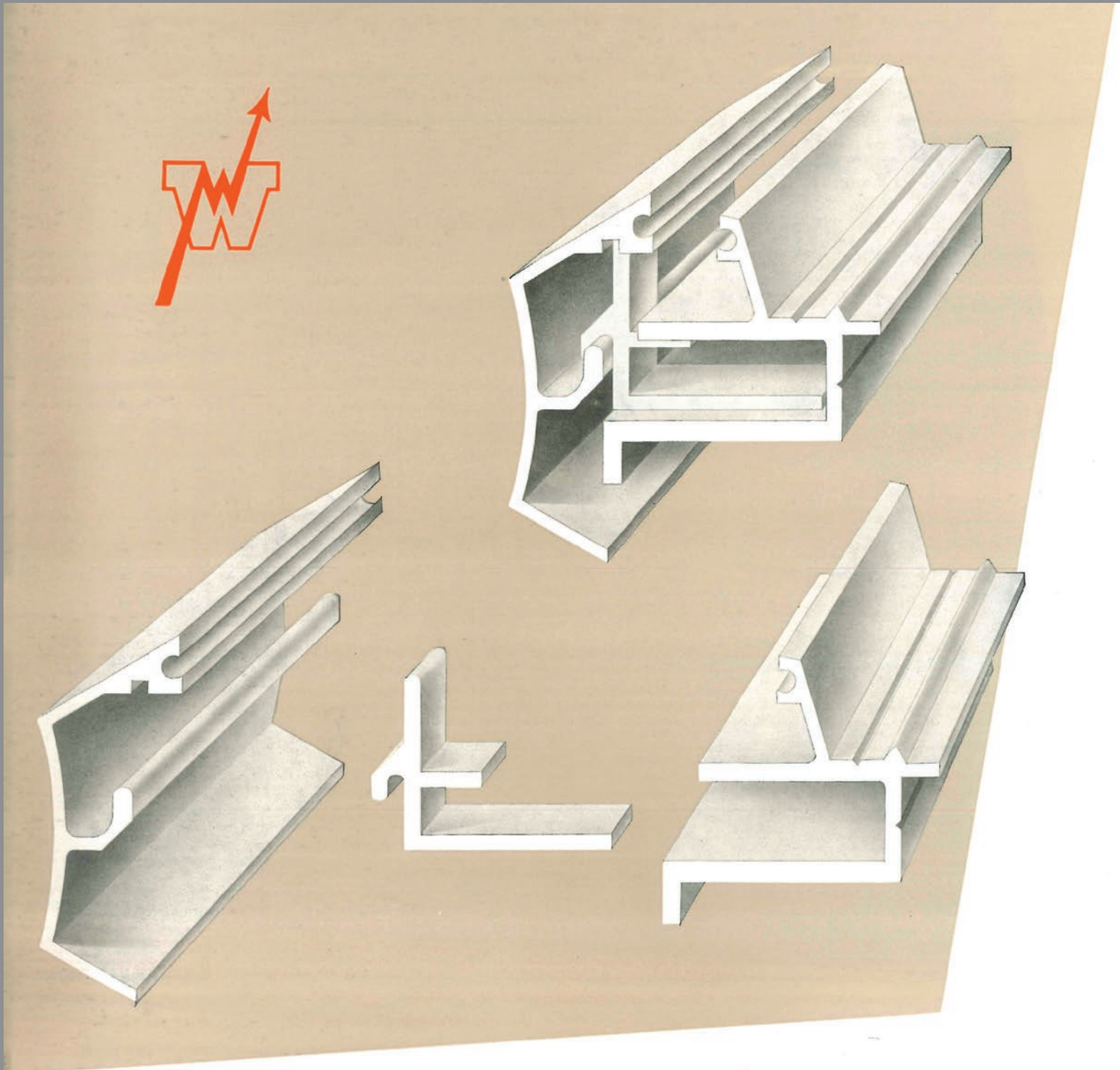
WICONA®, der Galopper
der Jahre '65 – '88 mit Profil.
Aus dem Qualitätsgestüt Wieland.
Seriensieger Großer Preise.
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Setzen Sie beim nächsten Derby
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Herr Architekt!
Satteln Sie um, lieber Metallbauer.
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DAS WICONA-SYSTEM

WICONA-Bauelemente sind die seit vielen Jahren bewährten und für Architekt und Verarbeiter idealen Leichtmetall-Profile für den Ausbau in Metall. Mit wenigen Grundelementen können zahlreiche Kombinationen, von schlichten Einfassungen bis zu üppig profilierten und glanzvollen, ein- oder mehrfarbigen Rahmen zusammengebaut werden. — Neben kurzer Montagezeit sind gutes Aussehen bei geringer Pflege, Preiswürdigkeit und lange Lebensdauer hervorragende Merkmale dieser Bauelemente.

Beim WICONA-System werden Deckprofile mit Haltewinkeln auf Grundrahmen montiert, und zwar ohne sichtbare Schrauben. Alle diese Teile sind mit größter Präzision hergestellt. Durch eine sinnreiche Anordnung von Nuten und dazu passenden Nasenleisten lassen sie sich leicht ineinanderfügen und befestigen. — WICONA-Bauelemente werden aber nicht nur in konstruktiver, sondern auch in ästhetischer Hinsicht hohen Anforderungen gerecht, wie die zahlreichen Bildbeispiele dieser Schrift zeigen.

Fassade des Kunsthauses
F. G. Conzen Düsseldorf
Aluminium-Konstruktion
mit eingebauten Dreh-
flügeln für Thermopane-
Verglasung

Ausführung:
Jos. Gartner & Co.
Gundelfingen/Donau

Entwurf: Architekten BDA
Dr.-Ing. Wolters u. Reg.-
Baumeister Berlitz; Bau-
leitung Baurat Piepen-
burg, Architekt BDA, Düs-
seldorf

Foto Eimke





» If it rings at
WICONA ...



The order bell promises great things

Anyone visiting the WICONA head office in Ulm would probably wonder what the bell is all about.

Clearly visible in the foyer, right next to the main entrance, hangs the large brass bell. However, this does not herald the end of the working day; rather, it always rings when WICONA wins a large order. The chime of the bell can be heard throughout the entire building and signals the receipt of a large order. In this way, the chime is an audible symbol of the company's success and contributes to the motivation of the employees. "Because the success is never achieved by the sales department alone, but is always a WICONA team effort, from the cleaning lady to the MD", says Torsten Föllmer, Head of the Key Account Management department, who is allowed to ring the bell from time to time.

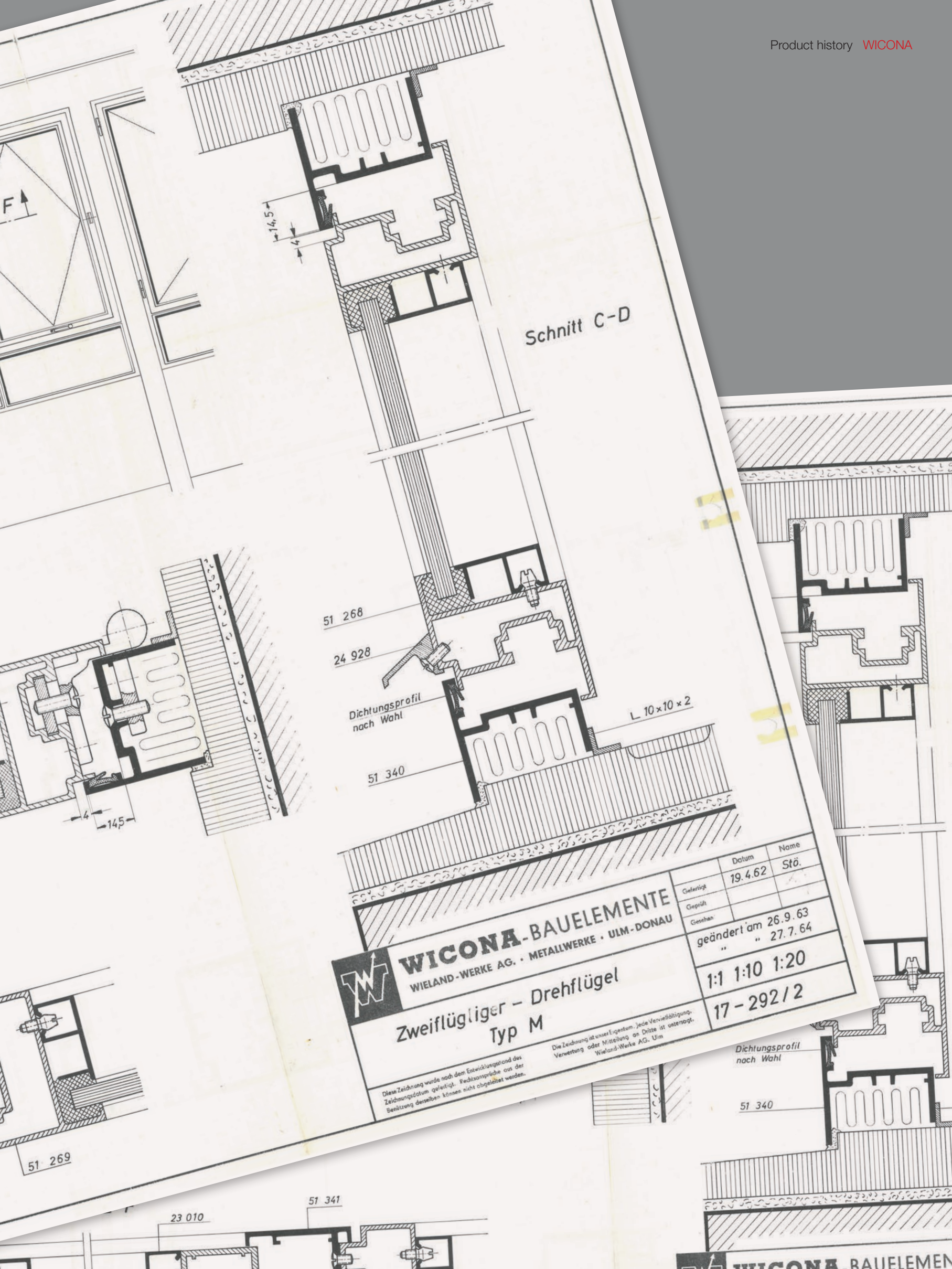
Regular chimes

How often it is heard could only be roughly estimated, but they don't want to give too much away. Only this much: It regularly rings throughout the building. One chime of the bell means an order volume of more than 50 tonnes of aluminium, two chimes – 100 tonnes, and so forth. Orders of a magnitude that would lead to several chimes of the bell are rare. Behind it are usually orders for façades for extremely large projects, so for very large buildings with very large glass and aluminium façades. So at WICONA, it is always somewhat of a special moment whenever it rings again.

Torsten Föllmer, Head of Key Account Management, with the order bell.

» From first patent to global player

Over more than 70 years, countless products and patents have been developed at WICONA. Today, the WICONA product range includes around 11,000 items.



Schnitt C-D

51 268

24 928

Dichtungsprofil
nach Wahl

51 340

L 10x10x2

WICONA-BAUELEMENTE		Datum	Name
WIELAND-WERKE AG. • METALLWERKE • ULM-DONAU		19.4.62	Stö.
Zweiflügliger - Drehflügel Typ M		Gefertigt	
		Geprüft	
<small>Diese Zeichnung wurde nach dem Entwicklungsstand des Zeichnungsdatum gefertigt. Rechtsansprüche aus der Benützung derselben können nicht abgeleitet werden.</small>		Gesehen	
		geändert am	26.9.63
<small>Die Zeichnung ist unser Eigentum. Jede Vervielfältigung, Verwertung oder Mitteilung an Dritte ist untersagt. Wieland-Werke AG. Ulm</small>		1:1	1:10 1:20
		17-292/2	

Dichtungsprofil
nach Wahl

51 340

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23 010

51 341

WICONA BAUELEMENTE



Unrecognisable from the outside, but there is a whole lot of know-how on the inside: cross-section of a composite profile.

Components with a key function

What first began with the first patent decades ago is now a global brand. Over time, WICONA has protected 180 technical achievements. Today, 46 patents are active. The WICONA product range includes 11,000 items.

Patents protect new inventions and ideas, and thus safeguard the edge over the competition. Windows, doors and façades have many common features and similar problems, yet require completely different ways of thinking. Groundbreaking, innovative enhancements, as well as the shapes of the profiles themselves, whose subsequent processing by fabricators and user-friendliness for the end user had a value, are worth patenting.

The term of protection is 20 years

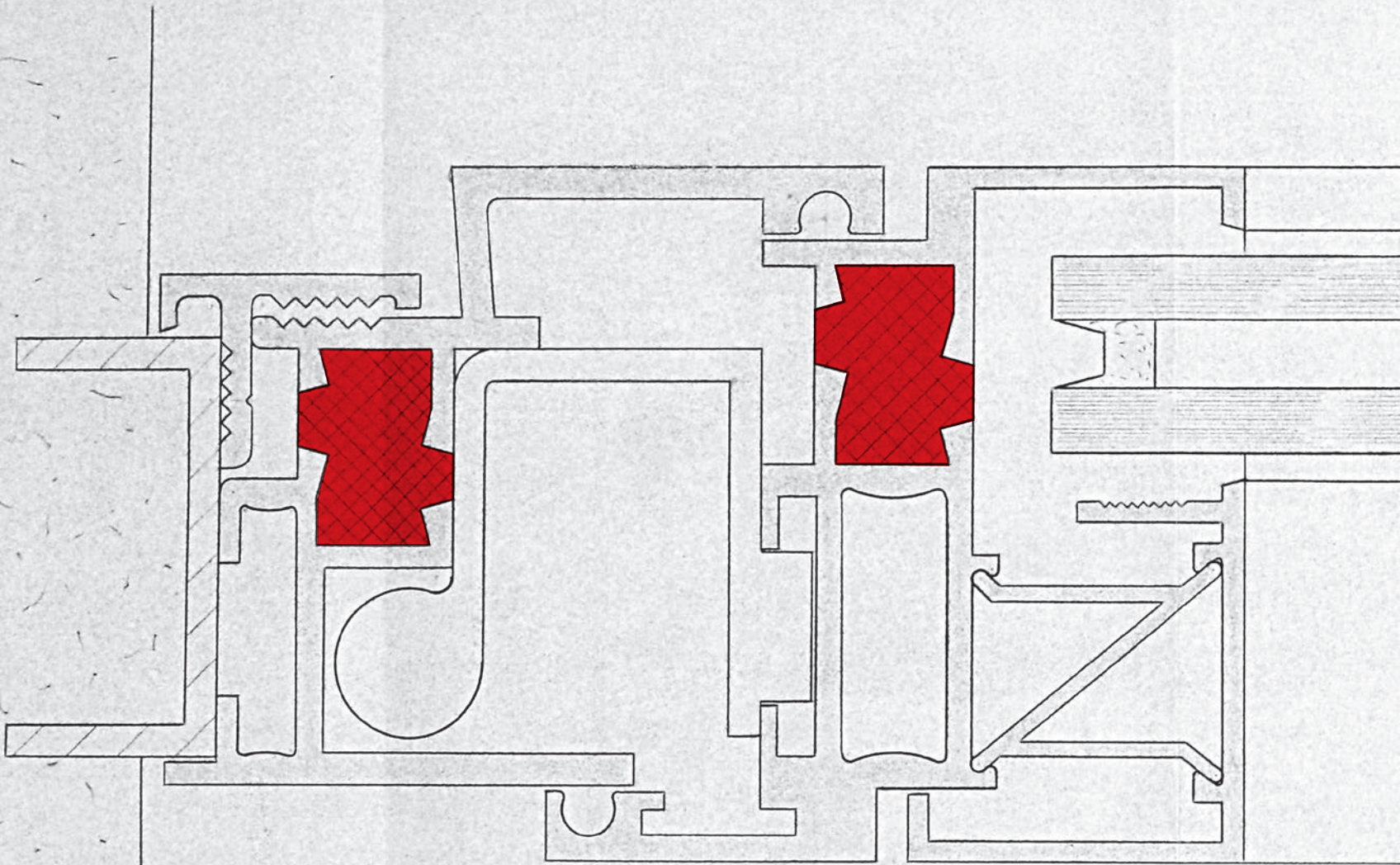
"Currently, there are 46 patents active, which are spread across all sectors, although the majority focus on the thermal insulation of the system profiles", says Josef Bertele, who is responsible for patents at WICONA. Bertele also calls

himself IP Manager (where IP stands for "Intellectual Property"), thus meaning he has the authority over intellectual property rights. Countless patents have arrived and continue to arrive on his desk. In turn, older texts have expired over time and in the meantime have become outdated. Hence patents particularly protect components with a key function, such as connection technology. A patent's term of protection (duration) begins on the day it is registered with the German Patent and Trade Mark Office in Munich and lasts for a maximum of 20 years. But that alone is not enough. A further prerequisite is the annual payment of the maintenance fees. The same applies to European patents, whereby the annual fees are then payable in all countries where a patent has come into effect. Therefore, it

makes sense to expand the effectiveness of patents to countries where large aluminium systems manufacturers are located, as well as to countries in which the same climatic conditions prevail as in Germany.

The first solution approach is too costly

Looking back: As much as the advantages of aluminium profiles were convincing in terms of their robustness, longevity and weather resistance compared to wood and plastic, there still remained the disadvantage that, as a conductor, it inadvertently transferred heat and cold into the building from outside. The first responses to tackle this issue came from Switzerland in 1954. There, the Confederation was in a better economic position after the war and as a result presumably had more of the freedom




Dreh · Kipp-Flügel mit Wärmedämmbrücke

The plan was to pour liquid polyester resin into the narrow joints for insulation. However, the proposed solution proved to be unsuitable for industrial production.

DE 27 55 669 C 2

Int. Cl. 2: **E 06 B 3/26**
B 21 D 53/74

⑤① **BUNDESREPUBLIK DEUTSCHLAND**
DEUTSCHES  PATENTAMT

Patentschrift 27 55 669

①① Aktenzeichen: P 27 55 669.0-25
②① Anmeldetag: 14. 12. 77
③② Offenlegungstag: —
④③ Bekanntmachungstag: 23. 5. 79
⑤④ Ausgabetag: 31. 1. 80
Patentschrift stimmt mit der Auslegeschrift überein

③① Unionspriorität: —
②② ③③ ④④

⑤④ **Bezeichnung:** Verfahren zur Herstellung eines wärmegeprägten Verbundprofils und Vorrichtung zur Durchführung des Verfahrens

⑦③ **Patentiert für:** Wieland-Werke AG, 7900 Ulm

⑦② **Erfinder:** Egerer, Rudolf, 7917 Bellenberg

⑤⑤ Für die Beurteilung der Patentfähigkeit in Betracht gezogene Druckschriften:
DE-OS 25 59 599

①. 80 909 685/453

required to tackle this important issue. Just a short time afterwards, WICONA also devoted itself to the question of how a thermal break could be achieved. The basic concept: The profile should not be completely comprised of solid aluminium, but of two separate frame components for the exterior and the interior, and an insulation strip in between. As a result, the first "Tilt and turn leaf with insulation strip" was introduced in November 1957. The original drawing is still preserved in Bertele's archive. The original idea was to pour liquid polyester resin into the narrow joints for insulation, but this was difficult to bring about. From a production point of view, this concept proved to be too costly, time intensive and therefore unproductive.

"The process could not be pushed through to the market and was not pursued any further", says Bertele. Subsequently, aluminium window and door frames continued to be uninsulated. Who doesn't remember old aluminium windows and doors, which transpired so much that water was literally running down them? A drive in innovation only came with the oil crisis in the autumn of 1973, when saving energy suddenly became a hot topic. At WICONA, the engineers once again assigned themselves to the task. Since adhesion had proven too costly, they constructed spacers out of plastic. From then on barriers, also called bones because of their distinctive cross-sections, held both frame components onto the spacer.

The birth of the hollow-chamber insulation strip

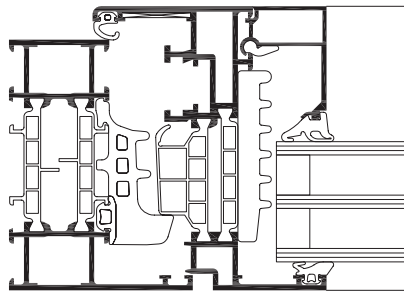
Patent number "27 55 669" from December 1977 described the "Procedure for the manufacture of a thermally insulated composite window profile and mechanism carrying out the procedure", as the sometimes unintelligible legal jargon describes it. The thermal insulation strips are inserted lengthways and then deep rolled. It was later recognised that all-over strips still let too much heat through, which is what had led to the birth of the hollow-chamber insulation strip 25 years previously. This resulted in a higher mechanical stability with low material usage and low cross-section. But even in a hollow chamber, trapped air heats up on one side and cools down again on the opposite side. Therefore, it begins to rotate like a roller. The solution was several hollow chambers separated from each other with additional separation strips. With their present-day levels of perfection, the WICLINE evo window ranges are the ultimate in thermal insulation properties.

An important patent from 1977: a method for the manufacture of a thermally insulated composite window profile.

WICLINE 75 evo

**Turn/Tilt-and-turn/Tilt/Tilt-First/Double casement windows/
Fanlights/Minergie-P Module**

With a system depth of 75 millimetres, the WICLINE 75 evo window system is the ultimate in thermal insulation properties and physical features. With the highest performance characteristics, this aluminium window is ideally suited to all future architectural demands.



Technical drawing



Construction planners can find a whole range of solutions

Today, WICONA stands for more than 70 years of experience, highly professional know-how and technical competence in the field of aluminium system solutions for energy-efficient façades, doors and windows.

At WICONA, construction planners can find a wide range of solutions, combined with comprehensive customer service. By optimising and assuring the production processes of its building systems, WICONA impresses – not just with high-tech products, but also by using a development concept – Unisys – which is unique to the industry. Unisys is a construction kit principle, whereby many standardised basic components can be used in all product

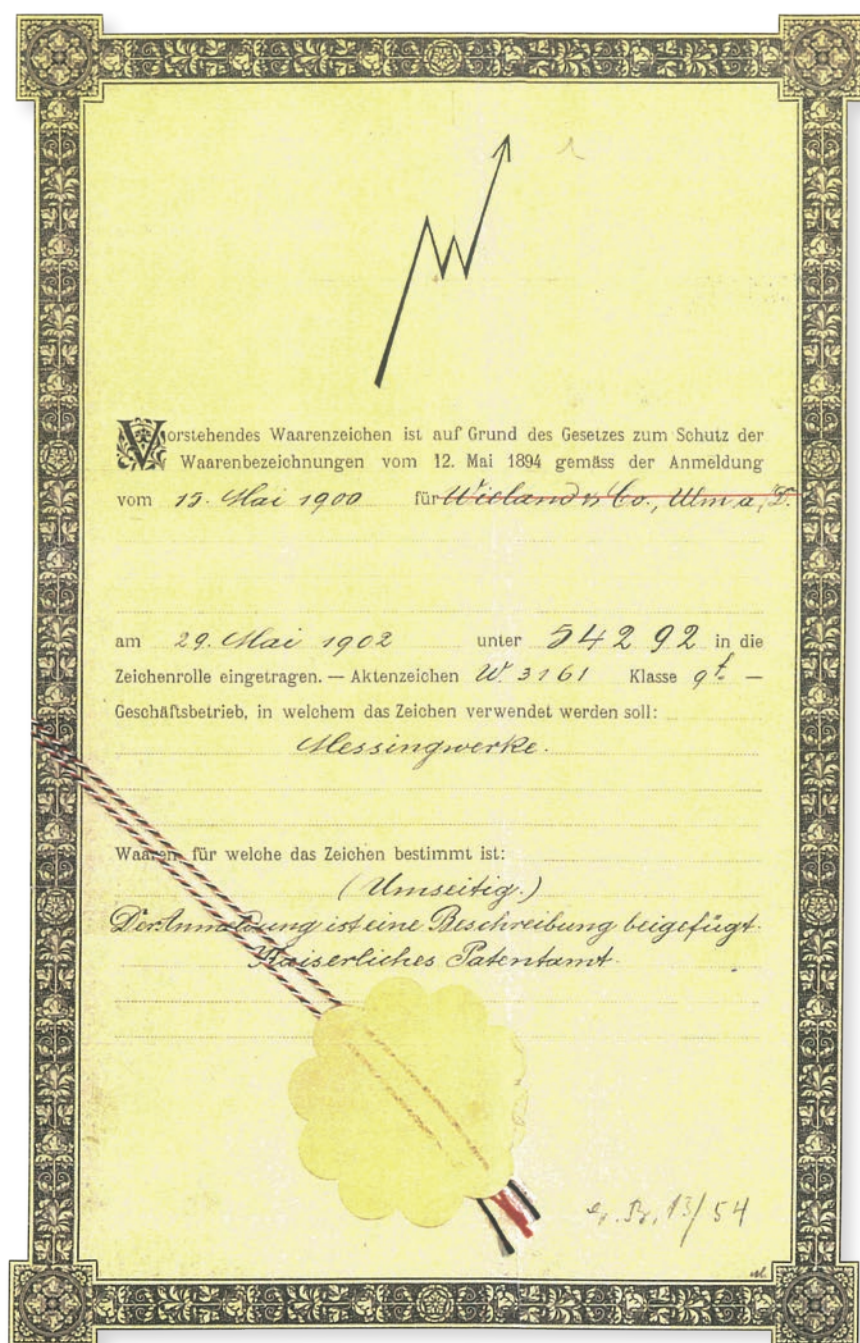
ranges and systems. The advantages of this concept lie, in particular, in reduced manufacturing costs, greater flexibility of products, minimal inventories, harmonised tooling through identical processing, seamless flow of information and improved training levels of employees.

Customised solutions Mature, proven standard solutions are compulsory; customised special structures for individual

projects are optional. To continually ensure this level of performance, WICONA has established its own Special Projects department in Ulm. More than 30 engineers work here together and develop customised solutions for large international construction projects. Because it is located in the brand's headquarters, the quality and homogeneity of WICONA's range is thus guaranteed, and the necessary test certification and technical approvals are ensured.



» A brand emerges...



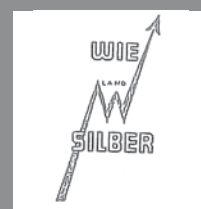
Copy of the certificate of registration with the trade mark "Wieland-Blitz" from 29th May 1902.

The lightning bolt

It is not just the aluminium system solutions that are subject to continuous development. The WICONA brand has continually evolved during its 70-plus years. The lightning bolt logo was originally the brand's striking feature.



Lightning bolt with arrow head (Wieland lightning bolt), registered in 1900, transferred to Wieland Werke AG in 1920



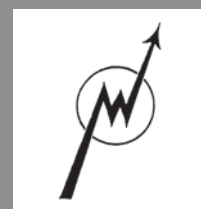
WIElandSILBER from 1931 to 1971



WIElandGOLD in 1950



Lightning bolt with arrow head in a circle 1953 to 1993



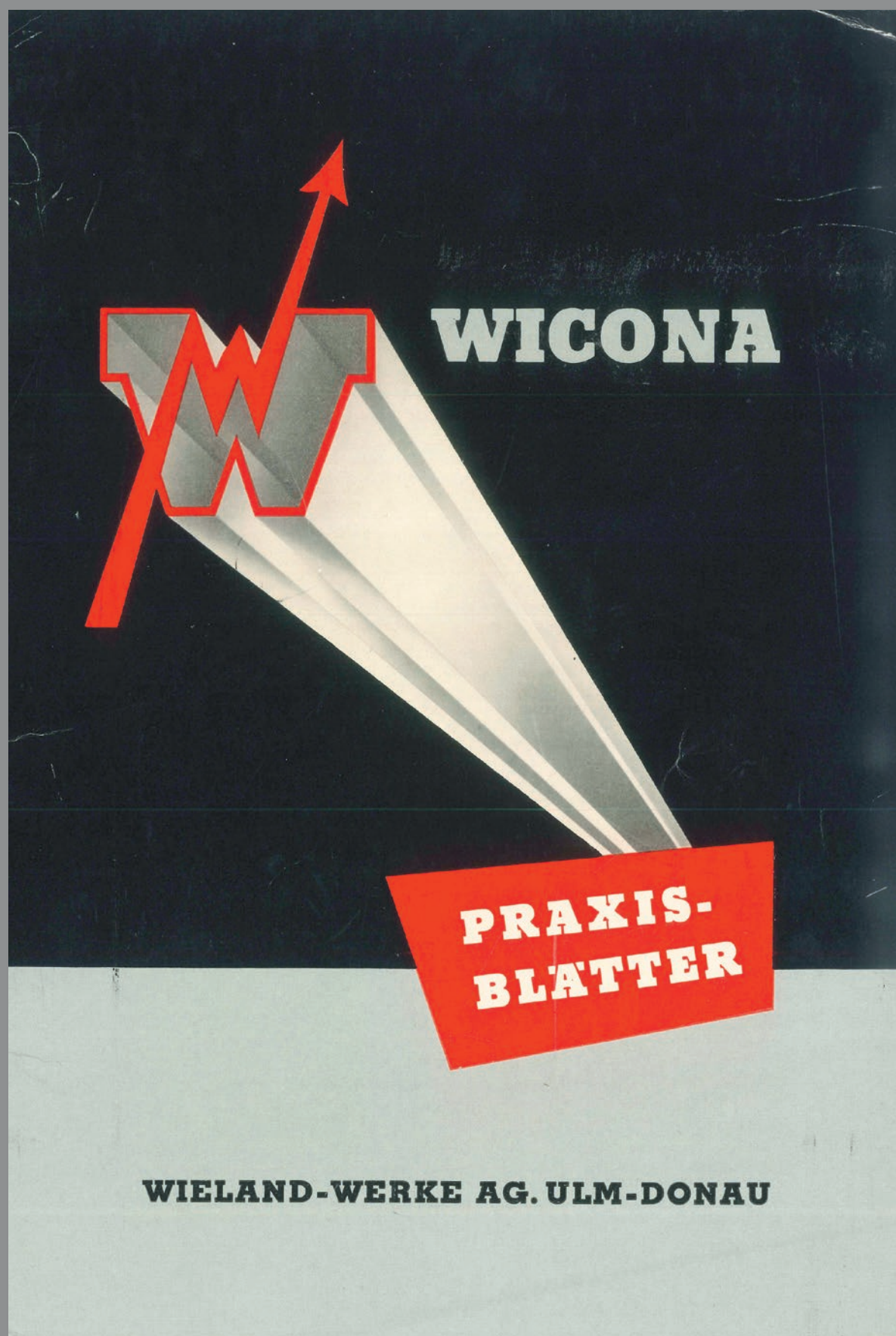
Lightning bolt with arrow head protruding from a circle, also as a red arrow in a yellow circle, 1953 to 1993



Block W with lightning bolt with arrow head (white or black "W"), also as red lightning bolt, yellow W 1953



WIE SILBER with lightning bolt with arrow head 1954



WIELAND-WERKE AG. ULM-DONAU

The Block W with lightning bolt arrow head in different colourways.





The double arrow as a graphic element stands for the orientation of the company towards the future.

A strong brand

WICONA was registered as a brand in 1953. Since then, the brand's identity has continually evolved.

In 2009, the brand slogan "Technik für Ideen" was introduced and replaced the phrase "Aluminium in der Architektur", which was used until then. The previous name extension shaped the image of WICONA in the market over the years. Thus, one of the best-known brands in the aluminium building systems sector was achieved, which was virtually synonymous with "Aluminium in der Architektur".

Technik für Ideen

"Technik für Ideen" stands as a motto both for architects with their creative planning services and for fabricating companies with technical implementation. Planning and construction require a high degree of creativity and design freedom for ideas to become a constructed reality. WICONA supports this dynamic process as an aluminium systems company with know-how, high-performance high-tech products and excellent service. "Technik für Ideen" firmly places the customer at the centre of communications, as "Technik für Ideen" also means: turning customer requests into reality. Suggestions and requests are analysed and, as much as possible, implemented. So, in close partnership with all construction stakeholders, WICONA delivers customised technologies for their ideas to be planned and implemented in the best possible way. It is not without reason that "Technik für Ideen" stands for the brand with outstanding performance characteristics and great flexibility with building owners, architects and fabricators. The brand positions itself amongst global competition in the most technically demanding of market sectors. WICONA stands for performance, efficiency, technology, solutions, innovation and strength.

Red stands for energy and progressiveness

This is epitomised in a particularly concise way in the brand identity updated in 2009. The product characteristics of "Strength – Clarity – Flexibility" are also represented here. The bold red colour symbolises energy, progressiveness, innovation and clarity. The double arrow as a graphic element stands for the orientation of the company towards the future.

The development of the Logo









The logo in its current format. The red stands for energy, progressiveness, innovation and clarity. In 2009, the brand slogan "Technik für Ideen" successfully replaced the previous slogan "Aluminium in der Architektur".

le choix parfait



Dites WiconA si vous avez besoin d'un fournisseur de systèmes idéal et le maillon manquant pour votre projet de construction et que vous décidez d'utiliser de l'aluminium.

WICONA[®] ALUMINIUM

UNE QUALITÉ IMPECCABLE DE TOUS TEMPS



Contactez-nous et découvrez comment WiconA conjugue qualité avec métier pour un résultat digne d'être vu, maintenant et dans très longtemps. Fenêtres, portes, systèmes pour façades, vérandas et éléments coulissants. Vous n'imaginez pas la surprise que vous réserveront nos solutions créatives. WiconA est une marque de Hydro Building Systems, le numéro 1 en Europe.

100% de savoir-faire

Hydro Building Systems

choixparfait@wiconA.be • +32-(0)14/24.99.99 • www.wiconA.be

kies keurig



Kies voor WiconA als u op zoek bent naar de optimale systeemfornisseur voor de bouwprojecten die u wilt uitvoeren met aluminium.

WICONA[®] ALUMINIUM

LOEPZUIVERE KWALITEIT VOOR TIJDLOZE DUURZAAMHEID

Contacteer ons nu en ontdek hoe WiconA topkwaliteit en doorgetrokken vakmanschap kan resulteren in tijdloze duurzaamheid. Ramen, deuren, veranda's en schuifdeuren: onze creatieve oplossingen zullen u verrassen.

WiconA is een merk van Hydro Building Systems, het nummer 1 in Europa.

Hydro Building Systems

kieskeurig@wiconA.be • +32-(0)14/24.99.99

kies op polyclose



Kom op Polyclose naar WiconA als u op zoek bent naar een optimale partner voor uw bouwproject en u denkt aan aluminium. U bent zo gewaarsd van een harsse product systeem van bekende kwaliteit voor uw projecten. De vraag die u moet stellen is: waarom niet? U bent voor een perfecte oplossing.

WICONA[®] ALUMINIUM

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kies keurig



Kies voor WiconA, als u op zoek bent naar snelle en betrouwbare leveringen voor uw bouwproject en u denkt aan aluminium. Deze doorgetrokken organisatie, gepassioneerd advies en geprojecteerd advies wat u zoekt om uw projecten binnen de afgesproken termijnen te realiseren. Met WiconA neemt u kennis in kennis. Wij gaan elke uitdaging aan.

WICONA[®] ALUMINIUM

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kies keurig



Kies voor WiconA kwaliteit. Bovendien bieden onze doorgetrokken technische ondersteuning, vakmannen en oplossingen op maat alles wat u zoekt om uw aluminium projecten tot in de puntjes te realiseren. Het met WiconA de kern op de kaart.

WICONA[®] ALUMINIUM

LOEPZUIVERE KWALITEIT VOOR TIJDLOZE DUURZAAMHEID

Contacteer ons nu en ontdek hoe WiconA topkwaliteit en doorgetrokken vakmanschap kan resulteren in tijdloze duurzaamheid. Ramen, deuren, veranda's en schuifdeuren: onze creatieve oplossingen zullen u verrassen.

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Advertisements from 2005.



photo : Comité van d'Gachten

Siège Social OPEL à Russelsheim. Architecte : Building Design Partnership, Londres.
Pour assister les architectes et les bureaux d'études, WICONA a développé un nouveau logiciel de CAO, WICTOP sur Windows.

Aluminium et Imagination.

WICONA, les nouvelles solutions
les nouvelles solutions aluminium qui
laissent libre cours à votre imagination.
WICONA est votre partenaire en innovation.
La preuve : WICONA a adapté l'ensemble
de sa gamme aux tendances esthétiques
actuelles. Nouveau design pour les rehausses
de chéneaux des vérandas, façades aluminium
avec capotage inox pour des réalisations
de prestige, fenêtres alu avec store incorporé.
WICONA associe imagination architecturale
et maîtrise de la réalisation.



WICONA®

WICONA S.A. Lyon - 12 rue du 35^e Régiment d'Aviation
69500 BRON
Tél. : 04 72 81 51 00 - Fax : 04 72 81 51 01
WICONA S.A. Paris - 149 quai du Rancy
94388 BONNEUIL sur MARNE Cedex
Tél. : 01 45 13 80 00 - Fax : 01 45 13 80 20
e-mail : WICONA@wanadoo.fr

WICTEC® 50

50 mm de large.
Prise de vitrage
de 4 à 50 mm.
Epines de 66 mm
à 206 mm pouvant
être renforcées
(inertie max supérieure
à 1200 cm⁴).
Angles verrières
de 0 à 60°.

Situations

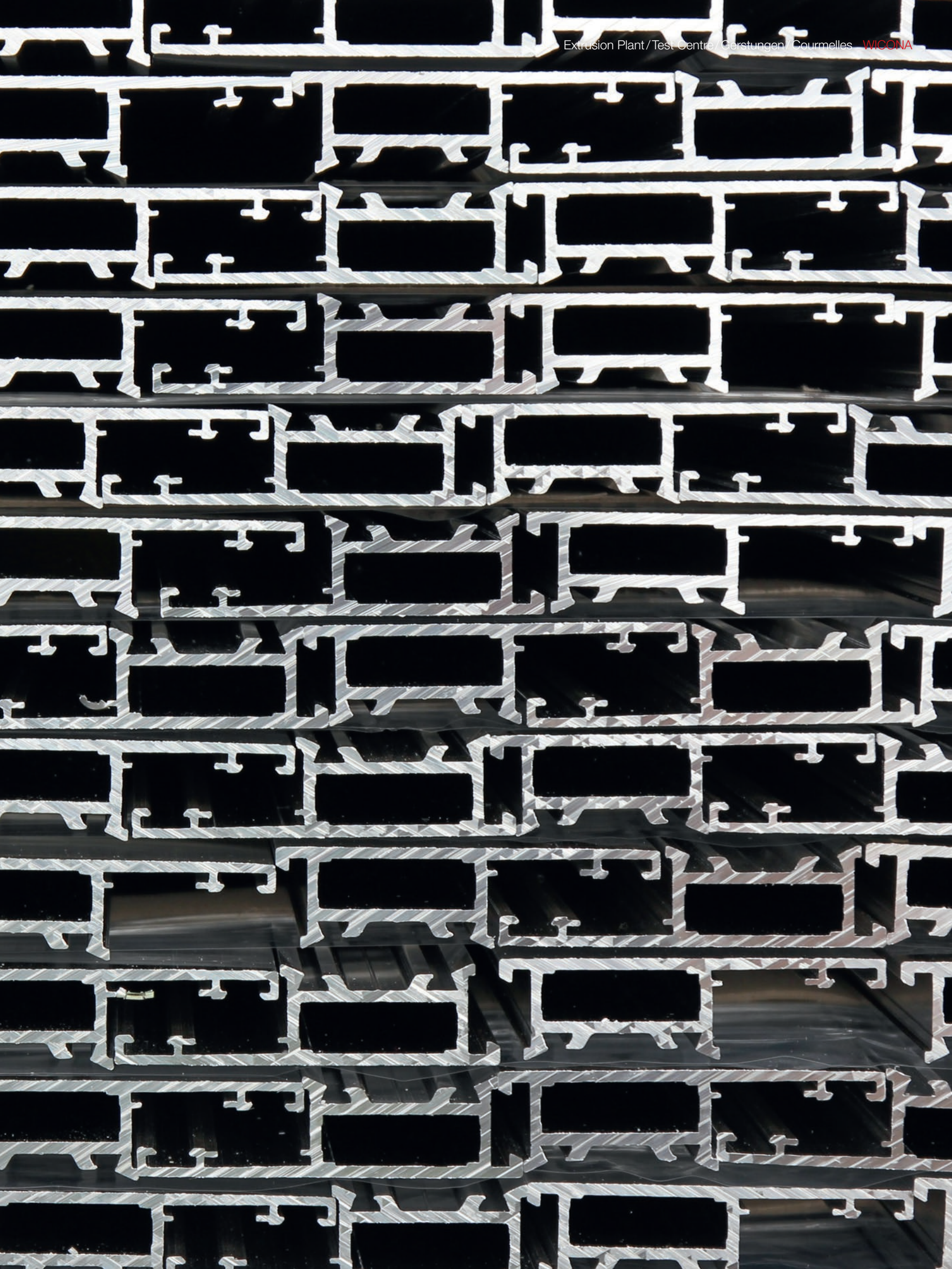
Présent à BATIMAT
Hall 3, Allée F, Stand 31

Merci de m'adresser une documentation sur les solutions aluminium WICONA.

Nom : Société : Adresse : Tél./fax :

» How proven profile systems emerge from aluminium bolts

In the Bellenberg extrusion plant, extruded profiles for aluminium building systems are produced. The Test Centre offers options for testing and acquiring certification for façades, windows, doors and fittings. Shipping takes place from the Service and Logistics location in Gerstungen or Courmelles.





Optimum inventory supply and preparation are the be all and end all for a smooth production process. In the Bellenberg plant, both of these criteria exist, thanks to high-level racking and modern saws that cut the bolts to lengths of 700 to 800 mm.



The heart of the roughly 7,500-square-metre production area is the control centre of the press, using which the high-precision profiles are produced from large aluminium bolts with 12.5 tonnes of pressure.

14,500 tonnes of various products per year

Operating round the clock, the Bellenberg plant produces highly functional precision profiles for WICONA windows, doors and façades, which can then be put through their paces in the neighbouring Test Centre.

To put it simply, it is almost like squeezing toothpaste out of a tube – but actually, of course, much more know-how and effort lies behind the sophisticated production process of WICONA precision profiles which, day after day, roll off the production lines of the Bellenberg extrusion plant built in 1990. “As a starting material, we use seven- to eight-metre lengths of alloy aluminium bolts with an individual weight of around 600 kilograms which are delivered several times a day”, explains plant manager Edgar Loibl; up to 60 tonnes are processed in this way every day. “The high-level racking, optimally integrated into the material flow, creates the perfect conditions for us to always have sufficient bolts to hand”, adds Loibl. In 2017, their workforce of around 100 employees, working a four-shift operation, processed 14,500 tonnes of aluminium. Trimmed to 700 to 800 mm lengths with a special saw, the “blocks”, as they are known, are firstly brought up to the optimum press temperature in an induction furnace before the actual extrusion takes place. The word comes from the Latin verb “extrudere” (meaning “to thrust” or “to push”) and refers to the process technology of continuously pushing a solid mass through a shape-giving opening under high pressure – commonly known as an extrusion press.

The desired shape achieved in just a single step

In Bellenberg, this happens with a 12.5-tonne press, in which the 470°-Celsius hot aluminium is pressed between two preheated equally tempered die, like through the eye of a needle. Thus in a single process step, the material can be made into almost any shape required, which offers a variety of construction possibilities and also enables complex shapes to be produced in small batch sizes. The external shape of the extruded profile is determined by the die; cavities can be created by using differently shaped mandrels. “We currently have a total of around 3,000 active tools stored in our paternoster racking, which we regularly work with”, reveals Edgar Loibl. All in all, there are about 8,500 different devices that they can fall back on. The high number of tools is mainly due to the fact that for each profile, a different shape was required, explains the plant manager, and every year



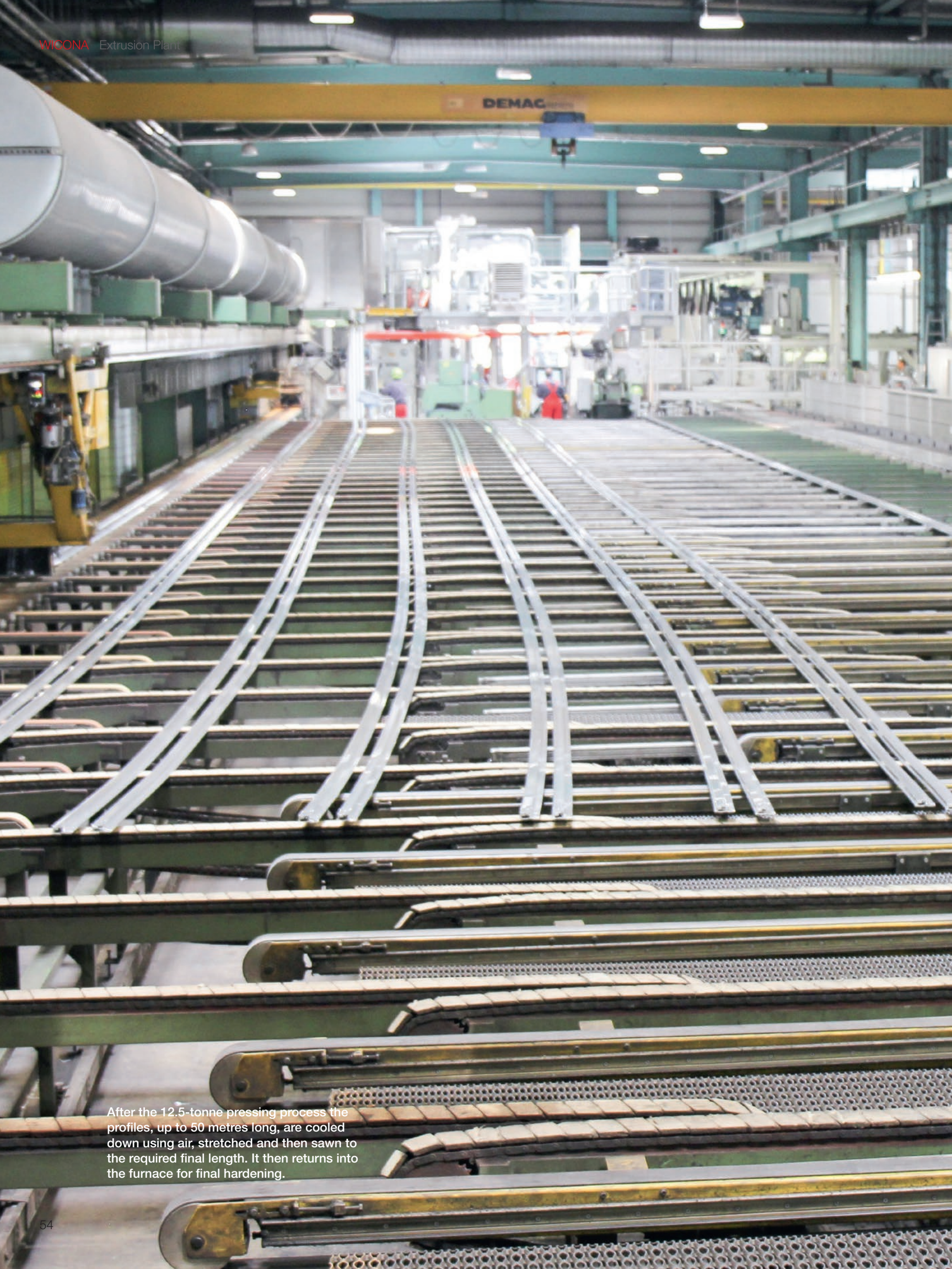
Using different die, the 21-cm diameter aluminium bolts are heated to 470° Celsius and pressed into 50-metre profiles. As a result, each shape has its own tool.



For production to be efficient, the die also need to be heated to a temperature of 470° Celsius, so that there is no difference in temperature between the material and the tool. The image shows how an employee uses a crane to lift a tool out of the induction furnace.



By using polyamide insulation strips, highly efficient composite profiles are produced from the pure aluminium profiles – the polyamide insulation strips and their structure differ depending on the application and requirement.



After the 12.5-tonne pressing process the profiles, up to 50 metres long, are cooled down using air, stretched and then sawn to the required final length. It then returns into the furnace for final hardening.

about 600 new profiles were added. So out of the press come different versions, up to 50 metres long, of extruded profiles which, on exit, are immediately cooled using air.

This is followed by subsequent processing

After being cooled, the profiles are then stretched to release any stresses and to ensure the required straightness, and all the functional measurements and surface quality are checked. "Before it is then moved into the furnace for final hardening, the profiles are sawn to the required lengths", states Loibl; the standard length being six metres. While some of the goods are then sent directly to be prepared for shipping, the rest are sent for further processing inhouse. Then, so that they can later satisfy the most stringent requirements for thermal insulation as window, door or façade components, they need to be bonded with polyamide insulation strips to prevent cold bridges between the aluminium bars. "The material mix and the hollow chambers in the bars mean we achieve the best possible insulation", says profile expert Loibl: as a result, the Ulm-based WICONA designer would always with innovations, to be able to deliver better values.

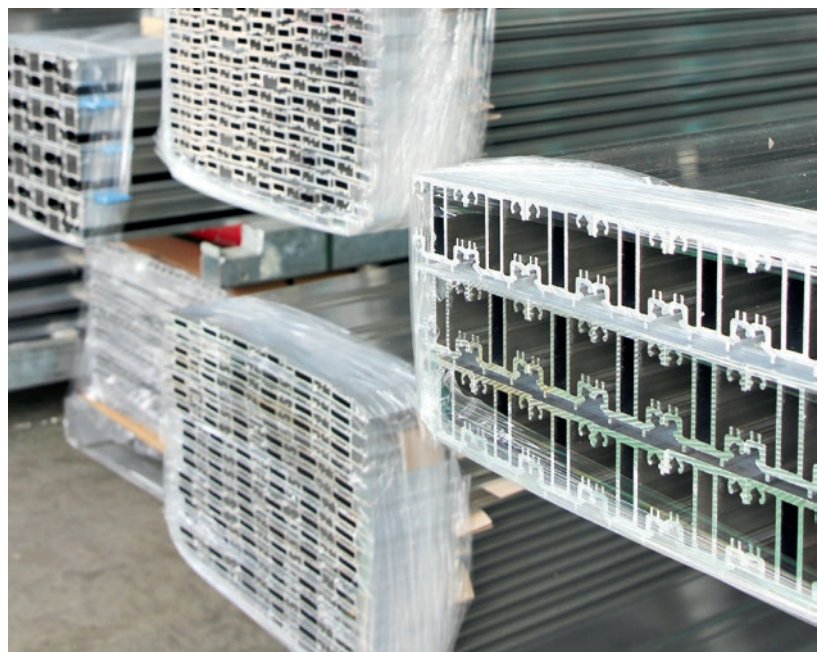
Three installed machine lines Impressively, the plant in Bellenberg generally has 80 different types of polyamide insulation strips in stock, which underlines the increasing complexity of the composite profile. Cumulatively, around 3,800 kilometres of composite profiles per year are produced in the plant, which are produced on the three installed machine lines. As with the pure aluminium components, these also have a standard range for window and façade construction as well as special customer-specified profiles for the project business – according to Loibl, this latter sector would make up around one-third of total production.



The composite profiles are produced on a total of three machine lines in Bellenberg, where the individual components are assembled manually or by machine.



Everything always in control: Commercial Manager Manfred Füssl (left) and Plant Manager Edgar Loibl are responsible for production and safety in the Bellenberg plant.



Ready for delivery: From Bellenberg, the finished aluminium and composite profiles are shipped via the Gerstungen Service Centre to WICONA customers all over the world.



WICONA's Test Centre in Bellenberg was established in 2009. The equipment and test procedures were developed in cooperation with the renowned "ift" (Institut für Fenstertechnik, meaning "Institute for Window Technology") in Rosenheim.

Photo: Conné van d'Grachten

Everything on one site

The Test Centre and extrusion plant in Bellenberg are directly adjacent to each other, which makes it easy for WICONA's customers – and offers a clear competitive advantage.

While WICONA's standard profiles inherently come with all the necessary certification, additional testing is required for special structures, project solutions or non-standard requirements. These days, without the relevant test certificates and approvals, complex products like façades, windows or doors are no longer marketable. A modern Test Centre directly adjacent to the extrusion plant provides WICONA customers with all the necessary facilities for all these eventualities and thus offers them a clear competitive advantage. Previously, components had to be transported to the certified institute for testing – now, they can conduct the tests themselves in a timely manner. The equipment and test procedures were developed and agreed in cooperation with the renowned "ift" (Institut für Fenstertechnik, meaning "Institute for Window Technology") in Rosenheim. Therefore, the tests conducted in Bellenberg comply with the procedural criteria of the accredited test institute and are based on recognised rules of technology. If additional test certificates are required, this can be handled in cooperation with the ift in the WICONA Test Centre.

Here, there is a so-called Hot Box

One more advantage: In the WICONA sample workshop directly attached to the Test Centre, the systems to be tested can be checked on the test rig before installation. Any corrective measures necessary can then be made directly on site, providing flexibility and saving time and money. As well as two large test rigs for façades, the Test Centre offers a test rig for windows and one for fittings, a tension-compression testing machine and a Hot Box for measuring heat transmission. The test rigs for façades enable tests to be conducted on test specimens with a maximum dimension of 10 m x 10 m, where the measurements within these limits can be freely chosen. The following tests can be conducted: Air permeability in accordance with EN 12153, static watertightness in accordance with EN 12155, dynamic watertightness in accordance with EN 13050, ability to resist wind load in accordance with EN 12179, impact resistance in accordance with EN 14019 as well as load capacity of accidentprevention glazing in accordance with TRAV. The window test rig is designed for windows, doors, fixed fields and combinations. The maximum element size, including test frames, is 3.6 m x 2.9 m. The following tests can be conducted: Air permeability in accordance with EN 1026, watertightness in accordance with EN 1027, ability to resist wind load in accordance with EN 12211, load with soft and solid impactors in



Fassadenprüfstand, Prüfung Schlagregendichtheit

Photo: Conné van d'Grachten

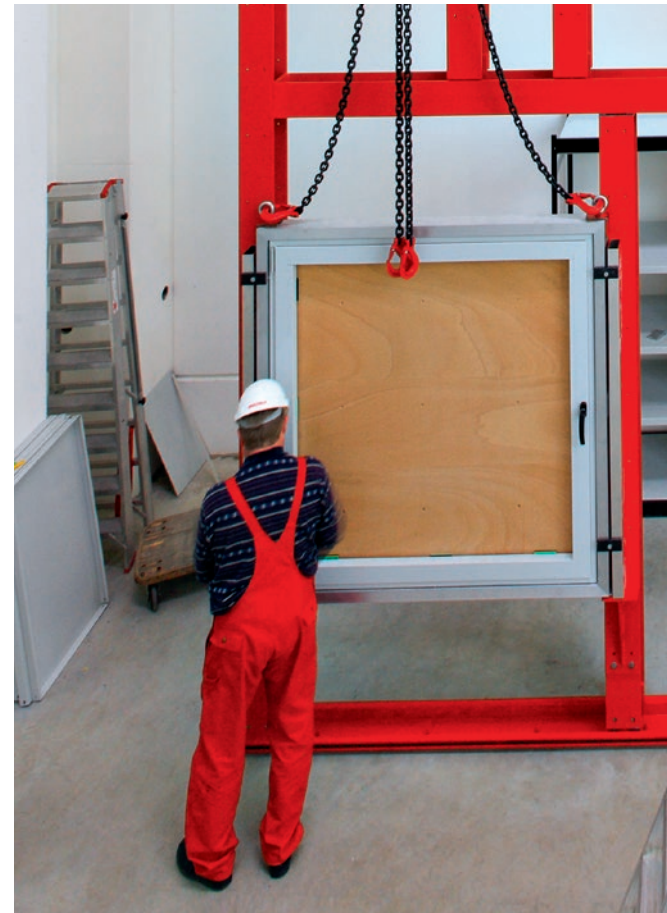
accordance with EN 13049. On the fittings test rig, dynamic fittings and element tests are conducted on doors and windows up to a height of 4 m. Possible tests include, for example, the test for resistance to repeated opening and closing in accordance with EN 1191 for windows and French windows as well as the requirements and test methods for turn/tilt, tilt-first and turn-only hardware in accordance with EN 13126-8. Sash widths of up to 1,550 mm can be tested. On the tension-compression test machine, static tests with alternating tension

and compression are conducted. Among other things, the component strength of the structure details (in accordance with EN 14024), material strength and screw extraction values are tested. The Hot Box enables the heat transmission coefficient to be determined for frame profiles (Uf) in accordance with EN 12412-2. In addition, new insulation materials can be measured, material properties verified and calculation programs tested for validity. ctly attached to the Test Centre, the systems to be tested can be checked on the test rig before installation.



Test rig for façades.

Photo: Conné van d'Grachten



Fitting test rig.

Sustainability consistently implemented

The Test Centre, officially opened in 2009 and with its own spectacular architecture, demonstrates how effectively and efficiently the topic of sustainability in façades and building design can be implemented. With the objective of constructing an energy self-sufficient company building, the ideal combination of façades, building technology and use of natural resources was determined using a holistic planning approach, and subsequently implemented. Large-scale window areas in the façade and in the roof allow people to work without artificial light as far as is possible. At the same time, air conditioning can be dispensed with completely. The quite considerable water consumption for façade tests is reduced to an ecologically acceptable minimum via a closed water circuit with tanks and multistage filters. For heating and artificial light, there is a net energy requirement close to the passive house standard of just 23 kWh/m²a, which is satisfied by a photovoltaic system on the roof. With the surplus of 30,000 kWh/a, the Test Centre's other operational energy requirements can be met, making the WICONA Test Centre one of the first zero-emission production buildings.



Photo: WICONA



For heating and artificial light, there is a net energy requirement close to the passive house standard of just 23 kWh/m²a, which is satisfied by a photovoltaic system on the roof.

Photo: Conné van d'Grachten



Window test rig.

Photo: Conné van d'Grachten

» Hard Facts



Extrusion plant, Bellenberg

Completion	1990
Surface area	12,000 m ² , of which 7,500 m ² is built upon
Employees	100
Material	14,500 tonnes of aluminium/year
Attached	Test Centre



Service Centre, Gerstungen

Completion	1999
Surface area	33,000 m ² , of which 8,300 m ² is built upon
Employees	60
Storage spaces	3,400 for 6 m profiles, 1,200 Euro palettes
Attached	Powder coating

From Germany to the whole world

The Service Centre in Gerstungen sets new standards in the field of logistics.

The majority of the profiles produced in the Bellenberg extrusion plant are sent directly to the Gerstungen Service and Logistics Centre in Thüringen, which is conveniently located on the border with Hessen. "From there, deliveries are then sent to the German and European market", explains Edgar Loibl who, as Production and Logistics Director, is also responsible for Gerstungen. The transportation of goods in containers for the Middle East and Asia also start here. For the 950 or so different aluminium profiles, 2,500 accessories and around 800 different items from the range of fittings, Loibl and his team of around 60 employees have 3,400 high-level racking spaces for 6-metre profiles and 1,200 euro pallet spaces available. This means that procedures can quickly and efficiently be implemented: the stacker cranes are equipped with double tables, so that they can load and unload in a single run – and innovative control and software systems accelerate the process.

Direct routes

In addition to the goods-in and picking activities, dispatch and loading of HGVs, composite profiles with polyamide insulation strips are also produced, both in Bellenberg and in Gerstungen. With its partner company, "MBG Metallbeschichtung Gerstungen GmbH", there is also a powdercoating facility attached, which brings additional logistical advantages: Profiles to be coated are picked in the ware-house, refined and then shipped from central Germany around the world. So here, as in Bellenberg, they are looking to find the shortest and most direct routes, so that they can deliver profiles to WICONA customers as quickly as possible.

The shortest delivery times

WICONA is continually investing in its service and logistics. The Service and Logistics Centre located in Courmelles, France, is a good example of this.

With an investment in the double-digit million range, the Service and Logistics Centre in Courmelles was completed in 2011 on a 7.3 hectare site, with a building of 18,000 m². The location was designed so as to ensure optimal customer service, from the storage of the raw profiles to their finishing and rebate assembly right through to dispatch. The aim was to reduce the length of time between order and delivery, irrespective of the type of order or required profile colour.

The six halls, in which all the industrial and logistical operations take place, are laid out in a logical sequence so that the successive work steps can be carried out on a just-in-time basis. The different areas of activity are brought together in one central location:

- Goods-in hall for raw profiles
- Automated high-capacity warehouse (4,400 storage spaces distributed over two side wings with honeycomb storage, with a height of 25 m)
- Order picking
- Coating line (2 cabins for powder coating)
- Crimping, packing and dispatch
- Showroom

The location is certified in accordance with ISO 14001, Qualicoat and Qualimarine.

Another logistics centre is located in Bonneuil-sur-Marne, a small town near Paris. With a surface area of 4,000 square metres, it has 3,400 available storage spaces for seals, fittings and accessories.

» Hard Facts



Photo: Christophe Bouthé

Service and Logistics Centre, Courmelles

Completion	2011
Surface area	73,000 m ² , of which 18,000 m ² is built upon
Employees	200
Storage spaces	4,400



Photo: Christophe Bouthé

Logistics Centre, Bonneuil-sur-Marne

Completion	1998
Employees	30
Storage spaces	3,400

» The multi-functional studio for façades and design

WICONA
*FACADE AND DESIGN
BY WICONA*



WICONA, together with its partners, wants to bring together international architects, planners, project developers and fabricators, to present new ideas, spark professional dialogue and pave the way for future trends.



NEXT: the multi-functional studio

NEXT is a unique industry project from WICONA and eight partners at present.

It is the central meeting point for demanding architects, planners, project developers and fabricators, who can experience a wide range of new technical and design developments here: outstanding innovations for building envelopes and façades, as well as from complementary product areas – presented by the leading industry experts. NEXT not It

is the central meeting point for demanding architects, planners, project developers and fabricators, who can experience a wide range of new technical and design developments here: outstanding innovations for building envelopes and façades, as well as from complementary product areas – presented by the leading industry experts. NEXT not.



1:1-Mock-ups, Cityscope and Virtual Reality formats are available to the experts here.

Photos: Mediashots

Where the industry experts meet

WICONA's NEXT studio is the industry meeting point.

"In the façade and design studio, our partners and WICONA present the latest innovations. For architects, planners, project developers and fabricators, the NEXT Studio in Frankfurt offers the perfect platform for direct dialogue with manufacturers. At the same time, current developments and the latest trends can be discussed, and also many new creative ideas in the construction process and thus in the building envelope be conceived", 64 Oliver Haberkorn,

Head of Prescription Sales, puts the idea of NEXT in a nut-shell. The range includes groundbreaking solutions in the façade, door and window sector as well as for interior design. Products and systems that complement each other perfectly, and which make urban life even more comfortable and sustainable. In addition to the products exhibited, there are impressive new forms of presentation, such as 1:1 mock-ups and Cityscope and Virtual

Reality formats. A unique mix of inspiration and information – which the innovative power of the NEXT partners brings to life!

Smart solutions

Business Unit President Building Systems, Henri Gomez: "NEXT is a reflection of all the intelligent and complementary components used to design and build modern, technically sophisticated window and façade solutions. Here, with our partners, we want to bring

„ We want to encourage discussion early on, to generate new ideas.

Oliver Haberkorn
Head of Prescription Sales



WICONA launched their NEXT studio under the “Challenges for the City of the Future and Solutions from WICONA” headline.



With NEXT, WICONA is actively seeking dialogue.



Here, projects can be properly discussed.

together international architects, planners, project developers and fabricators, to present new ideas, spark professional dialogue and from that, generate future trends for our industry.” WICONA and its eight current partners are displaying innovative products and systems across more than 750 square metres of presentation space. WICONA launched their NEXT studio under the “Challenges for the City of the Future and Solutions from WICONA” headline. The window sector includes the WICLINE 115 AFS, the current benchmark for composite aluminium windows,

and the WICLINE 75 MAX, an architecturally outstanding solution for maximum design, maximum transparency and maximum sustainability. When it comes to façades, the WICTEC evo COLLECTION, with its illuminable façade system and the WICTEC Modul Air, the highlight for multifunctional façades, take centre stage.

Newly created Project World

The NEXT concept is built on modularity and modification. Exhibits and topics are therefore subject to constant updating and development. In the newly

created Project World, WICONA presents extraordinary project solutions and forward-looking unitised façades from projects all over the world. One highlight is the 1:1 mock-up of the Warden London. Project World will be supplemented with further innovative project solutions on a temporary, changing basis. Thus architects, planners, project developer and fabricators can experience WICONA façades up close. Oliver Haberkorn explains the concept of the WICONA Project World: “At the heart of this exhibition is our unitised façade, with its patented drainage system. Simple and

secure to produce and install, this allows three-dimensional structural movement to be absorbed. Our solutions combine innovative technology with maximum freedom of design. We show this in an impressive way – based on projects which have gained international recognition.”

» www.next-studio.de

» Aluminium in Architecture

Over the past decades, many distinguished architects have created impressive building projects where aluminium plays a key role.





35 West 15th Street: The unique 35XV Building, designed by FXCollaborative Architects, is located in the heart of Manhattan and is perfectly suited to the city's harsh conditions, where the opportunities to construct new buildings are so rare that they even have to look for them mid-air.

Photo: Imagen Subliminal (Miguel de Guzmán + Rocío Romero)

Skyscrapers and landmarks

Over the course of the 20th century, aluminium as a building material of the modern age has developed into a permanent feature in the building industry. With aluminium, any architectural concept can be realised – irrespective of whether it is a new build or a renovation.

Building with aluminium first started at the end of the 19th century, in 1897. The architect involved with the construction of the Church of San Gioacchino in Rome, Lorenzo de Rossi, had the cupola of the church covered with aluminium sheets. De Rossi was convinced that the new material would last indefinitely – and he was right. Today, as then, there are no leaks or material fatigue apparent. In the USA, the light metal was increasingly used in the 1930s to lighten the supporting structures of skyscrapers. Thus the Rockefeller Center was clad in 22,000 aluminium panels to make the building 3,000 tonnes lighter. In 1935, the Empire State Building was fitted with anodised cast aluminium sheets, because anodising causes mineral hardening on the metal's surface and therefore offers even greater protection against extreme weather conditions.

In contrast to America, architecture in Germany was not characterised by "high-rise". Here, the agents of the Bauhaus style emphasised the features with their design vocabulary. Walter Gropius (architect and Bauhaus cofounder) originally favoured iron, glass and concrete. He later declared himself to be in favour of the widespread use of aluminium in the building industry.

The predilection for construction with metal and glass remains unbroken

Aluminium has been used on a really large scale in building projects since the 1950s. One of the reasons for this was that production is becoming increasingly cheaper and aluminium is better able to compete on price with other materials. The first major flagship project in postwar Germany is Dortmund's Westfalenhalle,

built in 1951/52 – the largest sports arena in the world at the time. Its roof area of around 9,000 square metres is covered with aluminium sheets. The predilection of architects for building with metal and glass has remained to this day. It is demonstrated in the new Henninger Turm in Frankfurt, which is the work of architects Meixner Schlüter Wendt. For over 50 years, the Henninger Turm has been a landmark for the city of Frankfurt am Main. At almost 120 metres, the tallest building in the city for many years, the Henninger Turm was a favourite destination for at least two generations of the Rhine-Main region's population, who felt a real connection with this building. Since the early summer of 2017, this landmark has been turned back into an ultra-modern residential high-rise with an aluminium façade on the skyline of the Main metropolis.



With its façade and window systems, WICONA fulfilled the high standards in performance for the new Henninger Turm, which impressively revives the defining image of the innovative former industrial building remembered by the city of Frankfurt am Main.

Photo: Conné van d'Grachten

Endless possibilities

Be it a public building, office buildings, hotels, hospitals, care facilities, schools or exclusive residential buildings, façade design using aluminium profiles offers architects endless possibilities for creative design. Many modern structures first reveal their “personality” with the use of aluminium as a building material.

Aluminium is a high-tech material for forward-looking buildings. Anyone deciding on aluminium windows, doors or structural glazing curtain walls demonstrates their taste for sophisticated aesthetics. The material's fundamental properties are also impressive:

Stability:

Aluminium's remarkable strength in relation to its light weight enables extraordinarily stable structures to be built. Therefore, window and mulliontransom structures can be created with very slim profiles which supply the building with light and energy.

Longevity:

The material is completely weatherresistant: colours and surfaces maintain their looks for decades.

Low maintenance:

Construction and façade elements made from aluminium require very little maintenance, and can be quickly and easily cleaned.

Performance:

Aluminium profiles with thermal break create a real thermal barrier and meet the most stringent international standards. Combined with technical glazing, they provide optimum thermal comfort, perfect sound insulation and security.

Modern building material

With aluminium profile systems, classic mullion-transom curtain walls, unitised and fully glazed curtain walls, double skin or multifunctional curtain walls can be achieved. Aluminium is also suitable for use on a large scale and under extreme loads, such as

those which occur on high-rise buildings and skyscrapers. At the 508-metre-high Taipei 101 skyscraper in the Taiwanese capital, which until 2007 was the world's tallest building, the façade units enclosed in an aluminium frame withstood wind speeds of up to 200 kilometres per hour and earthquakes measuring 5 on the Richter scale. But even in less spectacular buildings, aluminium has proven its worth in the building envelope. Allowing for the perfect conditions, then, for aluminium to fully demonstrate its qualities as a modern, high-performance building material in the future.

Source: Aluminium, Baustoff der Moderne/GDA



520 WEST 28TH STREET, New York, United States
Architect: Zaha Hadid Architects
Fabricator: Stahlbau Pichler

PUSHING THE LIMITS OF ALUMINIUM FAÇADES

Engineering skills and perfect craftsmanship seem to dissolve boundaries when it comes to mastering the technical challenges of complex building envelopes in a sustainable and future-orientated way, by using individual project-specific solutions.

Innovation, precision and individuality have always been the hallmarks of the WICONA brand and, across the world, are reflected in intelligent façade constructions, whose quality represents sustainable, future-shaping architecture. This can be seen and experienced: Buildings such as the Monte Rosa Hut in Zermatt (Switzerland); the Bharati Research Station in the Antarctic; the Newfoundland Tower apartment building in London (UK); the 520 West 28th Street apartment building in New York (USA); the École Normale Supérieure University building in Paris (France); or the residential high-rise Henninger Turm in Frankfurt am Main (Germany) are just a few examples of outstanding project solutions, both nationally and internationally.

For over 70 years, WICONA has successfully delivered innovative, sophisticated façade solutions that set the standards in terms of technology and design. The basis for its global success lies in the expertise and experience to offer the best solution for each project, at maximum performance levels, with special customer-specific designs. To achieve this, WICONA works with professional partners both at a local and international level. These partners in the fields of planning, project management, façade installation and fabrication are united in their passion for creative design, quality standards right down to the smallest detail, and the ambition to master complex technical challenges, thus pushing the limits of modern architecture.

PUSHING THE LIMITS OF ALUMINIUM FAÇADES describes both the historical development and the future course of the brand. When shaping the city of the future, "Pushing the Limits" should apply to the creativity of architects and to the wishes of building owners. "Pushing the Limits" is the benchmark for sustainability and responsibility in construction. To do this, we need to ensure we are continually pushing the limits of aluminium façades, moving them, stretching them, expanding the space.



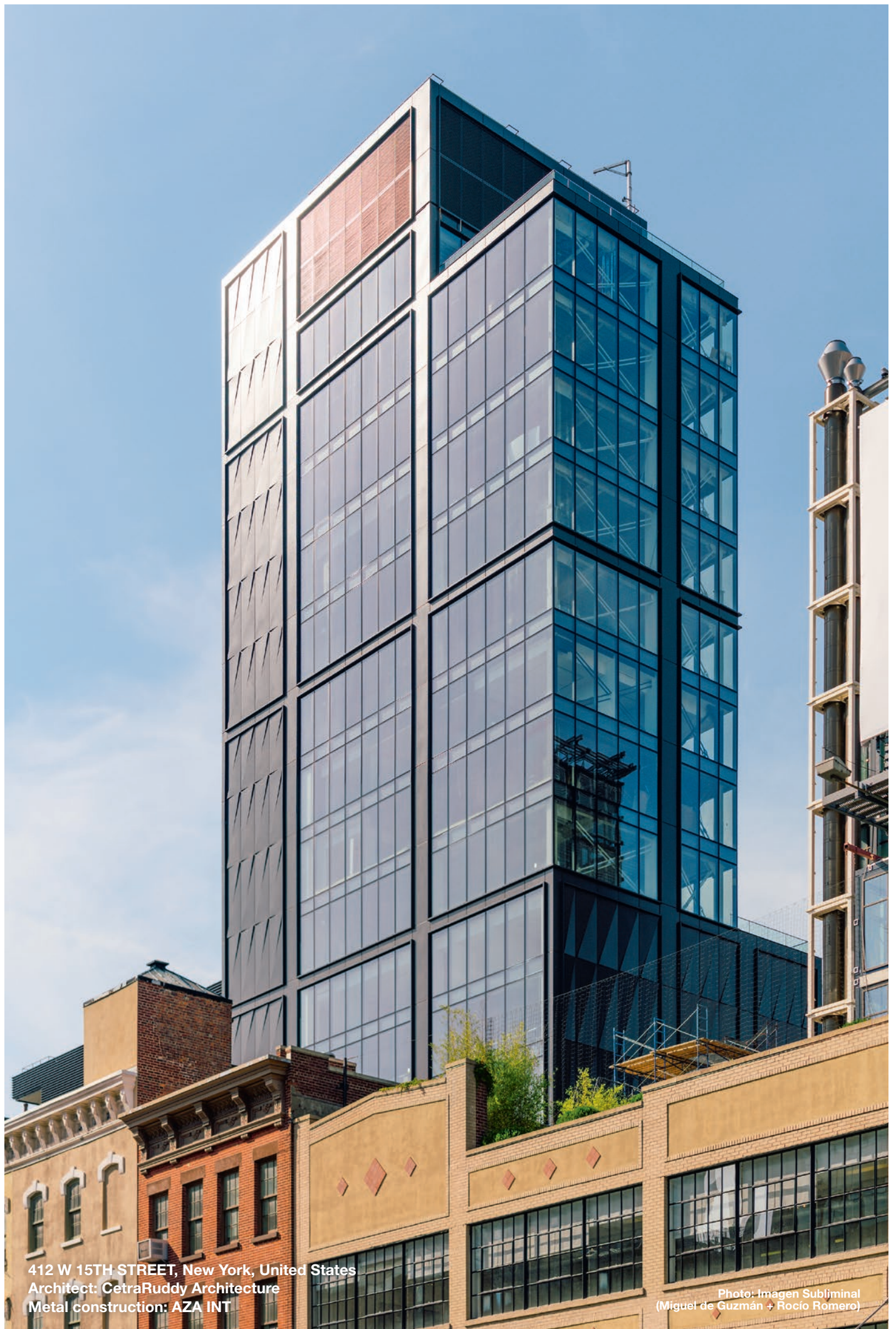
NORD LB, Hannover, Germany
Architect: Behnisch, Behnisch & Partner
Fabricator: Rupert App GmbH & Co.

Photo: Conné van d'Grachten



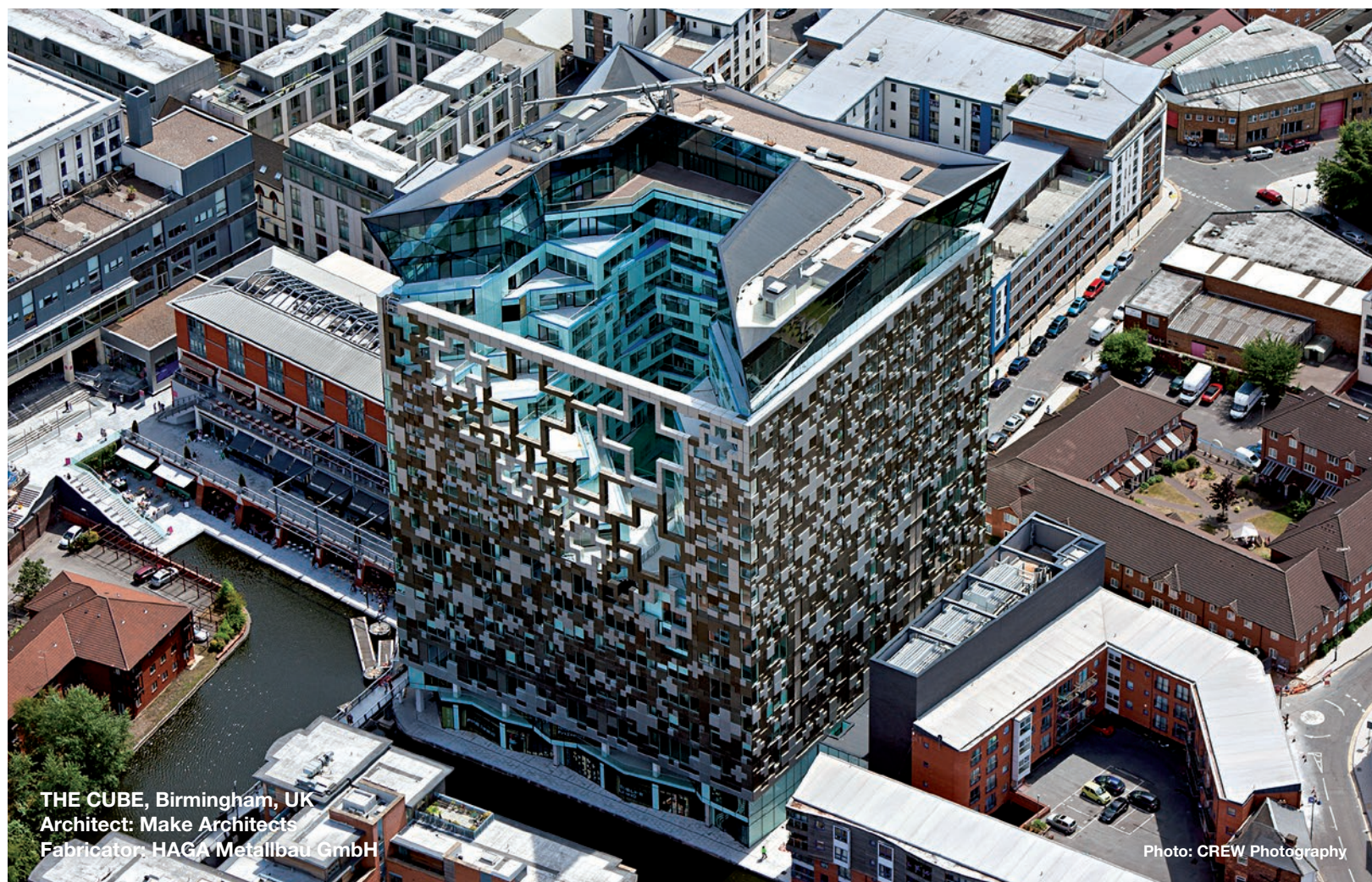
THÉÂTRE MAURICE NOVARINA, Thonon Les Bains, France
Architects: Wimm Architectes / Silo Architectes
Fabricator: Steelglass

Photo: Gilles Bertrand



412 W 15TH STREET, New York, United States
Architect: CetraRuddy Architecture
Metal construction: AZA INT

Photo: Imagen Subliminal
(Miguel de Guzmán + Rocio Romero)





BHARATI RESEARCH STATION, Larsemann Hills, Antarctica
Architect: BOF Architekten
Fabricator: Christophe Lenderoth GmbH

Photo: BOF Architekten



POLYGONE RIVIERA, Cagnes-sur-Mer, France
Architect: L35 with Philippe Caron
Fabricator: Grégoire

Photo: Kamel Khalfi



ERICUSSPITZE, Hamburg, Germany
Architect: Henning Larsen Architects
Fabricator: Schindler Fenster + Fassadenbau GmbH







ROYAL JORDANIAN HQ, Amman, Jordan
Architect: Niels Torp AP
Fabricator: Glassline Industries

Photo: Babel Studio- Ahmad Awad





DE ROTTERDAM, Rotterdam, The Netherlands
Architect: OMA (Office for Metropolitan Architecture)
Fabricator: TGM (Technisch Gevelbouw Management)

Photo: Ossip van Duivenbode





ALLIANZ ARENA, Munich, Germany
Architect: Jacques Herzog und Pierre de Meuron
Fabricator: Haga Metallbau GmbH

Photo: Thomas Uebe – fujipics.de



PANGU PLAZA, Peking, China
Architect: Lizuyuan Architect Office
Fabricator: Beijing Bluesky/New Construction Material Co

Photo: WICONA



Photo: WICONA

TORNADO TOWER, Doha, Qatar
Architect: QIPCO
Fabricator: Grégoire





NEWFOUNDLAND TOWER, London, UK
Architect: HCL Architects
Fabricator: Schneider Fassaden GmbH

Photo: HCL Architects

WARDIAN LONDON, London, UK
Architect: Glenn Howells Architects
Fabricator: Sipral A.S.



Photo: Ballymore



» WICONA

References from the
past decades





Dupont-Gebäude in Bad Homburg/Germany



Nakagawa-Station/Japan



Mutualité, Lyon/France



Flagship-Store Müller in Ulm/Germany





» Aluminium – a sustainable building material

Aluminium is infinitely recyclable, and can be used over and over again without any loss in quality or properties. Ideal prerequisites for resource-saving production, which is becoming increasingly important.



With the high percentage of recycled material that is reused, the CO2 footprint gets smaller and smaller.

Photo: Øyvind Breivik



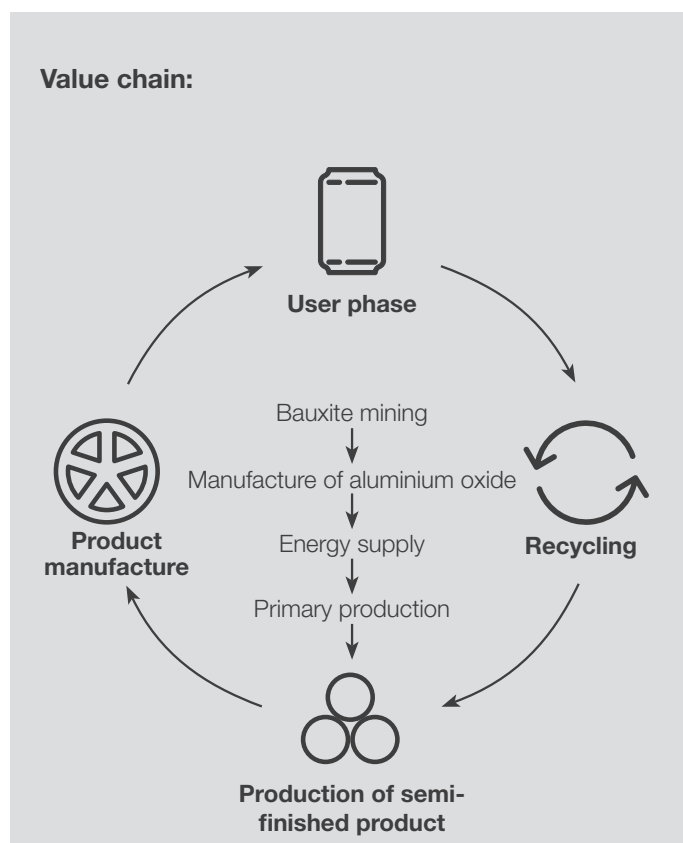
An example from history: When the former Foreign Ministry Building of the GDR was demolished, all the aluminium elements were recycled.

Photo: VfA

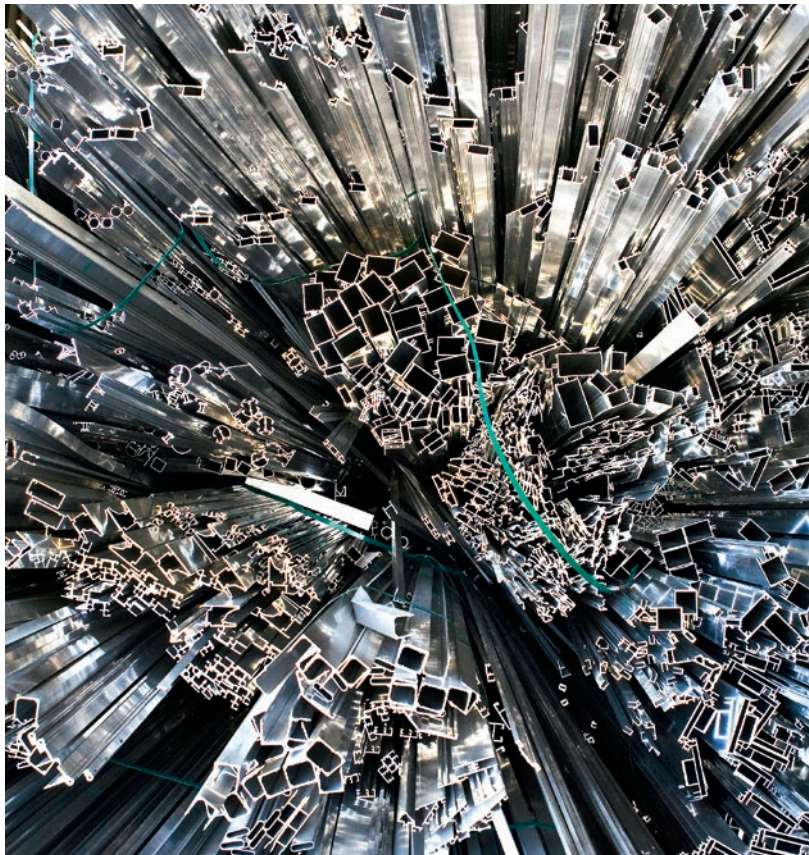
Making new from old

Sustainable construction is not just about energy efficiency. Building owners are increasingly focusing on sustainability certification and are vigilant about the reusability of individual building components. In this respect, aluminium scores points.

The traditional manufacture of aluminium begins with the raw material bauxite, a clay-like rock, which is primarily found at the Equator. Bauxite contains significant amounts of aluminium oxide, also known as alumina, the source material for the manufacture of aluminium. During processing, the opencast-mined bauxite is firstly freed from the loam and milled. The alumina is subsequently extracted during the refining process. Finally, the refined alumina is converted into aluminium in a metal smelter using fused-salt electrolysis. The result is liquid aluminium, which, depending on where it is to be used, is cast into extrusion billets, rolling ingots or casting alloys. Aluminium is subsequently further processed into different products. Raw materials are scarce. That is why, with aluminium, great value is placed on recycling, as aluminium has a particularly high



potential for reuse. Recycling aluminium scrap requires only 5% of the energy needed for the manufacture of new aluminium. Aluminium can be recycled again and again without any noticeable reduction in quality. In other words, none of aluminium's properties are lost during the recycling process. With dismantled aluminium windows or façade elements, the old aluminium is shredded and separated from foreign and non-metallic materials. In the smelting plant, the material is melted down and cast into extrusion billets. From these, new building and window profiles are formed, which have the same high quality as the source material. Since the 1980s, when the separate collection of aluminium was introduced in household waste collections for better integration into the recycling loop, countries like Germany and Austria are world leaders in the environmentally



None of aluminium's particular properties are lost during the recycling process.

Photo: Dag Jenssen/Hydro

friendly recycling of aluminium.

Material loop for reuse

"A|U|F", an association formed in 1994 and reactivated as a registered voluntary association in 2010, is an important partner in Germany. The association's name means: A for "Aluminium", U for "Umweltgerechte Wiederverwertung" ("Environmentally sound recycling") and F for "Fenster- und Fassadenbau" ("Window and façade construction"). The A|U|F initiative is an amalgamation of leading systems suppliers of aluminium profiles and extrusion plants which has set itself of the goal of economically recycling aluminium window, door and façade profiles, and to significantly increase the share of environmentally friendly secondary aluminium in the construction sector. A|U|F and its members have jointly established a closed materials recycling loop for the recycling

and reuse of aluminium windows, doors and façades, which complies with all the German recycling management legislation. The chairman is Walter Lonsinger, who was an executive director at WICONA in Germany for many years. Every year, around 13 million tonnes of aluminium are used for the construction of buildings. To date, 220 tonnes of aluminium are in use in buildings globally. When a building is dismantled, aluminium can be 92% – 98% recycled.

WICONA puts sustainability into practice

WICONA has already proven many times that the company places great importance on ecological aspects. The latest example, which fulfils the deeply entrenched idea of sustainability in a special way, is the use of recycled aluminium in the WICLINE window systems

Facts and figures

5 %

of the energy needed to produce primary aluminium is required for smelting aluminium for reuse.



68 %

of the energy required for aluminium production is generated by hydropower at WICONA.

Recycling

1 tonne

of aluminium means:



74,000

people employed in the aluminium industry in 2015

Aluminium has a very long service life



approx. 75 %

of building products ever produced from aluminium are still in use today



When a building is dismantled, up to 89 % of it can be recycled.

Photo: Halvor Molland/Hydro

Facts and figures



40 %

of all German aluminium production
is exported



150 kg

the average amount of aluminium
in a car – but an Audi A8 even
has 600 kilograms



660 °C

Melting point

and WICTEC façade systems. For the manufacture of these profiles, recycled aluminium is predominantly used. The high percentage of recycled aluminium is guaranteed: it refers exclusively to aluminium which has reached its end-of-life as a product and which has been brought back into the loop. The production process is completely transparent, and the products are certified by an independent third-party company. This is genuine recycling and establishes the WICONA window and façade systems as hall-mark for low-carbon aluminium. Furthermore, WICONA is the first and only brand to date to use recycled polyamide for insulation barriers inside profile structures. This significantly optimises the eco-balance of the insulation barrier – the consumption of fossil resources in the production process can be reduced by 89 %, CO₂ emissions by 84 % and water usage by 32 %. And without any reduction in quality, as the recycled material has the same properties as conventional polyamide 6.6, according to suitability tests.

C2C Certificate for WICONA

At the beginning of 2017, WICONA Systems were awarded the Bronze Cradle to Cradle (C2C) Certificate. The Silver C2C Certificate followed only two years later. It was another important step for WICONA to be able to practice “sustainability” even more actively. The C2C Product Standard is both a design concept and a reference framework, which is already becoming more widespread in European markets. It goes far beyond pure product certification and conventional labelling. The C2C certificate complements and also offers an alternative to the well-known building certificates (DGNB, LEED, BREEAM, etc.). The criteria are directly related to the product, not to the entire building. The responsibility of the product manufacturer, including the entire prefabrication and supply chain, comes into focus. To achieve one of the five certification levels (from Basic to Platinum), a product must fulfil the minimum requirements of the relevant level in all five categories: materials, material cycle, renewable energy and climate, water and social responsibility. If WICONA is specified, the window, door and



Every year, around 13 million tonnes of aluminium are used for the construction of buildings.

Photo: Simon McComb/Hydro

façade systems will automatically meet C2C product quality requirements. No one will need

to worry any more about whether the correct product has been ordered and supplied.

Categories of C2C Certification

Material health:

Product ingredients are inventoried throughout the supply chain and evaluated for impact on human and environmental health. The aim is to replace harmful substances with harmless ones.

Material reutilisation:

Products are designed in such a way that their components can be recycled as part of the technical cycle. At each level continued progress must be made towards increasing the recovery of materials and keeping them in continuous cycles.

Renewable energy and carbon management:

The criteria at each level build towards the expectation of

carbon neutrality and powering all operations with 100 % renewable energy.

Water stewardship:

The production process is designed in such a way that water is preserved as a precious resource for all living things. At each level of certification, progress is made towards cleaning up effluent to drinking water standards.

Social fairness and biodiversity:

Company operations are designed to celebrate all people and natural systems and progress is made towards having a wholly beneficial impact on the people and the planet.

Facts and figures



93 tonnes

of aluminium scrap metal is accumulated each year in the construction industry in Germany

approx. 25 %

of it is reprocessed as part of a closed and monitored recycling process for windows, façades or other aluminium components for the construction industry

16 billion



Euros of turnover was generated in the aluminium industry in 2015
(2005 = 14 billion Euros)

Source: Hydro

» WICONA is a brand of Hydro

Today, Hydro is one of the most prestigious Norwegian companies. It has branches or subsidiary companies in more than 40 countries and employs around 35,000 people worldwide.





Aluminium was a latecomer to Hydro's product range – and was all the more successful for it.

Photo: Hydro

From fertiliser to aluminium

The history of Norsk Hydro began more than 100 years ago with a chance discovery. Physicist Kristian Birkeland and engineer as well as entrepreneur Sam Eyde developed a process for the manufacture of mineral fertiliser.

To be able to produce this product in large quantities and thus ensure sufficient food for the growing population at the time, they founded Norsk Hydro in 1905. It was the start of a new, worldwide industry. Eyde secured the financial foundation for Hydro by collaborating with the wealthy Swedish Wallenberg brothers. But it is worth asking the question as to whether his capable assistant, Sigurd Kloumann, was not more important for Hydro's development. Kloumann was only in his early twenties

when he became responsible for all that Eyde built for Hydro: the world's first successful production plant for mineral fertiliser, the largest hydroelectric power plant in Europe at the time (both in Notodden) and then the largest hydroelectric power plant in the world (in Rjukan).

Birth of the first integrated company

In 1911, owner and his assistant went their separate ways. Kloumann went to Høyanger in western Norway, where in 1915

he founded and developed the country's first aluminium company. His team included close associates from his time at Hydro. Two years later, he expanded his activities and built the processing plant for aluminium in Holmestrand. That was the birth of the first integrated aluminium company. It has come full circle, as both locations became part of Hydro in 1986.

This is Hydro



1905

founded in Norway



represented in

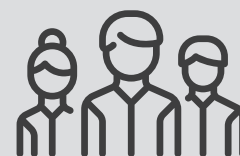
40

countries



150

locations
worldwide



35,000

people employed
by Hydro

Source: Hydro



We are aluminium

The Hydro Way

Our purpose is to create a more viable society by developing natural resources into products and solutions in innovative and efficient ways.



Care.
Courage.
Collaboration.

These are the values we build on.

www.hydro.com



With sales and trading activities, Hydro is active in the entire value chain of the aluminium industry.

Photo: Hydro

Entry into the building systems market

Hydro's aluminium business grew quickly. In 1975, nine extrusion plants in seven countries were producing a total output of 29,000 tonnes of profiles compared with 17,000 tonnes the previous year. After the Hydro plant had survived a period at the end of the 1970s, which was characterised by difficult market conditions, the situation at the beginning of the 1980s was steady. The most significant area of application for extruded aluminium profiles has always been doors, windows and other fields in construction. In 1984, Hydro entered the building systems market with its own building system (Hydro Aluminium A.B.), but it was not particularly successful. In the same year, Hydro Building Systems merged with the Swedish building systems company "Integral Systemer A.B.". In 1986, Hydro acquired five extrusion plants from Alcan, two of which were already active in the construction industry: the plant in Ornago (Italy) with the DOMAL building system, and a plant in Raeren (Belgium). Not long after the takeover, the manufacture of the Belgian building system was transferred to the extrusion press in Raeren and relocated to Herentals. In order to coordinate Norsk Hydro's now mature extrusion group, the "Hydro Aluminium

Extrusion Group" was established, whose headquarters was eventually relocated from Oslo to Lausanne (Switzerland) in 1986. In 1988, Hydro then made the leap into the German building systems market with the purchase of WICONA. In 1990, the building systems activities were restructured. Hydro Aluminium Systems South, with its headquarters in Ornago, was rebranded to Hydro Aluminium Systems S.p.a. and was given responsibility for the Italian, Spanish, Portuguese, Greek and North African markets. WICONA Bausysteme GmbH handled the remaining European markets, thus the company maintained responsibility for the companies in Sweden and Belgium, as well as for the licence agreement in France. WICONA therefore became the umbrella organisation for Hydro's system manufacturers, with the exception of the Italian business.

The largest aluminium company

In 2002, Hydro took over the German Vereinigte Aluminium-Werke AG, resulting in the creation of a strong aluminium division under the name of "Hydro Aluminium" – the largest aluminium company in Europe. Another significant milestone was the complete takeover of the extrusion giant Sapa, 50 % of which was owned by Hydro

from 2013 to 2017. Thus the company took another step on its way to the top of the global aluminium industry.

The company today

Today, Hydro is a fully integrated aluminium company with 35,000 employees in 40 countries across every continent, combining local experience, worldwide presence and unique R&D resources. In addition to the production of primary aluminium, cast and extruded products as well as recycling, Hydro extracts bauxite and produces alumina and energy. This means it is the only 360° company in the global aluminium industry. With sales and trading activities, Hydro is active in all market sectors for aluminium in the entire value chain of the aluminium industry, and supplies more than 30,000 customers. Today, the company can demonstrate more than a century of experience in renewable energy, technology and innovation. Hydro is committed to strengthening customers and society and to shape a sustainable future by creating innovative solutions with aluminium material.

Source: Book "Our Way"



**” We are still
here because
we are doing our job
properly.**

» A glimpse into the future

Henri Gomez has already worked for WICONA for more than 20 years. In Ulm, the focus of his activities was as Managing Director for the key regions of Germany, Austria, Switzerland and the Central South East Europe region. Now Gomez is continuing his journey in Norway. An interview.

WICONA began in 1948 as a small office in Ulm and has developed over the past 70 years into a global player. What were the biggest challenges along the way for a leading supplier of aluminium building systems?

Henri Gomez: The biggest challenges were surely to continually develop innovative system solutions that ensured a technological advantage for us and our partners. There were – and are – constantly new technical developments in building envelopes and, of course, in the building industry as a whole. It means that we must continually adapt to these developments and provide the necessary technologies. That was certainly the biggest challenge in the past 70 years. During this time, buildings have changed dramatically, and today we are faced with different problems compared to the past. Today, for example, emphasis is put on an excellent energy balance or on good acoustics in building construction. All these were challenges where we have been successful in the past and must remain so in the future.

What decisions were important for WICONA for it to become the company it is today?

Henri Gomez: I think that one of the milestones was the takeover of WICONA by the Hydro Group. That was a big step for the company at the time. It gave us a new and international perspective. As a result, we became a corporation, an organisation. Hand in hand with this takeover, there were some very big changes in the 1980s and at the beginning of the 1990s. The company grew stronger and larger, and gained more market power with an international outlook.

With so many changes in the building industry, WICONA played a pioneering role. In your opinion, what was WICONA's biggest success in the last 70 years?

Henri Gomez: Innovation remains the cornerstone of our company – we have always been very innovative. Today, when people talk about thermally broken aluminium profile systems for windows or façades, 90% of that is standard. WICONA developed that standard, which is viewed internationally as the best on the market,

and was the first to market with it.

Today, WICONA is a global player with branches all around the world. Are there additional markets for the brand, or are there already plans to open in any new locations?

Henri Gomez: We are quite strong in Europe and have gained a foothold in Asia, India and the Middle East. There are still some places, though, where we can and want to develop further. North America, for example. At the moment, we have a small team in the New York region and now wish to establish ourselves in the whole of North America. The same goes for South America. In fact, we already have two Hydro plants there, which are also large producers of aluminium; however, we are striving for an even greater market share in our sector. The challenge is that these markets are different. They don't just differ in terms of their culture – they also have different technology standards for building envelopes. We must adapt our solutions to their needs, whether that is regarding improving the energy efficiency of the building envelope or directing more light into the building. In these markets, there is a big backlog in this area. Europe has developed more quickly and now has a lead of 20 years. We must succeed in providing these markets with the right solutions.

Customer focus is particularly important to WICONA. This is also one of the reasons why WICONA has opened the NEXT studio. What benefit do you see in appearing with different partners?

Henri Gomez: We are first and foremost a supplier of system solutions for architects, planners and fabricators, so that they can build highperformance buildings. It's no use if you are a great company but don't listen to the market, don't adapt or don't speak the language of those who decisively shape the future of the building envelope – then there is something wrong. WICONA has always cultivated good relations with its customers – that is our company culture (of which I am very proud, by the way). We work with each other, fight with each other, discuss with each other. Over the years, that has paved the way, step by step, for us to offer a place where experts can come together, a



” We are rather simple and modest – and so too is our cooperation with our customers.

platform where everyone can come together – that is NEXT. Investors and specialists meet here to exchange information about developments in building envelopes, or façades of the future. We opened the studio in Frankfurt last year, and my aim was to have 500 visitors per year; by the end of July, we had already had 800 visitors – that is fantastic. Now we need to see where we will next set up our similar platforms: Shanghai and London should follow, and Zurich next year. This is a step forward for everyone – joint activities with partners who speak the same language make us advance. As a result, cooperation has become much more productive, faster and simpler.

What is the most fascinating part of WICONA and its culture? What distinguishes WICONA from the competition?

Henri Gomez: We are rather simple and modest – and so too is our cooperation with our customers. That distinguishes us from the competition, and I think that's very important. Nevertheless, we have a strong and well-positioned company. We can arguably be accused of being too reticent when it comes to showing off our achievements. A part of my job has also been making WICONA more visible in the market. And today, WICONA is just that! An example of that is our NEXT studio, where we constantly and directly exchange information with all those involved in construction. Much more communication has resulted from this. We are no longer “just” in the office – we do more marketing, we organise conferences and we encourage more communication, as that is a key element of our industry: speaking with all those involved

in construction. In recent years, we have also steadily increased our presence on social media.

WICONA develops “German technology” for energy-efficient window, door and façade solutions. What is the main advantage for WICONA partners? And why is it so important to strengthen this competence?

Henri Gomez: As already mentioned, building construction has changed a lot in recent years and decades. It is not always easy to keep up with it. Often, our partners are not as large as we are – most of them are small businesses with 20 to 50 employees, who do not always know every piece of legislation or each individual specification. Hence, we support our partners by offering them training. In the past year, we have trained at least 1,000 people in the areas of regulation, processing and installation of our system solutions. There were 400 the previous year, so a large increase. In the past, there was less emphasis placed on it, but the trend is clear: We are investing in knowledge, as we need competent people who can withstand all the new challenges our industry brings.

Today, WICONA delivers highly developed technology for building envelopes around the world. WICONA is renowned for its pioneering spirit. Which WICONA innovations will influence the building industry in the future?

Henri Gomez: There is currently a lot of focus on building comfort. That includes, for example, thermal and sound insulation as well as good acoustics. At BAU 2017, we exhibited a window



Henri Gomez mit zwei Auszubildenden aus dem Marketing, Simon Lohmiller und Alexander Maurer, und Carla Ebert, die ihre Ausbildung in diesem Jahr abgeschlossen hat.

Fotos: Schuon

system that promises new potential. Normally the acoustics in a room are only good while the windows are closed. The concept of our new window systems allows the user to ventilate the room without having to sacrifice good acoustics inside the building. Another important issue is of course the recycling of our aluminium, in order to reduce our carbon footprint. The industry has already been talking about recycled aluminium for years. However, what distinguishes us and makes us unique is that most of our recycled aluminium refers exclusively to aluminium which has reached its end-of-life as a product and which has been brought back into the loop. In fact, Hydro even has its own plant for this – Hydro Aluminium Recycling Deutschland GmbH in Dormagen. This recycling plant shreds and sorts used aluminium products using world-leading technology. In the Hydro remelting plant, the aluminium is melted down and then cast, ready for its next life-cycle. That is the first but very important step which clearly distinguishes us in the market and is important for our company and for our future.

Speaking of which – building envelopes do have a big influence on the environment. The building industry already produces over 40 % of global CO2 emissions. What is the situation with WICONA?

Henri Gomez: In building technology, we always have problems with energy. To reach zero emissions, it's not just about windows and façades. It is much more about making the whole building "clever". BIM (Building Information Modelling) is a helpful aid. It is an interactive platform which

enables all those involved in the construction to simultaneously access the same information on a project and the specifications of different WICONA systems. Its aim is, therefore, to achieve improvements in building costs, performance and CO2 efficiency, over the duration of a project and over the lifetime of the building for years to come – from the initial planning and design work through to operation, maintenance, demolition and recycling.

The digital evolution is finding its way into all areas of life. How do you see the importance of digital solutions in the building industry? Is WICONA ready for it?

Henri Gomez: We offer integrated software solutions to customers in our sector. As already mentioned, the construction industry is fast-moving and very demanding. With our IT tools, all those involved in a project can quickly work on and exchange important information such as 3D models, BIM specifications, technical drawings, values and data with each other. There is currently a 20-strong team working on this subject. But digitisation for me also means continuing to reduce data in paper format. The entire WICONA product documentation is now available online in WICTIP for all our partners. Another example is our order software, Com@lu, which our partners can use to order from us online and even check stock availability. In France, this order software is used a lot – in Germany the market is less developed. Unfortunately, we in Germany are still somewhat behind as far as digitisation is concerned. In other countries, for example Spain, employees

„ We offer integrated software solutions to customers in our sector.

„Ich bin mir sicher, wir werden uns noch stärker zu einem global agierenden Unternehmen entwickeln.“

always have a tablet with them – here, that is still pie-in-the-sky. But we are making progress. And we must – after all, Germany is one of the world's largest exporters, so something should still happen.

Where do you see WICONA in the next 70 years?

Henri Gomez: I am certain that we will develop even more strongly into an internationally operating company. We will manufacture products made exclusively of 100% recycled materials, and our cooperation with architects will also change – I think that, sooner or later, they will sit with us in our offices and we will develop joint solutions. Furthermore, I believe that we will eventually no longer “only” offer aluminium systems, but complete solutions with, for example, the accompanying glazing. Obviously, it's a long way off, but it will come, and the company will fundamentally change.

How many years have you been part of the company? What were the most important steps in your career?

Henri Gomez: I have been at WICONA for over 20 years. I started in France in 1996, I was young then – later I was given management responsibility for France and Benelux. During this time, we acquired “Technal”, our main competitor at the time. In 2002, I took over Sales and Marketing management responsibility for the Technal and WICONA brands in France, and from 2006 until 2012 I worked as Managing Director for both brands as well as in managerial capacity in the Middle East. As Vice President, I was also responsible for international marketing and international product development (R&D). In 2014, after two years in the position, I became Managing Director for Italy and South-West Europe, from 2016 until 2018 I held the position of Managing Director in Ulm, and from September 2018 to date I am Business Unit President Building Systems in Oslo.

In your opinion, what are the qualities needed to be successful?

Henri Gomez: Passion, adaptability, openness. If you are passionate about something, you are happy with what you do, and can inspire others and take them with you. Adaptability is equally important, because you always get to know new people who you work with. Every day is different, the world keeps turning and changing. To be and stay successful, you must be able to adapt to changes. And last but not least: openness. You must be able to and willing to learn from others!

You have just taken on a new position within the Hydro Group. What does that mean for WICONA and how do you feel about this decision?

Henri Gomez: : I am very positive about the decision. I have been in Ulm for two and a half years now, and it was my job to prepare everything for the next generation – and here we are. But I am French, and I think that WICONA in Germany should now have a German boss.

What do you wish WICONA for the future?

Henri Gomez: That WICONA takes the next step and becomes Number 1 in Germany. But that is definitely a big challenge.

About the person

Henri Gomez became Business Unit President Building Systems in September 2018. French by birth, he has already worked in the aluminium building systems sector for three decades. He has worked for WICONA for over 20 years, most recently as Managing Director in Germany. The focus of his activities was as Managing Director for the key regions of Germany, Austria, Switzerland and the Central South East Europe region. At the same time, Gomez pursued the path he had already begun in the USA and pushed the establishment of the brand there.



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