New ERP platform

Project launch in Nufringen
Generous donations

Winter clothing for refugees in Ukraine

96 packing cases filled with coats, jackets, pullovers, trousers, stockings and woolen blankets for refugees in Ukraine. Edith Holzberger of the Wilfried Ensinger Foundation, who organised the collection at the Nufringen and Ergenzingen locations, was amazed at the generosity of the Ensinger employees.

At the end of November the truck carrying the relief supplies reached Kremenchuk in the centre of Ukraine, where the donations of clothes were distributed by a partner organisation of the Eastern Europe charity Osteuropahilfe.

According to information provided by the United Nations, there are more than 250,000 refugees in Ukraine. Many people do not have warm winter clothing because they had to leave their homes without being able to take much with them – or anything at all.

For many years, the Wilfried Ensinger Foundation has been supporting disadvantaged families and orphans in Ukraine. In view of the tremendous response from employees, another aid campaign will be organised this year. Edith Holzberger requests that all staff should already think of next winter in Ukraine, as they sort out their clothes. “Please put any warm clothing aside ready for the next collection. And remember, the children are always thrilled to receive toys.”

I wish you all the very best,

Klaus Ensinger

www.wilfried-ensinger-stiftung.de/en/the-foundation/

Theresa Koch, Marina Haypkh, Kaljopa Staffidova and Edith Holzberger (left to right) sorting the winter clothing
Project launch in Nufringen

New ERP platform – by Dr. Erwin Schuster and Jochen Genterczewsky

Following the decision to discontinue the existing Baan system, the first phase of the changeover project has launched in Nufringen: A number of employees from the various divisions and the Service Center are attending ERP training courses, others are taking part in workshops dealing with the analysis of business processes and the elaboration of specialist concepts. The teams are being supported by external advisors.

Only a minor part of the changeover to the new ERP system actually directly involves IT. The majority of the planning and changeover work is the responsibility of the divisions, who are working together with colleagues from IT to generate the master data and corporate processes the company will be using in the future.

**Reasons for the system changeover**

Just like production plants and machines, ERP systems also have a limited life cycle, and this is forcing us to adapt or fundamentally renew this core element of the IT infrastructure in line with changing requirements. The growth taking place at Ensinger requires the sound support of a contemporary ERP system which completely depicts the organization, including the international production and logistics networks.

The Baan system currently in place now requires a large input of resources and additional systems if it is to keep pace with Ensinger’s growing needs. However, it is unclear how this insular solution will develop in the future. Weighing up the licensing and system costs involved and the outlay required for advisory services, the ever higher costs of adapting the old system have become increasingly unjustifiable.

**Objectives**

Following completion of the project, the IT application landscape at Ensinger will be substantially more homogeneous, with just ONE Ensinger ERP. Harmonization of our processes and master data and greater data integration will make for much greater work flow efficiency. The new system will initially become the standard at our Ensinger locations in Germany, then it will roll out internationally to the whole of the company group.

As the ERP project affects all key work processes, the involvement of all affected departments and employees is vital. Key users will exercise a pivotal function in the project organization. They will perform multiple roles in their respective divisions and form the bridging link to all users of the ERP system.

The project is currently going full steam ahead. The organizational structure with the Steering Group, Project Office and Project Management has now become fully established, the key users have been nominated and all those involved are working across division and department boundaries to leverage the exciting new opportunities offered by the system change.

In the following issues of “Ensinger impulse”, the individuals responsible for the project will be reporting on key components of the ERP project and their progress.

As CIO, Dr. Erwin Schuster is in charge of Service-Center IT, Jochen Genterczewsky heads up the ERP Project at Ensinger.

**Smart information management**

The abbreviation ERP stands for Enterprise Resource Planning. An ERP system is used to log the most important company data, process it and store it in a central database, enabling different types of data to be linked.

An ERP platform integrates not only finance data from all company departments and divisions, but also information relating to logistical and administrative processes. One of the benefits is that business data only has to be entered once, and is then available in all other parts of the system, known as modules.

The system’s closely meshed functions simplify the control of both business organizational and operational processes. An e-commerce connection also allows customers and suppliers to be integrated into business processes.

**Ensinger is “Cloud Champion”**

Cross-location IT infrastructure impresses competition judges

Deutsche Telekom announced its “Cloud Champions” in autumn. Ensinger is one of the overall winners of this contest for small and medium-sized enterprises, which was held for the first time this year. The award distinguishes companies who master day-to-day challenges with a modern cloud infrastructure.

Ensinger has used a “private cloud solution” to safely link all three computing centre locations in Germany. The “Ensinger Cloud” offers the company the facility to provide its own dedicated IT services such as a material management and customer management system at all its locations.

At the award ceremony in Berlin: Rupert Holzer (left, Head of IT Infrastructure) and Dr. Erwin Schuster (right, CIO) with boxing world champion and entrepreneur Wladimir Kitschko (centre)
A warm welcome ...

Employees who have joined Ensinger:

- **Nufringen**
  - Semi-finished products
    - Atilla Barut
    - Serhat Cakir
    - Amaboh Orlando Chea
    - Robert Czwerko
    - Anda Ertürk
    - Frano Galic
    - Hannes Großmann
    - Marcel Heim
    - Markus Hofmann
    - Max Jackson
    - Bekir Kara
    - Patric Keitel
    - Olga Kelbert
    - Theresa Koch
  - Product and Process Development
    - Marcus Münchberg
    - Steffen Stüchting
    - Nick Widmayer
    - Erkan Yilmaz
  - Accounting
    - Sandra Hikel
  - Controlling
    - Samuel Raphael Mayer
    - Elisabeth Rehfeldt
  - IT
    - Thomas Dreßler
    - Elke Maier
    - Thomas Weihing
  - Ergenzingen
    - Serhat Cakir
    - Amaboh Orlando Chea
    - Robert Czwerko
    - Anda Ertürk
    - Franjo Galic
    - Hannes Großmann
    - Marcel Heim
    - Markus Hofmann
    - Max Jackson
    - Bekir Kara
    - Patric Keitel
    - Olga Kelbert
    - Theresa Koch
  - Thermix
    - Daniel Bonati
    - Christina Breu
    - Markus Kolbeck
    - Peter Runze
  - Cast Nylon
    - Andreas Pocklitz
  - Machined Parts
    - Alex Köppl
    - Sandro Beck
    - Stefan Dankerl

With best thanks ...

This year the following employees celebrate their company anniversaries at Ensinger:

- **Nufringen**
  - Heike Bek
  - Dorothea Laub
  - Toma Mayer
  - Robert Müller
  - Peter Neumann
  - Vinko Pavlovic
  - Angelika Plust
  - Antonino Rampello
  - Heike Bek
  - Dorothea Laub
  - Toma Mayer
  - Robert Müller
  - Peter Neumann
  - Vinko Pavlovic
  - Angelika Plust
  - Antonino Rampello

- **Ergenzingen**
  - Heiko Friedrich
  - Brigitte von Hochmeister
  - Georg Pongratz
  - Alfons Prasch
  - Heinz Raunest
  - Alfons Schönberger
  - Erwin Schmidhuber
  - Hans-Martin Stackmann
  - Xaver Wagner

- **Cham**
  - Karl Bauer
  - Martin Bauer
  - Albert Daschner
  - Erwin Denk
  - Michael Dohler
  - Martin Goettlinger
  - Josef Goetz
  - Krystian Gruszka
  - Alois Haimerl
  - Alfred Holmeier
  - Konrad Lankes
  - Michael Poeschl
  - Xaver Wagner

“Best employer 2015”

Ensinger ranked top once again in Focus study

Once again this year, Ensinger has been named among Germany’s top employers. In a representative online survey carried out by the Focus Magazine in cooperation with Xing and kununu.com among employees in Germany, Ensinger was ranked top among all medium-sized enterprises surveyed in the manufacturing and processing of materials, metals and paper category. “Already last year, we came out on top in this nationally acclaimed study, which played a key role in attracting even more interest in Ensinger as an employer. This is just one reason we are so delighted that this top ranking has been confirmed again this year”, says Head of the Legal and HR Department Achim Lehmann.

For the current Focus ranking list, the 806 best employers with a workforce totaling more than 500 were selected from a total of 22 different sectors. The survey was carried out by means of an online access panel and among Xing members. Employer assessments from the kununu.com platform were also used by the survey.

Survey participants answered questions on topics such as their degree of satisfaction with the leadership conduct of their line manager, their career prospects, their salary and image of their employer. They were also asked to state the degree to which they would be willing to recommend their own employer and other employers within the same sector to others. Overall, more than 70,000 assessments were included in the study.
A look at the past

In spite of a few cancellations due to illness, nearly 40 retirees and their partners got together to explore some of the highlights of the historic university town of Tübingen.

First stop was the Boxenstop Car and Toy Museum. We saw a variety of racing cars, sports cars, motorbikes and bicycles that awoke memories of our own experiences from the 50s and 60s. We also looked at historical toys, and everything that belonged to a well-stocked nursery at that time: dolls’ houses, steam engines and electric railways in all the usual track gauges.

Going further back into the past, a town guide accompanied us on a historical tour of the picturesque old town. In the year 1477 Count Eberhard the Bearded, Duke of Württemberg, founded the university in Tübingen and laid the foundation of the future development of the town. Even now, there are very few houses or squares in the old town that are not linked with well-known scholars. Georg Friedrich Hegel, Friedrich Hölderlin, Friedrich Wilhelm Schelling, Eduard Mörike, Ludwig Uhland, Johannes Kepler and Wilhelm Schickard to name but a few.

All these experiences prompted plenty of lively conversation. At the evening get-together, Managing Director Klaus Ensinger updated the retirees about all the company’s latest news. The discussion showed that all former staff are still deeply interested in the technical developments and structural changes in the company, even after many years of retirement.

IIona Brodt was Chair of the Works Council at Ensinger from 1989 to 2008

Outing to Tübingen for Ensinger retirees – by Ilona Brodt

Awards for scientists

The Scientific Alliance of University Professors of Plastics Technology (WAK) puts up annual awards to outstanding research work in this field. The two awards deliberated by the Wilfried-Ensinger Foundation were presented by Klaus Ensinger at the Composites Europe Trade Fair in Düsseldorf. Dr. Manuela Andrich received an award for her dissertation on “Analysis of the damage and failure behaviour of textile-reinforced plastic composites”. Amelie Leipprand’s diploma thesis entitled “Analysis of Material Properties of Composites manufactured by Tailored Fiber Placement” was also recognized with an award. Both prize winners are from the Technical University of Dresden.

Two further Wilfried-Ensinger awards in process technology were conferred on the Institute of Plastics Technology (IKT, University of Stuttgart). Dr. Philipp Menner received an award for his doctoral thesis on “Non-destructive testing of fibre-reinforced polymer with shearography methods”. Michael Weintert received an award for his master’s thesis “Production of zeolite honeycomb monoliths with mineral matrix using double worm extruders”.

Klaus Ensinger, Dr. Manuela Andrich and Amelie Leipprand at the award ceremony in Düsseldorf
The Leipzig Opera House – opened in 1960 as the GDR’s historical first theatre – shines in new splendour for the city’s 1000-year jubilee.

1000 years of Leipzig: Formerly known as the “City of Lime Trees”, Leipzig is pulling out all the stops to mark its jubilee in 2015. 1960 saw the opening of the present-day Opera House, then the GDR’s most modern theatre located on Karl-Marx-Platz, now renamed Augustusplatz. Its architecture evokes the classical predecessor building, which was destroyed by aircraft bombs in 1943. At the same time, with its austere language of form, this is heralded as one of the most attractive examples of the building style of the late 1950s.

737 large muntin windows with gold anodized aluminium frames lend a light and almost transparent appearance to the sandstone façade. And were letting in draughts. The heat transfer coefficient Uw was just 3.7 W/m²K. The result was low temperatures in winter, while in summer the building overheated, and the sound proofing was insufficient. Renewal of the windows in keeping with heritage guidelines and in accordance with the Energy Saving Act (EnEV) allows the achievement of a Uw value of 1.3 W/m²K, resulting in an estimated 15 to 20 per cent reduction in heating costs.

Thermix minimizes thermal bridges
“Operatic artists are like high-performance athletes – so we had to pay attention to the humidity in the building”, explains Dipl.-Ing. Toralf Schmidt, in charge of renovation planning. “To prevent condensation build-up at the windows, the thermal bridges in the frame assembly had to be kept as minimal as possible.” Using Thermix® muntin bars and warm edge spacers Thermix® TX.N® plus from Ensinger between the panes of the triple glazing, the Uw value of the windows now even exceeds the requirements of EnEV, at 1.1 W/m²K.

New gold-framed windows to mark the jubilee
“Because they permit adjustment of the colour, the Thermix muntin bars and spacers can be ideally used for heritage window renovation projects. A gold anodized aluminium panel on the pane creates the perfect visual impression”, says Mathias Riecke, CEO of HAGA Metallbau. “Once we had agreed the design with our partners Sachsienglas Chemnitz, Wicona and Ensinger, we were able to complete production and installation of the 340 windows ranging in size from 1.4 times 1.6 to 2.4 metres within just eight weeks.”

“The customer was delighted with the muntin bars and spacers produced specially in a gold colour”, recalls Dr. Albert Lingens, Head of Thermix Sales at Ensinger. During the last phase of the refurbishment last year, 130 windows were replaced in compliance with listed building regulations during the summer break, and Thermix products were fitted. Right on time for the city’s 1000 year celebrations, the Leipzig Opera House completed a full structural and energy saving refurbishment, and was unveiled with new, gold-framed muntin bar windows.

Gold-coloured Thermix products help ensure refurbishment in keeping with heritage requirements

The Leipzig Opera House – opened in 1960 as the GDR’s historical first theatre – shines in new splendour for the city’s 1000-year jubilee.

Europe’s third public opera house was established in Leipzig in 1693. As a venue for opera, the Leipzig Ballet and Musical Comedy, this cultural institution remains highly successful to this day: audiences totalling around 100,000 attended the Leipzig performances in 2013. The building newly constructed in 1960 has been undergoing renovation gradually since 1998. The windows were renovated in 2013.

Project scope:
340 windows of 2.8 m²

Improvement:
Uw value from 3.7 W/m²K to 1.1 W/m²K (required by EnEV 1.3 W/m²K)

Client:
Oper Leipzig

Planner:
Dipl.-Ing. Toralf Schmidt, Engineering Consultancy for Building Conservation, Leipzig

Window builder:
HAGA Metallbau GmbH, Lichtenau

Window profiles:
Wicona, Ulm

Muntin bars:
Thermix® muntin bars from Ensinger, Ravensburg

Spacers:
Thermix® TX.N® plus warm edge spacers from Ensinger, Ravensburg

Insulated glass units:
Sachsienglas Chemnitz GmbH, Chemnitz

Installation:
Rainer Mixel Montagebau, Pöhl
Elekem Ltd. acquired

In November, Ensinger Group Ltd acquired the UK company Elekem Ltd. Based in Rosendale near Manchester, this specialist supplier produces semi-finished products made of fluoropolymers and polyaryletherketone. Elekem uses different manufacturing techniques to process these high-performance plastics, with the focus on isostatic moulding and dynamic centrifugal moulding of tubes.

Ensinger at the Anuga FoodTec

24–27 March 2015, Cologne, Hall 10.1, Stand G081

Cham: Sale of Custom Cast Nylon Division

Ensinger sold its division for the manufacture of machine components made of custom cast nylon to Schwartz Technische Kunststoffe last October. The product groups taken over by Schwartz include custom cast pulleys, deflection rollers, runners, support plates and sliding elements previously manufactured in Ensinger’s Cham location.

“The Custom Cast Nylon Division for building machinery, lift and conveying technology has too little in common with the rest of our product portfolio,” explained Klaus Ensinger. “Our Cast Nylon Division will concentrate in future on the production of semi-finished products.”

There was a thirteen-strong team involved in the sale of custom cast components in Cham. Twelve of them have taken alternative posts offered in other divisions. One decided to take advantage of an offer to join Schwartz.

Partners in sustainable construction

Wicona equips aluminium systems with insulbar RE for the first time

Wicona is Europe’s first aluminium systems company to use insulbar® RE from Ensinger. The thermal insulation bars are used for the thermal separation of profiles for windows, facades and door constructions, and are made of 80 per cent recycled material. This marks a decisive improvement to the life cycle assessment of the overall systems – without compromising quality.

The unmixed recycled polyamide used undergoes an upcycling process which places its properties on par with those of new materials. Polymer blends or mixed recycled materials are not used. As the Environmental Product Declaration (EPD) issued by the Window Technology Institute (ift) in Rosenheim testifies, use of insulbar RE reduces the consumption of fossil resources by 89 per cent, carbon emissions by 84 per cent and water consumption by 32 per cent.

Extrapolated over the year, by converting its window systems, Wicona will reduce its carbon footprint by over 12,000 tons – more than the total weight of the Eiffel Tower in Paris.

“Sustainability is playing an ever more important role in the construction industry worldwide”, emphasizes Managing Director Dr. Roland Reber. “Thanks to this partnership we are now making available windows, doors and facade systems which will equip clients, architects, planners and processors to meet current and future requirements. Systems using insulbar RE provide a sustainable way of saving energy and costs. The Environmental Declaration that comes with the products also offers a reliable data basis for improving the overall life cycle assessment of a building,” Arnd Brinkmann, Managing Director of Wicona, adds: “Keeping a company at the cutting edge of innovation is first and foremost to ensure the concrete implementation of new developments which represent a tangible improvement and which make a sustainable mark on the industry. With these insulating bars made of recycled polyamide, two companies now are working together to create an established position for this meaningful innovation in the marketplace. Customers gain an immediate and tangible benefit from EPD, particularly where certifications are requested in compliance with green building labels such as LEED or DGNB. Because the EPD forms the basis for an ecological building assessment, this allows comparison of the data from individual EPDs, which can be collated using a modular system to create a building’s eco balance.

For Wicona to agree to the use of this recycled plastic, the material had to match the efficiency of the polyamide 6.6 typically used for insulating bars without in any way compromising process ability. This condition was met 100 per cent: The insulating profiles made of recycled polyamide are suitability tested in accordance with DIN EN 14024 and possess the same mechanical and physical characteristics as conventional insulation bars made of polyamide 6.6.

Use of this new development from Ensinger is being gradually introduced across the whole of the Wicona product range. The profiles do not need to be ordered separately by the customer, nor does the installation require any special precautions when it comes to handling or logistics. The company’s warranty applies in full also to systems made of recycled polyamide. This means that customers can utilize this groundbreaking innovation automatically without any additional effort – while reaping a sustainable benefit.

The Environmental Product Declaration (EPD) forms the basis for life cycle assessments in the construction sector

Environmental benefits: the use of insulbar® RE reduces the consumption of fossil resources by 89 per cent, carbon emissions by 84 per cent and water consumption by 32 per cent.
Three-dimensional multimultitables
Ensinger’s involvement in 3D-HiPMAS research project is blossoming: New compounds are paving the way for further miniaturization of circuits on three-dimensional components.

The endeavour to reduce the weight and cost of smartphones and other electronic products has been driven forward by the development of moulded interconnect devices (MIDs). Unlike circuit boards which have to be additionally mounted in devices, in the case of MIDs the circuits are applied directly on to the injection moulded component. This concept allows the component to fulfil both a mechanical and an electronic function.

Within the EU backed 3D-HiPMAS project, research institutes and companies, including Ensinger, are working on the further miniaturization of MIDs. The promising technique being used to achieve this is laser direct structuring (LDS, see illustration). This technology enables track widths and spaces of just a few micrometers to be produced on three-dimensional surfaces. However, for this to be possible the material used has to comply with wide-ranging demands. Structures of this extreme fineness can only be produced if the component is capable of withstanding temperatures of several hundred degrees Celsius while maintaining its shape as precisely as possible. Good adherence of the micrometer-fine copper tracks is also vital.

Ensinger is responsible within the framework of the project for the development of high-performance compounds. The development engineers adjust the TECA COMP materials to specific requirements for the test series: Thermally resistant and dimensionally stable materials such as PEEK or liquid crystal polymers (LCP) serve as the matrix. Various additives and special compounding techniques improve the behaviour of the material during laser direct structuring. This allows further reduction of the track widths and interstices. In addition, new thermally conductive fillers are helping drive forward MID development. These allow the housing to quickly dissipate heat build-up during operation. In these ever more minute components, heat dissipation is becoming a growing challenge.

What it’s all about: The aim of 3D-HiPMAS is to reduce the cost of producing three-dimensional moulded interconnect devices (MIDs) – injection moulded articles into which electronic conductors and circuits are integrated.

Given the high growth rates demonstrated by the Chinese economy it is not surprising how quickly Ensinger has developed at the Shanghai site. Sales and distribution of stock shapes began in 2002 when a small representative office with a three-person team was set up. Five years later this was expanded to include a second division, namely that of moulded parts. Nowadays around ninety people are employed by Ensinger China. A lot of effort was required to enter the market for engineering and high-temperature plastics, but this was soon rewarded with success. Sales figures increased continuously. In the summer of 2006 Ensinger (China) Co., Ltd. was founded with the aim of developing direct trading from Shanghai.

In the autumn of 2007 Ensinger opened its own machining factory in the district of Songjiang. The Ensinger Engineering Plastics (Shanghai) Co., Ltd. site is about half an hour’s drive by car from Shanghai city centre.

Synergies utilized
The machined parts business initially developed slower than anticipated. Two years ago the stock shapes and finished parts divisions intensified their collaboration. With the value-added chain and wide range of products on offer, things are now on the up again. As Managing Director for China, Dong Ruxun is responsible for the activities of both divisions. Customer service is dealt with by three teams; these allow the whole domestic market to be accessed. The Sales and Marketing departments focus on sunrise industries; this involves a broad range of sectors but still with an in-depth approach. Following successful certification in line with ISO 13485, the Machined Parts division has already been able to expand its sales in the medical industry.

“Be honest. Do your best. Cooperate in order to make progress. Aim for perfection.” Those are the guiding principles of Ensinger China’s corporate philosophy. Every year the employees participate in sports competitions or outward bound training to further promote cohesion within the young team. Essentially, quality, customer service and know-how are the key strengths which enable Ensinger to hold its own against its competitors. And there is good reason to believe that the growth story in China will continue.

Julie Zhu is a marketing expert with Ensinger China, Shanghai

3D-HiPMAS in brief
3-D MID e.V. pools the expertise of eight international corporations and four institutes. The joint project is being coordinated by the Institute for Micro Assembly Technology of the Hahn-Schickard Gesellschaft.

What’s happening: The project partners are developing a European pilot plant for 3D micro-components. Plans are in place to produce four prototypes: A miniature fuel cell, a mini hearing aid, a micro switch and a pressure sensor with integrated temperature sensor display.
Double benefit

Every person should drink one and a half litres of liquid every day in order to stay fit and healthy. But drinking water often doesn’t get a look in during the working day.

That’s why at the start of the “Ensinger fit” campaign, the organisers of the company’s health management have arranged to have practical water dispensers installed at the first sites.

The matching carbonated-drink bottles have gone down a storm. When they take part in the “Ensinger fit” campaign, employees are not just doing something good for themselves; they are also helping people who do not have access to good quality drinking water as a matter of course. Proceeds from the sale of the bottles are being used to fund a programme to purchase water pumps in India. By the end of January, 4,000 Euros had already been collected in Nufringen and Ergenzingen. Drinking bottles can be purchased from the “Ensinger fit” team.

In one of the rural areas in which a new water pump is to be installed lies the town of Torpa. The Wilfried Ensinger Foundation is already promoting a number of aid projects here.