

## New friction test bench using a rotatory principle

### ENSINGER Service: Further tribological tests possible



[Hä] Engineering plastics are becoming more important when it comes to reducing energy losses or loss of material due to wear and tear. As an alternative to metallic materials, tribologically modified plastics permit lubricant and maintenance-free operation, furthermore, they can be adapted specifically for the respective application. One of the specialities of ENSINGER is the development of sliding materials for applications in food-stuffs technology, in pharmacy, electronics and in particular in auto-

mobile engineering. The specific and customer-oriented material development starts with standard products and develops and modifies these further into new products, or according to their use for customer-specific applications. ENSINGER offers customers this support as a service early on in the development phase. In addition, the use and the characteristics of tribologically modified plastics can be tested in-house. In this way, these tests do not have to be undertaken solely by the customer or through external institutes and research organisations. Until now, it was possible to use a linear friction test bench at ENSINGER, in order to perform specific tests on the friction characteristics or determine the frictional coefficients of different materials and formulations.

As part of his final year project for a university degree, the ENSINGER employee Andreas Ullmann, who in

the meantime is a project manager in the injection moulding division, designed and put into operation a new friction test bench, which works on a rotatory principle. With the commissioning of this test bench, it is now possible to cover all fundamental types of motion for tribological systems directly in-house.

#### Technical data

The test bench is flexibly designed so that test conditions can be changed as required: Further rotational tribological systems can be tested via exchangeable adapter plates. Even the classic "pin-on-disc" experiment is possible. In addition, screw-in and press-in tests can be carried out with the test bench.

#### The new test bench at ENSINGER

The new test bench was developed and constructed in collaboration with the company LuK, Bühl as well as with other internal and external project partners. Concrete applications and the reason for the project was the optimisation of a frictional control disc, which is used as a contra-rotating partner in the dual-weighted fly wheel of the

company LuK and has been produced for some time now by ENSINGER. Tests performed by customers and the results obtained so far have been confirmed, further versions of test materials are to be tested.

Andreas Ullmann attributes the success and the results obtained so far to the good and efficient collaboration of all partners involved in the project and in particular the utilisation of synergies within ENSINGER.

#### The function of the friction test bench

The friction test bench can be used to simulate, assess and hence test customer-specific materials for applications or operating states under close-to-reality conditions.

The specific coefficient of friction can be determined by the relative rotational oscillating forced movement of two contra-rotating partners, which are in surface contact with one another and are under load by a surface pressure set according to the respective application or test set-up.

In this issue:

#### Page 2

■ Editorial

#### Business Unit Building Products

- New brochures
- Thermix® TX.N spacers take off
- What keeps aluminium together deep inside: insulbar® insulating profiles
- Processing practice: Optimal composite values by good curling

#### Page 3

■ The *impulse* interview

#### Business Unit Semi-finished Products

- PA tubes from very small to very large
- New brochures
- TECAMAX conforms to AIRBUS fire norm

#### Page 4

- Wilfried Ensinger receives Order of Merit
- ENSINGER Ltd. opens new headquarters
- Politicians visit ENSINGER
- 2006 – Year of trade fairs

## Omron develops antimicrobial, inductive sensors for the foodstuffs industry and pharmaceuticals

[Hä] Omron has expanded its portfolio with the introduction of an inductive sensor called E2F-D which has applications in the foodstuffs and pharmaceutical industries. The distinctive feature of this sensor is its special antibacterial casing, which helps foodstuffs and pharmaceutical processors to keep the risk of contamination very low. Such sensors are used in conveyor belts for food-stuffs processing and filling plants or as position controls for machine parts, e.g. in flap valves, conveyor belts, (cutting)tools or other moving metal parts.

The innovative plastic casing was developed in collaboration with ENSINGER. The FDA approved substance Alphasan® actively reduces the number of live bacteria and germs in the material.

Foodstuffs processing is a branch of industry in which hygiene and absolute cleanliness have to be the point of focus. Micro-organisms can multiply on equipment within a short time, bacteria can flow into mechanical weak spots, such as e.g. threads, grooves and narrow corners

and spread. The increased risk of contamination for processed foodstuffs applies in particular where mechanical cleaning processes reach their limits, for example, due to poor accessibility.

The new antimicrobial equipped sensor casing supports cleaning processes and additionally increases the effectiveness and the general reliability of hygienic processing standard.

The development project with Omron is a good example of the close collaboration between ENSINGER and partner companies from all branches of industry. Through a complementing exchange of experience, customers can optimize the reliability of products and increase their own productivity at the same time.

The plastic TECADUR PBT with the antimicrobial additive Alphasan® was the material of choice due to its hardness. The effect is achieved by the specific and uniform release of silver ions over time. The additive is physiologically unobjectionable and hence FDA approved.

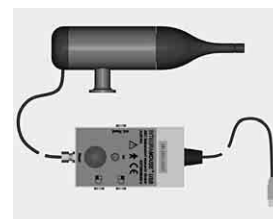
## Mouth operated PC mouse

### Mouthpiece made of TECAFORM AH MT red

[Hä] As working tools, sources of information and means of communication, computers make an important contribution to the quality of modern life. With the click of a mouse, enormous prospects are opened up – even for all those, who do not have the possibility to operate the mouse with their hands. The mouse developed in the medical technology unit of ARC Seibersdorf Research GmbH, sold worldwide under the name LifeTool-Integra-Mouse, can be operated with the mouth and offers users a fully adequate alternative to the usual input assistant.

Minimum lip movements move the mouthpiece and hence the mouse pointer dynamically over the entire screen. By means of sucking or blowing through the mouthpiece, the left or right mouse key, double click, and drag & drop - and thus all the functions of a standard mouse – are available without limitation.

The mouthpiece and cap, as well as several other small parts, are made of the FDA approved and biocompatible material TECAFORM AH MT in a red colour. The choice for TECAFORM came about, as the Seibersdorf product is considered a medical device and is also certified as such.



Cleaning in a dishwasher does not diminish the service life of the product made with this material. In the case of possible contamination with bacteria, disinfection of the mouthpiece is recommended by briefly boiling it in hot water. Due to the high degree of hardness and toughness of the material, TECAFORM AH MT shows no cosmetic difference to the structural surface if unintentionally bitten. Minimum uptake of moisture in the coloured MT plastic ensures dimensional stability for easy exchange of the membrane and mouth-piece.

As the mouthpiece can be easily removed, cleaned and used again, this solution provides comfort in use even by several users at the highest level of hygiene.

## Editorial



Dear Readers,

At last, everything is ready! Plans for our first management tool – employee dialogue – have been drawn up, the training has been done and the documents are ready. The care taken in preparation is already starting to bear fruit: A serious confrontation with the instrument and the often expressed wish of many members of staff to be able to use it (preferably before the official start). We know from the experience of individual subsidiaries, what positive effects can evolve when the instrument is used properly. It is important to concentrate on certain effects and not to be intimidated too easily by the complexity of the job (and the expectations of all participants). The centre of attention is focused on two requests. The first is to build a bridge between what the management of a division wishes to achieve and what happens in working groups and at the work places of the individuals concerned. We all have limited powers and possibilities, and this makes it necessary to

undertake a little at a time, but to do this wholeheartedly. And this small part which can be achieved has to make a clearly defined contribution to the whole – to the objectives of the company and the division. Every employee has a right to know what contribution he/she is best able to achieve and every member of the company has the duty to try to use their abilities and strengths as best they can. The fundamental significance of the second request of the tool goes back into antiquity. Greek citizens who wanted to have the future predicted at a holy shrine in Delphi were confronted with the words at the entrance to the Oracle: Recognize yourself! That is the point! Satisfying and productive work also depends upon using manpower properly, strengthening existing strengths and leaving that which is just not one's thing! In order to achieve this, it is necessary at times to make far-reaching changes. True changes are based, however, on self-awareness and willfulness and less on the efforts of others. That is why the instrument is called "dia-

logue". Learning more about oneself in an open and constructive dialogue and – with the support of understanding colleagues – learning to risk more!

It would be nice, if as many of us as possible could learn to create this bridge between the company goals and that what we do and move towards new horizons with courage and self-confidence in the sense of the Oracle. Then the dialogue would have fulfilled its objectives. Similarly, a further change at the company ought to have increasing repercussions. I am talking about the single most important project of our colleagues from the injection molding department, called "Delta Null (Zero)". The aim of the project is to abolish shortfalls (deltas) in order to completely satisfy automobile standards, in other words to develop, produce and supply in complete conformity with the standard requirements of the automobile industry. The quality standards and systematic of the development and production of this branch of industry are highly developed and aim to match parts as

precisely as possible to the complex system conditions of the components, to permit a smooth transition from small scale to large scale production and to eliminate errors systematically and quickly. Only in this way is it possible to introduce numerous innovations and improvements without introducing a serious loss of quality into millions of vehicles. The methods used and the procedures require intensive team work, a clear allocation of responsibilities and the use of new quality methods. We will report in more detail about these in one of the next issues. One thing is for certain: this project, which is being accompanied intensively by external specialists, demands a lot from our colleagues, but can and will drastically improve the way we all manage our processes and structures. I would like to wish you all lots of enjoyment reading this issue.

Yours sincerely

*Klaus Ensinger*  
 Klaus Ensinger

## Business Unit Building Products

### New insulbar® brochures

[Wey] In the meantime, the latest version 1/2006 of the insulbar® standard program is available in ten languages and provides once again an extensive selection of profiles without tooling costs. General information about insulbar® insulating profiles for windows, doors and façade construction can be found in the current edition of the image brochure, which is available in German and English. We will be pleased to receive orders under [insulbar@ensinger-online.com](mailto:insulbar@ensinger-online.com)

### What keeps aluminium together deep inside: insulbar® insulating profiles

[Wey] Whether it is snowing or the sun is shining: Thermal separation into internal and external temperature zones using insulbar® insulating profiles can save quite a lot of energy when heating and cooling. insulbar® profiles made of high-performance plastics find use in metal windows, doors and facade construction.

### Perfect solutions – for standard and individual systems

insulbar® standard profiles are available in narrow graduations (construction sizes from 12 to 36 mm), in straight or offset variations and with multiple function zones. Furthermore, a multitude of complex geometries for specific applications, e.g. full profiles or hollow chamber profiles, have been developed according to individual ideas of the customer. The highest fire protection requirements are satisfied by special and unique fire protection profiles. Composites of metal profiles with these profiles can withstand enormously high temperatures for up to 60 minutes. The

### Thermix® TX.N edge spacers take off

[Wey] Although they have only been on the market since September 2005, the new edge spacer generation from ENSINGER has experienced an extraordinarily positive response. In order to manage the high demand, the production capacities for the innovative "warm edge" edge spacers are currently being greatly expanded and the product range has also been extended to cover intermediate space sizes of 8–20 mm between panes. After May 2006 things will move forward in "full swing" and the complete programme will be available.

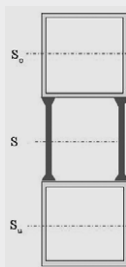
versatile range of material solutions made of TECATHERM plastics rounds off the options available for profile design. A further advantage of thermoplastic insulbar® profiles is that they are a single material system and thus directly recyclable, in contrast to constructions in which thermosetting foams, in particular, are used.

### Prototyping – safety right from the start

insulbar® profiles are made available very quickly for pre-trials via rapid prototyping, machined from semi-finished products in the original plastic or extruded using prototype tools which are identical to those in serial production (insulbar® prototyping). The thermal characteristic data of constructions are optimised with the help of modern software. The insulbar® design is agreed with the customer, amongst other things, using finite element calculations to determine heat transfer coefficients. A consistent flow of data accelerates the processes and creates flexibility from planning to production.

### Processing practice: Optimal composite values can only be achieved with very good knurling

The useable moment of inertia of the composite can be enormously increased by optimized knurling of the aluminium shell combined with high-strength insulbar® profiles. The following schematic example is intended to clarify this: two aluminium hollow shells (30 x 30 mm) are connected with two thirty mm wide insulbar® profiles.

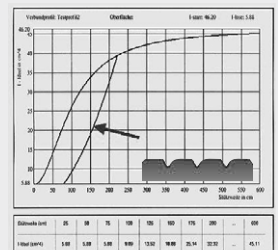


Each individual aluminium profile has a geometrical moment of inertia of 2.94 cm<sup>4</sup>.

If the aluminium profiles are not knurled and thereby have no transverse strength (gliding, low shear joint), then only the sum of both

individual moments of inertia of 5.88 cm<sup>4</sup> can be used independently of the span width.

With weak knurling and assumed low shear strengths of 20–25 N/mm, only between 13 percent (with 80 cm) and 68 percent (with 200 cm) of the maximum possible composite moment of inertia of 42.6 cm<sup>4</sup> is utilizable in the important span width range of 80 to about 200 cm due to the lacking or poor composite effect.



## The impulse interview

### Questions to Erwin van Dyck, ERIKS



The ERIKS group is active with 2000 employees through almost 50 group companies in Western Europe, USA and South-east Asia.

The group offers a broad and high-quality range of industrial components. Their portfolio includes work in the fields of hydraulics and pneumatics, measurement and drives, sealing and fluid technology as well as logistical systems. Since 1991, ERIKS has been the Belgian trading partner for ENSINGER.

Manager of the ERIKS Plastics Business Unit, 31-year old Erwin van Dyck, spoke to impulse. He has a Master in Electro-Mechanics, with specialisation in Automation. Before he worked for ERIKS, he was Sales and Project Manager for pumps and valves for a Swedish engineering company. In August 2000 he moved from the world of stainless steel to plastics as he chose a new challenge, joining ERIKS as Manager of the Plastics Business Unit.

#### What is ERIKS' success story?

ERIKS has evolved further in the role of a leading technical sales company by focusing on market development activities and supplying new, innovative solutions for a wide range of industrial applications.

Our philosophy is to be the preferred leverage in creating added-value, not only for the local industry as a market but also for a selection of strategic producers, giving them close partnership in product and market development.

#### What are your competences?

We have six „core competences“ and each of them is driven by one element of knowledge, namely knowledge of markets, knowledge of products, knowledge of applications, knowledge of customizing, knowledge of logistics and knowledge of infrastructure (hard and software).

Measuring our success by growth in turnover, a 48% increase compared to the year 2000, means that our approach is successful.

#### What are the milestones of your cooperation with ENSINGER?

We have been co-operating for 15 years now. In 1991, we had decided on plastics from ENSINGER because of the width of the product range and the partnership we wanted to establish.

We get the complete TECA range from ENSINGER, at the moment mainly in the shape of semi-finished products. September 2002 was a milestone in our co-operation as we mutually decided to concentrate on the whole Belgian market for technical plastics. Guns were loaded, knives sharpened and a plan of growth was executed. By the end of 2005, we tripled business, compared to 2002.

#### How do you profit from ENSINGER?

We appreciate the support of Björn Ülken, export manager for semi-finished products, our sales contact

Ute Schäfer and by the Technical Marketing department and we are always pleased about the prompt and expert reactions to all our enquiries and questions.

At the beginning of March we attended a technical training session at ENSINGER. Applications expert Peter Bongardt refreshed and intensified our knowledge on the deeper end of E-moduli, testing methods, antistatic issues and product properties in general.

We believe that application related know-how is crucial, especially while developing OEM markets with engineering and high performance plastics.

Therefore, another training session is already planned for the end of May and will take place at the ERIKS Core Competence Centre in Hoboken (Antwerp).

#### How do you care for your customers?

Our customers profit from a maximum external focus, which means that we visit them in order to see and understand their application requirements, needs and problems. All these things lead to the successful supply of solutions in plastics. Our approach therefore fits perfectly with ENSINGER's Ask-think-succeed mentality and forms the link between the local market requirements and ENSINGER's Business Development.

#### How is your ability to support?

We have a large portfolio at our central distribution stock in Hoboken but we also have an optimum logistical concept. At least once a week we have a fixed consignment from Nufingen.

One of our six core competences is the „Knowledge of Logistics“ which means the continuous streamlining of logistic processes internally but also externally, i.e. for the client and partner supplier.

#### How do you see the potential for further development

2006 is the year in which we will focus on creating the integrated „Solutions in plastics“ concept. Since that's exactly how we differentiate ourselves from others in the Belgian market.

Our next action in this respect is the launch of our new website [www.solutions-in-plastics.info](http://www.solutions-in-plastics.info). It will work as an influence during our ambitious trajectory of growth.

#### In June, ERIKS will yet again organize the „Technivent“. What exactly is this event?

Technivent is a large in-house trade fair where our leading partners can represent themselves. The event will be the highlight of our 50th anniversary this summer. ENSINGER, who is one of our 20 leading partners will have the opportunity to exhibit the full spectrum of products at this happening.

Using this event, we would like to emphasize ERIKS' role as a partner in knowledge and technology. Therefore, we have chosen „ERIKS: The Art of Technology“ as the theme for this happening. During the trade fair a photo exhibition, that visualizes this role, will be held. We expect the event to attract 1,500 visitors.

We want to show the Belgian industry the latest product developments and the excellent, strategic business relationship between ERIKS and ENSINGER.

*Mr. van Dyck, thank you very much for the interview.*

## Business Unit Semi-finished Products

### Moulded polyamide tubes from very small to very large

ENSINGER GmbH has extended the standard portfolio of TECAST tubes and centrifugally cast pipes with a number of new dimensions: the moulded polyamide semi-finished products from very small to very large are available with immediate effect with outer diameters 50 to 710 mm and internal diameters 30 to 500 mm. In addition to stocks of TECAST tubes and centrifugally cast pipes, the portfolio also comprises numerous dimensions and modifications which can be produced at the customer's request. As customers cannot always order large amounts, especially in these special sizes, the company has changed a number of processes and can now accommodate special requests with lower minimum quantities in the area of small tube dimensions.

Even the factor time has been optimised: ENSINGER now offers faster access to the very broad spectrum; shorter reaction times can be achieved by the customer.

In contrast to rods, tubes have multiple advantages: in applications which require hollow materials, the customer has less reworking. The machining process is also more economic due to less waste. The customer can also order dimensions which are closer to those of the end product and thus save on processing time.

With TECAST moulded polyamides

from ENSINGER, internal stresses are reduced directly after the pressureless moulding process by tempering. When strength and toughness are particularly important, TECAST is the material of choice.

TECAST T is the versatile tried and tested standard approach. The stress-relieved moulded semi-finished product is very easy to machine. Characteristic for the material is the high degree of toughness, even in a dry condition, as well as the high resistance to tension cracking.

The main characteristics of TECAST TM modified with MoS<sub>2</sub> are good UV stability and surface hardness. The degree of crystallinity increases by the addition of MoS<sub>2</sub> and higher rigidity values can be achieved, without essentially impairing the toughness. In addition, the surface hardness increases and the gliding properties are improved. Furthermore, the material properties of TECAST TM can be extensively maintained even under thermal stress conditions, as the distinctive crystal structure disintegrates only immediately prior to reaching the melting point.

Areas of application can be found in particular in the packaging industry and in agricultural machinery and automobile engineering, especially in motor, clutch and transmission construction. Examples of applications are calendaring cylinders, bushes, rope pulleys, castors, gear racks, gearbox parts, etc.



From very small to very large: Tubes made of TECAST are available in many different dimensions.

### New brochures

#### Semi-finished products catalogue completely revised

ENSINGER has revised the product delivery program for "Semi-finished products made of technical plastics" and reissued it. The almost 90-page catalogue contains, in addition to the dimensions available, even more pages on mechanical, thermal and electrical material reference values and details about chemical resistance, as well as information on the processing of these plastics. In the area of "Advice – individual and industry specific", all contact partners are listed with contact data and photos. The catalogue is available in German and English. It is available under [www.ensinger-online.com](http://www.ensinger-online.com) as a download file, however, it can also be ordered free of charge under [shapes@ensinger-online.com](mailto:shapes@ensinger-online.com).

#### Special brochure for distributors

In order to further develop markets in those countries in which the company operates through distributors and to make the TECA products better known, ENSINGER has designed a special brochure. The following plastics are explained in detail therein: TECAFINE, TECAMID, TECAFORM, TECANAT, TECADUR and TECAPET, TECAFLON as well as TECAPEEK. The main properties and the technical reference values are described. A special main emphasis has been put in explaining areas of use and providing application examples – as it is often not known in how many areas and industries plastics are used and what they can really do. The brochure is available in German, English and French, as well as in seven other languages. Enquiries under [shapes@ensinger-online.com](mailto:shapes@ensinger-online.com)

### TECAMAX SRP conforms to AIRBUS fire norm

The high performance thermoplastic TECAMAX SRP has overcome an important hurdle by passing the ABD 0031. In a test carried out according to this norm in the Fire Test Laboratory in Bremen, TECAMAX SRP passed all fire tests at first go. AIRBUS Deutschland GmbH became aware of the plastic after a lecture held at the Aerospace Forum Baden-Württemberg in Friedrichshafen.

The material achieves an extremely high strength without the use of fibre reinforcement and is considerably stiffer than other non-reinforced thermoplastics. TECAMAX SRP excels through excellent mechanical properties, also at very low temperatures, remarkably high compression strength, high scratch and abrasion resistance and outstanding resistance to chemicals.



## Wilfried Ensinger receives the Order of Merit of the Federal Republic of Germany



[Hä] In December Wilfried Ensinger received the Order of Merit of the Federal Republic of Germany from German President Horst Köhler in the Villa Hammerschmidt in Bonn. He was thus honoured for his diverse social, cultural and scientific interests; the activities of the successful entrepreneur have always been marked by social responsibility. Apart from his professional activities, he has been involved in committees of the chamber of commerce for many years, since 2005 as president of the Chamber of Commerce for the regional chamber in Böblingen. Of particular note is the Wilfried-Ensinger-Stiftung, which was founded in

1997 with a considerable donation of trust capital, which supports scientific, cultural and social institutions. The foundation supports, amongst other things, the work of the Domsing School and the City Band in Rottenburg. Furthermore, the foundation is continually expanding its social involvement in poor areas of the world. For example, it is supporting the help-for-self-help project "Cecris" in Erechim in southern Brazil, which helps people in the favelas to get out of the trap of poverty. Another support project is a model school in Southeast Nigeria, and in Kiev in the Ukraine the foundation is supporting orphans and young students.

## ENSINGER Ltd. opens new UK headquarters

On 13 January, company founder Wilfried Ensinger has officially opened the new UK headquarters at Tonyrefail, South Wales.

ENSINGER has had a presence in the UK for the past 18 years and during that time has expanded from a single small factory unit with three people to seven strategic locations currently employing more than 230. Alone in Tonyrefail, there is a staff of workforce of 100 and in the course of the coming three years, 48 additional employees will strengthen the team.

From the new facilities, ENSINGER is selling stock shapes, building products, injection mouldings, custom cast components and precision machined plastic parts.

Managing Director, John Speirs, said: "The new purpose-built factory reinforces our position as a leading UK sub-contractor in precision machined plastic parts and enables us to enhance our distribution business through greater stockholding and improved logistics."

The official opening was carried out by company founder Wilfried Ensinger and his wife Martha and the

Honorary German Consul in Wales, Helga Rother-Simmonds, was also in attendance.

She congratulated Wilfried Ensinger on the Federal German Government's Order of Merit which was presented to him by President Horst Köhler.

"We have an extraordinary and broad range of products, very committed and motivated employees and an excellent service. This approach has resulted in a growing business in Wales and we are proud to be in Welsh Top 300", says Wilfried Ensinger. "Now we look forward to further growth at our excellent new site at Tonyrefail."



Wilfried Ensinger congratulates UK Managing Director John Speirs.

## Visit before the state assembly elections

### Politicians visit ENSINGER

Several politicians took the opportunity to visit companies in the region before the state assembly elections and to inquire locally about their needs. ENSINGER was also the object of such a visit.

Ernst Pfister, Minister for Economic Affairs and Member of the State Assembly of Baden-Wuerttemberg, had visited the ENSINGER subsidiary in Sao Leopoldo during a trip to South America last November to promote the industrial location Baden-Wuerttemberg. Motivated by this contact, he visited ENSINGER headquarters in Nufringen in January together with several party members. During a company presentation and a subsequent guided tour, he was informed about the situation of the company and discussed topics such as e.g.



Ernst Pfister, Minister of Economic Affairs (m.), visited us in January.

environmental protection, research, training and wage costs with the general managers.

In March, the company was then visited by a CDU delegation: Stefan Mappus, chairman of the CDU parliamentary group in the Baden Wuerttemberg state assembly, and the parliamentary candidate Sabine Kurz discussed current topics with the general management and were also shown the production halls.

## From Stuttgart to India – 2006 will be the "Year of trade fairs"



[Ka/Wey] One could say that for ENSINGER 2006 will also be a year of trade fairs. Six trade fairs have already been attended with great success in the first four months:

In January, we were able to report successful participation at **NORTEC** in Hamburg. At **PLASTINDIA** in New Delhi, one of the largest plastic trade fairs in Asia, ENSINGER was represented in February for the first time through a joint company booth at the exhibit for the Federal Republic of Germany. The enormous economic growth in India is also reflected in the many interesting contacts it was possible to make there.

Upon returning from the Orient, we went straight to Stuttgart in March for the annual **MEDTEC**. Our new products were successfully showcased here for the field of medical device technology. A very positive result was evident at this trade fair especially with the qualitatively high level of discussions and detailed enquiries. ENSINGER thus intends to increase the size of its booth at MEDTEC next year, in order to highlight more strongly the important relationship to this branch of industry.

A further destination in March was the **SPE European Thermoforming Conference** in Salzburg. In the first instance, this provides a forum for members of the SPE (Society of Plastics Engineers) to professionally exchange ideas in the dynamic thermoforming industry, as well as the provision and promotion of expertise concerning plastics and polymers. Furthermore, it was also possible to make valuable contacts to interested parties throughout Europe. In particular, our technical plastics for deep-drawing applications were greatly in demand – ENSINGER was the only representative in this field. The picture shows Business Development Manager Dr. Jürg Wiedler at the ENSINGER booth.

**SEMICON** in Munich has also become a further integral part of ENSINGER's trade fairs. At the exhibition for the semi-conductor and electronics industry in April, the significance of a presence in this sector was confirmed once again with the high frequency of visitor calls and concrete inquiries.

At the end of April, the Building Parts Division for the first time took part at **Interbuild** in Birmingham.

This time, a main focus was on „windows and window insulation“. ENSINGER presented the insulbar® insulating profiles product line.

May continues with **VETECO** in Madrid from 10<sup>th</sup> to 15<sup>th</sup> which is a traditional fair for ENSINGER Spain where the product lines insulbar® and Thermix® are presented (ENSINGER booth E518 Hall 3).

ENSINGER UK will also participate at **SED 2006** from May 16<sup>th</sup> to 28<sup>th</sup> at Rockingham Performance Park. SED is the UK national event for construction. Walter Wagner and Bjorn Feldman will join colleagues from the UK to promote heavy duty products from the cast nylon range at this show.

Looking forward to further trade fair events, which are still to take place this year, the **ACHEMA** in Frankfurt needs to be mentioned in particular, at which we will participate again in May after having had a break. We shall be pleased to welcome you to this trade fair for chemical technology, the environment and biotechnology, which will be held from 15<sup>th</sup>-19<sup>th</sup> May 2006 (ENSINGER booth G26 in Hall 3.0).

Furthermore, an in-house trade fair **Technivent 2006: The Art of Technology** will take place at Eriks N.V. during their 50<sup>th</sup> anniversary celebrations on 1<sup>st</sup> and 2<sup>nd</sup> June, (see also interview, page 5). Over 20 partner companies of Eriks will be exhibiting their product ranges, and about 1500 visitors from different branches of industry are expected at this event. The meeting is a mixture of know-how transfer, networking and celebrations surrounding Eriks N.V. Björn Uhlken, Export Manager Semi-finished Products and Rainer Gottschalk from Business Development will be introducing interested customers and visitors to the ENSINGER portfolio at the ENSINGER booth.

In September, the most important trade fair for window and facade construction in North America will take place in Las Vegas: **Glassbuild America** opens its doors from 19<sup>th</sup> to 21<sup>st</sup> September.

Finally, the biggest trade fair for glass, **Glasstec**, takes place from 24<sup>th</sup> to 28<sup>th</sup> October in Dusseldorf. ENSINGER building profiles presents the full range of the product line Thermix® spacers and bars for insulating glass.

### Impressum

Newsletter of ENSINGER GmbH  
 Rudolf-Diesel-Str. 8, 71154 Nufringen,  
 Tel. 0 70 32/8 19-0, Fax -100,  
 info@ensinger-online.com,  
 Internet: www.ensinger-online.com

Editor Klaus Ensinger  
 Dr. Roland Reber

Editors for this issue were  
 Doris Hämmerling  
 Mirjam Betz  
 Petra Kalf  
 Arnt Stumpf  
 Jochen Weyerhäuser

Production Druckerei Maier, Rottenburg