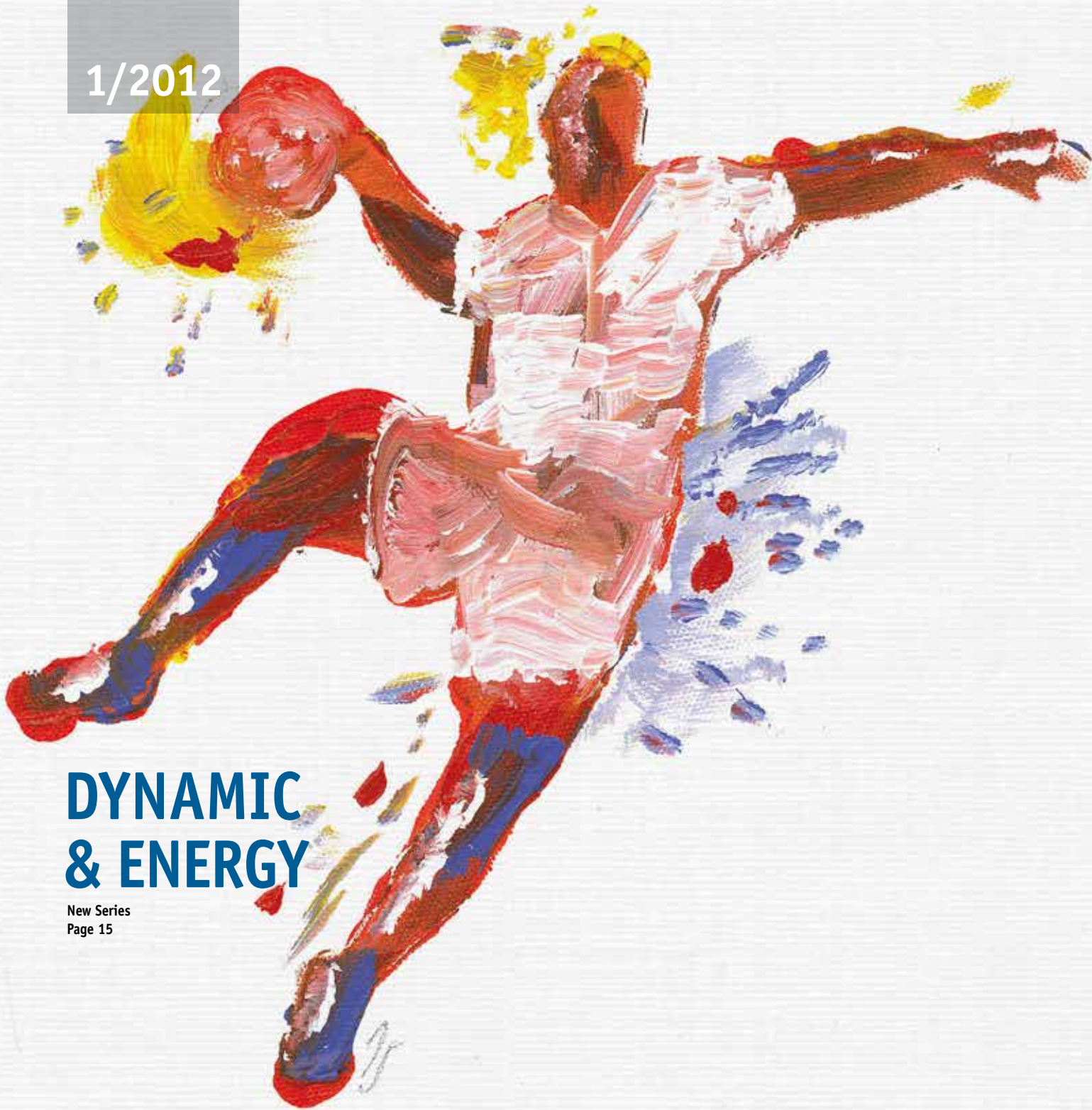


ESSENTIALS

The customer magazine of EschmannStahl GmbH & Co. KG

1/2012



DYNAMIC & ENERGY

New Series
Page 15

EuroMold 2011

Review
Page 4

Customer Portrait

UNICOR GmbH
Page 12



4

EuroMold 2011

10

More Room for Efficiency



12

Customer Portrait:
UNICOR GmbH**World of Steel**

EuroMold 2011	4
Pressure Die Casting in Focus	6
Industrial Sector Expertise	7

Materials and Processes

In Good Shape	8
More Room for Efficiency	10

In the Field

Customer Portrait: UNICOR GmbH	12
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Insights

New Series: DYNAMIC & ENERGY	15
Interview: Klaus Schlagheck	16
IN BRIEF	19

15**New Series:
DYNAMIC & ENERGY****Dear reader,**

The successful year-end with the EuroMold has encouraged us to stick to our aspiration of delivering more than expected to our customers and to incorporate new high-quality products as well – customised and quickly. To do this, we are investing into optimised structures: We have put into operation a new hall in Wehnrath in order to further improve our logistic processes. The same drive and the same commitment our employees apply in serving our customers are also brought to bear in their own leisure time. In our new series DYNAMIC & ENERGY, we will be introducing you to employees who also do special things in their private lives. On page 16, this issue will start off with a story on experiences in high-level sports told by the former European Handball Cup Champion Klaus Schlagheck, who is today Head of EschmannStahl's IT Department.

Enjoy reading!

Your Markus Krepschik (Managing Director)

EuroMold 2011

**Platform for International Tooling
and Mouldmaking Industries**

Positive conclusion: As the world-wide leading specialist trade fair, the 2011 EuroMold was characterised by a significant increase in visitors and a fundamentally optimistic and future-oriented market spirit.

New products, better technologies, and international contacts – with 1,324 exhibitors from 38 countries, the 18th EuroMold was able to again strengthen its relevance as the leading international trade fair. In particular, the rescheduling of the trade fair days to the period Tuesday to Friday was well received. Moving up to now 57,955 visitors, the Frankfurt-based trade fair boasted an increase of 4.8 percent compared to last year's figures. Alongside an extensive international support program, a special focus was put on the quality of German tooling. Here, the special exhibition entitled "German Tooling – We Create Value" attracted enormous interest.

Based on an optimistic view of the financial markets, the specialist public looked positively into the future, and, thanks to persistent demand, was open for new technologies and services.

Automotive industry looks into the future optimistically

The main focus of the EuroMold was on the automotive industry. The industry is recovering more quickly than expected with a cautious but distinct upward trend. New solutions geared towards process optimisation and cost effectiveness support this trend. What is called for are materials and technologies supporting an increase in quality and profitability. These criteria make the special grade ES Multiform SL an ever more convincing solution. Its manifold application areas and consistent technological characteristics as well as its significantly improved properties position this special grade steel as an economical alternative to the reputed material 1.2738 within both tooling and mouldmaking.

Mechanical prefabrication getting more popular

Reducing development times and minimising unit costs by establishing consistently high productivity – talks during and after the trade fair clearly underlined the



Room for talks at the trade fair stand

trend towards searching for synergetic effects within the entire production process as well as the trend towards changing individual processes. In this way, the prefabrication of tool steels is being increasingly demanded and partly already being taken for granted. "Prefabrication boasts enormous time and cost savings for our customers", Product Manager Volkmar Dumm explains. "Due to high demand, we have further expanded our capacity in this area and consider this service to be not only part of our quality aspiration but, in addition, to be a logical trend towards continuous process optimisation."



Pressure Die Casting in Focus

Booming Automotive Industry Provides for Good Figures – and for Increasing Demands on Pressure Die Casting Businesses

Current market growth and the related dynamic technological development are quite demanding for pressure die casting companies: Increasing quality standards, shorter project cycles, and higher cost pressure call for functional special materials, quick availability, and high cost-effectiveness.

From 17 to 19 January, the eyes of the pressure die casting industry were looking towards Nuremberg. At the Euroguss trade fair, companies along the entire process chain came together to present innova-

tions, make contacts, and book orders. With 8,415 specialised visitors, the trade fair hit a new record number of visitors.

“Longer tool life as well as an overall higher process efficiency”, that’s how Markus Krepschik, Managing Director of EschmannStahl, summarises what users of tool steel are demanding. This means that special attention by the pressure die casting businesses is being given to the functionality of special materials such as ES Primus SL which have to withstand highest thermal and mechanical influences.

special material increases the life of moulds and tools and thus enhances overall process efficiency.

“Our talks during the trade fair very much supported the picture we also experience in our daily customer contacts. As a supplier, it’s the right way of supporting customers in their continuous process optimisation – through close collaboration and short reaction times”, is how Markus Krepschik concludes his impressions of the Euroguss. ■



Cylinder block, produced using pressure die casting

The ESU special material is ideally suited for highly stressed and geometrically complex as well as large-format pressure die casting moulds. It meets all requirements of the North American Die Casting Association (NADCA) and is applied in pressure die casting applications for aluminium, magnesium, and other non-ferrous metals such as zinc, tin, and lead. Due to its thermal shock resistance and strong toughness, the

Advantages of the pressure die casting technology

- Minimal wall thickness
- Complex geometries possible
- High degree of dimensional stability with smallest tolerances
- Excellent strength properties
- Smooth surfaces and edges
- Low weight with high degree of stability
- Good machinability
- Extremely cost-efficient due to optimal material utilisation, little subsequent machining, and recyclability

Pressure die casting

Pressure die casting is a versatile process for producing components. During this process, molten metal is cast into reusable steel dies using high pressure. These dies are designed to produce complex geometries – accurately and reproducibly. In doing so, the components can be defined in a very precise way. Pressure die cast products can be found in many different areas – from water taps to automotive oil pans or connector casings.

**Automotive industry:**

Global time and cost pressure: shortest possible production cycles are an absolute must.

**Mechanical engineering:**

Longer life time geared towards sustainable production: high-performance special alloys provide for greater efficiency.

**Packaging industry:**

Quickly changing production flows require flexible solutions and cost-effective pre-fabrication work.

Industry Expertise

Individual Consulting Quality as a Basis for Successful Products

**Construction industry:**

Individual demands call for dynamic and multifunctional capacities.

**Consumer goods industry:**

Versatile requirements: only state-of-the-art processing machines shape steel in line with custom demands.

**Medical technology:**

Consistent quality management and flexibility are the basis for medical progress.

“Anyone can sell steel. What makes the difference is knowledge of the everyday technological and production-related as well as cost-efficiency imperatives users deal with”, is how Volkmar Dumm, Product Manager at EschmannStahl, describes the importance of comprehensive industry expertise in the area of tool steel. Getting this expertise on board takes time and requires an intensive involvement with the user’s industry.

In processing aggressive plastics and/or in applying certain additives, for instance, a special degree of corrosion resistance is necessary. The properties of the corrosion-resistant tool steel ES Antikor SL are ideally aligned with these requirements. Besides the broad range of industry-specific steel grades and the modern machining capacities, EschmannStahl’s individual and well-informed service has made the company a specialist for numerous key industries.

“A number of our staff have extensive first hand experience in the industries of the customers. At the same time, being able to think outside the box of tool steel is very important. In consulting, employees always include the entire system of tool, machine and production. After all, steel is only one of several aspects that are decisive for defining the profitability of companies”, Volkmar Dumm notes.

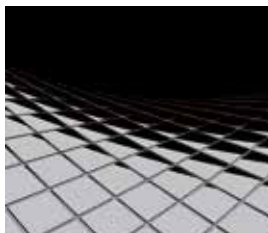
The innovative strength of individual industries and the increasing and changing demands exacted on products sets a high benchmark – for all players across the process chain. Close collaboration and a good understanding of the markets in which partners operate are the factors that count in achieving sustainable business results in a competitive world. At the end of the day, it is not just about selling steel. ■

In Good Shape

Flexible Materials Require Stable Solutions



"We need tools with best possible stability under load."



"Consistent quality is a prerequisite for survival in our market."



"Special grades have one very special characteristic: I can rely on them."



"Downtimes due to deficient material properties shouldn't be happening."



They are used as packaging materials, insulation materials, textile fibers, automotive interior trims, and a lot more – plastics. They are prolific in our everyday lives in all shapes and colors. The plastics processing industry is as multifaceted as the material itself and, in Germany for instance, is one of the most important sectors of industrial production.

The importance of tooling and mouldmaking for the German economy is immense. About 5,000 small and medium-sized enterprises belong to this industry. Companies producing moulds for plastics or rubber processing make up about 45 percent of this industry's total

turnover. Based on these figures, the implications of efficiency gains, for instance via improved material properties of moulds, becomes apparent. The development and selection of a suitable and high-quality tool steel has a significant effect on the cost-efficiency of entire production companies.

Other logistical factors such as delivery reliability or packaging and premachining of plates also have an influence on bottom lines of plastics processing companies. ■

Throughhardenableability

resistance Pressure resistance Thermoplastics Thermoset Break resistance Composite materials Toughness with strong degree of component hardness



"We don't only do things – we also think about them."



"Consulting starts with risk analysis."



"A material is not the whole story."



"Delivery reliability? You can count on it!"



Shaping Processes

- Injection moulding
- Extrusion
- Calendering
- Rotational moulding
- Foaming
- Blow moulding

Forming Processes

- Compression moulding
- Deep-drawing

MATERIALS FOR THE PLASTICS INDUSTRY

ES Antikor SL
corrosion resistant and ideal for plastics processing

ES Aktuell 1200
for particularly large moulds with a consistent hardness right to the core
(also see ESSENTIALS 2/2011)

More Room for Efficiency

Investment into New Hall and Machines



The construction of a new hall for storage and packaging is a logical step in line with the strategy of supporting customers in achieving short production cycles. The restructuring related to this measure contributes to quicker reaction times and enhances capacity for tailor-made plate production.

Centralised production for greater efficiency

With the centralisation of all storage and milling capacities at the Wehnrath location, EschmannStahl has significantly simplified logistics and reconfigured its whole production in line with efficiency goals. Short process paths and a new production concept optimise the entire material flow and shorten machining processes enormously.

New technologies and shorter processing paths

At the core of our restructuring are the new four-sided processing machines. Their high-performance spindle drives provide for a cost-effective machining of materials and reduce time-consuming premachining and logistics at customer locations.

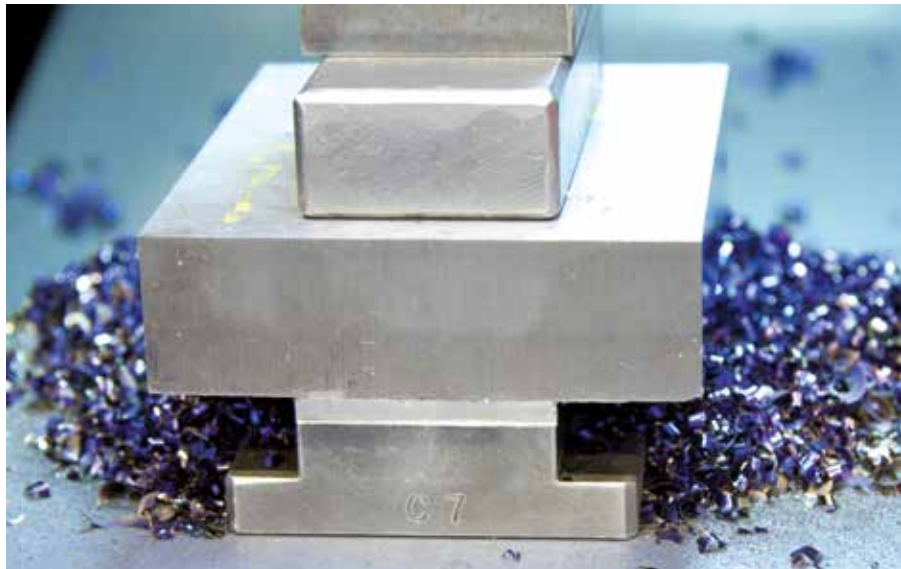
EschmannStahl invested in several new machines with more investments in the pipeline.

The new production hall offers sufficient space for large round dimensions which can be stored and packaged there. To ensure direct access to the raw material, a large part of the mills and cutters were relocated and reconfigured to align them directly with further processing steps. The short process paths now provide for end-to-end production, prompt packaging, and direct shipping.

Markus Krepschik, Managing Director at EschmannStahl, explains the background to these investments: "With the extension and restructuring we have created capacities our customers no longer need to make available themselves. By outsourcing certain machining steps they can circumvent investments in machines or know-how. We take over that work and that responsibility." ■



New cutting machines provide for quicker processing times.



Precision machining according to customer demands – quick and cost-efficient



Precise cuts for large dimensions in the new hall

UNICOR GmbH

**Customer-Oriented Solutions
Geared to Cost-Benefit Gains**

UNICOR GmbH from Hassfurt, Germany, is one of the leading international companies in terms of individually-cut, produced, and delivered corrugated pipes and extrusion machines (corrugators) tailored to customer specifications. Starting with technical pipes with a diameter of 3 millimetres up to sewage and drainage pipes with a diameter of up to 2,400 millimetres, UNICOR corrugators are used for the production of all kinds of pipe dimensions.

Every plant is unique

The company's strength lies in its many years of development and expertise. Founded in 1984 by the engineer Horst Rahn in Hassfurt on the Main, the name UNICOR today stands for innovative

strength and technological leadership in the production of corrugators. Every machine is a custom-made product which meets the specific requirements of the respective plastics to be processed right down to the smallest detail. From the medical sector all the way to utility engineering, application solutions are developed in the in-house Technology Centre before being manufactured as custom corrugators.

The corrugator principle

The production of corrugated pipes takes place as a continuous extrusion process. Extruders press the heated and plasticised granulate through the extruder head into the mould blocks of the corrugator. Inside the extruder head, the

plastic strand is hollowed out from the inside using pressurised air and thus put into the pipe shape. The plastic hardens in the water-cooled mould blocks. Depending on pipe dimension and corrugator type, production speed can be up to 46 metres per minute.

Success through restructuring

Since 2005, the company has again been on the market independently as an autonomous solution provider. After a management buy-out, Managing Director Klaus



Kaufmann, Development Head Hubert Kossner, and Production Manager Gerhard Haefner currently form the management team at UNICOR GmbH. With fifteen percent, UNICOR's vocational education and training quota continues to be well over the German Chamber of Industry and Commerce's average of eight percent.

**"Custom production
requires custom service"**

After restructuring, UNICOR focused on its core competencies even more and, ac-

cordingly, further enhanced its service portfolio. "We haven't left a single customer standing out in the rain with his equipment", Oswald Bock, Head of the Project Department, explains. "Custom production also requires custom service. A partner-oriented collaboration between our specialists and our customers is thus essential." Since 2007, the company has been offering the additional option of equipping the corrugators with a remote maintenance system. This is a guarantee for quick assistance and short reaction times in addressing emerging problems or failure incidents occurring on the world-wide installed equipment in a cost-efficient way, and doing this ideally without incurring travel costs. ■



INFORMATION • DETAILS • FACTS

- Founded: 1984
- Staff: 140 (incl. apprentices)
- Company headquarters: Hassfurt, Germany

Products and services:
Development, production, and world-wide sales of
corrugated pipe extrusion systems (corrugators)

Producing Flexibly, Reacting Dynamically!

Michael Gerlach, Purchasing Head at UNICOR GmbH, on Increasing Demands and the Collaboration with EschmannStahl

ESSENTIALS: Mr. Gerlach, Innovations – Solutions – Quality – Service: four significant characteristics with which UNICOR appears on the market. Could you please give us some details on these statements?

The name UNICOR stands for many years of know-how in custom design and process-optimising solutions in the corrugated pipe sector.

INNOVATION already begins with product design. At UNICOR, this is done tailored to our customers' requirements. This addresses questions like: What does the pipe have to look like, what are the geometries, and what kind of plastics are going to be processed? The custom SOLUTION is provided by the plant, i.e. the corrugator, which is developed and manufactured in accordance with product design. Due to our many years of expertise and experience, QUALITY and SERVICE are natural parts of our company philosophy.

ESSENTIALS: You develop pipes and manufacture corrugators for numerous industries and application areas. Particularly in utility engineering and medical applications, requirements are very high. How do you guarantee such benchmarks in collaboration with your suppliers?

Demands have been increasing across all sectors in the last few years. Especially the service component and the reduction of reaction times play an important role. In order to be a step ahead of competitors, UNICOR as a solution provider needs to produce flexibly and react dynamically. The experience and training of our staff as well as the reliable collaboration with our partners lay the basis for this.

ESSENTIALS: What do you value about the collaboration with EschmannStahl and what services do you make use of?

Plastics processing requires specialist knowledge in the steel sector. In this area, EschmannStahl has been a partner and advisor of UNICOR GmbH since our founding. Selecting the right steel grades is a custom decision for each machine and always depends on the plastics to be processed. This is where EschmannStahl's special grade ES Antikor SL and ES Multiform SL have meanwhile become well-established.

The excellent availability and high level of premachining EschmannStahl offers tops off our collaboration. They provide us with the decisive arguments we need to be successful against our competitors: optimal cost-performance ratios and shortest reaction times.

ESSENTIALS: Thank you for the interview. ■

*Michael Gerlach,
Purchasing Head
at UNICOR GmbH*

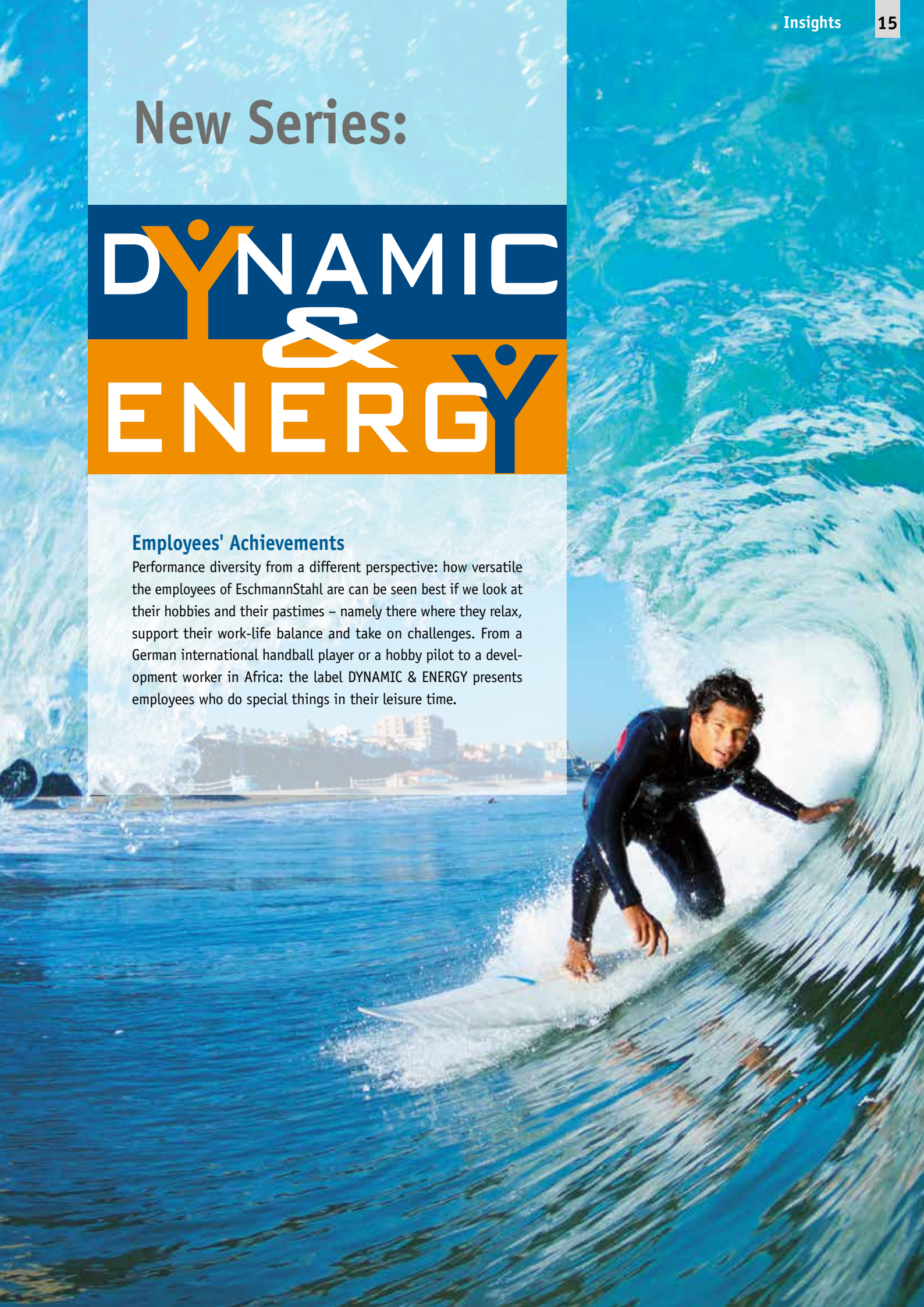


New Series:

DYNAMIC & ENERGY

Employees' Achievements

Performance diversity from a different perspective: how versatile the employees of EschmannStahl are can be seen best if we look at their hobbies and their pastimes – namely there where they relax, support their work-life balance and take on challenges. From a German international handball player or a hobby pilot to a development worker in Africa: the label DYNAMIC & ENERGY presents employees who do special things in their leisure time.



Man from the Back Court

Today, the former German national handball league player Klaus Schlagheck is the IT Head at EschmannStahl. Talking to ESSENTIALS he describes the exciting path he took from Europe's biggest sports halls to the international steel business.

ESSENTIALS: Mr. Schlagheck, how do you look back to your roughly ten years of handball in one of the then best European clubs, the VfL Gummersbach?

It was exciting, informative, and, in particular, a great time back then. Games with thousands of people in the hall and millions watching on TV is the stuff every athlete dreams of, even if sports back then was different from what it is today. In those days, handball players were not real professionals. During the daytime we went to work like everyone else and did our training in the evening, usually only three times a week. But don't get me wrong, we were still exacted to a lot of pressure.

ESSENTIALS: How did you deal with this pressure?

You shouldn't take this to heart too much – since in good times one does enjoy the positive aspects of being a public person. However, I did learn important life skills during this time, especially the ability to respond positively to criticism: when you constantly

The handball player Klaus Schlagheck played for the VfL Gummersbach Team from 1971 to 1980. In 150 National League games, the right back court player scored 318 goals. He also played 47 European Cup games and 5 international matches for Germany. For his achievements he received, among other awards, the Silver Bay Leaf, the highest award a German athlete can get. After his athletic career Klaus Schlagheck was active as a youth coordinator and as a press officer for his club.



have to deal with opinions and value judgements voiced by others, you learn to balance things and make your own value judgements: Is the other person maybe right? Or does someone only want to get rid of some frustration? What is important is that you voice and/or receive criticism in a constructive way. When you do that you produce real cooperation and team spirit – something I also learned back then. We were only able to be so successful as a team because each one of us shelved his personal vanity and stood in for another team member when they happened to have a bad day. To move forward, it is also important to take on responsibility proactively. This is how you become a leading player and an integrating figure, both in sports and otherwise. Because I know how important it is to have good role models, I have always tried to be a good role model for younger people. In this way my handball career helped me a lot in business life.



Klaus Schlagheck past and present

ESSENTIALS: When those times came to an end, how did you manage to reconfigure to a “normal” life?

Of course you can’t come to a complete stop abruptly, even if only for physical reasons. So, I actually continued to play – moving into the second team – in order to support and train younger players. After that, I stayed with the team and took on the role of a coach. Later again I was on the board, initially as a youth coordinator and then as a press officer of the national league team. In all of this handball itself was like a hobby for me. My main focus was my business career all along. By the way, I had taken this decision very early on. At the beginning of the 1970ies the question arose whether I should invest more time into handball to continue playing in Germany’s national team. I made a clear decision against doing that in order to continue developing my emerging career with a software company in a focused way. Thus, I think I handled the exit from high-level sports and the time after that quite well.

ESSENTIALS: That exit was followed by an entry at EschmannStahl ...

Exactly. This year I am commemorating my 30th anniversary with the company. Shortly after ending my career in the first team of the VfL Gummersbach and beginning in the second team as well as on the board of the club, I got the opportunity of starting to work with EschmannStahl. Back then ➔

Portrait Klaus Schlagheck continued



European cup champion 1978



European cup champion 1974, back row from the left: Trainer Victor Kitza, Manager Eugen Haas, 9 Hansi Schmidt, 11 Joachim Deckarm, 10 Helmut Kosmehl, 8 Klaus Westebbe, Jochen Brand, 7 Achim Henseler, 2 Heiner Brand, 4 Klaus Schlagheck, Trainer Heiner Frohwein, coach Hans Willi Kleine, front row from the left, 5 Jochen Feldhoff, third goal keeper Urban Wrona, first goal keeper Klaus Kater, second goal keeper Dr Valentin Markser, 6 Werner Lettgen

when the company only had 60 employees they needed someone to take care of and extend a kind of ERP system. My accrued software expertise made me a good candidate for that job. As the position of IT Head spanned all areas of the company, I constantly had good insights into the processes and actual work of all departments. So, during the exciting times of our company's international growth I was in the middle of it all and was, among other things, also involved in the establishment of new locations, for instance, in other European countries.

ESSENTIALS: You were also travelling through Europe a lot during your time with the VfL. What did you experience during the European Cup tours?

That was something very special. One of the reasons for this was that many of the best teams back then came from countries located behind the Iron Curtain. In this way, for instance, we were able to travel to East Germany. And we enjoyed other advantages related to our handball career too.

Cup bonuses like travelling, for instance to South America, a trip I will never forget. We also got to meet interesting personalities like Germany's President.

ESSENTIALS: What event in your handball career would you highlight most?

Amongst the cups that I won, the biggest highlight was definitely winning the European cup today called Champions League – this is the greatest thing you can achieve as a team on a club level. Playing for Germany in international matches was also something special, even though I did not play that often. There is a nice episode that links up my handball career with my time at EschmannStahl. I have a special relationship with the Polish city of Katowice. That is where we had an international match against East Germany with the West German National Team. Years later a coincidence brought me back there, this time with EschmannStahl. We commissioned a new location there – curiously enough it was only a stone's throw away from the

hall in which the game had taken place back then.

ESSENTIALS: Mr. Schlagheck, thank you for the interview. ■

Biggest successes:

German Champion:
1973, 1974, 1975, 1976

German Cup Winner:
1978, 1979

European Champions Cup:
1974

European Cup Winners Cup:
1978, 1979

IN BRIEF

Move Completed

Quicker, more intelligent, enhanced performance – with the complete commissioning of all machining capacity at the new central production location in Wehnrath, EschmannStahl's partial move has now been successfully accomplished. The construction of a new hall for storage and packaging had already been completed in late 2011. That was followed by the move of those production areas previously located in Gummersbach and the central consolidation of all storage and milling capacity

at the Wehnrath location. These measures were based on a new intelligent logistics concept aimed at increasing efficiency. With the move of all mills and warehouse stock from Gummersbach to the Wehnrath location, EschmannStahl has succeeded in

concentrating all production in a single location while continuing to maintain a high degree of availability, to make efficient use of capacities, and to significantly reduce processing times.

Printed on FSC certified paper

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PREVIEW ESSENTIALS 2/2012

Contour Processing
Maximum Precision

Employees' Achievements

Part 2 of the series presents a further company employee and his interesting hobby. Stay curious!

Further Planned Topics

Trends and developments in the German automotive industry
Alloys
Division portrait



IMPRINT

Publisher:

EschmannStahl GmbH & Co. KG
Dieringhauser Straße 161-183
51645 Gummersbach, Germany
Phone: +49 2261 706-0
Fax: +49 2261 706-100
Email: info@eschmannstahl.de

Editorial staff:

EschmannStahl GmbH & Co. KG
C&G: Strategische Kommunikation GmbH

Concept, layout, text and realisation:

C&G: Strategische Kommunikation GmbH
Olper Straße 10
51491 Overath, Germany
www.wir-verstehen-technik.de



ESSENTIALS

The customer magazine of EschmannStahl GmbH & Co. KG

1/2012

Headquarters Gummersbach



Wehnrath Location

ESCHMANN  **STAHL**

EschmannStahl GmbH & Co. KG
Dieringhauser Straße 161–183
51645 Gummersbach
Germany
Phone: +49 2261 706-0
Fax: +49 2261 706-100
E-mail: info@eschmannstahl.de