



Impulse

VEM SACHSENWERK

• VEM MOTORS

• VEM MOTORS THURM

• KEULAHÜTTE

Dear readers, dear VEM colleagues,



After long months of negotiation, Ludwig Merckle and his staff have at last succeeded in stabilising the financial situation of the Merckle group, laying a robust foundation for future growth.

It was unfortunately necessary to sell off Ratio-pharm, but all the other companies in the group remain under the entrepreneurial management of

the Merckle family, and in particular of Ludwig Merckle himself. Past turbulences and uncertainties have thus been swept aside, and this is radiating positively over customers, employees and management bodies alike.

The fact is, that the Merckle group at no time returned a business loss - also during the worst economic crisis since the Second World War. The group has always possessed the necessary liquidity to operate successfully and to invest. Right up to his death, Adolf Merckle repeatedly pointed out to the banks that the value of his life's work far exceeded the associated loans. It was the highly-paid bank advisers who built up the image of an ailing company and almost ruined the group with their errant calculations. Today, they see things differently, thanks to the skill and perseverance of Ludwig Merckle and the pressure of facts.

The business year 2010 is running to plan for the VEM holding and its subsidiaries. The individual companies will have been able to further reduce their borrowing. The major investments with a total volume of €3 million at VEM Sachsenwerk will have been completed punctually. Overall, despite the previous economic crisis, the VEM Group will be recording a positive result.

It is especially pleasing to note that our companies in Most and Piestany are also working successfully, and we are now planning to build a new hall in Most to improve manufacturing logistics.

continued on page 6

High efficiency

VETACON system for wind turbines presented by VEM and Woodward



Cooperation partners at the system test. The team (left to right): Markus Eichler and Jürgen Schmitz (Woodward), Stefan Kunckel and Gerhard Freymuth (VEM). On the right, the permanent-magnet synchronous generator.

The greater the energy yield of a wind farm, the greater the benefits for both operator and the environment. Together with converter manufacturer Woodward, VEM Sachsenwerk has now developed an innovative concept with which significant improvements in turbine efficiency can be achieved.

VETACON - the combination of a permanent-magnet synchronous generator and a modern, high-performance full converter - delivers higher yields above all in the partial load range. The new system was unveiled to customers and the public on 1st September, as the outcome of a one-year development project. More than two dozen representatives of leading wind turbine manufacturers accepted the invitation to Dresden.

During a system test on the large machine test stand at VEM Sachsenwerk, the experts from Germany, Denmark, Spain and Korea gained an impression of the performance capabilities of

the new product. VEM Sachsenwerk has developed and will be manufacturing a new fast-running permanent-magnet synchronous generator for VETACON. This robust, low-maintenance generator design is seen as the technology of the future in wind power generation. As the machine operates without electrical excitation, it is possible to eliminate rotor windings and brush systems, and thus problem-prone wearing parts. The rotor is instead fitted with high-quality neodymium-iron magnets, which are provided with special corrosion protection to guarantee lasting operational reliability. The new generator has been designed initially for outputs from 2.5 to 4 MW. The direction of further developments depends on the wishes and demands expressed by the customers.

The tailored full converter for the VETACON system is supplied by converter specialist Woodward in Kempen. Close cooperation between the two companies has enabled the individual components to be matched optimally to each other. In this way, it has been possible to achieve a higher degree of efficiency than in a DFIG system. Designed for both onshore and offshore applications, the system also stands up to aggressive environmental influences such as sea air and salt.

The guests followed the system test with great interest. After all, VETACON offers an attractive solution from a single supplier, but with two expert manufacturers in the background. VEM Sachsenwerk and Woodward are to be counted among the leading suppliers to the wind energy branch. Their cooperation already stretches back over more than 10 years. VEM has been manufacturing generators for wind turbines since 1998. With the newly developed permanent-magnet synchronous generator, the engineers in Dresden have now added to the existing range of double-fed asynchronous generators with outputs between 1.5 MW and a gigantic 6.5 MW for offshore applications.

Product range for wind power

The VEM portfolio: From A for asynchronous motor to S for synchronous generator

The development of wind turbine generators, in particular, draws great benefit from long-standing experience in the manufacturing of electrical machines for industrial applications. With a family of double-fed machines as wind turbine generators, VEM offers branch-tailored solutions. The close cooperation with leading manufacturers of frequency converters permits the realisation of an optimum product for every turbine configuration.

VEM motors has been manufacturing brake motors as setting drives for wind turbine yaw systems for many years. Wind farms with these brake motors are to be found across Europe, Asia and

North America, in some of those cases also in offshore versions. Since 2010, the product range has included also asynchronous motors for blade pitch adjustment.

Wind turbine generators under the brand name VEM

- Asynchronous squirrel-cage motors
- Double-fed asynchronous machines
- Synchronous generators (electrical excitation or permanent magnets)
- Synchronous machines in high-pole-count versions for gearless and single-stage gearbox solutions - upon request



Further training safeguards know-how

Page 2



Keulahütte extends range of castings

Page 4



Fire gas motors from VEM motors for motorway tunnels

Page 5

Fuel for the motors of industry

Demanding vocational training and diverse openings for further qualification safeguard the innovative strength of the VEM Group.

Falling birth rates and increasing life expectancy are leaving their ever greater mark on demographic structures in Germany and all other industrial nations. Difficulties in finding new generations of suitably skilled employees and an ageing workforce are among the consequences. Companies must face the question of how this development impacts their performance capabilities and innovative strength. After all, the custom-

ers of the future must also be offered top-quality products embodying the know-how of a highly qualified workforce. Against this background, the VEM Group has set up a comprehensive and wide-ranging programme of initial and further training both for potential newcomers to the branch and for its existing employees. We would like to introduce you to a few examples on this page.

Emphasis on training

Trainees and students acquire vocational knowledge and skills.

Prospective skilled workers can look forward to excellent conditions for their training at VEM. The awards received from regional chambers of industry and commerce are ample proof of that. At Sachsenwerk, for example, a new 770 sq.m. building has been erected specifically for apprentice training. Its generous, well-equipped workshop offers trainees every necessary opportunity to practice the handling of tools and machines. CNC programming is similarly an important element of the training curriculum.

Young trainees who join one of the VEM companies can choose specialisations covering the whole spectrum of the metalworking trades, for example electronics technician for machine and drive technologies, toolmaking, punching and stamping, metal-cutting operator, production mechanic, industrial mechanic, foundry mechanic and mechatronics technician. After successful completion of their apprenticeship, all VEM trainees are offered a permanent employment contract, provided the conditions agreed in the relevant collective trade agreement are satisfied.

To attract new generations of skilled employees, staff of the VEM companies visit schools and training fairs, organise company open days, and offer possibilities for practical insights and experience to school classes. The objective of all such measures is to stimulate the young people's interest for technical vocations. This purpose is served similarly by partnership agreements with local secondary schools, as practised successfully by both Keulahütte and Sachsenwerk.

Future engineering staff are recruited through a diversity of agreements between the VEM companies and universities, colleges and vocational academies. From the wealth of topics being addressed, the companies filter suitable topics for student dissertations and projects. Both the students and the companies themselves benefit from this arrangement. At Sachsenwerk, for example, students performed comprehensive measurements and investigations of vibration behaviour within the framework of practical design experience in mechanical engineering. Their results contributed to the determination and implementation of mechanical design improvements, and in this way to greater operational reliability of the machine types concerned.

Under the dual education model offered by the vocational academies, VEM motors acts as a partner for the practical component and offers places to one or two students each year.

At VEM motors, the first year for all trainees begins with an outdoor team-building experience.



Lifelong learning

VEM helps its employees to expand vocational and personal qualifications.

To cover the demand for highly qualified personnel, the German economy is attaching increasing importance to further training. That is also confirmed by a recent survey of the Association of German Chambers of Industry and Commerce (DIHK). VEM motors already signed a company agreement on qualification in 2006, and this model was gradually taken up by the other VEM companies over the years which followed. The target of the agreement is not merely to promote vocational qualifications, but to give equal weight to the wishes of the company and the employee when it comes to further training. The companies support such training objectives with paid leave, and also pay half of the course and examination fees in case of successful completion. At VEM motors alone, 17 employees have in this way commenced or already completed a college engineering course during the past four years.

The company agreements also contain regulations relevant to another important group of employees, namely those who wish to obtain additional qualifications for tasks which are currently not required at their workplace. In such cases, the companies offer modified working hours as far as this is feasible. It is often also possible to complete practical course

elements and write dissertation papers within the company. For the most part, however, further training in all the VEM companies concentrates on continuous vocational improvement. Training measures are organised during paid working time to enable employees to update the know-how required for their specific work tasks. At Sachsenwerk, for example, around 40 % of the workforce had benefited from such training by the end of September 2010.



Training instructor Thomas Riemer from Sachsenwerk explains the possibilities for later further qualification to trainee Klemens Riedel.



Photo: René Gaens

Employees at all the VEM locations make use of the further training opportunities.

| EXAMPLE |

“Schau rein!” – “Look in!” at company open days

To assist school pupils in their choice of a career, a week of company open days under the banner “Schau rein!” – “Look In!” was organised for the fifth time in Saxony in March 2010. VEM motors Thurm and Sachsenwerk took part in this initiative.

In Zwickau, 43 pupils and students took the opportunity to learn more about VEM motors Thurm, its products and training offers. Sabine Hartenstein and Michael Gruner presented the company and spotlighted various possibilities for a future traineeship or study course. On a subsequent tour of the production halls, they then described the individual manufacturing processes. Petra Dannenberg, who is responsible for human resources at the company, described the demands placed by the vocational training. “Good school results are important in all fields,” she said. “After all, our company success rests not only on modern technologies and quality awareness, but above all on highly qualified and motivated employees who master the handling of our production equipment and understand our products.”

The next event in the series is already planned for March 2011.



Photo: Markus Richter

Prof. Andreas Pohl, dean of the Faculty of Electrical Engineering at the West Saxon University of Applied Science in Zwickau (2nd from right), with graduates of his university who work at VEM motors Thurm. Michael Gruner (left) explains the latest developments in motors for wind turbines.

Business with butterfly valves booming

Full range now also available in PN16 versions



This attractive sectional model of a butterfly valve DN 600, PN 16 serves as a trade fair exhibit.

The expansion of the range of butterfly valves from Keulahütte is progressing in leaps and bounds. The nominal diameter 1400 was already added to the list of valves on offer last year. This year, investments have concentrated on patterns for the diameters 600 to 1400 in PN 16 versions. At the same time, the series has been complemented with a 450 diameter for nominal pressures 10 and 16. The investments in pattern-making and manufacturing fixtures have totalled €100,000 in 2010 alone. The project began in 2009 with an initial investment volume of €25,000. The final tests are in full swing, and market availability is scheduled for 2011.

The demand for butterfly valves for this higher pressure level is expressed predominantly in export business. The most important market in this respect is Russia, where turnover has already received an enormous boost in the second half of 2010 thanks to the extended product range and shorter delivery

times. At the same time, further business opportunities have been identified in Europe and the United Arab Emirates. Keulahütte expects these openings to contribute to a significant increase in sales in 2011.

Alongside the investments in patterns and fixtures, expansion of the manufacturing capacity has also been continuing. Process optimisation here lays a solid foundation. In addition, trainees in their last year of training are being prepared specifically for the work involved. Three budding skilled metalworkers are to be assigned to the vertical and horizontal machining centres. The increased demand for butterfly valves will furthermore permit a transition to full three-shift operations in the mechanical workshop.

It goes without saying that all the relevant approvals of the German Technical Association for Gas and Water (DVGW) are already being obtained parallel to development work.

| PRINCELY EVENT |

Cast-iron streets lamps and benches from Keulahütte add stylish elegance to the market square in Bad Muskau.



The newly designed market place in Bad Muskau

Completion of the newly designed market square in Bad Muskau, the famous spa town on the German-Polish border, was celebrated with a town festival in the summer. Everyone at Keulahütte is particularly proud that 24 cast-iron street lamps and 22 benches of the company's "Fürst Pückler Edition" were chosen to enhance the market square ensemble. They create a stylishly elegant atmosphere for the many visitors to the town. After all, the market square is at the same time the gateway to the beautiful Fürst Pückler Park, which is inscribed as UNESCO world heritage.



28 metres in neo-Gothic style

Restoration of the observation tower demonstrates Keulahütte's competence in customer castings

The cast-iron observation tower with the re-opened restaurant "Honigbrunnen" on the hill overlooking the town of Löbau is a popular destination for outings and excursions. In 1994, comprehensive restoration of the 140-year-old tower was completed and the public was once more able to enjoy panoramic views over the surrounding Upper Lusatian countryside from the three observation platforms.

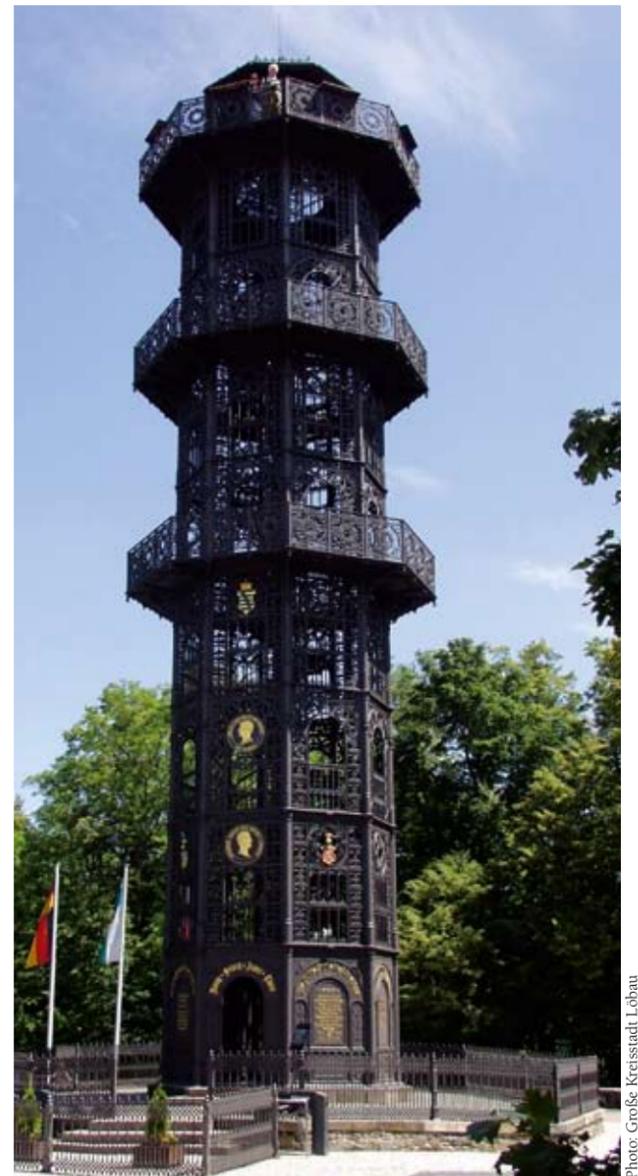
Keulahütte in Krauschwitz was one of the decisive partners in the restoration, thanks to its special competence in customer castings. Numerous structurally important parts of the tower were recast in high-strength ductile cast iron. Immediately before assembly, the castings were blasted in preparation for zinc-phosphate priming and a subsequent three-layer coat of paint.

Local baker as initiator

„The broader the view, the freer the heart." It is thanks to this life's maxim of Löbau baker Friedrich August Bretschneider, born 13.12.1805, that we can today admire one of the most interesting and beautiful examples of German cast-iron architecture. It was back in 1850. An observation tower had just been built on the neighbouring hill Czorneboh, the first in Upper Lusatia. It was perhaps this news which caused the people of Löbau to consider a similar construction on the 448-metre hill overlooking their own town. Or perhaps the idea was triggered by Löbau lawyer von Schreiber. After a Christmas walk in 1850, he bemoaned the lack of a restaurant or the like on the hill. But whichever version is true, a group of citizens led by Bretschneider sought a meeting with the mayor on 28.11.1853. As an outcome of this discussion, the town council promised the ground and building materials for the foundation and accepted Bretschneider's proposal of a cast-iron tower. The cost was estimated at 5,430 talers and 11 groschen.

Clearing of the site began already on 12.01.1854. Eighty schoolchildren brought bricks up to the hill on sledges. Their reward: One pfennig per brick, coffee and a bread roll with butter. The supporting columns of the cast-iron tower were anchored eight metres deep in the volcanic basalt rock. Built in the neo-Gothic style of the 19th century, the octagonal tower is 28 metres high, with 121 cast-iron steps leading up to its highest platform in the form of a spiral staircase. The more than 1,000 individual elements weigh 70 tonnes. The final cost was almost five times the original estimate.

On 22.02.1854, King Friedrich August of Saxony gave his permission for the tower to bear his name and the Saxon coat-of-arms. At the official inauguration on 09.09.1854, Bretschneider opened the door to the tower at 12 noon. King Friedrich August was no longer able to experience the occasion. He had suffered a fatal accident only a few days earlier.



Eye-catcher on the hill above Löbau: The King Friedrich August Tower

Settling differences between the inner and outer supports, corrosion on the joints and material-related design defects, particularly in connection with the ring anchors, led to closure of the tower in 1992. Thanks to the subsequent restoration, however, this touristic jewel is once more accessible to the public.

Extended range of casting weights

Product number 411808 – a casting like any other? Not at all!

The product number 411808 stands for the heaviest casting ever produced at Keulahütte – 4,330 kilograms of cast iron with spheroidal graphite. The casting is a planetary gearbox housing in EN-GJS-500-7 for customer Wolfgang Preinfalk GmbH in Sankt Ingbert near Saarbrücken.

Wolfgang Preinfalk has been a recognised manufacturer of drive and gearbox solutions for the most varied industrial applications for more than 30 years. In this particular example, the planetary gearbox of type PRPL 85 is part of a heavy-duty conveyor system for the Chinese mining industry.

The moulds and cores (photo below) were meticulously prepared for the first casting with a total of 7,800 kilograms of molten iron on 31st August 2010. After tapping at a temperature of 1510 °C, the introduction of 244 metres of magnesium wire prompted the short-term transition to graphite formation in spheroidal rather than flake form. Subsequently, only 55 seconds were required to fill the three-part mould with almost eight tonnes of molten iron at a final casting temperature of 1330 °C.



At 4,300 kilograms, the casting for a planetary gearbox housing is the heaviest casting ever produced at Keulahütte.

Alongside chemical analyses and comprehensive laboratory tests, ultrasound measurements using 15 different sound paths on the finished casting (photo above) confirmed the excellent microstructural formation even for wall thicknesses in excess of

180 mm. The hypoeutectic composition also permitted new experience to be gathered with regard to the shrinkage and feeding of large castings. This knowledge can now be used for future castings with piece weights over 3 tonnes.



Preparation of the mould for the gearbox housing.

Close to the market and the customers

Matthias Kunze represents Keulahütte Krauschwitz in the field

Hydrants, gate valves, fittings – no building site on which media supplies are to be laid can do without such castings. Public utility companies are among the most frequent customers of Keulahütte in Krauschwitz. “As a leading manufacturer of these technical products, our company is on the map across practically the whole region of Central Germany,” says field sales representative Matthias Kunze. And who could be better informed? After all, he visits so many supply companies, public utilities and trade dealers over the course of the year that his travel would easily suffice for two trips around the world.

Matthias Kunze is responsible not only for the technical aspects of product sales, but also for the related commercial and financial issues. At the same time, as field spokesman, he gathers all the feedback and suggestions which the five Keulahütte field representatives bring from their customer visits for the product management team: “I have been visiting customers for 13 years, and in the meantime I have developed a

good feeling for the needs of the market.” Through his suggestions, he contributes to constant expansion of the product range in accordance with actual customer wishes. “For us field representatives, customer proximity means offering the supply companies our full scope of services, and that our service staff are on site as quickly as possible if the customer needs our assistance.”

Matthias Kunze describes the opportunity to present a new product to the customers as one of the highlights of his work: “At this year’s IFAT fair in Munich, for example, we were able to unveil the ‘Schließfix’ cover.” The merits of this self-closing cover for underground hydrants have already convinced the public utility company in Oranienburg, among others. It is no longer necessary to press the hydrant cover down by hand; instead, a mechanical closure is activated. “I was pleased to see how positively the visitors to the fair received our new technical solution.”



Matthias Kunze at this year’s IFAT fair, the world’s leading trade fair for the environmental technology branch.

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Renewable energies

The Renewable Energies Export Initiative of the Federal Ministry of Economics and Technology provided the framework for the German-Saudi Arabian Conference held in Magdeburg on 3rd August 2010. Jürgen Sander, managing director of VEM motors, took part as a board member of the German Near and Middle-East Association. In his address, he thanked the members of the Saudi Arabian delegation for the interest shown in German technologies for the utilisation of renewable energies and for energy efficiency. Such experience underlines Saudi Arabia's determination to intensify partnership geared to the solution of future energy problems.

| ENGINEERING |



This booster drive was manufactured at VEM Sachsenwerk for the Polinter LDPE plant in Venezuela to an order from Burckhardt Compression AG. The heart of the drive is a DTKVY 2530-20WS compressor motor with ratings 8,400 kW, 11,000 V and 360 rpm.

| JUBILEE |

50 years VEM in Finland

An agreement on deliveries of electric machines with Konemynti Oy, the precursor of VEM motors Finland Oy, gave the start signal for VEM motors' successful presence in Finland 50 years ago. "The strength of our company lies in the tailored delivery chain," says Kari Randell, managing director of VEM motors Finland. Suppliers, staff and the extensive network of VEM dealers and service representatives work hand in hand to offer every customer the perfect motor solution. Randell: "We are proud of our long-standing customer relationships. They stand for a good product and optimum work processes. Many of the customers have remained loyal to us through all the various name changes."



Managing director Kari Randell with Jürgen Sander and Dr. Dietmar Puschkeit (left to right)



Photos: Sabine Harenstein

The Coschütz tunnel on the A 17 motorway near Dresden is equipped with fire gas motors of type K10R 225M4 (400 °C, 90 minutes) from VEM motors. Another version of this fire gas motor is the K20R 90L4-2 with gas relief bores in the special end shield (photo). In case of extreme heat, the gas must be able to escape, so as to prevent the motor exploding. A motor must run for two hours at 400 °C in case of an incident. The jet fans provide for fresh air in the tunnels.

Before things get too hot

Fire gas motors ensure fresh air in the tunnels of the A 17 motorway near Dresden

Around 64,000 vehicles pass through the chain of tunnels on the A 17 motorway skirting the city of Dresden each day. In the three tunnels in the chain, 60 jet fans provide for fresh air and stand ready to support smoke extraction in case of a fire. Only fire gas motors are suitable and approved as drives for such fans. The insulation systems of the motors, their bearings and the connection technology are specially adapted to the severe application conditions. Fire gas motors of type K10R 225M4 (400 °C, 90 minutes) were chosen for these tunnels, though VEM is able to offer motors for each of the classes F200, F300,

F400 and F600. If a fire breaks out, effective ventilation can easily become a matter of life and death. Smoke and hot gases must be extracted to create a rescue zone, and this places high demands on the extraction equipment. In an emergency situation, it must remain unaffected by both extreme temperatures and smoke. The axial fans were developed specifically to generate the highest possible jet pulse at a defined installed power. Despite the use of a modular system, each ventilation system must be individually tailored, because no two tunnels are identical.

Dynamic offshore developments and energy guidelines

Two key topics lend the 9th Technical Conference a new quality

The global developments in shipbuilding and in offshore technologies are also of prime importance for the German machinery and plant engineering industry. The VEM Group is one of around 200 companies supplying the international maritime market. After the massive downswing in the cargo and cruise liner sectors, offshore activities offer increasingly interesting prospects - from wind farms, via oil and gas platforms to deep-sea mining. Presentations on the latest technical developments and extensive background information from this highly dynamic market segment characterised the first day of the 9th Technical Conference, which took place in Wernigerode on 22nd and 23rd June 2010.

On the second day, it was the questions of energy efficiency and the EuP directive which were shifted into the spotlight. The much-discussed transition to energy-saving motors is set to commence from 16th June 2011. "The date is coming

closer and closer, but the market has still not reacted accordingly," said Jürgen Sander, managing director of VEM motors and president of the low-voltage working group at CEMEP. It seems certain that reductions in CO₂ emissions and the standardisation of electric motors will remain central topics for at least the next ten years. All countries are aligning their national programmes to the corresponding demands. The manufacturers are willing to observe the new standards, but at the same time demand monitoring of the products on the market. Only then will it be possible to respond to the black sheep who fail to comply.

The two days of the 9th Technical Conference of the VEM Group attracted a total of more than 250 representatives of motor manufacturers, customers and scientific institutions from 13 countries. After the top-flight agenda with two topic areas this year, many are already looking forward in anticipation to the jubilee conference in 2011.

| 10th Technical Conference |

27th and 28th September 2011
 "Electric machines –
 Yesterday, today and in the future"
 50 years VEM trademark association
 125 years electrical engineering in Dresden

New certification for the following types

| | | |
|--|--|--|
| Explosion protection "e" (increased safety) and explosion protection "n" (non-sparking) High-voltage winding VEMoDUR VPI-155 Rated voltage up to 11 kV | Combination gas or dust Ex II 2G Ex e II T3 (T4) or Ex II 2D Ex tD A21 IP 65 T 125 °C IE-K...71 to IE-K... 132 ... (0.75 to 5.5 kW) | Explosion protection "tD" (protection by enclosure) Ex II 2D Ex tD A21 IP65 T 125 °C IE1-W1.R 112 ... to IE1-W1.R 315 ... (3 kW to 250 kW) |
| IE. Germanischer Lloyd IE.-KPR 71 to IE.-KPR100 IE.-KPER 80 to IE.-KPER 132 (0.75 to 6.6 kW) | Combination gas or dust Ex II 3G Ex nA II T3 (T4) or Ex II 3D Ex tD A22 IP 55 T 105 °C IE-K...71 to IE.-K... 132 ... (0.75 to 6.6 kW) | Explosion protection "tD" (protection by enclosure) Ex II 2D Ex tD A21 IP65 T 125 °C IE2-W1.R 112 ... to IE2-W1.R 315 ... (3 kW to 250 kW) |
| Ex II 2G Ex e II T3, (T4) and Germanischer Lloyd IE.-KPR 71 to IE.-KPR 100 ... IE.-KPER 80 to IE.-KPER 132 ... KPER 132 (0.75 to 5.5 kW) | Explosion protection "n" (non-sparking) Ex II 3G Ex nA II T1/T2, T3 or (T4) IE2-W1.R 112 ... to IE2-W1.R 315 ... (3 kW to 250 kW) | Explosion protection "e" (increased safety) Ex II 2G Ex e II T1/T2, T3 or (T4) IE1-K1.R 112 ... to IE1-K1.R 355 ... (1.9 kW to 275 kW) (IE2 in preparation) |

“Every day demands a new solution”

As head of design at VEM motors Thurm, Michael Gruner is responsible for all technical matters concerning drive systems.

Friendly, competent, circumspect, energetic – those are some of character traits which colleagues mention to describe Michael Gruner. At just 35 years, the newly appointed head of design is one the youngest members of the top management team at VEM motors Thurm. After studying power and drive technology at the West Saxon University of Applied Science in Zwickau, he joined the design office at VEM motors in 2000. “My first contact with VEM was an engineering practical, and I then used my dissertation to develop a freely programmable drive test stand for the company,” says Michael Gruner. He received an “A” grade for his paper – all the more reason for the company to entrust ever more responsible tasks to their talented young engineer over the course of the years.

At the beginning of November, Zwickau-born Michael Gruner took on the job of head of design from his retiring predecessor Roland Schmidt. They had already been working together for some time, and Michael Gruner was grateful for the chance to benefit from his older colleague’s wealth of experience. “In the meantime, all the technical questions land on my desk,” he says. “And every day demands a new solution.” The spectrum of topics is exceptionally broad – from mechanical and electrical designs for customer orders, via research and

development activities and the coordination of explosion protection measures, through to the implementation of new industry standards. Michael Gruner made decisive contributions to the development of VEM’s energy-saving motors for efficiency class IE2. The IE3 motors are to follow from 2015.

Michael Gruner pays particular attention to the way in which the market is changing, not only in terms of energy efficiency, for example through his work on standardisation committees (DKE UK311.1) and in VDE working groups: “That also helps you to stay up to date, and facilitates early recognition of any new market trends.” Where business used to revolve around simple drives, it is today system solutions and projects which dominate. Within his own sphere of responsibility, Michael Gruner has therefore reacted with restructuring measures and the recruitment of further qualified staff. It is vital for the customers to see that the necessary rejuvenation of the workforce is not being achieved at the cost of existing know-how. “We maintain close relationships with the Saxon universities and colleges, work together on research projects, and recruit young engineering staff through such cooperation projects,” he says. After all, as a former university graduate himself, Michael Gruner knows precisely where the benefits lie.



Photo: Mirco Hertel

Michael Gruner is married and has two children. In his spare time, he is constantly out and about with his family, and enjoys playing music with his children and in a small orchestra.

New Stromag brake with Germanischer Lloyd certificate

IP66 protection for tough environments such as the steel industry and shipbuilding

With a new Stromag brake in an IP66 design with GL certificate (small photo), VEM motors has expanded its range of brake motors. The new products are particularly suitable for tough environments, e.g. in the steel industry, in shipbuilding or on port cranes. The brake motor is available in IEC frame sizes 80 to 132, with the brake mounted on the N-end by way of a flange adapter. The braking torques of 20/40/60 Nm can each be reduced by 50%. These motors are always supplied without ventilation, in S2-10 min or S3-25% versions. The brakes are furthermore characterised by a wide range of modification options, for example

- Version with terminal box and integrated rectifier or connecting cable
- Anti-condensation heating, where appropriate
- Microswitch with function sensor
- Mechanic manual release
- Second shaft end



Photo: Sabine Harrnstein

The port of Hamburg is an international hub for Germany and for Europe as a whole. Eight million containers are handled every year, in other words 22,000 every day – a brilliant feat of logistics.

Active in Asia

Trade fair participation with multiple benefits



The team of VEM subsidiary Asia Pte Ltd at the PSA 2010 fair in Singapore

VEM motors was the only manufacturer of electric motors to participate at the PSA fair in Singapore at the beginning of September. Some 120 exhibitors from the fields of pumps, compressors and ventilation systems were presenting their latest wares. VEM was represented by its Singapore-based subsidiary VEM motors Asia Pte Ltd and concentrated above all on motors of the new energy-saving series. Alongside the exhibits, a lecture on energy savings with asynchronous motors and the new regulations for IE2 and IE3 motors met with particular interest among the fair visitors.

During the three days of the fair, VEM motors also organised its first agents’ conference with partners from several Asian countries. The clear signal to everyone present: VEM motors remains a strong partner in the field of drive technologies.

continued from page 1:

In response to the evident changes on the markets for the VEM companies and Keulahütte, I will be sitting down with the managing directors and works managers over the coming months to formulate a 10-year strategy, which will take into account the past market upheavals and secure further growth at the individual locations. Human resources development will remain a central concern, with the training of young skilled workers, grants and scholarships for talented students and measures to establish lasting loyalty to the company wherever possible. That is our answer to the ill-fated family, education and immigration policies of the past decades. And it is also one of the central topics in this issue of Impulse.

At the factories in Dresden, Thurm, Wernigerode and Krauschwitz, gardens of tranquillity and gratitude are to be created in honour of Ruth and Adolf Merckle. The commissions have already been awarded for these green oases, each with two benches and a boulder bearing a bronze plaque. Similar memorials are to be realised in Piestany and Most in 2012. On the anniversary of his death on 5th January, the managing directors and their workforces will be laying wreaths in remembrance of Adolf Merckle.

I hope that you have all returned healthy and relaxed from your autumn holidays, and that we can now tackle our further tasks with renewed and sustainable enthusiasm. And please permit me, already today, to wish you a pleasant Christmas and God’s blessing for the new year.

Yours, Freiherr von Rothkirch

| VEM AKTIVE |

VEM elected to ZVEI and VDMA committees

In future, too, VEM is to be represented on the advisory committees of ZVEI and VDMA. Gerhard Freymuth has been re-elected to the ZVEI advisory committee and will at the same time be active as a deputy delegate to member conferences and as deputy chairman of the working group on high-voltage machines in the electric drives division. He also remains a member of the VDMA board. Jürgen Sander is taking over the position of chairman of the working group on three-phase motors in the electric drives division at ZVEI.