

01° 2013

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all about ebm-papst

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DID YOU SLEEP WELL?

A Munich hotel demonstrates how quiet and energy-efficient fan coils can be a win-win for everyone: guests, owners and the environment



WORLDWIDE

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Worldwide





“There’s nothing worse than a noisy air conditioner in a hotel room”

Thomas Borst
Managing Director
Sales and Marketing
ebm-papst Group

Dear readers, For decades, weary travellers have too often been kept awake by noisy climate control systems in hotels. I can vouch for this personally, being all too familiar with the sleep-stealing hum and buzz of such systems. The hotter the country and greater the need for sleep, the louder it seems. But now that is over. At least, in hotels that use low-noise fan coil solutions with GreenTech EC technology. As you can read in our cover story, these solutions not only save the environment and the hotel operator’s energy budget, but also spare the nerves of the hotel guests. Which ultimately can make the difference between a guest and a satisfied guest.

The highest customer satisfaction is also essential for ebm-papst. Therefore, it can make sense to look beyond our own fans, as it were, and work together with highly competent fellow travellers to search for comprehensive solutions. We do this in hotel climate control, where we contribute as a partner of architects and manufacturers to the satisfaction of operators and guests. But also in systematic integration of software and hardware in heating technology and in the area of complex control systems, we place value on strong partnerships. Additional solutions from a wide variety of areas can be found in this issue. I wish you a stimulating read.



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Rainer Hundsdörfer is ready and willing to depart from familiar paths: "Courage will bring us forward."

“We find the best solution”

Since September 1, 2012, Rainer Hundsdörfer has been Chairman of the Board of Managing Directors of the ebm-papst Group. He takes stock of the status so far

Mr Hundsdörfer, has your image of ebm-papst changed in recent months?

Not at all. I didn't have any surprises, and certainly not any negative ones. The image I had of ebm-papst as a strong, innovation-driven company has been confirmed. The amount of potential in our team is unbelievable. It is no accident that we are the unrivalled technological leader in the world market. One reason is that we are moving forward faster and more courageously than others – with all respect for our competition, whom we always keep an eye on.

What is on your agenda?

One important item to me is continuing to promote a climate of innovation. We have to give the creative minds in the company the freedom to think outside conventional boundaries. After all, we always want to find the best solution for our customers. Another item is shaping the international ebm-papst organisation into a true global player. An initial step in this direction is building up development capacity in China. We're also paying a lot of attention to India, Brazil and the North American market.

How optimistic are you about 2013?

We're not expecting any economic growth impulses for the first half of 2013. But ebm-papst is very flexible and can adapt readily to fluctuations in demand. To absorb economic ups and

downs, our sales team is becoming more agile and aggressive. This will gain us more market share. In addition, we're confident about the new products in the pipeline. We are the drivers of our own economic success and our own growth.

What discussions are currently defining the market?

The foremost megatrend is still energy efficiency. We have been pursuing this goal for years and will continue to do so with GreenTech. We do not only look at the energy efficiency of our products, but also the total energy balance. Resource efficiency is a critical factor in product innovations. By the year 2015 we want to raise the share of sustainable biomaterials within our product portfolio to more than 15 percent.

Are you ready to go off the beaten path sometimes?

Absolutely. Well-trodden paths are usually the slower route and bring you to the same place as everyone else. To be successful, you have to dare to do new things and go into uncharted territory. We need to be willing to assess the way we're doing things now and judge them without holding back. Just look at the division of labour currently used in the automotive industry, for example. At the rate innovations are expected today, no one can do everything themselves. Rather, we have to be willing to establish new value-creating co-operation models. We are working on doing just that. ○



ebm-papst invested five million EUR in a new development centre in Shanghai

News in brief

The employees of the Australian and New Zealand ebm-papst subsidiaries worked flat out for a good cause: An employee team took part in the "Around the Bay Bike Ride" charity ride in Melbourne and biked up 3,600 dollars, which was increased to 10,000 dollars and donated to the charitable organisation "Engineers Without Borders".



In January, the **ebm-papst Indoor Championships** took place for the eleventh time. At the well-attended football tournament in Muldingen, Germany, the A-Juniors of VfL Bochum went up against nine other German Bundesliga teams.

The Association of European Manufacturers of Components for Refrigeration and Air-conditioning Technology distinguished the AxiTop diffuser with the **ASERCOM Energy Efficiency Award**. Along with ebm-papst, Güntner was able to ascend to the winner's stage, because the judges, for the first time, chose two contest entries as the winner at the same time.



At the same time ebm-papst could post two prizes at the tenth **Materialica Design + Technology Award**: The EC-external rotor motor got the gold distinction in the "Surface + Technology" category, while the range hood blower in EC technology won silver in the "Product" category.

And another award: At the **DEKRA Award 2012**, ebm-papst won in the category "Environment – Challenges of energy transformation". With this, the judges gave appreciation to the action taken in the area of resource efficiency and sustainability, which is covered under the GreenTech company directive.

Helping customers

ebm-papst opens a development centre in China

ebm-papst is investing five million EUR in its Chinese Wai Gao Qiao location near Shanghai in state-of-the-art application laboratories, in order to reinforce research and development. "Our objective is to help our customers with local, state-of-the-art laboratories to improve their products and make them competitive on the global market," explains Rainer Hundsdörfer, Chairman of the Board of Managing Directors of the ebm-papst Group. To do so, in the coming months, the company would like to expand on the currently 40 engineers and technicians by adding 30 skilled workers in order to further reinforce the Chinese team. "With our energy saving fans and the newly created, state-of-the-art development equipment, we will support the increasing product requirements for energy efficiency and resource conservation in China significantly," Hundsdörfer is certain.

ebm-papst has already been producing locally in China since 1996, and in 2011 expanded its capacity greatly. At the location, the company employs 1,200 people, who mainly produce drive motors, compact fans and GreenTech EC fans.

Quality engineering

ebm-papst at a Swiss products award

ebm-papst was distinguished at the "ProdukteAward" of the Swiss ProKlima association. As part of the ProKlima day, the forum of building systems experts, ebm-papst's energy-efficient, quiet and maintenance-friendly RadiPac were chosen as the three best products by the judges. Every year, the association distinguishes the best components that contribute to increased quality in building systems.

The winner of the ProduktAward with the Managing Director of the ebm-papst subsidiary in Switzerland, Werner Schneeberger (2nd from left)



Commitment appreciated

Distinction with the German Sustainability Award

ebm-papst was distinguished in December in the category “Germany’s most sustainable future strategy (corporate)”. With that, the expert judges recognised the commitment of the company in the areas of energy efficiency and climate protection. “We are very happy about this special distinction,” emphasised Rainer Hundsdörfer, Chairman of the Board of Managing Directors of the ebm-papst Group. “The topic of sustainability has had a central importance at ebm-papst for many years. That, for example, is what our ‘GreenTech’ corporate philosophy stands for, which we are currently advancing around the world.” The Mulfingen-based company was nominated together with the later winners Unilever and Remondis.



Group picture with the minister: The ebm-papst delegation receives congratulations from German Federal Foreign Minister Guido Westerwelle



Replacement in only 15 minutes: Neal Murtagh replaces outdated AC technology with energy-saving iQ-motors with GreenTech EC technology

Leading the way down under

Supermarket chain retrofits iQ-motors

The independent Australian supermarket chain Fishers IGA uses retrofitted GreenTech EC technology in its 15 stores in the state of Victoria. Encouraged by their supplier Neal Murtagh, the management decided to replace the outdated drives in the refrigerated shelves with the most state-of-the-art iQ-motors from ebm-papst, 80 to 150 per supermarket. The new devices pay for themselves after only 10 months, and after that, the Australian supermarket chain will save energy costs every day – and conserve the environment.

GreenTech worldwide

Making the world greener: Dialogue with the customers in Portugal

At ebm-papst, environmentally responsible actions are a manner of course. During the “Every Day is a GreenDay” campaign, our Portuguese subsidiary spread the GreenTech philosophy to their customers during its awareness week. Then the subsidiary asked customers about their expectations. GreenTech EC technology stood at the centre of this survey. As António Granjeia from the Portuguese cooling technology specialist Centauro confirms, this is a deciding factor for customers. “Whenever energy-efficiency and innovative solutions are involved, ebm-papst is always our first point of contact.”



António Granjeia checks energy savings with EC fans

WWW.GREENTECH.INFO

Ideal combination

Presenting the next product made from epylen

On its way towards the goal of using 15 percent sustainable materials by 2015, ebm-papst takes the next step with a new product. The new AxiTop diffuser made from the composite material epylen – a plastic strengthened by wood fibres – will be presented for the first time at the Hannover Messe (HMI). The resources for the biomaterial are

eco-friendly and therefore reduce CO₂ emissions already during production. An ideal combination of technical and sustainable-resources know-how.



More information:
ebmpapst.com/axitop

Keeps you up to date even while on the go: the new ebm-papst app



ebm-papst to go

The new app for tablets and smartphones

Our new free app provides current data on ebm-papst for when you are on the go. The program provides access to product catalogues, current news and trade fair dates. Moreover, potential energy and cost savings during operations can be determined using the CO₂ calculator. The small but mighty application is available for iPhone, iPad and Android tablets.

More information: app.ebmpapst.com



Installation of an ebm-papst motor on a Zeitlauf gearbox

Complete drive

ebm-papst acquires drive specialist Zeitlauf

At the beginning of 2013, ebm-papst acquired drive manufacturer Zeitlauf. This strengthened the company's "Industrial drive engineering" business area and now provides the possibility of being able to offer complete systems. "The acquisition will enable us to offer optimised drive solutions consisting of the motor, gearbox and software-supported control technology in future," explains Rainer Hundsdörfer, Chairman of the Board of Managing Directors of the ebm-papst Group. "Zeitlauf is therefore strategically important for us because it complements our system expertise in the field of drive engineering, strengthening our company's location at St. Georgen."

The Managing Director of the location also sees it this way: "This is a clear and correct step into the future," emphasises Dirk Schallock. "We are very happy about this acquisition, which grows out of our good long-term business relationship." The specialist for industrial gearboxes, based in the German city of Lauf in the Franconia region, produces planetary gears, spur gears and angular gears with a staff of 280 employees. The company achieved a turnover of around 33 million EUR in 2012. The two companies had co-operated successfully even before the acquisition.



“I wanted a unit that heats and cools – and does so almost silently.”

Hotel owner Robert Rentzsch

Pioneering project for intelligent climate control solutions: the Abasto Hotel in München-Gernlinden



Check in, feel good

Hotel owner Robert Rentzsch proved to be a pioneer by deciding in favour of state-of-the-art air-conditioning technology – and is rewarded by satisfied guests and low operating costs

The win-win situation starts even at the reception desk: The hotel has a new guest, and the guest enjoys a comfortable room at a pleasant temperature. As soon as the reception clerk checks the guest in using the reservation software, the software notifies the in-room climate control system of the guest's arrival. The system then quickly raises the temperature from a standby level of 18 degrees Celsius to the normal temperature of 21 degrees. When the guest opens the door, he or she is greeted by a room at a pleasant temperature with state-of-the-art furnishings, sparkling clean and fantastically quiet.

You can experience this pleasant arrival at the Abasto Hotel in the Munich suburb of Gernlinden. The hotel opened in September 2012, turning an ideal co-operation into reality. Hotel owner Robert Rentzsch is a full-time heating contractor and thus had clear expectations for the air-condition-

ing in his new hotel facility: "I wanted to have a unit in the rooms that heats and cools, but does so almost silently." Rentzsch considered the usual options: radiator, floor heating, and fan convectors (Venkon). The last of these allow a very fast response to changing room situations and work discreetly in the background. This advantage persuaded Rentzsch quickly.

A paradise for operating costs Rentzsch found the ideal partner for the desired system in Kampmann GmbH. The climate control specialist had recently converted one of the models in its Venkon series to GreenTech EC centrifugal fans from ebm-papst. "The deciding factor for us was that the fans have a particularly low noise level and feature accurate control in the low speed range," explains Jürgen Schmitt, Munich Area Sales Manager at Kampmann. When the EC mo-

tor of the fan runs at low speeds, it makes the least amount of noise – the noise level is five decibels lower than standard AC motors. The human ear perceives this as a level only half as loud. At the same time, the energy savings potential is the greatest here. With the continuously adjustable GreenTech EC motors, the savings are up to 70 percent – for operating times between ten and twelve hours per day, per room, there is a clear cost factor. "The EC motors were a critical criterion for the decision, as I designed the entire building so that the operating costs would be as low as possible," emphasises Rentzsch.

Cleverly decentralised The Abasto has 40 Venkons installed in it: 31 in the rooms and 9 in the restaurant. They ensure fresh air and adjust the temperature if necessary. The heart of the system, the Airblock C, is located under the



**Left: The Airblock C is strictly for circulating the air, which is cooled or heated right in the room
Middle: Wolf-Jürgen Weber and Jürgen Schmitt view the inner workings of the Venkon
Right: Schmitt explains the easy-to-use in-room control unit to Weber**

roof. The GreenTech EC fans in it circulate the air and remove the residual heat from it. Conventional central units of this type heat and cool the air centrally and then distribute it throughout the building via ducts. The Airblock C from Kampmann delivers the fresh air – the task of heating and cooling is taken over by the decentralised Venkons in the rooms. Centralised or decentralised is not a minor difference: “For heating contractors, space is always a major issue,” as Rentzsch knows very well. “In the centralised system, I have to feed the heated or cooled air to the individual rooms.” This requires large duct cross-sections and a corresponding amount of space under the ceiling. Instead of intermediate ceilings that are 80 centimetres in height, just 30 centimetres suffice in the Abasto – this gains space and lowers costs. “I was immediately persuaded by the fact that the air is heated or cooled in the area where it is actually needed.”

“Kampmann identified the potential of the EC technology at a very early stage.”

Wolf-Jürgen Weber, Regional Sales Manager at ebm-papst

Principle of state-of-the-art technology

Above all, Kampmann is convinced of the fact that being on the vanguard pays off. “Our principle is to always equip our products with state-of-the-art technology,” says Schmitt, summarising the company’s philosophy. For expertise in the megatrend of energy efficiency, the company based in Lingen, Germany, approached the fan supplier it has worked with for over 25 years: ebm-papst. “Kampmann recognised the potential of EC technology at an early stage and the company really played a pioneering role in implementing the technology into its own products,” reports Wolf-Jürgen Weber, Regional Sales Manager at ebm-papst. The result of this successful co-operation can be seen very clearly in the Abasto Hotel.

The system is also a winner when it comes to compliance with government directives: Venkons with GreenTech EC technology provide savings that far exceed the requirements of the EU’s Energy-related Products Directive (ErP 2015). Moreover, buildings with high-quality and durable technology do far better in the real-estate market. Finally, hotel guest satisfaction is far higher in a room with a whisper-quiet air-conditioning system – these guests are more likely

to return and to spread the positive message by word-of-mouth. “Here, Kampmann’s requirements for quiet hotel convection heaters and the good product features of the GreenTech EC centrifugal fan flowed together to form an ideal solution,” Weber enthuses.

The ideal solution “I believe that the concept implemented here is the best solution for hotel applications,” Kampmann’s Jürgen Schmitt states with confidence. However, finding the best solution is not always easy. The investor is not always also the user, as is the case with the Abasto Hotel, and therefore the investor looks more closely at operating costs. “Investors usually look primarily at investment costs and the minimum legal requirements,” says Schmitt, explaining the market situation. The critical factor for users such as Rentzsch are the life cycle costs over the entire operating life. When larger hotel chains are involved, the suppliers refer these chains to the architects. “If the architect prefers a certain system, he first has to be persuaded that higher efficiency is possible,” Schmitt says. “Mr Rentzsch did not require any persuasion, as he already knew of the technology’s potential.” ○

For the video about GreenTech EC technology in the Abasto Hotel and an interview with hotel owner Robert Rentzsch, visit

 mag.ebmpapst.com/fancoil

Chatting by the star product: Robert Rentzsch and Jürgen Schmitt discuss the benefits of the fan coil unit



“I believe the concept implemented here is the best solution for hotel applications.”

Jürgen Schmitt, Munich Area Sales Manager at Kampmann

GreenTech EC technology in hotel climate control

ebm-papst centrifugal fans are the heart of fan coils. The latest GreenTech EC technology, aerodynamic optimisations and integrated intelligent electronic control systems provide remarkable advantages over conventional technology:

- *Up to 5 dB lower noise emission – this corresponds to cutting the perceptible volume by half*
- *Energy savings of up to 70 percent – a real cost and environmental factor*
- *Easy integration of additional functions*
- *Continuous closed-loop speed control for adapting to individual preferences for a comfortable climate*



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SUPER CUBE With exactly 40 millimetres height and width, the 420J creates an astounding flow rate of 40 cubic metres per hour. This does not cause either the unit or its user to break a sweat: For this stellar performance, the small cube uses 70 percent less energy than its predecessor – performance-superlative in extra small size.



FIELD-ORIENTED The electronically commutated ECI 63 motors are now also available in combination with an integrated controller (K4) in the rated power range from 150 to 400 watts. The K4 includes a compact power output stage, various interfaces, and can operate the motor with a field-oriented controller to a standstill. In this way, the ECI modular system for drives in the smaller power range allows the optimum match to the application without elaborate and cost-intensive adaptations.



More information: www.ebmpapst.com/product-news



ROBUST OPERATION For industrial applications such as control cabinet or frequency inverter cooling, the W3G 200 compact fan brings energy savings of up to 50 percent. The intelligent solution made up of the new GreenTech EC motor and HyBlade® impeller is particularly robust, quiet and efficient – and extends the family of compact fans by adding size 200.

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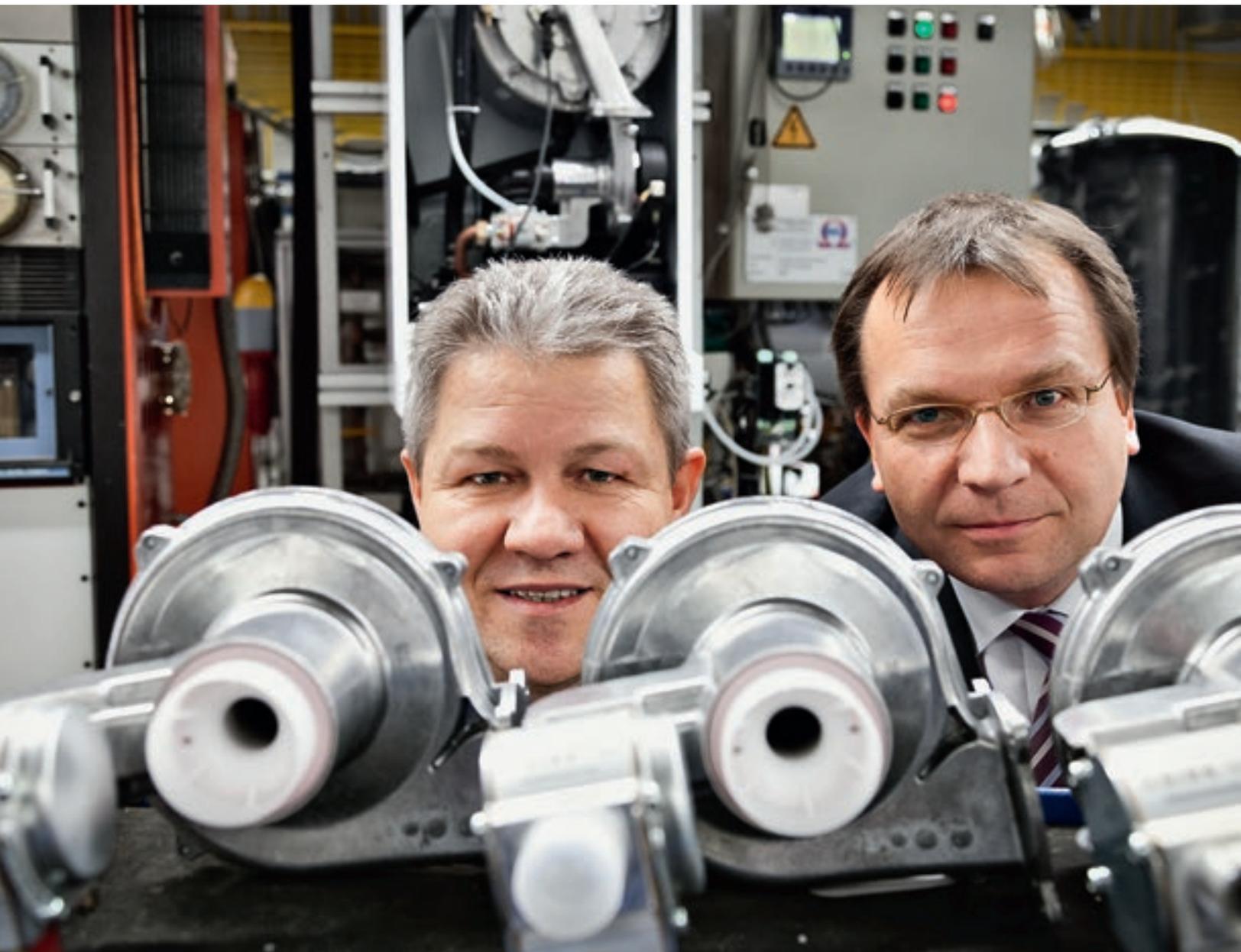
CONNECTION IN DEMAND As a pump drive for the thermodynamic cycle in the power module of a state-of-the-art, natural gas-powered micro combined heat and power system, the high-performance size 43 motor is the optimum solution. Drive power in connection with high efficiency and smooth running offers all advantages that are in demand for efficient operation.



PACKAGE INSURANCE RadiPac is derived from the term “packaged” – meaning it has everything it needs for reliable operation on board. This means minimum installation effort thanks to plug-and-play, and maximum efficiency for all ventilation and air-conditioning units with an air performance of up to 25,000 m³/h. The cube structure is easily stackable during transport, and thus reducing the amount of waste.

Partners at eye level

For a gas condensing boiler from Viessmann, ebm-papst developed a complete solution made up of a gas blower, gas valve and gas mixer



The system solution tremendously simplifies assembly at Viessmann



Nothing is so good that it couldn't be improved upon," is Viessmann's basic principle. With this claim, the company from Allendorf in the German state of Hessen is one of the leading international manufacturers of heating engineering systems. A claim from which the numerous consumers benefit every day, because in times of increasing energy costs, efficient and energy-saving heating solutions benefit not only the wallet, but also the environment. The high investment costs are, however, frequently an inhibitor. With the Vitodens 100, Viessmann therefore has developed a gas condensing boiler which is to provide private households with warmth highly efficiently, and at affordable prices. This appliance solution for the European export market is lightweight and can be mounted on the wall to save space. It is also quiet, uses little energy and uses combustion heat optimally.

Valve for success The new thing about Vitodens 100 is the modular design. Instead of individual parts, finished modules are installed. "Our objective was to improve maximum efficiency, while also developing a cost-effective solution," explains Dr. Manfred Dzubiella. "We wanted to increase the degree of modulation and, with it, improve efficiency, while at the same time lowering noise levels and reducing electrical power input. It is not easy to achieve these characteristics all in

"We wanted to increase performance, but also have a cost-effective solution."

**Dr. Manfred Dzubiella,
Director of Pre-Development at Viessmann**

one." The Pre-Development Director at Viessmann therefore saw the solution as a complete gas-air mixture and saw the best partner for it in ebm-papst Landshut. At that time, ebm-papst had been providing only the gas blowers. "We agreed right away, because that was the opportunity to position ourselves as a system supplier," recalls Christian Diegritz, Head of the Sales Department in the Landshut, Germany plant. The challenge was, however, enormous, because start of production was already scheduled for mid-2011, and a new component also had to be developed: A gas valve that regulates the gas quantity, but also simultaneously safely prevents uncontrolled gas leaks. "That was also the greatest difficulty standing before us," explains Diegritz. "We have never had a valve like that before." Sure, there were already rough preliminary designs, which the Landshut development team took over from the

Dungs company, but the finished product was far off in the distance. "That was definitely a challenge for both parties," Diegritz established, "But there, you see easily how close and great the trust between the R&D departments has become over the years." A trust that paid off. Because the finished E01 gas valve stands out significantly from the competition. Through an ingenious design principle, it makes do with 20 percent fewer components. That saves money and space.

Compact solution A roadblock on the way to the finished system was thus avoided. Now, the E01 still had to be joined to a gas

blower and a gas mixer. With these components, ebm-papst could count on its longtime experience. A venturi mixer provided for the correct gas-air ratio, and the NRG 118 centrifugal blower provided an accurate flow rate. The challenge there was that the three components had to be matched to each other exactly. "Especially when we're going in the direction of a system, our supplier has to develop an understanding of the entire application and not only work according to specifications," explains Dzubiella. That meant a lot of co-ordination

work between the R&D departments of Viessmann and ebm-papst. Different settings are necessary depending on the gas type; simultaneously, the emission values have to correspond to the legal requirements. "In this process, it was beneficial that ebm-papst had already consistently invested in experimental laboratories. Without this equipment, such a co-operation would not have been possible," Dzubiella emphasises. "In this way, we were capable of developing the system with the properties required by us with only a few iteration steps."

The production of the NRV 118 could finally start. For the product, a separate assembly line was set up in Landshut, with

an automatic test rig that was very specifically tailored to the Viessmann system. Installation at Viessmann is then simple, as Dzubiella explains: "We get systems that are set up beforehand, and we just have to install them here; that saves time." At the bottom line, these customer-specific solutions mean a significant cost savings; because only one supplier is at the beginning of the chain of production, the administrative effort is reduced. Stock-keeping costs are not a factor, because ebm-papst delivers just-in-time. The combination of the three components in one block saves not only material, but also effort for inspection, because the system is already completely tailored to the heating unit. The end customer also needs fewer spare parts for repair purposes.

Active dialogue This success is also thanks to the longtime partnership of both companies. Once a year, the partners meet for an innovation workshop, at which the developers of both companies present new ideas. Dzubiella describes these processes like this: "We think about where we would like to set new trends and bring them to ebm-papst, who likewise has new ideas. And in this way, a common idea develops, which ends in a new concept." And there are plenty such ideas. Successor projects have already resulted from the development of the new Vitodens 100, pushing the system understanding even further. ○

"From this development, you can see how great the trust between us is."

Christian Diegritz, Sales Manager
ebm-papst Landshut



Christian Diegritz and Dr. Manfred Dzubiella discuss the test rig of the NRV 118



Cool air for solar parks: John Mylonas, Sales Engineer at Helcoma, and Zois Parthymos, Application Technology specialist at Gnettle, stand in front of a protective container



Cooling down the container

Greece is discovering the value of its sunlight as a resource. To cool the electrical equipment in solar parks in that country, Gnettle is using GreenTech EC fans

Greece's brilliant sunshine is not just a tourist attraction. The 300 sunny days per year also pay off in another respect: the country long ago discovered its immense potential as a production site for solar energy. Since last year, the Greek government has been intensively subsidising the construction of solar parks in order to strengthen this new branch of the economy.

Gnettle has recognised this trend and, since January 2012, has been producing protective containers for the electrical equipment in solar parks. The white structures contain all necessary components for bringing the energy from the photovoltaic system to the mains power supply as electricity, for example transformers and power converters.

Smart solution However, the strong Greek sun also heats up the container. So that the heat outside and the heat given off inside by the electrical system do not impair the operation of the equipment, the containers have to be cooled. Usually, this job is done by a relatively low-efficiency split climate control system. However, Gnettle has decided in favour of a smart, energy saving solution;

fans with GreenTech EC technology now ensure the proper temperature. Plug fans bring outside air into the container, while an axial fan disperses the heated air to the outside. In co-operation with Helcoma – ebm-papst's representative in Greece – Gnettle not only attains much higher air performance than with split climate control systems, but also saves energy.

Reacting flexibly "However, lower power consumption was not the only factor that led us to decide in favour of EC," says Nikos Kazantzis, Head of Systems Engineering at Gnettle. "The most important thing was that all of the components for controlling the speed are already integrated into the fan, allowing it to be programmed easily." This is particularly important for this application, as the fans have to react flexibly to both the changing outside temperatures and the variable electricity production and the resulting variable amounts of heat given off.

After just one year on the market, the EC-cooled protective containers from Gnettle are already online in eight solar parks, which together attain an output of nine megawatts. ○



Experience added value

In consumer businesses, the effect of brands on the purchase decision is unrivalled – in the B2B area, their significance is frequently underestimated

In times in which innovation cycles are becoming ever shorter and even high tech is being copied at an ever faster rate, technologically superior products are a fleeting argument on the market. But how can we create stable sales arguments for companies in the B2B area? Facts and figures are not the sole factor that induce the customer's purchase decision. "At the end of the day, it simply has to be fun to work with a company," summarises Kai Halter, Marketing Director at ebm-papst. Therefore, a stand-out brand is worth gold in the truest sense of the word. "Even for products that are objectively the same or even identical, a brand name can attain three to seven percent higher sales revenues," emphasises Rainer Hundsdörfer, Chairman of the Board of Managing Directors of the ebm-papst Group. "Even purchasing departments accept this margin, because it minimises its procurement risk by trusting in the brand promise."

Concentrating on your own strengths This effect is demonstrated most clearly by a counterexample: some companies try to be all things to all people and position themselves as a price, technology and service leader. The result: They stand for everything a little bit, but do not stand for

anything completely – they become a jack of all trades, master of none. Therefore, in brand building, the important thing is to concentrate on your own strengths: What can you do especially well compared to the competition?

A well-functioning brand makes customers aware of the added value of the company's entire scope of service and allows them to experience the concrete benefits over the competitor's product. This is also confirmed by Hundsdörfer, who, before joining ebm-papst, gained experience in critical positions at automotive supplier Schaeffler, at Michael Weing AG and at machine tool and laser manufacturer TRUMPF. He says, "A brand is not the packaging, it is the content. The brand is a promise and is defined by the first-hand experience of customers, business partners and employees."

Mutual assurance An initial prerequisite for this is that the decision-makers at the top are conscious of the significance of the brand for the success of the organisation. Afterwards, they have to raise the entire staff's awareness of this significance. Being patient and persistent is all-important during this definition process – a one-off presentation or a new logo are not sufficient on their own. "A brand is neither a label nor corporate design, but an attitude," Hundsdörfer explains. "Therefore, it is critical that everyone in the company internalise the brand values – and live according to the agreed values." Thus the brand offers assurance in both directions: the customer can count on receiving the promised goods and services, and the company can rely on stable customer relationships.

This provides what is certainly the strongest benefit of a strong brand in the B2B area: "We see the true value of a brand in times of crisis," Hundsdörfer reports, speaking from his own experience. "Strong brands can emerge from even crisis situations without a scratch and without becoming diluted." ○

Three steps toward building a strong brand: the process at ebm-papst

Initial spark

Managers and employees from various areas sit down together and discuss the question: "What do we want to stand for?"

This process is assisted by a chart on which we enter and define the emotional and rational benefits, services, character as well as symbolism and values.

Research

In interviews and workshops, the Managing Directors of the international subsidiaries share their perspective of what ebm-papst should be like in the future.

Binding values are drawn from conversations with the company founders.

All in-house and international results are compiled, binding definitions are drafted and a plan is drawn up for getting the brand into people's minds.

Definition

Managers around the world become "brand ambassadors," who train their team and draft shared rules for everyday contact with customers. The guideline is a brand book that defines the company's core values and other information.

This process is ongoing.



*Frank Müller (left)
from Thermofin and
Michael Hanning
from ebm-papst
discuss the use of
the backward-curved
GreenTech EC
centrifugal fan*



thermofin
heat exchangers - GERMANY

SUCCESSFULLY CONVERTED

Thermofin converted its insulating coolers for fitting a more energy-saving fan – and it paid off

Ever more frequently, large refrigeration chambers are equipped with centralised air coolers. A special type is made by the Thermofin company, from Heinsdorfergrund in the German state of Saxony. “An insulating cooler is, in principle, a container with flaps, into which a cooling unit is built,” explains Michael Hanning, Regional Director of the ebm-papst outside sales office in Halle/Saale. The device is located outside the refrigeration chamber. From there, the insulating cooler is flange-mounted on the cold storage area. The refrigeration that the insulating cooler transfers into the air is then led through the opened flaps into a duct, and from there into the cold storage area. In this way, no space is lost in the storage area itself, and there is more space for shelves and merchandise. As has long been common in insulating coolers, the company used double-flow centrifugal fans with belt drive and frequency inverter for this application.

Idea during tour All that changed as a result of a visit from Michael Hanning and his sales colleague Martin Schulz, who together toured production with Frank Müller, Technical Manager at Thermofin. During it, the ebm-papst employees noticed the belt-driven AC fans installed in the insulating cooler. “We suggested thinking about a backward-curved GreenTech EC fan, because the device could be significantly more efficient that way,” Hanning remembers. The suggested solution, however, required a revision of the insulating cooler and the corresponding skills and knowledge. Technical enthusiast Müller fancied the idea, and agreed to look into the option in detail.

“First we had to find out what components we needed for the replacement of the belt-driven fans,” Müller remembers. Then, ebm-papst sent 3D

data, with which the Technical Manager and his team could redesign the insulating cooler on the computer and compare various arrangements of the fans within the device. The effort led to an ideal solution: Alongside efficiency and ease of maintenance, the air conduction and the cleaning options of the heat exchanger were significantly improved. After the theoretical design on the computer was completed, ebm-papst delivered a sample of the centrifugal fan for a prototype. The tests and measurements confirmed significant energy savings.

The pay-off for the work While the input power of the insulating cooler with the belt-driven AC fans was just under 27 kilowatts, it is now only 17 – a whole 37 percent lower. And the noise level was also reduced by 4.5 decibels. In addition, the insulating cooler became more reliable: Lubrication intervals are omitted, which makes service easier – and through the omission of the belt, slip losses are a thing of the past.

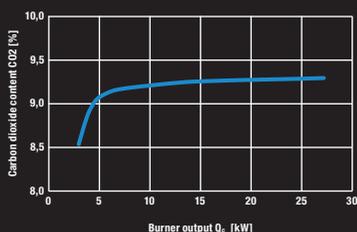
The new design with the GreenTech EC fans could be implemented at thermofin almost cost-neutrally compared to the conventional solution, and the renovation brought additional positive effects with it. Due to the high efficiency of the system, the company was awarded the contract for equipping the cold storage warehouse for a large German supermarket chain. The new end product, used for the first time, is thus perfectly suited for the market; as a result, thermofin secured protective rights for the combination of components. “One particularly nice thing about the project was that the customer agreed to the renovation of the insulating cooler, and in the end, we were all rewarded by the fact that the hoped-for savings was achieved,” Hanning summarises. ○



Dipl.-Ing. (Graduate Engineer)
Hans-Joachim Klink

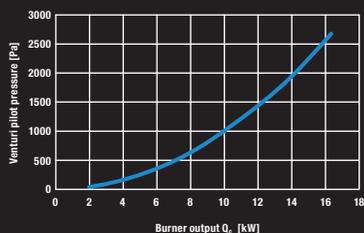
Design Manager
ebm-papst Landshut

Typical CO₂ curve



Curve of the CO₂ content of the exhaust gas of a condensing boiler. The NRV unit controls the air-fuel ratio of the combustion. This is of major importance for the emission of pollutants and the efficiency of the combustion.

Venturi pilot pressure curve



Curve of the pilot pressure generated by the venturi. The pilot pressure is the most important characteristic for the gas valve in order to provide the correct gas quantity.

Optimised interaction

How a fan, venturi and gas valve form a perfect system

The NRV 77 is a system for gas condensing boilers consisting of the NRG 77 blower, an innovative multi-venturi and E01 gas valve. In order to co-ordinate these single components optimally with one another, we had to overcome three major hurdles.

The fan covers a power range from 1 to 35 kilowatts. It is operated at speeds up to 11,500 revolutions per minute, yet is significantly smaller than its predecessors. We are working with a smaller impeller diameter in order to satisfy the requirement of our customers for ever smaller heat outputs. This also presents new challenges for the bearing technology, since the friction torques gain greater significance. Therefore, it was important to guarantee the correct balance between viscosity of the grease and the service life of the fan. We safeguarded this by means of numerous endurance and development tests.

A constant fuel-air mixture across the entire operating range is highly significant for the function of the gas condensing boilers. NRV systems have a large modulation range from one to seven, over which the air-fuel ratio of the combustion has to be controlled. What is called the main injection throttle of the gas valve is an important element here. It is used to configure the desired gas volume flow at full load.

It consists of a rotating plastic part, which is fastened in place on a sheet. The parts have to be flushed with one another to ensure that the entire gas quantity is fed through the main injection throttle and no leaks past the throttle can develop. These leaks would have a negative impact on the smallest attainable partial load of the gas condensing boiler. And this partial load – as many customers require – should be as small as possible. In order to fit the plastic part to the sheet metal better, we temper it. We were also able to further optimise the sheet metal part since we have long-time experience with

punches in the Production department in Landshut, Germany. Thus we were able to achieve the goal of creating a largely leakproof main injection throttle that can be moved ideally.

A single venturi cannot cover the large power range of the fan. However, we wanted to find an easy and cost-effective solution for adapting the venturi to the power range desired by the customer. To do so, we created a venturi with an integrated displacement body. The displacement body forms the actual venturi diameter. This diameter can be easily modified, yet it does not worsen the performance. Additionally, the entire venturi can be flexibly attached to the fan in many different mounting positions. This brings flexibility to the customer and fewer design variations for us. We have had this solution patented and call it “multi-venturi”.

The system solution consisting of blower, venturi and valve makes co-ordination easier for developers of gas-fired heaters. Additionally, the perfect interaction of the individual components improves efficiency and reduces costs. ○



NRV 77 with multi-venturi and gas valve

Find us here: Trade fairs & dates

Messen

Acrex, Bombay, 7 – 9 March 2013
Mir Klimata / Climate World, Moscow, 11 – 14 March 2013
HARFKO, Seoul, 12 – 15 March 2013
ISH, Frankfurt, 12 – 16 March 2013
China Refrigeration, Shanghai, 8 – 10 April 2013
Hannover Messe, Hanover, 8 – 12 April 2013
Data Center Expo, Tokyo, 8 – 10 May 2013
Aqua-Therm, Kiev, 14 – 17 May 2013
IAA Pkw, Frankfurt, 10 – 22 September 2013
FEBRAVA, São Paulo, 17 – 20 September 2013
Busworld, Kortrijk, 18 – 23 October 2013
 For more trade fairs dates visit: www.ebmpapst.com

Events

Langenburg Historic, Langenburg, 19 – 21 April 2013
Innovationsforum, Mulfingen, 11 – 13 June 2013
18. ebm-papst Marathon, Niedernhall, 8 September 2013

Technology for further reading

Are you interested in technical data, developments and products? The current issue of our sister publication *tech.mag* once again features a wide range of technical articles:

**More safety and air flow, less turbulence and operating noise:
Fans with a wear-free run-down brake**

**Diffuser reduces exit losses in fans:
AxiTop – Less noise and more efficiency**

**Individual early failure detection takes into account ambient conditions:
Integrated diagnostic system for fans**

**Energy-efficient GreenTech EC motors for fan technology:
External rotor motors need no rare earth magnets**

**Optimised components for a wide modulation range for gas condensing boilers:
Versatile system consisting of a fan, gas valve and venturi mixer**

The *tech.mag* 1/2013 is available. Contact our sales team or e-mail Katrin.Lindner@de.ebmpapst.com.

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01°2013 mag





The marathon has developed into a true large-scale event, including a charity run for young runners. This is made possible only by volunteer support, such as that given by trainee physiotherapists from the Waldenburg sport school

They keep running and running ...

For many years now, the ebm-papst Marathon has been the Hohenlohe region's premier sporting event

It was almost destiny: Right when the "Polizeisportverein Hohenlohekreis", a regional police sports organisation, was searching in 1999 for a high-profile sponsor for its annual marathon, the desire to get involved in the field of running was growing at ebm-papst. This would be a way to strengthen our ties with the region – and naturally the endurance sport fits particularly well with the long-lasting products of our company. The organisation and the company simply joined forces and the "ebm-papst Marathon" was born. No marriage of convenience, but a genuine marriage for love – and the success story has continued ever since. ebm-papst assumes the primary sponsorship role here in addition to supporting many organisational operations. Moreover, many trainees actively participate at the event as hard-working helpers.

At last year's event more than 3,500 runners reached the finish line and over 10,000 spectators made sure they were there to take it all in. After all, it isn't just the sport that attracts them, but also a unique supporting program where provision is made for culinary as well as musical joys. When running through an exciting obstacle course, the sponsor run, even the youngsters have a chance to shine. They even do something else good in the process, since for each loop around the 80-metre course ebm-papst makes a donation for a charitable purpose in the region. Every year this adds up to over 5,000 EUR.

A considerable share of the visitors also comes from beyond the actual core region. "Each year we send 60,000 invitational flyers to sporting clubs throughout all of Germany and to our international subsidiaries," explains Arne Haag, Project Manager at ebm-papst. "Therefore we've already had colleagues from the USA and Japan at the event, who often bring along customers who are keen on sports." In 2012 a total of 162 employees ran. For many it is a great opportunity to meet and greet outside of the business environment for a change.

Amid all of the international character, the regional ties are very important: Nearly all the helpers and additional sponsors come from the Hohenlohe region. The Waldenburg sport school also gets involved as a partner and has used the marathon as a large training day for trainee physiotherapists. Professional massages bring life back to many exhausted legs. Likewise, regional clubs assume responsibility for catering and other items in the supporting program. That is good teamwork, which is sure to guarantee full success again this year at the 18th occurrence of the event. ○



ebm-papst also attracts top runners: Jan Fitschen (middle), winner of multiple Deutsche Meister races, won the 10K. Left and right: Christian Strauch and Dennis Weikum take second and third place

“ Spain continues to be at the top globally: in football, among the most popular vacation destinations, in generation of renewable energies and in environmentally sustainable agriculture. This fact was suppressed in the past few months, as people saw lots of things about Spain, but sadly, seldom anything positive, in the daily and financial press. With all the problems, however, one must not forget that Spain is a country with great economic potential, in which there are a large number of very well-trained, skilled workers. Our committed team at ebm-papst Iberica works jointly with the customers to ensure that Spain is also at the

top in the field of energy-efficient solutions for air-conditioning and ventilation technology. And here, there is also positive news: In our strongest market, refrigeration and air-conditioning technology, the demand for GreenTech products is steadily increasing. ”



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Controlled environment.



ErP2015
EXCEEDS THE NORM

The hotel is the best place to be – especially if it has the right climate control system. That's why ebm-papst has developed an extensive range of centrifugal fans especially for Fancoils – in all common sizes, from 40 to 250 watts and with a choice of either AC or GreenTech EC technology. This all-in package incorporates our extensive knowledge of ventilation and air-conditioning technology to combine exceptionally smooth running with a compact design and “plug & play” installation. Our tip: Put your trust in the ultra-efficient, pioneering GreenTech EC technology. It will reduce energy consumption by up to 50% and can be precisely controlled for the perfect room climate, regardless of whether you are heating or cooling. www.ebmpapst.com

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The engineer's choice