GROUND-BREAKING CEREMONY FOR SCHEUCH LIGNO GMBH

» see pages 04 – 07 for more information

HALL CLIMATE MANAGEMENT FOR PANEL PRODUCTION
» p. 10 – 11

INNOVATIVE MERCURY REDUCTION SYSTEM
» p. 21
## CONTENTS

### COVERSTORY
**Groundbreaking ceremony for Scheuch LIGNO GmbH**  
04

### SCHEUCH LIGNO
**Practical tip: dust extraction during manual grinding**  
08

### WOOD-BASED PANELS
**Optimum hall climate management for panel production**  
10

### ENERGY
**Professionals for complex assembly tasks**  
12

**Scheuch energy industry is a success in Scandinavia**  
14

### INDUSTRIAL MINERALS
**Cementos ARGOS relies on the technology leader**  
15

**DeCONOx: Two solutions in one plant**  
16

### METALS
**Compact power pack on the roof**  
18

**Saarstahl relies on Scheuch for dedusting**  
20

### TECHNOLOGY
**Innovative process for improved mercury separation**  
21

### COMPONENTS
**Scheuch devices: solving problems for a wide range of applications**  
22

### THE WORLD OF SCHEUCH
**Strong appearance at the LIGNA trade fair**  
24
Environmental protection drives growth around the world. We are facing up to the demands of our customers and taking on the responsibility. This allows us to focus on our successfully announced growth course, ensuring that we are also well-positioned for operating in international markets in the future.

The customer in focus. The founding of Scheuch LIGNO GmbH at the Mehrnbach site in Austria and the acquisition of LBH clearly show that our customers and their specific requirements are always our focus during these steps. You can read more about this on pages 6 to 9.

Scheuch goes global. At the same time as investing in the region, we have also been constantly expanding our international network. Opening up new markets by founding new subsidiaries is an important part of our internationalisation strategy. In the long term, we aim to therefore keep our company on track and offer our staff members a secure job. On page 16 you can find out about our subsidiary in Sweden.

Up to date with the latest technology. We received the Energy Globe Award for DeCONOx, a process that we developed in-house for cleaning exhaust air that simultaneously reduces nitrogen oxides and organic carbon compounds. A great success! You can find details about the first industrial plant that uses the new process on pages 18 and 19. Read more about interesting technical developments such as the optimum hall climate (page 10 and 11) and our innovative process for mercury separation (page 21).

A new look for Scheuch. Our campaign „We are technology for clean air“ has two aims: increasing employee identification with the company whilst also showing our high technological standards. On pages 28 and 29, you can take a closer look at our new brand appearance.

On that note, we hope you enjoy browsing the wide range of Scheuch topics in this issue.

Yours,

Jörg Jeliniewski,
Managing Director Scheuch GmbH

Stefan Scheuch,
Managing Director Scheuch GmbH
GOOD START FOR SCHEUCH LIGNO GMBH

Scheuch LIGNO GmbH, a joint subsidiary of Scheuch GmbH and LBH GmbH, offers complete solutions for exhaust systems and products for the wood sector. Scheuch LIGNO GmbH is a strong, experienced partner for small joinery enterprises and large industrial companies alike. The customer gets everything from a single source.

The Scheuch is currently on the road to expansion. „On 1 March, we were able to found Scheuch LIGNO GmbH with our partner LBH GmbH and on 27 March, we held the ground-breaking ceremony for the construction of a modern production and office building for our new subsidiary“, says Stefan Scheuch, Managing Director of the family-operated company, summarising the most important steps. As the international market and technology leader in the ventilation and environmental technology sector, the Scheuch has invested around eight million euros in the additional site in the district of Mehrnbach in Innviertel, which is located just a few kilometres away from the company headquarters in Aurolzmünster, Austria. In winter 2015, around 100 Scheuch LIGNO GmbH employees will start working in the new facilities.
PARTNER FOR HANDICRAFT AND INDUSTRY

The founding of Scheuch LIGNO GmbH was a logical step in the development of the company. Extraction solutions and concepts for joiner’s workshops and timber processing companies was where Scheuch’s success story all began more than 50 years ago. Since then the product range has been developed and expanded on a continuous basis and we are always adding new divisions and innovative patents. Over the years, plant manufacturing and industry has become a major focus amongst Scheuch’s customers. Providing optimum care for large customers as well as smaller and medium-sized operations has been a constant challenge. With Scheuch LIGNO GmbH, the company is taking its original key area of expertise into account: the needs of a handicraft enterprise in the wood sector are in just as good hands as the needs of an industrial company.

FINANCIALLY THE BEST SOLUTION

“The founding of Scheuch LIGNO GmbH allows us to concentrate fully on the requests and requirements of our customers in the wood sector”, emphasises Alois Burgstaller, the Managing Director of Scheuch LIGNO GmbH, going on to say, „Thanks to our custom projects, we guarantee the best solution financially; no matter whether it is for a joiner’s workshop or an industrial customer. We are fast and flexible with a focus on solving problems.” An additional advantage is that customers get everything from a single source. Scheuch LIGNO GmbH is a reliable, expert partner for everything from consultation to project planning, production, logistics, assembly and commissioning. Regular maintenance, spare parts management and emissions measurements are also within the remit of the technicians at Scheuch LIGNO GmbH. „We offer custom solutions in the areas of extraction technology, conveying technology, removal technology, surface technology and control technology”, says Burgstaller, summarising the company’s field of activity: „Everything from a single source”.

“Thanks to our custom projects, we guarantee the best solution financially; no matter whether it is for a joiner’s workshop or an industrial customer.”
Alois Burgstaller,
Managing Director Scheuch LIGNO GmbH

TWO STRONG PARTNERS COMPLEMENTING EACH OTHER PERFECTLY

To cover the wide range of customers and product areas, two successful companies join forces to form Scheuch LIGNO GmbH: the Wood Processing Industry of Scheuch GmbH and LBH GmbH, which primarily provided extraction technology for wood crafts. „This merger allows us to offer optimum and individual support for every customer group from handicraft through to industry”, says Burgstaller. Customers benefit from a wealth of experience, the flexibility of small teams and short communication channels.

Both partners have already launched new products together that add to their previous range of services. A continuously rotatable grinding table, the new Dedust Pro dedusting system and the flexible, ultra energy-efficient SEPAS 8000 exhaust system are joint innovations.

EVERYTHING FROM A SINGLE SOURCE

Scheuch LIGNO GmbH offers complete solutions for everything from consultation and project planning through to production, logistics, assembly, commissioning and services. The company guarantees every customer the best solution financially – no matter whether for the requirements of a handicraft or industrial enterprise.

THE PRODUCT RANGE COVERS

- extraction technology
- conveying technology
- surface technology
- removal technology
- control technology
- complete air technology solutions
  (SEPAS-Plus, SELAS-Plus or SEGAS-Plus)
What does the investment in Scheuch LIGNO GmbH mean for the region?
Stefan Scheuch: “With this investment, we are making a clear commitment to Austria as a production site. In the Mehrnbach site, Scheuch LIGNO GmbH unites the entire value-added chain. This guarantees proximity to the customer and allows us to be fast and flexible. It also means that we can safeguard jobs in the region. During the construction of the new build, we are also making efforts to have as much of the work as possible carried out by local suppliers. We see that as part of the responsibility that we have for our home market.”

What significance does the expansion have for the company’s road to internationalisation?
Jörg Jeliniewski: “We have two companies that can fully concentrate on their respective customer groups. Scheuch LIGNO GmbH has expertise in the wood sector. It understands the requirements of small and medium-sized joiner’s workshops as well as those of large industrial enterprises – at both a domestic and international level. With its divisions, Scheuch GmbH operates in the international plant manufacturing business. We are currently founding a company in Asia that will be able to offer a more targeted service in this region. We will also use it to support our European customers in these growing markets.”

„As a market leader for ventilation and environmental technology, we are evolving into a very global and innovative enterprise with multiple international companies.“
Jörg Jeliniewski,
Managing Director Scheuch GmbH

Where do you see the Scheuch Group in five years?
Jörg Jeliniewski: „As a market leader for ventilation and environmental technology, we are evolving into a very global and innovative enterprise with multiple international companies. We aim to double our current turnover of around 125 million euros within the next five years. This will only be possible if we are active in the growing regions of the world whilst at the same time staying loyal to where we come from.“

Stefan Scheuch: „We are and will remain an international company for ventilation technology with strong roots in the region. That is the basis of our success.“
Christian Greifeneder, owner of LBH GmbH, on the partnership with Scheuch GmbH and the opportunities for the future:

How did the partnership with Scheuch result in Scheuch LIGNO GmbH?
Christian Greifeneder: “We had already been working well with Scheuch and buying additional plant components from the company for a few years. For a small company, it is very costly to have every system tested for adherence to the prescribed standards, which is why we purchased some components in from elsewhere. This cooperation has grown closer and closer over time and we complement each other well. We have a strong foundation in the joinery and trade sector, and Scheuch has a strong one in industry. It is a win-win situation for both companies.”

What opportunities does it present for LBH GmbH?
Christian Greifeneder: “If we want to continue to grow then we need a strong international sales presence and Scheuch LIGNO GmbH guarantees this. By working together we can also push forward in other fields of industry such as the plastics industry, for example.”

You have worked together to develop a few new products, how was this collaboration?
Christian Greifeneder: “Amazingly constructive. From the development of the idea through to its realisation, we only needed half a year to launch the new grinding table and extraction device. Even the testing centres were surprised at how quick we had been in the collaboration. The technical expertise, flexibility and innovativeness of the two companies and their teams came together during this process. Working together to develop solutions for our customers is simply a pleasure.”

Where do you see Scheuch LIGNO GmbH and LBH in five years?
Christian Greifeneder: “We want to be Europe’s biggest extraction manufacturer. It is a goal that we are absolutely dedicated to.”
With this state-of-the-art grinding station, room extraction is carried out using circulating air. The targeted air flow facilitates comfortable and clean working.

PRACTICAL TIP: DUST EXTRACTION DURING MANUAL GRINDING

Extraction during manual grinding is a complex topic in the wood processing industry. Scheuch has worked with the AUVA (Austrian Workers’ Compensation Board) to compare various approaches and test them for adherence to limit values, workplace hygiene, dust spreading and profitability. A report from the industry.

Which exhaust system guarantees adherence to the limit values, is economical and allows employees to work comfortably and efficiently during operation? Every enterprise in the wood industry must grapple with this complex question.

What is good in theory can often have drawbacks in practice. With sliding extraction, it is frequently shown that workers do not like working on the grinding table because the systems are often too heavy and cumbersome. Many workers therefore opt for blowing down workpieces – despite all the disadvantages – because it is the easiest and quickest method. Ultimately, every method comes down to workplace hygiene and product quality. According to the new limit value ordinance, from the middle of 2015, every wood industry enterprise in Austria must have an additional device suction system for grinding tables or grinding cabins to minimise the effects of the dust on staff. That was reason enough for Scheuch to work with the AUVA (Austrian Workers’ Compensation Board) to examine the many different solutions in real operational situations. Trials in a big wood industry enterprise and exact measurements should provide objective help in making investment decisions. Adherence to the dust limit values in the workplace was considered during this investigation, as were workplace hygiene, dust spreading and the investment and operating costs of the individual systems. The air limit value is 2 mg/m³ for wood dust and 10 mg/m³ for paint dust.
THE PROS AND CONS OF VARIOUS METHODS

In practice, flat parts are processed on grinding tables, three-dimensional parts in grinding cabins or rooms. Sliders with special extraction systems are occasionally used but have so far seen little acceptance because hoses and power cables create an additional weight load for the worker and are often cumbersome. Tests were carried out on fixed and rotating grinding tables with central extraction systems and dedusting systems or circulating air, grinding cabins with abovefloor and underfloor extraction, as well as various slider systems with direct extraction.

COLLECTING DUST TOGETHER

What were the most important results? When a grinding cabin has a well-functioning basic extraction system, there are no significant differences in the pollution of breathing air when working with or without sliding extraction. Dust that is collected and extracted directly at the source reduces deposits at the workplace and on the staff members' clothing, and therefore the danger of dust spreading. This means that slider extraction is still irreplaceable even in conjunction with optimised room extraction because otherwise cleanliness at the workplace, and therefore product quality, would suffer. Practical experience has also shown that it is advisable to channel any dust collected by the slider into the same collection equipment as the dust collected via room extraction. Furthermore, the sliders for which the power cable is laid in the extraction hose were well accepted by staff members and were used regularly.

ADDED VALUE OF GRINDING CABINS WITH ABOVEFLOOR EXTRACTION

There is no risk to the staff member when cleaning the workpieces with compressed air after the grinding process. However, possible contaminations in the environment must be taken into account. Unlike grinding cabins with underfloor extraction, in the abovefloor models the air current can be used to ensure that the staff members do not inhale dust and to stop the spreading of dust. It should be noted that, for both versions, blowing down the workpiece requires permission from the Austrian health and safety authority.

Slider extraction is still irreplaceable even in conjunction with optimised room extraction because otherwise cleanliness at the workplace, and therefore product quality, would suffer.

MAJOR FACTOR: OPERATING COSTS

When it comes to energy requirements, and therefore operating costs, the comparison yielded interesting results. Even though a cabin requires a greater air flow than a grinding table, the overall energy requirements of the two systems are relatively similar. If a company does a lot of grinding, it is worth paying more for a better quality solution. With low grinding times, higher or lower operating costs make very little difference overall.

THE NEW SCHEUCH GRINDING TABLE

Continuously rotatable and can be adapted to the individual work steps. Guarantees optimum dust collection.
There is a variety of factors in the wood-based panel industry that impact the quality of the panels produced. Scheuch Plant Air Control (SPAC) optimises the air quality in the production hall and ensures more stable working conditions for consistently high quality.

“Achieving a well-balanced air quality in the production hall requires more than just knowing and understanding the production conditions in the wood-based panel industry. You must also consider the relationships between air currents, temperature, energy, process technology and work safety”

Andreas Köck,
Scheuch GmbH

Ensuring a stable air quality in the production hall is a job for the experts. In production halls in the wood-based panel industry, there are not only various temperatures and many different materials, such as dust or formaldehyde, there are also many different air currents that affect each other and impact the workplace and ultimately the quality of the panels produced. As a specialist in conventional ventilation and exhaust gas cleaning, Scheuch knows everything about all of these influencing factors and the sensitive arrangement for optimum air quality in the production hall.

“We used this knowledge to develop a concept for optimum hall climate management with Scheuch Plant Air Control (SPAC)”, explains Andreas Köck. “Our system is based on a targeted air flow and the prevention of diffused air currents.” Achieving a well-balanced air quality in the production hall requires more than just knowing and understanding the production conditions in the wood-based panel industry. You must also consider the relationships between air currents, temperature, energy, process technology and work safety.

FORMING – PRESSING – FINISHING

The problem is very complex: in a production hall in the wood-based panel industry, forming lines, presses and finishing are three very different areas with different temperature and air ratios. In the forming area, hot air is supplied to stop chipboard or fibre mats from cooling down. It requires as stable a temperature as possible.

A stable air quality in the production hall increases the calculability of one of the many factors that influence the production process.

In the pressing area, the focus is also on a constant temperature. To this end, the SAP system from Scheuch efficiently extracts and cleans the press emissions to ensure the necessary workplace hygiene. In the finishing area, cooler temperatures assist in the completion of the panels.
NOT LEAVING AIR CURRENTS TO CHANCE

Typically, in a big hall around 500,000 cubic metres of air are extracted every hour. Fresh air flows in and there are additional variables, such as open and closed doors, windows and skylights, that influence the complex system. An individual concept for targeted air flow is developed for each user based on air current analyses. “It is sensible to deal with this topic before implementing an investment project. But our experience shows that you can also greatly improve the air quality in the production hall in existing production plants by taking simple measures, most of which are relatively low-cost.”

USING WASTE HEAT

Energy efficiency is an important topic when optimising the air quality in the production hall. Every thermal process necessary when producing panels is examined carefully to see if there is potential for heat recovery. The aim is to prevent energy loss resulting from the arbitrary exchange of hot and cold air in the hall. In many projects we are able to compensate any loss with unused waste heat. If this is not enough additional heat sources can be installed.

AIR QUALITY IN THE PRODUCTION HALL: A KEY FACTOR

“The air quality in the production hall plays a major part in the production process. It ultimately has an influence on the quality of the products”, states Köck. A stable air quality in the production hall increases the calculability of one of the many factors that influence the production process. However, it also has other important advantages: it increases operational safety, improves employee protection and ultimately contributes to higher energy efficiency in a production plant. “That is why it pays to focus on this topic in detail”, emphasises Köck.
Components that require pinpoint precision when being installed in existing systems, strict safety regulations, very restricted space available or time pressure: these are the basic conditions that allow the assembly teams at Scheuch to deliver their best results.

PROFESSIONALS FOR COMPLEX ASSEMBLY TASKS IN THE POWER PLANT INDUSTRY

The United Kingdom has very strict standards on construction sites when it comes to the protection of staff members and the environment. Scheuch has installed a complete flue gas cleaning plant for a biomass heating and power station in Blackburn Meadows.
PRECISION WORK IN FRANKFURT

Retrofitting the existing flue gas cleaning system in a waste incineration plant in the Höchst Industrial Park (Industriepark Höchst) in Frankfurt with three new FIM filters took real professionals and a huge amount of precision. Components weighing up to 30 tonnes had to be placed with millimetre accuracy between existing plant parts in the smallest of spaces. And what’s more, the team was under immense time pressure: the waste incinerator in one of Europe’s largest chemical parks was only to be out of operation for a short period of time during the installation.

Limited space, a tight schedule and strict safety provisions are the basic conditions that the teams at Scheuch have to deal with in many projects. It is primarily the assembly on the construction site, not just the planning and production, that is considered the calling card of successful project engineering. At Höchst in Frankfurt, the team from the Energy division were able to show just what real professionals can do. “We were able to reduce the downtime of the combustion plant to just a few days as many of the components were pre-assembled”, reports Franz Söllhinger, Flue gas cleaning specialist at Scheuch. After that, the plant could be put back into operation with its new FIM filters.

“Our strength lies in the flexible cooperation between our Scheuch service employees and local assembly experts”, explains Söllhinger. “As a result of this, we can contribute Scheuch expertise whilst at the same time benefiting from having an experienced partner with the best knowledge of the local conditions and regulations.”

PRE-ASSEMBLED COMPONENTS FOR SMOOTH CONSTRUCTION

This combination of internal and external professionals has proven to be effective during a difficult project in the UK. Scheuch delivered and assembled a turnkey flue gas cleaning plant for a biomass heating and power station in Blackburn Meadows. Not only was the plant complex, the safety provisions during assembly were too. The United Kingdom has very strict standards on construction sites to ensure the comprehensive protection of staff members and the environment. For example, the assemblers had to undergo special training before they were allowed to work on the construction sites.

To keep the manipulation requirement on difficult construction sites as low as possible and to save time, the individual components for large filter systems are pre-assembled as far as possible at Scheuch’s Aurolzmünster factory and then delivered to the construction site in parts. “Doing it this way ensures that we can assemble the plant as quickly as possible and keeps operational interruptions as low as possible”, says Söllhinger, stating the advantages for the customer.
SCHEUCH ENERGY INDUSTRY
IS A SUCCESS IN SCANDINAVIA

The Finnish energy group Fortum is currently building a large biomass CHP plant on the premises of the Värtaverket district heating power plant in Stockholm. The filter technology – state-of-the-art EMC filters with bag lengths of more than ten metres – comes from Scheuch. And a new biomass heating and power station in Mjölby, Sweden, is also being fitted with filter technology from Aurolzmünster. The two major contracts are two examples of just how successful the specialist for air purification is on the Scandinavian market.

In summer 2014, a subsidiary of the Energy Industry division was opened in the Krinova Science Park in Kristianstad. “The use of biomass for energy and heat production is becoming increasingly important in Scandinavia”, says Franz Söllhinger, responsible for Business Development, explaining why Scheuch is expanding into this important market. The topic of heat recovery, a subject in which Scheuch can score highly thanks to its special solutions, is becoming gaining in importance in Scandinavia all the time.

CLOSER CUSTOMER PROXIMITY

By opening its own Scandinavian subsidiary, Scheuch has gained a local direct contact in Sweden, Finland and the neighbouring markets. “This is just as important for planning plants as for maintaining and servicing them”, says Söllhinger, explaining the importance of customer proximity. The subsidiary is also important as a door opener for other countries. “Many Scandinavian boilermakers operate at an international level. As a specialist for air purification, Scheuch can support these companies on the road to internationalisation.”

EXPERIENCED CONTACT

The subsidiary in Sweden is headed up by Magnus Hermansson. The native Swede trained as a chemical engineer and has worked for a boiler and plant manufacturer in Sweden for many years. He has excellent knowledge of both the market and the industry and has the best connections in Sweden.

Scandinavia was already an important field of activity for Scheuch. In the last 15 years, around 50 plants in Scandinavia were fitted with technology from Aurolzmünster. In just the first few months following the opening of the subsidiary, the awareness of Scheuch as a brand for air purification has already seen a sharp increase in Scandinavia. Furthermore, the team in Sweden has already managed to complete a number of interesting orders successfully.
As a part of its sustainability programme to reduce emissions, the Colombian market leader Cementos ARGOS has chosen technology from Scheuch GmbH for the seventh time now. After the previous successful collaboration in Colombia, the pioneering innovations from Scheuch are also becoming established for ARGOS in the USA.

COMPLETE SOLUTIONS FOR THE INDUSTRY

Scheuch's high level of expertise in integrated industrial solutions was the starting point for this long-standing business relationship. This was proven for the first time by the complete concept developed by Scheuch for dedusting a coal mill in the Rio Claro plant. The project included both the necessary anti-explosion equipment and the installation of the new dedusting system that had to be integrated in the existing system.

INITIAL SPARK FOR SUCCESS

The professional performance by the Scheuch team during this first project laid the foundation for the subsequent collaboration. Since then ARGOS has ordered six additional dedusting systems – most of which were equipped with the patented EMC technology that has proven effective for years – from Scheuch. A particular highlight was the realisation of a heat displacement system for drying the grinding material during the clinker cooler dedusting process in the Sogamoso cement plant.

REAL CUSTOMER PROXIMITY

Last autumn Scheuch held a technology workshop with around 30 participants from the Cementos ARGOS Group to exchange knowledge and experience concerning the field of dedusting technology. This workshop was another milestone in the successful collaboration between these two global players.

DID YOU KNOW THAT SCHEUCH’S EMCPLUS TECHNOLOGY ...

... is a patented system?
... offers unsurpassed availability?
... guarantees the longest filter bag lifetime in practice?
... requires minimum energy consumption?
... features the new PulseMaster Premium control unit? (remote maintenance possible)
... allows filter bag lengths of up to 14 metres?
DECONOX: TWO SOLUTIONS IN ONE PLANT

At the Kirchdorf cement plant, Scheuch is implementing an innovative process for industrial exhaust air cleaning: nitrogen oxides (NOx) and organic carbon compounds (VOCs) are reduced at the same time in a single plant. An additional advantage of this is that the new process uses waste heat and does not require additional energy.

After an intensive period of research and development, the time has finally come: Scheuch is installing the world’s first industrial exhaust air treatment plant to be based on an innovative process at the Kirchdorf cement works in Upper Austria. DeCONOx minimises the emission of nitrogen oxides (NOx) and organic carbon compounds (VOCs) in a plant. “Simultaneous reduction in one plant is the biggest advantage of the new process”, explains Alois Hermandinger, Head of the Industrial Minerals division at Scheuch GmbH.

The process ensures high degrees of NOx, VOCs and CO separation by combining the advantages of a clean-gas catalytic converter with a regenerative thermal oxidation (RTO) plant.

Other benefits of the technique include its negligible spatial requirements, lower operating costs, lower energy consumption through the use of waste heat, and lower maintenance requirements. All of this is further proof that Scheuch is the technological leader when it comes to dedusting and denitrification in the cement industry and other industrial applications. The innovative company was given the Energy Globe Award for DeCONOx. The Kirchdorf cement plant was able to experience the new process in a pilot plant that was designed in the two-tower version. The plant was installed at the end of 2010 to test the application under real-life conditions. The results impressed the people in charge at the Kirchdorf cement plant and the decision to give Scheuch the contract to install a DeCONOx industrial plant was made in summer 2014. “The big advantage of the new system is its ability to reduce NOx with SCR and VOC/CO with an RTO in one device and with only one pressure loss”, says Anton Secklehner from the Kirchdorf cement plant. “We want to actively contribute to Austria achieving the NEC objective for air purification and therefore always use the best and most efficient technologies for reducing emissions”. The company can also use the plant to provide more waste heat for Kirchdorf’s district heating network. “We want to provide 4 MW, therefore tripling or even quadrupling the previous amount”, announces Secklehner. The Kirchdorf cement plant achieves lower emissions with a steadier furnace operation. Furthermore, the production quantity, and therefore the capacity, can be optimised. “The energy requirements will be about eight percent higher”, says Secklehner on the subject of the future operating costs. “Environmental protection costs money and energy. The operating costs will be comparable to an SCR alone; the effect on maintenance work has yet to be seen.”

“I am impressed by Scheuch’s courage when it comes to exploring new technologies. It is a partnership between two innovative companies.”

Engineer Anton Secklehner, Kirchdorf cement plant
The crude gas flows into each of the towers in turn, absorbing heat in the upward flow and releasing it in the downward flow. Complete oxidation occurs in the combustion chamber at a temperature of 850°C. The image shows the denitrification and separation process.

THE PROCESS IN DETAIL

To decompose the nitrogen oxides, DeCONOx uses the tried-and-tested low-dust SCR process, in which ammonia is used as the reducing agent. Using Regenerative Thermal Oxidation (RTO) – controlled combustion in the combustion chamber the organic carbon compounds, and therefore also any smell pollution, is reduced. At its most simple, DeCONOx functions as a two-tower system. The crude gas flows into one of the towers in turn at one-minute intervals. The gas absorbs heat from the regenerators in the upward flow and releases it again in the downward flow. The lower regenerator heats the gas to a temperature of at least 240°C before it flows through the catalyst. In the upper regenerator, the gas is heated to the combustion chamber temperature of 850°C. This allows complete oxidation of the VOCs to be achieved. For large-scale industrial applications, plants should have three, five or more towers. In the three-tower model, for example, the third tower is flushed with clean gas to minimise the spreading of pollutants into the clean gas chamber.

“I value the expertise of the staff members, the trustworthiness and the professionalism when implementing the projects”, says Secklehner, praising the long-standing successful cooperation with Scheuch. “I am impressed by Scheuch’s courage when it comes to exploring new technologies. It is a partnership between two innovative companies.”

“With DeCONOx, existing plants can also be upgraded with ease to make sure that they comply with future legal requirements for NOx reduction”, explains Alois Hermandinger, Head of the Industrial Minerals division. “We have also developed a mobile pilot plant to offer interested companies the opportunity to trial the process on their own sites and see how it fits in with their operations.”
At Johann Nemetz & Co GmbH in Wiener Neustadt, Austria, during the modernisation of the existing dedusting system, the first FIM filter from Scheuch in the metals industry was recently put into operation.

In an interview about the investment and initial experiences, Josef Daurer, who is responsible for the project at Nemetz, said that lower noise and air emissions, an improved work situation for the employees and higher energy efficiency were the objectives of the investment by Johann Nemetz & Co GmbH in Wiener Neustadt.
Why did investing in the dedusting system become necessary?
Josef Daurer: “The reason was the scheduled production expansion. We knew that the existing system had reached its capacity limit. It kept on malfunctioning and giving off unplanned emissions. Safe and reliable dedusting is important for the environment as well as for the quality of our products.”

What requirements had to be met?
Josef Daurer: “There were three main criteria for me: its noise and air emissions needed to be as low as possible because having a good relationship with our neighbours is very important to us. We also wanted to improve the work situation for our staff members and increase our energy efficiency.”

What were the crucial factors influencing your decision to award the contract to Scheuch?
Josef Daurer: “From our experience of previous projects, we know that Scheuch is our perfect match. Only Scheuch is capable of the extensive advance planning a system like this requires. Competitors are quick to submit quotations, but too many questions remain unanswered. With Scheuch, everything is clear right down to the very last detail, and that’s exactly what we need. For me, it was important that we work with a company from Austria or another country close by, because reliable after-sales service is a critical requirement should problems arise. If dedusting comes to a halt, so does an entire profit centre. One of Scheuch’s strengths is its ability to accommodate customer requirements when selecting components. This is an essential consideration from my point of view.”

What specific requirements did the system have to meet?
Josef Daurer: “As our company’s site is located between two railway lines, we have very little space. We were looking for a supplier who could make the very best use of the available space. The use of the compact new IMPULS-Filters for the first time was a crucial factor enabling the equipment to be installed on the roof of the production hall. It would have been very difficult to accommodate a standard Scheuch product in the available space.”

How did the construction work affect ongoing operations at the plant?
“…”

What was the reaction to the modernisation work?
“…”

THE PROJECT IN BRIEF:
REMIT: To retrofit (replace) an existing dedusting system for sand reprocessing with increased extraction air output

TECHNICAL SOLUTION: Use of a new compact IMPULS-Filter
Use of new extraction hoods

TECHNICAL DATA: 60,000 Bm³/h
In its LD steel mill at Völklingen, Saarstahl AG manufactures high-quality special steels for use in sectors such as the motor industry. To expand its product portfolio and increase capacity for high-quality steel grades, Saarstahl erected a new secondary metallurgy building. The new production hall is connected directly to the existing casting hall. As the expert partner for this challenging building project, Scheuch was responsible for every element of the dedusting system, from the extraction points to the mouth of the chimney. The central dedusting system has been designed and dimensioned for a maximum total extraction volume of 600,000 m³ per hour. The dust is collected and removed directly from its point of occurrence.

The project posed a number of challenges: the dedusting system had to take up as little space as possible and there were very stringent noise level requirements to be met. The IMPULS-Filters have been designed specifically to collect and discharge dust containing lead separately. The filtered and extracted air is discharged through a chimney above roof height. "The project gave us the opportunity to demonstrate our creativity and flexibility", said Manfred Lixl, Metals industry professional. The filter system had to be designed and built as small as physically possible because there was so little space available at Saarstahl. The sound insulation was also very complex, as the company had to ensure that the new, larger system would still comply with the limit values for noise emissions. In addition, all parts had to be clad, the fan was enclosed inside a soundproof housing and the chimney, at 70 metres high, was fitted with a silencer.

The outstanding abilities of the Scheuch team were also apparent during the assembly phase. To keep traffic disruption to a minimum, the components, which were pre-assembled at a site approximately one kilometre away, were delivered to the actual construction site via special means of transport. The parts had to be set down using as few lifting operations as possible. Despite these challenges, the complex project was still completed on schedule.
A problem faced by many cement manufacturers: mercury, the heavy metal found in rock layers, builds up in a circuit during the manufacturing process. As a result, mercury accumulates in the dust removed in the furnace filter. The strict emission values for mercury in the USA, along with discussions about increasing limit values in Europe, led Scheuch to start work on new processes for better separation of mercury ahead of time. The technology company’s R&D department in Austria has spent recent months working in partnership with A TEC and W&P Zement to develop an innovative concept that is already in practical application in a large-scale technical pilot system.

**TWO DUST FLOWS IN ONE SPLIT PRE-HEATING TOWER**

The new approach involves interrupting (unloading) the concentration process for mercury under technically controlled conditions. The fraction loaded with high levels of mercury is separated from the furnace filter and undergoes highly effective treatment. The heavily enriched fraction is less dense and usually only accounts for ten percent of the total dust. Approximately 90 percent of the dust occurring contains very low levels of mercury and as such does not require special treatment. Only a relatively small system is needed to treat the lower-volume fraction in which mercury has accumulated. The method developed by Scheuch uses a split pre-heating tower. In the main branch, the material with low levels of mercury content is preheated; in a second parallel branch, the fraction containing higher levels of mercury is heated and the mercury is transferred to the gas phase. Scheuch hot gas filtration is used to separate the dust from which the mercury has been unloaded so that it can be put back into the process. This unique end-to-end system for mercury separation goes by the name “eXmercury”.

**TECHNOLOGY SUITABLE FOR NEW SYSTEMS AND RETROFITTING**

The new energy-efficient technology for mercury separation has a patent pending. It is equally suitable for use in new systems and retrofitting projects involving existing pre-heating towers. Practical tests in a pilot system are currently underway.

As part of a research project, Scheuch has developed a new, efficient technology for mercury separation in the cement industry. The innovative process is currently undergoing practical tests in a pilot system.
Scheuch's new Components unit is an entirely separate sales division. The team, an expert point of contact for end customers and plant manufacturers, is dedicated to opening up new areas of business activity for Scheuch products. We spoke to divisional head Werner Pfifferling about the products, skills and aims of the Components business unit.

Why has a dedicated division been set up for components business?

Werner Pfifferling: “In addition to our core activities in the wood processing, wood-based panel, metals, industrial minerals and energy industries, there are numerous sectors for which our components are truly well-matched. Fans, screws, rotary valves, piping components or cyclones are essential to the production processes of many industries, so there is huge potential for Scheuch’s quality and know-how to tap into.”

What are the strengths of this division?

Werner Pfifferling: “We have a wealth of knowledge from the sales and marketing channels of the existing areas of the business and have worked in the plant business for several decades. What’s more, we know the practical requirements inside-out and we’re a very experienced team. We deliver flexible solutions that are tailor-made to meet the requirements of each individual customer. These are just as likely to involve standard devices and simple components as they are to draw on our skills and expertise in customer-specific series solutions and prototypes. In addition, we also offer technical advice, services for measuring sound and air quality, commissioning services and a very comprehensive service and assembly portfolio. We really can offer our customers genuine added value.”
The new Scheuch powder filter is characterised by excellent performance, low energy consumption and short ROI times. Its modern and compact design is an additional benefit.

Where do you see potential for the Components division?
Werner Pfifferling: “Our components are equally likely to be used in the foodstuffs, glass or chemicals industry as they are by subcontractors to the motor industry. We are absolutely committed to breaking into these new markets with our products. Our expertise means that we can work in partnership not only with end customers but also with plant manufacturers.”

Where should the division be in five years’ time?
Werner Pfifferling: “We aim to be one of Europe’s major fan manufacturers. One of our strengths is that we produce devices in Austria. This means that we have a great deal of flexibility in our quest for customer-specific solutions and makes us a long-term partner that can be trusted and relied upon.”

Making its mark with a compact and contemporary design, the new Scheuch powder filter certainly packs a punch. The company’s innovative concept is based on the round filter technology with its light pre-separation used in cartridge filters. This new approach enables the filter surface area to be increased as many as six times over in a very compact space.

ADDITIONAL PRE-SEPARATION

“Our aim was to develop a contemporary system that would impress customers by combining high performance with very reasonable investment and operating costs”, explains Werner Pfifferling when asked about the concept. The round powder filter benefits from an excellent energy footprint, boasts outstanding sound values and works with an innovative cleaning system developed by Scheuch. The inflow technology has been optimised in order to prevent pressure loss in the system, thereby reducing the energy consumed by the filter compared with conventional solutions.

LOW OPERATING COSTS

The one-year test phase showed that the powder filter was capable of combining outstanding technical values in live operation with very low operating costs. The device is ideal for powder coating applications involving metals and plastics.

The filter has potential to be a problem-solver in other sectors, too.
Guests from every corner of the world came to visit our stand covering 120 square metres and were greeted by a team of approximately 30, led by Jörg Jeliniewski, Managing Director. From prospective customers to regulars, from plant manufacturers to plant operators – Scheuch’s presentation area proved to be a popular meeting point for the industry.

SCHEUCH TRADE FAIR STAND AS A PLATFORM FOR NETWORKING

Over 96,000 visitors from the industry descended on the trade fair halls over the week. The large number of visitors to the Scheuch stand clearly showed that the industry is seeing a positive development. The trade fair was the site of some serious networking, the collaborative development of new business ideas and the negotiation of investments. As a result, the demand for custom solution concepts and technologies, both tried-and-tested and new, was huge.

„Scheuch’s performance at this year’s specialist trade fair has far exceeded our expectations. LIGNA is a platform for the entire industry branch – the technologies of today and tomorrow can be found here side by side. Virtually no other place on earth provides you with a better opportunity to make international customer contacts in such a short period of time“, says Christian Straif, Head of the Wood Based Panels, Energy and Metals divisions at Scheuch.

PREMIERE FOR SCHEUCH LIGNO GMBH

According to Alois Burgstaller, Managing Director of Scheuch LIGNO, the first time that Scheuch’s former Wood division appeared at the trade fair as an independent company was a success: “After just a few days of personal contact with customers, suppliers and competitors, we were able to take a lot of interesting impressions back home with us. The mood throughout the industry is positive, and
our appearance under the new company name was very well received too. The Scheuch LIGNO team was put to the test and came out on top, and we are optimistic about the future.”

All in all, the appearance at the trade fair was another excellent opportunity to present new technologies, tested concepts and the best technical solutions in a personal atmosphere. The Scheuch team is already looking forward to a reunion in Hannover at LIGNA 2017 from 22 to 26 May.
Our goal of becoming the international innovation leader in the field of air purification led us to fundamentally revamp our brand appearance. This meant, on the one hand, increasing employee identification with Scheuch and, on the other hand, showing our high technical quality standards. In line with these requirements, the full-service agency vorauerfriends communications GmbH put together a campaign that gives Scheuch a new look.

The campaign’s claim – “We are technology for clean air” – aims to illustrate that our products and our company stem from our passion and commitment. We are always working to find the best technical solutions for our customers and we want this innovation to be reflected in our brand appearance too.
Some measures have already been given a new look – including our trade fair presence at the LIGNA wood trade fair in Hanover last May and the first product folders that are hot off the press. Autumn will see another important milestone with the implementation of our website in a fresh new design – optimised for use with a wide range of different devices, including smartphones and tablets. This represents the last step in the brand relaunch but an important one towards the optimisation of our quality standards.
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