



Dear reader,

„Made in Germany“ is a worldwide synonym for excellent quality. This is often proved by long lifetime of plants, which reliably work in spite of daily constant load. That way also with filter units of Infa Staub.

But we don't rest on tried-and-true from the past. Infa Staub set many things in motion this year. At the beginning of the year we switched our construction software to the CAD program Solid-Works. At the end of December we realise a state-of-the-art IT environment in order to achieve a more efficient link between the departments sales, construction, purchasing and production. This way we are able to offer you demanding solutions even faster and better. It is our target to steadily expand and improve our customer services.

Our participation at the POW-TECH 2014 was also in terms of customer orientation. The format of the trade fair is still popular with the visitors. The intensive contact between our staff and visitors is an important part when dealing with customers and suppliers.

Of course we introduce to you again two of our employees in this issue and report about latest project examples. I hope you enjoy the newsletter.

Cordially

Yours  
Berthold Geppert



## Filter units in new factory site for cellulose ether

Cellulose ether is a derivative of cellulose and used in almost all parts of daily life. The main areas of application are building materials, colours, ceramic, food and pharmaceutical products.

A producer of cellulose ether just builds a new production line in the United States. Because of the positive experiences with filter units of Infa Staub, which have been earlier installed in another production site, silo filters of Infa Staub will also dedust the material transport in the new production. The filter units will be used for material supply

and discharge of dosing systems. Cartridge filters and bag filters of type Infa-Vario-Jet as well as bag filters of type Infa-Mini-Jet will be delivered. Both filter types are especially suitable for dedusting of pneumatic conveyings.

In consideration of the explosive dust kind, all filter units are designed for explosion zones 20 (raw gas side) respectively 22 (outside of the filter). Since other legal regulations apply in the USA than in Europe, the approvals must comply with the local UL standards.

## Kies Beton Krebs modernizes concrete production with Infa Staub filters



The British engineer Deacon declared already in 1872: „Delivering mortar or concrete ready for use to a construction site should be an undoubtful great advantage.“ Today, another process is not imaginable. But before the ready-mixed concrete can be delivered to the construction site, it must be mixed in special plants out of cement, sand and further additives with water. As one producer the North German company Kies Beton Krebs produces just this ready-mixed concrete.

Within the last years the cement and fly ash silos in the plants Neumünster and Schönkirchen were

equipped with filter units of Infa Staub. Now, filter units for dedusting of silo filling and a pocket filter type Infa-Jet AJN for dedusting of the concrete mixer were installed also at the new plant Hüllerup. The pocket filter ensures a clean working

environment and a failure-free production process in the newly cased mixing tower. For a trouble-free weighing of the concrete substances, the aspiration nozzle of the scale was also connected to the filter unit. The dust load amounts to 1-5 mg/m<sup>3</sup> at a volume flow of 20 m<sup>3</sup>/min. Because of the humidity from the mixer a filter medium with a hydrophobic coating was chosen.

Mixing plant supervisor Thorsten Wolfram is very much satisfied with the successful operating of the filter units. And we at Infa Staub are happy about that, too.

## Underestimated risk of dust explosions

This article shall give interested parties a short overview about explosion protection and increase the awareness of necessary safety precautions.

In German companies happens almost every day a dust explosion. Dead and injured people unfortunately are no exception. 14 dead people and a damage of more than 100 million Mark claimed the explosion of flour dust at the company "Bremer Rolandmühle" on February 6th, 1979 – so far the biggest one in Germany. Also worldwide you read again and again about severe explosions. In August 2014, at least 65 people lost their lives in a metal processing plant in East China because of a dust explosion. In Austria a worker caused a dust explosion when welding at a powder handling system.

A dust explosion occurs if the following conditions exist at the same time: The dust must have a small particle size. The dust must be distributed in the air with enough concentration and an effective ignition source must be given.

Implementing suitable explosion protection measures should also be self-evident for operators of

dedusting plants. Already when planning dedusting plants appropriate explosion protection concepts have to be developed and implemented. In principle, the method of preparing an explosion protection concept is always the same.

First of all, the required explosion parameters of the dust have to be known so that the danger of fire and explosions, which result from dust, can be estimated at all. Afterwards the possible explosive areas have to be determined. This means to answer the question in which area the dedusting plant is located (interior of the plant and location) and how often an explosive atmosphere exists. Therefore it must be checked whether dust deposits abound in the area, which dust concentration exists in the exhaust air flow and which cleaning type applies for the dedusting plant (pulse-controlled by time or differential pressure). The explosive area is classified in so-called zones.

Afterwards an ignition danger analysis determines within the scope of which ignition dangers are given and how these can be excluded. Ignition dangers can emanate from hot surfaces, electrically or me-

chanically generated sparks and from electrostatics. Furthermore, ignition dangers which can arise from the upstream process must be considered

All this leads to an individual explosion protection concept which protects the dedusting unit. Basically there are two possibilities for this: The dedusting plant is protected only by measures of preventive explosion protection which certainly exclude explosions. If this isn't completely possible, e. g. because it can't be excluded that ignition sources enter the filter, additional measures of constructive explosion protection must be realized for the dedusting unit in order to reliably control the effects of arising explosions. So that the explosion protection concept for a plant is put into practice, the employees need to acquire a better understanding of explosion dangers and have to be trained for operating the plant.

Explosion protection is investment protection for the company and serves the protection of its employees. Nevertheless, this topic still doesn't receive necessary attention. That's why avoidable explosion accidents still occur.



# What is actually doing ...?

## Christine Bücheler Order management



Christine Bücheler is employed at Infastaub in the department order management since 1999. The 42-year-old forwarding agent (air cargo) plays a crucial role in delivery of filter plants. Besides the transport logistic this includes ordering of special packing (e. g. for sea transport) as well as the preparation of shipping and export documents and bank guarantees.

### Could you explain your duties at Infastaub more in detail?

I am responsible for the due-time and proper handling of our delive-

ries as well as for control and assurance of all processes that are relevant for customs and foreign trade. This means that I issue all necessary shipping documents and arrange with the transport companies the troublefree transport of our products to customers. I am also involved in order management and contact person for enquiry and handling of special payment arrangements, e. g. letter of credit and encashment.

### What is best about your work?

Export is regulated by extensive customs regulations, which often change. These are for example the frequent amendments in customs law or new regulations because of penalties and embargoes. That's why my duties are very diversified for one thing and for another thing constant retraining is necessary. The direct contact to customers is

also very important for me. I always look forward to support our trade fair personnel on-site and personally meet my contact persons.

### You were also abroad for some years.

Yes, I lived in Australia for three years. The first year I visited school because of a missing work permit. Afterwards I worked for two years for my former German employer in Sydney. But since I didn't want to emigrate, I returned home after three years.

### How do you find balance to your working life?

Since I have a seated job, I like to get exercise in my spare time. For me sports in terms of hiking, jogging and dancing are the best ways to clear my mind.

## Konny Jörges Service/electrician



12 years ago Konny Jörges' employment began at Infastaub. In the beginning the skilled electrician for energy systems was employed via a temporary employment agency and was taken over in a permanent position at Infastaub five months later.

Part of responsibilities for the 35-year-old are besides electro-technical works at filter units also facility services at Infastaub premises and service orders at customers' sites.

### How does your typical working day look like?

I don't have a typical working day. This is due to the different products we sell and accordingly have to „wire“ as well as to the manifold duties I have. For example the electric of our filter control units is not always a standard product. The demands are much more individual and complex for explosion protected systems. Sometimes I am on site at our customers for maintenance, commissioning, assembly or repairs. Afterwards internal works wait again, for example like yesterday the repair of defect motors of our degreasing and phosphating machine. The diversity of my daily work makes my job therefore exciting and is surprising again and again.

### When you talk about explosion protection - has there been a

### precarious situation and what do you exactly do during service in the field?

No, fortunately there hasn't been any emergency so far. Safety is a very important aspect in our work and is taken very seriously.

Service assignments mean for example that we test, measure or adjust devices and plant components. This varies from controlling safety-, protection- or cleaning components to optimising works of the dedusting process. But also mechanical works like changing filter media are part of it.

### And your life apart from your job?

With South American roots, dancing is my passion - salsa, samba, nerengue. Sometimes to find the balance, I go running, play soccer or volleyball.

# Infa-Inside

## Summer party, corporate challenge - after-work at Infa Staub

The summer party is a solid event for Infa Staub and granted in the calendar. This year, the weather was great and there was a good chance to party in relaxed atmosphere, especially since the BBQ master made a lot of food and the DJ cared for a super mood. The day faded away in a cozy atmosphere with freshly tapped beer and cocktails.

After-work doesn't only mean to celebrate. One can also run together. Seven Infa Staub employees started next to 928 runners at the second edition of „Bad Homburg runs after work“. The three-man group Infa Staub # 1 finished the five km long course altogether in 1:07:17, the time measurement showed 1:30:18 for our second group. As also last year, Michael Graf crossed the finishing line as best of the team. His 0:20:27 was good for place 22.

The get-together with colleagues, who cheered for the runners, completed the evening. Also that's why we think: Next year we will run and celebrate again!



## POWTECH 2014

The Powtech is already past for a while. The booth of Infa Staub in hall 5 is removed again. It was a nice, varied and exciting fair with interesting conversations and the already traditional matches at the kicker table, which proved to be a crowd puller. However, highlight of the interest were the presented filter models. The competent fair team explained to the visitors in many conversations the high quality of Infa Staub dedusting systems. The number of domestic and foreign visitors at the company's booth stabilised at last year's high level.

Berthold Geppert, general manager of Infa Staub, was obviously satisfied with this year's Powtech: „We were very pleased with the positive interest at our booth. There have been three successful fair days for us again. We could establish new contacts and presented our products to an interested professional audience. We were very happy about the great demand and interest in our pharma filters, like the Infa-Micron MPR or MKR.“



## Dedusting knowledge Specific air-to-cloth ratio

The specific air-to-cloth ratio determines next to other parameters the faultless and long-term function of a filter.

air-to-cloth ratio [m <sup>3</sup> /m <sup>2</sup> *min]	Specific air-to-cloth ratio	
	high	low
filter surface	small	large
pressure loss	higher	lower
separation efficiency	worse	better
abrasion	high	low
approaching flow	disadvantageous	advantageous
space requirement	small	big
investment	low cost	expensive
operating / maintenance	expensive	low cost