



Dear reader,

the new issue of Infa-Aktuell, the newsletter of Infastaub, is in your hands. It is a regular part of the company's communication in the meantime.

With the current issue we give you again a small insight in our de-dusting projects. Whether pharmaceutical dust, cement, cellulose or starch - the applications of our clients are very versatile. Beside the different kinds of dust, the applications are subject to extremely varying climatic conditions, different guidelines and regulations and last but not least diverse preferences of our clients. Our filters thus have to fit safely into the manifold requirements. The demands of practice and experience of our engineers influence therefore every project.

Examples for the know-how of Infastaub represent for instance a Russian project for manufacturing of building materials. Another interesting customer project is the de-dusting of a tablet coating with dust removal and cartridge change free of contamination.

I wish you a lot of fun and interesting inspirations when reading the newsletter.

Cordially

Yours

Berthold Geppert



Cartridge filter for coater



Coating of tablets is one of the ambitious process stages when manufacturing tablets. During coating in a fluidised bed, the coating liquid (film former) is sprayed onto produced solid matters (particle). The conveyed process air evaporates the liquid and dries the film layer. The very fine dust, which is developing during the process, can be highly effective and toxic. Therefore a downstream filter unit has to protect as well employees and production surrounding from dust as guarantee a removal of separated dust free of contamination. Depending on product and process, dust particle from the coating process can have an adhesive and sticky consistency. Without appropriate filter units the filter media clog and a trouble-free filtration isn't possible.

Pancreatin, which is used to treat pancreatic diseases, is produced at a pharmaceutical company from the North of Germany. For de-dusting of the coating plant, Infastaub received the order for a cartridge filter with two filter stages type MPR. The handling free of contamination when changing filter media and dust bags was in particular important for the customer, because the powder can cause allergies and employees have to be protected from them. Also essential was the stainless steel design of the filter unit with FDA-certificate of all components in contact with gas and dust, since it is a cycling process, which leads the cleaned air back to the production process.

The filter unit is designed for a volume flow of 4,000 m³/h at a raw gas dust load of max. 5 g/m³. The filter media have a filter surface of 60 m² per filter stage and are made of an antistatic spunbond polyester respectively a microfibre (class H14) for the second filter stage. Because of process technology reasons the filter media are cleaned after the coating process. Change of filter media is carried out with the safe-change-system (bag-in-bag-out) via a change collar, the dust discharge via a dustproof closable endless liner which ends in existing bins of the customer. Possible dust explosions are excluded by inertisation with nitrogen during the process. This in turn makes high demands on the tightness of the filter unit. With a residual dust content of 0.001 mg/m³ and the bag-in-bag-out system, the filter unit contributes to the process quality of film coating and ensures reliably the working surrounding from contamination.



Filter units for building materials industry

An old Siberian legend says that God, after he had created earth, flew with his gifts over the world to distribute them everywhere. When he came, though, to Siberia, his hands froze to him. He dropped everything what he still carried with himself, and thus Siberia became rich in mineral resources and energy. In anger about that God punished the region, however, with everlasting winter.

Beside the big coal and natural gas reserves, Siberia also disposes of an immense potential in lime and marl stone sources. The mineral resources are required as raw material base for the cement production. Because of the Russian „programme for the development of building material industry till 2020“ and the rising demand for cement and chemical construction products, increase the extension of the building material industry. So also in Nowosibirsk. There the company Gerkules-Sibir was founded in 1997. The building material supplier produces the raw materials of the cement industry to dry mortar, gypsum plaster, screed etc.

In 2013 Gerkules modernised its plant 7 and refurbished also the de-dusting units. The order of 15 filter units for de-dusting of 26 dust sources (elevators, crusher, sieves, scale bunker, belt transfer points, packing machines, pneumatic conveying etc.) was awarded to SovPlym, the Russian representative of InfaStaub.



Overall the 15 filter units de-dust a total volume flow of $> 40,000 \text{ m}^3/\text{h}$. The different filter units gather, e.g. as silo vent filter (AJB, AJV) or central de-dusting plant (AJL), at different dust sources the dust emissions of gypsum, marble meal, ash, cement and quartz sand. Particular attention on the residual dust content of $< 0.5 \text{ mg}/\text{m}^3$ was paid to the de-dusting of a cement-sand-mixture. For this application a cassette filter type Infa-Micron MKR with non-cleanable secondary filter stage was installed downstream of a pleated element filter.

The air volume of several, synchronal working processes with same dusts are combined in one filter unit in order to keep the total amount of filter units as low as possible. The filter units for plants as scale bunkers and dosing feeder should have a differential pressure as much low as possible and without fluctuations. This is designed with regard to a proper operation of the pressure instruments of the conveying aggregates.

Dmitri Bedochev, technical manager at Gerkules-Sibir, said after commissioning „The professionalism and quality of the carried out works by SovPlym and their competence in questions of de-dusting and ventilation are reason for the decision to award another order about project engineering, delivery and assembly of dust units.“

What is actually doing ...?

Larissa Schweighöfer Sales Dept. back office



Larissa Schweighöfer works for three years at the back office of Infastaub sales department. The major responsibilities of the 28-year-old processing engineer mainly include the handling of inquiries and orders which originate from abroad. Exception are orders from CIS states, another colleague takes care of.

I: Could you shortly describe your core tasks?

S: Basically all inquiries which don't origin from Germany and the CIS states reach me. Design, calculation, tender preparation and tracking take up the prevailing part of my working hours. But also coordination and communication with customers, technical department and our Regional Sales Team belong to my work.

I: How does a project handling usually proceed in your area?

S: Trying to understand a de-dusting project is in my case different to the work of our regional sales. It is a challenge to gather information from our customers out of the office. I have to collect the decisive procedural information from the distance in order to estimate the task for the optimum de-dusting. Sometimes the difference in language is a small barrier. But usually I get along with English and French.

I: What were the reasons to choose this career which is still today rather unusual for women?

S: I really was one of few female students of process engineering. Though I like foreign languages and can use in my job also daily English, my interest in a technical study was by far larger. Nevertheless, mechanical engineering was too mechanical to me and chemistry excited to me at process engineering.

I: What do you do for the balance to your work?

F: In my spare time I do a lot of sports. However, I am not fixed to a certain sport. According to season I drive either bicycle or Inlineskates. Running in the early morning belongs to my almost everyday sports penum. Sometimes I also go swimming.

Steffen Prinz Customer Service



The qualified electrician just started his job at Infastaub. Since 01/01/2014, the 36-year-old supports the department Service. He is especially responsible to build up the services in this part. Steffen Prinz has collected his experiences at a plant engineering company and a well-known manufacturer of filters.

I: After six months of work at Infastaub, did you arrive entirely and what exactly is your task?

P: The first six months just flew. I was familiar with the new filter plants very fast. Just by that circumstance I had very soon the feeling to be at home. At the moment I'm very much engaged with assemblies, commissionings and maintenance works. In the future I will be more and more responsible to plan the service assignment of our technicians.

I: You have the job to expand the servicing of Infastaub. What exactly do we understand by that?

P: Service is a very important field of activity for plant engineering and construction. Infastaub is going to strengthen this part. The spectrum of our service offer goes from singular demands for concrete demand to continuous all-round carefree packages. This can be trainings, advisory service, preventive inspections, maintenance or help in case of trouble within the de-dusting process. We put together unique packages, which adapt to the different needs of our customers and make modular and flexible arrangements.

I: What do you personally want to achieve with the newly established service department of Infastaub?

P: I would hope to strengthen the service department in the near future that a team of service technicians is available on 360 days a year, 24 hours.

I: Do you still have time for hobbies?

P: Since I am very often away on business, I spend my spare time with my family. I also like to ride my bike. Additionally I am engaged for 25 years with the voluntary fire brigade.

Infa-Inside

The bulk solids trade fair 2014

Kick-off for the trade fair year 2014 was the „Schüttgut“ in Dortmund from May 21st to May 22nd, 2014. Already for the sixth time the professional visitors met at the trade fair for bulk solids technology. InfaStaub presented at the fair its filter technology for separating dusts, which occur when processing powdery, grained or granular bulk solids.

A new highlight of the trade fair was a visitor parcours, organised by the trade fair organizer. At participating exhibitors the visitors could take part at a competition about knowledge and skills beside the technical discussions.

At the InfaStaub fair stand the visitors could test their speed and skills. Within three minutes nine filter cartridges of a silo vent filter had to be dismounted and installed again. The visitors had lots of fun and all participants managed to change the filter cartridges within the given time.



De-dusting knowledge Filter material

The following requirements must be met by an ideal filter medium:

- Dimensional and chemical stability as well as the highest temperature stability possible.
- Bending and tensile strength so no damage occurs from mechanical motion during cleaning.
- Optimal air permeability together with the highest possible retention of extremely fine dust.

Type of filter material	Application
Fabric (e. g. cotton)	Primarily in dust separators with mechanical vibration cleaning
Needle felts (e.g. polyester)	Primarily for filter bags and filter pockets in dust separators with continuous compressed-air cleaning
Nonwovens (e.g. polyester)	Primarily for filter cartridges and pleated elements in dust separators with continuous compressed-air cleaning
Glas fibres	Primarily for high-efficiency particulate filter cassettes and bag filters
Sintered filter elements	In dust separators with continuous compressed-air cleaning

YouTube channel



Latest upload at the InfaStaub YouTube channel is a small image movie. Now five films of InfaStaub are uploaded in the internet.

Since introduction of the channel in 2013 the movies have been clicked more than 3,000 times. Just go ahead yourselves and watch them.