

BOHLE INNOVATIV

WE DEVELOP YOUR FUTURE.

The Bohle-Fluid-Bed-System BFS: Largest unit is built

In the previous edition of Bohle Innovativ (No. 1-2008), we introduced the redesigned BFS 30 fluid bed system. The system was presented to the public for the first time at the 2008 Interpack exhibition in Düsseldorf, Germany. Now the largest version of the BFS line, the BFS 480, has been completed and is ready to serve its purpose.



Today we would like to inform you about the advantages and capabilities of the BFS 480 in daily production.

The working volume of the BFS 480 is approximately 960 liters. This is equivalent to a product batch size of around 500 kgs. The patented air flow principle uses a large bottom perforated plate, allowing air flow of up to 11000 m³ per hour. This reduces processing time significantly.

The system is equipped with eight tangential spray nozzles and is suitable for granulation, drying and pellet-coating. Instead of six filter bags (like the smaller BFS 30) the BFS 480 is equipped with a total of 14 filter bags. Dismantling and installation of the bags is as easy as in the smaller BFS units. →



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Dear readers,

September 2008

A few weeks ago the extension of our Sassenberg facility, named "plant 2" where we had already started manufacturing machines several years ago, was put into operation, increasing the actual manufacturing capacity up to more than 1000 m². This additional manufacturing capacity enables us to meet the increased demand for our machines within the Pharmaceutical Industry.

The premises in Sassenberg include space for the integration of an additional Engineering Department. Corresponding plans for the Sassenberg Engineering Department are already being drafted. Thus, our "plant 2" will be fully equipped in the very near future for the design and manufacture of stationary and mobile blenders, containers and lifting devices.

In the first half of 2008 we conducted challenging trials with our new Bohle Conti-Granulator BCG (presented at this year's Interpack) in co-operation with a well-known, world-wide manufacturer of pharmaceutical products. A very complicated granulation process during a short phase of trials led to brilliant results with a perfectly

compressible granulate. Due to these amazing results, this customer will return in the near future for additional trials with another product.

Our new Bohle Conti-Granulator BCG also allows the operator to record all measuring data in a calibratable manner, via a protocol that can be stored directly at the machine or in the company's central control architecture.

Automated robotic lifting mechanisms which have been specifically designed for the BCG arrange for the connection to the production process. The mechanisms dock a container at an outlet e.g. underneath a weighing station, and undock the container for blending. The Bohle Conti-Granulator BCG is now charged. After charging the operator can initiate docking for the addition of steirates, for a final blending operation. Finally the lifting mechanisms automatically deposit the container on a downstream tablet press.

By applying this automated technology it is especially advantageous to equip the whole line with Bohle BCK containment docking valves. The production line can then

be used for applications ranging from High Containment to Total Containment. As it is known, our docking valves have a containment rating of only 0.2 µg/m³ according to SMEPAC guidelines, thus they are suitable for the manufacture of highly potent products. As you may see, we have developed a "silver bullet" for any kind of production in your company. We would also like to mention that solvent-based granulations pose no problems as the BCG is operated under vacuum and solvents are recovered. Dear readers, today I want to express my deepest gratitude for your loyalty and continued interest in our new products over a period of many years. We can assure you that we are always striving to develop the best solutions for your production processes, both for batch operation mode and continuous operation mode.

Best wishes from Ennigerloh

Yours



→ Continuation BFS 480

The BFS 480 is designed and fitted with state of the art WIP-equipment. A rotating



spray jet with cleaning nozzles is mounted in the center of the lower filter dome and works extremely efficiently. As a result, cleaning times are very short.

The compact design of the smaller Bohle fluid bed systems carries through to the newly built larger units. No auxiliary lifting devices or corresponding components are positioned above the filter dome, eliminating the need for extra space.

Any product transfer can be performed easily in a short time period through the use of Bohle's patented multi-functional valve. This newly developed valve serves to perform charging, discharging and sampling procedures through a single port. Our overall design results in substantial ergonomic benefits, which produces strong advantages in cleanability and processing in comparison to other existing systems on the market. The low position of the machi-



BFS 480 bottom plate

ne's process bowl allows easy access for the operator. The BFS contains less gaskets, valves and vents than other systems, which makes cleaning and inspection fast and easy. Do not hesitate to ask for more information about our new BFS 480. We are looking forward to hearing your needs and exceeding your expectations with our new fluid bed technology.

The Bohle-Containment-System BCK:

A continuing success story

Only two and a half years ago, Bohle began the successful development of the BCK high containment valve.

Our goal for this new design was to avoid any known disadvantages of existing containment valves on the market and to provide ease of use. The user should receive a valve with substantial advantages during all relevant operations.

Historically, Bohle has worked in project groups. Mr. Lorenz Bohle and specialists from all relevant technical departments within Bohle face new challenges and develop solutions for new applications together. Because of this principle and its immediate attention in the Bohle organization, development times for new products are extremely short. The first prototype of the BCK was tested only a few weeks after the development initiative was launched!

A few months after the prototype test, the first production valve successfully passed independent testing according to SMEPAC guidelines.

The new BCK 200 valve was presented to the market for the first time at AICHEMA 2006 in Frankfurt, Germany. AICHEMA visitors discovered the great advantages of the then never before seen GMP design, the revolutionary curved gaskets and the simple but very effective vacuum closing mechanism.

The commercial launch of the BCK took place immediately after the exhibition. Shortly thereafter, the first BCK orders were received.

The quality, features, and advantages of the new Bohle containment system have gained acceptance within medium-sized companies as well as many leading pharmaceutical companies. Currently, the BCK is an established system within pharmaceutical companies world-wide. The number of enthusiastic users continues to increase.



BCK 100



BCK 200

l.b. bohle + **formula**

A combination that fits

L.B. Bohle Maschinen + Verfahren GmbH has started a cooperative with the pharmaceutical and chemical research and development company, Formula – Pharmazeutische und Chemische Entwicklungsgesellschaft mbH from Berlin, Germany.

The basis of this cooperation was the newly founded L.B. Bohle Formula. Pharma Services GmbH at the end of 2007. In April 2008, L.B. Bohle Maschinen + Verfahren GmbH received authorization to produce (§13 AMG) clinical batches in bulk and market products in pilot/production scale (5 – 20 kgs).

The new company merges the core competencies of plant engineering and design with research and development expertise into a qualified partner for pharmaceutical companies.

The L.B. Bohle Service Center located in Ennigerloh provides well-known, state of the art production equipment for manufacturing solid formulations. In addition to feasibility studies and clinical supplies, pharmaceutical products for marketing purposes are being manufactured under GMP conditions. →



→ Continuation **l.b.bohle+formula.**

Dr. Christian Brätter, CEO of L.B. Bohle Formula. Pharma Services GmbH, states "The new company offers a large variety of services to its clients. On one hand the customer can benefit from the long time L.B. Bohle know how in engineering and equipment fabrication. On the other hand, the client can benefit from our experience in research, development and clinical batch production as well as formulation release from the authorities. So you will get full service and expert consultation from a single source."

Manufacturing and analytical testing under GMP conditions represent only one core competency of L.B. Bohle Formula. Pharma Services GmbH. Our large pharmaceutical development service can be used as your single source from the beginning.

Further information and a complete performances overview are available at

www.lbbohle-formula.de. ■



Production Facility Extension in Sassenberg: Manufacturing of handling equipment has started

A few weeks ago, the extension of the production area at the L.B. Bohle plant in Sassenberg, Germany, was completed. Sassenberg is close to the Bohle headquarters in Ennigerloh, Germany. The manufacturing floor space has more than doubled, reaching a total of more than 1000 m², and a number

of new jobs have been created in the region. This additional space was built to address the constant requirement for more room and capacity. Furthermore, it is furnished with state of the art machinery, tooling and special equipment to manufacture Bohle's high quality post hoists,

mobile lifters, container blenders and other pharmaceutical handling systems. Our Sassenberg manufacturing facility guarantees the world-renowned Bohle traditions of the best workmanship and the highest quality for your material handling equipment.



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