



**THE
TECHNOLOGICAL
LEADER**

Coating Technology

Film Coater BFC | Tablet Coater BTC



Bohle Coating Technology:

L.B. Bohle has been the technological leader for all film coating applications for more than 15 years.

Bohle Coaters guarantee excellent product processing with the highest profitability.

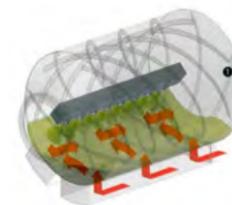
We assert our leading role through continuous developments and patented advantages.

Benefits:

- Best coating uniformity RSD < 2 %
- Patented spirals: excellent mixing and careful product movement
- Minimal spray losses < 5 %
- Reduction of the process times up to 25 % due to a high number of nozzles and an efficient air flow system
- Same pan geometry for easy scale up
- Rapid and simple cleaning

Coating Technology

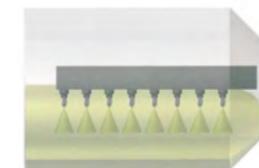
Film coating processes can be divided into three basic operations: mixing, spraying, drying. Each step is carefully engineered and optimized to coordinate with the others. Bohle Coaters offer the best combination of the processing operations on the market.



Helical baffles

Mixing

One essential but basic operation in coating is tablet bed mixing. Each tablet moves uniformly under the spray. This movement, however, must be done carefully and with minimal mechanical stress to avoid damaging delicate tablets. The perfect choice is an elongated coating pan with continuously welded spirals as mixing elements. Spirals guarantee constant and careful mixing. Because of the elongated pan, the flat tablet bed ensures minimum static pressure and very careful handling of sensitive tablets.

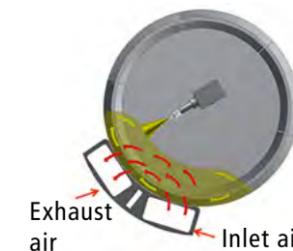


Patented Bohle pan geometry

Spraying

Apart from the coating liquid, two other aspects must be taken into account. First, the spraying equipment: nozzle type, number of nozzles and nozzle-to-nozzle distance. Second, the process parameters: nozzle-to-bed distance, angle spray rate, atomizing and pattern air pressure.

Coating nozzles are the key to efficient coating. The adjustable oval spray pattern and so-called "anti-bearding caps" are currently state of the art. Another key factor is the design of the nozzle-to-nozzle distance.



Drying

The Bohle coaters offer the best energy transfer and mass transfer (evaporation) analog to a packed-bed reactor. Once the coating liquid has reached the tablet, the coating should dry quickly and evenly. To ensure rapid drying, supply air is directed through the pan perforations into the tablet bed. Significant parameters include the supply air temperature and humidity, supply air volume and pan perforations. Excessive moisture or spray drying can be prevented with the appropriate settings. Spray drying, in particular, frequently accompanies coating.

The drying performance can be influenced and optimized through the type of air flow in the coater. Directing supply air and exhaust air through the tablet bed reduces turbulence and creates a cold environment in the spraying area. This internal dynamic prevents spray drying.

Film Coater BFC

Tablet Coater BTC



PATENTED

The Technological Leader

The high-end version of the Bohle coater designed specifically for high speed, problem-free coating, providing unparalleled tablet uniformity and efficiencies. A high containment execution is also available.

Benefits:

- State of the art coating technology
- Homogeneous mixing due to patented spirals
- Gentle mechanical treatment of tablet cores to avoid edging and breaking
- Simple and quick discharging by reversing the direction of rotation
- Nozzles with AB-caps ensure long enduring operation
- Geometrical similarities of all machine sizes ensure secure scale-up conditions
- Unique cleaning abilities with integrated high-pressure washing-system
- High sophisticated control system



PATENTED

The Economical Choice

Tablet coating with the high-efficiency Bohle Tablet Coater guarantees up to 35-percent shorter pharmaceutical and nutraceutical processing times compared to conventional tablet coating equipment for significant cost savings and more efficient, longer running operations.

Benefits:

- State of the art coating technology
- Homogeneous mixing due to patented spirals
- Gentle mechanical treatment of tablet cores to avoid edging and breaking
- Simple and quick discharging by reversing the direction of rotation
- Nozzles with AB-caps ensure long enduring operation
- Minimizing loss of spraying solution to a value below 5 %
- Geometrical similarities of all machine sizes ensure secure scale-up conditions
- Friendly operator software and visualization

BFC TriPan

TriPan is a very flexible coating unit and can be operated with three pans. The pans are changed using a lifting device.

Benefits:

- Batch sizes from 7 to 75 liters
- Computerized InTouch visualization with extensive batch management tools and a broad range of tools for preparing recipes
- Easy cleaning due to a high-pressure system on the inside of the pan
- Suspension supply via a single pump head



BFC 5

BFC 5 is a stand-alone unit. The entire air handling, electrical and control systems are incorporated in the unit.

Benefits:

- BFC 5 can be operated with one of two different pan sizes. Pans are changed manually
- The capacity of the smaller pan can be reduced with a divider plate
- Batch sizes from 2 to 13 liters
- Computerized Win CC visualization with extensive batch management tools and a broad range of tools for preparing recipes
- Multipanel visualization with touch panel, operator panel is attached to the coater
- Manual cleaning



Laboratory plantsize

Bohle Film Coater BFC TriPan 50 with Exchangeable Pans			
	pan 1	pan 2	pan 3
Batch size (brim volume) [L]	7 – 14	11 – 35	25 – 75
Diameter [mm]	410	550	700
Pan length [mm] cylindric	630	630	630
Air flow [m³/h]	900	900	900
Nozzles	6	6	6
Suspension unit	One peristaltic pump head supplies each nozzle individually		

Bohle Film Coater BFC 5			
	pan 1	pan 2	with divider plate
Batch size (brim volume) [L]	2 – 6	5 – 13	0,5 – 3
Diameter [mm]	320	420	320
Pan length [mm] cylindric	360	360	180
Air flow [m³/h]	250	250	250
Nozzles	4	4	2
Suspension unit	One peristaltic pump head supplies each nozzle individually		

Production Size Machines

Bohle Film Coater	BFC 100 ²	BFC 200 ²	BFC 400 ²	BFC 600 ²
Batch size (brim volume) [L]	50 – 160	100 – 300	200 – 650	400 – 980
Diameter [mm]	940	1110	1430	1640
Pan length [mm] cylindric	1050	1250	1600	1845
Air flow [m³/h]	1500	3000	6000	9000
Nozzles	5	6	8	10
Suspension unit	One peristaltic pump head supplies each nozzle individually			

Bohle Tablet Coater	BTC 50 ¹	BTC 100 ²	BTC 200 ²	BTC 400 ²	BTC 600 ²
Batch size (brim volume) [L]	30 – 70	50 – 160	100 – 300	200 – 650	400 – 980
Diameter [mm]	700	940	1110	1430	1640
Pan length [mm] cylindric	860	1160	1410	1800	2000
Air flow [m³/h]	750	1500	3000	6000	9000
Nozzles	6	5	6	8	10
Suspension unit	One peristaltic pump head supplies all nozzles				

¹ nozzles with pilot scale

² nozzles with production scale



L.B. Bohle
Maschinen + Verfahren GmbH
Industriestraße 18
D-59320 Ennigerloh
☎ +49 (0) 2524 9323-0
✉ info@lbbohle.de
🌐 www.lbbohle.de

