

VACUUM FILTRATION WITH A DRUM FILTER

BoVac Drum filter – excellent with regard to filtration,
washing and dewatering.



Ingenious filter design

Due to the modular design, BoVac Drum filters can be individually adapted to specific product and process characteristics. The main target is to achieve superior performance, best operating characteristics and high availability. The basis is the well-calculated filter hydraulic system, which is tailored to the special features of the separation task, and the modular design with optional features.

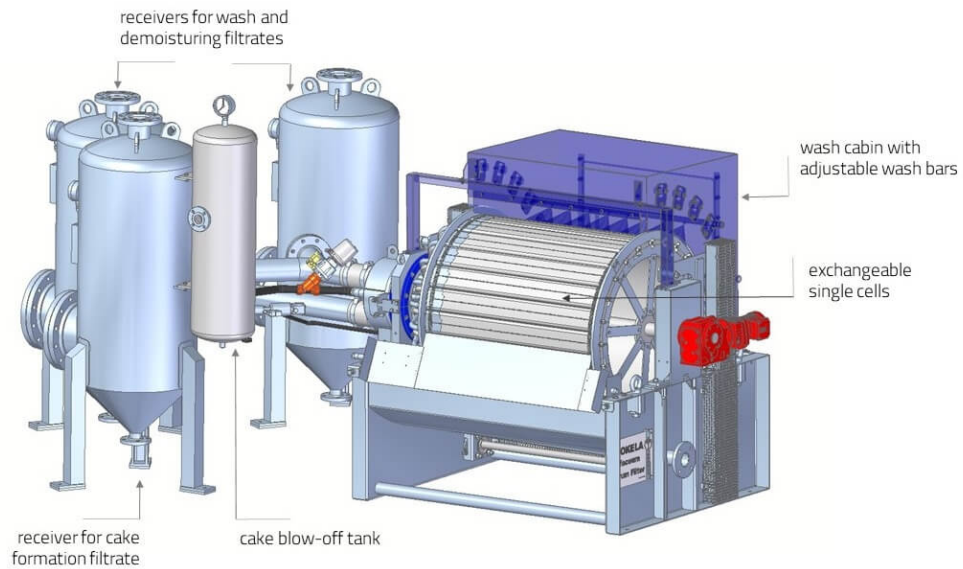
The hydraulically optimized design of the control head and filter cells with filtrate pipes at the leading and trailing edge of each cell guarantee fast filtrate removal and complete emptying of the filter cells. These are the prerequisites for high filter speeds or a high throughput and for efficient washing of the filter cake with exact separation of the individual filtrates. The number and size of the filter cells allow the formation of a homogeneous filter cake, which is evenly flowed through by the wash liquid. This is an important precondition for a good cake washing.

Special features of the BoVac Drum filter design:

- exchangeable single cells for quick re- clothing
- leading and trailing filtrate pipes
- control head with pre-separation function
- cake removal by compressed air blow-back
- large process zones for cake formation, washing and demisting
- encapsulated bearings
- water lubrication, meaning no grease or oil lubrication
- modular design with optional features:
 - washing system for cake wash
 - encapsulation
 - exhaust hood
 - CIP system

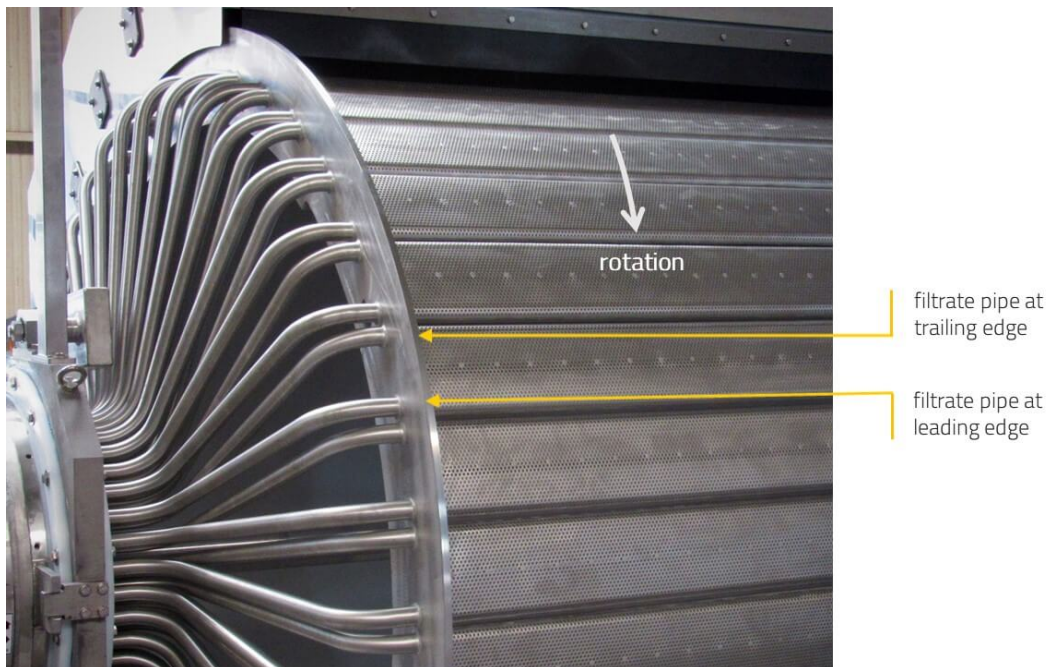


BoVac Drum Filter for Filtration and Washing of a Textile Dye Product



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BoVac Drum Filter with wash cabin - plant design



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Filtrate pipes at leading and trailing edge of filter cells



Non-stop production due to quick cloth change

The replaceable BoVac Drum filter cells allow each cell to be replaced individually. The filter cloth is made as a bag for which different types of filter media are available. This way, a second set of filter cells already equipped with filter bags can be prepared.

The advantages:

- unparalleled simple and quick cloth change in approx. 1-2 hours, including shutdown, cleaning and restart of the filter
- filter cloth change during production
- improved work safety through simple and easy handling
- in the case of tissue damage, individual cells can be exchanged immediately
 - no production stop
 - no product loss
 - no deterioration of the filtrate quality



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Non-stop production due to quick cloth change





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Non stop production with BOKELA drum filters

Clean filter cakes

The purity of solids and/or liquids is a quality attribute which is of great importance in many processes in the chemical, pharmaceutical and food industries. BoVac Drum filters are thus often used if the filter cake needs to be washed to obtain clean solids.

The hydraulically optimized filter design ensures the formation of homogeneous filter cakes through which the wash fluid passes evenly. This is an important precondition for intensive replacement wash of the cake. The exact separation of the filtrates from cake-forming, washing and demisting allows effective countercurrent washing.

Due to the precise division of the process zones, the available angular range is optimally utilized for the individual process steps cake formation, cake washing and cake demisting. Wash ratios WR are realized, which are typically in the range $WR = 0.2$ to 2 [kg wash water/kg solids].

The results are:

- clean filter cake by high washout in up to 3-stage countercurrent washing
- low wash medium consumption
- wash ratio WR: 0.2 to 2 [kg wash water/kg solids]
- sharp separation and separate removal of the individual filtrate streams.

Plug & Play

BoVac Drum filters work fully automatically and as plug & play technology, they can be easily integrated into the process automation:

- automated startup and shutdown processes
- automated filter operation
- automated cleaning (CIP)
- shortest installation and commissioning times (Plug & Play)

Easy to use & easy to maintain

BoVac Drum drum filters are easy to operate and have features which facilitate maintenance:

- easy disassembly of the control head
- supply of lubrication points with water (no grease or oil lubrication)
- disassembly of the agitator without disassembling the filter drum
- individually replaceable filter cells.

Technical data

Filter Type [-]	XS1	XS3	S5	M9
Filter Area [m²]	1	3	5	9
Drum Diameter [m]	0.9	0.9	1.4	1.9
Length of Drum [m]	0.375	1.0	1.2	1.6
Number of Single Cells [-]	24	24	36	36