

# DYNAMIC CROSSFLOW FILTRATION WITH A MEMBRANE FILTER

BoCross Dynamic filter – high solids concentration and clear filtrate.



### FACTS:

With the BoCross Dynamic filter, microfine to nanoscale suspensions are concentrated to unrivaled high concentrations in a quick and gentle way. Even at high feed concentrations or high viscosities can still be filtered and washed.

### **APPLICATIONS:**

- Plastic Intermediates
- Pigments, Fillers and Dyes
- Pharmaceutical Intermediates

## HIGH SOLIDS CONCENTRATION AND CLEAR FILTRATE.



Dynamic crossflow filtration with the BoCross Dynamic filter is a unique process for microfiltration and ultrafiltration of microfine to nanoscale suspensions. Tasks such as thickening, washing and clarifying are performed by the BoCross Dynamic filter in continuous operation with permanently high throughput rates.

The BoCross Dynamic filter consists of disc-shaped filter modules arranged in a row, forming a completely closed system of process chambers. Each filter module is equipped with filter media on both sides.

The dynamic shear gap principle ensures almost ideal physical conditions for the separation process. The process and machine principles allow an exceptionally high concentration of suspensions to be processed in one run.

Under the influence of the shear forces, the concentrate still remains flowable even with high thickening. Therefore, highly viscous and highly concentrated suspensions can still be processed. Compared with conventional crossflow filtration, five to six times higher concentrations are achieved with the BoCross Dynamic filter.

The BoCross Dynamic filter has a modular and hermetically sealed construction. It is available with filter sizes from 0.1 m² to 8 m² and can be used for an operating pressure of up to 6 bar (a). and an operating temperature of up to 100 °C.

## Further information at: bokela.com/bocross-dynamic

# BoCross Dynamic filters are characterized by:

- separation and washing of solids in the particle range of 0.01–200 μm
- high flow rates even with high feed concentration or high viscosity up to 25.000 mPas
- very high final concentration of up to 80 wt.- %
- pasty, spreadable solids discharge
- no segregation or classification in the apparatus
- absolute filtration 100% solids separation and particle-free filtrate
- processing of slimy, gel-like particles
- hermetic process-filtration without air contact
- continuous or batch operation

Filter Type [–]	XS01	S04	M2	L8
Filter Area [m²]	0.13	0.4	1.8	8
Filter Diameter [mm]	145	200	375	555
No. of modules [–]	5	8	10	20
Drive [kW]	3	< 5.5	< 15	< 55

