VACUUM FILTRATION WITH A PAN FILTER

BoVac Pan filter – with a horizontal filter surface for ideal filter cake washing.

Innovative design

BoVac Pan filters have a hydraulically optimized design with many special features and innovations:

- even, homogeneous filter cake over the entire pan surface due to a special “forced feeding” system
- cake washing system for up to 3-stage countercurrent washing
- steaming zone with condensate wash
- sophisticated steam hood for efficient dewatering
- complete cake removal even at higher speeds due to well-dimensioned and height-adjustable discharge screw
• effective heel removal by multi-stage slurrying
• automatic operation through well-proven control philosophy
• high availability of over 95%
• innovations like
  ○ filter cells with "Quick Drainage Cell" design for accelerated emptying of the cells and particularly sharp separation of the various filtrate streams
  ○ BOKELA FrameTrak – an innovative method of filter cloth fixation
    BOKELA FrameTrak makes it possible to quickly and easily fix and replace the filter cloth for each cell separately. BOKELA FrameTrak drastically reduces the risk of injury to operating personnel as well as the risk of cloth damage.

Plant design & functionality

High throughput & low residual moisture

The hydraulically optimized BoVac Pan filter design ensures minimal pressure loss. Thus, a maximum pressure difference is available for filtration and cake dewatering. BoVac Pan filters are therefore characterized by high solids throughputs and low residual moisture in the filter.
cake.

**Benefits:**

- low investment costs through the use of smaller or fewer filter units
- better product quality due to good washing and low residual moisture
- low energy consumption and low operating costs through efficient use of resources such as electricity, vacuum and wash liquid
- lower energy requirement with regard to subsequent thermal treatment.

**Clean filter cakes**

The homogeneous wash water distribution and the sharp separation of the filtrate streams allow intensive washing of the filter cake with minimal use of wash liquid.

**Benefits:**

- clean filter cakes due to up to 3-stage countercurrent washing
- 25% less washing fluid requirement
- optional steaming zone with steam cabin allows further increase in washing efficiency and reduction of residual moisture
Clean filter cakes

**Automatic filter operation**

BoVac Pan filters work in automatic mode. Speed control via cake thickness measurement ensures safe operation and optimum operating results.

**Easy maintenance & high availability**

BoVac Pan filters are reliable in operation, are characterized by a high availability of over 95% and are easy to maintain. Operating and maintenance costs are correspondingly low. The main reasons for this are:

- long filter cloth lifetime and 2-3 times longer intervals between cleaning cycles due to online heel removal
- maintenance-free cake washing system without nozzles
- maintenance-friendly design e.g. by:
  - swivelling filtrate pipes that allow easy and quick access to the control head
  - easy removal of the discharge screw as a complete unit
BOKELA FrameTrak

Technical data

<table>
<thead>
<tr>
<th>Filter Type [-]</th>
<th>XXS16</th>
<th>XS25</th>
<th>S34</th>
<th>M43</th>
<th>L54</th>
<th>XL68</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pan Diameter [m]</td>
<td>4.8</td>
<td>5.8</td>
<td>6.7</td>
<td>7.7</td>
<td>8.6</td>
<td>9.6</td>
</tr>
<tr>
<td>Filter Area [m²]</td>
<td>16</td>
<td>25</td>
<td>34</td>
<td>43</td>
<td>54</td>
<td>68</td>
</tr>
<tr>
<td>No. of filter cells [-]</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
</tbody>
</table>