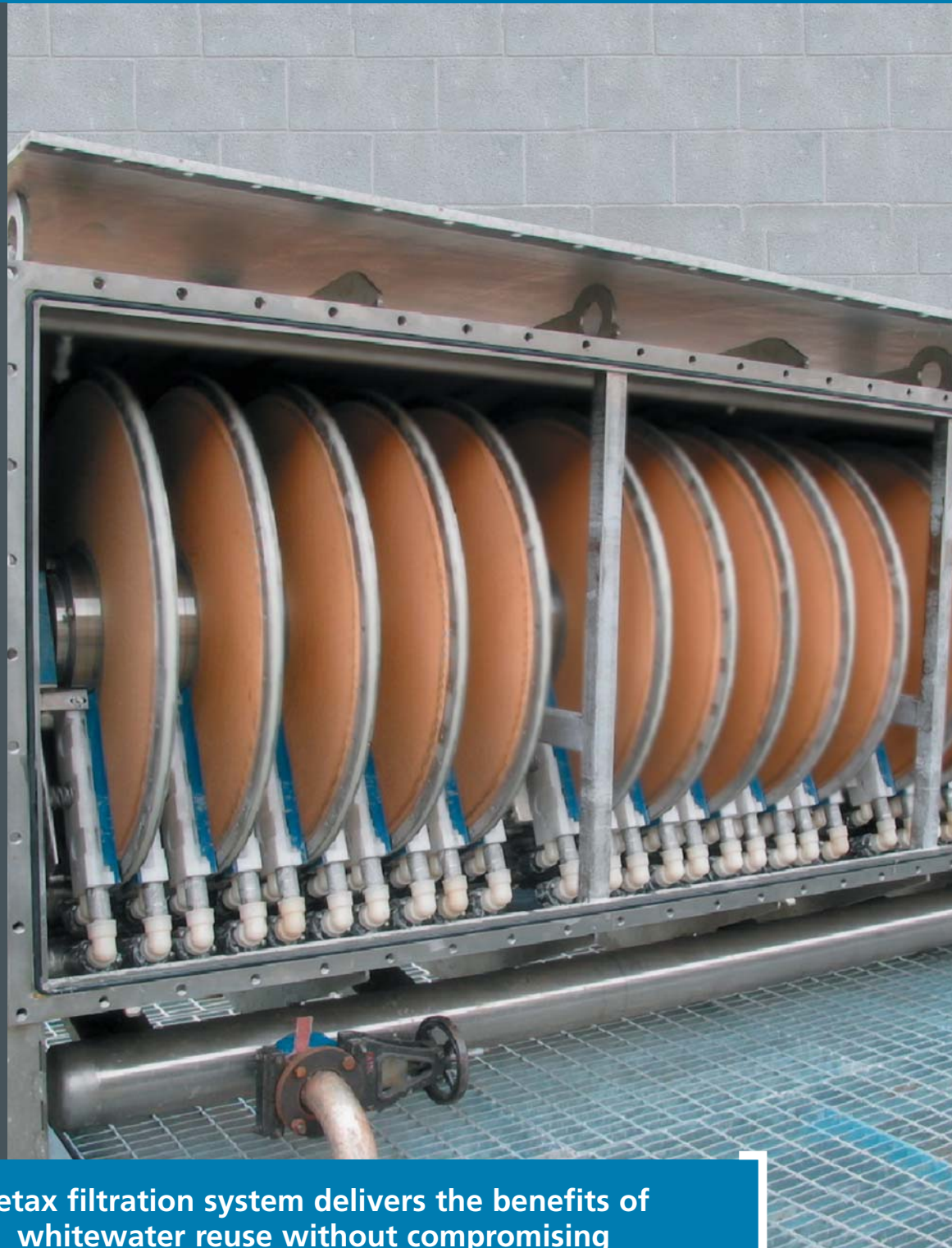


Petax™ Fine Filtration Technology

A new level of performance in whitewater reuse

KADANT
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Reduce fresh water
consumption and
save energy



Petax filtration system delivers the benefits of whitewater reuse without compromising paper machine performance.

Exceptional Water Quality

Benefits of the Petax filtration system

Reduce mill operating costs

- ▶ Water and treatment costs
- ▶ Heat savings
- ▶ Fiber savings
- ▶ Reduce municipal treatment plant charges (less fiber and water sent to clarifier)
- ▶ Chemical savings

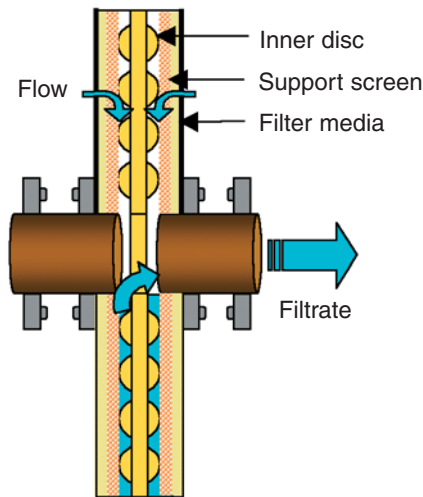
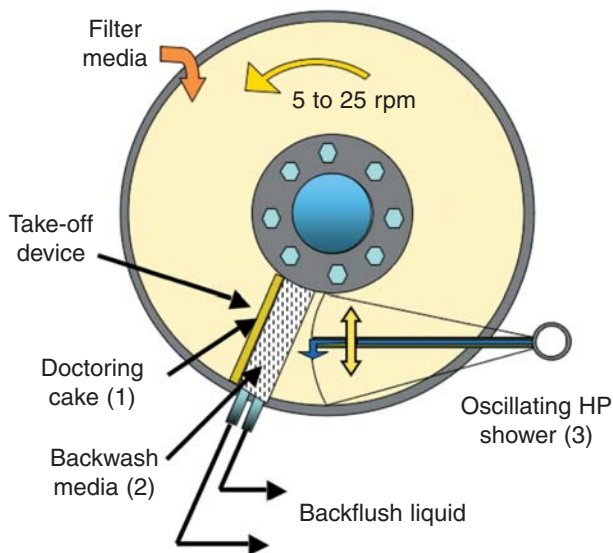
Improve machine operations

- ▶ Eliminate plugged nozzles and improve machine cleanliness
- ▶ Less fiber in water circuits makes better paper

Special features of the Petax filtration system

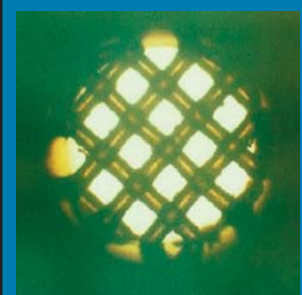
- ▶ Patented filtering technology
- ▶ Three-stage media cleaning system
- ▶ Unique engineered filter medium
- ▶ Filtrate quality less than 20 ppm
- ▶ Particle removal less than 20 micron in size
- ▶ No chemicals or flocculants required

How does the Petax filtration system work?



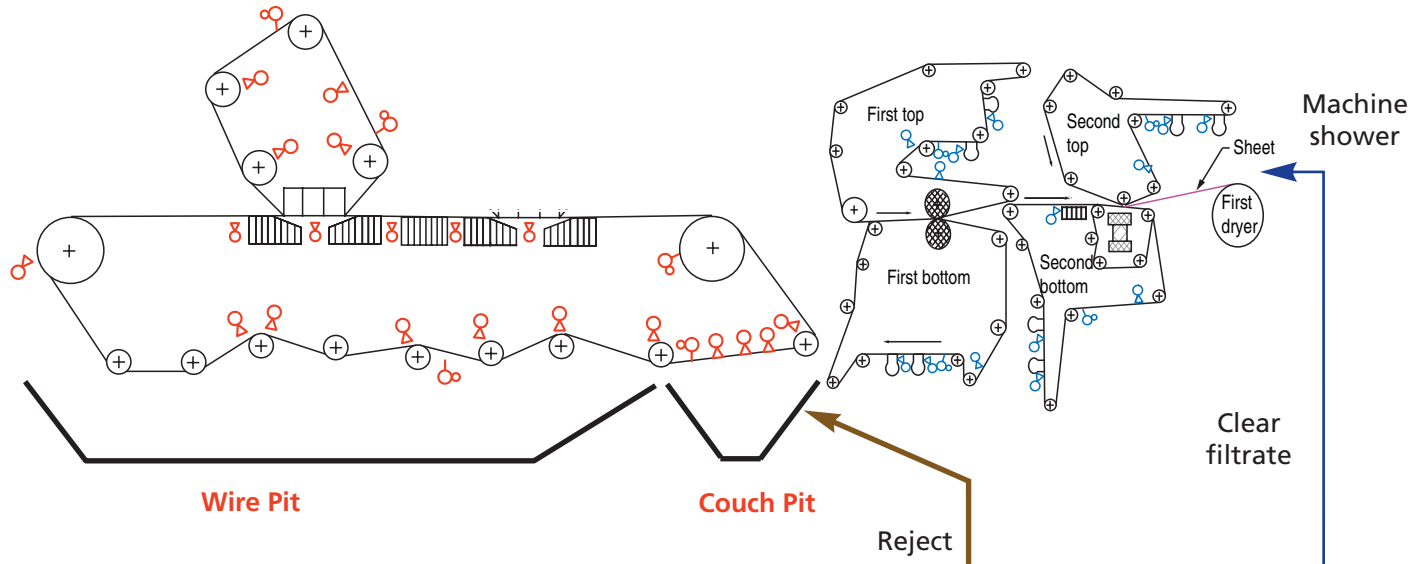
- ▶ Vessel is full of process water and operates at low pressure less than 2.5 psig (0.1 to 0.3 bar)
- ▶ Disks are completely submerged and slowly rotate
- ▶ Rotation speed increases to maintain low vessel pressure controlled by transducer monitoring pressure
- ▶ Clean filtrate passes through the media to central hollow shaft
- ▶ Disks are continuously cleaned in three stages:
 1. Filter cake is doctored off and pumped away (if necessary)
 2. Clean filtrate is pulled back through media removing debris
 3. Oscillating high pressure, submerged shower cleans the media

Unique engineered filter material (viewed through a 1 mm nozzle)



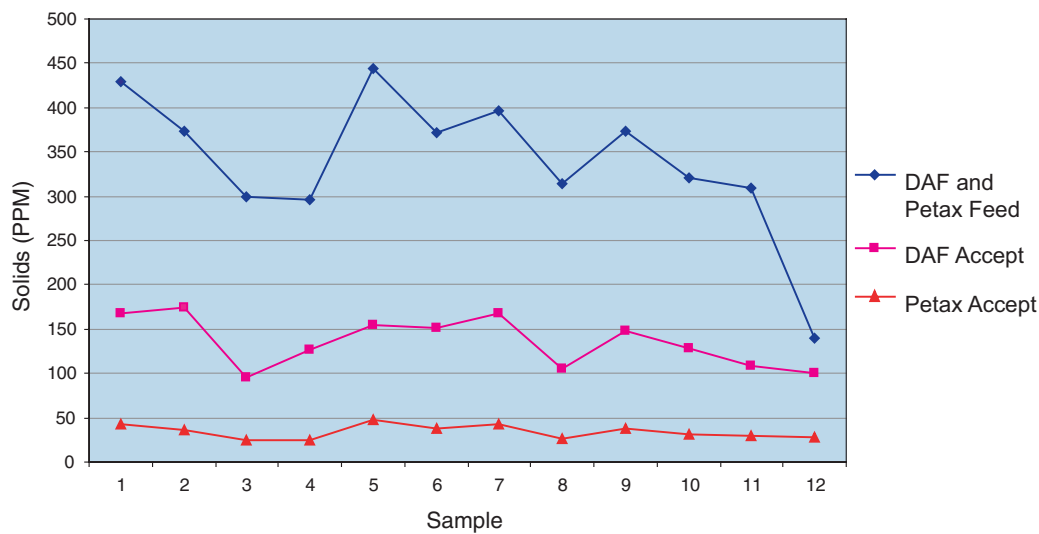
Application and results

Installation example



Results using Petax filtration system

Petax vs. DAF @ 100% OCC recycled corrugating medium mill

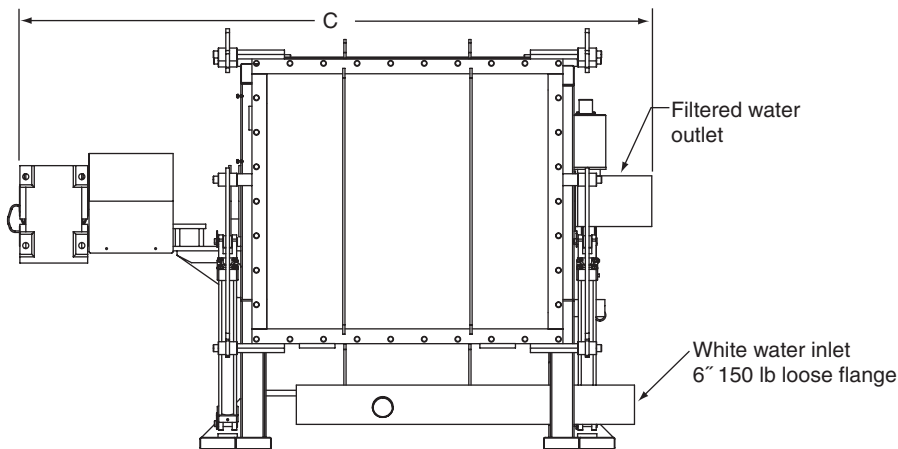
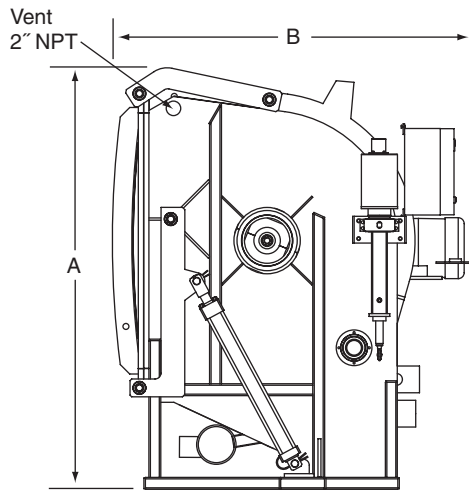


Applications

- ▶ Clear leg saveall whitewater
- ▶ DAF and Clarifier Filtrate
- ▶ Reuse whitewater on wet-end and press section showers
- ▶ Effluent solids reduction
- ▶ Cooling tower water

Petax Filtration System

Petax filtration system specifications



| Model Ref. Drawing | A Height | B Depth | C Width | Dry Wt. | Oper. Wt. | Max. Dim. |
|--------------------|-------------------|-------------------|--------------------|-----------|------------|--------------|
| 5-Disk F10425 | 87.48" 2222 mm | 83.82" 2129 mm | 108.61" 2759 mm | 3,451 lbs | 6,743 lbs | 110"x84"x90" |
| 10-Disk F10430 | 87.48" 2222 mm | 83.82" 2129 mm | 152.69" 3878 mm | 5,510 lbs | 11,692 lbs | 155"x89"x90" |
| 15-Disk F10434 | 87.48" 2222 mm | 83.82" 2129 mm | 200.60" 5095 mm | 7,445 lbs | 16,517 lbs | 203"x91"x90" |
| 20-Disk F10438 | 87.48" 2222 mm | 83.82" 2129 mm | 242.25" 6153 mm | 9,311 lbs | 21,272 lbs | 244"x95"x90" |

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