Petax™ Fine Filtration Technology
A new level of performance in whitewater reuse

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

Reduce fresh water consumption and save energy
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)
- Petax
- 100 mesh
- .010 wedge wire
Application and results

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 Specifications

**Vent**
- 2” NPT

*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”

**Diagram:**
- **A**
- **B**
- **C**

*Filtered water outlet*
*White water inlet 6” 150 lb loose flange*

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