KĀV

K FACTOR FILTER
FILTRATION SOLUTIONS

K-FACTOR ADVANCED VACUUM (KĀV)

REVOLUTIONARY TECHNOLOGY THAT DELIVERS COST-EFFECTIVE, DEPENDABLE FILTRATION AT ITS BEST.

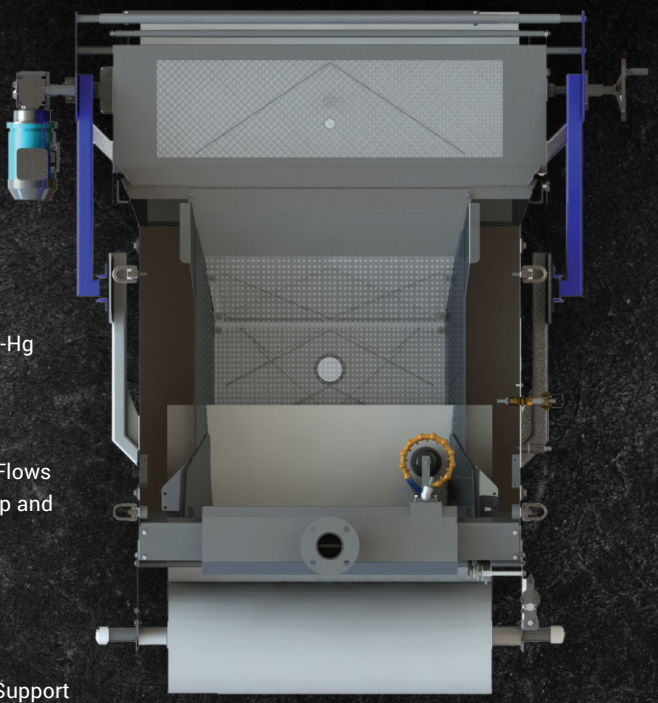
The K-Factor KĀV's simple design allows for uninterrupted flow and requires limited maintenance. Ideal for filtering paint sludge, phosphates, and other dense (heavy and fine) solids applications.

Tel: 289-362-6108
Toll Free: 1-855-593-730
Website: www.kfactorfilter.com

CERTIFIED ISO 9001:2015

STANDARD FEATURES

- 304 Stainless Steel Construction
- Allen Bradley PLC/HMI Unique Smart Control Protocal
- Primary Perforated Vacuum Bath
- Secondary Vacuum Drying Shelf
- Conveyor-free Design
- Customized Media Guide
- Vacuum Tank with Removable Cover
- Customized EZ-Load Rewinder Core
- Media Advance Float Trigger
- Liquid Ring Vacuum Pump delivering 15 in. -Hg and capable of up to 25 in.-Hg
- Tank Seal Liquid
- Media Out Sensor and Alarm
- Overflow Protection Sensor
- Horizontal Pump skid to match Inlet Flows
- Smart VFD Controls for Vacuum Pump and Horizontal Pump
- Adjustable Debris Scraper
- Sight Glass Level Portal
- Stack Light with Audible Alarm
- Customized Power Feed
- Best-in -class Technical and Service Support



HOW IT WORKS

1) The liquid flow is pumped into the **K-Factor KĀV Filter** and evenly distributed by a specialized header box across preselected and appropriate media.

2) The soiled liquid is confined in the vacuum bath and is subjected to vacuum force employing the media to capture the solids.

3) The contaminated liquid is drawn through the media to capture the solids. Solids build into a cake on the media capturing more solids. The vacuum continues to draw the liquid through the densely packed cake and media removing solids down to 1 micron.

4) As the liquid level in the vacuum bath rises, a fluid level float sensor initiates the advance cycle. During this sequence:

   - Inlet flow is interrupted. Although the inlet flow is disrupted, the vacuum tank reservoir continues flow to the customer's process.
   - Vacuum stays on until liquid level is lowered, subsequently the vacuum is released.
   - Fresh media is automatically introduced and the **KĀV** discharges spent media and solids in a completely automated process.

5) As the soiled media exits the **KĀV**, it travels across a customized vacuum drying shelf rendering the solids virtually moisture free.

6) Spent media is efficiently collected by an integrated media rewinder where the solid cake is scraped into a separate bin.

7) The specially configured rewinder is designed for easy load and unload of the spent media.

8) Throughout the process, solids-free filtered liquid is collected in an oversized vacuum tank and returned to the process for reuse by means of a dedicated pump.

The **KĀV's** intelligent control system ensures continuous liquid flow from the vacuum tank to the customer process even when inlet flow is interrupted during the advance cycle. The oversized vacuum tank ensures there is a sufficient liquid buffer to offset decreased inlet flow during the advance cycle.

K-FACTOR KĀV BENEFITS

1. SIMPLE AND ROBUST DESIGN:

a. Fraction of the complexity of the competition

b. Low maintenance

2. CONVEYORLESS DESIGN

a. No moving parts

b. No parts to fail

c. No parts to get affected by the environment

3. MOST POWERFUL VACUUM IN THE INDUSTRY

a. Liquid ring vacuum pump (up to 25 Hg) as opposed to vacuum blowers (4-6 Hg max)

b. Moisture friendly vacuum system. No need for separators and filters.

c. Vacuum accumulation tank.

d. The most reliable vacuum source in the industry

4. UNINTERRUPTED FLOW TO YOUR PROCESS. FUNCTIONS AS INLINE FILTER

5. KĀV CONTROLS:

a. Customized AB PLC control

b. Highest quality AB HMI with intuitive brows-ability

c. State of the Art VFD control for both the vacuum and liquid pumps

d. Smart control with fail safe features and adaptable auto-mode for any process

e. Error Enunciation with Andon System

f. Critical component redundancy controls

g. Statistical analyses for process control

h. State of the art sensing system

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