

AUTOMATIC BACKWASH FILTER

K-OptiFil®

Fine filtration that cleans itself — without stopping.

Solids collect on the screen. A small segment flushes for a few seconds while the rest keeps filtering. No bags, no cartridges to change on stainless mesh.

Lenzing filtration technology, tailored to your process by **K Factor** — exclusive partner in North America.

**1 µm**

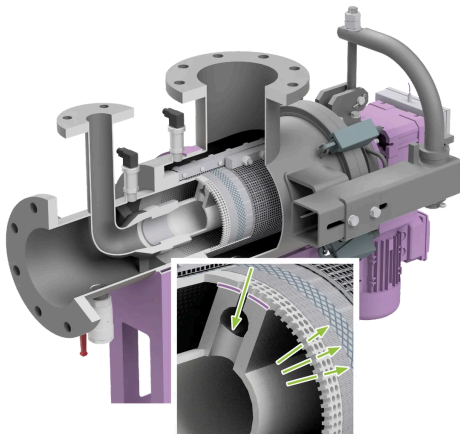
finest, with a filter cake

2,000 GPM

largest unit, rated flow

< 1%

typical reject of flow



HOW IT WORKS

- 1 Filters inside-out**
Liquid flows from inside the screen outward.
Solids stay on the inner face.
- 2 Triggers itself**
Differential pressure, a timer or a manual push starts the clean.
- 3 Flushes a small segment**
Flow reverses on a narrow band of screen. The rest keeps filtering.
- 4 Wastes almost nothing**
A patented seal between filtrate and reject keeps the flushed volume low.

WHAT IT FILTERS

Water

Process, cooling, river, sea, well, waste, formation

Oils & coolants

Oil, additives, cooling lubricants, cleaning baths

Chemicals

Acids, lyes, solvents, resins, paints

Food streams

Sugar solutions, molasses, starch

MODELS

	K-OptiFil-2000	K-OptiFil-1000	K-OptiFil-250
Rated flow	2,000 GPM up to ~3,000 at low solids	1,000 GPM	22–264 GPM
Inlet / outlet	DN 350 (14")	DN 250 (10")	DN 50–80 (2"–3")
Max. operating pressure	145 psi (10 bar)	145 psi (10 bar)	232 psi (16 bar)
Max. differential pressure	44 psi (3 bar)	58 psi (4 bar)	—
Medium temperature	14 to 248 °F (–10 to 120 °C) · higher on request		
Backwash time	~7 s	~5 s	~2 s
Reject per backwash	~13 gal (50 L)	~6.6 gal (25 L)	~1.3 gal (5 L)

Every unit is selected for the actual fluid, solids load and fineness. Finer filtration or higher solids lower the flow per unit; large flows run as parallel units. Dimensions and weights on the installation drawing.

FINENESS

- 5 µm finest woven mesh — hard or fibrous particles
- Down to 1 µm with a fine filter cake
- 3 µm depth media — viscous liquids, gel particles
- Runs as a sieve, depth or cake-building filter

MATERIALS

- Stainless 316Ti / 316L standard
- Carbon steel · 904L · seawater-resistant alloys
- Seals: EPDM, NBR (Buna), silicone, FKM (Viton), PTFE-sheathed
- Fully closed housing — no operator contact with the fluid

CONTROLS

- Allen-Bradley Micro850 PLC
- Optix HMI operator screen
- Toshiba AS2 drive for filter motor control
- Unattended operation, alarms and backwash counts

SITE UTILITIES

- Compressed air: minimum 58 psi (4 bar), about 1 Nm³/h
- Power: to your site voltage
- Reject line to drain or recovery
- Filter fabric replaced after several thousand backwashes

Try it on your fluid. A K-OptiFil demo unit is available for on-site trials. Terms on request.

Tell us the flow, the fluid and the solids.
An engineer sizes the filter.

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