

## Mechanically Cleaned Filters and Strainers

# DCF, MCF, MCS

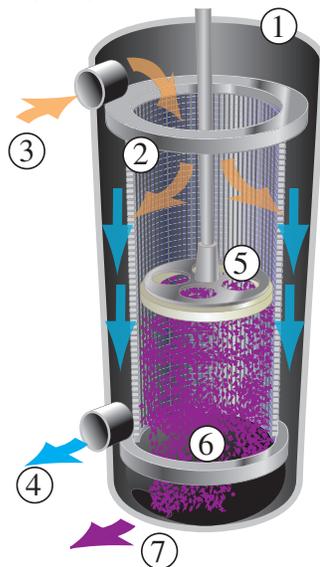
Unbeatable reliability  
with measurable ROI

### PERMANENT MEDIA WITH DISC CLEANING TECHNOLOGY

- Elimination or reduction in disposable filter bags or cartridges for reduced operator handling inventory costs and landfill waste
- Reduction in product loss, more thorough contaminant purge
- Reduction or elimination of operator intervention for safer operation
- Virtually maintenance free, near 100% uptime
- Compact design, lower capital cost to fit most installations
- Choice of pneumatic, motor drive or magnetic actuation
- Stainless steel screens from 15 micron slots to 1/4" perforations to handle a wide range of filtration needs
- Short payback period and increased ROI



Eaton's unique spring loaded cleaning disc (shown here in an MCS-500) ensures intimate contact with the filtration screen to thoroughly and uniformly clean the media.



### TYPICAL APPLICATIONS

- paper coatings • pcc/gcc slurries • phenolic resins • detergents
- petroleum based greases • ethanol processing • hot fry oils
- cip fluids (sodium hydroxide) • starch • lime slurries • adhesives
- curtain coaters • nutraceuticals • machining coolants • paint
- ink • chocolate • edible oils • tallow

#### Collect, concentrate, expel

Eaton's mechanically cleaned filters are based on a simple concept: A cylindrical stainless steel housing (1) contains a filter screen (2); unfiltered liquids enter the inlet (3); solids are deposited on the interior surface of the filtration screen; and filtered fluid exits at the outlet (4).

When the media requires cleaning (based on time, differential pressure, or manual selection), a spring loaded cleaning disc travels down and up, wiping the media clean of concentrated solids in both strokes. Once the debris is removed from the slotted screen, the cleaning disc directs the contaminant to the bottom of the housing (6) and out of the flow path (7). This cleaning process happens while the filter remains in service, thereby maintaining process efficiency and dramatically reducing loss of valuable product.

#### Choice of actuation method

**Pneumatic** -The cleaning disc can be actuated by air pressure alone (60 to 80 psi @ 5 cfm). DCF-800 and DCF-1600 models feature single or twin air cylinders. The smaller DCF-400 is equipped with a single cylinder.

**Pneumatic with magnetic coupling** - MCS and MCF-Series utilize rare earth magnets to eliminate the need for lid thru-holes and their associated seals. This cost-effective method reduces maintenance and lengthens operating life.

**Motorized** -The DCF-2000 Series uses a motor to drive the cleaning disc through higher viscosity fluids and other challenging conditions.

# EATON

Powering Business Worldwide

# Mechanically Cleaned Filters

## DCF-Series

When processing water and water-like liquids where a low initial investment is demanded, this series delivers tremendous benefits.



DCF-1600



DCF-800



DCF-1600 with twin actuation



DCF-2000

## DCF-2000 Series

Designed specifically for the needs of the pulp and paper industry, the DCF-2000 features a rugged motorized cleaning action, which can handle the continuous processing requirements of protecting critical wet-end coating operations.

## High Flow MCS Strainer

Engineered to conserve valuable process water while protecting costly equipment from debris, the MCS features fast-cleaning magnetically coupled actuation. This high flow strainer uses a magnetically coupled cleaning disc, which eliminates the need for cover thru-holes and their associated seals.



MCS-500

MCF-824

## MCF 824-Series

The MCF features a magnetically coupled cleaning disc, which eliminates the need for lid thru-holes and their associated seals. The MCF was designed specifically for the most challenging process liquids and conditions, and features the fastest cleaning action of the mechanically cleaned family.



	DCF-400	DCF-800	DCF-1600	DCF-2000	MCF-824	MCS-500	MCS-1500
Total Volumetric Capacity gal (liters)	0.94 (3.5)	3.9 (14.8)	11 (41.6)	11 (41.6)	11 (41.6)	18.7 (70.8)	49.2 (186.2)
Flow Rate Range at 100µ gpm (m³/hr)	2–20 (0.45–4.5)	20–60 (4.5–13.6)	60–200 (13.6–45.4)	30–200 (6.8–45.4)	30–200 (6.8–45.4)	to 500 (to 112.5)	to 1500 (to 337.5)

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