



## Eaton Filters Curb Water Consumption, Feed Sustainability

**Location:**  
California, USA

**Segment:**  
Food and Beverage

**Problem:**  
Reduce water consumption in the hide-on wash process

**Solution:**  
Eaton's DCF-1600  
Mechanically Cleaned Filter

**Results:**  
Discharged waste water has been effectively minimized with the reuse of recycled water.

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### Background

The state of California was having a beef with a major meat packing company regarding the amount of water it was using.

Perhaps more so than in any other area of the U.S., water is the lifeblood for social and economic wellbeing in this essentially arid state.

Because of that, numerous legislative initiatives have been implemented over the years to better conserve water, covering everything from the installation of more efficient sprinklers, the planting of draught-tolerant landscaping, to the upgrading of some 10 million public and private toilets.

### Challenge

Flushed with the need to do its part to help curb water usage, the meat packing company sought recommendations from Eaton's filtration business on how to more efficiently reuse and recycle water at one of its facilities in central California.

Engineers at the company and Eaton representatives eventually identified one area of the

processing – known as a hide-on wash station – where water usage was especially high. Recycling the rinse water, they concluded, from the hide-on stations would significantly reduce consumption.

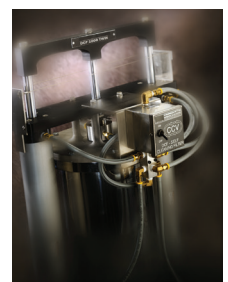
However, recycling the rinse water required an especially robust filtration system due to the extremely harsh operating conditions that exist at a hide-on station, where filters had to deal with high quantities of dirt, hair, fats and other impurities. High flow rates further complicated the formidable task.

### Solution

The puzzle was soon solved with the installation of three Eaton DCF-1600 filters with twin pneumatic actuators.

"Eaton's filtration team is regularly requested to make recommendations based upon actual site visits to view firsthand the conditions of the processes," states Richard Barreto, strategic accounts manager of Eaton's Filtration Division. "Based upon what we

witness and given the breadth of the Eaton's filtration product line, we can usually determine which product will operate successfully in even the most severe environments."



DCF-1600 twin actuator model



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Ideal for a variety of food applications, Eaton DCF-1600 filters are designed for the rigors of processing highly viscous, abrasive, sticky or otherwise hard to process substances. The filters, which operate at low differential pressure, easily accommodate a wide range of flow and retention requirements.

Additional features include:

- Elimination or reduction of disposable filter bags and cartridges for reduced operator handling, inventory costs and landfill waste.
- Reduction in product loss and more thorough containment purge in a highly concentrated waste stream.
- Reduction or elimination of operator intervention for safer operations.
- Virtually maintenance free operations with nearly 100 percent uptime.

- Compact design and lower capital cost to fit most installations.
- Stainless steel screens ranging from 15-micron slots to ¼-inch perforations to handle a wide range of filtration needs.

The dual actuators on the DCF-1600 filters isolate the actuation mechanism from the filtrate with a bridged system resulting in a long operating life in nearly any condition.

**Result**

“Eaton’s filtration equipment is known for continuous, worry-free operations from the moment it is installed,” says Barreto, “and savings from areas such as water conservation are a normal part of our value proposition.”

Because of the conservation, the company should also be safe if future restrictions develop for incoming water, which have occurred in California in the past, due to ongoing water shortages. Meanwhile, discharged waste water has been effectively minimized with the reuse of recycled water.

Visitors from the company’s sister facilities have observed the DCF-1600 filters operating in California and have been impressed enough to investigate ordering their own installations.

“Water recycling and re-use is a huge challenge in the food processing industry and one that

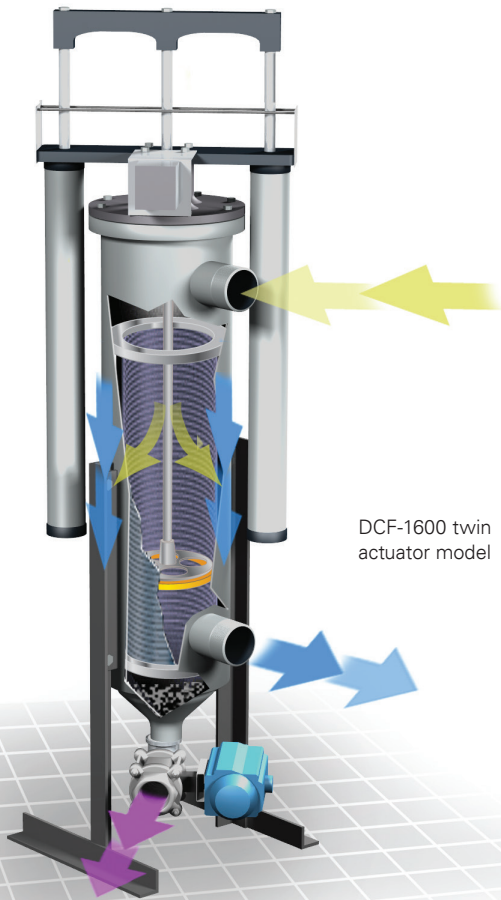


Our unique circular cleaning disc design (MCF design shown) ensures intimate contact with the screen to thoroughly and uniformly clean the media

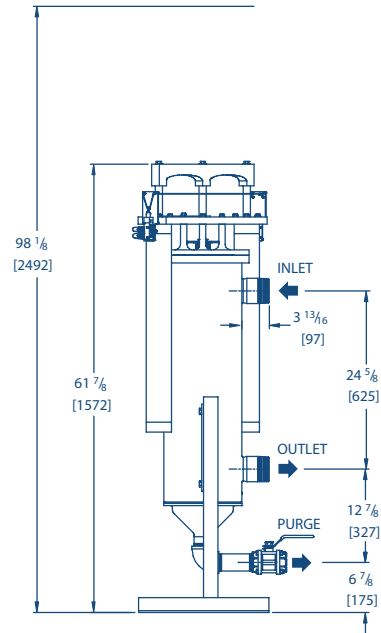
is ongoing,” added Barreto. “With the right filtration systems in place, there are many areas where water can be filtered, including incoming water from wells, as well as water used in wash stations, cooling towers, storage tank cleaning and countless other applications.”

Less disposal of waste water also brings about important benefits to the environment and helps companies reach their sustainability goals, he notes.

Due to the flood of benefits still occurring today, accolades continue to pour in from all interested parties on the new beefy filters from Eaton.



DCF-1600 twin actuator model



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