



German Winery Toasting New Eaton Filters

Location:

Germany

Problem:

Improve the efficiency of the filtration process without sacrificing quality or taste.

Solution:

Eaton's BECOPAD® mineral free depth filtration media.

Results:

The winery increased the filtration volume from 23,775 to 52,834 gallons (90,000 to 200,000 liters) with 25 filter sheets.

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"The winery increased its filtration capacity more than 200% while achieving better clarification and retention of flavor and aroma of the wines."

Background

There's much more to making wine than just pressing or mashing grapes.

Filtration is an important part of the process that ensures wine quality and microbiological stability. A combination of different filter media helps achieve these results.

The German winery Kallfelz traditionally used a special combination of filters in their production. To supply the bottling lines, the wines were sent through conventional depth filter sheets followed by 0.6 micron prefilter cartridges and 0.65 micron membrane filter cartridges.

However, after filtering 23,775 gallons (90,000 liters) with twenty-five 16" x 16" (40 x 40 cm) filter sheets, the sheets clogged. A new set of replacement filter sheets were needed to secure filtration capacity of the downstream filter cartridge combination as well as the microbiological security of the entire bottling process.

Challenge

The winery's challenge was to increase filtration capacity while maintaining constant microbiological retention.

There were a few options to increase the filtration capacity. One possibility was to use filter sheets with coarser pore size. However, the risk of microbiological infection increases during the bottling process, which could result in the loss of product quality or even a product recall. Another option was to add an additional filtration step during the bottling process to reduce filter clogging substances, but this way was neither cost effective nor acceptable from the quality point of view.

After eliminating those options, the cellar master at the winery turned to Eaton for cost effective filtration that would improve the efficiency of the filtration process without sacrificing quality or taste.



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Solution

The solution was Eaton's BECOPAD® filter media, an innovative depth filter media composed solely out of pure cellulose. Unlike conventional depth filter sheets, BECOPAD filter sheets are mineral free. The new structure and composition improves the filtration capacity by constantly maintaining high microbiological retention.

The Kallfelz winery ultimately selected the BECOPAD 220 media for germ-reducing filtration. The BECOPAD filters reduced the rinsing volume by 50% and zero drip loss provided an additional benefit. Because the BECOPAD filters are 100% compostable, the winery simply disposes of them into the vineyards.

To further optimize the process, wine enzymes from the Eaton's Begerow® Product Line degrade filter clogging substances like pectins and β -glucans. This results in a better clarification and retention of flavor and aroma of the wines.

Additional benefits:

- No product loss with innovative drip-free filtration
- Increased consumer safety with unsurpassed microbiological retention rate
- Environmentally friendly
 - Reduced rinsing volume (50% less water consumption during neutral rinsing)
 - Pure cellulose sourced from certified and sustainable forest management (natural and 100% compostable)

Result

By using Eaton's BECOPAD 220 filters in combination with 0.6 micron pre-filter cartridges and 0.65 micron membrane filter cartridges the winery increased the filtration volume from 23,775 to 52,834 gallons (90,000 to 200,000 liters) with twenty-five 16" x 16" (40 x 40 cm) filter sheets. The efficiency of BECOPAD filters convinced the customer of its exceptional qualities.

Those benefiting the most, of course, are the many Kallfelz customers enjoying an abundant supply of quality wine that consistently satisfies even the most sophisticated of palates.



BECOPAD Depth Filter Sheet



BECO Integra Plate Enclosed Plate and Frame Filter

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