# WellPro.Z* reduces an aluminum can manufacturer's costs by US $30,000

## CASE STUDY

## | Challenge

A large aluminum beverage can manufacturer needed to filter aluminum particulate from a circulating lubricant. The fluid provides lubrication and cooling to a series of dies and punches, which progressively produce an aluminum can from an initial aluminum disc.

The customer had been using a competitive filtration product – a 5-micron resin bonded filter. This product removed the needed particulate matter from the waste stream, but the manufacturer was looking for ways to reduce their production costs.

## | Solution

The customer approached Veolia for an alternative solution. Veolia suggested a trial to compare the Veolia WellPro.Z depth filter product with the competitive product. The WellPro.Z uses Z.Plex* Technology (Figure 1).

Veolia and the customer agreed that the trial would be considered successful and they would change to the WellPro.Z depth filter product if the aluminum content of the fluid was equal to or less than what the competition produced and the lifetime of the filters was significantly longer than the competition.

**Trial Conditions**

The competitive product was a 5-micron resin bonded cartridge with rigid construction well suited for high-pressure drop applications at elevated temperatures. The fluid was >100 cps at temperatures >120ºF (49ºC). The filters would be changed after pressure drop reached 25 psi.

The fluid contains soluble cutting oils, which the customer thought might be adsorbed by the polypropylene structure of Veolia depth filters.

The oils are an essential part of the fluid, so adsorption is undesirable and also could lead to higher pressure drops.

## | Results

The WellPro.Z 20 micron depth filter performed quite very well in the trial. The results showed:

- WellPro.Z provided over three times the life of the current product.
- The aluminum content of the fluid was equal to the filtrate produced by the competitor's
- 5-micron cartridge
- The competitive product required 91 changes per year per production line. The WellPro.Z required only 30 changes per year. By changing to the WellPro.Z product, the customer's costs were reduced by US$30,000 annually per production line.

The customer converted to the Veolia product, and several other plants are in the process of changing to the WellPro.Z product.

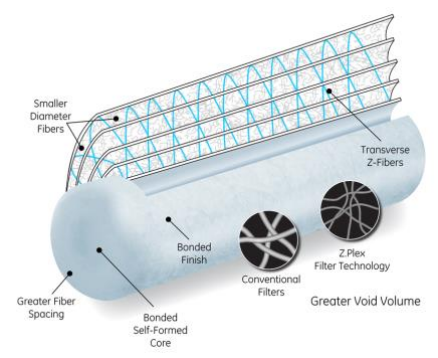


Figure 1: Z.Plex Technology used in the Veolia WellPro.Z Depth Filter

**Veolia Water Technologies**
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