

V-Fold Folding Belt Filter Press Case Study No. 1a - Winery Wastewater (via settling pits)

THE PROCESS

Wastewater from a winery is screened, neutralized with lime, dosed with polyelectrolyte and then particulate solid is removed in settling pits. Overflow from the pits is pumped to wood-lot or vines.

In the past, settled solids were occasionally pumped from the bottom of the pits and tankered to drying beds. Odours from the pits and drying beds became offensive to neighbours, and there was a risk of accidental discharge to an adjacent creek during heavy rain.

Liquid waste disposal was very expensive so a **V-FOLD™** model SS600 filter was installed to convert settled sludge from liquid slurry into a filter cake. Slurry is now pumped from the pits into a 7,000 litre “hold-up tank”. It is agitated and fed to the **V-FOLD™** filter with additional polyelectrolyte to help filtration. Filter cake is removed by front-end-loader and composted.

PERFORMANCE¹

Slurry is highly variable in solid concentration and filtration characteristics and is even affected by seasonal activities in the winery. The unique **V-FOLD™** design allows filter cake to be consistently produced without the need for frequent Operator intervention.

Performance is variable depending on prevailing slurry characteristics, but typical slurry feedrate is 600 – 1100 litres/hour (containing about 3 - 7% dry solids) and typical filter cake contains more than 20% dry solids.

BENEFITS

- The **V-FOLD™** makes a filter cake suitable for cheap disposal – a great saving compared with liquid slurry removal.
- Filter cake produces far less odour than drying beds.
- The **V-FOLD™** is able to operate continuously without frequent Operator intervention usually required with variable feeds on other filters.



General arrangement of
V-FOLD™ model SS600



Slurry entering feed cavity



Filter cake

¹ NOTE: As with all filters, performance depends on prevailing conditions and data noted here is specific for this particular factory at the time of testing.