

## Outotec launches a new filter for the alumina industry - Outotec Larox® VPF

Outotec Larox VPF, Vertical Pressure Filter, was originally developed by Australian Process Technology Pty Ltd, a filters supplier for the alumina refining industry. VPF technology is used for pregnant liquor polishing in the alumina process.

"Outotec is a major provider of alumina refinery plants as well as the leading provider of filtration solutions for the minerals and metals processing industries. VPF technology complements our portfolio of filtration and thickening technologies and our capability to offer comprehensive solutions and services to the alumina industry," comments Outotec's CEO Pertti Korhonen.

VPF technology has a solid reference base, with the first installations occurring in Australia back in 1979. There are more than 80 operating VPF units, most of them in Australian alumina refineries. VPF polishing filters are specially designed for superior removal of suspended solids impurities before hydrate precipitation.

With Outotec Larox VPF the pregnant liquor polishing (also known as security filtration) produces both a high quality product and a high equipment throughput. With VPF the impurities of pregnant liquor are polished from 100 – 200 mg/l (ppm) down to less than 10 mg/l before aluminum tri-hydrate precipitation. Low impurity in pregnant liquor is required for further production of metal grade alumina.

The VPF filtration area is 400 m<sup>2</sup> with a maximum capacity of 600 m<sup>3</sup>/h and the area can be expanded to 440 m<sup>2</sup>. Outotec Larox VPF ensures high filtration rate per filtration building floor area. The filtration cycle is up to 18 hours, and therefore the filter technical time, including cake sluice and cloth cleaning is minimized. Automatic (PLC) control of the cloth cleaning and cake discharge steps at the end of each filtration

cycle ensures maximum filtration time in subsequent cycles, which leads to low impurities in filtrate and reduces manpower requirements by eliminating the need for frequent supervision.



### Outotec Larox VPF technology benefits:

- Safe operation and maintenance
- High quality filtrate
- Low operating costs
- Low energy costs
- Minimum maintenance costs
- Fully automatic operation

To find out more about VPF please contact your nearest Outotec office or you are warmly welcome to visit us at:

18th Bauxite & Alumina, in Miami, Florida,  
March 6-8, 2012

TMS, in Orlando, Florida, March 11-15, 2012,  
booth #309

AQW, in Perth, Australia, March 18-22, 2012, booth #9

Outotec develops and provides technology solutions for the sustainable use of Earth's natural resources.

As the global leader in minerals and metals processing technology, Outotec has developed over decades several breakthrough technologies. The company also offers innovative solutions for the chemical industry, industrial water treatment and the utilization of alternative energy sources. Outotec shares are listed on the NASDAQ OMX Helsinki.

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