



## Outotec Larox<sup>®</sup> DM electrolyte filters for SX-EW

### Increasing cathode quality and production capacities

Outotec is a leading solvent extraction and electro-winning technology supplier with an extensive track record in building complete SX-EW plants. Larox which was recently acquired by Outotec is well known in the mining and metallurgical industry for continuously developing highly efficient and reliable filtration process equipment.

The combined Outotec and Larox NOW offers Outotec Larox DM electrolyte filters which are specially designed for excellent removal of entrained organic and suspended solids from electrolyte, utilizing the well proven dual media concept. The Outotec Larox DM electrolyte filter package can be delivered as an integral part of Outotec's SX-EW technology delivery or stand alone solution to engineering companies and end users.

The Outotec Larox DM electrolyte filter is suitably designed to be backwashed using either lean electrolyte or water.

### Benefits

- Outotec's SX-EW technology
- High quality filtration
- Low operating costs
- Fully automatic operation
- High capacity and expandability
- Minimal maintenance cost

# Outotec

# Main customer benefits of the Outotec Larox DM electrolyte filter

## Outotec's SX-EW technology

Outotec is the refining industry's leading solvent extraction and electrowinning technology supplier with an extensive track record in delivery of highly efficient and reliable SX-EW plants. Customers installing Outotec Larox DM electrolyte filters can NOW have access to Outotec's SX-EW know-how, technical support, start up and training services for the electrolyte filtration equipment.

## High quality filtration

Adsorption filtration utilizing the well proven dual media concept reduces entrained organic and particulate concentrations to a level of a few parts per million. Production capacities increase, as does the quality of cathode products.

Filters use two separate layers of media for coalescing and for filtration. The upper media layer provides for organic removal while the second layer filters particulates in the electrolyte.

## Low operating costs

Low electrical energy consumption is a cost-saving benefit, as the adsorption filtration technique uses low pumping pressures compared to alternate solutions utilizing flotation.

## Fully automatic operation

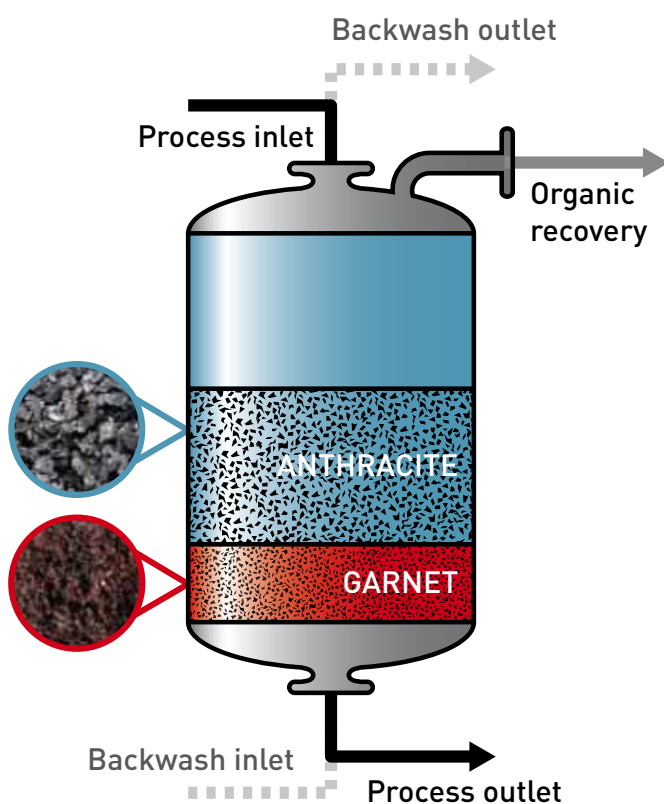
Automatic (PLC) control of the electrolyte filtration and media cleaning steps at the end of each filtration cycle ensures maximum filtration time in subsequent cycles. Outotec Larox DM electrolyte filters are delivered as an automated operational filtration system which can be fully integrated to any SX-EW solution package.

## High capacity and expandability

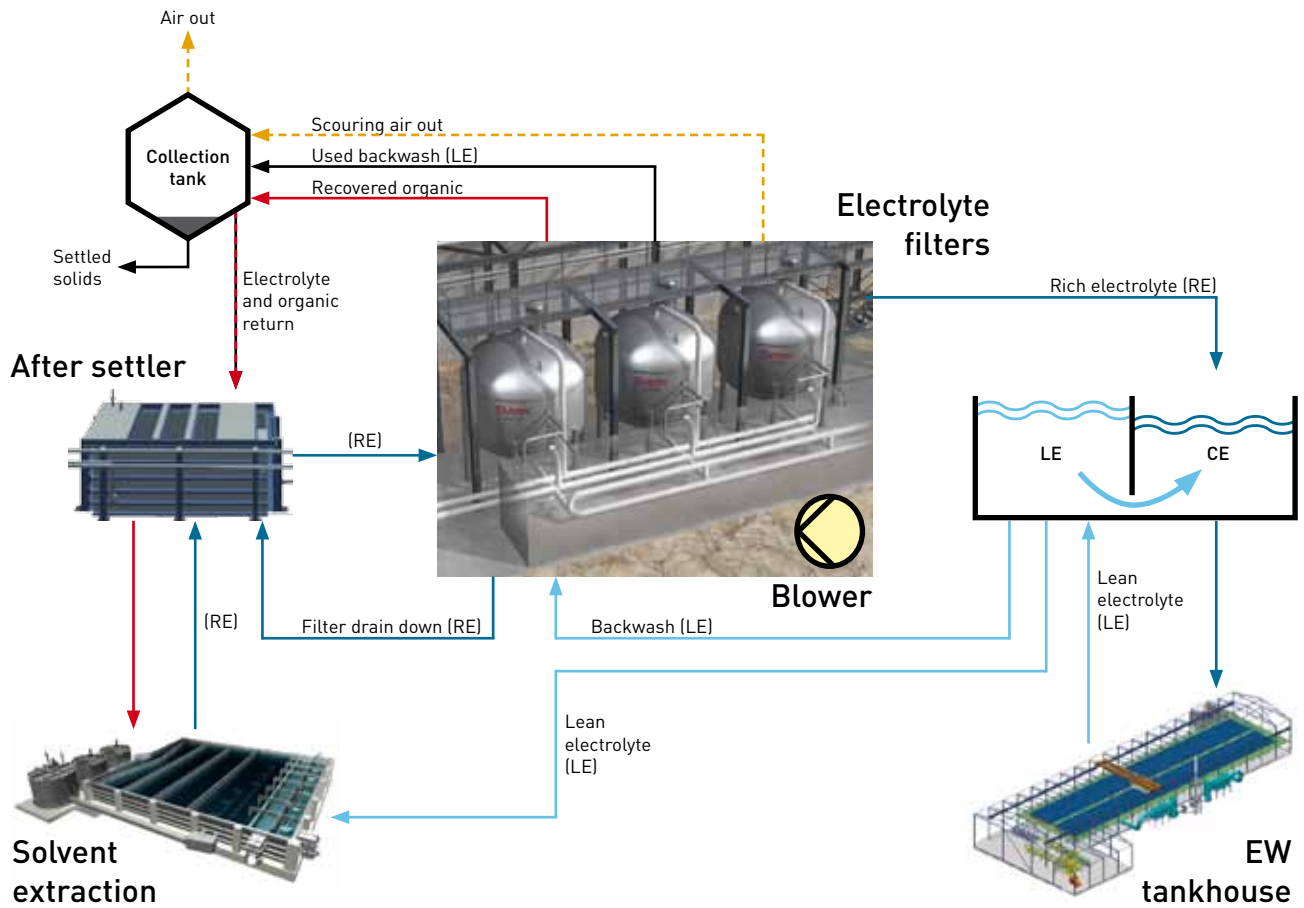
Using lean electrolyte for backwashing and returning it to the After Settler after holding in a backwash collection tank (see flow schematic) means Outotec Larox DM electrolyte filters do not reduce the capacity of SX production. Filter flow rates as high as 275 m<sup>3</sup>/hr can be consistently handled by a single unit (5.2 m diameter), greatly simplifying the process. Typically, multiple units are installed in parallel for flexibility and expandability to economically accommodate growing plant capacity requirements.

## Minimal maintenance cost

With no moving parts, the media cleaning system ensures maximum media lifetimes. Typically the anthracite media is replaced every 24 months when combined with Outotec's proven SX process technology. Garnet lifetime is considerably longer.



# Outotec SX-EW flow schematic with DM electrolyte filters



Outotec Larox DM electrolyte filters are delivered in compliance with the relevant design codes as an automated operational filtration package containing:

- Filter vessels
- Air and liquid internal distributors
- Filter media
- Piping and valve skid
- Blower skid
- Automation & instrumentation
- Maintenance platform (optional)



*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. [www.outotec.com](http://www.outotec.com)*

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