



CONTINUOUS ACID RECOVERY SYSTEM

Continuous process quality/control

Reduction of wastewater volume by 40% - 50%

Return on investment in approximately 6 months

Reduced energy & chemical costs



TYPICAL APPLICATIONS

Pickling or etching
of metal surfaces
Aluminium treatment
such as anodizing

OVIVO[®]pur[™]



HOW DOES THE OVIVO® PUR™ TECHNOLOGY WORK?

OVIVO uses a special anion exchange resin to separate and control the concentration of metal salts in the solution. While treating the anodizing bath, free acids are held back by the resin, while metal salts are allowed to pass through the ion exchanger. During regeneration of the media with water, the acidic electrolytes will be released and returned to the anodizing bath while the metal salts are wasted. This process is repeated continuously until the plant is turned off. The OVIVO Pur has an excellent payback. Contact OVIVO, so that we can calculate the payback based on your operational data.

KEY FEATURES:

- **Wastewater reduction through intelligent water recirculation**
40-50% less wastewater compared to conventional equipment or competitor's plants
- **Ease of maintenance**
Remote network access (optional)
- **Expandability**
OVIVO's design provides for a 100% capacity expansion. The OVIVO Pur 50 model can be expanded to an OVIVO Pur 100 equipment capacity and similarly, an OVIVO Pur 250 equipment can be expanded to an OVIVO Pur 500 model capacity. Expansion requires no additional capital investment.
- **Spray and dust proof design**
- **Simple to operate touchscreen**



WHY USE OUR OVIVO® PUR™ SYSTEM?

Delivering consistent quality

Constant Current-Voltage conditions allow for homogeneous aluminum oxide layers.

Lower power consumption during the anodic treatment

From capacities of 100 m²/h onwards, return on investment of the OVIVO Pur equipment will be less than a year.

Reduction of waste water treatment chemicals and fresh acid

Due to our regeneration and purification process, anodizing baths no longer have to be discharged and replenished. Therefore neutralization with sodium hydroxide solution or lime can be eliminated. Furthermore, the investment in new batches of sulphuric acid will become obsolete.

No interruption of the process

There is no longer any need to discharge exhausted anodizing baths for wastewater treatment, hence improving equipment uptime.

No additional chemicals for regeneration needed

As only water is used for the regeneration of the resin, chemicals are no longer required.

A compact and robust plant

Due to its sturdy and compact design, the equipment can be placed adjacent to the process bath. This reduces not only footprint and infrastructure like tanks and pipelines, but also the overall cycle time.

Continuous filtration

OVIVO Pur pre-filter purifies the acid, which further improves the quality.

Reduction of sulphate in the wastewater

Sulphate concentration in the effluent can be reduced significantly as no concentrates have to be treated. This aspect can be especially important for indirect discharge due to the high aggressiveness of sulphate on concrete.

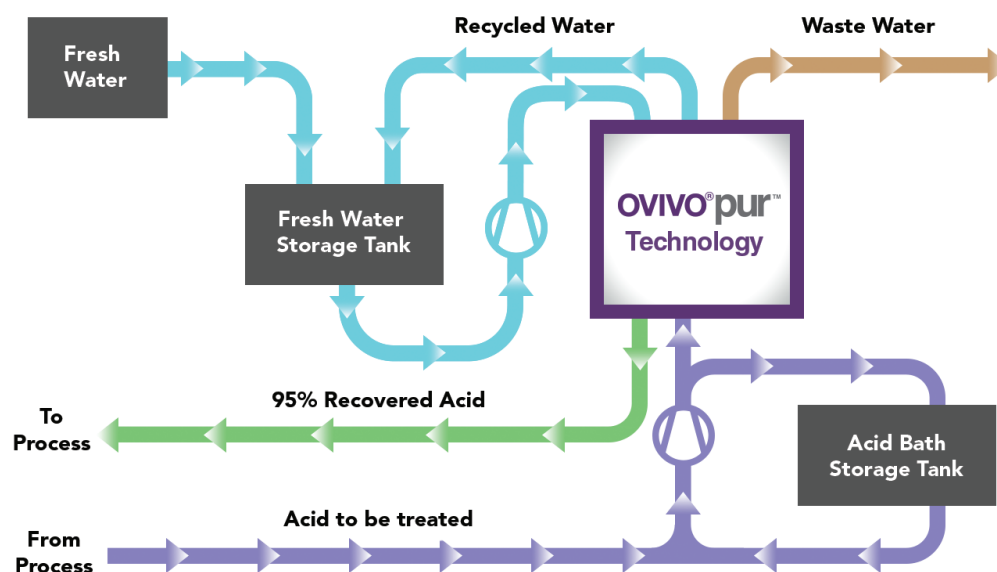
Neutralization of concentrates is not required

Neutralization of large quantities of anodizing bath solutions will no longer be required. The effluent of OVIVO Pur equipment will only be a small and continuous flow of weak acid aluminum sulphate solution.

HOW DOES OVIVO® PUR™ EQUIPMENT WORK?

1. The anodizing bath solution is pre-filtered and collected in the buffer tank for volume control.
2. The filtered acid solution is then pumped upwards through the OVIVO Pur ion exchange column filled with a special acid retaining resin. In this process, the acid will be retained by the resin and the metal salt solution will pass through and be discharged to the sewer.
3. Fresh water previously stored in the fresh water tank for volume control will be pumped counter flow through the OVIVO Pur ion exchange column to remove the acid from the resin. In this process, the acid which was retained by the resin will be freed and returned to the anodizing bath.

This process will be repeated when a low level signal is received from the buffer tank.



		OVIVOpur50	OVIVOpur100	OVIVOpur250	OVIVOpur500
Waste water flow rate	l/h	83	165	309	619
Anodizing bath flow rate	l/h	150	300	560	1125
Aluminum Removal* (approx.)	g/h				
	8 g/l	420	840	1575	3150
	10 g/l	525	1050	1969	3938
	12 g/l	630	1260	2363	4725
	15 g/l	788	1575	2953	5906
Utility Requirements	V	120 - 230	120 - 230	120 - 230	120 - 230
	Hz	50 - 60	50 - 60	50 - 60	50 - 60
Dimensions					
Length	mm	1300	1350	2160	2160
Width	mm	800	800	1600	1600
Height	mm	1930	1930	2200	2250
Weight (approx.)	kg	350	350	850	850
Max operating temp.		35°C			

*OVIVO® Pur™ model capacity depends on the aluminum concentration used in the anodizing bath solution.



THE OVIVO DIFFERENCE

OVER ONE HUNDRED REFERENCES ON THREE CONTINENTS,
FOR VARIOUS APPLICATIONS AND MARKETS.

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