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# EVALED®

Evaporation Technologies

**WATER TECHNOLOGIES**

### Technology

Evaled evaporators are industrial systems that accelerate the natural evaporation process.

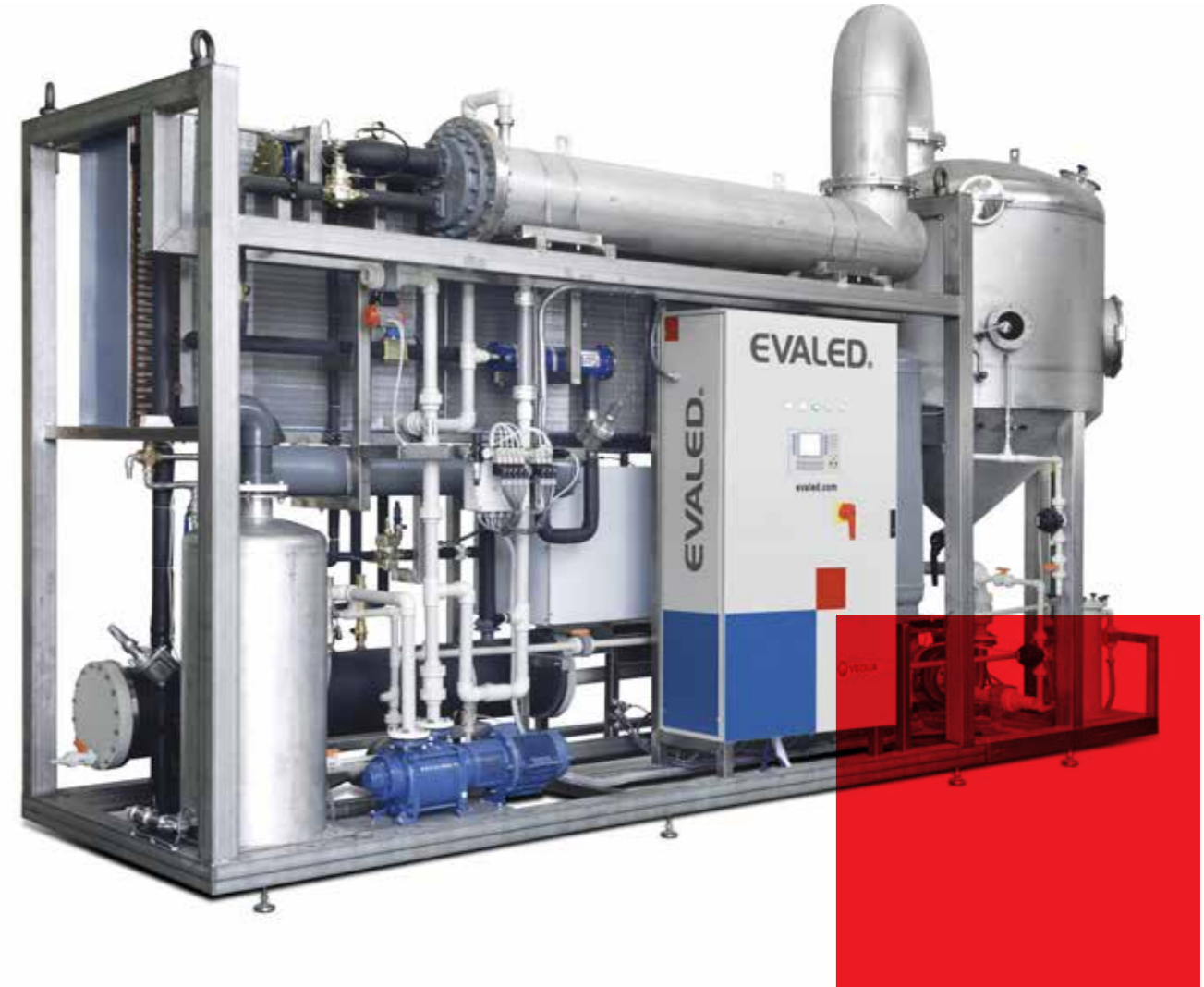
Evaporation is not only a natural phenomenon but also a clean separation technology that has been recognized as a “Best Available Technique” in several wastewater treatment processes.



### Benefits

- disposal cost reduction
- wastewater volume reduction
- water recycling and reuse
- valuable components recovery
- high quality outlet
- ZLD (Zero Liquid Discharge)
- high level of automation
- option for remote control
- quality certification (ISO 9001/2008)
- Plug & Play (quick installation)

An effective solution for concentrating and removing salts, heavy metals and a variety of hazardous components.



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KEYWORDS  
Reliability, effectiveness in wastewater volume reduction, high quality distillate, water reuse (ZLD).

Three different evaporation technologies adapted to suit our clients' water treatment needs.

Wastewater treatment units with distillate production capacities from 1 to 200 m<sup>3</sup>/day (0.02 - 37 gpm).

## SERIES

**PC**  
Heat pump



## specifications

- power feeding
- vacuum condition
- low boiling temperature
- recovery of heat-sensitive products
- good distillate quality
- low fouling and scaling

**AC**  
Hot/cold water



- Ideal when waste thermal energy and cold water are available on site (cogeneration)
- high concentration levels

**RV**  
Mechanical vapour recompression



- power feeding
- useful to treat high volumes of wastewater
- low energy consumption

## MODELS

m<sup>3</sup>/day

<b>F</b>	0.7	1.4	2.4	4	6	8	12	24
	<b>R</b>	0.1	0.5	1	2			
<b>F</b>		20	40	60				
	<b>R</b>	3	6	12				
<b>F</b>		10	15	25	40	60	120	
	<b>N</b>	3	6					
<b>C</b>		200						

## Markets and applications

Mechanical & Surface Treatments (Automotive, Aviation, Appliances, Furniture)

Healthcare (Pharma, Cosmetics)

Chemicals

Waste (Incineration, Landfill, Collectors)

Biogas & Biofuels

Photovoltaic & Microelectronics

Food & Beverage

Graphic Arts

Power

Oil & Gas

Mining & Primary Metals

Other industrial processes (Textile, Pulp & Paper, etc.)

## Specifications

standardized modular units

fully automatized

low energy consumption

low CO<sub>2</sub> footprint

Veolia Water Technologies Italia has a firm commitment to reduce the CO<sub>2</sub> emissions of its technological offer. Careful analysis enable to calculate the CO<sub>2</sub> emissions of EVALED solutions.

Contact us for a customized Carbon Footprint Assessment. [www.evaled.com](http://www.evaled.com)

## Reliability

All evaporators undergo a Factory Acceptance Test (FAT) with water before shipment.

### EVA life

EVA Clean Automatic Washing System

EVA Lab Analysis

EVA Time Guarantee Extension

EVA Link Remote Control

EVA Heart Maintenance

## Materials

The ultimate manufacturing materials to treat even the most aggressive effluents

Veolia has worked together with renowned materials research centers in order to select the most suitable materials to safely treat aggressive liquids. Resistance to corrosion is a strong feature of every Evaled evaporator, essential when dealing with extremely concentrated liquids.

### Austenitic stainless steel

*Austenitic weakly bound structure, non-hardening, non-magnetic.*  
The low percentage of carbon in this alloy reduces the risk of intergranular corrosion at high temperatures.

Uses: alkaline liquids, acid liquids (pH>4) with a low percentage of chlorides, oil emulsions, liquids from flexographic printing.

### Superduplex stainless steel

*Austenitic-ferritic structure, magnetic.*  
The high percentage of chromium gives excellent resistance to localized corrosion.

Uses: acidic liquids (pH>3) with high chlorides and metals content, galvanic wastewater, landfill leachate.

### Nickel alloy

*High flexibility Cr-Ni-Mo steel.*  
The low carbon content ensures resistance to the formation of carbides at zones exposed to thermal variation. It has excellent resistance to localized corrosion, both in oxidizing and reducing environments, even at high temperatures.

Uses: very acid liquids (pH>2) with high content of chlorides, fluorides and metal, anodizing wastewater, special applications.

### Silicon Carbide (SiC) PC type only (KT-Series)

*Chemically inert material resistant to almost all aggressive substances.*  
It is usually matched with another chemically inert material, PTFE, a fluoride co-polymer used for coating the inner surfaces of the boiling chamber.

Uses: pickling wastewater, chromic acid recovery and aggressive liquids.

# Resourcing the world

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