

EVAPORATION TECHNOLOGY IN PHOTOENGRAVING AND LITHOGRAPHY



CUSTOMER



Rozzano (MI), Italy

Years of activity	50
Industry	Graphic arts
Production process	Photoengraving and lithography
Wastewater	Rinsing water (acid and alkaline) coming from photoengraving and lithography process

CHALLENGE

Customer's needs.

Reduce water consumption for cleanings and reduce the disposal costs.

Goals to achieve.

- To obtain a good distillate quality for the cleaning
- To reduce as much as possible the volumes of the disposal

SOLUTION SUPPLIED

DESCRIPTION OF THE SUPPLIED SOLUTION.

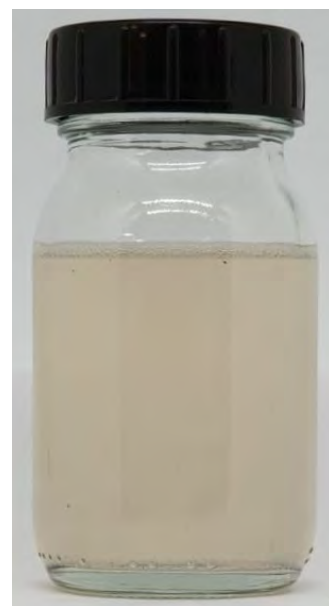
ECO 500 VS is a heat pump evaporator with submerged heat exchanger and a low footprint. The high vacuum allows to operate at low temperatures (30-35°C)

% WATER REUSE 97%

CONCENTRATION FACTOR 30

ZLD? Yes

ANALYSIS



INLET



DISTILLATE



CONCENTRATE

PARAMETERS	UNIT	WASTE INLET	DISTILLATE	CONCENTRATE
pH		6,2	4,3	/
TS 105° C	%	0,9	/	> 28
Conductibility	μS/cm	6.850	<100	/
Hardness	°f	>37	<5	

CONCLUSIONS

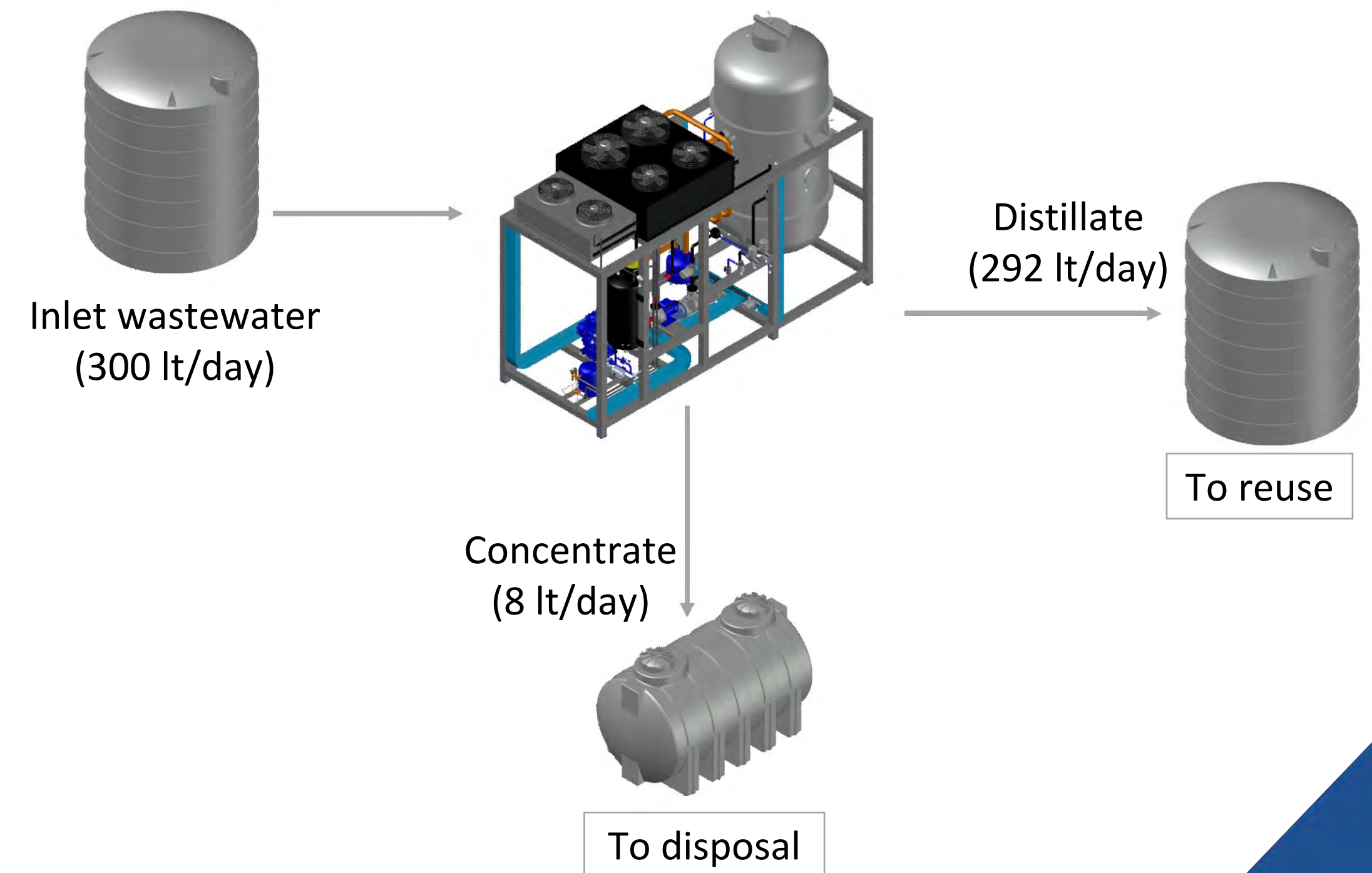
The evaporator was installed in 2016. The client has obtained an immediate benefit in keeping the rinsing tanks cleaned thanks to the evaporator, and at the same time reducing disposal volumes and costs.

The returning distillate has an excellent quality.

The concentration factor is 30 times, so this allows the client to obtain a fast payback.

The unit is very compact: in this case, the small size helped the customer, who had little space available for the installation.

MASS BALANCE





The installed plant during regular daily functioning



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