

Parts-Cleaning Oily Wastewater Disposal Costs Reduced by Over 90% with Vacuum Distillation

A global market-leading manufacturer of mechanical fastening systems and precision components needed to reduce wastewater disposal costs.

The Italian facility serves diversified end markets, including the automotive, construction supply, electrical/electronics, aerospace and medical components industry.

Project Goals:

- 1) Reclaim and reuse oily wastewater from cleaning tunnels (Dürr Ecoclean)
- 2) Reduce oily wastewater management and disposal costs



Project Summary

PAY BACK

▪ ~ 1.5 Years

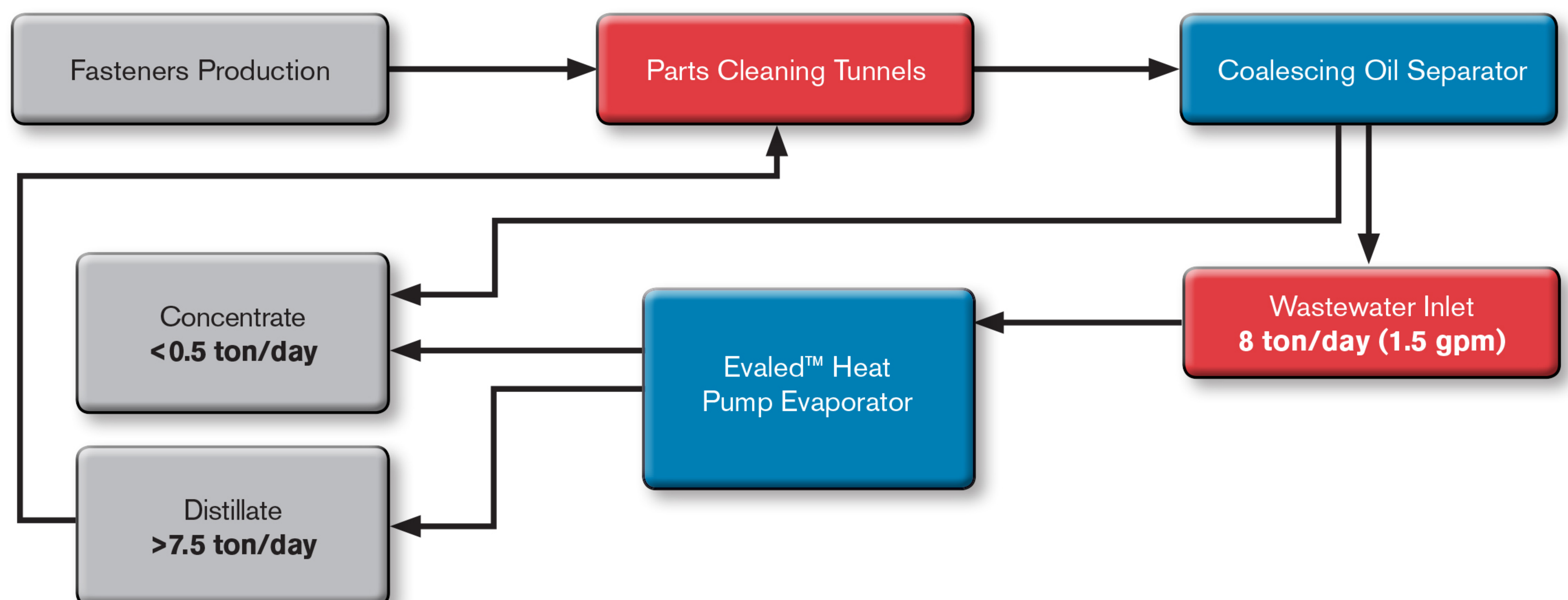
CONCENTRATION FACTOR

▪ 20x

WASTEWATER REDUCTION

▪ ~ 95%

Plant Process Diagram



Plant Analysis

Parameters	Unit of Measure	Waste In	Distillate Out	Concentrate Out
COD	ppm	1000-4000	<50	<50000
TS at 105° C	%	0.3-1	-	<20
Conductivity	μS/cm	4000	<10	-
Boron	ppm	160	<2	
Surfactants	ppm	<600	<1	-
Heavy Metals	ppm	60	<0.01	<1500
Total Oils	ppm	400-1200	<1	-

Technology Type	Material	Footprint (ft²)
PC Forced Circulation Heat Pump E 8000 AA	AISI 316 Stainless Steel	150.67

Results



The Solution Achieved:

Pay-Back	~ 1.5 Years
Concentration Factor	20x
Wastewater Reduction	~ 95%

ABOUT PRAB

PRAB is a leading industrial manufacturer of scrap metal conveyors, chip processing equipment, and fluid filtration systems. Each piece of equipment is engineered to help industrial manufacturers improve processes, reduce operating costs, and add value to scrap metal. PRAB designs and builds equipment to the specs of each application and supports installations from global manufacturing facilities. PRAB has served the Aerospace, Automotive, Industrial Manufacturing, Scrap Recycling, and Metal-forming industries for over 60 years. For more information on PRAB, visit prab.com.

For more information on PRAB Conveyors, Chip Processing Systems, and filtration solutions for recycle and reuse of process fluids, visit prab.com, call (800) 968-7722, or e-mail sales@prab.com.

* This case study is provided by Veolia Water Technologies of Italy. PRAB is an authorized North American distributor of the Ehaled™ vacuum evaporation technology.



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