

VACUUM EVAPORATORS CONCENTRATORS



INDUSTRIAL DETERGENTS PRODUCTION

Zero Liquid Discharge and Water Reuse from Wastewater Containing Surfactants.



Ideal solution for wastewater from manufacturers of professional and household detergent, cosmetic, personal care, oral-care, car care products.

A real application of Circular Economy: the water obtained from wastewater distillation can be reused, drastically reducing disposal and the need for new water.

Simplified evaporator management and maintenance with innovative, easy-to-clean heat exchangers

TREATMENT OF WASTEWATER WITH SURFACTANTS FROM THE WASHING OF PRODUCT LINES



IWE TECHNOLOGY



IWE produces evaporators that use the physical principle of boiling and condensation of vapors operating in a vacuum environment.

With this technology it is possible to significantly reduce (even up to 95% and more) the volume of the initial wastewater destined for disposal with a limited energy requirement.

IWE vacuum evaporators/concentrators are used in several industrial sectors, but in particular we have obtained exceptional results in the **treatment of wastewater containing surfactants of any nature (anionic, cationic or non-ionic)**, i.e. in professional and household detergent industries, cosmetic and personal care industries, car care product industries.

In fact, IWE evaporators make it possible to treat wastewater from washing production lines containing surfactants, generating distilled water that can be reused in the production process with obvious great benefits.

In addition to avoiding disposal of wastewater, thus eliminating the need to comply with the rules on discharge, you get a huge savings by limiting the extraction of new water for production.

The wide range of IWE evaporators makes it possible to satisfy any required treatment in a "tailor-made" mode: each model is designed specifically for each specific situation, identifying the optimal solution between systems powered by electricity (therefore completely autonomous) or thermal energy (i.e. using existing sources of steam or hot water) in mono, double or triple effect versions for maximum energy efficiency and performance.

REFERENCE LIST



There are many companies that have brilliantly solved the problems deriving from the management of effluents with surfactants through the use of **IWE** vacuum evaporators.

We have a list of references, released on request, with some very interesting cases by virtue of the exceptional results achieved!



ADVANTAGES



- HIGH PERFORMANCE
- GUARANTEED RESULTS WITH PILOT TESTS
- LIMITED OPEX COSTS
- · SIMPLIFIED MANAGEMENT AND MAINTENANCE
- HIGH R.O.I. WITH VERY FAST PAYBACK
- REMOTE CONTROL (COMPLIANT 4.0)
- CUSTOMIZED DESIGN
- ASSISTANCE SERVICE



INNOVATIVE IWE TECHNOLOGY / SIMPLIFIED MAINTENANCE

The treatment of industrial wastewater by concentration through water evaporation is an excellent solution that generates many important advantages, but results in the formation of fouling deposits.

The attention that **IWE** pays to the design of heat exchangers, choosing the best possible conformation suited to the specific characteristics of the product to be treated, reduces the frequency and simplifies cleaning operations to restore optimal operating conditions.

The traditional heat exchangers used in evaporation systems, immersed coil or tube bundle, have the limitation of having an extremely small space between the different exchange surfaces and do not allow an easy removal of deposits.

IWE has chosen to use INNOVATIVE HEAT EXCHANGERS "WITH IMMERSED PLATES" EASY TO CLEAN, which allow to have considerable free spaces between the plates to restore the efficiency of heat exchange through simple washing or to make any need for disassembly and extraction quickly.

In addition, **IWE** has chosen to manufacture **BOILING BOILERS IN HORIZONTAL VERSION AND EQUIPPED WITH FLANGED BOTTOMS WITH RAPID DISASSEMBLY SYSTEM.**

Thanks to this solution, it is possible to access the heating heat exchangers very quickly to easily execute routine maintenance operations, such as cleaning the exchangers from scale and deposits that reduce heat exchange.



STANDARD HEAT EXCHANGERS

Tube bundle - Immersed coil

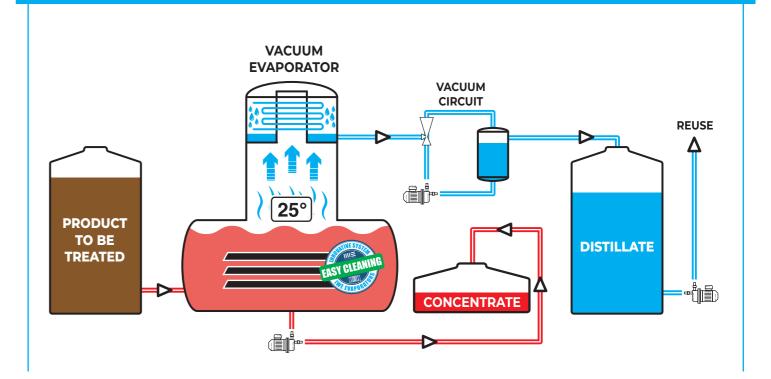




IWE HEAT EXCHANGERS IMMERSED PLATES



PROCESS DIAGRAM









HIGH-EFFICIENCY

VACUUM EVAPORATORS CONCENTRATORS

Since 1982, our experience at your service.



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