



Industrial Water Evaporators

**HIGH-EFFICIENCY  
VACUUM EVAPORATORS CONCENTRATORS**

Since 1982, our experience at your service.



**IWE S.r.l.**

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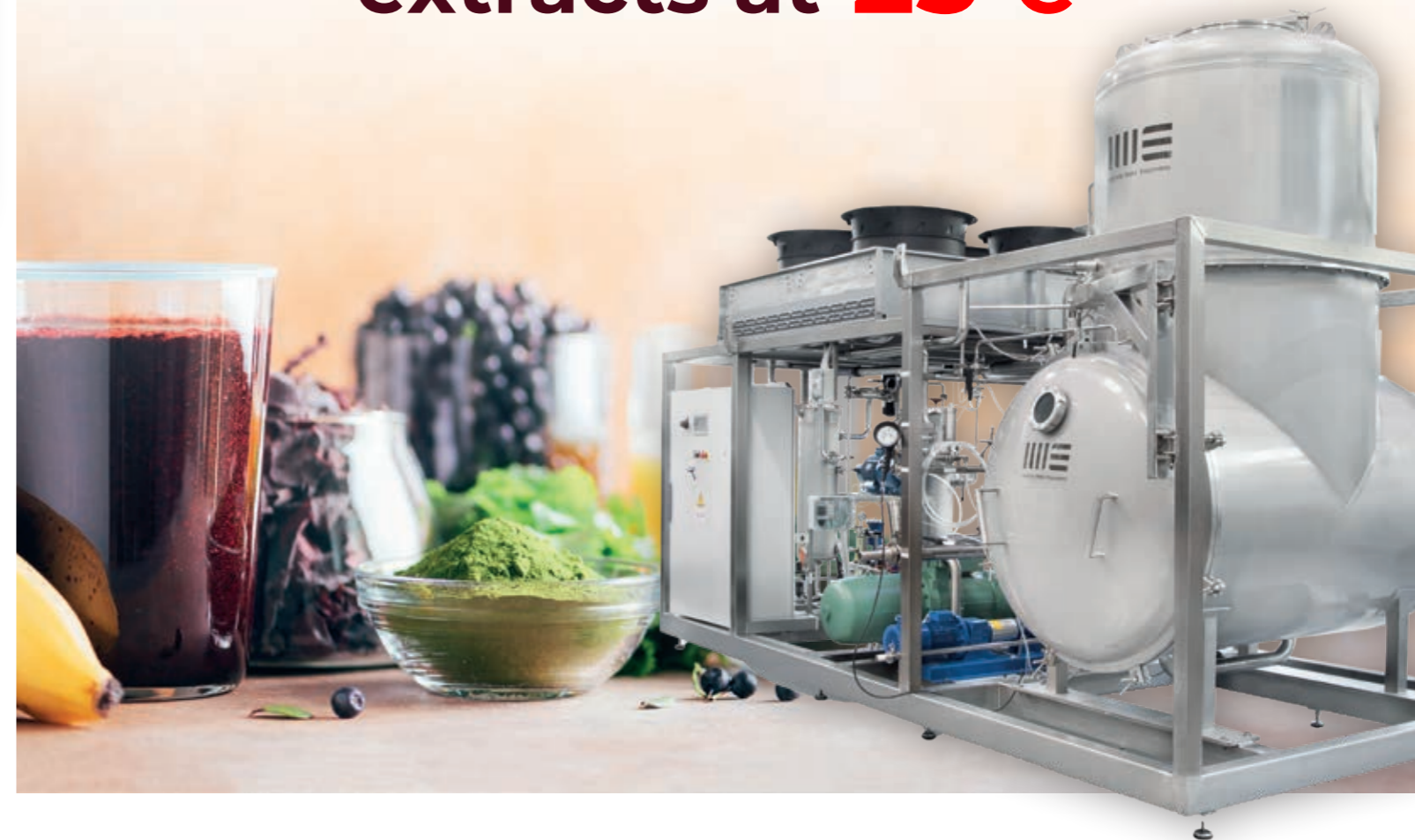
Certificate Number 39062253/IT



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**HIGH-EFFICIENCY  
VACUUM  
EVAPORATORS  
CONCENTRATORS**

**Concentration of  
flavourings and food/herbal  
extracts at 25°C**



*Obtaining concentrates with densities of up to 80° Bx from aqueous, alcoholic or hydroalcoholic solutions*

*Retention of thermolabile active ingredients without altering the organoleptic properties of the treated products*

*Simplified management and maintenance*

*Innovative, easy-to-clean "immersed plate" heat exchangers*

*Purely electrical power supply with no need for hot water or steam*





# CONCENTRATION OF NATURAL FLAVOURS AND HERBAL EXTRACTS



## IWE TECHNOLOGY



IWE produces plants that use the physical principle of boiling and condensation of vapors operating in vacuum condition. Vacuum evaporation and concentration plants are used in many industrial sectors, **but one of the most interesting applications is the concentration of products that are negatively affected by exposure to high temperatures, such as essences, extracts and aromas for the food sector, must, balsamic vinegar, pharmaceuticals and cosmetics.**

**IWE evaporators allow to obtain concentration of the product at room temperature, thus avoiding the disintegration of thermolabile active principles, such as vitamins and essential oils, preventing the caramelization of sugar parts to obtain concentrates even at densities close to or higher than 80° Bx.**

There are two types of evaporators for this purpose, both with energy supply using a heat pump (with only the need for electricity) and vacuum.

One version is the standard **HP ME** series which operates at a boiling temperature of about 35-40°C, the other is the **HP ENO** series which operates at a boiling temperature of about 20-30°C.

**These versions, powered by the heat pump system, do not require the supply of external energy, such as steam, hot and cold water, but only electricity.**

This avoids the construction of special heating plants or the installation of condensing water cooling systems, with simplified installation costs and without the need for any permits.

## REFERENCE LIST



We have supplied vacuum evaporation systems to leading companies operating in many product sectors that have chosen our solution to effectively solve the problems related to the concentration of essences, natural flavors and herbal extracts. The results obtained have confirmed the validity of IWE technology, both in terms of performance and in terms of management and maintenance aspects.



## HP SERIES

Vacuum evaporation plants with exclusively electric power supply.

**TREATMENT CAPACITY**  
from 5 to 4.000 l/h  
(from 120 to 100.000 l/d)

**ENERGY DEMAND**  
160 W/l

## INNOVATIVE IWE TECHNOLOGY / SIMPLIFIED MAINTENANCE

The concentration of flavors and food extracts by evaporation of water or solvent can cause fouling deposits to form on heat exchangers.

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



## TECHNICAL DIAGRAM

