

Vacuum Evaporation Systems for wastewater treatment

Water treatment made easy!

Evaporators for the treatment of industrial wastewater.

Recognised as BAT (Best Available Technology) under European Directives for wastewater treatment. Evaporators are completely automatic with microprocessor control for continuous operation with minimum operator assistance. Evaporators provide high concentration ratios with a high quality distillate, good levels of separation with the option to recycle.

Waste volumes for disposable can be reduced significantly with up to 98% of wastewater for re-use.



- ◆ Fully automatic
- ◆ Energy efficient
- ◆ Easy to install
- ◆ Easy to operate
- ◆ Saves money
- ◆ Helps the environment
- ◆ Instant reuse of recycled water
- ◆ Reduce waste disposal costs
- ◆ Meet consent limits for discharge
- ◆ Suitable for numerous applications
- ◆ Systems available from just 10 litres per hour to many thousand's.
- ◆ Wide range of options available
- ◆ Leasing plans available



The easy way to treat industrial wastewater

SAVES MONEY

Can reduce water consumption and waste disposal costs.

ENVIRONMENT FRIENDLY

Recycle water and reduce waste. Less waste for removal from site. Reduce storage of waste liquids on site. Can be part of ISO 14000.

SAFE AND EASY TO USE

All machines CE approved. Simple controls for ease of use.

FREE TEST ANALYSIS OF YOUR WASTE WATER

Send us a sample of your waste water for laboratory testing. We will provide analysis results and recommend suitable equipment.



FREE CONSULTATION

We can visit site, assess your processes and advise on the best way to treat your waste water.



CAPABILITIES

Wide range of technologies and designs provide the answer to wastewater treatment..

Plants can be manufactured in special materials for aggressive applications.

Test facilities and pilot plants for testing and verifying results

All manufactured in accordance with the latest regulations.

CONSULTATION

We will work with you to find a solution to your recycling needs. Experts are available every step of the way to provide assistance and help.

REFERENCES

With thousand's of units installed worldwide you can be sure that there is a unit working in a similar application to yours. Many of the worlds leading companies can testify to the quality, reliability and cost effectiveness of the equipment..

For more information on any of our products or services please contact us : info@solutex.co.uk
Or telephone
+44 (0) 1691 622225
www.solutex.co.uk

About Vacuum Evaporation

Why choose vacuum evaporation?

Vacuum evaporation can be used to efficiently treat a wide range of waste waters from many industrial processes. Our wide range of standard and custom built equipment ensures a solution to every application.

Evaporation effectively resolves the problem of the disposal of industrial polluted water, efficiently concentrating the contaminating products such as inks and heavy metals and recovering the water that, distilled, can be reused in the production cycle. With widespread pollution control regulations and an environmental conscience, our evaporators provide an easy way to deal with these issues effectively.

Technology

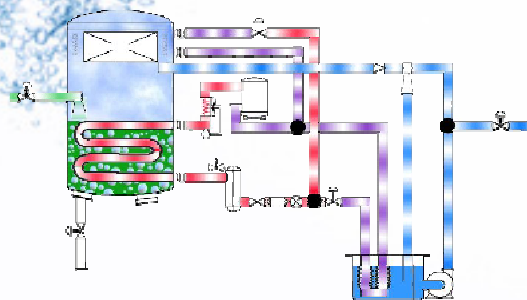
By exploiting the technologies of heat pump and high vacuum evaporation a maximum yield can be achieved with low energy consumption. Under vacuum the boiling point of water is reduced to 35 – 40° C, using heat pump technology the same circuit is used for heating and cooling and the amount of energy required is reduced considerably.



Produces perfectly clean water for reuse or discharge to drain.

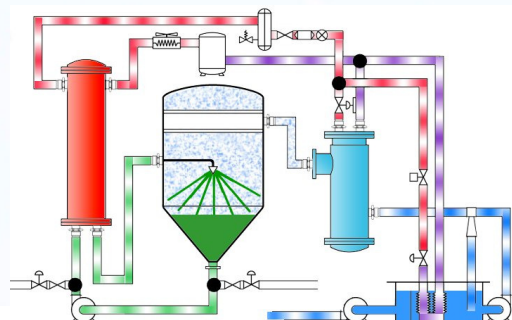
Benefits:

- Simple to install
- Reliable
- Low energy consumption
- Produces clean water for reuse
- Reduces waste volumes



Heat pump system with Immersed coil

- ◆ Compact
- ◆ Energy efficient
- ◆ Fully automatic
- ◆ Easy to install
- ◆ For large or small volumes of wastewater



Heat pump system using forced circulation

The Economic WT10 & 13 HPS and 10 HPR

APPLICATIONS

HPS series is ideal for concentrating non encrusting waste liquids such as oil emulsions from machine coolants etc.

HPR series is ideal for those liquids that can form crusts on the boiler surfaces such inks, adhesives and paints. The internal boiler scraper system keeps the internal boiler surfaces free from the build up of solids. Plants can be manufactured in special materials for aggressive applications.

FULLY AUTOMATIC

Works 24/7 without operator intervention. Self loading using vacuum and with clean water discharge. Optional unloading pump for residues.

LOW MAINTENANCE

Heat pump system requires virtually no maintenance .

WT10 HPS and HPR

The economic WT10 HPS and HPR are compact vacuum evaporators that can be used on a wide range of applications such as oil emulsions, paints, inks and metal treatment wastes.

The units are controlled by microprocessor And are designed to work 24/7 with minimum operator intervention.

Machines are provided with automatic loading by vacuum, automatic unloading of clean water and manual unloading of liquid residues.

OPTIONS

Unloading pump for liquid residue
Automatic anti-foam dose pump

Applications:

Oil emulsions
Degreasing water
Wash liquids
wash water
Paint wash water
and many more...



WT 10 HPS series—Heat pump system with immersed coil

- ◆ Compact
- ◆ Energy efficient
- ◆ Fully automatic
- ◆ Easy to install



WT 10 HPR series—Heat pump system with internal boiler cleaner

The WT HPS series

APPLICATIONS

HPS series is ideal for concentrating non encrusting waste liquids such as oil emulsions from machine coolants etc.

Machines can be constructed in different alloys depending on the application.

SUPER CONCENTRATION

Super concentration phase reduces residue to a minimum

FULLY AUTOMATIC

Works 24/7 without operator intervention. Self loading using vacuum and with clean water discharge. Optional automatic unloading pump for residues.

LOW MAINTENANCE

Heat pump system requires virtually no maintenance .

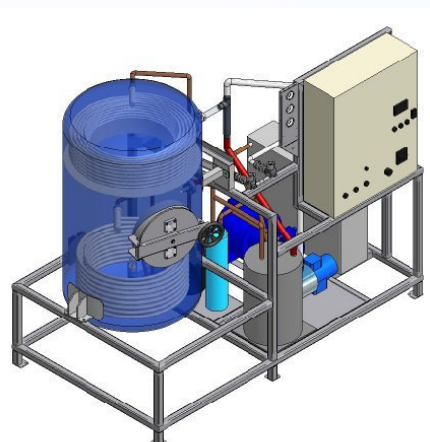
WT HPS series

The WT HPS series features an immersed heating coil for efficient heat transfer and the ability to concentrate liquids to a high ratio.

Machines available from 20 litres per hour up to 250 litres per hour.

The HPS series uses a heat pump system and is designed to treat wastewater that does not contain products that could encrust on the boiler surface.

The units are microprocessor controlled, programmable for optimum performance and are designed to work 24/7 with minimum operator intervention.



The boiler features an immersed heating coil for efficient heat transfer and high concentration of liquids.

Applications:
Oil emulsions
Degreasing water
Wash liquids
and many more...



WT 60 - HPS series—Heat pump system with immersed coil



APPLICATIONS

HPR series is ideal for concentrating encrusting waste liquids such as adhesives, inks, paints and salts.

The rotor keeps liquid well mixed and helps produce a higher yield and consequently higher concentration ratio's.

Machines can be constructed in different alloys depending on the application.

SUPER CONCENTRATION

Super concentration phase reduces residue to a minimum

FULLY AUTOMATIC

Works 24/7 without operator intervention. Self loading using vacuum and with clean water discharge. Optional automatic unloading pump for residues.

LOW MAINTENANCE

Heat pump system requires virtually no maintenance .

The WT HPR series

WT HPR series

The WT HPR series features an external heating coil and an internal boiler scraper system that prevents a build up of solids on the boiler sides and base to maintain the heat transfer efficiency and the ability to concentrate liquids to a high ratio.

Machines available from 20 litres per hour up to 120 litres per hour.

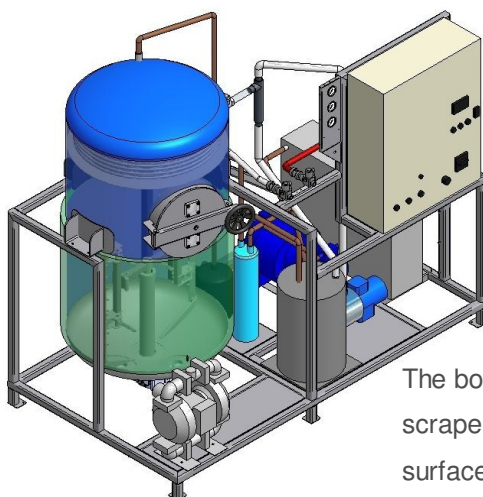
The HPR series uses a heat pump system and is designed to treat wastewater that contains products that could encrust on the boiler surface such as inks and ion exchange residues.

The units are microprocessor controlled, programmable for optimum performance and are designed to work 24/7 with minimum operator intervention.

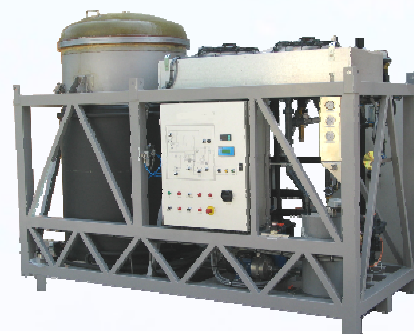
Applications:
Print wash water
Paint wash water
Ion exchange rinses
Adhesives washes
Encrusting liquids
and many more...



Model shown: WT 60 - HPR series—Heat pump system with boiler cleaner



The boiler features an internal rotating scraper that automatically cleans the boiler surfaces



APPLICATIONS

HP-Cf series is designed for high volume processing and is suitable for many different waste streams.

Machines can be constructed in different alloys depending on the application.

MULTI EFFECT SYSTEMS

Available with multi-effect boilers for even lower energy consumption.

SUPER CONCENTRATION

Super concentration phase reduces residue to a minimum

FULLY AUTOMATIC

Works 24/7 without operator intervention. Self loading using vacuum and with clean water discharge. Optional automatic unloading pump for residues.

LOW MAINTENANCE

Heat pump system requires virtually no maintenance .

The WT HP- Cf series

WT HP-Cf series

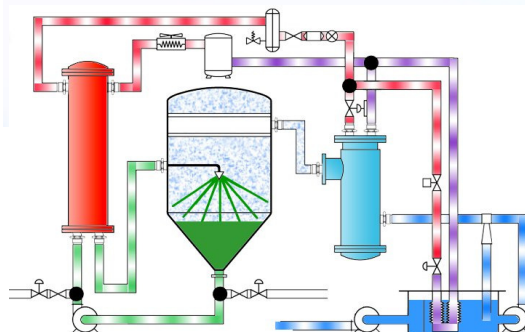
The WT HP-Cf series features a forced circulation system with heat pump for applications where higher throughput is required but a heat pump is preferred.

The waste stream to be treated is in constant circulation in a high efficiency expansion chamber. These units have reduced sensitivity to foam formation. When even higher concentrations are required these units can be combined with units of the HPR series.

Machines available with process rates up to several thousand litres per hour.

The HP-Cf series uses a heat pump system for energy efficiency.

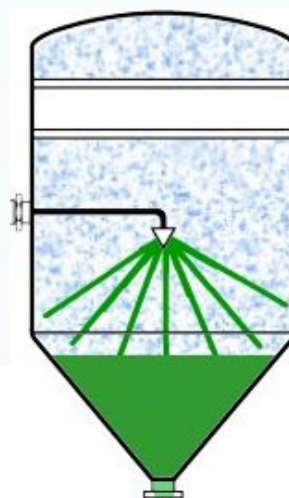
The units are microprocessor controlled and programmable for optimum performance. They are designed to work 24/7 with minimum operator intervention.



Applications:
Print wash water
Paint wash water
Oil emulsions
Ion exchange rinses
Adhesives washes
Encrusting liquids
and many more...



Model shown: WT 250 - HP-Cf series—Heat pump system with forced circulation



The HP-Cf series features a forced circulation system where liquid is fed to the boiler for evaporation under a high vacuum.

The WT HP- HW - Cf series multi-effect

APPLICATIONS

HP- Cf series is designed for high volume processing and is suitable for many different waste streams. Using steam or hot water as the heating source they are ideal for utilizing waste energy.

The multi-effect units are designed for high volume production with high quality distillate and reduced energy consumption..

Machines can be constructed in different alloys depending on the application.

FULLY AUTOMATIC

Works 24/7 without operator intervention. Self loading using vacuum and with clean water discharge. Automatic unloading pump for residues.

SUPER CONCENTRATION

Super concentration phase reduces residue to a minimum

LOW MAINTENANCE

Heat pump system requires virtually no maintenance .

WT HP- HW - Cf series

The WT HP- HW - Cf series can have a heat pump system or use an external heating source such as hot water or steam from existing factory sources.

These units are equipped with two or three boilers (effects) operating in series. A different vacuum rate in each individual boiler allows for different evaporation temperatures.

This technology allows the reduction of energy costs by up to two thirds. Unlike single-stage evaporators, these evaporators can be made of up to three evaporator stages or "effects". Putting together evaporators saves heat and thus requires less energy. Adding one evaporator to the original decreases the energy consumption up to 50% of the original amount. Adding another effect reduces it to 33%.

The first effect has the highest temperature, 78°C for example. The product is then partially concentrated as some of the water is transformed into vapour and carried away. It is then fed into the second effect which is a little lower in temperature, 68°C and a higher vacuum. The second effect uses the heated vapour created in the first stage as its heating source (hence the saving in energy) and so on to 3rd effect with temperature at 55°C.

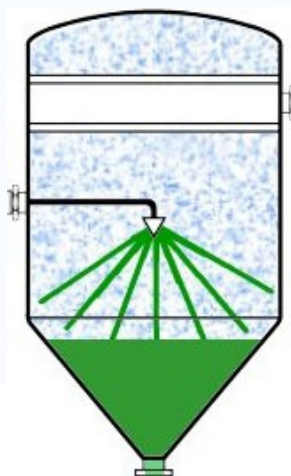
The HW/HS series utilise hot water or steam for heating and this can be taken from existing sources.

Applications:

Print wash water
Paint wash water
Oil emulsions
Ion exchange rinses
Adhesives washes
Encrusting liquids
and many more...



Model shown: WT 835 - HP-Cf 2E - forced circulation with 2 effects



The HP-Cf series features a forced circulation system where liquid is fed to the boiler for evaporation under a high vacuum.

TECHNICAL SUPPORT

Help and advice is available free before, during and after purchase. We will help you select the right machine and advise on installation. We can also install, commission and train operators if required.

SERVICE

Like any machinery, our evaporators occasionally require servicing. Our engineers are equipped to perform services at your premises when required. Spare parts are readily available from stock.

TURNKEY SOLUTIONS

For those requiring a turnkey solution to their recycling needs, we can design and install everything required to meet your demands.

For more information on any of our products or services please contact us : info@solutex.co.uk
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Applications and service

Water Evaporation for every industry

The different fields of application are almost endless with systems installed in virtually every sector of industry. With the wide range of equipment you can be sure to find a solution to your wastewater problem.

When a standard unit does not meet your requirements we can design and build a unit to meet your specific requirements.

Turnkey projects are no problem and we can supply and install everything you need.

With our extensive knowledge and experience we can always find a positive solution to your most demanding applications.

REMOTE ASSISTANT



Now available with remote assistance to monitor your process. Our engineers can view and change settings from

the factory in real time with the optional modem system installed.

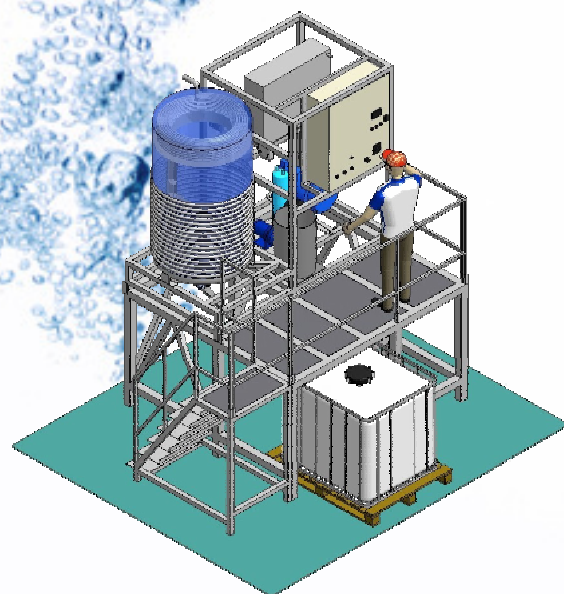
TRAINING



Its important to fully understand the equipment and how operate it. We provide operator training so that you get the most from your equipment.

Vacuum evaporation is suitable for numerous applications in many industries:

Graphic arts and photographic laboratories, pharmaceutical, chemical and cosmetic industries, Electroplating, dairy industry, mechanical engineering, die casting, anodising plus many more.



Full design service for special applications and installations.

