



Gewässer-Umwelt-Schutz.de
With safety no risk!

Product brochure

Technology, but safe.



With
SAFETY
no
risk!

The Sicherheitsauffangwanne SAW

The Ölprotektor CUW

The Glykolprotektor GGW

The Waveprotektor WGW



Our company is regularly supervised and a recognized company by TÜV Rheinland according to GERMAN Water Resources Act.

Regular support
Specialized company
according to German WRA



Gewässer-Umwelt-Schutz.de
With safety no risk!

2

How to contact us

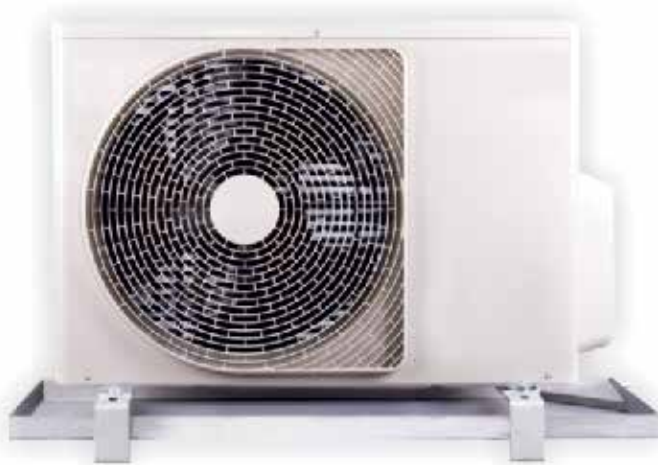
We take care of your needs!

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„In a world, in which the use of natural resources continuously grows,
we will only be able to hold our position, if we discover and apply
environmental friendly products and processes.“

Klaus Töpfer



Table of content

3

Requirements Legal provisions

4

Sicherheitsauffangwanne SAW Introduction

5

Ölprotektor CUW The proven system

6

Function of CUW Ölprotektor

7

Glykolprotektor GGW The tested system

8

Function of GGW Glykolprotektor

9

Waveprotektor WGW The new monitoring of pressure-less systems

10

BigFoot assembly system and protective leaf grill

11

Heating kit

12

Function of the heating kit

13

Legal position

14

References

15

Inquiry form

16





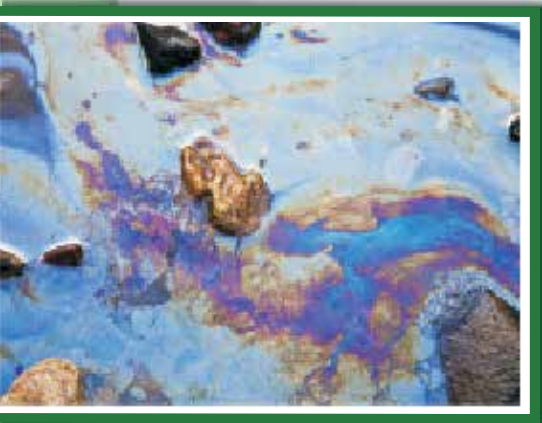
Requirements

Legal provisions



Recognizing the problem!

The first step towards a cleaner direction.



Reasons for environmental damages are often operational incidents but also in companies which operate in accordance with the regulations emissions of water-polluting substances can often not completely be avoided.

The legal regulations for the handling of water-polluting substances are very strict.

The strictness affects primarily the operator as he is accountable that his plants were at least build and are operated according to the rules of engineering (§62 Water Resources Act).

For all plants, the general requirements according to §3 system ordinances (VAWS) have to be fulfilled:

Leaking water-polluting substances have to be identified quickly and reliably, restrained as well as according to the rules and harmlessly utilized or to be disposed.

„The plants have to be equipped with a leak-proof and resistant catchment area in the case of rain.“

Connected with it is a duty of notification when mounting the plant, which needs to be rendered by a specialist and the plant manufacturer.



„The environment protection is a chance and no burden, which we need to carry.“

Helmut Sihler



Sicherheitsauffangwanne SAW

Introduction

For units with water-polluting substances, which can be assembled in a interior zone, this solution will be used.

Refrigerating machines are often placed in an engineering room. These have often a floor drain or are not completely sealed.

To avoid a drain of the water-polluting substances into the canalization or into adjacent rooms when there is a leakage on the unit, this drip pan will be placed underneath the refrigerating machine.

It is made of stainless steel quality 1.4301 (V2A).

With the Sicherheitsauffangwanne SAW is individually adjusted to the requirements of the project. The manufacturing will be adjusted to the technical requirements.





The Ölprotektor

The proven system



The Ölprotektor consists out of a stainless steel drip pan with an integrated oil separator.

Leaked refrigerating machine oil will be collected by the Ölprotektor.

In the case of rain, the refrigerating machine oil is, according to the legal guidelines, restrained through a patented oil separator system.

The rain water is further on discharged.

The Ölprotektor is available in 9 standard sizes.

The variable drip pans allow the assembly on supporting beams, vibration damper, and wall brackets.

Special sizes for refrigerating machines and air conditioning units, suitable for all configurations, can be produced on individual customer requests.



INNOVATIVE

ENVIRONMENTAL

PATENTED

LEGALLY SECURED

ASSEMBLED FAST

SAFE

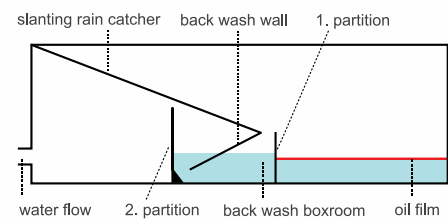
„Although we are rich in thirty million cars, we are poor, destitute, in pure drinking water and healthy air“

Hubert Weinzierl

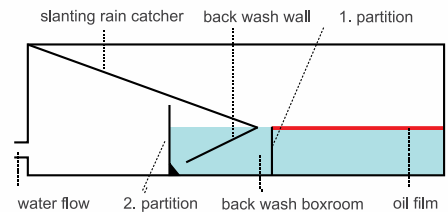
Function of CUW

Ölprotektor

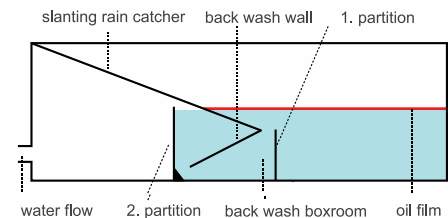
1. In the case of rain, the leaked oil will float as an oil film on the rain water in the drip pan. The back-flushing chamber will be filled through the rain trap three times as fast as the drip pan.



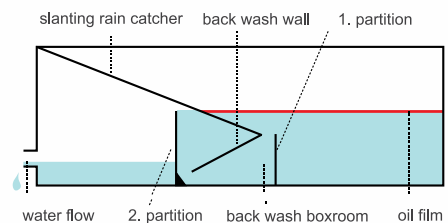
2. If the level of the 1 dividing wall is reached, the inflowing water out of the back-flushing chamber will be flushed into the drip pan.



3. The water level will continue to rise until it reaches the height of the second dividing wall.



4. If the level continues to rise, the water which was separated from the oil will flow towards the water drain.





The Glykolprotektor GW

The tested system



The Glykolprotektor is an extension of the Ölprotektor. It avoids next to the leakage of light liquids (e.g. oils) also the leakage of water-glycol-mixtures or other water soluble substances according to the legal provisions.

The system monitors with the help of a digital pressure sensor the water-glycol-cycle. The provided information is being processed by the control module. Pressure fluctuations, determined by the system, are differentiated from the case of emergency, the leakage.



In this case, the used safety valves will be closed immediately. Leaking water-polluting substances will be restrained in the Glykolprotektor and the user will be alerted.

The requirements according to WRA and WasgefStAnIV are demonstrable fulfilled.



The qualification of the system was proven through TÜV Rheinland.

INNOVATIVE

ENVIRONMENTAL

LEGALLY SECURED

ASSEMBLED FAST

SAFE



Function of GGW

Glykolprotektor



With the modern sensor technology the water-glycol-cycle is being monitored constantly. A microprocessor analyses the data of the sensors. Whenever the controller reports a leakage in the liquid cycle, all drain valves will be closed and an alarm contact will be activated. This ensures that the leaking water-glycol-mixture will be safely restrained.

A special switching technology avoids that the valves will open again without an approval of the user. The alarm is going to be displayed as a plain text in the display of the microprocessor. With one microprocessor up to two liquid cycles can be monitored.

In order to meet the requirements of the safety systems, the drain valves will be closed automatically, locked and the alarm contact will be activated as soon as there is a power outage, microprocessor defect, cable break, defective valve controlling or a sensor defect.

The drain valves are protected by a stainless steel case against external influences and equipped with isolated contacts for alarms and opening notification.

For a year round operation of the valves is no defrost heater necessary.

The greatest possible amount of rainfall in Germany will be certainly collected respectively discharged.

With the Glykolprotektor are the requirements according to §62 ff of the German WRA (Water Resources Act) and §3 of VAWS (system ordinances) fulfilled. The strict directives of the regulation about plants which deal with waterpolluting substances (WasgefStAnIV) are also fulfilled.

The qualification of the system was proven by TÜV Rheinland.





Waveprotektor WGW

The new monitoring of pressure-less systems



The Waveprotektor avoids the leakage of water-polluting substances in the outdoor area.

The system reacts on the colorant which is added factory-made to the most hazardous substances in order to distinguish them from water. To detect the water-polluting substances already at drip and spray loss, a special, highly concentrated colorant can be added to the cycle. An optical sensor, located in the drain, monitors all draining substances for this particular colorant and transmits constantly the concentration of this colorant in the drain to a control box.

This control box analyzes the data and triggers in case of a significant measuring of the colorant the alarm. The quick-action valves, located downstream in the drain, will be closed and at the same time an alarm is given or optional via SMS through the isolated contact.

This technology can be used with a stainless steel drip pan, similar to the Ölprotektor, or also be integrated into a gutter which drain is going to be restrained in a separate collecting tray after an alarm has been triggered.



„The reconciliation of economy and ecology means that smoke comes out the chimney but no dense smoke.“

Peter Gillies



Accessories

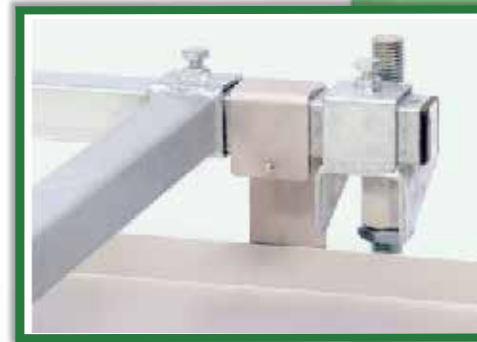
BigFoot assembly system and protective leaf grill

BigFoot assembly system

This assembly kit is specially designed for the installation of a protector underneath a BigFoot-System. The mounting claws are put on the longitudinal bars and tightened with screws. Mountings are available in two different modifications; for longitudinal bars of the size of 40 or 50. The matching protector will be manufactured according to the requirements and will be inserted sideways underneath the installation level.

With this system it is possible to directly screw refrigerating and air conditioning units onto the BigFoot-System.

The protector can be refitted at any time.

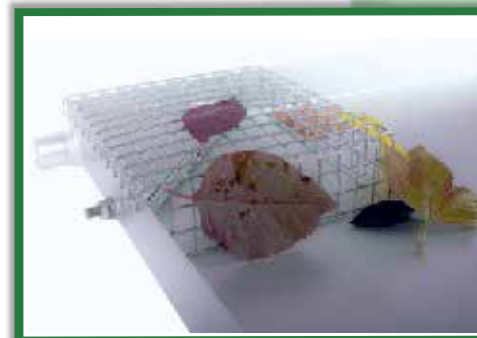


Protective leaf grill

Special application areas require a modification of the protectors. If, for example, the location for installing the unit is overshadowed by trees, we recommend our protective leaf grill.

This keeps leaves during fall on a large-area off the drainage and ensures its functionality.

We will advise you on individual customized projects and you can choose specifically the desired accessory.



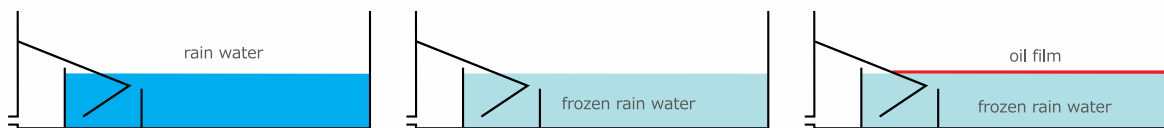


Winter usage of the protectors

When is an electrical heating necessary?

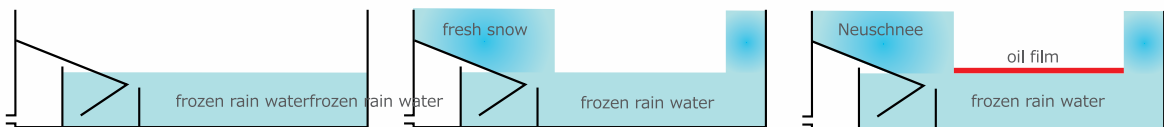
In general, a protector is resistant against sub-zero temperatures. Also, icing on the separator will be overcome without damage on the material. If the water inside the protector freezes during normal operation, the function of the protector will not be restricted. The necessary capacity and therefore the function of the protector are ensured without any heating even with freezing rain and snow.

Freezing rain water



The valve of the GGW will close and the drain is blocked with ice so that even if it starts melting, the oil and glycol are going to be restrained. The function of the oil- and glycol-protector will be guaranteed as the capacity is still available.

Snowfall



Snow falls only in the area of protrusion, not under the unit. The protector volume considers always a certain amount of rainfall / snow without letting the safety installations being restricted. The function of the Öl- and Glykolprotector will be guaranteed as the capacity is still available.



„Water will be the coal of the future. In the future, all our energy will come from water, which has been separated into its components by means of electricity. The separated elements of water, hydrogen and oxygen, will secure the energy supply of our world far into our future.“



Heating kit - our HEITHER

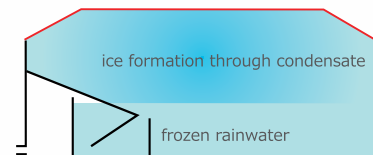
Defrosting system for protectors in an outdoor area

How does a heat pump work?

With temperatures just below zero, the humidity is high and water condenses and freezes on the fins of the air conditioning unit.

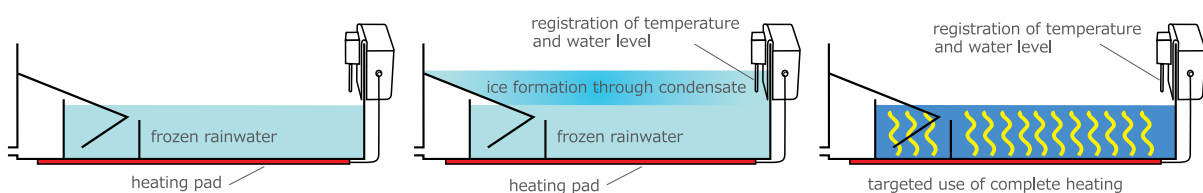
This will be flushed into the protector through the defrosting cycles and will freeze there again.

Without heating, a layer of ice will be built up which can limit the capacity of the protector heavily.



A complete heating solution will help here. To fulfill these requirements we offer a system which registers temperature and water level in the protector to start the heating targeted and efficiently.

The modern protector defrosting



Only if the layer of ice was built up by an additional condensate so far, that the functionality of the protector could be affected, will the heating be activated. The ice melts and the excess water drains. Afterwards, the heating turns off automatically. Additionally, a fault signaling contact is provided with the activation when the backlog of water or ice rises to warn the user in case of malfunction. The heating pads have to be installed straight underneath the protectors. In this way, a uniform heat distribution is reached. As an alternative, those could be placed also on the outer walls.

Especially with heat pumps the efficiency is of highest priority. Therefore, a targeted and efficient usage of electrical energy is highly important.





Legal position

Summary

In section 62 (1) of the German Water Resources Act the legislator specifies.

„Plants for storing, filling, producing, and handling of waterpolluting substances as well as plants which use water-polluting substances in the field of industries and in public facilities, have to be procured, installed, maintained, operated, and shut down that an adverse change of characteristics of waters do not have to be feared.“

The regulation about plants handling with water-polluting substances should specify these requirements. In section 1 (1), the legislator refers to the legislation of each state (Bundesländer). („Apart from that the legislation of each state is applicable.“) These are very similar in the basic requirements. The basic requirements of the sample VAWS, which was used as an identical basis for different plant regulations of each state (Bundesländer), are in wording:

„Leaking waterpolluting substances have to be identified quickly and reliably, restrained as well as according to the rules and harmlessly utilized or to be disposed. Normally, if the tanks are not double shell tanks with leakage indicator, the plant must have a leakage proof and durable secondary containment.“

Ester oils in original condition which are used in air conditioning unit comply with the WGK 1 or 2. Used lubricants, respectively waste oils have to be classified WGK 3 according to VwVWS and correspond therefore to maximum risk.

As soon as the refrigerating or air conditioning unit is being operated, the water hazard class will rise accordingly.

On the other hand, with chillers or heat exchangers a water glycol mixture is used to corrosion and frost protection. All glycols are at least classified in WGK 1 and have to be restrained as well. This applies also for the food-safe glycol.

The fine for violation against this law is limited to 50.000 €.

Moreover, the legislator sues the operator in case of an actual environmental damage with 100 % for the resulting damage on the environment. The operator is held accountable in any case for the removal of the damage and the ecological compensation. A maximum liability does not exist in the German environmental impairment act (USchadG). Claims for compensation can be forwarded to the specialists and plant manufacturers by the operator. Through the use of Öl- and Glykolprotektors, the incidental rainfall is going to be restrained. The requirements of the German Water Resources Act and the regulations plants handling water-polluting substances are fulfilled.



References

For a livable environment, also tomorrow

- Bundeskanzleramt, Berlin
- Auswärtiges Amt, Berlin
- The Squire, Frankfurt
- Max-Planck-Institut, Dortmund
- Max-Planck-Institut, Freiburg
- Max-Planck-Institut, Köln
- Max-Planck-Institut, Effelsberg
- Fraunhofer Institut, Efringen-Kirchen
- Fritz-Haber-Institut, Berlin
- Porsche Stuttgart
- Daimler Benz, Berlin
- Goodyear, Philippsburg
- EADS, Manching
- Deutsche Bank, Eschborn
- Feuer- u. Rettungswache, Potsdam
- Siemens Technopark, Berlin
- Bosch Rexroth, Lohr/Main
- Stadtwerke, München
- Industriepark Hoechst, Frankfurt
- SMA, Kassel
- Zentrum für Luft- und Raumfahrt, Berlin
- Vodafone, München
- Universität, Bonn
- Universität, Erlangen
- Technische Universität, München
- BayArena, Leverkusen
- Volksbank, Bad Bentheim
- Sparkasse, Recklinghausen
- Staatl. Bauamt, Nürnberg
- C&A, Augsburg
- Peek & Cloppenburg, Frankfurt
- Shopping Plaza Airport, Hamburg
- Zoofenster, Berlin

and many more...

Radiotelescope Effelsberg of
Max-Planck-Instituts





Inquiry form

In general, all protectors can be manufactured in any requested dimensions. Our Ölprotector are offered in 9 standard sizes, which are available within 1 - 2 days. For manufacturing special sizes for your individual requirements, we only need the dimensions as well as the required capacity.

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www.oelprotektor.de

Sicherheitsauffangwanne SAW (Please fill in all details below!)

Accessory: Pedestals Drain tap

Ölprotektor CUW (Please choose standard size. Please fill in special sizes below!)

Accessory: Pedestals Heating kit Protective leaf grill

Standard sizes	in mm (LxBxH)	Quantity of oil
<input type="checkbox"/> Type CUW 1	320 x 900 x 35	1,19 Ltr.
<input type="checkbox"/> Type CUW 2	400 x 950 x 35	1,52 Ltr.
<input type="checkbox"/> Type CUW 3	500 x 1150 x 35	2,30 Ltr.
<input type="checkbox"/> Type CUW 4	850 x 1140 x 35	3,87 Ltr.
<input type="checkbox"/> Type CUW 5	930 x 1140 x 35	4,24 Ltr.
<input type="checkbox"/> Type CUW 6	780 x 1500 x 35	4,68 Ltr.
<input type="checkbox"/> Type CUW 7	1200 x 1500 x 35	5,40 Ltr.
<input type="checkbox"/> Type CUW 8	850 x 1430 x 35	4,90 Ltr.
<input type="checkbox"/> Type CUW 9	590 x 1250 x 35	3,00 Ltr.

Included with the standard sizes are 4 stainless steel core and stainless steel 2 fixing screws included.

Delivery will be made within 24 hours.

Standard sizes CUW-S (Please fill in all details below!)

Glykolprotektor GGW (Please fill in all details below!) Waveprotektor WGW (Please fill in all details below!)

Accessory:

Pedestals Heating kit Protective leaf grill 2. Sensor for refrigerating cycle SMS fault signaling module

_____ mm _____

Project name

Quantity of oil in the machine (liter)

Quantity of water-polluting substances

Ölprotektor CUW
Sicherheitsauffangwanne SAW
Glykolprotektor GGW
Waveprotektor WGW

Time of delivery totals approximately 3 weeks from incoming order and clarification of all technical details.

- Please make a custom sketch to me.
 Please send over an installation manual.



Company: _____
Address: _____
Contact person: _____
e-Mail: _____
Phone: _____
Fax: _____

- Regular support
- Specialized company according to German WRA (Water Resources Act)

Date, Signature and company stamp