



**Gewässer  
Umwelt  
Schutz**  
GmbH



## **CUW oil protector**

Product brochure with TÜV certification



# Water – our most important resource

Since 2005, GUS Gewässer-Umwelt-Schutz GmbH has been highly regarded as an experienced partner when it comes to catchment systems for securing escaping water-polluting substances so that they can be properly and safely recycled or disposed of. Customers across Germany put their trust in GUS expertise.

## Quality at a fair price

GUS is the right choice if you're looking to ensure the highest quality, but also want to keep costs low. From our base in Nordhorn, Germany, qualified and highly-skilled workers create suitable systems for customer-specific applications. A

commitment to continuous further development, also in the area of accessories, is combined with in-depth analysis of all the work results within our team. These processes guarantee detailed precision for everything we do, and ensures the best price-performance ratio.

In close cooperation with our customers, our employees develop solutions that are optimally suited to the respective requirements at hand. Their qualifications and commitment are the foundation for our success.

The future – for a safe environment!



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*CUW oil protector mounted on insulation base*

### **CUW oil protector**



*CUW oil protector with oil separator*

The CUW oil protector consists of a stainless-steel catchment tray with integrated oil separator.

The CUW oil protector collects any leaked refrigerator oil. When it rains, refrigerator oil is retained by a patented oil separation system - in accordance with legal requirements. Rainwater continues to be drained.

The CUW oil protector is available in ten standard sizes.

The variable mounts allow installation on mounting beams, vibration dampers and wall brackets.

Custom sizes for refrigerators and air conditioners can be manufactured to suit all designs as per individual customer requirements.

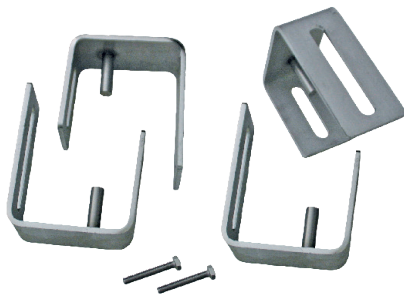


*CUW oil protector with mounting feet and locking screws*

### CUW oil protector scope of delivery



**CUW oil protector**  
as depicted



**Mounting feet**  
4 pieces per CUW oil protector

**Locking screws**  
2 pieces per CUW oil protector

**Note:**

Check if your delivery is complete



CUW oil protector  
with **GUS Foot**-mounting system

The **GUS Foot** is not included in delivery.

Assembly example

### CUW oil protector - Standard sizes

Standard sizes	L x W x H mm	Oil quantity Ltr.
CUW 1S	320 x 900 x 35	1.19
CUW 2	400 x 950 x 35	1.52
CUW 3	500 x 1,150 x 35	2.30
CUW 4	850 x 1,140 x 35	3.87
CUW 5	930 x 1,140 x 35	4.24
CUW 6	780 x 1,500 x 35	4.68
CUW 7	1,200 x 1,500 x 35	5.40
CUW 8	850 x 1,430 x 35	4.90
CUW 9	590 x 1,200 x 35	3.00
CUW 10	850 x 1,750 x 35	5.80
CUW 11	1,200 x 1200 x 35	6.77
CUW 12	1,200 x 1750 x 35	9.87



Material: *Stainless steel 1.4301*

Process: *Welding according to DIN EN ISO 9606-1*

### CUW oil protector - Custom sizes

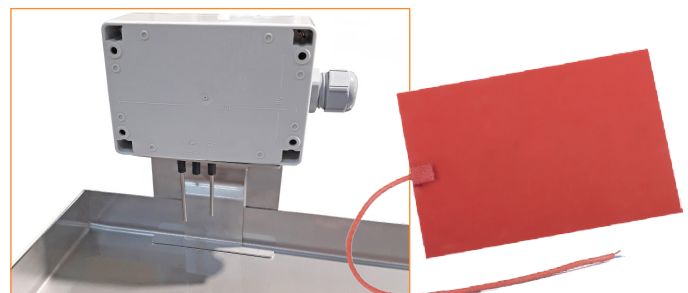
Custom sizes	
CUW S	Depending requirements



### CUW oil protector - Optional accessories



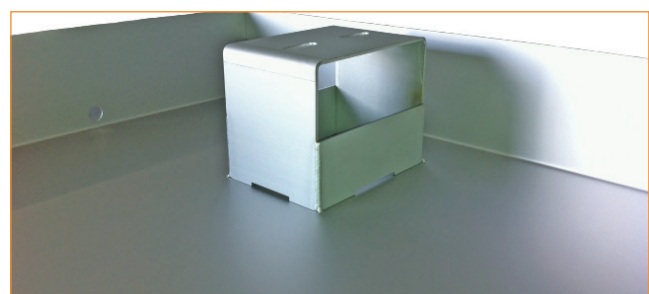
**Leaf protection grill** for a overall height up to 50 mm



**heating kit: Heating mat and HEITHER 3.0**



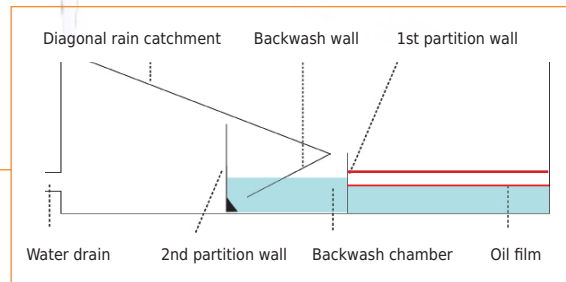
**Pedestals** for installation in oil protector



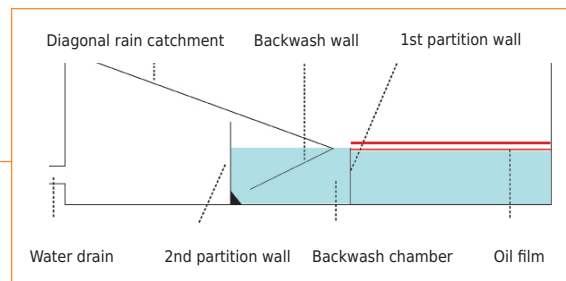
**Custom solutions** depending on requirements

## Function

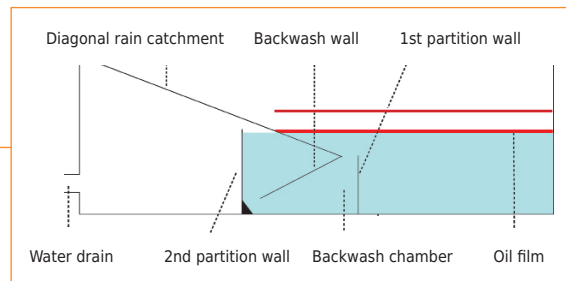
**1** When it rains, the spilled oil rises as an oil film on the rainwater in the catchment tray. The backwash chamber is filled by the rainwater three times as fast as the catchment tray.



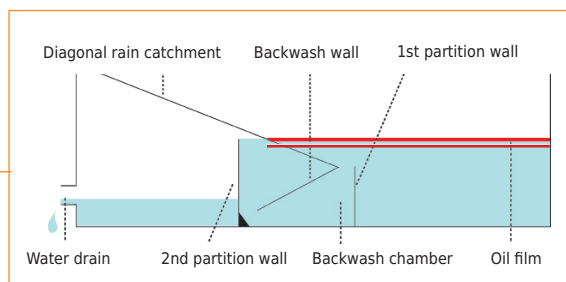
**2** When the level of the first partition wall is reached, the inflowing water is flushed from the backwash chamber into the catchment tray.



**3** The water level continues to rise to the level of the second partition wall.



**4** If the level continues to rise, the water separated from the oil continues to flow to the water drain.



## Description

The German Water Resources Act and the German Systems Ordinance regulate the handling of water-polluting substances. The stainless steel CUW Oil Protector helps meet these legal requirements.

In the event of leaks, the CUW Oil Protector prevents oil from water hazard classes one to three from contaminating the environment, as per legal requirements.

The patented catchment tray with integrated oil separator removes the highest amount of precipitation measured in Germany, without causing the tray to overflow.

The ten available standard sizes guarantee short-term delivery of the safety system for all common split and VRF devices.



## Extract of TÜV Technical Report

TÜV Rheinland Industrie Service GmbH  
Berlin Regional Area



TÜV Rheinland Group

**CLIENT:** GUS  
Gewässer - Umwelt - Schutz GmbH  
Lise-Meitner-Str. 14  
48529 Nordhorn, Germany

**Technical Report No.: 620/9537763**

### Oil Protector Rating

Processed by: Dipl.-Ing. Fischer  
Telephone: (030) 7562-16 74  
Our reference: BLD/620-FI

This report includes:  
Pages: 1 to 4  
Installations: 1 (Function: Oil protector)

Distributor:  
2 x client  
1 x file

Berlin: 07/07/2006

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3 Technical Report No. 9537763/1B



## 1. Order

Assessment of an oil protector for compliance with the German Water Resources Act and preparation of a technical report. The goal is to obtain a certificate of suitability from the responsible environmental authority.

## 2. Location and Description of Installation

90 compact refrigerators were installed on the roof at the Daimler Chrysler AG plant in Berlin-Daimlerstrasse in addition to other media, these contain oil to lubricate the rotating parts.

Each machine contains 28 litres of EMKARATE RL 28H refrigerator oil, classified in Water Hazard Class 1.

According to Section 3, Paragraph 2 of the Berlin Regulation on Installations for Handling Water Pollutants (WWS Berlin), installations must be designed and operated in such a way that any water-polluting substances that may leak are quickly and safely detected and retained - i.e. that there is no risk of water pollution or other adverse changes in their properties.

In the case of the installation under review here, there was a risk that, if no appropriate measures were taken, the refrigerator oil would reach the ground or surface water in case of a leak.

In order to meet the above-mentioned basic requirements, the refrigerators were installed in catchment trays with integrated oil separators.

## 3. Documents Submitted

- Safety data sheet for refrigerator oil EMKARATE RL 28 H / Company: Uniqema Emmerich
- Oil Protector documentation / Company: GUS Gewässer-Umwelt Schutz GmbH-Nordhorn

## 4. Requirements for the Oil Protector

The oil protector is part of the refrigerator's secondary protection. Special conditions such as tightness, resistance and sufficient strength for use are required of this device. By meeting the following requirements, the oil protector is suitable for the intended use.

- Only austenitic stainless steel 1.4301 may be used as the material

**4 Technical Report No. 9537763/TB**



- All welding consumables must be compatible with the base material
- Material certificates in accordance with requirement 3.1 B ADRW2 to DIN 10259 must be provided
- Welding methods must comply with EN 288-1, and the qualification of welders must comply with EN 287-1
- For the production of the oil protector, procedures must be used which the manufacturer has demonstrably mastered /AD-HP O, or for which a qualification certificate according to DIN 18800-7 has been awarded.

**5. Rating of the Oil Protector**

The oil protector is a tray-like device with an integrated oil separator.  
The size of the tray corresponds to the total quantity of refrigerator oil of the respective unit.  
In the event of leaks, the oil drips into the catchment tray and is retained there.  
Added rainwater causes the oil to float. The water can flow through the outlet or evaporate. The oil remains in the tray (see functional description in appendix).

During a test carried out on 06/17/06 on the roof of Bau 90, the functionality of the oil protector was successfully demonstrated. Sampling of the drained water showed 100% separation.

**6. Requirements for the Operator**

- To ensure proper functioning, the oil protector must be cleaned regularly.
- Leaked refrigerator oil must be disposed of in accordance with legal requirements.

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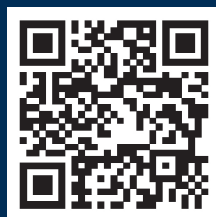
7. Test Result

If the requirements specified in this report are met, there are no safety-related objections to the use of the oil protector as a retention device for refrigerator oil. Requirements according to the Water Resources Act and the WRuS Berlin have been met.

The expert

  
Dipl.-Ing. Fischer

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