USER MANUAL

MODELS URS600CE
URS600CESS

URS600CE

European directive 2014/34 / EU

ECEx BAS11.0057
Baseefa11ATEX0118 CE1180
Ex db ib IIA T2 Gb

Uni-ram Corporation
381 Bentley St, Markham ON
L3R 9T2
uniram.com

Foreword

Dear Customer,

Thank you for the purchase of the Uni-ram URS600CE (SS) solvent recycler.

This manual contains all the necessary information for the installation, use and maintenance of the Uniram URS600CE and the URS600CESS (stainless steel). The difference between the two versions of the machine is that the standard URS600CE is fitted with a brass condenser and the Uniram 600SS (stainless steel) is fitted with a stainless steel condenser. This difference has no effect on the recycling process and this manual is applicable to both versions and talks about the machine with the generic term "URS600CE".

Be sure to read and understand this manual completely before you start using the URS600CE. If your URS600CE does not work according to the instructions or you have doubts about the instructions themselves or the safe operation of the machine, contact your supplier or the manufacturer before operating the machine:

Manufacturer: Uni-ram Corporation
381 Bentley Street, Markham, Ontario, Canada
L3R 9T2
uniram.com

We will continue to be of service to you and advise you about the safe installation, use and maintenance of the URS600CE.

The supplied technical documentation is also part of URS600CE. Keep this document in good condition at all times and within easy reach when using the URS600CE.

Contents

1. General

1.1. Copyright

This document is protected by copyright. The unlawful dissemination of this manual to third parties, reproduction in any manner whatsoever, including extracts, as well as exploitation or communication of its contents, is not allowed, unless expressly approved by the manufacturer. Violations will result in liability for damage. Uni-ram Corporation reserves the right to further claims.

1.2. Safety

All Uni-ram products are designed and manufactured to the highest standards of quality and safety. Nevertheless, operation, installation or maintenance errors can lead to dangerous situations. Read this manual completely in advance and follow the instructions in the warnings on the labels of this machine and in this manual at all times.

The URS600CE complies with the ATEX directives 2014/34/EU. To ensure safe operation you as a user must also meet a number of safety conditions.

The URS600CE is intended for professional use, in an environment where it is possible that hazardous substances (paints, lacquers, solvents) are present. Follow the instructions in this manual to operate the URS600CE safely and establish safe working procedures considering the risks associated with the environment.

The following safety symbols are used in this manual:

DANGER	Indicates that serious injury with possible death **will** result or serious damage **will** occur to the machine if the instruction is not followed properly.
WARNING	Indicates that serious injury with possible death **may** result or serious damage **may** occur to the machine if the instruction is not followed properly.
BE CAREFUL	Indicates that a slight injury may be sustained or damage to the machine may occur if the instruction is not followed properly.
Please Note:	Indicates that additional emphasis is on the instruction, but that there is no immediate danger of damage or injury.

To ensure safe use of the URS600CE, the following safety instructions must be followed at all times:

DANGER	**Never open the safety cover and the tank lid when the HEAT and/or FAN light are on.** The FAN light must be off indicating that the machine has cooled down sufficiently such that the safety cover and the tank lid can be opened safely.
DANGER	**Do not use water** as an extinguishing agent if a fire breaks out in the URS600CE.
WARNING	If the set-up requirements are not fully followed, this can result in a life-threatening situation!

WARNING	The URS600CE must be connected either to an explosion-proof ATEX receptacle using an ATEX explosion-proof plug or by direct connection to an explosion-proof switch that is suitable for ATEX zone 1 & 2 gas group IIA (in accordance with the ATEX installation standard EN 60079-14). Never connect the URS600CE yourself. Always use a competent, certified ATEX installer.
WARNING	If your workplace does not comply with ATEX requirements then you may not use the URS600CE. We advise you to seek advice from an ATEX expert.
WARNING	The URS600CE may only be operated by users who have read and understood the URS600CE manual and who are familiar with the risks and work instructions within the company in the context of the safety plan.
WARNING	Never move the URS600CE during the recycling process. This can lead to a dangerous situation.
WARNING	If there are doubts about the safe use of your URS600CE, always contact your supplier or Uni-ram Corporation before operating the URS600CE.
WARNING	Only recycle solvent mixtures with a self-ignition temperature above 280°C. For example, any mixture containing nitro-cellulose should not be recycled because it may self-ignite at 135°C.
WARNING	At the moment the HEAT light goes out, the solvent and the URS600CE are still near the boiling temperature. When the temperature drops below 50°C, the cooling fan stops and the FAN LED light goes out. Only then has the machine cooled down sufficiently such that the safety cover and the tank lid can be opened safely.
WARNING	Unplug the power cord or switch off the breaker and “lock” before all maintenance and service work. Confirm that power to the machine is off. If the URS600CE is in operation, first follow the steps in chapter 2.3 'Safe shutdown', and then unplug the power cord.
BE CAREFUL	Do not recycle acidic or chlorinated solvents as they can damage the machine and jeopardize safe operation.

Please note! Water absorbs more heat than solvents and needs more time to recycle. The URS600CE works well with water, it works faster with solvents.

Please note! Solvents suitable for recycling may be flammable. Set up and follow safe work practices for storing and transporting flammable solvents.

Please note! One extra Liner Bag is supplied as a spare part, but order new ones before they run out. Order only recycler bags made by Uni-ram. A package of 10 bags is part number LB900C-10. Other package sizes are also available.
Please note! It is possible that the residue of some paints remains moist after recycling due to the composition of the paint. It is not guaranteed that the residue will be dry.

Please note! Do not use abrasive or hard metal tools that could damage the tank when cleaning. This damage is not covered by the warranty.

Please note! A small amount of solvent remains in the tank after the recycling process due to condensation. To minimize corrosion, remove the liquid. In addition, to maintain good heat transfer, clean out any dirt and residue in the tank.

Please note! Acidic or chlorinated solvents often cause corrosion to the stainless steel distillation tank. This manifests itself as black pits in the tank. Excessive corrosion leads to an unsafe situation with leakage as a result. Check the tank after each cycle. In case of excessive corrosion, contact the service/ repair department of Uni-ram Corporation

Please note! Make sure you always have a spare lid gasket in stock. One additional lid gasket is included with the purchase of the URS600CE.

Please note! Never repair the URS600CE yourself, use a recognized expert.

Please note! Only use original spare parts for maintenance and repairs.

Please note! Always use original brand lid gaskets in this machine.

Please note! If the solutions proposed in the troubleshooting guide do not solve the problem, please contact the service/repair department of Uni-ram Corporation

1.3. Personal protective equipment (PPE)

When using the URS600CE, you must wear protective clothing at all times in accordance with the Health and Safety legislation and as indicated on the Material Safety Data Sheet (MDSD) of the solvent you wish to use. In any case, you should always wear the following protective clothing while using the URS600CE:

EN 1149-1,2,3 and EN 13034 certified antistatic clothing

EN 166 certified safety glasses

EN 374-3 certified gloves

EN 405 certified filter mask

At least S1 anti-static safety shoes

1.4. Scope

The URS600CE is designed for professional users to distill contaminated solvents for reuse. The cost to transport waste sovlents off-site is reduced for a lower environmental impact and virgin solvent purchases are reduced. This may include the distillation of solvents contaminated with paint, varnish or ink residues, which are produced during cleaning processes used by lacquer/ink processing companies.

Place the machine in a well-ventilated and safe ATEX room without potential sources of ignition based on the international standard EN 60079-10-1: 2009) "classification of hazardous areas with regard to risk of explosions". Please note that recycled solvent in the container under the machine may itself release vapour. This will affect the zoning in your safety plan. A URS600CE may only be placed in zone 1 and zone 2.

1.5. Intended and unintended use

The URS600CE is solely and exclusively intended to make contaminated solvents reusable by distilling it and thus separating all contaminants from the solvent. It is suitable for solvents with a boiling point below 200°C.
The URS600CE is only to be used in rooms that comply with ATEX requirements.

This machine recycles flammable and explosive mixtures, including varnish and paint solvent, acetone and other paint thinners.

The URS600CE is not intended to recycle solvents with auto-ignition temperatures below 280°C.

* auto-ignition temperature: The temperature at which the liquid ignites itself, without the need for a flame.

1.6. Working principle

Contaminated solvent consists of the original solvent together with, when used, liquid and solid materials. The recycling process separates the original solvent from the waste materials. During the process, the tank which is filled with the contaminated solvent is heated by the heating element. When the URS600CE is at temperature, the solvent boils. The vapour is fed through the vapour outlet fitting to the condenser, where the clean solvent condenses back to a usable liquid. Waste materials in the contaminated solvent boils at a temperature that is much higher than the boiling set temperature, the waste materials, therefore do not vapourize and remain in the distillation tank. At the end of the process, these waste materials which are collected in the liner bag, can be disposed of in accordance with local regulations.

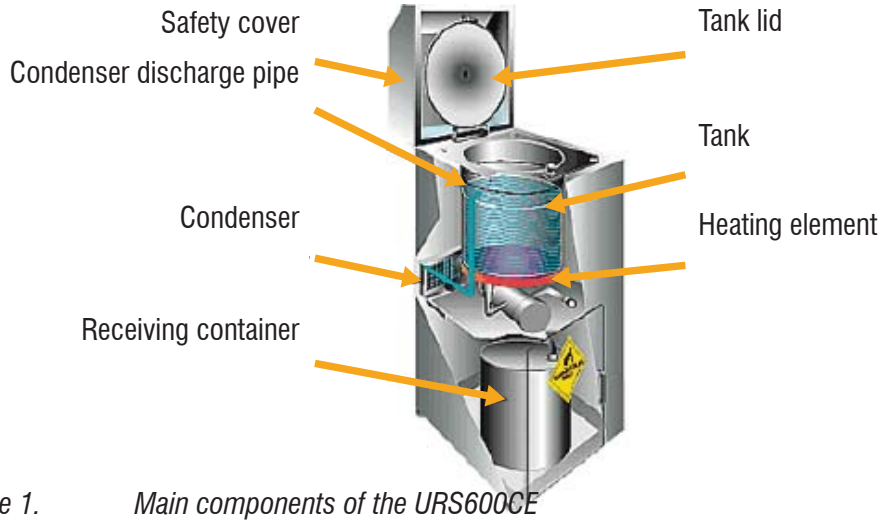


Figure 1. Main components of the URS600CE

1.7. Limitation of Liability

Uni-ram Corporation accepts no liability for damage by:

- Failure to follow this manual.
- Unintended use.
- Maintenance by unqualified personnel.
- Unauthorized modifications.
- Unaurthorized technical changes.
- Use of spare parts not recommended by the manufacturer.

Uni-ram Corporation is not responsible for damage to equipment after it has left the warehouse.

1.8. Transportation

The URS600CE weighs approximately 60 kg. Always lift the URS600CE with at least two people to avoid injury.

1.9. End of lifecycle

When the URS600CE is no longer used or can be used, it must be disposed of in accordance with the regional regulations regarding the disposal of electrical equipment.

1.10. Product overview

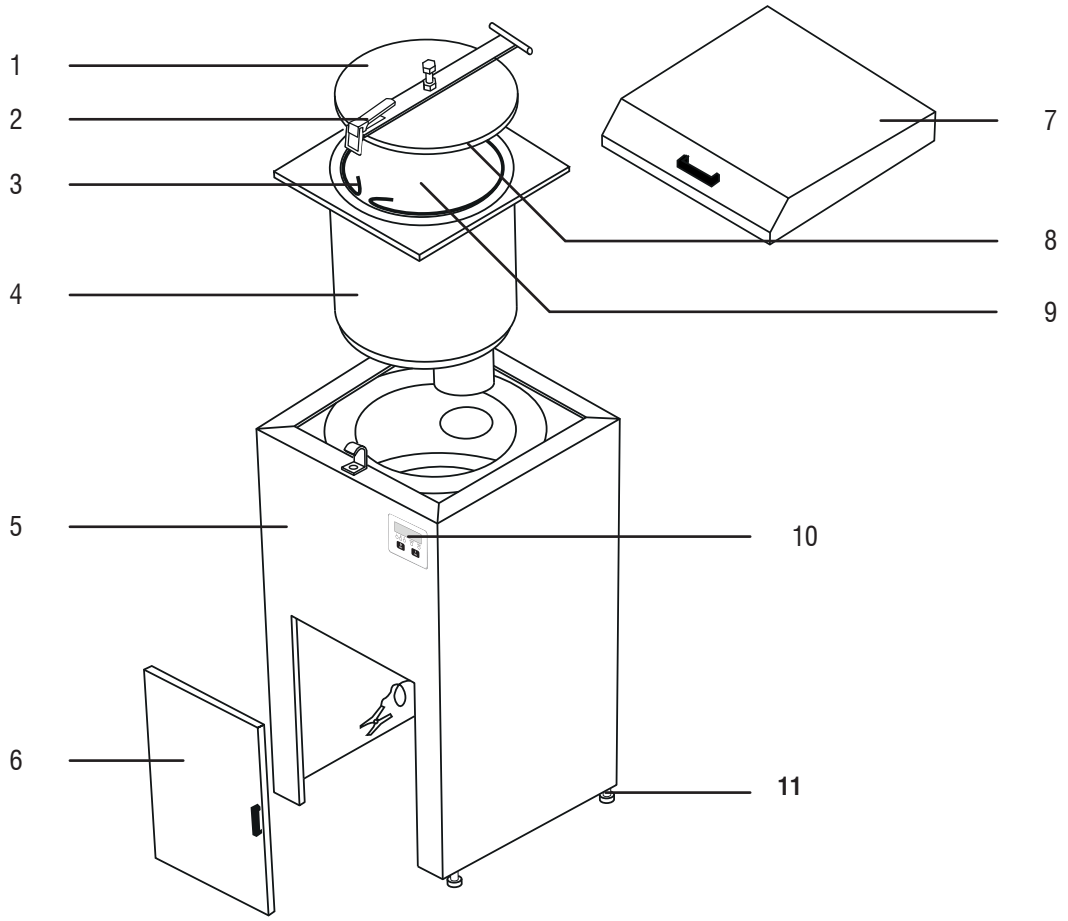


Figure 2. Overview of components of the URS600CE

	Description
1	Lid
2	Lid clamp
3	Bag holder
4	Tank
5	Housing
6	Door
7	Safety cover
8	Lid gasket
9	Liner bag
10	Control panel
11	Adjustable foot (4x)

1.11. Overview of Safety Labels

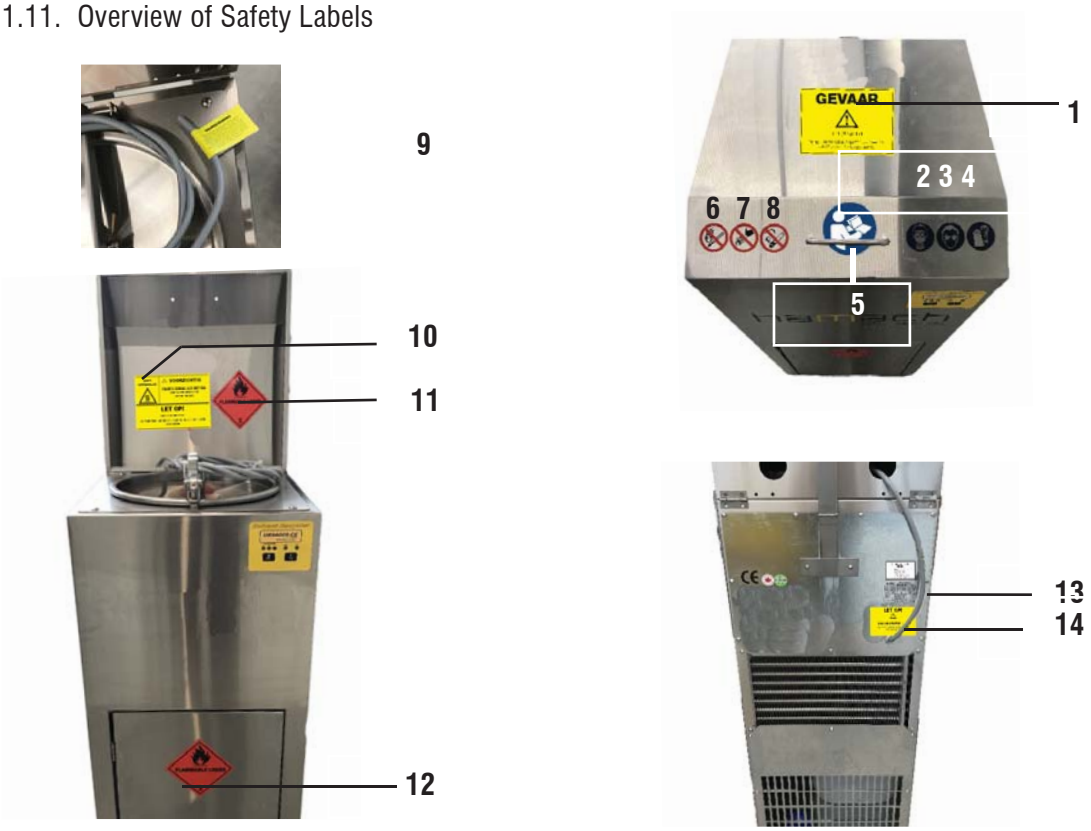


Figure 3. Overview of warning labels

	Description
1	Danger: hot surface, open the safety cover only when the FAN and HEAT LED lights are off.
2	Wear an EN 405 certified filter mask.
3	Wear EN 166 certified safety glasses.
4	Wear EN 374-3 certified gloves.
5	Read the manual before using this appliance.
6	Smoking is prohibited in the vicinity of this appliance.
7	Do not use water to extinguish a fire in the appliance. See the MSDS for the correct extinguishing agent for the solvent used.
8	Keep this appliance away from any naked flame sources.
9	Warning: The URS600CE must be connected either to an explosion-proof ATEX receptacle using an ATEX explosion-proof plug or by direct connection to an explosion-proof switch that is suitable for ATEX zone 1 & 2 gas group IIA (in accordance with the ATEX installation standard EN 60079-14). Never connect the URS600CE yourself. Always use a competent, certified ATEX installer.
10	- Warning: hot surface. - Caution: tank lid may be hot during use. - Please Note: do not overfill, the maximum capacity of the distillation tank is 20 litres.
11	Warning: flammable solvents.
12	Warning: flammable solvents.
13	Nameplate of the URS600CE.
14	Warning: risk of overheating, always keep 15 cm distance from obstacles.

1.12. Supplied accessories

Accessory	Number
20 litre HDPE receiving container with 3 cm opening	1
Liner bag	1
Bag retaining ring	1
Lid gasket (spare)	1

1.13. Overview of the control panel

The control panel is located in the top right-hand corner of the cabinet.

	Part
1	LED light L
2	LED light M
3	LED light H
4	HEAT LED light
5	FAN LED light
6	I / ON control button
7	O / OFF control button

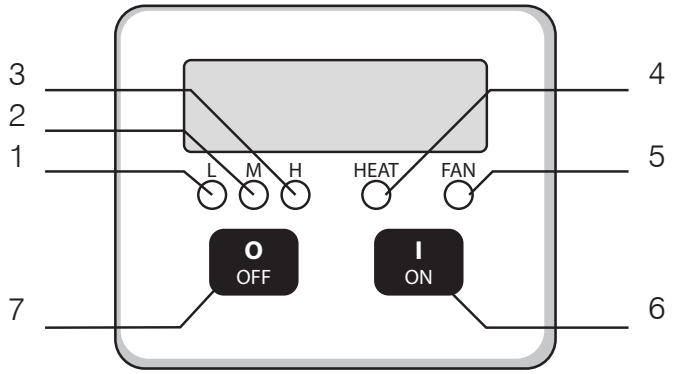


Figure 4. Components of the control panel

The HEAT LED light is on when the heater is operating. If it flashes, the heating is operating at reduced power. The FAN LED light is on when the cooling fan is running.

DANGER **Never open the safety cover and the tank lid when the HEAT and/or FAN light are on.** The tank has sufficiently cooled when the fan light has gone off. The FAN light must be off before the safety cover and the tank lid can be opened safely.

In the event of failure during use, the self-diagnosis system will identify the problem and display an error message via the flashing LED lights (L and M). See chapter 4.6 "Error codes" of this manual for instructions when the LED lights are flashing.

1.14. Safety provisions in the URS600CE:

The URS600CE is constructed, tested and certified according to the European Directive:
ATEX Directive 2014/34/EU

and complies with European Directives:
Machinery Directive 2006/42 / EU
Low Voltage Directive 2014/35/EU
Electromagnetic compatibility: 2014/30/EU

- The URS600CE complies with standard EN 60079-0: 2012: equipment for use in potentially explosive atmospheres - part 0 General requirements.
- The URS600CE has the ATEX coding: EX db ib IIA T2 Gb. For an explanation of this code, see section 1.14: Nameplate.
- The URS600CE provides the user protection in the form of flameproof housing according to EN 60079-1:2014.
- The URS600CE provides the user protection in the form of intrinsic safety according to EN 60079-11:2012.
- The computer-controlled self-diagnosis system constantly monitors all functions, displays every fault and disconnects the power to the heater when the set temperatures are exceeded.
- The safety timer automatically switches off the power to the heater after 6 hours.
- The safety timer switches off the power to the heater if the solvent does not boil within 45 minutes.
- The container is housed inside the stainless steel cabinet.
- The URS600CE has an efficient direct heating system without the annoying need to replace the diathermic oil.
- The URS600CE has an extra safety cover which protects the user against the hot surface of the tank lid and in the case of blockage or leakage/sweating ensures that the user does not directly come into contact with hot solvent vapours.
- The safety thermostat on the tank switches off the power to the heater if the temperature in the tank rises above 280°C.
- The temperature sensor on the condenser shuts off power to the heater when the temperature of the recycled solvent vapour rises above 75°C.
- Under normal operating conditions the temperature of the clean solvent in the receiving container will be about 7°C above the ambient temperature.
- The tank lid is equipped with an automatic pressure relief mechanism as a safety measure. In the event of a pressure increase in the distillation tank, the safety pressure system will release pressure at 0.035 to 0.070 Bar.

Other features:

- Ease of maintenance.
- Short start-up time. Due to the direct electrical heating of the solvent, it is not necessary to replace diathermic oil.
- Short cooling time due to the high-efficiency condenser, which is air-cooled by a motor-driven fan.

1.15. Name plate

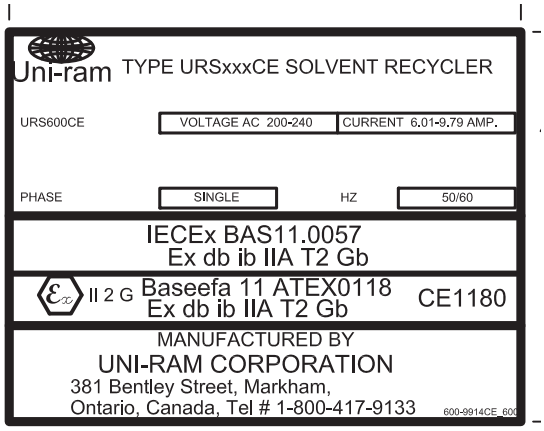


Figure 5. Nameplate of the URS600CE

Ex	EU symbol for explosive environment
db	Protection through flameproof housing - high safety level
ib	Zone / measurement control
IIA	Gas group
T2	Temperature Class 2
Gb	Equipment protection level, G = gas, b = Zone 1

Figure 6. Explanation of the ATEX code

1.16. Serial Number

The serial number of the URS600CE can be found on the silver label on the back of the cabinet. Make a note of the serial number and refer to it in communications on service matters. At the back of this manual you will find a note page where you can write down this number.

2. Installation

2.1. Preparation

- Carefully inspect the packaging material for traces of transport damage. Damage to the packaging could indicate possible transport damage to the URS600CE.
- Carefully remove the URS600CE from its packaging.
- Immediately check your URS600CE for any damage.
- Report transport damage to the carrier to start the claim procedures.
- Check the accessory set you received from the list in section 1.8. If any parts are missing, please contact the supplier where you purchased the URS600CE.

2.2. Set-up requirements

WARNING	If the set-up requirements are not fully followed, this can result in a life-threatening situation!
WARNING	The URS600CE must be connected either to an explosion-proof ATEX receptacle using an ATEX explosion-proof plug or by direct connection to an explosion-proof switch that is suitable for ATEX zone 1 & 2 gas group IIA (in accordance with the ATEX installation standard EN 60079-14). Never connect the URS600CE yourself. Always use a competent, certified ATEX installer.
WARNING	If your workplace does not comply with the ATEX requirements then you may not use the URS600CE. We advise you to seek advice from an ATEX expert.

The URS600CE should be placed in a well-ventilated and safe ATEX room without potential sources of ignition according to the international standard EN 60079-10-1: 2009 "classification of hazardous areas with regard to risk of explosions".

Please note that recycled solvent in the receiving container in the cabinet of the URS600CE may itself release vapour. This will affect the zoning in your safety plan.

As far as the maximum zoning in the room where a URS600CE is placed, our advice is as follows:
The zoning that is created in the room by the URS600CE at maximum:
Zone 1: The space inside the cabinet door where the receiving container is placed and in a radius of at most one meter from the corners of the URS600CE.
Zone 2: The space in a radius up to three meters from the outside corners of the URS600CE.

The URS600CE can be safely placed in zones 1 and 2 with other sources of vapours in the space.

We would like to point out that for companies working with potentially explosive atmospheres (ATEX), it is a legal requirement to have a risk analysis and safety plan including zone classification. The final zoning depends on the risk analysis you have carried out, the specific situation and the factors in your company. Part of the safety plan is to acquaint the employees with the safety risks and to provide specific work instructions. If you have any doubts about your risk analysis and/or safety plan, always consult an expert for further advice.

If the above-mentioned set-up requirements have not been met, you may not use the URS600CE. In that case, please contact an ATEX expert installer who can follow the installation instructions.

2.3. Set-up

1. Place the URS600CE in a well-ventilated and safe ATEX room without potential sources of ignition according to the international standard EN 60079-10-1: 2009 "classification of hazardous areas with regard to risk of explosions".

2. Make sure there is at least 15 cm of free space behind and next to the URS600CE to ensure proper cooling.

3. The URS600CE may only be installed in rooms with an ambient temperature between 5°C and 40 °C.

4. Ensure that there is at least 50 cm of free space at the front of the URS600CE, so that the door can be fully opened and the receiving container for the recycled solvent can be easily slid in and out.

5. Make sure there is at least 50 cm of free space above the URS600CE to ensure the safety cover can be completely opened.

6. Adjust the adjustable legs so that the URS600CE stands level.

7. Install the handle of the door with the two supplied screws.

8. Use a competent, certified ATEX installer to connect the machine either to an explosion-proof ATEX receptacle using an ATEX explosion-proof plug or to a direct connection to an explosion-proof switch that is suitable for ATEX zone 1 & 2 gas group IIA (in accordance with the ATEX installation standard EN 60079-14).

9. Use the ATEX expert to connect the ring terminal of the ground wire located on the back of the solvent recycler to the grounding system of the building under IEC 60079-14.

Ground wire located on back of recycler.

2.4. Safe switch-off under normal circumstances

DANGER Never open the safety cover and the tank lid when the HEAT and / or FAN light is on. It is only when the FAN light goes out, indicating that the URS600CE has cooled down sufficiently, that the safety cover and the tank lid can be opened.

If the URS600CE is in operation and you notice that the above-mentioned connection instructions have not been complied with and/or you notice that the machine is not working properly:

1. As a precaution, stop the URS600CE by pressing OFF. The cooling fan will continue to run.

2. Never open the URS600CE before it has completely cooled down. The FAN LED light must be off and the cooling fan has stopped running.

3. When the FAN LED light is off, you can safely open the safety cover, the tank lid and the door of the URS600CE to remove the contaminated and clean solvent.

4. Do not operate the URS600CE until it has been checked and approved by an expert.

2.5. Safe switch-off in a dangerous situation

There is a leak of solvent from the URS600CE during the recycling process If you notice vapour escaping from the under safety cover or if you notice more vapour in the room than usual.

1. As a precaution, stop the URS600CE by pressing OFF. The cooling fan will continue to run.
2. Never open the URS600CE before it has completely cooled down. Wait for the FAN LED light to go out, and the cooling fan has stopped running.
3. Immediately ventilate the area where the URS600CE is located to allow the solvent vapour to dissipate as quickly as possible.
4. When the FAN LED light is off, you can safely open the safety cover, the tank lid and the door of the URS600CE to remove the debris and clean solvent.
5. Do not operate the URS600CE until it has been checked and approved by an expert and the lid gasket has been replaced and a potential blockage in the vapour outlet fitting has been resolved. See section 4.3 'Replacing the lid gasket' and 4.4 'Cleaning the vspour outlet tube for instructions.
6. In order to check the proper functioning of the URS600CE, it is advisable to recycle about 10 litres of clean water as a test

2.6. Safe handling in the event of fire

WARNING	**Do not use water** as an extinguishing agent if a fire breaks out in the URS600CE.
WARNING	Always check for the specified extinguishing agent on the SDS of the solvent that you are going to recycle.
WARNING	In the event of a fire, always keep a safe distance from the URS600CE.

1. Use the specified extinguishing agent for the solvent used to safely put out the fire.
2. Let the URS600CE cool down completely once the fire has been extinguished.
3. Do not operate the URS600CE until it has been checked and approved by an expert.

3. Use

3.1. Preparation

WARNING	The URS600CE may only be operated by users who have read and understood the URS600CE manual and who are familiar with the risks and work instructions in the context of the safety plan of the company.
WARNING	Never move the URS600CE during the recycling process. This can lead to a dangerous situation.

WARNING	If there are doubts about the safe use of your machine, always contact your supplier or Uni-ram Corporation before operating it.

Please note! The solvents which have been/will be recycled may be flammable. Set up and follow safe work practices for storing and transporting these solvents.

Give everyone who works with the machine clear instructions about working safely in accordance with Health and Safety legislation and also with this manual's instructions regarding installation, use and maintenance.

For the safe use of the URS600CE, you must comply with your obligations in accordance with the ATEX Directive 153 (Directive 1999/92 / EC) about explosion protection. If you do not comply with these obligations or you are not familiar with this Directive, you may not use the URS600CE. We advise you to seek advice from an expert ATEX advisor.

Check the lid gasket for damage before each use. A damaged lid gasket leads to poor sealing and vapour leakage, which is dangerous and wasteful.

3.2. Requirements for recyclable solvents

The contaminated solvent that is to be recycled must meet the following requirements:

- The boiling point of the contaminated solvent is below 200°C. The boiling point increases as the contamination increases.
- The auto-ignition temperature* of the solvent is higher than 280°C.
- The solvent has recently been contaminated, stagnant solvent can be acidic. The solvent is suitable for distillation.

Check the material Safety Data Sheet (SDS) from your solvent supplier beforehand for the flammability, autoignition point, toxicity and boiling point of the solvent. If you do not have these at your disposal, always ask for this from your supplier in advance.

WARNING	Only recycle solvent mixtures with a self-ignition temperature above 280°C. For example, any mixture containing nitro-cellulose should not be recycled because it may self-ignite at 135°C.
BE CAREFUL	Do not recycle acidic or chlorinated solvents as they can damage the machine and jeopardize safe operation.

* Auto-ignition temperature: The temperature at which the liquid ignites itself, without the need for a flame.

3.3. Place the liner bag in the Tank

Only use original the bag retainer ring and original liner bags for the URS600CE.

Please note! One extra liner bag is supplied as a spare part, but order new ones before they run out. To do this, use part number: Liner bag - LB900C-10.

On delivery, the tank of the URS600CE comes equipped with an installed liner bag and a bag retainer ring. With the first use you can proceed to section 3.4. The liner bag can only be used once. If the liner bag needs to be replaced, please follow the next steps.

Open the safety cover of the URS600CE completely.

1. Unlock the tank lid clamp by lifting the clamping lever and open the lid.

Figure 7. Opening the tank lid

2. Check that the tank is empty.
3. Check that the liner bag is suitable for use with no risk of leakages.
4. Install the liner bag so that the bottom is flat on the bottom of the tank.
5. Insert your fingers into the loop of the frame ring and press to reduce the diameter.
6. Insert the frame ring into the liner bag in the tank and release so that the ring is just above the edge in the distillation tank.
7. Fold the lip of the bag all the way around over the ring.
   Please note! Ensure that the liner bag does not block the vapour outlet fitting of the tank.

You have now placed the liner bag.

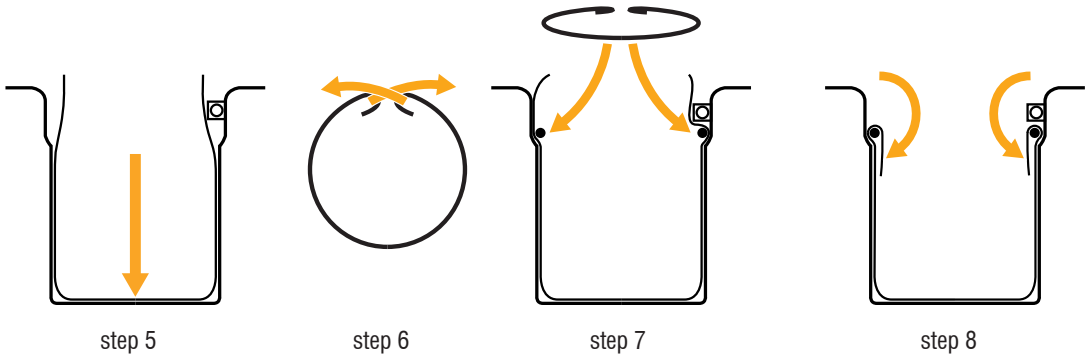


Figure 8. Steps for placing the liner bag with the bag holder

3.4. Filling the URS600CE with contaminated solvent

1. Check whether the contaminated solvent meets the requirements as stated in section 3.2.
2. Carefully pour the contaminated solvent into the liner bag in the distillation tank.
   Please note! The URS600CE has a maximum capacity of 20 litres, do not overfill. Fill the tank with at least 6 litres of the solution.
3. Fill the tank to a maximum of 4-5 cm below the retainer ring, otherwise the contaminated solvent may

flow into the condenser and cause a blockage or stain and / or contaminate the distilled solvent.
Please note! When pouring in the contaminated solvent, ensure that everything goes into the liner bag so that no contaminated solvent flows between the liner bag and the distillation tank.

BE CAREFUL	Avoid inhalation of vapour during the filling or cleaning of the distillation ttank.

4. Close the tank lid.

5. Lock the tank lid with the lid clamp.
   Please note! Make sure that the tank lid closes properly to prevent leakages.

6. Close the safety cover.

7. Open the door on the front of the URS600CE.

8. Place the supplied HDPE receiving pail with a 3.0 cm diameter opening inside the cabinet of the URS600CE.
   Please note! Always use the supplied HDPE pail with the **3.0 cm** opening. The small opening limits the possible formation of vapour to a minimum.
   Please note! Do not recycle paint remover and cleaning solvents in the same receiving container.
   Please note! The HDPE pail comes with a cap. Keep the cap in a safe location and return the cap to the opening of the pail when transporting the solvent in the pail away from the URS600CE.

Figure 9. Place the HDPE receiving pail in the cabinet. Remove the cap. Position the discharge tube in the 3.0 cm opening.

9. Place the empty HDPE receiving pail with the 3.0 cm opening so that the 13 mm (diameter) condenser outlet hose sticks into the opening of the pail lid.
   Please note! Make sure the condenser outlet hose is not kinked or blocked and that it extends at least 2.5 cm into the opening.

10. Close the door on the front of the URS600CE.

You are now ready to set up the URS600CE.

3.5. Setting the boiling temperature

There are six temperature settings available on the URS600CE. The boiling temperature set point is indicated by the green LED lights (see figure 3 on page 11).

Select the lowest possible boiling temperature at which the solvent will be recycled. This is done by selecting the setting which comes closest to the boiling point of the contaminated solvent. This is calculated by adding 40°C to the boiling point of the pure solvent.
Please note! The boiling point of the solvent increases with greater contamination.

Please note! All temperature settings are indications for the starting point of the boiling phase and will depend on the solvent and the degree of contamination.

Below is an overview of the settings and the corresponding indication:

Temperature setting	**LED lights**		
	L (1)	M (2)	H (3)
90 °C	On		
115 °C	On	On	
140 °C		On	
165 °C		On	On
190 °C			On
200 °C	On	On	On

To set the temperature, follow these steps:

1. Make sure the HEAT and FAN LED lights are off.
2. Press and hold the OFF button. Press the ON button several times until the desired setting is selected.
3. Release the OFF and ON buttons at the same time.

You have now set the temperature.

3.6. Solvent recycling

1. Press the ON button. The recycling starts and the HEAT and FAN LED lights turn on.

The pre-heating phase takes about 10 to 15 minutes depending on the volume and boiling point of the contaminated solvent. The boiling phase begins when the temperature reaches the boiling point of the solvent. The distilled solvent starts to drip from the condenser outlet hose into the receiving container with a maximum speed of 9 to 12 litres per hour.

Once the boiling phase is over, the HEAT light will go out.

WARNING

At the moment the HEAT light goes out, the solvent and the URS600CE are still around the boiling temperature. When the temperature drops below 50°C, the cooling fan stops and the FAN light goes out. It is only then the FAN light goes out that the URS600CE has cooled down sufficiently and the safety cover and the tank lid can be opened.

The URS600CE is ready for the next operation. At this moment, the Ready L, Ready M and/or the Ready H LED lights are lit in accordance with the temperature setting, but the FAN and HEAT LED lights are not lit.

The recycling process is complete.

3.7. Handling the waste and recycled solvent.

1. Remove the receiving container with recycled solvent and seal it with the original supplied cap.
2. Do not store the recycled solvent in the URS600CE.
3. Remove the retainer ring holding the liner bag in place.
4. Carefully remove the liner bag with the remaining waste from the distillation tank. Ensure the bag does not tear or get damaged.
   Please note! It is possible that the residue of some paints remains moist after recycling due to the composition of the paint. It is not guaranteed that the residue will be dry.
5. Dispose of the waste according to regional regulations.

The URS600CE is now ready to be cleaned.

3.8. Cleaning the tank and lid

1. Remove any residual waste material from the tank. Use plastic or wooden tools as necessary.
   Please note! Do not use abrasive or hard metal tools that could damage the tank. This damage is not covered by the warranty.
2. Wipe the tank clean and dry with a dry cloth.
3. Clean the lid and the top of the tank where the lid sits and dry with a dry cloth. This prolongs the life of the lid gasket and prevents leakages. Avoid turning the lid during cleaning.

Please note! A small amount of solvent may remain in the tank after the recycling process due to condensation. Dry the bottom of the tank with a cloth. Dirt and residue in the tank can mean the URS600CE takes longer to heat up and could damage the tank.

Please note! Acidic or chlorinated solvents can cause corrosion to the stainless steel distillation tank. This manifests itself as black pits in the distillation tank. Excessive corrosion leads to an unsafe situation with leakage as a result. Check the tank after each process. In case of excessive corrosion, contact the service/repair department of Uni-ram Corporation.

3.9. Check the lid gasket and replace if necessary

Check the lid gasket before use for shrinkage, hardness, cracks or other damage. The lid gasket wears out because it is exposed to high temperatures and solvent vapours during the recycling process. Damage to the lid gasket can lead to leakage of solvents. Replace the lid gasket, at a minimum, every 6 months.

See chapter 4.3 "Replacing the lid gasket" of this manual for instructions about replacing the lid gasket.
Please note! Make sure you always have a spare lid gasket in stock. One additional lid gasket is included with the purchase of the URS600CE.

4. Maintenance

WARNING If the URS600CE is in operation, first follow the steps in chapter 2.4-2.5 for a 'Safe shutdown'. Then, unplug or disconnect the power cord from the receptacle or switch off and “lock out” the breaker before all maintenance and service work.

Please note! Only use original spare parts for maintenance and repairs.

Ensure that the warning labels and the lights on the URS600CE are clearly visible at all times so that they can alert the URS600CE users to safe use.

Please note! Never repair the URS600CE yourself, use a recognized expert for this. Please contact your supplier. If returning your URS600CE for repair, the distillation tank must be empty, otherwise your solvent recycler cannot be repaired.

4.1. Periodic maintenance

Before each use:
- Keep the area around the URS600CE is clean and free of debris.
- Check the outside and inside of the URS600CE for visible damage. Do not turn on the URS600CE if you have detected any damage.
- Check the lid gasket for damage. A damaged lid gasket leads to poor sealing and vapour leakage which is dangerous and wasteful.
- Inspect the condenser at the back of the unit. Clean the condenser if necessary. Refer to section 4.2 ‘cleaning the condenser’.
- Make sure the unit is at least 15 cm from the wall for unobstructed ventilation.
- Check the tank for residue and remove it.
- Wipe the top surface of the tank before closing the lid and make sure it is free from paint and contaminated solvent.

Every month:
- Inspect the power cord for wear and damage. If replacement is necessary, use only a proper cord (according to European specification H05 VVF 3G 2.5 - this cable may not be longer than 3 meters according to the ATEX requirements) and the replacement should be carried out by a competent installer for ATEX equipment.
- Clean the condenser: refer to section 4.2 'cleaning the condenser'.
- Clean the vapour outlet fitting. Refer to section 'Cleaning the vapour outlet fitting’ of this manual.

Every 3 months:
- Run two recycling processes with 20 litres of clean solvent to keep the vapour outlet fitting and the condenser clean.

Every 6 months:
- Replace the lid gasket preventively.

Every year:
- Have the URS600CE serviced and inspected annually by an expert. In addition, make sure that the URS600CE is always in good condition. Please contact youir supplier for this.

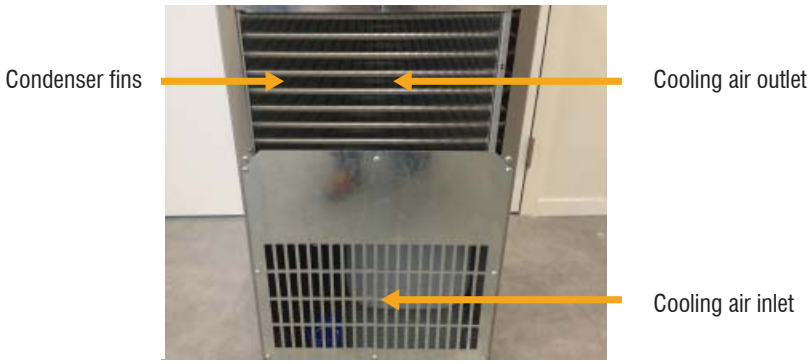


Figure 10. The rear side of the URS600CE

4.2. Cleaning the condenser

The condenser must be regularly checked and cleaned to ensure that it is free of dust and waste. Dust and waste that has collected on the other side of the condenser is not visible in the URS600CE. If the condenser overheats due to excessive dust, the process will stop and the LEDs will give the fault code 23 or 24. See section 4.6 "Fault codes" of this manual for instructions when these errors are indicated.

To clean the condenser, the dust can be blown away with an air gun, or by using a vacuum cleaner with a brush attachment.

4.3. Replacing the lid gasket

Please note! Always use original lid gaskets in the URS600CE.

To replace the lid gasket, follow these steps:

1. Open the safety cover and the tank lid.

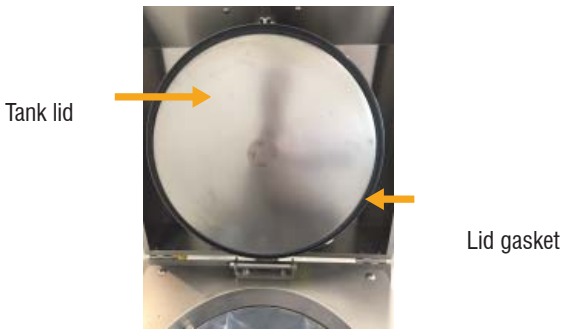


Figure 11. Tank lid of the URS600CE

2. Hold the lid open with one hand and remove the damaged lid gasket using a flat screwdriver.
3. Clean the edge of the lid where the lid gasket was with a scuff / abrasive material (non-woven), so that all contamination is removed before the new lid gasket is introduced.

4. Install the new lid gasket by hand, by gradually pressing the ring all the way around with your fingers. It is important that the ring is placed flat and no deformations are visible.
   This can be checked by the horizontal seam on the ring, which must be straight along its entire length.
   Do not use tools or sharp objects while installing the new lid gasket as they may damage the gasket.

You have replaced the lid gasket.

5. In order to check the proper functioning of the lid gasket, it is advised to recycle the tank once with about 10 litres of clean water.

4.4. Cleaning the vapour outlet fitting

A blockage in the vapour outlet fitting can cause solvent to leak out of the URS600CE.

1. Unscrew the vapour outlet tube. This can be loosened by hand. If this doesn't work, carefully use a water pump pliers.

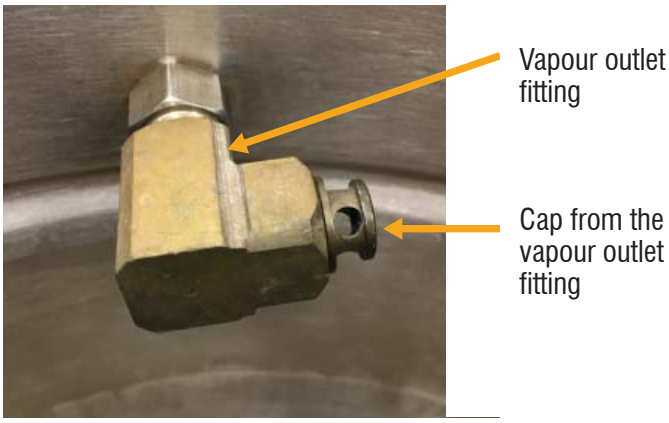


Figure 12. The vapour outlet fitting with cap

2. Check the vapour outlet fitting and the opening of the vapour outlet fitting for visible signs of blockage.

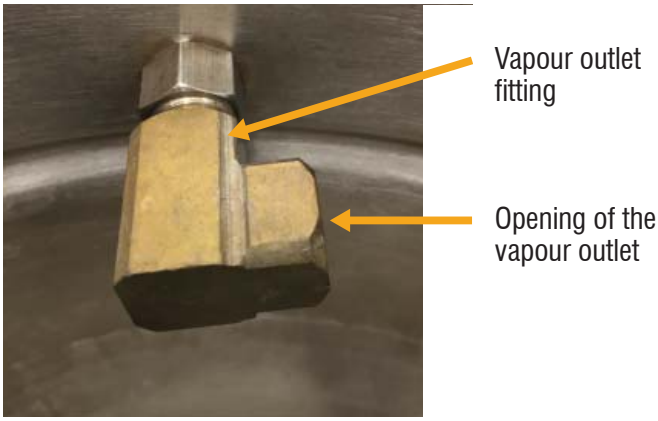


Figure 13. The vapour outlet fitting

3. Clean the vapour outlet cap. It is important that all openings in the cap are clear. If a layer of lacquer / residue is blocking the openings, remove it with a small drill, or allow the cap to soak in thinner and then scrape the dirt off with a metal pin.

Figure 14. Vapour outlet fitting

4. If the blockage is not in one of these places, then the condenser is probably blocked. You should then contact the service/repair department of Uni-ram Corporation

4.5. Troubleshooting

In this section you will find some possible fault symptoms and their possible causes and recommended solutions.

- The URS600CE is connected but the "Power On" lamp is not lit.

Cause	Solution
There is no supply of power from the building to the URS600CE.	Check the breaker at the panel of the building and ensure that 200/240V AC single-phase voltage is being supplied.
The problem is not due to a lack of power from the building to the URS600CE.	Contact the service/ repair department of Uni-ram Corporation

- The URS600CE is connected, the Ready LED lights are on; L , M or H but the HEAT LED light does not turn on when ON is pressed.

Cause	Solution
PCB is defective or fuse is not working.	Contact the service/ repair department of Uni-ram Corporation

- Recycling has finished but there is still more than 500 ml of solvent in the distillation tank.

Cause	Solution
The boiling temperature is set too low.	Increase the set boiling temperature as required for the solvent. To do this, follow section 3.6: Setting the boiling temperature. Check whether the solvent is suitable for the URS600CE according to the requirements in section 3.2.

Due to dirt or residue in the distillation tank, the heat is not properly transmitted.	Clean the distillation tank and try again.
The solvent to be recycled contains too much contaminants that increase the boiling temperature.	Increase the set point if possible and recycle more often. Some solvents have a boiling point higher than 200°C and cannot be recycled in this equipment. A Uni-ram solvent recycler with a vacuum feature is required.

- The recycled solvent is not clear.

Cause	Solution
A chemical reaction has taken place in the solvent.	Reduce the boiling temperature according to section 3.6.
There is debris in the vapour outlet fitting. This may be due to overfilling the distillation distillation tank.	Follow the steps from chapter 4.5: Cleaning the vapour outlet fitting.
The recycled solvent colour ranges from blue to green. Milky colour due to the presence of water.	The solvent is acidic and reacting with the copper condenser. Replace the copper condenser with a stainless steel condenser. Contact the Service/ repair of Uni-ram Corp. Remove the source of water from the solvent.

- Vapour is leaking from the URS600CE during the recycling process. There is a leak of solvent under the edge of the safety cover or there is more vapour than usual in the room. Follow the steps from section 2.3 ‘Safe switch-off’.

Cause	Solution
The lid latch closes with an insufficient amount of pressure.	Contact the service/ repair department of Uni-ram Corporation
The lid gasket has excessive wear, cracks or another defect.	Replace the defective gasket. Follow the steps from section 4.3 ‘Replacing the lid gasket’.
The tank is scratched, dented or otherwise damaged on the surface where the lid seals causing leakage.	Contact the service/ repair department of Uni-ram Corporation
The tank lid is not positioned correctly on the distillation tank.	Contact the service/ repair department of Uni-ram Corporation
The boiling temperature is set too high, so that too much solvent vapourizes and the pressure in the tank is too high.	Contact the service/ repair department of Uni-ram Corporation
The condenser vapour outlet fitting is blocked preventing solvent vapour to flow.	Follow the steps from section 4.4 ‘Cleaning the vapour outlet fitting.

- The computer is not working properly.

Cause	Solution
The functions on the computer are not working.	Unplug the power cord or switch off the circuit breaker for one minute, reconnect power and use the URS 600 again.

- The liner bag sticks to the bottom of the tank.

Cause	Solution

There is solvent present between the liner bag and the distillation tank. The waste material reacts with the bag and damages the bag.	Turn on the URS600CE on for 5 minutes and lift the bag out when it is still warm. Try reducing the boiling temperature per section 3.6

4.6. Fault Codes

If a fault is detected during use, the HEAT light will switch off. The LED light L will flash a number of times then the LED light H will flash a number of times to indicate a code. For example, if the light L flashes 2 times and then the light H flashes once the fault code is 21.

The heating element is switched off automatically except in the case of fault code 22.

Press the OFF button to stop the fault code, follow the required operation as described below and press ON before starting after the fault has been rectified.

Fault code	Flashing LED light		Description of the fault	Required Action
	Ready L	Ready H		
11	1x	1x	The thermocouple of the tank is broken and has an open circuit.	Contact the service/ repair department of Uni-ram Corporation
12	1x	2x	The thermocouple of the condenser has an open circuit.	Contact the service/ repair department of Uni-ram Corporation
13	1x	3x	Computer fault.	The computer must be replaced. Contact the service/ repair department of Uni-ram Corporation
21	2x	1x	The heating circuit has an open circuit.	Contact the service/ repair department of Uni-ram Corporation
22	2x	2x	The heating triac is broken and the heating is still "ON".	Unplug the power cord safely. Allow the URS600CE to cool down for at least 3 hours. Under no circumstances should you open the lid until the URS600CE has cooled down completely. Contact the service/ repair department of Uni-ram Corporation
23	2x	3x	The condenser is overheated.	The heating circuit is turned off automatically until the temperature in the condenser falls below 75°C. If this process takes longer than 10 minutes, the URS600CE switches to a fault code 24.

Fault code	Flashing LED light		Description of the fault	Required Action
24	Ready L 2x	Ready H 4x	Code 23 lasts more than 10 minutes.	The heating circuit is automatically turned off but the fan will continue to cool until the FAN light goes out. Once the URS600CE has cooled down, disconnect the power cord in a safe manner. Remove the remaining solution/ residue from the distillation tank. 1. Inspect and clean the condenser on the outside, so that all the cooling fins are clean and free (see section 4.3). 2. Check that the URS600CE has at least 15 cm free space around it and the temperature in the room is between 5 and 40 °C. 3. Check that the fan motor is working properly. To do this, reconnect the URS600CE to the power supply in the empty state and switch the URS600CE on briefly. The fan motor should switch on. If these steps have been completed without problems, run a test cycle with 15 litres of clean water to test whether the problem has been fixed. If this doesn't work, contact the service/repair department of Uni-ram Corporation
31	3x	1x	The solvent does not reach the boiling point within 45 minutes.	Wait until the FAN light goes out and the URS600CE has cooled down. Empty and clean the distillation tank, replace the liner bag and fill the tank with at least 6 litres of solvent.
			The set temperature is too low for the type of solvent.	Wait until the FAN light goes out and the URS600CE has cooled down. Check the boiling temperature of your solvent. Set the URS600CE to a higher temperature if this is allowed.
			Boiling temperature of the solvent is too high.	You cannot recycle this solvent.
32	3x	2x	Reset occurred due to a power failure.	Press the OFF and then the ON button to continue the process. Normally, the URS600CE is not faulty.

Fault code	Flashing LED light		Description of the fault	Required Action
33	Ready L 3x	Ready H 3x	Recycling was not completed within 6 hours due to a power failure or because the boiling set point was too low for the solvent.	Increase the boiling set point and try again. When the setting of READY (H) alone does not work, the highest boiling set point, the solvent has a boiling point higher than 200°C and cannot be recycled. Normally, the URS600CE is not faulty.

4.7. Spare parts

Below is a list of the spare parts that can be ordered and their corresponding part numbers.

Part	Part number
Liner Bag	LB900C-10 or LB900C-100
Retainer Ring for liner bag	770-9110
Lid Gasket	770-2150N

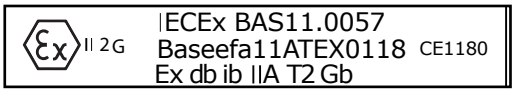
5. Technical properties

Model	URS600CE	
Power supply voltage / frequency	AC 200-240V, 1 phase	50 / 60 Hz
Current	6.01 - 9.79 Amperes	
Recommended fuse protected generator	15 Amperes	
Working conditions	Ambient temperature:	5 °C – 40 °C
	Mains supply fluctuations (+10/-10%)	
	Transient overvoltage/ overvoltage category (OVC II)	
	Applicable pollution degree (2)	
	Humidity (80% up to 31° C decreasing lin. to 50% at 40 °C.)	
	Altitude (max. 2000 m)	
	Only intended for indoor use in a well-ventilated and safe ATEX room with no potential sources of ignition. A URS600CE may only be placed in zone 1 and zone 2. Protect URS600CE against sunlight and ambient heat. Avoid direct contact with moisture, dust, dew and frost.	
Transport and storage conditions	Ambient temperature:	-20 °C – 40 °C
Maintenance	See section 4: Maintenance	

Maximum surface temperature	240 °C
Measured noise emission	63 dB

URS600CE	
Part number	URS600CE
Model	URS600CE
Length	48 cm
Width	48 cm
Height	115 cm
Weight	46 kg
Tank capacity	20 litres
IP classification	IP20
Lid gasket	Neoprene
Drainage system for solvents	No
Receiving container	HDPE Pail with 3 cm diameter opening

5.1. ATEX code



(No. DC18101)

EU DECLARATION OF CONFORMITY

Equipment Type: URS600CE Solvent Recycler

Manufacturer: Uni-ram Corporation

Address: 381 Bentley Street, Markham, Ontario L3R 9T2, Canada

This declaration of conformity is issued under the sole responsibility of the manufacturer

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:	The following harmonised standards and other technical specifications were used in support of this declaration:
Machinery (MD) Directive 2006/42/EC	EN ISO 12100:2010
Electromagnetic compatibility (EMC) Directive 2014/30/EU	EN 61000-6-1:2007 EN 61000-6-3:2007/A1:2011/AC:2012 EN 61000-4-2:2009 EN 61000-4-3:2006+A2:2010 EN 61000-4-4:2012 EN 61000-4-6:2014
Low voltage (LVD) Directive 2014/35/EU	UL2208-2010 CSA C22.2 No.88-1958(R2009)
ATEX Directive 2014/34/EU	EN 60079-0:2012 + A11:2013 EN 60079-1:2014 EN 60079-11:2012 EN 80079-36:2016 EN80079-37:2016

Notified body SGS Baseefa (number 1180) performed EU-Type examination in accordance with Annex III of the ATEX directive and issued the certificate: Baseefa11ATEX0118

Notified Body SGS Baseefa (number 1180) performed Conformity to type based on quality assurance of the production process in accordance with Annex IV of the ATEX directive and issued the QA Notification document: Baseefa ATEX 4354

Provisions of the ATEX directive fulfilled by the equipment:	Group II Category 2G Ex db ib IIA T2 Gb

Declaration Reference: HAR1701 ,INTERTEK273-2418-01, HAR1401,CRIQ670-28435, Baseefa11ATEX0118/3,

Signed for and on behalf of: (manufacturer) Uni-ram Corporation

Sam Yamamoto President (signature):	(place and date of issue): Markham, Ontario, Canada Febuary 15, 2018

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