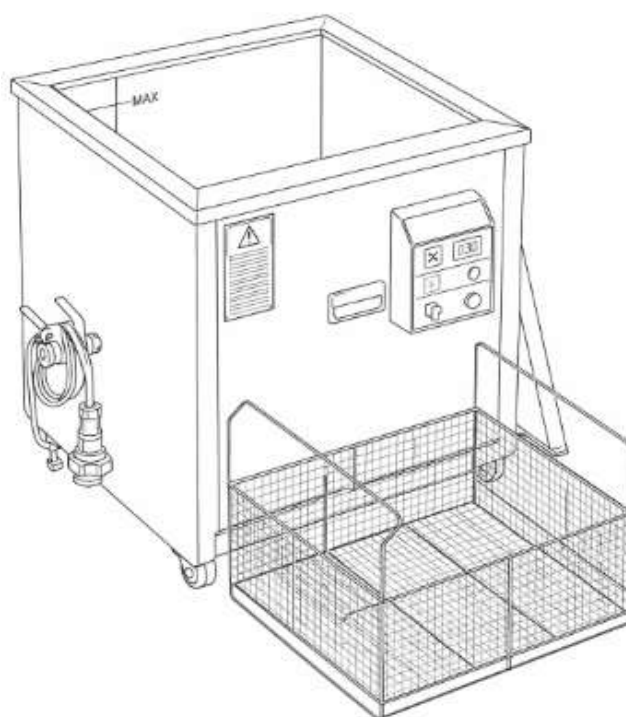




User Manual

Ultrasonic Cleaner 120L

Type - UC120DFN



Read this manual carefully before using the ultrasonic cleaner.



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1. Saving the user manual

Keep this user manual carefully. The information in this document may be required for installation, use, maintenance, or troubleshooting. Always keep the manual accessible for future reference. This user manual contains important safety instructions and legal information. Retain the document for the entire lifespan of the product. Always include the manual when the product is resold, transferred, or moved. It is mandatory to keep this user manual in a centrally accessible location. Employees working with this product must have access to the most recent version of this documentation at all times.



Dispose of electrical appliances in an environmentally friendly manner.

Do not throw electrical appliances in with household waste. In accordance with European Directive 2012/19/EU on electronic equipment, they must be collected separately for recycling. Contact your local authorities for available disposal options for your worn-out appliance.

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2. General description

The industrial ultrasonic cleaner is a professional cleaning system that uses high-frequency ultrasonic vibrations to thoroughly remove dirt, grease, rust, and deposits. The cleaning process is based on the cavitation principle, in which microscopic air bubbles in the liquid implode, thereby loosening dirt, even in hard-to-reach places.

3. Environment & disposal

The ultrasonic cleaner is designed for sustainable and efficient use. The use of ultrasonic technology limits the amount of harsh cleaning agents, which reduces the environmental impact. Preferably use biodegradable and non-flammable cleaning agents.

Replace used cleaning fluid in a timely manner and dispose of it in accordance with applicable local environmental regulations. Never pour contaminated liquids into the sewer system without proper inspection.

At the end of its lifespan, the device should not be disposed of with household waste, but should be disposed of as electrical and electronic waste (WEEE) via an approved collection point or recycling company, in accordance with local legislation.

4. Symbols



- Read the manual



- Hearing protection mandatory



- Eye protection required



- Safety gloves required



- Keep hands away from moving parts.



- Warning: Hot surface



- Warning: Electrical hazard

5. Safety instructions

5.1 Use and operation

- Never use the device without liquid in the tank.
- Do not use flammable cleaning agents.
- Do not touch the on/off switch with wet hands.
- Do not let the device run continuously for longer than 24 hours.
- Switch off the device immediately in the event of smoke, sparks, or malfunctions.

5.2 Electrical safety

- Ensure that the power cable is connected correctly.
- Prevent water or cleaning fluid from getting into the housing or onto the transducers.
- Unplug the unit before maintenance or when changing fluids.

5.3 Placement and ventilation

- Place the device on a stable surface.
- Ensure that ventilation openings are not blocked.
- Do not place the device on a soft surface that prevents ventilation.

5.4 During use

- Keep the lid closed to limit splashing and evaporation.
- Do not place objects directly on the bottom of the tank (use a basket).
- Do not overload the tank; ensure sufficient space between objects.
- Remove spilled liquid immediately.

5.5 Limitation

- Do not use by persons without supervision or instruction.
- Not suitable for certain gemstones or fragile materials.

5.6 Residual hazard

- Risk of burns from contact with the heated cleaning fluid or the inside of the tank.
- Risk of electric shock when using a damaged power cable or during improper maintenance.
- Risk of slipping due to spilled cleaning fluid around the device.
- Exposure to vapors of the cleaning fluid used. Use only suitable, non-flammable cleaning agents and ensure adequate ventilation.
- Risk of injury from lifting or moving the device without first emptying the tank.

6. Applications

- Mechanical parts
- Engine parts, carburetors, bearings, metal parts.
- Electronic components
- Printed circuit boards (PCBs), electronic components.
- Medical instruments
- Precision instruments and metal medical devices.
- Car and motorcycle parts
- Tools
- Printer parts
- Jewelry (With the exception of certain fragile or porous gemstones)

Not suitable for:

- Porous materials
- Certain soft or fragile gemstones such as:
- Opal
- Emerald
- Turquoise
- Other sensitive natural stones
- Plastic

7. Schematic ultrasonic cleaning process

1. SUS304 Tank

The stainless steel tank is filled with a cleaning solution.

2. Transducers

Transducers (vibration elements) are located under the tank.

These convert electrical energy into high-frequency ultrasonic vibrations.

3. Generator

The generator supplies the electrical energy to the transducers.

4. Cavitation process

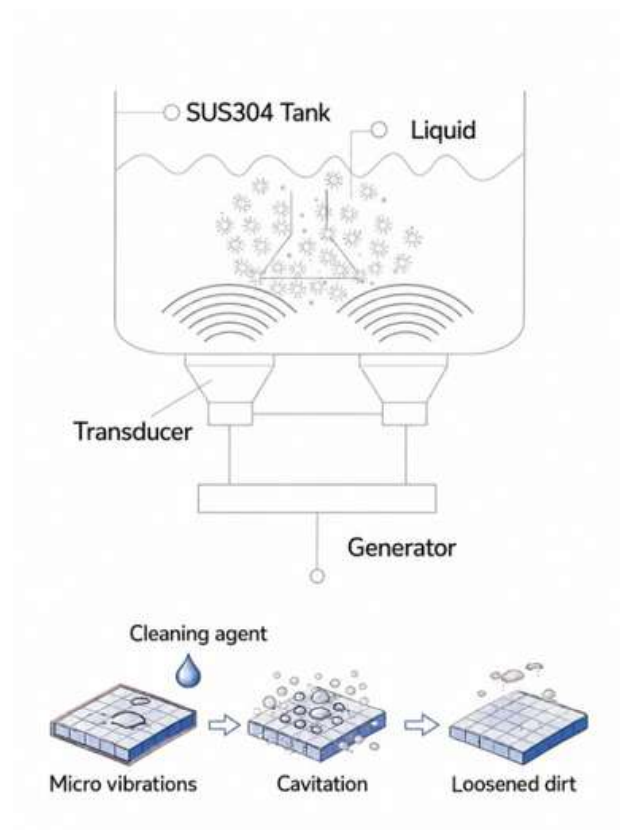
The ultrasonic vibrations create microscopic air bubbles in the liquid.

These bubbles:

- caused by tiny vibration (micro-vibrations),
- implode (cavitation),
- and ensure that dirt comes loose from the surface (peel off debris).

5. Detergent

The cleaning agent (detergent) helps loosen and remove the dirt.



8. Preparation of the Ultrasonic Cleaner

8.1. Unpacking and inspection

- Carefully unpack the cleaner.
- Remove all packaging material.
- Check that no parts have come loose or been damaged during transport.

8.2. Placement of the device

- Place the cleaner on a flat and clean surface.
- Ensure adequate ventilation around the device.
- Check that all control buttons are switched off.
- Check that the drain valve is closed.

8.3. Electrical connection

- Connect the device exclusively to a grounded 3~400 V / 50 Hz outlet that complies with applicable regulations. Check that the power cable and plug are undamaged before use. Do not use the device if damaged. Ensure that the power cable does not come into contact with water, cleaning fluid, or hot surfaces. Switch off the device and unplug it from the power source before performing maintenance or replacing the cleaning fluid.

8.4. Filling the tank

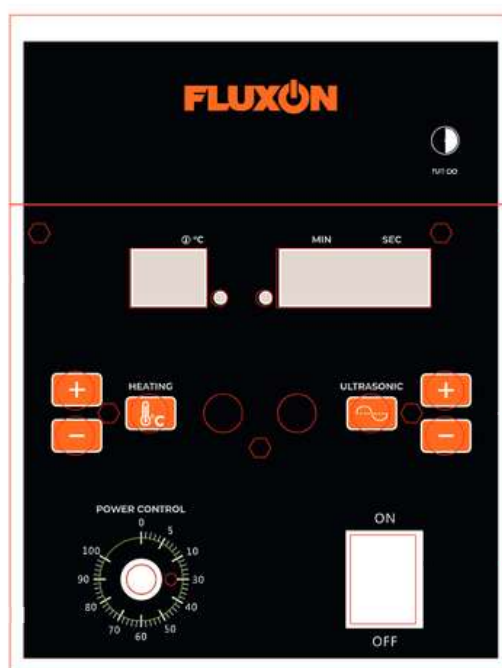
- Fill the tank with water and a suitable non-flammable ultrasonic cleaning agent, for example Disc HTW5. Read the accompanying instructions for use before using the cleaning agent.
- Fill the tank between the MIN and MAX markings.
- Depending on the cleaning needs, it is recommended to add a small amount of detergent to improve performance.
- After filling, the device is ready for use.

9. Control panel

• Heating-indicator
Indicator light showing
whether the heating is
active.

- Heating + / –
buttons
For raising or
lowering the
temperature.

- Power control rotary
knob (0–100)
For regulating the
power/intensity.



• Ultrasonic-indicator
Indicator light showing whether
the ultrasonic function is active.

- Ultrasonic + / – buttons
For setting the cleaning
time.

• On/Off switch
Main switch to turn the device on or off.

10. Instructions for use

10.1. Switch on ultrasonic function

- Press “ULTRASONIC +” to set the operating time (1–99 minutes).
- Press “ULTRASONIC -” to shorten the time.
- During operation, you will hear a slight hissing sound; this means that the cavitation is working correctly.
- The ultrasonic process can be stopped via the “Ultrasonic” or “OFF” button.

10.2. Start heating function

- Set the temperature with “Heating +” (0–80°C).
- Lower the temperature with “Heating -”.
- Press “Heat” to start the heating function.
- The heating function can be switched off separately via the heating button.
- Recommended temperature: approximately 40–50°C for optimal cavitation effect.

Note: With a filled tank, the heating time from approximately 24 °C to 50 °C is approximately 25 minutes. The actual heating time depends on the ambient temperature, the volume of fluid, and the cleaning fluid used.

10.3. Power control

- The ultrasonic power can be set between 0% and 100%.
- Higher power density results in a stronger cavitation effect (suitable for coarse fouling).
- A lower power setting is suitable for delicate parts.
- During operation, you will hear a slight hissing sound; this means that the cavitation is working correctly.

10.4. Stopping the process

Ultrasonic stop:

- Press “Ultrasonic” or “OFF”. The indicator light goes out.

Stop heating:

Press “Heating” to switch off

- Turn off the ON/OFF button.
- Disconnect the power supply

11. Cleaning methods

General cleaning

- Use water with a temperature of approximately 50 °C
- Optionally add a few drops of mild cleanser
- For heavy soiling: special ultrasonic cleaning agent

Warning:

- No strong acidic/alkaline agents (risk of corrosion)
- Use mild pH value
- Tank is SUS304 stainless steel

Cleaning fluid maintenance:

- Change fluid regularly
- Carefully clean and dry the tank
- Do not use abrasive agents

11.1 For better cleaning effect

Power density

- Higher power density = stronger cavitation effect
- Large workpieces → high power
- Small workpieces → lower power
- Typical: 12–20 W/L

Frequency

- Low frequency → stronger cavitation
- High frequency → better fine cleaning
- Common frequencies: 40 kHz

Practical tips

- Immerse to below the MAX mark
- Use cleaning agent Disc HTW5
- Leave space between objects
- Best temperature: 40–50°C
- Above 70–80°C, the effect decreases.
- Longer time = better result (with exceptions)

12. Specification

Characteristic	Specificatie
Model	120D
Tank dimensions	600 x 500 x 400 mm
Capacity	120 liter
Frequency	40 kHz
Ultrasonic power	1500 W
Heating capacity	4000 W
Supply voltage	3~400V
Adjustable time	1 - 99 minuten
Temperature range	0 - 80 °C
Cleaning agent	Disc HTW5

13. Malfunctions

Problem	Possible Cause	Solution
No ultrasound	Fuse	Check
No heating	Thermostat	Check
Poor cleaning	Contaminated cleaning liquid	Replace
No display	Power supply	Check

14. Maintenance

Maintenance Task	Frequency
Check the power cord and plug for damage.	Before each use
Check the liquid level and refill if necessary.	Before each use
Check that the drain valve is properly closed.	Before each use
Replace the cleaning liquid if it is contaminated.	After use / As required
Clean the tank with a soft cloth and a mild cleaning agent.	After use
Dry the tank and lid after cleaning.	After use
Clean the exterior of the unit.	Weekly
Check the ventilation openings and remove any dust or debris.	Monthly
Check the operation of the controls, heating, and ultrasonic function.	Monthly
Have the electrical system and internal components inspected by a qualified technician.	Annually or in the event of a malfunction

Important

- Always unplug the power source before performing maintenance.
- Do not use abrasive cleaning agents, steel wool, or harsh chemicals.
- Prevent water or cleaning fluid from getting into the electrical components.
- Use only original or manufacturer-approved parts for replacement.

15. Warrantly

Warranty Terms and Conditions

1. This warranty shall enter into force on the date stated on the original purchase invoice and shall remain valid for a period of twelve (12) months.
2. This warranty is non-transferable unless prior written consent has been obtained from the supplier.
3. Warranty claims will not be accepted without presentation of the original purchase invoice.
4. This warranty shall apply exclusively provided that the product has been used in full compliance with the instructions contained in the user manual and solely for its intended purpose.
5. No alterations, modifications, or technical changes may be made to the product.
6. This warranty shall be void in the event of improper, negligent, or incorrect use of the product.
7. Transportation, shipping, and related costs are expressly excluded from this warranty.
8. Any repair work must be carried out exclusively by the supplier or an authorised service partner. Repairs performed by unauthorised third parties shall immediately void all warranty rights.
9. Repairs performed during the warranty period shall not result in an extension of the original warranty period. However, a separate warranty period of three (3) months shall apply to the repaired components, provided that the original warranty period has expired.
10. All maintenance and servicing operations described in the user manual must be performed in a timely and proper manner. Failure to do so may result in the warranty becoming void.
11. Warranty claims may only be submitted to the original point of sale at which the product was purchased.

**EU Declaration of conformity – Konformitätserklärung - Declaration de
conformite**

Wij, Valkenpower BV, Haverkamp 11, 6051 AC Maasbracht, Nederland, verklaren geheel onder eigen verantwoordelijkheid dat de producten

We, Valkenpower BV, Haverkamp 11, 6051 AC Maasbracht, Nederland, declare under our sole responsibility that the product described below

Wir, Valkenpower BV, Haverkamp 11, 6051 AC Maasbracht, Nederland, erklären in alleiniger Verantwortung, dass das nachfolgend beschriebene Produkt

Nous, Valkenpower BV, Haverkamp 11, 6051 AC Maasbracht, Nederland, déclarons sous notre seule responsabilité que le produit décrit ci-dessous

Type Model Art Type	Beschrijving Description Beschreibung Description	Merk Brand Marke Marque
UC120DFN	Ultrasoonreiniger	Fluxon
UC120DFN	Ultrasonic cleaner	Fluxon
UC120DFN	Ultraschallreiniger	Fluxon
UC120DFN	Nettoyeur à ultrasons	Fluxon

Waarop deze verklaring betrekking heeft, in overeenstemming zijn met de volgende normen:

To which this declaration relates is in conformity with the following document:

Auf dem sich diese Erklärung bezieht, mit dem folgendem Dokument übereinstimmt:

Auquel se réfère cette déclaration est conforme à le document suivant:

De machinerichtlijn:Following the provisions of the following Directives:Gemäß den Bestimmungen der Richtlinie:Conformément aux dispositions de la Directive:

2014/35/EU - Low Voltage Directive (LVD)

2014/30/EU - Electromagnetic Compatibility (EMC)

2011/65/EU, amended by (EU) 2015/863 - RoHS

Normen:

EN 60335-1

EN 60335-2-54

EN IEC 55014-1

EN IEC 55014-2

EN IEC 61000-3-2

EN 61000-3-3

Nederland, Maasbracht, 24-02-2026

Directeur Valkenpower



B.A.H Valkenburg