

UV SMART™ D45 System

High-level disinfection for
ultrasound probes in 75 seconds



Current challenges

Contaminated handles



of ultrasound probe handles are found to be contaminated if not disinfected.¹

HPV spread

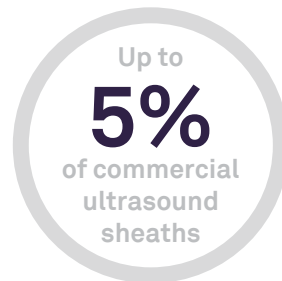


of transvaginal probes remain contaminated with potentially infectious HPV after routine low-level disinfection.²

Probe sheaths and covers are not enough



&



can leak or break.³

Automated chemical disinfection relies on consumables and takes several minutes



to disinfect one ultrasound probe with current automated, consumable-dependent disinfection devices.

¹ Ngu A, McNally G, Patel D, Gorgis V, Leroy S, Burdach J. Reducing Transmission Risk Through High-Level Disinfection of Transvaginal Ultrasound Transducer Handles. *Infection Control & Hospital Epidemiology*. 2015;36(5):581-584. doi:10.1017/ice.2015.12

² M'Zali F, Bounizra C, Leroy S, Mekki Y, Quentin-Noury C, Kann M (2014) Persistence of Microbial Contamination on Transvaginal Ultrasound Probes despite Low-Level Disinfection Procedure. *PLoS ONE* 9(4): e93368. <https://doi.org/10.1371/journal.pone.0093368>

³ Basseal, J. M., Westerway, S. C., & Hyett, J. A. (2020). Analysis of the integrity of ultrasound probe covers used for transvaginal examinations. *Infection, disease & health*, 25(2), 77-81. <https://doi.org/10.1016/j.idh.2019.11.003>



Safety and speed with the D45



75-second cycle

High-level disinfection in just over a minute with no warm-up time.



Automated disinfection

Consistent, reliable, and traceable results with each cycle.



Chemical-free disinfection

No water, chemicals or other consumables needed during the disinfection cycle.



Versatile design

Can be placed on a trolley, wall mount or table.



Gentle on the equipment

Compatible with major ultrasound probe manufacturers.

Workflow



Save on

- ➔ Disinfection time compared to other HLD automated devices
- ➔ Chemicals
- ➔ Consumables

Compatible with major probe manufacturers.
For compatibility inquiries or to verify specific device models,
www.uvsmart.nl/compatibility-d45



The D45 adapts to your healthcare setting

Place the D45



On the wall



On a trolley



On a table

How to use the D45

1



Start of the process

Pre-clean the probe.

2



Scanning

Scan your ID, the probe, and the patient ID for traceability.

3



Placement

Place the probe in the D45 and close the door.

4



Disinfection

After 75 seconds the D45 completes the disinfection cycle.

5



Scanning

Scan your ID to unlock the door.

6



Hand disinfection

Disinfect your hands.

7



Disinfection successful

Take out the ready-to-use probe.

DISCLAIMER:

This guide is not intended to replace the Instructions for Use (IFU). Prior to use, read and follow the full IFU as the featured steps may not include the complete steps of the procedure. Individual surgeon preference and experience, as well as patient needs, should always dictate variation in procedure steps.

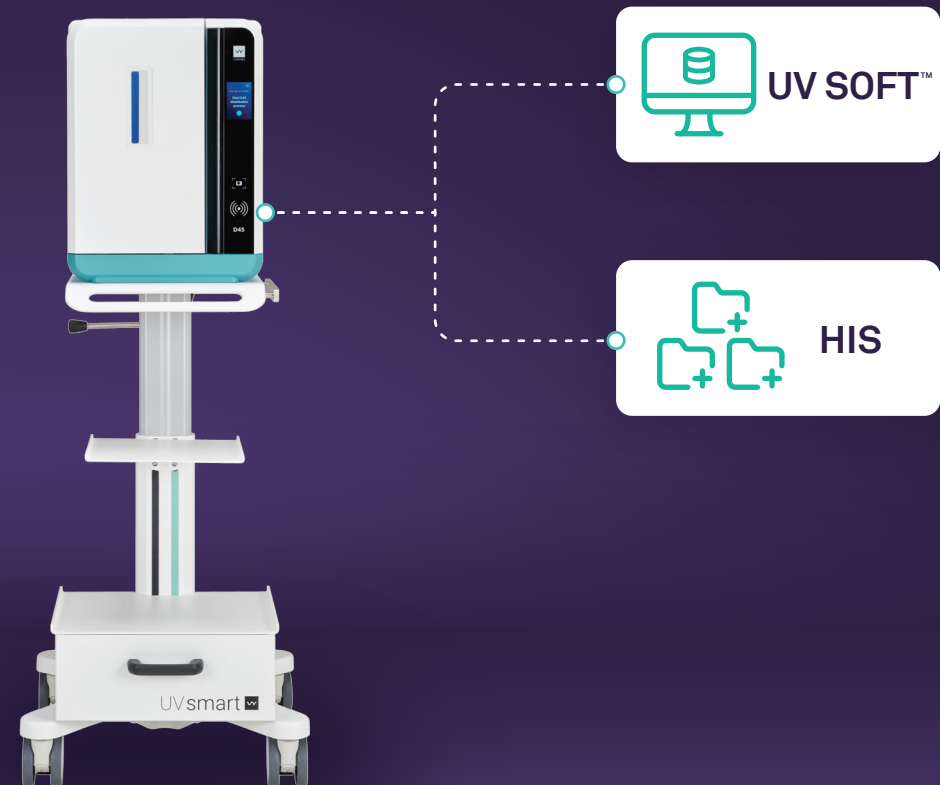
The **D45** records all necessary reprocessing data

The software records the following information:

- ➞ Ultrasound probes number or ID
- ➞ Patient ID number
- ➞ The badge number of the employee twice (intake & outtake release)
- ➞ Variables of the disinfection cycle (UV dosage, power usage)
- ➞ Disinfection cycle result, date and time
- ➞ Optional printer connection allows for direct printing of disinfection logs on an adhesive ticket

Connectivity

With UV SOFT™, the D45 automatically transfers reprocessing cycle information to the intranet-based application. This data can then be sent to the Hospital Information System (HIS).



What is the Green Standard?

The Green Standard is a guide to integrate UV-C devices into hospitals. It includes disinfection guidelines, training, add-ons and more.

UV SMART™ D45 System Disinfection add-ons



1. (Pre-)Clean essentials



2. Secure transport and storage



3. Compliance and audit readiness



4. Continuous care and maintenance

Seamless traceability with UV SOFT™

	D45 System without UV SOFT™	D45 System with UV SOFT™
Annual maintenance: Ensures consistent operational efficiency.	✓	✓
Audit-Readiness: Automatically keeps records that are essential for audits, reducing the administrative burden.	✓	✓
Readily Available Traceability: Facilitates easy and remote access to up-to-date reprocessing information.	✗	✓

Service life and maintenance

The D45 has a service life of 10 years. Every 12 months of use, the device requires maintenance and will prompt a notification on the display. All replacement parts and maintenance activities are included in the service agreement offered by your local distributor.

2-year warranty does not include wear parts replaced during maintenance

The prescribed service agreement includes:



Annual service and maintenance with minimal downtime



Replacement of critical wear parts during maintenance



Sensor function check and calibration verification



Technical support



Technical Specifications

Type of unit	D45 UV-C Medical Disinfection Device
Classification (acc. to IEC/EN 61010-1)	Medical Disinfection Device
Class (acc. to MDR)	Ila
Ingress protection	IP 20
Voltage rating, overvoltage category	120-250 VAC (±10%), OVC II
Frequency	50/60Hz
Amperage rating	2A
Power rating	200W
UV-C wavelength	253.7nm
Fuse value	2 x 2A time-lag fuse (ø5x20mm)
EMC	IEC 61326-1/61000-3/4 (A1, CISPR 11)
Product service life	10 years

Operating conditions

Temperature	5°C - 40°C
Relative humidity	20% - 75%
Atmospheric pressure	800hPa - 1060hPa

Transport and storage conditions

Temperature	-25°C - 60°C
Relative humidity	20% - 85%
Atmospheric pressure	700hPa - 1060hPa

Weight	Approximately 25kg
Dimensions (WxHxD)	390mm x 525mm x 200mm (closed)
Pollution degree	PD2
IT connection	USB, Ethernet
Track and trace	Yes
Technical inspection (service/ maintenance)	Every 12 months

Frequently Asked Questions

Q: Does the D45 help my facility prepare for audits?

A: With UV SOFT™, the D45 prepares your facility for audits by automating the tracking and documentation of disinfection procedures, reducing the risk of human error.

Q: What products can I disinfect in the D45?

A: The D45 is designed for the disinfection of wired ultrasound probes. For tailor-made advice, please contact us.

Q: Where can the D45 be placed?

A: The D45 can be delivered as stand-alone to be placed on any available cabinet or shelves or with a wall mount or on a trolley. The trolley allows the D45 to be moved easily from patient room to patient room.

Q: Can I retrieve data from the D45?

A: Yes, the data of the D45 can be retrieved. This can be done via a USB port at the back. Each disinfection cycle (success and failure) can be viewed with all data: time and date, equipment ID, operator ID of the user that inserted the equipment, patient ID number, UV-C dose, current threshold, cycle number and operator ID of the user that removed the equipment.

Q: Can I test the product in my hospital?

A: To see if the D45 fits in your workflow, you can request a 2-week trial placement. This will give you an idea of what the product can do for your organisation in the fight against healthcare-associated infections.



To learn more visit
www.uvsmart.nl

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DISCLAIMER

The information contained herein is meant to describe the use of the product(s) and is not intended to provide advice on medical procedures. UV Smart Technologies B.V. makes no representations or warranties whatsoever as to the accuracy, completeness, or suitability for the purpose of the information/training. Products and specific indications might be unavailable in certain markets, given that product availability is subject to regulatory approval (and/or medical practices in individual markets). The healthcare provider is responsible for the clinical implementation of UV SMART™ products. The instructions for use and accepted medical guidelines should always be checked prior to the application of UV SMART™ products.

Important information: Prior to use, refer to the complete instructions for use supplied with the device(s) for proper use, indications, contraindications, warnings and precautions.

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