



CLEVAER ESC H.9

THE NEW GENERATION OF ENDOSCOPIC
DRYING AND STORAGE



Clevaer ESC H.9 is a state-of-the-art cabinet for drying and storing endoscopes that sets new standards in terms of safety, performance and compliance.

Clevaer ESC H.9 is a horizontal storage solution specially designed to optimise external and internal drying while ensuring the safe storage of up to 9 thermolabile endoscopes. The system is compatible with all models and brands of thermolabile endoscopes and can also accommodate TOE probes.

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PRODUCT DESCRIPTION

The drying and storage phase is an essential part of the reprocessing cycle for thermolabile endoscopes, enabling the instruments to be used immediately without further disinfection and ensuring their safety. The ESC H.9 drying and storage cabinet uses horizontal storage mode and can be used for flexible endoscopes from all manufacturers, making it highly versatile. Long-term storage of the instruments is guaranteed and up to 9 instruments can be dried at the same time.

PRODUCT FEATURES

- a) 9.7-inch colour touchscreen
- b) The interior and exterior surfaces of the device have no blind spots and are smooth, making cleaning easier
- c) The tempered glass door allows the condition of the stored endoscopes can be checked at any time
- d) Electromagnetic lock with PASSWORD for security and reliability
- e) System with horizontally sliding compartments, allowing for better separation of the various endoscopes to prevent any contamination
- f) Placement on 9 shelves distributed over the entire height of the cabinet
- g) LED devices that do not generate heat and are therefore safe and reliable
- h) Integrated printer for paper traceability
- i) Construction materials:
 - Support structure: 304 stainless steel
 - Interior: 316 stainless steel

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INNOVATIVE DRYING AND STORAGE TECHNOLOGY

1. Horizontal design for optimal drying:

- **Minimises contamination:** The innovative basket system prevents direct contact with instruments during reprocessing and ensures that each endoscope is stored in a completely isolated and protected space. This system prevents endoscopes from touching the floor or other instruments, effectively reducing the risk of cross-contamination and bacterial growth.
- **Moisture-free storage:** The unique design ensures that moisture is completely removed from each instrument, preventing the accumulation of water that could promote bacterial growth. moisture from each instrument, preventing the accumulation of water that could promote bacterial growth.

2. Cost and risk reduction:

- **Reduced risk of damage:** Thanks to the strategically placed basket and positioning on a single shelf, the endoscopes are stored securely, preventing accidental damage during transport or storage.
- **Improved ease of use:** The horizontal system improves ergonomic interaction and reduces the effort required to insert or remove the endoscopes.

3. Antibacterial coating:

The cabinet is coated with an **antibacterial coating**, which further improves its hygienic properties and reduces the risk of cross-contamination.

4. Easy traceability and monitoring:

- **Integrated tracking system:** The position of each endoscope is easy to identify, which facilitates tracking and simplifies operation. Staff can clearly see the status and progress of the cycle thanks to a colour-coded display.
- **Single-channel control:** Designed for seamless integration, with each endoscope monitored independently.
- **Remote control function:** The device can be controlled remotely, offering flexibility in use.

5. Drying efficiency:

- **Perfect drying in 60 to 120 minutes:** The CLEVAER ESC H.9 provides optimal drying of the endoscope's internal channels and ensures full compliance with industry standards.

6. No external air supply required:

- **Internal air compressor:** The system operates independently, eliminating the need for external air sources. It uses an internal air compressor to ensure a controlled environment.

UNCOMPROMISING SAFETY FEATURES

1. Endoscope safety

- **Single-channel control:** Ensures unobstructed airflow with real-time monitoring to detect blockages.
- **Warnings and alarms:** Integrated alarms alert operators when endoscopes are removed prematurely or remain in the cabinet for more than 31 days, ensuring safe handling.
- **IO-Link sensors:** Monitor temperature and humidity in the cabinet and provide an accurate record of environmental conditions.

2. Prevention of cross-contamination

- **Positive pressure storage:** Maintains positive pressure (12 Pa, adjustable) to prevent microorganisms from entering when the door is opened.
- **Advanced air filtration:** The CLEVAER ESC H.9 uses ULPA U17 filters for the outside air intake (filters with a porosity of 0.01 µm) and additional filtration for each shelf (filters with a porosity of 0.2 µm and a filtration efficiency of 0.01 µm), ensuring the highest standards of cleanliness.
- **Stainless steel transport baskets:** These baskets are compatible with the storage environment and further limit direct contact with the endoscopes during transport to and from the cabinet.
- **Air quality ISO 5:** The air entering the device is filtered, heated and dried to remove bacteria, viruses and moisture and ensure a sterile environment in accordance with ISO 5 standards for clean rooms.



Safe and
hygienic



Efficient
drying



Economical
Attractive

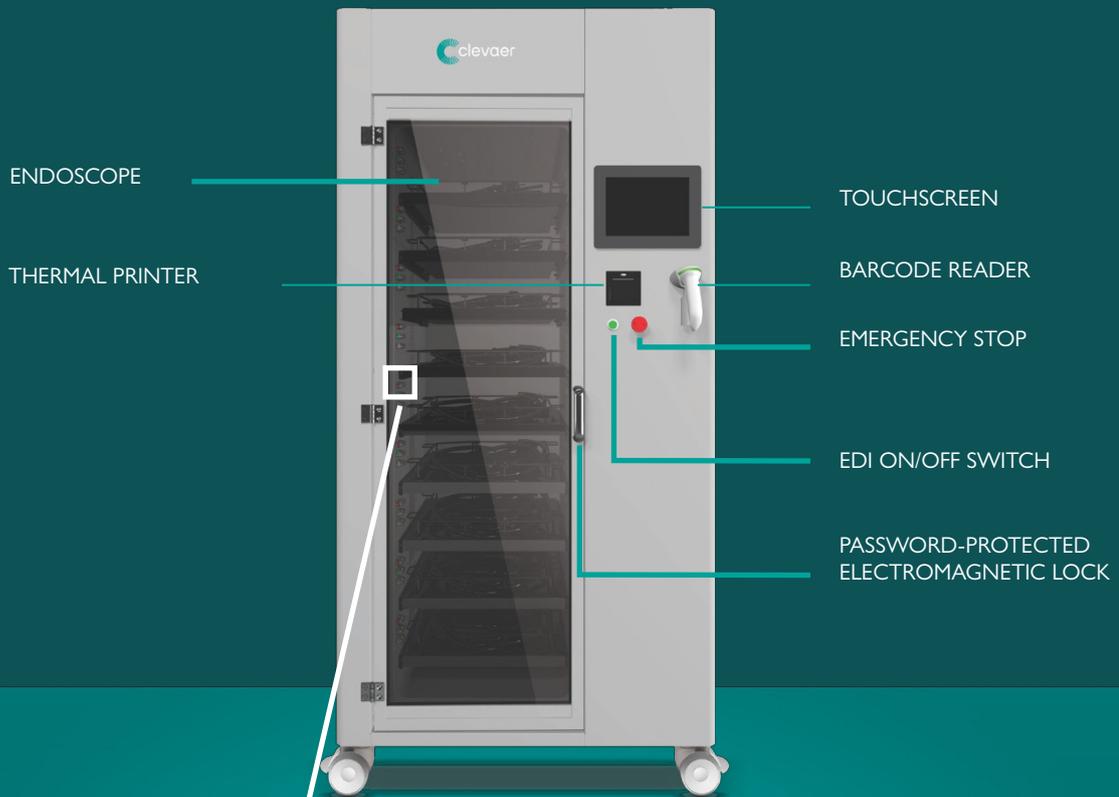


Easy to
use

Your advantages with CLEVAER ESC H.9

- **Safe and hygienic:** Ensures the highest standards of safety and cleaning for endoscopes and reduces the risk of contamination.
- **Efficient drying:** Ensures perfect drying and safe storage of up to 9 endoscopes.
- **Economically attractive:** Reduces the likelihood of damage during storage and transport and saves repair and replacement costs.
- **Easy to use:** Simple design for the operator with remote control, clear traceability and colour-coded channel status.

With CLEVAER ESC H.9, you can be sure that your endoscopes are stored and dried in the safest, most efficient and compliant manner.



IDENTIFICATION OF THE POSITION OF THE CONNECTIONS

CHANNEL CONNECTION

- BIOPSY
- AIR
- ASPIRATION
- SUCTION JET
- ADDITIONAL CHANNEL
- WATER

TECHNICAL PARAMETERS

Dimensions (W x H x D)		937 x 1949 x 664 mm
Capacity		9 endoscopes
Weight		230 kg
Material	Support structure	Painted aluminium
	Interior surfaces	Stainless steel
	Door construction	Tempered glass
Lock		Electromagnetic lock with PASSWORD
Delivery		230 V AC, 50 Hz
Ambient temperature		5~40 °C
Relative humidity		At 20 °C, no more than 30% input power
Power		800 W
Noise level during operation		50 dB



CONFORMITY CERTIFICATIONS

The CLEVAER ESC H.9 meets and exceeds international safety and performance standards, including:

- **Class I MEDICAL DEVICE** according to **MDR 2017/745, CE marked.**
- **UNI EN 16442:2015** – Storage cabinets in controlled environments for thermolabile endoscopes.
- **IEC 61010-1:2010** – Safety requirements for electrical equipment.
- **EN 61326-1:2022** – Electromagnetic compatibility for measuring and laboratory equipment.
- **ISO 22196:2011** – Antibacterial effect on non-porous surfaces.
- **UNI CEI EN ISO 14971:2022** – Risk management for medical devices.
- **UNI/TR 11662:2016** – Ensuring the safe reprocessing of endoscopes.



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