

OLYMPUS

Your Vision, Our Future



ETD4

More than meets the eye.





Endo 1 ● Endo 2 ●

MORE THAN MEETS THE EYE

ETD4

intelligent

reliable

safe



SETTING ENDOSCOPE REPROCESSING STANDARDS

With ETD4, Olympus has made significant progress in providing you with even more reliability, user-friendliness and process safety in automated endoscope reprocessing. This fourth generation of ETD machines is a sound investment, specifically designed to ease the workflow in your endoscopy suite.

Reputable high quality with tradition

To constantly optimise and facilitate endoscope reprocessing in your facility Olympus has teamed up with the highly renowned experts Miele and Ecolab – a successful partnership that spans more than 25 years.

Thorough hygiene and safety

The Olympus CDS System Approach equips you with all the solutions you need to cover all steps from patient to patient. From transport to machine reprocessing, from storage to documentation, you can count on a uniform, sophisticated concept that gives priority to endoscope hygiene and patient safety.

Accurate traceability and documentation

Make use of accurate endoscope, staff and machine documentation and traceability for complete transparency in your hospital. Premium technology like RFID is the basis for the built-in traceability devices and the full spectrum of optional traceability additions.

Comprehensive service support

When you opt for ETD4, you are assured of competent support and maintenance as part of our well-conceived service concept. To maximise your uptime, our help desk and support team will respond quickly to your requests.

OLYMPUS

Miele
PROFESSIONAL

ECOLAB[®]

ETD
System

Benefits of ETD4

- **Intelligent:** enhanced ETD4 technology supports your workflow
- **Reliable:** reproducible results ensure dependable reprocessing
- **Safe:** reprocessed endoscopes minimise patient infection risks

'In 1986, the collaboration of Olympus, Miele and Ecolab led to the first fully automated endoscope washer disinfector.

The revolutionary idea soon ignited a trend, which has now become a standard.

The Olympus ETD was and still is the endoscope reprocessing benchmark.'

M. Schmitz, Key Account Manager, Miele Professional Gütersloh, Germany – and ETD advocate

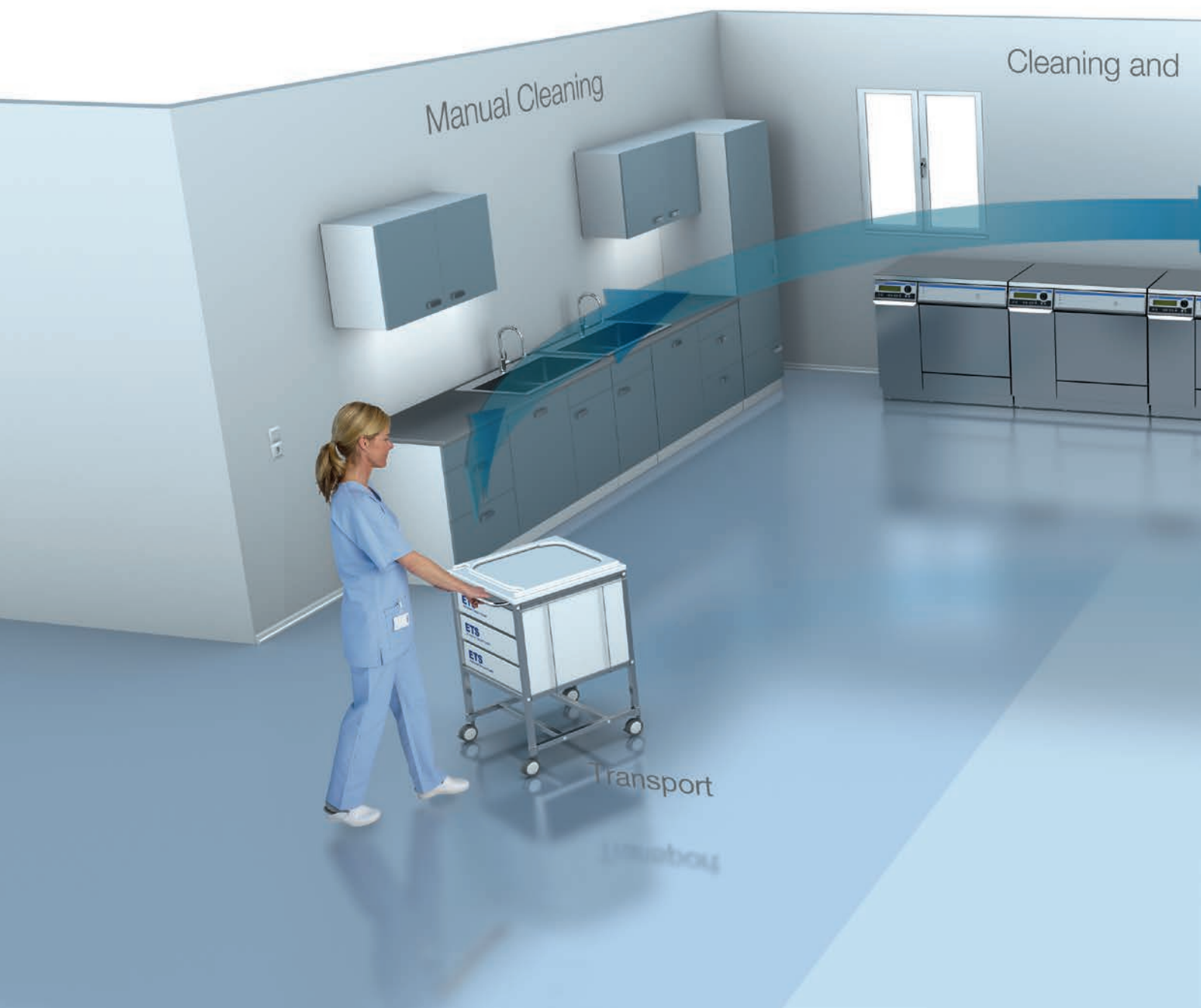


TAKING A CLOSER LOOK AT THE REPROCESSING JOURNEY

Enjoy seamless compatibility with the Olympus CDS System Approach, encompassing the complete spectrum of endoscope reprocessing.

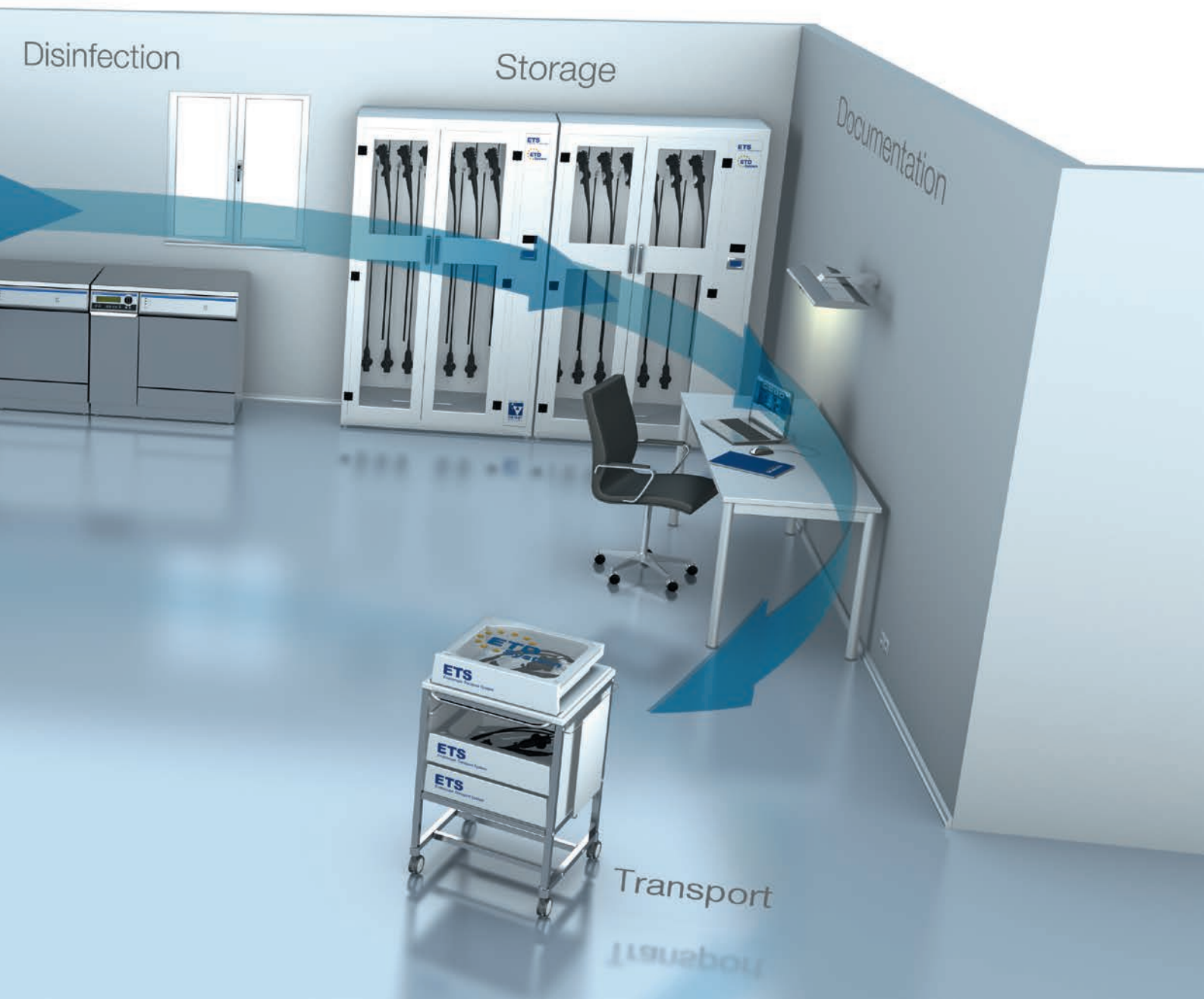
Olympus – your partner for all endoscopy needs

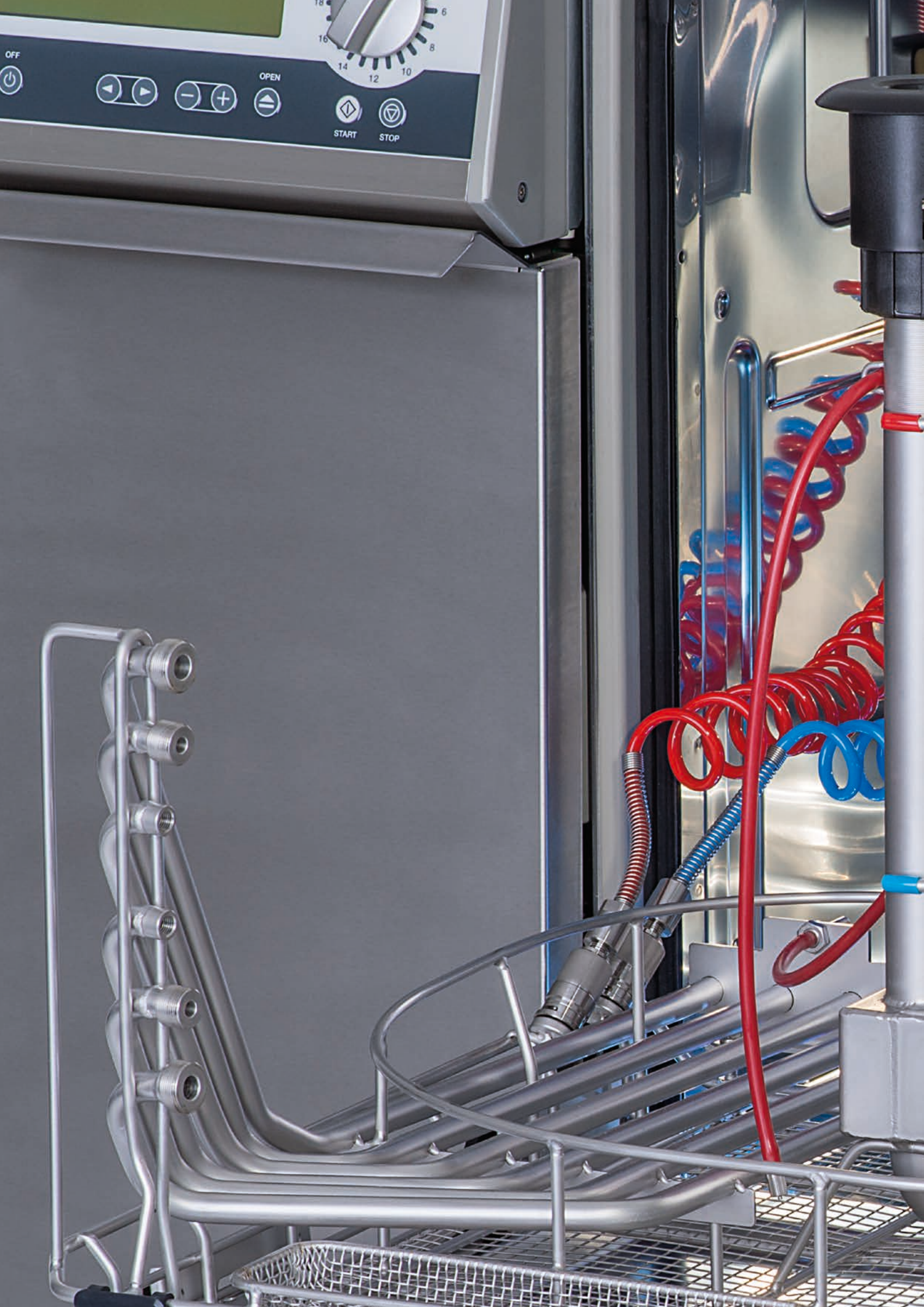
For decades, Olympus has been a global market leader in endoscopy and a trusted name in endoscope reprocessing. We have used our valuable expertise in endoscope hygiene as the basis for developing an entire system for your reprocessing room: the CDS System Approach.



Holistic scope

Olympus endoscope reprocessing is more than cleaning and disinfecting endoscopes, as provided by our ETD4. It also includes drying and storing endoscopes in dedicated cabinets (EDC) as well as ergonomically and safely transporting them (ETS). All these building blocks are compatible with one another and also work seamlessly with dedicated Olympus traceability functions.







FLOW MONITORING: DETECTING THE INVISIBLE

ETD4's Flow Control reliably monitors the flow of reprocessing chemicals through every single endoscope channel system. This is a real challenge since the diameter of channels can vary significantly. ETD4 Flow Control is a hidden high tech device, which sheds light on the dark inside of all endoscope channels.

KEEPING THE FLOW GOING

Thanks to the next generation of endoscope channel Flow Control, ETD4 is better equipped than ever to monitor the flow of reprocessing liquids through the endoscope channels.

Easy-to-use endoscope channel connectors

It doesn't matter what type of endoscope you need to reprocess, ETD4 allows you to easily connect any Olympus endoscope or other compatible endoscope brands. The system comes supplied with dedicated connectors that can be exchanged with a minimum of effort and provide a dependable connection. ETD4 can therefore meet the requirements of each endoscope type – making reprocessing safe and convenient.

Reliable channel monitoring

With ETD4's next generation Flow Control, every single endoscope channel is monitored reliably during the reprocessing cycle. Once you have connected the endoscopes, high precision sensors get to work. Flow Control effectively detects non-connected adapters as well as blockages – even within complex channel systems.

Dedicated reference data

A pre-installed set of reference data for individual endoscope channel systems in ETD4 omits the tiresome need for manual teach-in of reference volumes for your endoscopes. As a result, reprocessing with ETD4 is almost as simple as plug-and-play. The reference data are updated regularly during maintenance or servicing to make sure that latest information is always available.

Sensitive, high-speed data sampling

Robust magnetic inductive flow sensors are built into ETD4's Flow Control to:

- Collect flow data independently of water pressure, temperature and conductivity
- Provide highly reproducible data
- Work reliably on the full line-up of different endoscope channels
- Measure and monitor the flow without having to deploy mechanical or moving parts
- Offer enhanced stability with virtually no need for maintenance or service



Benefits of Flow Control

- Reliable, highly consistent flow monitoring with sensitively tuned sensors
- Simple use of adapters for all kinds of flexible medical endoscopes
- Comprehensive compatibility with all Olympus and other branded endoscopes

'Our ETD4 core mission was to specify and design a next generation Flow Control.

We have invested a lot and now I'm particularly impressed by the final product.

The new Flow Control will significantly enhance the safety of your daily reprocessing workflow. That's quite amazing.'

S. Eschborn, Research and Development Department Manager, Olympus Surgical Technologies Europe, Germany



TRACING THE ENDOSCOPE JOURNEY

Provide accurate documentation of endoscopes at every stage of use – to fulfil safety requirements and ensure fully transparent reporting.

Smart RFID-based tracing technology

Compatible with a variety of Olympus solutions, Olympus RFID-based technology enables endoscopes to be clearly identified and traced along every stage of their journey – from examination through reprocessing and storage to the next application. You always know where and on whom a device has been used, avoiding manual scanning and mixed endoscope data.



Convenient RFID user identification

ETD4 conveniently allows your medical facility to add user information to the reprocessing report. Simply have your staff scan their RFID cards at the start of the reprocessing cycle. This way, each reprocessing sequence can be allocated to the team member executing it in order to highlight their respective responsibilities.



Benefits of traceability

- Automatic, hands-free identification of endoscopes thanks to safe RFID technology
- Reliable endoscope traceability without any additional workload
- Full traceability of ETD4 users to highlight staff responsibilities
- Full transparency on every reprocessing report, including scope, user and all relevant data

OPENING A VARIETY OF TRACEABILITY OPTIONS

Select the optimal mix of high quality Olympus products for extending your traceability set-up.

ETD4 and ENDOALPHA

You can acquire ETD4 in two optional versions, Basic and Plus. ETD4 Plus machines are all ready to set up a direct interface to ENDOALPHA, Olympus' complete endoscopy systems integration. All reprocessing reports, including endoscope and user information, will be immediately transferred to ENDOALPHA for final storage and link to the patient history file. This enables you to easily and conveniently trace all information whenever you need it.

ETD4 and Endoscan2

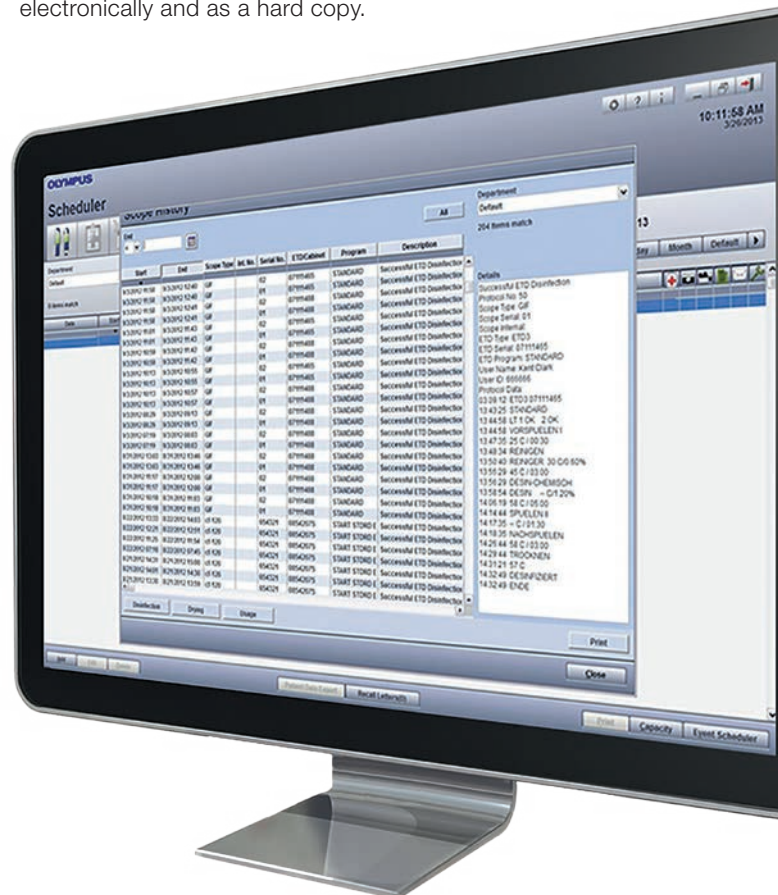
ETD4 Basic machines are not equipped with the endoscope ID option. They can also be expanded to include full traceability. When you use Endoscan2, which is compatible with up to four ETD4 Basic machines, the entire range of reprocessing documentation, including endoscope identification, will be established. Endoscan2 is fully compatible with our ENDOALPHA documentation software.

ETD4 and label printer

Once you have collected the reprocessing data, Olympus offers you an additional handling option. A dedicated printer uses special self-adhesive labels which you can attach to reprocessing or patient history files.

ETD4 and Real Value Documentation

To supplement standard process documentation, you can expand ETD4 with Real Value Documentation. It consists of a specially designed interface box that documents all the real process values of ETD4's reprocessing cycles both electronically and as a hard copy.

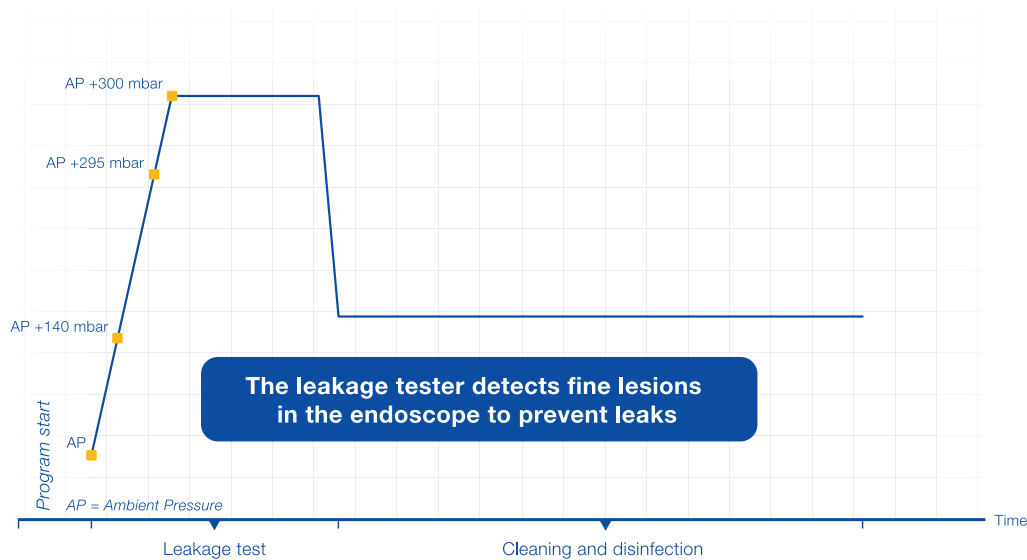


ETD — Benefits of traceability options System

- **ENDOALPHA:** automatically links reprocessing data with patient data
- **Endoscan2:** provides enhanced traceability via ETD4 Basic/ENDOALPHA interfacing
- **Printer:** uses self-adhesive labels to attach reprocessing reports to patient history and filing systems
- **Real Value Documentation:** enhances reprocessing protocol with real values of process parameters

ENSURING SAFE REPROCESSING

**What's behind ETD4's extensive system of efficient cleaning and disinfection technologies?
Discover additional sophisticated safety and monitoring benefits for your endoscope reprocessing.**



Enhanced leakage tester functionality

ETD4's 4th generation automated leakage tester provides you with the most up-to-date technology sensors and pumps for increased durability. Together they detect the finest lesions, preventing liquids from entering endoscope areas which should not have any contact with moisture.

The advanced leakage tester triggers more thorough inflation with compressed air to allow even minimal lesions to be detected. This helps reduce maintenance and service which in turn increases your system uptime.

Secure mechanical coded chemical containers

For safe hygiene in your facility, it is essential to correctly place the reprocessing chemicals into ETD4. For many years, Olympus has provided reprocessing chemicals in different colour-coded containers with the corresponding colour-coded screw caps as counterparts in the ETD machine. To further enhance your safety, Olympus has added a mechanical coding for physical differentiation of the canisters. The containers now have either a snap-on adapter or a modified screw cap that only fits the designated counterpart.



Benefits of safeguarding

- Reliable detection of even minimal lesions in the endoscope surface thanks to advanced leakage tester
- Enhanced patient safety thanks to additional mechanical coding of reprocessing chemicals
- More efficient daily work thanks to smart features, such as system checks and self-disinfection

Essential hygiene routines

Start your day right. ETD4's daily automatic hygiene routine can be pre-programmed so you can activate them automatically in the morning prior to the daily work schedule. This makes work flow safely and smoothly in your reprocessing area from the very first cycle onwards every day.

Compliance with EN ISO 15883

Type testing and thorough microbiological testing by independent hygiene institutes prove that ETD4 complies with EN ISO 15883 -1 and -4 standards. ETD4 is more than just a robust system, it:

- Safely cleans and disinfects your endoscopes, even under worst case contamination conditions
- Is proven to provide a 99.9999999 % (9-log) reduction in microbial loads



OFFERING CUSTOMISED SERVICE AND MAINTENANCE

Count on our service concept to provide quick support that is tailor-made to your needs – keeping processes running and ensuring uptime.



Competent help desk support

The Olympus help desk provides competent customer support via an expert hotline. During normal business hours, our helpful operators at the contact centre:

- Provide phone support for queries or equipment malfunctions whenever possible; and
- Know which Olympus specialist to refer the case to.

Benefits of service concept

- **European service network:** your strong partner for customised service solutions
- **Validation:** our periodic validation or revalidation according to EN ISO 15883-1 and -4 is performed by reprocessing experts, in combination with maintenance
- **Training:** our application training is customised to your needs and suitable for all relevant members of endoscopy staff

Modular Olympus services

With ETD4, Olympus offers a high-quality solution in combination with a well-conceived service portfolio. This modular approach enables you to create a solution that fits your workflow, increases efficiency and reduces costs.

Expert maintenance

Whether preventive or corrective maintenance, you'll benefit from competent expert support. By ensuring that minor defects are detected before they require major repairs, the preventive maintenance module maximises uptime while minimising costs.

Essential validation

The validation module includes the full range of operational and performance qualification tests in compliance with the requirements in EN ISO 15883-1 and -4. These are designed to monitor and document the reliability and security of your endoscope reprocessing workflow when using our ETD systems.

Convenient remote service

The remote service module gives our engineers efficient remote access to your respective equipment. Troubleshooting and software update installations can be performed centrally, avoiding technicians' on-site visits to your facility.

Focussed training

Dedicated training modules give all relevant staff members basic practical training in how to handle Olympus equipment without interfering with your hospital data network. You can easily transfer this knowledge into routine clinical practice, resulting in increased efficiency and better patient care.

‘We are happy to be responsible for service and maintenance on ETD4, and you will be able to rely even more on the excellence of our service. The maintenance concept of ETD4 has been optimised significantly,

which will in turn increase uptime in your endoscopy department.

You will also be able to count on our expertise when it comes to process validation aspects. On your behalf we will be able to produce all the documentation.’

M. Theron, Service Manager, Olympus France – and ETD4 attendant



ENJOYING A PARTNERSHIP WITH OLYMPUS

When you opt for Olympus ETD4, you are choosing to benefit from the premium product provider of efficient, high quality solutions.



Expert application specialists and sales support

You can count on us whenever you need support for our products. Whether you require something extra for your workflow or you have questions about features and functions regarding Olympus products, please don't hesitate to contact us.

Convenient one-stop shop

Olympus is the only provider of a full endoscopy portfolio – from the complete range of superior-quality medical endoscopes and EndoTherapy (ET) accessories to endoscopy and reprocessing room equipment. Olympus can provide you with almost all the equipment you need to set up and run your endoscopy department.

Intelligent technical support and service concepts

Olympus support service will be your back-up for all issues related to your endoscopy workflow, and provide maintenance and validation services for all Olympus equipment.

Reliable and quick logistics

It doesn't matter where you are or what product you need – our associated logistics specialist will be able to ship it to you. Place your trust in a strong partner, especially when dealing with the delivery of consumables such as chemicals. We make sure that your department has all the right products at the right time.



Benefits of Olympus

- We are your one-stop shop for all endoscope solutions with an endoscopy contact dedicated to you to ensure compatibility and provide knowledgeable service.
- We offer enhanced ETD systems that are highly reliable and easy to maintain.
- We have a strong and reliable European network which supplies reprocessing chemicals according to your needs.

'Medical endoscopy has been transformed from a purely diagnostic to a therapeutic discipline that is not only used in medical applications but throughout the entire hospital. Endoscopy theatres therefore require a reliable partner who is able to supply the appropriate equipment and the full range of consumables.

Our customers can rely on us to provide them with the optimum solution for their individual endoscopy needs.'

A. Klinkenberg, Department Manager, Olympus Deutschland



Specifications and technical data

Specifications	Type/versions	ETD4 Plus or ETD4 Basic or ETD4 Basic Pure
	Capacity	2 flexible medical endoscopes. Optionally: up to 4 ENT endoscopes
	Process	Compatible with Olympus PAA or GA process chemistry
	Outer casing	Stainless steel
	Interfaces	Ethernet/TCP/IP printer port (parallel)
	User interface	LC display 4 x 40 digits
Dimensions	Width/depth/height	900 mm/600 mm/850 mm (including cover)
	Weight	133.5 kg
	Volume of the washing chamber	165 l
	Maximum floor loading	2158 N
Water supply (need for external water softener to be considered)	Process water: warm or cold water (drinking water regarding microbiological quality)	max. 4 °dH conductivity >100 µS/cm (only Plus version) pH: 6.5–9.5 PAA process: max. 25 °C GA process: max. 30 °C
	Steam condenser: cold water	Tap water (potable water quality)
	Water pressure	100 to 1000 kPa if < 220 kPa: longer water inlet period
	Water quality	Potable water quality (refer to EN ISO 15883-4)
	Plumbing	Tube cross section to be provided: 1.2" Hose sizes: 3/8", 1.5 m long Hose couplings: 3/4"
	Electric power supply 400 V (optional 230 V/please contact your local Olympus dealer)	Voltage
Voltage fluctuations		max. ± 10%
Fuses		3 × 16 A
Power consumption		9.2 kW
Ambient operating conditions	Ambient temperature	5–30 °C, briefly 35 °C
	Relative humidity	30–85%
	Maximum altitude	1,500 m above sea level
Discharge connection	Plumbing	Connection to odor free lock
	Waste water hoses	Combined by a Y-piece
	Height of discharge connection	300 mm to 1,000 mm (from floor)
Circulating pump capacity	($Q_{max.}$)	400 l/min
Noise level	all washer-disinfectors except for WD00225A	67.1 dB (A) (stand-alone unit) 54.9 dB (A) (integrated)
Regulatory status	This device complies with the requirements of directive 93/42/EEC concerning medical devices classification: class IIb	Electrical safety: EN 61010-1, EN 61010-2-40 Electromagnetic compatibility: EN 61326, EN 50366 Safety of water supply/tubing EN 61770
		Electromagnetic compatibility: directive 89/336/EEC EN 55014-1; EN 55104-2 EN 61000-3-2; EN 61000-3-3



For further information scan this QR code with your smart phone or visit:
www.olympus-europa.com/ETD4

Your Olympus partner:

Specifications, design and accessories are subject to change without any notice or obligation on the part of the manufacturer.