

INDUSTRY: Health Care

**Lancer UK** - part of Getinge group

High Performance instrument decontamination

Product: 6100A Chart Recorder

[www.lancer.co.uk](http://www.lancer.co.uk)

i n v e n t o r y s

**Eurotherm**



*“ Endoscopes are indeed complex and very expensive at typically £20K each.*

*If there was a subsequent case of vCJD or other HAI it is imperative that the track record of any endoscope's use on a patient is held.*

*.....Lancer equipment is used extensively in critical arenas and therefore the quality of the Eurotherm solutions is vital ”*

**Iain Robertson**

*Lancer UK Cambridge*

## **Eurotherm controls and monitors the effectiveness of medical instrument decontamination like this endoscope**

### **Eurotherm provide smart patency control monitoring for Lancer UK Disinfectors**

IN THE HEALTHCARE industry, disinfection of medical equipment is critical to the safety of patients and to the performance of the instrument. Each year, thousands of patients can become sick from infections contracted at a medical facility.

Eurotherm is helping medical facilities improve their monitoring capabilities for decontamination of equipment, and ultimately, reduce the number of illnesses and deaths.

The control monitoring system, known as the 6100A Chart Recorder, can collect and verify

data to prove that all disinfection processes are 100 percent accurate and complete.

For example, an endoscope is used for non-invasive surgical procedures and requires extensive disinfection.

Lancer UK is a leading manufacturer in the field of Endoscope, Laboratory and Surgical Instrument Decontamination equipment. They are part of Getinge, the world's leading provider of complete, ergonomic, cost-efficient solutions for effective cleaning, disinfection and decontamination in the healthcare and life science sectors. Lancer did a six-month evaluation of ABB, Endress & Hauser, and Eurotherm control monitoring systems.

In the end, Lancer UK chose Eurotherm to provide a data monitoring solution to (UK) Health Technical Memorandum standards for their endoscope washer disinfectors. This was the beginning of a business relationship that

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Within the Fibro-Cleaner, the endoscopes are connected in such a way as to separate (patent) each channel, thus ensuring the flow of fluids right through the channels. Each channel must be connected separately using the specified connector for each make or model of endoscope. This is in line with HTM2030 and the MHRA guidelines.

Courtesy of Lancer

More detailed documentation about decontamination of reusable medical equipment can be viewed here - [MHRA MAC HTM](#)

### Challenges

The extreme sensitivity, complexity and high technology found with endoscopes mean that they cannot be steam sterilised or reprocessed like normal surgical instruments. Cleaning and disinfection are delicate operations. After decontamination, the equipment must be handled carefully to minimise any risk of re-contamination. Also, the Washer Disinfector has to be able to accommodate multiple makes and designs of these complex endoscopes

Detailed levels of cleaning have to be monitored and recorded :-

- the correct disinfectant temperature and exposure time per cycle
- that all channels to be irrigated with disinfectant solution do not leak or are not blocked
- the quality of the final rinse water is always in accordance with the manufacturer's instructions

### Solution

- Eurotherm 6100A Chart Recorder data monitoring and control solution adhering to HTM and EN ISO 15883 standards for their endoscope washer disinfectors. This enables full monitoring, control, traceability and validation.
- Eurotherm Data Acquisition units
- T2550 I/O to interface the endoscope

has led to hundreds of orders for more chart recorders – over the past five years.

In addition to this they have also taken hundreds of our Data Acquisition units and now buy our T2550 I/O to interface the endoscope Patency control into the 6100A chart recorder. This is a unique offering by Lancer, made possible only by the Eurotherm solution which acts as an independent monitor of the main control system.

Because of the expertise and focus in this industry, the Eurotherm total solution approach continues to beat the competition and help make the hospital environment a safe one.

### Objective

Lancer wanted to improve their monitoring capabilities for decontamination of equipment, in accordance with all global regulations—one of these is the Health Technical Memorandum (HTM) for Washer Disinfectors  
*"All WDs (washer disinfectors) are subjected to a planned programme of tests (such as HTM ) to validate their performance, that is, to provide evidence that, when operated under the specified conditions, the WD will reliably produce cleaned and disinfected items to the standard required"*

Within HTM it states that the WD should be equipped with the means to provide independent monitoring of all cycle variables



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**Eurotherm**

patency control into the 6100A chart recorder - our unique offering.

#### Customer Benefits

- With T2550 I/O Lancer are unique in being able to interface endoscope patency control into the 6100A chart recorder. That is -

Lancer can record fluid flow testing (patency) within the channels fully compliant to HTM. A flow meter linked to a microprocessor is used to check the flow-rates within the endoscope's channels throughout the washing and disinfection cycle. Any variation from the values registered for each endoscope during the self-learning cycle automatically triggers an alarm signal. This system can detect, for example, the partial blockage of a channel that might prevent proper washing and disinfection. A unique offering, made possible with the Eurotherm solution which acts as an independent monitor of

#### Right-Scope Controls

*De-contamination washers keep patients safe by reducing the spread of infection from medical equipment.*

#### Left—full traceability and compliance with a record of all data.

*The Fibro-Cleaner printer prints out a ticket which provides traceability of the following data for each cycle: cycle no, date, identification no. of the endoscope processed, program run, cycle duration, operator identification no, time of start and end of the cycle etc. The printer ticket can also integrate the confirmation by the operator of the successful completion of the cycle.*

**Images courtesy of Lancer UK**



the main control system.

- They satisfy all current and future drafted global regulations for monitoring, detailed traceability and validation with the aid of our data monitoring and control solution.
- Fitted with the Eurotherm latest independent process verification recorder and a conductivity meter enables recording and control of all critical parameters; pressure of hydraulic circuit, chemical dosing pump flows, water conductivity, time and temperature -all independently from the FC microprocessor.

For more information visit :

[LANCER](http://www.lancer.co.uk) GETINGE GROUP

Thanks to Lancer UK for their support in the writing of this success story.



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### 6100A Chart Recorder

- Ethernet capability enables archiving
- Secure data recording
- Full colour, high resolution,
- Up to 18 universal input channels
- Batch Recording
- Remote viewing & configuration
- Full audit trail
- USB "Plug & Play"

For more information see our [website](#)



### Eurotherm Data Acquisition Units

- Secure data control
- Remote view and control
- Batch functions
- Auditor features - in line with the requirements of 21 CFR Part 11.

For more information see our [website](#)

### T2550 Flexible I/O modules

- Cost effective controller redundancy - redundant communications
- High system availability
- Online reconfiguration
- Redundant Data logging
- Hot swap I/O
- Alarm monitoring
- Signal conditioning
- IEC 61131 programming
- Advanced PID control

For more information see our [website](#)



**\*Authorised by: Iain Robertson Lancer UK Cambridge| Agreement to use as approved**

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