

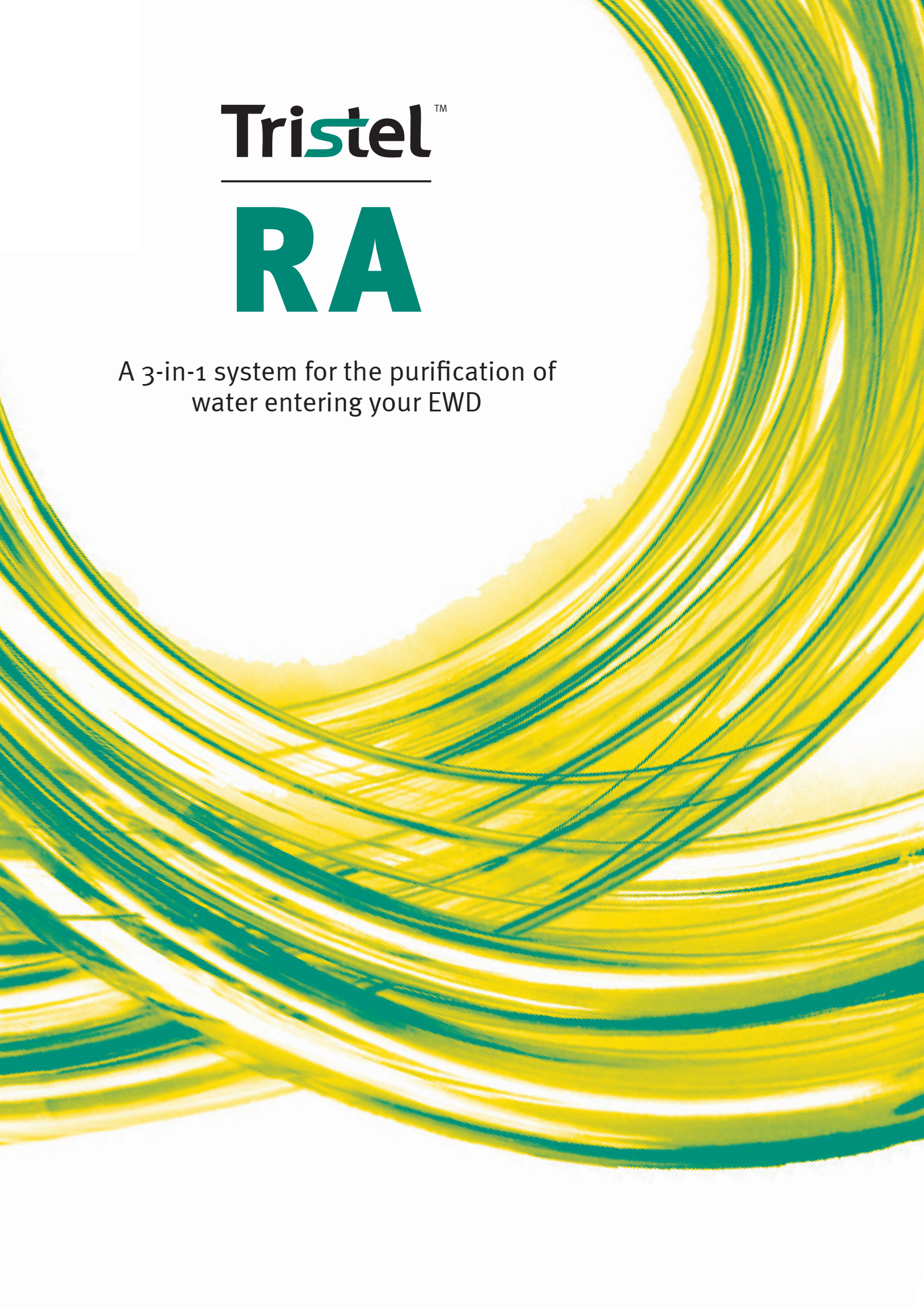
The logo for Tristel, featuring the word "Tristel" in a bold, sans-serif font. The "i" is a teal color, while the other letters are black. A small trademark symbol (TM) is located at the top right of the word.

Tristel™

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RA

A 3-in-1 system for the purification of  
water entering your EWD

The background features a large, abstract graphic of a circular tunnel or vortex. The walls of the tunnel are composed of numerous overlapping, curved lines in shades of teal and yellow-green, creating a sense of depth and movement. The center of the tunnel is bright white, suggesting light or a clean path.

# Tristel RA is a water purification system, specifically designed to be connected to an Endoscope Washer Disinfector (EWD).

RA doses low concentrations of Tristel's proprietary chlorine dioxide (ClO<sub>2</sub>) chemistry into the incoming water supply used during an EWD's decontamination cycle. Dosage levels can be altered depending on the expected bioburden and in relation to the amount of water flowing through the system. Tristel RA prevents bacterial proliferation and biofilm formation and protects the washer's filter and rinse water from contamination.

Tristel RA is a 3-in-1 system:



It filters particles down to 0.2µm through a three-stage filtration process.



It treats incoming water through a Reverse Osmosis (RO) membrane.



It doses this water with low levels of Tristel's proprietary chlorine dioxide chemistry.



## COMPATIBLE

- Cantel
- Geringe
- Medivator
- Olympus
- Soluscope
- Wassenburg



## BENEFITS

- Can be at a 5 metre distance from Washer
- Remote Logging
- Performance History
- Track and Trace



## MOBILE

- Easily transported to accommodate anywhere

Tristel RA prevents biofilm formation within plumbing and filtration systems.

Contamination of rinse water is likely when using filters or RO alone. These methods do not encompass Tristel RA's ongoing disinfecting properties through the dosing of chlorine dioxide.

**Tristel**  
**RA**

Water delivered by Tristel RA is compliant with the relevant parts of the following industry standards and guidelines:

- EUROPE: EN 15883
- USA: AAMI TIR:34:2014
- UK: HTM 01-06
- AUSTRALIA: ASNZ 4817

# RA IS THE NEW RO



## EFFECTIVE

TRISTEL RA IS MORE EFFECTIVE, MORE ECONOMICAL AND MORE RELIABLE THAN RO, BECAUSE:



**RA TACKLES BIOFILM. RO DOESN'T.**



**RA PROVIDES BACTERIA-FREE WATER. RO DOESN'T.**



**RA REMOVES >6 LOG OF MYCOBACTERIA AND PSEUDOMONAS CONTAMINATION FROM INCOMING WATER SUPPLY. RO DOESN'T.**



**RA PRO-ACTIVELY PROTECTS AGAINST DEAD VOLUMES BETWEEN RA AND EWD. RO DOESN'T.**



**RA DOSES CHLORINE DIOXIDE. RO DOESN'T.**



**RA ACTIVELY PREVENTS MICROBIAL PROLIFERATION. RO DOESN'T.**



**RA SAVES TIME, SPACE AND MONEY. RO DOESN'T.**

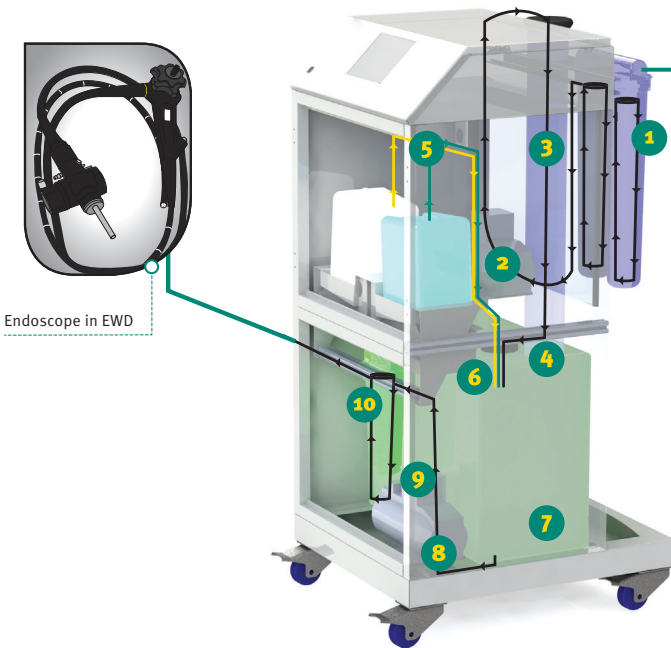
## PROVEN EFFECTIVE

Tristel RA was trialled in the Endoscopy Department of a hospital in Wales, United Kingdom. Prior to installation, three laboratories took full water samples to assess current quality of water supplied to four EWDs. Results showed high Total Viable Counts (TVC) after two days, some as high as 236. TVCs increased to more than 900 after five days.

Tristel RA was installed to dose two of four EWDs in the department. Two remaining EWDs continued to operate as usual to act as control bays. Once the installation of Tristel RA was complete, several high dose cycles were run to purge the EWDs. Daily samples were taken by the hospital and sent to three laboratories for testing.

Five days after installation, test results for water treated by Tristel RA showed zero TVCs.

**Numerous hospitals with out-of-action EWDs have come back online with the installation of Tristel RA.**



## CHLORINE DIOXIDE

Tristel RA doses low levels of Tristel's proprietary chlorine dioxide chemistry into the incoming water supply used during an EWD's decontamination cycle. This powerful biocide is generated by mixing Tristel Base Solution (citric acid) and Tristel Activator Solution (sodium chlorite) at point of use. Chlorine dioxide is compatible with all materials within an EWD at the concentration dosed by Tristel RA.

Chlorine dioxide as dosed by Tristel RA does not damage endoscopes and does not affect the chemical composition and efficacy of detergents (including enzymatic) and disinfectants (including peracetic acid) commonly used in EWDs.

Scientifically derived data demonstrates that Tristel RA-dosed chlorine dioxide does not pose any significant toxicological risk from any residue left on reprocessed endoscopes.

1. Prefilters 5µm and carbon
2. Demand Pump
3. RO membrane (only available in Tristel RA Series 3 and 3+)
4. Water inlet to tank with flowmeter
5. Chemical pumps and flow meters
6. Chemical mixing/injector
7. Large water holding tank (only available in Tristel RA Series 3 and 3+)
8. Supply pump
9. Pressure transducer and non-return valve
10. 0.2µm bacterial filter

## SIMPLE OPERATION

Tristel RA requires minimal user input and is simple to operate. A password-secured touch screen enables you to log data, review bottle fill levels, set dosing parameters and handle any alarms. The screen can be mounted onto Tristel RA or placed in a central unit for remote operations.

Tristel RA can work with multiple EWDs, from endoscopy units to small private clinics. Tristel RA can be installed into a new unit or alongside a failing RO system or EWDs to overcome water sampling issues.

## PRODUCT OPTIONS

- Tristel RA Series 2: filtration and chlorine dioxide dosing
- Tristel RA Series 3: filtration with RO (50 litre tank) and chlorine dioxide dosing
- Tristel RA Series 3+: filtration with RO (85 litre tank) and chlorine dioxide dosing

## Tristel RA provides microorganism-free water, enables successful decontamination and prevents cross-contamination to medical devices.

Nelson Laboratories is a leading United States laboratory used by medical device companies, including EWD companies, for disinfectant testing (Nelson Laboratories, 2018). The effectiveness of Tristel RA was evaluated by Nelson Laboratories under Good Laboratory Practice (GLP) test conditions.

Tristel RA was challenged with a high bioburden (>10<sup>6</sup> CFU/mL) consisting of *Mycobacterium terrae* and *Pseudomonas aeruginosa* as outlined in the EN ISO 15883 standard. Organisms were injected directly into the tank of Tristel RA, bypassing the 5µm filter and RO system situated prior to the tank, therefore representing a worst-case contamination scenario. Tristel RA achieved a >6.62 log reduction for *M. terrae* and a ~6.61 log reduction for *P. aeruginosa* (Pace, 2017).

**Tristel**

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**Tristel™**  
WE HAVE CHEMISTRY.