



# ENDOTHERM DUO XL COMPACT DUPLEX RO SYSTEM US DATA SHEET



Compact, reliable, cost effective duplex reverse osmosis water purification solutions for endoscopy and sterile services applications.

Envirogen's EndoTherm range stands out in the market for its unique advantages, leveraging over 15 years of R&D experience in UK healthcare:

- Unrivalled Compliance with a guarantee: EndoTherm is the only proven product known to exceed the AAMI ST108 standard and includes a performance guarantee.
- Smallest footprint in the industry: Advantageous for facilities with limited space.
- Robust case studies and comprehensive list of reference sites: Demonstrating proven effectiveness and reliability.

The EndoTherm Duo XL is a range of duplex reverse osmosis (RO) systems that are designed to exceed AAMI ST108 standards. EndoTherm Duo XL units can be set to operate at ambient or elevated temperatures (user adjustable) with automatic thermal sanitization taking place out of hours. All models can be electric or steam heated. A combination of reverse osmosis, ultra-violet disinfection, sub-micron filtration and constant recirculation all work together to maintain good water quality at a range of dispense rates that can be matched to single or multiple decontamination equipment needs.

The full colour HMI (human machine interface) touch-screen monitor allows for secure access levels, simple maintenance procedures and displays real-time graphical data. Compact, pre-assembled and skid mounted, EndoTherm Duo XL units are fast and easy to install, commission and validate. Various service contract options are available as well as access to our remote digital monitoring programs.

## FEATURES & BENEFITS

- Ideal for single or multiple washers/autoclaves
- Steam heating option available
- Duplex high-efficiency RO systems on the same module for maximum resilience
- Prefabricated, skid mounted modular system means quick installation and less downtime
- Thermal sanitization to >80°C automatically out of hours
- Water can recirculate at ambient or elevated temperatures to all points of use
- Designed to comply with AAMI ST108 requirements
- Choice of high dispense rates for rapid filling and shorter cycles
- Distribution loops available in orbitally welded stainless steel or PEX pipework
- High capacity stainless steel tank to buffer demand to multiple washers
- Hygienic sample valve with easy access to validate and verify product water quality
- Upgradeable outputs up to 1200 lph to help future proof
- PLC controller with full colour, touch screen HMI for easy system programming
- Removable USB memory stick for data logging system performance and sanitizations
- Cylinder ion exchange option available
- Remote monitoring options available
- Comprehensive after sales service and support backed up by national network of fully trained engineers

# TECHNICAL SPECIFICATION

## Treated Water Specification - All models

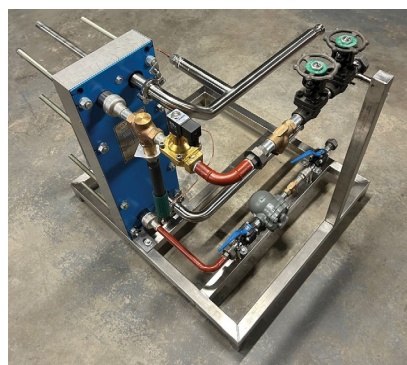
Conductivity	<30 $\mu\text{S}/\text{cm}$
Bacteria	<1 CFU/100ml
Endotoxin	<0.25 EU/ml
Particles	<0.2 $\mu\text{m}$

## Feed Water Quality - All models

Hardness ( $\text{CaCO}_3$ )	<50 mg/l
Free Chlorine ( $\text{Cl}_2$ )	<0.4 mg/l
Iron/Manganese (Fe/Mn)	<0.05 mg/l
Feedwater Pressure	35-90 psi (2.5-6.0 bar)
Max Conductivity	<1400 $\mu\text{S}/\text{cm}$
Silica ( $\text{SiO}_2$ )	<30 mg/l



A duplex EndoTherm Duo XL RO system

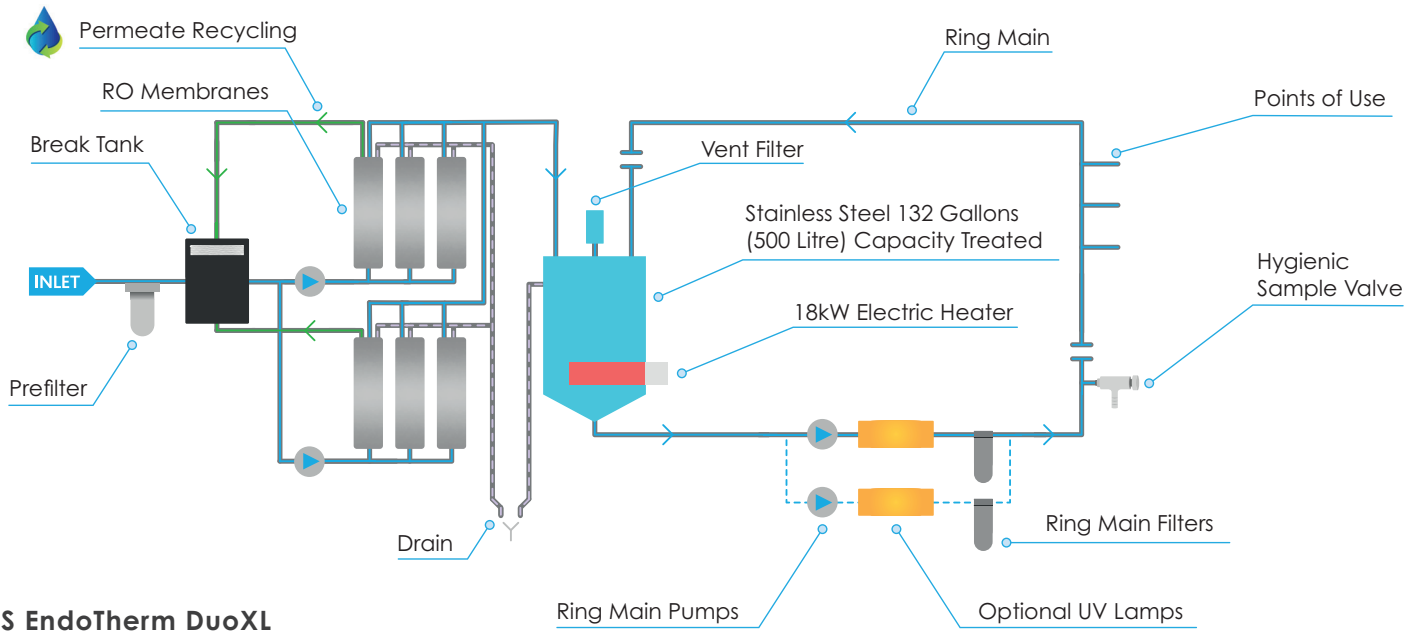


An external steam plate heat exchanger (optional)



Remote wall-mounted alarm indicator

# SYSTEM FLOW DIAGRAM



**US EndoTherm DuoXL**

# PRODUCT SPECIFICATION

EndoTherm Duo XL Model		ETD-300XL	ETD-600XL	ETD-900XL
Production Rate @ 59°F (15°C)	gph (l/hr)	70 (300)	158 (600)	237 (900)
Max Dispense Rate	gpm (l/pm)	Up to 31 (120)		
Max RO Recovery Rate	%	75		
Dimensions: Depth	inches (mm)	32 (810)		
Dimensions: Width	inches (mm)	69 (1750)		
Dimensions: Height	inches (mm)	73 (1865)		
Shipping Weight	lbs (kg)	827 (375)	871 (395)	926 (420)
Inlet Connection	NPT	1"		
Drainage Connection	-	Minimum 1.25" (32 mm) upstand to drain		
Ringmain Connection	NPT	1"		
Electrical Supply	High Flow	18kW - 3ph, 480VAC, 40A		
Max Power Consumption	kW	31.3kW		
Noise Level during Recirculation	dB	<50		

## ABOUT ENVIROGEN

Envirogen is a leading international provider of water and wastewater treatment solutions. We solve complex challenges relating to water availability and quality, and help our customers to increase productivity, reduce costs and meet environmental and sustainability targets.

We do this through offering:

- Best in class water and wastewater treatment and process filtration technology
- Expertise in design, project management and engineering
- World class manufacturing and servicing capability



### NORTH AMERICAN HEADQUARTERS

Envirogen Technologies  
700 Rockmead Drive, Suite 100  
Kingwood, TX 77339  
T: 713.979.9142  
E: info@envirogen.com

### UK HEADQUARTERS

Envirogen Group  
Unit 9, Wimsey Way, Alfreton Trading Estate  
Alfreton, Derbyshire, DE55 4LS  
T: +44 (0) 1773 441029  
E: enquiries@envirogengroup.com

### EUROPEAN HEADQUARTERS

Envirogen Technologies bv  
Penningweg 71, 1507 DG Zaandam, The Netherlands  
T: +31 75 204 7200  
E: NLinfo@envirogengroup.com

We have a network of regional sales and service teams worldwide:

**USA:** Texas, Tennessee, New Jersey, California, Nevada.

**UK and Europe:** UK, The Netherlands, Germany, France, Italy.

For further details, visit our website or contact our main office locations above.

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