

GENOX

Safe alternative to ClO₂

Low human hazard

Cost effective - from 4 pence/m3 of treated water

HSG274 - HOCl is the most effective form of Chlorine Used widely in the NHS

SUITABLE FOR

Hot / cold systems **Primary disinfection** Secondary disinfection **Hospitals** Hotels Care homes **Schools** Legionella control **Drinking water Breweries Dairies** Food processing And more ...

GENOX

Produces low hazard, HOCl biocide NEUTHOX® for primary and secondary disinfection.



Cost effective, safe and powerful biocide for large and small systems

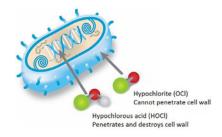
A specially developed GENOX Generator System uses electrolysis of brine to generate a biocide (NEUTHOX®) on demand. NEUTHOX® is a powerful, proven disinfectant that controls biofilm and destroys Legionella and Pseudomonas and is effective even at 40-50C. The active ingredient in NEUTHOX® is hypochlorous acid (HOCI) which is produced naturally in the human body within white blood cells to fight infection.

HOCl is lethal to pathogens. It is low hazard, easy to handle and easy to dose. Generation is inexpensive and HOCl is stored securely in a drum. The unit merely requires water, Genox salt and electricity.

A wide range of units are available and all are compact allowing for simple retro fitting to areas with small available space footprints.

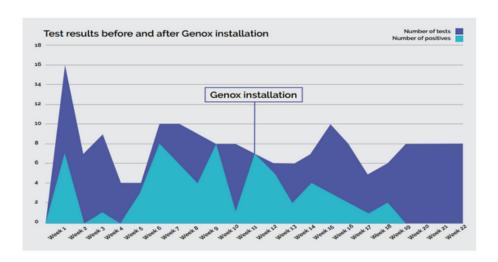
How it works

HOCI renders bacteria inactive and achieves its results by a two-stage disruptive process. On breaching the bacteria cell wall, it interacts chemically with the cell's proteins, attacking the cell's DNA and causing the whole cell to die. The cell floods with water and acidic fluid and dies. Once the bacteria has been destroyed, its co-dependent relationship with the biofilm is disrupted and the biofilm begins to break up, bringing Legionella and Pseudomonas levels back or permanently under control to acceptable levels.





A UK school experienced persistent Legionella bacteria counts despite daily flushing, efforts to increase water flow, improving the pipework and thermal pasteurisation of the water distribution system.



Genox compared with conventional chlorine dioxide

ClO₂

Complex Generator maintenance Requires supply and dosing of two chemicals Danger of Chlorite and Chlorate overdose Pre-stabilised ClO2 has a limited shelf life ClO2 in solution can sometimes be tasted Complex control Hazardous Handling issues

Relatively expensive to generate

GENOX producing NEUTHOX®

Simple, fast Generator maintenance No hazardous chemical handling HOCl is produced at a low hazard concentration HOCl stored in secure 50-200L tanks No taste, no colour, reduced danger of over-dosing Easy monitoring, control and adjustment remotely (optional) Ecologically safe PPE equipment for low hazard Inexpensive and cost effective to generate Easy training to measure the system reserve

Multiple applications with units tailored to needs, flow and application





Mini LC



		Mini LC		
Neuthox production capacity ±10%	l/h	3	9	15
Chloride in Neuthox® ±10%	mg/l	1700	1700	1700
Free Active Chlorine ±10%	ppm	500	500	500
pH-value	pН	8,5	8,5	8,5
Approx. NaCl consumption*	Kg/day	0,15	0,45	0,75
Max. Pre-fuse	Α	13	13	13
Power consumption	W	108	324	396
Voltage CEE plug ±10%	V, Hz	230V AC 50/60 Hz	230V AC 50/60 Hz	230V AC 50/60 Hz
Length of power supply cable	m	2	2	2
Protection class, electrical cabinet	IP	IP54, NEMA3R	IP54, NEMA3R	IP54, NEMA3R
Required water supply pressure	Bar	2,0 - 8,0	2,0 - 8,0	2,0 - 8,0
Max. drain back pressure	Bar	0,2	0,2	0,2
Water supply temperature	°C	≤ 20	≤ 20	≤ 20
Ambient temperature tolerance	°C	+5 to +40	+5 to +40	+5 to +40
Min. required room ventilation	m³/h	2	7	8
Maximum running hours	h/day	24	24	24
Water connection hose length	m	Not included	Not included	Not included
Water connection (push-in connector)	mm	10	10	10
Dimensions				
Cabinet dimensions: Width×Height×Depth	mm	600×600×250	600×600×250	600×600×250
Weight	Kg	22	22	22
Brine tank size: Width×Height×Depth	mm	Internal	270×470×330	270×470×330
Brine tank Capacity	L 7		33	33
Neuthox® size: Width×Height×Depth	mm Internal		250×540×320	250×540×320
Neuthox® tank capacity	L	7	33	33
Sound level	dB(A)	40	40	40

^{*}At 20 °C, water hardness 400 ppm, 20-hour operation





T15 LC



(,		T15 LC			
Neuthox production capacity ±10%	l/h	30	50	75	
Chloride in Neuthox® ±10%	mg/l	1700	1700	1700	
Free Active Chlorine ±10%	ppm	500	500	500	
pH-value	pН	8,5	8,5	8,5	
Approx. NaCl consumption*	Kg/day	3,0	4,6	7,2	
Max. Pre-fuse	Α	16	16	16	
Power consumption	W	684	996	1308	
Voltage CEE plug ±10%	V, Hz	230V AC 50/60 Hz	230V AC 50/60 Hz	230V AC 50/60 Hz	
Length of power supply cable	m	3	3	3	
Protection class, electrical cabinet	IP	IP54, NEMA3R	IP54, NEMA3R	IP54, NEMA3R	
Required water supply pressure at 15l/min	Bar	2,5 - 6,2	2,5 - 6,2	2,5 - 6,2	
Max. drain back pressure	Bar	0,2	0,2	0,2	
Water supply temperature	°C	≤ 25	≤ 25	≤ 25	
Ambient temperature tolerance	°C	+5 to +40	+5 to +40	+5 to +40	
Min. required room ventilation	m3/h	16	23	31	
Recommended running hours	h/day	15	15	15	
Maximum running hours	h/day	20	20	20	
Water connection hose length	m	Not included	Not included	Not included	
Water connection (BSP Male)	Inch	1/2"	1/2"	1/2"	
Drain connection (BSP Male)	Inch	1/2"	1/2"	1/2"	
Drain hose - min. inside diameter	mm	12	12	12	
Drain hose - max. length	m	5	5	5	
Dimensions				-	
Cabinet dimensions: Width-Height-Depth	mm	710-840-310	710-840-310	710-840-310	
Weight	Kg	53	55	55	
Brine tank size: Width-Height-Depth	mm	360-720-450	360-720-450	360-720-450	
Brine tank Capacity	L	100	100	100	
Neuthox® size: Width-Height-Depth	mm	360-720-440	360-720-440	360-720-440	
Neuthox® tank capacity	L	100	100	100	
Sound level	dB(A)	51	51	51	

^{*}At 20 °C, water hardness 400 ppm, 20-hour operation





T25 LC



		T25 LC		
Neuthox production capacity ±10%	l/h	125	250	
Chloride in Neuthox® ±10%	mg/l	1700	1700	
Chlorate CLO3 in Neuthox®	mg/l	4	16	
Free Active Chlorine ±10%	ppm	500	500	
pH-value	pН	5,5 - 8,5	5,5 - 8,5	
Approx. NaCl consumption*	Kg/day	6	25	
Max. Pre-fuse	Α	16	16	
Power consumption	W	1980	4620	
Voltage CEE plug ±10%	V, Hz	3x400V AC 50/60 Hz	3x400V AC 50/60 Hz	
Length of power supply cable	m	3	3	
Protection class, electrical cabinet	IP	IP54, NEMA3R	IP54, NEMA3R	
Required water supply pressure at 15l/min	Bar	2,5 - 6,2	2,5 - 6,2	
Max. drain back pressure	Bar	0,2	0,2	
Water supply temperature	°C	≤ 25	≤ 25	
Ambient temperature tolerance	°C	+5 to +40	+5 to +40	
Min. required room ventilation	m3/h	48	114	
Recommended running hours	h/day	15	15	
Maximum running hours	h/day	20	20	
Water connection hose length	m	Not included	Not included	
Water connection (BSP Male)	Inch	1/2"	1/2"	
Drain connection (BSP Male)	Inch	1/2"	1/2"	
Drain hose - min. inside diameter	mm	12	12	
Drain hose - max. length	m	5	5	
Dimensions				
Cabinet dimensions: Width-Height-Depth	mm	850 - 1490 - 460	850 - 1490 - 460	
Weight	Kg	185	185	
Brine tank size: Width-Height-Depth	mm	1100 - 880 - 530	1100 - 880 - 530	
Brine tank Capacity	L	400	400	
Sound level	dB(A)	70	70	

^{*}At 20 °C, water hardness 400 ppm, 20-hour operation





T₁₅ STD

Technical Specifications and Datasheet



		T15 STD		
Neuthox production capacity ±10%	I/h	40	100	
Chloride in Neuthox® ±10%	mg/l	3800	3800	
Free Active Chlorine ±10%	ppm	500	500	
pH-value	pН	5,5 - 8,5	5,5 - 8,5	
Approx. NaCl consumption*	Kg/day	5,7	16,7	
Max. Pre-fuse	Α	16	16	
Power consumption	W	660	1500	
Voltage CEE plug ±10%	V, Hz	230V AC 50/60 Hz	230V AC 50/60 Hz	
Length of power supply cable	m	3	3	
Protection class, electrical cabinet	IP	IP54, NEMA3R	IP54, NEMA3R	
Required water supply pressure at 15l/min	Bar	2,5 - 6,2	2,5 - 6,2	
Max. drain back pressure	Bar	0,2	0,2	
Water supply temperature	°C	≤ 25	≤ 25	
Ambient temperature tolerance	°C	+5 to +40	+5 to +40	
Min. required room ventilation	m3/h	15	36	
Recommended running hours	h/day	15	15	
Maximum running hours	h/day	20	20	
Water connection hose length	m	Not included	Not included	
Water connection (BSP Male)	Inch	1/2"	1/2"	
Drain connection (BSP Male)	Inch	1/2"	1/2"	
Drain hose - min. inside diameter	mm	12	12	
Drain hose - max. length	m	5	5	
Dimensions				
Cabinet dimensions: Width-Height-Depth	mm	710-840-310	710-840-310	
Weight	Kg	53	55	
Brine tank size: Width-Height-Depth	mm	360-720-450	360-720-450	
Brine tank Capacity	L	100	100	
Neuthox® size: Width-Height-Depth	mm	360-720-440	360-720-440	
Neuthox® tank capacity	L	100	100	
Sound level	dB(A)	51	51	

*At 20 °C, water hardness 400 ppm, 20-hour operation





T₂₅ STD



		T25 STD				
Neuthox production capacity ±10%	I/h	200	300	400		
Chloride in Neuthox® ±10%	mg/l	3800	3800	3800		
Chlorate CLO3 in Neuthox®	mg/l	9	7	18		
Free Active Chlorine ±10%	ppm	500	500	500		
pH-value	pН	5,5 - 8,5	5,5 - 8,5	5,5 - 8,5		
Approx. NaCl consumption*	Kg/day	27	45	51		
Max. Pre-fuse	Α	16	16	16		
Power consumption	W	2580	3900	5100		
Voltage CEE plug ±10%	V, Hz	3x400VAC 50/60Hz	3x400VAC 50/60Hz	3x400VAC 50/60Hz		
Length of power supply cable	m	3	3	3		
Protection class, electrical cabinet	IP	IP54, NEMA3R	IP54, NEMA3R	IP54, NEMA3R		
Required water supply pressure at 15l/min	Bar	2,5 - 6,2	2,5 - 6,2	2,5 - 6,2		
Max. drain back pressure	Bar	0,2	0,2	0,2		
Water supply temperature	°C	≤ 25	≤ 25	≤ 25		
Ambient temperature tolerance	°C	+5 to +40	+5 to +40	+5 to +40		
Min. required room ventilation	m3/h	63	96	126		
Recommended running hours	h/day	15	15	15		
Maximum running hours	h/day	20	20	20		
Water connection hose length	m	Not included	Not included	Not included		
Water connection (BSP Male)	Inch	1/2"	1/2"	1/2"		
Drain connection (BSP Male)	Inch	1/2"	1/2"	1/2"		
Drain hose - min. inside diameter	mm	12	12	12		
Drain hose - max. length	m	5	5	5		
Dimensions						
Cabinet dimensions: Width-Height-Depth	mm	850 - 1490 - 460	850 - 1490 - 460	850 - 1490 - 460		
Weight	Kg	185	185	190		
Brine tank size: Width-Height-Depth	mm	1100 - 880 - 530	1100 - 880 - 530	1100 - 880 - 530		
Brine tank Capacity	L	400	400	400		
Sound level	dB(A)	70	70	70		

^{*}At 20 °C, water hardness 400 ppm, 20-hour operation







MARLOWE Environmental Services



