LOTUS ULTRA
CHLORINE DIOXIDE GENERATOR

The chlorine dioxide generator named „LOTUS ULTRA“ is used to produce liquid chlorine dioxide. This disinfectant kills all bacteria, germs, viruses and fungi very rapidly and works at very low concentration. The generator works according to the hydrochloric acid - chlorite process and uses diluted chemicals such as hydrochloric acid (HCl) and sodium chlorite ($NaClO_2$) in accordance with the following chemical formula:

Hydrochloric acid + Sodium chlorite = Chlorine dioxide + Sodium chlorite + Water
$4\ HCl + 5\ NaClO_2 = 4\ ClO_2 + 5\ NaCl + 2\ H_2O$

In the process, each chemical is pumped with a certain proportion in a reactor, which works pressurised, by means of two dosing pumps. The system can work proportionally with a contact water meter or constant mode.

Modbus RS-485 CE

R30726

WORKING MODES

› Constant. This mode allows you to set the constant operation mode for the PUMP [pulses per minute].

› Production. According to system capacity enter production value based on grams per hour. If not sure leave default value.

› Proportional with Water. This function allows you to set the operation mode proportional to the PUMP output based on the flow detected by the pulse emitting water meter.

› mA Input.This mode allows to properly calibrate the mA input module based on flow sensor readings. Note: according to settings in “Water Meter”menu it allows to calibrate 0-20mA or 4/20mA.

ADVANTAGES

› Reaction at controlled pressure
› High degree of stability of the chlorine dioxide solution
› No ClO_2 loss due to closed reaction chamber
Diluted chemicals

› FUNCTIONS

› Instantaneous ClO_2 production
› ClO_2 dosing in proportional mode
› Flow control input (flow alarm)
› Tank level controls (level alarms)
› Water meter input
› Stand-by input
› Real time production data
› Pumps and SEFL flow sensors monitoring
› Permanent data storage with system data log (on Logbook menu)
› ERMES communication
› mA output
› Service due date
› USB data log (option)
› Ethernet module (option)
› GSM/GPRS internal modem (option)

FEATURES

› ClO_2 concentration: *see table*
› Flow control input (flow alarms)
› Tank level control (level alarms)
› HCl (red), $NaClO_2$ (blue) and dilution water (grey) metering pumps
› 3 SEFL pump dosing check
› MFKT/V multifunction valve as pressure, safety, anti-syphon and bleed valve
› PVDF reaction chamber
› ASA (Acrylonitrile Styrene Acrylate) enclosure
› IP65 protection (NEMA4x) of LOTUS control instrument and pumps
› Wheel control for easy programming
› Working temperature: 0/45°C (32/110°F)
› In-Air gas detection sensor

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Specifications subject to change without notice | R2025

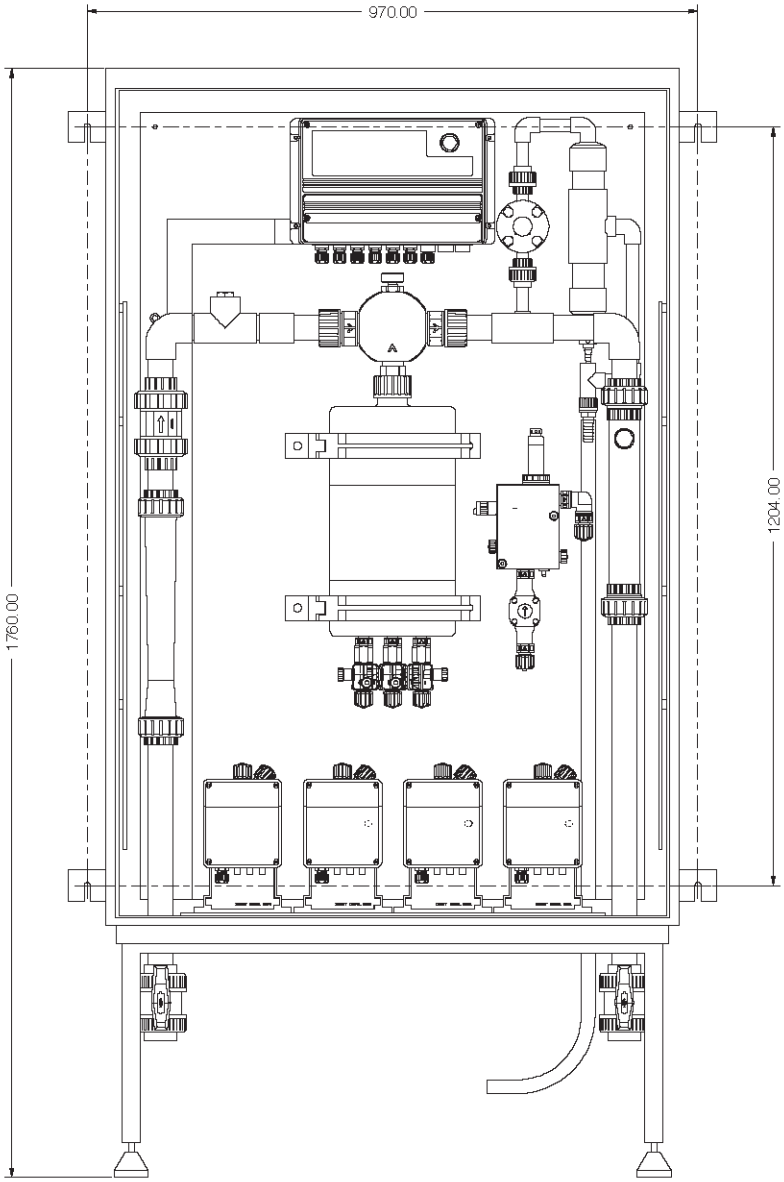
emec SIMPLE AS WATER

IQNET CERTIFIED MANAGEMENT SYSTEM
qualityaustria SYSTEM CERTIFIED
ISO 9001:2015 No.07728/0
ISO 14001:2015 No.00997/0
ISO 45001:2018 No.01121/0

LOTUS ULTRA

CHLORINE DIOXIDE GENERATOR

	LOTUS ULTRA 500	LOTUS ULTRA 1000	LOTUS ULTRA 2000	LOTUS ULTRA 4000
ClO_2 max capacity (gr/h)	500gr/h	1000gr/h	2000gr/h	4000gr/h
Max working pressure (bar)	5	5	5	2
Max chemicals consumption (l/h)	3,15 l/h	6,3 l/h	12,6 l/h	25,2 l/h
Chemicals Concentration (gr/l)	**Acid 33% - Chlorite 25%**			
Power supply	230 VAC (190/265 VAC) 115 VAC (90/135 VAC)			
Maximum power consumption (W)	150			
Water Consumption (for each pump)	6,85 l/h	13,7 l/h	27,4 l/h	54,8 l/h



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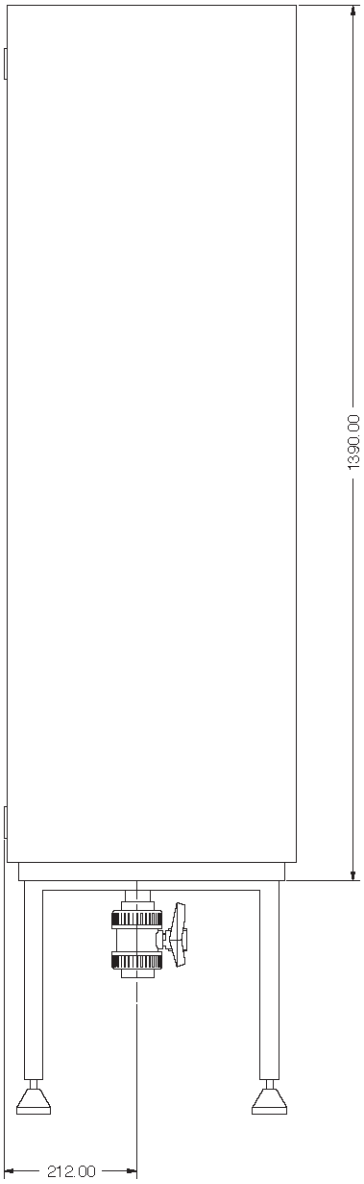

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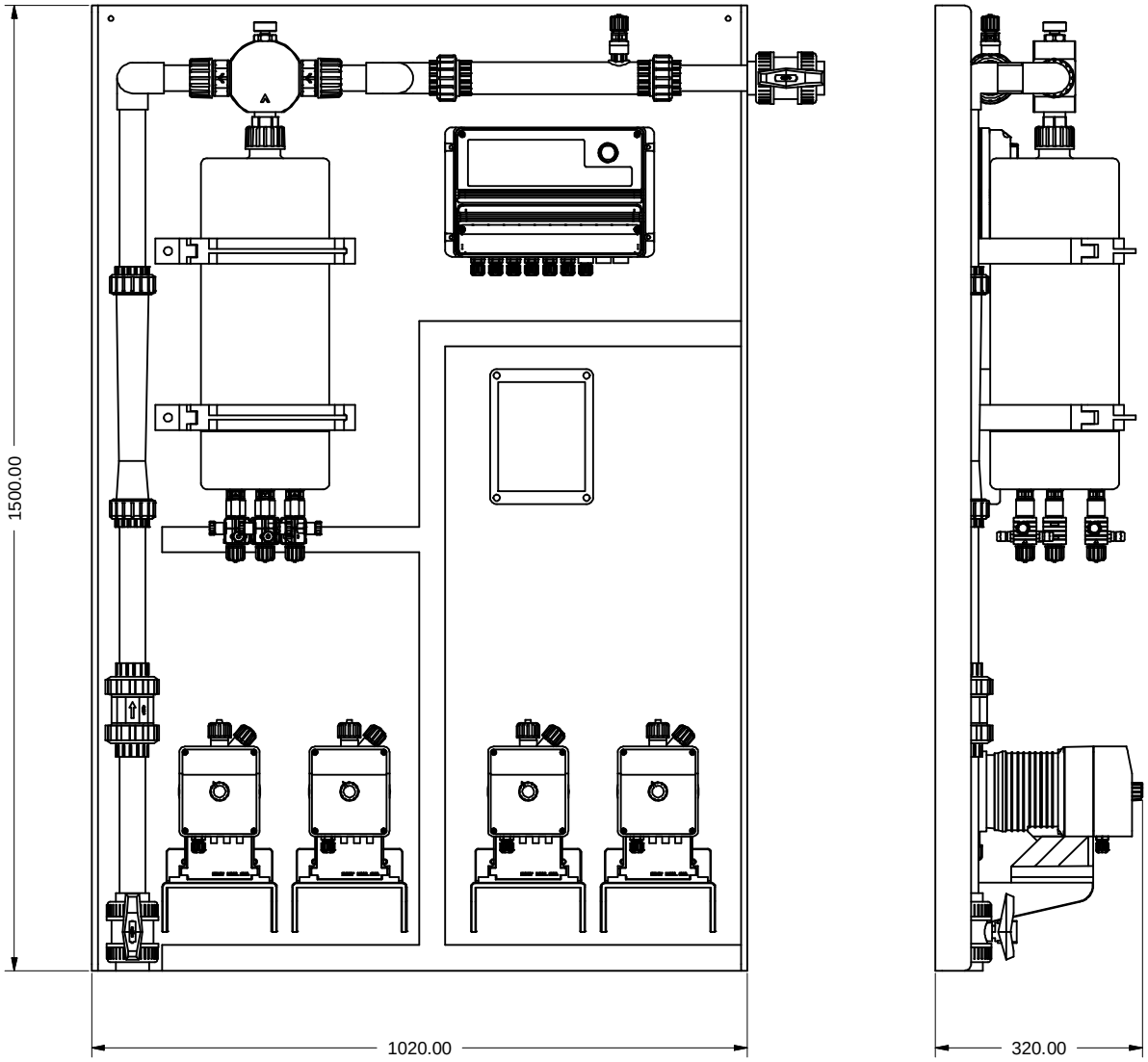
LOTUS ULTRA
CHLORINE DIOXIDE GENERATOR

LOTUS ULTRA 4000



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