



Hyprolyser[®]

Standard models: 280, 560, 1100, 2200, 4250, 8500

Safe, reliable & efficient on-site generation of sodium hypochlorite.

Safe Preparation of Sodium Hypochlorite

Using harmless salt, water and electricity, Hyprolyser[®] iSEC[®] electrochlorination systems provide an on-demand supply of <1.0% sodium hypochlorite solution. Generated through the electrolysis of diluted brine solution.

Due to the low caustic and mineral content of the generated solution, injection point cleaning and descaling tasks are completely eliminated.

Commercial strength sodium hypochlorite can degrade quickly in storage, often losing up to 20% of its chlorine content. The <1.0% sodium hypochlorite solution produced by the Hyprolyser[®] system does not require caustic buffer chemicals or additives to retain its chlorine content. It can retain its original chlorine concentration for months.

The combination of storing low strength solution, the avoidance of chemical deliveries, handling and operator involvement significantly reduce the likelihood of any accidental spillage.





Easy to operate

The operator is required to fill the salt saturator tank with salt. From this, the Hyprolyser® system produces a concentrated brine solution which is then diluted to the correct strength for efficient electrolysis. The diluted brine is then delivered to the electrolytic cell where electric current is passed through the solution, producing sodium hypochlorite. The process is continued automatically until the product storage tank is filled. A range of metering and transfer pump options are available to convey the hypochlorite safely to the disinfection/treatment process.

Benefits

- Eliminate delivery and handling of hazardous chemicals
- Handle only salt
- Generate on site for on-demand or residual storage
- Eliminate dosing pump air-locking associated with commercial hypochlorites
- Eliminate injection point scaling associated with commercial sodium and calcium hypochlorites
- Considerable Health & Safety benefit to operators

Areas of Application

- Swimming & Spa Pool disinfection
- Chlorination of potable water supplies
- Food washing / processing treatment
- Dairies / Breweries cleaning in place (CIP)
- Cooling tower biocide treatment
- Secondary disinfection
- Industrial chlorination treatments



**Electrolytic
Chlorination
Systems**

FEATURES

- On site electrolysis of brine for safe generation and preparation of <1% sodium hypochlorite solution
- Safe and fully sealed electrolytic process
- Easy to operate
- Integrated control panel & OLED screen
- Manual and automatic operation
- Multilingual operating display option
- Telemetry alarm event & data logging option
- Chlorine production from 0.28 – 8.5kg/h

SPECIFICATIONS

Description	Unit	Hyprolyser® Standard Models					
		280	560	1100	2200	4250	8500
Chlorine capacity	g/h	280	560	1100	2200	4250	8500
Chlorine concentration	g/h	5 - 7					
Power consumption	kWh	1.4	2.8	5.6	12	24	47
Power supply	V	120/230V-		230V-	400V 3N-		
				400V 3N-			
Operating pressure	Bar	2 - 8					
Nominal water consumption	l/h	49	98	196	392	650	1300
Nominal salt consumption	kg/h	0.93	1.80	3.60	7.30	14.02	28.04
Protection class	IP	5X				54	
Permissible ambient temperature	°C	5 to 40					
Max. altitude	m	2000 (ambient temperature derating of 5°C/1000m for operating altitude higher than 2000m/6500ft)					
Pollution degree		2					
Permissible feed water temperature	°C	8 to 20*					

** chiller recommended above 20°C.
Other specifications available upon request.

Quick Sizing Guide

Approx. Capacity	Drinking water MLD @ 1ppm Cl ₂	Maximum Total of Pool Volume(s) m ³					
		500	1000	2000	4000	8000	16000
	204.0	16000					
	102.0	8000					
	52.8	4000					
	26.4	2000					
	13.4	1000					
	6.7	500	280	560	1100	2200	4250
	Chlorine gas (kg/day)	5	9.4	18.5	40	76.5	153
	Sodium hypochlorite 12% (L/day)	30	60	110	240	455	910
	Calcium hypo 70% (kg/day)	7	13.5	26.5	57	109	218

Current daily chemical usage

SPECIFICATIONS

Supply Water Quality (softened water only)

Temperature (°C)	8-20*
Max inlet pressure (MPa)	0.4
Turbidity (NTU)	<5
pH	6.5-10
Particle size (µm)	<100
Iron (µg/l)	<200
Manganese (µg/l)	<10
Fluoride (mg/l)	<2
Hardness (mg/l of CaCO ₃)	<20
Hardness (°dH)	<1
Free chlorine (mg/l)	<1

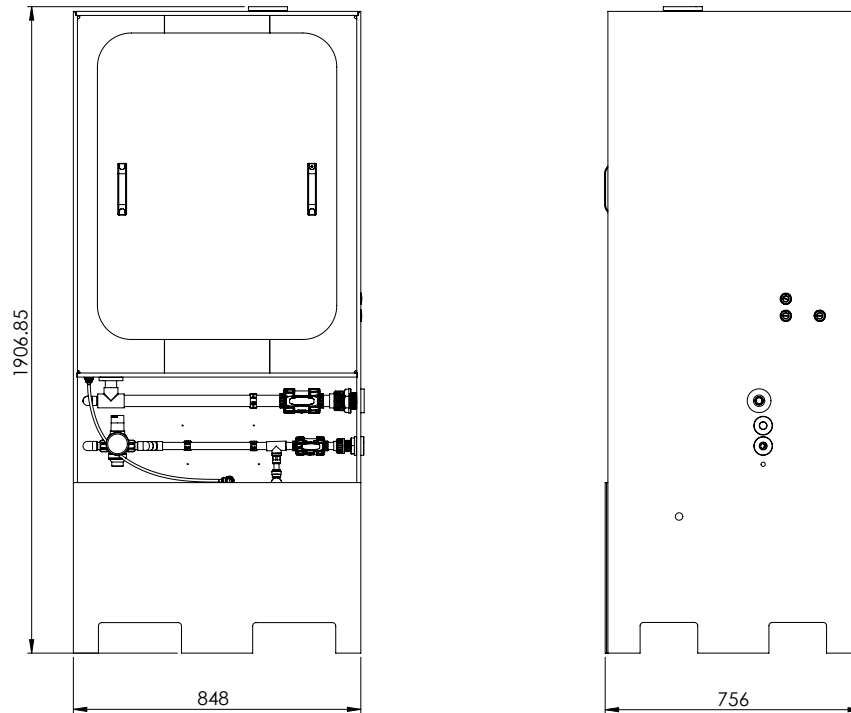
*A water heater or chiller is required if the water supply temperature is outside recommended parameters.

Salt Quality

Element/Compound	Upper Limit (mg/kg)
Arsenic (As)	13
Cadmium (Cd)	1.3
Chromium (Cr)	13
Iron (Fe)	10
Mercury (Hg)	0.26
Nickel (Ni)	13
Manganese (Mn)	0.5
Lead (Pb)	13
Antimony (Sb)	2.6
Selenium (Se)	2.6
Calcium (Ca)	100
Magnesium (Mg)	100
Bromide (Br ⁻)	100

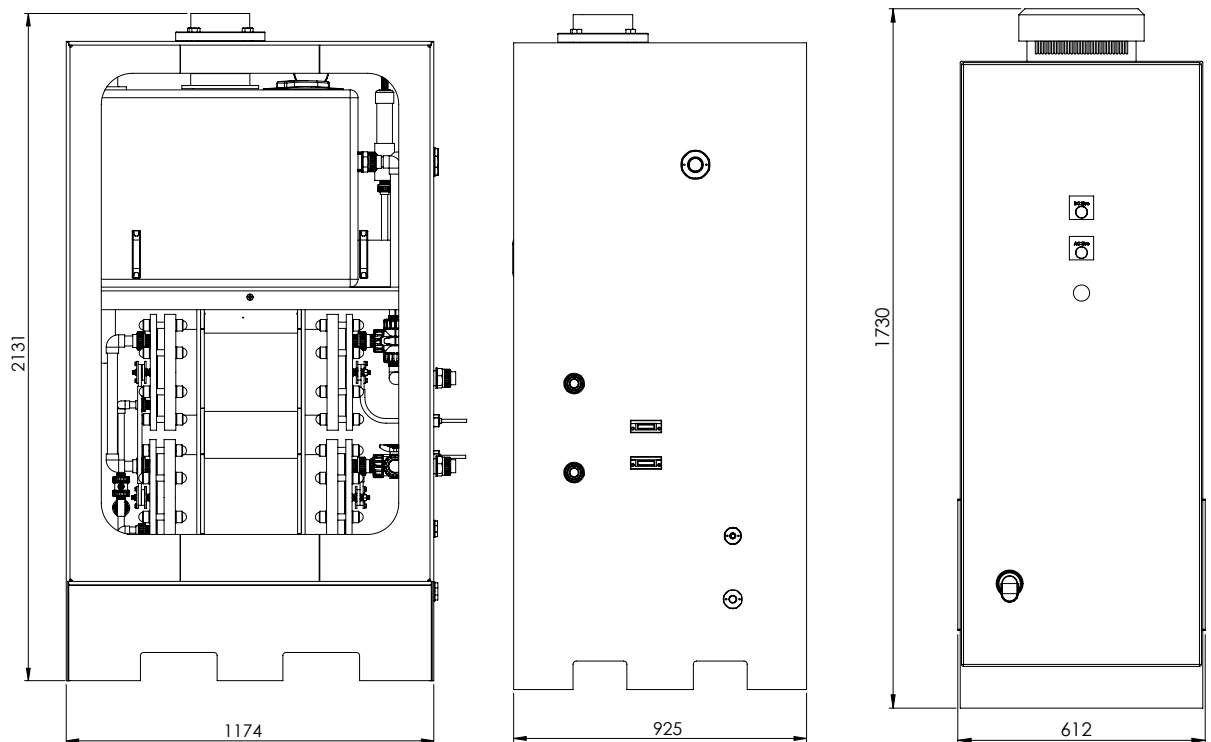
DIMENSIONS

Standard



All dimensions in mm

High Capacity



All dimensions in mm

DC Power Supply

SYSTEM COMPONENTS & ACCESSORIES



Modbus RTU module option available.
Not included in standard scope of supply.



Hyprolyser[®] Test Kit contains all instruments, glassware and reagents to carry out all necessary routine and service tests to confirm and monitor the efficient operation of the system.

SUMMARY



Low environmental impact

Minimal recyclable packaging, reduced transportation, no hazardous waste disposal.



Economical

Low cost of salt, reduced pH correction chemical costs, reduced operator labour, low service costs.



Simple to use

Fill saturator with salt, no remedial maintenance of chlorine injector, no technical intervention required by the operator, low hazard system.



Low maintenance

Smart design and robust engineering requires simple, minimal periodic maintenance.



Reliable

Annual test & inspection, 2 year service interval, 2-5 year warranty, 6-8 year typical electrolyser life.



Low hazard system

Delivery and storage of salt, no toxic dangers to staff or neighbours, no hazardous waste disposal and no chemical handling.

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