

Electrolytic  
chlorination

gaffey  
WATER TREATMENT FOR LIFE



 **Hyprolyser®**

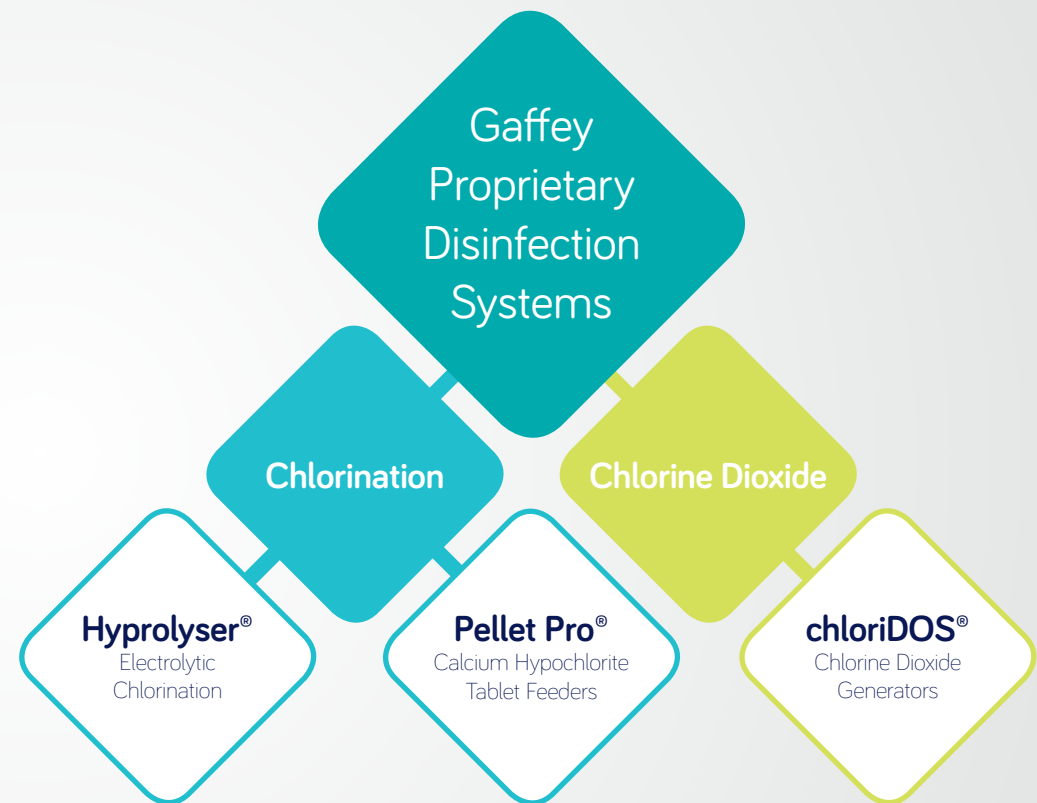
UNCOMPROMISING WATER DISINFECTION SYSTEMS

# Water Treatment You Can Trust

At Gaffey, we pride ourselves on producing products that challenge convention and defy expectation. Our story is one of change, innovation and development.

We know the importance of creating safe environments and use our 30+ years industry experience to focus on solving the problems of waterborne bacteria.

Through innovative design and smarter engineering, we manufacture unique, functional and future-proof technologies with the safety of the end user in mind.



# Introducing the Hyprolyser<sup>®</sup> family

Hyprolyser electrochlorination systems offer a safer, cleaner and more environmentally friendly way to provide chlorine for a wide range of disinfection uses.

Using only salt, water and electricity to produce hypochlorite, each Hyprolyser model offers exactly the same quality of performance and benefits. Whether you are looking to disinfect a spa pool or provide enough chlorine to treat millions of litres of drinking water per day, there's a Hyprolyser system available to perfectly fit your needs.



Electrolytic  
Chlorination

Safe & efficient in-situ  
generation of sodium  
hypochlorite



# Why use electrochlorination?

Using salt as the raw material to generate your own supply of hypochlorite offers several advantages. Salt is a widely available commodity used in many commercial and industrial settings and is competitively priced for both small and large users. Compared to commercial chemicals salt is very safe and easy to store, has an infinite shelf life and requires minimal packaging which can be easily recycled.

Using only salt, water and electricity, Hypolyser systems efficiently generate a supply of dilute sodium hypochlorite <1%, below the threshold for classification as a hazardous substance.

## SAFE

Delivery and Storage of SALT

COSHH not applicable

NO toxic dangers to staff & neighbours

NO hazardous waste disposal

NO chemical handling

## SIMPLE

Fill saturator with salt.

NO remedial maintenance of chlorine injector

NO technical intervention required  
by the operator

Low hazard system



## SUSTAINABILITY

Minimal recyclable packaging

Reduced transportation

Low environmental  
impact

## ECONOMIC

Low cost of salt

Reduced pH correction chemical costs

Reduced operator labour

Low service costs

## RELIABLE

Annual Test & Inspection

2 Year Service Interval

2 - 5 Year Warranty

6 - 8 year typical  
electrolyser life

## Low hazard, easy management

The benefits of using this method of chlorination are many; the avoidance of risks which occur through frequent chemical deliveries and handling, reduced health & safety management, a low-hazard workplace and reduced disinfection costs are just some of the benefits Hypolyser can bring to your operation.

Commercially produced hypochlorite products can quickly begin to degrade during storage. Using food grade salt and potable quality supply water, Hypolyser generates a fresh, high quality hypochlorite solution everyday, on-demand.

# Hyprolyser<sup>®</sup> iSEC

The Hyprolyser iSEC range is ideal for smaller scale chlorine demands. Available in modular or fully pre-assembled & tested skid format for quick and easy installation.



THREE CORE  
UNIT SIZES  
30, 60 & 90 g/h  
of chlorine

## Quick sizing guide

Approx. Capacity	Drinking Water MI/day	Max. Total Pool Volume			
	1.5	300		iSEC 90	
	1	180			
	0.5	90	iSEC 30		iSEC 60
	Chlorine gas kg/day		0.5	1	1.5
	Sodium hypo 14% l/day		3	6	9
	Calcium hypo 70% kg/day		0.7	1.4	2.1
Current Daily Chemical Usage					

# Applications

Where an efficient and cost effective supply of chlorine is required in smaller scale applications: Building services & legionella control, private water supplies, hotel and school pools.



## Overview

Highly compact space saving design in modular or skid format, ideal for locations where space is restricted.



## Features & Benefits

- Easy operation with unique visual colour change indication of operating status
- Quick and easy servicing
- Sleek, easy to clean design - ideal for food processing areas

## COMMERCIAL SWIMMING POOL

Consistent product strength and a sediment and scale-free dosing solution ensures reliability in delivering the highest standards of water hygiene



## DRINKING WATER

iSEC's smaller capacity is ideal for bore-hole and private water supplies to ensure chlorine solution is always freshly supplied and low in chlorate content



# Hyprolyser<sup>®</sup> Compact

The combination of powerful generating capability and convenient salt storage capacity make the Hyprolyser Compact range an ideal solution for chlorine demands of up to 480g/h Cl<sub>2</sub>.



## Quick sizing guide

Approx. Capacity

Drinking Water MI/day	Max. Total Pool Volumes m <sup>3</sup>		
8	900		Compact 480
4	450	Compact 240	
Chlorine gas kg/day		4	8
Sodium hypo 14% l/day		24	48
Calcium hypo 70% kg/day		5.8	11.6

Current Daily Chemical Usage



# Applications

Hyprolyser Compact 240 & 480 systems are ideal for supplying chlorine in industrial processes, and midsize commercial pool facilities; typically 25m lap pool + learner pool, leisure pools and private leisure clubs.



## Overview

- 100kg salt capacity (32kg Cl<sub>2</sub>)
- Supplied with integrated 200L product tank
- Ventilation - integrated
- Water softener included



## Features & Benefits

- Unique, patent pending volumetric brine & water measurement
- 110/230v "plug & play" installation
- Fits through a standard doorway
- 2 year maintenance interval
- Flexibility to supply several applications from a single unit

## TEDDINGTON POOLS & FITNESS CENTRE, LONDON

Hyprolyser 480 system specified to avoid the unloading of hazardous chemicals near a public parking area

**25M + LEARNER POOL  
+ HYDROTHERAPY**



# Hyprolyser<sup>®</sup> Standard

Offering a high level of installation flexibility in a wide variety of applications, the Hyprolyser Standard range offers additional safety features and functionality. 4250 & 8500 models are available for high capacity requirements such as large drinking water treatment plants and multi-pool waterparks.



## Overview

- Models: 280, 560, 1100, 2200, 4250, 8500 g/h
- High Level of Safety
- Integrated De-gassing Tank
- Integrated Duplex Softener\*
- Integrated Saturator\*
- 5 Year limit warranty

## Quick sizing guide

Approx. Capacity	Drinking Water MI/day	Max. Total Pool Volumes m <sup>3</sup>					
	143	16000					8500
	71.4	8000				4250	
	37	4000			2200		
	18.4	2000		1100			
	13.4	1000	560				
	6.7	500					
Chlorine gas kg/day		5	9.4	18.5	37	71.4	153
Sodium hypo 14% l/day		30	60	110	220	425	910
Calcium hypo 70% kg/day		7	13.5	26.5	53	102	204

Current Daily Chemical Usage



# Applications

Standard systems are commonly used in drinking and wastewater treatment, large industrial processes, multi-pool leisure facilities and water parks.



## Features & Benefits

- Dual contained electrolyser and de-gassing tank
- Electrolyser housed in a clear PVC tubular casing
- Integral 250kg Salt Saturator Tank\*



## Safety

- Integrated air dilution fan with sealed electrolyser compartment - no external Ex zones
- Quantitative ventilation airflow sensor for failsafe shutdown
- Hydrogen sensor for shutdown of system if any hydrogen is detected in the vicinity of the equipment

\* Except 4250 & 8500 models

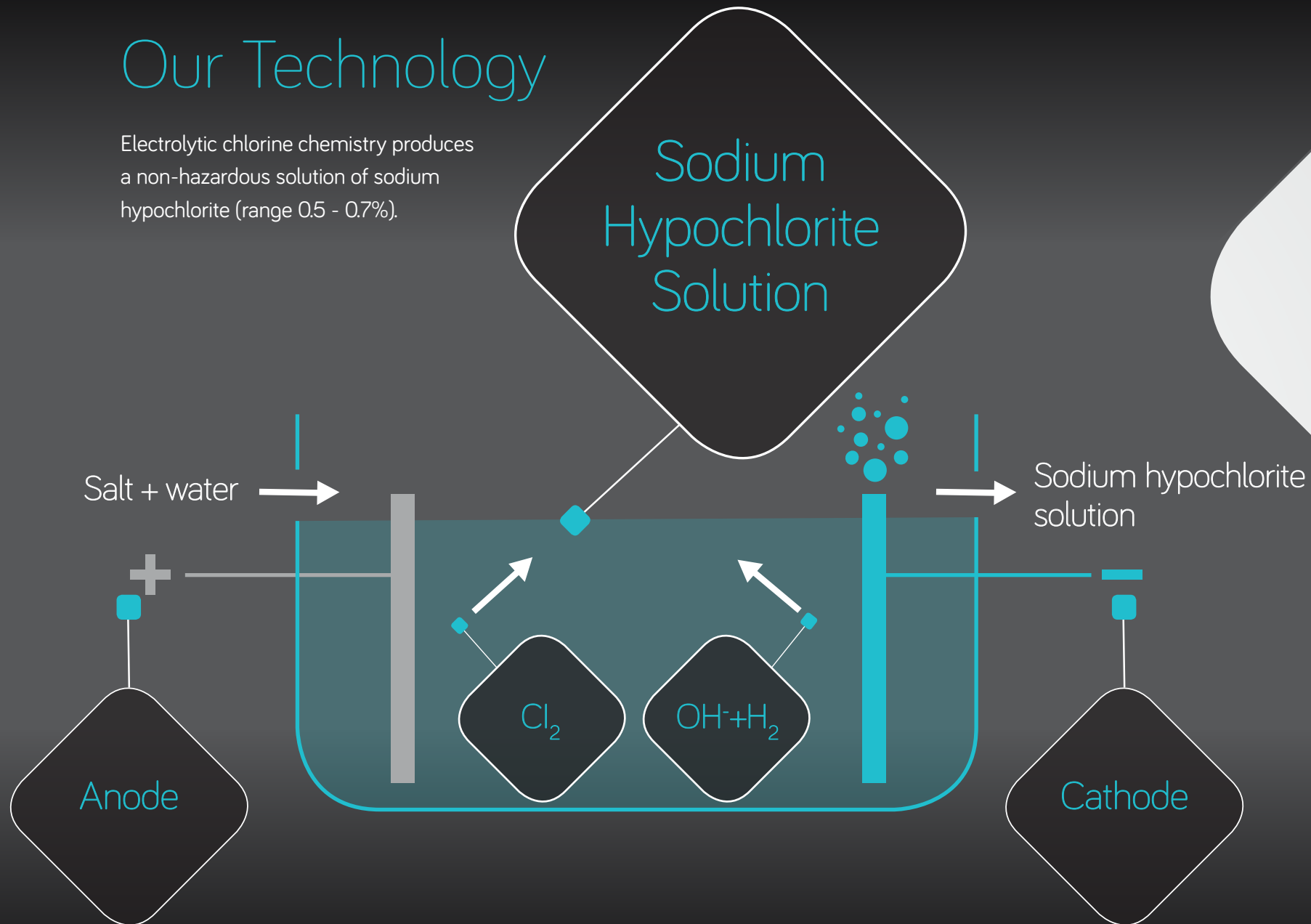
## WESTWATER ENTERPRISES PTY

2 x Hyprolyser 2200 systems installed in Australia's first solar powered water treatment plant, for Logan Water, Queensland



# Our Technology

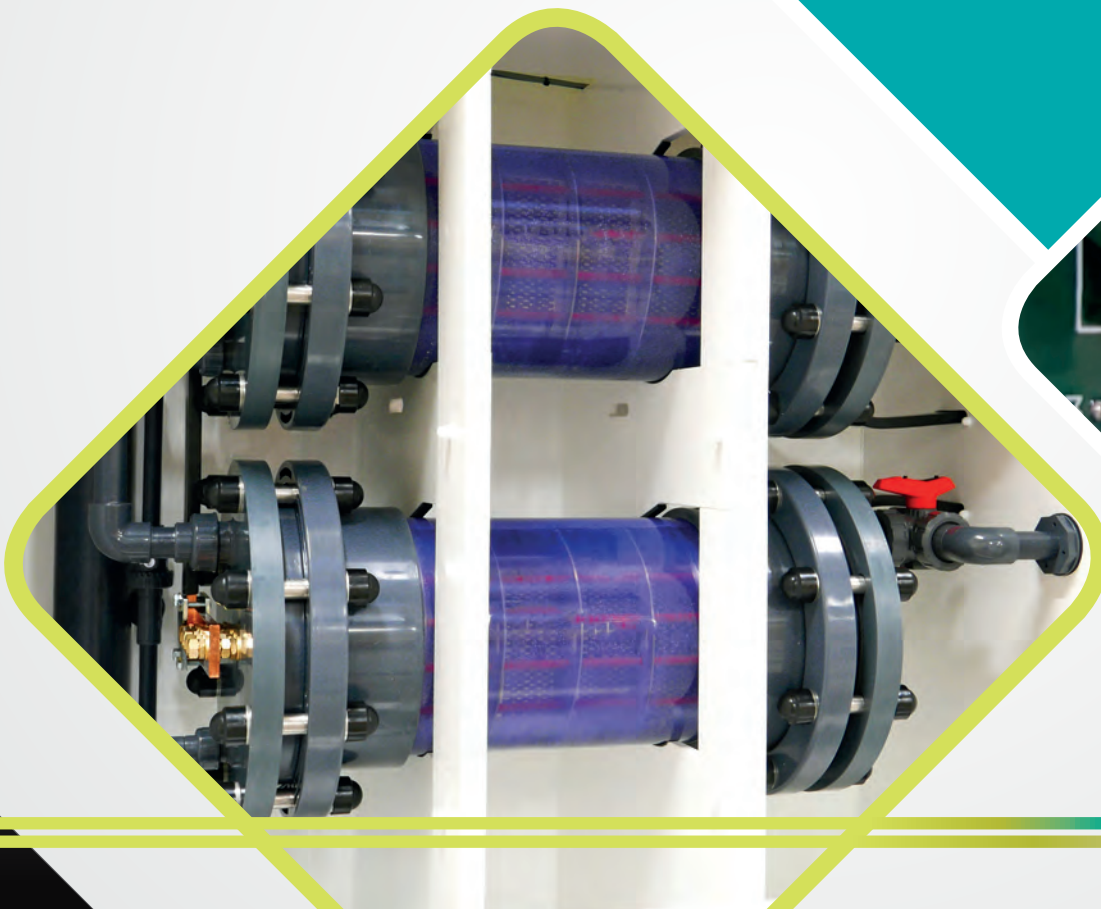
Electrolytic chlorine chemistry produces a non-hazardous solution of sodium hypochlorite (range 0.5 - 0.7%).





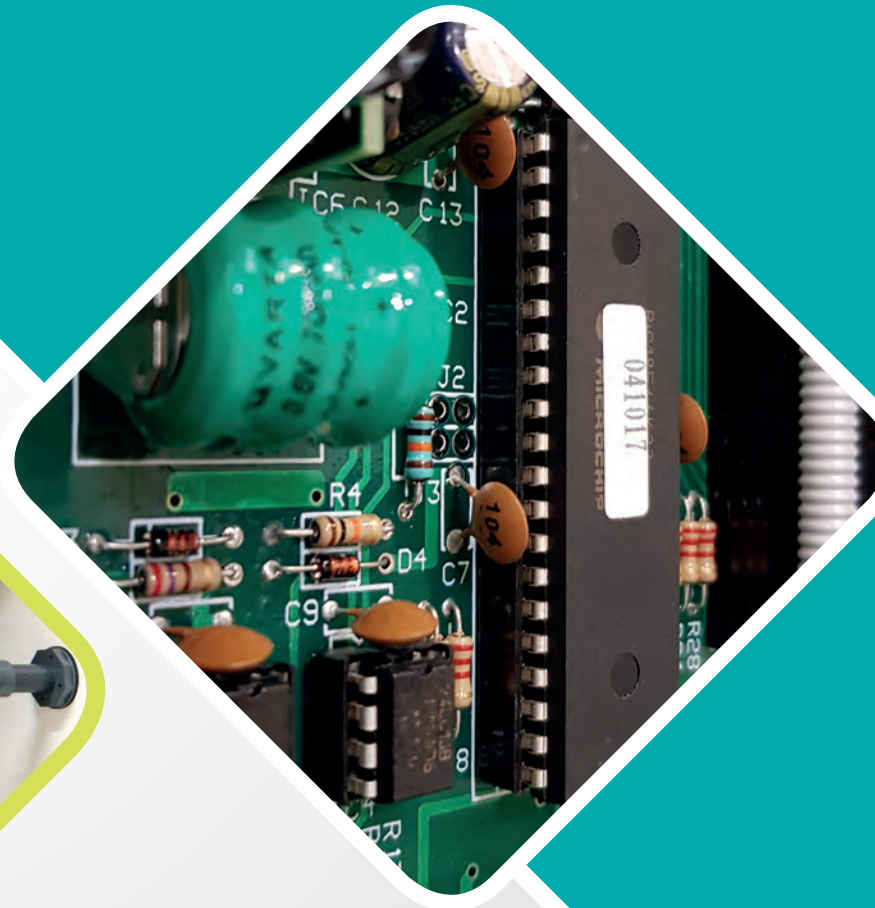
# Electrolyser design

All Hyprolyser electrolyzers are manufactured and assembled by hand in our factory in Lancashire. Meticulous attention to construction detail and thorough testing guarantee efficient output, robustness and long term reliability. For peace of mind all our electrolyzers are provided with a 5 year limited (pro-rata) warranty.



# Process control

The whole of the electrolysis process is controlled using our specially developed, dedicated software. All key performance parameters are monitored and can be accessed remotely via Modbus output.



# Technical Summary

Our in-house technical sales team have a wealth of knowledge and experience to offer and are available to assist in the selection and correct sizing of Hypolyser systems and options.

Hypolyser model	iSEC 30	iSEC 60	iSEC 90	Compact 240	Compact 480	280	560	1100	2200	4250	8500
Chlorine capacity g/h	30	60	90	240	480	280	560	1100	2200	4250	8500
Chlorine capacity kg/day	0.72	1.44	2.16	5.76	11.52	6.72	13.44	26.4	52.8	102	204

Chlorine concentration g/l

5 - 7

Nominal salt consumption kg/h	0.1	0.2	0.3	0.72	1.44	0.93	1.8	3.6	7.3	14	28
Nominal water consumption l/h	5	10	15	40	80	47	94	184	367	650	1300
Power consumption kWh	0.3	0.45	0.6	1.21	2.41	1.4	2.8	5.6	11	24.0	47.0

# Support Services & Training

Our system specifiers can be confident that safe, correct installation and high quality maintenance can be provided through our network of approved Service Partners. All Service Partners receive training to our exacting standards, to enable a comprehensive understanding of installation, service requirements and ensure the integrity and performance of our products at all times.

## For more information

Visit [www.gaffey.co.uk](http://www.gaffey.co.uk)

Call **01254 350180**

Email [info@gaffey.co.uk](mailto:info@gaffey.co.uk)





Hyprolyser®  
Electrolytic Chlorination



Pellet Pro®  
Calcium Hypochlorite  
Tablet Feeders



chloriDOS®  
Chlorine Dioxide Generators