

**The World's Best pH and
Free Chlorine
Management System.
All the benefits and economy
of salt chlorination with
liquid chlorine back-up to
meet demand in extreme
commercial environments.**





AVAILABLE IN 5 SIZES...

All models operate at 3000ppm salinity, and are covered by a 1 year warranty*

There are five configurations available to suit your requirements. Each Pool Lab Hybrid system has one "Commander" chlorinator at its core, producing up to 45gm/h of chlorine gas. Add to this up to 4 additional "Lieutenant" chlorinators for a total of up to 225gm/h from the chlorinators alone.

The peristaltic liquid chlorine pump is capable of feeding up to 60ml/min of 13% Sodium Hypochlorite, equivalent to approximately 450gm/h of additional chlorine gas as required, and the peristaltic acid pump feeds 16.5% Hydrochloric Acid to adjust the pH as required.

Configurations:

All Hybrid systems include:

- 1 x Pool Lab ASP
- 1 x Peristaltic Acid Pump
- 1 x Peristaltic Chlorine Pump
- 1 x Injection Manifold



- Pool Lab Hybrid 45
(Commander only)
- Pool Lab Hybrid 90
(Commander + 1 Lieutenant)
- Pool Lab Hybrid 135
(Commander + 2 Lieutenants)
- Pool Lab Hybrid 180
(Commander + 3 Lieutenants)
- Pool Lab Hybrid 225
(Commander + 4 Lieutenants)



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 **POOLPOWER**

**Due to ongoing research and development, Poolpower reserves the right to alter specifications without notice.*

POOL LAB HYBRID systems utilise the POOL LAB ASP (Auto Sampling Photometer) to test the water's Free Chlorine and pH level.

The ASP is the world's most reliable, accurate, easy to use and economical water management system.

Developed and patented by Poolpower Australia, the ASP does not suffer from the limitations and interferences of probe-based systems.

Stabiliser levels, hydrogen gas or changes in pH do not compromise the accuracy of the POOL LAB photometric device.

The POOL LAB ASP does not require cleaning or calibration and is suitable for both pools and spas.

Each reagent set provides for 700 pH and free chlorine tests or 6 – 8 months at 3 tests per day.

HOW TO SIZE A POOL LAB HYBRID SYSTEM?

Sizing of each HYBRID system is based on the maximum estimated chlorine usage per day. The pool or spa volume and the maximum bathers per day, or known maximum chlorine usage history allow us to size the optimum POOL LAB HYBRID system.

A correctly sized HYBRID system will utilise the salt chlorinators to meet the base load chlorine demand and only utilise the liquid chlorine delivery system for when a rapid demand recovery is called upon.

In this way we are maximising the use of the salt chlorinators to meet the majority of the chlorine demand which is most economical.

The liquid chlorine delivery feature allows POOL LAB HYBRID to meet excessive chlorine demand incidents and comply with health department guidelines*.

The 16.5% HCL acid delivery peristaltic pump provides a feed rate of up to 3.6lt/hr, more than enough for most commercial pools.

For sizing assistance, email Poolpower and provide the following information:

- Pool or Spa or Both (One body of water)
- Indoor or Outdoor
- Pool Volume
- Spa Volume
- Maximum bather load per day (If you have no history, please estimate)
- Chlorine use history (provide usage data)

**Check local health department guidelines before specifying commercial pool equipment*

HOW DOES POOL LAB HYBRID WORK?

Once correctly sized and installed, the POOL LAB HYBRID will rely on the automated testing values obtained by the ASP to feed and control both chlorine and pH levels.

Testing frequencies can be adjusted from the standard three tests per day up to 4 tests per hour depending on the specific requirements for the commercial pool.

Algorithms control the chlorine output from the salt chlorinators and test data will identify if excessive chlorine demand requires the additional liquid chlorine feed to be initiated.

View the rolling test history and many other feed data and operational diagnostics in the Commander module.

Technical Specifications

Mechanical

Commander - Dimensions (W x H x D)	385 x 210 x 140 mm
Commander – Weight	4.7 kg
Lieutenant - Dimensions (W x H x D)	385 x 210 x 140 mm
Lieutenant – Weight	4.7 kg
Cell – Dimensions (W x H x D)	190 x 520 x 120 mm
Cell – Weight	2.1 kg
Cell - Minimum flow rate	80 LPM
Cell – Maximum pressure	350kpa
ASP – Dimensions (W x H x D)	200 x 400 x 200 mm
ASP – Weight	3 kg
ASP – Minimum flow rate	80 LPM
ASP – Maximum pressure	250kpa
ASP – Water sample temperature range	3 deg C to 40 deg C
Peristaltic Pump - Liquid Chlorine 60ml/min or 450g/hr Cl gas equivalent	
Peristaltic Pump - Hydrochloric Acid 16.5% for correction 60ml/min	

Electrical (AS3136:2001+A1+A2 IP23 Approval No: NSW27913)

Commander and Lieutenant Model Salt Chlorinators

Input: 220-240VAC, 50-60Hz, 10 AMP MAX TOTAL LOAD
Power Supply Input: 220-240VAC, 50-60Hz, 1.6 AMP MAX
Output (Cell): 24VDC, 13.4 AMP MAX (7.5 AMP IDEAL)
Output (Filter Pump): 220-240VAC, 50-60Hz, 8.4 AMP MAX

Commander Models Only

Output (Acid and Liquid Chlorine Pumps): 24VDC, 1.0 AMP MAX
Output (ASP): 24VDC, 1.0 AMP MAX
Output (Multi-speed Pump): 3 x dry contact, 24V AC/DC, 1.0 AMP MAX TOTAL

Measured Parameters

pH, Free Chlorine, Water Flow, Reagent Level, Acid Feed History, Chlorine Feed History

Photometric Free Chlorine Measurement

Type of measurement – Photometric
Light Source – 525nm LED
Accuracy - +/- 5% or +/- 0.05 (whichever is greater from 0.5ppm to 5ppm)
Accuracy - +/- 10% or +/- 0.05 (whichever is greater from 5ppm to 10ppm)
Sensor - photodiode
Free Chlorine Range – 0.5ppm to 10ppm
Minimum measuring frequency interval – 15min
Automatic zero calibration before each test
Patented self-cleaning reagent sample mixing chamber

Photometric pH Measurement

Type of measurement – Photometric
Light Source – 525nm LED
Sensor - photodiode
pH Range – 6.8 to 8.3
Accuracy – +/- 0.05
Minimum measuring frequency interval – 15min
Automatic zero calibration before each test
Patented self-cleaning reagent sample mixing chamber

Water test sample

Water sample test discharge volume per pH & Cl test cycle 38ml

Reagents

Free Chlorine – DPD method (proprietary formulation)
Free Chlorine - Reagent packaging 2 x 150ml reagent bags
Free Chlorine - Number tests per reagent bag – 700
Free Chlorine – Max in service reagent life – 6 months
pH – phenol red (proprietary formulation)
pH – Reagent packaging 1 x 150ml reagent bag
pH - Number tests per reagent bag – 700
pH – Maximum in service reagent life – 6 months

TECHNICAL SPECIFICATIONS

RL HYBRID