"PORT-A-CHLOR" Model 8600 Mk I

Portable Electrolytic Chlorine Generator (PECG)

Features

- **Retards bio-fouling of seawater intakes, filters, pipes, and coolers.**
- **Small lightweight footprint for multiple applications (i.e. small vessels, equipment skids).**
- **Quick mounting – deck or bulkhead.**
- **Reduces unscheduled maintenance and overhaul of engines, cooling and seawater systems.**
- **No hazardous chemicals required.**
- **Designed for continuous operation.**
- **Electrolytic cell is designed to be self-cleaning.**
- **Capable of connecting to PLC for shipboard automation.**

General Description

The Model 8600 Mk I "PORT-A-CHLOR" is a portable electrolytic chlorine generator designed to provide point-of-use protection against bio-fouling in marine equipment. A smaller, portable version of our Model 7600 ECOLCELL chlorine generator, the PORT-A-CHLOR is for applications where larger systems are not feasible or cost effective.

For shipboard application, the PORT-A-CHLOR is easily set up in a machinery space near a seawater intake. Requiring only seawater and electricity to operate, the PORT-A-CHLOR uses an electrolytic cell to produce a simple, natural form of chlorine – hypochlorite – on demand. Hypocholorite has long been recognized as a superior anti-fouling agent against both micro- (bacteria, slime, algae) and macro- (mussels, barnacles, etc) fouling agents which can greatly restrict the flow and efficiency of cooling water in ship piping systems. This application of additional biocide is particularly important in modern ship piping systems that employ high-strength, lightweight alloys such as titanium rather than conventional copper-nickels.

Typical applications for the PORT-A-CHLOR include heat exchangers, ship seawater systems, engine cooling systems, and component skids for electronic systems. The PORT-A-CHLOR is portable and is ideal for temporary maintenance applications, but is also designed for continuous operation in permanent installations.

The PORT-A-CHLOR incorporates more than 45 years of Howell Laboratories, Inc. experience designing and building shipboard fluid processing equipment for the US Navy. With proven capabilities for producing equipment to meet the most demanding US Navy shock, vibration, EMI and welding requirements, all HLI equipment is designed for reliability and low maintenance.

Specifications

Rated Conditions:

- Produces 0.26 lb (118 g) equivalent chlorine per hour, enough to treat 720,000 gal (2,700 M^3) of seawater per day to 1 ppm.
- Temperature: 68° ± 5° F (20° ± 3° C)
- Total dissolved solids (TDS): 35 ppt
- pH: 7 - 8.5
- Flow rate: 7 - 11 gpm (26.8 - 42.1 l/min) nominal
- Operating pressure: 110 psig (759 kPa)

Operating Conditions:

- Seawater temperature: 28 - 105° F (-2° - 40° C)
- Total dissolved solids: 20 - 38 ppt

Environmental Conditions:

- Ambient temperature: 40 - 122° F (4.5° - 50° C)
- Ambient relative humidity: 0% - 90%
- Shock: Tested to high impact, lightweight, Grade B, Type A iaw MIL-S-901.

Dimensions and Weight (approx):

Chlorinator Unit:

- Dimensions: 32" (81.3 cm) L x 9" (22.9 cm) W x 10" (25.4 cm) H
- Weight: 50 lb (22.7 kg)

Pump Unit:

- Dimensions: 1.5 cubic feet (0.14 m^3)
- Weight: 53 lb (24.1 kg)
- See pump curve on page 2

Electrical Requirements:

- 15 amps, 115 VAC, single-phase, 60 Hz

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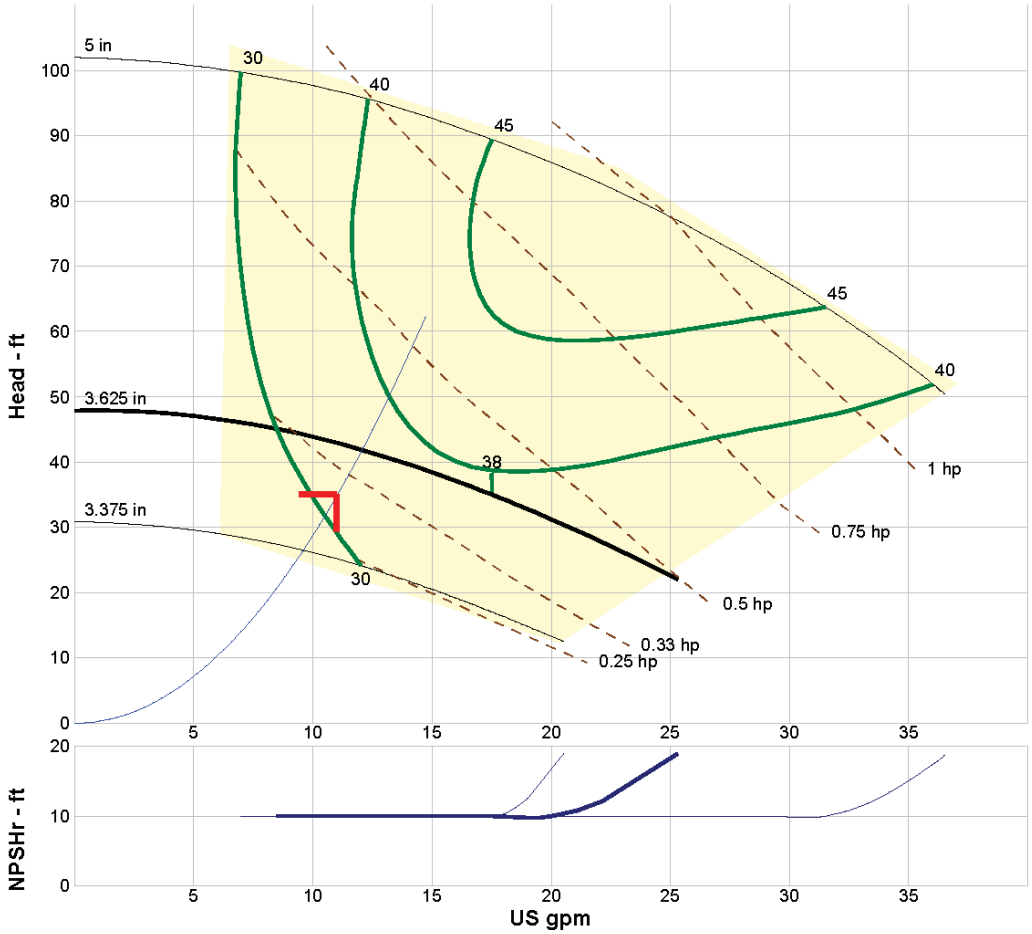
— Data Point —	
Flow:	11 US gpm
Head:	42.7 ft
Eff:	34%
Power:	0.347 hp
NPSHr:	10 ft
— Design Curve —	
Shutoff head:	47.9 ft
Shutoff dP:	20.7 psi
Min flow:	--
BEP:	38% @ 17.5 US gpm
NOL power:	0.496 hp @ 25.3 US gpm
– Max Curve –	
Max power:	1.19 hp @ 36.5 US gpm



Pump Curve, Pump Unit

(source: Ampco Pumps Company Catalog AMPCO.60 Vers: 1.1)