



Pacific Consolidated Industries

Advances in Oxygen and Communications.

“Exploiting Emerging Technologies”

Mine Safety & Health Administration

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About PCI

- Leading manufacturer of portable air separation equipment for the Military, Medical, and Oil & Gas markets
 - Cryogenic and non-cryogenic systems
 - Eliminates the logistical supply chain
- Stable and diversified domestic and international client base
 - PCI has equipment actively operating and supported in over 20 countries
- Headquartered in Riverside, CA
- 148 Employees



Management Team

- Chief Executive Officer – Rob Ruck
 - Prior to PCI, Rob was President/CEO of Pentacon and spent 14 years at Honeywell Aerospace and AlliedSignal Aerospace in senior management positions.
 - US Military Academy West Point 1980 - US Army Special Operations helicopter pilot.
- Chief Financial Officer – Dave Bitter
 - Over 20 years of experience in finance, including four years with PepsiCo and seven years with Price Waterhouse.
- Senior Vice President – Jay McFadyen
 - US Air Force Academy 1980 and former Air Force JAG.
- Vice President, Sales & Marketing – Reuben Padilla
 - USNA 1980 & 20 year career in the U.S. Marine Corps.
- Director Engineering & Technology – Tarik Naheiri
 - 20 years of experience in gas separation technologies at Air Products & Chemicals. Tarik is one of the global authorities in adsorption technologies.
- Director Operations – Soeren Schmitz
 - Soeren has over 10 years experience in management consulting providing growth strategies and operations improvement methodologies to manufacturing companies in industries such as consumer goods, building products, and medical equipment.
- Chief Engineer – Randy Schiller
 - 40 years experience in the mechanical engineering field, with specialization in cryogenic valves, low-noise valves, mobile liquid nitrogen pumper/converters, and air separation units.



Products - Cryogenic

- Liquid Oxygen (LOX)/Liquid Nitrogen (LIN) Generating Plants
 - Transportable units for aviator's breathing oxygen, servicing aircraft tires/struts/accumulators, oil drilling/servicing applications, fast food freezing, cryo-grinding, liquid backup systems for gaseous operations

1.5-2 tons per day



5-7.5 tons per day



Trailer mounted
2 tons per day
LIN/LOX plant



Products - Membranes

- Self Generating Nitrogen Servicing Cart (SGNSC)
 - Mobile cart producing 95.5% pure nitrogen used on the flight line to service tires, struts, accumulators, and other maintenance needs for aircrafts
 - 1500+ produced to date
 - Other variants available
 - High purity (99.5%) nitrogen to support F-16 and Sidewinder missiles
 - Electric drive model for tire shops
 - Dry air version to support F-22

SGNSC



NCT



On the flight line





Products - Adsorption

- EDOCS-120B: Expeditionary Deployable Oxygen Concentration System
 - Mobile, rugged, and easy to operate FDA approved "military use" medical oxygen generator producing 120 liters/minute
 - In three months, one mobile E-DOCS-120B onsite, weighing 3,500 lbs., produces the equivalent of 800 "H" cylinders of oxygen, weighing 128,430 lbs., eliminating the need to fly-in/transport Oxygen to a medical facility
- EDOCS-30
 - Person portable oxygen generator capable of producing 30 liters/minute of medical grade oxygen and medical grade air simultaneously
 - Easy to operate and enclosed in extremely durable cases which also act as shipping containers





Water Maker Compact RO System - PCI

- The units shown consist of two independent systems.
- "RO#1" operates the upper two membranes which can produce 1800 GPD (75 GPH) of fresh water.
- "RO#2" operates the lower membrane which can produce 900 GPD (37.5 GPH).
- There is a vacant place on the frame for an additional membrane, which would make RO#2 an 1800 GPD unit as well.
- The pump for each unit runs on 440 VAC 3 phase and draws 4.1 Amps at full load.
- USN Patrol Craft
 - USS Hurricane
 - USS Squall
 - USS Chinook
 - USS Firebolt.....





Oxygen can be used in more than one way

- Medical gas
- Mine Safety
- Precursor for water treatment
 - Potable
 - Sterile



MOST & DOWS

Oxygen - Mobile Oxygen
Storage Tank (MOST)



Post .50 cal AP round

DOWS





DOWS: Deployable Oxygenated Water System.



Ozonator

Venturi Mixing

Reaction Tank



Effect of type of disinfectant on inactivation of pathogens

	Bacteria	Viruses	Giardia	Cryptosporidium	Overall
Free Chlorine	E	E	F	P	G
Preformed Chloramines	P/F	P	VP	VP	P
In-situ Chloramines	F	F/G	P	VP	F
Chlorine Dioxide	G/E	G/E	F/G	F	G
Ozone	E	E	E	G	E
UV light	G	F	VP	VP	F

VP: Very Poor P: Poor F: Fair G: Good E: Excellent

Source:

“Waterborne viruses and parasites: resistance to treatment and disinfection”

Pierre Payment Institut Armand-Frappier, Université du Québec, Laval (Québec), Canada H7V 1B7



Treated Water





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World Leader in Portable Oxygen and Nitrogen Generating Systems