

# Engineered for Efficiency— Built to Last

## Chart Inc.

Chart Inc. has over 50 years of cryogenic experience with products ranging from large liquefaction plants to large bulk storage tanks to small liquid cylinders. Chart designs and manufactures highly-engineered equipment used in the production, storage and end use of all types of gases; including carbon dioxide, atmospheric, hydrogen and hydrocarbon. Chart employs a very talented team of engineers, sales, marketing and customer service representatives to support all of our customers' needs.



Engineered Systems  
For Water Treatment Plants

CONSULTING | SYSTEM DESIGN | MANUFACTURING | INSTALLATION | COMMISSIONING | TRAINING



Chart Inc.

[www.chartindustries.com](http://www.chartindustries.com)

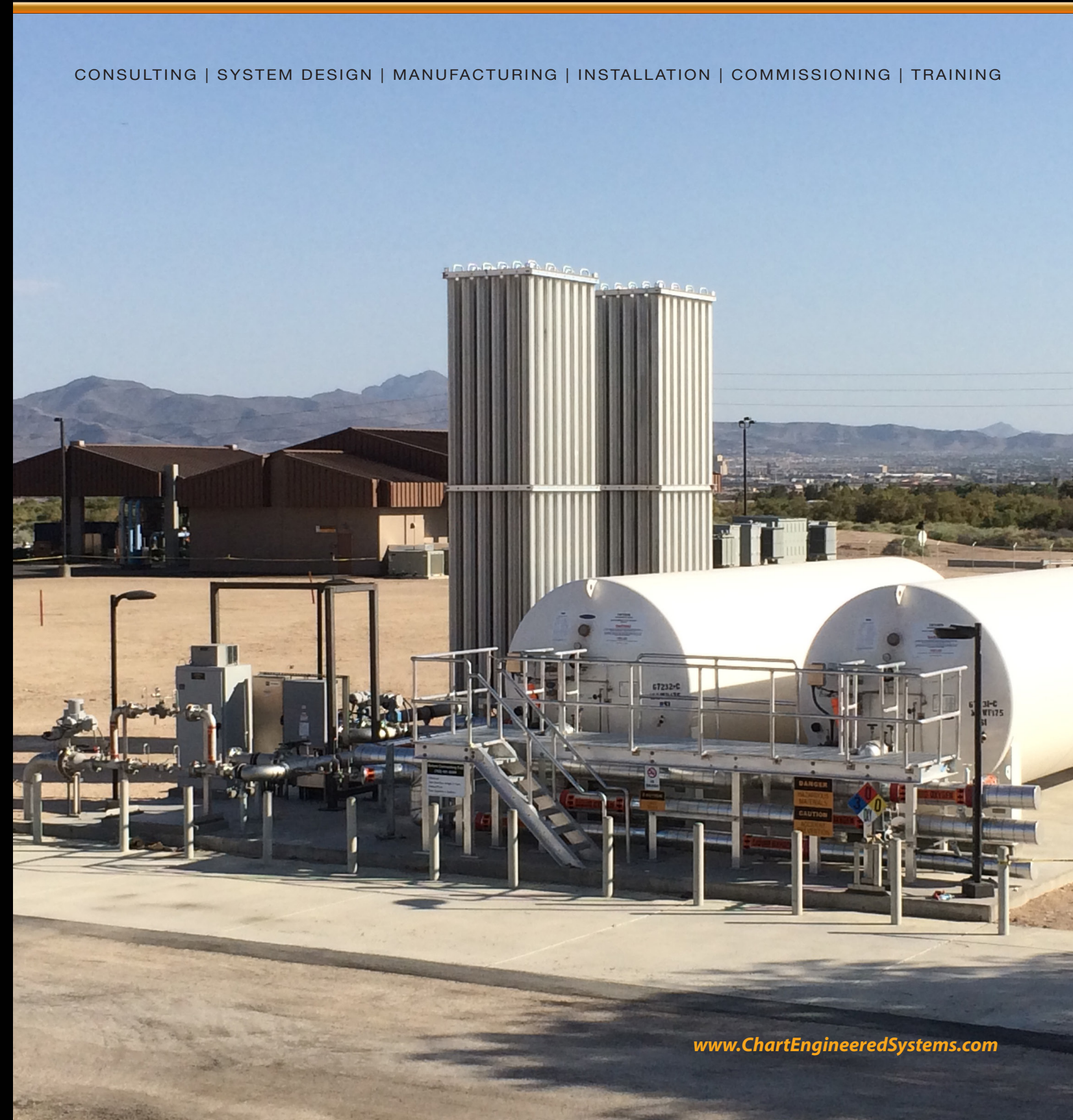
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# Solutions for Ozone Generation

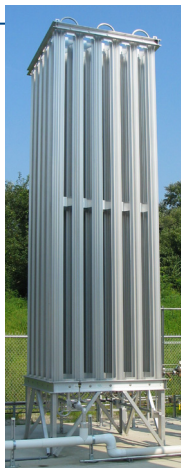
## Your Partner for Liquid Oxygen (LOX) Systems

Storage solutions and system modules have become the new standard in WTPs.

Chart works closely with each of our customers to ensure that your system is designed properly, further ensuring your system is built to and operating at peak efficiency. Built for long-term integrity, our system components and product designs provide the highest levels of performance at the lowest operating costs.

### Oxygen System Package

- Liquid Oxygen Storage Vessel(s) – Vertical or Horizontal
- Tank Mounted Piping package
- Remote Fill Stand
- Ambient or Custom gas assist Thermax vaporizers and controls
- Downstream vaporizer manifold
- Tank and vaporizer engineering calculations
- Project Management
- Commissioning and On-site training



Liquid Oxygen Supply for Ozone Generation

# Solutions for Water Treatment

## Liquid Carbon Dioxide (CO<sub>2</sub>) Systems



Our Bulk Carbon Dioxide Storage Tanks utilize our proprietary Composite Super Insulation™ system along with superior vacuum technology for maximum thermal performance. Unlike foam insulated tanks, our outer is all-welded for strength and reliability, providing the lowest cost of ownership.

### System Highlights

#### Vacuum Jacketed vs. Foam CO<sub>2</sub> tanks.

- Lowest lifecycle costs for bulk CO<sub>2</sub> storage
- Superior functional performance
- High-strength, dent resistant outer jacket eliminates deterioration of insulation, costly repairs, downtime
- Reduce potential of CO<sub>2</sub> solidification due to refrigeration failure (power failure)
- Simplified plumbing reduces potential for piping leaks
- Eliminate product loss due to venting
- Hold time is 8 times longer than foam
- Refrigeration system not required for maintaining heat leak
- No monthly maintenance or electrical charge for refrigeration
- No manway required for condenser coil maintenance
- Two-year payback vs. foam tank



Liquid CO<sub>2</sub> Supply for Water Treatment

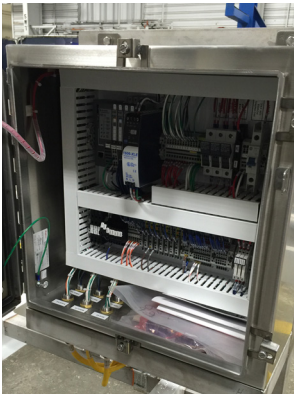
### Gas Manifold Skid



#### Incorporate Chart standard Gas Manifold Skids into your specifications.

- Engineered to meet advertised specifications for LOX & other gases
- Shop built for optimum quality control & cleanliness
- Minimize/control costs vs. field erected plumbing
- Consistent documentation for submittal process
- Design is modular – allows for various equipment/quantity scenarios
- Skids are scalable for 1", 2" & 4" to accommodate various flow requirements

### Control Panel Solutions



#### Chart has designed and fabricated various WTP control panels that are capable of the following:

- Skid mounted Remote I/O panels
- Local interface or remote SCADA
- Remote filling of vessels
- Alarm and FACP dial-out capability
- Outdoor or indoor rated enclosures
- Class 1, Division 1 rated