

LIQUID OXYGEN SUPPLY FOR MEDIUM SIZED HOSPITAL

CASE STUDY #5

Company

All Saints HealthCare is a 128 bed hospital located in North Hollywood, CA. They investigated a bulk tank system to replace their existing oxygen system, and chose Chart to help them upgrade their capabilities. The result was decreased labor costs, lower operational expenses, and increased security and safety.

Situation and Design Challenges

All Saints HealthCare used a gas feed system to deliver medical-grade oxygen throughout the hospital. The existing system was fed from a manifold that connected to six liquid cylinder tanks and vaporizers. Each liquid cylinder weighs 250 pounds, about five feet tall, and had to be manually wheeled back and forth from the loading dock to replenish the liquid oxygen. This process was so labor-intensive to keep a constant supply of gas flowing, All Saints dedicated three full-time employees (one per shift) to manually load and unload cylinders. In addition, there were potential safety and ergonomic issues when dealing with the cylinders – up to 500 pounds when full.

Solution and Results

All Saints also wanted a more secure source of oxygen, to reduce concerns about interrupted service or pressure fluctuations. They chose a Chart 9000 gallon horizontal bulk storage tank as their main supply of LOX (Liquid Oxygen) and a horizontal 1500 gallon tank as their reserve supply. Chart worked with All Saints to help them procure a complete system that would plug directly into their existing pipeline, eliminating the need for cylinder swaps. John-Paul Sensibile, Administrator for All Saints, said that Chart provided "excellent engineering, installation and post install support."

Since oxygen is piped in directly to the storage tank, vaporized, and fed into the hospital system, All Saints eliminated cylinder exchange hassles, and were able to reassign the three full-time employees to more productive work. This reduced their total labor and maintenance costs while increasing the safety conditions for their employees.



"The cost differential between bulk oxygen cost per cubic feet and VGLs [liquid cylinders] drove the ROI to a few short years."

–John-Paul Sensibile, Administrator at All Saints HealthCare



ALL SAINTS HEALTHCARE

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Bulk Medical Gas Installation -Main & Reserve Storage Tanks



Liquid Oxygen - Main & Reserve Remote Fill Cabinets

Equipment

HS-9000 (Primary supply) HS-1500 (Reserve supply) (3) 6500 SCFH vaporizers Vaporizer switcher Pressure control manifold cabinet

"If the need arises, pursue the changeover. If your present system is adequate, still complete a value analysis. You will be surprised at the value, cost-benefit, and sheer efficiency of the Chart sytem."

-John-Paul Sensibile, Administrator at All Saints HealthCare

Ouestions?

If your facility uses liquid cylinders to maintain a supply of oxygen or other gases, it may make sense to evaluate the cost savings and benefits Bulk or MicroBulk liquid tanks provide. To understand your options, please give us a call at (800) 400-4683. Our engineers can also help you with any other applications that require cryogenic gas, including liquid nitrogen, oxygen, argon, carbon dioxide, nitrous oxide, and natural gas.

About Chart Inc.

For more than 50 years, Chart Inc. has been the leading global manufacturer of highly engineered equipment used in the production, storage and end-use of hydrocarbon and industrial gases. Chart manufactures a broad line of cryogenic and low temperature products for the purification, liquefaction, distribution, storage and application of gases such as natural gas, other hydrocarbons, helium, nitrogen, argon, oxygen and carbon dioxide for final use in a multitude of energy, industrial, commercial and scientific applications. These applications serve many selected markets including energy, biomedical, food, entertainment, aerospace, thermal testing, alternative fuels, vacuum systems and many other industrial end users.

