ALABAMA THEATRE

MVIT SOLUTIONS FOR CO_2 DISTRIBUTION

CASE STUDY #18

Company
The Alabama Theatre is located in Myrtle Beach, South Carolina, and since its opening in 1993 has been featured by the CBS Morning Show, NBC Nightly News and Good Morning America. Recently, the theatre was nominated for the Country Music Association's Venue of the Year award. In addition to the theatre's signature shows, the venue brings in top touring acts once a week, including Alabama, Bill Cosby, Vince Gill and many more.

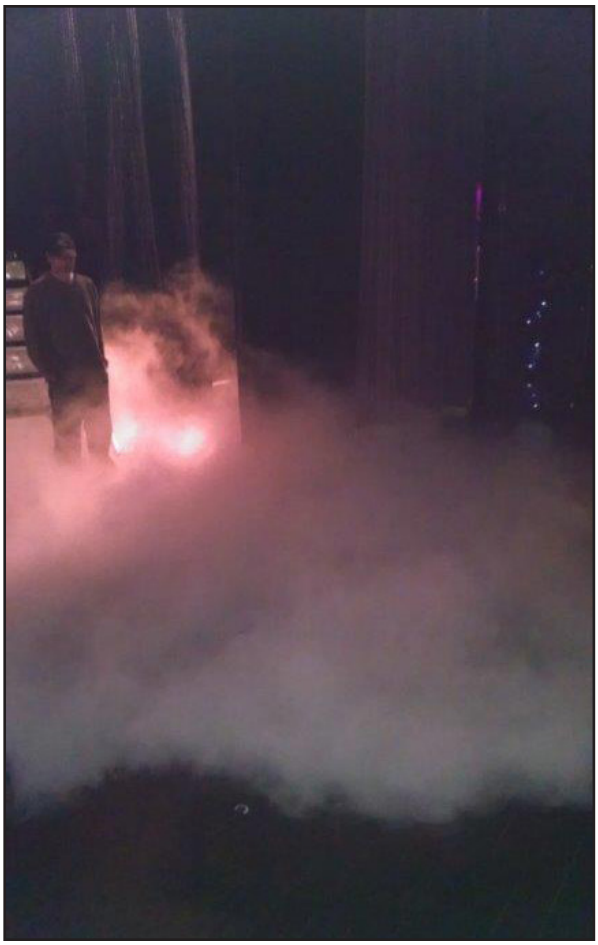
Challenge
The Alabama Theatre's live shows remain on the cutting edge of entertainment technology. This includes some impressive cryogenically produced special effects.

In order to create the fog, the theatre uses equipment to mix CO_2 with O_2 and N_2. For years, stage managers had relied on dewar tanks of CO_2 for these effects, manually wheeling them from one location to the next. The tanks had to be ordered and delivered each week, required regular onsite checks and resulted in noticeable liquid loss, due to high CO_2 flash losses. In order to simplify operations and reduce costs, the theatre needed a more efficient way to store and distribute CO_2, that would still help them *wow* audiences.

Solution
In March 2014, the Alabama Theatre contracted Carolina Piping to help upgrade its cryogenic CO_2 system. The Chart VIP design team worked closely with Carolina Piping to select suitable piping that would complement the theatre's new MicroBulk Perma-Cyl® CO_2 tanks, delivering a solution that was as efficient as it was effective.

The Chart team understood that the Alabama Theatre wanted a very hands-off, reliable cryogenic system — one that would not require replacement for many years. With this in mind, Chart recommended its half-inch Modular Vacuum Insulated Tube (MVIT) Python® components.

Chart MVIT Python components are preconfigured to offer easy installation and boast a double-wall design that provides maximal thermal efficiency and minimizes liquid loss. They also require no additional protection against moisture or vapors and deliver optimal performance for decades.



Benefits
As a result of its Chart MVIT solution, the Alabama Theater is experiencing many advantages, including:

- Increased ability to store more CO_2 onsite
- Extended cryogenic system life
- Improved liquid volume and pressure level consistency
- Eliminate handling of portable liquid cylinders
- Reduce overall CO_2 costs

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Outcome
In addition to the benefits listed on the previous page, the Alabama Theatre is also realizing significant operational and business gains. Because the system enables the theatre to store more CO_2, requires little to no onsite attention and will last for decades, the theatre has significantly reduced its labor associated with monitoring, moving and ordering new CO_2 tanks — previously a weekly task.

The system has also consistently delivered optimal liquid volumes, providing the pressure necessary for reliable delivery while minimizing liquid loss. This enables more accurate and repeatable cryogenic effects onstage, which not only enhances the audience's experience, but also creates a safer environment for the performers.

All of this has helped the theatre simplify operations, reduce costs and deliver advanced cryogenic effects that add to the Alabama Theatre's leading-edge live performances. Estimated cost savings are nearly $11,000 per year.

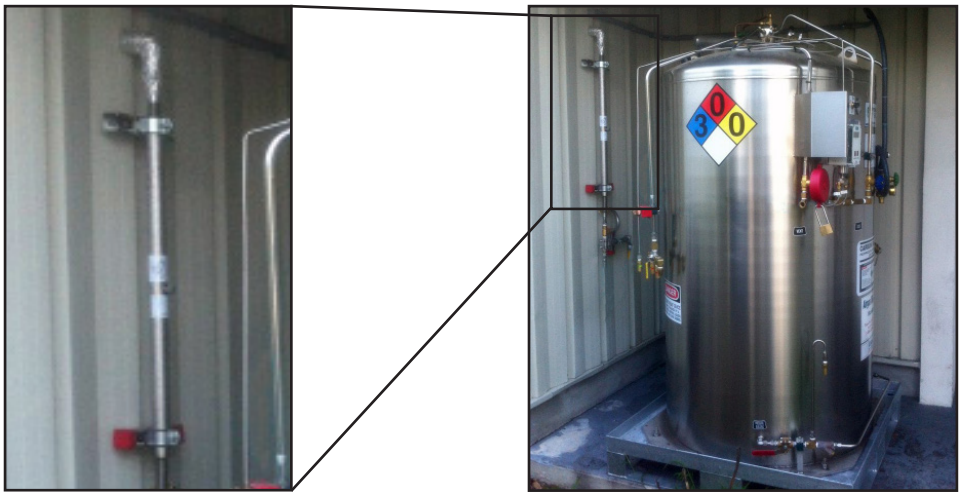

Chart MVIT Python®

Chart Perma-Cyl® CO_2 tank

Customer Quote
"We have been more than impressed with the ease of use and performance of the new system as a whole. The savings we've experienced financially and in productivity will absolutely make this a worthwhile investment."

- Lance O'Connor, Stage Manager
  Alabama Theatre

Chart Inc.
U.S. : 1-888-877-3093
Worldwide: 1-952-758-4484

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