



WITH CHART'S EQUIPMENT, WESTAIR HELPS A SAN DIEGO BREWERY REACH THEIR CO₂ GOALS

BACKGROUND:

Coronado Brewing Company, based in San Diego, California, is a well-established craft brewery known for brewing, canning, and distributing high-quality beer across the region. To support its production and packaging operations, Coronado partners with WestAir Gases and Equipment as its trusted gas distributor. A critical component of the brewery's process is the reliable supply and storage of carbon dioxide, which is essential for carbonation, quality control, and packaging integrity. To meet this need, Coronado utilizes Chart bulk CO₂ storage tanks, ensuring a consistent, on-demand supply of liquid CO₂ that keeps brewery operations running efficiently and without interruption.

CHALLENGE:

For a growing craft brewery in San Diego, few operational headaches are more frustrating or more costly than running out of CO₂ at the wrong moment. Whether it's mid-fermentation, during a busy canning run, or right before a weekend rush, a shortage of CO₂ can bring the entire production floor to a halt.

That was exactly the situation facing one regional craft brewery in San Diego as it scaled up its brewing and canning operation. The brewery had been relying on high-pressure cylinder delivery — a patchwork system of rotating cylinders that required constant monitoring, frequent vendor calls, and a growing amount of floor space dedicated to cylinder storage and staging. As production volume climbed, the inefficiencies of that system became impossible to ignore.

California's CO₂ market is highly prone to periodic supply crunches, often triggered by production slowdowns at the ethanol plants and industrial sources that feed the regional supply chain. When shortages hit, gas suppliers frequently invoke force majeure, cutting delivery volumes and raising prices for affected customers. Breweries relying on cylinder delivery are especially vulnerable, often carrying only a few days of supply. A bulk CO₂ tank changes that equation: by storing days or weeks of supply on-site, breweries gain a buffer that helps them ride out market disruptions without halting production, giving them time to adjust rather than facing an immediate shortage.

SOLUTION:

The brewery worked with their CO₂ supplier, WestAir to install a Chart Industries vacuum-insulated bulk liquid CO₂ storage vessel on-site. Chart is one of the industry's most trusted names in cryogenic storage equipment, and their bulk CO₂ tanks are purpose-built for exactly this kind of industrial application.

The tank stores CO₂ in its liquid state at low temperature and controlled pressure. A vaporizer converts it to gas on demand, delivering a steady, high-purity supply directly to the brewery's distribution manifold at consistent pressure automatically, and without any manual cylinder swapping.

Key Features of the Chart Tank

Installation:

- **High-capacity storage:** The bulk vessel holds significantly more CO₂ than even a large bank of high-pressure cylinders, providing days or weeks of supply buffer depending on production volume.
- **Consistent pressure delivery:** The system delivers CO₂ at a regulated, stable pressure — critical for canning lines where pressure swings translate directly into product quality issues.
- **Automated refill scheduling:** The supplier monitors tank levels remotely with telemetry and schedules refills proactively, meaning the brewery no longer must track cylinder counts or place emergency orders.
- **Reduced handling and safety risk:** Eliminating the constant movement of heavy, high-pressure cylinders reduced ergonomic risk for staff and removed a significant source of potential workplace injury.
- **Minimal footprint:** Despite its large storage capacity, the bulk tank was installed outdoors on a compact concrete pad, freeing up valuable floor space inside the brewery that had previously been consumed by cylinder storage.

Why Chart Equipment?

Brand Reputation and Industry Trust: Chart Industries is one of the most recognized names in cryogenic and industrial gas storage equipment globally. In the beverage and food-grade gas space, their name carries significant credibility. CO₂ suppliers and distributors frequently spec Chart tanks because of their proven track record.

Food-Grade and Beverage-Grade Standards: Chart builds tanks that meet the strict purity and material standards required for food and beverage applications. For a brewery, CO₂ quality is non-negotiable. Any contamination or off-gassing from inferior equipment can directly affect beer flavor. Chart's vessels are designed with this in mind.

Vacuum-Insulated Technology: Chart's proprietary vacuum insulation technology minimizes CO₂ boil-off loss, meaning the brewery loses less product to evaporation over time. That directly translates to better cost efficiency compared to lesser-insulated alternatives.

Durability and Low Maintenance: Chart tanks are built to last decades with minimal maintenance requirements. For a brewery that needs reliable uptime, a tank that simply works day after day without issues is a major selling point.

OUTCOME:

The difference was felt almost immediately after installation. On the brewing side, the consistent and abundant CO₂ supply made tank management simpler and more reliable. Brewers could purge and blanket tanks with confidence, knowing supply pressure would not fluctuate mid-transfer. Fermentation monitoring became less stressful, and the team no longer had to ration CO₂ usage during peak production weeks.

On the canning line, the results were particularly striking. The stable, uninterrupted supply pressure allowed the canning team to run longer fills without interruption, and dissolved oxygen numbers improved as a direct result of more consistent and thorough can purging. Foam-outs and misfills decreased, reducing wasted product and downtime.

The canning team could focus on quality and throughput rather than babysitting a cylinder manifold.

Operationally, the administrative burden of CO₂ management dropped significantly. The hours previously spent tracking cylinder inventory, coordinating deliveries, and managing empty cylinder returns were redirected toward more productive tasks. The predictable, contract-based bulk supply also made CO₂ costs easier to forecast and budget.



Savings Category	Estimated Annual Savings
CO ₂ product cost reduction	\$5,000 – \$20,000
Cylinder rental and fees eliminated	\$2,000 – \$8,000
Labor savings	\$3,000 – \$10,000
Reduced product waste	\$2,000 – \$15,000
Total Estimated Annual Savings	\$14,000 – \$68,000+

SAVINGS:

What Made the Project a Success?

Site Assessment and Needs Analysis: WestAir started by thoroughly evaluating the brewery's production volume, CO₂ usage patterns, available space, and infrastructure before recommending the right tank size and configuration ensuring the solution was properly matched to their actual needs.

Right-Sizing the Tank: Rather than overselling capacity, WestAir's expertise in CO₂ systems allowed them to recommend the correctly sized Chart vessel with enough buffer to prevent outages without over-investing the customer in unnecessary storage.

A Bulk Solution Mitigates Product Loss from Cylinders: High-pressure CO₂ cylinders have a practical limitation that often goes unaccounted for: as the liquid CO₂ is drawn down, cylinder pressure drops, and typically only 75-80% of the rated product can be used before the cylinder must be swapped out. Breweries are paying for 100% of the CO₂ but only capturing three-quarters to four-fifths of its value, the remainder is effectively wasted product. A bulk tank eliminates this inefficiency: because liquid CO₂ is drawn from a large vacuum-insulated vessel rather than individual cylinders, breweries can utilize a much higher percentage of the product they're paying for, directly improving cost efficiency per barrel produced.

Coordinating the Installation: WestAir managed the coordination between the brewery, Chart, and any required contractors for pad construction, permitting, and plumbing tie-in — making the process seamless for the customer and minimizing production disruption during the transition.

Telemetry Monitoring Setup: WestAir installed remote tank level monitoring so that CO₂ levels are tracked in real time, enabling proactive refill scheduling before the brewery ever gets close to running low — a key differentiator from cylinder supply.

ENVIRONMENTAL BENEFITS:

Reduced Carbon Footprint from Deliveries Cylinder-based CO₂ supply requires frequent truck deliveries to swap out empties and drop off full cylinders. A bulk tank requires far fewer deliveries — sometimes just one refill versus dozens of cylinder swaps over the same period. Fewer truck runs means significantly less diesel fuel burned and fewer vehicle emissions.

Less Cylinder Manufacturing and Waste High-pressure CO₂ cylinders require energy-intensive manufacturing, ongoing hydrostatic testing, and eventual disposal or recycling. By eliminating the need for large numbers of rotating cylinders, bulk storage reduces the overall material and energy footprint associated with cylinder production and end-of-life handling.

Lower CO₂ Boil-Off and Product Loss Chart's vacuum-insulated tank technology minimizes CO₂ boil-off — the unintentional release of CO₂ gas into the atmosphere from storage losses. Less boil-off means less greenhouse gas vented to the atmosphere compared to less efficient storage methods.

Reduced Packaging Waste Cylinders require valve caps, safety collars, labels, and shipping materials that accumulate over time. Bulk delivery eliminates most of that ancillary packaging waste from the supply chain.

More Efficient CO₂ Utilization Because bulk systems deliver CO₂ at a consistent, regulated pressure, breweries tend to use it more precisely and efficiently — less waste during purging, canning, and carbonation processes means the overall CO₂ consumption per barrel of beer produced can decrease.

