



Applied Cryo
TECHNOLOGIES

CUTTING-EDGE *SOLUTIONS*



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Founded with a commitment to quality, experience, innovation and customer satisfaction, Applied Cryo Technologies (ACT) is a leading designer and manufacturer of cryogenic trailers and mobile storage equipments for the oil and gas, industrial gas and LNG (Liquid Natural Gas) industries.

It all started back in 2012, when Bob Ernall, Jack Smith, and Tim Lowrey combined their wealth of experience in the industry with an entrepreneurial flair that could not be contained. The trio saw an opportunity to provide complete solutions, something the market was sorely lacking at the time.



"Bob, Jack and I had the entrepreneurial spirit long before we met," said Lowrey, Vice President of Sales and Marketing. "That spirit began to take shape as ACT in 2012. We were cryogenic industry guys and thought we could offer the market something different."

"We saw a market where demand exceeded supply," he added. "We saw a supplier base that was interested in supplying equipment rather than supplying complete solutions."

We believed the market wanted more. We saw an opportunity to be a complete solution provider. In fact, we consider ACT to be an engineering firm with an R&D focus and mass manufacturing capabilities."

With over 40 years of cryogenic experience between the three, it was a natural progression to form ACT.

"We've all held various positions in the cryogenic equipment manufacturing industry as

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a whole and those experiences have ultimately led us here to ACT," Lowrey explained.

"My family has a cryogenic equipment manufacturing back ground," he continued. "So I've been in and around this industry for 16 years, Bob Ernull has been in the Industry for over 16 years and Jack nearly 10."

ACT's management team -Ernull as CEO and Smith as COO- are active in making sure the corporate culture is one based around cohesion. By carefully selecting those who

mesh well with the ACT atmosphere, they know they have only the best people for the job. The company also ensures that their employees feel valued by creating an environment where creative ideas are more than just welcomed, they're encouraged. It's this level of trust which Lowrey said leads to a far better quality of work.

"We look for players that fit our system," he said. "Each and every employee we have has been chosen not only based on their skill set



Globe Valves

- fire-safe manual
- control and ESD* valves

Gate Valves

- manual
- ESD* actuated valves

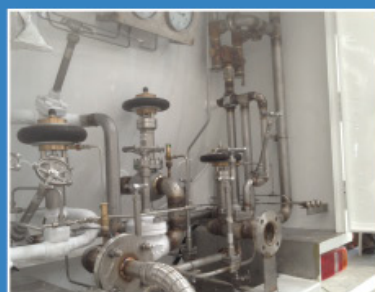
Butterfly Valves

- range to 48"
- fire-safe options
- range of end connections including butt weld

Safety Valves

- range to SS valves
- from 1/4" threaded thermal relief valves to fully flanged safety valves for plant use

*ESD actuated valves are suitable for use in class 1, div 1 hazardous zones with closing times of less than 3 seconds.



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Ratermann Cryogenics is the exclusive distributor for Herose cryogenic valves in North America. We have extensive inventory in our centrally located Nashville, TN warehouse. Our partnerships allow us to supply only the highest quality products and our focus on superior quality and the highest level of customer service, are what set us apart from our competition.



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Ratermann Cryogenics brings over twenty years of experience to our cryogenic and LNG customers, providing only the highest quality valve solutions for plant, bulk vessel, marine and trailer transport manufacturing and refurbishing applications.

Our product offering includes, but is not limited to, manual and actuated ball, globe, gate, and butterfly valves and valve packages for cryogenics and LNG, including fire safe and Emergency Shut Down options to meet Class 1, Div 1 requirements.

Ratermann Cryogenics insists that our entire product range meets the highest quality and performance standards and only these products receive the Ratermann Cryogenics seal of approval.

A prime example of this commitment to quality is exemplified by our partnership with HEROSE GMBH. Ratermann Cryogenics has performed as Herose's exclusive North American Distributor since 2006. Herose quality is unparalleled and Herose valves are preferred by nearly every major gas company, stationary vessel and transport vessel manufacturer, Worldwide.

Like Ratermann, when it comes to cryogenics, Herose know their business. Based in the UK and Germany, they've been in the LNG industry since 1999 and bring unrivalled European quality to the global market. Supplying the top LNG players worldwide, Herose's products can be found in over 80 countries.

Our commitment to quality is only matched by our commitment to customer service and our knowledgeable and friendly staff is able to assist our customers with supplying the correct solutions for their applications and calls are answered by a LIVE person, during normal business hours and NOT an automated attendant.

Our collaboration means that North American customers can benefit from more than three decades of experience in mature LNG markets. Ratermann Cryogenics can give you tried and tested solutions that we know work for fuelling stations, trailers, equipment and plants in other continents such as Australia and Europe, where safety and quality are a must.

By working with Herose, we're able to offer our customers a complete cryogenic solution, including complete valve packages and a wide array of products which complement Herose's range.

“Herose’s world-leading valves and Ratermann’s expertise in cryogenics, make a top-quality combination for North America’s LNG industry.”

Dirk Zschalich, Managing Director
Herose GmbH, Germany

“Ratermann’s commitment to outstanding customer service makes them the obvious choice as Herose’s distributor for cryogenic valves across North America.”

Keith Stewart, Global Sales Director
Herose GmbH, Germany



but also based on how they would fit our system and company culture. Each team member we have is keenly aware how important they are to the success of ACT. We create an environment where appreciation, trust and accountability lead to superior quality and workmanship."

"We have a corporate culture that encourages creativity and outside the box thinking," Lowrey continued. "When you have everyone working together as a cohesive unit it's nearly endless what challenges or opportunities that can be overcome, maneuvered around or capitalized on."

PRODUCT DEVELOPMENT

In Houston, Texas, the company operates out of their 175,000 square foot facility with 150 employees and produces 22 units per month. Though that only represents 40% of their total production capability, it's no surprise that the company has an aggressive launch schedule for new products.

"ACT introduces a new product every 90 days," Lowrey said. "Whether it's an LNG bunkering system, a steel trailer optimized to haul liquefied oxygen or an aluminum trailer optimized to haul liquefied nitrogen, all of ACT's products are designed around





a the customer's specific needs, application and region."

With such an ambitious launch schedule, Lowrey details how ACT goes about the research and development aspects. It starts with the knowledge of what's out there, what's needed, and the trends in the cryogenic industry.

"With a design and management team that has over 200 years of combined experience we understand historically what the market demands have been," he explained. "Understanding where the market has been historically is step one. Step two is to identify current market demand and supply oppor-

tunities and prioritize our product development strategies around those opportunities."

One of the best ways to find out where the market is heading is by listening to your customers, which is a key aspect of ACT's development process. After all, with a new product coming out every 90 days, it's imperative to meet the needs of their clients.

"Customer feedback is not only an instrumental part of design and development process from a bill of material perspective but it also sets the priority of our engineering back log," Lowrey added. "Without understanding the true needs of our customers we would just be flying limited visibility."



Bob Ernull
President and CEO



"The final step in our product development strategy is to invest in R&D so we can innovate, improve and refine the products we offer," he explained.

ADVANCING ACT

The success of ACT has a lot to do with technology, naturally, so staying on top of and utilizing the latest advancements is key for the company. It's also about bringing the best value to their clients and making ACT a leader in cryogenic storage solutions.

"Technology plays a huge role," said Lowrey. "Touch screen LCD monitor equipped control systems and our customizable program-

ming along with advances in satellite telemetry are key features and benefits that provide value to our customers and allow ACT to stand out in the market."

"Our engineering department utilizes 3D engineering software; this improves collaboration with our customer who can now visualize each piece of their equipment no matter where they are in the world. Efficient and clear communication throughout each project is vital to a successful project completion. We always keep an open mind when researching products and technologies that interface or assemble with our equipment."



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