



# CRYO-COMMUNICATOR



*Chart Inc. Industrial Gas Newsletter*

**VOL 6 - ISSUE 1**

## In This Newsletter

[Refurb Equipment Sale](#)

[Performance Management](#)

[NEW Modulator Website](#)

[Quarterly Chart Cryo Tip](#)

[Trifecta X10-600](#)

[Nitrogen Pumping System for LNG Project](#)

[Carbo-Max 1000 HF Bulk CO2](#)

[Chart Training & Events](#)

## NEW MVIP Modulator Website



The **NEW CHART MVIP MODULATOR** application has gone live and is ready for you to view and use. It has improved usability, up-to-date information, coordinated sign-on with the Chart Parts website, and the ability to earn ChartParts Points with modulator purchases.

To register for the new MVIP Modulator application, go to [www.ChartParts.com](http://www.ChartParts.com).

- If you are a ChartParts.com user and have a username and password, you can log-in to the Modulator by clicking on the "Try Our new MVIP Modulator" banner at the top of the ChartParts front page and follow the prompts.
- If you are new to the ChartParts.com website, click on the "Create An Account" button and fill in the form. At the bottom of the sign-up page, check the MVIP Modulator Application button before submitting.

You will receive a confirming email once you are granted Modulator access. If you have any questions, contact customer service at 800.400.4683.

## REFURBISHED EQUIPMENT FOR SALE

For the list of refurbished equipment available for purchase from Chart,

[CLICK HERE.](#)

If you want more information or pricing contact Customer Service at **800.400.4683.**

## Chart Cryogenic Tip of the Quarter: *You Can't Cheat the Heat*



*by Jim Rosenbush, Technical Service Representative*

You can't cheat the heat, so when cryogenic bulk storage vessels are not in use, or they are in a period of low usage, they will build pressure. It was never the intent of the primary relief valve on these vessels be used to control the maximum operating pressure of the vessels. The purpose of this relief valve is to maintain the maximum pressure in the inner vessel at or below 110% of the

Maximum Allowable Working Pressure (MAWP) per ASME, should the cryogenic bulk storage tank lose vacuum between the inner and outer vessel.

Because of the huge amount of heat leak caused by the loss of vacuum, large amounts of vaporized product will need to be vented out of the inner vessel to maintain the pressure in this vessel below 110% of the MAWP. The main tank pressure relief valve is sized to handle this flow. This means that there is a good chance that this relief valve may freeze open, thus allowing the product in the inner vessel to flash off to reestablish its saturation pressure at a lower level. If this were to happen, a considerable amount of product could be lost to the atmosphere before the relief valve re-seats.

We recommend the use of a back pressure regulator to control the maximum operating pressure in your cryogenic liquid bulk storage tank. These devices have a much larger diaphragm area versus the spring orifice area of a primary relief. Because of this you will see a more gradual and less noisy release of this over-pressure gas. The back pressure regulator can be set to open 20 psi below the primary relief valve setting, or if the tank is used for supplying liquid it can be set at a much lower level.

On MicroBulk tanks we install these devices on the relief valve tree. On bulk tanks we can install these relief devices on the relief tree or on the auxiliary gas line. Call Chart's Customer Service Department for

## QUICK LINKS

[Chart D&S Website](#)  
[Chart Parts](#)  
[Chart Repairs](#)  
[Chart Inc. Website](#)



## Performance Management

Chart's D&S Group uses Jason Kleid to conduct our Track Selling System Workshops. He is a certified instructor, sales strategist, coach, and speaker.



Jason assists in the development of skilled and passionate employees, leaders, mentors, and coaches within his clients' organizations. Here is a link to one of his management articles:

[Personal Accountability](#)

For more information on the TSS Workshop [Click Here](#)

If you would like to attend one of Jason's Track Selling System Workshops email [jkleid@jasonkleid.com](mailto:jkleid@jasonkleid.com)

## Questions?



If you can't find what you are looking for, have questions, or just need more information, we are only a call away

**800.400.4683**

## Trifecta® X10-600 Laser Assist Gas Supply System

This X10-600 expansion model to Chart's Trifecta X-Series delivers pressures up to 550 psig and flow rates up to 10,000 SCFH.

Drawing liquid from a standard bulk tank, it boosts the liquid pressure by alternately feeding two liquid cylinders equipped with multi-functioned, pressure building vaporizers.

The Trifecta X Series is the perfect solution for facilities requiring high pressure, continuous gas service.

[CLICK HERE for Trifecta X Series Spec Sheet](#)



## Chart's Nitrogen Purging System for LNG Project

A leading producer of coal seam gas (CSG) in Australia, and holder of the country's largest CSG reserves position, is developing a multi-billion dollar, world-class CSG-to-LNG export project in Queensland, Australia. The LNG facility located on Curtis Island in Gladstone will have a processing capacity of up to 9 million tones per year. Chart has provided a complete liquid nitrogen back-up system for this LNG facility's nitrogen purging system. Liquid nitrogen storage and vaporization packages provide additional capacity and back-up during plant start-up, intermittent peak demand, or when the nitrogen generation packages are out of service. Chart's equipment is designed to supply nitrogen gas demands of 1570 NM<sup>3</sup>/hour (58,600 SCFH) for seven continuous days. This project included a complete control system with full redundancy and fiber-optic communication, meeting complex customer specifications and Australian electrical codes, and interconnection piping designed to minimize installation efforts.

For more information on these type of projects, contact [Ryan Felsenthal](#), Project Manager



## Carbo-Max 1000 High Flow Bulk CO2



The MVE Carbo-Max 1000 is an innovative bulk carbon dioxide system that meets the demands of high volume applications such as welding (where a carbon dioxide/argon mix is preferred) and pH control customers, including bars/pubs, stadiums, swimming pools, water parks, and ready mix concrete plants. Product features include:

- Internal vaporization coils with continuous flow rates up to 30 lbs/hr
- Differential pressure liquid level gauge
- 1,000 lbs of carbon dioxide storage capacity
- Sized to allow the tank to fit through standard doorways
- Standard lifting rings, with optional pallet jack compatible base available

[CLICK HERE for the Carbo-Max 1000 Spec Sheet](#)

## Chart University Training Sessions

Apr 9-10 VIP Technical Training, New Prague, MN  
Apr 10 Trifecta Technical Training, New Prague, MN  
Sep 11-12 Liquid Cylinder Training, Ball Ground, GA  
Oct 1-2 MVE Beverage Technical Training, Ball Ground, GA  
Oct 8-9 MicroBulk Technical Training, Ball Ground, GA  
Fall 2013 Bulk, VIP, Trifecta Technical Trainings, New Prague, MN (TBA)  
[CLICK HERE for Training Registration/Information](#)



## Upcoming Events

Apr 7-12 CGA Annual Meeting - 100th Anniversary Celebration, Johannesburg  
Apr 15-17 GAWDA SMC, San Antonio (Chart Booth TBA)

*Apr 17-19 Applied Reliability Symposium - Europe, Berlin (Chart Booth TBA)*  
*May 2-3 California Society for Healthcare Engineering, San Diego (Chart Booth TBA)*  
*May 18-21 National Restaurant Association, Chicago (Chart Booth 1837)*  
*May 21-23 IWDC Sales & Purchasing Convention, San Antonio (Chart Booth TBA)*  
*Jun 5-7 Int'l Applied Reliability Symposium, Minneapolis (Chart Booth TBA)*



*Try it FREE today.*