ATD Pressure Gas System presents

The Cardox Chronicle

ATD Pressure Gas System Newsletter

By John Stulack

Hello Valued Customer,

Welcome to the first ATD Pressure Gas System Newsletter of 2014. It is our pleasure and goal to share important information with our clients. With each newsletter you will find new information and tips that will help you and your staff get the best possible performance with your ATD Cardox System!

Carbon Dioxide Supply Cylinder Tips



CO₂ is an important part of successfully preparing an ATD – PGS Cardox tube. We use liquid CO₂ to create pressure around the Chemical Generator within the tube. This pressure enables the Generator to be *activated* when initiated by the operator. Once activated, the liquid CO₂ is converted into its gaseous state. The gas is then delivered out of your Discharge Head with a tremendous amount of pressure that removes the problematic material build-up. We use CO₂ as it is an inert gas that can be used safely in nearly every process.

Although a standard CO₂ supply cylinder can be used when safely inverted, we recommend using a *siphon type cylinder* equipped with a *dip* tube. Cylinder storage location is an important consideration. Keep your cylinders in proximity to your Cardox Room for easy transport. Always store and transport cylinders with a safety valve cap in place. Cylinders should be stored in a wellventilated cool area (around 70°F). continued







ATD now offers specialized equipment for using a bulk CO₂ Supply Tank!



Here are a few recommendations:

- Separate your full cylinders from the empty ones. Empty cylinders can often get mixed up with the full cylinders.
- Make sure the empty cylinders are marked for identification (some suppliers provide removable tags for ID).
- When removing your CO₂ supply hose, keep the hose away from debris. Debris can damage your liquid transfer pump.
- When changing your supply cylinder, take a moment and check a few things prior to attaching your supply hose:
 - ✓ Confirm your new cylinder is labeled Carbon Dioxide.
 - ✓ Check for a label identifying the cylinder type as a siphon type. This identification may vary depending on your supplier. Many are stenciled DP (Dip Tube), ET (Eductor Tube), ST (Siphon Tube), etc.
 - ✓ While holding the cylinder securely, shake the cylinder from side to side. If you hear "rattling" inside the cylinder, this means the *dip tube* is broken. Do not use and label the cylinder as broken to alert your supplier.
 - ✓ Safely open the valve prior to installing the supply hose for a couple of seconds. This does two things; confirms you have liquid discharge (full bottle) and also removes any debris that may be lodged in the valve.

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 Safety precautions must be taken with the use of CO₂ cylinders. Gloves, long sleeves and safety glasses should be worn. The discharge can cause potential burns at -34°F, and can also remove the oxygen from the air at high concentrations.



• Over the past several months, a few gas suppliers have changed the valve type on

their cylinders. This photo is a "*Reverse Flow Valve*". This type of valve can inhibit the flow of discharging liquid from the supply cylinder. This can cause problems with your pump and create potential CO₂ misfires. If you have this type of valve,



Reverse Flow Valve

please contact your ATD representative for detailed solutions and information.

Team ATD-Pressure Gas System USA

This past year has brought many changes to our ATD-PGS North American team. We are confident that we have the most knowledgeable team in place in order to provide the best service, equipment, and technical support to our customers. We understand how critical your operations are and ATD is committed to supporting your production. We encourage your feedback as we are continuously making changes to suit our customer's needs. Please see our contact information below.

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