# CryoEase® microbulk solutions for hydrogen and helium



### A cost-effective alternative to cylinder gas supply





# Microbulk delivery helps you maximize safety at your site.

- Eliminate cylinder handling
- Reduce the number of deliveries
- · Reduce risk of product mix-up

## Microbulk delivery helps improve quality control, too.

- Eliminate potential contamination with dedicated containers
- Simplify inventory management
- Increase operating efficiencies through constant onstream supply



CryoEase microbulk solutions for your hydrogen and helium needs offer the same benefits, same enhancement and same great supply mode as we provide for nitrogen, argon and oxygen. We developed this supply option for customers looking for a cost-effective, reliable alternative to cylinders. We've engineered a storage system for hydrogen and helium, enabling the module to be installed and filled on-site, replacing traditional cylinder change-outs.

Because the modules are engineered to be installed and filled on-site, you'll get the advantages of bulk supply when your usage is less than traditional bulk delivery volumes.

#### Greater efficiencies can help reduce costs.

- Eliminate residual product returned in high pressure cylinders/dewars
- Eliminate lost-cylinder costs
- Decrease number of invoices and streamlines purchase orders, which may reduce administrative and transaction costs
- Eliminate cylinder change-outs, which may reduce labor costs
- Free space formerly used for cylinder storage
- Provide flexibility to add or remove modules to adjust for changes in volume

#### Hydrogen/Helium Storage Module Features

| DESIGN DETAILS               |  |   |
|------------------------------|--|---|
| Parameters                   | Specification  | Units of Measure  |
| Total capacity (@ 2,100 psi) | 5,600  | Scf   |
| Service pressure             | 3,000  | PSIG  |
| Dimensions (w x d x h)       | 52 x 56 x 77   | Inches  |
| Total weight                 | 4,900  | Pounds  |
| Safety                       | D.O.T. rated tanks   |   |
| EQUIPMENT DETAILS            |  |   |
| Description                  | Material   | Details/Comments  |
| Cylinders                    | 16 (500 scf) high strength carbon steel  | Meets D.O.T. requirements   |
| Valves                       | Bronze   | Per CGA   |
| Relief vent                  | Stainless steel  | None  |
| Thermal relief device        | Fusible rupture disk @ 4,500 psi for each cylinder   | Meets D.O.T. requirements   |
| Control panel                | Regulator, gauge and isolation valve<br>mounted on front of frame for easy<br>viewing and access | Flow capacity up to 1500 scfh<br>and delivery pressure range from<br>50 to 250 psig |
| SITE REQUIREMENTS            | <u> </u>   |   |
| Item                         | Details  |   |
| Foundations required         | None – Can be sited on macadam surfaces or gravel with proper supports                           |   |
| Electrical                   | None – Class 1, Division 2, Group B siting requirement for hydrogen                              |   |
| Water                        | None required  |   |
| Phone                        | None required  |   |
| Grounding rod                | Required at site   |   |
| Siting distances             | Per NFPA 55 – Air Products will provide site evaluation  |   |
| Installation                 | Steel frame with forklift channels   |   |
| TRANSPORTATION REQUIREMENTS  |  |   |
| Item                         | Details  |   |
| Trailer design               | Complies with 49 CFR   |   |
| Transport requirements       | Delivered by tractor trailer and set up for operation by Air Products                            |   |
|                              |  |   |

## For more information, please contact us at:

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