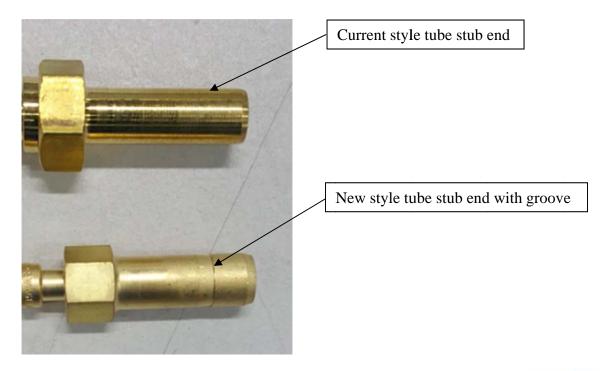
Design Change Notification

- *Date:* September 19, 2016
- Document #: DCN-105-MicroBulk Storage Systems
- *Subject:* Tank pressure and liquid level phase lines
- **Background:** Chart's continuous attention to product improvement and customer satisfaction has resulted in this design modification. We will continue to listen to our customers and look for ways to improve our designs and streamline our processes.

Chart has recognized an opportunity to increase the quality of the flexible hoses that are used on our tank pressure and liquid level lines. We are changing to a Swagelok[®] brand hose.

- *Products Affected:* All Perma-Cyl[®] MicroBulk Storage System products that utilize flexible phase lines. The new hoses will be interchangeable with existing units that have flexible phase lines.
- **Description:** Chart has approved a change to the phase lines that will now be provided by Swagelok. The change includes Swagelok's proprietary precision-machined groove in the tube stub that ensures proper fitment and sealing with the mating Swagelok connector. This groove will also ensure proper grip of the hose connection after tightening, preventing hose slip due to thermal cycles, pressure surges, and vibration.





The change will become effective in early November contingent on when existing stock levels are depleted for the various size Perma-Cyl tanks.

Contact: If you have questions or concerns relative to this action, please contact your Chart Customer Service Representative at (800) 400-4683. Thank you for depending on Chart to provide high product quality and service.

