CHART
Packaged Gas Division

Technical Service Bulletin Z01-008

Perma-Cyl® Vessels in Gas Mix Applications   ***Date:*** November 23, 2004

Issue: In gas mix applications, the Perma-Cyl vessel is required to provide gaseous flow in a non-continuous manner. This allows a portion of liquid to be vaporized but not completely used. The vaporized product may back flow into the Perma-Cyl cylinder, thereby raising the pressure in the vessel slightly. After multiple cycles, the Perma-Cyl vessel may reach its relief valve setting and begin to vent product.

Models Affected: Any Perma-Cyl cylinder used in conjunction with a gas mixer (e.g., Ar/CO_2, N_2/CO_2, Ar/He).

Solution: Medley Pressure Manager (MPM). The MPM uses gas vapor from the head space of the tank as the primary gas source supplying the mixer until the vessel pressure drops to its predetermined set point. The Perma-Cyl vessel then continues to operate as normal until the pressure builds above the set point of the MPM.

TSB Description: Perma-Cyl units used in gas mix applications require the additional plumbing modification to help prevent excessive pressure rise when used in gas mix applications – i.e., attached to a mixer such as Chart's Medley mixer, Thermco, or Smith. This change is in response to feedback gathered from current field applications, and is made standard after successful evaluations in multiple field-testing events.

Caution: The Perma-Cyl vessel should be vented to 0 psi before installing any plumbing parts.

Chart's continuous attention to product improvement has resulted in this design modification. If you have concerns or questions relative to this action, please contact your Chart Technical Service Representative at 800-400-4683 or 952-758-4484.

Thank you for depending on Chart to provide high product quality and service.

PARTS LIST			
ITEM	QTY.	CHART P/N	DESCRIPTION
1	1	11551035	TEE STREET 1/2NPT
2	1	10599563	NIPPLE HEX R 1/2 X 1/4NPT
3	1	2110022	REGULATOR 1/4NPT 140psi
4	1	10501600	CONN 3/8T X 1/4MPT
5	1 FT.	10591019	TUBING CU .375 OD
6	1	11643626	TEE M RUN 3/8T X 1/4MPT