Design Change Notification

December 30, 2016 Date:

Document #: DCN-106-Perma-Cyl® MicroBulk Storage System

Subject: Perma-Cyl models regulator manufacturer change.

> Effective February 1, 2017 the Perma-Cyl MicroBulk Storage System tanks will be changing the current pressure build/economizer regulators to a new

manufacturer (Generant). This conversion will take place over several months starting with the smaller Perma-Cyl 230 and 450 models and gradually extending out to all models. The conversion is planned to be completed by July 1, 2017.

Background: The MCR regulator is a combination regulator and is offered on all standard Perma-Cyl models with internal pressure building coils. The LCCM is a bolt on style regulator that is offered on the Perma-Cyl 180, 230 and 265 models. Chart has worked with Generant to develop a superior regulator that has better pressure build capabilities and an economizer that is 20% more efficient. These regulators have undergone extensive performance and cycle testing and are currently being used on the Dura-Cyl[®], Laser-Cyl[®], and Mega-Cyl[®] Liquid Cylinder models. These new regulators have been performing successfully in the field on these liquid cylinders for over six months. Chart is excited about continuing to offer this new enhancement on all affected Perma-Cyl models. These regulators are a direct change out with the current style regulators and there are no plumbing modifications required.

Products Affected: All Standard Perma-Cyl models (MP, HP, and VHP) that use internal pressure building coils. Plumbing option 03, 04, and 05. The Perma-Cyl models that include the FlexFill[™] Piping Option *do not* utilize the combination style regulators and will not be affected (or impacted) by this change.

Description:

Style	Old PN	New Generant PN/Description	Spring Range
MCR	10645339	**See Note	20-50 PSI
MCR	11081336	20821672-Regulator MCR-MP 125 PSI Blue	50-200 PSI
MCR	11081328	20821673-Regulator MCR-HP 300 PSI Orange	100-350 PSI
MCR	11375625	20821674-Regulator MCR-VHP 450 PSI Red	300-500 PSI
LCCM	10645523	**See Note	20-50 PSI
LCCM	11077134	20821676-Regulator LCCM-MP 125 PSI Blue	50-200 PSI
LCCM	11077142	20821677-Regulator LCCM-HP 300 PSI Orange	100-350 PSI
LCCM	11371456	20821678-Regulator LCCM-VHP 450 PSI Red	300-500 PSI

Note: Low pressure ranges (20-50 psi) are still being worked on therefore we will continue to use regulators from our current manufacturer.



Photos:



Old MCR style regulator



New Generant MCR style regulator



Old LCCM style regulator



New Generant LCCM style regulator

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 quality products and service.

