



Distribution & Storage

Technical Service Bulletin

Component Change

TSB-Z01-009

Date: 8/1/12

Subject: Liquid Level Gauge Upgrade / Roto-Cal to Roto-Tel Transition

Purpose: Transition from the Roto-Cal to the Roto-Tel for the medium pressure (MP), high pressure (HP), and very high pressure (VHP) Chart liquid cylinders. The Roto-Tel offers significantly improved liquid level reading accuracy.

Description:

The purpose of this document is to inform our Dura-Cyl liquid cylinder customers about a significant improvement to our liquid level gauge offering. On 2/1/12, production started transitioning from the Roto-Cal liquid level assembly over to the new Roto-Tel system. As of the release date of this document, the conversion has now been completed for all models that are built with this style liquid level gauge system. (MP, HP, & VHP) In addition to improved accuracy, the new Roto-Tel gauge also has improved reading resolution for each of the gas services. (AR, CO₂, N₂, N₂O, & O₂)

In order to achieve improved accuracy, the Roto-Tel gauge assembly has to undergo a two step calibration process which requires specialized equipment. Therefore, field calibration is not necessary or possible. Like the Roto-Cal assembly, the Roto-Tel assembly must be properly installed in the liquid cylinder in order for it to read accurately. Besides the obvious need to make sure that the knuckle plug seal is leak free, the float rod MUST be properly inserted through the float rod guide that is welded to the side of the dip tube or the gauge WILL NOT read accurately.

Chart Parts will continue to offer replacement Roto-Cal gauges as well as the new Roto-Tel gauges. If an entire Roto-Cal assembly needs to be replaced, we recommend that you transition to the comparable Roto-Tel assembly at that time. They are also sold by Chart Parts. If you have questions regarding this change, please contact Chart Customer Service at 800-400-4683. Thank you for choosing Chart products!



ROTO-CAL

Note that the top of the Roto-Cal gauge has a half moon shape. The width of the stop at the top of the upper shaft of the knuckle plug is 1/8" wide and there is a threaded spring retaining shaft below the knuckle mating threads.

ROTO-TEL

The Roto-Tel gauge is rectangular in shape. The width of the stop at the top of the upper shaft of the knuckle plug is 9/32" wide and there is no spring retaining shaft below the knuckle mating threads.

Note: The components for the two systems are **NOT** interchangeable. The Roto-Cal indicator cannot be used with the Roto-Tel float assembly, or vice versa. Doing so will lead to significant inaccuracies in the liquid level readings.