

TYCO PRV²SIZE / Critical Update Advance Notice

Date: March 23, 2010
To: All Users of TYCO PRV²SIZE
Subject: **NOTICE OF VISCOSITY CONVERSION ERROR**

Tyco Valves & Controls has identified a unit conversion error corresponding to applications that are sized for viscous liquid service.

Currently, TYCO PRV²SIZE software (pr_20100225.1) does not account for the specific gravity in the conversion from kinematic viscosity units into centipoises (cP) for Reynolds number calculations.

The Reynolds number is used to calculate the viscosity correction factor, *Kv*.

The units affected by this conversion error are shown below:

- cm² / s
- cSt
- ft² / s
- in² / s
- m² / s
- mm² / s
- SSU

Our findings are:

1. When the value of the specific gravity (SG) is <1.0, the valve will be oversized. The further SG is from 1.0, the greater the over-sizing.
2. When the value of the specific gravity (SG) is >1.0, the valve will be under-sized. The further SG is from 1.0, the greater the under-sizing.
3. The larger the viscosity, the more over-sized or under-sized the valve will be.

In most viscous liquid service applications, viscosity units are traditionally specified in units of cP (centipoises), which does not contain the conversion error.

Tyco pressure relief valves for viscous liquid service applications potentially impacted by this unit conversion error are as follows:

Crosby

- JLT-JOS-E, JLT-JBS-E, JLT-JBS-BP-E
- Series 900 Omni-Trim
- Series BP Omni-Trim

Anderson Greenwood

- Type 81P
- Series 400
- Series 500
- Series 800

Tyco will deploy a critical update correcting this unit conversion error for viscous liquid service applications **within the next few days.**

This critical update, once downloaded by the user, will automatically correct any saved tags that might have been affected by this viscous liquid service unit conversion error. Therefore, we suggest you print a copy of your saved tags for any viscous liquid service sizing calculations that used the viscosity units listed above before running the critical update.

RECOMMENDATION:

Until this critical update is deployed, DO NOT USE TYCO PRV2SIZE TO SIZE VISCOUS LIQUID SERVICE APPLICATIONS WHEN ANY OF THE SEVEN UNITS ABOVE ARE NOTED IN THE SPECIFICATION PROCESS CONDITIONS.

In addition, we are requesting any previous viscous liquid service sizing calculations that included these viscosity units performed using PRV²SIZE software (pr_20100225.1) since its release on March 1, 2010 be transmitted to us for review. Please direct these sizing calculations to:

rasmith@tycovalves.com

Alternatively, you may re-size these viscous liquid service applications once the critical update has been deployed by Tyco.

We apologize for this temporary inconvenience and appreciate your patience while we resolve this unit conversion error.

For further information, please contact Matt Buchanio at (508)384-4669 or mbuchanio@tycovalves.com