News and Notes for the Fuel Dispensing Industry Professional



Volume 3 December, 2014

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Hello!



This edition promises more of Doug's great Troubleshooting Tips designed to lend clarity to the EVR market place as more GDFs convert their stations from Vac Assist to Balance Systems.

Inside this issue:

Tech Talk

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EVR market place as more GDFs convert their stations from Vac Assist to Balance Systems.

Then in the Training section, we are offering live classroom training for all you who need the VST Level B/C certifications.

...From Scott Bennett a highlight of VST's newest Products and Programs.

COMING IN MID-JANUARY: VST has been listening to the discussions happening in the vapor recovery industry in California. Today, there are many conversations around the causes behind the over-pressurizations occurring at sites around the state.

Over the next several months, VST will relay the theory behind the operation of both EVR Balance Systems and EVR Assist Systems and the differences between them. The goal will be to educate everyone involved about the inner workings of the two different types of vapor recovery systems, after which it will be easy to understand why the balance system will be the predominate system of choice, with the benefits of much fewer alarms, fewer over-pressurization issues, lower operating cost, and better durability.

We will be discussing the following topics in each of the "Chapters" of the Special Edition of The Voice:

- 1. Overview of the Systems: Back to the Basics
- 2. Cost Benefits of using Balance versus Assist
- 3. Why use VST versus EMCO/Goodyear
- 4. Causes for some Alarms Over-Pressurization, Reverse Flow

Until next time, Susie McLaughlin Editor, The VST Voice News and Notes for the Fuel Dispensing Industry Profession



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Tech Talk

BY DOUG HARTY: SENIOR APPLICATIONS ENGINEER: HARTY@VSTHOSE.COM

A Balance Misconception

A Misconception:

Today, a common misconception prevails that Balance Enhanced Vapor Recovery systems are "leaky." This misconception may keep station owners from considering Balance Systems for fear of creating ISD alarms and then high maintenance/repair costs.

Balance Systems are not inherently leaky.

First, CARB has established allowable leak rates for all front-end components, and those rates have very tight tolerances. That means ALL EVR equipment, be it Assist or Balance, is designed to be vapor tight.

So without the forecourt components to blame, the key then is to investigate the entire vapor recovery system, both Phase I and Phase II, because both Balance and Assist sites depend on the entire system being vapor tight. EVR Phase II, by CARB regulation, must be compatible with all Phase I EVR systems

All vapor-recovery systems need to be free of leaks for proper purging on a Veeder-Root Polisher or for fully draining the FFS Clean Air Separator. Fixing small system leaks is imperative to maximizing vacuum generation. In fact, low throughput sites will benefit even more. By being vapor-tight, low throughput sites take advantage of every fueling event to create vacuum and purge the canister or the CAS.

So it's incorrect to label Balance Vapor Recovery systems as inherently leaky.

What is correct is to question how vapor tight the entire system is to begin with, whether it's Balance or Assist.

Where to Begin:

As you begin your investigation of a site's vapor tightness, check the vacuum levels while the site is in operation. If there is minimal vacuum on the UST when the station is busy, you likely have a big leak, possibly the P/V valve.



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A BALANCE MISCONCEPTION, continued

P/V Valve: P/V valve issues can be difficult to troubleshoot. For example, a 2" Pressure-Decay Test will often miss a leaking P/V valve.

A P/V valve is two valves in one: they may leak either under pressure or under vacuum, but not always both. A pressure-decay test will not show a P/V valve leak if the P/V valve only leaks under vacuum. The test pressure during a Pressure-Decay test can "seat" the vacuum valve, which will then hide the leak that originally caused the Vapor Leakage Warning Alarm.

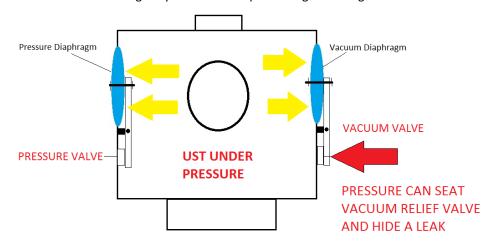


Figure 1: 2" Pressure-Decay Test

Given the possibilities you could test with a 2" Pressure Decay Test and not find a leaky P/V valve, we suggest the following tests to confirm a properly working valve.

P/V Bag Test: A quick way to detect a potential P/V valve problem is to conduct a P/V Valve Bag Test.

Cover the P/V valve with a plastic bag and seal the bag with tape. Watch for the bag to collapse when vacuum is on the UST. If the bag is collapsing and the vacuum has not exceeded the cracking value of the P/V valve, there is a leak.

P/V Bench Test: The P/V Valve Bench Test TP 201.1E is the best diagnostic tool for troubleshooting a P/V valve.

One recommendation prior to replacing a non-working P/V valve is to run the TP 201.1E test on

the new P/V valve to confirm the proper operation prior to installation.

Conclusion: No.... Balance Systems are not inherently leaky when all components are operating as

designed.

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VST Training

BY SUSIE MCLAUGHLIN: MANAGER, TRAINING & CERTIFICATIONS: MCLAUGHLIN@VSTHOSE.COM

Level A Training - Get it Done!

Executive Orders VR-203/204 Rev. P were signed in April of this year. And with them came the requirement that all contractors with existing VST Level A certifications are REQUIRED to re-certify their VST Level A by taking the Level A online training.

VST offers this training online, in a self-paced format, and at no charge to afford contractors and station owners an efficient and no-cost way to keep themselves compliant with Air & Resources Board requirements. We strongly urge all contractors and station owners to get this done as soon as possible to take advantage of this wonderful opportunity.

Level B/C Training - Upcoming Classes

Date	Class	Location	Time	Cost	Deadline for Registration & Payment
01.28.15	Level B	PME: San Jose	8am - 10:30am	\$175.00	01.21.15
01.28.15	Level C	PME: San Jose	10:30am – 12:30pm	\$175.00	01.21.15
02.25.15	Level B	PME: Placentia	8am - 10:30am	\$175.00	02.18.15
02.25.15	Level C	PME: Placentia	10:30am – 12:30pm	\$175.00	02.18.15

	Level B	Level C
Component	ECS Membrane Processor	ECS Membrane Processor
Authorized Tasks	 Installation 	 Installation Functional Testing Start-Up Troubleshooting Maintenance & Repair
Training Pre-Requisites	VST Level A Veeder-Root Installer Certification or ATG Technician Certification or VR Vapor Products Certification	VST Level A/B Veeder-Root Vapor Products Certification



Registration Forms

Go to www.vsthose.com for the registration forms for these classes.

Once on the VST Home Page, click on the "apple" icon for everything VST Training/Education related. News and Notes for the Fuel Dispensing Industry Profession



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New VST Products

BY SCOTT BENNETT: V.P. SALES & MARKETING: BENNETT@VSTHOSE.COM

Factory Service Repair

VSTA-EVR-SBKA: Reattachable EVR Balance Safety Breakaway

What this New Service Is: Effective Nov. 17, 2014, we are now offering a "Factory Repair Service" for the VSTA-EVR-SBKA

reattachable EVR Balance Safety Breakaway.

Why VST Offers It: In listening to GDF owner/operators, we learned there are those who do not want to deal with

the field-reattachment process. They want the value of the reattachable breakaway, but not

the responsibility of performing the reattachment.

In response, we established this service to offer the piece-of-mind that every breakaway re-

placement installed has been factory tested and carries a factory warranty.

Applications: The VSTA-EVR-SBKA, either new or factory-serviced, may be used to replace the phased-out

VST single-use breakaway or for those who wish to do their own field reattachment.

Benefits: This fee-based service offers the market an option to have their EVR Reattachable Safety Break-

aways:

Reconnected at the VST Factory

- Factory inspected and integrity tested
- Assigned a new factory serial number
- Achieve a new 12-month warranty

This new service allows VST to provide the most comprehensive product offering to address all EVR Balance applications & field requirements, while supplying the highest quality at the

"Lowest Cost of Ownership."

Program Particulars: These factory-serviced VST-EVR-SBKA Safety Breakaways:

Are eligible for core return value (contact your VST EVR Distributor of choice for details)

Orders must reference "SERV-SBKA"

For more information: If you'd like more information about this service, contact your VST EVR Distributor of choice

for details, or call us direct. Ask for Scott Brown at 937-704-9333.