Hello!

VST hopes that all people associated with the Petroleum Equipment Industry are safe and working towards the "new normal."

How can the summer be fleeting by so quickly? Even with the EMV deadline extended to mid-April, 2021, it'll be here before we know it.

To help make the EMV conversions faster and easier, we want to re-emphasize the convenience of our hanging hardware kits, both for EVR Platinum Balance and for Low Perm Hoses / ECO Nozzles.

Also in this edition, Doug Harty addresses:

- ISD Dispenser Mapping and how incorrect mapping can affect flow-collect warnings
- STP Selection for proper flow rates
- Unidocs.org as a resource for helpful info

And……..we continue the reminders about how to re-certify your Level A training or how to get a new Level A certification. Our brand-new platform allows you to take the training on your phone or tablet.

Finally, Scott Bennett talks about VST's newest promotion: A 24-month warranty on Platinum whip and primary hoses.

Until next time,
Susie McLaughlin

Editor, The VST Voice

Tech Talk

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

ISD dispenser mapping – When do you need to re-map your site?

- Sites with chronic flow-collect warnings are often mapped incorrectly and are just tested and cleared on the Veeder-Root TLS by the service technician.
    - If incorrectly mapped, the flow-collect warnings will return.

- With all the POS and dispenser upgrades lately, it's common for the meter map to change because of the new equipment that was installed.
    - Sometimes after a dispenser upgrade, the tech will upload a meter map with a laptop, and the TLS-350 ISD warning of MISSING METER MAP will clear.
    - That does not mean that the meter map is correct however.

- If a site goes from old Wayne to new Wayne dispensers, for example, it is often assumed that the meter map will remain the same.
    - Where the known good meter map is saved after the upgrade, uploading the meter map should be fine.
    - But uploading a meter map from a generic site, (for example a 6 dispenser Gilbarco Encore 700 to another similar site) can cause problems.
    - Doing the normal auto-map procedure will ensure all meter addresses are correct.
    - When in doubt, map the site by pumping fuel; pumping fuel is the best way to ensure the map is accurate.

Remember these important details when conducting the re-mapping procedure:

- After clearing the map (SV4200149), make sure all AFM's are in the correct dispenser location and verify serial numbers to the TLS-350.
    - Confirm that all AFM's appear in the correct sequence on EVR-ISD setup printout.
    - If site is a blender, dispense on the straight products first, then the blended product (example 87, 91, 89).
    - If a mistake is made mid-map (missed a grade/dispenser), I recommend you clear and start fresh.
    - Double check the DIM Init string, add G for gallons if necessary on certain DIM modules (P/N 330273-002C).
    - If you can't get transactions to be detected by the TLS-350, check the meter buffer for data with a laptop using the I@A200 serial command. No data indicates a cabling/ communication issue.

Tech Talk

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

STP Selection

STP selection for proper flow rate with VST EVR balance equipment

- STP selection is important for getting desired flow rates at the nozzles.
    - 1 ½ HP STP's will usually provide around 7 GPM flow. 2 HP STP's can boost flow to around 8-9 GPM on a VST balance system.
    - If you use the STP selection guide that's based on a conventional nozzle, subtract around 2 GPM from the conventional flow rate to account for the liquid removal device that acts as a flow limiter.
    - See the selection guide below:

Number of Nozzles Operating Simultaneously	Fixed Speed 1.5Hp	Fixed Speed 2.0Hp	Variable Speed 2.0Hp	Variable Speed 4.0Hp	High Pressure Fixed Speed 2.0Hp
1	+	+	10 gpm / nozzle	10 gpm / nozzle	++
2	+	+	10 gpm / nozzle	10 gpm / nozzle	++
3	10 gpm / nozzle	+	10 gpm / nozzle	10 gpm / nozzle	++
4	9 gpm / nozzle	10 gpm / nozzle	10 gpm / nozzle	10 gpm / nozzle	++
5	8-9 gpm / nozzle	9 gpm / nozzle	10 gpm / nozzle	10 gpm / nozzle	10 gpm / nozzle
6	8 gpm / nozzle	8-9 gpm / nozzle	10 gpm / nozzle	10 gpm / nozzle	9-10 gpm / nozzle
7	7 gpm / nozzle	8 gpm / nozzle	9 gpm / nozzle	10 gpm / nozzle	8-9 gpm / nozzle
8	< 7 gpm / nozzle	7-8 gpm / nozzle	8-9 gpm / nozzle	9-10 gpm / nozzle	8 gpm / nozzle

Note: This chart is derived from calculated data and published performance curves, not actual testing. This chart is intended for the purpose of Submersible Turbine Pump selection and is for reference only.

Key:

▪	Flow Rates Less Than 8 gpm
▪	Optimal Flow Rates
+	Flow Rates Greater Than 10 gpm
++	Flow Rates Greater Than 10 gpm & Manifold Discharge Pressures up to 46 PSI

Explanation:

With 8 total nozzles in the system, peak fueling times will typically occur with up to 6 nozzles operating simultaneously. To maintain 6 nozzles operating simultaneously between 8-10 gpm, the recommended **Variable Speed 2.0 Hp** pumps can achieve these desired flow rates without exceeding EPA mandated 10 gpm flow rates and without high discharge pressures, which can generate hard to squeeze nozzles and hydraulic hammer that can cause accelerated fatigue or wear on the system.

Tech Talk

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

Unidocs

Helpful info:

- Unidocs.org has lots of important documents and guidance letters online. Here are a couple:
    - UST Overfill Inspection Guidance
    - http://unidocs.org/hazmat/ust/installation/un-117.pdf

- Tank Chart Library
    - http://www.unidocs.org/hazmat/ust/installation/tankcharts.html

VST Training

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

Level A Training - Get it Done!

- All contractors wishing to install, service, or troubleshoot VST's EVR hanging hardware are required to have a VST Level A certification.

- VST offers this training online, in a self-paced format, and at no charge to afford contractors an efficient, no-cost way to keep themselves compliant with Air & Resources Board requirements.

- Any contractor with an expiring Level A certification, can easily get a new Level A by going online and re-taking the training.

The Level A training certification is now on its new platform, so the training can even be done from your phone!

To access the training, go to http://vsthose.com/training-education/

Level B/C Certification Extensions

If you have previously held a VST Level B or Level C certification, you are eligible for an extension on both levels by sending in the appropriate paperwork. Just scan and email the paperwork below to me, Susie McLaughlin: **mclaughlin@vsthose.com**

To get a Level B or a Level B/C extension:

1. Provide VST with a copy of your Level A certificate generated from the online training.
2. Provide VST with current Veeder-Root certs:
   - To renew a Level B: Provide VR Tank Monitoring certificate
   - For renew a Level C: Provide VR Vapor Products certificate

VST Training Videos

And on a final note… all VST training videos are available on the VST website.
Here is the link:
http://vsthose.com/training-education/

Market Update

BY SCOTT BENNETT: EXECUTIVE VICE PRESIDENT: BENNETT@VSTHOSE.COM

Challenging Times = Innovative Solutions

Oh What a Year...

The last 6 months have been a uniquely challenging period, the likes of which most businesses have never experienced. Creating a safe work environment for all employees, producing high quality products, and meeting customer delivery requirements have been monumental tasks in today's environment.

- I am proud to say that during these difficult times, the VST team has stepped up and embraced the challenge. Through all the turmoil, VST continues to ship high-quality products and to meet delivery dates that our channel partners and customers have come to expect.

VST's DNA has always been focused on providing the HIGHEST quality products and service levels possible to the solve customer problems - all at the lowest cost of ownership.

- VST sees two different issues that affect cost of ownership:

    1. Reduced cost to site owner through increase warranty period and

    2. Reduced installation time for the service contractor at the site.

VST Solution

Extending the field service life of any hanging hardware component reduces the cost of ownership.

- Increasing the warranty of a product also reduces the potential cost to the end-users, and it sends a strong message that the manufacturer has ultimate confidence in the product. Just as the confidence VST has with the PLATINUM EVR Hose.

Market Update

BY SCOTT BENNETT: EXECUTIVE VICE PRESIDENT: BENNETT@VSTHOSE.COM

Challenging Times = Innovative Solutions
continued...

New Warranty

VST launched the Platinum EVR hose 4 years ago with great success. Customers are seeing a significant increase in hose life due to the Anti-Stretch cable absorbing most of the shock during a drive off, while reducing risk to customers and potential damage to vehicles and site equipment.

- **With this success, VST is now offering an unmatched industry 24-MONTH WARRANTY on all PLATINUM EVR hoses**.

Due to COVID-19, the EMV deadline has been extended from October 2020 to April 16/17 2021. While many of the markets are still affected, the availability of installing contactors will be at a premium to meet the deadline.
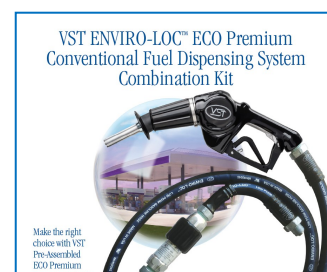
Factory-Assembled Hanging Hardware Kits

To help make installing contractors more efficient during an installation, VST has created the EVR Platinum and Low Perm ECO kits.

Each kit has a Whip, Breakaway, Primary Hose and Nozzle that is factory assembled and put into individual cartons to drastically reduce the site installation time.

- Pull the assembly out of the box, install into the outlet casting and you are DONE!
- Both Whip and Primary hose lengths are to customer request.

For additional information on the 24 MONTH PLATINUM WARRANTY and Hanging Hardware kit, please see additional information below and contact your local VST Distributor for pricing and availability.

VST EVR Platinum Hardware Combination Kit

Make the right choice with VST Pre-Assembled EVR Platinum Kits

VST ENVIRO-LOC™ EVR Platinum Hoses

24-MONTH Warranty
SUBMIT YOUR REGISTRATION CARD TODAY

VST ENVIRO-LOC™ ECO Premium Conventional Fuel Dispensing System Combination Kit

Make the right choice with VST Pre-Assembled ECO Premium Conventional Kits

VST EVR Platinum Hardware Combination Kit

Make the right choice with VST Pre-Assembled EVR Platinum Kits

Target Stations
- New Installations
- EMV Upgrades
- Upgrade to VST **ZERO** (Vac to Balance)

Ease of Installation
- Pre-Assembled Factory Kits reduce installation time
- Simply connect the whip hose to the outlet casting

Maximizing Station Performance
- Reduces potential for:
  – Dispenser and vehicle damage
  – Meter blowout damage during drive-off event
  – Flying debris during drive-off event
  – ISD alarms
  – Fuel spills
- Lowest Cost of Ownership

Vapor Systems Technologies, Inc.

VST EVR Platinum Hardware Combination Kit
Featuring VST's high quality products all in one box

VST ENVIRO-LOC™ Platinum Whip Hose and Primary Hoses

- New Anti-Stretch safety cable limits hose stretch

- Largest outer vapor hose in the industry creates best results for reducing back pressure ISD alarms

- Variable Design Venturi (VDV) allows for industry's highest flow rates while reducing flow collect ISD alarms

- Approximately 15% - 20% higher flow rate over competitive balance hoses

Platinum Whip Hose

Platinum Primary Hose

VST ENVIRO-LOC™ G2 Balance Nozzle

- ONLY patented safety interlock design

- Designed to be inoperable when the safety interlock becomes damaged

- Dripless/Spitless technology for fewer spills and cleaner forecourt
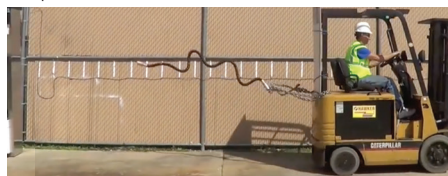
- Light weight with proven performance

VST ENVIRO-LOC™ Reattachable Balance Safety Breakaway

- Field reattachable

- Simple repair kit

- In-line repair capability with VST repair tool

- Protective Scuff Guards (Optional)

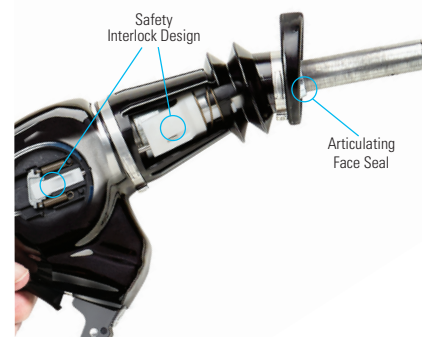
Compare Brand X in a drive-off situation...

To the new VST Platinum System...

Safety Interlock Design

Articulating Face Seal

Open the box, pull the assembly out, attach the whip hose to the outlet casting and you're DONE.

Contact your local VST Distributor for details.

Vapor Systems Technologies, Inc.

650 Pleasant Valley Drive
Springboro, Ohio 45066 (USA)
Toll Free: 1-888-878-4673

Phone: 937-704-9333
Fax: 937-704-9443
www.vsthose.com

VST-171-09/19

VST ENVIRO-LOC™ ECO Premium Conventional Fuel Dispensing System Combination Kit

Make the right choice with VST Pre-Assembled ECO Premium Conventional Kits

Target Stations
- New Installations
- EMV Upgrades
- Decommission Upgrades (Stage II to Conventional)

Ease of Installation
- Pre-Assembled Factory Kits reduce installation time
- Simply connect the whip hose to the outlet casting

Maximizing Station Performance
- Reduces user exposure to fuel vapors
- Fewer fuel spills/cleaner forecourt
- Easy to handle
- Lowest Cost of Ownership

Vapor Systems Technologies, Inc.

VST ENVIRO-LOC™ ECO Premium Conventional Fuel Dispensing System Combination Kit
Featuring VST's high quality products all in one box

VST ENVIRO-LOC™ Low Permeation Premium Conventional Whip and Curb Pump Hose Assemblies

- Exceeds the UL 330 low permeation specifications
- CARB Certified
- Dual helix wire design for maximum kink resistance

Patented Lip Seal Swivel Coupling

- Engineered for ease of use with minimal swivel resistance
- Easy swivel action eliminates the need for 3rd party hose swivels
- Directly connects to the nozzle, eliminating multiple leak points

VST SENTRY Reattachable Safety Breakaway

- UL 567 Listed
- Easy field reassembly by hand
- Compensates for system spike pressures
- Specially designed stay-put cushion sleeve protects both customer and dispenser in the event of a drive off

ENVIRO-LOC™ Low Perm Whip Hose

ENVIRO-LOC™ Low Perm Curb Pump Hose

VST ENVIRO-LOC™ ECO Dripless/ Spitless Conventional Nozzle

- UL 2586 Listed
- CARB Certified
- ONLY patented safety interlock design
- Fewer fuel spills / cleaner forecourt
- Core return program

Open the box, pull the assembly out, attach the whip hose to the outlet casting and you're DONE.

Contact your local VST Distributor for details.

Vapor Systems Technologies, Inc.

650 Pleasant Valley Drive
Springboro, Ohio 45066 (USA)
Toll Free: 1-888-878-4673

Phone: 937-704-9333
Fax: 937-704-9443
www.vsthose.com

VST-172-10/19

VST ENVIRO-LOC™ EVR Platinum Hoses

NEW

24-MONTH Warranty
SUBMIT YOUR REGISTRATION CARD TODAY

① 1 to 1½ GPM higher flow rate with VDV technology

② Anti-stretch cable reduces chance of personal injury and site/equipment damage

③ Easy inspection at the hose/coupling connection

Watch: http://youtu.be/syc-nYmtZDY
(Simulated Drive-Off)

Also available in VST Pre-Assembled Factory COMBO Kits with breakaway and nozzle!

Contact VST or your VST Distributor for details and availability.

VST-176-05/20