



Vapor Systems Technologies, Inc.

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News and Notes for  
the Fuel Dispensing  
Industry Professional

# The Voice

Volume 17

Oct, 2019

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Hello!

It's hard to believe that another summer has come and gone, and here in the Midwest, autumn is definitely in the air!

And with it comes many things to talk about...

In **Tech Talk**, Doug Harty writes about:

- The importance of VST's patented Lip Seal Swivel
- How VST's Platinum Hoses directly impact savings to your bottom line
- Some words of caution about replacing nozzle spouts.

Also in **Tech Talk**, Gregg Marshel brings us an article about Diesel Fuel and VST's products for that market.

In **Training**, I am happy to announce our new platform for our Level A Training certifications.

And in **New Products**, Scott Bennett announces the newest additions to the VST family of products:

- VST's ECO Nozzle CARB certification
- Bundles:
  - Platinum EVR Hanging Hardware bundle
  - Low Perm ECO Nozzle bundle

So... as the leaves turn to gold, we enter the 4th quarter full of anticipation of a very busy and exciting time for our industry!

Until next time,

*Susie McLaughlin*

Editor, The VST Voice

## Tech Talk

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

### Swivels

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#### **When is a Swivel not just a Swivel?**

When a swivel doesn't swivel, it soon becomes a big problem for you, your equipment, and your customer. And for the most part, the O-rings are to blame.

All competitor hoses use O-rings, and we all know that O-ring swivels simply do not last. In short order, they bind; they leak; or both.

#### **The patented VST Lip Seal Swivel is the solution!**

Why? Because it completely eliminates O-rings!

- The lip seal lasts and lasts - for the entire life of the hose
- Users LOVE it - easy swivel action
- Protect the hoses - from torque damage
- Over 20 years of proven field performance

#### **How does it do it?**

The VST Lip Seal is backed by a steel spring:

- Spring tension automatically adjusts for fuel exposure, wear, and aging
- Maintains just the right amount of contact seal
- Allow easy swivel action over time

#### **What products?**

The VST Lip Seal is available in the following products:

- VSTaflex Conventional Curb Pump (all model series)
- ENVIRO-LOC™ 3/4" Low Perm Conventional Hose
- Ultra Vac Vapor Recovery Hose
- ENVIRO-LOC™ 3/4" Low Perm Vapor Assist Hose

## Tech Talk

Oct, 2019

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

### Swivels

-continued-

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#### Service Station Hoses

Hoses experience severe twisting and torquing in day-to-day use. High-twisting torque leads to early hose failure.

The VST lip seal swivels prevent twisting torque, and the lip seals will last for the lifetime of the hose.

.....and because the hose doesn't get all twisted up, it's much easier for your customer to turn the nozzle into the vehicle or vessel fill neck.

#### Long Hose Lengths - Marinas

Marinas often use long hose lengths, and most often store those hoses on a hose reel. As a result, an enormous amount of twisting torque may be applied to the hose through the physical action of taking it off and on the reel, not to mention the leverage placed on the nozzle to reach inconvenient fuel necks.

Based on VST's long experience with marine situations, we highly recommend VST swivels on BOTH ends of the hose. Rigid fittings only make the hose difficult to use, and consequently, will drastically reduce the hose life.

**The elimination of after-market swivels reduces multiple potential leak-points and costs!**

## Tech Talk

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

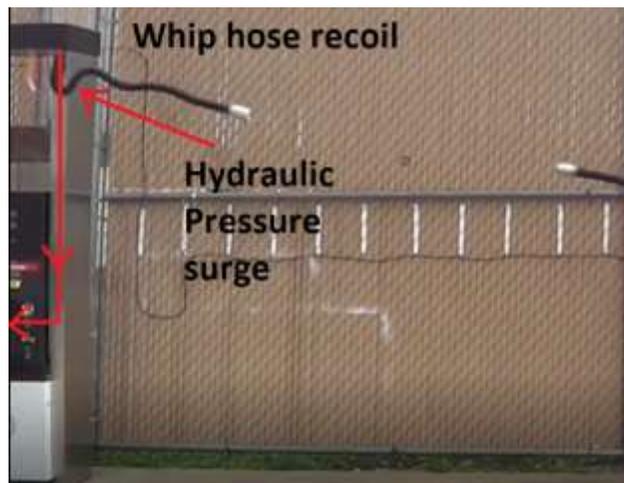
### Platinum Hoses

#### Eliminating Hose Stretch & Recoil

Drive-offs - wrong-side fueling: both enemies to the health of a fuel hose, which directly impacts the dispenser meter.

VST Platinum hoses can help prevent drive-off caused meter blowout, and in the end, save you money.

- During a drive-off, most hoses will stretch (until the breakaway separates) and then recoil. These actions send high pressure through the product piping.
- This hydraulic pressure spike can cause dispenser meters to blow both gaskets and seals.
- The pictures below show how the hydraulic pressure-spike is created.
  - As the hose stretches out and springs back to its original size, fuel is forced back into the dispenser piping, causing a high pressure spike.
  - The dispenser meter usually takes the damage, suffering blown seals or cracks.



## Tech Talk

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

### Platinum Hoses, continued

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#### VST Platinum Hose: Anti-Stretch Technology

- The VST Platinum hose is the only CARB-approved hose with anti-stretch technology.
- Our hose cuffs are now shorter to allow for easy inspection by station owners and service technicians.
- Our VST Platinum hoses have a cable in the hose that provides added strength and durability that prevents the hose from stretching.
  - This cable makes drive-offs safer, and they can save dispenser meters from blowing out.
  - Compare these pictures to those on the previous page.
- Eliminating hose stretch protects your equipment and makes drive-offs far less dangerous.



Don't spend money  
replacing your meter  
when you don't have  
to!

Click here for video:

<https://www.youtube.com/watch?v=syc-nYmtZDY&feature=youtu.be>

## Tech Talk

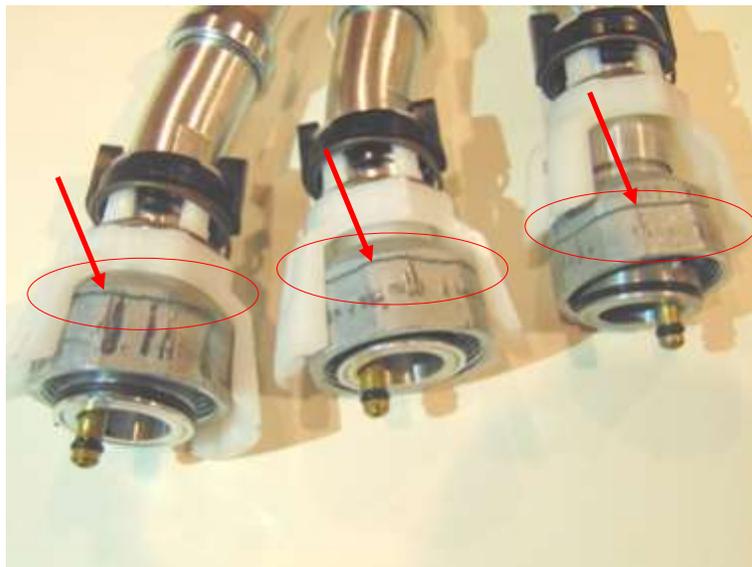
BY DOUG HARTY: SENIOR APPLICATIONS ENGINEER: HARTY@VSTHOSE.COM

### Nozzle Spout Replacement

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#### Some Words of Caution

- When replacing a nozzle spout on any VST nozzle, remember to properly torque the spout nut to 34 foot-pounds.
- Overtightening the spout nut can cause it to crack.
- If you find a nozzle with a loose spout, inspect the nozzle spout where it mates with the nozzle body.
- Look for any cracks or damage to the groove and to the O-ring.
- VST recommends using our VST-SRT-200 (Nozzle Spout Nut Ratchet Head) tool with proper torque for installation of spout assemblies.
- Take a look at some of examples of what can happen when you overtighten the spout nut.



## Tech Talk

Oct, 2019

BY GREGG MARSHEL: DISTRICT MANAGER: MARSHEL@VSTHOSE.COM

### Diesel

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#### **Not your Dad's Dirty Engine Anymore**

Because newer diesel engines have shaken their bad rap of being “dirty” engines, more and more diesel vehicles are showing up on the road. Consequently, more and more gasoline dispensing facilities are carrying diesel, which in turn requires hanging hardware components that can deliver it.

There are three types of diesel to consider:

- (1) Standard on-road diesel
- (2) BioDiesel
- (3) Renewable Diesel.

#### **Standard On-Road Diesel**

- Standard On-Road Diesel is an oil-based product that has morphed into a Ultra Low Sulphur Diesel (ULSD).
- This current version brings a reduction in emission but at a greater cost of less efficiency, bacterial growth, and a high direct cost.
- Additionally, there can be water-related issues with equipment: corrosion being the primary one.
- Retail forecourt fueling equipment does not have any material related issues.

## Tech Talk

Oct, 2019

BY GREGG MARSHEL: DISTRICT MANAGER: MARSHEL@VSTHOSE.COM

### Diesel

Continued...

#### BioDiesel

- BioDiesel is the original “alternative Green fuel.” It is organic in that it’s sourced from animal fats, various seeds, and even algae.
- It is commonly blended with traditional Diesel B5 (5% bio/petro base), B10 (10% bio/ petro base), other higher blends, and pure B100 are around.
- Biodiesel is produced through a process that is very different than the process used for traditional rock oil.
  - The resulting product has both quality and performance issues; consequently, it is not a “drop in” replacement for traditional diesel.
- BioDiesel brings a mixed bag of issues: both good and bad.
  - The good is that there is a significant reduction in most pollution components.
  - The bad is the high cost to produce, less MPG efficiency, increased wear, and significant compatibility issues at higher blend rates.

#### Renewable Diesel

- Renewable Diesel is the new kid on the block and is also an “alternative Green fuel.”
- It is derived from organic feedstock, but it is processed similarly to traditional diesel and results in a pure hydrocarbon base.
- There are no esters, no microbial growth, and truly is a “drop-in” replacement for standard diesel and it shows no compatibility issues with dispensers or hanging hardware.
- The downside is the cost to produce and reduced availability.

For more information, go to [www.vsthose.com](http://www.vsthose.com), or call 937-704-9333.

## VST Training

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

### Level A Training - Get it Done!

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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!

### Level B/C Certification Extensions

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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](mailto: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

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And on a final note... all VST training videos are available on the VST website.

Here is the link:

<http://vsthose.com/training-education/>

## New Products

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

### ECO Nozzle Certification

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#### Certification!

VST's UL 2586 Listed ENVIRO-LOC™ ECO Dripless / Spitless Conventional Gas Nozzle has been California Air Resources Board (CARB) certified under Executive Order NVR-1-E.

This patented dripless and safety interlock design:

- Exceeds CARB standards for drip, spillage and liquid retention
- Offers fewer fuel drips
- Allows for a cleaner forecourt
- Improves customer satisfaction
- Self-policing feature: the nozzle is designed to not dispense if an interlock return spring were to break.

The lightweight, easy-to-use nozzle also offers a lower cost of ownership for station owners:

- Easy front-end replacement kits
- Long service life
- Core return program
- Rebuild program

With the addition of this CARB certification, VST now has a complete hanging hardware solution that meets the California and New Jersey regulated applications which require Low Permeation hoses and an ECO nozzle.



## New Products

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

### **Platinum EVR Hanging Hardware Bundle -and- Low Perm ECO Nozzle Bundle**

With our industry moving at a fevered pitch, reducing installation time at a site is critical for contractors and service providers struggling to find and train enough labor to get the job done.

VST has listened to the market place and is introducing the Platinum EVR Hanging Hardware bundle and the Low Perm Conventional Hanging Hardware bundle, both of which come pre-assembled, and are basically “plug and play” thereby reducing installation time.

<b>Platinum EVR Hanging Hardware bundle</b>
Preassembled bundle in one box. Includes: <ul style="list-style-type: none"><li>• EVR Platinum Whip Hose</li><li>• EVR Reattachable Breakaway</li><li>• EVR Platinum Primary Hose</li><li>• EVR G2 Nozzle</li></ul>
To install: <ul style="list-style-type: none"><li>• Open the box</li><li>• Install the whip hose in the outlet casting</li></ul>
Platinum Hoses: <ul style="list-style-type: none"><li>• Premier hoses in the industry</li><li>• Reduces maintenance cost</li><li>• Provides risk management of site equipment during a drive-off and of potential injury to customers</li></ul>
EVR G2 Nozzles: <ul style="list-style-type: none"><li>• Patented interlock that reduces fuel drips and the risk of dispensing gasoline if the nozzle is pulled out of the vehicle fuel neck.</li></ul>

## New Products

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

### **Platinum EVR Hanging Hardware Bundle -and- Low Perm ECO Nozzle Bundle, continued...**

Low Perm ECO Nozzle bundle
Preassembled bundle in one box. Includes: <ul style="list-style-type: none"><li>• CARB approved Low Perm Whip Hose</li><li>• CARB approved Low Perm Primary Hose</li><li>• Sentry Breakaway</li><li>• CARB approved ECO Nozzle</li></ul>
To install: <ul style="list-style-type: none"><li>• Open the box</li><li>• Install the whip hose in the outlet casting</li></ul>
Meets requirements: <ul style="list-style-type: none"><li>• Meets all the New Jersey decommissioning requirements for hanging hardware.</li></ul>
ECO Nozzle: <ul style="list-style-type: none"><li>• Patented interlock that reduces fuel drips and the risk of dispensing gasoline if the nozzle is pulled out of the vehicle fuel neck.</li></ul>

**Visit the VST website for more information**