Executive Order VR-203-AF

Balance Phase II EVR System
Not Including In-Station Diagnostic (ISD)

EXHIBIT 1[1]

Equipment List
Hanging Hardware
(Figure 1-1)

Component	Manufacturer/Model
Nozzle	VST Model VST-EVR-NB, VST-EVR-NB (Rebuilt) VST Model VST-EVR-NB (G2), VST-EVR-NB (G2 Rebuilt) EMCO Models A4005EVR, RA4005EVR (Rebuilt) (Figure 1-2)
Coaxial Curb Hose[2]	VST Model VDV-EVR Series or VDVP-EVR Series ContiTech Model Maxxim Premier Plus - 532-365-641-XXXZZ Where: XXX = Hose Length ZZ = Liquid Removal Pickup Location ("NV" stamped on nozzle end) ContiTech Model Maxxim Premier Ultra 532-366-641-XXXZZ Where: XXX = Hose Length ZZ = Liquid Removal Pickup Location ("NV" stamped on nozzle end) (Figure 1-3)
Coaxial Whip Hose	VST Model VSTA-EVR Series or VSTAP-EVR Series ContiTech Model Maxxim Premier Plus 532-365-641-XXXZZ Where: XXX = Hose Length ZZ = Liquid Removal Pickup Location ContiTech Model Maxxim Premier Ultra 532-366-641-XXX XXXZZ Where: XXX = Hose Length ZZ = Liquid Removal Pickup Location (Figure 1-4)

[1] The local air district may require a permit application when changing between alternate components.
[2] Veyance brand name has changed to ContiTech.

Equipment List
Hanging Hardware
(continued)

Component	Manufacturer/Model
Breakaway Coupling	VST Model VSTA-EVR-SBK, VSTA-EVR-SBK (Reattachable)[1] EMCO Models A4119EVR-X Where: X = 020 or 020S (Factory Serviced) EMCO Models A4119EVR-X (Reconnectable) Where: X = 020RC or 020RCS (Factory Serviced) OPW Model 66CLP Husky Model 3360VR (Reconnectable) Husky Model 5900 (Non-Reconnectable) (Figure 1-5)

TABLE 1-1

Allowable Hanging Hardware Combinations with Corresponding Processor

	Nozzle		Hose			Breakaway		
Processor	VST	EMCO	VST	ContiTech	VST	EMCO	OPW	Husky
VST Membrane	●		●	●	●	●	●	●
Veeder Root Vapor Polisher	●	●	●	●	●	●	●	●
FFS Clean Air Separator	●	●[3]	●	●	●	●	●	●
Hirt VCS 100	●[4]	●	●	●	●	●	●	●
VST Green Machine	●		●	●	●	●	●	●

[3] EMCO Nozzle for use with FFS Clean Air Separator is not allowed with INCON ISD System.
[4] VST Nozzle for use with Hirt VCS-100 is not allowed with INCON ISD System.

Equipment List
Processor

ONLY ONE OF THE FOLLOWING FIVE (5) PROCESSOR GROUPS IS REQUIRED

VST - Membrane (#1)

Component	Manufacturer/Model
VST Membrane Processor	VST Model VST-ECS-CS3-XXX Where XXX represents motor phase and HC Sensor 110 =Single-Phase with HC Sensor 310=Three-Phase with HC Sensor (Figure 1-6)
Veeder-Root TLS-350 Series[5]	Veeder-Root 8482XX-XXX, 8470XX-XXX ProMax 847097-XXX EMC PAO2620X000X Where: X = Any digit (Figure 1-15)
RS232 Interface Module (TLS-350)	Veeder-Root RS232 Interface Module Series (Figure 1-15.1)
Pressure Management Control (PMC) Software Version	1.04
Vapor Pressure Sensor[6] (1 per GDF)	Veeder-Root 331946-001 or 861190-201– Wired, approved for installation in the dispenser or on the vent stack Veeder-Root 861190-201 - Low Powered Wireless, approved for installation on the vent stack **only** (Figure1-17)
Vapor Pressure Sensor Desiccant Tube – Optional (1 per GDF)	Veeder-Root 330020-717 – Dryer Tube (Figure1-17)
Smart Sensor Interface Module (1 per GDF)	Veeder-Root 329356-004 (Figure 1-15.2
Multiport Card	Veeder-Root 330586-018
Universal Enclosure Kit[7]	Veeder-Root 330020-716 (Figure1-19)

[5] Veeder-Root TLS-350 Series including but not limited to TLS-350, TLS-350 Plus, TLS-350R, Red Jacket ProMax, Gilbarco EMC consoles (TLS Console)
[6] Wireless sensors require additional components specified in Veeder-Root Optional Wireless Component Equipment List.
[7] Required for vapor pressure sensors installed on the vent line (wired or wireless).

Equipment List
Processor
(continued)

Veeder-Root - Vapor Polisher (#2)

Component	Manufacturer/Model
Veeder-Root Vapor Polisher	Veeder Root Vapor Polisher 332761-002 - Wired or Wireless[Error! Bookmark not defined.] (Figure 1-7)
Veeder-Root TLS-350 Series[8]	Veeder-Root 8482XX-XXX, 8470XX-XXX ProMax 847097-XXX EMC PAO2620X000X Where: X = Any digit (Figure 1-15)
RS232 Interface Module	Veeder-Root RS232 Interface Module Series (Figure 1-15.1)
Smart Sensor Interface Module (1 per GDF) With Atmospheric Sensor	Veeder-Root 329356-004 (Figure 1-15.2) Veeder-Root 332250-001
Veeder Root TLS-450PLUS	860091-30x (Figure 1-16)
R232 Interface Module (TLS-450PLUS)	Veeder-Root R232 Interface Module Series (Figure 1-16.2)
TLS-XB Expansion Box (TLS-450PLUS)	Veeder-Root 860390-100 (Figure 1-16.1)
Universal Sensor Module/ATM (TLS-450PLUS)	0332812-006 (Figure 1-16.3)
Pressure Management Control (PMC) Software Version	1.04
Vapor Pressure Sensor[9] (1 per GDF)	Veeder-Root 331946-001 or 861190-201– Wired, approved for installation in the dispenser or on the vent stack Veeder-Root 861190-201 - Low Powered Wireless, approved for installation on the vent stack **only** (Figure1-17)
Vapor Pressure Sensor Desiccant Tube – Optional (1 per GDF)	Veeder-Root 330020-717 – Dryer Tube (Figure1-17)
Universal Enclosure Kit[10]	Veeder-Root 330020-716 (Figure1-19)

Equipment List
Processor
(continued)

Franklin Fueling Systems - Healy Clean Air Separator (#4)

Component	Manufacturer/Model
Franklin Fueling Systems Clean Air Separator (CAS)	Healy Model 9961 Clean Air Separator (Figures 1-8) Healy Model 9961H Clean Air Separator (Figures 1-9)

Hirt - Thermal Oxidizer (#3)

Component	Manufacturer/Model
Hirt Thermal Oxidizer With Indicator Panel	Hirt Model VCS 100 (Figures 1-10) Leg Attachments: 5″ – M39 48″- M40
Hirt 1/4" Check Valve (optional component)	Hirt P65

[8] Veeder-Root TLS-350 Series including but not limited to TLS-350, TLS-350 Plus, TLS-350R, Red Jacket ProMax, Gilbarco EMC consoles (TLS Console)

[9] Wireless sensors require additional components specified in Veeder-Root Optional Wireless Component Equipment List.

[10] Required for the vapor valve wireless battery/transmitter and vapor pressure sensors installed on the vent line (wired or wireless).

Equipment List
Processor
(continued)

VST – Green Machine (#5)

Component	Manufacturer/Model
Green Machine Processor, including controller	VST Model VST-GM-CS1-100 (Figure 1-12)
Veeder-Root TLS-350 Series[11]	Veeder-Root 8482XX-XXX, 8470XX-XXX ProMax 847097-XXX EMC PAO2620X000X Where: X = Any digit (Figure 1-15)
RS232 Interface Module	Veeder-Root RS232 Interface Module Series (Figure 1-15.1)
Pressure Management Control (PMC) Software Version	1.04
Vapor Pressure Sensor[12] (1 per GDF)	Veeder-Root 331946-001 or 861190-201– Wired, approved for installation in the dispenser or on the vent stack Veeder-Root 861190-201 - Low Powered Wireless, approved for installation on the vent stack **only** (Figure1-17)
Vapor Pressure Sensor Desiccant Tube – Optional (1 per GDF)	Veeder-Root 330020-717 – Dryer Tube (Figure1-17)
Smart Sensor Interface Module (1 per GDF)	Veeder-Root 329356-004 (Figure 1-15.2)
Multiport Card	Veeder-Root 330586-018
Universal Enclosure Kit[13]	Veeder-Root 330020-716 (Figure1-19)

[11] Veeder-Root TLS-350 Series including but not limited to TLS-350, TLS-350 Plus, TLS-350R, Red Jacket ProMax, Gilbarco EMC consoles (TLS Console)
[12] Wireless sensors require additional components specified in Veeder-Root Optional Wireless Component Equipment List.
[13] Required for vapor pressure sensors installed on the vent line (wired or wireless).

Equipment List
Liquid Condensate Trap (LCT)

Component	Manufacturer/Model
Riser Adapter	INCON model TSP K2A (Figure 1-13)
In Line Filter	140 micron, Swagelok B 4F2 140 or SS 4F2 140, or equivalent (Figure 1-12 and Figure 1-13)
Screen	Aluminum Insect screen (18X14 mesh), or Stainless Steel Insect screen (18X18 mesh). (Figure 1-12 and Figure 1-13)
Stainless Steel Hose Clamp	Sized to secure screen to suction tube. (Figure 1-12 and Figure 1-13)
Liquid Sensor[14]	Must have an audible and visual alarm (Figure 1-12 and Figure 1-13)
Liquid Condensate Trap[14]	Any capacity, manufacturer, make and model (Figure 1-12 and Figure 1-13)

[14] Must meet applicable State Water Resources Control Board (SWRCB) requirements (e.g. LG 113, LG 167 and LG 169) and any local authority having jurisdiction which includes the Certified Unified Program Agency (CUPA).

Equipment List
Veeder-Root TLS Consoles[15]

TLS-350 Series Console

Component	Manufacturer/Model
Veeder-Root TLS-350 Series[16]	Veeder-Root 8482XX-XXX, 8470XX-XXX ProMax 847097-XXX EMC PAO2620X000X Where: X = Any digit (Figure 1-15)
RS232 Interface Module	Veeder-Root RS232 Interface Module Series (Figure 1-15.1)
Smart Sensor Interface Module (1 per GDF)	Veeder-Root 329356-004; 332250-001 (Figure 1-15.2)

TLS-450PLUS Console

Component	Manufacturer/Model
Veeder-Root TLS-450PLUS	Veeder-Root 860091-30x (Figure 1-16)
TLS-XB Expansion Box	Veeder-Root 860390-100, (Figure 1-16.1)
RS232 Interface Module	Veeder-Root RS232 Interface Module Series (Figure 1-16.2)
Universal Sensor Module (USM)	0332812-001 (Figure 1-16.3)
Tri-Comm Module	Part Number 333807-002 (Figure 1-16.4)

[15] Veeder Root ISD System has approved two console systems: TLS-350 Series and TLS-450PLUS

[16] Veeder-Root TLS-350 Series including but not limited to TLS-350, TLS-350 Plus, TLS-350R, Red Jacket ProMax, Gilbarco EMC consoles (TLS Console)

Equipment List
Veeder-Root Wireless Component
(optional)

Component	Manufacturer/Model
TLS-RF Wireless 2 Console (1 per GDF)	Veeder-Root 0330020-668 (Figure 1-23)
RF Wireless 2 Transmitter[17] (1 per Veeder-Root Sensor)	Veeder-Root 0330020-674 (Figure 1-23)
RF Wireless 2 Battery Pack (1 per Transmitter)	Veeder-Root 0330020-718 (Figure 1-23)
RF Wireless 2 Repeater (1 per GDF)	Veeder-Root 0330020-670 (Figure 1-23)
RF Wireless 2 Receiver (1 per GDF)	Veeder-Root 0330020-669 (Figure 1-23)

Equipment List
Veeder-Root TLS-350 Series Maintenance Tracker Security
(optional)

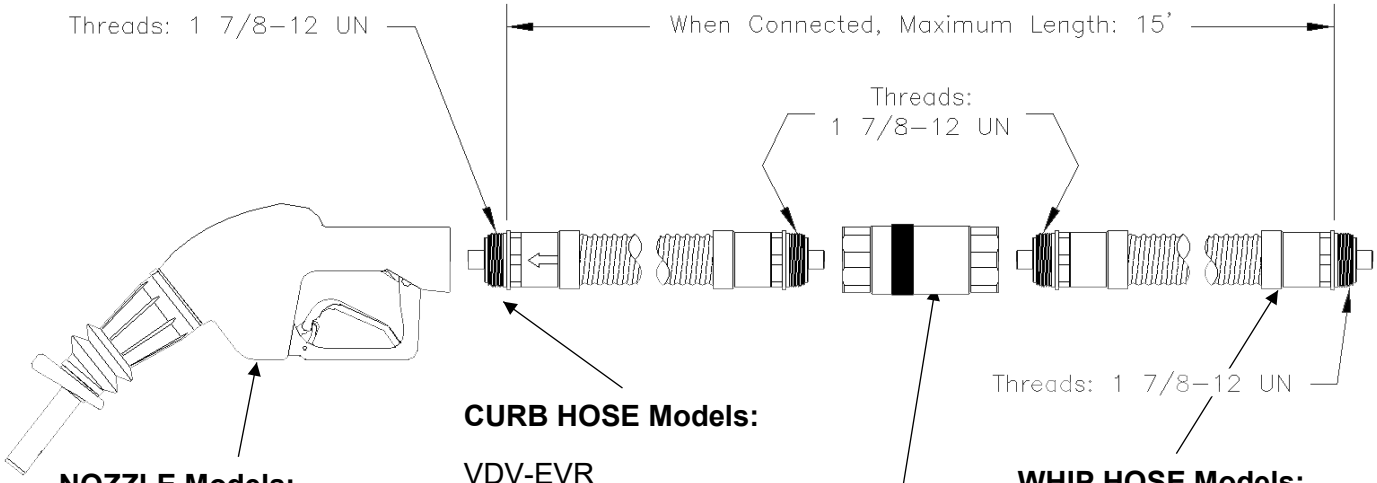
Component	Manufacturer/Model
Maintenance Tracker Kit (Optional)	Veeder-Root 330020-546 Consists of the following: • Maintenance Tracker Technician Key • Interface Module RS232/485 Dual Module with DB9 Converter or Single Port Module with DB-25 converter • Manual (Figure1-14)

[17] The RF Wireless 2 Transmitter-and RF Wireless 2 Battery Pack for the wireless vapor valve and wireless pressure sensor must be installed in the Universal Enclosure Kit. (See Figures 1-20 and 1-21)

FIGURE 1-1

Hanging Hardware

(Nozzle, Coaxial Curb Hose, Breakaway, and Coaxial Whip Hose)



NOZZLE Models:

VST-EVR-NB
VST-EVR-NB (Rebuilt)
VST-EVR-NB (G2)
VST-EVR-NB (G2 Rebuilt)
EMCO A4005EVR[18]
RA4005EVR[18]

CURB HOSE Models:

VDV-EVR
VDVP-EVR
Maxxim Premier Plus
Maxim Premier Ultra

WHIP HOSE Models:

VSTA-EVR
VSTAP-EVR
Maxxim Premier Plus
Maxim Premier Ultra

BREAKAWAY Models:

VSTA-EVR-SBK
VSTA-EVR-SBK (Reattachable)
EMCO A4119EVR
A4119EVR (Reconnectable)
OPW 66CLP
HUSKY 3360VR (Reconnectable)
5900 (Non-Reconnectable)

[18] Alternate component for use with the Veeder-Root Vapor Polisher or Hirt Thermal Oxidizer processors or Clean Air Separator

FIGURE 1-2

Nozzle

Vapor Systems Technologies, Inc (VST)



VST Model VST-EVR-NB
VST Model VST-EVR-NB (Rebuilt)



VST Model VST-EVR-NB (G2)
VST Model VST-EVR-NB (G2, Rebuilt)

EMCO Wheaton Retail Corp.



EMCO Model A4005EVR Balance Nozzle

FIGURE 1-2
Nozzle
(continued)

Vapor Systems Technologies, Inc (VST)

VST Model VST-EVR-NB
VST Model VST-EVR-NB (Rebuilt)

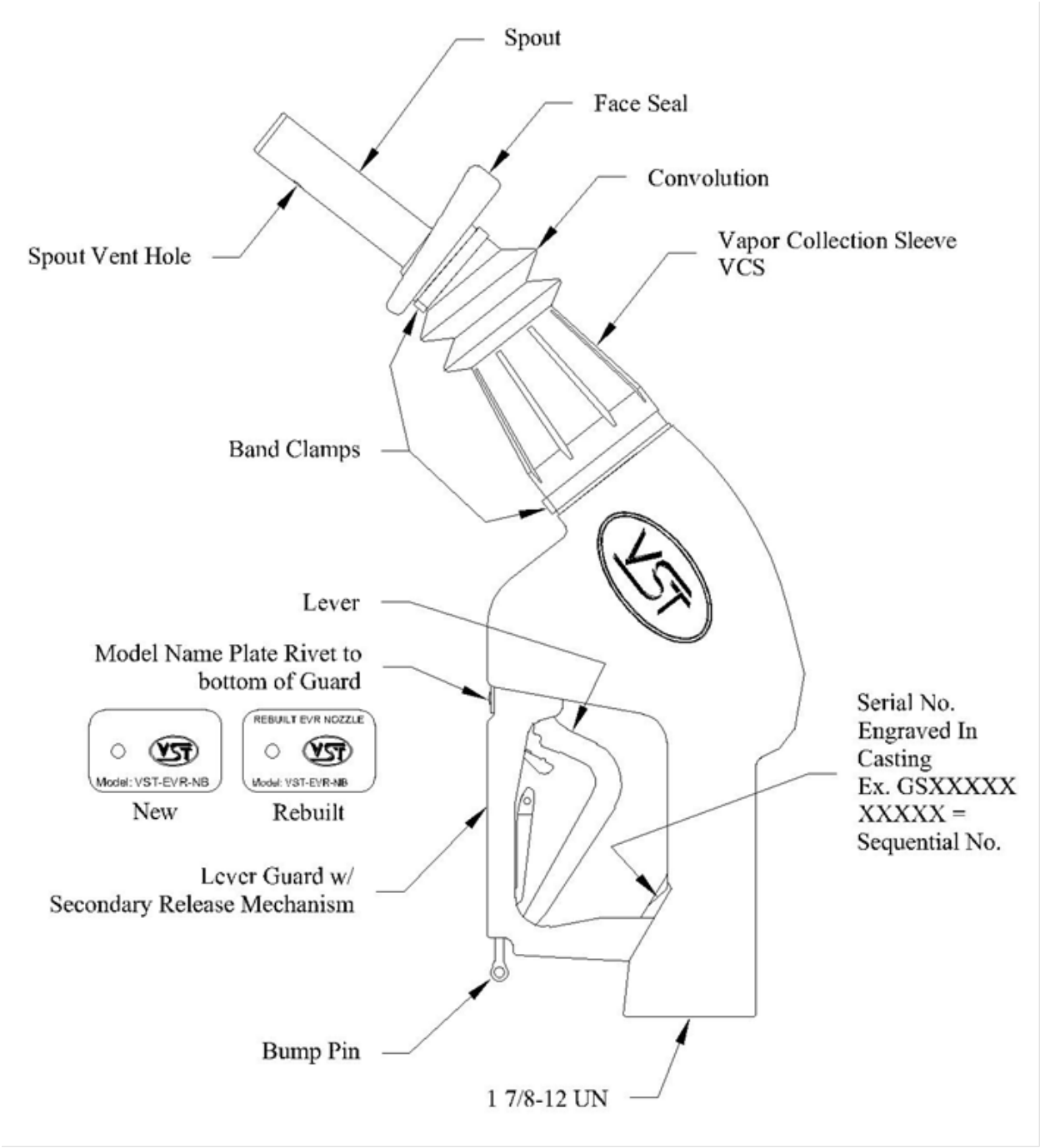


FIGURE 1-2

Nozzle
(continued)

Vapor Systems Technologies, Inc (VST)

VST Model VST-EVR-NB (G2)
VST Model VST-EVR-NB (G2 Rebuilt)

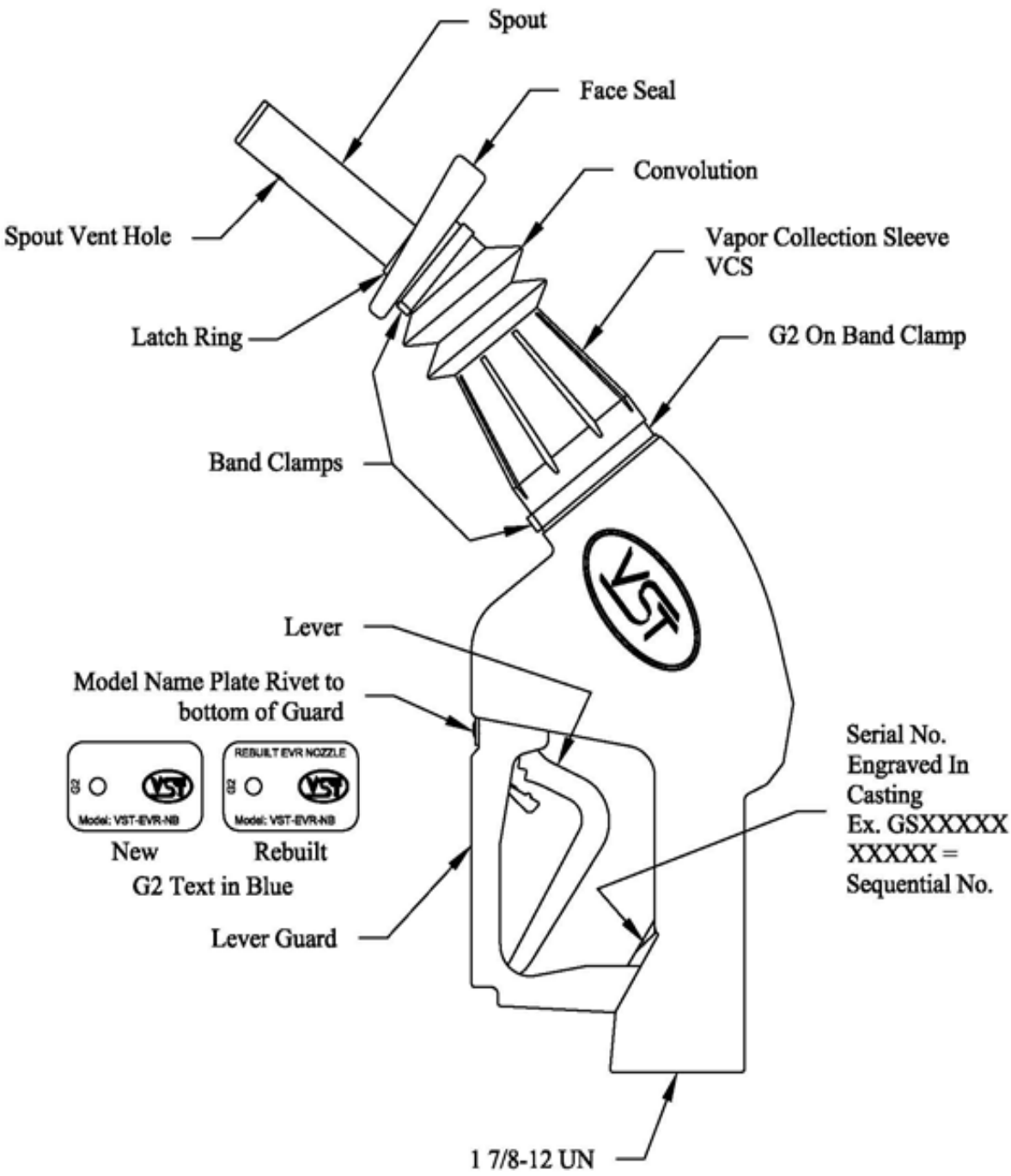


FIGURE 1-2

Nozzle
(continued)

EMCO Wheaton Retail Corp.

EMCO Model A4005EVR Balance Nozzle

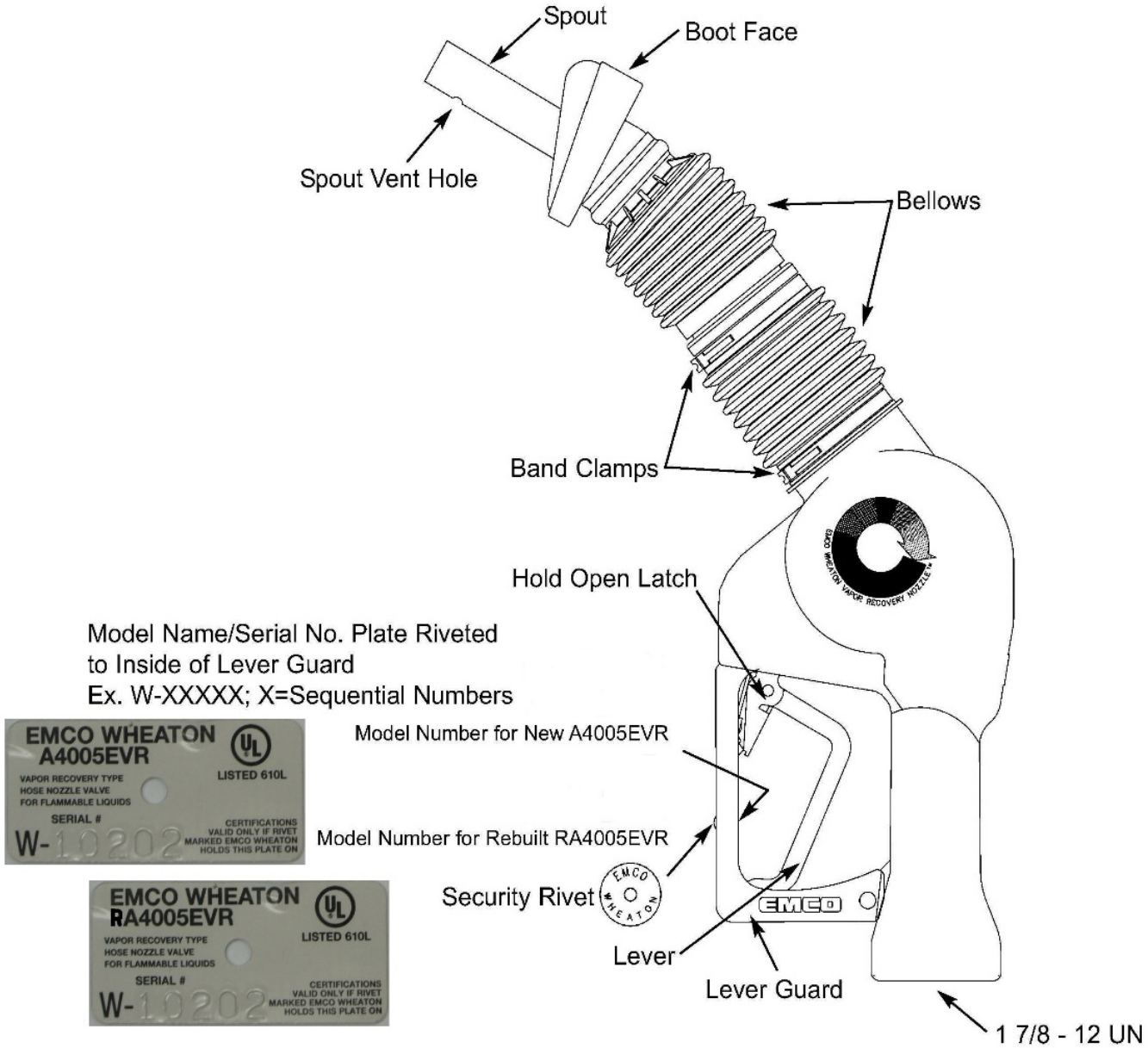


FIGURE 1-3

Curb Hose

Vapor Systems Technologies, Inc (VST)



VST Model VDV-EVR Series



Alternate Curb Hose Ferrule Sleeve Identification



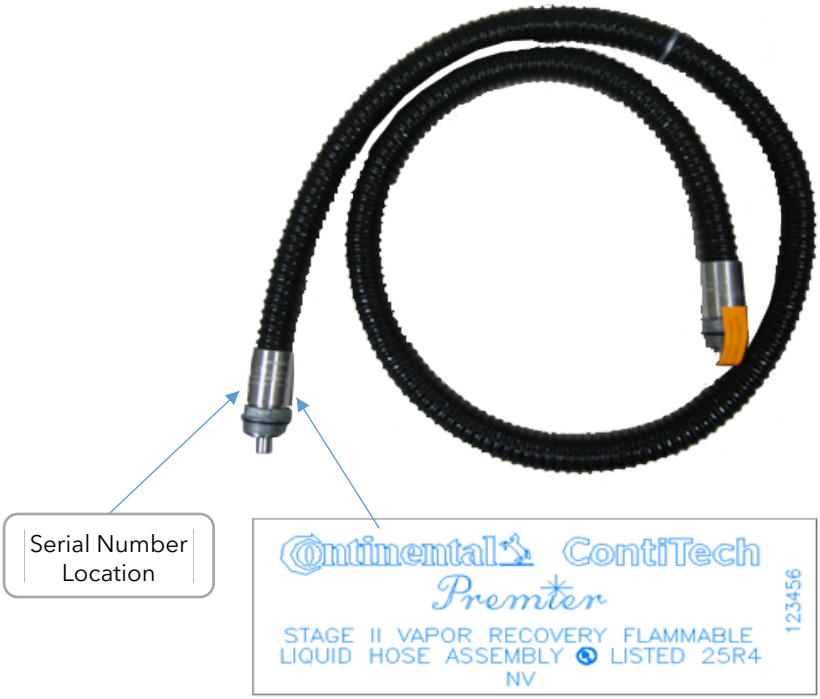
VST Model VDVP-EVR Series



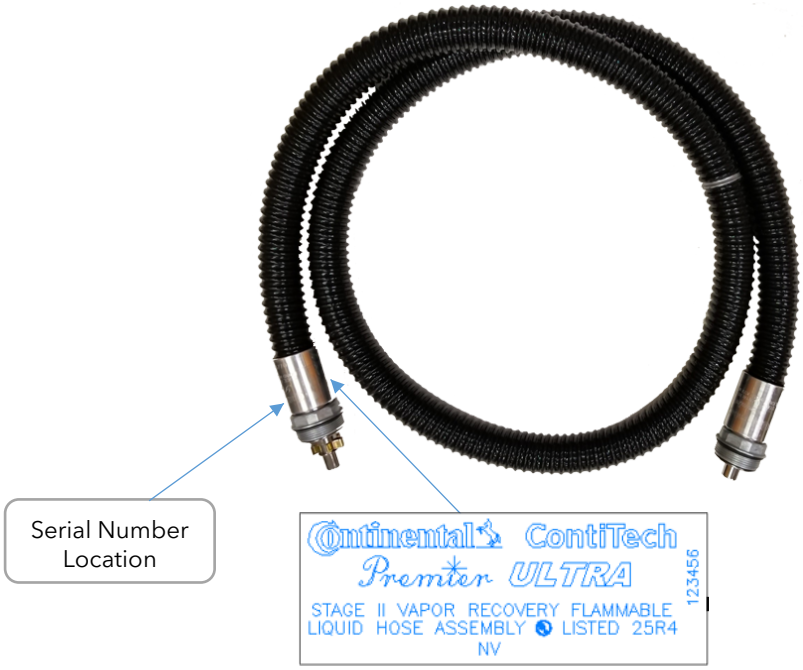
Alternate Curb Hose Ferrule Sleeve Identification

FIGURE 1-3
Curb Hose
(continued)

ContiTech USA, Inc.



Maxxim Premier



Maxxim Premier Ultra

FIGURE 1-4

Whip Hose

Vapor Systems Technologies, Inc (VST)



VST Model VSTA-EVR Series

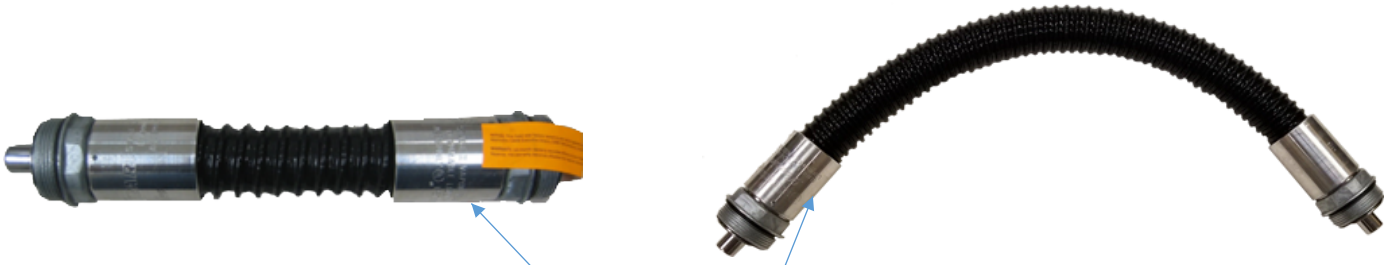
Alternate Curb Hose Ferrule Sleeve Identification



VST Model VSTAP-EVR Series

Serial Number Location

ContiTech USA, Inc.



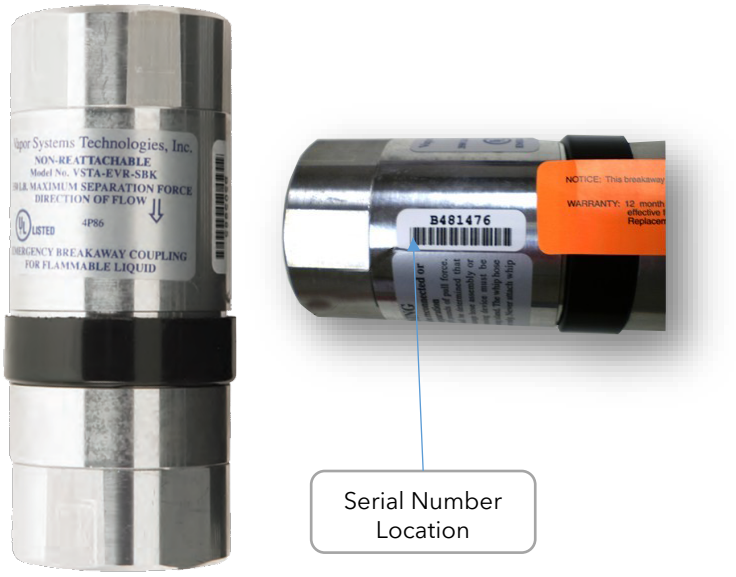
Maxxim Premier

Maxxim Premier Ultra

FIGURE 1-5

Breakaway

Vapor Systems Technologies, Inc (VST)



Non-Attachable Breakaway Coupling

VST Model VSTA-EVR-SBK
ddddddddddddddddddddddddddd



Re-Attachable Breakaway Coupling

VST Model VSTA-EVR-SBK

FIGURE 1-5

Breakaway
(continued)

EMCO Wheaton Retail Corp.



Safe Break Valve

EMCO Model A4119EVR

Safe Break Valve

EMCO Model A4119EVR (Reconnectable)

OPW

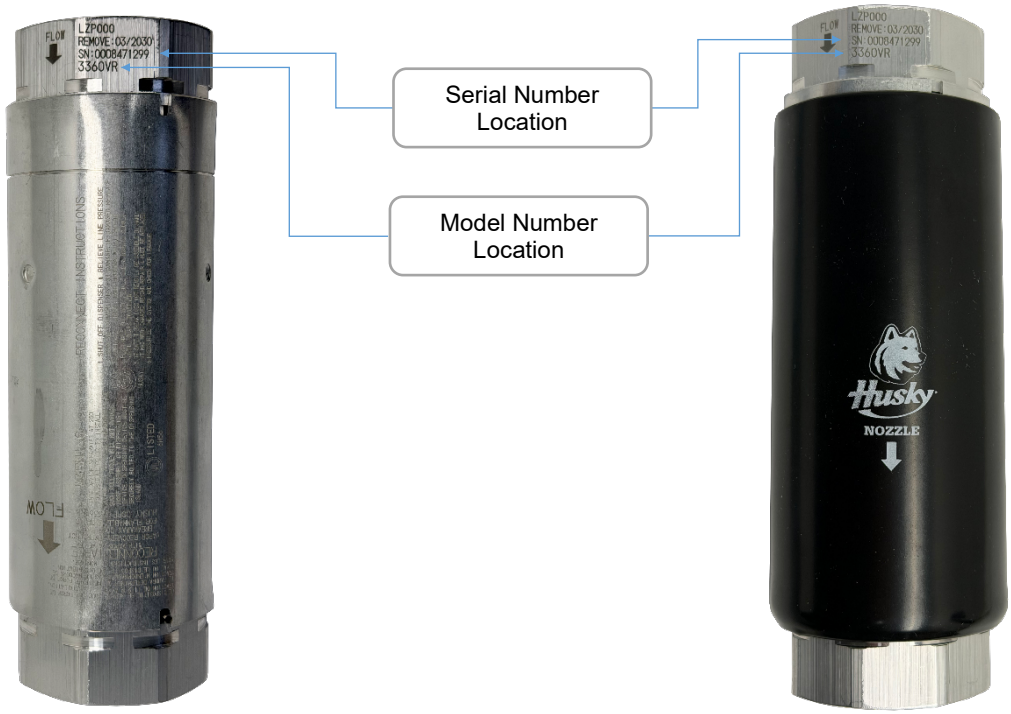


OPW Model 66CLP

FIGURE 1-5

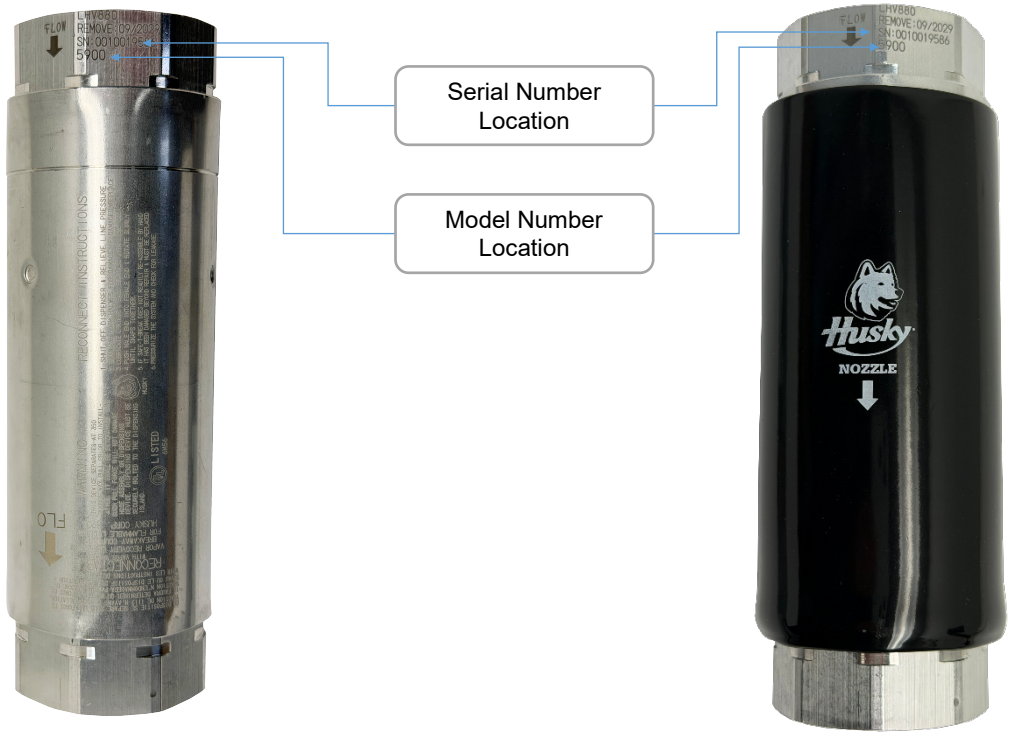
Breakaway
(continued)

Husky Corporation



Husky 3360VR with no Guard
(Reconnectable)

Husky 3360VR with Guard
(Reconnectable)

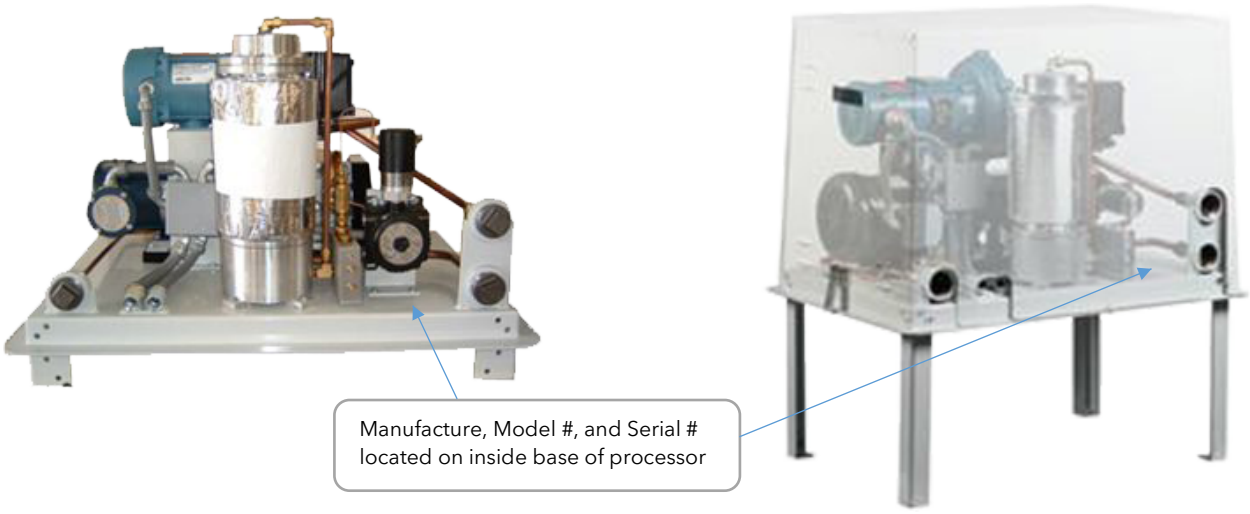


Husky 5900 with no Guard
(Non-Reconnectable)

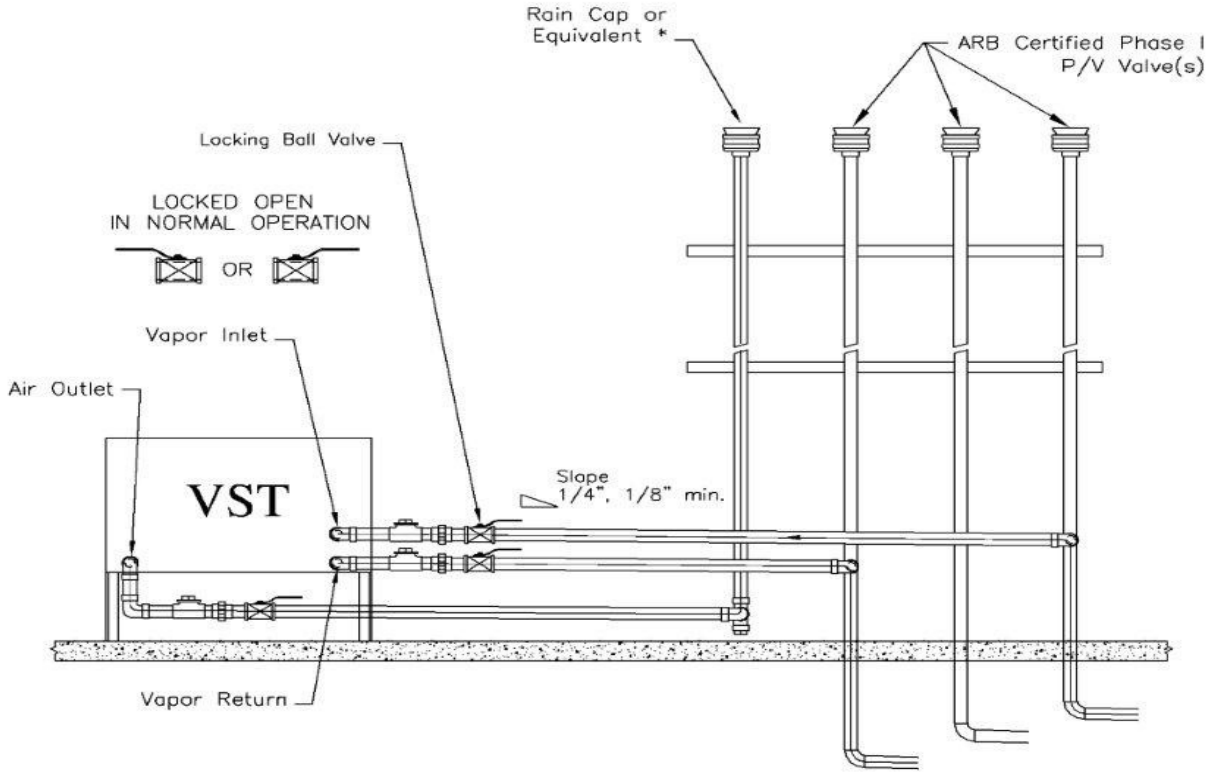
Husky 5900 with Guard
(Non-Reconnectable)

FIGURE 1-6

VST-ECS-CS3 Membrane Processor



Typical Ground Mounted Configuration



CAUTION: THE HANDLES ON THE LOCKING BALL VALVES MUST NOT BE REMOVED

* If a P/V valve is used, the internal components MUST be removed to allow open venting to the atmosphere.

FIGURE 1-7

Veeder-Root Vapor Polisher



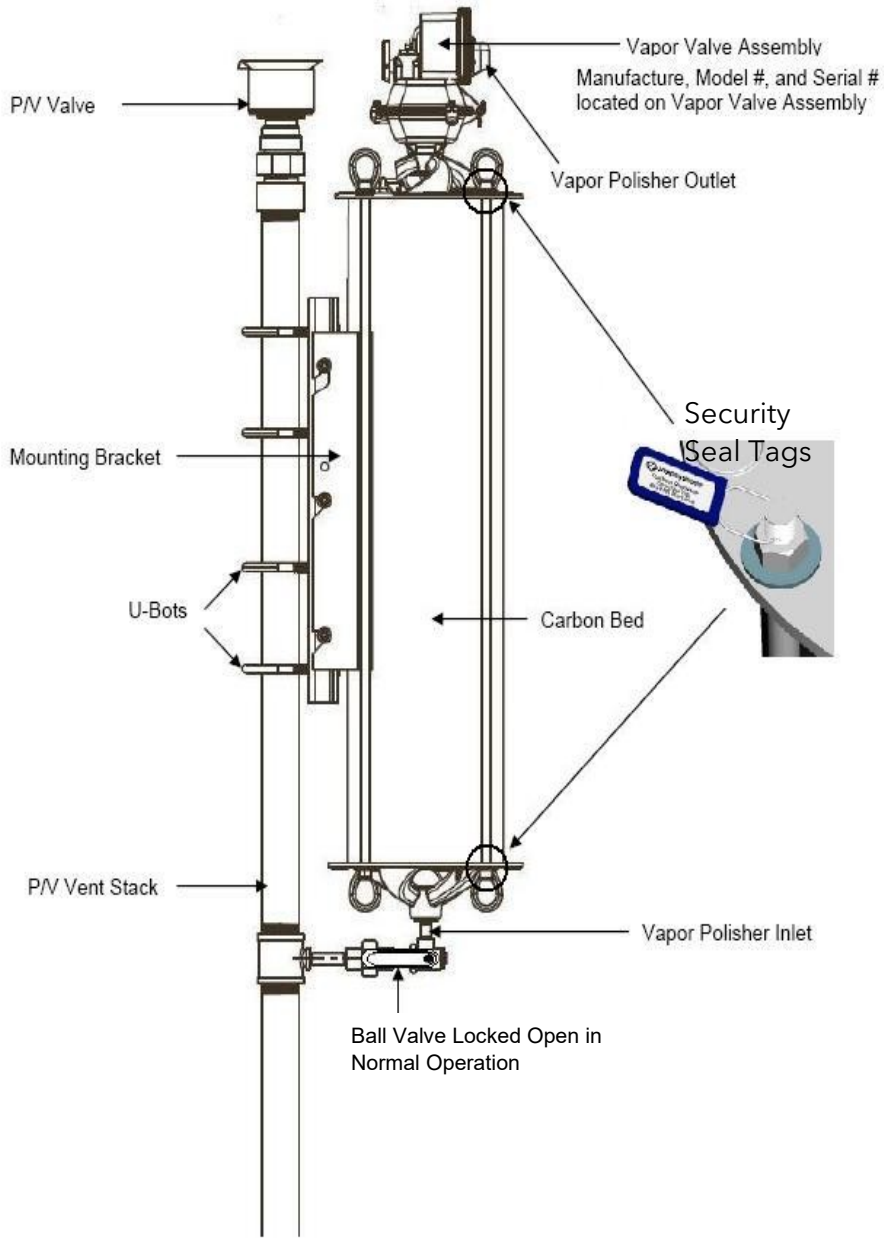


FIGURE 1-8

Healy Model 9961 Clean Air Separator

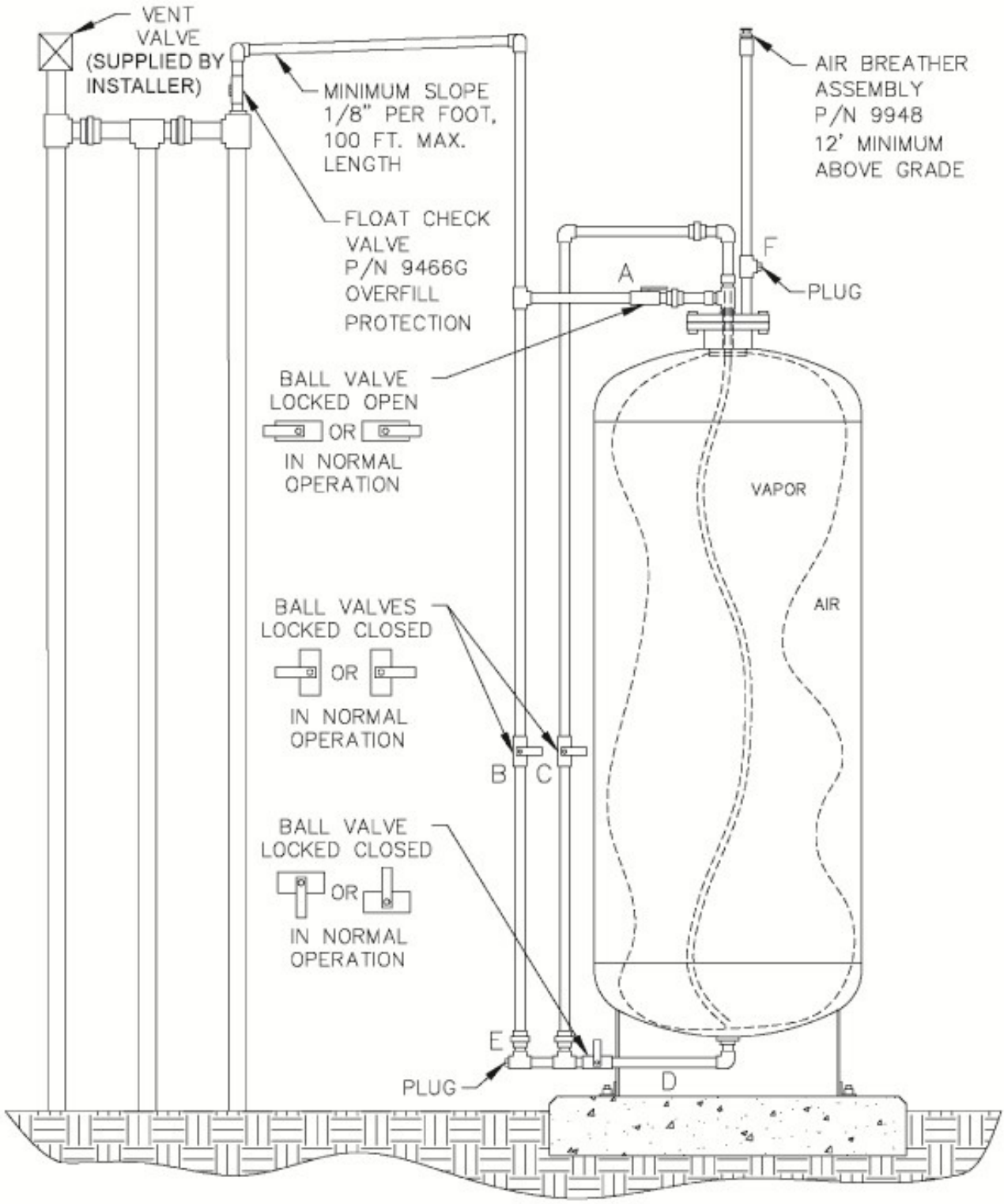


FIGURE 1-8

Healy Model 9961 Clean Air Separator

(continued)





Clean Air Separator Name Plate



Clean Air Separator Data Plate

(not pictured on far side of base)

FIGURE 1-9

Healy Model 9961H Clean Air Separator

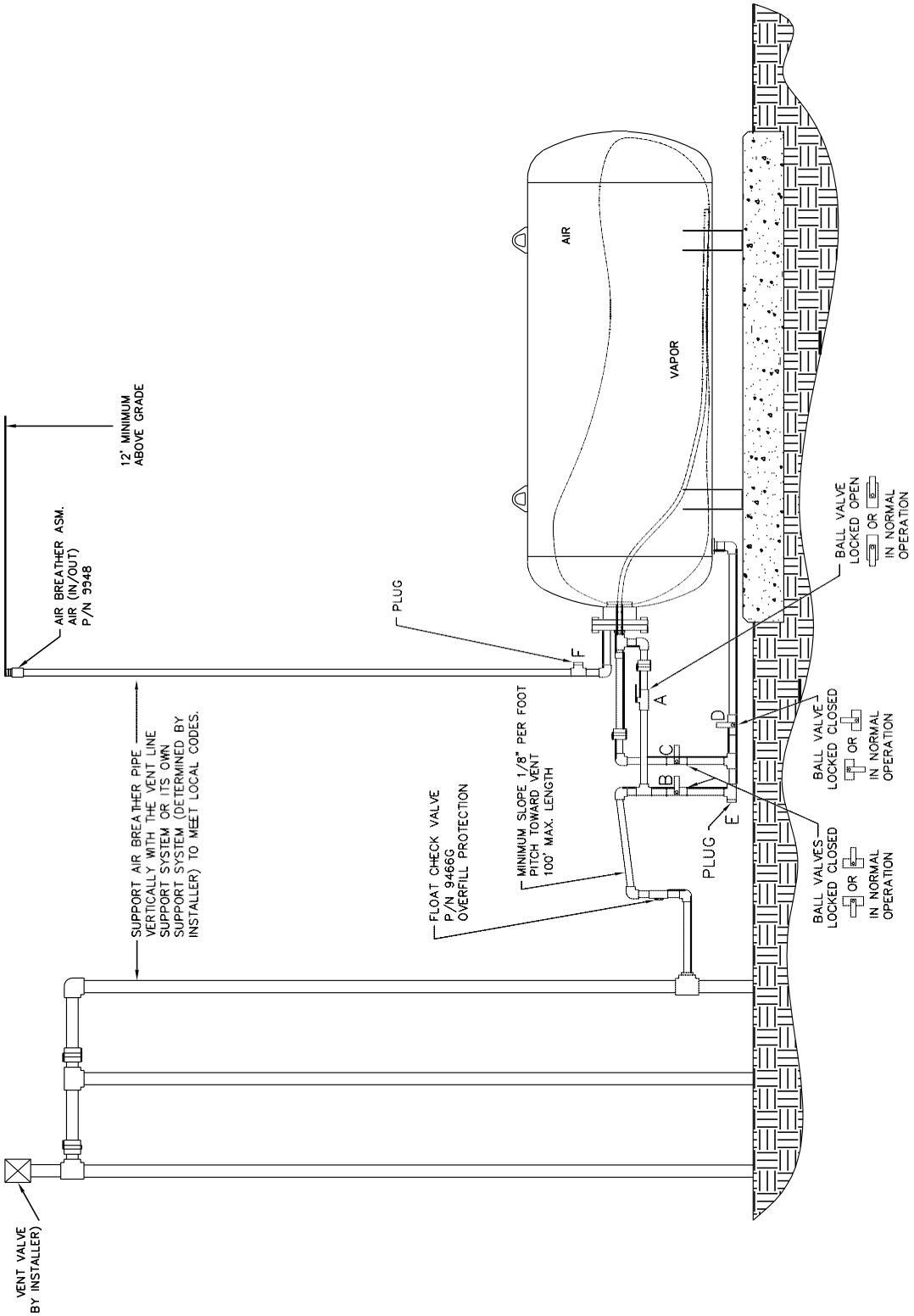


FIGURE 1-9

Healy Model 9961H Clean Air Separator
(continued)





Clean Air Separator Name Plate



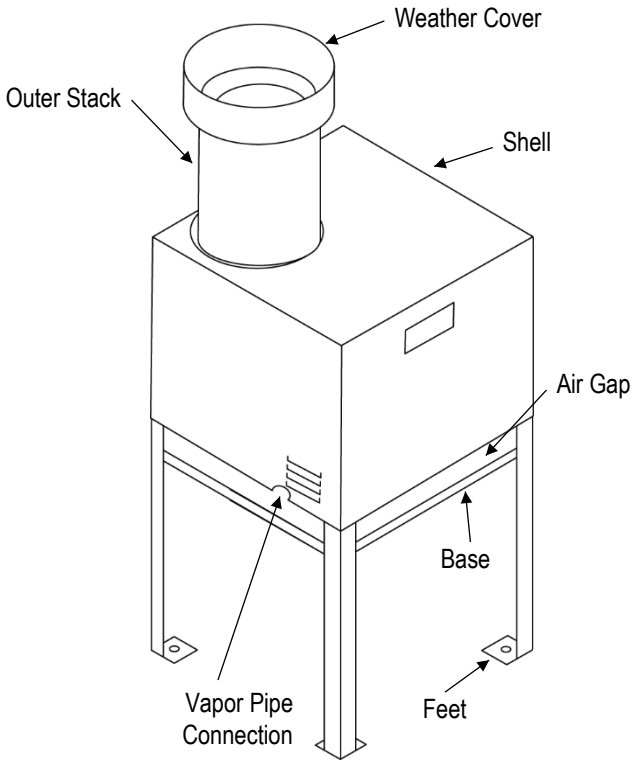
Clean Air Separator Data Plate
(not pictured on far side of base)

FIGURE 1-10

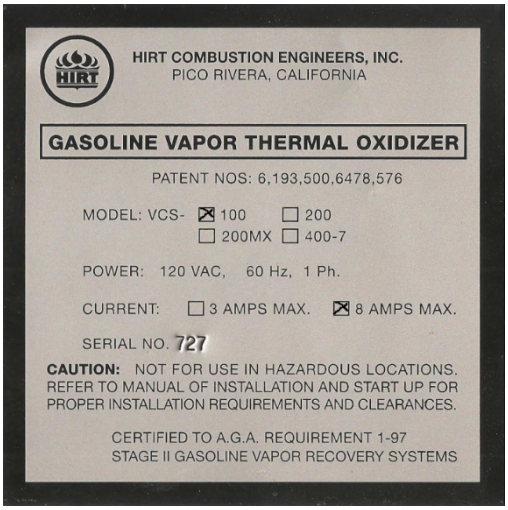
Hirt VCS 100 Thermal Oxidizer and Indicator Panel

Hirt VCS 100 Processor





Hirt VCS 100 Identification Plate



Indicator Panel Face

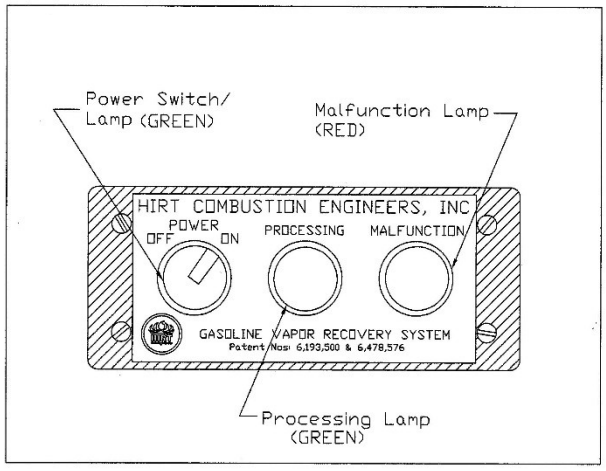
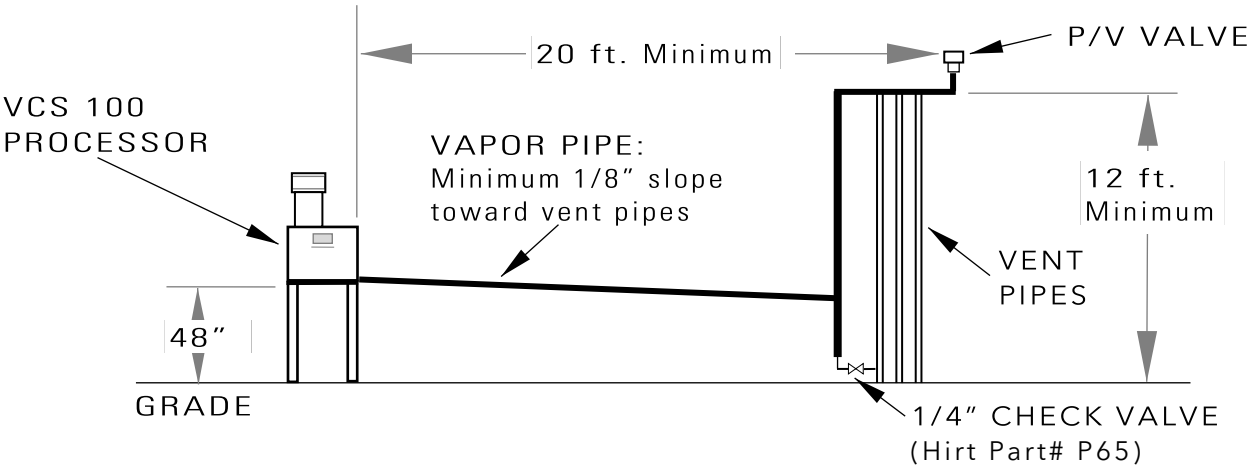
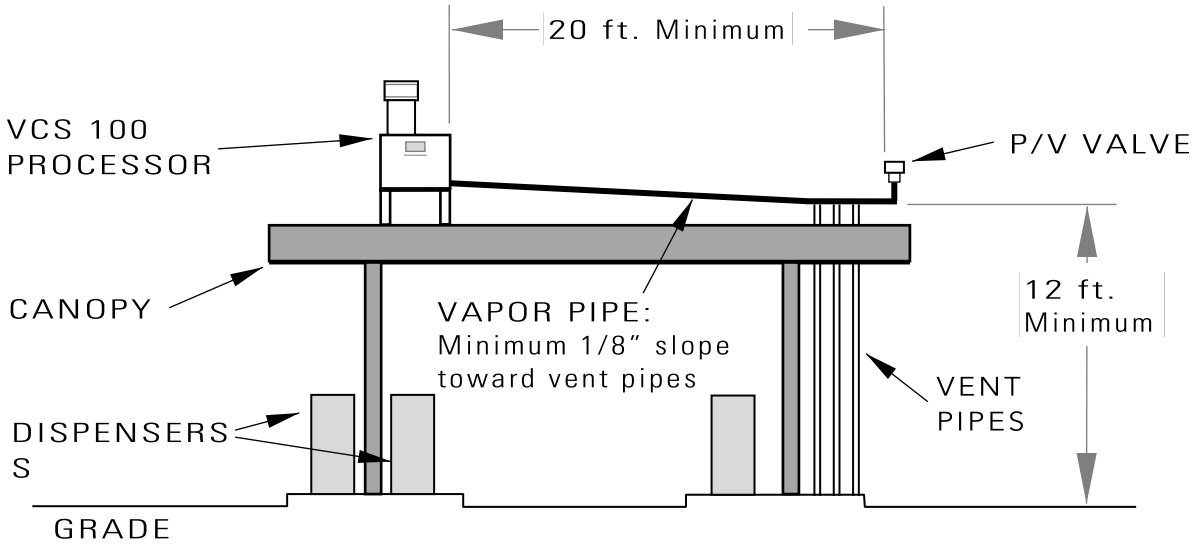


FIGURE 1-11

Typical Hirt VCS 100 Thermal Oxidizer Installation



Ground Mount



Canopy Mount

FIGURE 1-12

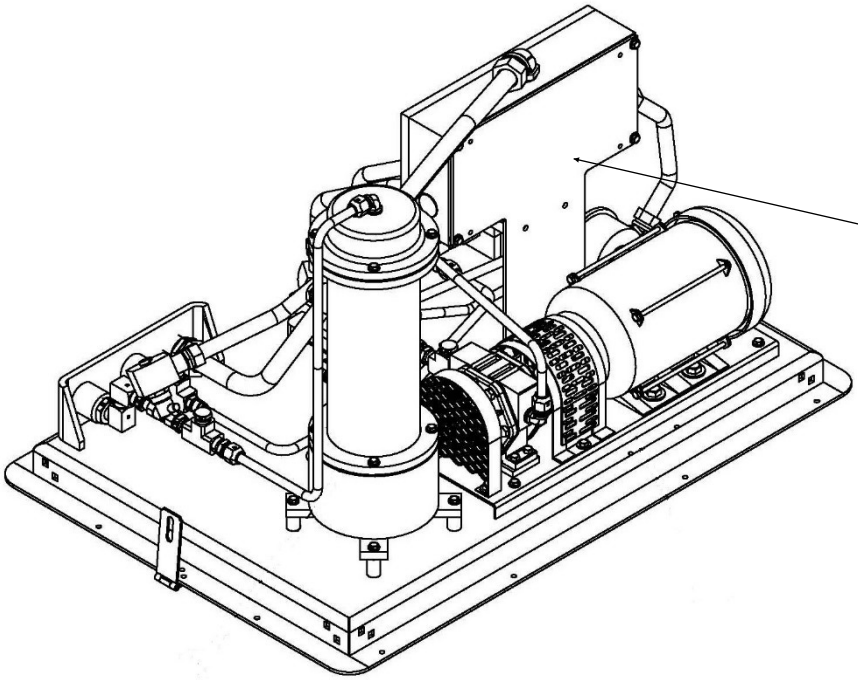
VST Green Machine Processor

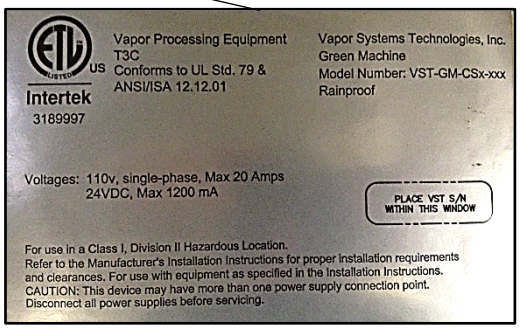
Ground Mounted Configuration



Vent Mounted Configuration







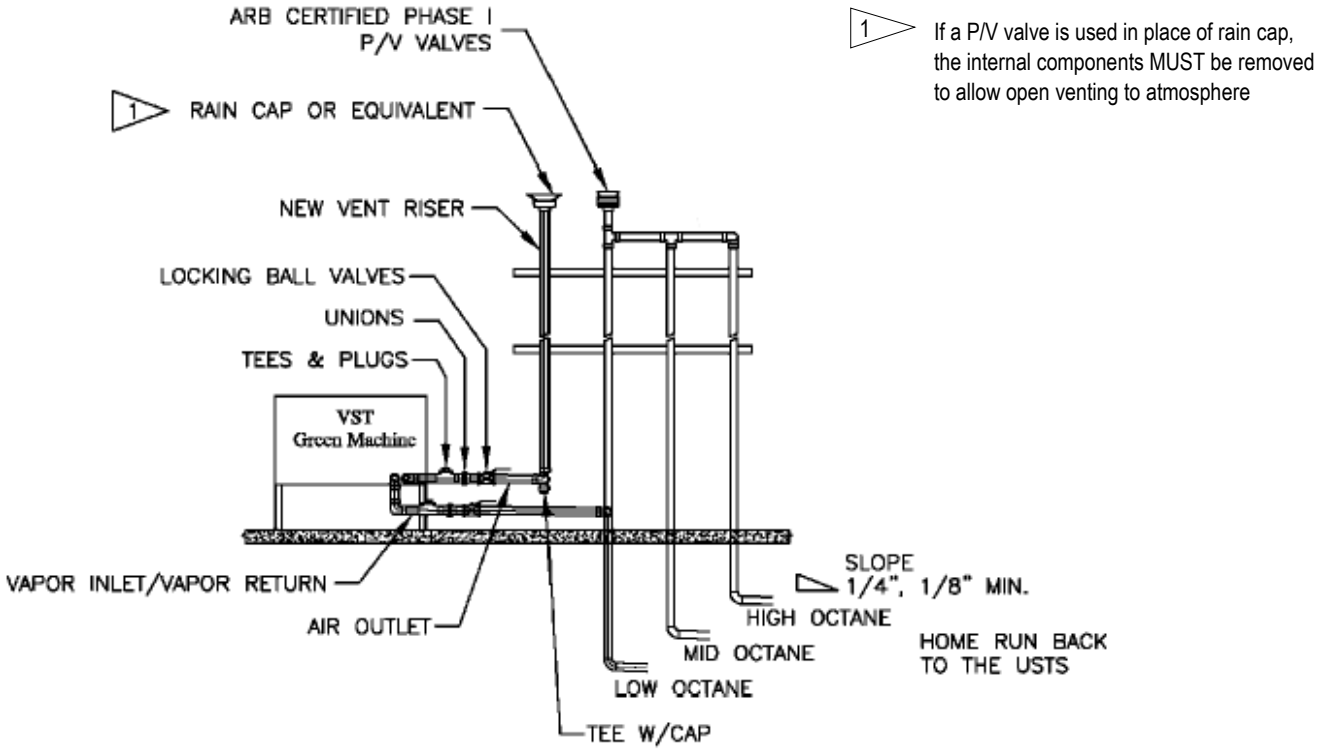
Label with serial number is located inside the Green Machine housing on the electrical junction box.

FIGURE 1-12

VST Green Machine Processor

(continued)

Typical Installation Ground Mounted Configuration



Typical Installation Vent Mounted Configuration

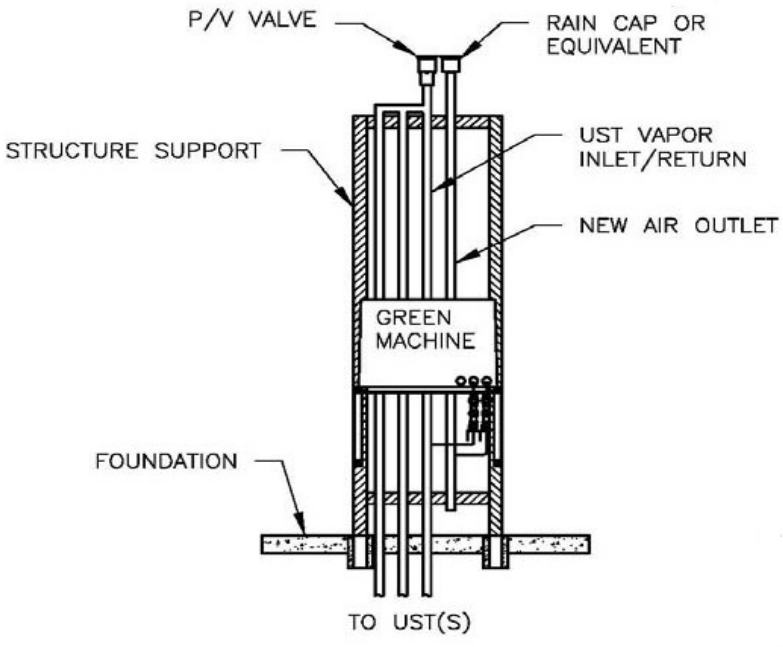


FIGURE 1-12

VST Green Machine Processor

(continued)

VST Green Machine Control Panel



VST Green Machine Port Combiner



FIGURE 1-13

Typical Liquid Condensate Trap Installation Below the Transition Sump

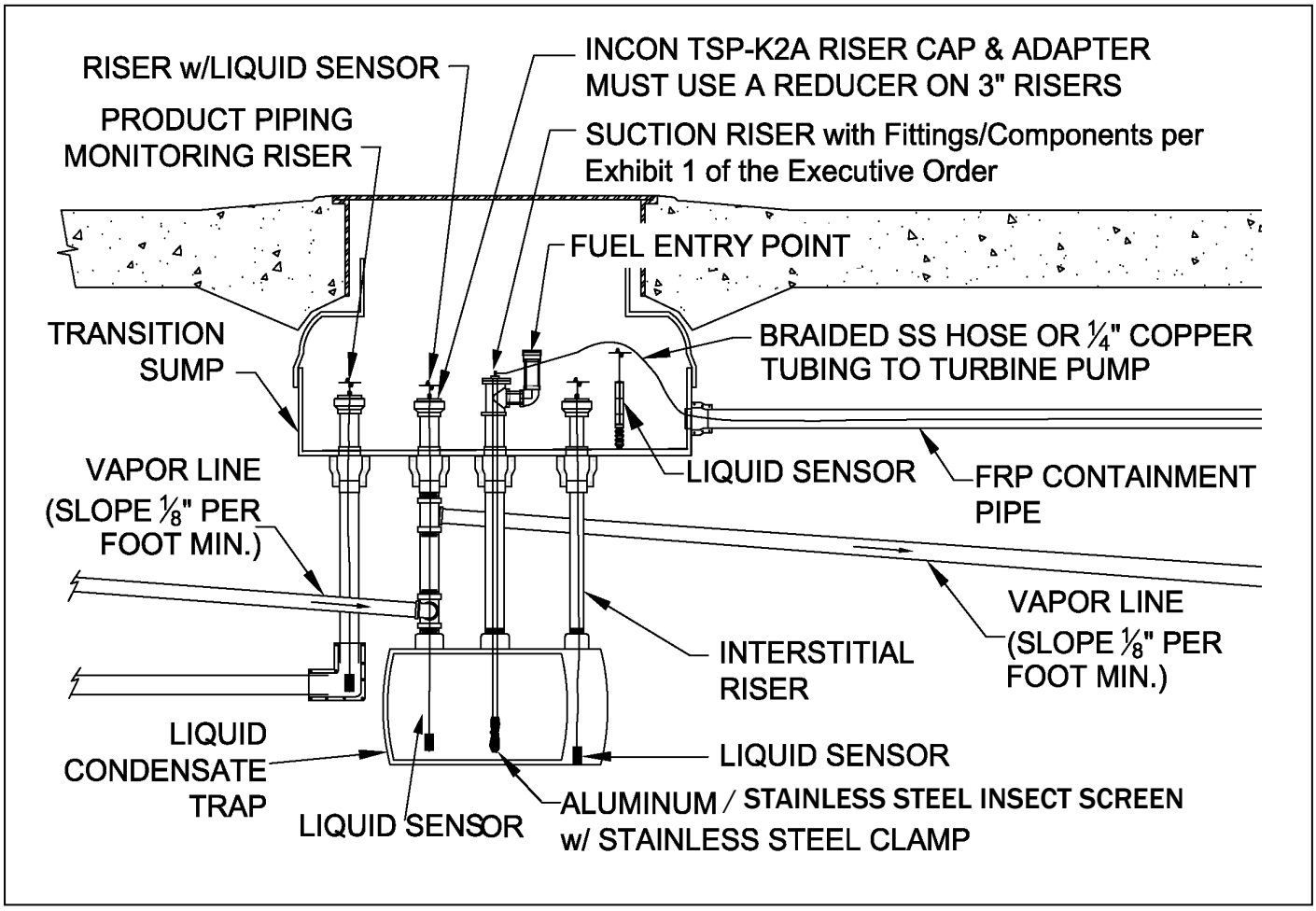


FIGURE 1-13
(continued)

Typical Liquid Condensate Trap Installation
Inside the Transition Sump

Note: A Liquid Condensate Trap installed inside a liquid AND vapor tight transition sump that is monitored with a liquid sensor can be single walled (if installed before July 1, 2004).

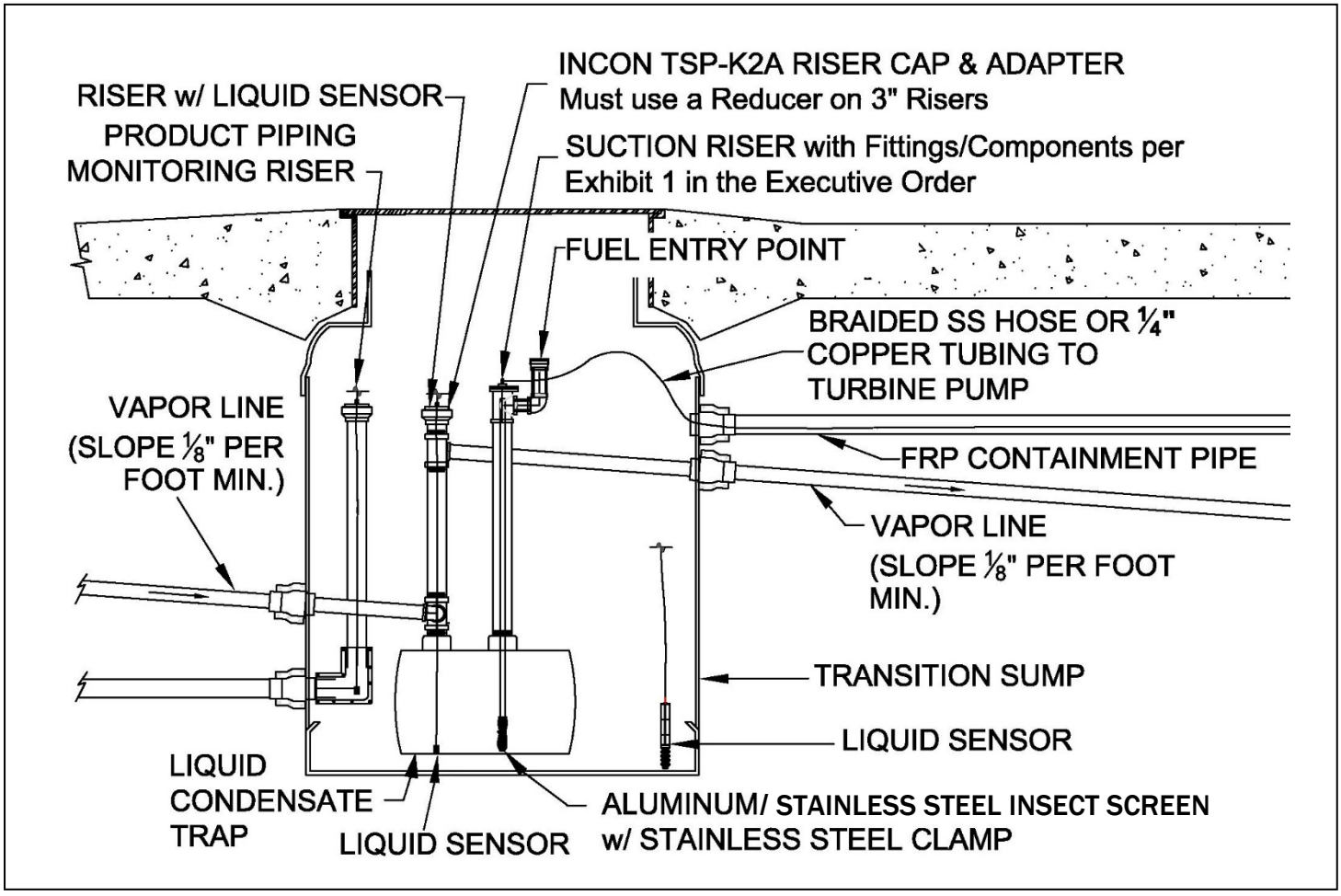


FIGURE 1-14

Veeder Root TLS-350 Maintenance Tracker Kit (optional)

Veeder Root TLS-350 Series Maintenance Tracker Technician Key



Veeder Root TLS-350 Maintenance Tracker Interface Module RS232/485 Dual Module with DB9 Converter or Single Port Module with DB-25 converter

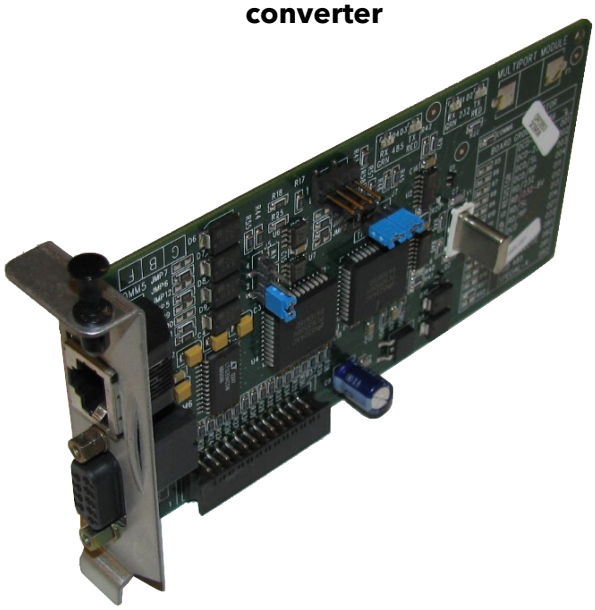


FIGURE 1-15

Veeder-Root TLS-350 Console



350 Plus ROM Board
(Part# 330899-001)

Original ROM Board



Certified Alternative ROM Board

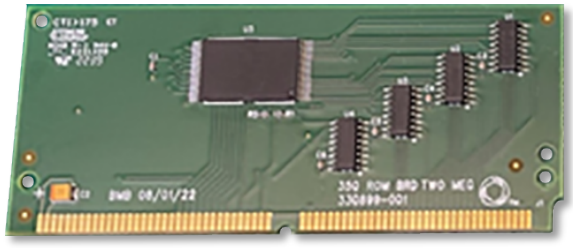


FIGURE 1-15.1

Veeder-Root TLS-350 RS232 Interface Module Series

(for TLS-350)

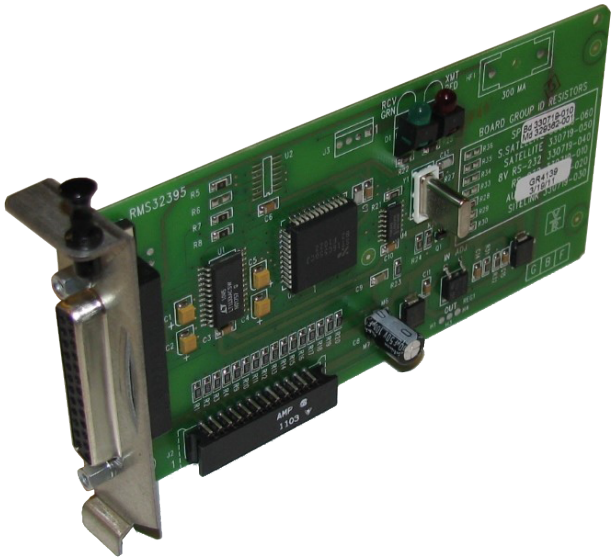


FIGURE 1-15.2

Veeder-Root 329356-004, 332250-001

Smart Sensor Interface Module

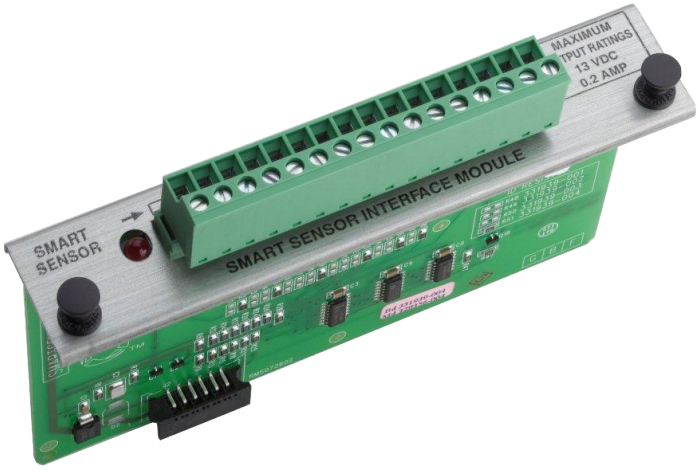


Figure 1-16

Veeder-Root TLS-450PLUS Console



Figure 1-16.1

TLS-XB Expansion Box



Figure 1-16.2

Veeder-Root TLS-450PLUS RS232 Interface Module

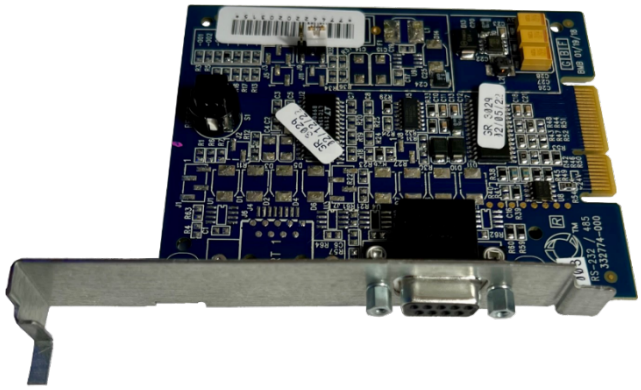


Figure 1-16.3

Veeder-Root Universal Sensor Module/ATM



Figure 1-16.4

Tri-Comm Module

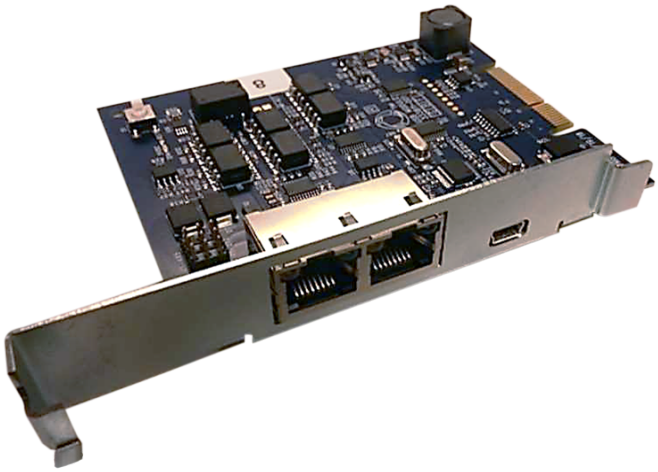
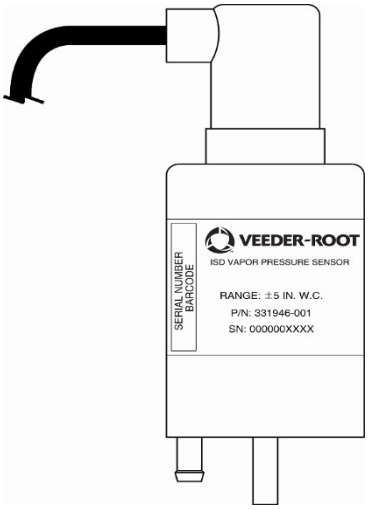


FIGURE 1-17

Veeder-Root Vapor Pressure Sensors





Model # 331946-001
Vapor Pressure Sensor



Model # 861190-201
Low Powered Vapor Pressure Sensor



Model # 330020-717
Dryer Tube

FIGURE 1-18

Veeder-Root Wireless Components (Optional)



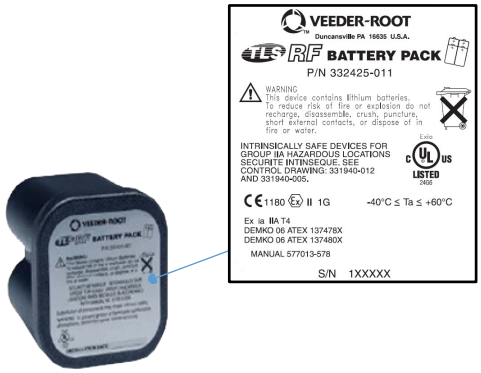
RF Wireless 2 Receiver



RF Wireless 2 Repeater



RF Wireless 2 Transmitter



RF Wireless 2 Battery Pack



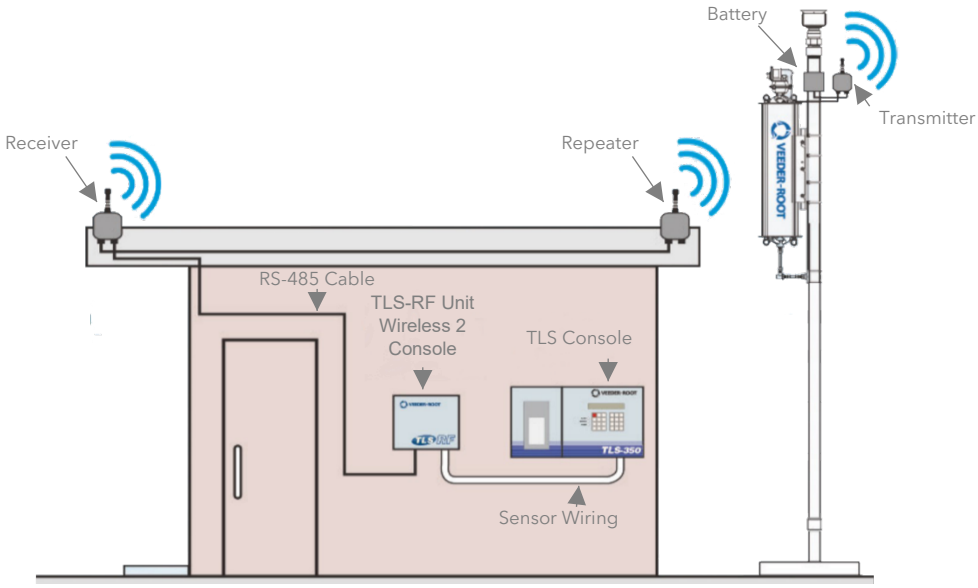
Wireless TLS-RF Wireless 2 Console



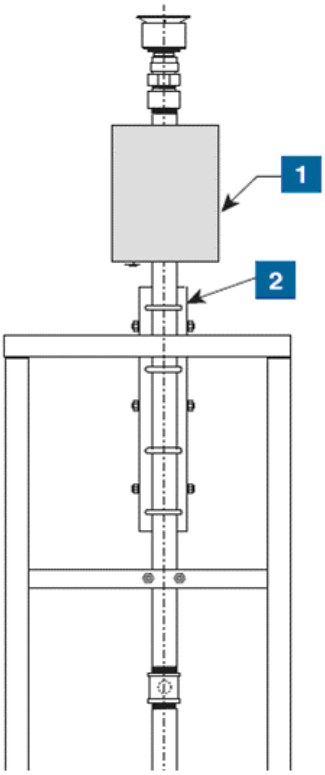
Wireless Enclosure

FIGURE 1-19

Typical Wireless Configuration for Veeder-Root Vapor Polisher

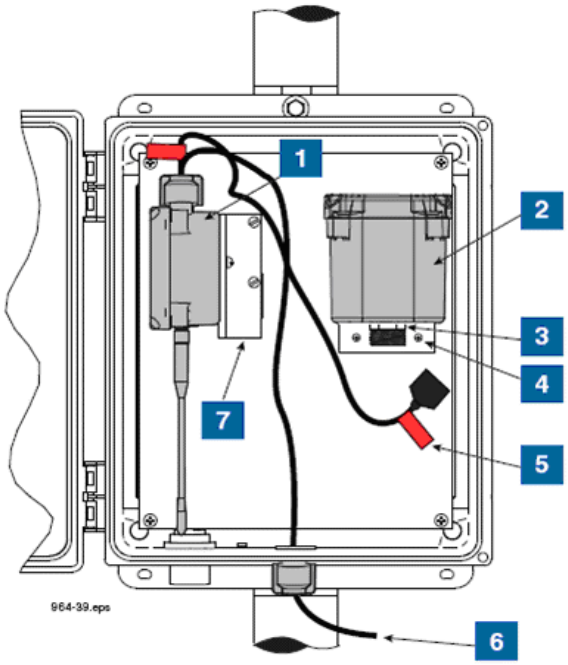


Example CCVP installation Bracket and Universal Enclosure on vent stack



LEGEND FOR NUMBERED BOXES	
1.	CCVP transmitter/battery enclosure on vent stack
2.	CCVP support bracket

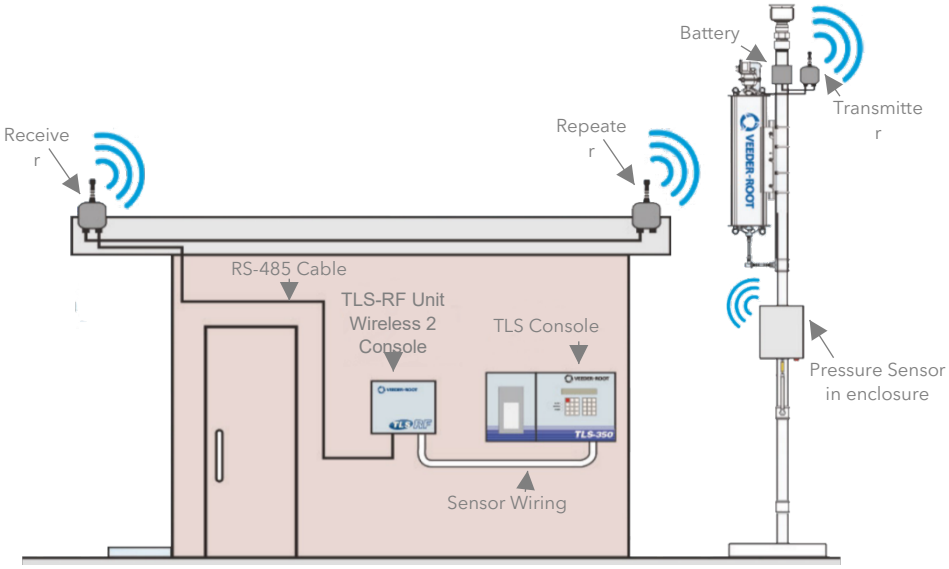
Example VRPS transmitter/battery pack Installation in vent stack enclosure



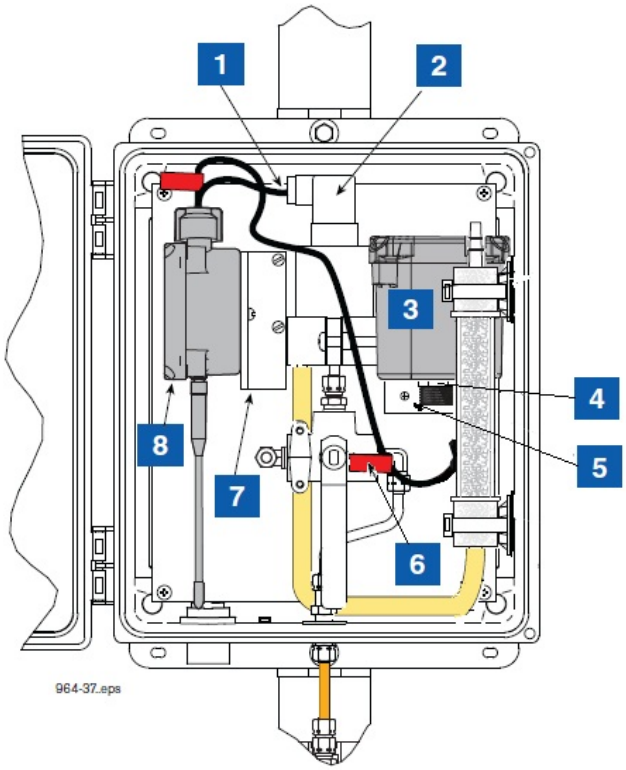
LEGEND FOR NUMBERED BOXES			
1.	Transmitter	5.	Battery caution label attached to battery cable (2 places)
2.	Battery Pack	6.	Cable from CCVP
3.	Thin Hex Nut	7.	Attached Transmitter L bracket using two #10 taptite screws
4.	Attach Battery L bracket using two #10 taptite screws		

FIGURE 1-20

Typical Wireless Configuration for Veeder-Root Pressure Sensor



Example VRPS transmitter/battery pack Installation in vent stack enclosure



LEGEND FOR NUMBERED BOXES			
1.	VRPS Cable	5.	Attach Battery L bracket using two #10 taptite screws
2.	VRPS	6.	Battery caution label attached to battery cable (2 places)
3.	Battery Pack	7.	Attached Battery L bracket using two #10 taptite screws
4.	Thin Hex Nut	8.	Transmitter