



DEF Drum & IBC Closed Systems



Ensuring ISO 22241 **DEF Purity** Certification from Manufacturer to the End-User

Protecting SCR Technology



January 2010 EPA Mandate

- Reduce NOx Emissions
- New On-Road Diesel Medium & Heavy-Duty Vehicles

DEF PURITY IS REQUIRED

If Not Handled Properly...There Will Be Problems

- Detrimentially Affects SCR Performance
- Will Void Vehicle Warranties
- Causes Premature Catalyst Deactivation
- Fouling of Pre-filters & Injector Nozzles

Micro Matic offers the only proprietary tamper-evident DEF Container Valve System that is Closed, Sealed & Secure from fill to dispense.

Stinger / Drum Pump



OPEN

Probe / Dip Tube



OPEN

Valve



CLOSED

Call Now For More Information
1-866-755-4477



3 Ways to Go, 3 Sizes & 1 Recommended Solution

To determine which packaging choice best suits your operating requirements you need to answer three simple questions:

1. What is the size of the fleet to be serviced, and how many truck miles driven?
2. What size package will deliver the greatest level of operating efficiency?
3. What is the most cost-effective distribution option, i.e. ONE-WAY, RETURNABLE or ON-SITE REFILLING?

Ways to Go



One-Way



Returnable



On-Site Refilling

Distribution Options

ONE-WAY Fill – Transport – Dispense – Disposal / Recycle.

RETURNABLE Fill – Transport – Dispense – Transport (Back) – Refill - Transport...

ON-SITE REFILLING Fill - Transport - Dispense - On-site Refill
Dispense - On-Site Refill...



55-Gal

Drum



275-Gal

IBC (Tote)



330-Gal

Container Size Options

55-GALLON DRUM supplies up to 11,000 miles*. Ideal for one or two trucks operations and can last several months.

275-GALLON IBC supplies up to 55,000 miles*. IBC (Tote) is delivered by truck and requires unloading by forklift.

330-GALLON IBC supplies up to 66,000 miles*. IBC (Tote) is delivered by truck and requires unloading by forklift.

*NOTE: * Above calculations based at 3% usage at average fuel economy of 6 miles per gallon. Container volume/mileage usage may vary depending on vehicle dosage rate.*

Sizes

CLOSED System options shown. In cold climates, containers should be stored indoors to prevent freezing.

CLOSED SYSTEM Solutions



55-Gal



275 / 330-Gal

Container Valve Systems

Ensure ISO 22241 DEF Purity

CLOSED, SEALED & SECURE

The Micro Matic CLOSED, SEALED & SECURE Container Valve Systems help maintain DEF purity from manufacturer to the end-user. Provides for tamper evidency and includes DEF Warranty.

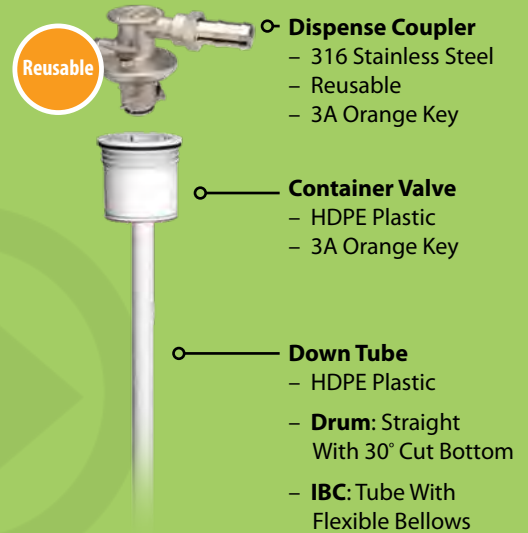
Single Trip / One Way **Economical**



EPV

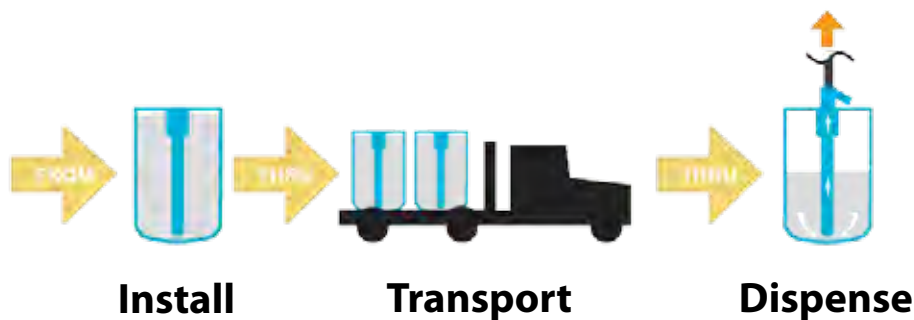
Closed, Sealed & Secure

- Economical & Low Cost
- Proprietary DEF Keyed System
- Tamper-Evident
- No Leak Back Check Valve (Optional)
- DEF Compatible
- Compatible With 2.5" x 5 Buttress Thread
55 Gallon Drums and 275/330 Gallon IBC's



Economical & Low Cost – Closed, Sealed & Secure for DEF Market.

Supply Chain Logistics



Returnable / Reusable / Refillable On-Site Filling



DV

Closed, Sealed & Secure

- Robust & Durable
- Proprietary DEF Keyed System
- Tamper-Evident
- No Leak Back Check Valve
- DEF Compatible
- Compatible With 55 Gallon Drums and 275/330 Gallon IBC's

Fill Head Coupler

- 316 Stainless Steel
- 4 Pin Key
- On-Site Filling



Dispense Coupler

- 304 Stainless Steel
- 4 Pin Key



Container Valve

- 304 Stainless Steel
- 4 Cam Key

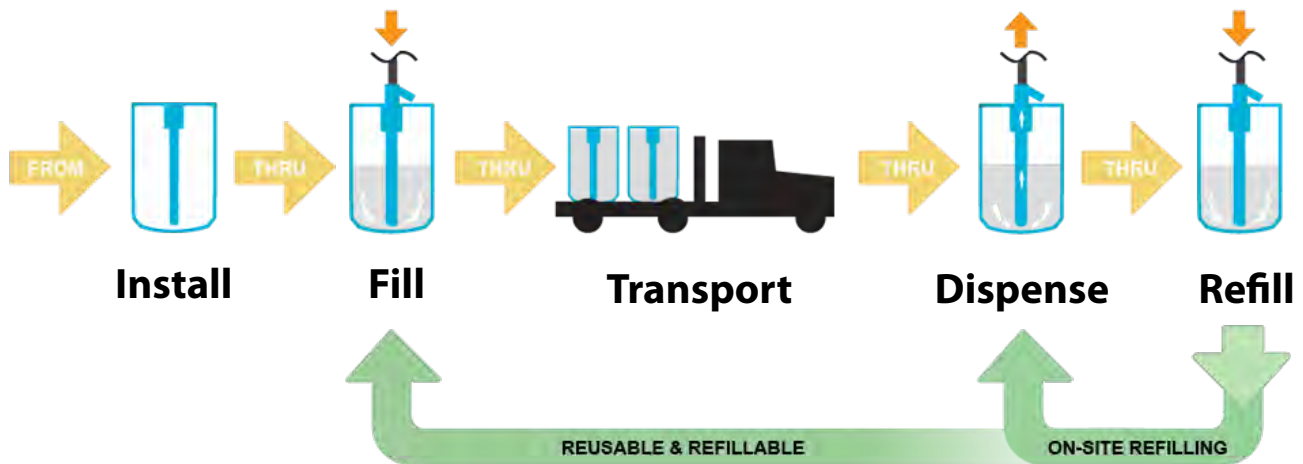


Down Tube

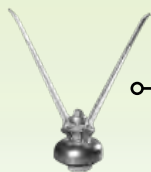
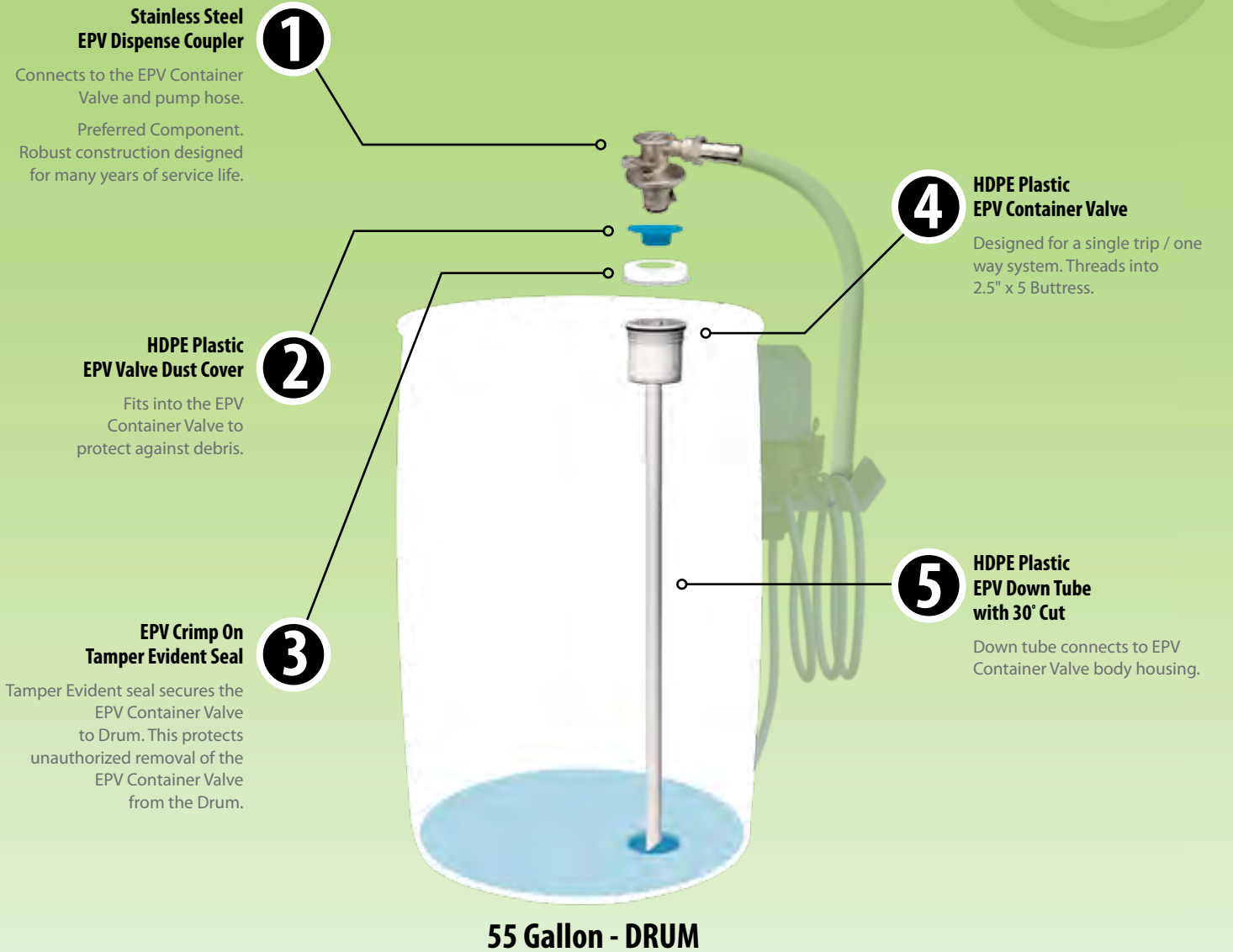
- HDPE Plastic
- **Drum:** Straight Tube With Flexible Bellows
- **IBC:** Tube With Flexible Bellows

The Only On-Site Filling – Closed, Sealed & Secure System for DEF Market.

Supply Chain Logistics



Standard Installation - Detailed Diagram



7 **Crimp-On Tamper Evident Seal Installation Tool**
Used to install Crimp-On Tamper Evident Seal. Secures EPV Container Valve to Drum. Installer use only.



6 **EPV Installation / Removal 3A Keyed Tool**
Connects to a standard 1/2" drive torque wrench to install the EPV Container Valve. Torque specification 12 - 15 ft./lb. Installer use only.

Standard Installation - Components

Single Trip / One Way

Install - Transport - Dispense - Disposal / Recycle



Part Number	Description	Thread / Key / Color	Seal Type
1 DISPENSE - COUPLER			
756-008	EPV Dispense Coupler FDA (316 Stainless Steel) 1/2" NPT Male Thread Outlet	2.5" x 5 Buttress 3A / Orange	EPDM
756-008B	EPV Dispense Coupler FDA (316 Stainless Steel) 3/4" Barbed Outlet	2.5" x 5 Buttress 3A / Orange	EPDM
2 CRIMP-ON TAMPER EVIDENT SEAL (Installer Use Only)			
749-325	EPV 2" Crimp-On Tamper Evident Seal	2.5" x 5 Buttress Orange	NA
3 DV DUST COVER			
WWX-160	EPV Container Valve Dust Cover (Non-Tamper Evident)	2.5" x 5 Buttress Orange	NA
4 CONTAINER VALVE			
755-003	EPV Container Valve (HDPE Plastic)	2.5" x 5 Buttress 3A / Orange	EPDM
5 DOWN TUBE			
102-136/805	EPV Down Tube (HDPE Plastic) For 55 Gallon Drum 30" Cut (805 mm length, 1/2" diameter)	NA	NA
6 INSTALLATION / REMOVAL TOOL (Installer Use Only)			
754-001	EPV Container Valve Install / Removal Tool	NA	NA
7 CRIMP-ON TAMPER EVIDENT INSTALLATION TOOL (Installer Use Only)			
G-10	EPV Crimp-On Tamper Evident Installation Tool	NA	NA
USER MANUAL			
204-030-405	EPV User Manual	NA	NA

NOTE: All wetted metal components are HDPE Plastic & Stainless Steel.



204-030-405



G-10
(Installer Use Only)



754-001
(Installer Use Only)



756-008B
(Preferred Component)



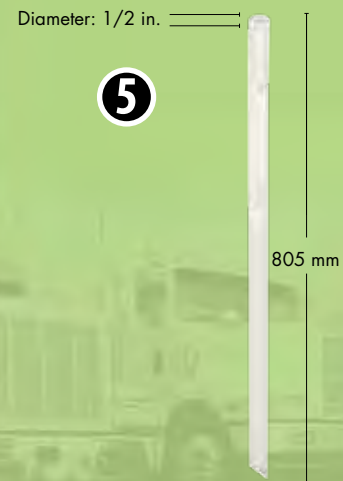
749-325



WWX-160

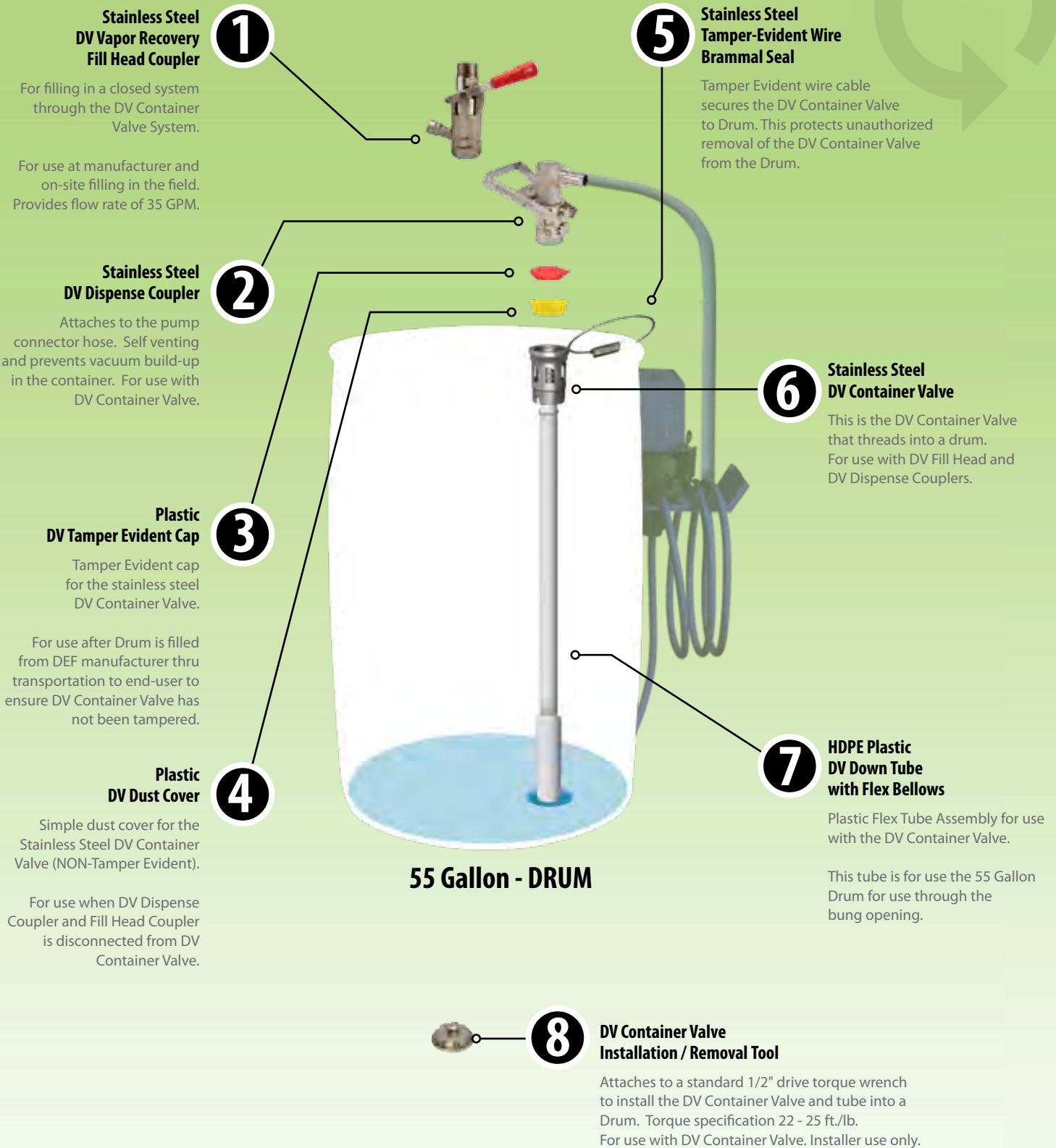


755-003



102-136/805
(For 55 Gallon Drum)

Standard Installation - Detailed Diagram



Standard Installation - Components

Returnable / Reusable / Refillable

Fill - Transport - Dispense - Returnable / Reusable (On-Site Filling)

	Part Number	Description	Thread / Pin / Cam	Seal Type
1	FILL HEAD - COUPLER (Filler Use Only)			
	744-026	DV Vapor Recovery Fill Head Coupler (35 GPM Flow Rate)	4 Pin	Viton®
2	DISPENSE - COUPLER			
	744-048	DV Dispense Coupler Horizontal 3/4" Barbed Outlet	4 Pin	EPDM
	744-050	DV Dispense Coupler Horizontal 3/4" BSPP Female Threaded Outlet	4 Pin	EPDM
3	DV TAMPER EVIDENT CAP			
	102-081	DV Container Valve Tamper Evident Cap (Red)	2.5" x 5 Buttress 4 Cam	NA
4	DV DUST COVER			
	102-014	DV Container Valve Dust Cover (Non-Tamper Evident)	2.5" x 5 Buttress and/or 2" BSP	NA
5	DV TAMPER EVIDENT WIRE			
	CE-Z11-618	DV Tamper Evident Wire Brammal Seal, 18" length x 1/16" diameter Stainless Steel	NA	NA
6	CONTAINER VALVE			
	743-016	DV Container Valve	2" BSP / 4 Cam	Viton®
	743-096	DV Container Valve	2.5" x 5 / 4 Cam	Viton®
	743-097	DV Container Valve	2.5" x 5 / 4 Cam	EPDM
7	DOWN TUBE			
	743-203/810	DV Down Tube (HDPE Plastic) For 55 Gallon Drum (810 mm length, 1" diameter)	NA	NA
8	INSTALLATION / REMOVAL TOOL (Installer Use Only)			
	741-084	DV Container Valve Install / Removal Tool	4 Cam	NA
	DV USER MANUAL			
	00274-I0808b	DV Comprehensive Instruction Manual	NA	NA

NOTE: All wetted metal components are stainless steel.



00274-I0808b

8



741-084
(Installer Use Only)

1



744-026

2



744-048
Horizontal 3/4"
Barbed Outlet

3



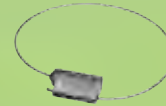
102-081

4



102-014

5



CE-Z11-618

6



743-097

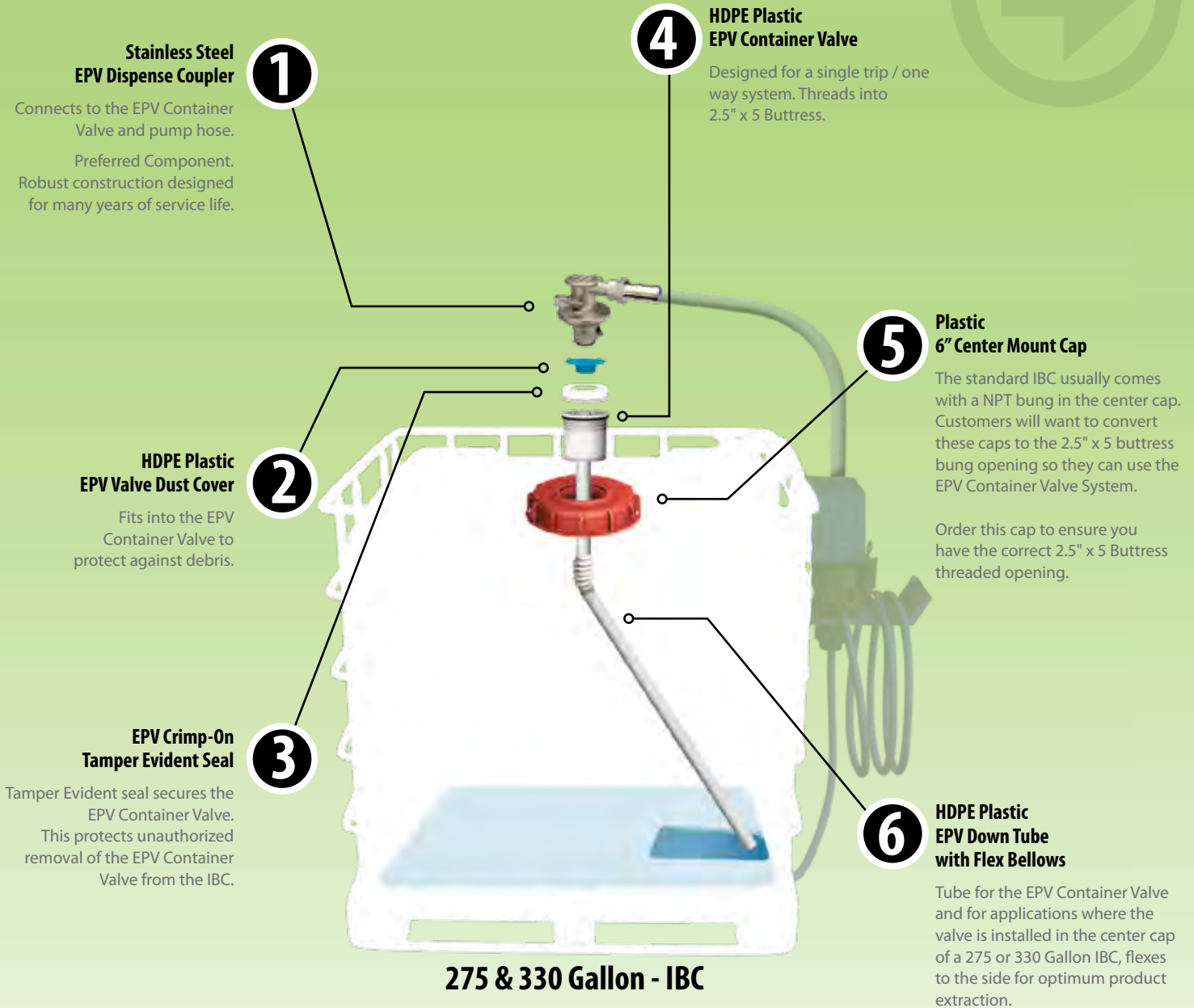
Diameter: 1 in.

7

743-203/810
(For 55 Gallon Drum)

810 mm

Center Mounted - Detailed Diagram



1

Stainless Steel EPV Dispense Coupler

Connects to the EPV Container Valve and pump hose.

Preferred Component. Robust construction designed for many years of service life.

4

HDPE Plastic EPV Container Valve

Designed for a single trip / one way system. Threads into 2.5" x 5 Buttress.

2

HDPE Plastic EPV Valve Dust Cover

Fits into the EPV Container Valve to protect against debris.

5

Plastic 6" Center Mount Cap

The standard IBC usually comes with a NPT bung in the center cap. Customers will want to convert these caps to the 2.5" x 5 buttress bung opening so they can use the EPV Container Valve System.

Order this cap to ensure you have the correct 2.5" x 5 Buttress threaded opening.

3

EPV Crimp-On Tamper Evident Seal

Tamper Evident seal secures the EPV Container Valve. This protects unauthorized removal of the EPV Container Valve from the IBC.

6

HDPE Plastic EPV Down Tube with Flex Bellows

Tube for the EPV Container Valve and for applications where the valve is installed in the center cap of a 275 or 330 Gallon IBC, flexes to the side for optimum product extraction.

275 & 330 Gallon - IBC



8

Crimp-On Tamper Evident Seal Installation Tool

Used to install Crimp-On Tamper Evident Seal. Secures EPV Container Valve to Drum. Installer use only.



7

EPV Installation / Removal 3A Keyed Tool

Connects to a standard 1/2" drive torque wrench to install the EPV Container Valve. Torque specification 12 - 15 ft./lb. Installer use only.

Center Mounted - Components



Single Trip / One Way

Install - Transport - Dispense - Disposal / Recycle

	Part Number	Description	Thread / Key / Color	Seal Type
1 DISPENSE - COUPLER				
	756-008	EPV Dispense Coupler FDA (316 Stainless Steel) 1/2" NPT Male Thread Outlet	2.5" x 5 Buttress 3A / Orange	EPDM
	756-008B	EPV Dispense Coupler FDA (316 Stainless Steel) 3/4" Barbed Outlet	2.5" x 5 Buttress 3A / Orange	EPDM
2 CRIMP-ON TAMPER EVIDENT SEAL (Installer Use Only)				
	749-325	EPV 2" Crimp-On Tamper Evident Seal	2.5" x 5 Buttress 3A / Orange	NA
3 DV DUST COVER				
	WWX-160	EPV Container Valve Dust Cover (Non-Tamper Evident)	2.5" x 5 Buttress 3A / Orange	NA
4 CONTAINER VALVE				
	755-003	EPV Container Valve	2.5" x 5 Buttress 3A / Orange	EPDM
5 6" CENTER MOUNT CAP				
	301-807	6" Center Mount Cap	2.5" x 5 Buttress	EPDM
6 DOWN TUBE				
	755-641/1065	EPV Down Tube (HDPE Plastic) For 275 Gallon IBC Flex Bellows (1065 mm length, 1/2" diameter)	NA	NA
	755-641/1245	EPV Down Tube (HDPE Plastic) For 330 Gallon IBC Flex Bellows (1245 mm length, 1/2" diameter)	NA	NA
7 INSTALLATION / REMOVAL TOOL (Installer Use Only)				
	754-001	EPV Container Valve Install / Removal Tool	3A / Orange	NA
8 CRIMP-ON TAMPER EVIDENT INSTALLATION TOOL (Installer Use Only)				
	G-10	EPV Crimp-On Tamper Evident Installation Tool	NA	NA
USER MANUAL				
	204-030-405	EPV User Manual	NA	NA

NOTE: All wetted metal components are HDPE Plastic & Stainless Steel.



204-030-405



G-10
(Installer Use Only)



754-001
(Installer Use Only)



756-008B
(Preferred Component)



749-325



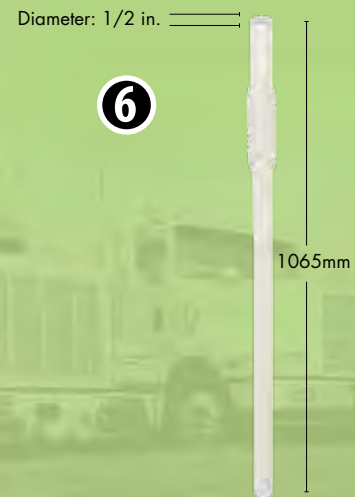
WWX-160



755-003

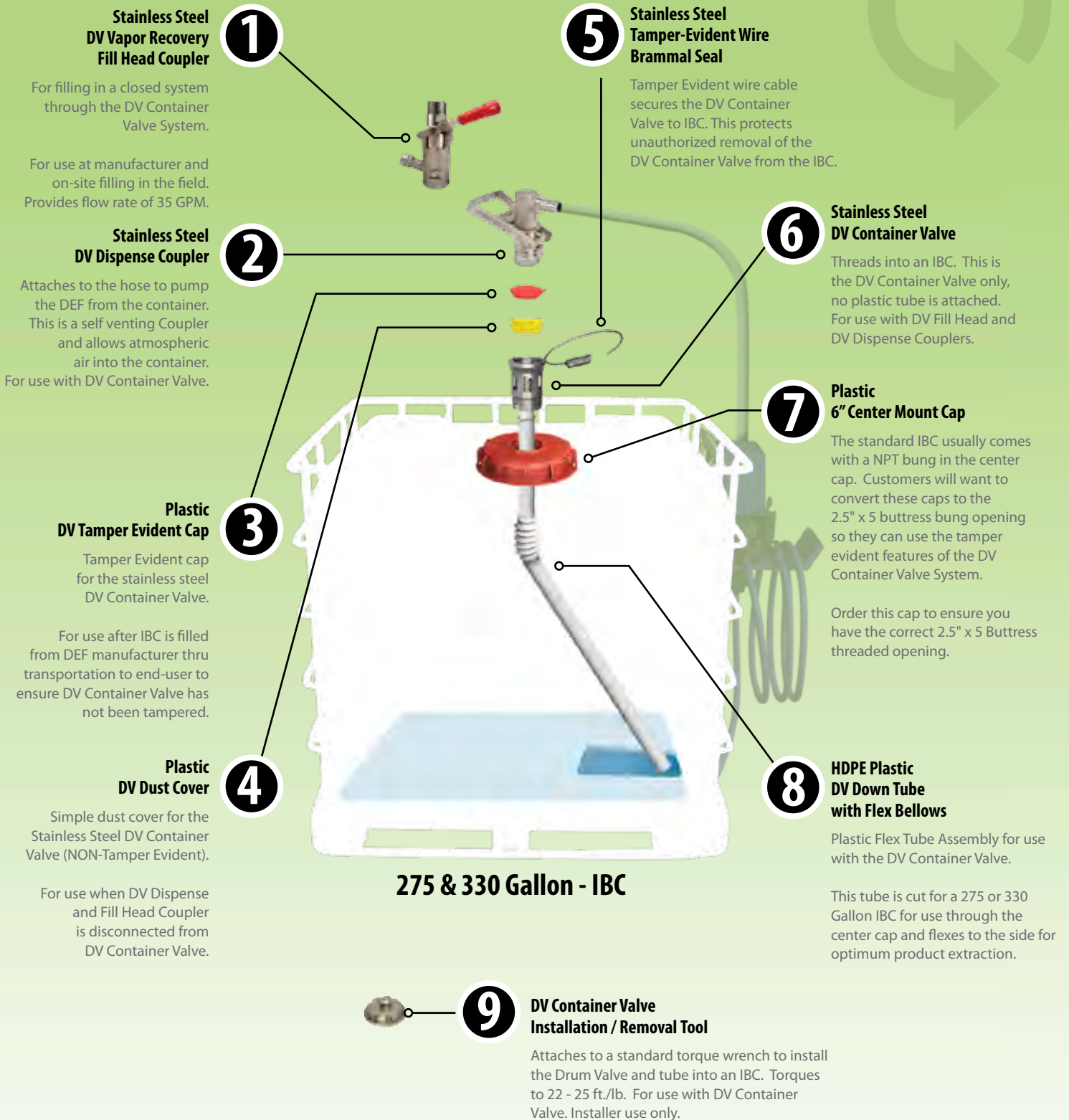


301-807



755-641/1065
(For 275 Gallon IBC)

Center Mounted - Detailed Diagram



Center Mounted - Components

Returnable / Reusable / Refillable

Fill - Transport - Dispense - Returnable / Reusable (On-Site Filling)

	Part Number	Description	Thread / Pin / Cam	Seal Type
1	FILL HEAD - COUPLER (Filler Use Only)			
	744-026	DV Vapor Recovery Fill Head Coupler (35 GPM Flow Rate)	4 Pin	Viton®
2	DISPENSE - COUPLER			
	744-048	DV Dispense Coupler Horizontal 3/4" Barbed Outlet	4 Pin	EPDM
	744-050	DV Dispense Coupler Horizontal 3/4" BSPP Female Threaded Outlet	4 Pin	EPDM
3	DV TAMPER EVIDENT CAP			
	102-081	DV Container Valve Tamper Evident Cap (Red)	2.5" x 5 Buttress 4 Cam	NA
4	DV DUST COVER			
	102-014	DV Container Valve Dust Cover (Non-Tamper Evident)	2.5" x 5 Buttress and/or 2" BSP	NA
5	DV TAMPER EVIDENT WIRE			
	CE-Z11-618	DV Tamper Evident Wire Brammal Seal, 18" length x 1/16" diameter Stainless Steel	NA	NA
6	CONTAINER VALVE			
	743-016	DV Container Valve	2" BSP / 4 Cam	Viton®
	743-096	DV Container Valve	2.5" x 5 / 4 Cam	Viton®
	743-097	DV Container Valve	2.5" x 5 / 4 Cam	EPDM
7	6" CENTER MOUNT CAP			
	301-807	6" Center Mount Cap	2.5" x 5 Buttress	EPDM
8	DOWN TUBE			
	743-236/1065	DV Down Tube (HDPE Plastic) For 275 Gallon IBC Flex Bellows (1065 mm length, 1 in. diameter)	NA	NA
	743-236/1245	DV Down Tube (HDPE Plastic) For 330 Gallon IBC Flex Bellows (1245 mm length, 1" diameter)	NA	NA
9	INSTALLATION / REMOVAL TOOL (Installer Use Only)			
	741-084	DV Container Valve Install / Removal Tool	4 Cam	NA
	DV USER MANUAL			
	00274-10808b	DV Comprehensive Instruction Manual	NA	NA

NOTE: All wetted metal components are stainless steel.



00274-10808b

9



741-084 (Installer Use Only)

1



744-026

On-Site Filling

2



744-048 Horizontal 3/4" Barbed Outlet

3



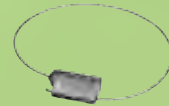
102-081

4



102-014

5



CE-Z11-618

6



743-097

7



301-807

Diameter: 1 in.

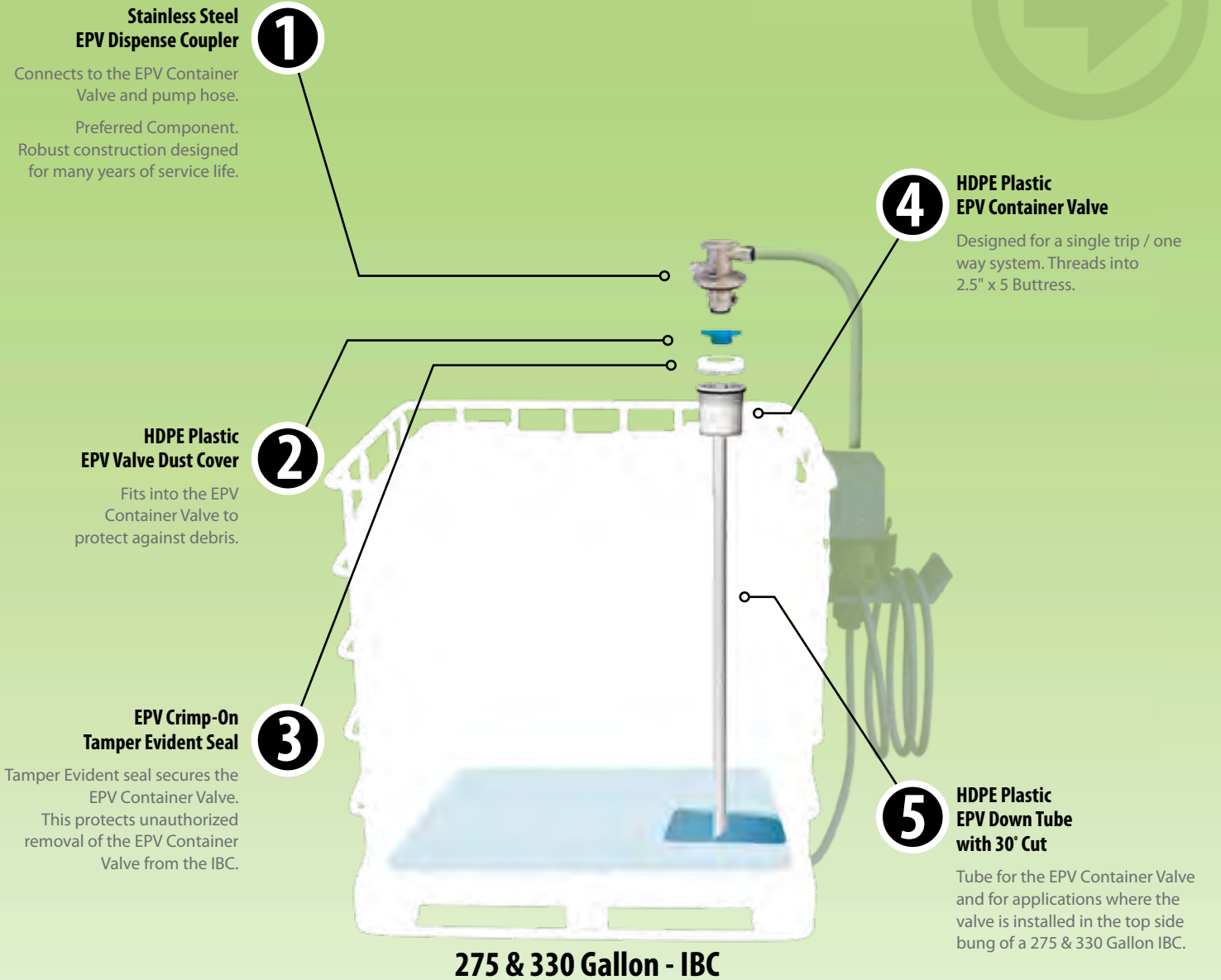
8



743-236/1065 (For 275 Gallon IBC)

1065mm

Top Side Mounted - Detailed Diagram



Top Side Mounted - Components



Single Trip / One Way

Install - Transport - Dispense - Disposal / Recycle

Part Number	Description	Thread / Key / Color	Seal Type
1 DISPENSE - COUPLER			
756-008	EPV Dispense Coupler FDA (316 Stainless Steel) 1/2" NPT Male Thread Outlet	2.5" x 5 Buttress 3A / Orange	EPDM
756-008B	EPV Dispense Coupler FDA (316 Stainless Steel) 3/4" Barbed Outlet	2.5" x 5 Buttress 3A / Orange	EPDM
2 CRIMP-ON TAMPER EVIDENT SEAL (Installer Use Only)			
749-325	EPV 2 in. Crimp-On Tamper Evident Seal	2.5" x 5 Buttress Orange	NA
3 DV DUST COVER			
WWX-160	EPV Container Valve Dust Cover (Non-Tamper Evident)	2.5" x 5 Buttress 3A / Orange	NA
4 CONTAINER VALVE			
755-003	EPV Container Valve (HDPE Plastic)	2.5" x 5 Buttress 3A / Orange	EPDM
5 DOWNTUBE			
102-136/975	EPV Down Tube (HDPE Plastic) For 275 Gallon IBC 30° Cut (975 mm length, 1/2 in. diameter)	NA	NA
TBD	EPV Down Tube (HDPE Plastic) For 330 Gallon IBC 30° Cut (TBD mm length, 1/2 in. diameter)	NA	NA
6 INSTALLATION / REMOVAL TOOL (Installer Use Only)			
754-001	EPV Container Valve Install / Removal Tool	3A / Orange	NA
7 CRIMP-ON TAMPER EVIDENT INSTALLATION TOOL (Installer Use Only)			
G-10	EPV Crimp-On Tamper Evident Installation Tool	NA	NA
USER MANUAL			
204-030-405	EPV User Manual	NA	NA

NOTE: All wetted metal components are stainless steel.



204-030-405



G-10
(Installer Use Only)



754-001
(Installer Use Only)



756-008B
(Preferred Component)

Reusable



749-325

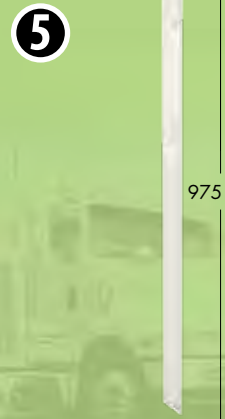


WWX-160



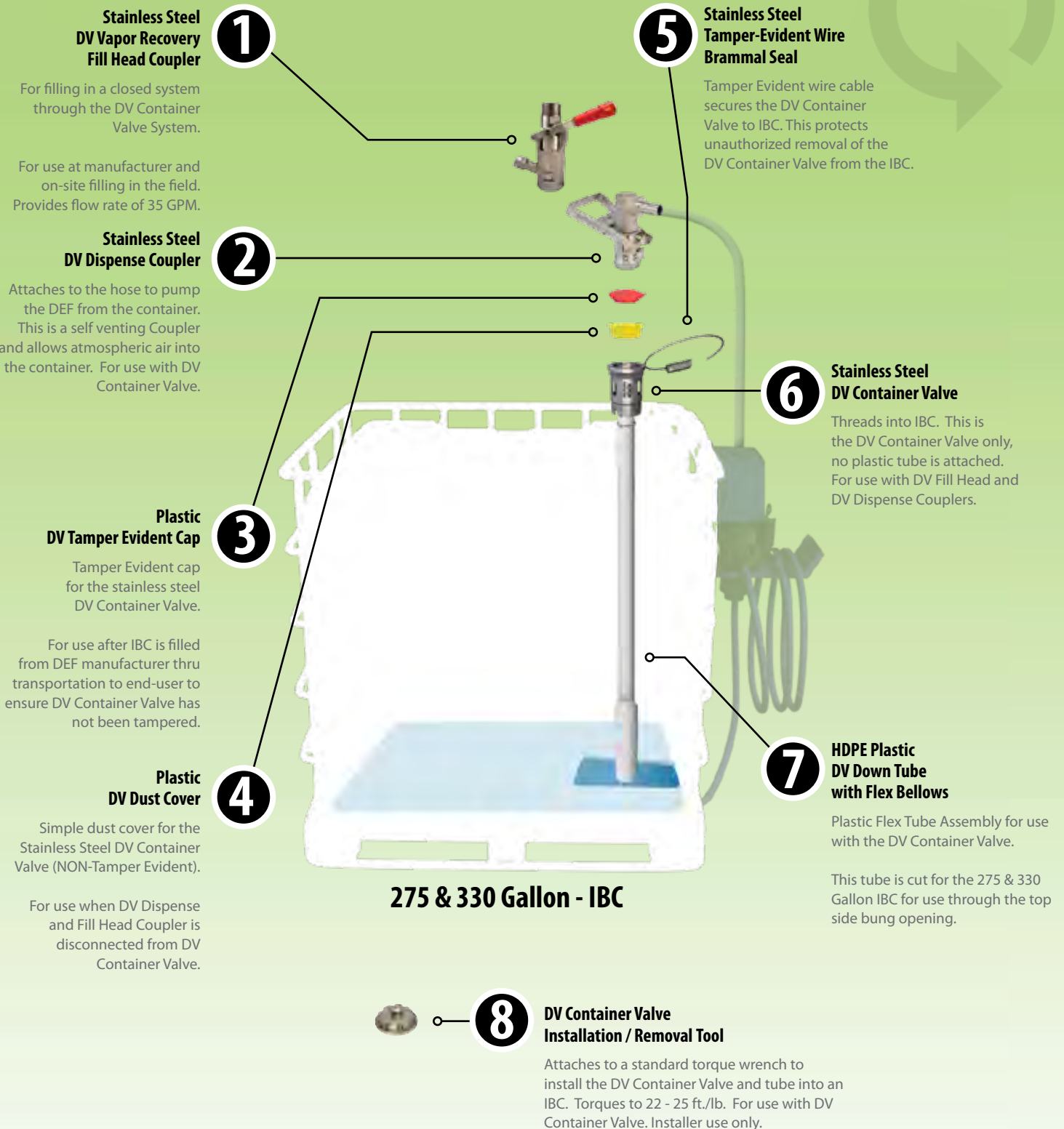
755-003

Diameter: 1/2 in.



102-136/975
(For 275 Gallon IBC)

Top Side Mounted - Detailed Diagram



Top Side Mounted - Components

Returnable / Reusable / Refillable

Fill - Transport - Dispense - Returnable / Reusable (On-Site Filling)

	Part Number	Description	Thread / Pin / Cam	Seal Type
1	FILL HEAD - COUPLER (Filler Use Only)			
	744-026	DV Vapor Recovery Fill Head Coupler (35 GPM Flow Rate)	4 Pin	Viton®
2	DISPENSE - COUPLER			
	744-048	DV Dispense Coupler Horizontal 3/4 in. Barbed Outlet	4 Pin	EPDM
	744-050	DV Dispense Coupler Horizontal 3/4 in. BSPP Female Threaded Outlet	4 Pin	EPDM
3	DV TAMPER EVIDENT CAP			
	102-081	DV Container Valve Tamper Evident Cap (Red)	2.5" x 5 Buttress 4 Cam	NA
4	DV DUST COVER			
	102-014	DV Container Valve Dust Cover (Non-Tamper Evident)	2.5" x 5 Buttress and/or 2" BSP	NA
5	DV TAMPER EVIDENT WIRE			
	CE-Z11-618	DV Tamper Evident Wire Brammal Seal, 18" length x 1/16" diameter Stainless Steel	NA	NA
6	CONTAINER VALVE			
	743-016	DV Container Valve	2" BSP / 4 Cam	Viton®
	743-096	DV Container Valve	2.5" x 5 / 4 Cam	Viton®
	743-097	DV Container Valve	2.5" x 5 / 4 Cam	EPDM
7	DOWN TUBE			
	743-203/975	DV Down Tube (HDPE Plastic) For 275 Gallon IBC (975 mm length, 1" diameter)	NA	NA
	TBD	DV Down Tube (HDPE Plastic) For 330 Gallon IBC (TBD mm length, 1" diameter)	NA	NA
8	INSTALLATION / REMOVAL TOOL (Installer Use Only)			
	741-084	DV Container Valve Install / Removal Tool	4 Cam	NA
	DV USER MANUAL			
	00274-10808b	DV Comprehensive Instruction Manual	NA	NA

NOTE: All wetted metal components are stainless steel.



00274-10808b

8



741-084 (Installer Use Only)

1



744-026

2



744-048 Horizontal 3/4" Barbed Outlet

3



102-081

4



102-014

5



CE-Z11-618

6



743-097

Diameter: 1 in.

7

743-203/975 (For 275 Gallon IBC)

975 mm

EPV Container Valve System - Instructions

CONNECT



1
Insert Coupler



2
Push Coupler Down



3
Turn Hose
Clockwise



4
Coupler Clicks
& Locks in Place

DISCONNECT



1
Pull up Lever on
Side of Coupler

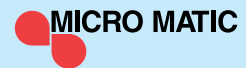


2
Turn Hose
Counter-Clockwise



3
Pull Coupler up
& Remove

00812-10310



DV Container Valve System - Instructions

CONNECT



1 Insert Coupler



2 Turn Handle Clockwise



3 Push Down Handle



4 Handle Clicks, Locks & Remains Down

DISCONNECT



1 Push Down Handle Button with Thumb



2 Handle Unlocks & Releases up




3 Turn Handle Counter-Clockwise



4 Pull up to Remove

00811-I0310

 MICRO MATIC



Closed, Sealed & Secured.

FILL → TRANSPORT → DISPENSE



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