



FFS PRO
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NEIWPC-Defender Spill Containment

Interstice Monitoring-Testing - Maintenance



DISCLAIMER

Only certified contractors should perform maintenance on and/or install the products shown in this presentation. Failure to maintain or install these products in compliance with all applicable regulations and codes, and pursuant to Franklin Fueling Systems installation or maintenance manuals, may result in electrical shock, personal injury, property damage, unsatisfactory performance, or equipment failure.



Spill Containment



- **Contents**
 - **Interstice Sensor Options**
 - **Indications of liquid present**
 - **Testing**
 - **Maintenance**
 - **Best Practices**

Preparation: Defender Series™ Spill Containers



- Exercise Caution:
 - Be aware of potential hazards when installing or servicing a spill container
 - Spill hazards
 - Vapor hazards
 - Proactive preparation
 - Wear personal protection equipment (PPE)
 - Tag and lockout applicable electrical circuit breakers
 - Review the installation manual



Models & Features: Defender Series™ Spill Containers



- **Interstitial Monitoring:**
 - **Electronic:**
 - TSP-ULS liquid sensor can be paired with a fuel management system for immediate notification
 - **Mechanical:**
 - The Interstitial Integrity (I²) Monitor provides visual inspection capability



Electronic



Mechanical



Interstitial Monitoring – (I2)Interstitial Integrity Monitor



- Uses float and dial to indicate the presence of liquid in the interstitial of Defender Spill Containment.
- Liquid is present at anytime the yellow indicator is in the white area of the dial. The drop icons are an indication of amount of liquid present- 1- drop indicating a small amount of liquid and 3 drops indicating the interstice is nearly full.
- The presence of liquid can be an indication of fuel leaking into the interstice or water egress.
- Any Liquid present should be identified, removed and interstice tested with vacuum test method.



Electronic Sensor Monitoring



- Electronic sensor- ULS is connected to tank monitor and will post alarm at console when liquid is detected in interstice.
- The presence of liquid can be an indication of fuel leaking into the interstice or water egress.
- Any Liquid present should be identified, removed and interstice tested with vacuum test method.





Spill Containment



TESTING: Defender Series™ Spill Containers

Testing: Defender Series™ Spill Containers



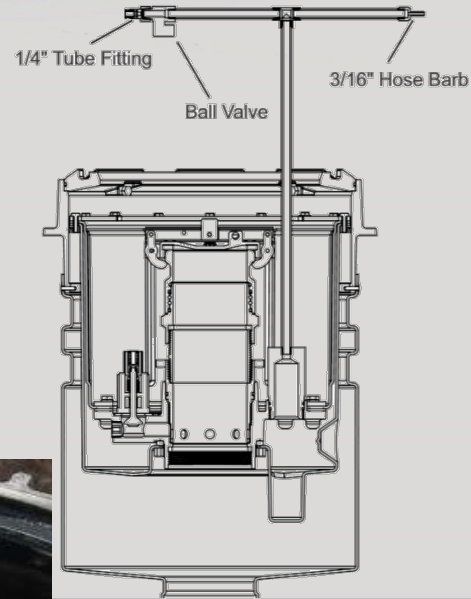
- Hydrostatic Testing (All Models):
 - Fill spill container with water until the level is just below the snowplow ring
 - Mark water level
 - Wait one hour to see if level drops
 - If level drops, test fails



Testing: Defender Series™ Spill Containers



- Vacuum Interstitial Testing (Double Wall Models):
 - Remove inspection port pipe from spill container
 - Install T-7107 test kit into inspection port
 - Connect vacuum source and manometer
 - Apply vacuum until 30in W.C or 7.5 kPa achieved
 - Allow one minute to stabilize interstitial space
 - Reapply vacuum if necessary
 - After five minutes, if manometer reads above 26in W.C or 6.476 kPa, test is successful





Spill Containment



MAINTENANCE: **Defender Series™ Spill Containers**

Maintenance: Defender Series™ Spill Containers



- **Monthly Maintenance:**
 - Clean any dirt or debris from snowplow
 - Inspect cover gasket and replace if necessary
 - Inspect spill container for liquid
 - If liquid is present, identify the material and dispose of properly
 - Inspect spill container for any foreign material
 - If foreign material present, remove material



Maintenance: Defender Series™ Spill Containers



- **Monthly Maintenance:**
 - Inspect spill container for damage
 - Inspect interstitial space (Double Wall Only)
 - Inspect related/complimentary components
 - Overfill prevention valves
 - Fill and vapour adapters
 - Dust caps
 - Additional items per EPA Underground Storage Tank Regulations



Maintenance: Defender Series™ Spill Containers



- Yearly Maintenance:
 - Inspect interstitial monitoring equipment
 - Record inspection results per local code
 - Inspect related/complimentary components
 - Overfill prevention valves
 - Fill and vapour adapters
 - Dust caps
 - Additional items per EPA Underground Storage Tank regulations





Spill Containment



BEST PRACTICES: **Defender Series™ Spill Containers**

Best Practices: Defender Series™ Spill Containers



- Installation Height:
 - DO NOT allow the top of the snowplow ring to sit on the top of the spill container



Best Practices: Defender Series™ Spill Containers



- **Sensor Cord Grip:**
 - DO NOT disturb cord grip on Defender Series™ spill containers with electronic liquid detection sensors
 - Cord grip is factory sealed
 - Tampering with cord grip may inadvertently cause leaks to occur



Best Practices: Defender Series™ Spill Containers



- Gravel Guard:
 - DO NOT cut the gravel guard





Forecourt Installation

Spill Containment