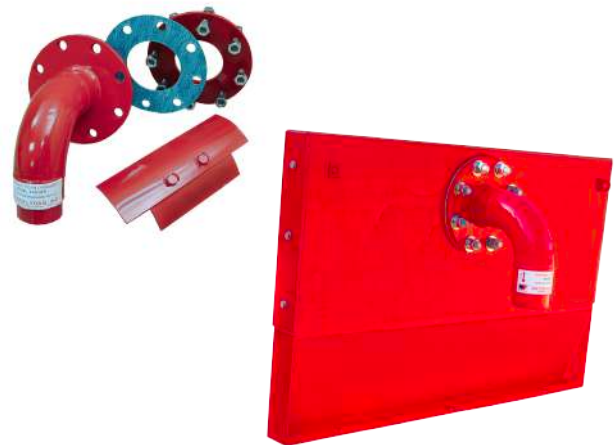


# SPS-9FR FOAM OUTLET WITH DEFLECTOR

NDD080

- Superior Foam Expansion For Excellent Foam Performance
- Low Cost Installation
- Corrosion Resistant Polyester Finish
- For Use With National Foam MBS-3 & 9 Foam Makers
- Powder Coated
- Direct Replacement For Mcs-9 FR Foam Chamber When Combined With MBS Foam Makers



## Description

The SPS-9FR foam outlet when used with an MBS type foam maker, is designed to deliver fully aspirated foam directly to the annular seal area of Open Top Floating Roof storage tanks and Covered Floating Roof storage tanks for fire extinguishment. Fully aspirated foam provides the most effective performance for all types of foam concentrates, resulting in quick, efficient control of an incident while it is still confined to the seal area. SPS-9FR foam outlets when combined with MBS Foam Makers are classified as Type II discharge devices in accordance with NFPA Standard 11, and deliver low expansion foam directly onto the fuel surface or seal area with a minimum of foam submergence and fuel agitation. Minimizing submergence and agitation increases the effectiveness of the foam blanket, resulting in more efficient operation and superior extinguishing capabilities. Fixed discharge outlets have the added advantage of directing the entire flow into the seal area regardless of weather conditions for the most effective utilization of foam resources. Fixed Seal Protection Systems have a long history of prompt, and safe extinguishment, with many incidents controlled so efficiently, that they are often not reported outside the confines of the facility.

The SPS-9FR is designed to be paired with various styles of deflectors. This allows for easy, low cost installation on the top angle of Open Top Floating Roof storage tanks with and without existing wind shields. In addition they

may be used on Covered Floating Roof storage tanks which are not vapor tight above the internal floating roof (vented to atmosphere) depending on the deflector or windshield selected. The foam makers can be supplied from a fixed foam proportioning system or from portable foam proportioning equipment, such as, mobile fire apparatus. Installation should be made in accordance with applicable codes and standards.

The SPS-9FR Foam Outlet allows proper operation of the foam produced in the MBS type foam maker. The aerated foam solution is discharged against or into the deflector assembly which causes the foam to slide gently down the tank wall into the seal area.

## Features

- Superior foam expansion for excellent foam performance
- Low cost installation
- Direct replacement for MCS-9FR foam chamber
- Corrosion resistant polyester finish

## Applications

- Open top floating roof tanks
- Covered floating roof tanks
- Dike protection
- Small cone roof tanks (if paired with a vapor seal)

## Specifications

The SPS-9FR Foam Outlet shall be a fabricated steel piping assembly with

2-1/2" FNPT inlet and 4"-150# FF flanged outlet connection. The SPS-9FR foam outlet when used with a MBS type foam maker, shall be designed to deliver fully aspirated foam directly to the annular seal area of Open Top Floating Roof storage tanks and Covered Floating Roof storage tanks for fire extinguishment or vapor suppression. The SPS-9FR when used with MBS Foam Makers and a Discharge Closure vapor seal shall be designed to deliver fully aspirated foam to the surface of small cone roof tanks. It shall be classified as Type II discharge device in accordance with NFPA Standard 11, and deliver low expansion foam directly onto the fuel surface with a minimum of foam submergence and fuel agitation. The foam outlet body and deflector assembly shall be carbon steel, abrasive blasted and coated with a red fused polyester powder finish before assembly to insure complete internal coverage. The SPS-9FR Foam Outlet shall be a direct replacement for the MCS-9FR.

The Open Top Floating Roof Configuration with existing windshields shall utilize a split deflector since it is unlikely the roof will raise to a point where the seal will contact the deflector. A stud flange is not normally required for this type of installation since both sides of the wind shield should be accessible for assembly.

The Covered Floating Roof Configuration is for use on tanks which are not vapor tight above the internal floating roof (vented to atmosphere). A shallow deflector or a split shallow

# SPS-9FR FOAM OUTLET WITH DEFLECTOR

NDD080

deflector shall be used since the roof could rise to a position where the seal will contact the deflector. The shallow type deflector shall be designed to allow the seal to pass over without damage. A stud flange shall be provided to allow installation without access to both sides of the tank wall during assembly.

Open Top Floating Roof storage tanks which do not have windshields can be protected by using the SPS-9FR with Integral Deflector & Windshield. This device provides NFPA Type II foam dispersion into the seal area. It also provides for wind protection and mounting without the need for hot-work. Multiple clamping options and wind brace accessories are available.

Small cone roof tanks which have full surface application rates too low for foam chambers may be protected by

using the SPS-9FR with a split deflector, stud ring and discharge closure (to contain vapors) to achieve an NFPA Type II foam dispersion onto the fuel surface.

Dike and machinery containments may be protected by using the SPS-9FR and a split deflector or windshield to achieve an NFPA Type II foam dispersion onto the fuel surface within the containment.

It shall be possible to test the foam maker without discharging into the tank seal area. This shall be accomplished by means of rotating the foam maker assembly 180° away from the wind shield and deflector assembly.

## Approvals and Listings

- None

## Technical Information

## Material of Construction:

Deflector .....Carbon Steel  
Discharge Body .....Carbon Steel  
Hardware .....Zinc Plated

## Flow Capacity:

147.0 GPM (556.4 LPM)

## Operating Pressure:

150 PSI (10.4 bar)

## Finish:

Carbon Steel:

Abrasive Blast to SSPC-SP6. Chemical wash, rinse, and seal. Oven baked fusion coated polyester, 3 mils dry film thickness (DFT), red color.

All Other Components .... Natural Finish

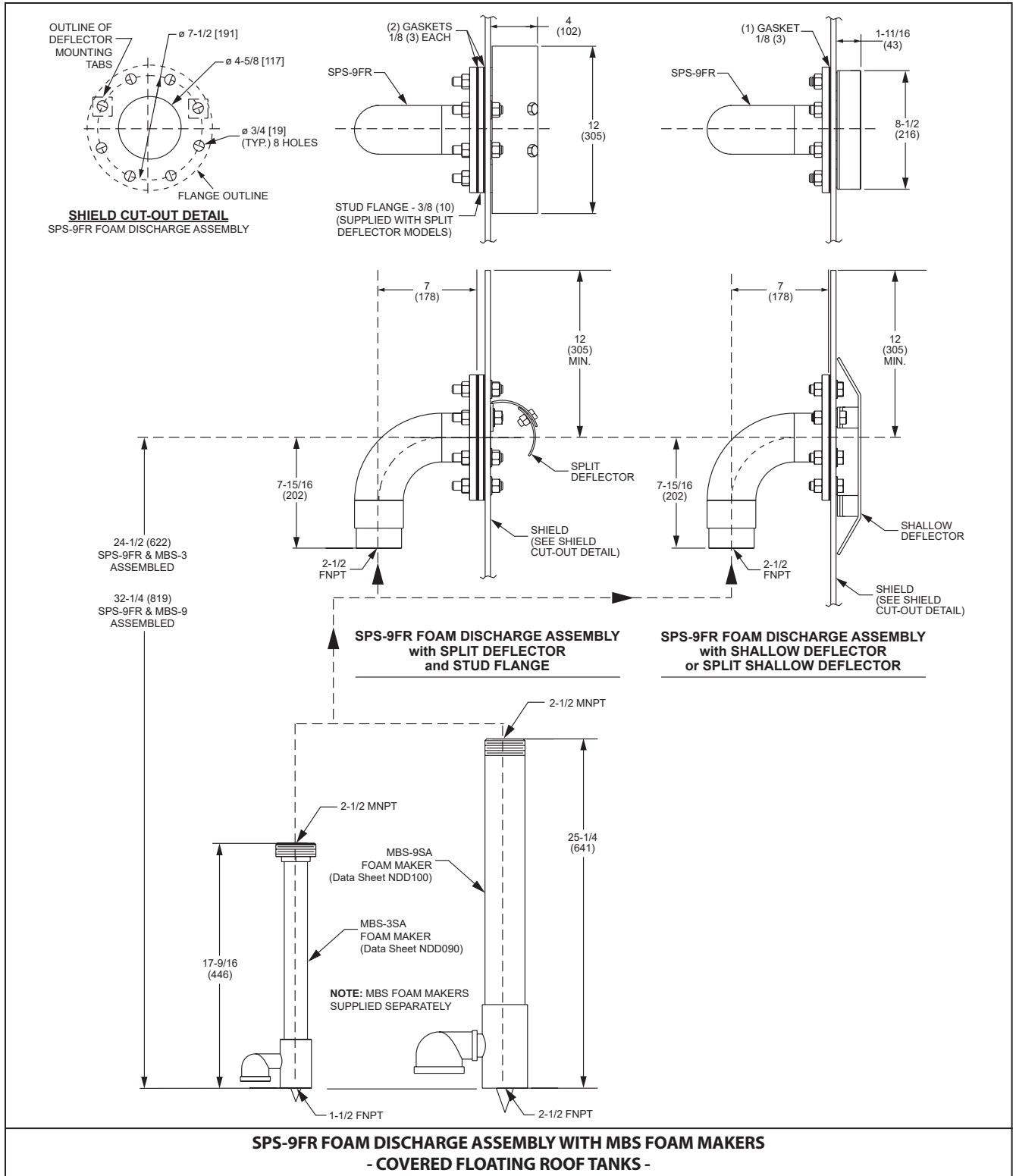
Weight .....26.5 lbs. (12 kg)

## Options

Stainless Steel Construction

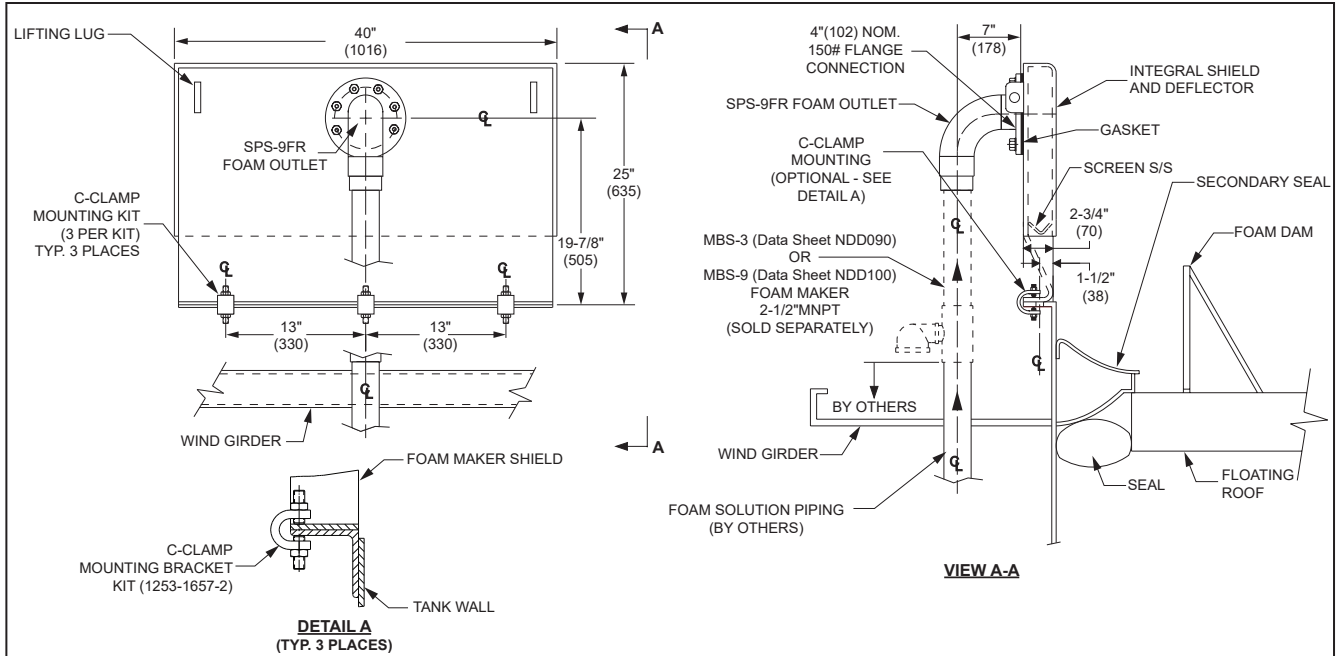
# SPS-9FR FOAM OUTLET WITH DEFLECTOR

NDD080

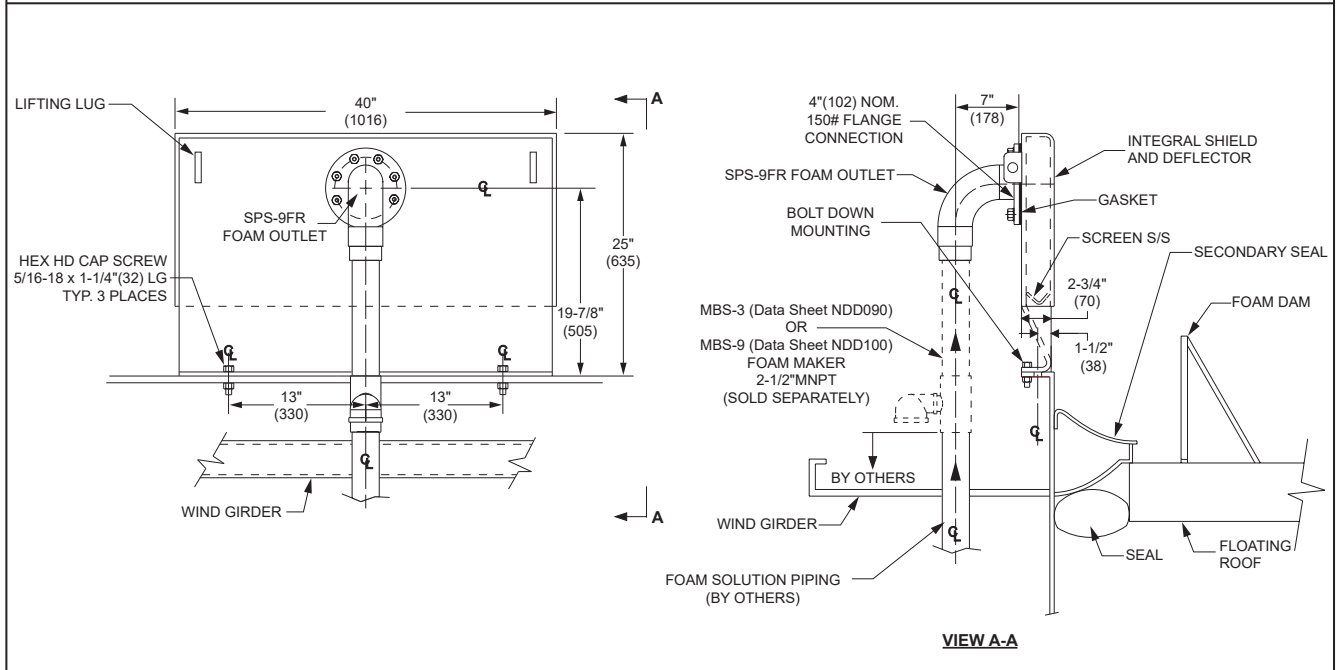


# SPS-9FR FOAM OUTLET WITH DEFLECTOR

NDD080



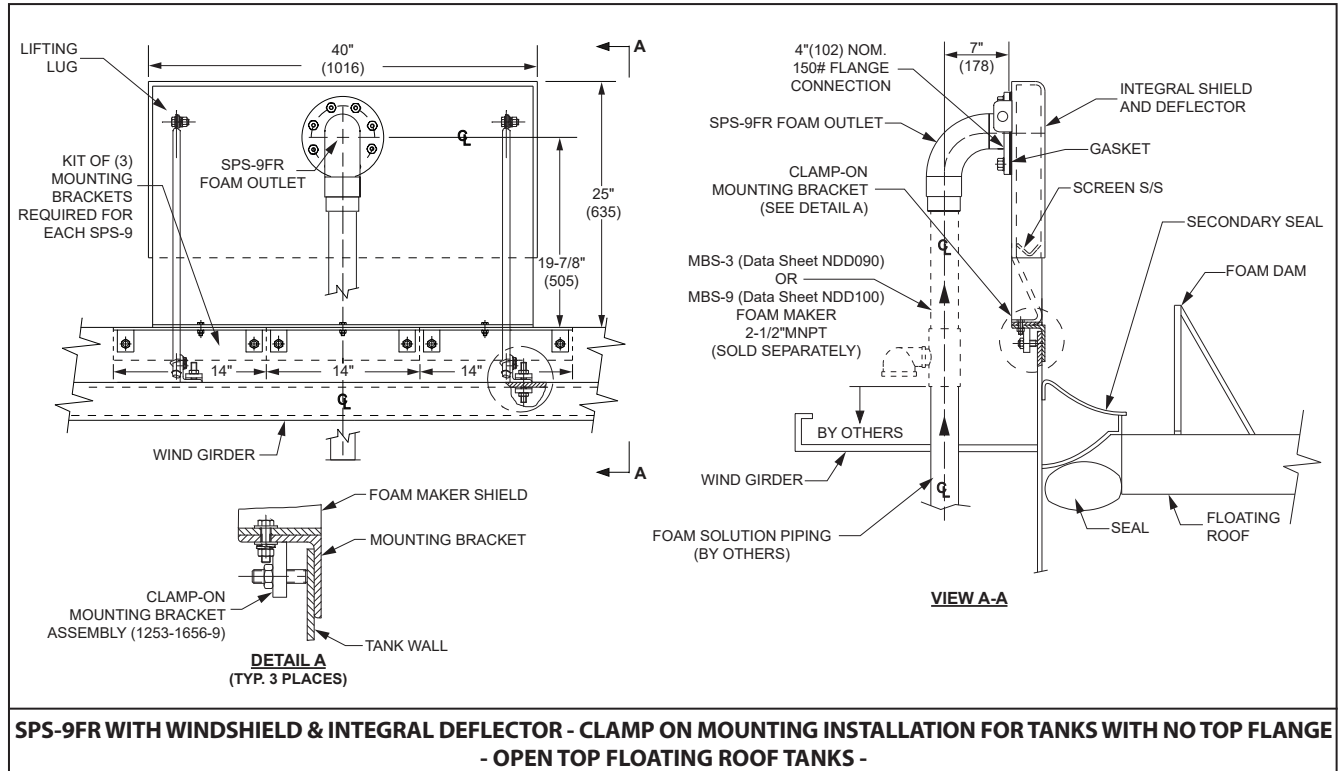
## SPS-9FR WITH WINDSHIELD & INTEGRAL DEFLECTOR - C-CLAMP MOUNTING INSTALLATION FOR TANKS WITH TOP FLANGE - OPEN TOP FLOATING ROOF TANKS -



## SPS-9FR WITH WINDSHIELD & INTEGRAL DEFLECTOR - BOLT DOWN MOUNTING INSTALLATION - OPEN TOP FLOATING ROOF TANKS -

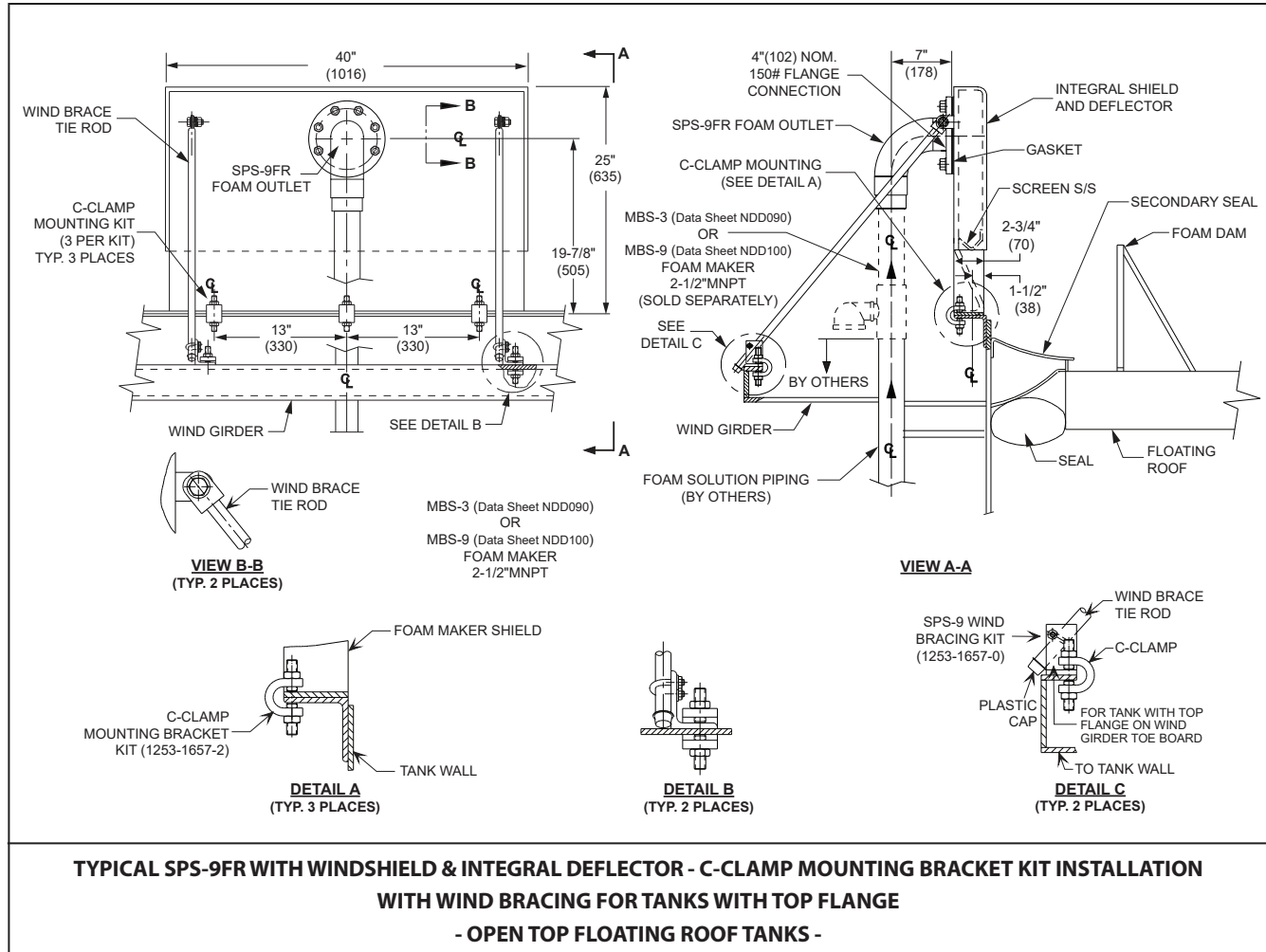
# SPS-9FR FOAM OUTLET WITH DEFLECTOR

NDD080



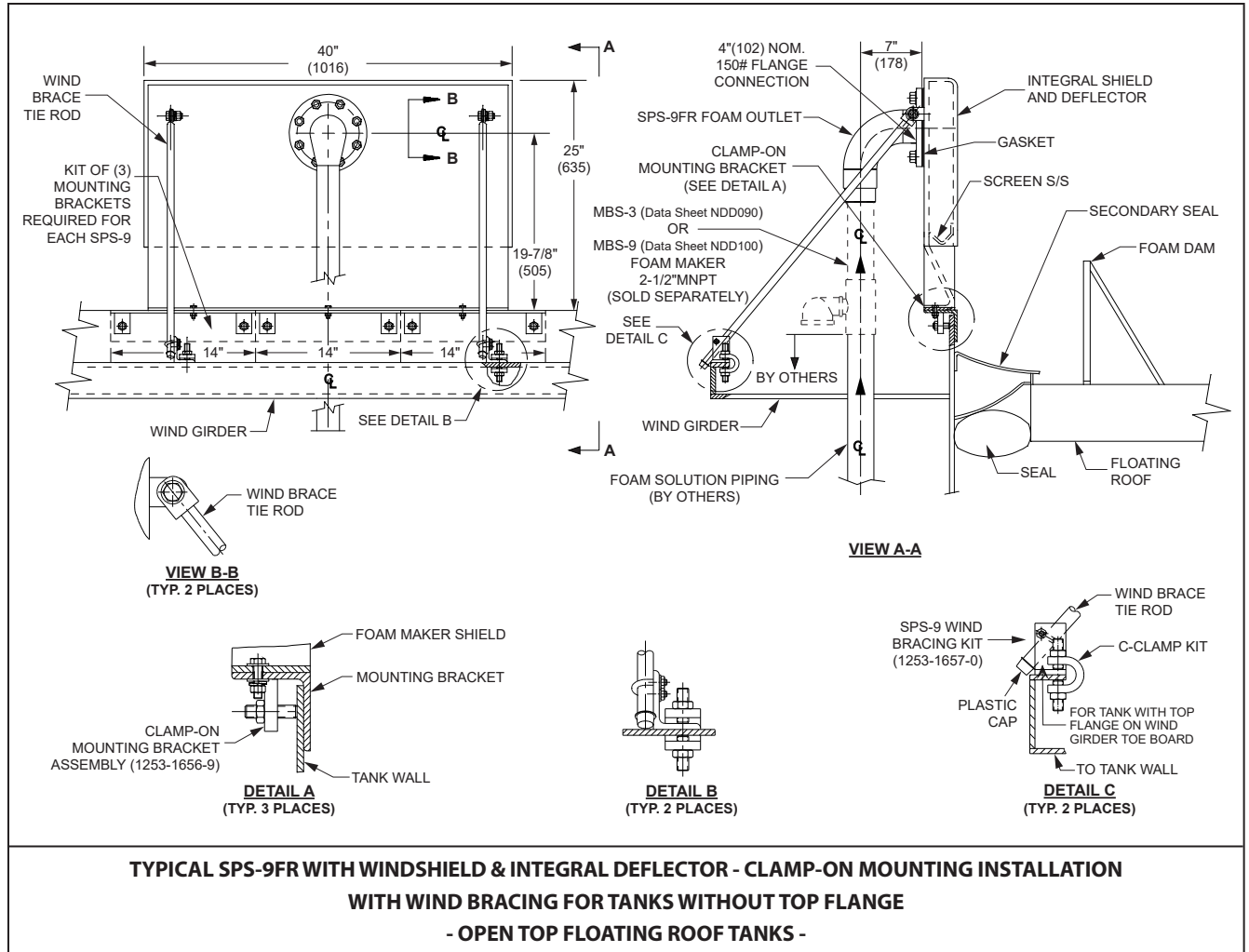
# SPS-9FR FOAM OUTLET WITH DEFLECTOR

NDD080



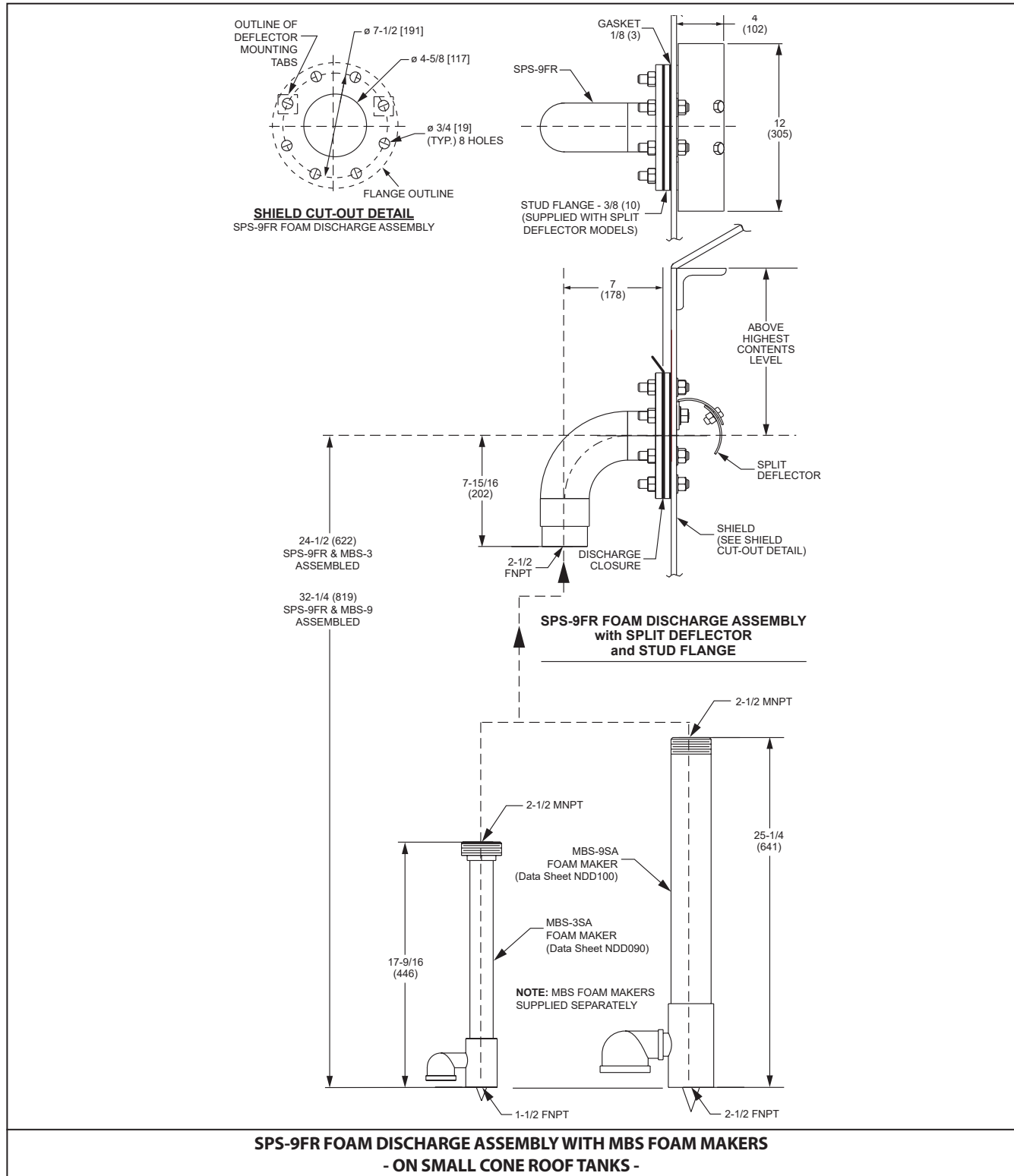
# SPS-9FR FOAM OUTLET WITH DEFLECTOR

NDD080



# SPS-9FR FOAM OUTLET WITH DEFLECTOR

NDD080





**SPS-9FR FOAM OUTLET  
WITH DEFLECTOR**

NDD080

# SPS-9FR FOAM OUTLET WITH DEFLECTOR

NDD080

## ORDERING INFORMATION

Part Number	Description
1253-1658-1	SPS-9FR Foam Outlet, Steel w/ fused Polyester Finish
1253-1658-2	SPS-9FR Foam Outlet, Steel w/ fused Polyester Finish, complete with Shallow Deflector
1253-1658-3	SPS-9FR Foam Outlet, Steel w/ fused Polyester Finish, complete with Split Deflector and Stud Flange
1253-1658-6	SPS-9FR Foam Outlet, Steel w/ fused Polyester Finish, complete with Split Shallow Deflector and Stud Flange
1253-1658-7	SPS-9FR Foam Outlet w/ Windshield & Integral Deflector (Order Mounting Kit separately from Optional Accessories below)

**NOTE:** When ordering please specify the following information:

- Tank or hazard identification
- Tank or hazard size
- Product being stored
- Desired flow and inlet pressure
- Foam concentrate type and percentage of concentration

## ORDERING INFORMATION

### Optional Accessories

Description	Part Number
SPS-9 Clamp-On Mounting Bracket Kit for Tanks Without Top Angle	1253-1656-9
SPS-9 C-Clamp Mounting Bracket Kit for Tanks With Top Angle	1253-1657-2
SPS-9 Wind Bracing Kit	1253-1657-0
Discharge Closure (for Small Cone Roof Tanks Only)	1232-5200-4

**Note:** Kits also available in stainless steel. Call for pricing.