

# MBS-3SA TYPE 2 FOAM MAKERS

NDD090

Approvals: UL, ULC, NYC

- Universal End of Line Foam Maker
- Robust Industrial Construction
- Powder Coated
- Suitable For Many Applications
- Standard Pipe Threads Facilitate Quick Installation
- Integral Stainless Steel Strainers



## Description

The MBS-3SA foam maker is designed to deliver fully aspirated foam for fire extinguishment directly to the hazard area, using all types of low expansion foam concentrates. Fully aspirated foam provides the most effective performance for all types of foam concentrates, resulting in quick, efficient control of an incident. MBS-3SA protection systems are classified as Type II discharge devices 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. 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 hazard area, regardless of weather conditions, for the most effective utilization of foam resources.

The MBS-3SA Foam Maker produces foam by introducing air into the foam solution stream. The solution inlet of the foam maker is fitted with a factory installed orifice, designed to control the flow rate and create a reduced pressure area to draw air into the foam solution stream. Air is drawn into the foam solution through an air inlet hole located on the foam maker. To prevent obstruction, the air inlet is protected with an air inlet strainer with a stainless steel screen. The aerated foam solution is discharged against a deflector assembly or directly against a wall,

causing the foam to slide gently down and into the hazard area.

The MBS-3SA foam maker is designed for easy, low cost installation on Floating Roof storage tanks and on Covered Floating Roof storage tanks which are not vapor tight above the internal floating roof (vented to atmosphere). Fixed Seal Protection Systems have a long history of prompt, and safe extinguishment. They are often used for dike protection in the event of a product spill. MBS-3SA foam makers are compatible with all types of foam concentrate; protein, fluoroprotein, AFFF, and AR-AFFF. The foam makers can be supplied from a fixed foam proportioning system or from portable foam proportioning equipment, such as, mobile fire apparatus. Installation shall be made in accordance with applicable codes and standards.

In addition to the above applications, this type of foam maker is often used in marine applications. They can be used for protection of specific areas and under docks. They are Coast Guard approved for shipboard protection of machinery spaces and cargo pump rooms.

## Features

- Superior Foam Expansion For Excellent Foam Performance
- Solution Inlet Strainer provided to keep debris from obstructing the orifice
- Orifice Plate – used to meter foam solution into the foam maker. The orifice plate is sized for a particular application

- Air Inlet Strainer provided to keep insects and debris from entering the foam maker
- Corrosion Resistant Polyester Finish

## Applications

- Open Top Floating Roof Tanks
- Covered Floating Roof Tanks
- Dike Protection
- Marine Systems

## Specifications

The MBS-3SA foam maker, shall include the air aspirating foam maker with 1-1/2" FNPT inlet and discharge tube with 1-1/4" MNPT outlet connection, orifice plate, air inlet strainer and solution inlet strainer. Solution flow shall be controlled via an orifice sized to specifically meet the hazard requirements, with capacities from 7.2 GPM (27.3 LPM) @ 40 PSI (2.8 Bar) to 55 GPM (208.2 LPM) @ 100 PSI (6.9 Bar). See Flow Capacity Chart to determine the correct orifice size to meet the flow requirement. The orifice shall be field replaceable and shall be of stainless steel construction. A cone shaped solution inlet strainer shall be installed in the inlet to the foam maker. The strainer shall be constructed of perforated stainless steel, with a minimum open area of 50% and a minimum hole diameter of 0.075". Air to expand the foam shall be drawn into the foam solution through a single air inlet located on the foam maker body. To prevent obstruction, the air inlet shall be protected by air inlet strainer, consisting of a malleable iron reducing elbow with a stainless steel screen.

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### Specifications (cont.)

The air inlet screen shall have an open area of 2:1 in comparison with the air inlet opening. The foam maker body and discharge tube are carbon steel, abrasive blasted and coated with a red fused polyester powder finish before assembly to insure complete internal coverage.

To insure proper operation, the MBS type foam maker shall be installed with an approved discharge device such as the SPS-9FR (supplied separately) or with a discharge column (by others) constructed of 2" schedule 40 steel pipe with a minimum length of 30" to a maximum length of 98". The discharge device or column shall provide sufficient back pressure to properly expand the foam, but not exceed the allowable back pressure. The aerated foam solution shall be discharged against a deflector assembly or directly against a wall, causing the foam to slide gently down and into the hazard area.

### Approvals and Listings

- UL Listed
- ULC Listed
- New York City Approved

### Technical Information

#### Material of Construction:

Foam Maker Body.....Carbon Steel  
 Discharge Tube.....Carbon Steel  
 Orifice.....Stainless Steel  
 Foam Solution Strainer..Carbon Steel  
 Air Strainer ..... Malleable Iron Elbow  
 w/316 Carbon Steel  
 Hardware ..... Stainless Steel

#### Operating Pressure:

Standard .....40 PSI (2.8 Bar)to  
 100 PSI (6.9 Bar)  
 USCG .....50 PSI (3.4 Bar) to  
 100 PSI (6.9 Bar)

#### Flow Capacity:

Smallest Orifice:...7.2 GPM (27.3 LPM)  
 @ 40 PSI (2.8 Bar)  
 11.4 GPM (43.1 LPM)  
 @ 100 PSI (6.9 Bar)

Largest Orifice.....34.8 GPM (131.7 LPM)  
 @ 40 PSI (2.8 Bar)

55.0 GPM (208.2 LPM)  
 @100 PSI (6.9 Bar)

#### Finish:

##### Carbon Steel Components:

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

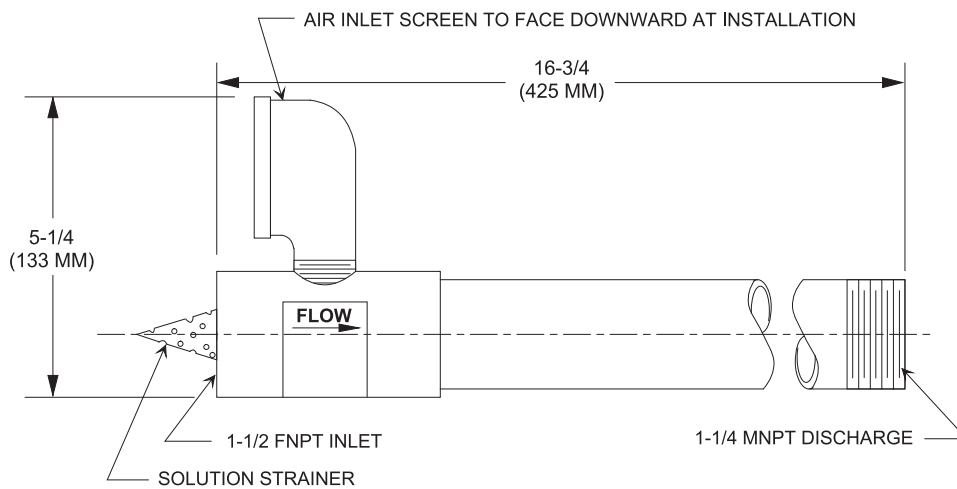
##### Optional Stainless

Steel Units .....Natural Finish

Weight .....5.2 lbs. (2.4 kg)

### Options

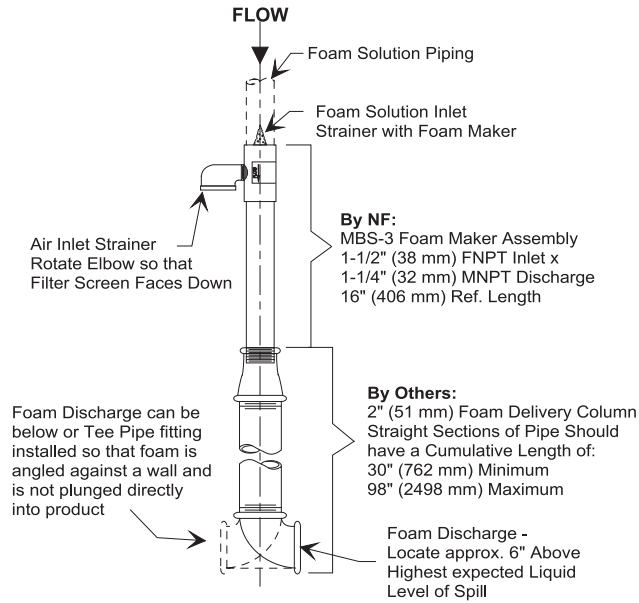
- Stainless Steel Construction
- Adapter bushing for connection to SPS-9FR Foam Outlet



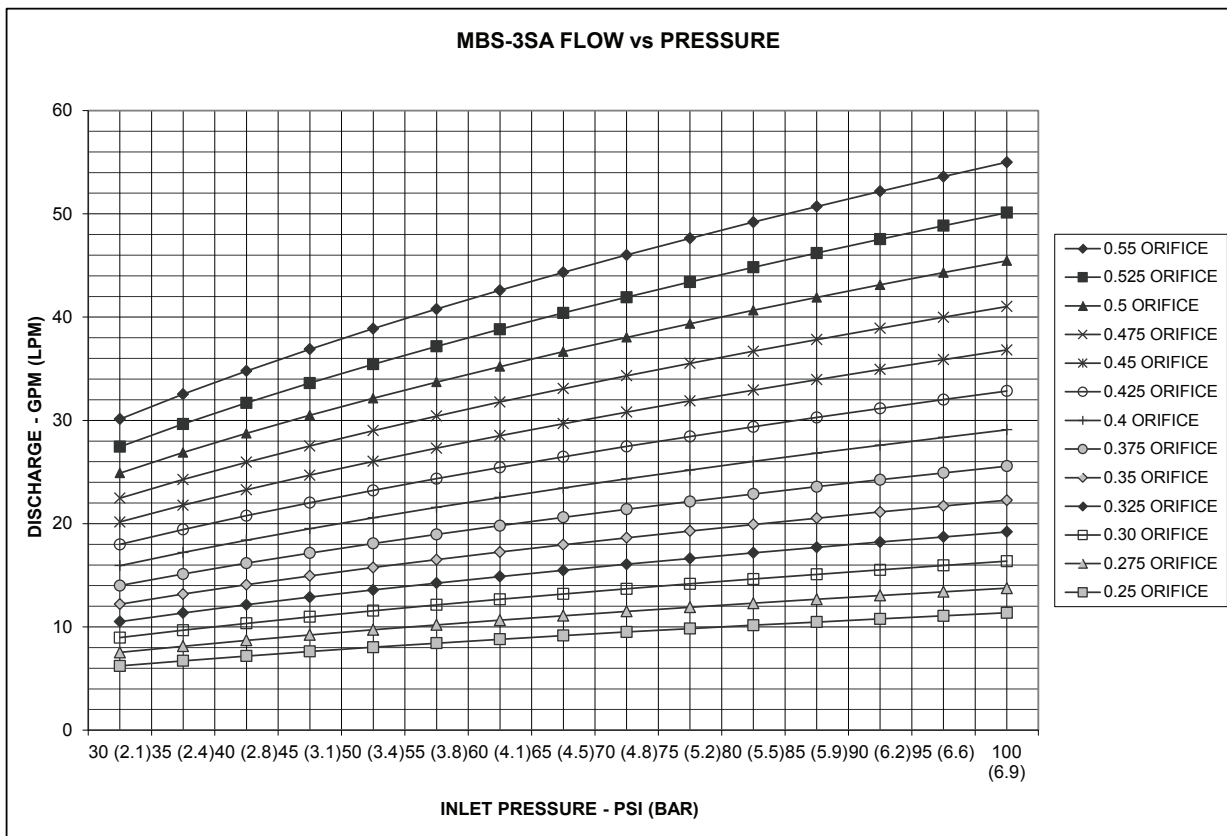
**MBS-3SA & MBS-3SSA TYPE 2 FOAM MAKERS**

## MBS-3SA TYPE 2 FOAM MAKERS

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**MBS-3 TYPE 2 FOAM MAKER - INSTALLATION ASSEMBLY**  
Typical for Vertical or Horizontal Installation



# MBS-3SA TYPE 2 FOAM MAKERS

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**ORDERING INFORMATION**

<b>Part Number</b>	<b>Description</b>
1254-4110-1	MBS-3SA Foam Maker, Type 2, Steel w/fused Polyester Finish
1254-4110-2	MBS-3SA Foam Maker, Type 2, Steel w/fused Polyester Finish for SPS-9FR
1254-4110-7	MBS-3SSA Foam Maker, Type 2, Stainless Steel
1254-4110-8	MBS-3SSA Foam Maker, Type 2, Stainless Steel for SPS-9FR

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.

**National Foam**

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