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## COMPRESSED AIR FOAM DATASHEET

# ICAF NOZZLE MODEL TAR 225C



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**DESCRIPTION**

FireFlex ICAF Nozzle Model TAR 225C is an open type (deluge) non-automatic nozzle specifically designed to be used with the FireFlex ICAF System.

TAR-225C are used in the ceiling nozzle configuration for total flooding, applicable to the protection of two-dimensional flammable or combustible liquid hazards. It is always installed pendant.

Examples of hazards covered by this configuration include ceiling level protection for hydrocarbons & polar solvents processing hazards, pumps, compressors, piping or containers, gas or Diesel engine generator rooms, machinery spaces, hydraulic oil or lubricating oil rooms, storage tanks and fueling areas.

**Characteristic**

Nominal flow:	5.94 gpm (22.5 lpm)
Nominal expansion:	10:1
Connection:	1" NPT, Female

**Nozzle materials:**

Base:	Stainless Steel 300
Tee:	Stainless Steel 300
Shaft:	Stainless Steel 300

**Nozzle spacing and location**

Located at the ceiling level the ICAF Nozzle is designed to discharge CAF solution in a 360° radius over a maximum area of 150 ft<sup>2</sup> (13.9 m<sup>2</sup>) when used on hydrocarbon liquids and 100 ft<sup>2</sup> (9.29 m<sup>2</sup>) when used on polar solvents.

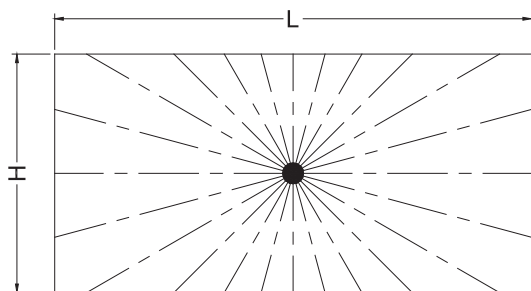
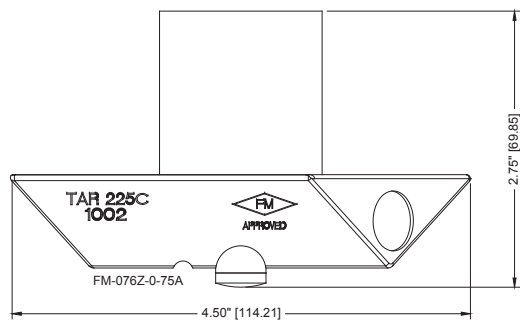
Based on a nominal spacing of 12.25 ft. x 12.25 ft. (3.73 m. x 3.73 m.) the maximum coverage area for the TAR 225C nozzle on hydrocarbon liquids is 150 ft<sup>2</sup> (13.9 m<sup>2</sup>) and it shall be part of a balanced piping network. Nominal spacing on polar solvents is 10.0 ft. x 10.0 ft. (3.05 m. x 3.05 m.) with a maximum coverage area of 100 ft<sup>2</sup> (9.29 m<sup>2</sup>). The maximum spacing shall not exceed 16 ft. (4.87 m) on hydrocarbon liquids or 12.9 ft. (3.9 m.) on polar solvents and the nozzle layout shall be designed as per Tables 1 & 2.

TAR 225C nozzles shall be installed in rooms with a minimum ceiling height of 8 ft. (2.44 m). Nozzle distance from the ceiling shall be based on the rule of 1 inch per feet (2.5 cm per 30 cm) of ceiling elevation, resulting for example, to a minimum of 8" for 8 ft. (20 cm for 2.44 m.), 25" for 25 ft ceiling (63.5 cm for 7.6 m.), etc... Nozzle height shall not exceed 46 ft. (14.0m.) from finished floor for protection of hydrocarbons and 35 ft. (10.7 m.) for polar solvents.

ICAF nozzles shall be positioned to distribute CAF to all locations in the area being protected. The presence of obstructions and the potential for shielding of spray patterns shall be evaluated to ensure that system performance is not affected.



## Nozzle dimensions & spacing:



FM-076Z-0-75A

**Table 1**  
Permitted nozzle spacing for Hydrocarbon Liquids:

Dimension " H "		Dimension " L "	
6'-7½"	2.0 m.	16'-0"	4.88 m.
7'-8¾"	2.36 m.	15'-6"	4.72 m.
8'-8"	2.64 m.	15'-0"	4.57 m.
9'-5½"	2.88 m.	14'-6"	4.42 m.
10'-2"	3.1 m.	14'-0"	4.27 m.
10'-10"	3.3 m.	13'-6"	4.11 m.
11'-5½"	3.49 m.	13'-0"	3.96 m.
12'-0"	3.66 m.	12'-6"	3.81 m.
12'-3"	3.73 m.	12'-3"	3.73 m.

This table may be interpolated using the formula:

$$H = \sqrt{300 - L^2}$$

**Table 2**  
Permitted nozzle spacing for Polar Solvents:

Dimension " H "		Dimension " L "	
6'-0"	1.83 m.	12'-9¾"	3.91 m.
7'-0"	2.13 m.	12'-3½"	3.75 m.
8'-0"	2.44 m.	11'-8"	3.56 m.
9'-0"	2.74 m.	10'-11"	3.33 m.
10'-0"	3.05 m.	10'-0"	3.05 m.

This table may be interpolated using the formula:

$$H = \sqrt{200 - L^2}$$

