



Fire Marshal Division

August 10, 2018

Randy Adams
832-101 Purser Drive
Raleigh, NC

**Re: CCCC Auto Restoration
220 Olive Farm Drive
Sanford, NC 27332**

Application Number FMFW1808-0001

Mr. Adams,

Thank you for submitting the plans for the fixed fire suppression system. The plans have been carefully reviewed by a qualified code enforcement official to examine for full compliance with the North Carolina Fire Prevention Code and all other fire protection regulatory documents. There are some items that were found during the plan review process that need to be addressed before a final inspection of the new facility can be given. These items are outlined and described below.

- **904.6 Dry-chemical systems.**
 - Dry-chemical extinguishing systems shall be installed, maintained, periodically inspected and tested in accordance with the North Carolina Fire Prevention Code, NFPA 17 and their listing.
- **1504.7.1 Ventilation Interlocks**
 - With a total flooding system, the ventilation system for the paint booth is required to shut down before the system operates.
 - Spaying operations **CANNOT** be conducted without the operation of the ventilation system. An interlock must be provided between the ventilation system and spraying operation.
- **Fire Extinguisher**
 - Fire extinguishers of a rating no less than 4A:40 BC shall be within a 30 ft. travel distance from the paint booths.
- **904.4.1 Inspection.**



- Prior to conducting final acceptance tests, the following items shall be inspected:
- Hazard specification for consistency with design hazard.
- Type, location and spacing of automatic- and manual- initiating devices.
 - Size, placement and position of nozzles or discharge orifices.
 - Location and identification of audible and visible alarm devices.
 - Identification of devices with proper designations.
 - Operating instructions.

Thank you again for submitting the plans for the fixed fire suppression system. Please review the plans and adhere to any notes and alterations that were made in addition to the original drawings. These remarks are for the plans that were submitted and its original intent. These remarks do not apply if the original intent changes or what was submitted on the above date changes. If you have any questions, please do not hesitate to call this office.

Again, thank you and we look forward to working with you during the construction period!

Sincerely,



D. Banks Wallace
Chief Deputy Fire Marshal



Plan Review, Inspection, and Permit Fees

Application Number : **FMFW1808-0001**

\$200.00	<input type="checkbox"/>	Explosive Material (90 Days)	\$	-
\$100.00	<input type="checkbox"/>	Explosive Materials (72 Hours)	\$	-
\$100.00	<input type="checkbox"/>	Fireworks Public Display	\$	-
\$50.00	<input type="checkbox"/>	Final Inspection	\$	-
\$35.00 + \$2.00 per device	<input type="checkbox"/>	Fire Alarm Testing	\$	-
\$35.00 + \$2.00 per nozzle	<input checked="" type="checkbox"/>	Fixed Fire Suppression	\$	35.00
\$75.00	<input type="checkbox"/>	Insecticide Fog/Fumigation	\$	-
\$100.00	<input type="checkbox"/>	Pipe Test/UST/AGST	\$	-
\$50.00	<input type="checkbox"/>	Plans up to 5000 sq ft	\$	-
\$100.00	<input type="checkbox"/>	Plans 5001 sq ft to 10,000 sq ft	\$	-
\$150.00	<input type="checkbox"/>	Plans 10,001 sq ft to 25,000 sq ft	\$	-
\$250.00	<input type="checkbox"/>	Plans 25,001 sq ft and over	\$	-
\$35.00 + 2.00 per head	<input type="checkbox"/>	Sprinkler Certification Test	\$	-
\$50.00	<input type="checkbox"/>	Standpipe Testing	\$	-
\$50.00	<input type="checkbox"/>	Special Assembly (ie. amusement buildings, carnivals, fairs)	\$	-
\$75.00	<input type="checkbox"/>	Tents/Canopies/Air Supported Structure	\$	-
\$100.00	<input type="checkbox"/>	Tank Installation (charge for each tank)	\$	-
\$100.00	<input type="checkbox"/>	Tank Removal (charge for each tank)	\$	-
	3	Total Devices/Heads	\$	6.00
		Total Cost	\$	41.00

Code Enforcement Official

D. Banks Wallace

8/10/2018



Application for Plan Review

Application # FMFW-1808-0001

Date Received: 8/7/18 Received By: [Signature]

Name of Project: Central Carolina Community College (Advance auto)

Physical Address of Project: 220 Olive Farm Rd.

Sanford NC 27332

Plans Submitted By: Pye Barker Fire & Safety LLC / Randy Adams

Project Phone: N/A

Contact Person/Address: _____

Reviewed For Code Compliance By:
D. Banks Wallace
Chief Deputy Fire Marshal
08/10/2018 7:25:15 AM

Contact Phone: (____) - ____ - ____ (____) - ____ - ____

Contractor's Name/Info: Pye Barker Fire & Safety, LLC
832-101 Luster Dr.
Raleigh, NC 27603

Contractor's Phone: (919) - 779-4010

- Plans that are submitted will be reviewed as quickly as possible with an average time of review between 7-10 working days.
- Status checks may be conducted on plan reviews by visiting the website <http://hteweb.harnett.org/Click2GovBP/Index.jsp> or by calling the Harnett County Central Permitting Office (910-893-7525, Option #2), or the Harnett County Fire Marshal's Office (910-893-7580).
- Approved plans must be picked up from the Central Permitting Office and all fees paid before any required inspections can be conducted.

Business: *Central Carolina cc*

Advance Auto
220 Olive Farm Rd.
Sanford, NC 27332
(Mixing Room)

# of Nozzles	1
Max Flow Possible	N/A
Flow points used	N/A

Fire Equipment Contractor
Pye Barker Fire & Safety, Inc.

832-101 Purser Drive
Raleigh, NC 27603
Ph: 919-779-4010
Fax: 919-779-4014

Qualifier: Randy Adams

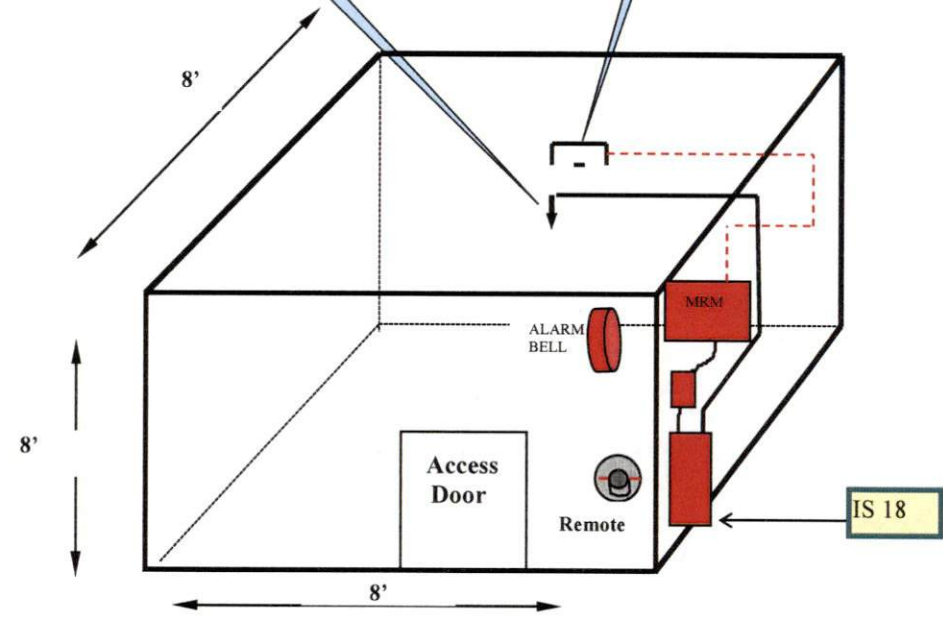
Drawn by: Randy Adams

Tied into fire alarm when applicable

Amerex
IS18

Work Area = (1) TF
(Total Flood)
1,440 ft. (volume per nzl)
See page 3A-7, 3A-8 &
3A-9

Quick response 200 degree
Detectors every 20' and at
the duct/plenum Interface



FIRE SUPPRESSION SYSTEM
PAINT MIXING ROOM

- Pipe 3/4" supply for IS18 Schd. 40 hot-dipped galvanized steel.
- All booth penetrations shall be liquid tight utilizing Quick Seal adapters.
- Electrical done by others. (Micro Switch Provided by PBFS)
- Above done in accordance to NFPA #17, Manufactures specifications, UL Standard 1254 and all local codes and standards.

Business: *Central Carolina CC*

Advance Auto
220 Olive Farm Rd.
Sanford, NC 27332
(Mixing Room)

# of Nozzles	1
Max Flow Possible	N/A
Flow points used	N/A

Fire Equipment Contractor
Pye Barker Fire & Safety,
Inc.

832-101 Purser Drive
Raleigh, NC 27603
Ph: 919-779-4010
Fax: 919-779-4014

Qualifier: Randy Adams

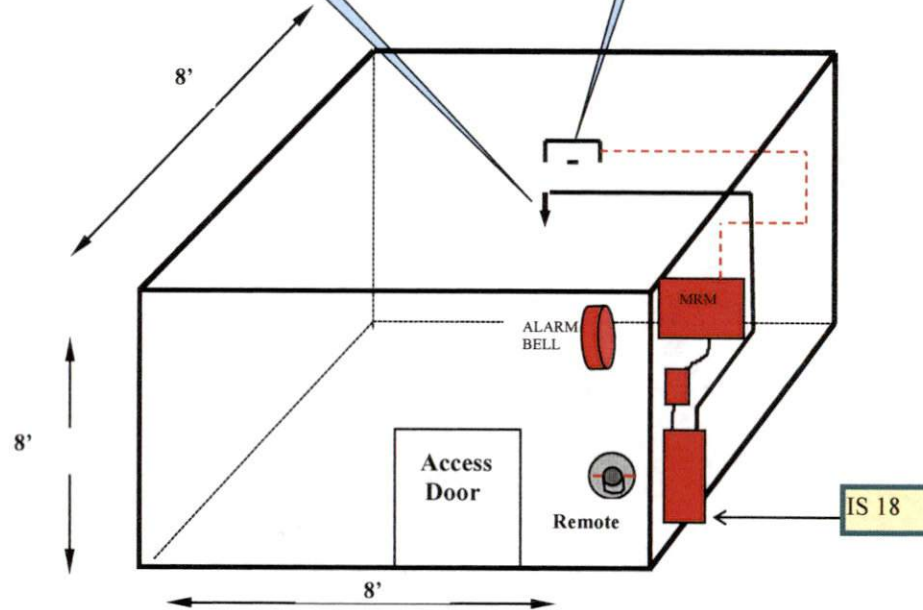
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- Electrical done by others. (Micro Switch Provided by PBFS)
- Above done in accordance to NFPA #17, Manufacturers specifications, UL Standard 1254 and all local codes and standards.

Business: *Central Carolina C.C.*

Advance Auto
220 Olive Farm Rd.
Sanford, NC 27332
(Mixing Room)

# of Nozzles	1
Max Flow Possible	N/A
Flow points used	N/A

Fire Equipment Contractor
Pye Barker Fire & Safety,
Inc.

832-101 Purser Drive
Raleigh, NC 27603
Ph: 919-779-4010
Fax: 919-779-4014

Qualifier: Randy Adams

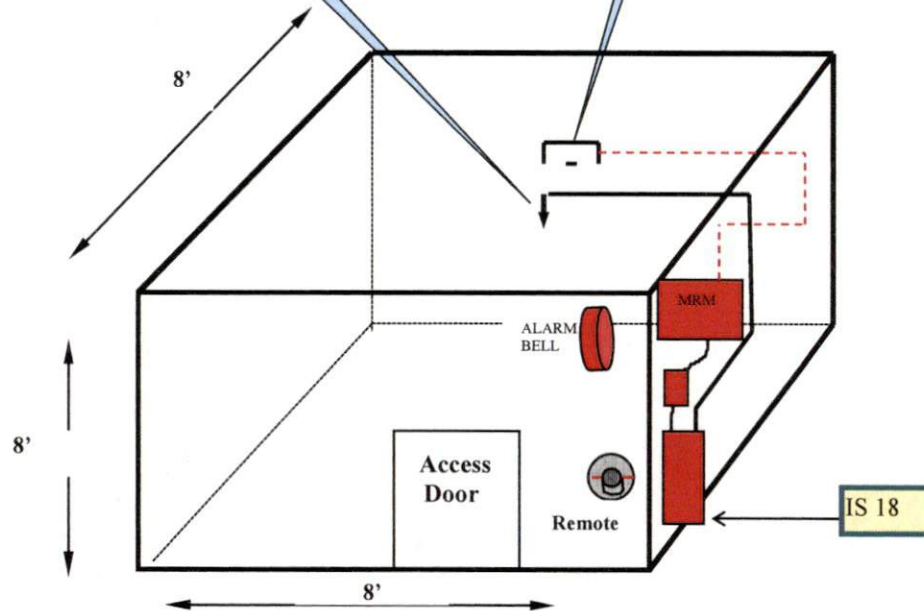
Drawn by: Randy Adams

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- All booth penetrations shall be liquid tight utilizing Quick Seal adapters.
- Electrical done by others. (Micro Switch Provided by PBFS)
- Above done in accordance to NFPA #17, Manufactures specifications, UL Standard 1254 and all local codes and standards.

3A.3 Total Flood:

Note: Total Flood coverages are offered in two different versions: “**Standard**” and “**Module Perimeter**”. The system designer must select the appropriate coverage to use prior to installation.

3A.3.1 Standard Coverage, Total Flooda) Cylinders:

The Model IS18ABC and IS35ABC are to be used for Standard Coverage Total Flooding applications.

b) Nozzles:

The Total Flood Nozzle, (TF, **P/N 16172**) is used for both the 18lb. and 35lb. ABC cylinders. The IS18 cylinder supports one Total Flood (TF) Nozzle. The IS35 cylinder supports two Total Flood (TF) Nozzles.

c) Nozzle Coverages:

Volume: 1,440 ft.³ per nozzle

Maximum Area: 120 ft.² per nozzle

Maximum Height: 20 ft.

Maximum Side length: 15 ft.

(See chart below for height vs. area restrictions)

Maximum Standard Coverage Per Nozzle			
Hazard Height (ft.)	Longest Side (ft.)	Area (ft. ²)	Volume (ft. ³)
12 or less	15	120	1440
13	15	110.7	1440
14	15	102.8	1440
15	15	96	1440
16	15	90	1440
17	15	84.7	1440
18	15	80	1440
19	15	75.8	1440
20	15	72	1440

Note: Amerex Industrial Dry Chemical Systems have not been evaluated by Underwriters Laboratories, Inc. with respect to the total flood protection of hazards incorporating unclosable openings exceeding 5% of the total hazard surface area.

d) Temperature Range:

The operating temperature range for Standard Total Flood applications is -40°F to 120°F (-40°C to 49°C).

e) Piping Requirements:

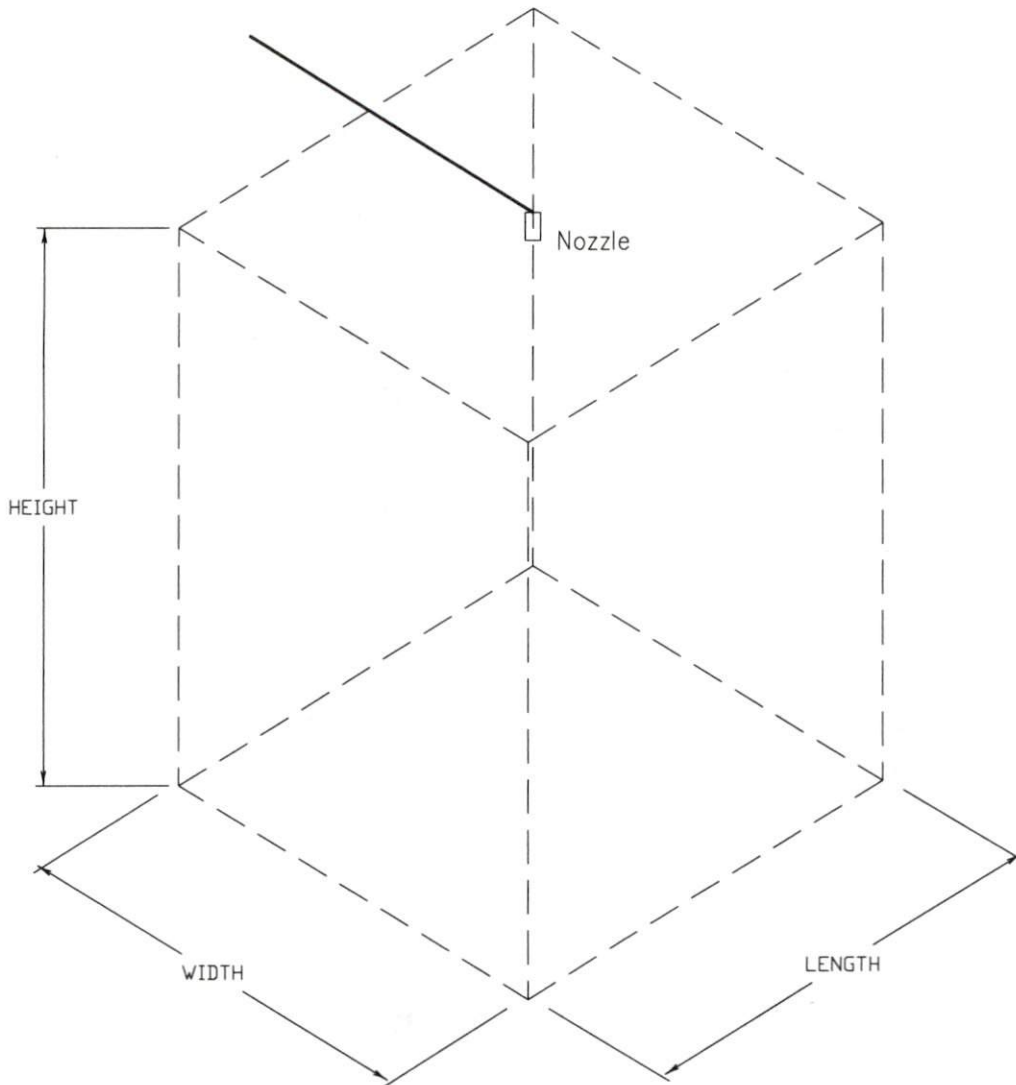
Piping diagrams include limitations on pipe length and fittings. System piping must be balanced. Balanced piping is that in which the difference between the shortest actual pipe length from **any** ¾" TEE to nozzle and the longest actual pipe length from any ¾" TEE to nozzle does not exceed 10% of the longest actual pipe length from any ¾" TEE to nozzle. The number and type of fittings for all TEE to nozzle sections must be equal.

All piping must be Schedule 40, hot-dipped galvanized steel pipe, and all fittings must be 150lb. class. Examples of acceptable fitting materials include hot-dipped galvanized malleable iron, ductile iron, or steel. Couplings and unions may be used where necessary, and reducing bushings or reducing tees can be used for changes in pipe diameter. **Note:** Black steel pipe and fittings can be used in relatively noncorrosive atmospheres.

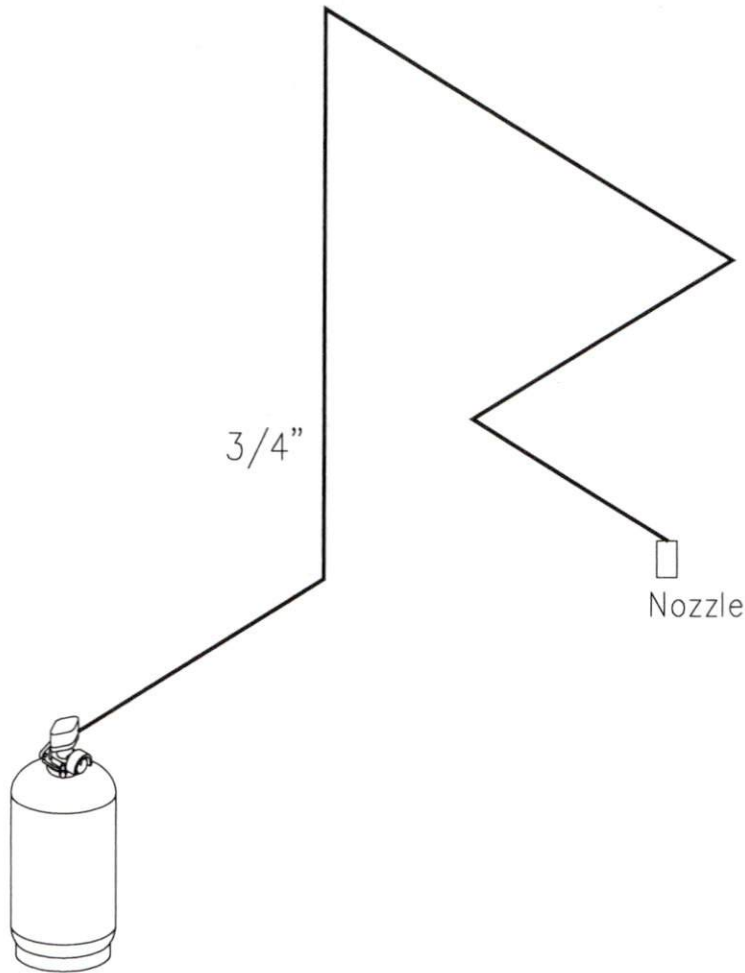
3A.3.1 Standard Coverage, Total Flood (continued)

f) **Nozzle Placement:**

The Total Flood (TF) Nozzle has been developed to provide application of extinguishing agent from an overhead position. The nozzle is to be mounted in the center of the protected area, with the tip of the nozzle no greater than six (6) inches from the ceiling. Proper nozzle placement is shown below:



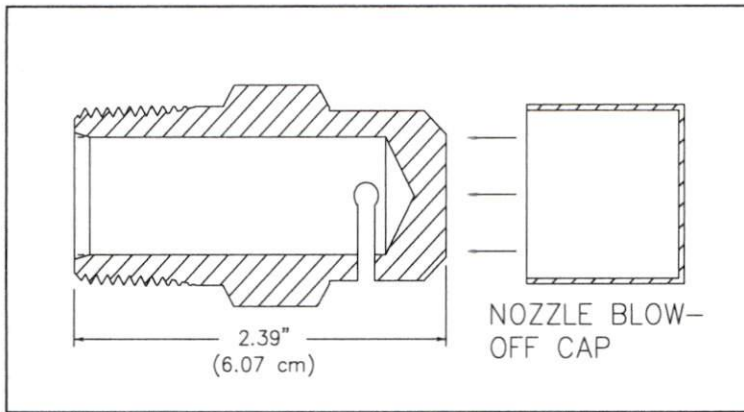
3A.3.1 Standard Coverage, Total Flood (continued)



Standard Total Flooding, IS18ABC, Single TF Nozzle:

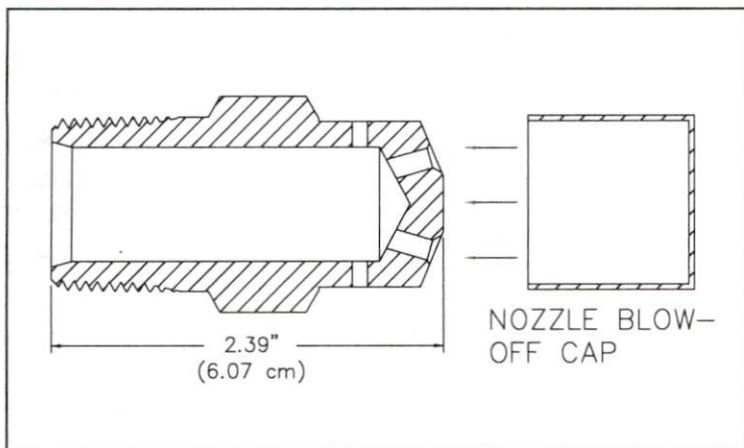
	Pipe Size, in	Maximum Length, ft	Maximum # of Elbows	# of Tees Allowed
<u>Cylinder to Nozzle</u>	3/4	60	8	0
<u>Total 3/4" Pipe</u>	--	60	--	--

The maximum nozzle height above the agent cylinder is 20 feet.



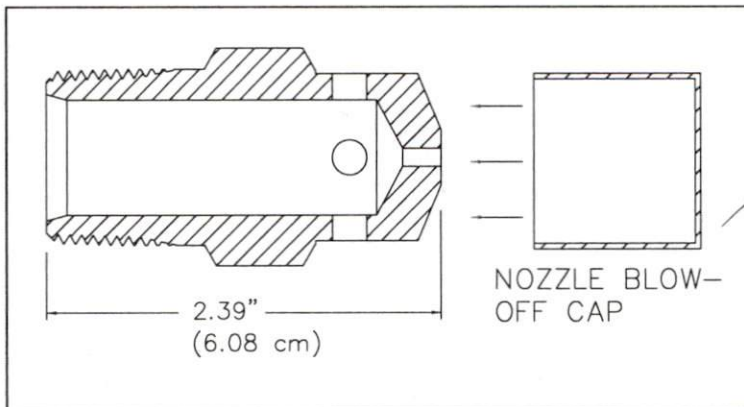
Tankside (TS) Local Application Nozzle (P/N 16170)

This nozzle is designed for Application of Dry Chemical Agent across the surface of the hazard, from the side.



Total Flood (TF) Nozzle (P/N 16172)

This nozzle is designed for Total Flooding Application of Dry Chemical Agent into an enclosure with no more than 5% total uncloseable openings. See Chapter 3A for other limitations. It is also used in Vehicle Paint Spray Booth and Open Front Spray Booth applications (see Chapter 3A).



Three-Way Nozzle (P/N 16174)

This nozzle is specifically tailored for certain Vehicle Paint Spray Booth Plenum hazards (see Chapter 3A).