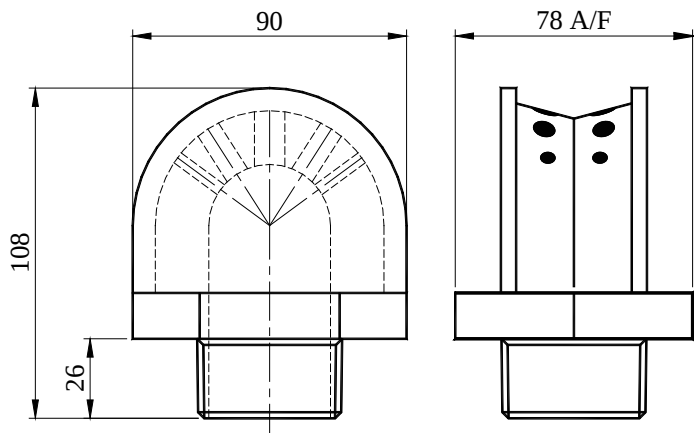


DESCRIPTION

The GW Thermoshield Model 883B Nozzle is designed for use in areas where a barrier (water curtain) is required between risks in a fire scenario in order to prevent fire spread.

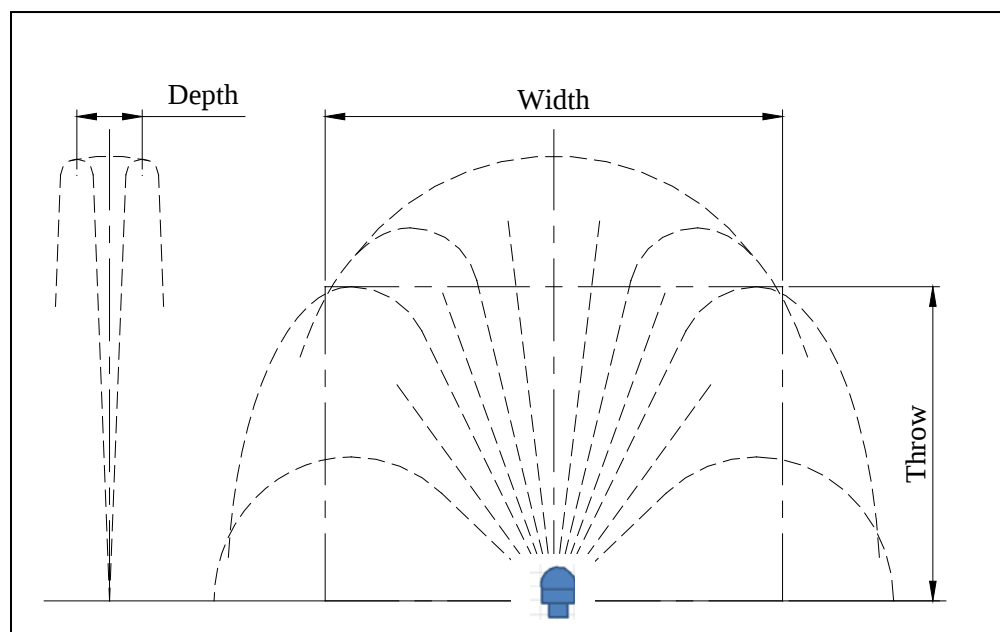
For example when used between fuel storage vessels the GW Thermoshield nozzle will produce a "Vertical Partition" of water which prevents adjacent storage vessels from heating up due to convection/radiation.

The nozzles, when used in this way, will not provide any fire suppression capacity for the risk, as it is intended only to prevent fire spread. The individual risks will require separate protection.

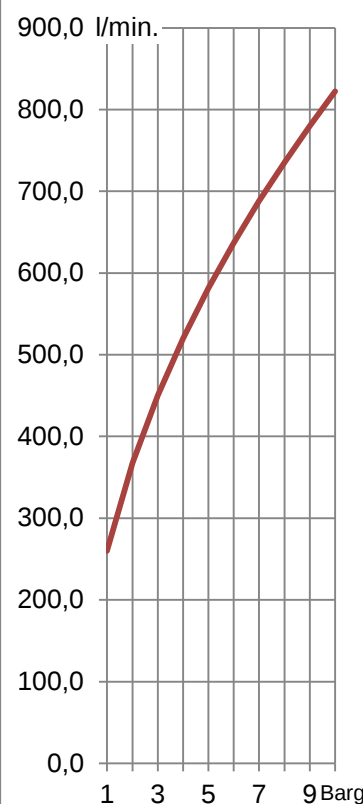


Technical Data:	
K – Factor ($\pm 3\%$)	260 (metric)
Weight	1840 g
Thread Type	1½" BSPT, (NPT on request)
Material	Gunmetal
Finish Available	Natural, or SnNi-plated
Part Number	Material
D33A00B	Gunmetal
D33A06B	Gunmetal / SnNi

Approximate Spray Pattern - Nozzle mounted Vertically Upwards					
	1 bar	2 bar	3 bar	4 bar	7 bar
Throw	4 m	5.5 m	6.5 m	8 m	10 m
Width	8 m	10 m	11 m	11 m	11 m
Depth	0.3 m	0.4 m	0.5 m	0.6 m	0.9 m



Pressure / Flow graph



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Data sheet:

GW Thermoshield

Model 883B

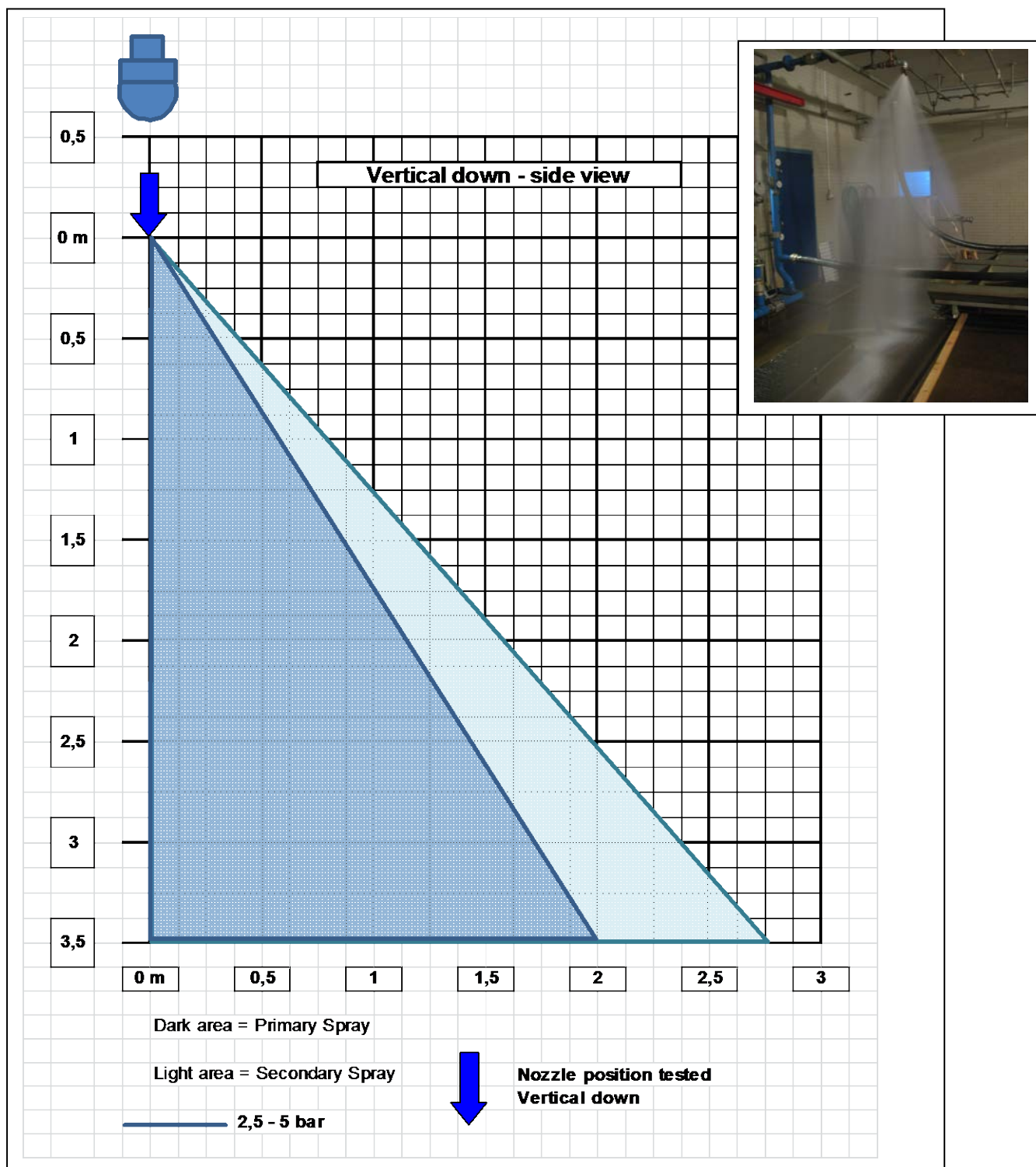
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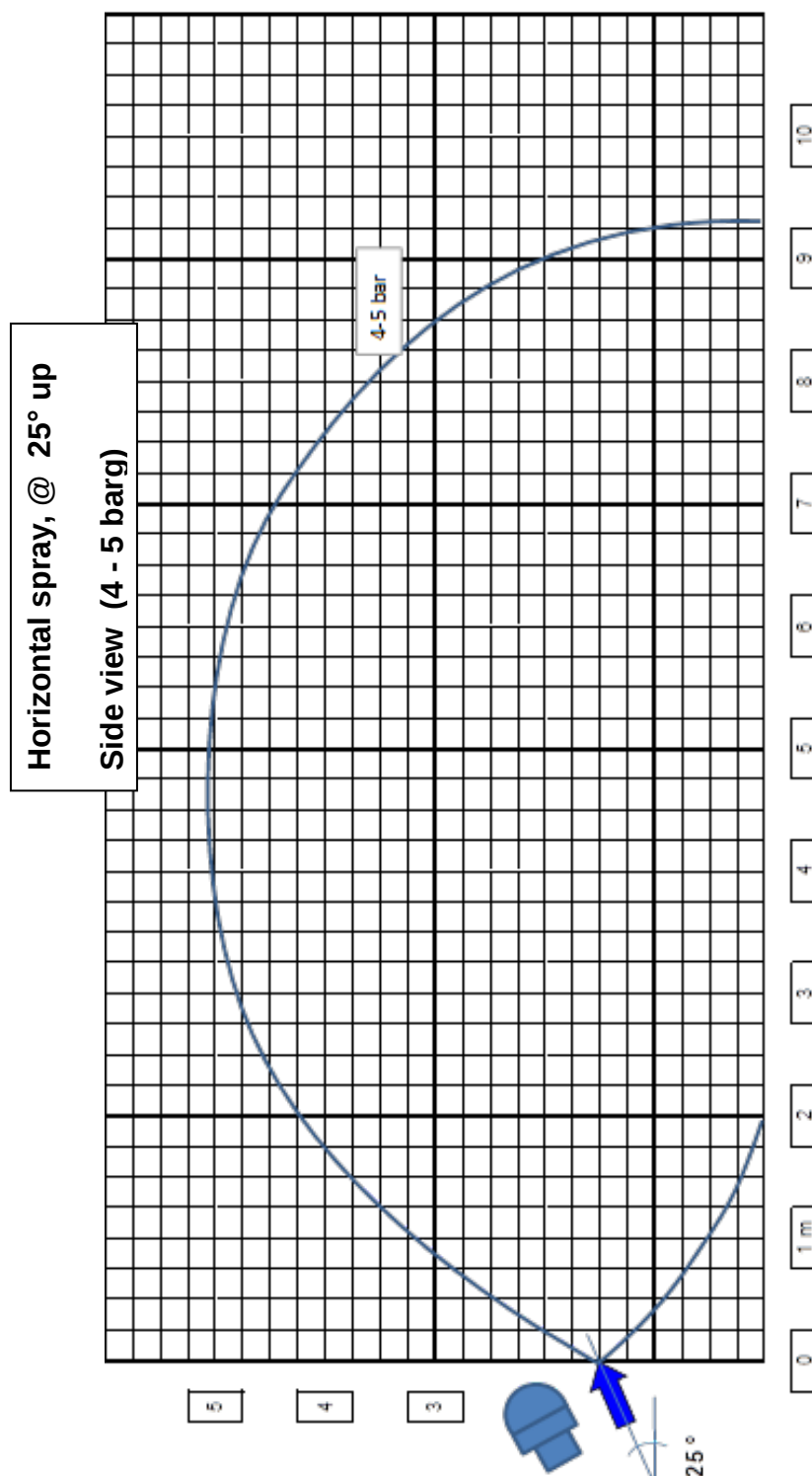
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GW Thermoshield

Model 883B

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Date:

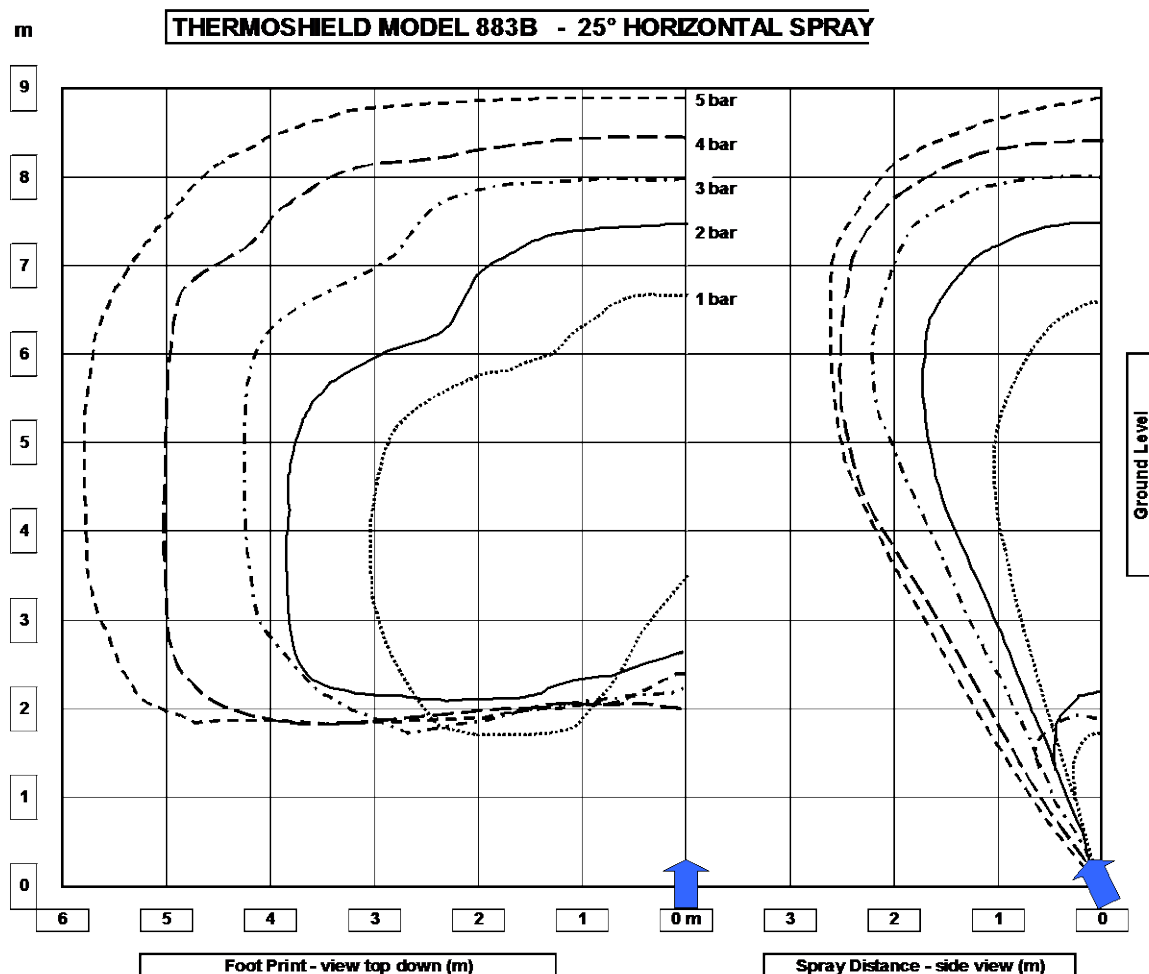
19 October 2016

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GW THERMOSHIELD

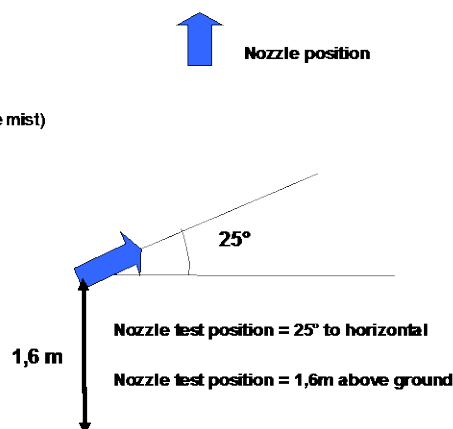
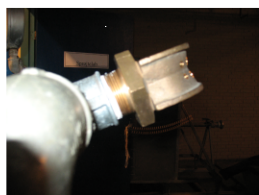
MODEL 883B

PARTITION SPRAY, VERTICAL & HORIZONTAL



-  1 bar very large droplets
-  2 bar medium to large droplets
-  3 bar medium droplets
-  4 bar medium to small droplets (little mist)
-  5 bar small drops (some mist)

Recommended Working Pressure : 3 - 5 bar



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Data sheet: GW Thermoshield
Model 883B

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GW THERMOSHIELD

MODEL 883B

PARTITION SPRAY, VERTICAL & HORIZONTAL

Application:

The GW Thermoshield nozzle is designed to provide a heavy duty flat fan spray, to generate a water curtain. It is typically installed as part of a deluge system to protect a surface, or area from heat radiation. With the orifices pointing vertically upwards (page 1), downwards (page 2) or horizontal (page 3), the nozzle is installed between the surface / area to be protected, and the heat source. The water spray will both reflect and absorb the heat radiation thus reducing the resultant level of heat reaching the protected surface / area.

The Thermoshield nozzle can also be used for drenching of horizontal surfaces, when installed flat horizontally as illustrated on page 4.

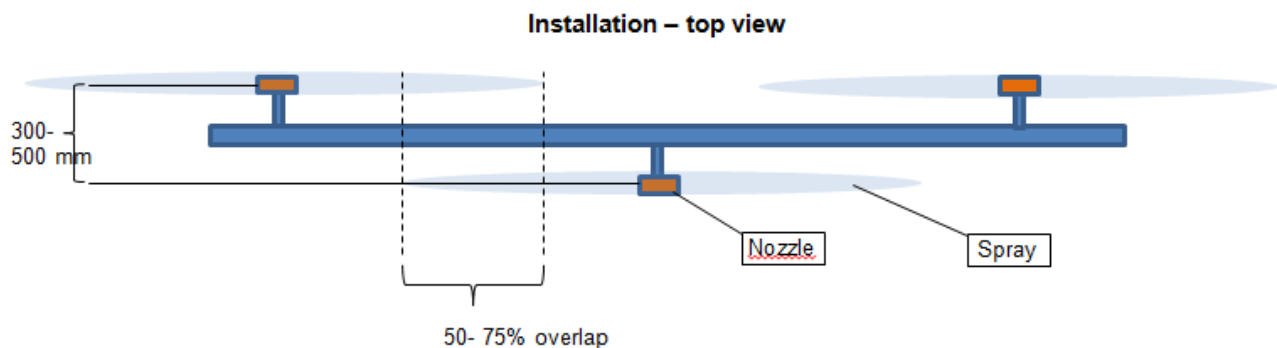
Selection:

Nozzles should be selected to provide the required application rate for the hazard/application. Whilst the cooling / protective effect of the water curtain is difficult to quantify – a thumb rule is that small orifices operated at high pressure will generate small droplets (water mist) with little mass and velocity and limited spray robustness (is easily diverted by wind). The most robust spray is achieved by using nozzles with relatively large orifices, operated at low to medium pressure (recommended working pressure: 3 to 5 barg). It is recommended to consult NFPA 15 chapter 6 and 7 for more guidance on nozzle selection and installation.

Installation:

The GW Water Curtain nozzles should be installed in such a way that a robust uninterrupted water curtain is generated in front of the full surface of the protected structure/facility. The nozzle spacing should ideally provide a 50-75% spray overlap with the neighbour nozzle.

In order to avoid adjacent sprays from colliding, it is recommended to offset neighbour nozzles axially by ca. 300 - 500 mm. to allow for a double layer parallel (overlapped) spray to be formed.



INSPECTION, TEST AND MAINTENANCE

The owner is responsible for maintaining the fire protection system in proper operating condition. For minimum maintenance and inspection requirements, refer to relevant standards – e.g. NFPA 25, that describes maintenance and inspection of sprinkler / water spray systems. In addition the AHJ may have additional maintenance, testing and inspection requirements that must be followed.

1. Spray nozzles must be inspected on a regular basis for corrosion, mechanical damage, obstructions (plugging of water way), paint, etc. The frequency of inspections may vary due to corrosive atmospheres, water supplies and activity around the nozzles.

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2. Spray nozzles that have been painted or mechanically damaged must be replaced immediately. Nozzles showing signs of corrosion shall be tested for proper operation, and/or replaced immediately as required. Care must be taken to ensure that the replacement nozzle has the proper model, style and K-factor.
3. The spray nozzle discharge pattern is critical for proper fire protection. Hence, nothing should be hung from, attached to, or otherwise obstruct the discharge pattern. All obstructions must be immediately removed or, if necessary, additional nozzles installed.
4. Fire protection systems that have been subject to a fire must be returned to service as soon as possible. The entire system must be inspected for damage and repaired or replaced as necessary. Spray nozzles that have been exposed to corrosive products of combustion or high ambient temperatures, should be replaced.

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