FOAM WATER PENDANT TYPE SPRINKLER

MODEL: SD-520

DESCRIPTION

The Air/ Foam discharge sprinkler head is designed mainly to be used in the deluge water foam system. These sprinkler heads are engineered to discharge foam in a spray pattern.

The deluge water foam system is usually designed using non-aspirating sprinkler heads or air-aspirating foam-water sprinkler heads. The non-aspirating heads are designed to be used for AFFF and Alcohol Resistant AFFF foam concentrates and are not suitable for the use with protein and fluroprotein type foam concentrates. The SHIED SD air-aspirating foam water sprinklers are primarily used with protein and fluroprotein type foam concentrates, they can also be used with any type of foam concentrate.

SYSTEM DESIGN DESCRIPTION

The foam water spray system design shall be based on the NFPA 16, NFPA 13, NFPA 11 & NFPA 409 standards.

The design discharge density shall be in accordance with the applicable occupancy standard for foam water spray systems but in no case less than 6.5 mm/m^2 (0.16 GPM/ft^2) as per NFPA 16. A minimum of two foam water sprinklers are to be installed in an area regardless of its size, in order to obtain the required pattern overlap.

The foam solution shall be designed to discharge for a minimum period of 10 minutes based on the density as specified over the entire system area for deluge foam water spray system.

SYSTEM DESIGN

- Determine the size and type of hazard.
- The application rate has to be determined.
- Estimate the number of sprinklers required.
- Determine total system discharge flow.
- Estimate the water requirement.
- Determine discharge time.
- Estimate the required quantity of foam.
- Determine the size and best type of proportioning system to be used.

APPLICATION

Deluge foam water spray system is designed to protect two dimensional fire caused by flammable liquid. The area of application are Air craft hangers, Oil pumping station, Chemical storage, Warehouses, Oil loading and unloading area.

FEATURES

- Foam discharge in Spray pattern.
- Pendant installation.
- Specially designed for low expansion foam

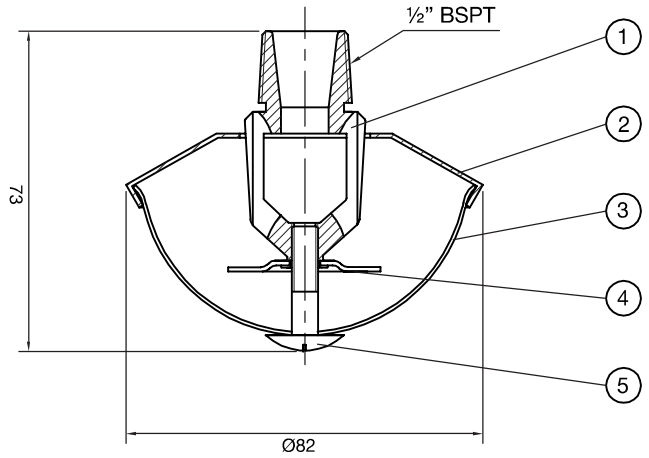
MAINTENANCE

Periodic inspection need to be made by authorized technical personnel. The nozzle must be checked for possible damage, obstruction or deposits of foreign objects externally and internally. If found the nozzles should be cleaned or replaced. The system must be operated with optimum water flow at least twice a year or as per the recommendation made by NFPA or as per authority having jurisdiction.

TECHNICAL DATA

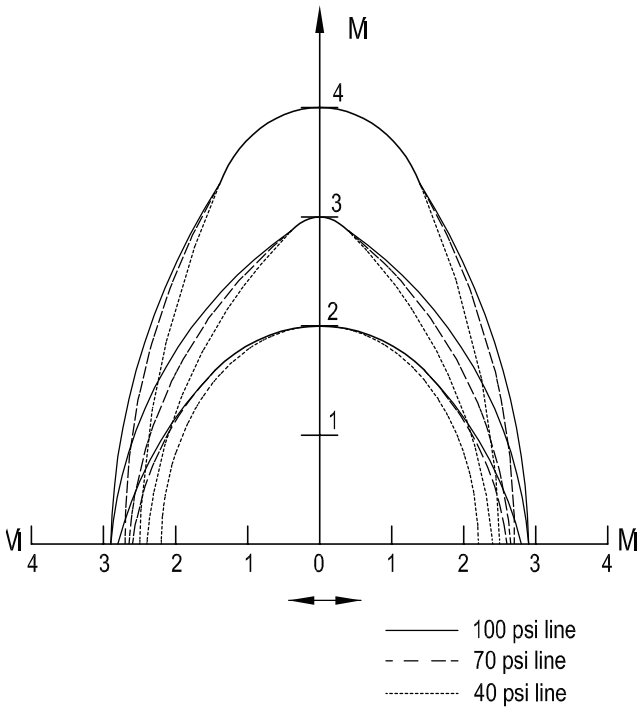
Model Number	SD-520
Inlet Size	½" NPT
Working Pressure	30-100 psi
Material	Brass, Chrome Finish
Spray Pattern	Pendent
K-Factor	2.8
Orifice Dia.	8.25 mm
Maximum Flow Rate	31 GPM
Installation Height	0.9-3.9 meter
Foam Proportioning	AFFF 3% & 6%, AR-FFF 3/3, 3/6
Min. Foam Application Rate	0.2 $gal/min/ft^2$
Max. Water Application Rate	0.3 $gal/min/ft^2$

DIMENSION

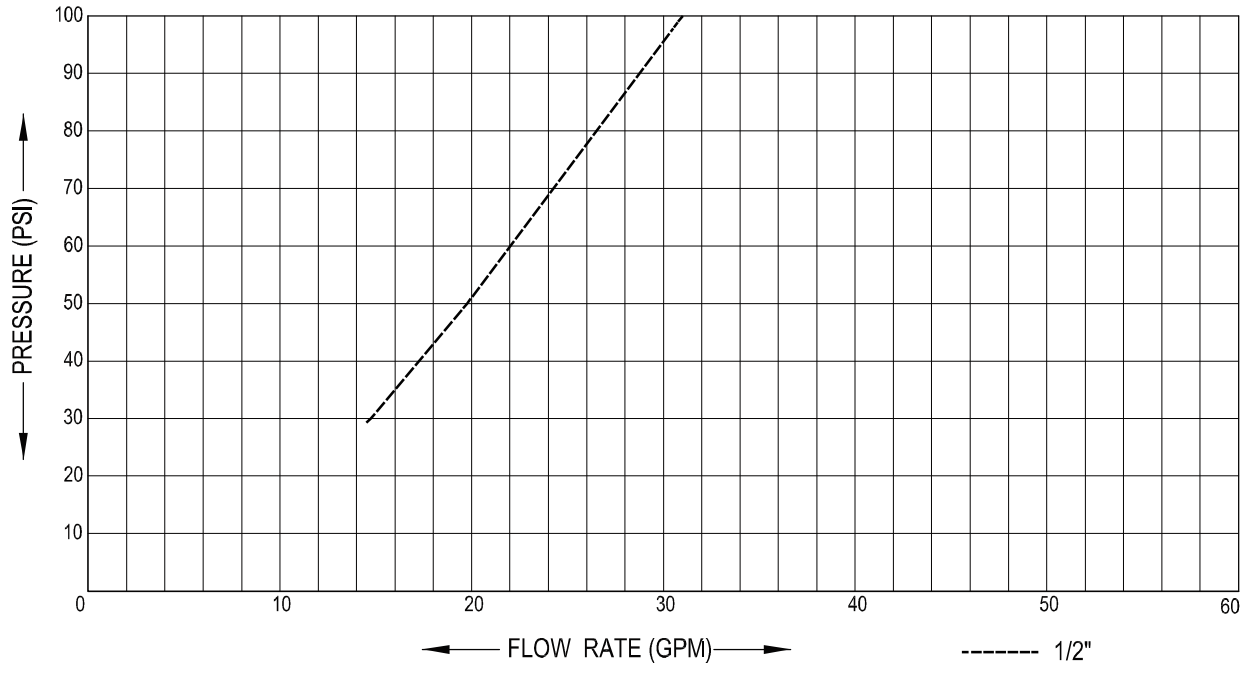


Serial No.	Part Name	Material
1	Body	ASTM C83600
2	Cover	ASTM C83600
3	Deflector	ASTM C83600
4	Net	ASTM S30400
5	Bolt	ASTM S30400

DISCHARGE PATTERN



PRESSURE VS FLOW PERFORMANCE CURVE



In line with shield policy for continuous product development, shield has the right to change specifications without prior notice.