



# FOAM WATER PENDANT TYPE SPRINKLER

MODEL: **GS257 & GS287**



## OPERATION

The operating principle of the Foam Sprinkler D15 is based on creating a concentrated foam liquid mixture from three main components: water, concentrated foam from the inlet connection tube, and air drawn from vents on the sprinkler. When activated by the smoke/heat detection system upon detecting a fire, the central control system will issue an alert by activating the alarm.

If the temperature in the fire area reaches approximately 60-80°C, the Foam Sprinkler D15 will break, allowing water to spray out with gradually decreasing pressure. The automatic pump will be activated to supply water to the compound tank.

As water passes through the pipeline, a signal will be transmitted to the fire alarm cabinet, and the solenoid valve will open. A portion of the water will be directed into the Foam tank, creating pressure within the foam container inside the tank, and this pressure will push the foam out through the nozzle.

## SYSTEM DESIGN

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

## APPLICATION

The deluge foam water spray system is designed to protect against two-dimensional fires caused by flammable liquids. It is suitable for use in areas such as aircraft hangars, oil pumping stations, chemical storage facilities, warehouses, and oil loading and unloading areas.

## FEATURES

- Designed for pendant installation.
- Specially engineered for low expansion foam.
- Foam is discharged in a spray pattern.

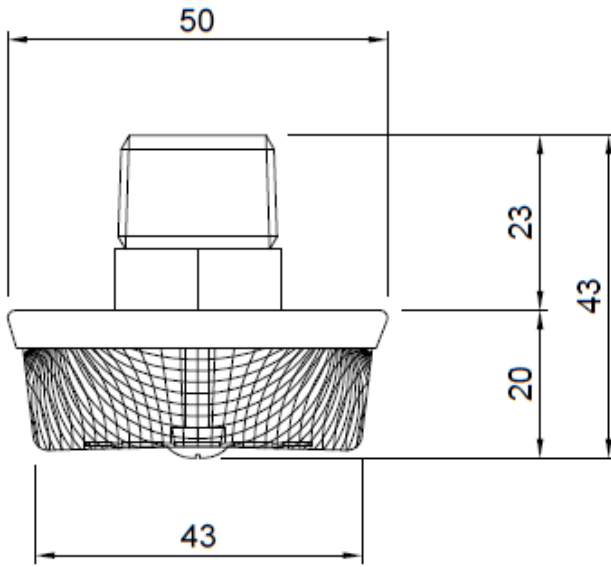
## MAINTAINANCE

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.

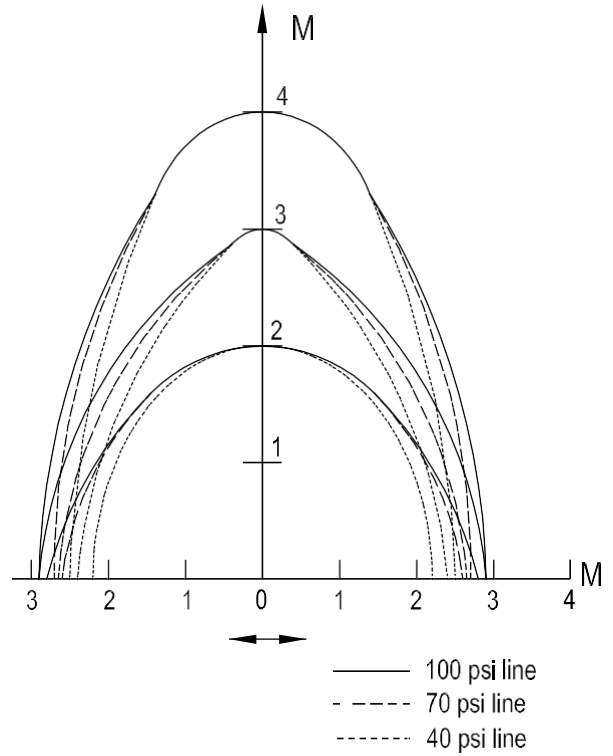
## TECHNICAL DATA

Model Number	NH-520	NH-550
Inlet Size	½" NPT	¾" NPT
Working Pressure	30-100 psi	
Material	Brass, Chrome Finish	
Spray Pattern	Pendent	
K-Factor	2.8	5
Orifice Dia.	8.25 mm	9.5 mm
Maximum Flow Rate	31 GPM	50 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 <sup>2</sup>	
Max. Water Application Rate	0.3 gal/min/ft <sup>2</sup>	

### DIMENSION



### DISCHARGE PATTERN



### PRESURE VS FLOW PERFORMANCE CURVE

