# FOAM WATER OPEN SPRINKLER MODEL: SD-500B, SD-500S

### APPLICATION

The Foam-Water Sprinklers are used in the deluge foam system to protect the risk where foam is required to be applied from overhead sprinklers and is to be followed with plain water in a standard sprinkler pattern.

Foam-Water Sprinklers protect the loading and unloading area in the event of a spill fire with low expansion foam systems. These are useful in other wide applications i.e. Air Craft Hangers, Warehousing

## SPECIFICATION

Foam-Water Sprinklers are open and air aspirating type. The pattern of coverage is similar to the conventional sprinkler head. The Foam-Water Sprinkler has standard orifice with K-factor of 42.

Foam-Water Sprinklers are designed to operate at a minimum of 2 bar pressure and maximum of 7 bar. The Foam-Water Sprinkler with K-42 will deliver about 61 LPM at 2 bar pressure. The standard coverage per Foam-Water Sprinkler is  $9.3 \text{ m}^2$  (100 ft<sup>2</sup>)

## SYSTEM DESIGN

The following are a few guidelines for minimum requirement of foam system design.

- Foam solution discharge rate: Area of hazard x application rate.
- Minimum foam solution application rate required as per NFPA is 6.5 LPM/m<sup>2</sup> for the floor area of hazard to be protected.

#### **INSTALLATION & MAINTENANCE**

The Foam-Water Sprinkler must be handled with due care. For best results, the storage as well as any further shipment be made in original packing only. Foam-Water Sprinkler which is visibly damaged should not be installed. Use Teflon tape of soft thread sealant on male thread of the sprinkler.

The sprinkler must be tightened in to fitting. Excessive tightening torque may result into serious damage to sprinkler arms and the deflector which may affect spray pattern of the nozzle and it's performance.

It is recommended that water foam spray system be inspected regularly by authorized technical personal. The nozzle must be checked for atmospheric effects, external and internal obstruction, blockage if any. The nozzles should be cleaned or replaced if required. The system must be operated with optimum water flow at least twice in a year or as per the provisions of NFPA or as per authority having jurisdiction. The owner is responsible for the testing, inspection and maintenance of the Foam-Water Sprinkler and system.



#### **TECHNICAL DATA**

Material	SD-500B - Bronze SD-500S - Stainless Steel
Inlet Size	1⁄2" NPT (Optional)/1⁄2" BSPT
Working Pressure	Max. 12 bar (175 psi)
Mounting	Pendent
Operating Pressure	2.1 bar (30 psi) minimum 7 bar (100 psi) maximum
K-Factor	K-42 standard Other K-factor can be provided as optional without approval
Flow Rate	61-111 LPM (as per UL) 136 LPM (as per FM)
Foam Proportioning	3% or 6% AFFF, AR-AFFF 1/3, 3/3, 3/6, FP 3%, FP 6%
Installation Height	0.9-3.9M
Finish	Natural, Chrome
Weight	0.460 kg Approx

\*NOTES:

• Listings, Approvals and/or Certifications for foam concentrate and/or equipment are valid only when used with other foam concentrates or equipment in a manner as outlined in the applicable Listing, Approval and/or Certification.



DISCHARGE PATTERN



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

2