

Shield - Medium Velocity Water Spray Nozzle

● Model: SD-A & SD-B

TECHNICAL DATA:

RATED WORKING PRESSURE	: 12.3 Kg./Sq.Cm. (175 psi)
MINIMUM EFFECTIVE WORKING PRESSURE	: 7Kg./Sq.Cm. (100 psi) : maximum 1.4 Kg./Sq.Cm. (20psi) minimum
END CONNECTION	: 1/2" BSPT (1/2" NPT OPTIONAL)
MATERIAL	: Model SD-A Brass : Model SD-B Stainless Steel
INCLUDED WATER SPRAY ANGLE FOR EACH K-FACTOR	: 140, 120, 110, 100, 90, 80 & 65
ORIFICE SIZE AND K-FACTOR	: (MM) (INCH) METRIC (US) 6.0(0.236) K22(1.54) 7.0(0.275) K30(2.10) 7.5(0.295) K35(2.45) 8.0(0.314) K41(2.87) 9.0(0.354) K51(3.57) 10.0(0.393) K64(4.48) 11.0(0.433) K79(5.53) 12.0(0.472) K91(6.37) 12.5(0.492) K102(7.14)
WEIGHT	: 0.130 Kg. (approximately)
FINISH	: Brass or Nickel Chrome plated for Model A Natural finish for Model B
APPROVALS	: UL Listed and TAC approved for Model A : Model B's application pending with UL
ORDERING INFORMATION	: Specify K-Factor spray angle and finish.



Medium velocity water spray nozzle has an external deflector, which discharges water in a directional cone shaped pattern of small droplet size. The water is uniformly distributed over the surface to be protected. The nozzle is used in deluge water spray system for special hazard fire protection application. As the design and intent of specific water spray system may vary considerably, a MV nozzle is made available in several combination of orifice sizes and spray angles. The minimum desirable pressure to achieve a reasonable spray pattern is 1.4 Kg./Sq.cm. The water distribution pattern as shown in the graph in following pages is at an average pressure of 2.0 Kg/Sq.cm. The change in pressure between 1.4 to 3.5 Kg./sq.cm. does not affect considerable change in spray angle. The spray pattern shown is with indoor application. System designer must consider wind velocity while designing the system for outdoor application. Field obstruction if any affecting the spray pattern of the nozzle must also be considered. The nozzle may be oriented to any position which is deemed necessary to cover the hazard.

MAINTENANCE

The spray nozzle must be handled with due care. For best result, the nozzle should be stored in the original package in which it has been shipped. It is advised to ship the nozzle in the same package in future transit.



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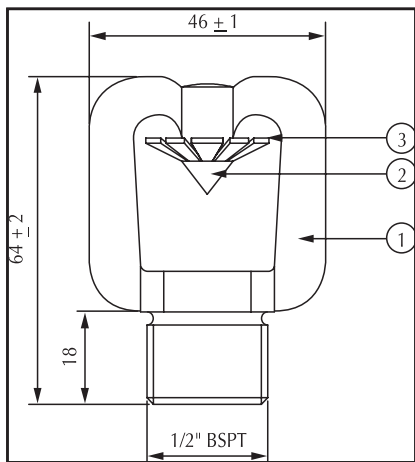
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Nozzle which is visibly damaged should not be installed.

Use Teflon tape or soft thread sealant on male thread of the nozzle. The nozzles must be hand tightened into the fitting. Shield wrench must be used to tighten the nozzle unit into the fitting. Excessive tightening torque may result into serious damage to nozzle arms and the deflector which may affect spray pattern of the nozzle and its performance.

It is recommended that water spray system be inspected regularly by an authorised technical personnel. The nozzle must be checked for corrosion, external and internal obstruction, blockage if any. The nozzle 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 provision of NFPA/TAC or local authority having jurisdiction.

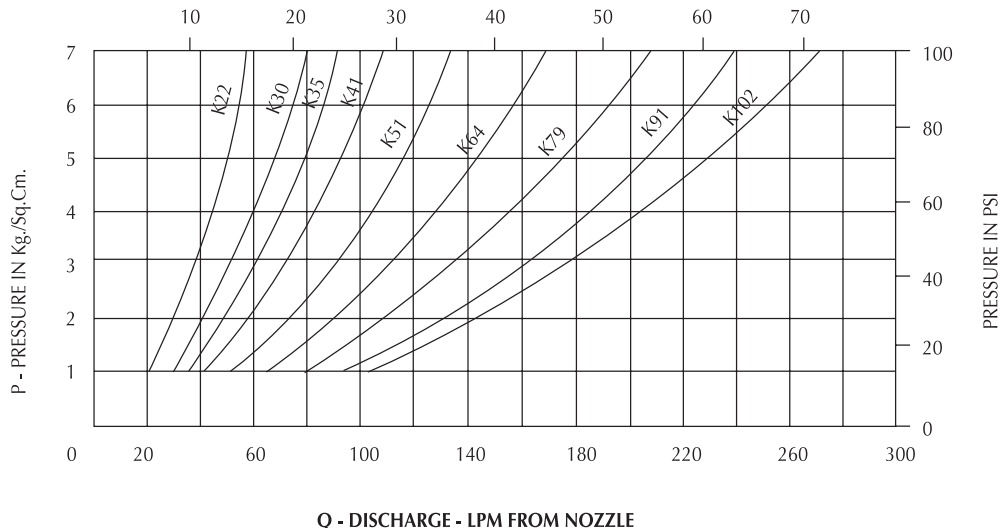
The owner is solely responsible for maintaining the waterspray system and the components there in so that it performs properly in actual operating condition.



PART LIST

COMPONENT	MODEL-A	MODEL-B
HOUSING	FORGED BRASS IS:291, GR.-I	S.S. 316
DEFLECTOR PIN	BRASS IS:291, GR.-I	S.S. 316
DEFLECTOR	BRASS IS:2768	S.S. 316

DISCHARGE CHARACTERISTICS FLOW IN GPM



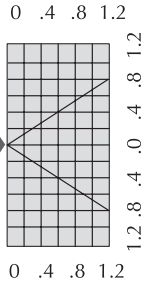
$\sqrt{Q} = K \sqrt{P}$, where P is supply pressure in Kg./sq.cm., K-is nozzle constant in Metric
US K Factor = Metric K Factor \div 14.2745

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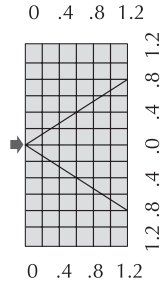


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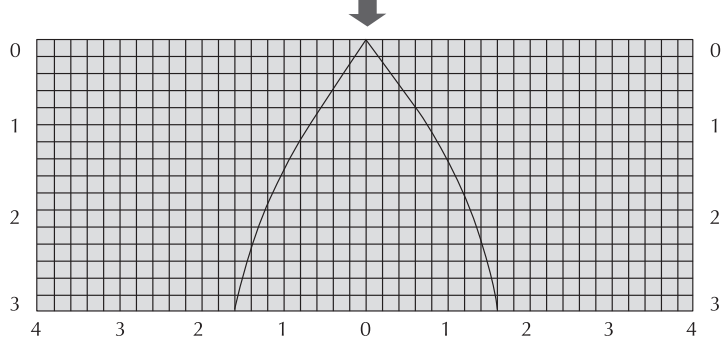
HORIZONTAL SPRAY
TOP VIEW



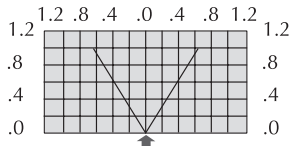
HORIZONTAL SPRAY
SIDE VIEW



SPRAY ANGLE 65°

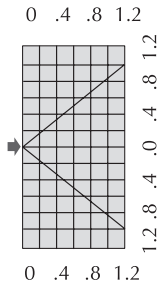


VERTICALLY DOWNWARD SPARY

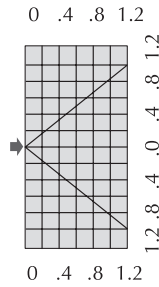


VERICAL UPWARD SPRAY
SIDE VIEW

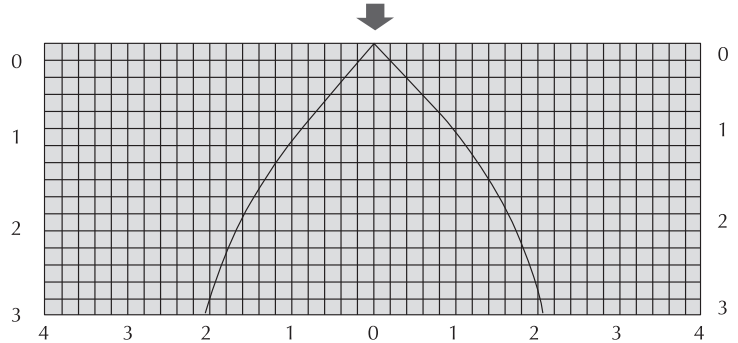
HORIZONTAL SPRAY
TOP VIEW



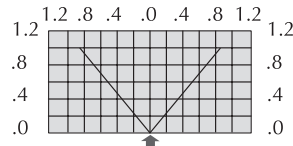
HORIZONTAL SPRAY
SIDE VIEW



SPRAY ANGLE 80°



VERTICALLY DOWNWARD SPARY

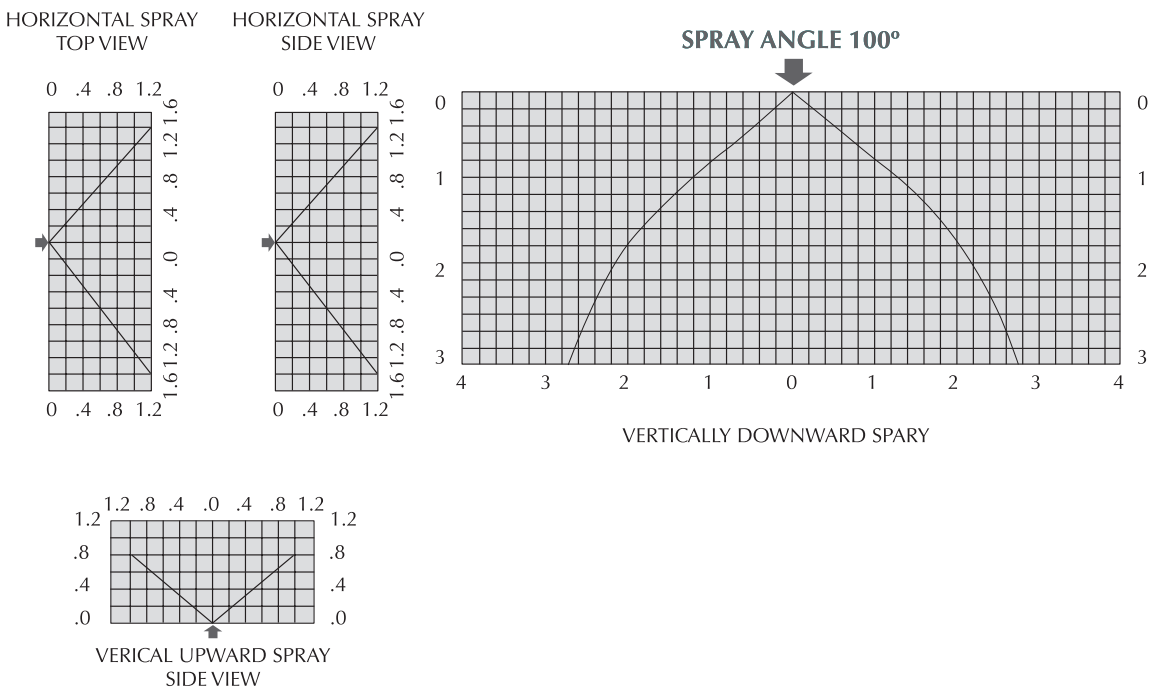
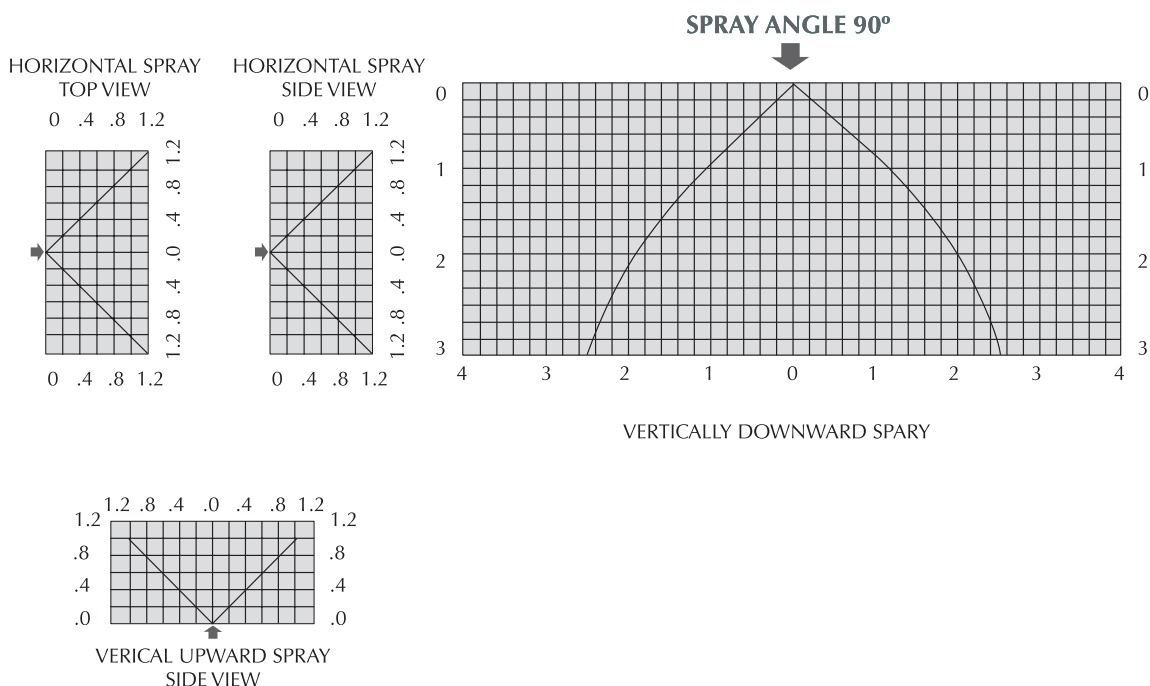


VERICAL UPWARD SPRAY
SIDE VIEW

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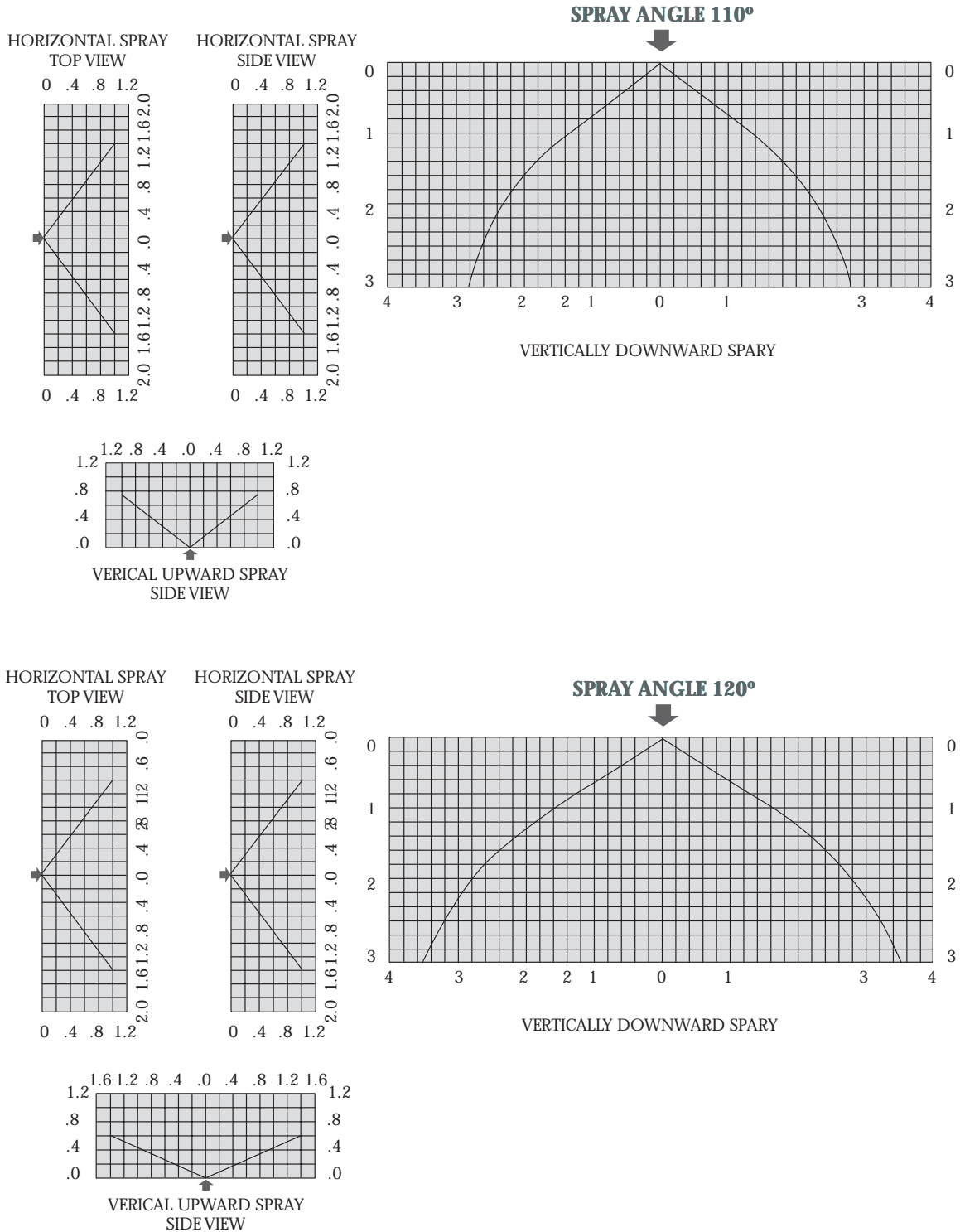
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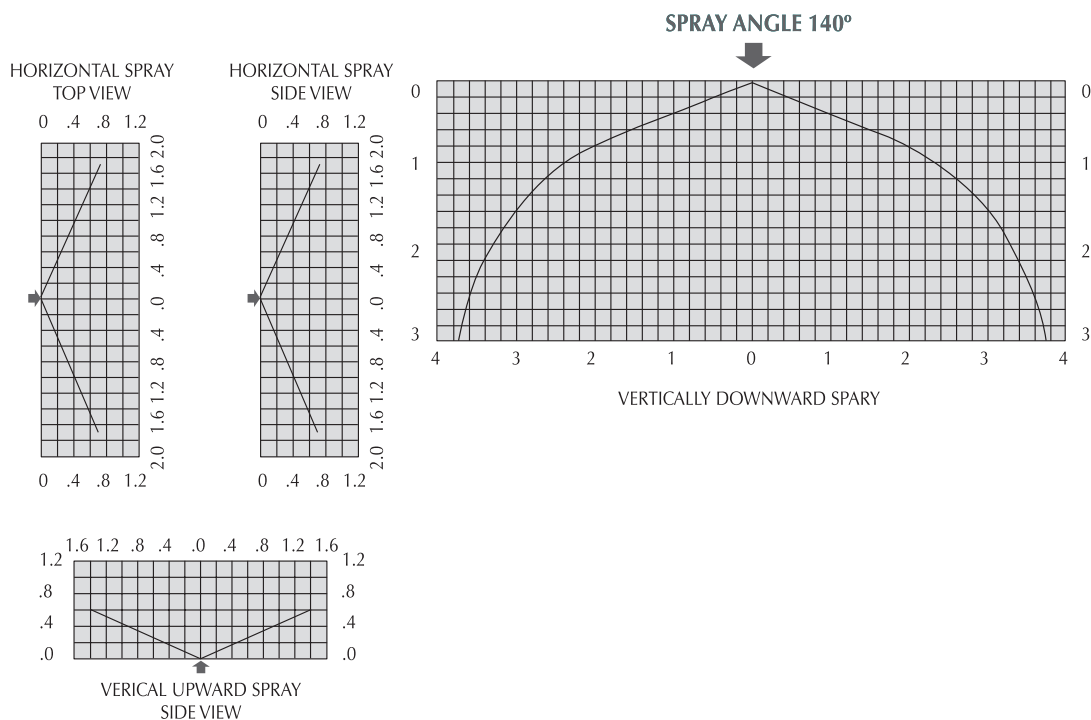
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The equipment presented in this bulletin is to be installed in accordance with the latest publication standards of NFPA, TAC or other similar organisations and also with the provision of government codes or ordinances wherever applicable.

The information provided by us are to the best of our knowledge and belief, and are general guidelines only Site handling and installation control is beyond our reach. Hence we give no guarantee for result and take no liability for damages, loss or penalties whats oever, resulting from our suggestion, information, recommendation or damages due to our product.

Product development is a continuous programme and hence the right to modify any specification without prior notice is reserved with the company.



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