



# High Velocity Water Spray Nozzle

## TECHNICAL DATA :

MODEL	HV-A Without strainer HV-AS with strainer	
MAXIMUM WORKING PRESSURE	12.3 Kg./Sq.Cm. (175 PSI)	
EFFECTIVE WORKING PRESSURE	3.5 TO 10.5 Kg./Sq.Cm. (50 to 150 PSI)	
END CONNECTION	¾" BSPT (¾" NPT OPTIONAL)	
MATERIAL	Housing & Scroll - Brass IS : 291 (EQUIVALNET TO ASTM-B21)	
INCLUDED WATER SPRAY ANGLE AND K-FACTOR	SPRAY ANGLE	K-FACTOR METRIC(US)
	75°	22 (1.54)
	80°	18 (1.26)
	90°	32 (2.24)
	100°	26 (1.82)
WEIGHT	Approx. 0.200 Kgs.	
FINISH	Brass Finish Nickel Chrome Plated (optional)	
APPROVALS		
ORDERING INFORMATION	Specify Model, K-Factor, Spray angle and Finish.	

## APPLICATION

High Velocity Water Spray Nozzles are internal swirl plate type open nozzles designed for use in fixed water spray or deluge system for the fire protection application.

These nozzles produce solid uniform and dense core of high velocity water spray to effect fire control. Nozzles are normally used to cool the surface as well as for extinguishment. Nozzles are typically used for Deluge protection of special hazards such as oil filled transformers, switch-gear, chemical process equipments, conveyor system and flammable liquid storage areas. The minimum desirable pressure to achieve a reasonable spray pattern is 3.5 Kg./sq.cm. (50 psi). The water distribution pattern as shown in the graph in following pages giving maximum effective axial distance from the nozzle. The spray pattern shown is with indoor application. The 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 be considered.



The nozzle may be oriented in any position as deemed necessary to cover the hazard.

## MAINTENANCE

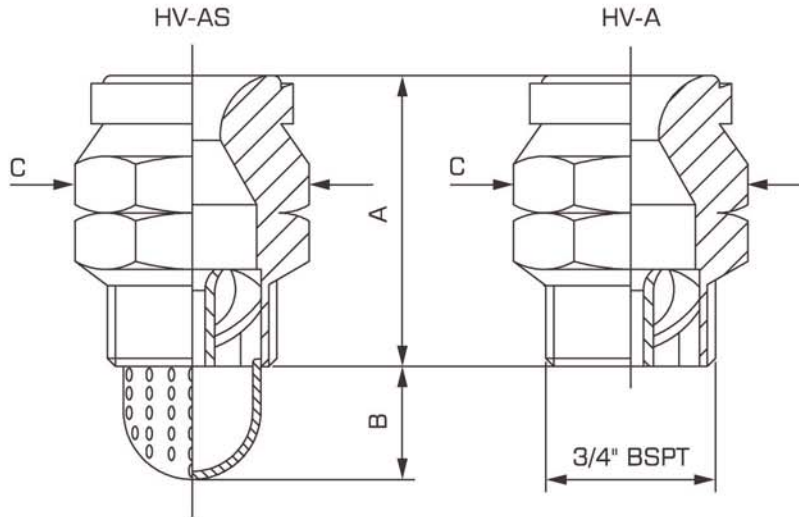
The spray nozzle must be handled with due care. For best results, the storage as well as any further shipment be made in original packing only.

Nozzle which is visibly damaged should not be installed. Use Teflon tape or soft thread sealant on the male thread of the nozzle.

It is recommended that the water spray system be inspected by an authorised technical personnel. The nozzle must be checked for corrosion, external and internal obstruction, blockage if any. The nozzle should be cleared or replaced if required. The system must be operated with optimum water flow at least three times in a year or as per the provision of NFPA/TAC or local authority having jurisdiction.

The owner is solely responsible for maintaining the water spray system and components therein, so that it performs properly when required.

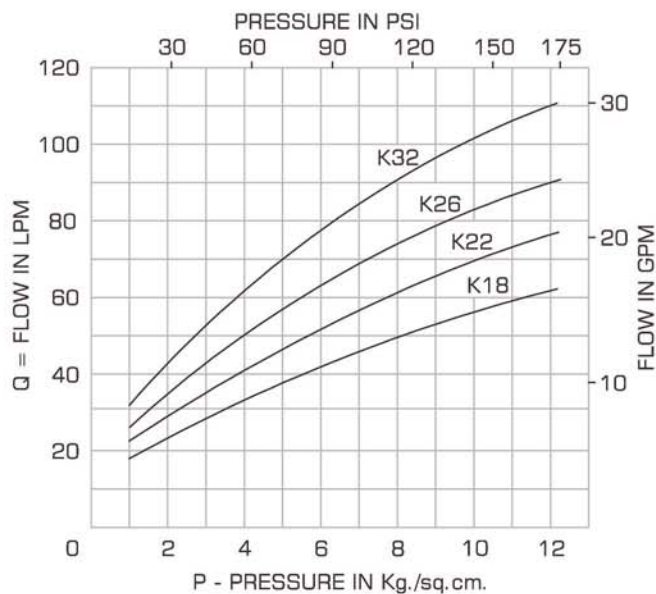
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DIMENSION In millimetres ( Approximate )

NOZZLE FACTOR & SPRAY ANGLE	A	B	C (A/F)
K 22 x 75°	49	21	30
K 18 x 80°	44	21	30
K 32 x 90°	49	21	30
K 26 x 100°	55	21	30

## DISCHARGE CHARACTERISTICS



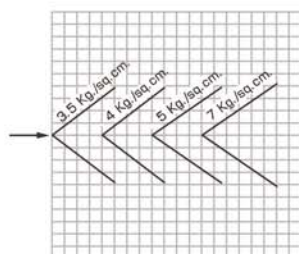


# High Velocity Water Spray Nozzle/Spray Pattern

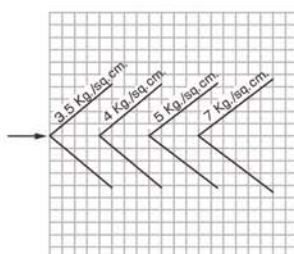
K22 X 75°

K18 X 80°

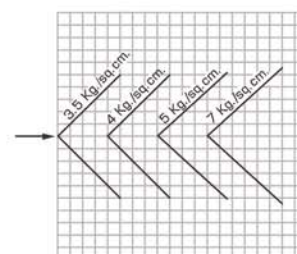
K32 X 90°



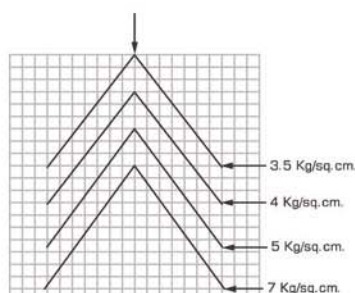
SPRAY HORIZONTAL



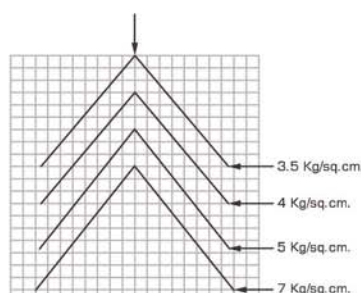
SPRAY HORIZONTAL



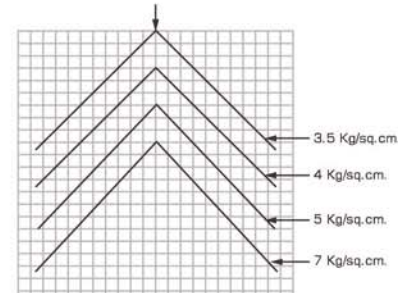
SPRAY HORIZONTAL



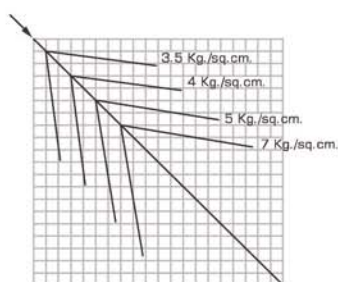
SPRAY VERTICALLY DOWNWARD



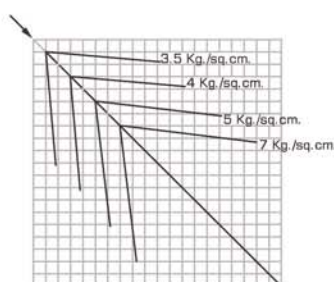
SPRAY VERTICALLY DOWNWARD



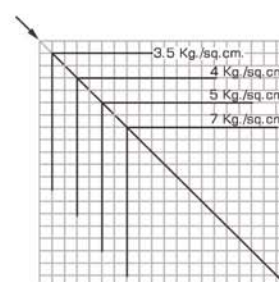
SPRAY VERTICALLY DOWNWARD



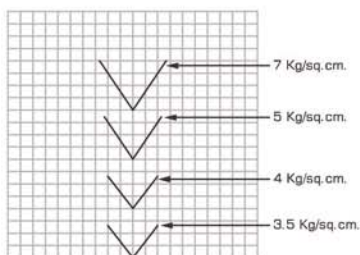
SPRAY AT 45° DOWNWARD



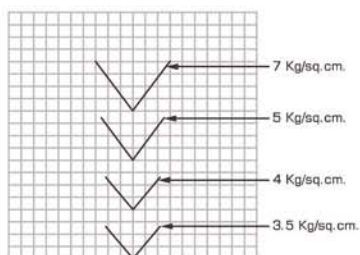
SPRAY AT 45° DOWNWARD



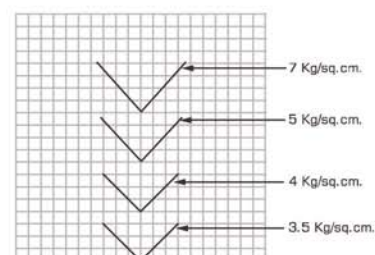
SPRAY AT 45° DOWNWARD



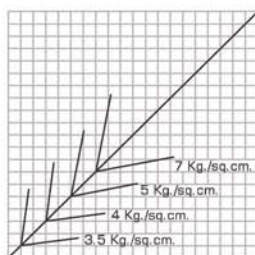
SPRAY VERTICALLY UPWARD



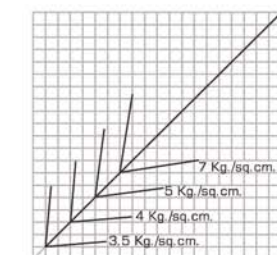
SPRAY VERTICALLY UPWARD



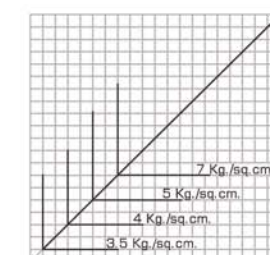
SPRAY VERTICALLY UPWARD



SPRAY AT 45° UPWARD



SPRAY AT 45° UPWARD

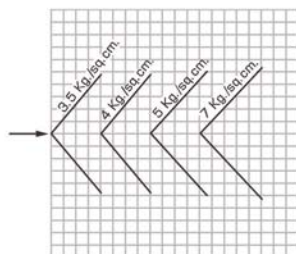


SPRAY AT 45° UPWARD

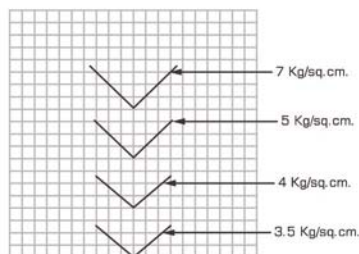
Note : One square is 200 X 200mm.

# High Velocity Water Spray Nozzle/Spray Pattern

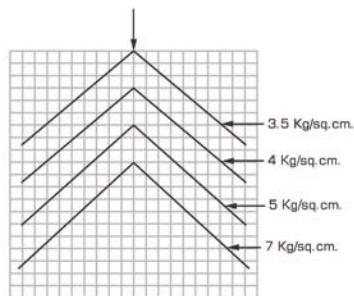
K26 X 100°



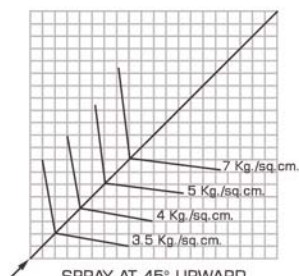
SPRAY HORIZONTAL



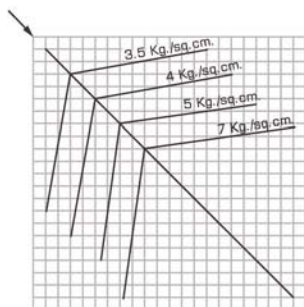
SPRAY VERTICALLY UPWARD



SPRAY VERTICALLY DOWNWARD



SPRAY AT 45° UPWARD



SPRAY AT 45° DOWNWARD

Note : One square is 200 X 200mm.