

**HIGH VELOCITY  
WATER SPRAY NOZZLE  
05 HV SERIES**



Progard High Velocity Nozzles are internal swirl plate type nozzles designed for use in fixed water spray or deluge system for fire protection applications.

These nozzles produce a solid, uniform and dense core of high velocity spray for effective fire control. The nozzles are normally used to cool exterior surfaces and/or extinguishment. Typical applications include deluge protection of special hazards such as oil filled transformers, switch-gears, chemical process equipment, conveyor systems and flammable liquid storage areas.

The minimum desirable pressure to achieve a reasonable spray pattern is 3.5 bar (50 psi). The water distribution pattern (tested indoor) as shown in the graph gives the maximum effective axial distance from the nozzle. The system designer must take into consideration the wind velocity while designing the system for any outdoor application. Field obstruction if any that will affect the nozzle spray pattern must be considered. The nozzle can be orientated in any position that is necessary to cover the protected hazard.

**Technical Data**

Model : 05 HV-A (Brass)  
          : 05HV-B (316SS)

Construction : Housing & Scroll - Brass  
                  IS: 291

Rated pressure : 12.3 bar (175 psi)

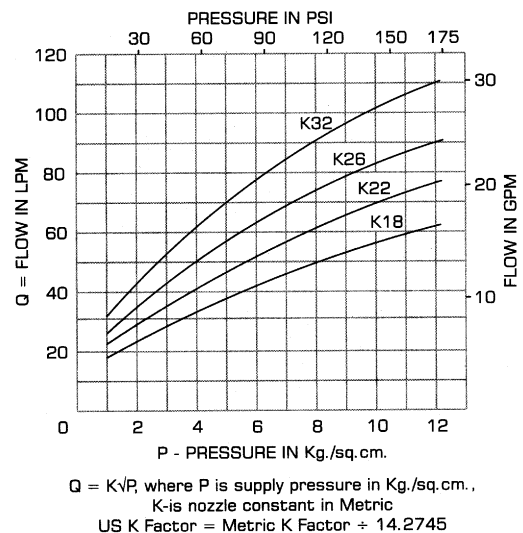
Maximum Effective : 3.5 to 10.5 bar

Working Pressure

Spray Angle & : Angle      K-factor-metric (US)  
K-factor        75°        22 (1.54)  
                  80°        18 (1.26)  
                  90°        32 (2.24)  
                  100°       26 (1.82)

End connection : ¾" BSPT (or ¾" NPT)  
Weight         : 0.170 kg  
Finish          : Natural Brass or Nickel  
                      chrome-plated  
                      Option: 316SS stainless  
                      steel  
Approval       : UL

**DISCHARGE CHARACTERISTICS**



**Dimensions**

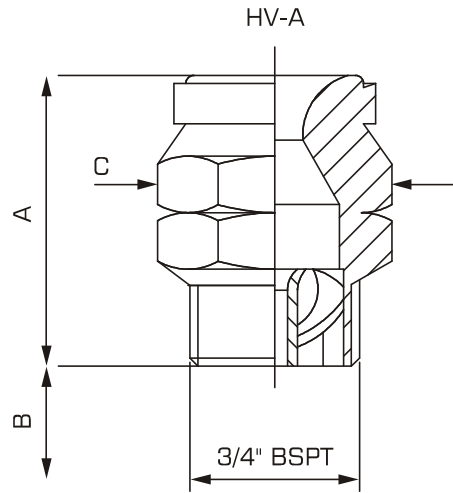
Product Code	Material	Nozzle		A	B	C
		K-Factor	Angle			
05 HV-A	Brass	K-22	75°	49	21	30
		K-18	80°	44	21	30
05 HV-B	316SS	K-32	90°	49	21	30
		K-26	100°	55	21	30

**Ordering Information**

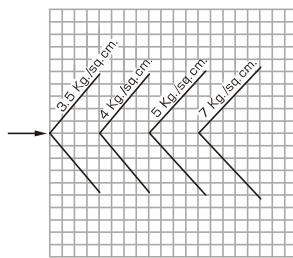
The following details should be specified when placing orders:

- 1) Product code
- 2) K-Factor
- 3) Spray angle
- 4) Material and Finish

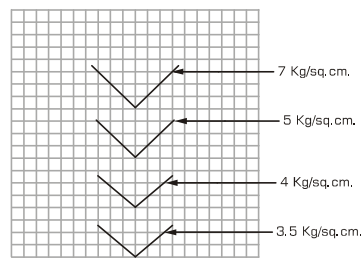
NOZZLE FACTOR & SPRAY ANGLE	A	B	C (A/F)
K 22 x 75°	49	21	30
K 18 x 80°	44	21	30
K 32 x 90°	49	21	30
K 26 x 100°	55	21	30



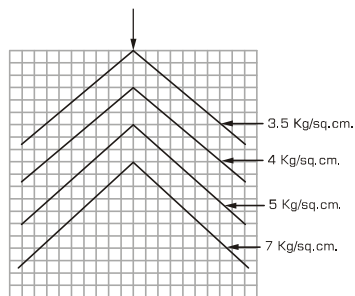
**SPRAY PATTERN**  
**K26 X 100°**



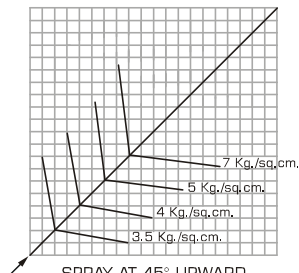
SPRAY HORIZONTAL



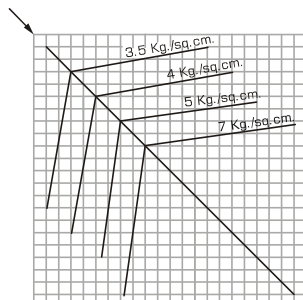
SPRAY VERTICALLY UPWARD



SPRAY VERTICALLY DOWNWARD



SPRAY AT 45° UPWARD

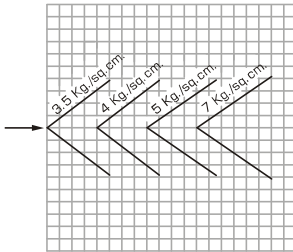


SPRAY AT 45° DOWNWARD

Note : One square is 200 X 200mm.

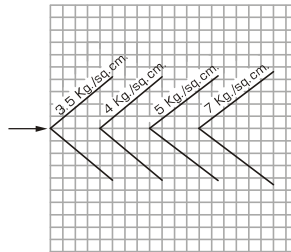
## SPRAY PATTERN

**K22 X 75°**



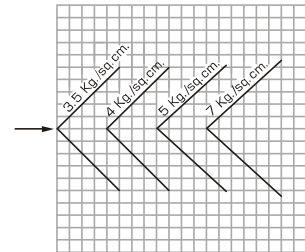
SPRAY HORIZONTAL

**K18 X 80°**

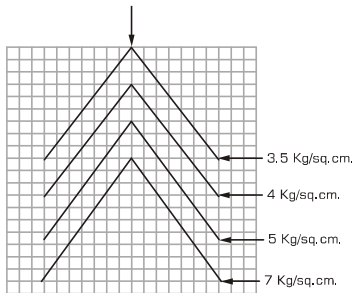


SPRAY HORIZONTAL

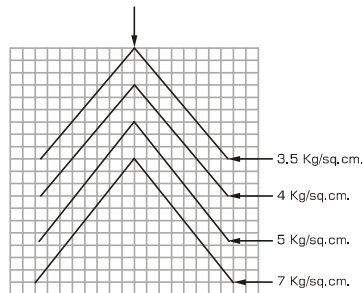
**K32 X 90°**



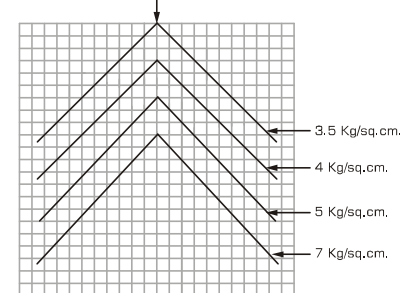
SPRAY HORIZONTAL



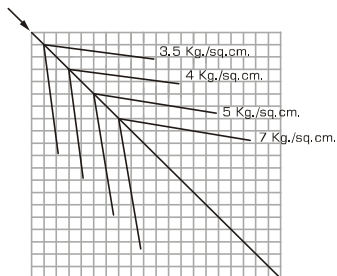
SPRAY VERTICALLY DOWNWARD



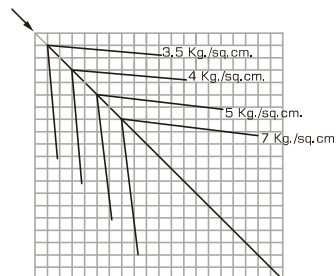
SPRAY VERTICALLY DOWNWARD



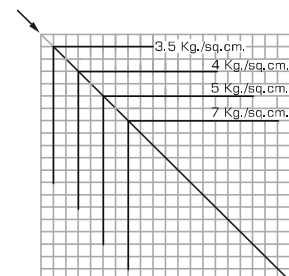
SPRAY VERTICALLY DOWNWARD



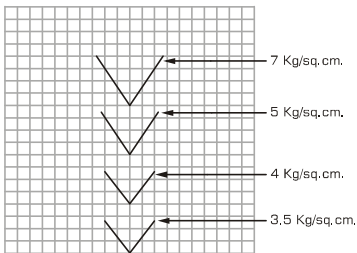
SPRAY AT 45° DOWNWARD



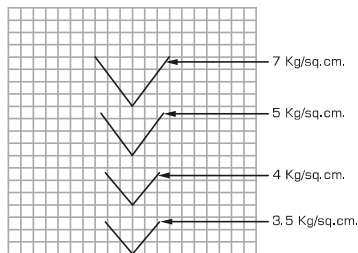
SPRAY AT 45° DOWNWARD



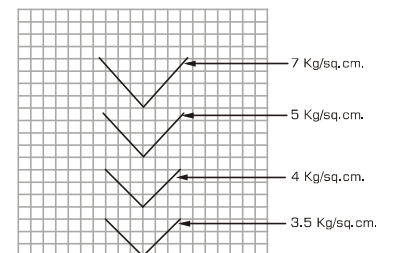
SPRAY AT 45° DOWNWARD



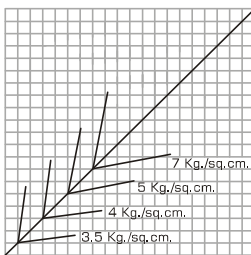
SPRAY VERTICALLY UPWARD



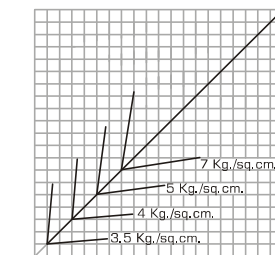
SPRAY VERTICALLY UPWARD



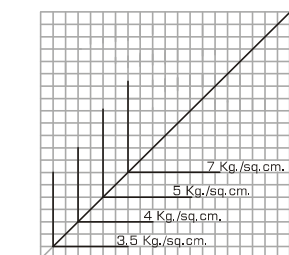
SPRAY VERTICALLY UPWARD



SPRAY AT 45° UPWARD



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SPRAY AT 45° UPWARD

Note : One square is 200 X 200mm.