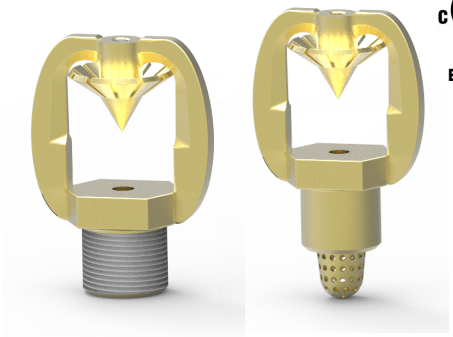
SPRAY SYSTEM OPEN NOZZLES

Model MV

Medium velocity nozzle

MV-1 & MV-1F / MV-2 & MV-2F / MV-3



LISTED
EX26764

PRODUCT DESCRIPTION

The nozzles model MV are designed for use in water spray fixed system for fire protection applications. The nozzles are open (non-automatic). They are available in multiple orifice sizes, spray angles an base materials to meet design application requirements. The nozzle discharge uniformly filled cone of medium velocity water droplets.

Spray nozzles are designed to apply cooling water to exposed vertical, horizontal, curved, and irregular shaped surfaces to allow cooling of objects externally when exposed to an adjacent fire.

The design of individual water spray fixed systems can vary considerably, depending on the characteristics and nature of the hazard, the basic purpose of the spraying system, the configuration of the hazard, and wind/draft conditions.

When discharge pressures above this are applied, the coverage area will decrease because the spray pattern tends to draw inward at higher pressures.

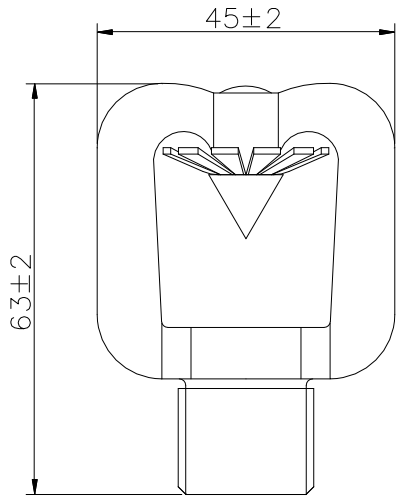
Optional blow-off plugs are available for protection from dust and insect infestation and other accumulation of debris. NFPA 15 requires main pipeline strainer for waterways less than 3/8".

TECHNICAL DATA

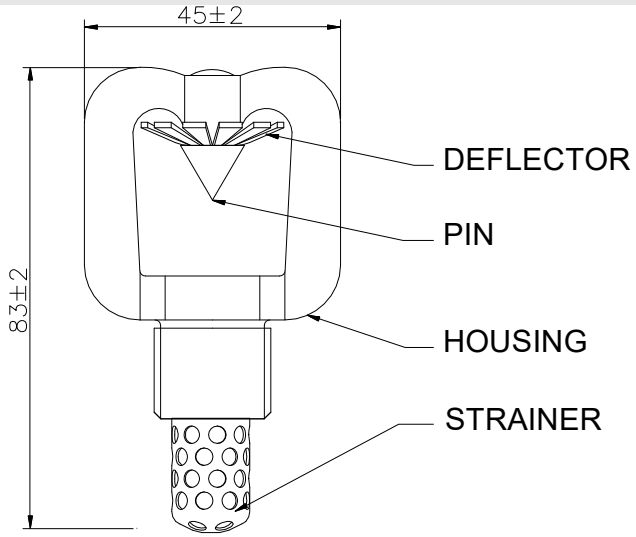
Models	MV-1 & MV-1F: Brass Material MV-2 & MV-2F: Stainless Steel Material MV-3: Aluminum Bronze Material
Type	MV-1, MV-2 & MV-3: Without strainer. MV-1F & MV-2F: With strainer
Maximum Working Pressure	12 bar (175 psi)
Effective Working Pressure	1,4 to 3,5 Kg/Sq.cm (20 to 50 psi)
End Connection	1/2" NPT [1/2" BSPT Optional]
Included Water Spray Angle & K-Factor	65º, 80º, 90º,100º,110º,120º, 140º, 160º
K Factor Metric (Us)	**MV-1/-2/-3:** K 18 (1.26), K 22 (1.54), K26 (1.8), K 30 (2.11), K 35 (2.46), K 41 (2.88), K 51 (3.58), K 64 (4.05), K 79 (5.55), K 91 (6.40), K 102 (7.17) **MV-1F/-2F**: K 18 (1.26), K 22 (1.54), K26 (1.8), K 30 (2.11), K 35 (2.46), K 41 (2.88)
Weight (Approx.)	0,110 Kg
Finish	**MV-1/-1F**: Natural Brass Finish, Chrome Plated Nickel, Electroless Nickel Plated or Epoxy Powder Coated **MV-2 / -2F / -3:** Natural Finish

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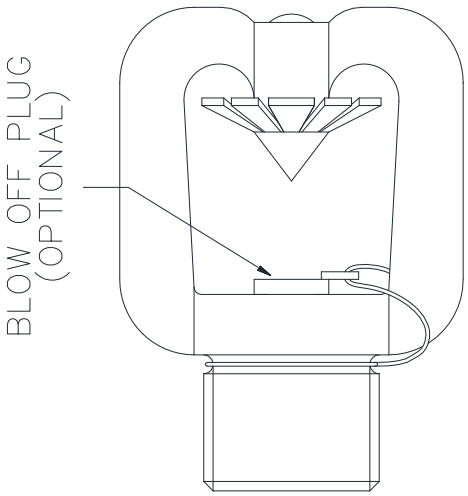
MODEL MV-1, MV-2 & MV-3



MODEL MV-1F & MV-2F



NOZZLES WITH BLOW-OFF PLUG



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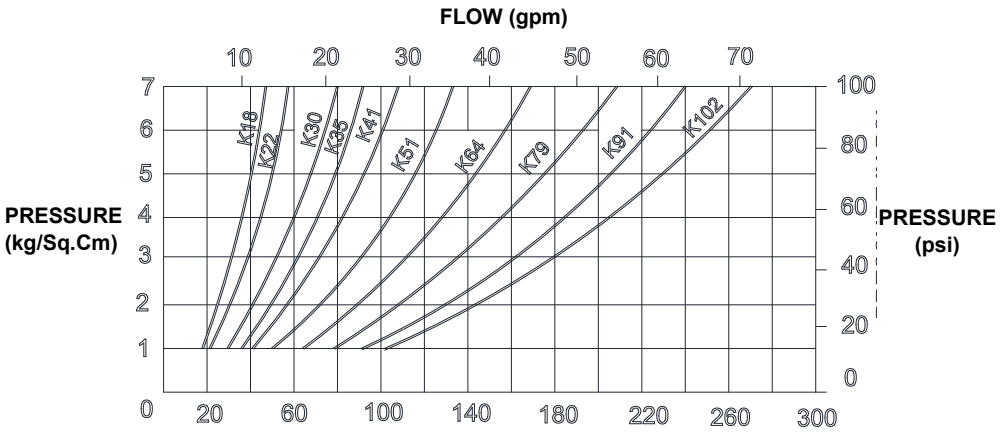
APPROVALS

K- FACTOR	SPRAY ANGLE	MV-1		MV-1F		MV-2		MV-2F		MV-3	
		UL	FM	UL	FM	UL	FM	UL	FM	UL	FM
18, 22, 30, 35, 41	65º, 80º, 90º, 100º, 110º, 120º, 140º	SI	SI	SI	SI	SI	SI	SI	SI	SI	NO
18, 22, 30, 35, 41	160º	SI	NO	SI	NO	SI	NO	SI	NO	SI	NO
26	65º, 80º, 90º, 100º, 110º, 120º, 140º, 160º	SI	NO	SI	NO	SI	NO	SI	NO	SI	NO
51, 64, 79, 91, 102	65º, 80º, 90º, 100º, 110º, 120º, 140º	SI	SI	-	-	SI	SI	-	-	SI	SI

MATERIALS

MATERIAL OF CONSTRUCTION			
Component	**Model MV-1 & MV-1F**	**Model MV-2 & MV-2F**	**Model MV-3**
Housing	Brass	A351-CF8M	Aluminium Bronze
Pin	Brass	ASTM-A479 Gr 31803	Ph. Bronze
Deflector	Brass	ASTM A240 Gr 2205	Ph. Bronze
Strainer	Copper (For 15MV-1FUF)	Stainless Steel (For 15MV-2FUF)	-
Blow-Off Cap	Elastomer	Elastomer	Elastomer

DISCHARGE CHARACTERISTICS



Q = K*√P Where:

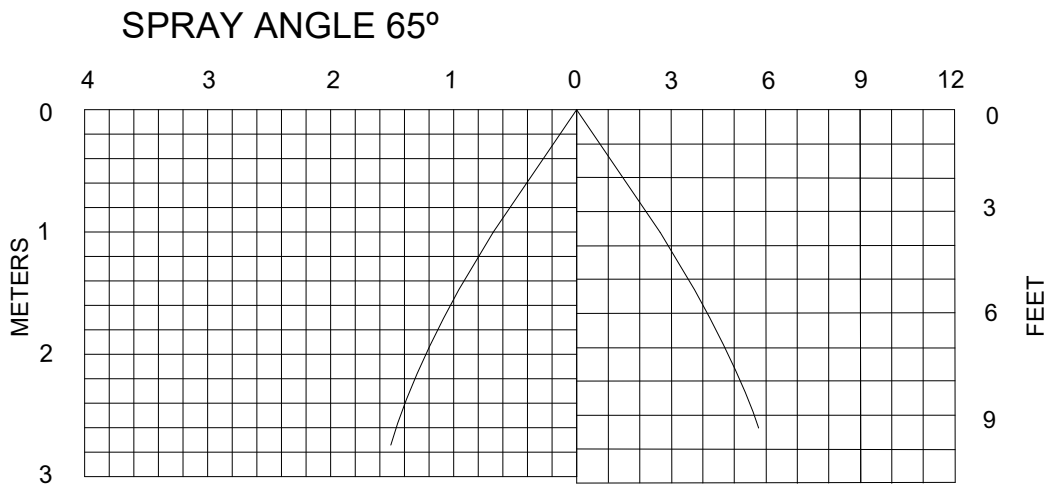
P is supply pressure in Kg/sq.Cm.

K = nozzle constant (K-factor) in metric.

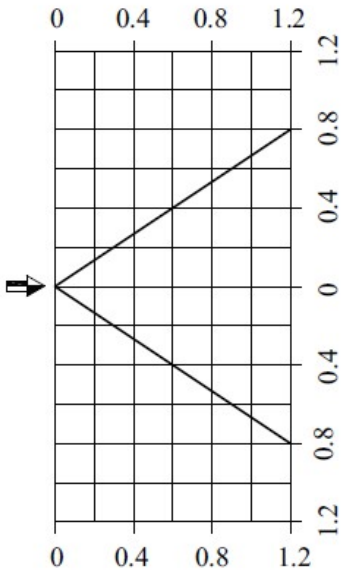
US K factor = Metric K factor / 14.2745

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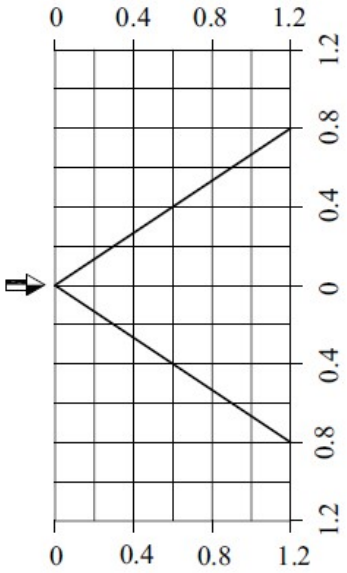
SPRAY PATTERN



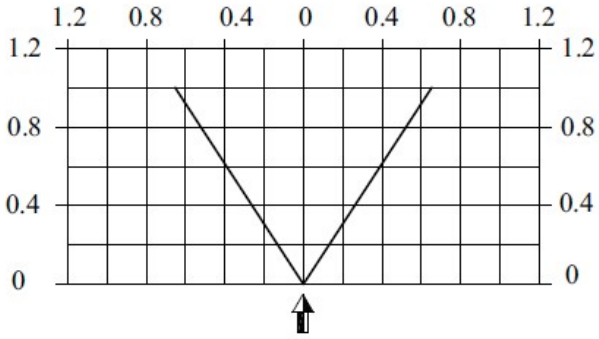
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HORIZONTAL SPRAY
TOP VIEW

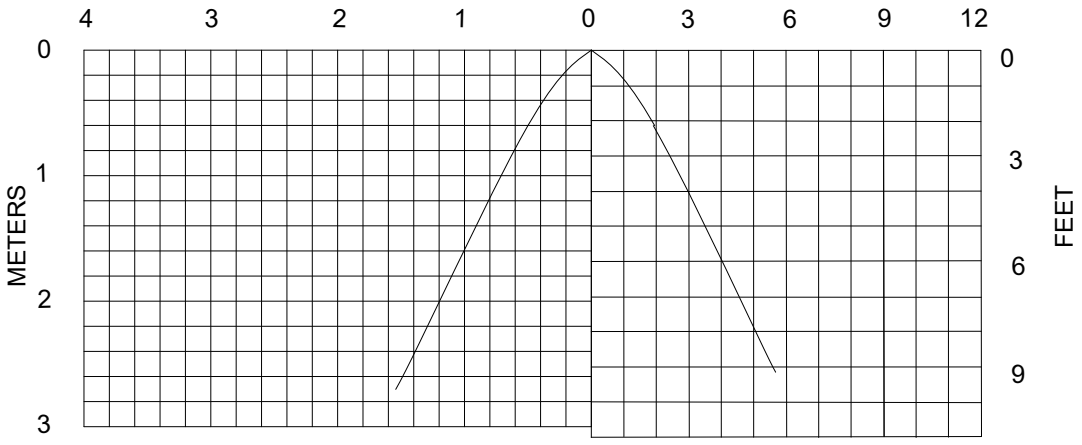


HORIZONTAL SPRAY
SIDE VIEW

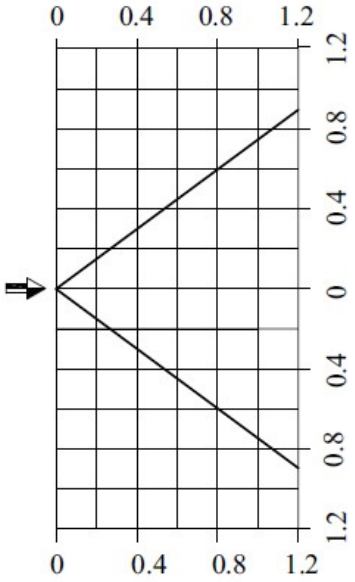


VERTICAL UPWARD SPRAY
SIDE VIEW

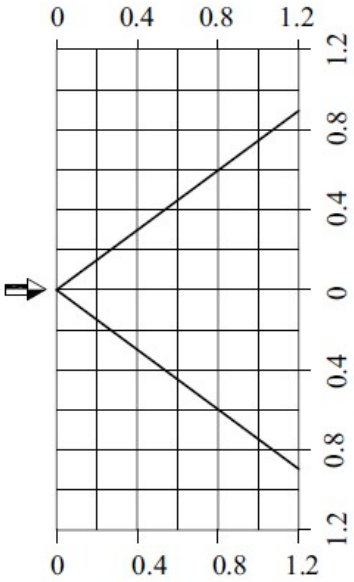
SPRAY ANGLE 80º



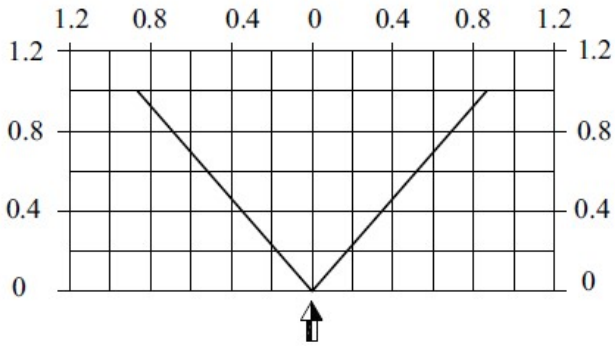
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HORIZONTAL SPRAY
TOP VIEW

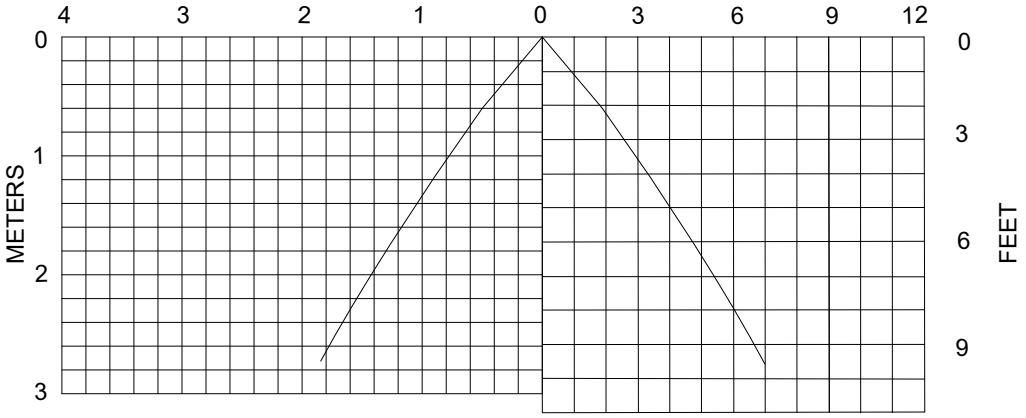


HORIZONTAL SPRAY
SIDE VIEW

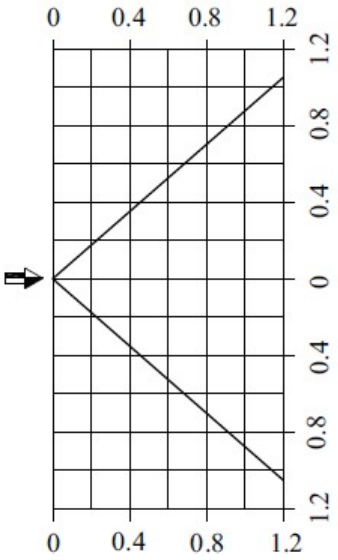


VERTICAL UPWARD SPRAY
SIDE VIEW

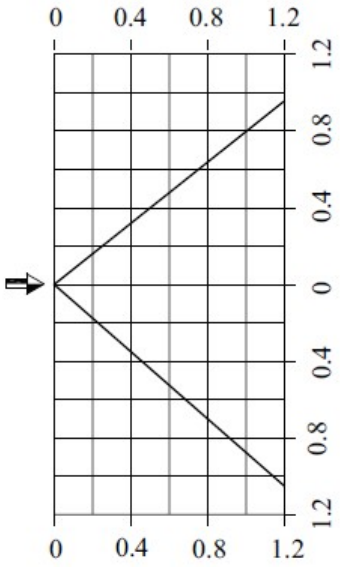
SPRAY ANGLE 90º



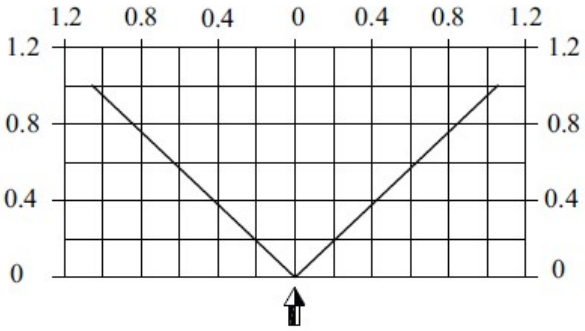
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HORIZONTAL SPRAY
TOP VIEW



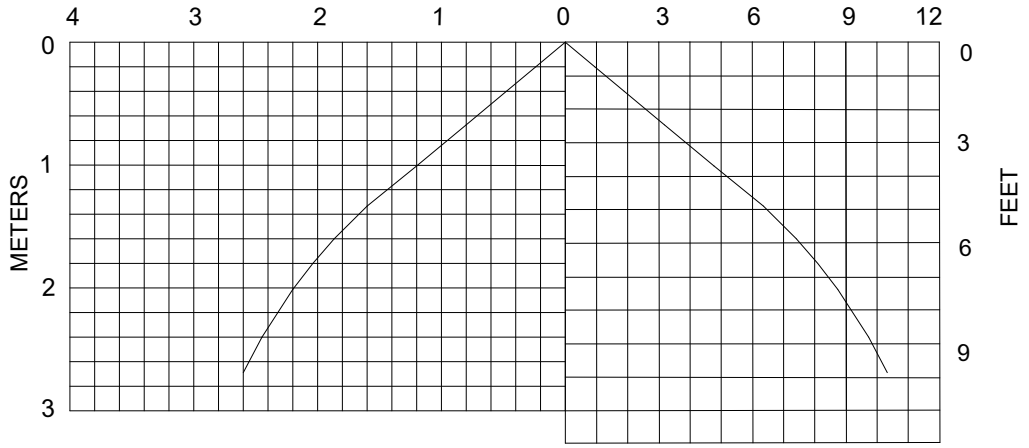
HORIZONTAL SPRAY
SIDE VIEW

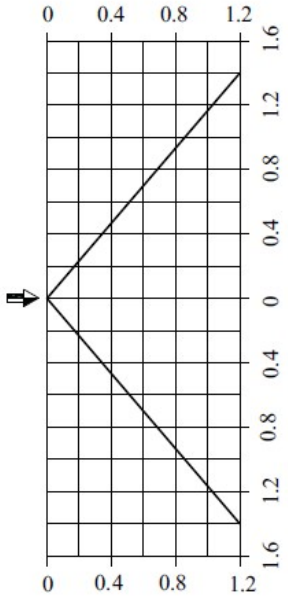


VERTICAL UPWARD SPRAY
SIDE VIEW

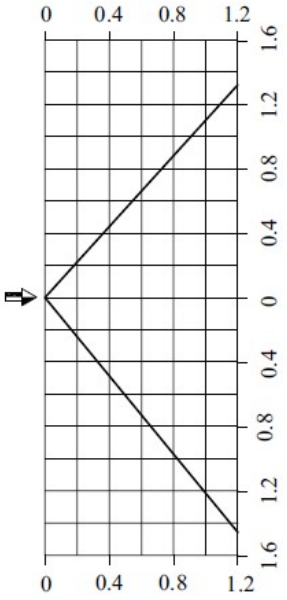
C/Alfoz de Bricia nº4 | P.I. Villalonquéjar | 09001 Burgos (Spain) | Tlfno: +34 947 28 11 08

SPRAY ANGLE 100 º

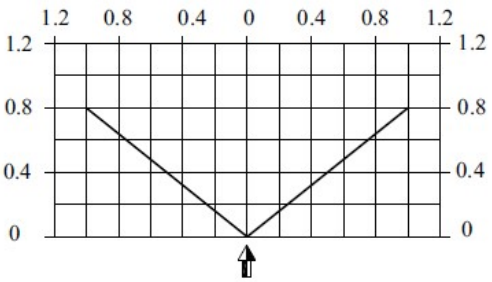




HORIZONTAL SPRAY
TOP VIEW

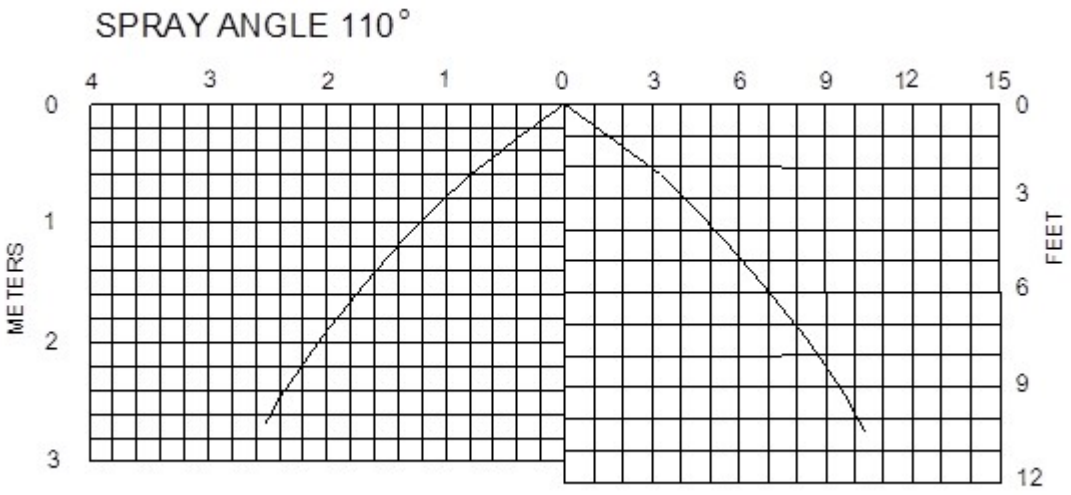


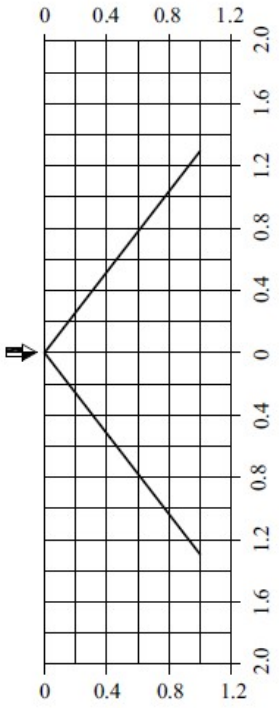
HORIZONTAL SPRAY
SIDE VIEW



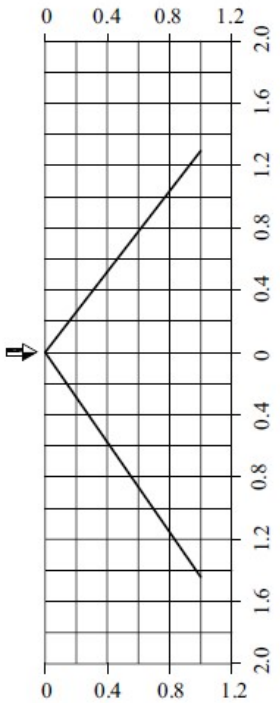
VERTICAL UPWARD SPRAY
SIDE VIEW

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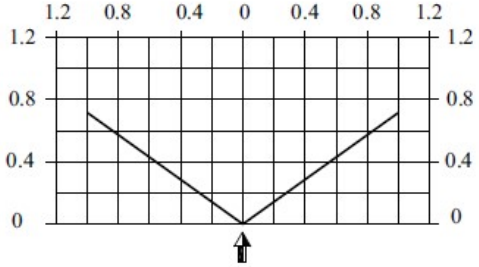




HORIZONTAL SPRAY
TOP VIEW

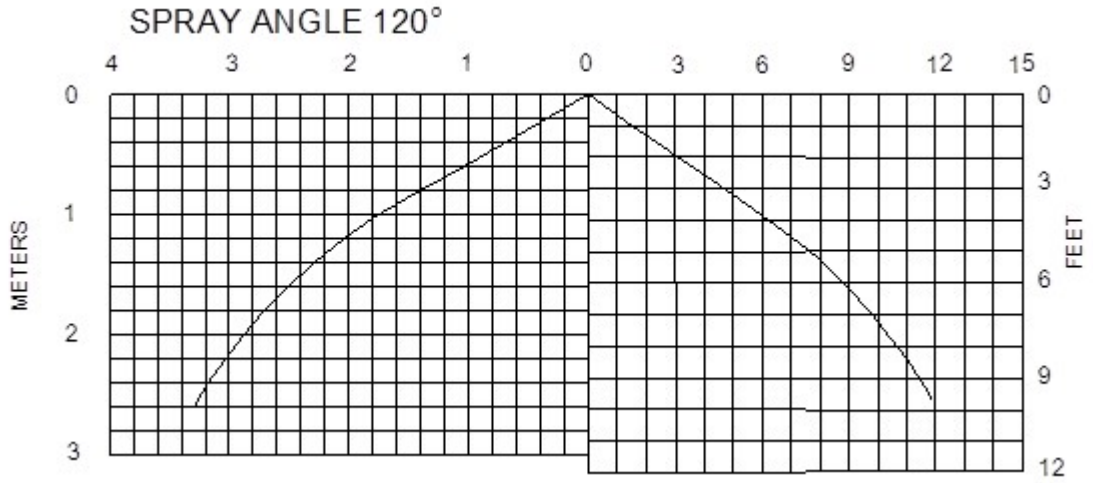


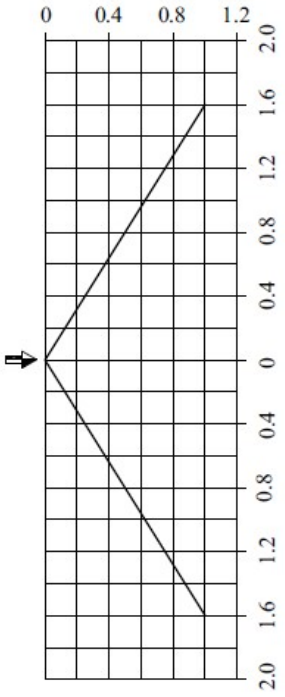
HORIZONTAL SPRAY
SIDE VIEW



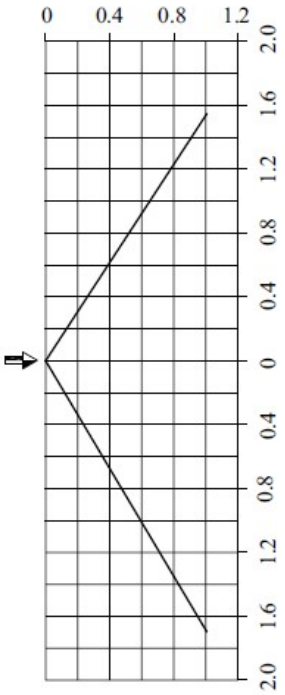
VERTICAL UPWARD SPRAY
SIDE VIEW

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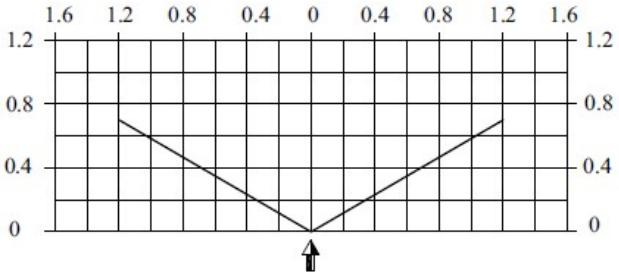




HORIZONTAL SPRAY
TOP VIEW



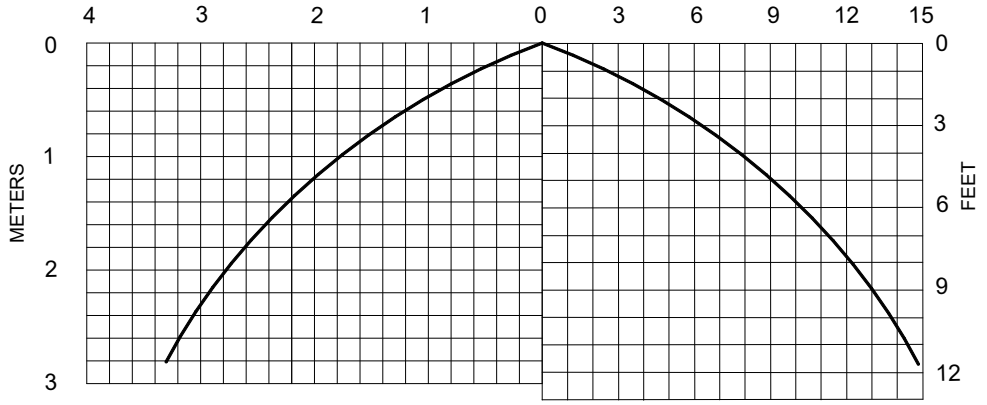
HORIZONTAL SPRAY
SIDE VIEW

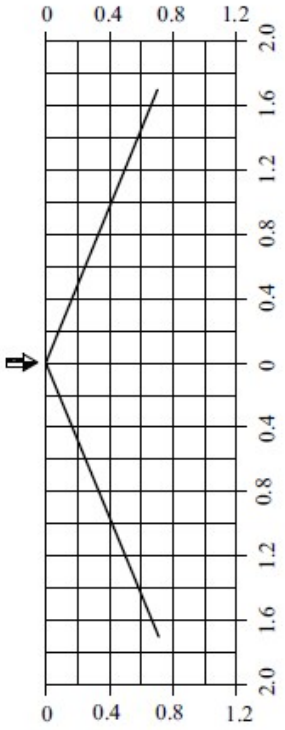


VERTICAL UPWARD SPRAY
SIDE VIEW

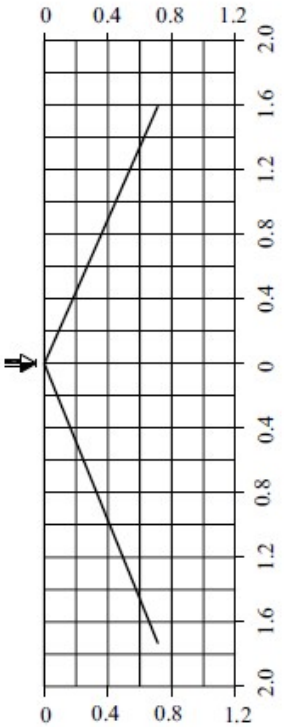
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SPRAY ANGLE 140°

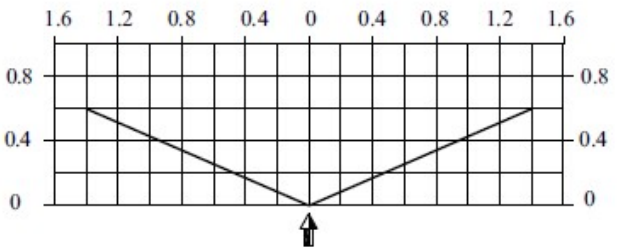




HORIZONTAL SPRAY
TOP VIEW



HORIZONTAL SPRAY
SIDE VIEW



VERTICAL UPWARD SPRAY

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INSTALLATION AND 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 male thread of the nozzle.

The nozzles must be hand tightened into the fitting. After hand tightening use Nozzle Wrench model AG-N for wrench tightening in to nozzle fittings. 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 authorised technical personnel.

The nozzle must be checked for atmospheric effects, external and internal obstruction, blockage if any. The system must be operated with optimum water flow at least twice in a year or as per the provisions of NFPA /TAC or local authority having jurisdiction.

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

Note: Apply pipe sealant to threads and hand tighten. Tighten the nozzle into the nozzle fitting using (only) the AG-N nozzle wrench.

ORDERING INFORMATION

	ANGLE	K FACTOR	MATERIAL		
			BRASS	STAINLESS STEEL	ALUMINIUM - BRONZE
WITHOUT STRAINER	65º	K18 (1.26) K22 (1.54) K26 (1.8) K30 (2.1) K35 (2.45) K41 (2.87) K51 (3.57) K64 (4.48) K79 (5.53) K91 (6.37) K102 (7.14)	MV115065#	MV215065#	MV315065#
	80º		MV115080#	MV215080#	MV315080#
	90º		MV115090#	MV215090#	MV315090#
	100º		MV115100#	MV215100#	MV315100#
	110º		MV115110#	MV215110#	MV315110#
	120º		MV115120#	MV215120#	MV315120#
	140º		MV115140#	MV215140#	MV315140#
	160º	K18 (1.26) K22 (1.54) K26 (1.8) K30 (2.1) K35 (2.45) K41 (2.87)	MV115160#	MV215160#	MV315160#
WITH STRAINER	65º	K18 (1.26) K22 (1.54) K26 (1.8) K30 (2.1) K35 (2.45) K41 (2.87)	MV115065#F	MV215065#F	
	80º		MV115080#F	MV215080#F	
	90º		MV115090#F	MV215090#F	
	100º		MV115100#F	MV215100#F	
	110º		MV115110#F	MV215110#F	
	120º		MV115120#F	MV215120#F	
	140º		MV115140#F	MV215140#F	
	160º		MV115160#F	MV215160#F	
PLUG FOR MEDIUM VELOCITY NOZZLES					MVTAPON
WRENCH FOR MEDIUM VELOCITY NOZZLES					MVLLAVE

*Substitute the # for the K factor desired.

Specify:

Model	

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Quantity	
K-factor	
Spray angle	
Finish	
AG-N nozzle wrench	
Blow-off plugs	

AG FIRE SPRINKLER

AG Fire Sprinkler offers a wide selection of components. Then a list of products is presented by AG Fire Sprinkler, we can offer all these components, made with precision to protect people, anywhere, anytime.

- Sprinklers
  - Standard Coverage
  - Extended Coverage
  - Storage
  - Dry
  - Accessories
- System Valves
  - Wet
  - Dry
  - Preaction Equipment
  - Accessories
- Spray System Open Nozzles
  - High Velocity Nozzles
  - Medium Velocity Nozzles
  - Window Nozzles
  - Hydroshield Nozzles
  - Mushroom Type Nozzles
- Foam equipment
  - Tanks
  - Proportioners
  - Foam Discharge Equipment
  - Foam Concentrates
- Deluge equipment for Water Spray and Foam
  - Clapper Deluge Valves
  - Diaphragm Deluge Valves
- Monitors
  - Manual Monitors
  - Remote Monitors
  - Monitor Nozzles
  - Towers and Trolleys
- Valves
  - Butterfly Valves
  - Gate Valves
  - Check Valves
  - Pressure Control Valves
  - Test and Drain
  - Hose, Hydrant and Fire Connection Valves
  - Fire Department Connections

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The equipment presented in this bulletin is to be installed in accordance with the latest published Standard of the National Fire Protection Association, Factory Mutual Research Corporation, or other similar organizations and also with the provisions of governmental codes or ordinances whenever applicable.
This documentation is not contractual. AG Fire Sprinkler reserves the right to any kind of change without notice.

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