

DATA SHEET
#SPS500

COOLING TOWER NOZZLES

“Automatic” Cooling Tower Nozzle

K = 3.1

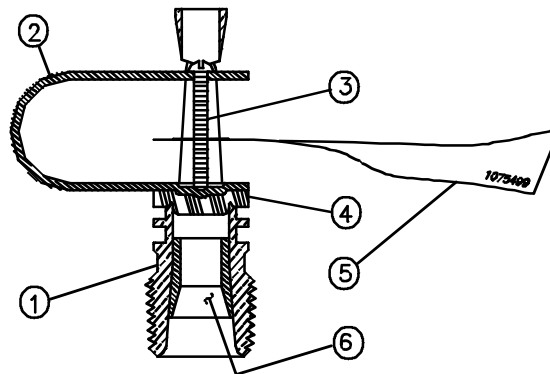
MODEL: Model 38E; K = 3.1
Model 38E; K = 4.3
Model 38E; K = 5.7

K = 4.3

K = 5.7

APPROVALS: U.L. Listed; FM Approved - K = 4.3 and 5.7 only.

TO SPECIFY: Furnish and install “Automatic” Sprinkler brand Cooling Tower Nozzles.



DESIGN FEATURES

The cooling tower nozzle is designed to discharge water spray into a confined area. The discharge pattern is long and narrow and will effectively protect long, narrow, passageways which are limited in height. Although designed to protect water cooling towers, these nozzles may be used in other areas where lengths of throw up to 20 feet may be required.

The cooling tower nozzle pintle area provides a center passageway for the majority of the water spray discharging from the orifice. The circular section of the pintle also serves to create two smaller diverging streams of water which contribute to the uniform density obtained with this nozzle.

The nozzle will be supplied from the factory with a frangible strut mechanism for test purposes only. The orifice is sealed with a rubber gasket. This is held in place through the use of a U-shaped clip which is attached to a tapped hole in the top. A screw is threaded through the hole and is tensioned to create the necessary force to seal the water pressure during the 200 psi hydrostatic test conducted in the field. After the test, the frangible mechanism strut must be removed by striking the U-shaped clip and pulling it out of the spray nozzle. The cooling tower nozzle is then in its ready conditions.

SPECIFICATIONS

The nozzles are available in three orifice sizes, 3/8, 7/16 and 1/2 inch with orifice coefficients of 3.1, 4.3 and 5.7 respectively. They also utilize a pipe thread connection of 1/2" N.P.T. They are listed by Underwriters' and the two large orifice sizes are approved by Factory Mutual.

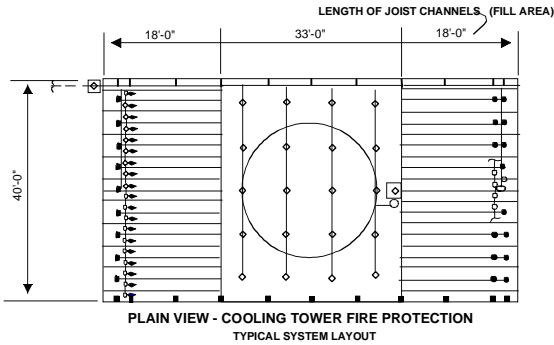
INSTALLATION:

The cooling tower nozzle is installed with either side of the nozzle upward. The frame arms should be parallel to the wider dimension of the opening to be protected. The fact that the nozzle is symmetrical about a vertical axis allows for simple installation. The nozzle should be installed perpendicular to the plane of the opening into which the water spray is directed. It should be centered from the top, bottom and sides of the opening.

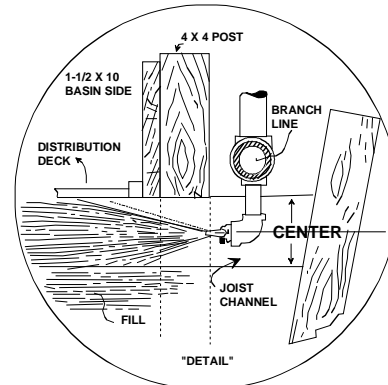
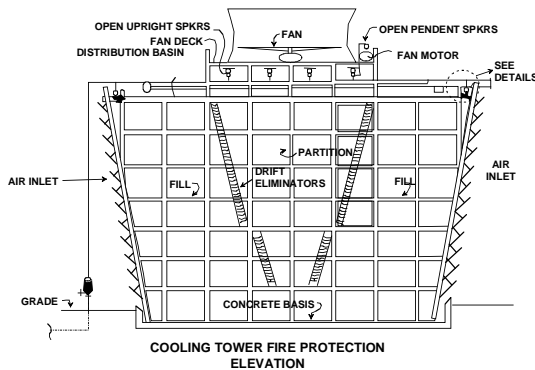
COOLING TOWER NOZZLE SUBMITTAL SHEET

The flexibility obtained in utilizing various orifice sizes allows the designer to take advantage of the water supply characteristics. If water pressure is readily available but volume is low, the small orifice sizes will allow the designer to adequately protect the hazard. If the water pressure is low, but the water supply is large, the larger orifice sizes can adequately protect the hazard without the costly need of extra pumping requirements.

Head orifice size is determined by water PSI available and length of distribution requirements.



National Fire Protection Association Pamphlet No. 214, Water Cooling Towers, should be consulted for details of spacing and length of fill requirements.



ORDERING INFORMATION AND DISCHARGE CHARACTERISTICS FOR:

- "Automatic" Cooling Tower Nozzle

MINIMUM DESIGN FLOWING PRESSURE (PSIG)	NOMINAL 3/8" ORIFICE NOZZLE ("K" = 3.1)	MAXIMUM LENGTH OF FILL AREA TO BE PROTECTED (FEET)							
		Submittal (CIRCLE ONE)		NOMINAL 7/16" ORIFICE NOZZLE ("K" = 4.3)	Submittal (CIRCLE ONE)		NOMINAL 1/2" ORIFICE NOZZLE ("K" = 5.7)	Submittal (CIRCLE ONE)	
		Brass	Lead		Brass	Lead		Brass	Lead
10	8	8037932	8037942	10	8037937	8037947	10	8037945	8937955
15	10	8037932	8037942	12	8037937	8037947	15	8037945	8937955
20	12	8037932	8037942	16	8037937	8037947	18	8037945	8937955
25	14	8037932	8037942	18	8037937	8037947	20	8037945	8937955
30	16	8037932	8037942	20	8037937	8037947		8037945	8937955
35	18	8037932	8037942		8037937	8037947		8037945	8937955
40		8037932	8037942		8037937	8037947		8037945	8937955

This information is only a general guideline. The company reserves the right to change any portion of this information without notice. Terms and conditions of sale apply and are available on request.

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