

TUNA®

NANJING FIRE PROTECTION
TECHNOLOGY CO., LTD.

AUTOMATIC SPRINKLERS TECHNICAL DATA

TD5000

SIN: NX001~NX006

Apr. 2004.1st Edith

PRODUCT SPECIFICATION SHEET

MODEL NUMBERS

Model No.	Sprinkler I.D. No.	Description	Response	K-Coefficient	Technical Data No.
STANDARD COMMERCIAL					
NX001	NX001	Standard Horizontal Sidewall	Standard	5.6 / 80	TD5001
NX002	NX002	Standard Horizontal Sidewall	Quick	5.6 / 80	TD5001
NX003	NX003	Standard Upright	Standard	5.6 / 80	TD5002
NX004	NX004	Standard Upright	Quick	5.6 / 80	TD5002
NX005	NX005	Standard Pendent	Standard	5.6 / 80	TD5002
NX006	NX006	Standard Pendent	Quick	5.6 / 80	TD5002

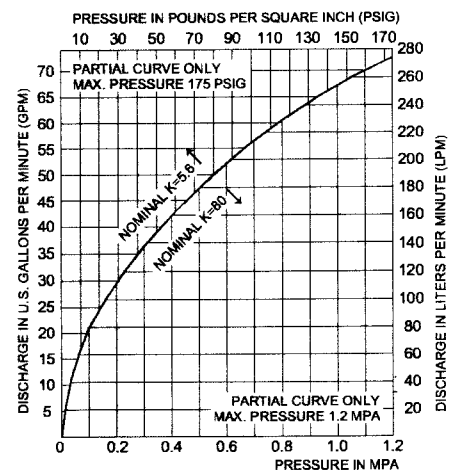
PERFORMANCE DATA

Model No.	Nominal Orifice Size In./mm	K-Coefficient-Imp. / S.I.		Max. Working Pressure	Factory Hydrostatic Test	Min. Operating Pressure	Sprinkler Finish
		Nominal	Acceptable Range				
NX001	1/2" / 15	5.6 / 80	5.3-5.8 / 76-84	175 psig / 1.2 MPa (12 bar)	100% @ 500psig /3.4 MPa (34 bar)	7 psig / 0.048 MPa (0.48 bar)	Natural Brass or Chrome Plated
NX002	1/2" / 15	5.6 / 80	5.3-5.8 / 76-84				
NX003	1/2" / 15	5.6 / 80	5.3-5.8 / 76-84				
NX004	1/2" / 15	5.6 / 80	5.3-5.8 / 76-84				
NX005	1/2" / 15	5.6 / 80	5.3-5.8 / 76-84				
NX006	1/2" / 15	5.6 / 80	5.3-5.8 / 76-84				

AVAILABLE TEMPERATURE RATING

Sprinkler Temperature Classification	Temperature - °F/°C			Glass Bulb Color
	Nominal Temp. Rating	Max. Ambient Temp. Allowed	Max. Recommended Ambient Temp.	
Ordinary	135°F / 57°C	115°F / 46°C	100°F / 38°C	Orange
Ordinary	155°F / 68°C	135°F / 57°C	100°F / 38°C	Red
Intermediate	175°F / 79°C	155°F / 68°C	150°F / 65°C	Yellow
Intermediate	200°F / 93°C	180°F / 82°C	150°F / 65°C	Green

FLOW DATA



NOMINAL K-COEFFICIENT CURVE

K- Coefficient is the constant in the formula:

$$Q = K (P)^{0.5}$$

Where: Q — Flow, LPM (GPM)

K — Discharge Coefficient

P — Discharge Pressure, psig (bar)

Refer to "NOMINAL K-COEFFICIENT CURVE"

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HORIZONTAL SIDEWALL SPRINKLERS

MODEL: NX001 / NX002

**STANDARD SPRAY, STANDARD / QUICK RESPONSE, 5 / 3 mm BULB
TYPE, K5.6, 1/2" CONNECTING THREAD**

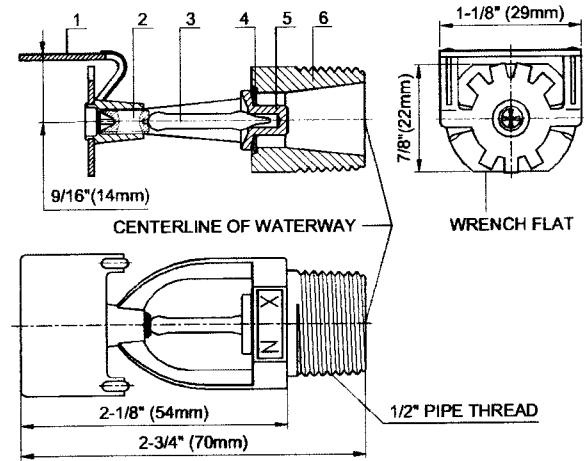
GENERAL DESCRIPTION

Horizontal sidewall sprinklers are generally used in lieu of pendent and upright sprinklers because of building construction or installation economy considerations. They are designed for installation along a wall or the side of a beam and just beneath a smooth ceiling. Installed with their centerline of waterway horizontal, these sprinklers produce a quarter-spherical water discharge pattern that is predominately directed downward and outward from the deflector; however, a portion of the spray is also directed towards the back wall.

Model NX001 / NX002, Standard / Quick Response Horizontal Sidewall Sprinklers (Ref. Figure A), are automatic sprinklers of the frangible bulb type, and standard spray, 1/2" orifice, 5 / 3 mm bulb. They are "standard/quick response - standard orifice sidewall sprinklers" intended for use in fire sprinkler systems designed in accordance with the standard installation rules recognized by the applicable Listing or Approval agency (e.g., UL Listing is based on NFPA 13 requirements).

SPRINKLER OPERATION

During a fire conditions, the thermal-sensitive liquid in the glass bulb expands, causing the



1.DEFLECTOR 2.SET SCREW 3.GLASS BULB 4.SPRING SEAL
5.BUTTON 6.FRAME

**FIGURE A : MODEL NX001/NX002 HORIZONTAL
SIDEWALL SPRINKLERS**

bulb to shatter, releasing the button and spring seal assembly. Water flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

COVERAGE

For coverage area and sprinkler placement, refer to NFPA13 standards.

TECHNICAL SPECIFICATIONS

Model & Sprinkler I.D. No. ¹	NX001		NX002	
Style	Horizontal Sidewall			
Response & Bulb Nominal Dia.	Standard Response, Ø5mm		Quick Response, Ø3mm	
Temp. Classification	Ordinary	Ordinary	Intermediate	Intermediate
Nominal Temp. Rating	135°F / 57°C	155°F / 68°C	175°F / 79°C	200°F / 93°C
Max. Ambient Temp. Allowed ²	115°F / 46°C	135°F / 57°C	155°F / 68°C	180°F / 82°C
Max. Recommended Ambient Temp. ³	100°F / 38°C	100°F / 38°C	150°F / 65°C	150°F / 65°C
Glass Bulb Color ⁴	Orange	Red	Yellow	Green
Thread Size [Optional]	□NPT1/2 or □R1/2 ⁵			

WARNING

The Model NX001/NX002 Horizontal Sidewall Sprinklers described herein must be installed and maintained in compliance with this document, as well as applicable standards of the National Fire Protection Association, in addition to the standards of any other authorities having jurisdiction. Failure to do so may impair the integrity of these devices.

The owner is responsible for maintaining their fire protection system and devices in proper operating condition. The installing contractor or manufacturer should be contacted relative to any questions.

INSTALLATION

NOTES

Do not install any bulb type sprinkler if the bulb is cracked or there is a loss of liquid from the bulb. With the sprinkler held horizontal, a small air bubble should be present. The diameter of the air bubble is approximately 1/16" (1.6mm) for the 135°F/57°C to 3/32" (2.4mm) for the 286°F/141°C rating. (At higher ambient temperatures, the bubble may be barely perceptible for the lower temperature ratings.)

The Model NX001/NX002 Horizontal Sidewall Sprinklers must be installed in accordance with the following instructions.

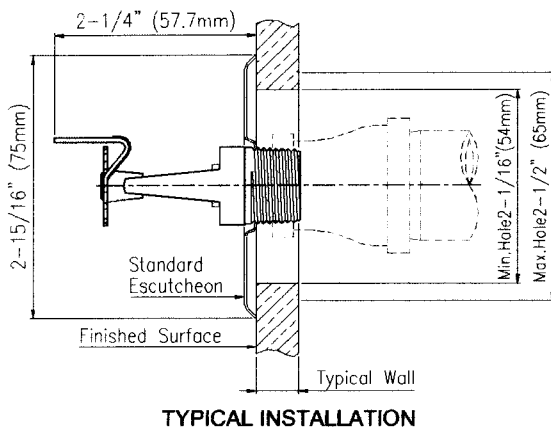


FIGURE C : MODEL NX001/NX002 HORIZONTAL SIDEWALL SPRINKLER INSTALLED WITH A STANDARD ESCUTCHEON

1. Prior to installing the sprinklers, if applicable, verify that the face of the sprinkler fitting is within the proper range of distance, which can be accommodated by the type of escutcheon being

used.

2. The Model NX001/NX002 Horizontal Sidewall Sprinklers must be installed with the centerline of waterway horizontal and perpendicular to a back wall surface. It is recommended that a lightweight spirit level (less than 1 pound), be used to level the sprinkler fitting, as shown in Figure D and that a square be used to check perpendicularity of the waterway centerline to the mounting surface.

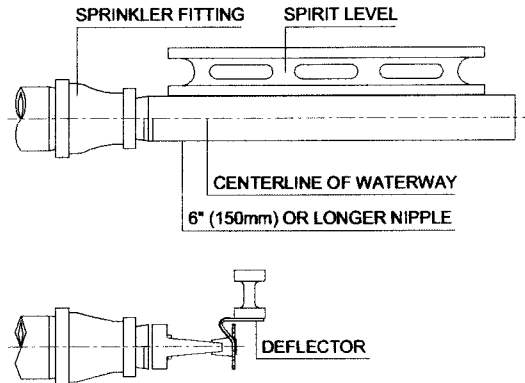


FIGURE D : LEVELING OF SPRINKLER FITTING AND DEFLECTOR

3. With pipe thread sealant applied to the pipe threads and after installing standard escutcheon, over the sprinkler threads, hand tighten the sprinkler into the sprinkler fitting.

4. Refer to Figure E and select the appropriate Sprinkler Wrench for tightening the sprinkler into the sprinkler fitting. The word "TOP" on the Deflector must face upwards towards the ceiling.

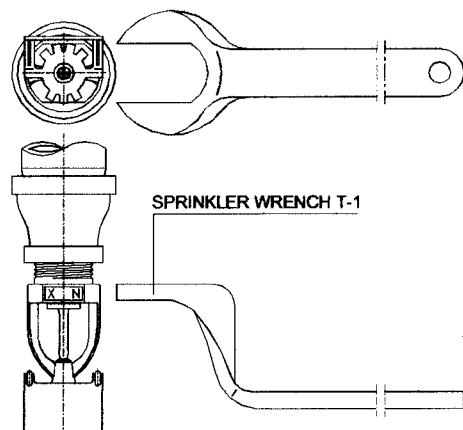


FIGURE E : SPRINKLER WRENCH SELECTION & USE

The T-1 Sprinkler Wrench must be used for installing Model NX001/NX002 sprinklers. When using T-1 type wrench, the wrench is to be applied to the sprinkler wrench flats only (Ref. Figure A).

Sprinklers, Automatic and Open

See General Information for Sprinklers, Automatic and Open

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Sprinkler Identification Number (SIN), Glass Bulb Type NX001, NX002, NX003, NX004, NX005, NX006.

UPRIGHT AND PENDENT STANDARD SPRAY SPRINKLERS

NOMINAL 5.6 K - FACTOR

SIN	Response Type	Type	Nom K-Factor	System Working Pressure, psig	Temp Rating, °F
NX003	SR	Upright	5.6	175	135, 155, 175, 200
NX004	QR	Upright	5.6	175	135, 155, 175, 200
NX005	SR	Pendent	5.6	175	135, 155, 175, 200
NX006	QR	Pendent	5.6	175	135, 155, 175, 200

STANDARD SIDEWALL SPRAY SPRINKLERS

SIN	Response Type	Type	Nom K-Factor	System Working Pressure, psig	Temp Rating, °F
NX001+#	SR	Horizontal	5.6	175	135, 155, 175, 200
NX002+#	QR	Horizontal	5.6	175	135, 155, 175, 200

+ - Installed 4 to 12 in. below ceiling.

- For light and ordinary hazard occupancies.

Last Updated on 2004-05-28