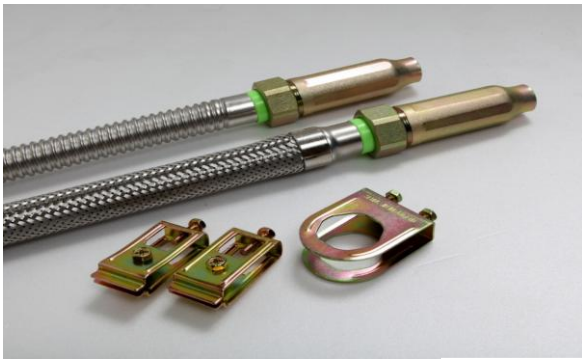




# Technical Data Sheet

**1. Model : 25A, Flexible Sprinkler Hose With Fittings**  
**<SPN-A XXX, SPB-BXXX, SPN-WXXX, SPB-WXXX(UL Certificated)>**



SPN-AXXX  
SPB-BXXX



SPN-WXXX  
SPB-WXXX

**(1) Technical Data**

Temperature	225°F(107°C)	
Working pressure	175 PSI(Unbraided), 200PSI(Braided)	
Maximum Bend Radius	6 inch	
K-Factor	1/2" Outlet	5.6 gpm (SPN-A, SPN-W, SPB-W) 8 gpm(SPB-B)
	3/4" Outlet	11.2 gpm(SPN-A) 16.8 gpm(SPB-B)
Diameter of Hose	25A (SPN-A XXX, SPB-BXXX, SPN-WXXX, SPB-WXXX)	26.2mm(I.D.) 26.8mm(O.D.)
	(28A) (SPB-CXXX)	(28.3mm(I.D.) 28.9mm(O.D.))

**(2) Friction Loss data**

Model	Rated Pressure, psig	Nom Inlet by Outlet Size,in.	Assembly length, ft(mm)	Max No. of 90° Bends	Min Bend Radius, in.	Equivalent Length of 1 in. Schedule 40 Steel Pipe(c=120), ft
SPN-A700	175	1/2	2.3(0.7)	1	6	12
SPN-A1000	175	1/2	3.3(1.0)	1	6	17
SPN-A1200	175	1/2	3.9(1.2)	2	6	43
SPN-A1500	175	1/2	4.9(1.5)	2	6	53
SPN-A1800	175	1/2	5.9(1.8)	2	6	65
SPN-A700	175	3/4	2.3(0.7)	1	6	22
SPN-A1000	175	3/4	3.3(1.0)	1	6	35
SPN-A1200	175	3/4	3.9(1.2)	2	6	39
SPN-A1500	175	3/4	4.9(1.5)	2	6	47
SPN-A1800	175	3/4	5.9(1.8)	2	6	53



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Model	Rated Pressure, psig	Nom Inlet by Outlet Size, in.	Assembly length, ft(mm)	Max No. of 90° Bends	Min Bend Radius, in.	Equivalent Length of 1 in. Schedule 40 Steel Pipe(c=120), ft
SPB-B700	200	1/2	2.3(0.7)	1	6	12
SPB-B1000	200	1/2	3.3(1.0)	1	6	17
SPB-B1200	200	1/2	3.9(1.2)	2	6	43
SPB-B1500	200	1/2	4.9(1.5)	2	6	53
SPB-B1800	200	1/2	5.9(1.8)	2	6	65
SPB-B700	200	3/4	2.3(0.7)	1	6	22
SPB-B1000	200	3/4	3.3(1.0)	1	6	35
SPB-B1200	200	3/4	3.9(1.2)	2	6	39
SPB-B1500	200	3/4	4.9(1.5)	2	6	47
SPB-B1800	200	3/4	5.9(1.8)	2	6	53

**(3) Feature**

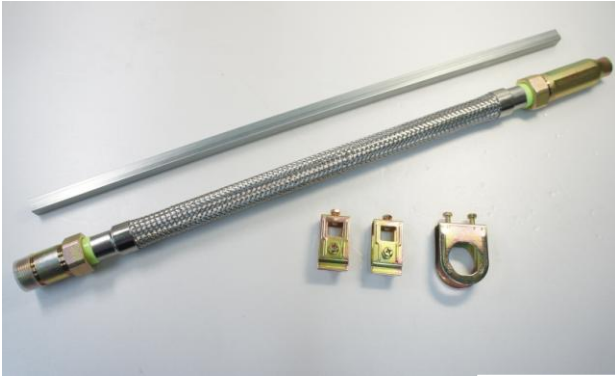
Length	700,1000,1200,1500,1800mm	
Reducer & Nipple Dia. Thread.	1/2", 3/4" / NPT, BSPT (Straight Outlet, 45° Angle Outlet, 90 Angle Outlet)	
Various Types	25A, Unbraided Union Type (SPN-A XXX)	UL/ULc Certificated
	25A, Braided Union Type (SPB-B XXX)	UL/ULc Certificated
	25A, Unbraided Weld Type (SPN-W XXX)	In Progress of UL Certificate
	25A, Braided Weld Type (SPB-W XXX)	UL/ULc Certificated
	28A, Braided Union Type (SPB-C XXX)	In Progress of UL Certificate

**(4) Synopsis**

- Available product length and type: 700mm to 1800mm (28" to 70")
- Braided(SPB-B XXX, SPB-W XXX) and Unbraided (SPN-A XXX, SPN-W XXX) Types
- Available Square Bar Length: 700mm to 1500mm (28" to 59")
- Max. Working pressure : 14kgf/cm<sup>2</sup> (200psi): SPB-B XXX, SPB-W XXX  
 12kgf/cm<sup>2</sup>(175psi): SPN-A XXX, SPN-W XXX
- Max. Ambient temperature: 107°C (225°F)
- Minimum Installation Bending Radius: 150mm (6")
- Bending Angles (Flow Direction): up to 180 Degree
- Largest K factor for 1/2 inch outlet  
 8[gpm/(psi)<sup>1/2</sup>] : SPB-B XXX  
 5.6[gpm/(psi)<sup>1/2</sup>] : SPN-A XXX, SPN-W XXX, SPB-W XXX
- Largest K factor for 3/4 inch outlet  
 16.8[gpm/(psi)<sup>1/2</sup>] : SPB-B XXX  
 11.2[gpm/(psi)<sup>1/2</sup>] : SPN-A XXX
- Intended Use: Wet System and Dry System
- This Flexible Hose With Fittings have limited flexibility.
- Intended Use for Direct Connection To Fire Sprinklers



**2. Model : 25A, Flexible Sprinkler Hose With Fittings**  
**<SBP-BXXX-B1, SBP-BXXX-B2, CCXXX, CCBUXXX(FM Certificated)>**



SBP-BXXX

**(1) Technical Data**

Temperature	225°F(107°C)	
Working pressure	175 PSI	
Maximum Bend Radius	11.8 inch	
K-Factor	1/2" Outlet	5.6 gpm (SBP-BXXX(1/2N))
	3/4" Outlet	8 gpm(SBP-BXXX(3/4N))
Diameter of Hose	25A(SBP-BXXX-B1, SBP-BXXX-B2)	26.2mm(I.D.) 26.8mm(O.D.)
	32A(CCXXX, CCBUXXX)	31.4mm(I.D.) 32.0mm(O.D.)

**(2) Friction Loss data**

Model	NPT in.	K-Factor	Minimum Bend Radius in.(mm)	Number of Bends	Rated Working Pressure psi (kPa)	Hose Assembly length in.(mm)	Equivalent Length of 1 in. Schedule 40 Pipe, ft(m)
SBP-B700	1/2	5.6	11.8(300)	1	175(1205)	27(700)	18.9(5.7)
SBP-B1000	1/2	5.6	11.8(300)	2	175(1205)	39(1000)	23.3(7.1)
SBP-B1200	1/2	5.6	11.8(300)	2	175(1205)	47(1200)	26.3(8)
SBP-B1500	1/2	5.6	11.8(300)	3	175(1205)	59(1500)	30.7(9.3)
SBP-B1800	1/2	5.6	11.8(300)	4	175(1205)	71(1800)	33.5(10.2)
SBP-B700	3/4	8	11.8(300)	1	175(1205)	27(700)	9.6(2.9)
SBP-B1000	3/4	8	11.8(300)	2	175(1205)	39(1000)	13.9(4.2)
SBP-B1200	3/4	8	11.8(300)	2	175(1205)	47(1200)	16.2(4.9)
SBP-B1500	3/4	8	11.8(300)	3	175(1205)	59(1500)	22.3(6.8)
SBP-B1800	3/4	8	11.8(300)	4	175(1205)	71(1800)	27.1(8.3)



**(3) Feature**

Length	700,1000,1200,1500,1800mm	
Reducer & Nipple Dia. Thread.	1/2", 3/4" / NPT, BSPT (Straight Outlet, 45° Angle Outlet, 90 Angle Outlet)	
Various Types	25A, Braided Union Type (SBP-BXXX-B1)	FM Certificated
	25A, Braided Weld Type (SPB-BXXX-B2)	FM Certificated
	32A, Braided Union Type (CCXXX)	FM Certificated
	32A, Braided Weld Type (CCBUXXX)	FM Certificated

**(4) Synopsis**

- Available product length and type: 700mm to 1800mm (28" to 70")
- All Braided(SBP-BXXX, CCXX, CCBU) Types
- Available Square Bar Length: 700mm to 1500mm (28" to 59")
- Max. Working pressure : 12kgf/cm<sup>2</sup>(175psi): SBP-B XXX, CCXXX, CCBUXXX
- Max. Ambient temperature: 107°C (225°F)
- Minimum Installation Bending Radius: 300mm (11.8")
- Bending Angles (Flow Direction): up to 180 Degree
- Largest K factor for 1/2 inch outlet  
 $5.6[\text{gpm}/(\text{psi})^{1/2}]$  : SBP-BXXX(1/2N)
- Largest K factor for 3/4 inch outlet  
 $8[\text{gpm}/(\text{psi})^{1/2}]$  : SBP-BXXX(3/4N)
- Intended Use: Wet System and Dry System
- This Flexible Hose With Fittings have limited flexibility.
- Intended Use for Direct Connection To Fire Sprinklers

**3. Installation Instructions**

(1) Refer to the relative regulations, codes or standards for guidance and determination of the desirable location for the unit in use commercial ceiling, clean rooms and duct systems, etc.

(2) Install the 1" flexible hose nipple (inlet) to the 1" sprinkler branch pipe by normal sealing and tightening procedures. Slip nut, which connects nipple with flexible hose, should be tightened with wrench as excessive force can damage the O-ring inside. (Torque: 123kgf·cm, 108 inch-Lbs) Make sure during and after installation of the flexible hose, any sharp-edged material or tools do not damage the surface of the flexible hose.

(3) Assemble the supplied bracket and square bar as shown in the picture, and attach the square bar to the T-bar (ceiling support) with supplied bracket and bolts considering the horizontal location of the sprinkler head. At this stage of installation, bolts need to be fastened loosely. (Torque: 27~28kgf·cm, 25inch-Lbs)  
 Select appropriate square bar length in accordance with the spacing between ceiling supports (both main bars and cross bars) is 600mm~1200mm. The "T" shaped beam is assembled with bracket S1 or S2.

(4) Bend the flexible hose so that the reducer (outlet) can be reached to the intended sprinkler head position. The flexible hose should be bent axially with smooth bending shape, and with minimum installation bending radius of 6". Flexible hose should not be twisted in a circumferential direction.  
 For a longer flexible hose, intermediate hose support is recommended to secure the movement of the hoses

(5) Verify that the reducer (outlet) is located in the correct intended position before securing the bracket L2 or L2-2(SPN-A,SPB-B)/L2-1(SPN-W,SPB-W) bolt. Check and adjust the reducer position by moving vertically and horizontally along the square bar. Tighten all the bolts securely and evenly. (Torque: 57~58kgf·cm, 50inch-Lbs)

(6) Install the sprinkler head to the reducer (outlet), if necessary adjust the height and location of the reducer by loosening and tightening the bolt.



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#### 4. Installation Photos

