

FLEXIBLE SPRINKLER

DROP SYSTEM

Extreme Performance





WRAS
Water Regulations Advisory Scheme



INTRODUCTION

SHIELD is a company created to cater to the infrastructure, fire protection and building services industries with a comprehensive range of products designed to be competitive and of assured quality.

We stay ahead of today's evolving market requirements by committing to a program of continued research and development.

We are able to maintain our high standards by ensuring that our worldwide manufacturing networks are the most advanced in the industry in Europe, Asia and America in terms of quality and delivery lead time. Our fully experienced and professional staff is there to provide engineering expertise and after sales service exactly when you need it.

Combine this with highly responsive and customer focused network of distribution centres around the world, you will find that customer satisfaction is what we excel at.

We are justifiably proud of our global client base. With offices and facilities in the UK and Middle East, we are able to comprehend the specific needs of your particular region.

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Save

Time, Labour & Money

Flexible Sprinkler Drop

Introduction

The SHIELD Flexible Sprinkler drop stainless steel hose fitting, which delivers an inimitable solution for the fire-fighting sprinkler industry. SHIELD hoses are manufactured with corrosion resistant material complying ANSI Grade 304 / 316 stainless steel, providing flexibility, high performance durability and reliability. SHIELD Flexible sprinkler drop is available in two variants - Braided (B) and Unbraided (N).

For safe, quick and cost effective installation on site, SHIELD hose assemblies are supplied as a complete package with a light weight galvanized bracketing system. SHIELD flexible hose systems can be directly installed to the mains water supply line without the need of any special tool.



Flexible Sprinkler Drop



Features:

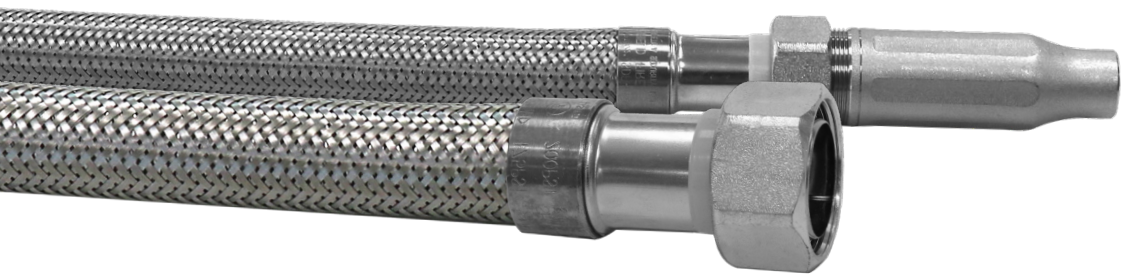
Hose Diameter	26.8mm, OD (26.2mm, ID)
Max. Ambient Temperature	225°F (107°C)
End Connections	1/2" or 3/4" Outlet Reducer for Sprinklers (NPT/BSPT) 1" Inlet Nipple for Rigid Pipes (Threaded NPT/BSPT)
Hose Material	Stainless Steel 304
Reducer / Nipple Material	Carbon Steel

- 300 Series Stainless Steel Flexible Hose with Two Slip Nuts
- Hose Inlet Nipple (Threaded End - 1" NPT or BSPT)
- Hose Outlet Reducer (Sprinkler Connections - 1/2" or 3/4" / NPT or BSPT)

Braided SDF-B (UL, LPCB)

Length mm	Rated Pressure		Outlet Connection in	Assembly Length ft (mm)	Maximum Number of 90° Bends	Minimum Bend Radius in	Equivalent Length of 1 in Schedule 40 pipe (c=120) ft	
	UL psi	LPCB bar						
700	200	14	1 x ½	2.3 (700)	2	4	26	
			1 x ¾				31	
1000			1 x ½	3.3 (1000)	3		45	
			1 x ¾				50	
1200			1 x ½	3.9 (1200)			66	
			1 x ¾					55
1500			1 x ½	4.9 (1500)				70
			1 x ¾					
1800			1 x ½	5.9 (1800)				
			1 x ¾					

Intended use: Wet & Dry System



NOTE: Please refer to UL/LPCB certificates for more details.



Flexible Sprinkler Drop

Braided SDF-B (FM)

Length	Rated Pressure	NPT	Hose Assembly Length	K-Factor	Number of Bends	Minimum Bend Radius	Equivalent Length of 1 in Schedule 40 pipe
mm	Psi	in	in (mm)			in	ft
700	200	1/2	28 (700)	5.6	2	9	28.4
				8			27.9
				11.2			27.9
		3/4		8			27.6
				11.2			27.5
				14			27.3
				16.8			27.2
1000		1/2	40 (1000)	5.6	3		45.8
				8			42.5
				11.2			42.5
		3/4		8			40.8
				11.2			39.9
				14			39.2
1200		1/2	48 (1200)	16.8	3		38.6
				5.6			57.4
				8			52.2
		3/4		11.2			52.2
				8			49.6
				11.2			48.2
1500		1/2	60 (1500)	14	4		47.1
				16.8			46.1
				5.6			69.6
		3/4		8			65
				11.2			65
				8			62.7
				11.2			61.5
1800		1/2	72 (1800)	14	4		60.5
				16.8			59.6
				5.6			81.8
		3/4		8			77.8
				11.2			77.8
				8			75.8
				11.2			74.7
				14			73.9
				16.8			73.1

Intended use: Wet & Dry System

NOTE: Please refer to FM certificate for more details.

SHIELD reserves the right to change the contents without notice.

Flexible Sprinkler Drop



Unbraided SDF-N (UL, LPCB)

Length mm	Rated Pressure		Outlet Connection in	Assembly Length ft (mm)	Maximum Number of 90° Bends	Minimum Bend Radius in	Equivalent Length of 1 in Schedule 40 pipe (c=120) ft			
	UL psi	LPCB bar								
700	200	14	1 x ½	2.3 (700)	2	4	26			
			1 x ¾				31			
1000			1 x ½	3.3 (1000)	3		45			
			1 x ¾				50			
1200			1 x ½	3.9 (1200)			66	51		
			1 x ¾					55		
1500			1 x ½	4.9 (1500)				70	66	
			1 x ¾						70	
1800			1 x ½	5.9 (1800)					74	69
			1 x ¾							74

Intended use: Wet & Dry System

NOTE: Please refer to UL/LPCB certificates for more details.



Flexible Sprinkler Drop

Features:

Hose Diameter	28.8mm, OD (28.2mm, ID)
Max. Ambient Temperature	225°F (107°C)
End Connections	1/2" or 3/4" Outlet Reducer for Sprinklers (NPT/BSPT) 1" Inlet Nipple for Rigid Pipes (Threaded NPT/BSPT)
Hose Material	Stainless Steel 304
Reducer / Nipple Material	Carbon Steel

- 300 Series Stainless Steel Flexible Hose with Two Slip Nuts
- Hose Inlet Nipple (Threaded End - 1" NPT or BSPT)
- Hose Outlet Reducer (Sprinkler Connections - 1/2" or 3/4" / NPT or BSPT)

Braided SDF-BA (UL)

Length	Rated Pressure	Nominal Inlet by Outlet	Assembly Length	Number of Bends	Minimum Bend Radius	Equivalent Length of 1 in Schedule 40 pipe (c=120)
mm	Psi	in	ft (mm)		in	ft
700	200	1 x ½	2.3 (700)	2	4	10
		1 x ¾				16
1000		1 x ½	3.3 (1000)	3		23
		1 x ¾				28
1200		1 x ½	3.9 (1200)	3		29
		1 x ¾				34
1500		1 x ½	4.9 (1500)	3		36
		1 x ¾				40
1800		1 x ½	5.9 (1800)	3		40
		1 x ¾				45

NOTE: Please refer to UL certificate for more details.

Flexible Sprinkler Drop



Braided SDF-BA (FM)

Length mm	Rated Pressure Psi	NPT in	Hose Assembly Length in (mm)	K-Factor	Number of Bends	Minimum Bend Radius in	Equivalent Length of 1 in Schedule 40 pipe
							ft
700	200	1/2	28 (700)	5.6	2	9	23
				8.0			20.5
				11.2			20.5
		3/4		8.0			16.1
				11.2			16.1
				14.0			15.5
				16.8			15.5
1000		1/2	40 (1000)	5.6	3		33.5
				8.0			30
				11.2			30
		3/4		8.0			27.4
				11.2			27.4
				14.0			26
1200		1/2	48 (1200)	16.8	3		26
				5.6			40.5
				8.0			37.5
		3/4		11.2			37.5
				8.0			35
				11.2			35
				14.0			34.5
1500		1/2	60 (1500)	16.8	4		34.5
				5.6			44.9
				8.0			41
		3/4		11.2			41
				8.0			39.3
				11.2			39.3
1800		1/2	72 (1800)	14.0	4		36
				16.8			36
				5.6			49.3
		3/4		8.0			46.5
				11.2			46.5
				8.0			43.7
				11.2			43.7
14.0		40.5					
16.8		40.5					

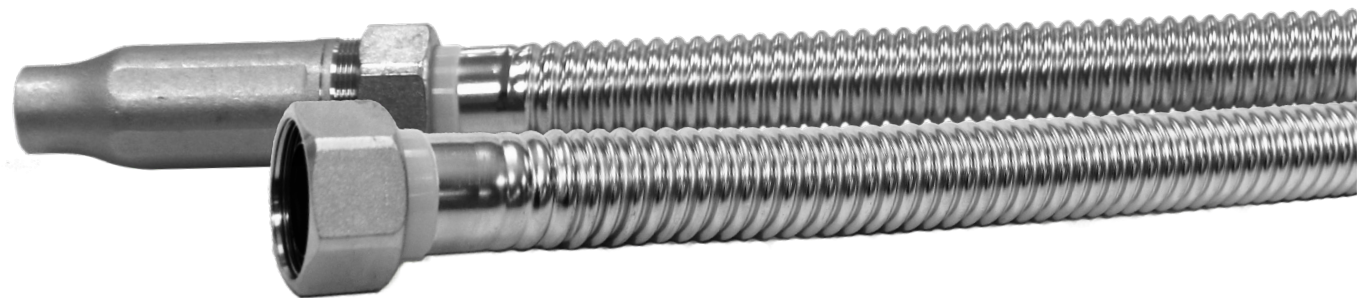
NOTE: Please refer to FM certificate for more details.

Flexible Sprinkler Drop

Unbraided SDF-NA (UL)

Length	Rated Pressure	Outlet Connection	Assembly Length	Maximum Number of 90° Bends	Minimum Bend Radius	Equivalent Length of 1 in Schedule 40 pipe (c=120)
mm	Psi	in	ft (mm)		in	ft
700	200	1 x ½	2.3 (700)	2	4	17
		1 x ¾				20
1000		1 x ½	3.3 (1000)	3		30
		1 x ¾				34
1200		1 x ½	3.9 (1200)			36
		1 x ¾				35
1500		1 x ½	4.9 (1500)			38
		1 x ¾				48
1800		1 x ½	5.9 (1800)			50
		1 x ¾				55

Intended use: Wet & Dry System



NOTE: Please refer to UL certificate for more details.

SHIELD reserves the right to change the contents without notice.

Flexible Sprinkler Drop



Features:

Hose Diameter	26.7mm, OD (21.2mm, ID)
Max. Ambient Temperature	225°F (107°C)
End Connections	1/2" or 3/4" Outlet Reducer for Sprinklers (NPT/BSPT) 1" Inlet Nipple for Rigid Pipes (Threaded NPT/BSPT)
Hose Material	Stainless Steel 304
Reducer / Nipple Material	Carbon Steel

- 300 Series Stainless Steel Flexible Hose with Two Slip Nuts
- Hose Inlet Nipple (Threaded End - 1" NPT or BSPT)
- Hose Outlet Reducer (Sprinkler Connections - 1/2" or 3/4" / NPT or BSPT)

Braided SDF-BC (UL)

Length mm	Rated Pressure Psi	Outlet Connection in	Assembly Length ft (mm)	Maximum Number of 90° Bends	Minimum Bend Radius in	Equivalent Length of 1 in Schedule 40 pipe (c=120) ft
700	175	1 x ½	2.3 (700)	2	4	16
		1 x ¾				17
790		1 x ½	2.6 (790)	2		22
		1 x ¾				23
915		1 x ½	3.0 (915)	3		30
		1 x ¾				30
1000		1 x ½	3.3 (1000)	3		32
		1 x ¾				41
1200		1 x ½	3.9 (1200)	3		41
		1 x ¾				43
1500		1 x ½	4.9 (1500)	3		43
		1 x ¾				44
1800		1 x ½	5.9 (1800)	3		48
		1 x ¾				47

NOTE: Please refer to UL certificate for more details.

Flexible Sprinkler Drop

Braided SDF-BC (FM)

Length mm	Rated Pressure psi	NPT	Hose Assembly Length in (mm)	K-Factor	Number of Bends	Minimum Bend Radius in	Equivalent Length of 1 in Schedule 40 pipe ft
700	232	½	27.5 (700)	5.6	1	10	24.2
		¾		8.0			20.6
790		½	31.1 (790)	5.6	2		29.3
		¾		8.0			25.7
915		½	36 (915)	5.6	2		36.4
		¾		8.0			32.8
1000		½	39.4 (1000)	5.6	3		41.2
		¾		8.0			37.7
1200		½	47.2 (1200)	5.6	3		52.5
		¾		8.0			49.1
1500		½	59.1 (1500)	5.6	4		69.6
		¾		8.0			66.2
1800		½	70.9 (1800)	5.6	4		86.6
		¾		8.0			83.4

Unbraided SDF-NC (UL)

Length mm	Rated Pressure Psi	Outlet Connection in	Assembly Length ft (mm)	Maximum Number of 90° Bends	Minimum Bend Radius in	Equivalent Length of 1 in Schedule 40 pipe (c=120) ft
700	175	1 x ½	2.3 (700)	2	4	28
		1 x ¾				30
790		1 x ½	2.6 (790)	2		32
		1 x ¾				34
1000		1 x ½	3.3 (1000)	3		49
		1 x ¾				51
1200		1 x ½	3.9 (1200)	3		55
		1 x ¾				56
1500		1 x ½	4.9 (1500)	3		73
		1 x ¾				74
1800		1 x ½	5.9 (1800)	3		83
		1 x ¾				83

NOTE: Please refer to UL/FM certificates for more details.

Flexible Sprinkler Drop



Braided SDF-BCA (UL)

Length	Rated Pressure	Outlet Connection	Assembly Length	Maximum Number of 90° Bends	Minimum Bend Radius	Equivalent Length of 1 in Schedule 40 pipe (c=120)
mm	Psi	in	ft (mm)		in	ft
700	200	1 x ½	2.3 (700)	2	2	7
		1 x ¾				14
790		1 x ½	2.6 (790)	4		14
		1 x ¾				19
915		1 x ½	3.0 (915)	5		18
		1 x ¾				23
1000		1 x ½	3.3 (1000)	5		20
		1 x ¾				24
1200		1 x ½	3.9 (1200)	8		30
		1 x ¾				35
1500		1 x ½	4.9 (1500)	10		40
		1 x ¾				44
1800		1 x ½	5.9 (1800)	12		48
		1 x ¾				54

Braided SDF-BCA (FM)

Length mm	Rated Pressure Psi	NPT in	Hose Assembly Length in (mm)	K-Factor	Number of Bends	Minimum Bend Radius in	Equivalent Length of 1 in Schedule 40 pipe
							ft
700	232	1/2	27.5 (700)	5.6	1	6.89	20.3
				8.0			23.4
				11.2			39.7
		3/4		8.0			9.7
				11.2			11.6
				14.0			11.8
				16.8			11.6
790		1/2	31.1 (790)	5.6	2		22.3
				8.0			25.3
				11.2			41.7
		3/4		8.0			11.9
				11.2			13.5
				14.0			13.7
				16.8			13.5
915	1/2	36 (915)	5.6	2	25.1		
			8.0		28.0		
			11.2		44.5		
	3/4		8.0		14.8		
			11.2		16.1		
			14.0		16.3		
			16.8		16.1		

NOTE: Please refer to UL certificate for more details.



Flexible Sprinkler Drop

Braided SDF-BCA (FM)

Length mm	Rated Pressure Psi	NPT in	Hose Assembly Length in (mm)	K-Factor	Number of Bends	Minimum Bend Radius in	Equivalent Length of 1 in Schedule 40 pipe
							ft
1000	232	1/2	39.4 (1000)	5.6	2	6.89	27
				8.0			29.8
				11.2			46.4
		3/4		8.0			16.8
				11.2			17.9
				14.0			18.1
				16.8			17.8
1200		1/2	47.2 (1200)	5.6	3		31.6
				8.0			34.0
				11.2			50.8
		3/4		8.0			21.6
				11.2			22.2
				14.0			22.3
				16.8			22.0
1500		1/2	59.1 (1500)	5.6	4		38.3
				8.0			40.3
				11.2			57.5
		3/4		8.0			28.7
				11.2			28.6
				14.0			28.6
				16.8			28.3
1800		1/2	70.9 (1800)	5.6	4		45.1
				8.0			46.6
				11.2			64.2
		3/4		8.0			35.8
				11.2			34.9
				14.0			34.9
				16.8			34.5

Flexible Sprinkler Drop



Features:

Hose Diameter	28.8mm, OD (28.2mm, ID)
Max. Ambient Temperature	225°F (107°C)
End Connections	1/2" or 3/4" Outlet Reducer for Sprinklers (NPT/BSPT) 1" Inlet Nipple for Rigid Pipes (Threaded NPT/BSPT)
Hose Material	Stainless Steel 304
Reducer / Nipple Material	Carbon Steel

- 300 Series Stainless Steel Flexible Hose with Two Slip Nuts
- Hose Inlet Nipple (Threaded End - 1" NPT or BSPT)
- Hose Outlet Reducer (Sprinkler Connections - 1/2" or 3/4" / NPT or BSPT)

Braided SDF-BD (UL)

Length	Rated Pressure	Outlet Connection	Assembly Length	Maximum Number of 90° Bends	Minimum Bend Radius	Equivalent Length of 1 in Schedule 40 pipe (c=120)
mm	Psi	in	ft (mm)		in	ft
700	200	1 x ½	2.3 (700)	3	3	18
		1 x ¾				20
1000		1 x ½	3.3 (1000)	5		23
		1 x ¾				24
1200		1 x ½	3.9 (1200)	7		29
		1 x ¾				31
1500		1 x ½	4.9 (1500)	9		39
		1 x ¾				40
1800		1 x ½	5.9 (1800)	12		50
		1 x ¾				70

Intended use: Wet & Dry System

NOTE: Please refer to UL certificate for more details.

Flexible Sprinkler Drop

Braided SDF-BD (FM)

Length	Rated Pressure	NPT	Hose Assembly Length	K-Factor	Number of Bends	Minimum Bend Radius	Equivalent Length of 1 in Schedule 40 pipe
mm	Psi	in	in (mm)			in	ft
700	175	½	27.5 (700)	5.6	1	9	22.9
		¾		8.0			15.7
1000		½	39.6 (1000)	5.6	2		34.6
		¾		8.0			26.9
1200		½	46.8 (1200)	5.6	3		41.0
		¾		8.0			34.8
1500		½	58.8 (1500)	5.6	4		50.4
		¾		8.0			43.8
1800		½	70.8 (1800)	5.6	4		58.5
		¾		8.0			53.4

Unbraided SDF-ND (UL)

Length mm	Rated Pressure Psi	Outlet Connection in	Assembly Length ft (mm)	Maximum Number of 90° Bends	Minimum Bend Radius in	Equivalent Length of 1 in Schedule 40 pipe (c=120) ft
700	200	1 x ½	2.3 (700)	2	4	32
		1 x ¾				31
1000		1 x ½	3.3 (1000)	3		55
		1 x ¾				50
1200		1 x ½	3.9 (1200)			64
		1 x ¾				57
1500		1 x ½	4.9 (1500)			75
		1 x ¾				68
1800		1 x ½	5.9 (1800)			81
		1 x ¾				79

Intended use: Wet & Dry System

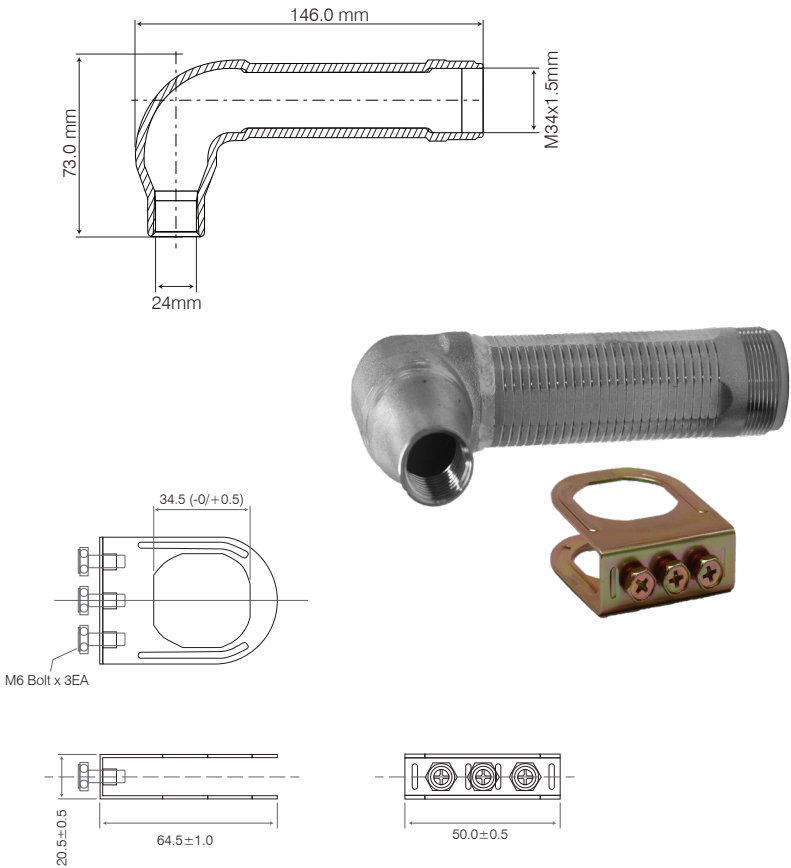
NOTE: Please refer to UL/FM certificate for more details.

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Flexible Sprinkler Drop

Elbow & Bracket:

Name	Specification
Square bar	700mm, 0.8t
Elbow	M34 x 1/2"NPT, 90L
Center Bracket	Open gate type
Center Bracket	Closed type
Square bar	1300mm, 0.8t
Square bar	700mm, 0.8t
Nipple	M34 x 1"NPT, 60L
Rubber Ring	OD:31.6 / ID:26.6 / T:3.5
Reducer	M34 x 1/2"NPT, 110L
Reducer	M34 x 3/4"NPT, 110L
Reducer	M34 x 1/2"NPT, 150L
Side Bracket	58mm, Screw bolt
Side Bracket	98mm, Screw bolt
Side Bracket	38mm, Screw bolt
Side Bracket	68mm, Wing bolt
Side Bracket	98mm, Wing bolt



Inlet Nipple

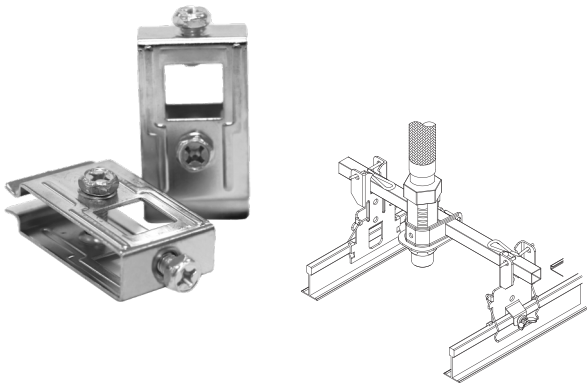


SDF-N25

Bottom Up Reducer



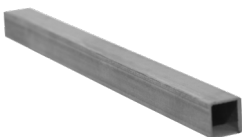
Wing Bracket



Centre Bracket



Square Bar



SHIELDTM

Trusted Worldwide



For further information on any aspect of the SHIELD range of Flexible Sprinkler please contact your nearest office.

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