

# Flexible Sprinkler Drops

## Braided Flexible Sprinkler Connection Data Sheet

**GENIE SYSTEMS Flexible Sprinkler Drops are designed to significantly reduce labor and installation costs. By eliminating the need for pipe cutting and midline connections, you save valuable time and money.**

Genie Systems flexible sprinkler connections offer braided and unbraided flexible hoses in 700mm,1000mm,1200mm,1500mm and 1800mm with top loading or front loading brackets for variety of ceiling and wall applications:T-Bars, metal studs, h at channels, wood beams, concrete sidewalls, and more. The system is qualified to be installed at commercial, hotel, retail, restaurants, cultural, entertainment, educational, government, healthcare, and religious buildings.

### GENIE SYSTEMS Flexible Sprinkler Drops Appliance Standards

#### 1. Underwriter's Laboratories, Inc. (UL), UL 2443:

- Standard for flexible sprinkler hose with fittings for fire protection service

#### 2. Factory Mutual (FM), FM Class No, 1637:

- ASTM C635: Standard specifications for the manufacture, performance, and testing of metal suspension system

#### 3. National Fire Protection Association (NFPA):

- NFPA 13 : Standard for the Installation of Sprinkler Systems
- NFPA 13D : Standard for the Installation of Sprinkler Systems in One and Two-Family Dwellings and Manufactured Homes
- NFPA 13R : Standard for Installation of Sprinkler Systems in residential Occupancies up to and including four stories in height
- NFPA 13 Section 9.2.1.3.3.3 : No hangers are required for flexible connections as long as the length does not exceed 6ft.

#### 4. American Society for Testing and Methods (ASTM):

- ASTM C635 : Standard specifications for the manufacture, performance, and testing of metal suspension systems for acoustical tile and lay-in panel ceilings
- ASTM C636 : Standard practice for installation of metal ceiling suspension systems for acoustical tile and lay-in panels

#### 5. International Building Code (IBC) Section 1621 / American Society of Civil Engineers (ASCE) 7.9.6.2.6.2 & 9.6.2.6.2.2:

- Flexible Sprinkler Connections are an alternative solution to install without seismic escutcheons

Job Name :

Engineer / Architect :

Job Location :

Wholesaler :

Submittal Date :

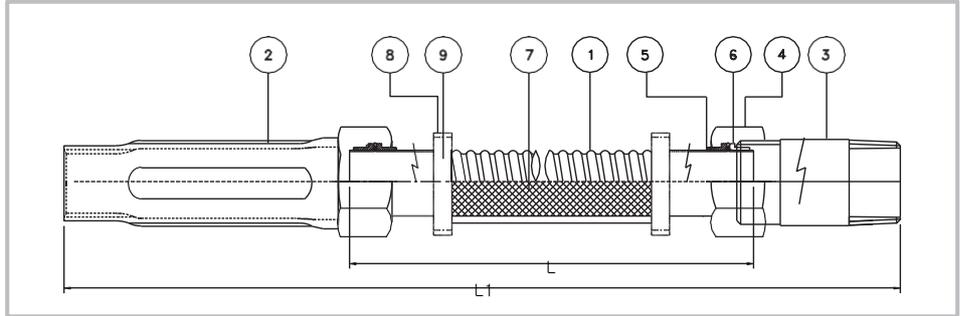
Contractor :



[www.genie-systems.com](http://www.genie-systems.com)

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## BRAIDED TYPE FLEXIBLE HOSE



- |                  |                   |                   |
|------------------|-------------------|-------------------|
| 1. FLEXIBLE TUBE | 4. SLIP NUT       | 7. BRAIDED HOSE   |
| 2. REDUCER       | 5. ISOLATING-RING | 8. CLAMP(OUTSIDE) |
| 3. NIPPLE        | 6. GASKET         | 9. CLAMP(INSIDE)  |

## SPECIFICATIONS

Lengths Available (ft or mm)	2.3, 3.3, 3.9, 4.9, 5.9 or 700, 1000, 1200, 1500, 1800	Hose	Stainless Steel 304
Outlet	1/2" or 3/4"	Nut & Nipple	Zinc-Plated Steel
Hose Type	Braided	Sealing Gasket / Isolation Ring	EPDM / Nylon
Max. Ambient Temperature Rating	225°F	Minimum Bend Radius	3"(UL) from connection nuts
Max. Working Pressure Rating	200 psig	Connection	Inlet: 1"NPT or BSP
			Outlet: 1/2" or 3/4"NPT or BSP

\* Required torque to assemble reducer and nipple with the flexible hose : 300kgf.cm



## FRICION LOSS DATA

DJ28B Series Braided Hose with Fittings

Model	Rated Pressure, psig	Max. Ambient Temp, °F	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	Flexibility Type
DJ28B-700	200	225	1x1/2	2.3 (700)	3	3	18	Limited
DJ28B-1000	200	225	1x1/2	3.3 (1000)	5	3	23	Limited
DJ28B-1200	200	225	1x1/2	3.9 (1200)	7	3	29	Limited
DJ28B-1500	200	225	1x1/2	4.9 (1500)	9	3	39	Limited
DJ28B-1800	200	225	1x1/2	5.9 (1800)	12	3	50	Limited
DJ28B-700	200	225	1x3/4	2.3 (700)	3	3	20	Limited
DJ28B-1000	200	225	1x3/4	3.3 (1000)	5	3	24	Limited
DJ28B-1200	200	225	1x3/4	3.9 (1200)	7	3	31	Limited
DJ28B-1500	200	225	1x3/4	4.9 (1500)	9	3	40	Limited
DJ28B-1800	200	225	1x3/4	5.9 (1800)	12	3	70	Limited

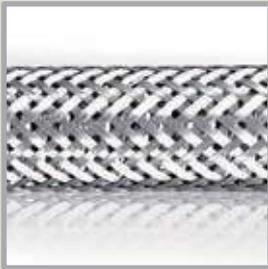
\* UL : 190mm minimum bend radius, where C=120

## TECHNICAL SPECIFICATIONS

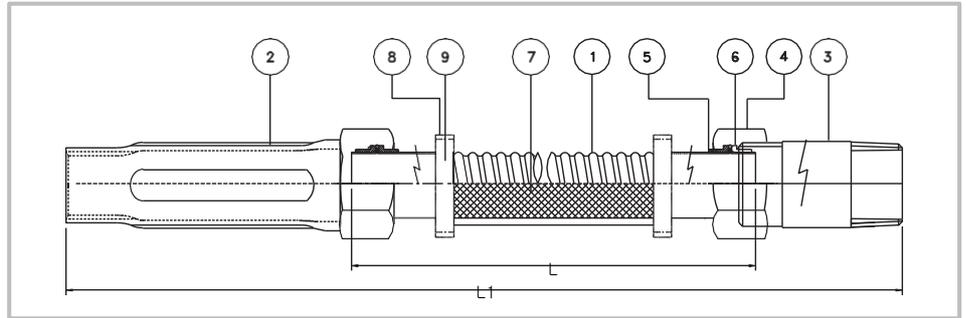


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## TECHNICAL SPE CIFICATIONS



### BRAIDED TYPE FLEXIBLE HOSE



- |                  |                   |                   |
|------------------|-------------------|-------------------|
| 1. FLEXIBLE TUBE | 4. SLIP NUT       | 7. BRAIDED HOSE   |
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| 3. NIPPLE        | 6. GASKET         | 9. CLAMP(INSIDE)  |

### SPECIFICATIONS

Lengths Available (ft or mm)	2.3, 3.3, 3.9, 4.9, 5.9 or 700, 1000, 1200, 1500, 1800	Hose	Stainless Steel 304
Outlet	1/2" or 3/4"	Nut & Nipple	Zinc-Plated Steel
Hose Type	Braided	Sealing Gasket / Isolating Ring	EPDM / Nylon
Max. Ambient Temperature Rating	225°F	Minimum Bend Radius	9"(FM) from connection nuts
Max. Working Pressure Rating	200 psig	Connection	Inlet: 1"NPT or BSP
			Outlet: 1/2" or 3/4"NPT or BSP

\* Required torque to assemble reducer and nipple with the flexible hose : 300kgf.cm



### FRICITION LOSS DATA

DJ28B Series Braided Hose with Fittings

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)
DJ28B	1/2	5.6	9 (230)	1	200(1380)	2.3 ft	22.9 (6.9)
	1/2	5.6	9 (230)	2	200(1380)	3.3 ft	34.6 (10.5)
	1/2	5.6	9 (230)	3	200(1380)	3.9 ft	41.0 (12.5)
	1/2	5.6	9 (230)	4	200(1380)	4.9 ft	50.4 (15.3)
	1/2	5.6	9 (230)	4	200(1380)	5.9 ft	58.5 (17.8)
DJ28B	3/4	8.0	9 (230)	1	200(1380)	2.3 ft	15.7 (4.8)
	3/4	8.0	9 (230)	2	200(1380)	3.3 ft	26.9 (8.2)
	3/4	8.0	9 (230)	3	200(1380)	3.9 ft	34.8 (10.6)
	3/4	8.0	9 (230)	4	200(1380)	4.9 ft	43.8 (13.5)
	3/4	8.0	9 (230)	4	200(1380)	5.9 ft	53.4 (16.2)

\* FM : 9" minimum bend radius, where C=120

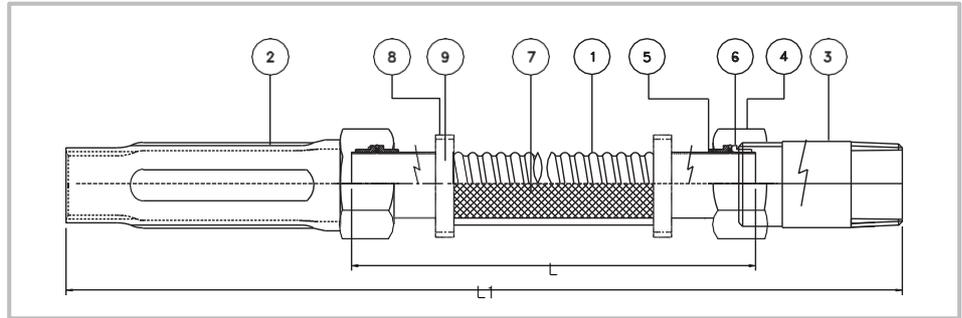


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## TECHNICAL SPE CIFICATIONS



### BRAIDED TYPE FLEXIBLE HOSE



- |                  |                   |                   |
|------------------|-------------------|-------------------|
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### SPECIFICATIONS

Lengths Available	24", 31.2", 36", 48", 60" and 72"	Hose	Stainless Steel 304
Outlet	1/2"	Nut & Nipple	Zinc-Plated Steel
Hose Type	Braided	Sealing Gasket / Isolation Ring	EPDM / Nylon
Max. Ambient Temperature Rating	225°F	Minimum Bend Radius	8"(FM) from connection nuts
Max. Working Pressure Rating	175 psig	Connection	Inlet: 1"NPT or BSP
			Outlet: 1/2" or 3/4"NPT or BSP

\* Required torque to assemble reducer and nipple with the flexible hose : 300kgf.cm



### FRICION LOSS DATA

DJ32B-C Series Braided Hose with Fittings

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)
DJ32B-C	1/2	5.6	8 (203)	1	175 (1205)	24 (610)	8.8 (2.2)
	1/2	5.6	8 (203)	2	175 (1205)	31.2 (792)	14 (4.3)
	1/2	5.6	8 (203)	2	175 (1205)	36 (915)	17.5 (5.3)
	1/2	5.6	8 (203)	3	175 (1205)	48 (1220)	26.3 (8)
	1/2	5.6	8 (203)	4	175 (1205)	60 (1525)	31.4 (9.5)
	1/2	5.6	8 (203)	4	175 (1205)	72 (1830)	36.6 (11.1)

\* FM : 8" minimum bend radius, where C=120



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# Flexible Sprinkler Drops

## Unbraided Flexible Sprinkler Connection Data Sheet

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- Standard for flexible sprinkler hose with fittings for fire protection service

#### 2. National Fire Protection Association (NFPA):

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#### 3. American Society for Testing and Methods (ASTM):

- ASTM C635 : Standard specifications for the manufacture, performance, and testing of metal suspension systems for acoustical tile and lay-in panel ceilings
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#### 4. International Building Code (IBC) Section 1621 / American Society of Civil Engineers (ASCE) 7.9.6.2.6.2 & 9.6.2.6.2.2:

- Flexible Sprinkler Connections are an alternative solution to install without seismic escutcheons

Job Name :

Engineer / Architect :

Job Location :

Wholesaler :

Submittal Date :

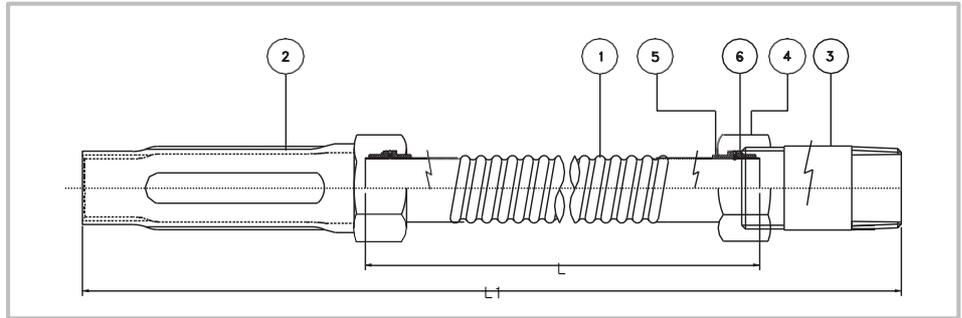
Contractor :



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## UNBRAIDED FLEXIBLE HOSE



- 1. FLEXIBLE TUBE
- 2. REDUCER
- 3. NIPPLE
- 4. SLIP NUT
- 5. ISOLATING-RING
- 6. GASKET

### TECHNICAL SPE CIFICATIONS



### SPECIFICATIONS

Lengths Available	700mm, 1000mm, 1200mm, 1500mm, 1800mm
Outlet	1/2" or 3/4"
Hose Type	Unbraided
Max. Ambient Temperature Rating	225°F
Max. Working Pressure Rating	200 psig (UL/ULC)

Hose	Stainless Steel 304	
Nut & Nipple	Metal zinc plating	
Sealing Gasket / Isolation Ring	Silicone / Nylon	
Minimum Bend Radius	100mm(UL/ULC) From connection nuts	
Connection	Inlet	1"NPT or BSP
	Outlet	1/2" or 3/4"NPT or BSP

\* Required torque to assemble reducer and nipple with the flexible hose : 300 kgf.cm



### FRICION LOSS DATA

DJ25UB Series Unbraided Hose with Fittings

Model	Rated Pressure, psig	Max. Ambient Temp, °F	Nom. Inlet by Outlet Size, in.	Assembly Length, ft (mm)	Max No. of 90° Bends	Min Bend Radius, mm.	Equivalent Length of 1 in. Schedule 40 Steel Pipe (C = 120), ft	Flexibility Type
DJ25UB-700	200	225	1x1/2	700	2	100	32	Limited
DJ25UB-1000	200	225	1x1/2	1000	3	100	55	Limited
DJ25UB-1200	200	225	1x1/2	1200	3	100	64	Limited
DJ25UB-1500	200	225	1x1/2	1500	3	100	75	Limited
DJ25UB-1800	200	225	1x1/2	1800	3	100	81	Limited
DJ25UB-700	200	225	1x3/4	700	2	100	31	Limited
DJ25UB-1000	200	225	1x3/4	1000	3	100	50	Limited
DJ25UB-1200	200	225	1x3/4	1200	3	100	57	Limited
DJ25UB-1500	200	225	1x3/4	1500	3	100	68	Limited
DJ25UB-1800	200	225	1x3/4	1800	3	100	79	Limited

\* UL : 100mm minimum bend radius, where C=120

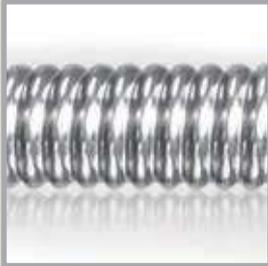


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**FLEXIBLE SPRINKLER CONNECTION PARTS LIST**

**UNBRAIDED FLEXIBLE HOSE**

UL

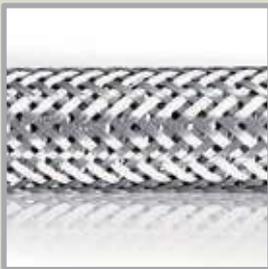


Part #	Description	Part #	Description
DJ25UB-700	1/2"x700mm Unbraided hose	DJ25UB-700	3/4"x700mm Unbraided hose
DJ25UB-1000	1/2"x1000mm Unbraided hose	DJ25UB-1000	3/4"x1000mm Unbraided hose
DJ25UB-1200	1/2"x1200mm Unbraided hose	DJ25UB-1200	3/4"x1200mm Unbraided hose
DJ25UB-1500	1/2"x1500mm Unbraided hose	DJ25UB-1500	3/4"x1500mm Unbraided hose
DJ25UB-1800	1/2"x1800mm Unbraided hose	DJ25UB-1800	3/4"x1800mm Unbraided hose

\* OD : 25.1mm / ID : 21.4mm STS 304

**BRAIDED FLEXIBLE HOSE**

UL / FM



Part #	Description	Part #	Description
DJ25B-24	1/2"x24" Braided hose	DJ25B-24	3/4"x24" Braided hose
DJ25B-31.2	1/2"x31.2" Braided hose	DJ25B-31.2	3/4"x31.2" Braided hose
DJ25B-36	1/2"x36" Braided hose	DJ25B-36	3/4"x36" Braided hose
DJ25B-48	1/2"x48" Braided hose	DJ25B-48	3/4"x48" Braided hose
DJ25B-60	1/2"x60" Braided hose	DJ25B-60	3/4"x60" Braided hose
DJ25B-72	1/2"x72" Braided hose	DJ25B-72	3/4"x72" Braided hose

\* OD : 26.8mm / ID : 22.3mm STS 304

UL / FM

Part #	Description	Part #	Description
DJ28B-700	1/2"x700 Braided hose	DJ28B-700	3/4"x700 Braided hose
DJ28B-1000	1/2"x1000 Braided hose	DJ28B-1000	3/4"x1000 Braided hose
DJ28B-1200	1/2"x1200 Braided hose	DJ28B-1200	3/4"x1200 Braided hose
DJ28B-1500	1/2"x1500 Braided hose	DJ28B-1500	3/4"x1500 Braided hose
DJ28B-1800	1/2"x1800 Braided hose	DJ28B-1800	3/4"x1800 Braided hose

\* OD : 28.0mm / ID : 27.4mm STS 304

FM

Part #	Description	Part #	Description
DJ32B-C24	1/2"x24" Braided hose	DJ28B-700	3/4"x700 Braided hose
DJ32B-C36	1/2"x36" Braided hose	DJ28B-1000	3/4"x1000 Braided hose
DJ32B-C48	1/2"x48" Braided hose	DJ28B-1200	3/4"x1200 Braided hose
DJ32B-C60	1/2"x60" Braided hose	DJ28B-1500	3/4"x1500 Braided hose
DJ32B-C72	1/2"x72" Braided hose	DJ28B-1800	3/4"x1800 Braided hose

\* OD : 32.0mm / ID : 26.1mm STS 304



BRACKET SET

Image	Part #	Description
		<p>Steel Material</p> <ul style="list-style-type: none"> <li>- Qty.1 SQ650 or 1000 or 1200</li> <li>- Qty.2 B-ES-B(68mm) End Brackets</li> <li>- Qty.1 B-CC-B</li> </ul>
		<p>Steel Material</p> <ul style="list-style-type: none"> <li>- Qty.1 SQ650 or 1000 or 1200</li> <li>- Qty.2 B-EOT-S(68mm) End Brackets</li> <li>- Qty.1 B-COT</li> </ul>
		<p>Steel Material</p> <ul style="list-style-type: none"> <li>- Qty.1 SQ650 or 1000 or 1200</li> <li>- Qty.2 B-ES-H(68mm) End Brackets</li> <li>- Qty.1 B-CC-B</li> </ul>
		<p>Steel Material</p> <ul style="list-style-type: none"> <li>- Qty.1 SQ650 or 1000 or 1200</li> <li>- Qty.2 B-ES-B(68mm) End Brackets</li> <li>- Qty.1 B-COT</li> </ul>
		<p>Steel Material</p> <ul style="list-style-type: none"> <li>- Qty.1 SQ650 or 1000 or 1200</li> <li>- Qty.2 B-EOT-S(68mm) End Brackets</li> <li>- Qty.1 B-CC-B</li> </ul>



## CENTER BRACKET

Image	Model	Description	Image	Model	Description
	B-CC-B	Easier Fixed Bracket Cap Type Bracket Patented Center Bracket Carbon Steel, Zinc-Plated		B-COT (Old)	One Touch Type Bracket Quick time Fixed Bracket Patented Center Bracket Carbon Steel, Zinc-Plated
	B-CH-B	Hook Type Bracket Economy Cost Carbon Steel, Zinc-Plated		B-COT (New)	One Touch Type Bracket Quick time Fixed Bracket Patented Center Bracket Carbon Steel, Zinc-Plated

## END BRACKET

Image	Model	Description	Image	Model	Description
	B-ES-B	Short End Bracket 68mm Length Carbon Steel, Zinc-Plated		B-EOT-S	Short One touch End Bracket 68mm Length Carbon Steel, Zinc-Plated
	B-EL-B	Long End Bracket 105mm Length Carbon Steel, Zinc-Plated		B-EOT-L	Long One touch End Bracket 105mm Length Carbon Steel, Zinc-Plated

## FIXING ACCESSORIES

Image	Model	Description	Image	Model	Description
	SQ	SQUARE BAR 25" / 650mm / 700mm / 1000mm 1300mm / 1600mm Length Steel / Zinc-Plated		B-EMS-B B-E1-B	Metal Stud End Bracket Carbon Steel / Zinc-Plated
	B-EHC-B	Hat Furring Channal End Bracket Carbon Steel / Zinc-Plated		B-EWS-B	Wood Beam Stud Bracket Carbon Steel / Zinc-Plated

## NUTS & GASKET, RING

Image	Model	Description	Image	Model	Description
	NU-36	Nut -Braid BSP or NPT Carbon Steel, Zinc-Plated		E-G25 E-G26 E-G28 E-G32	Gasket - DJ25UB Gasket - DJ25B Gasket - DJ28B Gasket - DJ32B-C Silicone / EPDM material
	NU-33	Nut -Unbraid BSP or NPT Carbon Steel, Zinc-Plated		E-I25 E-I26 E-I28 E-I32	Nylon Isolation Ring - DJ25UB - DJ25B - DJ28B - DJ32B-C Nylon material