



## Flexible Sprinkler Hose with Fittings

By  **GVFire**  
Fire Protection Products

## Braided Type



Model	Length	Max Pressure	Inlet	Outlet	Thread
FDB27700GV	700mm (2.3 ft.)	200PSI	1" BSPT	1/2" or 3/4"	NPT
FDB271000GV	1000mm (3.3 ft.)	200PSI	1" BSPT	1/2" or 3/4"	NPT
FDB271200GV	1200mm (3.9ft.)	200PSI	1" BSPT	1/2" or 3/4"	NPT
FDB271500GV	1500mm (4.9 ft.)	200PSI	1" BSPT	1/2" or 3/4"	NPT
FDB271800GV	1800mm (5.9 ft.)	200PSI	1" BSPT	1/2" or 3/4"	NPT

## Accessories - Stocked

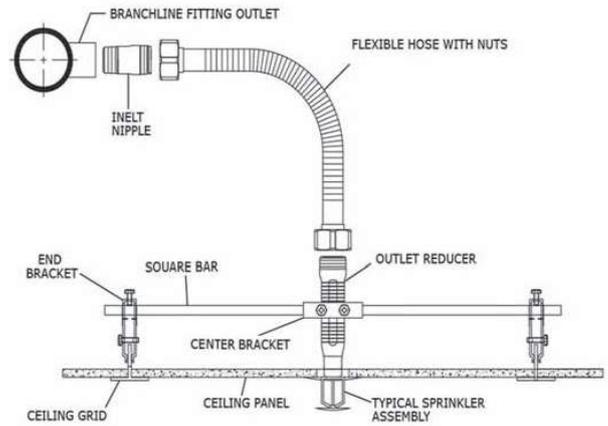
110mm (15mm) Standard Reducer FDNR2715NPT110GV	110mm (10mm) Standard Reducer FDNR2710NPT110GV	155mm (15mm) Standard Reducer FDNR2715NPT155GV	Center Nozzle Bracket FDNBGV	110mm Elbow Reducer FDER2715NPTGV
150mm Pipe Angle Nozzle FDAP27GV	60mm Short Grid Bracket FDGBS60GV	105mm Long Grid Bracket FDGBS105GV	38mm Metal Stud Side Bracket FDSSB38GV	53mm Metal Stud Side Bracket FDSSB53GV
65mm Adjustable Elbow Bracket FD27RES65GV	60mm Channel Hat Small Side Bracket FDHCSB60GV	80mm Channel Hat Large Side Bracket FDHCSB80GV	Wood Beam Side Bracket FDWBGV	0.7m Long Square Bar FDSB0.7V

## Accessories - Available on application

110mm Reducer Rolling	135mm Reducer Rolling	155mm Reducer Rolling	155mm Elbow Reducer	1" Nipple
Connection Nipple	1-1/4" Nipple	Center Bracket	Center Bracket Circle	78mm Side Bracket

## Components Materials:

Flexible Hose - AISI 304 Stainless steel  
 Braid - (only Braided type) - AISI 304 Stainless steel  
 Nut - SWRMK (steel), zinc plated  
 Gasket Seal - NBR  
 Isolation Ring - NYLON 6  
 Nipple - SPP (steel), zinc plated  
 Brackets - SPGC (steel), zinc plated  
 Support Bar - SGCC (steel), zinc plated



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|--|--|
| <ul style="list-style-type: none"> <li>▶ Available product length and type               <ul style="list-style-type: none"> <li>- 700mm, 1000mm, 1200mm, 1500mm, 1800mm</li> <li>- Braided Type</li> </ul> </li> <li>▶ Max. Working pressure               <ul style="list-style-type: none"> <li>- 14Kg.cm (200psi)</li> </ul> </li> <li>▶ Maximum number of bends               <ul style="list-style-type: none"> <li>- GVFLEX-27B-700, 1000 : 1 max 90 degree bend</li> <li>- GVFLEX-27B-1200, 1500, 1800 : 3 max 90 degree bend</li> <li>- GVFLEX-27U-700, 1000 : 1 max 90 degree bend</li> <li>- GVFLEX-27U-1200, 1500, 1800 : 3 max 90 degree bend</li> </ul> </li> <li>▶ bending angles (Flow direction)               <ul style="list-style-type: none"> <li>- Up to 180 Degree</li> </ul> </li> <li>▶ K-factor               <ul style="list-style-type: none"> <li>- Largest K-factor 1/2inch Outlet : 8.0 gpm/ sqr(psi)</li> <li>- Largest K-factor 3/4inch Outlet : 14.00 gpm/ sqr(psi)</li> </ul> </li> <li>▶ Intended use for direct connection to fire sprinklers.</li> <li>▶ The hose and fittings have limited flexibility.</li> </ul> | <ul style="list-style-type: none"> <li>▶ Available square bar length               <ul style="list-style-type: none"> <li>- 700mm to 1400mm</li> </ul> </li> <li>▶ Max. Ambient temperature               <ul style="list-style-type: none"> <li>- 150 °F</li> </ul> </li> <li>▶ Minimum installation bending radius               <ul style="list-style-type: none"> <li>- 125mm (5in)</li> </ul> </li> <li>▶ Bracket(S) Torque               <ul style="list-style-type: none"> <li>- 45 Kg.cm</li> </ul> </li> <li>▶ Bracket(L) Torque               <ul style="list-style-type: none"> <li>- 65Kg.cm</li> </ul> </li> <li>▶ Nut + Nipple/Reducer Torque               <ul style="list-style-type: none"> <li>-500Kg.cm</li> </ul> </li> <li>▶ System - Dry &amp; Wet System</li> </ul> |
|--|--|

## INSTALLATION INSTRUCTION

(Braided & Unbraided Type)

### SERVICE - COMPLIANCE - INTEGRITY

1. Do visual inspection to see if there is any sign of physical damage on the hose.
2. Check O-Ring and insulation Ring to see if there is any sign of physical damage.
3. Connect Reducer to Nut by using a wrench.

\*Nut and Reducer connection torque: 500Kg/cm



4. Apply Teflon tape on the inlet nipple thread. Use pipe wrench to connect the inlet nipple to the branch line.
5. After inspect O-ring and insulation Ring of physical damage, connect flexible sprinkler hose to outer nipple.

Warning: Do NOT apply Teflon tape on the outer nipple thread when connect to the flexible sprinkler hose.

\*Nipple + main pipe connecting torque: 850~900Kg/cm

\*Nut + Nipple connection torque: 500Kg/cm

6. Install each Bracket-S to Square bar by using drivers as shown on photo 6. Put a space of 600mm to 1200 mm approximately.

7. Connect square bar to the T-bar ceiling grid as shown on photo 2 and tighten the bolts on the Bracket-S to secure on the grid.

\*Bracket-S bolts connection torque: 45Kg/cm



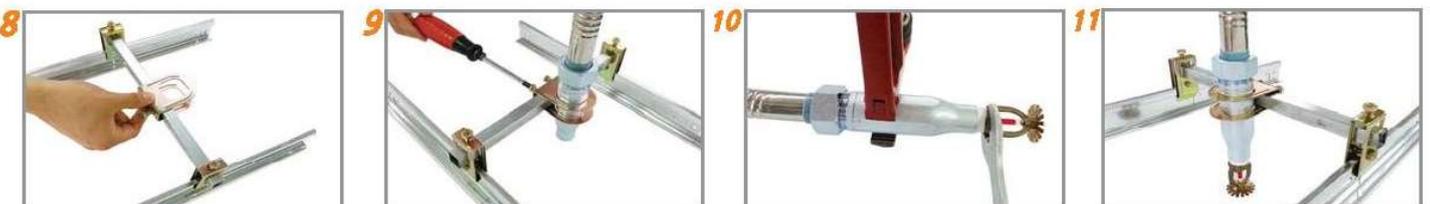
8. Place the Bracket-L at the middle of the square bar.

9. Insert the outlet reducer from the flexible sprinkler hose and securely fasten by tightening two bolts on the Bracket-L.

\*Bracket-L bolts connection torque: 65Kg/cm

10. Apply the Teflon tape on the inlet thread of sprinkler head and connect to the outer nipple of reducer.

11. Check all the parts are securely tightened.



**SERVICE - COMPLIANCE - INTEGRITY**

A suspended ceiling used with the flexible hose with fittings shall be designed to resist upward movement when vertical loads are applied (interlocking) and constructed to support the applied flexible hose loads. Products are intended to be used with ceilings having construction and structural integrity characteristics equivalent to intermediate and heavy duty ceilings described in the Standard for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings, ASTM C635 and Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels, ASTM C636 may be used

Flexible sprinkler hose fittings may be used in wet, preaction, deluge or dry pipe sprinkler systems between the branch line and sprinkler when installed in accordance with NFPA 13, "Standard for the Installation of Sprinkler Systems," NFPA 13R "Standard for the Installation of Sprinkler Systems in Residential Occupancies up to four Stories in Height." and NFPA 13D, "Standard for the Installation Of Sprinkler Systems in one-and Two-Family Dwelling and Mobile Homes". A flexible sprinkler hose fitting consists of a flexible hose, inlet fitting for connection to the branch line, outlet fitting for connection to the sprinkler, and a mounting bracket.

These fittings are intended for use in hydraulically designed sprinkler systems. The hydraulic loss of these fittings needs to be included in the hydraulic design calculations. Losses vary depending on the installed configuration. The allowable number of bends with a minimum bend radius of 5 in(125mm) for each model and the associated pressure losses expressed in equivalent length in feet of 1 in. diameter Schedule 40 steel pipe (with a C-factor of 120) are included in the following table

**Equivalent Length in feet of 1 inch Schedule 40 pipe**

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
GVFLEX-27B-700 & GVFLEX-27U-700	200	150	1 by 1/2	700	1	5	26	Limited
GVFLEX-27B-1000 & GVFLEX-27U-1000	200	150	1 by 1/2	1000	1	5	36	Limited
GVFLEX-27B-1200 & GVFLEX-27U-1200	200	150	1 by 1/2	1200	3	5	67	Limited
GVFLEX-27B-1500 & GVFLEX-27U-1500	200	150	1 by 1/2	1500	3	5	84	Limited
GVFLEX-27B-1800 & GVFLEX-27U-1800	200	150	1 by 1/2	1800	3	5	101	Limited
GVFLEX-27B-700 & GVFLEX-27U-700	200	150	1 by 3/4	700	1	5	32	Limited
GVFLEX-27B-1000 & GVFLEX-27U-1000	200	150	1 by 3/4	1000	1	5	42	Limited
GVFLEX-27B-1200 & GVFLEX-27U-1200	200	150	1 by 3/4	1200	3	5	73	Limited
GVFLEX-27B-1500 & GVFLEX-27U-1500	200	150	1 by 3/4	1500	3	5	77	Limited
GVFLEX-27B-1800 & GVFLEX-27U-1800	200	150	1 by 3/4	1800	3	5	105	Limited

\* GVFLEX-27B : Braided Type and GVFLEX-27U : Unbraided Type

## Certificates:

### CERTIFICATE OF COMPLIANCE

**Certificate Number:** 2018-07-19-EX27815  
**Report Reference:** EX27815  
**Issue Date:** 2018-July-19

**Issued to:** GV FIRE LTD.  
 28 SALME ST.  
 10413 TALLINN, ESTONIA

**This is to certify that representative samples of** Flexible Sprinkler Hose and Fittings  
 See Addendum for Models

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

**Standard(s) for Safety:** ANS/UL 2443 – Flexible Sprinkler Hose with fittings for Fire-Protection Service  
**Additional Information:** See the UL Online Certifications Directory at [www.ul.com/database](http://www.ul.com/database) for additional information

Only those products bearing the UL Listing Mark for the US and Canada should be considered as being covered by UL's Listing and Follow-Up Service meeting the appropriate requirements for US and Canada.

The UL Listing Mark for the US and Canada generally includes: the UL in a circle symbol with "C" and "US" identifiers. On the word "LISTED", a control number (may be alphanumeric) assigned by UL, and the product category name (product identifier) as indicated in the appropriate UL Directory.

Look for the UL Listing Mark on the product.



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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
GVFLEX-27U-700 unbraided	200	150	1x1/2	2.3 (700)	1	5	26	Limited
GVFLEX-27U-1000 unbraided	200	150	1x1/2	3.3 (1000)	1	5	36	Limited
GVFLEX-27U-1200 unbraided	200	150	1x1/2	4.9 (1500)	3	5	67	Limited
GVFLEX-27U-1500 unbraided	200	150	1x1/2	4.9 (1500)	3	5	84	Limited
GVFLEX-27U-1800 unbraided	200	150	1x1/2	5.9 (1800)	3	5	101	Limited
GVFLEX-27U-700 braided	200	150	1x3/4	2.3 (700)	1	5	32	Limited
GVFLEX-27U-1000 braided	200	150	1x3/4	3.3 (1000)	1	5	42	Limited



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27U-1000 unbraided				(1000)				
GVFLEX-27U-1200 unbraided	200	150	1x3/4	3.9 (1200)	3	5	73	Limited
GVFLEX-27U-1500 unbraided	200	150	1x3/4	4.9 (1500)	3	5	77	Limited
GVFLEX-27U-1800 unbraided	200	150	1x3/4	5.9 (1800)	3	5	105	Limited
GVFLEX-27B-700 braided	200	150	1x1/2	2.3 (700)	1	5	26	Limited
GVFLEX-27B-1000 braided	200	150	1x1/2	3.3 (1000)	1	5	36	Limited
GVFLEX-27B-1200 braided	200	150	1x1/2	3.9 (1200)	3	5	67	Limited
GVFLEX-27B-1500 braided	200	150	1x1/2	4.9 (1500)	3	5	84	Limited
GVFLEX-27B-1800 braided	200	150	1x1/2	5.9 (1800)	3	5	101	Limited
GVFLEX-27B-700 braided	200	150	1x3/4	2.3 (700)	1	5	32	Limited
GVFLEX-27B-1000 braided	200	150	1x3/4	3.3 (1000)	1	5	42	Limited



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27B-1000 braided				(1000)				
GVFLEX-27B-1200 braided	200	150	1x3/4	3.9 (1200)	3	5	73	Limited
GVFLEX-27B-1500 braided	200	150	1x3/4	4.9 (1500)	3	5	77	Limited
GVFLEX-27B-1800 braided	200	150	1x3/4	5.9 (1800)	3	5	105	Limited

These flexible sprinkler hose with fittings are intended to be installed in accordance with the manufacturer's installation instructions dated July 2, 2018.



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**FM APPROVED**

### Certificate of Compliance

This certificate is issued for the following:  
**FLEXIBLE SPRINKLER HOSE WITH THREADED END FITTINGS  
 FOR USE IN COMMERCIAL SUSPENDED CEILINGS**

MODELS GVFLEX-27B-700, GVFLEX-27B-1000,  
 GVFLEX-27B-1200, GVFLEX-27B-1500, GVFLEX-27B-1800

**Prepared for:**  
 GV FIRE LTD.  
 28 SALME ST., 10413,  
 TALLINN, ESTONIA

FM Approvals Class: 1637  
 Approval Identification: PR450520      Approval Granted: June 1, 2018

To verify the availability of the Approved product, please refer to [www.fmall.com](http://www.fmall.com)

Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the construction as shown in the Approval Guide, an online resource of FM Approvals.

*Edward B. Fuller*  
 Edward B. Fuller  
 V.P. Manager – Fire Protection  
 FM Approvals  
 1155 Boston-Providence Turnpike  
 Norwood, MA 02062 USA



Member of the FM Global Group

Please refer to the below extract, from the FM Approvals Guide, confirming that the GVFLEX, exclusively distributed in Australia by Firequip, meets the requirements of AS2118-2017 Section 7.6(a) specifically that the minimum size of flexible tube assemblies, for the connection of individual sprinklers to rigid pipework above suspended ceilings, shall be DN25.

## Approval Guide



### for Commercial Suspended Ceilings

Flexible sprinkler hose with threaded end fittings are for use in commercial suspended ceilings. The flexible hoses are to be installed according to the manufacturer's directives.

**Models GVFLEX-27B-700, GVFLEX-27B-1000, GVFLEX-27B-1200, GVFLEX-27B-1500, GVFLEX-27B-1800**

### Product Specification

Model No	NPT		K-Factor	Minimum Bend Radius		Number of Bends	Rated Working Pressure		Hose Assembly Length		Equivalent Length of 1 in. Schedule 40 Pipe	
	in	(mm)		in	(mm)		psi	(kPa)	in	(mm)	ft	(m)
GVFLEX-27B-700	1/2	(15)	5.6	11.8	(300)	1	200	(1380)	27.5	(0)	33	(10.1)
GVFLEX-27B-1000	1/2	(15)	5.6	11.8	(300)	2	200	(1380)	39.4	(1000)	43.6	(13.2)
GVFLEX-27B-1200	1/2	(15)	5.6	11.8	(300)	3	200	(1380)	47.2	(1200)	55.9	(17.0)
GVFLEX-27B-1500	1/2	(15)	5.6	11.8	(300)	4	200	(1380)	59.0	(1500)	67.5	(20.6)
GVFLEX-27B-1800	1/2	(15)	5.6	11.8	(300)	4	200	(1380)	70.1	(1800)	78.8	(23.9)
GVFLEX-27B-700	3/4	(20)	8.0	11.8	(300)	1	200	(1380)	27.5	(0)	28.3	(8.6)
GVFLEX-27B-1000	3/4	(20)	8.0	11.8	(300)	2	200	(1380)	39.4	(1000)	48.1	(14.7)
GVFLEX-27B-1200	3/4	(20)	8.0	11.8	(300)	3	200	(1380)	47.2	(1200)	86.8	(26.4)
GVFLEX-27B-1500	3/4	(20)	8.0	11.8	(300)	4	200	(1380)	59.0	(1500)	111.0	(33.8)
GVFLEX-27B-1800	3/4	(20)	8.0	11.8	(300)	4	200	(1380)	70.1	(1800)	120.8	(36.8)

1 in. nominal dia. flexible metal hose for providing a connection to automatic sprinklers in commercial suspended ceilings. Approval is limited for use in commercial suspended ceilings with a bracket system (Bracket-S, Rondo Bracket, Bracket-L, Reducer, Nipple, Square Bar) manufactured by GV Fire Ltd.

The code of information for the model designation is as follows:

Marking	Description
GVFLEX	Manufacturer's initials
27	Nominal Hose OD size in mm (1.06 inch)
B	Braided
700	Hose length in mm (2.3 ft.)
1000	Hose length in mm (3.3 ft.)
1200	Hose length in mm (3.9 ft.)
1500	Hose length in mm (4.9 ft.)
1800	Hose length in mm (5.9 ft.)

<b>Company Name:</b>	GV Fire Ltd
<b>Company Address:</b>	28, Salme St., Tallinn 10413, Estonia
<b>Company Website:</b>	<a href="http://gvfire.eu">http://gvfire.eu</a>
<b>New/Updated Product Listing:</b>	Yes
<b>Listing Country:</b>	Estonia