Victaulic® VicFlex™ Flexible Fittings
Series GH1

10.88

Series GH1

Series GH1-C2C

1.0 PRODUCT DESCRIPTION

Available Sizes by Component

- Series GH1-C2C 1"/DN25 Nominal ID Braided Hose: 25, 30, 42, 54, 66"/635, 762, 1067, 1372, 1677 mm
- Series GH1 1 ¼"/DN30 thru 2 ½" Nominal ID Braided Hose: 24, 36, 48"/610, 914, 1219 mm
- Series GH1 3"/DN80 thru 4"/DN100 Nominal ID Braided Hose: 36, 48"/914, 1219 mm
- Series GH1 DN65 Nominal ID Braided Hose: 1000, 1250 mm/39.4, 49.2"

Hose Connections

- 1"/25 mm Grooved IGS (captured couplings)
- 1 ¼"/32 mm thru 4"/100 mm Grooved OGS (couplings not included)

Minimum Bend Radius

- See tables in Section 4.0

Maximum Working Temperature

- 225°F/107°C

Maximum Working Pressure

- Series GH1-C2C 1"/DN 25 Nominal ID Braided Hose: 200 psi/1375 kPa (FM), 175 psi/1206 kPa (UL)
- Series GH1 1 ¼"/DN30 thru 2 ½" Nominal ID Braided Hose: 300 psi/2068 kPa (UL and FM)
- Series GH1 3"/DN80 thru 4"/DN100 Nominal ID Braided Hose: 200 psi/1375 kPa (UL and FM)
- Series GH1 DN65 Nominal ID Braided Hose: 200 psi/1375 kPa (UL and FM)

2.0 CERTIFICATIONS/LISTINGS

FM APPROVED c UL us LISTED CE 2809

NOTE

- The Series GH1 Braided Hose is certified as a flexible pipe fitting to UL 213 – *Standard for Safety – Rubber Gasketed Fittings for Fire Protection Service* and FM 1920 – *Approval Standard for Pipe Couplings and Fittings for Above-ground Fire Protection Systems.*
- The Series GH1-C2C is CE-marked and certified as a flexible sprinkler hose to EAD 100012-00-1106 – Flexible Sprinkler Hose with End Fittings.

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

3.0 SPECIFICATIONS – MATERIAL

Series GH1

Braided Flexible Hose: 300-Series Stainless Steel

Collar/Weld Fitting: 300-Series Stainless Steel

Series GH1-C2C (1"/DN25 size only)

Coupling Retainer Ring: Polyethylene

Housing: Ductile Iron conforming to ASTM A 536, Grade 65-45-12.
Ductile Iron conforming to ASTM A 395, Grade 65-45-15, is available upon special request.

Coupling Housing Coating:

- Orange Enamel (North America, Asia Pacific)
- Red Enamel (Europe)
- Hot Dipped Galvanized

Gasket:[1]

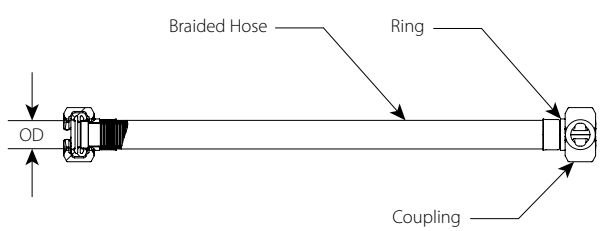
Grade "E" EPDM (Type A) Vic-Plus™ Pre-lubricated Gasket

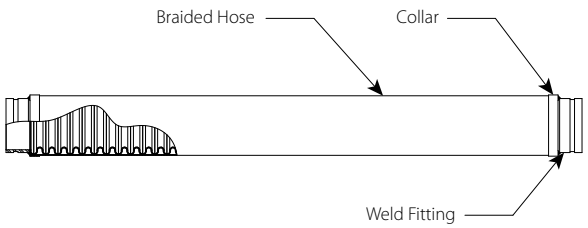
EPDM (Violet Color Code). Applicable for wet and dry (oil-free air) fire protection systems only. Listed/Approved for continuous use in wet and dry systems. Listed/Approved for dry systems at -40°F/-40°C and above.
NOT COMPATIBLE FOR USE WITH HOT WATER SERVICES OR STEAM SERVICES.

[1] Services listed are General Service Guidelines only. It should be noted that there are services for which these gaskets are not compatible. Reference should always be made to the latest Victaulic Seal Selection Guide for specific gasket service guidelines and for a listing of services which are not compatible.

Bolts/Nut: Zinc electroplated carbon steel, trackhead meeting the physical and chemical requirements of ASTM A 449 and physical requirements of ASTM A 183.

Linkage: CrMo Alloy Steel zinc electroplated per ASTM B633 Zn/Fe 5, Type III Finish





4.0 DIMENSIONS

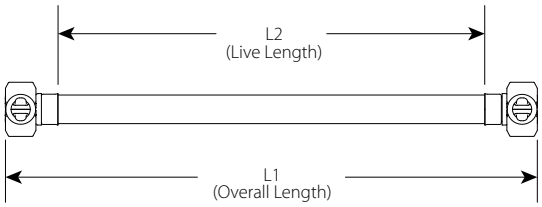
Series GH1 Braided Hose: Bend Radius

Hose Inside Diameter inches DN	Grooved End Nominal Diameter inches DN	Grooved End Actual Diameter Outside Diameter inches mm	R Bend Radius inches mm	Maximum Number of 90° Bends at Minimum Bend Radius Length 25"/635 mm	31"/762 mm	43"/1067 mm	55"/1372 mm	67"/1677 mm
1 DN25	1 DN25	1.315 33.7	2 51	1	2	2	2	2

Hose Inside Diameter inches DN	Grooved End Nominal Diameter inches DN	Grooved End Actual Diameter Outside Diameter inches mm	R Bend Radius inches mm	Maximum Number of 90° Bends at Minimum Bend Radius Length 24"/610 mm	36"/914 mm	1000 mm/39"	48"/1219 mm	1250 mm/49"
1 ¼ DN32	1 ¼ DN32	1.66 42.4	4 102	1	2	–	2	–
1 ½ DN 40	1.5 x 1 DN40 x DN25	1.900 x 1.315 48.3 x 33.4	5 127	–	2	–	–	–
1 ½ DN40	1 ½ DN40	1.9 48.3	5 127	1	2	–	2	–
2 DN50	2 DN50	2.375 60.3	6 152	1	1	–	2	–
2½	2½	2.875 73	8 203	1	1	–	1	–
DN65	DN65	3.000 76.1	8 203	–	–	1	–	1
3 DN80	3 DN80	3.5 88.9	10 254	–	1	–	1	–
4 DN100	4 DN100	4.5 114.3	13 330	–	1	–	1	–

4.0 DIMENSIONS

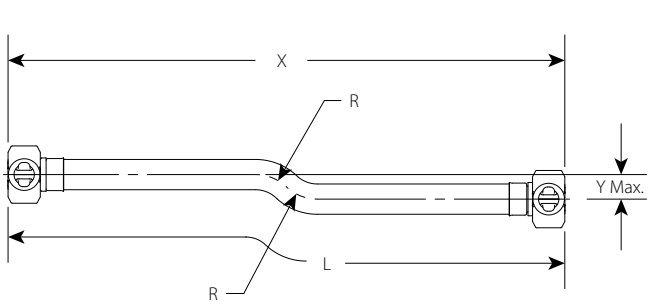
Series GH1 Braided Hose: Hose Length

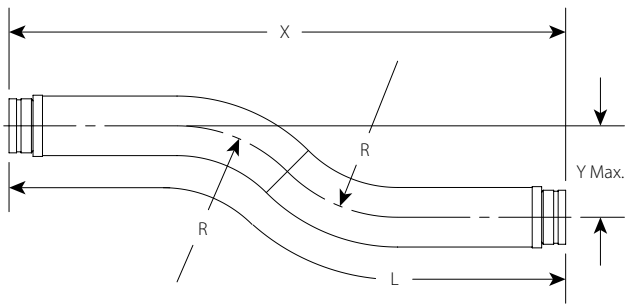


Hose Inside Diameter inches DN	Grooved End Nominal Diameter inches DN	Grooved End Actual Diameter inches mm	R Bend Radius inches mm	Length L1 (Overall Length) inches mm	Length L2 (Live Length) inches mm	Weight lb N
1 DN25	1 DN25	1.315 33.7	2 51	25.0 635	20.1 512	2.8 12.5
				30.0 762	25.1 639	3.1 13.8
				42.0 1067	37.1 943	3.8 16.9
				54.0 1372	49.1 1248	4.5 20.0
				66.0 1677	61.1 1553	5.2 23.1
1 ¼ DN32	1 ¼ DN32	1.660 42.4	4 102	24.0 610	18.5 470	2.5 11.1
				36.0 915	30.5 775	3.5 15.6
				48.0 1220	42.5 1080	4.4 19.6
1 ½ DN40	1.5 x 1 DN40 x DN25	1.900 x 1.315 48.3 x 33.4	5 127	36.0 915	30.5 775	4.5 20.0
1 ½ DN40	1 ½ DN40	1.9 48.3	5 127	24.0 610	18.5 470	3.2 14.2
				36.0 915	30.5 775	4.5 20.0
				48.0 1220	42.5 1080	5.8 25.8
2 DN50	2 DN50	2.375 60.3	6 152	24.0 610	18.5 468	4.0 17.8
				36.0 915	30.5 773	5.6 24.9
				48.0 1220	42.5 1077	7.2 32.0
2 ½	2 ½	2.875 73	8 203	24.0 610	18.5 468	6.3 28.0
				36.0 915	30.5 773	8.8 39.2
				48.0 1220	42.5 1077	11.3 50.3
DN65	DN65	3.00 76.1	8 203	39.4 1000	33.9 858	9.5 42.3
				49.3 1250	43.6 1108	11.8 52.5
3 DN80	3 DN80	3.5 88.9	10 254	36.0 915	30.5 773	10.6 47.2
				48.0 1220	42.5 1077	13.5 60.1
4 DN100	4 DN100	4.5 114.3	13 330	36.0 915	30.5 773	15.9 70.8
				18.0 458	42.5 1077	20.5 91.2

4.0 DIMENSIONS

Series GH1 Braided Hose: S-Bend

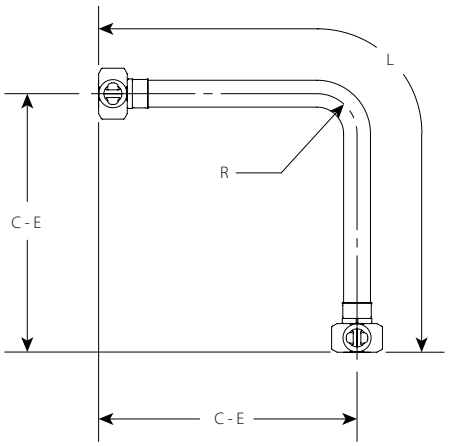


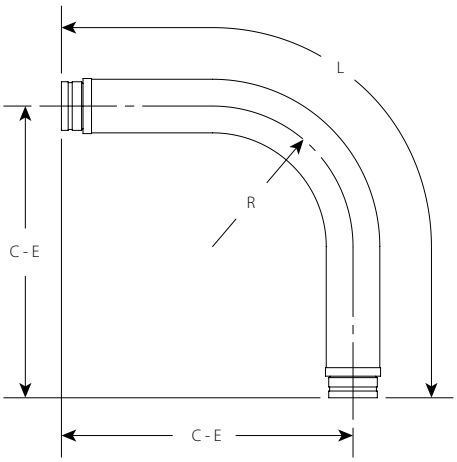


Hose Inside Diameter inches mm	Grooved End Nominal Diameter inches DN	Grooved End Actual Diameter inches mm	R Bend Radius inches mm	Length		
				L (Hose Length) inches mm	Ymax (Max Offset) inches mm	X at Ymax (takeout at max offset) inches mm
1 DN25	1 DN25	1.315 33.7	2 51	25.0 635	1.1 28	24.6 625
				30.0 762	1.1 28	29.6 752
				42.0 1067	1.1 28	41.6 1057
				54.0 1372	1.1 28	53.6 1362
				66.0 1677	1.1 28	65.6 1667
1 ¼ DN32	1 ¼ DN32	1.660 42	4.0 102	24.0 610	2.3 60	23.4 594
				36.0 915	2.3 60	35.4 899
				48.0 1220	2.3 60	47.4 1204
1 ½ DN40	1.5 x 1 DN40 x DN25	1.900 x 1.315 48.3 x 33.4	5.0 127	36.0 915	2.9 75	35.2 895
1 ½ DN40	1 ½ DN40	1.900 48	5.0 127	24.0 610	2.9 75	23.2 590
				36.0 915	2.9 75	35.2 895
				48.0 1220	2.9 75	47.2 1200
2 DN50	2 DN50	2.375 60	6.0 153	24.0 610	3.5 90	23.1 586
				36.0 915	3.5 90	35.1 891
				48.0 1220	3.5 90	47.1 1196
2 ½	2 ½	2.875 73	8.0 204	24.0 610	4.7 120	22.7 578
				36.0 915	4.7 120	34.7 883
				48.0 1220	4.7 120	46.7 1188
DN65	DN65	3.00 76.1	8 203	39.4 1000	4.7 120	38.1 969
				49.3 1250	4.7 120	47.9 1218
3 DN80	3 DN80	3.5 89	10.0 254	36.0 915	5.9 149	34.4 875
				48.0 1220	5.9 149	46.4 1180
4 DN100	4 DN100	4.5 114	12.0 305	36.0 915	7.0 179	34.1 867
				48.0 1220	7.0 179	46.1 1172

4.0 DIMENSIONS

Series GH1 Braided Hose: 90˚ Bend





Hose Inside Diameter inches mm	Grooved End Nominal Diameter inches DN	Grooved End Actual Diameter inches mm	R Bend Radius inches mm	Length L (Hose Length) inches mm	Length C to E inches mm
1 DN25	1 DN25	1.315 33.7	2 51	25.0 635	12.9 328
				30.0 762	15.4 392
				42.0 1067	21.4 544
				54.0 1372	27.4 696
				66.0 1677	33.4 849
1 ¼ DN32	1 ¼ DN32	1 ⅔ 42	4.0 102	24.0 610	12.9 328
				36.0 915	18.9 481
				48.0 1220	24.9 633
1 ½ DN40	1.5 x 1 DN40 x DN25	1.900 x 1.315 48.3 x 33.4	5.0 127	36.0 915	19.1 486
1 ½ DN40	1 ½ DN40	1 ⅞ 48	5.0 127	24.0 610	13.1 333
				36.0 915	19.1 486
				48.0 1220	25.1 638
2 DN50	2 DN50	2.375 60	6.0 153	24.0 610	13.3 338
				36.0 915	19.3 491
				48.0 1220	25.3 643
2 ½	2 ½	2 ⅞ 73	8.0 204	24.0 610	13.7 348
				36.0 915	19.7 501
				48.0 1220	25.7 653
DN65	DN65	3.00 76.1	8 203	39.4 1000	21.4 544
				49.3 1250	26.3 669
3 DN80	3 DN80	3.5 89	10.0 254	36.0 915	20.2 514
				48.0 1220	26.2 666
4 DN100	4 DN100	4.5 114	13.0 331	36.0 915	20.8 529
				48.0 1220	26.8 681

5.0 PERFORMANCE – FRICTON LOSS DATA

Series GH1 Braided Hose

Hose Size inches DN	Hose Length inches mm	Equivalent Length (ft of Sch 40 pipe in same nominal diameter)	
		S-Bend ft m	90˚ Bend ft m
1 DN25	25.0 635	14.0 5	12.0 4
	30.0 762	19.0 6	17.0 6
	42.0 1067	24.0 8	21.0 7
	54.0 1372	25.0 8	23.0 8
	66.0 1677	29.0 9	27.0 9
1 ¼ x 1 ¼ DN32 x DN32	24 610	12.0 4	10.0 4
	36 914	15.0 5	13.0 4
	48 1219	17.1 6	15.0 5
1 ½ x 1 DN40 x DN25	36 914	19.9 7	14.0 5
1 ½ x 1 ½ DN40 x DN40	24 610	11.5 4	11.6 4
	36 914	16.0 5	14.0 5
	48 1219	19.9 7	16.4 5
2 x 2 DN50 x DN50	24 610	13.3 5	13.8 5
	36 914	20.0 7	18.0 6
	48 1219	26.5 9	21.5 7
2 ½ x 2 ½	24 610	13.0 4	10.0 4
	36 914	16.6 6	11.8 4
	48 1219	23.0 8	18.0 6
DN65	39.4 1000	17.0 6	12.0 4
	49.3 1250	24.0 8	19.0 6
3 x 3 DN80 x DN80	36 914	15.6 5	12.9 4
	48 1219	24.0 8	19.0 6
4 x 4 DN100 x DN100	36 914	20.8 7	16.4 5
	48 1219	28.0 9	23.0 8

Installation Reference

1. Bend hose to the desired angle and do not exceed the minimum bend radius.
2. Install grooved coupling per the published installation instructions.
3. Additional restraints may be required to prevent excess movement.
4. Hose shall not be subjected to tension or compression.

6.0 NOTIFICATIONS

⚠ WARNING

- **Read and understand all instructions before attempting to install any Victaulic products.**
- **Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.**
- **Wear safety glasses, hardhat, and foot protection.**

Failure to follow these instructions could result in death or serious personal injury and property damage.

- **These products shall be used only in fire protection systems that are designed and installed in accordance with current, applicable National Fire Protection Association (NFPA) standards, or equivalent local and national fire protection standards, and in accordance with applicable building and fire codes. These standards and codes contain important information regarding protection of systems from freezing temperatures, corrosion, mechanical damage, etc.**
- **The installer shall understand the use of this product and why it was specified for the particular application.**
- **The installer shall understand common industry safety standards and potential consequences of improper product installation.**
- **It is the system designer's responsibility to verify suitability of materials for use with the intended fluid media within the piping system and external environment.**
- **The material specifier shall evaluate the internal and external effect of chemical composition, pH level, operating temperature, chloride level, oxygen level, and flow rate on materials to confirm system life will be acceptable for the intended service.**
- **It is the responsibility of the owner of a building or their authorized agent to provide the sprinkler system installer with any knowledge that the water supply might be contaminated with or conducive to the development of microbiologically influenced corrosion (MIC), including as required by NFPA 13. Failure to identify adverse water quality issues may affect the *VicFlex* product and void the manufacturer's warranty.**

Failure to follow installation requirements and local and national codes and standards could compromise system integrity or cause system failure, resulting in death or serious personal injury and property damage.

Victaulic VicFlex™ Braided Hoses may be painted/coated or caulked around, including fire barrier sealant, provided that the substance is compatible with stainless steel and zinc-plated carbon steel or ductile iron. Care shall be taken to ensure that the sprinkler and associated components do not come into contact with paint/coatings and caulking.

Victaulic VicFlex™ Braided Hoses that penetrate through non-fire rated gypsum wall (drywall) will function as designed, provided the components are installed in accordance with the respective installation instructions referenced in this document.

7.0 REFERENCE MATERIALS

25.01: Victaulic® OGS Groove Specifications
25.14: Victaulic® IGS Groove Specifications
I-C2C: Flexible Hose with Captured Couplings
I-*VICFLEX*: Field Installation Handbook

