

Victaulic FireLock™ Innovative Groove System | IGS™ for 1"/DN25 Sprinkler Pipe



10.54



No. 142
Welded Outlet



Style 922
Outlet-T



Style 920N
Mechanical-T Outlet



No. 101
Installation-Ready™
90° Elbow



No. 102
Installation-Ready™
Tee



Style 108
Installation-Ready™
Rigid Coupling



Style 115
OGS x IGS
Reducing Coupling



Style 118
1" Outlet Coupling



No. 65 OGS x IGS
Grooved End of
Run Fitting



No. 111 IGS
Grooved End Elbow



No. 113
OGS x IGS x IGS
Reduce on the Run
and Outlet Tee



No. 114
IGS x IGS x IGS
Grooved Tee



No. 117
IGS 45° Elbow



No. 143
Close Nipple



No. 144
OGS x IGS Grooved
Concentric
Reducer



No. 145 Female
NPT or BSPT
Threaded x Groove
90° Elbow



No. 147
Back-To-Back
sprinkler tee



No. 148 Sprinkler
Reducer, NPT or
BSPT sprinkler outlet



No. 140
Male NPT or BSPT
Threaded x Groove
Adapter



No. 141
Female NPT or
BSPT Threaded x
Groove Adapter



No. 116 CPVC
Female Socket x
Brass IGS Groove
Adapter
(Refer to
[publication 10.85](#)
and [10.95](#))



No. 146 Cap



WB-1
IGS Weld
Plunger Cone



NAP-1
IGS Weld
Plunger Cone



RG2100 Roll Grooving
Tool



RG1 Manual Roll
Grooving Tool (Refer to
[publication 24.01](#))



VicFlex™ Series
AH2-CC Braided
Flexible Hose
with Captured
Coupling (Refer to
[publication 10.85](#))



VicFlex™ Series
AH1-CC Braided
Flexible Hose
with Captured
Coupling (Refer to
[publication 10.95](#))

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



1.0 PRODUCT DESCRIPTION

Pipe Material

- Carbon steel, Sch. 40, Sch. 10, light-wall/specialty pipe. For use with alternative materials please contact Victaulic.
- For exceptions reference section 6.0 Notifications

Maximum Working Pressure

- Up to 365 psi/2517 kPa/25 bar

Pipe Preparation

- Cut (Sch. 40) or roll (Sch. 40, Sch. 10, light-wall) grooved in accordance with publication 25.14: Victaulic /GS Groove Specifications

RG2100 Grooving Capability

- 1"/DN25
- Workstation designed to cut, ream and form a roll groove on carbon steel, Sch 40, Sch 10, and light-wall pipe
- This tool has a minimum pipe length requirement of 4 ½"/114 mm

2.0 CERTIFICATION/LISTINGS



LPS 1219: Issue 3.1



Cert/LPCB Ref. 104-1a/39, 104-1a/41, 104-1a/42, 104-1b/03, 104-1b/04, 104-1b/05, 104-1b/06, 104-1b/07, 104-1b/08, 104-1b/09, 104-1b/10, 104-1b/11

NOTES

- Approvals listed above do not apply to the RG2100 Roll Grooving Tool.

3.0 SPECIFICATIONS – MATERIAL

Housing: Ductile iron conforming to ASTM A536, Grade 65-45-12

Housing Coating: (specify choice)

- ☐ Orange coating.
- ☐ Red coating (standard for EMEA-I and Asia Pacific).
- ☐ Optional: Hot dipped galvanized.

Gasket:

☐ 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.

NOTES:

- Reference should always be made to [publication I-100](#), Victaulic Field Installation Handbook for gasket lubrication instructions.
- 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 [publication 05.01](#), Victaulic Gasket Selection Guide for specific gasket service guidelines and for a listing of services which are not compatible.

Bolts/Nuts:

- ☐ Carbon steel oval neck track bolts meeting the mechanical property requirements of ASTM A449 (imperial) and ISO 898-1 Class 9.8 (M10-M16) Class 8.8 (M20 and greater). Carbon steel hex nuts meeting the mechanical property requirements of ASTM A563 Grade B (imperial - heavy hex nuts) and ASTM A563M Class 9 (metric - hex nuts). Track bolts and hex nuts are zinc electroplated per ASTM B633 Fe/Zn 5, finish Type III (imperial) or Type II (metric).

3.0 SPECIFICATIONS – MATERIAL (CONTINUED)

Coupling Linkage: High Strength Steel with comparable physical properties to that of the Track Bolt (ASTM A449).
Linkage is zinc electroplated per ASTM B633 Fe/Zn 5, Type III Finish

No. 140, 141, 142, 143, 144, 148: Carbon steel meeting the chemical and mechanical property requirements of ASTM A53 Grade A, Type E or S

No. 65, 111, 113, 114, 117, 145, 146, 147: Ductile iron conforming to ASTM A536, Grade 65-45-12

No. WB-1: Steel Alloy

No. NAP-1: Aluminum Alloy

RG2100 Roll Grooving Tool:

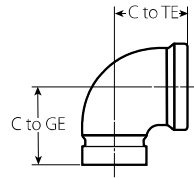
Required Power Supply: Power Drive with Foot Switch (½ HP, Universal reversible motor, single-phase, 25-60 HZ)

Accessories/Components:

- ☐ Tool head assembly
- ☐ Carriage assembly - accepts RG2100 tool head assembly, Standard Cutter, Standard Reamer and Standard Lever

4.15 DIMENSIONS

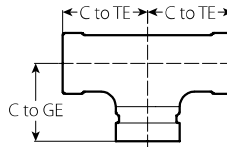
No. 145 Female Threaded x Groove 90° Elbow



Size				Dimensions		Weight
Nominal inches DN		Actual Outside Diameter inches mm		C-TE inches mm	C-GE inches mm	Approximate (Each) lb kg
Threaded Outlet	Grooved Outlet	Threaded Outlet	Grooved Outlet			
1/2 DN15		0.840 21.3		1.45 36.8	1.60 40.6	0.5 0.2
3/4 DN20	x 1 DN25	1.050 26.9	x 1.315 33.7	1.45 36.8	1.60 40.6	0.5 0.2
1 DN25		1.315 33.7		1.50 38.1	1.60 40.6	0.5 0.2

4.16 DIMENSIONS

No. 147 Back-To-Back Sprinkler Tee



Size						Dimensions		Weight
Nominal inches DN			Actual Outside Diameter inches mm			C-TE inches mm	C-GE inches mm	Approximate (Each) lb kg
Threaded Outlet	Threaded Outlet	Grooved Outlet	Threaded Outlet	Threaded Outlet	Grooved Outlet			
1/2 DN15	x 1/2 DN15	x 1 DN25	0.840 21.3	x 0.840 21.3	x 1.315 33.7	1.75 44.5	1.60 40.6	0.7 0.3

NOTE:

- Approved for use with one or two 1/2" NPT Sprinklers threaded directly into outlet connection(s).

5.0 PERFORMANCE (CONTINUED)

Maximum Working Pressure

Style/No.	cULus psi kPa bar	FM psi kPa bar	LPCB psi kPa bar	VdS psi kPa bar
144	365 2517 25	365 2517 25	365 2517 25	232 1600 16
145	365 2517 25	365 2517 25	365 2517 25	232 1600 16
147	365 2517 25	365 2517 25	N/A	N/A
148	365 2517 25	365 2517 25	365 2517 25	232 1600 16
140	365 2517 25	365 2517 25	365 2517 25	232 1600 16
141	365 2517 25	365 2517 25	365 2517 25	232 1600 16
146	365 2517 25	365 2517 25	365 2517 25	232 1600 16

⁴ Maximum pressure rating is 300 psi/21 bar when installed on light-wall steel pipe, as follows:
Mega-Flow and Mega-Flow-GF steel pipe manufactured by Wheatland Tube Co.
Mega-Thread steel pipe manufactured by Wheatland Tube Co.
MLT steel pipe manufactured by Wheatland Tube Co.
WLS steel pipe manufactured by Wheatland Tube Co.
Eddy Flow steel pipe manufactured by Bull Moose Tube Co.
Eddythread steel pipe manufactured by Bull Moose Tube Co.
EZ-Thread steel pipe manufactured by Youngstown Tube Co.
Fire-Flo steel pipe manufactured by Youngstown Tube Co.
Easy-Flow pipe manufactured by Borusan Mannesmann

⁵ Maximum pressure rating is 300 psi/21 bar when installed on light-wall steel pipe, as follows:
Mega-Thread steel pipe manufactured by Wheatland Tube Co.
MLT steel pipe manufactured by Wheatland Tube Co.
WLS steel pipe manufactured by Wheatland Tube Co.
Eddythread steel pipe manufactured by Bull Moose Tube Co.
EZ-Thread steel pipe manufactured by Youngstown Tube Co.

⁶ Maximum pressure rating is 300 psi/21 bar when installed on light-wall steel pipe, as follows:
Eddythread steel pipe manufactured by Bull Moose Tube Co.
EZ-Thread steel pipe manufactured by Youngstown Tube Co.
MLT steel pipe manufactured by Wheatland Tube Co.

⁷ Accommodates full vacuum (29.9 in Hg/760 mm Hg)