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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 <a href="#">publication 10.85</a> and <a href="#">10.95</a> )
						
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 <a href="#">publication 24.01</a> )	VicFlex™ Series AH2-CC Braided Flexible Hose with Captured Coupling (Refer to <a href="#">publication 10.85</a> )	VicFlex™ Series AH1-CC Braided Flexible Hose with Captured Coupling (Refer to <a href="#">publication 10.95</a> )

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

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## 1.0 PRODUCT DESCRIPTION

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### 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 *IGS* 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

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## 2.0 CERTIFICATION/LISTINGS

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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.

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## 3.0 SPECIFICATIONS – MATERIAL

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**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)

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**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:**

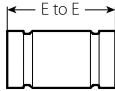
**Required Power Supply:** Power Drive with Foot Switch (½ HP, Universal reversible motor, single-phase, 25-60 HZ)

**Accessories/Components:**

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

### 4.13 DIMENSIONS

#### No. 143 Close Nipple

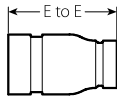


Size		Dimensions	Weight
Nominal inches DN	Actual Outside Diameter inches mm	E to E inches mm	Approximate (Each) lb kg
1 DN25	1.315 33.7	1.5 <sup>3</sup> 38	0.2 0.1
		2 51	0.3 0.1
		2.5 64	0.4 0.2
		3 76	0.4 0.2
		3.5 89	0.5 0.2
		4 102	0.6 0.3
		4.5 114	0.6 0.3
		5 127	0.7 0.3

<sup>3</sup> Bolt pad interferences may occur in some installation configurations.

### 4.14 DIMENSIONS

#### No. 144 OGS x IGS Grooved Concentric Reducer



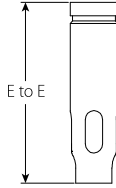
Size		Dimensions	Weight
Nominal inches DN	Actual Outside Diameter inches mm	E to E inches mm	Approximate (Each) lb kg
1 ¼ DN32	1.660 42.4	3.00 76	0.5 0.2
1 ½ DN40	1.900 48.3	3.00 76	0.6 0.2

x      x

1      1.315  
DN25      33.7

## 4.17 DIMENSIONS

### No. 148 Sprinkler Reducer

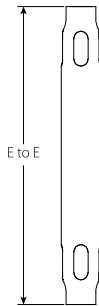


Length  E to E inches mm	Size		Threaded Outlet Size		Weight  Approximate (Each) lb kg
	Nominal inches DN	Actual Outside Diameter inches mm	inches DN	inches DN	
3 76	1 DN25	1.315 33.7	1/2 DN15	3/4 DN20	0.4 0.2
3.5 89	1 DN25	1.315 33.7	1/2 DN15	3/4 DN20	0.5 0.2
4 102	1 DN25	1.315 33.7	1/2 DN15	3/4 DN20	0.6 0.3
4.5 114	1 DN25	1.315 33.7	1/2 DN15	3/4 DN20	0.6 0.3
5 127	1 DN25	1.315 33.7	1/2 DN15	3/4 DN20	0.7 0.3
5.5 140	1 DN25	1.315 33.7	1/2 DN15	3/4 DN20	0.8 0.3
6 152	1 DN25	1.315 33.7	1/2 DN15	3/4 DN20	0.8 0.4
12 305	1 DN25	1.315 33.7	1/2 DN15	3/4 DN20	1.7 0.8
18 457	1 DN25	1.315 33.7	1/2 DN15	3/4 DN20	2.5 1.1
24 610	1 DN25	1.315 33.7	1/2 DN15	3/4 DN20	3.4 1.5
30 762	1 DN25	1.315 33.7	1/2 DN15	3/4 DN20	4.2 1.9

**NOTES**

- NPT or BSPT available
- It is acceptable to cut and groove any No. 148 longer than 6"/152mm. The minimum allowable cut length is 6"/152mm for a No. 148.

### No. 148 Double Ended Sprinkler Reducer



Length  E to E inches mm	Size		Threaded Outlet Size		Weight  Approximate (Each) lb kg
	Nominal inches DN	Actual Outside Diameter inches mm	inches DN	inches DN	
36 914	1 DN25	1.315 33.7	1/2 DN15	3/4 DN20	5.0 2.3

**NOTE**

- 36"/914mm size features sprinkler outlet on both ends for field fabrication.

**5.0 PERFORMANCE (CONTINUED)**

**Maximum Working Pressure**

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

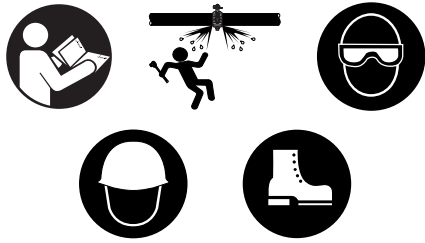
<sup>4</sup> Maximum pressure rating is 300 psi/21 bar when installed on light-wall steel pipe, as follows:  
 Mega-Flow and Mega-Flow-GF steel pipe manufactured by Wheatland Tube Co.  
 Mega-Thread steel pipe manufactured by Wheatland Tube Co.  
 MLT steel pipe manufactured by Wheatland Tube Co.  
 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


<sup>5</sup> 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.

<sup>6</sup> 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.

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

## 6.0 NOTIFICATIONS

<b>⚠ WARNING</b>	
	<ul style="list-style-type: none"> <li>• Read and understand all instructions before attempting to install any Victaulic products.</li> <li>• Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.</li> <li>• Wear safety glasses, hardhat, and foot protection.</li> </ul> <p>Failure to follow these instructions could result in death or serious personal injury and property damage.</p>
<ul style="list-style-type: none"> <li>• 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 13, 13D, 13R, etc.) standards, or equivalent 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.</li> <li>• The installer shall understand the use of this product and why it was specified for the particular application.</li> <li>• The installer shall understand common industry safety standards and potential consequences of improper product installation.</li> <li>• 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.</li> <li>• The material specifier shall evaluate the 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.</li> </ul> <p>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.</p>	

<b>⚠ WARNING</b>	
	<ul style="list-style-type: none"> <li>• Failure to follow instructions and warnings could result in serious personal injury, property damage, and/or product damage.</li> <li>• Before operating or servicing any grooving tools, read all instructions in the manual and all warning labels on the tool.</li> <li>• Wear safety glasses, hardhat, foot protection, and hearing protection while working around the tool.</li> <li>• Save the operating and maintenance manual in a place accessible to all operators of the tool</li> </ul>
<p>If you need additional copies of any literature, or if you have questions concerning the safe and proper operation of the tool, contact Victaulic, P.O. Box 31, Easton, PA 18044-0031, Phone: 1-800-PICK VIC, E-Mail: pickvic@victaulic.com.</p>	

<b>NOTICE</b>
<ul style="list-style-type: none"> <li>• Victaulic does not recommend the use of any furnace butt-welded pipe with sizes 2"/DN50 and smaller Victaulic gasketed joint products. This includes, but is not limited to, ASTM A53 Type F pipe.</li> </ul>

## 7.0 REFERENCE MATERIALS

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- [10.06: FireLock Installation-Ready Fittings](#)
- [10.52: Style 922 Outlet Tee](#)
- [10.85: VicFlex Series AH2 ad AH2-CC Braided Hose](#)
- [11.02 Mechanical-T Bolted Branch Outlets](#)
- [25.14: Victaulic IGS Groove Specification](#)
- [I-101-103: FireLock™ Installation-Ready™ Fittings Installation Instruction](#)
- [I-102: FireLock™ Installation-Ready™ Fittings Installation Instruction](#)
- [I-108: FireLock™ Installation-Ready™ Coupling](#)
- [I-115: FireLock EZ™ Installation-Ready™ Reducing Coupling Installation Instruction](#)
- [I-ENDCAP: Victaulic End Cap Installation Safety Instructions](#)
- [I-V9: Style V9 Victaulic FireLock™ IGS™ Installation-Ready™ Sprinkler Coupling](#)
- [TM-RG2100: Operating and Maintenance Instructions Manual](#)

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### User Responsibility for Product Selection and Suitability

Each user bears final responsibility for making a determination as to the suitability of Victaulic products for a particular end-use application, in accordance with industry standards and project specifications, and the applicable building codes and related regulations as well as Victaulic performance, maintenance, safety, and warning instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, installation guide, or this disclaimer.

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### Note

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

### Installation

Reference should always be made to the [Victaulic installation handbook](#) or installation instructions of the product you are installing. Handbooks are included with each shipment of Victaulic products, providing complete installation and assembly data, and are available in PDF format on our website at [www.victaulic.com](http://www.victaulic.com).

### Warranty

Refer to the Warranty section of the current Price List or contact Victaulic for details.

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