# Victaulic<sup>®</sup> Firelock<sup>™</sup> Rigid Coupling Style 009N





Patented

#### 1.0 CERTIFICATION/LISTINGS









C104-1a/36

#### 2.0 PRODUCT DESCRIPTION

- The FireLock EZ™ Style 009N Installation-ReadyTM Rigid Coupling is for use in the fire protection market.
- The coupling's unique design eliminates loose parts, promotes consistent installation and provides substantial gains in productivity.
- **IMPORTANT:** FireLock EZ<sup>™</sup> Style 009N couplings are recommended for use ONLY on fire protection systems.

# 3.0 MATERIAL SPECIFICATIONS

**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.

# Housing Coating: (specify choice)

Orange enamel (North America, Asia Pacific)

Red enamel (Europe)

Hot dipped galvanized

## Gasket: (specify choice1)

#### Grade "E" EPDM (Type A)

FireLock EZ products have been Listed by Underwriters Laboratories Inc., Underwriters Laboratories of Canada Limited, and Approved by Factory Mutual Research for wet and dry (oil free air) sprinkler services within the rated working pressure.

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 Gasket Selection Guide for specific gasket service guidelines and for a listing of services which are not compatible.

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

| System No.   | Location |  |
|--------------|----------|--|
| Submitted By | Date     |  |

| Spec Section | Paragraph |  |
|--------------|-----------|--|
| Approved     | Date      |  |



# 4.0 LISTINGS/APPROVAL <sup>2</sup>

The information provided below is based on the latest listing and approval data at the time of publication. Listings/Approvals are subject to change and/or additions by the approvals agencies. Contact Victaulic for performance on other pipe and the latest listings and approvals.

| Nominal Size |                      | cULus                                 |                       |                      | FM  | Vds                   | LPCB        |             |
|--------------|----------------------|---------------------------------------|-----------------------|----------------------|---|-----------------------|-------------|-------------|
| inches<br>mm | Sch. 5<br>psi<br>kPa | Sch. 10<br>psi<br>kPa                 | Sch. 40<br>psi<br>kPa | Sch. 5<br>psi<br>kPa | Sch. 10<br>psi<br>kPa                     | Sch. 40<br>psi<br>kPa | psi<br>kPa  | psi<br>kPa  |
| 1 ¼<br>32    | 232<br>1600          | 365<br>2517                           | 365<br>2517           | 175<br>1205          | 363<br>2502                               | 363<br>2502           | 363<br>2500 | 363<br>2500 |
| 1 ½<br>40    | 232<br>1600          | 365<br>2517                           | 365<br>2517           | 175<br>1205          | 363<br>2502                               | 363<br>2502           | 363<br>2500 | 363<br>2500 |
| 2<br>50      | 363<br>2502          | 365<br>2517                           | 365<br>2517           | 175<br>1205          | 363<br>2502                               | 363<br>2502           | 363<br>2500 | 363<br>2500 |
| 2½<br>65     | N/A                  | 365<br>2517                           | 365<br>2517           | 175<br>1205          | 363<br>2502                               | 363<br>2502           | 363<br>2500 | 363<br>2500 |
| 76.1 mm      | N/A                  | 365 <sup>3</sup><br>2517 <sup>3</sup> | N/A                   | N/A                  | 363 <sup>4</sup><br>2502 <sup>4</sup>     | N/A                   | 363<br>2500 | 363<br>2500 |
| 3<br>80      | N/A                  | 365<br>2517                           | 365<br>2517           | 175<br>1205          | 363<br>2502                               | 363<br>2502           | 363<br>2500 | 363<br>2500 |
| 4<br>100     | N/A                  | 365<br>2517                           | 365<br>2517           | 175<br>1205          | 363<br>2502                               | 363<br>2502           | 363<br>2500 | 363<br>2500 |
| 108.0 mm     | N/A                  | N/A                                   | N/A                   | 175<br>1205          | 363<br>2502                               | 363<br>2502           | N/A         | N/A         |
| 5<br>125     | N/A                  | 290<br>2000                           | 365<br>2517           | N/A                  | A 363 363 2502 2502                       |                       | 232<br>1600 | N/A         |
| 133.0 mm     | N/A                  | N/A                                   | N/A                   | N/A                  | 363 <sup>4</sup><br>2502 <sup>4</sup> N/A |                       | N/A         | N/A         |
| 139.7 mm     | N/A                  | 290 <sup>5</sup><br>2000 <sup>5</sup> | N/A                   | N/A                  | 363 <sup>4</sup><br>2502 <sup>4</sup>     | N/A                   | 232<br>1600 | N/A         |
| 159.0 mm     | N/A                  | N/A                                   | N/A                   | N/A                  | 363 <sup>4</sup><br>2502 <sup>4</sup>     | N/A                   | N/A         | N/A         |
| 165.1 mm     | N/A                  | 290 <sup>6</sup><br>2000 <sup>6</sup> | N/A                   | N/A                  | 363 <sup>4</sup><br>2502 <sup>4</sup>     | N/A                   | N/A         | N/A         |
| 6<br>150     | N/A                  | 290<br>2000                           | 365<br>2517           | N/A                  | 363<br>2502                               | 363<br>2502           | 232<br>1600 | N/A         |
| 216.0 mm     | N/A                  | N/A                                   | N/A                   | N/A                  | 363 <sup>4</sup><br>2502 <sup>4</sup>     | N/A                   | N/A         | N/A         |
| 8<br>200     | N/A                  | 290<br>2000                           | 365<br>2517           | N/A                  | 363<br>2502                               | 363<br>2502           | 232<br>1600 | N/A         |

<sup>2</sup> Listed/Approved for wet and dry pipe systems (> -40°F/-40°C) for continuous use in freezing conditions, use of Style 005H Coupling with Silicone Gasket is recommended.

Please see the Victaulic Installation Manual I-009N/009H for details concerning when supplemental lubrication is required.



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<sup>3</sup> cULus listed for DIN 2458 2.6 mm pipe wall.

<sup>4</sup> FM approved for BS 1387 Medium 3.6 mm pipe wall.

<sup>5</sup> cULus listed for EN 10220 4.0 mm pipe wall.

<sup>6</sup> cULus listed for EN 10255 4.5 mm pipe wall.

## 4.1 LISTINGS/APPROVAL

## **Speciality Pipe**

| Pipe Size inches | Size Pressure Rating |                            | Pipe                    | Size | Pressure  | e Rating                   | Pipe                    | Size | Pressure Rating |                            |                         |
|------------------|----------------------|----------------------------|-------------------------|------|-----------|----------------------------|-------------------------|------|-----------------|----------------------------|-------------------------|
|                  | inches               | <b>cULus</b><br>psi<br>kPa | <b>FM</b><br>psi<br>kPa |      | inches    | <b>cULus</b><br>psi<br>kPa | <b>FM</b><br>psi<br>kPa |      | inches          | <b>cULus</b><br>psi<br>kPa | <b>FM</b><br>psi<br>kPa |
| BLT              | 11/4 - 2             | 300<br>2068                | 365<br>2517             | EZT  | 1 1/4 – 2 | 300<br>2068                | 365<br>2517             | MT   | 1 1/4 – 2       | 300<br>2068                | 365<br>2517             |
| DF               | 1 1/4 - 4            | 300<br>2068                | 365<br>2517             | FF   | 1 1/4 - 4 | 300<br>2068                | 365<br>2517             | MLT  | 1 1/4 – 2       | N/A                        | 365<br>2517             |
| DT               | 1 1/4 - 2            | 300<br>2068                | 365<br>2517             | FLF  | 1 1/4 - 4 | N/A                        | 365<br>2517             | ST   | 1 1/4 – 2       | N/A                        | 365<br>2517             |
| EF               | 1 1/4 - 4            | 175<br>1206                | 175<br>1206             | FLT  | 1 1/4 - 2 | N/A                        | 365<br>2517             | STF  | 1 1/4 – 4       | N/A                        | 365<br>2517             |
| EL               | 1 1/4 - 2            | 300<br>2068                | 365<br>2517             | FLTL | 1 1/4 - 2 | N/A                        | 365<br>2517             | TF   | 21/4-4          | N/A                        | 365<br>2517             |
| ET40             | 1 1/4 - 2            | 300<br>2068                | 365<br>2517             | GL   | 11/4 - 2  | 300<br>2068                | 365<br>2517             | WLS  | 1 1/4 – 2       | 300<br>2068                | 365<br>2517             |
| EZF              | 3 – 4                | 300<br>2068                | 365<br>2517             | MF   | 1 1/4 - 4 | 300<br>2068                | 365<br>2517             | WST  | 1 1/4 – 2       | N/A                        | 365<br>2517             |
|                  |                      |                            |                         |      |           |                            |                         | XL   | 1 1/4 – 2       | 300<br>2068                | 365<br>2517             |

#### **NOTES**

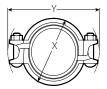
- BLT = BLT steel pipe manufactured by Allied Tube & Conduit Corp.
- DF = DYNA-FLOW steel pipe manufactured by Allied Tube & Conduit Corp.
- DT = DYNA-FLOW steel pipe manufactured by Allied Tube & Conduit Corp.
- EF = EDDY FLOW steel pipe manufactured by Bull Moose Tube Co.
- EL = EDDYLITE steel pipe manufactured by Bull Moose Tube Co.
- ET40 = Eddythread 40 steel pipe manufactured by Bull Moose Tube Co.
- EZF = EZ-Flow steel pipe manufactured by Northwest Pipe Co.
- EZT = EZ-Thread steel pipe manufactured by Youngstown Tube Co.
- FF = Fire-Flo steel pipe manufactured by Youngstown Tube Co.
- FLF = Fire-Line Flow steel pipe manufactured by Western International Forest Products Inc.
- FLT = Fire-Line Threadable steel pipe manufactured by Western International Forest Products Inc.
- FLTL = Fire-Line Threadable Light steel pipe manufactured by Western International Forest Products Inc.
- GL = GL steel pipe manufactured by Wheatland Tube Co.
- MF = Mega-Flow steel pipe manufactured by Wheatland Tube Co.
- MT = Mega-Thread steel pipe manufactured by Wheatland Tube Co.
- MLT = MLT steel pipe manufactured by Wheatland Tube Co
- ST = STD wall pipe in accordance with ASTM A53.
- STF = Steady Flow steel pipe manufactured by AMS Tube Corp.
- TF = Tex-Flow steel pipe manufactured by Tex-Tube Co.
- WLS = WLS steel pipe manufactured by Wheatland Tube Co.
- WST = WST steel pipe manufactured by Wheatland Tube Company.
- XL = XL steel pipe manufactured by Allied Tube & Conduit Corp.



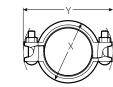
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## 5.0 DIMENSIONS

## Style 009N









Style 009N Pre-Assembled (Push On Condition)

Style 009N Joint Assembled

|                 |                               |   |                                     |   |                               |                           | Dimensions               |                           |              |              |            |                           |
|-----------------|-------------------------------|---|-------------------------------------|---|-------------------------------|---------------------------|--------------------------|---------------------------|--------------|--------------|------------|---------------------------|
| Nominal<br>Size | Actual<br>Outside<br>Diameter | Maximum<br>Working<br>Pressure <sup>7</sup> | Maximum<br>End<br>Load <sup>7</sup> | Allow.<br>Pipe End<br>Separation <sup>8</sup> | Bolt/Nut <sup>9</sup><br>Size |                           | Pre-ass<br>(Push On<br>X | embled<br>Condition)<br>Y | Jo<br>X      | int Assembl  | ed<br>Z    | Approx.<br>Weight<br>Each |
| inches          | inches                        | psi   | lbs.                                | inches  |                               | inches                    | inches                   | inches                    | inches       | inches       | inches     | lbs.                      |
| mm              | mm                            | kPa   | N                                   | mm  | No.                           | mm                        | mm                       | mm                        | mm           | mm           | mm         | kg                        |
| 1 ¼<br>32       | 1.660<br>42.4                 | 365<br>2517                                 | 790<br>3514                         | 0.10<br>2.54                                  | 2                             | 3% × 2<br>M10 x 2         | 3.13<br>79               | 5.00<br>127               | 2.75<br>70   | 5.00<br>127  | 2.00<br>51 | 1.4<br>0.6                |
| 1 ½<br>40       | 1.900<br>48.3                 | 365<br>2517                                 | 1035<br>4604                        | 0.10<br>2.54                                  | 2                             | 3% × 2<br>M10 x 2         | 3.38<br>86               | 5.13<br>130               | 3.00<br>76   | 5.13<br>130  | 2.00<br>51 | 1.5<br>0.7                |
| 2<br>50         | 2.375<br>60.3                 | 365<br>2517                                 | 1616<br>7193                        | 0.12<br>3.05                                  | 2                             | 3/8 ×2 1/2<br>M10 x 2 1/2 | 4.00<br>102              | 5.63<br>143               | 3.50<br>89   | 5.63<br>143  | 2.00<br>51 | 1.9<br>0.9                |
| 2½<br>65        | 2.875<br>73.0                 | 365<br>2517                                 | 2370<br>10542                       | 0.12<br>3.05                                  | 2                             | 3% × 2½<br>M10 x 2½       | 4.50<br>114              | 6.13<br>156               | 4.00<br>102  | 6.13<br>156  | 2.00<br>51 | 2.1<br>1.0                |
| 76.1 mm         | 3.000<br>76.1                 | 365<br>2517                                 | 2580<br>11476                       | 0.12<br>3.05                                  | 2                             | 38 × 2½<br>M10 x 2½       | 4.63<br>118              | 6.00<br>152               | 4.13<br>105  | 6.13<br>156  | 2.00<br>51 | 2.1<br>1.0                |
| 3<br>80         | 3.500<br>88.9                 | 365<br>2517                                 | 3512<br>15622                       | 0.12<br>3.05                                  | 2                             | 38 × 2½<br>M10 x 2½       | 5.13<br>130              | 6.75<br>171               | 4.63<br>117  | 6.75<br>171  | 2.00<br>51 | 2.3<br>1.0                |
| 4<br>100        | 4.500<br>114.3                | 365<br>2517                                 | 5805<br>25822                       | 0.17<br>4.32                                  | 2                             | 38 × 2½<br>M10 x 2½       | 6.00<br>152              | 7.88<br>200               | 5.63<br>143  | 7.50<br>191  | 2.13<br>54 | 2.9<br>1.3                |
| 108.0 mm        | 4.250<br>108.0                | 365<br>2517                                 | 5175<br>23020                       | 0.17<br>4.32                                  | 2                             | 3% × 2½<br>M10 x 2½       | 5.63<br>152              | 7.38<br>1.87              | 5.38<br>137  | 7.38<br>187  | 2.13<br>54 | 3.1<br>1.4                |
| 5<br>125        | 5.563<br>141.3                | 365<br>2000                                 | 8870<br>39456                       | 0.17<br>4.32                                  | 2                             | ½ × 3<br>M12 x 3          | 7.25<br>184              | 9.25<br>235               | 6.75<br>171  | 9.13<br>232  | 2.25<br>57 | 5.0<br>2.3                |
| 133.0 mm        | 5.250<br>133.0                | 365<br>2517                                 | 7897<br>35106                       | 0.17<br>4.32                                  | 2                             | ½ × 3<br>M12 x 3          | 6.63<br>168              | 9.00<br>229               | 6.38<br>162  | 9.00<br>229  | 2.25<br>57 | 4.8<br>2.2                |
| 139.7 mm        | 5.500<br>139.7                | 365<br>2517                                 | 8667<br>38529                       | 0.17<br>4.32                                  | 2                             | ½ × 3<br>M12 x 3          | 6.88<br>175              | 9.25<br>235               | 6.75<br>171  | 9.13<br>232  | 2.25<br>57 | 4.9<br>2.2                |
| 159.0 mm        | 6.250<br>159.0                | 365<br>2517                                 | 11192<br>49753                      | 0.17<br>4.32                                  | 2                             | ½ × 3 ¼<br>M12 x 3 ¼      | 7.88<br>200              | 10.00<br>254              | 7.38<br>187  | 9.88<br>251  | 2.25<br>57 | 5.6<br>2.5                |
| 165.1 mm        | 6.500<br>165.1                | 365<br>2517                                 | 12105<br>53813                      | 0.17<br>4.32                                  | 2                             | ½ × 3 ¼<br>M12 x 3 ¼      | 8.00<br>203              | 10.25<br>260              | 7.75<br>197  | 10.13<br>257 | 2.25<br>57 | 6.0<br>2.7                |
| 6<br>150        | 6.625<br>168.3                | 365<br>2000                                 | 12582<br>44469                      | 0.17<br>4.32                                  | 2                             | ½ × 3 ¼<br>M12 x 3 ¼      | 8.38<br>213              | 10.38<br>264              | 7.88<br>200  | 10.13<br>257 | 2.25<br>57 | 6.0<br>2.7                |
| 216.0 mm        | 8.500<br>216.0                | 365<br>2517                                 | 20712<br>55968                      | 0.17<br>4.32                                  | 2                             | % × 4<br>M16 x 4          | 10.63<br>270             | 13.25<br>337              | 10.25<br>260 | 10.13<br>257 | 2.63<br>67 | 11.4<br>5.2               |
| 8<br>200        | 8.625<br>219.1                | 365<br>1620                                 | 21326<br>94863                      | 0.17<br>4.32                                  | 2                             | % × 4<br>M16 x 4          | 10.88<br>276             | 13.38<br>340              | 10.25<br>260 | 13.13<br>333 | 2.50<br>64 | 11.4<br>5.2               |

<sup>7</sup> Working Pressure and End Load are total, from all internal and external loads, based on standard weight (ANSI) steel pipe, standard roll or cut grooved in accordance with Victaulic specifications. See the Listings/Approvals section of this publication for ratings on other pipe.

#### NOTES

- When assembling FireLock EZ<sup>™</sup> couplings onto end caps, take additional care to make certain the end cap is fully seated against the gasket end stop. For
  FireLock EZ<sup>™</sup> Style 009N couplings, use FireLock No. 006 end caps containing the "EZ" marking on the inside face or No. 60 end caps containing the "QV
  EZ" marking on the inside face. Non-Victaulic end cap products shall not be used with Style 009N couplings. IMPORTANT: Gaskets intended for the Style 009
  or Style 009V couplings cannot be used with the Style 009N coupling. There is no interchanging of gaskets or housings between coupling styles.
- Use Of Flushseal Gaskets For Dry Pipe Systems FireLock EZ™ couplings are supplied with FireLock EZ™ Grade "E" Type A gaskets. These gaskets include an integral pipe stop, that once installed provides the similar benefits as a FlushSeal gasket for dry pipe systems. It should be noted that standard Victaulic Flush-Seal™ gaskets are not compatible and cannot be used with the FireLock EZ™ couplings.

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<sup>8</sup> The allowable pipe separation dimension shown is for system layout purposes only. FireLock EZ™ couplings are considered rigid connections and will not accommodate expansion or contraction of the piping system.

<sup>9</sup> Number of bolts required equals number of housing segments.

## 6.0 REFERENCE MATERIALS

Publication 05.01: Seal Selection Guide

I-009N/009H: Installation Instructions FireLock EZ™ Rigid Coupling

#### 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, 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 I-009N/I-009H Firelock EZ Rigid Coupling Installation Instructions for 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.

#### Warranty

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

#### Trademarks

Wictaulic, FireLock EZ™, Flush-Seal™, and Installation-Ready™ are trademarks or registered trademarks of Victaulic Company, and/or its affiliated entities, in the U.S. and/or other countries.

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