

Victaulic® Snap-Joint® Coupling

Style 78



1.0 PRODUCT DESCRIPTION

Available Sizes

- 1 – 8"/DN25 – DN200

Pipe Material

- Carbon Steel
- For use on stainless steel pipe, reference [Publication 17.09](#): *Victaulic Grooved Couplings Performance Data for Stainless Steel Pipe* and [Publication 17.01](#): *Stainless Steel Pipe End Preparation*

Maximum Working Pressure

- Accommodates pressures ranging from full vacuum (29.9 in Hg / 760 mm Hg) up to 300 psi / 2068 kPa / 21 bar

NOTE

- When Style 78 couplings are used in concrete pumping, the working pressure shall include shock load. This coupling shall be used within all design parameters.

Operating Temperature

- Dependent on gasket selection from [Section 3.0](#)

Pipe Preparation

- Cut or roll grooved in accordance with [Publication 25.01](#): *Victaulic Original Groove System (OGS) Specifications*

Application

- Joins carbon steel pipe, fittings, valves, and accessories prepared to *Victaulic OGS Specifications*
- Designed for quick disconnect service

2.0 CERTIFICATIONS/LISTINGS



EN 10311
CPR (EU)
No. 305/2011

NOTE

- Reference [Publication 02.06](#): *Victaulic Potable Water Approvals NSF/ANSI/CAN* for potable water approvals, if applicable.

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



3.0 SPECIFICATIONS – MATERIAL

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

Housing Coating: (specify choice)

- ☐ Standard: Orange Enamel
- ☐ Optional: Hot Dipped Galvanized

Gasket: (specify choice¹)

☐ **Grade "E" EPDM**

EPDM (Green Stripe color code); Temperature range –30°F to +230°F/–34°C to +110°C. May be specified for cold and hot water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. UL Classified in accordance with ANSI/NSF 61 for cold +73°F/+23°C and hot +180°F/+82°C potable water service and ANSI/NSF 372. NOT COMPATIBLE FOR PETROLEUM SERVICES OR STEAM SERVICES.

☐ **Grade "T" Nitrile**

Nitrile (Orange Stripe color code); Temperature range -20°F to +180°F/-29°C to +82°C. May be specified for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. Not compatible for hot water services over +150°F/+66°C or for hot dry air over +140°F/+60°C.

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.

Locking Handle:

- ☐ **Sizes 1 – 1½"/DN25 – DN40:** Electroplated, Heat-treated Carbon Steel conforming to ASTM A109
- ☐ **Sizes 2 – 4"/DN50 – DN100:** Electroplated, Malleable Iron conforming to ASTM A47
- ☐ **Sizes 5 – 8"/DN125 – DN200:** Painted Malleable Iron conforming to ASTM A47

Toggle Links: Electroplated Hot-rolled Carbon Steel conforming to AISI 1010 or AISI 1020

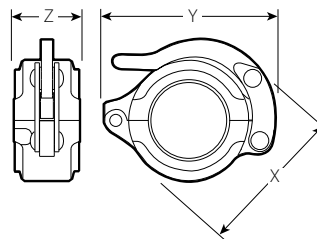
Eye Bolt Assembly: 5 – 8"/DN125 – DN200: Electroplated Heat-treated Carbon Steel conforming to AISI C-1040

Hinge Pin: Cold-drawn, Case-hardened Steel conforming to AISI C-1212

Rivets: Cold-drawn Steel conforming to AISI C-1010

4.0 DIMENSIONS

Style 78 Snap-Joint® Coupling



Size		Pipe End Separation ²	Deflect. Fr. Cl. ²		Dimensions			Weight
Nominal inches DN	Actual Outside Diameter inches mm	Allowable inches mm	Per Cplg. Deg.	Pipe in/ft mm/m	X inches mm	Y inches mm	Z inches mm	Approximate (Each) lb kg
1 DN25	1.315 33.7	0 - 0.06 0 - 1.6	2° - 43	0.57 48	2.75 70	3.25 83	1.75 44	0.8 0.4
1 ¼ DN32	1.660 42.2	0 - 0.06 0 - 1.6	2° - 10	0.45 38	3.13 79	3.75 95	1.88 48	1.1 0.5
1 ½ DN40	1.900 48.3	0 - 0.06 0 - 1.6	1° - 56	0.40 33	3.50 89	4.50 114	1.88 48	1.7 0.8
2 DN50	2.375 60.3	0 - 0.06 0 - 1.6	1° - 31	0.32 26	4.00 102	4.75 121	1.88 48	1.7 0.8
2 ½	2.875 73.0	0 - 0.06 0 - 1.6	1° - 15	0.26 22	4.75 121	5.88 149	1.88 48	2.5 1.1
3 DN80	3.500 88.9	0 - 0.06 0 - 1.6	1° - 2	0.22 18	5.38 137	6.25 159	1.88 48	2.8 1.3
4 DN100	4.500 114.3	0 - 0.13 0 - 3.2	1° - 36	0.34 28	6.88 175	7.75 197	2.13 54	5.5 2.5
5	5.563 141.3	0 - 0.13 0 - 3.2	1° - 18	0.27 23	8.75 222	9.50 241	2.13 54	9.8 4.4
6 DN150	6.625 168.3	0 - 0.13 0 - 3.2	1° - 5	0.23 18	9.88 251	10.63 270	2.13 54	10.7 4.9
8 DN200	8.625 219.1	0 - 0.13 0 - 3.2	0° - 50	0.18 14	12.25 311	13.00 330	2.38 60	15.3 6.9

² Allowable Pipe End Separation and Deflection figures show the maximum nominal range of movement available at each joint for standard roll-grooved pipe. Figures for standard cut-grooved pipe may be doubled. These figures are maximums; for design and installation purposes, these figures should be reduced by 50% for ¾ - 3½"/20 - 90 mm and 25% for 4"/100 mm and larger.

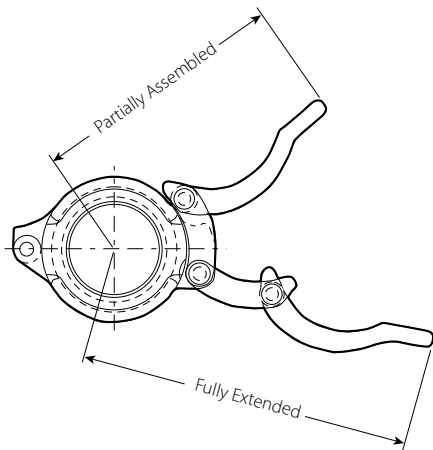
WARNING

- Piping systems must always be depressurized and drained before attempting disassembly and removal of any Victaulic piping products.

4.1 DIMENSIONS

Style 78 Snap-Joint® Coupling

Design Considerations



Size	Partially Assembled	Fully Extended
Nominal inches mm		
1	3.38	4.50
25	85.6	114.3
1 ¼	3.80	4.88
32	96.5	123.9
1 ½	5.50	7.63
40	140.0	193.8
2	6.25	7.75
50	158.8	196.9
2 ½	7.16	10.72
65	181.9	272.3
3	7.88	10.25
80	200.1	260.4
4	10.63	12.88
100	270.0	327.2
5	13.66	16.88
125	347.0	428.7
6	14.88	18.38
150	377.9	466.8
8	15.38	18.91
200	390.6	480.3

NOTES

- Style 78 couplings and pipe used in concrete pumping shall be free from concrete and foreign material in the pipe grooves and the keys and gasket cavity of the couplings.
- Style 78 couplings are not designed for eccentric loadings.
- Style 78 couplings are not recommended for use at the end of concrete pumping booms or on vertical risers above 30 feet/9.1 m. Sound anchoring and lashing practices shall always be observed.

5.0 PERFORMANCE

Style 78 Snap-Joint® Coupling

Size		Maximum Working Pressure ³	Maximum End Load ³
Nominal inches DN	Actual Outside Diameter inches mm		
1 DN25	1.315 33.7	300 2065	410 1825
1 ¼ DN32	1.660 42.2	300 2065	650 2890
1 ½ DN40	1.900 48.3	300 2065	850 3780
2 DN50	2.375 60.3	300 2065	1330 5920
2 ½ DN63	2.875 73.0	300 2065	1950 8680
3 DN80	3.500 88.9	300 2065	2885 12,840
4 DN100	4.500 114.3	300 2065	4770 21,225
5 DN125	5.563 141.3	300 2065	7290 32,440
6 DN150	6.625 168.3	300 2065	10,350 46,060
8 DN200	8.625 219.1	300 2065	17,500 77,875

³ 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. Contact Victaulic for performance on other pipe. Maximum Working Pressure rating based on larger pipe size. Maximum End Load rating based on smaller pipe size.

WARNING

- FOR ONE-TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1 ½ times the figures shown.

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.
 - Confirm that any equipment, branch lines, or sections of piping that may have been isolated for/during testing or due to valve closures/positioning are identified, depressurized, and drained immediately prior to installation, removal, adjustment, or maintenance of any *Victaulic* products.
 - Wear safety glasses, hardhat, foot protection, and hearing protection.
 - Always read and follow the [I-ENDCAP](#), *Victaulic* End Cap Installation Safety Instructions, which can be downloaded at [Victaulic.com](#).
- Failure to follow these instructions could result in death or serious personal injury and property damage.

! WARNING

FOR STYLE 78 COUPLINGS USED ON STAINLESS STEEL:

- Victaulic® RX roll sets shall be used when grooving light-wall/thin-wall stainless steel pipe. Victaulic® RX grooving rolls must be ordered separately. They are identified by a silver color and the designation RX on the front of the roll sets.
 - It is the system designer's responsibility to verify suitability of stainless steel components for use with the intended fluid media within the piping system and external environment.
 - The material specifier shall evaluate the effect of chemical composition, pH level, operating temperature, chloride level, oxygen level, and flow rate on stainless steel components to confirm system life will be acceptable for the intended service.
 - Always reference *Victaulic* [Publication 17.01](#) for stainless steel pipe end preparation and grooving roll set requirements.
- Failure to follow these instructions may cause joint failure, resulting in death or serious personal injury and property damage.

7.0 REFERENCE MATERIALS

[05.01: Victaulic Seal Selection Guide Elastomeric Seal Construction](#)

[17.01: Victaulic Stainless Steel Pipe End Preparation](#)

[17.09: Victaulic Grooved Couplings Performance Data for Stainless Steel Pipe](#)

[I-100: Victaulic Field Installation Handbook](#)

User Responsibility for Product Selection and Suitability

Each user bears final responsibility for determining the suitability of Victaulic products for their end-use application, in accordance with industry standards, project specifications, and Victaulic's published performance, maintenance, and safety data, as well as all warnings and installation 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, warranty, installation instructions, or this disclaimer.

Installation

Always refer to and follow the [Victaulic Installation Handbook](#) or 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 [victaulic.com](#).

Warranty

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

Intellectual Property Rights

No statement concerning the use of any material, product, service, or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Victaulic or any of its affiliates, or as a recommendation for the use of such material, product, service, or design in the infringement of any patent or other intellectual property right. The terms "Patented" or "Patent Pending" refer to design or utility patents or patent applications for articles and/or methods of use in the United States and/or other countries. Victaulic and all other Victaulic marks are the trademarks or registered trademarks of Victaulic Company, and/or its affiliated entities, in the U.S. and/or other countries.

Note

All products bearing a Victaulic trademark are manufactured by Victaulic or to Victaulic specifications. All products are to be installed only in accordance with the applicable Victaulic installation instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.