Victaulic® QuickVic™ Installation-Ready™ Rigid Coupling for Potable Water Applications

Style 807N

06.28

2 – 12"/DN50 – DN300

1.0 PRODUCT DESCRIPTION

Available Sizes

- 2 – 12"/DN50 – DN300

Pipe Material

- Schedules 10S and 40S stainless steel pipe
- Schedules 10 and 40 galvanized carbon steel

Maximum Working Pressure

- Accommodates pressures ranging from full vacuum (29.9 in Hg/760 mm Hg) up to 750 psi/5171 kPa
- Working pressure dependent on pipe material, wall thickness and size of pipe

Operating Temperature

- +0˚F to +180˚F/-18˚C to +82˚C

Function

- Intended for use in potable water systems
- Joins Schedules 10S and 40S stainless steel pipe or Schedules 10 and 40 galvanized carbon steel pipe
- Provides a rigid pipe joint designed to restrict axial or angular movement

NOTE

- For non-potable water systems, refer to publication 06.23: Victaulic QuickVic™ Rigid Coupling Style 107N.

Pipe Preparation

- Cut or roll grooved in accordance with publication 25.01: Victaulic Standard Groove Specifications

Codes and Requirements

- Hanger support spacing corresponds to ASME B31.1 Power Piping Code and ASME B31.9 Building Services Piping Code

2.0 CERTIFICATION/LISTINGS

The Victaulic Grade P gasket supplied with the Style 807N QuickVic™ Installation-Ready™ Rigid Coupling is UL Classified in accordance with NSF/ANSI/CAN 61 and NSF/ANSI/CAN 372 as noted in section 3.0 Specifications – Material.

The Style 807N QuickVic™ Installation-Ready™ Rigid Coupling is UPC Listed in accordance with PS-53 for use with Schedule 10 stainless steel pipe in sizes 2 – 6"/DN50 – DN150.

NOTE

- See publication 02.06: Victaulic Potable Water Approvals ANSI/NSF for potable water approvals if applicable.

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

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3.0 SPECIFICATIONS - MATERIAL

Housing: Ductile iron conforming to ASTM A536, Grade 65-45-12. Ductile iron conforming to ASTM A395, Grade 65-45-15, is available upon special request.

Housing Coating: (specify choice)

☐ Standard: Blue coating.

☐ Optional: Hot dipped galvanized conforming to ASTM A123.

Gasket[1]: Grade "P" Fluoroelastomer Blend

P (Double blue stripe color code). Temperature range +0°F to +180°F/-18°C to +82°C. Specifically formulated for compatibility with potable water systems. Optimized for improved resistance to chlorine, chloramine and other typical potable water disinfectants. UL Classified in accordance with NSF/ANSI/CAN 61 for cold +73°F/+23°C and hot +180°F/+82°C potable water service and NSF/ANSI/CAN 372.

[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.

NOTE

- Victaulic reserves the right to substitute equivalent and/or higher grade elastomer products.

Bolts/Nuts: (specify choice[2])

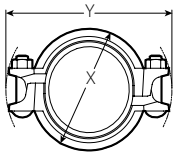
☐ Standard: Carbon steel oval neck track bolts meeting the mechanical property requirements of ASTM A449 (imperial) and ISO 898-1 Class 9.8 (metric). Carbon steel hex nuts meeting the mechanical property requirements of ASTM A563 Grade B (imperial - heavy hex nuts) and ASTM A563M Class 9 (metric - hex nuts). Track bolts and hex nuts are zinc electroplated per ASTM B633 FE/ZN5, finish Type III (imperial) or Type II (metric).

☐ Optional: Stainless steel oval neck track bolts meeting the mechanical property requirements of ASTM F593, Group 2 (316 stainless steel), condition CW. Stainless steel heavy nuts meeting the mechanical property requirements of ASTM F594, Group 2 (316 stainless steel), condition CW. Bolts and nuts include galling reducing coating.[2]

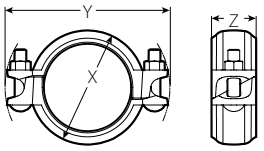
[2] Optional bolts/nuts are available in imperial size only.

4.0 DIMENSIONS

Style 807N QuickVic™ Installation-Ready™ Rigid Coupling for Potable Water Applications



Pre-Assembled
(Installation-Ready™ Condition)



Joint Assembled

Size		Pipe End Separation[3]	Bolt/Nut[4]		Dimensions					Weight
					Pre-Assembled (Installation-Ready™ Condition)		Joint Assembled			
Nominal inches DN	Actual Outside Diameter inches mm	Allowable inches mm	Qty.	Size inches mm	X inches mm	Y inches mm	X inches mm	Y inches mm	Z inches mm	Approximate (Each) lb kg
2 DN50	2.375 60.3	0.15 3.8	2	½ x 3 M12 x 76	4.00 100	6.13 156	3.63 92	6.13 156	2.13 54	2.7 1.2
2 ½	2.875 73.0	0.15 3.8	2	½ x 3 M12 x 76	4.50 114	6.75 171	4.00 102	6.75 171	2.13 54	3.0 1.4
3 DN80	3.500 88.9	0.15 3.8	2	½ x 3 ¼ M12 x 83	5.25 133	7.38 187	4.63 118	7.50 191	2.13 54	3.7 1.7
4 DN100	4.500 114.3	0.15 3.8	2	½ x 3 ¼ M12 x 83	6.63 168	8.75 222	5.88 149	8.75 222	2.13 54	5.1 2.3
6 DN150	6.625 168.3	0.15 3.8	2	⅝ x 4 M16 x 101	8.88 226	11.38 289	8.13 207	11.25 286	2.25 57	8.2 3.7
8 DN200	8.625 219.1	0.20 5.1	2	¾ x 5 M20 x 127	11.25 286	14.37 365	10.50 267	14.25 362	2.63 67	15.1 6.8
10 DN250	10.750 273.0	0.20 5.1	2	⅞ x 6½ M22 x 165	13.75 349	17.00 432	13.00 330	17.13 435	2.75 70	23.6 10.7
12 DN300	12.750 323.9	0.20 5.1	2	⅞ x 6½ M22 x 165	15.63 397	19.00 483	15.00 381	19.00 483	2.75 70	27.2 12.3

[3] The allowable pipe end separation dimension shown is for system layout purposes only. Style 807N QuickVic™ Installation-Ready™ rigid couplings are considered rigid connections and will not accommodate expansion/contraction or angular movement of the piping system. Contact Victaulic for torsional resistance information.

[4] Number of bolts required equals number of housing segments.

5.0 PERFORMANCE

Style 807N QuickVic™ Installation-Ready™ Rigid Coupling for Potable Water Applications – ANSI Standard

Schedules 10S and 40S Stainless Steel Pipe

Size		Schedule 10S			Schedule 40S		
Nominal inches DN	**Actual Outside Diameter** inches mm	**Pipe Wall Thickness** inches mm	**Maximum Joint Working Pressure**[5-6] psi kPa	**Maximum Permissible End Load**[6] lb N	**Pipe Wall Thickness** inches mm	**Maximum Joint Working Pressure**[6] psi kPa	**Maximum Permissible End Load**[6] lb N
2 DN50	2.375 60.3	0.109 2.8	300 2068	1329 5912	0.154 3.9	600 4137	2658 11823
2½	2.875 73.0	0.120 3.0	300 2068	1948 8665	0.203 5.2	600 4137	3895 17326
3 DN80	3.500 88.9	0.120 3.0	300 2068	2886 12838	0.216 5.5	600 4137	5773 25680
4 DN100	4.500 114.3	0.120 3.0	300 2068	4771 21222	0.237 6.0	600 4137	9543 42449
6 DN150	6.625 168.3	0.134 3.4	300 2068	10341 45999	0.280 7.1	600 4137	20683 92003
8 DN200	8.625 219.1	0.148 3.8	150 1034	8764 38984	0.322 8.2	400 2758	23371 103959
10 DN250	10.750 273.0	0.165 4.2	100 689	9076 40371	0.365 9.3	300 2068	27229 121114
12 DN300	12.750 323.9	0.180 4.6	100 689	12768 56790	0.375 9.5	300 2068	38303 170371

[5] Maximum Joint Working Pressures on Schedule 10 stainless steel pipe are based on the use of RX grooving rolls. RX roll sets for light wall stainless steel pipe are marked with the prefix "RX."

[6] Working Pressure and End Load are total, from all internal and external loads, based on ANSI Types 304/304L and 316/316L stainless steel pipe, grooved in accordance with Victaulic specifications. Contact Victaulic for performance on other pipe.

NOTE

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

Schedules 10 and 40 Galvanized Carbon Steel Pipe

Size		Schedule 10			Schedule 40		
Nominal inches DN	**Actual Outside Diameter** inches mm	**Pipe Wall Thickness** inches mm	**Maximum Joint Working Pressure**[7] psi kPa	**Maximum Permissible End Load**[7] lb N	**Pipe Wall Thickness** inches mm	**Maximum Joint Working Pressure**[7] psi kPa	**Maximum Permissible End Load**[7] lb N
2 DN50	2.375 60.3	0.109 2.8	750 5171	3323 14781	0.154 3.9	750 5171	3323 14780
2½	2.875 73.0	0.120 3.0	600 4137	3895 17325	0.203 5.2	750 5171	4869 21658
3 DN80	3.500 88.9	0.120 3.0	600 4137	5773 25680	0.216 5.5	750 5171	7216 32098
4 DN100	4.500 114.3	0.120 3.0	600 4137	9543 42449	0.237 6.0	750 5171	11928 53058
6 DN150	6.625 168.3	0.134 3.4	500 3447	17236 76670	0.280 7.1	700 4826	24130 107335
8 DN200	8.625 219.1	0.148 3.8	300 2068	17528 77970	0.322 8.2	600 4137	35056 155936
10 DN250	10.750 273.0	0.165 4.2	300 2068	27200 121040	0.365 9.3	500 3447	45400 202030
12 DN300	12.750 323.9	0.180 4.6	200 1379	25500 113475	0.375 9.5	400 2758	51000 226950

[7] Working Pressure and End Load are total, from all internal and external loads, based on ANSI B36.10 sized carbon steel pipe, grooved in accordance with Victaulic specifications. Contact Victaulic for performance on other pipe.

NOTE

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

5.1 PERFORMANCE

Style 807N QuickVic™ Installation-Ready™ Rigid Coupling for Potable Water Applications – FM Ratings[8-9]

Schedules 10S and 40S Stainless Steel Pipe

Size		Schedule 10S		Schedule 40S	
Nominal inches DN	Actual Outside Diameter inches mm	Pipe Wall Thickness inches mm	Maximum Joint Working Pressure[10-11] psi kPa	Pipe Wall Thickness inches mm	Maximum Joint Working Pressure[11] psi kPa
2 DN50	2.375 60.3	0.109 2.8	175 1207	0.154 3.9	365 2517
2 1/2	2.875 73.0	0.120 3.0	175 1207	0.203 5.2	365 2517
3 DN80	3.500 88.9	0.120 3.0	175 1207	0.216 5.5	365 2517
4 DN100	4.500 114.3	0.120 3.0	175 1207	0.237 6.0	365 2517
6 DN150	6.625 168.3	0.134 3.4	–	0.280 7.1	365 2517
8 DN200	8.625 219.1	0.148 3.8	–	0.322 8.2	300 2068
10 DN250	10.750 273.0	0.165 4.2	–	0.365 9.3	300 2068
12 DN300	12.750 323.9	0.180 4.6	–	0.375 9.5	300 2068

8 FM approved with standard blue enamel housing coating and standard carbon steel fasteners. Optional housing coatings and optional bolts/nuts not FM approved.

9 FM approved for use in wet sprinkler systems only.

10 Maximum Joint Working Pressures on Schedule 10 stainless steel pipe are based on the use of RX grooving rolls. RX roll sets for light wall stainless steel pipe are marked with the prefix “RX.”

11 Working Pressure is total, from all internal and external loads, based on ANSI Types 304/304L and 316/316L stainless steel pipe, grooved in accordance with Victaulic specifications. Contact Victaulic for performance on other pipe.

NOTE

- 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, remove, adjust, or maintain any Victaulic piping products.**
- **Depressurize and drain the piping system before attempting to install, remove, adjust, or maintain any Victaulic piping products.**
- **Wear safety glasses, hardhat, and foot protection.**

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

⚠ WARNING

- **Victaulic RX roll sets must be used when grooving light-wall/thin-wall stainless steel pipe for use with Victaulic Couplings.**

Failure to use Victauilc RX roll sets when grooving light-wall/thin-wall stainless steel pipe may cause joint failure, resulting in serious personal injury and/or property damage.

NOTICE

- **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.**

⚠ CAUTION

- **When assembling Style 807N couplings onto end caps, take additional care to ensure the end cap is seated fully against the center leg of the gasket.**
- **Use only No. 60 End Caps containing the "EZ QV" marking on the inside face, or No. 460 Stainless Steel End Caps containing the "QV" marking on the inside face.**
- **Victaulic recommends the use of Victaulic fittings with Style 807N couplings.**

Failure to follow this instruction could cause improper product installation, resulting in personal injury and/or property damage.

7.0 REFERENCE MATERIALS

02.06: Victaulic Potable Water Approvals ANSI/NSF
05.01: Victaulic Seal Selection Guide
06.23: Victaulic QuickVic™ Rigid Coupling Style 107N
17.01: Victaulic Pipe Preparation for Use on Stainless Steel Pipe With Victaulic Products
25.01: Victaulic Standard Groove Specifications
26.01: Victaulic Design Data
29.01: Victaulic Terms and Conditions of Sale
I-100: Victaulic Field Installation Handbook
I-807N: Victaulic Installation Instructions - Style 807N QuickVic™ Installation-Ready™ Rigid Coupling
I-ENDCAP: Victaulic End Caps Installation Instructions
I-IMPACT: Victaulic Impact Tool Usage Guidelines

