

## Style 234 Restrained Flexible Single-Gasket Coupling

Victaulic Bolted Split-Sleeve Products (VBSP) Style 234 carbon steel couplings (formerly Depend-O-Lok Air/FluidMaster) are single-arch couplings that are commonly used in buried or exposed steel pipe applications for field joint connections where joint flexibility and thrust restraint is required. This style of coupling is ideally suited for applications that require a narrow restrained coupling or where contact of the medium flowing through the pipe with the interior of the coupling body is undesirable.

Typical applications include water and wastewater treatment plants, force main and water transmission piping, slurry lines and penstocks. The coupling provides ease of installation and comes standard with an epoxy coating for protection against corrosion. The use of a heat-shrink sleeve or tape coat system can be used with minimal effort due to the low profile configuration.

The single-arch mechanical coupling body houses a "C" shaped gasket that provides the radial seal around the circumference of the pipe. Style 234 couplings incorporate a restraint ring welded to each pipe end (furnished with the coupling) allowing the coupling housing to straddle the restraint rings and confining the rings under the coupling body in order to prevent joint separation. The coupling housing and restraint ring welds are designed to accommodate hoop stress and end loads to meet system pressure requirements. Style 234 couplings also perform at negative pipe pressures up to full vacuum. The gasket is not pressure responsive and therefore does not require internal pipe pressure to assist with the seal. The arched cross-sectional design provides stiffness to resist forces encountered during negative pressure (submerged) or vacuum service.

Style 234 couplings are available in standard nominal sizes from 8 – 120"/200 – 3000 mm, with larger sizes available based on design and application requirements. Style 234 couplings can accommodate operating pressures up to 300 psi/2065 kPa depending on the actual pipe diameter. For pressures and sizes not shown in the dimensions and performance tables contact Victaulic for information on our engineered products.

Victaulic restrained flexible single-gasket couplings provide a flexible pipe connection and are not designed or intended to transfer significant shear or bending loads across the pipe joint. Therefore, a single coupling will not allow for differential settlement to occur at the joint. However, a minimum of two flexible couplings designed to allow dynamic (in-service) deflection and installed in combination can be used to accommodate differential settlement at a pipe joint or between a pipeline and a structure. Victaulic recommends Style 233/233S couplings for this purpose as they are specifically designed to allow for dynamic deflection and provide thrust restraint at the joint. Refer to submittal publications 60.07 and 60.08 for product details and 26.20 for guidelines regarding the use of these couplings in a differential settlement application.

All flexible mechanical couplings should be properly supported to minimize or eliminate undesirable loads at the joint. Pipe support requirements are also defined within the Victaulic Application Guidelines publication 26.20.



8 – 120"/200 – 3000mm

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<b>JOB/OWNER</b>	<b>CONTRACTOR</b>	<b>ENGINEER</b>
System No. _____	Submitted By _____	Spec Sect _____ Para _____
Location _____	Date _____	Approved _____
		Date _____

# Style 234 Restrained Flexible Single-Gasket Coupling

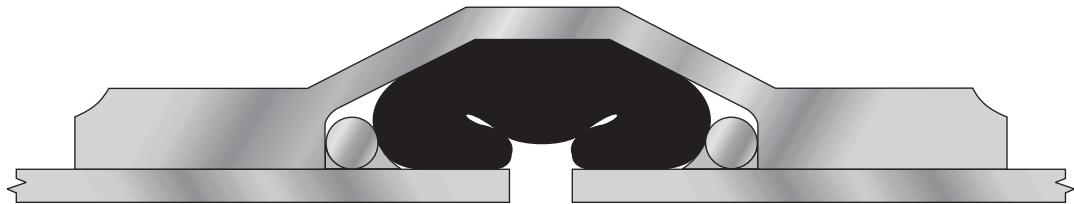
**PRODUCT GUIDE**

Product Style Guide			
Submittal Number	Style Number	Coupling/Body Material	Application
60.01	230	Carbon Steel	Non-Restrained Coupling
60.02	230S	Stainless Steel	Non-Restrained Coupling
60.03	231	Carbon Steel	Expansion Coupling
60.04	231S	Stainless Steel	Expansion Coupling
60.05	232	Carbon Steel	Restrained Coupling
60.06	232S	Stainless Steel	Restrained Coupling
60.07	233	Carbon Steel	Restrained Coupling For Dynamic Joint Deflection
60.08	233S	Stainless Steel	Restrained Coupling For Dynamic Joint Deflection
60.09	234	Carbon Steel	Restrained Single-Gasket Coupling
60.10	234S	Stainless Steel	Restrained Single-Gasket Coupling

**BODY TYPE**

**Cross-Section**

NOTE: Body type is not optional and will be determined by system requirements.

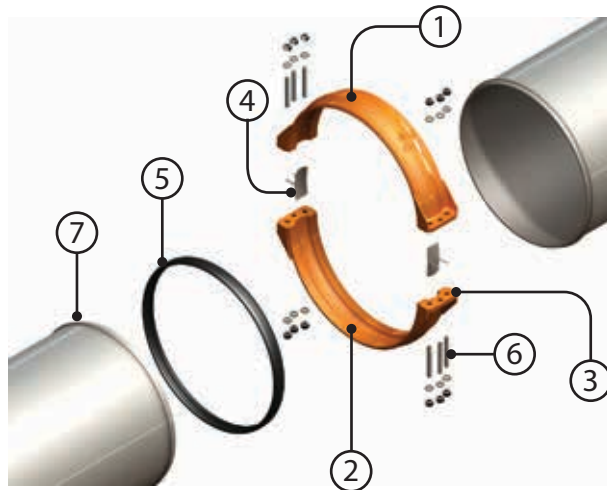


**Type 2** coupling is a shouldered coupling. The shoulders welded to the edge of the coupling body provide a vertical bearing surface for the restraint rings and provide additional cross-sectional stiffness.

## Style 234 Restrained Flexible Single-Gasket Coupling

### COUPLING COMPONENTS

1. **Body** – Arched cross-section.
2. **Shoulders** – Provide additional stiffness and vertical bearing surface for restraint rings.
3. **Closure Plates** – Low profile bolt pads for installation and tightening of coupling; gap between plates of installed coupling allows for field flexibility.
4. **Sealing Plates** – Provide gasket support at the closures.
5. **Gasket** – Provides circumferential seal.
6. **Fasteners**
  - Studs – High Strength Threaded Rod
  - Nuts – Heavy Hex Nuts
  - Washers – SAE small pattern flat washers
7. **Restraint Rings** – Attached to pipe ends to create a restrained joint.



## Style 234 Restrained Flexible Single-Gasket Coupling

### MATERIAL SPECIFICATIONS

#### Body

Carbon Steel conforming to ASTM A36 or ASTM A1011 (for gauge thicknesses)

#### Shoulders

Carbon Steel conforming to ASTM A36

#### Closure Plates

Carbon Steel conforming to ASTM A36

#### Sealing Plates

Stainless Steel conforming to ASTM A240 316L

#### Gasket

Standard (Specify choice on order):

- **EPDM** -30°F to +230°F/-34°C to +110°C  
Cold and hot water within allowable temperature range; dilute acids; excellent resistance to the deteriorative effects of ozone, oxygen, heat and most chemicals not involving hydrocarbons.  
NOT RECOMMENDED FOR PETROLEUM SERVICES.
- **Silicone** -30°F to +350°F/-34°C to +177°C  
Dry, hot air applications; excellent resistance to many chemicals.  
NOT RECOMMENDED FOR HOT WATER OR STEAM APPLICATIONS.

Optional Gasket (specify choice on order):

- **Nitrile** -20°F to +180°F/-28°C to +82°C  
Water; petroleum products, vegetable and mineral oils; air with oil vapors within allowable temperature range; good resistance to hydrocarbons; acids and bases.

#### Restraint Rings

Carbon Steel conforming to ASTM A108 Grade 1018

#### Fasteners

**Studs** - Carbon Steel conforming to ASTM A193 Grade B7 zinc plated.

Optional: Stainless Steel conforming to ASTM A193 Grade B8M 316 Class 2

**Nuts** - Heavy hex nuts

Carbon Steel conforming to ASTM A194 Grade 2H zinc plated

Optional: Stainless Steel conforming to ASTM A194 Grade 8M 316

**Washers** - Carbon Steel SAE small pattern flat washers conforming to ASTM F436 SAE pattern zinc plated

Optional: Stainless Steel Type 316 SAE pattern.

## Style 234 Restrained Flexible Single-Gasket Coupling

### LININGS AND COATINGS

Standard (specify choice on order):

- **Liquid Epoxy:**

Liquid epoxy is applied per AWWA C210, 16 mils minimum DFT and is NSF approved. Epoxy can be applied as a primer for field applied top coat where UV protection due to sunlight exposure is required. This coating offers excellent corrosion protection for buried applications. A supplemental corrosion protection system such as heat shrink sleeve or tape coat system is recommended for buried applications.

- **Fusion Bonded Epoxy:**

Fusion bonded epoxy is applied with an electrostatic spray system using a long cure epoxy powder that offers excellent chemical resistance and corrosion protection. Fusion bonded epoxy is applied per AWWA C213, 12 mils minimum DFT and is NSF61 approved.

Optional (specify choice on order):

- **Phenolic Alkyd Primer:**

Phenolic Alkyd primer is a lead-free and chromate-free, fast-drying, corrosion-resistant primer that accepts a variety of high-performance topcoats, but is not recommended for immersion service by itself. This primer system is typically applied at 2 to 3 mils DFT.

- **Other Coating Systems (Available Upon Request):**

A water based enamel coating is available. This paint offers an aesthetic coating for minimal protection, short-term installations or where corrosion protection is not a consideration. Fusion bonded nylon for chemical and abrasion resistance, as well as other coatings such as organic zinc primers, hot dipped galvanizing and certain polyurethane systems may be available upon request. Contact Victaulic for feasibility and price.

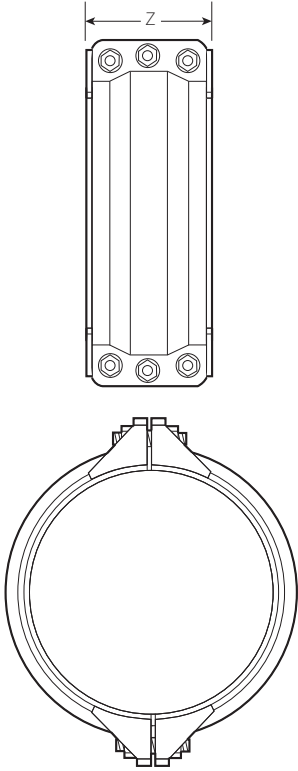
### PIPE END DIMENSIONAL TOLERANCE AND OVALITY

For specific pipe diameter tolerances, pipe ovality (roundness) requirements and minimum/maximum pipe diameter allowance, refer to the tables included in the Installation Manual (below) and 26.20 Application Data.

I-234 - Style 234/234S Restrained Single-Gasket Coupling

# Style 234 Restrained Flexible Single-Gasket Coupling

**DIMENSIONS**



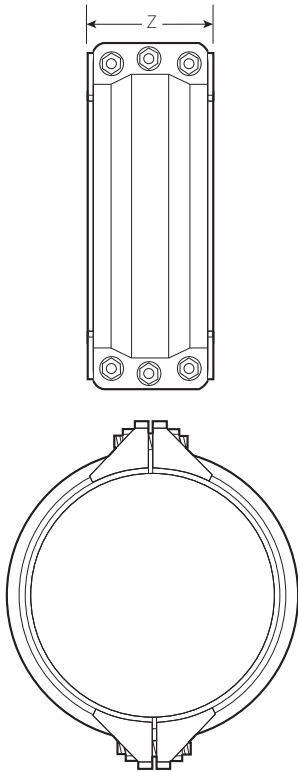
(1) Nominal Pipe Size In./mm	(2) Actual Pipe O.D. Range In./mm	(3) Maximum Working Pressure psi/kPa	Coupling Dimensions		Min. No. of Coupling Segments	No. of Fasteners - Fastener Dimensions Dia. x Length In. x In.	(4) Approximate Weight Each Lbs/Kg.
			Body Thickness In.	Width (Z) In./mm			
8 200	8.00 - 8.88 203.2 - 225.6	300 2065	11 ga.	4.50 114.3	2	4 - 3/4 x 6	18.0 8.2
10 250	9.00 - 10.88 228.6 - 276.4	300 2065	10 ga.	4.50 114.3	2	4 - 3/4 x 6	21.0 9.5
12 300	11.00 - 12.88 279.4 - 327.2	250 1725	10 ga.	4.50 114.3	2	4 - 3/4 x 6	23.0 10.4
		300 2065	3/16	4.50 114.3	2	4 - 3/4 x 6	25.0 11.3
14 350	13.00 - 14.88 330.2 - 378.0	150 1050	10 ga.	4.50 114.3	2	4 - 3/4 x 6	25.0 11.3
		300 2065	3/16	4.50 114.3	2	4 - 3/4 x 6	28.0 12.7
16 400	15.00 - 16.88 381.0 - 428.8	250 1725	3/16	4.50 114.3	2	4 - 3/4 x 6	30.0 13.6
		300 2065	1/4	6.50 165.1	2	6 - 3/4 x 6	63.0 28.6
18 450	17.00 - 18.88 431.8 - 479.6	250 1725	3/16	4.50 114.3	2	4 - 3/4 x 6	33.0 15.0
		300 2065	1/4	6.50 165.1	2	6 - 3/4 x 6	69.0 31.3
20 500	19.00 - 21.88 482.6 - 555.8	200 1375	3/16	4.50 114.3	2	4 - 3/4 x 6	35.0 15.9
		300 2065	1/4	6.50 165.1	2	6 - 3/4 x 6	75.0 34.0
24 600	22.00 - 26.88 558.8 - 682.8	150 1050	3/16	4.50 114.3	2	4 - 3/4 x 6	40.0 18.1
		250 1725	1/4	6.50 165.1	2	6 - 3/4 x 6	88.0 39.9
		300 2065	3/8	6.50 165.1	2	6 - 7/8 x 8	115.0 52.2
30 750	27.00 - 32.88 685.8 - 835.2	100 700	3/16	4.50 114.3	2	4 - 3/4 x 6	48.0 21.8
		200 1375	1/4	6.50 165.1	2	6 - 3/4 x 6	106.0 48.1
		300 2065	3/8	6.50 165.1	2	6 - 7/8 x 8	137.0 62.1
36 900	33.00 - 38.88 838.2 - 987.6	150 1050	1/4	6.50 165.1	2	6 - 3/4 x 6	124.0 56.2
		250 1725	3/8	6.50 165.1	2	6 - 7/8 x 8	159.0 72.1
		300 2065	1/2	6.50 165.1	2	6 - 7/8 x 8	197.0 89.4
42 1050	39.00 - 44.88 990.6 - 1140.0	150 1050	1/4	6.50 165.1	2	6 - 3/4 x 6	142.0 64.4
		200 1375	3/8	6.63 165.1	2	6 - 7/8 x 8	181.0 82.1
		300 2065	1/2	6.63 165.1	2	6 - 7/8 x 8	226.0 102.5

- (1) Restrained Single-Gasket couplings must be used on pipe with a minimum wall thickness that meets the requirements of AWWA C200 for carbon steel pipe.
- (2) For actual Pipe O.D. round down to the nearest 1/8" to determine proper coupling size required.
- (3) For allowable test or transient pressure, the maximum working pressure may be increased to 1 1/2 times the values shown.
- (4) Coupling weights are based on nominal pipe diameter and include all accessories. Weight may vary based on actual size of pipe.

Note: The data in this table only applies when carbon steel couplings are being used on carbon steel pipe.

# Style 234 Restrained Flexible Single-Gasket Coupling

**DIMENSIONS**



(1) Nominal Pipe Size In./mm	(2) Actual Pipe O.D. Range In./mm	(3) Maximum Working Pressure psi/kPa	Coupling Dimensions		Min. No. of Coupling Segments	No. of Fasteners - Fastener Dimensions Dia. x Length In. x In.	(4) Approximate Weight Each Lbs./Kg.
			Body Thickness In.	Width (Z) In./mm			
48 1200	45.00 - 50.88 1143.0 - 1292.4	100 700	¼	6.50 165.1	2	6 - ¾ x 6	160.0 72.6
		150 1050	⅜	6.50 165.1	2	6 - ⅞ x 8	203.0 92.1
		250 1725	½	6.63 168.3	2	6 - ⅞ x 8	254.0 115.2
54 1350	51.00 - 56.88 1295.4 - 1444.8	150 1050	⅜	6.50 165.1	2	6 - ⅞ x 8	226.0 102.5
		200 1375	½	6.63 168.3	2	6 - ⅞ x 8	282.0 127.9
60 1500	57.00 - 62.88 1447.8 - 1597.2	150 1050	⅜	6.50 165.1	2	6 - ⅞ x 8	248.0 112.5
		200 1375	½	6.63 168.3	2	6 - ⅞ x 8	311.0 141.1
66 1650	63.00 - 68.88 1600.2 - 1749.6	100 700	⅜	6.50 165.1	2	6 - ⅞ x 8	270.0 122.5
		150 1050	½	6.63 168.3	2	6 - ⅞ x 8	339.0 153.8
72 1800	69.00 - 74.88 1752.6 - 1902.0	100 700	⅜	6.50 165.1	2	6 - ⅞ x 8	292.0 132.4
		150 1050	½	6.63 168.3	2	6 - ⅞ x 8	368.0 166.9
78 1950	75.00 - 80.88 1905.0 - 2054.4	100 700	⅜	6.50 165.1	2	6 - ⅞ x 8	314.0 142.4
		150 1050	½	6.63 168.3	2	6 - ⅞ x 8	396.0 179.6
84 2100	81.00 - 86.88 2057.0 - 2207.0	100 700	⅜	6.50 165.1	2	6 - ⅞ x 8	336.0 152.4
		150 1050	½	6.63 168.3	2	6 - ⅞ x 8	424.0 192.3
90 2250	87.00 - 92.88 2209.8 - 2359.2	100 700	⅜	6.50 165.1	2	6 - ⅞ x 8	358.0 162.4
96 2400	93.00 - 101.88 2362.2 - 2587.8	100 700	⅜	6.50 165.1	2	6 - ⅞ x 8	380.0 172.4
108 2700	102.00 - 113.88 2590.8 - 2892.6	75 515	⅜	6.50 165.1	2	6 - ⅞ x 8	425.0 192.8
		100 700	½	6.63 168.3	2	6 - ⅞ x 8	538.0 244.0
120 3000	114.00 - 126.00 2895.6 - 3200.4	75 515	⅜	6.50 165.1	2	6 - ⅞ x 8	469.0 212.7
		100 700	½	6.63 168.3	2	6 - ⅞ x 8	594.0 269.4

- (1) Restrained Single-Gasket couplings must be used on pipe with a minimum wall thickness that meets the requirements of AWWA C200 for carbon steel pipe.
- (2) For actual Pipe O.D. round down to the nearest ⅛" to determine proper coupling size required.
- (3) For allowable test or transient pressure, the maximum working pressure may be increased to 1½ times the values shown.
- (4) Coupling weights are based on nominal pipe diameter and include all accessories. Weight may vary based on actual size of pipe.

Note: The data in this table only applies when carbon steel couplings are being used on carbon steel pipe.

# Style 234 Restrained Flexible Single-Gasket Coupling

## PERFORMANCE

Nominal Pipe Size In./mm	(1)			(2) (3)	(3) (4)	(5)
	Maximum Working Pressure psi/kPa Carbon Steel	Maximum Working Pressure psi/kPa Stainless Steel	Maximum Working Pressure psi/kPa Ductile Iron	Pipe End Separation Min - Max In./mm	Max. Allow. Static Deflection Degrees	Max. Permissible End Load lbf/N
8 200	300 2065	300 2065	300 2065	0.13 - 0.38 3.3 - 9.7	1° 35'	15079 67075
10 250	300 2065	300 2065	300 2065	0.13 - 0.38 3.3 - 9.7	1° 18'	23561 104805
12 300	250 1725	250 1725	250 1725	0.13 - 0.38 3.3 - 9.7	1° 6'	22619 100614
	300 2065	300 2065	250 1725	0.13 - 0.38 3.3 - 9.7	1° 6'	33929 150924
14 350	150 1035	150 1035	150 1035	0.13 - 0.38 3.3 - 9.7	0° 57'	30787 136947
	300 2065	300 2065	250 1725	0.13 - 0.38 3.3 - 9.7	0° 57'	46181 205423
16 400	250 1725	250 1725	250 1375	0.13 - 0.38 3.3 - 9.7	0° 50'	40212 178872
	300 2065	300 2065	300 2065	0.13 - 0.38 3.3 - 9.7	0° 50'	60318 268308
18 450	250 1725	200 1375	175 1200	0.13 - 0.38 3.3 - 9.7	0° 47'	50893 226383
	300 2065	300 2065	250 1725	0.13 - 0.38 3.3 - 9.7	0° 47'	76340 339577
20 500	200 1375	200 1375	150 1035	0.13 - 0.38 3.3 - 9.7	0° 39'	62831 279486
	300 2065	300 2065	250 1725	0.13 - 0.38 3.3 - 9.7	0° 39'	94247 419232
24 600	150 1035	50 1035	125 860	0.13 - 0.38 3.3 - 9.7	0° 31'	67858 301847
	250 1725	250 1725	200 1375	0.13 - 0.38 3.3 - 9.7	0° 31'	113097 503081
	300 2065	250 1725	200 1375	0.13 - 0.38 3.3 - 9.7	0° 31'	135716 603695
30 750	100 690	100 690	100 690	0.13 - 0.38 3.3 - 9.7	0° 26'	70685 314423
	200 1375	200 1375	150 1035	0.13 - 0.38 3.3 - 9.7	0° 26'	141371 628850
	300 2065	200 1375	150 1035	0.13 - 0.38 3.3 - 9.7	0° 26'	212057 943277
36 900	150 1035	150 1035	125 860	0.13 - 0.38 3.3 - 9.7	0° 22'	152681 679161
	250 1725	175 1200	125 860	0.13 - 0.38 3.3 - 9.7	0° 22'	254469 1131935
	300 2065	200 1375	175 1200	0.25 - 0.50 6.3 - 12.7	0° 22'	305363 1358322
42 1050	150 1035	150 1035	125 860	0.13 - 0.38 3.3 - 9.7	0° 19'	207816 924413
	200 1375	150 1035	125 860	0.13 - 0.38 3.3 - 9.7	0° 19'	277088 1232551
	300 2065	200 1375	150 1035	0.25 - 0.50 6.3 - 12.7	0° 19'	415633 1848827
48 1200	100 690	100 690	100 690	0.13 - 0.38 3.3 - 9.7	0° 17'	180956 804931
	150 1035	125 860	100 690	0.13 - 0.38 3.3 - 9.7	0° 17'	271434 1207397
	250 1725	175 1200	125 860	0.25 - 0.50 6.3 - 12.7	0° 17'	452389 2012328

- (1) For allowable test or transient pressure, the maximum working pressure may be increased to 1½ times the values shown.
- (2) Pipe end separations shown in the table assume the pipe is in a non-deflected state. Maximum allowable axial pipe movement at the joint is the difference between the maximum and minimum pipe end separation. At maximum pipe end separation, axial movement can only occur via pipe expansion into the joint and vice versa.
- (3) Pipe end movement and deflection are non-concurrent.
- (4) Published static deflection values are intended for installation only. For allowable in-service or dynamic deflection, use 75% of the published static values. The coupling closure should be located 90 degrees from the direction of joint deflection.
- (5) The maximum permissible end loads listed in the table are calculated using the nominal pipe OD. The actual maximum permissible end load will be less or greater than the published figures depending on the actual pipe OD.



# Style 234 Restrained Flexible Single-Gasket Coupling

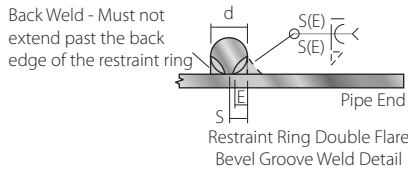
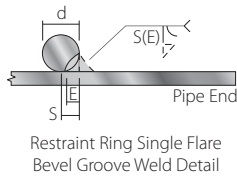
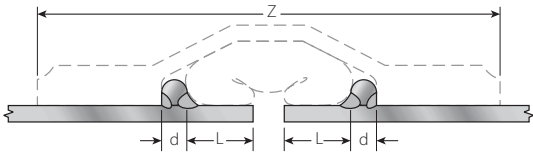
## PERFORMANCE

Nominal Pipe Size In./mm	(1)			(2) (3)	(3) (4)	(5)
	Maximum Working Pressure psi/kPa Carbon Steel	Maximum Working Pressure psi/kPa Stainless Steel	Maximum Working Pressure psi/kPa Ductile Iron	Pipe End Separation Min - Max In./mm	Max. Allow. Static Deflection Degrees	Max. Permissible End Load lbf/N
54 1350	150 1035	100 690	75 515	0.13 - 0.38 3.3 - 9.7	0° 15'	343533 1528112
	200 1375	150 1375	125 860	0.25 - 0.50 6.3 - 12.7	0° 15'	458044 2037482
60 1500	150 1035	100 1035	75 515	0.13 - 0.38 3.3 - 9.7	0° 13'	424115 1886558
	200 1375	125 860	100 690	0.25 - 0.50 6.3 - 12.7	0° 13'	565487 2515410
66 1650	100 690	100 690	75 515	0.13 - 0.38 3.3 - 9.7	0° 12'	342119 1521823
	150 1035	125 1035	100 690	0.25 - 0.50 6.3 - 12.7	0° 12'	513179 2282735
72 1800	100 690	75 515	75 515	0.13 - 0.38 3.3 - 9.7	0° 11'	407150 1811095
	150 1035	125 860	100 690	0.25 - 0.50 6.3 - 12.7	0° 11'	610726 2716643
78 1950	100 690	75 515	50 345	0.13 - 0.38 3.3 - 9.7	0° 10'	477836 2125522
	150 1035	100 690	75 515	0.25 - 0.50 6.3 - 12.7	0° 10'	716754 3188283
84 2100	100 690	75 515	50 345	0.13 - 0.38 3.3 - 9.7	0° 10'	554177 2465102
	150 1035	100 690	75 515	0.25 - 0.50 6.3 - 12.7	0° 10'	831265 3697653
90 2250	100 690	75 515	50 345	0.13 - 0.38 3.3 - 9.7	0° 9'	636173 2829837
96 2400	100 690	50 345	50 345	0.13 - 0.38 3.3 - 9.7	0° 8'	723823 3219725
108 2700	75 515	50 345	25 170	0.13 - 0.38 6.3 - 9.7	0° 7'	687066 3056223
	100 690	75 515	50 345	0.25 - 0.50 6.3 - 12.7	0° 7'	916088 4074965
120 3000	75 515	50 345	25 170	0.13 - 0.38 3.3 - 9.7	0° 6'	848230 3773115
	100 690	50 345	50 345	0.25 - 0.50 6.3 - 12.7	0° 6'	1130973 5030821

- (1) For allowable test or transient pressure, the maximum working pressure may be increased to 1½ times the values shown.
- (2) Pipe end separations shown in the table assume the pipe is in a non-deflected state. Maximum allowable axial pipe movement at the joint is the difference between the maximum and minimum pipe end separation. At maximum pipe end separation, axial movement can only occur via pipe expansion into the joint and vice versa.
- (3) Pipe end movement and deflection are non-concurrent.
- (4) Published static deflection values are intended for installation only. For allowable in-service or dynamic deflection, use 75% of the published static values. The coupling closure should be located 90 degrees from the direction of joint deflection.
- (5) The maximum permissible end loads listed in the table are calculated using the nominal pipe OD. The actual maximum permissible end load will be less or greater than the published figures depending on the actual pipe OD.

# Style 234 Restrained Flexible Single-Gasket Coupling

## RESTRAINT RINGS



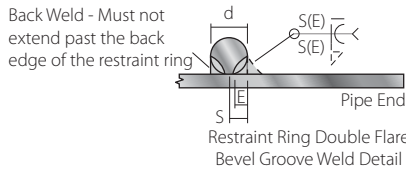
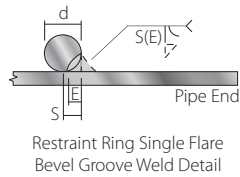
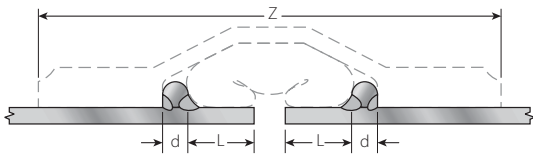
Nominal Pipe Size In./mm	(1) Maximum Working Pressure psi/kPa	Width (Z) In./mm	Restrainer Ring (2)		
			Diameter (d) In.	Weld Size (E) In./mm	Location (L) In./mm
8 200	300 2065	4.50 114.3	1/4	3/32	0.81 20.6
10 250	300 2065	4.50 114.3	1/4	3/32	0.81 20.6
12 300	250 1725	4.50 114.3	1/4	3/32	0.81 20.6
	300 2065	4.50 114.3	1/4	3/32	0.81 20.6
14 350	150 1050	4.50 114.3	1/4	3/32	0.81 20.6
	300 2065	4.50 114.3	1/4	3/32	0.81 20.6
16 400	250 1725	4.50 114.3	1/4	3/32	0.81 20.6
	300 2065	6.50 165.1	3/8	1/8	0.94 23.8
18 450	250 1725	4.50 114.3	1/4	3/32	0.81 20.6
	300 2065	6.50 165.1	3/8	1/8	0.94 23.8
20 500	200 1375	4.50 114.3	1/4	3/32	0.81 20.6
	300 2065	6.50 165.1	3/8	1/8	0.94 23.8
24 600	150 1050	4.50 114.3	1/4	3/32	0.81 20.6
	250 1725	6.50 165.1	3/8	1/8	0.94 23.8
	300 2065	6.50 165.1	3/8	1/8	0.94 23.8
30 750	100 700	4.50 114.3	1/4	3/32	0.81 20.6
	200 1375	6.50 165.1	3/8	1/8	0.94 23.8
	300 2065	6.50 165.1	3/8	1/8	0.94 23.8
36 900	150 1050	6.50 165.1	3/8	1/8	0.94 23.8
	250 1725	6.50 165.1	3/8	1/8	0.94 23.8
	300 2065	6.63 168.3	1/2	5/32	1.31 33.3
42 1050	150 1050	6.50 165.1	3/8	1/8	0.94 23.8
	200 1375	6.50 165.1	3/8	1/8	0.94 23.8
	300 2065	6.63 168.3	1/2	5/32	1.31 33.3

- (1) For allowable test or transient pressure, the maximum working pressure may be increased to 1½ times the values shown.
- (2) For applications other than air or gas, where a liquid or other medium is flowing through pipe, restraint ring weld requirements are as follows:  
Type 2 couplings require a full circumferential double flare bevel groove weld based on the weld sizes shown in the table. For low pressure air or gas applications, where the weight of the medium flowing through the pipe is not a consideration, a single flare bevel groove weld and/or less than a full circumference of weld may be allowed to attach the restraint rings. Contact Victaulic for specific details. Each restraint ring shipment includes restraint ring placement and welding data that is specific to application or project requirements.
- (3) Flare bevel groove weld size in table is the minimum requirement. Depth of preparation  $S = (d) \div 2$ ;  
Weld size  $E \approx S * 0.625$  per AWS D1.1. For a double flare bevel groove weld, the weld on the back side of the restraint ring must not extend beyond the outermost edge of the ring. The coupling shoulder must have unrestricted contact with the ring and the pipe O.D.
- (4) Restraint rings must be welded perpendicular to the pipe axis with a tolerance of  $\pm 1/16" / 1.6$  mm.

Note: The data in this table only applies when carbon steel couplings are being used on carbon steel pipe.

# Style 234 Restrained Flexible Single-Gasket Coupling

## RESTRAINT RINGS



Nominal Pipe Size In./mm	(1) Maximum Working Pressure psi/kPa	Width (Z) In./mm	Restrainer Ring (2)		
			Diameter (d) In.	Weld Size (E) In./mm	Location (L) In./mm
48 1200	100 700	6.50 165.1	3/8	1/8	0.94 23.8
	150 1050	6.50 165.1	3/8	1/8	0.94 23.8
	250 1725	6.63 168.3	1/2	5/32	1.31 33.3
54 1350	150 1050	6.50 165.1	3/8	1/8	0.94 23.8
	200 1375	6.63 168.3	1/2	5/32	1.31 33.3
60 1500	150 1050	6.50 165.1	3/8	1/8	0.94 23.8
	200 1375	6.63 168.3	1/2	5/32	1.31 33.3
66 1650	100 700	6.50 165.1	3/8	1/8	0.94 23.8
	150 1050	6.63 168.3	1/2	5/32	1.31 33.3
72 1800	100 700	6.50 165.1	3/8	1/8	0.94 23.8
	150 1050	6.63 168.3	1/2	5/32	1.31 33.3
78 1975	100 700	6.50 165.1	3/8	1/8	0.94 23.8
	150 1050	6.63 168.3	1/2	5/32	1.31 33.3
84 2150	100 700	6.50 165.1	3/8	1/8	0.94 23.8
	150 1050	6.63 168.3	1/2	5/32	1.31 33.3
90 2300	100 700	6.50 165.1	3/8	1/8	0.94 23.8
96 2450	100 700	6.50 165.1	3/8	1/8	0.94 23.8
108 2750	75 515	6.50 165.1	3/8	1/8	0.94 23.8
	100 700	6.63 168.3	1/2	5/32	1.31 33.3
120 3050	75 515	6.50 165.1	3/8	1/8	0.94 23.8
	100 700	6.63 168.3	1/2	5/32	1.31 33.3
	100 700	6.63 168.3	1/2	5/32	1.31 33.3

- (1) For allowable test or transient pressure, the maximum working pressure may be increased to 1½ times the values shown.
- (2) For applications other than air or gas, where a liquid or other medium is flowing through pipe, restraint ring weld requirements are as follows:  
Type 2 couplings require a full circumferential double flare bevel groove weld based on the weld sizes shown in the table. For low pressure air or gas applications, where the weight of the medium flowing through the pipe is not a consideration, a single flare bevel groove weld and/or less than a full circumference of weld may be allowed to attach the restraint rings. Contact Victaulic for specific details. Each restraint ring shipment includes restraint ring placement and welding data that is specific to application or project requirements.
- (3) Flare bevel groove weld size in table is the minimum requirement. Depth of preparation  $S = (d) \div 2$ ;  
Weld size  $E \approx S * 0.625$  per AWS D1.1. For a double flare bevel groove weld, the weld on the back side of the restraint ring must not extend beyond the outermost edge of the ring. The coupling shoulder must have unrestricted contact with the ring and the pipe O.D.
- (4) Restraint rings must be welded perpendicular to the pipe axis with a tolerance of  $L \pm 1/16" / 1.6 \text{ mm}$ .

Note: The data in this table only applies when carbon steel couplings are being used on carbon steel pipe.

# Style 234 Restrained Flexible Single-Gasket Coupling

**PRODUCT CONFIGURATOR**

**C 0234 0126 00 S 2 D L P S SO**

Class	Style	Actual Pipe O.D.*		Body Type	Segments	PSI/kPa Rating	Rubber Compound	Paint	Hardware	Ring and Pipe Material
		Inches <sup>^</sup>	Fraction							
C	0234	0008 through 0126	00 - 0 13 - 1/8 25 - 1/4 38 - 3/8 50 - 1/2 63 - 5/8 75 - 3/4 88 - 7/8	S - Carbon	2 - Two	A - 25/170 B - 50/345 C - 75/515 D - 100/690 E - 125/860 F - 150/1035 G - 175/1200 H - 200/1375 J - 250/1725 K - 300/2065	E - EPDM L - Silicone T - Nitrile	F - Fusion bonded epoxy P - Orange enamel T - Shop primer B - Liquid epoxy N - Fusion bonded nylon G - Galvanized 0 - None	S - Carbon X - Stainless G - Galvanized	SO - Carbon Steel Ring on Carbon Steel Pipe DO - Carbon Steel Ring on Ductile Iron Pipe XO - Stainless Steel Ring on Stainless Steel Pipe

<sup>^</sup> Couplings are available in a range of nominal sizes from 8 - 120".  
\* For actual pipe O.D. round down to the nearest 1/8" to determine proper coupling size required.

**ENGINEERED PRODUCTS OPTIONS**

For non-standard products the Victaulic Engineered Products group can assist with specialty joints designed to meet the specific size, pressure and temperature requirements of your system.

**WARRANTY**

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

**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.

**TESTING**

Victaulic Style 234 couplings are designed to allow for a 50 percent increase over the published maximum working pressure for test and/or transient pressures. Due to the huge volume of air that can be involved in jobsite air testing and the nature of air or gas that is pressurized, jobsite air testing should be limited to 25 psi/175 kPa or less.

Victaulic offers a dished head assembly prepared with a restraint ring for the Style 234 coupling for field testing a section of pipeline or to end a pipeline and allow for future expansion. Contact Victaulic for details.

For complete contact information, visit [www.victaulic.com](http://www.victaulic.com)

60.09 3372 REV J UPDATED 08/2013

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