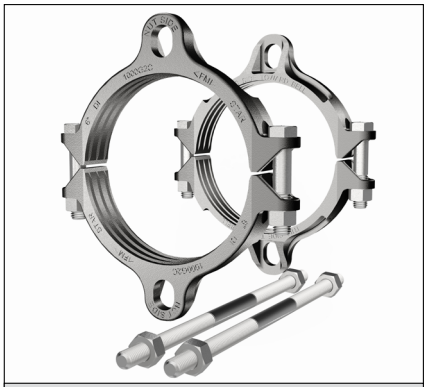
Pipe Restrainers series 1100G2

1100G2C Bell Restrainers for AWWA CI OD C900/C909 PVC/PVCO Pipe Joints
(Formerly Series 9100)



Series 1100G2C for C900 PVC/C909 PVCO Pipe

SUBMITTAL INFORMATION

PROJECT NAME: _____

ENGINEER: _____

CONTRACTOR: _____

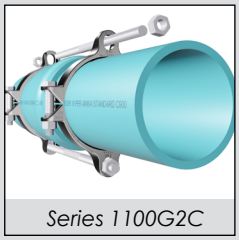
SPEC. SECTION: _____

FM APPROVED

TÜVRheinland® Certified to ISO 9001:2015

FEATURES & ADVANTAGES

- 360° contact, no pipe distortion or point loading
- Made of Ductile Iron - ASTM Grade 536, Grade 65-45-12
- Restrainers work with Push-On Pipe Bells.
- For use on 4" - 12" C900 PVC and C909 PVCO pipe.
- The safety factor is twice (2:1) the maximum pressure rating listed on next page.
- Can be installed outside the trench, to ease installation
- Rods/Hex Nuts: low alloy steel per ANSI/AWWA C111/A21.11
- Clamping Bolts: SAE J429 Grade 5
- Series 1100G2 is approved by Factory Mutual Research in sizes 4"- 12" for use on C900 PVC DR18 for 150 PSI.
- Standard color is Graphite Black (RAL 9011).
- Originally introduced as the 9100, this improved design (Gen 2) provides increased performance and is rated to the new, higher pressure classes in latest editions of AWWA C900 and C909*.



Series 1100G2C

MATERIAL SPECIFICATIONS:

- RESTRAINER CASTINGS: Ductile Iron per ASTM A536, Grade 65-45-12

PIPE RESTRAINER:

☐ SERIES 1100G2C
(For AWWA C900/C905 PVC Pipe and MJ or Push-On Fittings)

RESTRAINER CASTINGS FINISH OPTIONS (Please check one):

☑ Standard: alkyd enamel coating

☐ Optional: Starbond™ TGIC polyester powder coating applied by an electrostatic spray process

☐ Optional: Other (specify) _____

COUNTRY OF ORIGIN:

☑ Import only

☐ Domestic - AIS Compliant

HARDWARE OPTIONS (Please check one):

☑ **STANDARD**:
- Clamp Bolt: SAE J429 Grade 5
- Clamp Nut: SAE J995 Grade 2 or ASTM A563 Grade "A" or "B"
- Restraint Bolt/Rod/Nut: high strength low alloy steel per ANSI/AWWA C111/A21.11
- Washer: carbon steel per ASTM F844

☐ **OPTIONAL SS ALLOY 304**:
- Clamp Bolt: SS alloy 304 per ASTM A193 Grade B8, Class 2
- Clamp Nut: SS alloy 304 per ASTM A194 Grade 8, S1
- Restraint Bolt/Rod: SS alloy 304 per ASTM F593 CW
- Restraint Nut: SS alloy 304 per ASTM F594 CW
- Washer: SS alloy 304

☐ **OPTIONAL SS ALLOY 316**:
- Clamp Bolt: SS alloy 316 per ASTM A193 Grade B8M, Class 2
- Clamp Nut: SS alloy 316 per ASTM A194 Grade 8M, S1
- Restraint Bolt/Rod: SS alloy 316 per ASTM F593 CW
- Restraint Nut: SS alloy 316 per ASTM F594 CW
- Washer: SS alloy 316

☐ **OPTIONAL STAR BLUE**:
- Clamp Bolt: Fluoropolymer Star Blue coated SAE J429 Grade 5
- Clamp Nut: Fluoropolymer Star Blue coated SAE J995 Grade 2 or ASTM A563 Grade "A" or "B"
- Restraint Bolt/Rod/Nut: Fluoropolymer Star Blue coated high strength low alloy steel per ANSI/AWWA C111/A21.11
- Washer: Fluoropolymer Star Blue coated carbon steel per ASTM F844

STAR® PIPE PRODUCTS

REV.25.01

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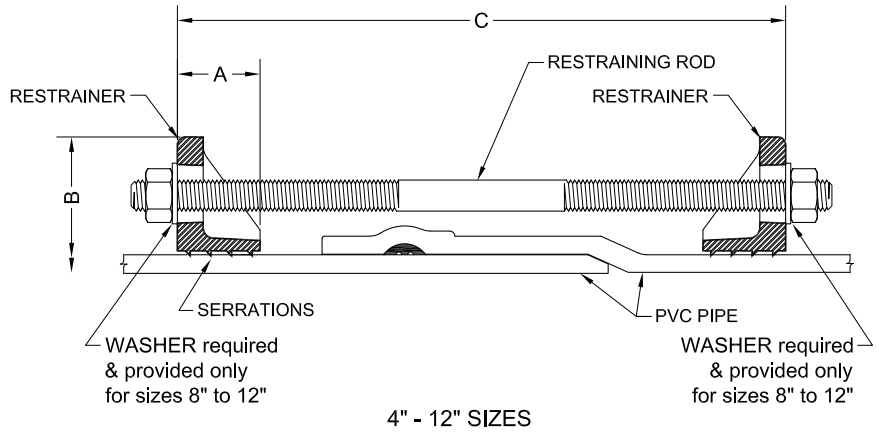
Pipe Restrainers series 1100G2

1100G2C Bell Restrainers for AWWA CI OD C900/C909 PVC/PVCO Joints

(Formerly Series 9100)

TECHNICAL INFORMATION



4" - 12" SIZES

PIPE RESTRAINERS 1100G2C SPECIFICATIONS*

Please check sizes:	NOM. SIZE	PVC/PVCO PIPE WITH DUCTILE IRON PIPE O.D. STYLE 1100G2C O.D.	A	B APPROX.	C MAX.	RESTRAINT RODS QTY	RESTRAINT RODS SIZE	CLAMPING BOLTS QTY	CLAMPING BOLTS SIZE	APPROX WT. (LBS)
☐	4	4.80	1.44	9.32	15.00	2	3/4 x17	4	5/8 x 3 1/2	12.63
☐	6	6.90	1.50	11.26	15.00	2	3/4 x 17	4	5/8 x 3 1/2	14.35
☐	8	9.05	2.00	14.76	22.00	2	3/4 x 24	4	3/4 x 4	27.45
☐	10	11.10	2.38	17.26	22.00	4	3/4 x 24	4	7/8 x 5	48.21
☐	12	13.20	2.38	20.00	22.00	4	3/4 x 24	4	7/8 x 5	56.57

* *All dimensions in inches except where indicated.*

Standardized Pressure Rating (PSI)*

NOM. SIZE (IN.)	AWWA C900 (CIOD)									AWWA C909 PVCO		
										IPEX PVCO	JM EAGLE PVCO	
	DR14	DR17	DR18	DR21	DR25	DR27.5	DR32.5	DR41	DR51	PC235	PC235	PC165
4	305	250	235	200	165	-	-	-	-	235	-	-
6	305	250	235	200	165	-	-	-	-	235	235	-
8	305	250	235	200	165	-	-	-	-	235	235	-
10	305	250	235	200	165	-	-	-	-	235	235	-
12	305	250	235	200	165	-	-	-	-	235	235	-

**For ordinary water works with transient surges only. Ratings are for PVC pipes with SERIES 1100G2 Restrainer.*

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