



# Pipe Restrainers series 1200G2

1200G2C Restrainers for C900/C909 PVC/PVCO Pipe and PVC Pressure Fittings w/Ductile Iron Pipe OD (Formerly Series 9200)



### SUBMITTAL INFORMATION

PROJECT NAME:

ENGINEER:

CONTRACTOR:

SPEC. SECTION:



### FEATURES & ADVANTAGES

- 360° contact, no pipe distortion or point loading and supports the wall of the pipe and fitting bell.
- Made of Ductile Iron - ASTM Grade 536, Grade 65-45-12
- Restrainers work with either
  - PC235 psi molded AWWA C907 PVC pressure fittings or
  - PR235 psi fabricated PVC pressure fittings.
- The safety factor is twice (2:1) the maximum pressure rating listed on next page.
- Can be installed outside the trench, to ease installation
- Originally introduced as the 9200, 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\*.



1200G2C Restraint

### MATERIAL SPECIFICATIONS:

- Restraint Castings: Ductile Iron per ASTM A536, Grade 65-45-12

### RESTRAINT 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

### 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 A194 Grade 8M
- 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



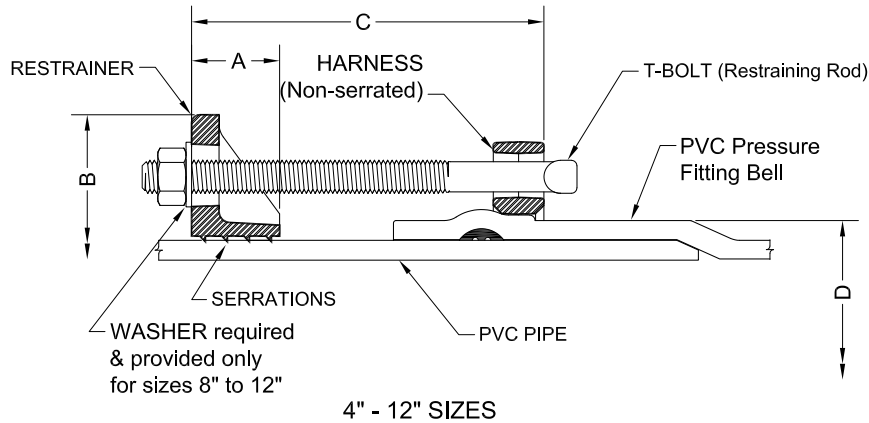
STAR® PIPE PRODUCTS



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## TECHNICAL INFORMATION



NOMINAL SIZE	RECOMMENDED CLAMP BOLT TORQUE (FT-LBS)
4"- 10"	100
12"	130

### PIPE RESTRAINERS 1200G2C SPECIFICATIONS\*

Please check sizes:

NOM. SIZE	PVC/PVCO PIPE WITH DUCTILE IRON PIPE O.D. STYLE 1200G2C O.D.	A	B APPROX.	C MAX.	PVC FITTING BELL OD "D"		RESTRAINT BOLTS/RODS		CLAMPING BOLTS		APPROX WT. (LBS)
					MIN	MAX	QTY	SIZE	QTY	SIZE	
4	4.80	1.44	9.32	8.00	5.44	5.61	2	3/4 x 9	4	5/8 x 3-1/2	13.58
6	6.90	1.50	11.26	8.00	7.84	8.03	2	3/4 x 9	4	5/8 x 3-1/2	16.84
8	9.05	2.00	14.76	11.00	10.29	10.55	2	3/4 x 12	4	3/4 x 4	28.28
10	11.10	2.38	17.26	11.00	12.63	12.96	4	3/4 x 12	4	7/8 x 5	43.10
12	13.20	2.38	20.00	11.00	15.07	15.46	4	3/4 x 12	4	7/8 x 5	54.38

\* All dimensions in inches except where indicated.

### Pressure Rating (PSI) For PVC Pipe To PVC Pressure Fitting Connections\*

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	235	235	235	200	165	-	-	-	-	235	-	-
6	235	235	235	200	165	-	-	-	-	235	235	-
8	235	235	235	200	165	-	-	-	-	235	235	-
10	235	235	235	200	165	-	-	-	-	235	235	-
12	235	235	235	200	165	-	-	-	-	235	235	-

\*For ordinary water works with transient surges only. Ratings are for PVC pipes with SERIES 1200G2 Restrainer.

+ Derated due to rating of PVC pressure fitting.

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