



# Pipe Restrainers series 1000C & 1100C

1000C & 1100C For Use On Ductile Iron Pipe



Above Image Represents Series 1100C

### SUBMITTAL INFORMATION

PROJECT NAME:

ENGINEER:

CONTRACTOR:

SPEC. SECTION:



### FEATURES & ADVANTAGES

- Restrainers work with Mechanical Joint Fittings, Push-On Fittings, and Pipe-to-Pipe connections. Ductile iron pipe to be manufactured in accordance with ANSI/AWWA C151/A21.51.
- All restrainers are machined to exact tolerances
- Maintains full deflection on Mechanical Joint and Push-On Fittings
- Clamping Bolts: SAE J429 Grade 5

### MATERIAL SPECIFICATIONS:

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

### PIPE RESTRAINER OPTIONS (Please check one):

SERIES 1000C  
*(For use on Ductile Iron Pipe)*

SERIES 1100C  
*(For use on Ductile Iron Pipe)*

### 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 OPTION (Please check one):

Import

100% Domestic<sup>1</sup>

Domestic restrainer castings with import components<sup>1</sup>

<sup>1</sup>Please see [Domestic Restraint Options Available](#) on our website.)

### 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



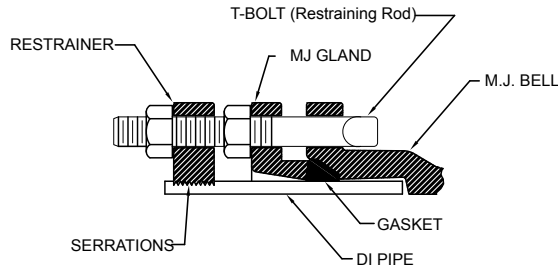
STAR® PIPE PRODUCTS



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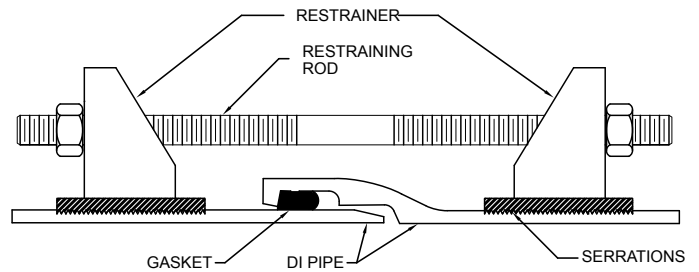
1000C & 1100C For Use On Ductile Iron Pipe

## TECHNICAL INFORMATION



**Series 1000C**

4" - 16" Sizes with MJ Fittings



**Series 1100C**

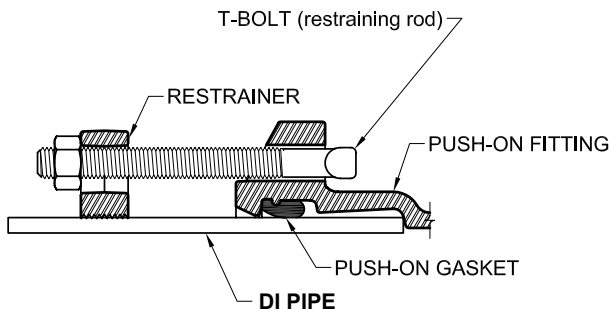
4" - 16" Sizes for Pipe-to-Pipe

*Please check sizes:*

SERIES 1000C (to MJ fitting)		
NOMINAL SIZE	MAXIMUM PRESSURE RATINGS (PSI)	CLAMP BOLT TORQUE (FT-LBS)
4"	250	110 - 120
6"	250	110 - 120
8"	250	110 - 120
10"	200	110 - 120
12"	200	110 - 120
14"	150	200 - 210
16"	100	200 - 210

*Please check sizes:*

SERIES 1100C (for Pipe-to-Pipe)		
NOMINAL SIZE	MAXIMUM PRESSURE RATINGS (PSI)	CLAMP BOLT TORQUE (FT-LBS)
4"	250	110 - 120
6"	250	110 - 120
8"	250	110 - 120
10"	200	110 - 120
12"	200	110 - 120
14"	150	200-210
16"	100	200-210



**Series 1000C**

4" - 12" Sizes with Push-On Fittings

*Please check sizes:*

SERIES 1000C (DI Pipe to Push-On Fitting)		
NOMINAL SIZE	MAXIMUM PRESSURE RATINGS (PSI)	CLAMP BOLT TORQUE (FT-LBS)
4"	200	110 - 120
6"	200	110 - 120
8"	200	110 - 120
10"	100	110 - 120
12"	100	110 - 120

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