

SPECIFICATIONS FOR STANDARD/WIDE RANGE

DUCTILE IRON COUPLINGS

REVISED DECEMBER 2011

1. SCOPE

This specification covers ductile iron couplings for use in connection of smooth end joints of cast iron, ductile iron, asbestos cement, steel, PVC or other types of pipe. The couplings must be capable of fitting this variety of pipes with one set of follower flanges or end rings.

2. GENERAL REQUIREMENTS

- a) Sleeve or center ring shall be nominal O.D. size range and length specified. Sleeve shall be of Ductile Iron ASTM A536. Ends shall have a smooth inside taper to provide uniform gasket seal. Sleeve shall be given a shop coat of oil-modified urethanes, corrosion-resistant paint, or epoxy coating.
- b) Follower flanges or end rings shall be of the thickness determined by the coupling size, and shall be ductile iron, ASTM-536. Flanges shall be identified by a color-coded shop coat finish as described in Item 2a.
- c) Gaskets shall be compression – type, formed with Virgin Styrene Butadiene Rubber (SBR,) ASTM D2000 3 BA715, and compounded with ingredients to produce permanence and resistance to set after installation. O.D. range shall be imprinted/molded on the gasket in permanent ink (Minimum.)
- d) Bolts and Nuts shall be of high-strength, low-alloy steel, with nominal coarse thread, and hex nuts with black finish. Dimensions and minimum stress values shall be in accordance with AWWA/ANSI C111/A21.11.
- e) Where specification states a cast transition or reducing coupling in place of a straight coupling, the sleeve and follower flange shall be of the same manufacturer and compatible for the specific use intended.

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- f) Quality control procedures shall be employed to insure that the sleeve, follower flanges and gaskets are properly fabricated and free of any visible defects. Each coupling shall have a working-pressure rating not less than the following:

<u>Pipe Size (Inches)</u>	<u>Minimum Working Pressure Rating (PSI)</u>
16 and smaller	175
20	150
24	150

3. STRAIGHT COUPLING RANGES:

<u>Nominal Diameter x Minimum Length</u>		<u>O.D.Range*</u>
4"	6"	A. 4.80" – 5.10"
6"	6"	A. 6.90" – 7.22"
8"	6"	A. 9.05" – 9.45"
10"	6"	A. 11.10"-11.60"
12"	6"	A. 13.20"-13.50" B. 13.78"-14.38"
16"	6"	A. 17.40"-17.80" B. 18.46"-19.00"
20"	7"	A. 21.35"-21.75" B. 21.75"-22.25"
24"	10"	A. 25.00"-25.80" B. 26.10"-26.32"

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1. WIDE RANGE COUPLING

<u>Coupling Size</u>	<u>O.D. Range</u>
3"	3.40"-4.20"
4"	4.20"-5.33"
6"	6.25"-7.45"
8"	8.40"-9.79"
10"	10.70"-12.12"
12"	12.75"-14.38"

5. The San Antonio Water System may, at no cost to the manufacturer, subject random couplings to testing by an independent laboratory for compliance with these standards. Any visible defect or failure to meet the quality standards herein will be grounds for rejecting the entire order.
6. The attached qualified products list identifies specific manufactured items by catalog number that are approved.

*Ranges may be broadened, but not narrowed.

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Approved Manufacturers and Models for Straight Couplings:

<u>Manufacturer</u>	<u>Model</u>
JCM Industries	210
Romac Industries, Inc.	501
Smith-Blair, Inc.	441
The Ford Meter Box Co., Inc.	FC1
PowerSeal Pipeline Products Corp.	3501
Cascade Waterworks Mfg. Co.	CDC & CTC
Dresser	253

Approved Manufacturers and Models for Wide Range Couplings:

<u>Manufacturer</u>	<u>Model</u>
PowerSeal Pipeline Products Corp	3506
The Ford Meter Box Company, Inc	FC2W

Previous Specification Date:

APRIL 2002

AUGUST 2003

FEBRUARY 2008

DECEMBER 2011