

SAN ANTONIO WATER SYSTEM

SAN ANTONIO, TEXAS

SPECIFICATIONS FOR WIDE RANGE TRANSITION COUPLINGS

June 1, 2007

1. SCOPE

This specification covers wide range ductile iron or fabricated carbon steel couplings stab-on sleeve type design 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 compression 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 or fabricated of high strength carbon steel tubing equivalent to ANSI/AWWA C200. Ends shall have a smooth inside taper to provide uniform gasket seal.
- b. Follower flanges shall be one flange design and shall be ductile iron, ASTM-536 or compression end rings. Compression end rings shall have a stainless steel spanner per end and be a one bolt design, per end size ranges of 4" thru 12 inches and a two bolts design per end from size ranges 16" thru 24" nominal diameter coupling.
- c. Gaskets shall be compression-type, formed with Virgin Styrene Butadiene Rubber (SBR,) ASTM D2000, chloramine resistant and meets NSF-61 standards. Reclaimed rubber shall not be used. Gasket shall be of a transition design or a two-layered design to allow for maximum transitional capability.
- 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 or ANSI 304 Grade Stainless Steel and coated with an anti-seize type coating to prevent galling.

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- e. Couplings interior and exterior coating shall meet or exceed the NSF-61 standards. Instructions shall be supplied for proper assembly and bolt torque. Each coupling shall be stenciled or label in a satisfactory manner to identify the size, range and type of pipe. The markings shall be permanent type, water resistant, and will not smear or become illegible.
- 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>
4" and Larger	200

3. **WIDE RANGE COUPLING RANGES:**

<u>Nominal Diameter x Minimum Length</u>		<u>O.D. Range</u>
4"	6"	4.25 - 5.63
6"	6"	6.42 - 7.68
8"	6"	8.54 – 9.84
10"	6"	10.70 – 12.00
12"	6"	13.15 -14.41
16"	6"	17.10 – 19.20
20"	7"	21.50 -23.60
24"	10"	24.60 – 26.70

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4. 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.
5. The attached qualified products list identifies specific manufactured items by catalog number that are approved.

Approved Manufacturers and Models for Wide Range Couplings:

Manufacturer

Model

Total Piping Solutions, Inc

Hymax -2000