ROMAC INDUSTRIES, INC.

TECHNICAL DATA & OPTIONS

STYLE 400 FABRICATED STEEL AND 501 PRODUCTS

Note the applicable options as they might apply to the desired coupling(s) when required.

FASTENERS

Standard: High strength low alloy steel.
All nuts are heavy hex.

OPTIONAL:

- Type 316 stainless steel [1]
- Type 304 stainless steel

MISCELLANEOUS OPTIONS

- Insulating Boots (please specify if one or two boots are required) EPDM only.

COATINGS AND LININGS [2]

Standard: NSF61 certified Romac shopcoat will be applied to entire product unless specified.

OPTIONAL: Unless specified, entire product will be lined and coated with optional coating. Please note if lining and coating materials will be different.

- Romacoat fusion bonded epoxy NSF 61 certified
- Fusion Bonded Epoxy per AWWA C213
- Liquid Epoxy per AWWA C210
- Other (Please supply all required specifications, such as material type and dry film thickness)

Note: Material to which any lining or coating is applied will be prepared per the manufacturer's instructions, as specified by the engineer, or per the applicable AWWA Standard.

[1] Threaded rod and nuts may be supplied for this item.

[2] Coatings are applied to O.D. of product, linings are applied to parts of product that will be in contact with line content.

SPECIAL EPOXY AND FUSION BONDED EPOXY INFORMATION: AWWA STANDARDS FOR . . .

LININGS/COATINGS: ROMACOTE Fusion Bonded Epoxy may be applied to most products Romac manufactures. The epoxy powder used will be compatible with potable water use and applied following the powder manufacturer's instructions. Unless otherwise specified, the thickness will be approximately 8-12 mils.

FUSION BONDED PROCESS: Fusion bonded epoxy coatings are heat activated, chemically cured coating systems. The application method may be Fluidized Bed, Electrostatic Spray or Air Spray to preheated metal surfaces. The coating may be applied to non-heated metal using the Electrostatic Spray method, and post-cured or heated to achieve the fusion bonded coating.

AWWA-C213-15: This standard covers the specification and application of Fusion Bonded Epoxy systems to mechanical couplings, as well as steel water pipe (includes holiday testing). Sec. 4 of this standard applies to mechanical couplings. Minimum thickness is 12 mils on the exterior and 12 mils on the interior. Maximum thickness is per manufacturer's recommendations. Not a high build coating. Romac Customer Service must be informed if your specification is for adherence to this standard.

AWWA-C210-15: This standard covers the specifications and application of cold applied Liquid Epoxy linings and coatings. Minimum thickness is 16 mils, maximum is per manufacturer's recomendations. Special primers are required in most instances. Romac Customer Service must be informed if your specification is for adherence to this standard.

AWWA-C116-15: This standard covers the specifications of fusion-bonded epoxy systems for ductile iron fittings. This standard includes holiday testing upon request. Romac Customer Service must be informed if your specification is for adherence to this standard.

INDENTS FOR COATINGS: 8" to 10" indent for each pipe end covers most diameters. Special circumstances may require allowing for more "hold back" on the coatings.

Note: *Romac reserves the right to refuse to apply a lining or coating that may be inconsistent with our product or good environmental practices. Extraordinary field conditions may arise where the above restrictions are not realistic.*

Contact your Romac representative to obtain an engineering evaluation of the specific condition.

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MAXIMUM ANGULAR DEFLECTION WHEN USING FLEXIBLE COUPLINGS (IN DEGREES)

NOMINAL PIPE SIZE	SLEEVE LENGTH 5"	7"	10"	12", 14" & 16"**
>2" TO ≤12"	4	4	4	4
>12" TO ≤18"	2.5	4	4	4
>18" TO ≤24"	*	4	4	4
>24" TO ≤36"	*	3	3	3
>36" TO ≤48"	*	2	2.5	2.5
>48" TO ≤72"	*	1.5	2	2
>72" TO ≤120"	*	*	1	1

* Pipe size/sleeve length combinations not listed in this table should not be used except by special agreement between the manufacturer and purchaser.

** 501 couplings require a min of 3.25" pipe insertion to achieve stated deflection. 400 couplings require a min of 4.0" pipe insertion to achive stated deflection. TC400 couplings require a min of 4.25" pipe insertion to achive stated deflection. Pipe insertion is measured from the plain end of the pipe to the backside of the end ring.

The maximum allowable deflection should only be used when the pipes will not move in service.

Deflection (in degrees) is PER COUPLING. Use one half of these values for Flanged Coupling Adapters.

Caution should be exercised when designing any deflection greater than this table shows.

EXPANSION AND CONTRACTION: 400 & 501 couplings will safely accommodate 3/8" in longitudinal movement. Flanged Coupling Adapters will safely accommodate 3/16" in longitudinal movement.

⚠ WARNING: Flexible couplings do not provide protection against possible pullout of pipe ends in unrestrained conditions.

RECOMMENDED GAP BETWEEN PIPE ENDS

CENTER RING LENGTH	STRAIGHT-RUN PIPE*	DEFLECTED JOINTS**	MAX. PERMISSIBLE IN-SERVICE CENTERLINE GAP*
5"	0.5"	1"	2"
7"	1"	1.5"	3"
10"	1"	2.25"	4.5"

* Recommended gap between pipe ends that is not expected or able to deflect greater than 25% of stated deflection values.

** Recommended gap between pipe ends to achieve maximum deflection. The maximum allowable deflection should only be used when the pipes will not move in service.

PIPE END TOLERANCE SPECIFICATIONS

NOMINAL PIPE SIZE	O.D. TOLERANCE[2] +	–	ROUNDNESS MIN/MAX[1,2]
>1/2" TO ≤16"	0.06"	0.06"	1/8"
>16" TO ≤24"	0.08"	0.08"	1/8"
>24" TO ≤42"	0.10"	0.10"	1/8"
>42" TO ≤120"	0.12"	0.06"	1/8"

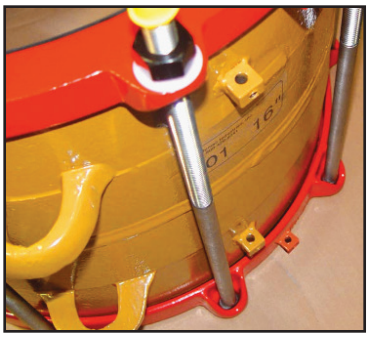
[1] Out-of-roundness conditions are required to be correctable so that the difference between the minimum and maximum diameters is not greater then this dimension.

2 Pipe end with isolation boot (IC Boot) requires exact OD and a roundness min/max of 1/16".

ADAPTED CATHODIC PROTECTION FOR STYLE 501 STRAIGHT, TRANSITION AND LONG BARREL COUPLINGS & STYLE 400 STEEL COUPLINGS

- Optional Cathodic Protection is available for Romac 501 and 400 style couplings. Cathodic protection points create 4 points of contact for each coupling.
- 2 lugs are on the Center Ring and 1 lug on each end ring.

* Romac does not supply anode.



ADD-ON LIST PRICE
$311.62

Manufactured with Domestic and Import material. For Domestic requirements please contact our Quotations Department.
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