

SHOP DRAWING REVIEW FORM AND TRANSMITTAL

DATE: October 28, 2021

TO: Carl Hendrickson
Project Manager
Veolia Water
825 West Water Street
Taunton, MA 02780

FROM: Michael Andrus, P.E.
Project Manager
BETA Group, Inc.
701 George Washington Hwy
Lincoln, Rhode Island 02865

RE: City of Taunton, MA
WWTF Phase 1 Improvements
Contract S-2021-1

Shop Drawing No. 11961-01 REV 0 – Underground Copper Pipe, Fittings, Valves and Accessories

BETA COMMENTS:

<u>Item</u>	<u>Action Code</u>	<u>Description/Comments</u>
1	2	Underground Copper Pipe, Fittings, Valves and Accessories (Ford Meter Box) 1. Ball corporation stops and valve curb stops shall open left.

Action Codes

- 1 - No Exception Taken
- 2 - Make Corrections Noted
- 3 - Amend and Resubmit
- 4 - Rejected, See Remarks
- 5 - Record File Only

- a. Installation shall proceed only when Action Code is '1' or '2'.
- b. Submittals action coded '3' shall be resubmitted within time limit set in Contract.
- c. Review does not relieve Contractor from responsibility of compliance with the Contract Documents.



PROJECT: 9900. - Veolia/Taunton WWTF Phase 1 Improvements

DATE: 10/12/2021

SUBMITTAL: 11961-01 - Underground Copper Pipe, Valves, Fittings and Accessories

REVISION: 0

STATUS: Eng

SPEC #: 11961

TO: Michael Andrus, Beta Group Inc., 6 Blackstone Place, Lincoln, RI 02865, MAndrus@BETA-Inc.com

FROM: Ryan Murphy, Hart Engineering Corporation, 800 Scenic View Drive, Cumberland, RI 02864, rmurphy@hartcompanies.com

Table with 6 columns: Item, Revision, Description, Status, Date Sent, Date Returned. Row 1: 11961-01, 0, Underground Copper Pipe, Fittings, Valves and Accessories, Eng, 10/12/2021.

Additional Notes:

Status Codes

- 1-APP - No Exceptions Taken
2-ANR - Make Corrections Noted
3-R&R - Revise and Resubmit
4-REJ - Rejected
5-IPO - For Information Purposes Only
6-NRR - Not Required for Review
ENG - Submitted to Engineer

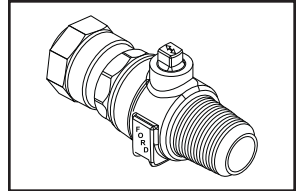
Sincerely, Hart Engineering Corporation

SHOP DRAWING REVIEW box containing checkboxes for status codes, a review note, and signature lines for BETA GROUP, INC. (Checked By: BM, Mike Andrus) and Date: 10/28/2021.

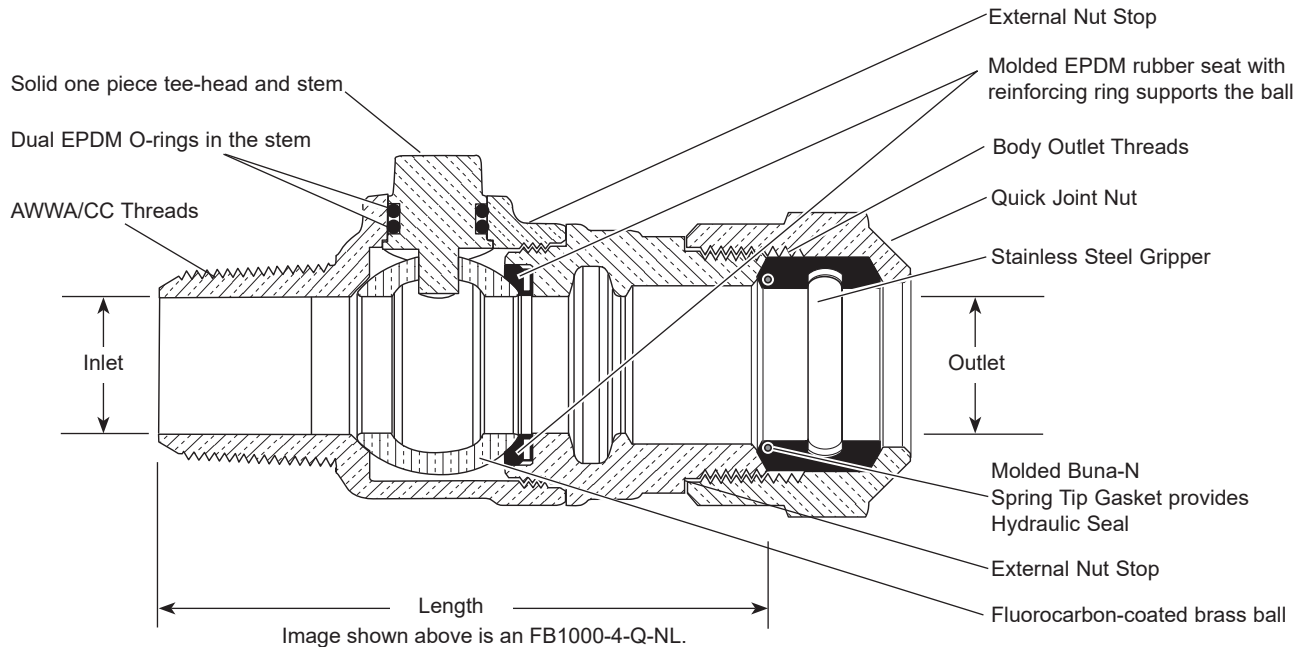
DATE: 10/12/2021

SUBMITTAL INFORMATION

Ballcorp Corporation Stops - (FB1000-xx-Q-NL style)



AWWA/CC TAPER THREAD INLET BY QUICK JOINT FOR COPPER OR PLASTIC TUBING (CTS) OUTLET



VALVE SIZE	INLET SIZE	OUTLET SIZE	VALVE LENGTH	BODY OUTLET THREADS	APPROX. WT. LBS	PART NUMBER	✓ SUBMITTED ITEM(S)
3/4"	3/4"	3/4"	4-19/64"	3/4" Flare Copper	1.6	FB1000-3-Q-NL	
3/4"	3/4"	1"	4-7/16"	1" Flare Copper	1.9	FB1000-34-Q-NL	
1"	1"	1"	4-31/64"	1" Flare Copper	2.6	FB1000-4-Q-NL	
1"	1"	1-1/4"	4-5/16"	1-1/4" Special Thread	3.4	FB1000-45-Q-NL	
1-1/4"	1-1/4"	1-1/4"	5-21/32"	1-1/4" Special Thread	4.3	FB1000-5-Q-NL	
1-1/2"	1-1/2"	1-1/2"	5-45/64"	1-1/2" Special Thread	5.4	FB1000-6-Q-NL	
2"	2"	2"	7-1/16"	2" Special Thread	8.2	FB1000-7-Q-NL	

Note: Ford recommends using insert stiffeners with plastic pipe or tubing.

FEATURES

- All brass that comes in contact with potable water conforms to AWWA Standard C800 (ASTM B584, UNS C89833)
- The product has the letters "NL" cast into the main body for lead-free identification
- Certified to NSF/ANSI Standard 61 and NSF/ANSI Standard 372 where applicable
- Brass components that do not come in contact with potable water conform to AWWA Standard C800 (ASTM B62 and ASTM B584, UNS C83600, 85-5-5-5)
- Ends are integral or secured with adhesive to prevent unintentional disassembly
- 300 PSI working pressure
- Standard tee-head stops permit 90% turn only

The Ford Meter Box Company considers the information in this submittal form to be correct at the time of publication. Item and option availability, including specifications, are subject to change without notice. Please verify that your product information is current.



The Ford Meter Box Company, Inc.

P.O. Box 443, Wabash, Indiana U.S.A. 46992-0443

Phone: 260-563-3171 / Fax: 800-826-3487

Overseas Fax: 260-563-0167

www.fordmeterbox.com

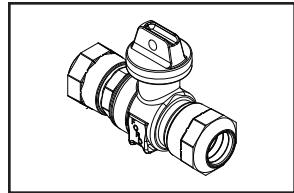
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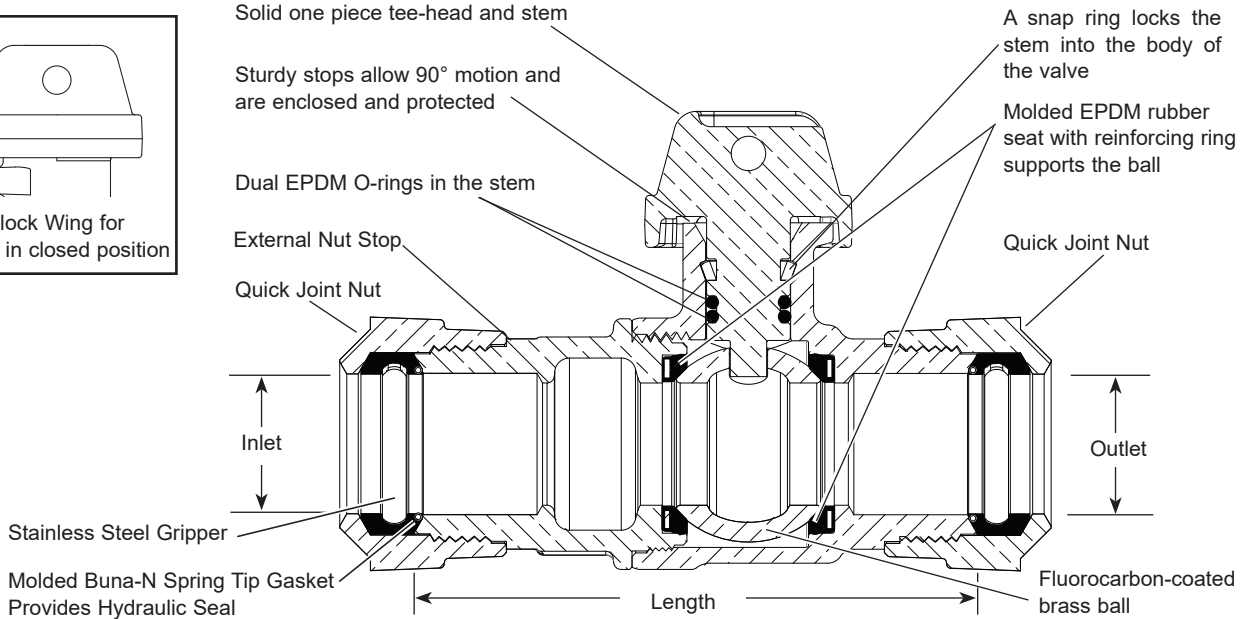
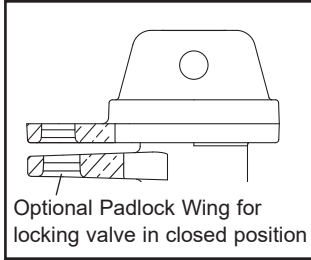
PUTNAM PIPE
CORPORATION

SUBMITTAL INFORMATION

Ball Valve Curb Stop - (B44-xxx-Q-NL style)



QUICK JOINT FOR COPPER OR PLASTIC TUBING (CTS) INLET AND OUTLET



OPEN RIGHT

Image shown above is a B44-444-Q-NL.

VALVE SIZE	INLET SIZE	OUTLET SIZE	LENGTH	APPROX. WT. LBS	PART NUMBER	✓ SUBMITTED ITEM(S)
3/4"	3/4"	3/4"	3-11/16"	2.1	B44-333-Q-NL	
3/4"	1"	3/4"	4-1/64"	2.5	B44-343-Q-NL	
1"	1"	1"	4-19/32"	3.1	B44-444-Q-NL	
1-1/2"	1-1/2"	1-1/2"	5-45/64"	7.0	B44-666-Q-NL	
2"	2"	2"	6-33/64"	12.7	B44-777-Q-NL	

Note: Ford recommends insert stiffeners when using plastic pipe or tubing.

FEATURES

- All brass that comes in contact with potable water conforms to AWWA Standard C800 (ASTM B584, UNS C89833)
- The product has the letters "NL" cast into the main body for lead-free identification
- Certified to NSF/ANSI Standard 61 and NSF/ANSI Standard 372 where applicable
- Brass components that do not come in contact with potable water conform to AWWA Standard C800 (ASTM B62 and ASTM B584, UNS C83600, 85-5-5-5)
- Valve is non-directional and is watertight with flow in either direction
- Ends are integral or secured with adhesive to prevent unintentional disassembly
- Hole for attaching curb box rod or handle is provided in tee-head
- 300 PSI working pressure

Optional Padlock Wing for locking valve in closed position. Insert "W" into part number

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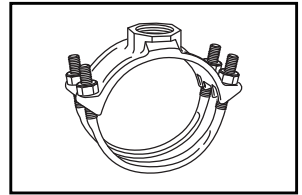
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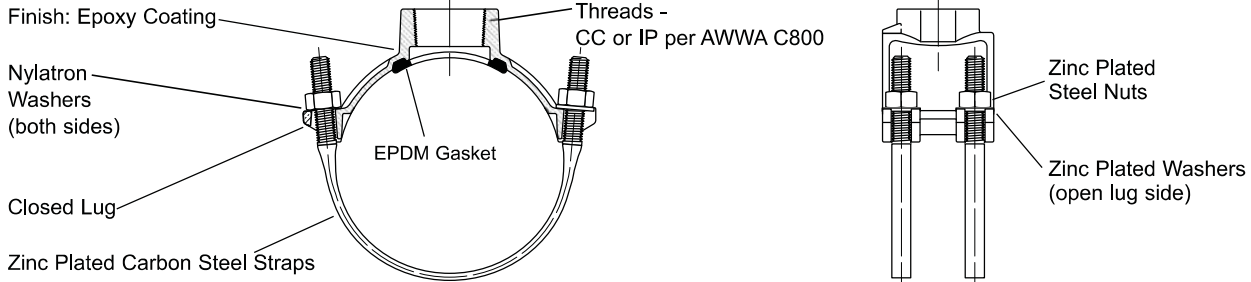


SUBMITTAL INFORMATION

Iron Service Saddles - (F202-xxx-TAP style)



F202 DOUBLE STRAP IRON SERVICE SADDLES FOR DUCTILE IRON AND A/C PIPE



NOM. PIPE SIZE	O.D. RANGE (In.)	APPROX. WT. LBS.	CATALOG NUMBER	✓ SUBMITTED ITEM(S)
2"	2.35 - 2.50	2.8	F202-250-TAP	
2-1/2"	2.75 - 2.90	2.8	F202-290-TAP	
3"	*3.46 - 3.80	4.8	F202-380-TAP	
	*3.80 - 4.25	5.5	F202-425-TAP	
4"	**4.26 - 4.80	5.4	F202-480-TAP	
	▲ 4.74 - 5.00	5.4	F202-500-TAP	
	*4.74 - 5.26	5.4	F202-526-TAP	
6"	▲ 4.97 - 5.26	5.4	F202-526-TAP	
	5.94 - 6.69	6.5	F202-669-TAP	
	6.63 - 6.90	6.5	F202-690-TAP	
8"	6.84 - 7.60	6.8	F202-760-TAP	
	7.93 - 8.71	7.4	F202-871-TAP	
	8.63 - 9.05	7.4	F202-905-TAP	
10"	8.99 - 9.79	8.2	F202-979-TAP	
	10.00 - 10.75	10.4	F202-1075-TAP	
	10.75 - 11.10	11.5	F202-1110-TAP	
12"	11.10 - 12.12	11.5	F202-1212-TAP	
	12.00 - 12.75	12.5	F202-1275-TAP	
	12.75 - 13.20	12.5	F202-1320-TAP	
14"	13.20 - 14.38	12.5	F202-1438-TAP	
	15.30 - 16.25	16.0	F202-1625-TAP	
	16.30 - 17.25	16.5	F202-1725-TAP	
16"	17.40 - 18.40	17.0	F202-1840-TAP	
	18.50 - 19.25	17.3	F202-1925-TAP	
18"	19.50 - 20.50	20.8	F202-2050-TAP	
	21.20 - 22.20	21.3	F202-2220-TAP	
20"	22.50 - 23.50	24.0	F202-2350-TAP	
	23.80 - 24.80	24.5	F202-2480-TAP	
24"	25.60 - 26.50	31.7	F202-2650-TAP	
	31.74 - 32.74	42.0	F202-3274-TAP	

OUTLET TAP CODE		
CC (AWWA) THREAD		
THREAD	CODE NUMBER	✓ SUBMITTED ITEM(S)
3/4" CC	CC3	
1" CC	CC4	
1-1/4" CC	Δ CC5	
1-1/2" CC	CC6	
2" CC	CC7	
IP THREAD		
THREAD	CODE NUMBER	✓ SUBMITTED ITEM(S)
1/2" IP	Δ IP1	
3/4" IP	IP3	
1" IP	IP4	
1-1/4" IP	Δ IP5	
1-1/2" IP	IP6	
2" IP	IP7	
2-1/2" IP	IP8	

Δ Contact factory for availability

AIS COMPLIANT

* Saddles for this pipe range are not available with 2" CC (CC7) or 2-1/2" IP (IP8) threads.

** These saddles with 2" CC (CC7) or 2-1/2" IP (IP8) taps only fit 4.80" O.D. pipe.

Example: F202-480-CC7 fits 4.80 pipe O.D. only

▲ This saddle is only available with 2" CC (CC7) or 2-1/2" IP (IP8) taps

FEATURES

- Body made of high strength ductile iron per ASTM A536
- Straps are 5/8" AISI C1010 steel, zinc plated with trivalent seal. Each strap has a 5/8" flat bearing surface. For saddles 3" or smaller, straps are 1/2"
- Gasket is EPDM rubber per ASTM D2000
- Finish on saddle body is fusion-bonded epoxy coating
- Certified to ANSI/NSF Standard 61
- Rated for the lesser of 350 psi on sizes 2"-12", 250 psi on sizes 14"-30", or the pressure of the pipe on which it is installed
- Conforms to AWWA C800

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06/04/19

Submitted By:

PUTNAM PIPE
CORPORATION



CAMBRIDGE-LEE INDUSTRIES, LLC.

Reading Tube Division

P.O. Box 14026, Reading, PA 19612 - 4026

Phone 610 - 926 4141 Fax 610 - 926 7317



Distributor: Putnam Pipe Corp	Customer:
Address: 82 Stevens Street East Taunton, MA 02718	Address:
Order No.:	P.O. No.:
Product:	

Standard Tube Certificate of Conformance

Tube Type	Specification No.*	Specification Title
→ Type K, L & M	ASTM B 88 NSF 61	Standard Specification for Seamless Copper Water Tube ANSI/NSF Standard 61 Drinking Water System Components Health Effects ¹
Coils and Straight Lengths Marked as ACR	ASTM B 280	Standard Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service
Type DWV Drainage	ASTM B 306	Standard Specification for Copper Drainage Tube (DWV)
Type K & L Straight Lengths Marked as OXY/MED	ASTM B 819	Standard Specification for Seamless Copper Tube for Medical Gas Systems

Cambridge-Lee Industries, LLC, located in Reading, PA, USA, manufactures seamless copper tubing in the United States of America and is fully compliant with the "Buy American" requirements of Public Law 111-5, the American Recovery and Investment Act of 2009.

Cambridge-Lee Industries, LLC, manufactures seamless copper tubing with recycled scrap. Our production meets the LEED, Leadership in Energy and Environmental Design qualifications. The process of scrap recycling entails the purchase of #1 grade scrap and converting it in a finished cast form, which meets specification; alloy C12200, for standard product production. Currently, operations purchases about 65% of #1 scrap. The remaining capacity is cathode copper and run around.

Cambridge-Lee Industries, LLC certifies that the copper tube manufactured is grade UNS C12200 and meets the applicable chemical, mechanical, cleanness and eddy current testing requirements of the current specification(s) indicated above.

When specified at order placement and for an additional cost, CLI – RTD can supply product mill test reports of the current ASTM standard.

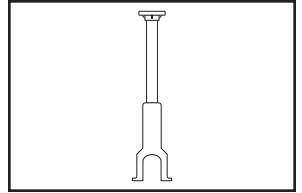
Copper tube manufactured by Cambridge-Lee Industries does not contain mercury or come in contact with mercury, mercury compounds or mercury containing devices at any stage in manufacturing, inspection, packaging or shipping.

All of the specifications require a minimum copper plus silver content of 99.9% and phosphorus content between .015 - .040%. As indicated by the compositional requirements, the copper tube is essentially lead free.

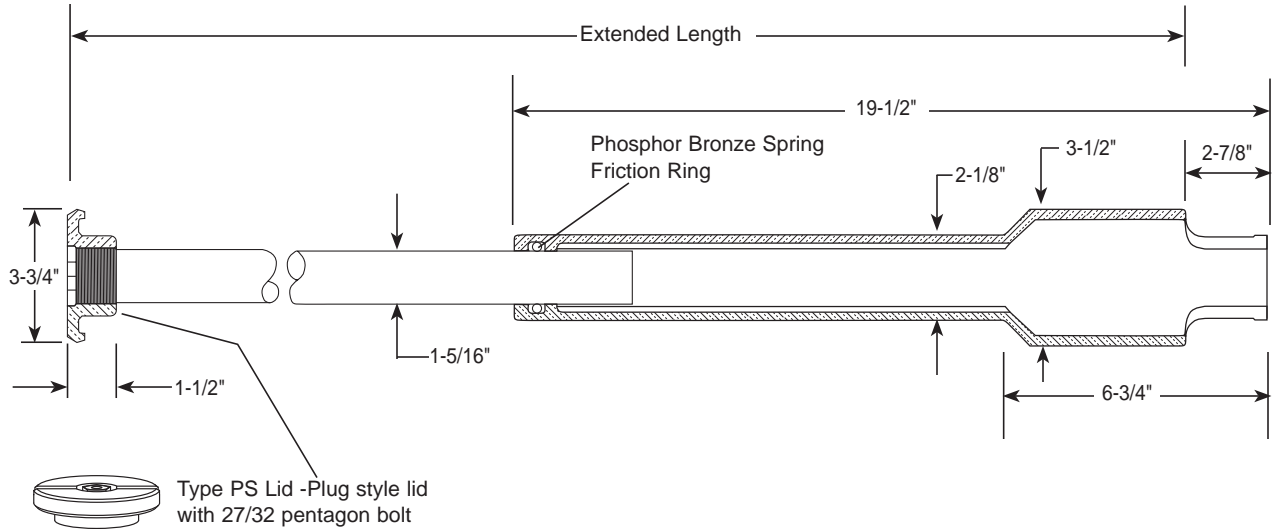
¹ NSF Standard 61 Restriction Statement: "Seamless Copper Tube (Alloy C12200) is certified by NSF to NSF/ANSI Standard 61 for public water supplies meeting, or in process of meeting the U.S. EPA Lead and Copper Rule (56FR 26460, June 7, 1991). Water Supplies with pH less than 6.5 may require corrosion control to limit copper solubility in drinking water." Some water supplies may be corrosive to copper and in these cases water treatment may be necessary.

SUBMITTAL INFORMATION

Curb Boxes - (EA2-xx-40 style)



ARCH PATTERN - 1" UPPER SECTION - PLUG STYLE LID - WITHOUT STATIONARY ROD



*EXTENDED LENGTH	APPROX. WT. LBS.	CATALOG NUMBER	✓ SUBMITTED ITEM(S)
3'	12	EA2-30-40	
3'-6"	13	EA2-35-40	
4'	14	EA2-40-40	
4'-6"	15	EA2-45-40	
5'	15	EA2-50-40	
→ 5'-6"	16	EA2-55-40	
6'	17	EA2-60-40	
6'-6"	18	EA2-65-40	
7'	19	EA2-70-40	
7'-6"	20	EA2-75-40	
8'	20	EA2-80-40	
9'	21	EA2-90-40	

*Telescopes to 1 foot less than extended length.

FEATURES

- Arch base for use with Curb Stops in sizes 1" and smaller
- Adaptable to 1-1/4", 1-1/2" and 2" Curb Stops by placing on the CB-7 Curb Box Base
- Lid and base made of cast iron per ASTM A48, Class 25
- Upper section made of steel
- Finish is black e-coat

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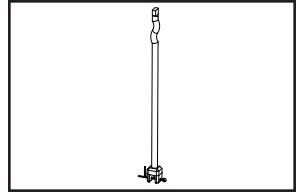
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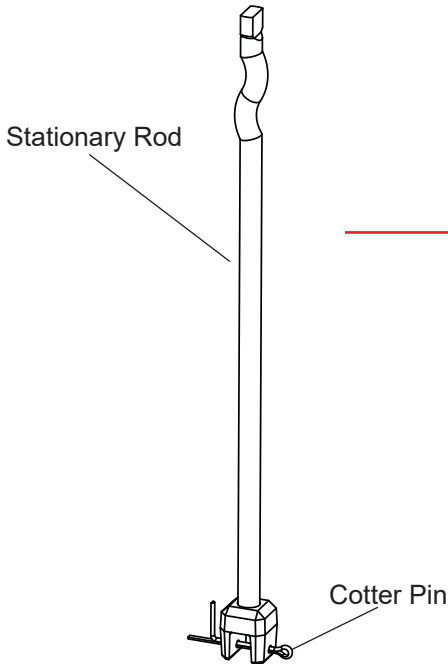
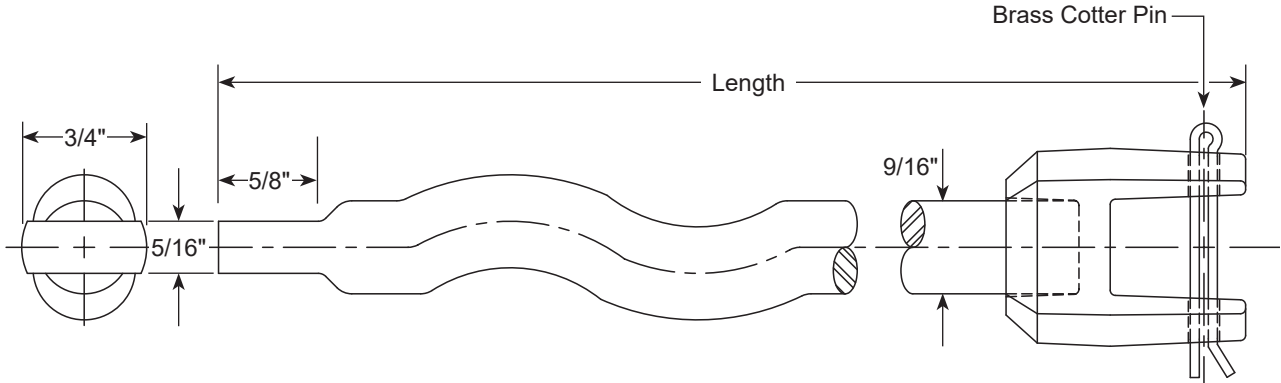
PUTNAM PIPE
CORPORATION

SUBMITTAL INFORMATION

Stationary Rod - (ROD-xx style)



STATIONARY ROD FOR CURB BOX VALVE OPERATION



ROD LENGTH	CATALOG NUMBER	✓ SUBMITTED ITEM(S)
18"	ROD-18	
24"	ROD-24	
30"	ROD-30	
36"	ROD-36	
42"	ROD-42	
48"	ROD-48	
54"	ROD-54	
60"	ROD-60	
66"	ROD-66	
72"	ROD-72	
78"	ROD-78	
84"	ROD-84	



FEATURES

- Stationary rods are carbon steel, grade 1010 per ASTM A510
- Optional type 304 stainless steel per ASTM A484 is available
- Brass Cotter Pin (UNS C26000, ASTM B134) attaches the Stationary Rod to the Curb Stop
- A 22" Stationary Rod Key (catalog no. SRK) is required to operate the Stationary Rod

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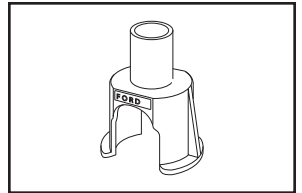
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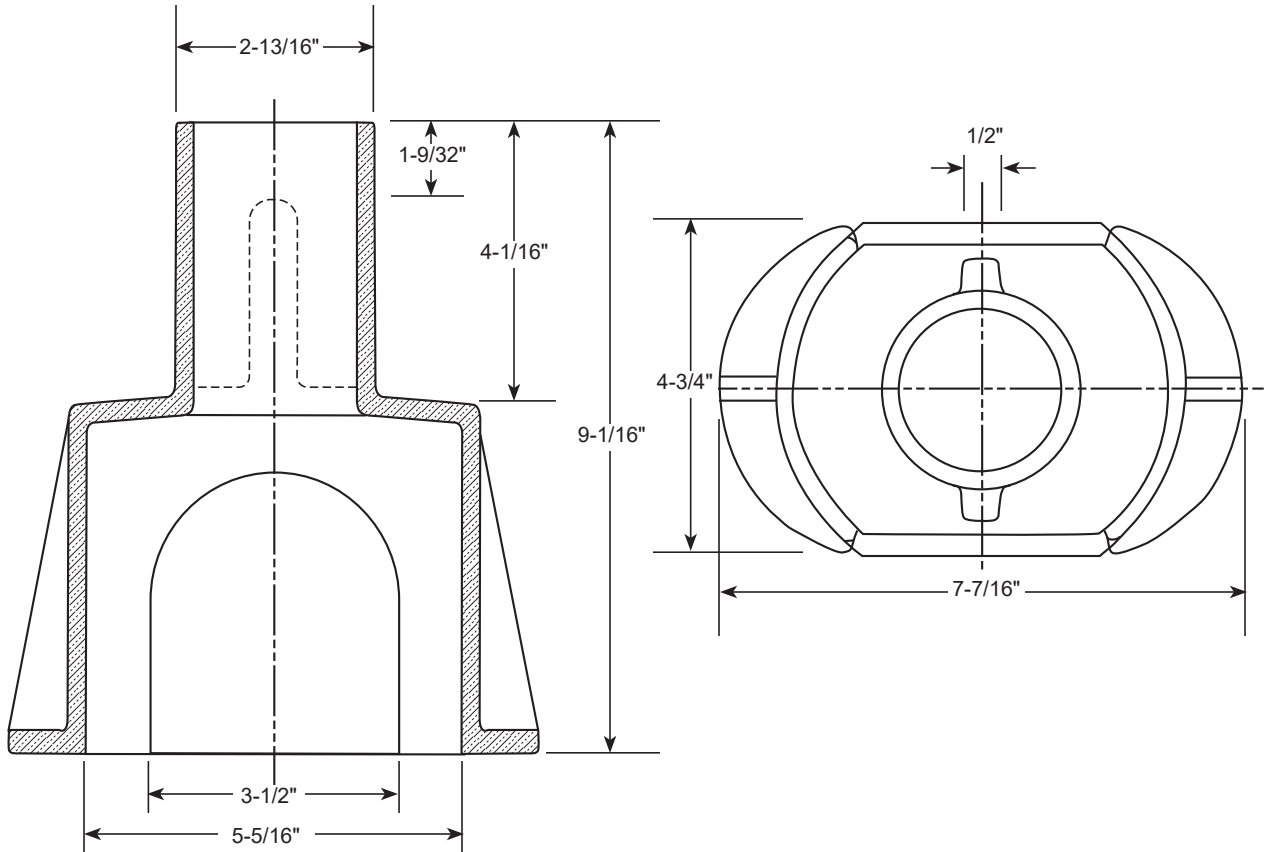
PUTNAM PIPE
CORPORATION

SUBMITTAL INFORMATION

Curb Box Base - (CB-7 style)



BASE TO ADAPT ARCH BASE CURB BOXES TO CURB STOPS LARGER THAN 1"



APPROX. WT. LBS.	CATALOG NUMBER	✓ SUBMITTED ITEM(S)
8	CB-7	

FEATURES

- Made of cast iron ASTM A48, Class 25
- Finish is black e-coat
- Fits over 1-1/4", 1-1/2" and 2" Ball Valve Curb Stops
- Inserts into any Ford Arch Base Curb Box having 2-7/8" or larger I.D. at bottom
- Increases overall height of curb box by 5"

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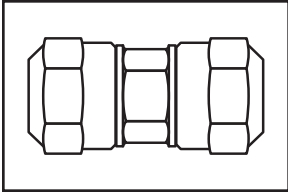
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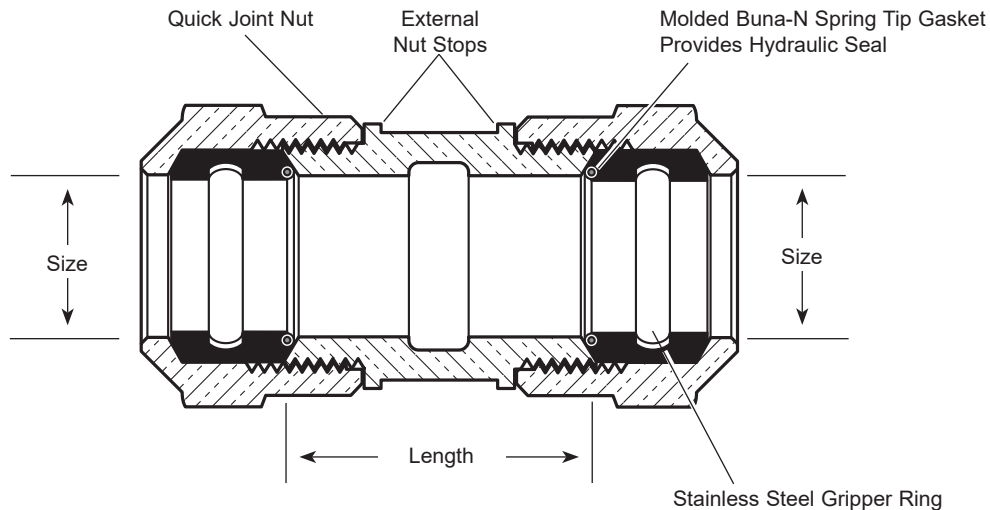
PUTNAM PIPE
CORPORATION

SUBMITTAL INFORMATION

Quick Joint Coupling - (C44-xx-Q-NL style)



QUICK JOINT FOR COPPER OR PLASTIC TUBING (CTS) BOTH ENDS



DESCRIPTION		LENGTH	APPROX. WT. LBS	PART NUMBER	✓ SUBMITTED ITEM(S)
Q.J. FOR CTS	Q.J. FOR CTS				
1/2"	1/2"	2-1/16"	.8	C44-11-Q-NL	
1/2"	3/4"	2-1/4"	.8	C44-13-Q-NL	
5/8"	5/8"	2-3/32"	.9	C44-22-Q-NL	
5/8"	3/4"	2-3/32"	.9	C44-23-Q-NL	
3/4"	3/4"	2-3/32"	.9	C44-33-Q-NL	
3/4"	1"	2-3/32"	1.0	C44-34-Q-NL	
1"	1"	2-13/32"	1.1	C44-44-Q-NL	
1-1/4"	1-1/4"	2-1/2"	2.0	C44-55-Q-NL	
1-1/2"	1-1/2"	3-3/8"	2.6	C44-66-Q-NL	
2"	2"	3-1/2"	3.3	C44-77-Q-NL	

Note: Ford recommends insert stiffeners when using plastic pipe or tubing.

FEATURES

- All brass that comes in contact with potable water conforms to AWWA Standard C800 (ASTM B584, UNS C89833)
- The product has the letters "NL" cast into the main body for lead-free identification
- Certified to NSF/ANSI Standard 61 and NSF/ANSI Standard 372 where applicable
- Brass components that do not come in contact with potable water conform to AWWA Standard C800 (ASTM B62 and ASTM B584, UNS C83600, 85-5-5-5)
- Body design provides larger, more rugged wrench flats for proper installation

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05/12/14

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