

PROPOSAL SUBMITTED BY:

Ferguson Waterworks

Contractor's Name

1720 State Street

Street

DeKalb

City

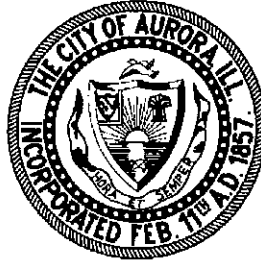
IL

State

P.O. Box

60115

Zip Code



**CITY OF AURORA
KANE COUNTY
STATE OF ILLINOIS**

Request for Quotations For

***2022 Water & Sewer Division Materials and Supplies
Bid 21-69***

***PROPOSALS DUE
October 27, 2021***

***PREPARED BY
CITY OF AURORA
DIVISION of ENGINEERING
77 S. BROADWAY AVENUE
AURORA, ILLINOIS 60505***

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**City of Aurora
Bid 21-69
NOTICE TO BIDDERS**

Sealed quotations for the materials and supplies described below will be received at the office of Purchasing, 44 E. Downer Place, Aurora, IL 60507 until 2:00 o'clock P.M., October 27, 2021. Quotes will not be opened publicly.

Description of Work

Name: 2022 Water & Sewer Division Materials and Supplies

Proposed Improvement: The City of Aurora is requesting quotations for the anticipated purchase of certain materials and supplies to be used by the Water & Sewer Maintenance Division during 2022.

Bidders Instructions:

1. Specifications and other pertinent documents may be obtained online at <https://www.aurora-il.org/bids.aspx>, at the Purchasing Office, 44 East Downer Place, Aurora, Illinois 60507 during normal business hours, or by calling 630-256-3550.
2. The City of Aurora reserves the right to reject any or all of the bids and to waive any and all irregularities and technicalities whenever such rejection is in the best interest of the City of Aurora.
3. All bid items will be evaluated separately and the supplier for each bid item will be chosen based on cost and availability of the item at the time of need.
4. Minority Participation: The City of Aurora encourages minority business firms to submit proposals and encourages successful contract bidder to utilize minority businesses as sub-contractors for supplies, equipment, services and construction.
5. Any bidder who owes the City money may be disqualified at the City's discretion.
6. **The City of Aurora has a local preference ordinance that would apply to this contract.**

By Order of
City Clerk
City of Aurora

PROPOSAL

TO: THE OFFICE OF THE CITY CLERK
CITY OF AURORA
44 EAST DOWNER PLACE
AURORA, ILLINOIS 60507

1. Proposal of _____
*for the improvement known as the **2022 Water & Sewer Division Materials and Supplies, Bid 21-69.***
2. The plans and specifications for the proposed improvements are those prepared by the City of Aurora Engineering Division and approved by the City Council of Aurora, Illinois.
3. In submitting this proposal, the undersigned declares that the only persons or parties interested in the proposal as principals are those named herein, and that the proposal is made without collusion with any person, firm, or corporation.
4. The undersigned further declares that he has carefully examined the proposals, plans, specifications, form of contract, and special provisions, if any, and that he has inspected in detail the site of the proposed work and that he has familiarized himself with all of the local conditions affecting the contract and detailed requirements of construction, and understands that in making this proposal he waives all right to plead any misunderstanding regarding the same.
5. The undersigned declares that he understands that the quantities mentioned are approximate only, and that they are subject to increase or decrease; that he will take in full payment therefore the amount of the summation of the actual quantities, as finally determined, multiplied by the unit prices shown in the schedule of prices contained herein.
6. The undersigned agrees that the unit prices submitted herewith are for the purpose of obtaining a gross sum and for use in computing the value of extras and deductions; that if there is a discrepancy between the gross sum bid and that resulting from the summation of the quantities multiplied by their respective unit prices, the latter shall apply.
7. The undersigned agrees that if the City decides to extend or shorten the improvement, or otherwise alter it by extras or deductions, including the elimination of any one or more of the items, as provided in the specifications, he will perform the work as altered, increased or decreased, at the contract unit prices without claim for profits lost as a result of any work or items eliminated by the City of Aurora.
8. The undersigned agrees that the Engineer may, at any time during the progress of the work covered by this contract, order other work or materials incidental thereto, and that all such work and materials as do not appear in the proposal or contract as a specific item accompanied by a unit price, and which are not included under the bid price for other items in this contract, shall be performed as extra work, and that he will accept as full compensation therefore the actual cost plus ten percent (10%), the actual cost to be determined as provided for in the specifications.
9. The undersigned submits herewith his schedule of prices covering the work to be performed under this contract, he understands that he must show in the schedule the unit prices for which

he proposes to perform each item of work, that the extensions must be made by him, and that if not so done, his proposal may be rejected as irregular or non-responsive.

10. The City of Aurora reserves the right to reject any or all of the bids and to waive any and all irregularities and technicalities. The City of Aurora shall either award the project or reject the bids within Sixty (60) calendar days after the bid opening. This time frame may be extended upon mutual agreement of the City and the Bidder.
11. The undersigned of this proposal agrees that he or she has examined all sections of this Proposal, Specifications, and Bidding Documents and hereby understands and accepts the provisions for access, or the lack of access, to the construction site and shall claim no compensation other than the prices as bid for this condition of accessibility.
12. The undersigned agrees to indemnifying and saving harmless the City of Aurora, its officers, agents, employees, and servants by filing with the City, prior to the execution of the contract, copies of completed Certificates of Insurance satisfactory to the City, with the City of Aurora named as primary, non-contributory additional insured; automobile liability insurance covering owned, non-owned, and hired vehicles with limits of liability as stated in the attached Special Provisions.
13. No contract will be awarded to any bidder where that bidder or any principal or supervisory personnel of the bidder has been personally involved with another business that has been delinquent or unfaithful in any former contract with the City or where that bidder or any supervisory personnel of the bidder has been personally involved with another business that is a defaulter as surety or otherwise upon obligation to the City.
14. The entire set of specifications shall be submitted with each proposal.
15. The City has the right to terminate this Contract, in whole or in part, for any reason or if sufficient funds have not been appropriated to cover the estimated requirement of the Services not yet performed, by providing Bidder with thirty (30) days notice specifying the termination date. On the date specified, this Contract will end. If this Contract is terminated by the City, as provided herein, the City shall pay the Bidder only for services performed up the date of termination. After the termination date, Bidder has no further contractual claim against the City based upon this Contract and any payment so made to the Bidder upon termination shall be in full satisfaction for Services rendered. Bidder shall deliver to the City all finished and unfinished documents, studies and reports and shall become the property of the City.
16. **The City of Aurora has a local preference ordinance that would apply to this contract.** O18-070 approved August 28, 2018 defines "Local business" to mean a vendor or contractor who has a valid, verifiable physical business address located within the corporate boundaries of the City of Aurora at least twelve months prior to a bid or proposal opening date, from which the vendor, contractor or consultant operates or performs business on a daily basis, including manufacturing production or distribution. The business must disclose the percentage of workforce in the City of Aurora; be registered with the City of Aurora, if applicable; be subject to City of Aurora taxes (inclusive of sales taxes); be current with property tax payments and sales tax payments; not have any outside cited code violations; not have any outstanding debts to the City of Aurora; have adequately qualified and trained staff to service the bid of interest.
17. The undersigned submits herewith this **Schedule of Prices** covering the materials requested under this contract:



Schedule of Prices
City of Aurora Water & Sewer
Maintenance Division
2022 Materials and Supplies
Bid 21-69

RETURN WITH BID

(For complete information covering these items, see specifications)

NO.	ITEM	UNIT	UNIT COST
Fire Hydrants & Related Parts			
1	Waterous Fire Hydrant Assembly, 4 1/2' Bury	EA	No quote
2	Waterous Fire Hydrant Assembly, 5' Bury	EA	No quote
3	Waterous Fire Hydrant Assembly, 5 1/2' Bury	EA	No quote
4	Waterous Fire Hydrant Assembly, 6' Bury	EA	No quote
5	Waterous Fire Hydrant Assembly, 4 1/2' Bury w/Alpha Standard Base	EA	No quote
6	Waterous Fire Hydrant Assembly, 5' Bury w/Alpha Standard Base	EA	No quote
7	Waterous Fire Hydrant Assembly, 5 1/2' Bury w/Alpha Standard Base	EA	No quote
8	Waterous Fire Hydrant Assembly, 6' Bury w/Alpha Standard Base	EA	No quote
9	Waterous Fire Hydrant Assembly, 4 1/2' Bury w/Alpha XL Base	EA	No quote
10	Waterous Fire Hydrant Assembly, 5' Bury w/Alpha XL Base	EA	No quote
11	Waterous Fire Hydrant Assembly, 5 1/2' Bury w/Alpha XL Base	EA	No quote
12	Waterous Fire Hydrant Assembly, 6' Bury w/Alpha XL Base	EA	No quote
13	Waterous Fire Hydrant Extension, 6"	EA	No quote
14	Waterous Fire Hydrant Extension, 12"	EA	No quote
15	Waterous Fire Hydrant Extension, 18"	EA	No quote
16	Waterous Fire Hydrant Extension, 24"	EA	No quote
17	Waterous Traffic Kit, Old Style (K525/10")	EA	No quote
18	Waterous Traffic Kit, New Style (K528/16")	EA	No quote
19	Waterous Hydrant Kit K834, Hydrant Head w/Traffic Kit	EA	No quote
20	Waterous Hydrant Kit K836, Hydrant Head	EA	No quote
21	Waterous Hydrant Part #60 (Hydrant Head)	EA	No quote
22	RoDon Hydra-Finder Hydrant Marker, 60"	EA	No quote
23	Drain Plunger #7	EA	No quote
24	Nozzle Cap Hose #10	EA	No quote
25	Nozzle Cap Pumper #10	EA	No quote
26	Cap Gasket Hose #11	EA	No quote
27	Cap Gasket Pumper #11	EA	No quote
28	Nozzle - Hose #12	EA	No quote
29	Nozzle - Pumper #12	EA	No quote



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(For complete information covering these items, see specifications)

NO.	ITEM	UNIT	UNIT COST
30	Lower Operating Nut #17A	EA	No quote
31	Upper Operating Nut #17B	EA	No quote
32	Crossarm #30	EA	No quote
33	Valve Seat #31	EA	No quote
34	Upper Valve Washer #34	EA	No quote
35	Main Valve Rubber #35	EA	No quote
36	Lower Valve Washer #36	EA	No quote
37	O-Ring (Support wheel), 1-1/8 x 1-3/8 #59	EA	No quote
38	Flange Lock Ring #64	EA	No quote
39	Coupling Sleeve (2 halves) #67	EA	No quote
40	O-Ring (Lower tube seal), 1-7/8 x 2-1/8 #83	EA	No quote
41	Support Wheel Gasket #84	EA	No quote
42	Brass Lock Nuts #87	EA	No quote
43	Nozzle Section Bushing Assembly #89	EA	No quote
44	Thrust Ring #90	EA	No quote
45	Upper Standpipe Gasket #92	EA	No quote
46	Breakable Flange #113	EA	No quote
47	O-Ring (Pumper Nozzle) 5-1/4 X 5-5/8 #116	EA	No quote
48	Pumper Nozzle Retainer #117	EA	No quote
49	O-Ring (Hose Nozzle) 3-1/4 X 3-5/8 #118	EA	No quote
50	Hose Nozzle Retainer #119	EA	No quote
51	T-Bolts and Nuts (Per Case)	EA	No quote
52	High Performance Grease for Food Processing Equipment (6-1/2 Oz)	EA	No quote
53	Mineral Oil Lubricant (5 Gal)	EA	No quote
Valves and Related Parts			
54	Clow Cutting in Valve, 2"	EA	No quote
55	Clow Cutting in Valve, 4"	EA	No quote
56	Clow Cutting in Valve, 6"	EA	No quote
57	Clow Cutting in Valve, 8"	EA	No quote
58	Clow Cutting in Valve, 10"	EA	No quote



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City of Aurora Water & Sewer
Maintenance Division
2022 Materials and Supplies
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NO.	ITEM	UNIT	UNIT COST
59	Clow Cutting in Valve, 12"	EA	No quote
60	American Flow Control Gate Valve, 2" w/ Mechanical Joint Ends	EA	No quote
61	American Flow Control Gate Valve, 4" w/ Mechanical Joint Ends	EA	No quote
62	American Flow Control Gate Valve, 6" w/ Mechanical Joint Ends	EA	No quote
63	American Flow Control Gate Valve, 8" w/ Mechanical Joint Ends	EA	No quote
64	American Flow Control Gate Valve, 10" w/ Mechanical Joint Ends	EA	No quote
65	American Flow Control Gate Valve, 12" w/ Mechanical Joint Ends	EA	No quote
66	American Flow Control Gate Valve, 14" w/ Mechanical Joint Ends	EA	No quote
67	American Flow Control Gate Valve, 16" w/ Mechanical Joint Ends	EA	No quote
68	American Flow Control Gate Valve, 2" w/ ALPHA Standard Restrained Joint Ends	EA	No quote
69	American Flow Control Gate Valve, 4" w/ ALPHA Standard Restrained Joint Ends	EA	No quote
70	American Flow Control Gate Valve, 6" w/ ALPHA Standard Restrained Joint Ends	EA	No quote
71	American Flow Control Gate Valve, 8" w/ ALPHA Standard Restrained Joint Ends	EA	No quote
72	American Flow Control Gate Valve, 10" w/ ALPHA Standard Restrained Joint Ends	EA	No quote
73	American Flow Control Gate Valve, 12" w/ ALPHA Standard Restrained Joint Ends	EA	No quote
74	American Flow Control Gate Valve, 14" w/ ALPHA Standard Restrained Joint Ends	EA	No quote
75	American Flow Control Gate Valve, 16" w/ ALPHA Standard Restrained Joint Ends	EA	No quote
76	American Flow Control Gate Valve, 2" w/ ALPHA XL Restrained Joint Ends	EA	No quote
77	American Flow Control Gate Valve, 4" w/ ALPHA XL Restrained Joint Ends	EA	No quote
78	American Flow Control Gate Valve, 6" w/ ALPHA XL Restrained Joint Ends	EA	No quote
79	American Flow Control Gate Valve, 8" w/ ALPHA XL Restrained Joint Ends	EA	No quote
80	American Flow Control Gate Valve, 10" w/ ALPHA XL Restrained Joint Ends	EA	No quote
81	American Flow Control Gate Valve, 12" w/ ALPHA XL Restrained Joint Ends	EA	No quote
82	American Flow Control Gate Valve, 14" w/ ALPHA XL Restrained Joint Ends	EA	No quote
83	American Flow Control Gate Valve, 16" w/ ALPHA XL Restrained Joint Ends	EA	No quote
84	Tyler Valve Box, 664-S Complete w/Lid	EA	207.27
85	Tyler Valve Box Extension, #58-A	EA	63.05



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NO.	ITEM	UNIT	UNIT COST
86	Tyler Valve Box Extension, #59-A	EA	75.14
87	Tyler Valve Box Extension, #60-A	EA	76.00
88	Tyler Valve Box Extension, #69A - 9"	EA	63.91
89	Tyler Valve Box Extension, #69A - 18" (Foreign OK)	EA	No quote
90	Tyler Valve Box Extension, #69A - 24" (Foreign OK)	EA	No quote
Repair Parts and Fittings			
91	4" Non-Shear Mission Coupling (Clay to Plastic)	EA	35.21
92	6" Non-Shear Mission Coupling (Clay to Plastic)	EA	59.70
93	8" Non-Shear Mission Coupling (Clay to Plastic)	EA	67.90
94	10" Non-Shear Mission Coupling (Clay to Plastic)	EA	88.33
95	12" Non-Shear Mission Coupling (Clay to Plastic)	EA	108.13
96	15" Non-Shear Mission Coupling (Clay to Plastic)	EA	204.16
97	4" Non-Shear Mission Coupling (Plastic to Plastic)	EA	24.01
98	6" Non-Shear Mission Coupling (Plastic to Plastic)	EA	45.74
99	8" Non-Shear Mission Coupling (Plastic to Plastic)	EA	67.90
100	10" Non-Shear Mission Coupling (Plastic to Plastic)	EA	88.33
101	12" Non-Shear Mission Coupling (Plastic to Plastic)	EA	108.13
102	15" Non-Shear Mission Coupling (Plastic to Plastic)	EA	184.77
103	2" x 8" Repair Clamp	EA	43.58
104	4" x 8" Repair Clamp	EA	53.66
105	6" x 8" Repair Clamp	EA	64.24
106	6" x 8" Repair Clamp w/ 3/4" Tap	EA	79.46
107	6" x 8" Repair Clamp w/ 1" Tap	EA	79.46
108	6" x 10" Repair Clamp	EA	85.29
109	6" x 12" Repair Clamp	EA	100.54
110	6" x 24" Repair Clamp	EA	238.54
111	6" x 36" Repair Clamp	EA	363.88
112	8" x 8" Repair Clamp	EA	83.62
113	8" x 8" Repair Clamp w/ 3/4" Tap	EA	100.59
114	8" x 8" Repair Clamp w/ 1" Tap	EA	100.59



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NO.	ITEM	UNIT	UNIT COST
115	8" x 10" Repair Clamp	EA	110.75
116	8" x 12" Repair Clamp	EA	118.41
117	8" x 16" Repair Clamp	EA	135.29
118	8" x 24" Repair Clamp	EA	270.49
119	8" x 36" Repair Clamp	EA	433.55
120	10" x 8" Repair Clamp w/ 3/4" Tap	EA	134.21
121	10" x 8" Repair Clamp w/ 1" Tap	EA	134.21
122	10" x 10" Repair Clamp	EA	125.04
123	10" x 12" Repair Clamp	EA	146.60
124	10" x 16" Repair Clamp	EA	177.25
125	10" x 24" Repair Clamp	EA	294.10
126	12" x 8" Repair Clamp w/ 3/4" Tap	EA	136.14
127	12" x 8" Repair Clamp w/ 1" Tap	EA	136.14
128	12" x 12" Repair Clamp	EA	178.77
129	12" x 16" Repair Clamp	EA	202.14
130	12" x 24" Repair Clamp	EA	326.89
131	12" x 36" Repair Clamp	EA	537.88
132	4" Tyler Cut in Sleeve	EA	554.98
133	6" Tyler Cut in Sleeve	EA	739.67
134	8" Tyler Cut in Sleeve	EA	957.07
135	10" Tyler Cut in Sleeve	EA	1174.47
136	12" Tyler Cut in Sleeve	EA	1563.30
137	4" Full Body MJ Ductile Iron Solid Sleeve	EA	No quote
138	6" Full Body MJ Ductile Iron Solid Sleeve	EA	No quote
139	8" Full Body MJ Ductile Iron Solid Sleeve	EA	No quote
140	10" Full Body MJ Ductile Iron Solid Sleeve	EA	No quote
141	12" Full Body MJ Ductile Iron Solid Sleeve	EA	No quote
142	14" Full Body MJ Ductile Iron Solid Sleeve	EA	No quote
143	16" Full Body MJ Ductile Iron Solid Sleeve	EA	No quote
144	2" Cast Couplings	EA	35.13



**Schedule of Prices
City of Aurora Water & Sewer
Maintenance Division
2022 Materials and Supplies
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(For complete information covering these items, see specifications)

NO.	ITEM	UNIT	UNIT COST
145	4" Cast Couplings	EA	82.98
146	6" Cast Couplings	EA	101.52
147	8" Cast Couplings	EA	140.08
148	10" Cast Couplings	EA	196.22
149	12" Cast Couplings	EA	273.77
150	14" Cast Couplings	EA	409.78
151	16" Cast Couplings	EA	409.54
152	2" Single Bolt Standard Cast Couplings	EA	No quote
153	4" Single Bolt Standard Cast Couplings	EA	292.43
154	6" Single Bolt Standard Cast Couplings	EA	379.36
155	8" Single Bolt Standard Cast Couplings	EA	430.74
156	10" Single Bolt Standard Cast Couplings	EA	557.19
157	12" Single Bolt Standard Cast Couplings	EA	655.98
158	14" Single Bolt Standard Cast Couplings	EA	No quote
159	16" Single Bolt Standard Cast Couplings	EA	No quote
160	2" Single Bolt XL Cast Couplings	EA	No quote
161	4" Single Bolt XL Cast Couplings	EA	304.68
162	6" Single Bolt XL Cast Couplings	EA	394.78
163	8" Single Bolt XL Cast Couplings	EA	448.52
164	10" Single Bolt XL Cast Couplings	EA	579.72
165	12" Single Bolt XL Cast Couplings	EA	682.47
166	14" Single Bolt XL Cast Couplings	EA	No quote
167	16" Single Bolt XL Cast Couplings	EA	3759.66
168	2" Single Bolt Transition Cast Couplings	EA	No quote
169	4" Single Bolt Transition Cast Couplings	EA	298.78
170	6" Single Bolt Transition Cast Couplings	EA	387.47
171	8" Single Bolt Transition Cast Couplings	EA	439.63
172	10" Single Bolt Transition Cast Couplings	EA	560.32
173	12" Single Bolt Transition Cast Couplings	EA	668.83
174	14" Single Bolt Transition Cast Couplings	EA	No quote



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NO.	ITEM	UNIT	UNIT COST
175	16" Single Bolt Transition Cast Couplings	EA	No quote
176	4" Megalug Restraint for Ductile Iron Pipe	EA	No quote
177	4" Megalug Restraint for PVC Pipe	EA	No quote
178	6" Megalug Restraint for Ductile Iron Pipe	EA	No quote
179	6" Megalug Restraint for PVC Pipe	EA	No quote
180	8" Megalug Restraint for Ductile Iron Pipe	EA	No quote
181	8" Megalug Restraint for PVC Pipe	EA	No quote
182	10" Megalug Restraint for Ductile Iron Pipe	EA	No quote
183	10" Megalug Restraint for PVC Pipe	EA	No quote
184	12" Megalug Restraint for Ductile Iron Pipe	EA	No quote
185	12" Megalug Restraint for PVC Pipe	EA	No quote
186	2" Tyler Mechanical Joint Accessory Kit	EA	No quote
187	4" Tyler Mechanical Joint Accessory Kit	EA	No quote
188	6" Tyler Mechanical Joint Accessory Kit	EA	No quote
189	8" Tyler Mechanical Joint Accessory Kit	EA	No quote
190	10" Tyler Mechanical Joint Accessory Kit	EA	No quote
191	12" Tyler Mechanical Joint Accessory Kit	EA	No quote
192	4" Ductile Iron Tyler Bored Out Flange	EA	No quote
193	6" Ductile Iron Tyler Bored Out Flange	EA	No quote
194	8" Ductile Iron Tyler Bored Out Flange	EA	No quote
195	10" Ductile Iron Tyler Bored Out Flange	EA	No quote
196	12" Ductile Iron Tyler Bored Out Flange	EA	No quote
Watermain Pipe Items			
197	4" CL 52 Ductile Iron Pipe, 18'	EA	No quote
198	6" CL 52 Ductile Iron Pipe, 18'	EA	No quote
199	8" CL 52 Ductile Iron Pipe, 18'	EA	No quote
200	10" CL 52 Ductile Iron Pipe, 18'	EA	No quote
201	12" CL 52 Ductile Iron Pipe, 18'	EA	No quote
202	16" CL 52 Ductile Iron Pipe, 18'	EA	No quote



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NO.	ITEM	UNIT	UNIT COST
Water Service Related Items			
203	3/4" Flared Corporation Stop	EA	28.25
204	1" Flared Corporation Stop	EA	43.18
205	1 1/2" Flared Corporation Stop	EA	132.45
206	2" Flared Corporation Stop	EA	231.38
207	3/4" Full Port Flared Curb Box	EA	69.22
208	1" Full Port Flared Curb Box	EA	93.40
209	1 1/2" Full Port Flared Curb Box	EA	219.49
210	2" Full Port Flared Curb Box	EA	355.11
211	1 1/4" Curb Box	EA	30.32
212	1 1/2" Curb Box	EA	53.41
213	1 1/4" Curb Box Top	EA	12.42
214	Curb Box Extension Replacement Slip Sleeve	EA	No quote
215	3/4" Type K Copper - 60' Roll	EA	No quote
216	3/4" Type K Copper - 100' Roll	EA	No quote
217	1" Type K Copper - 60' Roll	EA	No quote
218	1" Type K Copper - 100' Roll	EA	No quote
219	1 1/2" Type K Copper - 60' Roll	EA	No quote
220	1 1/2" Type K Copper - 100' Roll	EA	No quote
221	2" Type K Copper - 40' Roll	EA	No quote
222	2" Type K Copper - 60' Roll	EA	No quote
223	3/4" Copper to 3/4" Copper Coupling	EA	16.99
224	3/4" Copper to 1" Copper Coupling	EA	25.19
225	1" Copper to 1" Copper Coupling	EA	29.76
226	3/4" Copper to 3/4" Strong Lead-Pack Coupling	EA	28.36
227	3/4" Copper to 3/4" Extra Strong Lead-Pack Coupling	EA	33.50
228	3/4" Copper to 3/4" Double Extra Strong Lead-Pack Coupling	EA	39.49
229	1" Copper to 3/4" Strong Lead-Pack Coupling	EA	49.66
230	1" Copper to 3/4" Extra Strong Lead-Pack Coupling	EA	47.86
231	1" Copper to 1" Strong Lead-Pack Coupling	EA	59.07



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(For complete information covering these items, see specifications)

NO.	ITEM	UNIT	UNIT COST
232	1" Copper to 1" Extra Strong Lead-Pack Coupling	EA	42.13
233	1" Copper to 1" Double Extra Strong Lead-Pack Coupling	EA	53.28
Meter Items			
234	3/4" Ford Meter Horn	EA	70.32
235	1" Ford Meter Horn	EA	109.39
236	3/4" Ford Ball Valve (Check Specifications)	EA	No quote
237	1" Ford Ball Valve (Check Specifications)	EA	No quote
238	5/8" x 1/2" Pipe Thread Ford Meter Coupling	Pkg	436.50
239	5/8" x 3/4" Pipe Thread Ford Meter Coupling	Pkg	495.50
240	3/4" Ford Meter Coupling	Pkg	276.25
241	1" Ford Meter Coupling	Pkg	229.80
242	1 1/2" Large Bronze Meter Flange Kit	EA	95.81
243	2" Large Bronze Meter Flange Kit	EA	131.54
244	3" Large Bronze Meter Flange Kit	EA	244.88
245	4" Large Bronze Meter Flange Kit	EA	391.22
246	3" Zenner FHZ30S Hydrant Meter w/Check Valve	EA	No quote
247	Ground clamp, 1 1/2"	EA	No quote
Storm Sewer Items			
248	Manhole Frame & Solid Lid, 4", R-1647-B	EA	306.67
249	Manhole Frame & Solid Lid, 7", R-1772-B	EA	306.67
250	Manhole Frame & Solid Lid, 9", R-1713-B	EA	312.22
251	Combination Inlet Frame, Grate, & Curb Box, R-3015-R	EA	434.44
252	Beehive Grate, R-4340-B	EA	182.22
253	Beehive Grate, R-4341-A	EA	282.22
254	Beehive Grate, R-4342	EA	277.78
255	Solid Cover R-1712	EA	140.00
256	Open Cover R-2502, Type D	EA	128.89
257	Curb Box - R-3015	EA	125.56
258	Curb Frame R-3015	EA	193.33
259	Grate - R-3015	EA	115.56
260	Inlet Filter for IDOT Type 1 Frame (Manhole Frame)	EA	No quote



Schedule of Prices
City of Aurora Water & Sewer
Maintenance Division
2022 Materials and Supplies
Bid 21-69

RETURN WITH BID

(For complete information covering these items, see specifications)

NO.	ITEM	UNIT	UNIT COST
261	Inlet Filter for IDOT Type 8 Frame (Behive Frame)	EA	No quote
262	Inlet Filter for IDOT Type 23 Frame (Combination Curb Frame)	EA	No quote
263	Composite Adjusting Ring, 3/4" x 1-1/2"	EA	No quote
264	Composite Adjusting Ring, 0.75"	EA	No quote
265	Composite Adjusting Ring, 1"	EA	No quote
266	Composite Adjusting Ring, 1.25"	EA	No quote
267	Composite Adjusting Ring, 1.5"	EA	No quote
268	Composite Adjusting Ring, 1.75"	EA	No quote
269	Composite Adjusting Ring, 2"	EA	No quote
270	Composite Adjusting Ring, 2.25"	EA	No quote
271	Composite Adjusting Ring, 2.5"	EA	No quote
272	Composite Adjusting Ring, 4"	EA	No quote
273	Composite Adjusting Ring, 6"	EA	No quote
274	M-1 Structural Adhesive/Sealant	EA	No quote
275	2' x 24" Catch Basin with Base	EA	No quote
276	2' x 30" Catch Basin with Base	EA	No quote
277	2' x 36" Catch Basin with Base	EA	No quote
278	2' x 48" Catch Basin with Base	EA	No quote
279	3' x 36" Catch Basin with Base	EA	No quote
280	3' x 16" Barrell Section	EA	No quote
281	3' x 24" Barrell Section	EA	No quote
282	3' x 36" Barrell Section	EA	No quote
283	3'x 48" Barrel Section	EA	No quote
284	3' x 18" Cone Offset	EA	No quote
285	3' Flat Top Eccentric Opening, Non-Tongue and groove	EA	No quote
286	3' Flat Top Concentric Opening, Non-Tongue and groove	EA	No quote
287	3' Flat Top Eccentric Opening, Tongue and Groove	EA	No quote
288	3' Flat Top Concentric Opening, Tongue and groove	EA	No quote



**Schedule of Prices
City of Aurora Water & Sewer
Maintenance Division
2022 Materials and Supplies
Bid 21-69**

RETURN WITH BID

(For complete information covering these items, see specifications)

NO.	ITEM	UNIT	UNIT COST
289	3' Diameter Base	EA	No quote
290	4' Flat Top, 6" Thickness, Concentric Opening, Tongue and Groove	EA	No quote
291	4' Flat Top, 6" Thickness Eccentric Opening Tongue and Groove	EA	No quote
292	4' Flat Top, 6" Thickness, Concentric Opening, Non-Tongue and Groove	EA	No quote
293	4' Flat Top, 6" Thickness Eccentric Opening Non-Tongue and Groove	EA	No quote
294	4' Flat Top, 12" Thickness, Concentric Tongue and Groove	EA	No quote
295	4' Flat Top, 12" Thickness, Eccentric Tongue and Groove	EA	No quote
296	4' Flat Top, 12" Thickness, Concentric Non-Tongue and groove	EA	No quote
297	4' Flat Top, 12" Thickness, Eccentric Non-Tongue and groove	EA	No quote
298	4' x 32" Manhole with Base	EA	No quote
299	4' x 48" Barrel Section	EA	No quote
300	4' Base	EA	No quote
301	5' Flat Top, 6" Thickness, Concentric Opening, Tongue and Groove	EA	No quote
302	5' Flat Top, 6" Thickness Eccentric Opening Tongue and Groove	EA	No quote
303	5' Flat Top, 6" Thickness, Concentric Opening, Non-Tongue and Groove	EA	No quote
304	5' Flat Top, 6" Thickness Eccentric Opening Non-Tongue and Groove	EA	No quote
305	5' Flat Top, 12" Thickness, Concentric Tongue and Groove	EA	No quote
306	5' Flat Top, 12" Thickness, Eccentric Tongue and Groove	EA	No quote
307	5' Flat Top, 12" Thickness, Concentric Non-Tongue and groove	EA	No quote
308	5' Flat Top, 12" Thickness, Eccentric Non-Tongue and groove	EA	No quote
309	5' x 32" Manhole with Base	EA	No quote
310	5' x 48" Barrel Section	EA	No quote
311	5' Base	EA	No quote
312	12" Diameter ADS N-12 (Water Tight Joints, 20' Sticks)	EA	No quote
313	15" Diameter ADS N-12 (Water Tight Joints, 20' Sticks)	EA	No quote
314	12" Diameter RCP	EA	No quote
315	15" Diameter RCP	EA	No quote
316	18" Diameter RCP	EA	No quote



Schedule of Prices
City of Aurora Water & Sewer
Maintenance Division
2022 Materials and Supplies
Bid 21-69

RETURN WITH BID

(For complete information covering these items, see specifications)

NO.	ITEM	UNIT	UNIT COST
317	24" Diameter RCP	EA	No quote
318	12" Diameter RCP Flared End Section	EA	No quote
319	15" Diameter RCP Flared End Section w/Grate	EA	No quote
320	18" Diameter RCP Flared End Section w/Grate	EA	No quote
321	24" Diameter RCP Flared End Section w/Grate	EA	No quote
Sanitary Sewer Items			
322	Sanitary Manhole Chimney Seals	EA	No quote
323	4" SDR-26 PVC 22.5 Degree Bend	EA	No quote
324	4" SDR-26 PVC 45 Degree Bend	EA	No quote
325	6" SDR-26 PVC 22.5 Degree Bend	EA	No quote
326	6" SDR-26 PVC 45 Degree Bend	EA	No quote
327	6"x6" SDR-26 PVC WYE	EA	No quote
328	6"x6" SDR-26 PVC Tee	EA	No quote
329	8" SDR-26 PVC 22.5 Degree Bend	EA	No quote
330	8" SDR-26 PVC 45 Degree Bend	EA	No quote
331	8"x6" SDR-26 PVC WYE	EA	No quote
332	8"x6" SDR-26 PVC Tee	EA	No quote
333	10" SDR-26 PVC 22.5 Degree Bend	EA	No quote
334	10" SDR-26 PVC 45 Degree Bend	EA	No quote
335	10"x6" SDR-26 PVC WYE	EA	No quote
336	10"x6" SDR-26 PVC Tee	EA	No quote
337	4" SDR-26 PVC Pipe, 14'	EA	No quote
338	6" SDR-26 PVC Pipe, 14'	EA	No quote
339	8" SDR-26 PVC Pipe, 14'	EA	No quote
340	10" SDR-26 PVC Pipe, 14'	EA	No quote
341	12" SDR-26 PVC Pipe, 14'	EA	No quote
342	15" SDR-26 PVC Pipe, 14'	EA	No quote
343	18" SDR-26 PVC Pipe, 14'	EA	No quote



Schedule of Prices
City of Aurora Water & Sewer
Maintenance Division
2022 Materials and Supplies
Bid 21-69

RETURN WITH BID

(For complete information covering these items, see specifications)

NO.	ITEM	UNIT	UNIT COST
Miscellaneous Items			
344	Krylon Industrial Quik-Mark Blue Marking Paint, 17 Oz	EA	No quote
345	Krylon Industrial Quik-Mark Green Marking Paint, 17 Oz	EA	No quote
346	Krylon Industrial Quik-Mark White Marking Paint, 17 Oz	EA	No quote
347	Hydraulic Cement, 50 LB Pail	EA	No quote
348	Masonry Mortar Type M, 80lb Bag	EA	No quote
349	Concrete Precast Brick - 2.25" x 3.5" x 7.5"	Pallet	No quote
350	Concrete Precast Block - 3.5" x 7.5" x 15.5"	Pallet	No quote
351	Mastic Sealing Band, 3"x50'	Roll	No quote
352	Mastic Sealing Band, 6"x50'	Roll	No quote
353	Mastic Sealing Band, 9"x50'	Roll	No quote
354	Mastic Sealing Band, 12"x50'	Roll	No quote
355	Butyl Rubber Sealant, 3/8"x3.5"x16'	Roll	No quote
356	Butyl Rubber Sealant, 3/4"x3/4"x16'	Roll	No quote
357	Type II Barricade	EA	No quote



(If an individual)

Signatures

Signature of Bidder _____

Business Address _____

(If a partnership)

Firm Name _____

Signed by _____

Business Address _____

Insert
Names and
Addresses of
All Partners

(If a corporation)

Corporate Name Ferguson Waterworks

Signed By [Signature] (Branch Manager)

Business Address 1720 state st.

DeKalb, IL 60115

~~President~~ Patrick Yantos (Branch Manager)

Secretary _____

Treasurer _____

Attest:

Ryan Raupp

Secretary



BIDDER'S CERTIFICATION

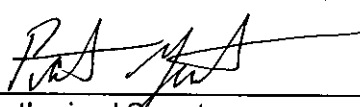
I/We hereby certify that:

- A. A complete set of bid papers as intended have been received and that I/We will abide by the contents and/or information received and/or contained therein.
- B. I/We have not entered into any collusion or other unethical practices with any other person, firm, or employee of the City, which would in any way be construed as an unethical practice.
- C. I/We comply with all current Federal, State, and Local laws, statutes, rules, and regulations referencing equal opportunity employment practices.
- D. I/We will abide by all codes, rules, regulations, ordinances, and statutes of the City of Aurora, Counties of Kane, DuPage, as applicable and the State of Illinois and the United States of America.
- E. I/We hereby certify that we have adopted a written sexual harassment policy which is in accordance with the requirements set forth in 775 ILCS 5/2-105(A)(4) and further certify that I/We are also in compliance with all other requirements contained in 775 ILCS 5/2-105(A).
- F. I/We have in place a:
 - ☒ written program which meets or exceeds the program requirements of the Substance Abuse Prevention on Public Works Projects Act (Public Act 95-0635), and will provide a written copy thereof to the City of Aurora or
 - ☐ collective bargaining agreement which deals with the subject matter of the Substance Abuse Prevention on Public Works Projects Act (Public Act 95-0635) – **Contractor shall check the box for the policy that applies.**

Ferguson Waterworks
Company Name

1720 State Street. DeKalb, IL 60115
Address

Patrick Yentes
Name of Corporate or Company Official (print)


Authorized Signature

Date 10/27/21

Branch Manager
Title

Phone 701-371-3033

Certification Regarding Debarment, Suspension and Other Responsibility Matters

The prospective participant to the best of its knowledge and belief that it and its principles:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.

(c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in fine of up to \$10,000 or imprisonment for up to 5 years, or both.



10/27/2021

(Signature of Authorized Representative) (Date)

I am unable to certify the above statements. My explanation is attached.

Bidder Certification In Compliance with Article 33E to the "Criminal Code of 1961"

I Patrick Yentes, do hereby certify that:
(Name)

1. I am Branch Manager of the Ferguson Waterworks
(Position) (Firm)
and have authority to execute this certification on behalf of the firm
2. This firm is not barred from bidding on this contract as a result of a violation of Section 33E-3, Bid-rigging, or Section 33E-4, Bid Rotating, as set forth in Article 33E to the "Criminal Code of 1961."

Name of Firm Ferguson Waterworks

Signature Patrick Yentes

Title Branch Manager

Date 10/26/2021

Corporate Seal (where appropriate)

On this 26th day of October, 2021, before me appeared (Name) Patrick Yentes to me personally known, who, being duly sworn, did execute the foregoing affidavit, and did state that he or she was properly authorized by (Name of Firm) Ferguson Waterworks to execute the affidavit and did so as his or her free act and deed.

Notary Public Cheryl R Brown Commission Expires 12/19/2024

Notary Seal





City of Aurora, IL - Local Vendor Preference Application

The business identified below is requesting to be placed on the City of Aurora, Illinois Local Vendor Preference list, in accordance with ordinance O18-070, amended with ordinance O20-029 approved April 28, 2020.

- 1) Date Submitted: _____
- 2) Name of Business: _____
- 3) Address of Local Office: _____
- 4) City, State, Zip: _____
- 5) Company's Web Address: _____
- 6) Phone: _____ Fax: _____
- 7) County your Local Business is Located In: _____

Submitted By (Signature): _____

Print Name and Title: _____

Email Address: _____

Sec. 2-410.-Prequalification; local bidder.

- (a) If an interested business would like to prequalify as a "local business", such a business shall complete and submit the prequalification application along with supporting documentation, as listed below, and the applicable fee as set by the City Council, to the Finance Department:
- a. Evidence that the business has established and maintained a physical presence in the City of Aurora, by virtue of the ownership or lease of all or a portion of a building for a period of not less than twelve (12) consecutive months prior to the submission of the prequalification application; and
 - b. Evidence demonstrating that the business is legally authorized to conduct business within the State of Illinois and the City of Aurora, and has a business registered to operate in the City if required; and
 - c. Evidence that the business is not a debtor to the City of Aurora. For purposes of this subparagraph, a debtor is defined as having outstanding fees, water bills, sales tax or restaurant/bar tax payments that are thirty (30) days or more past due, or has outstanding weed or nuisance abatements or liens, has failure to comply tickets or parking tickets that are not in dispute as to their validity and are not being challenged in court or other administrative processes.

Back up documentation for (a) a. and (a) b. must accompany this submittal or application will be rejected.

Please note for (a) c. above the City of Aurora will verify internally that your company does not have any outstanding fees. Your company should make sure that to the best of its knowledge all bills are current.

Return completed application, with all required backup documentation to:
City of Aurora, Attn: Purchasing Division, 44 E. Downer Place, Aurora, IL 60507
Or email to: PurchasingDL@Aurora-il.org

Do not write below this line: For City of Aurora use ONLY

- (a) a.
(a) b.
(a) c.

Date: _____

Approved: _____
Letter Sent: _____

Denied: _____
Initials: _____

SPECIAL PROVISIONS

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<i>Provision Number</i>	<i>Title</i>
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SP 2 – HYDRANT METER	
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SP 3 – VALVES	
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SP 4 – VALVE BOXES	
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SP 5 – MISSION COUPLING	
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SP 6 – REPAIR CLAMP	
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SP 7 – DUCTILE IRON SLEEVE FITTINGS	
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SP 8 – CAST COUPLINGS	
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SP 9 – SINGLE BOLT CAST COUPLINGS	
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SP 10 – MEGALUG RETAINER GLAND	
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SP 11 – MECHANICAL JOINT ACCESSORY KIT	
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SP 12 – DUCTILE IRON BORED OUT FLANGE	
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SP 13 – SDR-26 PVC PIPE	
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SP 14 – CLASS 52 DUCTILE IRON PIPE	
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SP 15 – CORPORATION STOP	
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SP 16 – CURB BOX	
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SP 17 – METER HORN	
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SP 18 – BALL VALVE	
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SP 19 – METER COUPLING	
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SP 20 – TYPE K COPPER	
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SPECIAL PROVISIONS

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SP 25 –	STORM STRUCTURES
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SP 27 –	GROUND CLAMP
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SP 28 –	BUTYL MASTIC SEALANT
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SP 30 –	ADS PIPE
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SP 35 –	WATER SERVICE COUPLINGS
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SP 36 –	HIGH PERFORMANCE GREASE FOR FOOD PROCESSING EQUIPMENT
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SP 37 –	MINERAL OIL LUBRICANT
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CITY OF AURORA SPECIAL PROVISIONS

The following Special Provisions supplement the "General Specifications," the Illinois Department of Transportation's "Standard Specifications For Road and Bridge Construction," (herein after called the "Standard Specifications", the City of Aurora's "Standard Specifications for Improvements," the "Supplemental Specifications and Recurring Special Provisions," the "Standard Specifications for Water And Sewer Main Construction in Illinois, Sixth Edition," the "Standard Specifications for Traffic Control Items," and the latest edition of the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways" in effect on the date of invitation for proposals. These special provisions apply to and govern the **Water & Sewer Maintenance Division 2022 Materials and Supplies Request for Quotations** and in case of conflict with any part or parts of said specifications; these Special Provisions shall take precedence and shall govern.

All appropriate parts shall be lead free and be stamped "NL". Materials are to be manufactured in the United States. **Any variation from the special provisions below should be approved prior to providing bid pricing.**

All materials shall be delivered to the Water & Sewer Maintenance Division within 5 business days of being ordered.

SP 1 - FIRE HYDRANT ASSEMBLY

These specifications are to be used in conjunction with the AWWA Standard C502 for fire hydrants for ordinary water works service, and the City of Aurora's Standard Specifications for Improvements.

All materials used in the production of fire hydrants for ordinary service shall conform to the specifications designated for each material listed in AWWA Standard C502.

The hydrant shall be Waterous Pacer WB-67 (5 1/4" barrel) of a pattern approved by the Engineer. The seat must be bronze. The name or mark of the manufacturer, size of the valve opening shall be plainly cast in raised letters and so placed on the hydrant barrel as to be visible after the hydrant has been installed.

Hydrant markers shall be RoDon Hydra-Finder Hydrant Markers or an engineer approved equal. The marker shall be a 3/8" diameter white laminar matrix fiberglass shaft with 6" wide high reflectivity red striping tape. The hydrant marker shall have a standard length of 5'. The fiberglass shaft shall be attached to a heavy duty MIL SPEC chrome-plated spring mount connected to a 5/8" diameter bolt-on steel flat mounting bracket.

See the Figure 6 attached at the end for a diagram showing the specific hydrant replacement parts.

The ALPHA restraint joint shall have a working pressure of 350 psi and be as licensed and manufactured by Romac Industries, Inc.

SP 2 - HYDRANT METER

The Hydrant Meter shall be designed to measure a wide variety of cold potable water flows from hydrants where flows are in one direction. The hydrant meter provided shall be a Zenner FHZ30S or approved equal. The hydrant meter shall comply with AWWA C701 Class II performance standards. The only moving parts in the meter shall be the rotor assembly and vertical shaft. All components of the meter shall be lead free. The optional NC2530B-CV check valve assembly shall be included with the hydrant meter. **The meters shall be 3" and read in century cubic feet.**

SP 3 - VALVES

The minimum requirements for all valves shall, in design, material and workmanship, conform to the standards of the latest AWWA C509-87, and C504. All materials used in the manufacture of waterworks valves shall conform to the AWWA standards designed for each material listed.

Gate Valve: Gate valves shall be resilient wedge with cast iron body, fully bronze mounted, non-rising stem with upper and lower thrust collars. Waterways shall be smooth. All valves shall open by turning counterclockwise. Valves shall meet or exceed ANSI/AWWA C-515-99 latest revision. Gate valves shall be Waterous series 2500 Resilient Wedge Gate Valves. All nuts, bolts, and threaded rods shall be stainless steel, Grade 304 bolts and Grade 316 nuts.

All gate valves shall be furnished with O-Ring Stem Seals. Number, size and design shall conform to the AWWA Standard for R/W valve O-Ring Stem Seals.

Cutting in Valve: Cutting in valves shall be resilient wedge with cast iron body, fully bronze mounted, non-rising stem with upper and lower thrust collars. Waterways shall be smooth. All valves shall open by turning counterclockwise. Valves shall meet or exceed ANSI/AWWA C-509 latest revision. Cutting in valves shall be Clow Model 2640 cutting in joint (MCJ) end Valves. All nuts, bolts, and threaded rods shall be stainless steel, Grade 304 bolts and Grade 316 nuts.

All cutting in valves shall be furnished with O-Ring Stem Seals. Number, size and design shall conform to the AWWA Standard for R/W valve O-Ring Stem Seals.

The ALPHA restraint joint shall have a working pressure of 350 psi and be as licensed and manufactured by Romac Industries, Inc.

SP 4 - VALVE BOXES

Valve boxes and extensions must be cast iron only. Valve boxes shall be 6850 Series as manufactured by Tyler Union. Adjustable cast iron valve boxes shall be screw type. The screw type valve box shall be adjustable by screwing the upper section over the lower section. As shown on the schedule of prices, this item shall be bid as a complete system and as spare parts for purchase as needed. Castings with cast iron ring and cover, and cast iron parts of valve boxes, shall conform to the requirements of Standard Specifications for Gray Iron Castings, ASTM Designation A-48.

SP 5 - MISSION COUPLING

Mission repair couplings shall be Style CNSS non-shear sewer couplings as manufactured by Cascade Water Works, Mfg. Co. of Yorkville, IL. The coupling shall be constructed with an outer shell of T-304 (ASTM A-240/ASME SA-240) stainless steel with three stainless steel heavy duty

worm gear fasteners (SAE J-1508 - MIL 5059-A) permanently welded in place and passivated per ASTM A-380. The shell shall fully encircle a 40 durometer ribbed gasket made from virgin SBR (ASTM D2000) rubber formulated for sewer service.

SP 6 - REPAIR CLAMP

Repair clamps shall be manufactured by The Ford Meter Company, Inc. (FS1), Cascade Waterworks MFG. (CR1), Smith/Blair (261), PowerSeal (3121AS) or an approved equal. All repair clamps shall have type 304 stainless steel components and an 18/8 grade. All clamps shall have a Nitrile (Buna-N) gasket. The lugs shall also be type 304 stainless steel.

SP 7 - DUCTILE IRON SLEEVE FITTINGS

All fittings shall be ductile iron conforming to the latest ANSI specifications A21.10 for short body fittings, twelve inches (12") or less, and AWWA C110 for fittings fourteen inches (14") or larger. Long body sleeves shall be provided unless directed otherwise. When specified to have mechanical joints, Mega Lug wedge action retaining glands, or approved equal shall be included. All nuts and bolts used for jointing shall be stainless steel, Grade 304 bolts, and Grade 316 nuts. Ductile Iron sleeves shall be manufactured by Tyler Union or an approved equal.

SP 8 - CAST COUPLINGS

Cast Couplings shall be manufactured by The Ford Meter Company, Inc. (Style FC1), Cascade Waterworks MFG. (Omega Coupling), Smith/Blair (441), PowerSeal (3501), or an approved equal. All couplings shall meet or exceed requirements of AWWA C-219 and should have a minimum working pressure of 250 psi. All couplings shall be certified to NSF/ANSI 61-G with Nitrile (Buna N) gaskets. An approved equal is to come with stainless steel Grade 304 bolts and Grade 316 nuts.

SP 9 - SINGLE BOLT CAST COUPLINGS

Single Bolt Cast Couplings shall be Alpha restrained joint manufactured by Romac Industries, Inc. or an approved equal. All couplings shall meet or exceed requirements of AWWA A 536, grade 65-45-12 and should have a minimum working pressure of 350 psi. All couplings shall contact gaskets certified by UL to meet NSF/ANSI 61. An approved equal is to come with stainless steel Grade 304 bolts and Grade 316 nuts.

SP 10 - MEGALUG RETAINER GLAND

MegaLug retainer glands shall be Series 1100 (DI) or Series 2000PV (PVC) as manufactured by EBBA Iron Inc. or approved equal (set screw retainer glands will not be accepted). The mechanical joint restraint shall be constructed of ductile iron meeting ASTM A536 and it shall have a pressure rating of 350 PSI. All nuts and bolts shall be stainless steel, Grade 304 bolts and Grade 316 nuts.

SP 11 - MECHANICAL JOINT ACCESSORY KIT

The mechanical joint accessory kit shall include a rubber gasket and a ductile iron backing flange of the size specified in the pay item and the appropriate number of bolts required for the kit size. The kit manufacturer shall be Tyler Union, or an approved equal, and the components shall be for use with ductile iron pipe.

SP 12 - DUCTILE IRON BORED OUT FLANGE

Ductile iron bored out flanges shall be manufactured by Tyler Union or an approved equal.

SP 13 - SDR-26 PVC PIPE

All pipe shall meet the requirements of ASTM D3034 for 4" through 15" and F679 for 18" through 36" pipe. All pipe shall be made from quality PVC resin, compounded to provide physical and mechanical properties that equal or exceed cell class 12454 or 12364 as defined in ASTM D1784. The bell shall consist of an integral wall section with a solid cross section elastomeric gasket which meets the requirements of ASTM F477.

SDR-26 PVC plastic pipe shall be tested as follows:

Manufacturer shall submit certified copies of all reports of tests conducted by an independent laboratory of PVC Plastic Pipe. Tests shall be conducted in accordance with Standard Method of Test for "External Loading Properties of Plastic Pipe by Parallel-Plate Loading", ASTM Standard D2412. Tests shall also be conducted in accordance with ASTM D 3212 to demonstrate joint performance at 5% maximum diametric deflection of the spigot, as specified in Article 7.4 of ASTM D 3212.

Maximum allowable ordinate as measured from the concave side of the pipe shall not exceed 1/16 inch per foot of length. Pipe shall be so constructed that the initial internal vertical diameter does not decrease by more than 5% in order to provide the complete hydraulic carrying capacity conceived by the design engineer, and to obtain the joint performance at 5% maximum diametric deflection as specified in Article 7.4 of ASTM D 3212.

SP 14 - CLASS 52 DUCTILE IRON PIPE

Ductile-iron pipe shall conform to ANSI Specification A21.51 or AWWA C151. Class 52, thickness designation, casting, marking, testing, etc. shall be provided in accordance with applicable ANSI or AWWA standards.

Cement lining shall be included in accordance with ANSI A21.4 (AWWA C-104). All pipe, specials and fittings shall be cement mortar lined in the shop with centrifugally spun lining in accordance with AWWA C205-85 or cement mortar lined mechanically in accordance with AWWA C602-83. Use ASTM C150, Type II, cement for lining. Field joints shall be made in accordance with AWWA C205, Appendix A.

Pipe joints shall be either push-on (rubber gasket) type as recommended by the pipe manufacturer. All pipe shall be furnished with a depth mark to assure that the spigot end is inserted to the full depth of the joint.

SP 15 - CORPORATION STOP

Corporation stops shall have flared connections conforming to ANSI/AWWA C-800 and shall be the following brands or approved equal: A.Y. McDonald 4701 or Ford F-600. All appropriate parts shall be lead free and be stamped "NL".

SP 16 - CURB BOX

All curb boxes shall be Minneapolis pattern with flared connections conforming to ANSI/AWWA C800 and shall be the following brands or approved equal: A.Y. McDonald 6104, Ford B22-444M, or Mueller H-15151. All curb boxes shall be 5'6" bury Minneapolis pattern with minimum 1-1/4" upper section equal to: A.Y. McDonald 5614 or Ford EM-55-56. (Accepted Brands: Mueller, Star Pipe Products, Sigma/Nappco, Bingham & Taylor or approved equal). All appropriate parts shall be lead free and be stamped "NL".

SP 17 - METER HORN

Meter horns shall be CH88-33 style as manufactured by The Fort Meter Box Company, Inc. or engineer approved equal. All brass shall conform to AWWA Standard C800 (ASTM B-62 and ASTM B-584, UNS NO C83600-85-5-5-5). Meter threads shall conform to AWWA C700. Copper shall conform to ASTM B-75 and shall consist of copper alloy #122.

SP 18 - BALL VALVE

Ford ball valves shall be manufactured in accordance with AWWA C800. The valve shall be designed to withstand water pressure up to 300 psi and maintain a watertight seal. The valve shall include a fluorocarbon-coated ball that is supported by molded Buna-N or EPDM rubber seats.

SP 19 - METER COUPLING

Meter couplings shall be C38-11-2-NL 5/8", C38-23-2-75-NL 3/4", or C38-44-2-625-NL 1" models as style as manufactured by The Fort Meter Box Company, Inc. or engineer approved equal. This item shall be bid per Package with 50 per package for the 5/8" size, 25 per package for the 3/4", and 15 per package for the 1" couplings. The 5/8" and 3/4" meter couplings shall have a 3/4" male thread size and the 1" meter couplings shall have a 1" male thread size. Couplings shall be Ford Meter Box no-lead brass products manufactured from UNS/CDA No. 89833 alloy.

SP 20 - TYPE K COPPER

Type K copper pipe shall be supplied in the diameter and length as specified. The type K copper shall have a color code of green and shall be in accordance with ASTM B 88 & AWWA publication M-22 entitled, "Water Service Lines And Meters".

SP 21 - WATER METER FLANGE KIT

The flange kit shall include two water meter flanges, two gaskets, four stainless steel nuts and bolts for the 1 1/2" and 2" flanges, eight stainless steel nuts and bolts for the 3" and sixteen stainless steel nuts and bolts for the 4" flanges. All parts and components manufactured 100% in USA. Parts shall be manufactured in accordance with the following specifications: Bronze casting C87850 ECOBRASS (.09% lead max), Round flanges conforming to ANSI B16.1, Gaskets ANSI/AWWA C111/A21.11, Bolts ANSI B18.2.1, Nuts SAE J995 Grade 5 with dimensional tolerances ANSI B182.2.2, & plating ASTM F1491. All appropriate parts shall be lead free and be stamped "NL".

SP 22 - MARKING PAINT

Marking paint provided shall be Krylon Industrial Quik-Mark (or approved equal) for inverted use, water based, 20 ounces in size (net weight 17 oz), and of the color specified. The paint shall also be environmentally safe.

SP 23 – NEENAH FRAMES AND GRATES

Frames and lids shall be manufactured by NEENAH and the type specified. All manhole type B covers shall have "CITY OF AURORA" cast into the top in two (2) inch high lettering and shall be the concealed pick hole type. All type B covers shall have a machined surface and a watertight rubber gasket seal.

SP 24 - HYDRAULIC CEMENT

Hydraulic cement shall be Speccrete W-10 Waterstopper Plug Cement or an engineer approved equal. The compressive strength shall be a minimum 4,200 P.S.I. after 28 days per ASTM C-109. The hydraulic cement shall have a final set time of 3-5 minutes per CRD C-621. The requested material shall come in a 50 pound pail. The cost supplied shall be for each 50 pound pail of hydraulic cement.

SP 25 – STORM STRUCTURES

New storm structures shall be constructed of pre-cast reinforced concrete in accordance with the Standard Specifications for Water and Sewer Main Construction in Illinois.

SP 26 – TYPE II BARRICADE

All type II barricades shall be in conformance with the Illinois Department of Transportation's "Standard Specifications For Road and Bridge Construction" (current edition) and be equipped with a yellow light that is battery operated.

SP 27 – GROUND CLAMP

Ground clamps shall be Burndy C11N model or engineer approved equal. The ground clamp shall be cast bronze for cable to water pipe or copper tube connection using a 10 – 2 AWG. It shall connect to a ½" to 1" water pipe with a torque of 50 of-in.

SP 28 – BUTYL MASTIC SEALANT

Butyl Mastic Sealant shall be NPC-Bidco C-56 Trelleborg or engineer approved equal. Each roll of Butyl Mastic Sealant shall be thickness, width and length as specified in the individual pay items. All approved equals shall meet or exceed the following:

- Federal Specifications SS-S-210 A "Sealing Compound, Preformed Plastic for Pipe Joints", Type 1, Rope Form
- AASHTO Designation M-198 75 I, Type B, Flexible Plastic Gasket (Bitumin)
- ASTM Designation C-990-91.

SP 28 – MASTIC SEALING BAND

Mastic Sealing Band shall be used to externally seal manhole cone and barrel sections. The band shall have an outer layer of rubber or polyethylene with an under layer of rubberized mastic (with a protective film), meeting the requirements of ASTM C-877, **type II or *type III.

SP 30 – ADS PIPE

Pipe shall consist of N-12 Dual Wall WT IB HDPE Pipe as manufactured by Advanced Drainage Systems (ADS) or approved equal. The pipe supplied shall utilize water tight joints meeting ASTM D3212. The pipe shall be joined using a bell & spigot joint meeting AASHTO M252 for 4-10 inch diameter pipe, AASHTO M294 for 12-60 inch diameter pipe, and ASTM F2306 for 12-60 inch diameter pipe. Gaskets shall be installed by the pipe manufacturer and covered with a removable, protective wrap to ensure the gasket is free from debris. Material for pipe and fitting production shall be high-density polyethylene conforming with the minimum requirements of cell classification 424420C for 4-10 diameters, and 435400C for 12-60 inch diameters, as defined and described in the latest version of ASTM D3350, except that carbon black content shall not exceed 4%.

SP 31 – COMPOSITE ADJUSTMENT RINGS

The acceptable manufacturer shall be PRO-RING by Cretex Specialty Products or an approved equal. The grade adjustment rings shall be manufactured from ARPRO Expanded Polypropylene, (EPP), black. 5000 series meeting ASTM D3575 and ASTM D48-1913; B6D7G4L3M₂4S2T₁7W7. The rings shall be manufactured using a high compression molding process to produce a finished density of 120 g/l ((7.5pcf). "Grade" adjustment rings may contain either an upper or lower keyway (tongue and groove) for vertical alignment and/or an adhesive trench on the underside with a flat top. The grade adjustment rings shall be capable of supporting the minimum requirements of AASHTO M-306, H-25 and HS-25, be UV stable and be resistant to chemicals and corrosion commonly associated with the sanitary and storm sewer environments.

Sealant shall be Cretex 28 oz. adhesive sealant in white or approved equal and shall be paid for each tube. The M-1 Structural Adhesive/Sealant or equal meeting the following specifications shall be used to set the rings as required in the manufacturers specifications:

- ASTM C-920, Type S, Grade NS, Class 25, Uses NT, T, M, G, A and O
- Federal Specification TT-S-00239-C Type II, Class A
- Corps of Engineers CRD-C-541, Type II, Class A
- Canadian Standards Board CA 19, 13-M82
- AAMA 802.3-08 Type II, AAMA 803.3-08 Type I and AAMA 805.2-08 Group C

SP 32 – T-BOLTS AND NUTS

All T-Bolts and Nuts shall be manufactured per ANSI/AWWA C111/A21.11. The acceptable manufacturer shall be Active Waterworks Industries or an approved equal. T-Bolts shall be stainless steel grade 304 and nuts shall be stainless steel grade 316. The size shall be ¾" x 3.5". The cost supplied shall be per each case of 125 T-Head Bolts and Nuts.

SP 33 – INLET FILTERS

All inlet filters shall be Flex Storm Catch-it models as manufactured by Advanced Drainage Systems or an approved equal. The models provided shall fit inside the IDOT frame types listed.

SP 34 – CHIMNEY SEALS

All chimney seals shall be bandless and be Adaptor-Seal, Infi-Shield, CanUSA (wrapid seal), Flexrib or approved equal external chimney seal.

SP 35 – WATER SERVICE COUPLINGS

All water service repair couplings shall be the model and manufacturer listed in the attached table below or an engineer approved equal. All connections to copper pipes shall utilize a flared fitting.

Water Service Coupling Models		
Part	Ford Meter Co.	A.Y. McDonald Mfg. Co.
3/4" Flare Copper to 3/4" Flare Copper Coupling	Q22-33-NL	74758 3/4"
3/4" Flare Copper to 1" Flare Copper Coupling	Q22-34-NL	74758 3/4"x1"
1" Flare Copper to 1" Flare Copper Coupling	Q22-44-NL	74758 1"
5/8" Double Extra Strong Lead (XXS) or 3/4" Strong Lead (S) to 3/4" Flare Copper Lead-Pack Coupling	Q12-33-Q32-23-NL	74758C-68 3/4"x5/8", 74758C-66 3/4"
3/4" XS to 3/4" Flare Copper Lead-Pack Coupling	Q22-33-NL	74758C-67 3/4"
3/4" XXS to 3/4" Flare Copper Lead-Pack Coupling	Q32-33-NL	74758C-68 3/4"
5/8" XXS or 3/4" S to 1" Flare Copper Lead-Pack Coupling	Q12-34-Q32-24-NL	74758C-68 1"x5/8", 74758C-66 1"x3/4"
3/4" XS to 1" Flare Copper Lead-Pack Coupling	Q22-34-NL	74758C-67 1"x3/4"
1" S to 1" Flare Copper Lead-Pack Coupling	Q12-44-NL	74758C-66 1"
1" XS to 1" Flare Copper Lead-Pack Coupling	Q22-44-NL	74758C-67 1"
1" XXS to 1" Flare Copper Lead-Pack Coupling	Q32-44-NL	74758C-68 1"

SP 36 – HIGH PERFORMANCE GREASE FOR FOOD PROCESSING EQUIPMENT

The product shall be a high performance multipurpose grease used for food and beverage processing equipment. The acceptable product shall be FM Grease 387 as manufactured by Fuchs Lubricants Co. or an approved equal. This product shall be acceptable as a grease with

incidental food contact (H1) according to the NSF International Registration Guidelines for Proprietary Substances and Nonfood Compounds (2013). This product shall be provided in the **6-1/2 ounce size** and shall be paid for as an each pay item.

SP 37 – MINERAL OIL LUBRICANT

The product shall be a medium SAE 20 grade oil used for general oiling or hydraulics. The acceptable product shall be FMO-350, ISO Grade 68, USP White Mineral Oil as manufactured by Lubriplate Lubricants or an approved medium SAE 20 grade oil equal. This product shall be acceptable for use as a release agent (3H) and as a lubricant with incidental food contact (H1) according to the NSF International Registration Guidelines for Proprietary Substances and Nonfood Compounds (2013). This product shall be provided in the **5 gallon pail size** and shall be paid for as an each pay item.

Parts List – Ductile Iron Pacer

Figure 6. 250 PSI Working Pressure Ductile Iron Pacer (Models W67-250 and WB67-250)

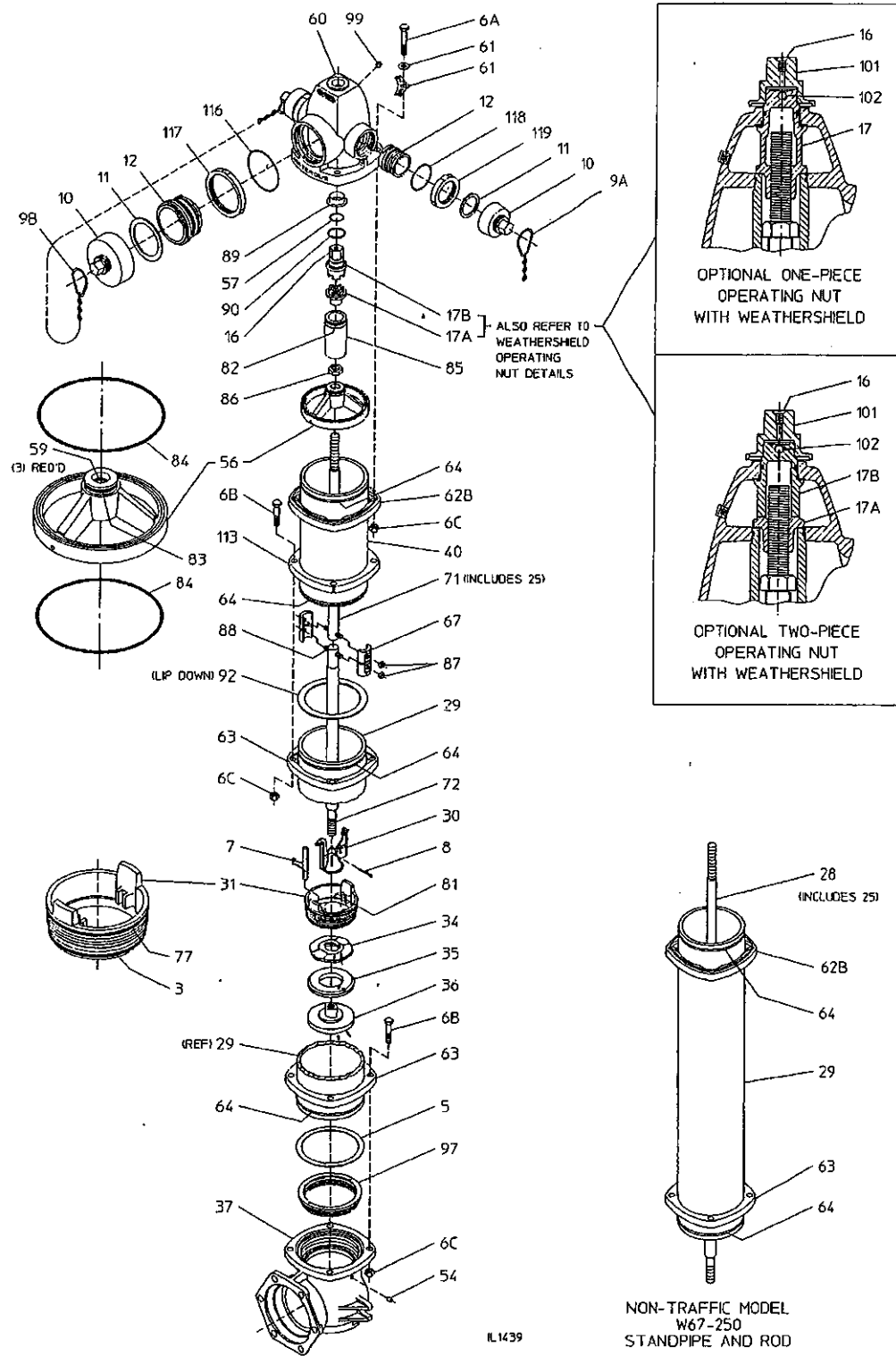


Table 3. Parts List for 250 PSI Working Pressure Ductile Iron Pacer (Models W67-250 and WB67-250)

REF NO.	DESCRIPTION	MATERIAL
3	O-ring (Lower valve seat), 5-5/8 x 5-7/8	Buna N
5	Lower standpipe gasket	Neoprene
6A	Hex hd bolt, 5/8-11 x 3-3/4 in.	Zinc plated steel
6B	Hex hd bolt, 5/8-11 x 3 in.	Zinc plated steel
6C	Hex nut, 5/8-11	Zinc plated steel
7	Drain plunger	Red brass
8	Cotter pin, 1/4 x 1-1/2 in.	Stainless steel, Type 304
9A, 9B	Nozzle cap chain, single or double	Zinc-plated steel
10	Nozzle cap, hose or pumper	Ductile iron
11	Cap gasket, hose or pumper	Neoprene
12	Nozzle, hose or pumper	Brass
16	Flat hd screw, 1/4-20 x 1/2 in.	Stainless steel, Type 304
17	Operating nut (one-piece)	Bronze
17A	Lower operating nut	Bronze
17B	Upper operating nut	Ductile iron**
25	Valve rod bushing (included with 71 & 28)	Red brass
28	Rod Assembly (includes 25) (non-Traffic model)	Steel rod
29	Lower standpipe (Traffic model)	Centrifugally cast ductile iron pipe
29	Standpipe (non-Traffic model)	Centrifugally cast ductile iron pipe
30	Crossarm	Bronze
31	Valve seat	Bronze
34	Upper valve washer	Ductile iron
35	Main valve rubber	Urethane
36	Lower valve washer	Ductile iron
37	Hydrant bottom	Ductile iron
40	Upper standpipe (Traffic model)	Centrifugally cast ductile iron pipe*
54	Drain bushing	Brass
56	Support wheel	Ductile iron
57	O-ring (Operating nut), 1-1/2 x 1-3/4	Buna N
59	O-ring (Support wheel), 1-1/8 x 1-3/8	Buna N
60	Nozzle section	Ductile iron
61	Bury depth plate	Aluminum
61	Bury depth plate washer	Zinc plated steel
62B	Upper standpipe flange	Ductile iron
63	Standpipe flange	Ductile iron
64	Flange lock ring	Stainless steel, Type 430
67	Coupling sleeve (2 halves)	Cast iron
71	Upper rod assembly (includes 25) (Traffic model)	Steel rod
72	Lower rod (Traffic model)	Steel rod
77	O-ring (Upper valve seat), 5-7/8 x 6-1/8	Buna N
81	Groove pin, 3/32 x 7/16 in.	Beryllium copper
82	O-ring (Upper tube seal), 2-3/8 x 2-5/8	Buna N
83	O-ring (Lower tube seal), 1-7/8 x 2-1/8	Buna N
84	Support wheel gasket	Buna N
85	Support tube	Ductile iron
86	Stop nut, 1"- 8	Zinc plated steel
87	Coupling nut, 1/2-20	Brass
88	Coupling stud, 1/2-20 x 2-9/16 in.	Stainless steel, Type 430
89	Nozzle section bushing assembly	Brass
90	Thrust ring	Teflon
92	Upper standpipe gasket	Neoprene
97	Valve seat insert	Bronze
99	Pipe plug, 1/4 NPT	Brass
101	Weathershield nut	Ductile iron
102	Spirol pin, hvy, 1/4 x 2-1/4 in.	Stainless steel
113	Breakable flange	Ductile iron
116	O-ring (pumper nozzle), 5-1/4 x 5-3/4	Buna N
117	Pumper nozzle retainer	Ductile iron
118	O-ring (hose nozzle), 3-1/4 x 3-5/8	Buna N
119	Hose nozzle retainer	Ductile iron

*AWWA Standard C151 (ANSI 21.51)

**Bronze or iron optional on some nut sizes.



DOMESTIC



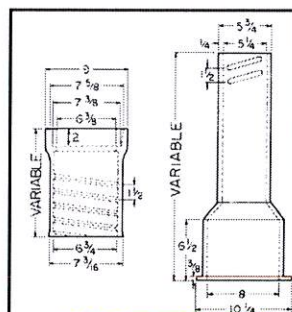
NON-DOMESTIC

SUBMITTAL:

(Current revisions for the noted Standards apply)

- SIZES:** Adjustable Slip and Screw type with standard assembly lengths ranging from 19" to 72"
(Lengths noted do not include the addition of risers, extensions, and/or bases). See the catalog or List Price guide for accessories, lids, bases, risers, meter covers, etc.
- STANDARDS:** Produced with Class 35 cast iron in accordance with and meeting all applicable terms and provisions of ASTM A48. All Tyler Union valve boxes when properly installed are suitable for use in conjunction with projects utilizing American Association of State Highway and Transportation Officials (AASHTO) standards and provisions.
- INSTALLATION:** Per AWWA M44, Manual of Water Supply Practices
- COATING:** The asphaltic bituminous coating is applied to a minimum thickness of 1.5 mil and the coating once dry is neither brittle when cold or sticky when exposed to the sun

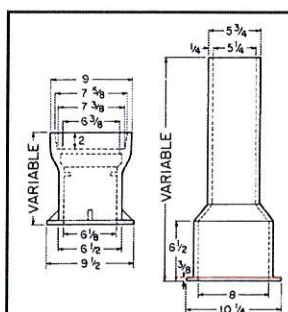
**For 4" - 12" Valves
5-1/4" Shaft, Screw Type**



**6850 SCREW TYPE
VALVE BOX
Cast Iron - 2 piece**

Components	Extension Height
10T + 15B	19-22
10T + 24B	27-32
16T + 24B	27-37
16T + 30B	33-43
16T + 36B	39-50
26T + 30B	36-52
26T + 36B	39-60
26T + 24B + #60 Ext	53-71
26T + 36B + #60 Ext	64-82

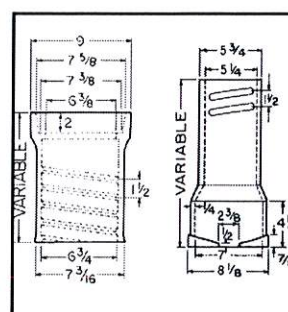
**For 4" - 12" Valves
5-1/4" Shaft, Slip Type**



**6855 SLIP TYPE
VALVE BOX
Cast Iron - 2 piece**

Components	Extension Height
10T + 15B	19-22
10T + 24B	27-32
16T + 24B	27-37
16T + 30B	33-43
16T + 36B	39-50
26T + 30B	36-52
26T + 36B	39-60
26T + 24B + #60 Ext	53-71
26T + 36B + #60 Ext	64-82

**For 3" - 20" Valves
5-1/4" Shaft, Screw Type**

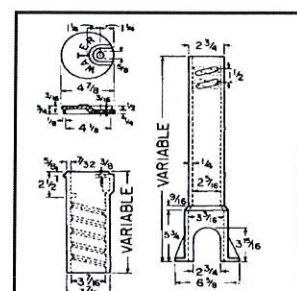


**6860 SCREW TYPE
VALVE BOX
Cast Iron - 3 piece**

Components	Extension Height
10T + 12B	27-37
10T + 18B	33-42
16T + 24B	39-49
16T + 30B	45-54
16T + 36B	51-60
26T + 30B	45-66
26T + 36B	51-72
16T + 24B + #60 Ext	63-72
26T + 24B + #60 Ext	63-84
26T + 36B + #60 Ext	74-94

NOTE: Base Required,
Order Separately

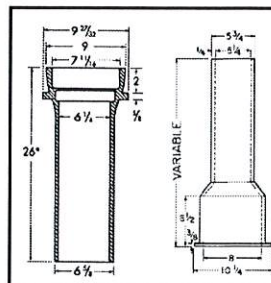
**For 1/2" to 2"
Curbstops**



**6500 SCREW TYPE
CURB/SERVICE BOX**

Components	Extension Height
12T + 12B	15-21
12T + 15B	18-24
15T + 15B	21-27
15T + 21B	24-33
15T + 27B	30-39
18T + 27B	30-42
18T + 33B	36-48
24T + 33B	36-54
24T + 39B	45-60
30T + 39B	41-64

NOTE: Enlarged Base
Available



**For 4" - 12" Valves
5-1/4" Shaft, Slip Type
7126 SLIP TYPE
VALVE BOX
Cast Iron - 2 Piece**

Components	Extension Height
26T + 30B	36-52
26T + 36B	39-60

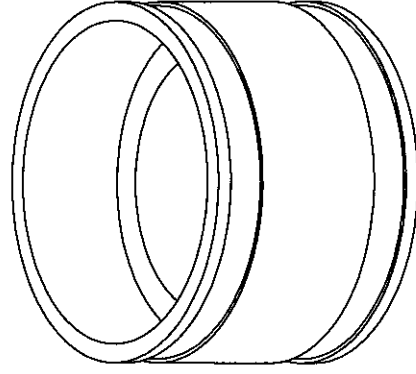
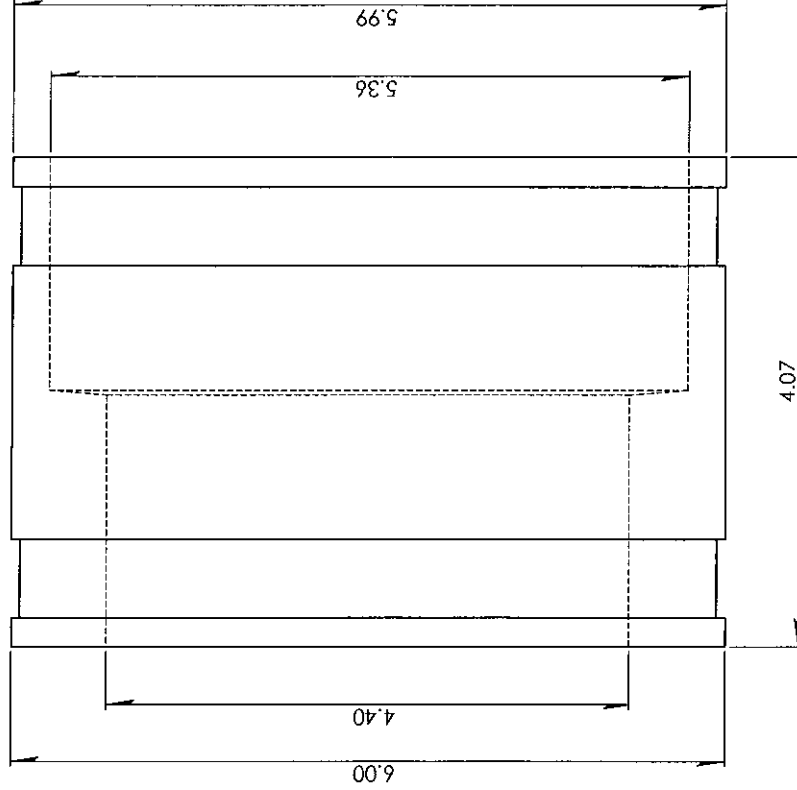
T = Top B = Bottom Ext = Extension



300 S. DAYTON ST.
DAVISON, MI 48423
PH: 810-653-9626
FAX: 810-654-2616

1002-44RC

DESCRIPTION: Coupling 4" Clay x 4" Cast Iron, Plastic, Steel,
Copper and Lead Shielded.



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WRITTEN PERMISSION OF FERNO, INC.
IS PROHIBITED.

TOLERANCES:
X= Fractional ±
.XX = ±.06
ANG. = ±3°
UNLESS OTHERWISE SPECIFIED

Part Weight
Min/Max Temp.
Pressure Tested
Material

2.50 lbs.
-30/140 Degrees F
4.3 PSI
Flexible PVC 60 Duro
Shore A

Installation Torque
Conforms to ASTM
Clamps used
Box Quantity

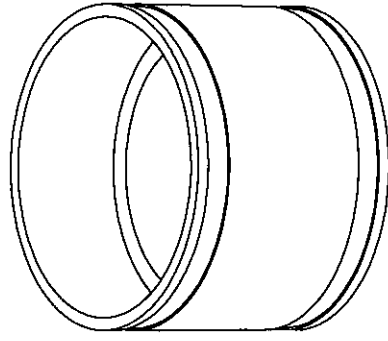
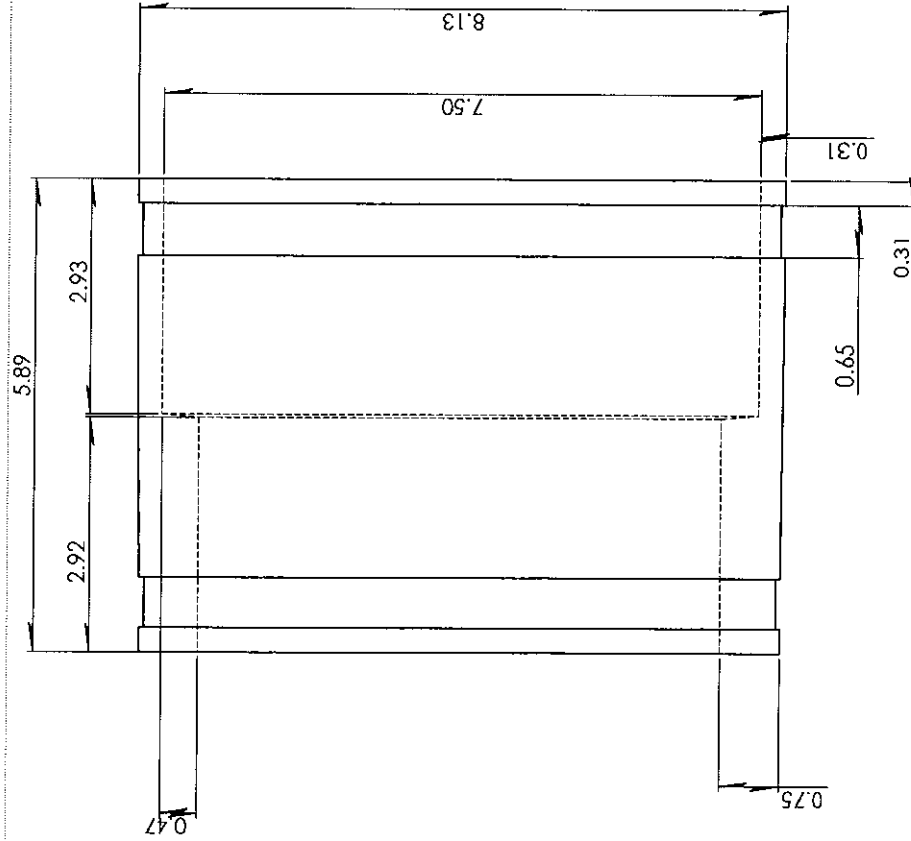
60" Lbs.
D3926, C1173
300 SeriesStainless
12

UNITS: INCHES
SIZE: A
3RD ANGLE PROJECTION
DO NOT SCALE DRAWING

DESIGNER:
CHECKER:

D. Brady
DATE: 10/26/2011

SCALE:
not to scale
SHEET 1 OF 1



***Part Includes:**

- Clamp: Part Number 128-300, 2 pcs.
- Shear Ring: Part Number SRC-27, 1 pc.
- See additional drawings for these parts.

FERNCO
PlasticDrain
300 S. DAYTON ST.
DAVISON, MI 48423
PH: 810-653-9626
FAX: 810-654-2616

Part Weight	4.38 lbs.
Min/Max Temp.	-30/140 Degrees F
Pressure Tested	4.3 PSI
Material	Flexible PVC 60 Duro Santoprene
Installation Torque	60" Lbs.
Conforms to ASTM	D5926, C1173
Box Quantity	
Clamps Used	300 Series

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ANY MEANS, ELECTRONIC OR
MECHANICAL, INCLUDING
PHOTOCOPYING, RECORDING, OR BY
ANY INFORMATION STORAGE AND
RETRIEVAL SYSTEM.

DESCRIPTION:

Coupling 6" Clay x 6" Cast
Iron/Plastic

1002-66RC

TOLERANCES:

.X= Fractional ±
.XX= ±.060
.XXX= ±.032
ANG.= ±0.5°
UNLESS OTHERWISE SPECIFIED

UNITS:

INCHES

SIZE

A

DESIGNER:

D. Brady

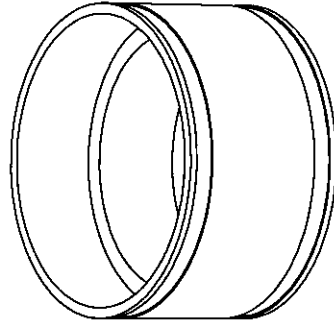
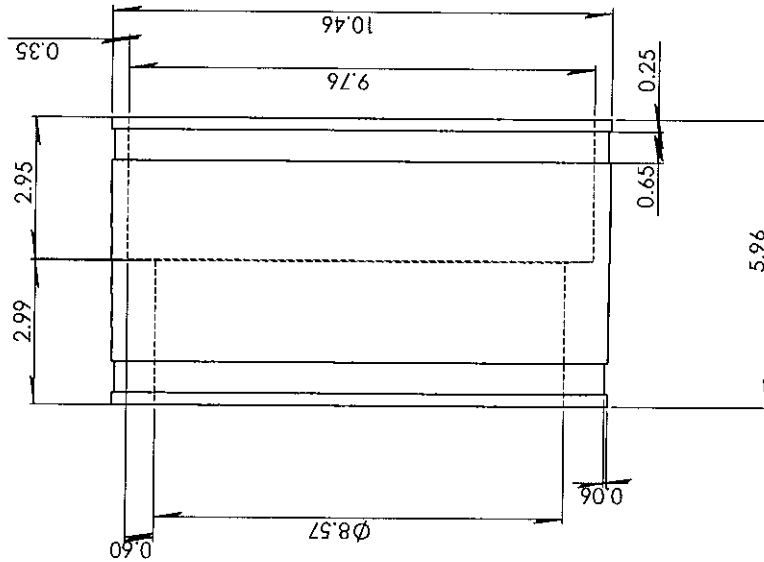
SCALE

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3RD ANGLE PROJECTION
DO NOT SCALE DRAWING

CHECKER:
DATE: 8/14/2008

SHEET 1 OF 1



*Part Includes:
 -Clamp: Part Number 164-300, 2 pcs.
 -Shear Ring: Part Number SRC-35, 1 pc.
 -See additional drawings for these parts.

Part Weight	6.30 lbs.
Min/Max Temp.	-30/140 Degrees F
Pressure Tested	4.3 PSI
Material	Flexible PVC 60 Duro State A
Installation Torque	60' Lbs.
Conforms to ASTM	D5926, C1173
Box Quantity	300 Series
Clamps used	

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FERNCO
 300 S. DAYTON ST.
 DAYTON, MI 48423
 PH: 810-653-9626
 FAX: 810-654-2616

DESCRIPTION:

Coupling 8" Clay x 8" Cast
 Iron/Plastic

1002-88RC

TOLERANCES:
 X= Fractional ±
 .XX= ±.060
 .XXX= ±.032
 ANG.= ±0.5°
 UNLESS OTHERWISE SPECIFIED

UNITS:
 INCHES
 SEE
 A

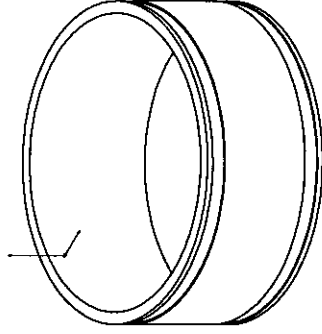
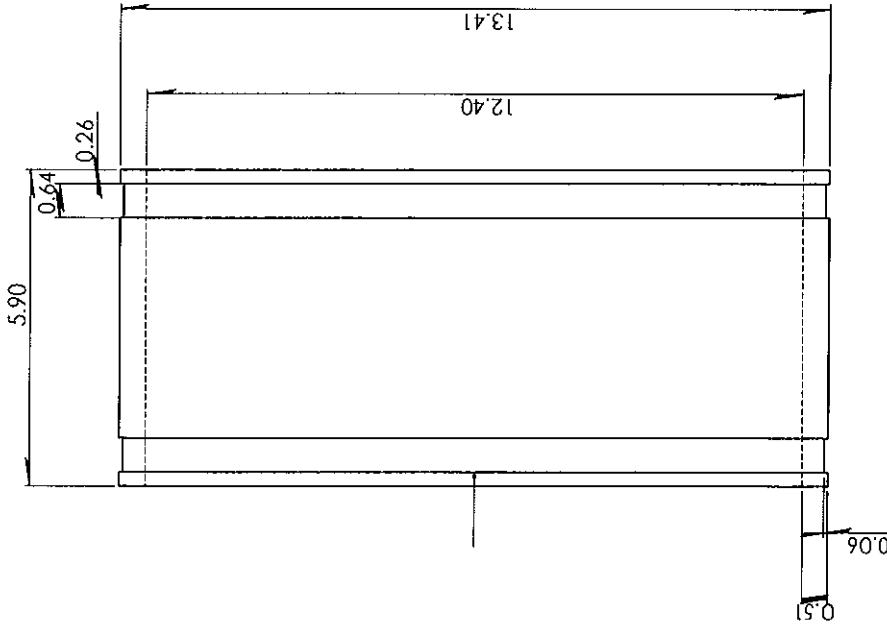
DESIGNER:
 D. Brady

SCALE
 not to scale

3RD ANGLE PROJECTION
 DO NOT SCALE DRAWING

CHECKER:
 DATE: 4/14/2010

SHEET 1 OF 1



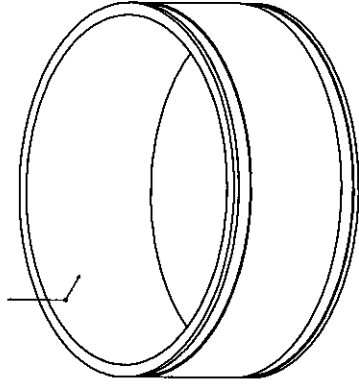
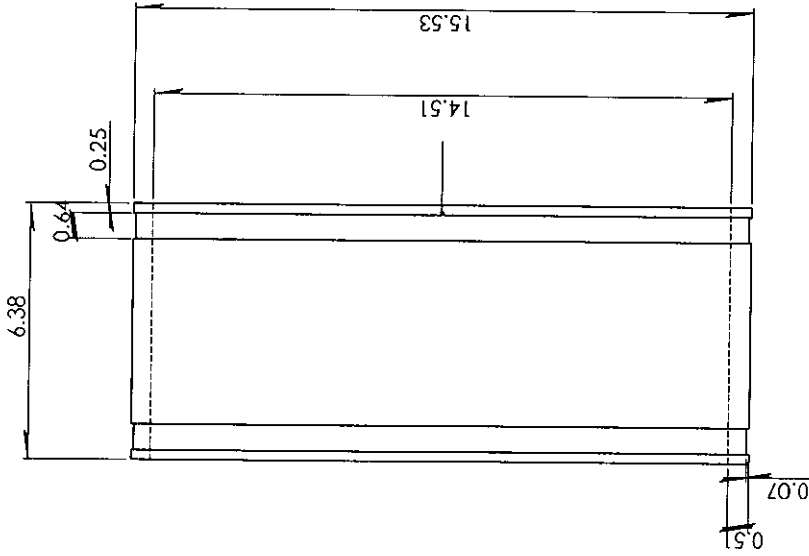
- *Part Includes:
- Clamp: Part Number 212-300, 2 pcs.
 - Shear Ring: Part Number SRC-46, 1 pc.
 - Reducer: Part Number 12.750-10.750R, 1 pc.
- See additional drawings for these parts

FERNCO
Thomson Valve
 300 S. DAYTON ST.
 DAVISON, MI 48423
 PH: 810-653-9626
 FAX: 810-654-2616

Part Weight	10.81 lbs.
Min/Max Temp.	-30/140 Degrees F
Pressure Tested	4.3 PSI
Material	Flexible PVC 60 Duro Schedule A
Installation Torque	60" Lbs.
Conforms to ASTM	D5926, C1173
Box Quantity	
Clamps used	300 Series

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TOLERANCES: X= Fractional ± .XX = ±.060 .XXX = ±.032 ANG. = ±0.5° UNLESS OTHERWISE SPECIFIED		DESCRIPTION: Coupling 10" Clay x 10" Cast Iron/Plastic 1002-1010RC	
UNITS:	INCHES	DESIGNER:	SCALE
3RD ANGLE PROJECTION DO NOT SCALE DRAWING	A	D. Brady	not to scale
CHECKER:		DATE:	SHEET 1 OF 1
		8/15/2008	



- *Part Includes:
- Clamp: Part Number 248-300, 2 pcs.
 - Shear Ring: Part Number SRC-54, 1 pc.
 - Reducer: Part Number 14,500-12,600R, 1 pc.
 - See additional drawings for these parts.



300 S. DAYTON ST.
DAVISON, MI 48423
PH: 810-653-9626
FAX: 810-654-2616

Part Weight	13.44 lbs.
Min/Max Temp.	-30/140 Degrees F
Pressure Tested	4.3 PSI
Material	Flexible PVC 60 Duro Series A
Installation Torque	60" Lbs.
Conforms to ASTM	D5926 C1173
Box Quantity	
Clamps used	300 Series

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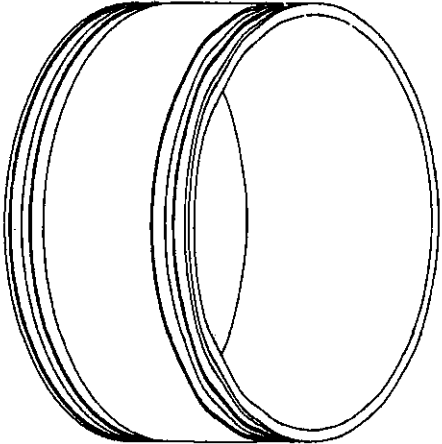
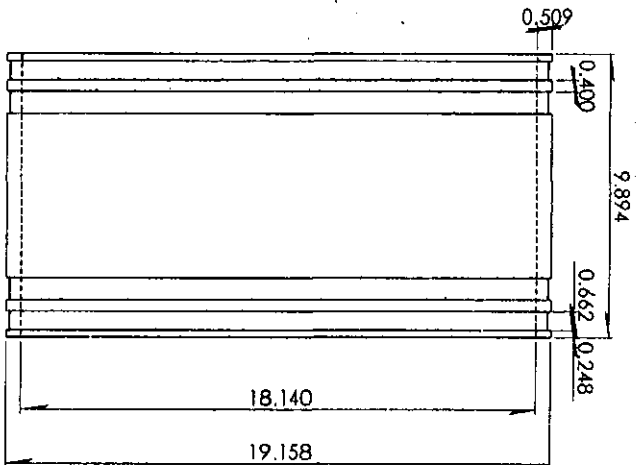
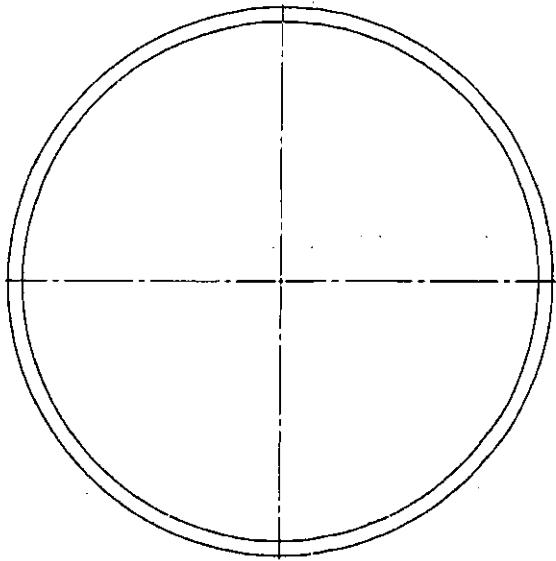
DESCRIPTION:

TOLERANCES:
X= Fractional ±
.XX= ±.060
.XXX= ±.032
ANG.= ±0.5°
UNLESS OTHERWISE SPECIFIED

Coupling 12" Clay x 12"
Cast Iron/Plastic

1002-1212RC

UNITS:	SUE	DESIGNER:	SCALE
INCHES	A	D. Brady	not to scale
3RD ANGLE PROJECTION	CHECKER:	DATE:	SHEET 1 OF 1
DO NOT SCALE DRAWING		8/15/2008	



NOTES:
 1. TOLERANCES SHOWN ARE NOT TO BE USED TO BREAK ALL SHARP CORNERS
 2. ALL DIMENSIONS ARE TO BE GIVEN TO THE CENTER OF GRAVITY
 3. ALL DIMENSIONS ARE TO BE GIVEN TO THE CENTER OF GRAVITY
 4. ALL DIMENSIONS ARE TO BE GIVEN TO THE CENTER OF GRAVITY

FOR THE PURPOSE OF THIS DRAWING, THE DIMENSIONS ARE TO BE GIVEN TO THE CENTER OF GRAVITY. THE DIMENSIONS ARE TO BE GIVEN TO THE CENTER OF GRAVITY. THE DIMENSIONS ARE TO BE GIVEN TO THE CENTER OF GRAVITY.

Port Weight	
Min./Max Temp.	-30 / 140 Degrees F
Pressure Tested	4.3 PSI
Material	Flexible PVC
Installation Torque	60' Lbs.
Conforms to ASTM	D5926
Box Quantity	
Clamps Used	300 Series

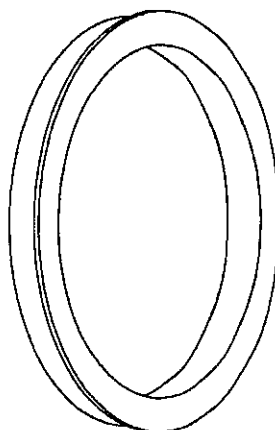
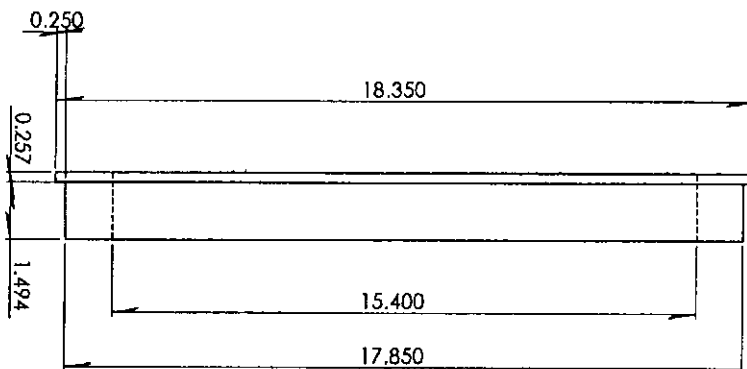
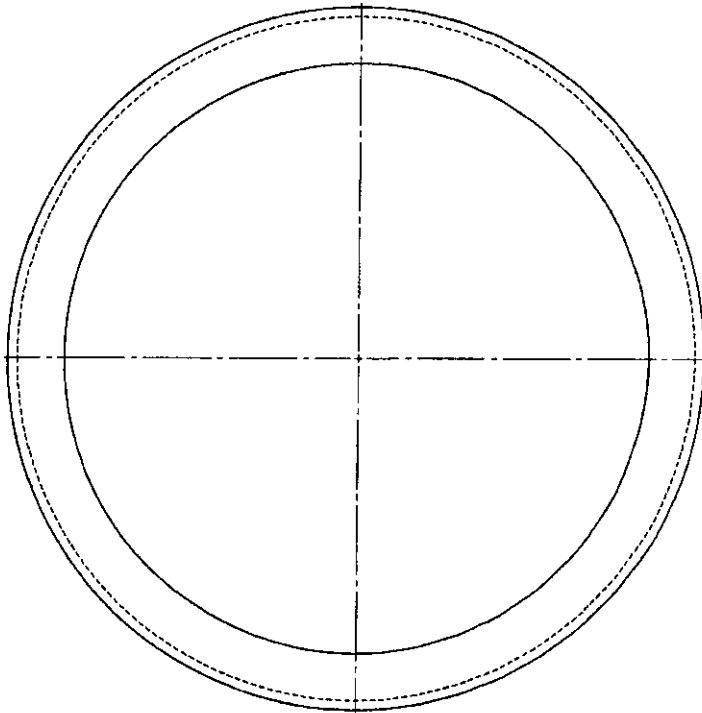
TOLERANCES:
 .X = Fractional
 .XX = ± .02
 .XXX = ± .030
 ANG. = ± 0.5°
 UNLESS OTHERWISE SPECIFIED

DESCRIPTION:
 1.5" X 1.5" Clay x Clay

1001-1515

PERNCO
 300 S. DAYTON ST.
 DAVISON, MI 48423
 PH: 810-653-9626
 FAX: 810-654-2616

UNITS	SIZE	DESCRIPTION	SCALE
INCHES	A	D. Brady	Not to Scale
3RD ANGLE PROJECTION			
DO NOT SCALE DRAWING			
DATE:	4/4/2008		
SHEET	1 OF 1		



NOTES:

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Part Weight	
Min./Max Temp.	-30/140 Degrees F
Pressure Tested	4.3 PSI
Material	Flexible PVC
Installation Torque	60" Lbs.
Conforms to ASTM	D5926
Box Quantity	
Clamps used	300 Series

TOLERANCES:

X= Fractional
XX= +.02
XXX= +.030
ANG= +0.5°
UNLESS OTHERWISE SPECIFIED

DESCRIPTION:

Reducer Bushing

17.850-15.400R



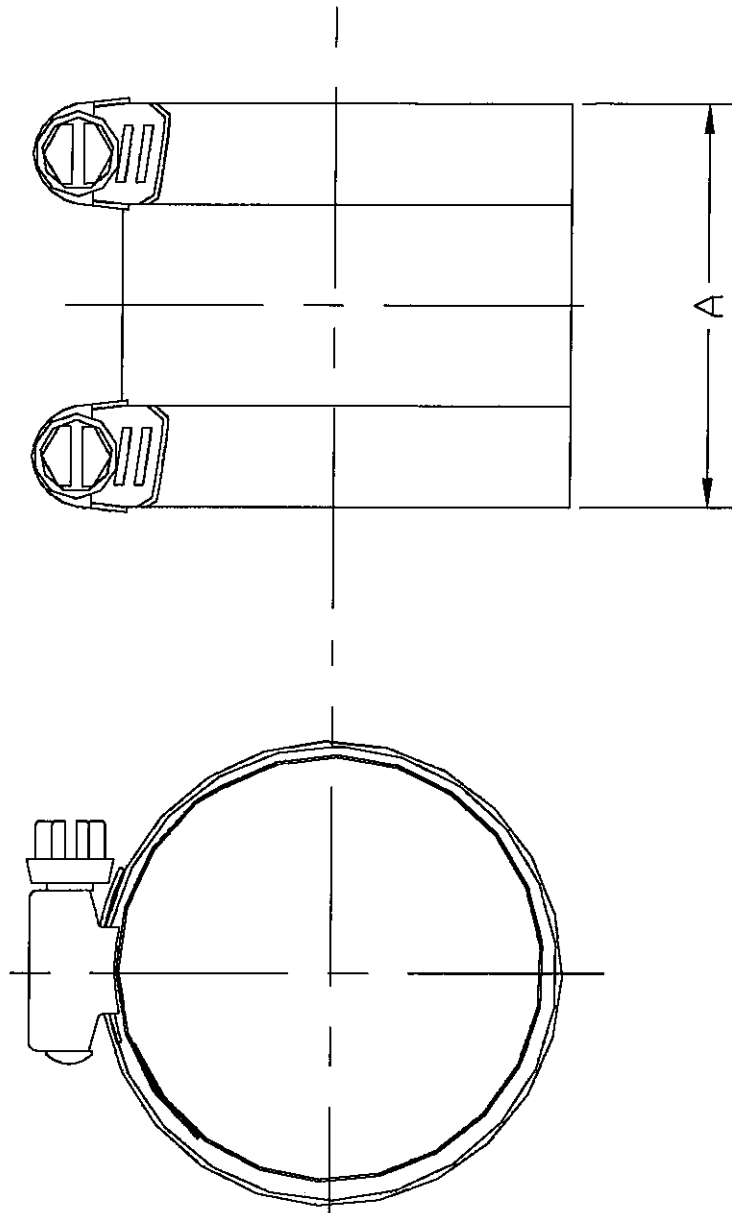
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DAVISON, MI 48423
PH: 810-653-9626
FAX: 810-654-2616

UNITS	INCHES	SCALE	not to scale
3RD ANGLE PROJECTION	D. Brady	DATE	4/3/2008
DO NOT SCALE DRAWING		SHEET	1 OF 1

Part Number	Width "A"	Clamps SAE Qty.	Dia. Inch	
			Max	Min
SRC-9	1.50"	032	2.50	1.56
SRC-11	1.50"	044	3.25	2.31
SRC-15	2.13"	064	4.50	2.62
SRC-16P	3.00"	080	5.50	3.62
SRC-19	2.13"	088	6.00	4.09
SRC-22	2.13"	096	6.50	4.50
SRC-25	4.00"	116	7.75	5.75
SRC-27	4.00"	128	8.50	6.50
SRC-28	4.00"	140	9.25	7.25
SRC-33	4.00"	152	10.00	8.00
SRC-35	4.00"	164	10.75	8.75
SRC-37	4.00"	184	12.00	10.00
SRC-39	4.00"	196	12.75	10.75
SRC-46	4.00"	(2) 116	14.50	11.50
SRC-54	4.00"	(2) 128	17.00	14.00
SRC-56	4.00"	(2) 140	17.50	14.50
SRC-59	4.00"	(2) 152	18.50	16.00
SRC-63	4.00"	164+152	19.75	16.75
SRC-73	4.00"	(2) 184	23.00	20.00
SRC-82	4.00"	164+248	25.75	22.75
SRC-84	4.00"	164+248	26.50	23.50
SRC-94	4.00"	140+184+212	29.75	26.75
SRC-105	4.00"	140+184+212	33.40	30.40
SRC-110	4.00"	140+212+212	34.75	31.75

Notes

1. All Components 300 Series Stainless Steel
2. Clamps are Spot Welded to Shields
3. SRC-9 & SRC-11 Utilize 1 Clamp in the Center of the Shield
4. Shield Thickness .012", 304SS
5. Installation Torque up to 60"lbs.



SIZE	REV	DESCRIPTION	DATE	REVISED
1		Added SRC-16P	12Mar10	AJD
2		Added Sizes > 59	12Oct11	AJD

<small>ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED IN INCHES TOLERANCES ARE: XX ± .XX ANGLES XX ± .XX R & R XX ± .XX CHAMFER</small>		DATE	12Oct11
DESIGNED	AJD	DATE	12Oct11
CHECKED		DATE	
		SRC Shields	
SIZE	FROM NO.	QTY	SRC-01
A			2

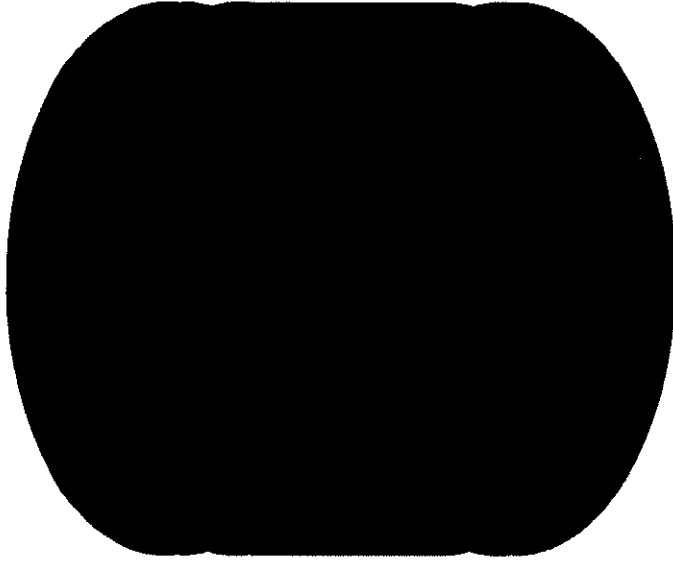
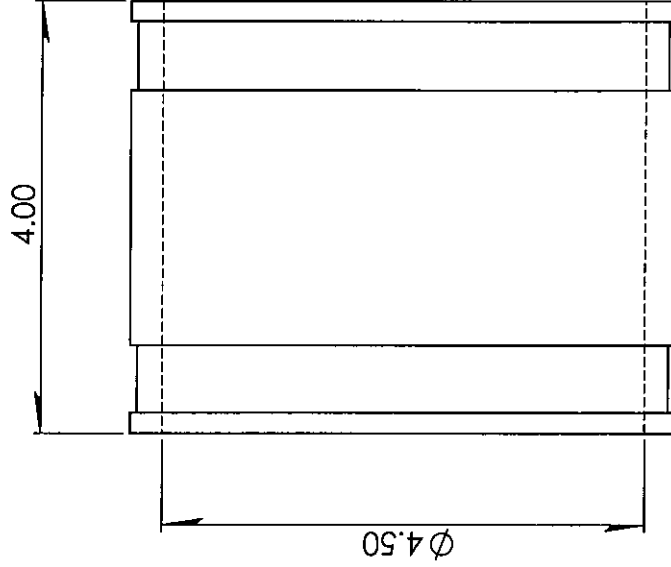
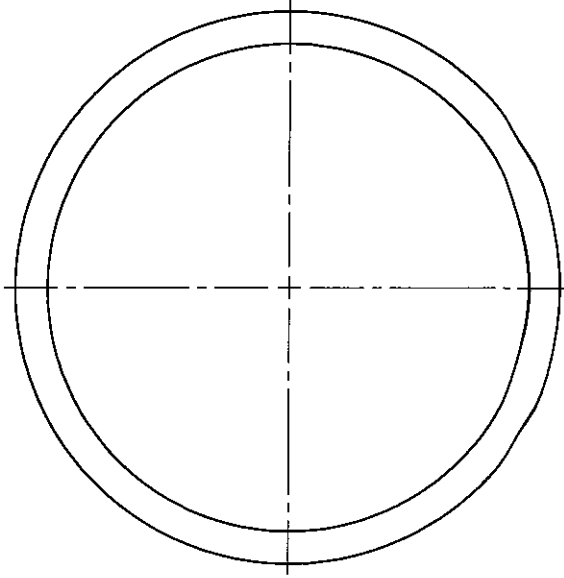
300 S. DAYTON ST.
DAVISON, MI 48423
PH: 810-503-9000
FAX: 810-653-8714



1056-44RC

DESCRIPTION:

CONNECTS 4 IN. CI/PL TO 4 IN. CI/PL



NOTE:

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TOLERANCES:
FRACTIONAL $\pm 1/4"$
DECIMAL $\pm .06$
ANG $\pm 3^\circ$
UNLESS OTHERWISE SPECIFIED

MATERIAL
PART WEIGHT
BOX QUANTITY
PRESSURE TESTED

PVC

CLAMPS USED

INSTALLATION TORQUE

300 SERIES STAINLESS
60 IN. LBS
-30/140 °F
C1173 / D5926

UNITS:
INCHES

SIZE:
A

AUTHOR:

ELI MILLER

SCALE:

NOT TO SCALE

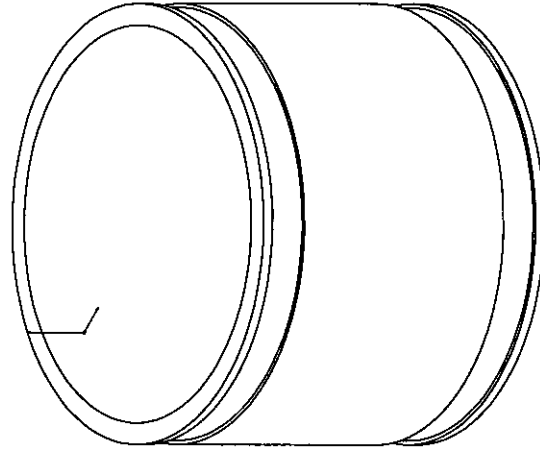
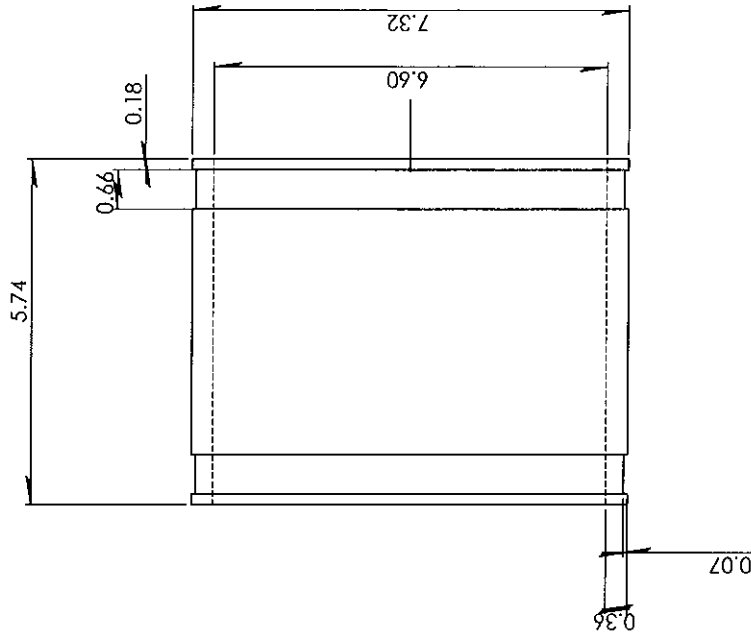
CHECKER:

DATE:

10/4/2018

SHEET

1 OF 1



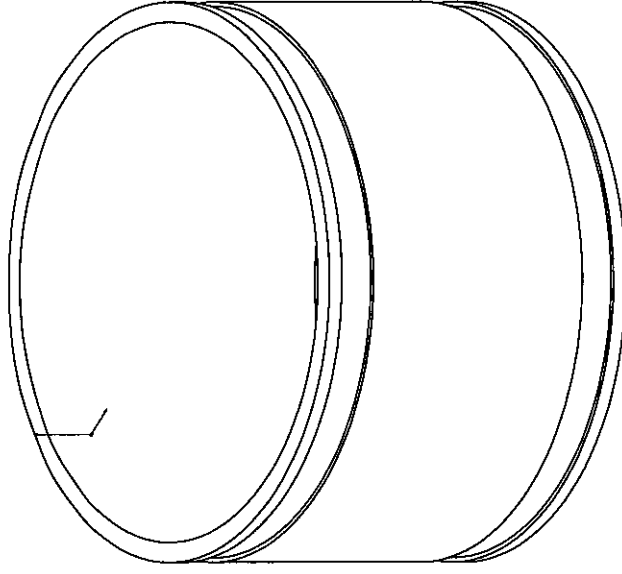
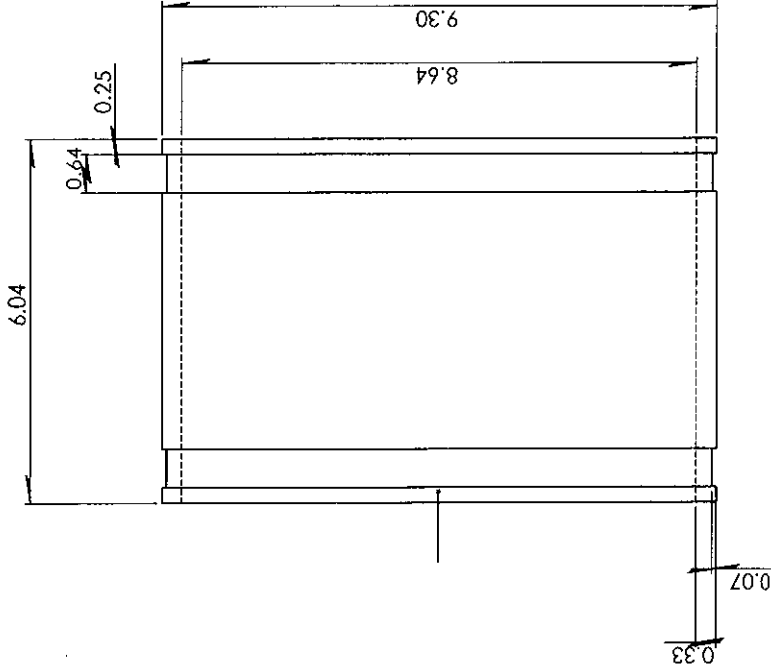
- *Part Includes:
- Clamp: Part Number 116-300, 2 pcs.
 - Shear Ring: Part Number SRC-25, 1 pc.
 - See additional drawings for these parts.

FERNCO
 300 S. DAYTON ST.
 DAYTON, MI 48423
 PH: 810-653-9626
 FAX: 810-654-2616

Part Weight	2.88 lbs.
Min/Max Temp.	-30/140 Degrees F
Pressure Tested	4.3 PSI
Material	Flexible PVC 60 Duro State A
Installation Torque	60" Lbs.
Conforms to ASTM	D5926, C1173
Box Quantity	
Clamps used	300 Series

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TOLERANCES: X= Fractional ± .XX= ±.060 XXX= ±.032 ANG.= ±0.5° UNLESS OTHERWISE SPECIFIED	DESCRIPTION: Coupling 6" Cast Iron/Plastic x 6" Cast Iron/Plastic	1056-66RC
UNIT: INCHES	DRAWN: D. Brady	SCALE: not to scale
3RD ANGLE PROJECTION DO NOT SCALE DRAWING	CHECKER:	DATE: 8/19/2008
		SHEET 1 OF 1



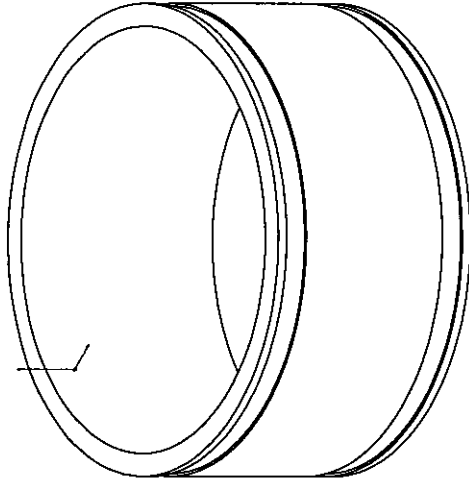
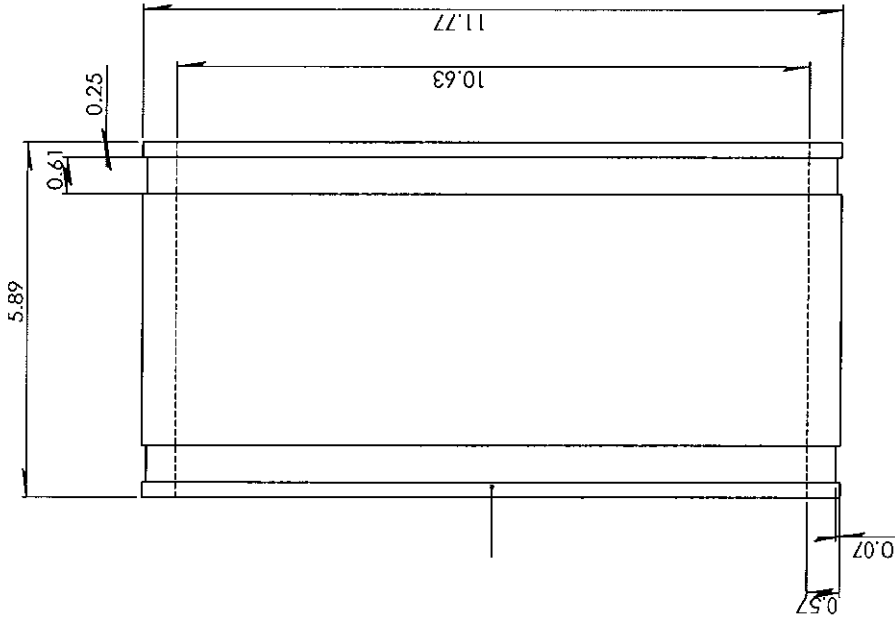
*Part Includes:
 -Clamp: Part Number 152-300, 2 pcs.
 -Shear Ring: Part Number SRC-33, 1 pc.
 -See additional drawings for these parts.

FERNCO
 Plumbing
 300 S. DAYTON ST.
 DAVISON, MI 48423
 PH: 810-653-9626
 FAX: 810-654-2616

Part Weight	3.20 lbs.
Min/Max Temp.	-30/140 Degrees F
Pressure Tested	4.3 PSI
Material	Flexible PVC 40 Duro Schedule A
Installation Torque	60' Lbs.
Conforms to ASTM	DS926, C1173
Box Quantity	300 Series
Clamps Used	

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TOLERANCES: .X= Fractional + .XX= ±.060 .XXX= ±.032 ANG. = ±0.5° UNLESS OTHERWISE SPECIFIED	DESCRIPTION: Coupling 8" Cast Iron/Plastic x 8" Cast Iron/Plastic
1056-88RC	
UNITS: INCHES	DESIGNER: D. Brady
SIZE A	CHECKER:
3RD ANGLE PROJECTION	DATE: 8/19/2008
DO NOT SCALE DRAWING	SCALE not to scale
	SHEET 1 OF 1



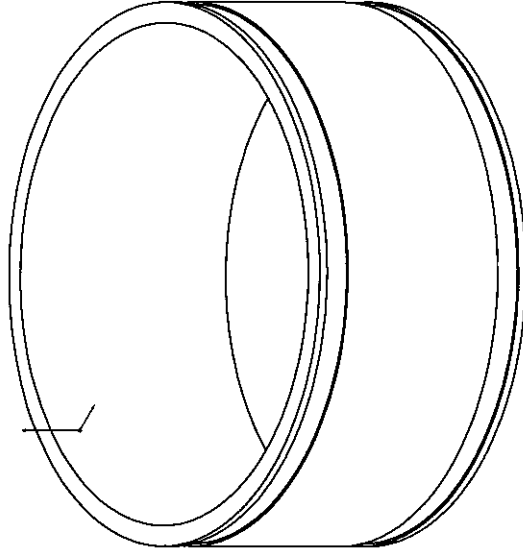
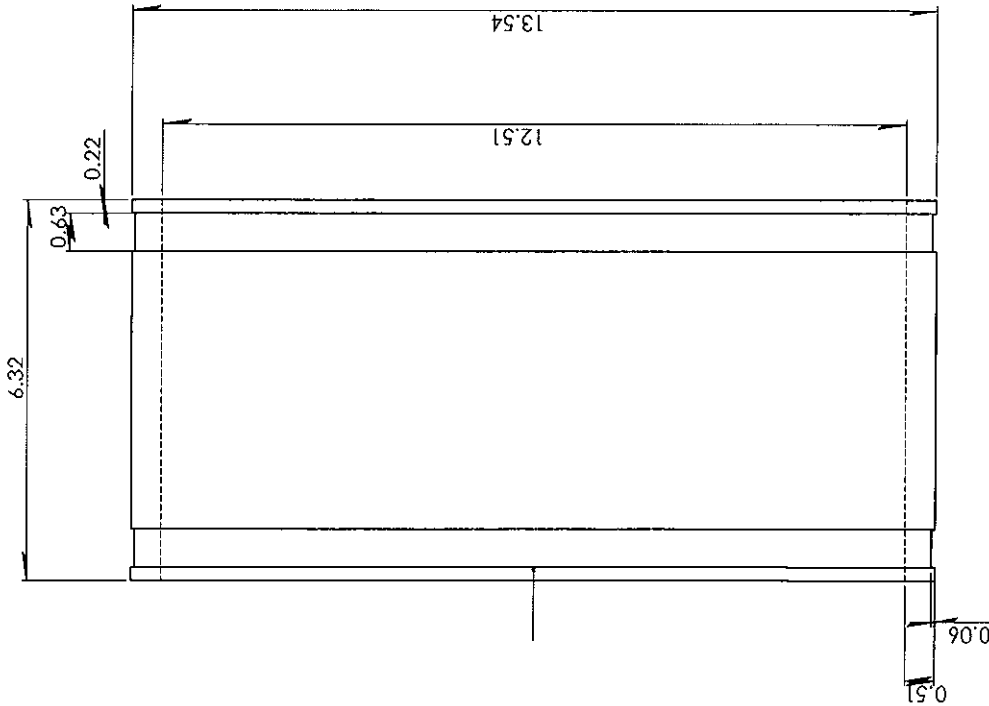
*Part Includes:
 -Clamp: Part Number 184-300, 2 pcs.
 -Shear Ring: Part Number SRC-39, 1 pc.
 -See additional drawings for these parts.

FERNCO
 Plastics Division
 300 S. DAYTON ST.
 DAVISON, MI 48423
 PH: 810-653-9626
 FAX: 810-654-2616

Part Weight	6.51 lbs.
Min/Max Temp.	-30/140 Degrees F
Pressure Tested	4.3 PSI
Material	Flexible PVC 60 Durometer A
Installation Torque	60' Lbs.
Conforms to ASTM	D5926, C1173
Box Quantity	
Clamps used	300 Series

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TOLERANCES: X= Fractional + .XX= ±.060 .XXX= ±.032 ANG.= ±0.5° UNLESS OTHERWISE SPECIFIED	DESCRIPTION: Coupling 10" Cast Iron/Plastic x 10" Cast Iron/Plastic	1056-1010RC
UNITS: INCHES	SIZE A	SCALE not to scale
3RD ANGLE PROJECTION DO NOT SCALE DRAWING	CHECKER: D. Brady	DATE: 8/19/2008
		SHEET 1 OF 1



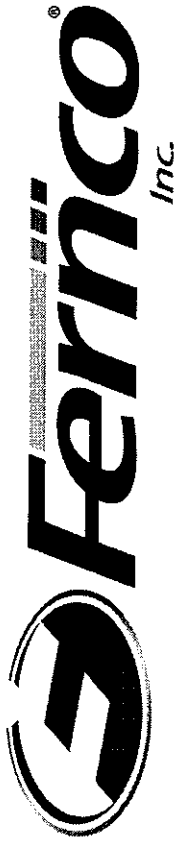
*Part Includes:
 -Clamp: Part Number 212-300, 2 pcs.
 -Shear Ring: Part Number SRC-46, 1 pc.
 -See additional drawings for these parts.

FERNCO
 Plastic Pipe
 300 S. DAYTON ST.
 DAYTON, MI 48423
 PH: 810-653-9626
 FAX: 810-654-2616

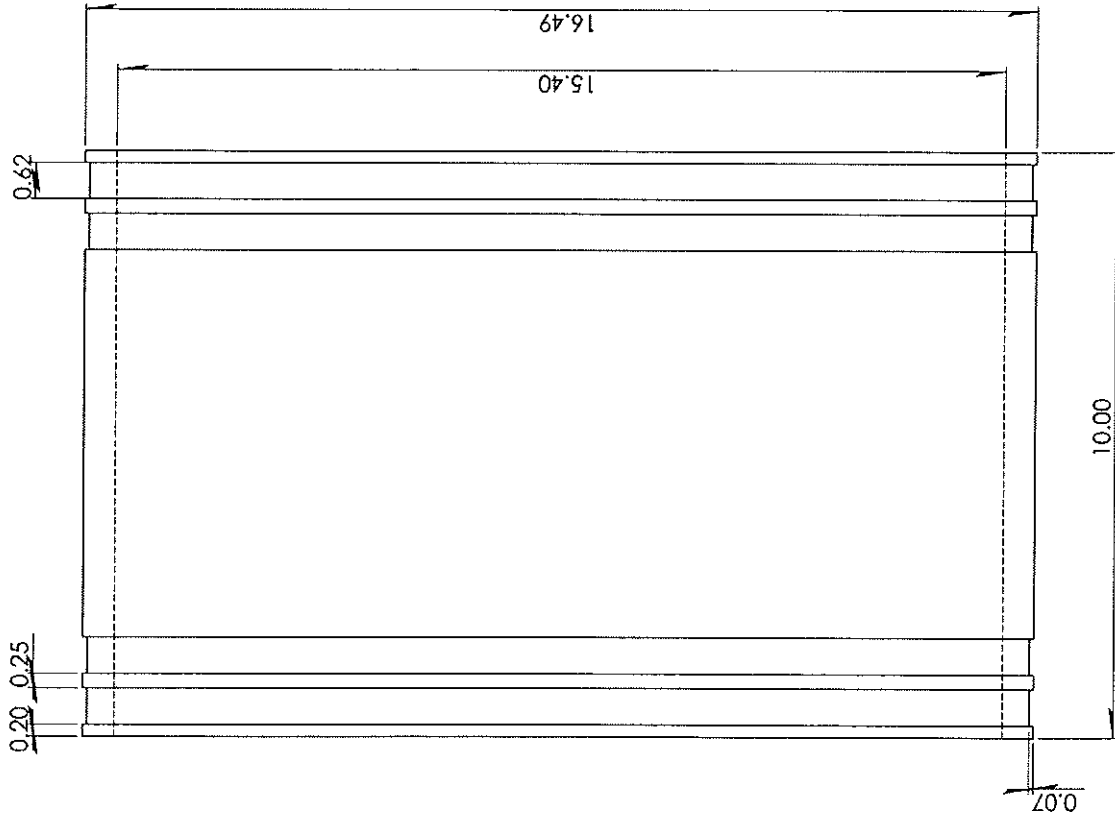
Part Weight	7.99 lbs.
Min/Max Temp.	-30/140 Degrees F
Pressure Tested	4.3 PSI
Material	Flexible PVC 60 Duro State A
Installation Torque	60" Lbs.
Conforms to ASTM	D5926, C1173
Box Quantity	
Clamps Used	300 Series

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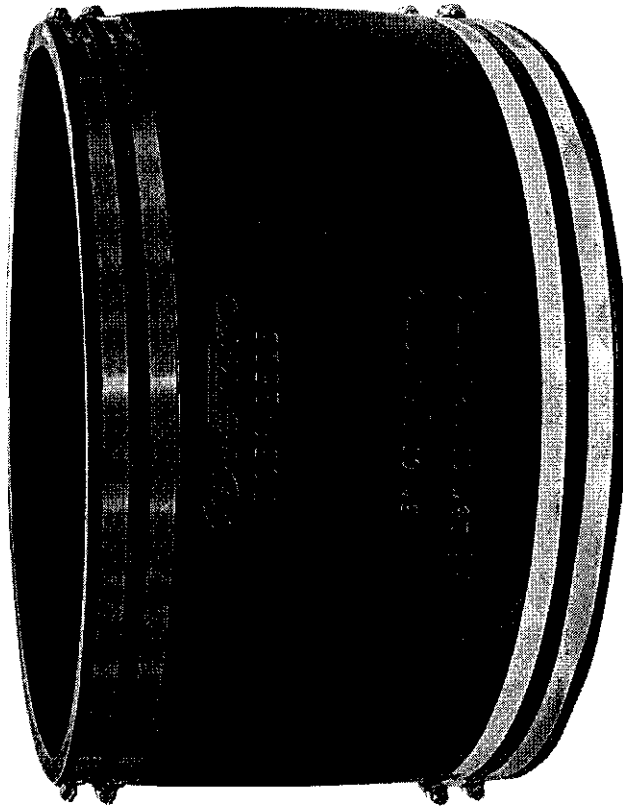
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1056-1212RC	
UNIT: INCHES	SCALE: not to scale
DESIGNER: D. Brady	CHECKER: D. Brady
DATE: 8/19/2008	SHEET 1 OF 1
3RD ANGLE PROJECTION DO NOT SCALE DRAWING	



Davison, MI • PH: 810-653-9626 • FAX: 810-653-8714 • www.Fernco.com



* See next page



Part Weight	12.00 lbs.	TOLERANCES: .X= Fractional + .XX= ± .060 .XXX= ± .032 ANG.= ± 0.5° UNLESS OTHERWISE SPECIFIED	DESCRIPTION: 15" Cast Iron/Plastic x 15" Cast Iron/Plastic
Min/Max Temp.	-30/140 Degrees F	DESIGNER: D. Brady	SCALE not to scale
Pressure Tested	4.3 PSI	CHECKER: DATE: 11/24/2008	SHEET 1 OF 1
Material	Flexible PVC 60 Duro State A	INCHES A	1056-1515 *RCL
Installation Torque	60' Lbs.	3RD ANGLE PROJECTION DO NOT SCALE DRAWING	
Conforms to ASTM	D5926, C1173		
Box Quantity	300 Series		
Clamps used			

SRC Stainless Steel Sheer Rings

Add extra strength to any Fernco coupling



Available for Fernco's 1-1/2" to 15" couplings with **CUSTOM SIZES** available.

Technical Specs

- Series 300 stainless steel bands, nuts and housings
- Designed to fit Fernco coupling series:
 - 1001-Clay to Clay
 - 1004- Concrete to Concrete
 - 1055-AC to AC
 - 1056-CI/Plastic to CI/Plastic

Fernco's stainless steel sheer rings help maintain proper alignment in the most unstable ground conditions. Bushings are supplied separately for material transition and size reduction. Stocked separately for convenient use with regular inventory.

Part No.	Fits Fernco Coupling Part No.	Length	Width	Band
SRC-9	1056-150	9"	1.5"	32
SRC-11	1056-22	11"	2"	44
SRC-15	1056-33	15"	2"	64
SRC-19	1056-44, 1055-44	19"	2"	88
SRC-22	1001-44, 1004-44, 1056-55	22"	4"	96
SRC-25	1056-66	25"	4"	116
SRC-27	1001-66, 1055-66	27"	4"	128
SRC-28	1004-66	28"	4"	140
SRC-33	1056-88	33"	4"	152
SRC-35	1001-88, 1055-88	35"	4"	164
SRC-37	1004-88	37"	4"	184
SRC-39	1055-1010, 1056-1010	39"	4"	184
SRC-46	1001-1010, 1004-1010, 1055-1010, 1056-1212	46"	4"	(2) 116
SRC-54	1001-1212, 1004-1212	54"	4"	(2) 128
SRC-56	1056-1515	56"	4"	(2) 128
SRC-59	1001-1515	59"	4"	(2) 152
SRC-63	1056-1818	63"	4"	164 & 152
SRC-73	1056-2121	73"	4"	(2) 184

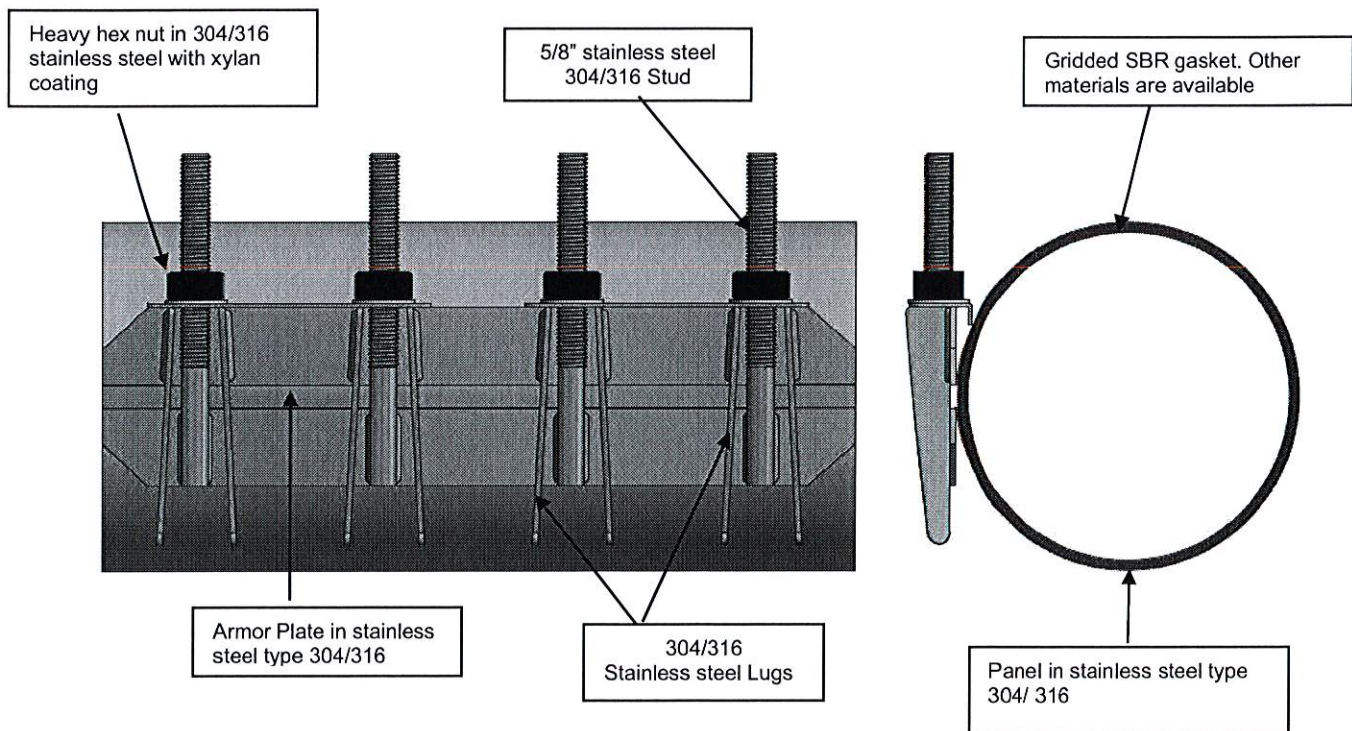


United States
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www.fernco.com

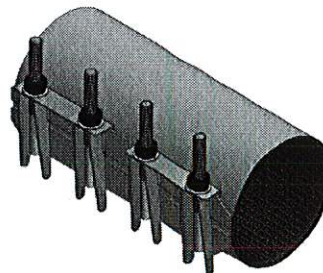
Canada
(810) 503-9000
www.fernco.ca

Features and Benefits

1. Materials do not compromise the integrity of the pipeline.
2. 5/8" stud bolts MIG welded to lug plates (captive design) makes installation easy and eliminates loose pieces in the field.
3. Due to stainless steel panel construction clamps can be manufactured in range to fit any pipe diameter.
4. Clamps are available with NPT or AWWA (CC) tapped outlets 1/2" -3" for repairing damaged service connections.
5. Gasket design makes sealing on pitted or corroded pipe possible and lessens bolt torque required to attain leak stoppage.
6. Heavy hex nut with fusion bonded coating to prevent seizing and galling.
7. Lifter bar acts as bearing surface for nuts, special design lip holds position while tightening.
8. Plastic washers reduce friction between lifter bars and nuts
9. Long life capability due to totally 304/316 stainless steel design.



*The pressure rating depends on the installation and the extent of damage of the pipe as well as the condition of the pipe.



Scope

The intent of the specification is to receive 1 ¼" and up diameter all stainless steel repair clamps capable of repairing leaks in all pressure classes of steel, cast and ductile iron, PVC, and asbestos cement pipes. The repair clamp furnished shall be equivalent to Model 3121AS as manufactured by PowerSeal Pipeline Products Corporation.

Design and Material Specification

The full circle repair clamp shall meet or exceed all material specifications as listed below:

1. The exterior band of the repair clamp shall be type 304 or 316 stainless steel.
2. The repair clamp shall have a complete circle gasket permanently attached to the panel at the factory.

The complete circle gasket shall be our gridded design in SBR. It shall be free from porous areas, foreign material, and visible defects, all made from 100% new rubber. The SBR resists temperatures of -25 to +200°F. The armor plate shall be made of stainless steel. It shall be recessed and vulcanized into the gasket. Other materials are available.

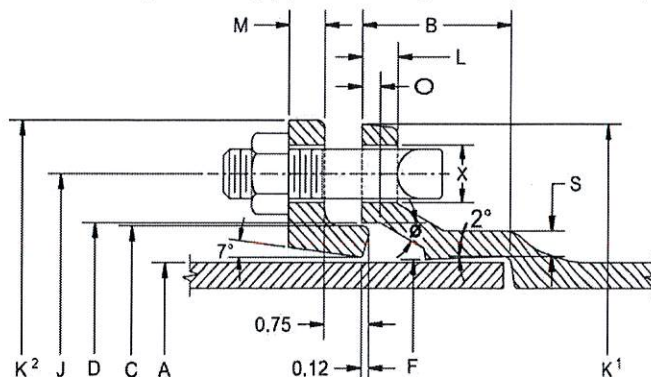
3. There shall be no paper or plastic adhesive labels attached to the repair clamp, any information appearing on the clamps shall be stenciled.
4. Fully complies with AWWA C230 and NSF 61

Material Specifications		
Part Name	Material	Mat. specs
Panel	Stainless Steel type 304/316	ASTM A240
Armor Plate	Stainless Steel type 304/316	ASTM A240
Lugs	Stainless Steel type 304/316	ASTM A240
Bolts	Stainless Steel type 304/316	ASTM A193
Nuts	Stainless Steel type 304/316	ASTM A194
Gasket	SBR	ASTM D2000

SUBMITTAL: C110 MECHANICAL JOINT PRODUCT

(Current revisions for the noted Standards apply)

- SIZES:** 2" - 48"
- STANDARDS:** ANSI/AWWA C110/A21.10, NFPA 13/24, 3" - 12" UL listed and approved (File - Tyler Union)
- MATERIAL:** Cast of ASTM A536 qualified ductile iron. Date code is cast on and required for traceability.
- PRESSURE RATING:** *Flanged fittings rated at 250 psi. Mechanical joints 2" - 24" rated at 350 psi and 30" - 48" at 250 psi.
*Note: With rubber annular ring flange gasket, 2" - 24" Flanged fittings can be rated at 350 psi.
Note: Wyes over 12" are not pressure rated. Contact Tyler Union for rating in your application.
- DEFLECTION:** Joint deflection 5° max for 2" - 12" and 3° max for 14" - 48". Reduces by 50% at nominal pipe & fitting diameters
- NSF-61 & NSF372:** Meets all requirements including Annex G, Tyler Union's Underwriters Laboratory listing MH16439.
- ASPHALT COATING:** Per ANSI/AWWA C104/A21.4 and ANSI/AWWA C110/A21.10.
- CEMENT LINING:** Per ANSI/AWWA C104/A21.4, with double cement lining available upon request.
- EPOXY COATING:** Fusion bonded epoxy per ANSI/AWWA C116/A21.16. Additional coatings available upon request.
- BARE FITTINGS:** Available upon request.
- FASTNERS:** High strength low alloy weathering steel per ANSI/AWWA C111/A21.11 and ASTM A242
- INSTALLATION:** Install per AWWA C600/C651 using pipe conforming to ANSI/AWWA C151/A21.51 or AWWA C900/905.



NOMINAL JOINT DIMENSIONS IN INCHES

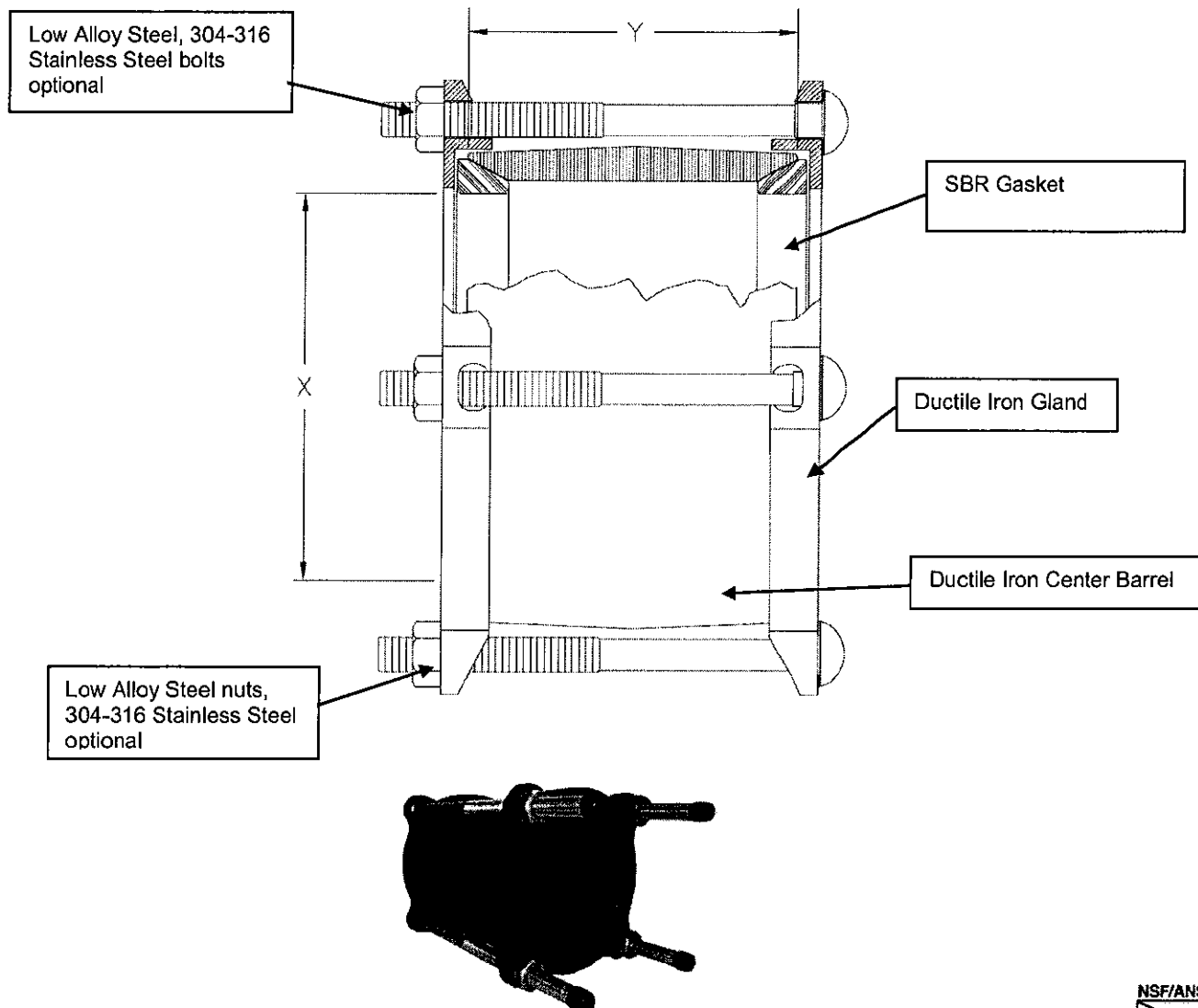
Size Inches	A Dia. DI Pipe	B Hub Depth	C Dia. GLAND	D Dia.	F Dia.	Ø	X	J Dia. GLAND	K ¹ Dia.	K ² Dia. GLAND	L	M	O	S	Qty. BOLTS
2	2.51	2.50	3.39	3.50	2.61	28°	3/4	4.75	6.25	6.25	0.73	0.62	0.31	0.44	2
3	3.96	2.50	4.84	4.94	4.06	28°	3/4	6.19	7.69	7.69	0.94	0.62	0.31	0.52	4
4	4.80	2.50	5.92	6.02	4.90	28°	7/8	7.50	9.12	9.12	1.00	0.75	0.31	0.65	4
6	6.90	2.50	8.02	8.12	7.00	28°	7/8	9.50	11.12	11.12	1.06	0.88	0.31	0.70	6
8	9.05	2.50	10.17	10.27	9.15	28°	7/8	11.75	13.37	13.37	1.12	1.00	0.31	0.75	6
10	11.10	2.50	12.22	12.34	11.20	28°	7/8	14.00	15.69	15.62	1.19	1.00	0.31	0.80	8
12	13.20	2.50	14.32	14.44	13.30	28°	7/8	16.25	17.94	17.88	1.25	1.00	0.31	0.85	8
14	15.30	3.50	16.40	16.54	15.44	28°	7/8	18.75	20.31	20.25	1.31	1.25	0.31	0.89	10
16	17.40	3.50	18.50	18.64	17.54	28°	7/8	21.00	22.56	22.50	1.38	1.31	0.31	0.97	12
18	19.50	3.50	20.60	20.74	19.64	28°	7/8	23.25	24.83	24.75	1.44	1.38	0.31	1.05	12
20	21.60	3.50	22.70	22.84	21.74	28°	7/8	25.50	27.08	27.00	1.56	1.44	0.31	1.12	14
24	25.80	3.50	26.90	27.04	25.94	28°	7/8	30.00	31.58	31.50	1.62	1.56	0.31	1.22	16
30	32.00	4.00	33.29	33.46	32.17	20°	1-1/8	36.88	39.12	39.12	1.81	2.00	0.38	1.50	20
36	38.30	4.00	39.59	39.76	38.47	20°	1-1/8	43.75	46.00	46.00	2.00	2.00	0.38	1.80	24
42	44.50	4.00	45.79	45.96	44.67	20°	1-3/8	50.62	53.12	53.12	2.00	2.00	0.38	1.95	28
48	50.80	4.00	52.09	52.26	50.97	20°	1-3/8	57.50	60.00	60.00	2.00	2.00	0.38	2.20	32

Anniston: 1501 W 17th St. • Anniston, AL 36201 • (800) 226-7601
Corona: 1001 El Camino Ave. • Corona, CA 92879 • (866) 527-8471
Tyler: 11910 CR 492 • Tyler, Texas 75706 • (800) 527-8478
Dallas: 1201 Ave. S. Suite100 • Grande Prairie, TX 75050

Elmer: 701 Kenyon Ave. • Elmer, New Jersey 03318
New Lenox: 2200 West Haven • New Lenox, IL 60451
Portland: 15670 N. Lombard St. • Portland, OR 97203
Oxford: 1800 Greenbrier Dear Road • Anniston, AL 36207

Features and Benefits

1. Flexible and secure connection which allows the repair or connection of damaged or new sections of pipe.
2. The SBR transition gasket is produced from 100% new rubber to ensure excellent performance under varying pressures. Suitable for mild acids, water and salt media with a temperature range of -25 to +200°F. Other materials available.
3. Color coded glands and gaskets for easy identification.
4. Center barrel and glands receive an interior and exterior fusion bonded epoxy coating.
5. Complete interchangeability in the field.
6. 3° to 5° deflection at each joint.
7. O.D. ranges are cast and molded into glands and gaskets, plus the glands and gaskets are color coded for easy identification.



Scope

The intent of the specification is to receive 2" - 48" diameter all ductile iron bolted transition couplings which require only one common center sleeve per nominal pipe size and interchangeable end rings and gaskets to join the plain ends of all pressure classes of steel, cast and ductile iron, PVC, and asbestos cement pipe. The coupling furnished shall be equivalent to Model 3501 Transition Coupling as manufactured by PowerSeal Pipeline Products Corporation. Meets or exceeds AWWA C219. The coupling is for below ground installations.

Design and Material Specification

The transition coupling shall meet or exceed all material specifications as listed below and AWWA C219.

1. Gaskets shall be vulcanized, molded or extruded, SBR (Styrene Butadiene Rubber) or NBR (Nitrile Butadiene Rubber) free from porous areas, foreign materials, and visible defects. Reclaimed rubber shall not be used. Gaskets shall meet the requirements of ASTM D2000 to ensure superior storage characteristics, permanence, and resistance to set. Also available in EPDM or Viton.
2. Bolts and nuts shall be high strength low alloy steel per ASTM A325. Stainless Steel type 304 or 316 bolts and nuts are available.
3. The laying length of the transition sleeve shall be as specified (i.e., standard or extra-long), and the minimum quantity of bolts shall be as noted per the nominal diameter.
4. All cast components will be ductile iron per ASTM A536.

Material Specifications		
Part Name	Material	Mat. specs
Gland	Ductile Iron	ASTM A536
Gasket	SBR	ASTM D2000
Center Barrel	Ductile Iron	ASTM A536
Bolts	Low Alloy Steel / Stainless Steel 304/316	ASTM A325/ ASTM A193
Nuts	Low Alloy Steel / Stainless Steel 304/316	ASTM A325/ ASTM 194
Coating	Epoxy Coated	AWWA C210

3501

TRANSITION COUPLING

Certified to NSF/ANSI-61.

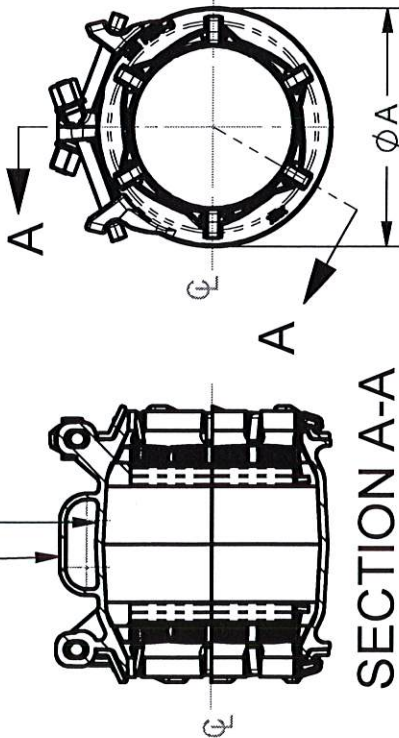

PowerSeal
 PIPELINE PRODUCTS CORPORATION

NOMINAL PIPE SIZE	"Y" (IN)		PIPE RANGE "X" (IN)					BOLT QTY	WEIGHT (LB)
	Standard	Long	OD - WHITE	AA - GREEN	A - BLUE	B - BLACK	C - GRAY		
2	5	12	-	-	2.35-2.63	-	-	2	4
2 1/2	5	-	-	-	2.69-2.88	-	-	2	5
3	5	12	-	-	3.25-3.55	3.70-4.00	3.95-4.25	3	13
4	6	12	4.00-4.13	4.20-4.50	4.50-4.85	4.80-5.10	5.05-5.40	4	18
6	6	12	6.00-6.14	6.27-6.72	6.62-6.95	6.90-7.22	7.19-7.45	5	27
8	6	12	8.00-8.16	8.40-8.82	8.62-9.05	9.05-9.45	9.10-9.79	6	38
10	6	12	-	-	10.70-11.10	11.10-11.50	11.60-12.12	7	52
12	6	12 /16	-	-	12.75-13.20	13.20-13.50	13.78-14.38	8	70
14	6	-	-	-	15.30-15.70	16.00-16.40	16.40-16.88	9	91
16	6	12 /16	-	-	17.15-17.40	17.40-17.80	18.46-19.00	10	105
18	7	-	-	-	18.70-19.10	19.10-19.70	19.70-20.25	12	128
20	7	12	-	-	20.80-21.35	21.35-21.75	21.75-22.25	12	140
24	10	-	-	-	25.00-25.80	26.10-26.32	-	14	230
30	10	-	-	-	31.74-32.00	32.40-32.74	-	14	280
36	16	-	-	37.93-38.54	38.54-39.16	39.16-39.55	39.55-40.05	16	919
48	16	-	-	50.10-50.72	50.72-51.34	51.34-51.72	51.72-52.06	20	1531

REVISIONS			
REV.	DESCRIPTION	DATE	EDITOR
R2	A	7/27/21	CMB

SIZE	PIPE OD RANGE	BODY OD		LENGTH		HEIGHT		MAX PRESSURE [PSI]	MAX DEFLECTION PER SIDE [DEGREES]	APPX. WEIGHT [LBS]
		Ø A	A	B	A	C	A			
4	4.50-4.90	8.1		11.8		9.8		350	4	40
6	6.60-7.00	10.4		12.0		12.0		350	4	50
8	8.60-9.10	13.5		13.2		15.1		350	4	75
10	10.75-11.20	15.6		13.2		17.2		350	4	95
12	12.75-13.30	17.6		13.3		19.2		350	4	100

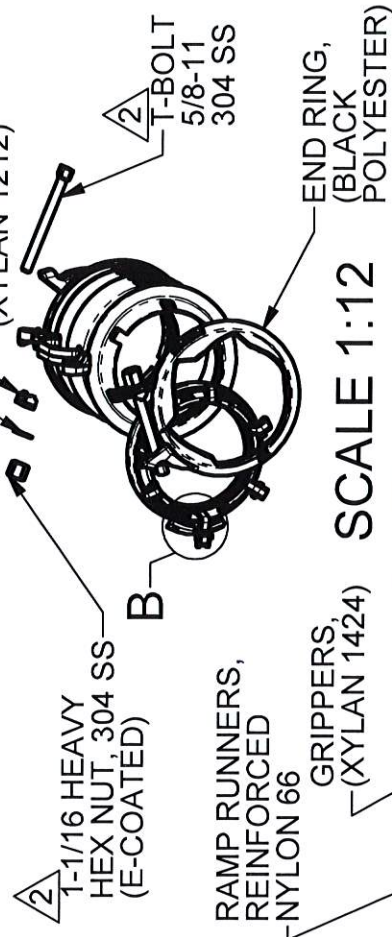
HANDLE
BODY, NSF 61 FUSION
BONDED EPOXY



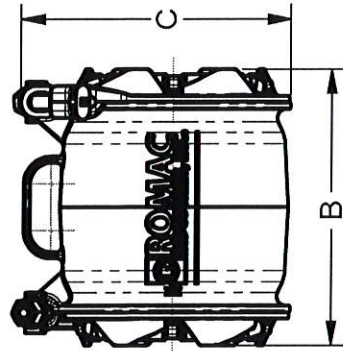
NOTES:

1. ALL MATERIALS ASTM A536 GRADE 65-45-12 DUCTILE IRON UNLESS OTHERWISE SPECIFIED.
2. FASTENER MATERIAL: TYPE 304 STAINLESS STEEL, 316 IS AVAILABLE UPON REQUEST.
3. BOLT GUIDE COATING BLACK Xylan 1212. BLACK E-COAT AVAILABLE UPON REQUEST.
4. SEE INSTALL INSTRUCTIONS FOR MINIMUM PIPE INSERTION
5. GASKET MATERIAL: NSF 61 SBR PER ASTM D2000, NSF 61 NBR AVAILABLE UPON REQUEST.

SECTION A-A



SCALE 1:12



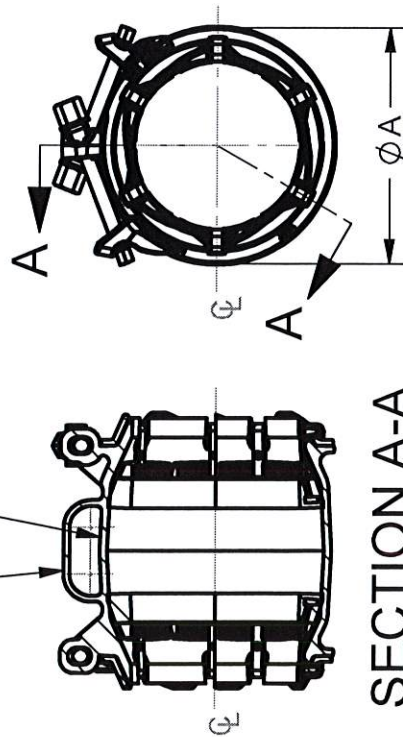
DETAIL B
SCALE 1:3

PROPRIETARY NOTICE		UNLESS OTHERWISE SPECIFIED		SIGNATURES		DATE		ROMAC INDUSTRIES INC.					
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				APPROVED		7/27/2021							
MODEL NAME ALPHA, COUPLING, ASSEMBLY, 6 INCH MODEL CAD # CAD-034548		CONFIGURATION NAME: Default		THIRD ANGLE PROJECTION				TITLE ALPHA COUPLING, 4-12 INCH, STANDARD		DWG. NO. CAD-045677		SCALE 1:8	SHEET 1 OF 1
								LEGACY DRAWING # DRAWING FILE NAME: ALPHA, COUPLING, 4-12 INCH, STANDARD		AUTHOR: Darren Popkins			

REVISIONS			
REV.	DESCRIPTION	SHEET #	DATE
A	CHANGED NOTE 4 TO REFER TO INSTALLATION INSTRUCTIONS	1	5/20/20
B	ADDED ALPHA 16	1	7/22/2020

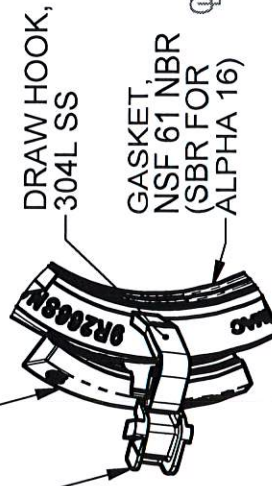
SIZE	PIPE OD RANGE	BODY OD	LENGTH	HEIGHT	MAX PRESSURE [PSI]	MAX DEFLECTION PER SIDE [DEGREES]	APPX. WEIGHT [LBS]
4	4.80-5.10	8.13	11.80	9.76	350	4	40
6	6.90-7.10	10.35	11.98	11.98	350	4	50
8	9.05-9.40	13.47	13.23	15.11	350	4	75
10	11.10-11.45	15.56	13.25	17.18	350	4	95
12	13.20-13.60	17.58	13.31	19.21	350	4	100
16	17.40-17.85	23.65	15.33	25.53	350	2	230

HANDLE
BODY, NSF 61 FUSION BONDED EPOXY

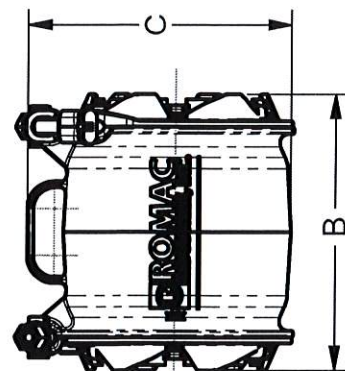


SECTION A-A

- NOTES:
1. ALL MATERIALS ASTM A536 GRADE 65-45-12 DUCTILE IRON UNLESS OTHERWISE SPECIFIED
 2. FASTENER MATERIAL: TYPE 304 STAINLESS STEEL, 316 AVAILABLE UPON REQUEST
 3. BOLT GUIDE COATING BLACK XYLAN 1212. BLACK E-COAT AVAILABLE UPON REQUEST
 4. REFER TO INSTALLATION INSTRUCTIONS FOR MINIMUM PIPE INSERTION



DETAIL B
SCALE 1:3



PROPRIETARY NOTICE		UNLESS OTHERWISE SPECIFIED		SIGNATURES		DATE		ROMAC INDUSTRIES INC.	
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				APPROVED	Caitlin Boone	7/24/2020		DWG. NO.	CAD-045681
MODEL NAME: ALPHA COUPLING ASSEMBLY, 4 INCH, XL MODEL CAD #: CAD-045681		CONFIGURATION NAME: Default		THIRD ANGLE PROJECTION		LEGACY DRAWING #: DRAWING FILE NAME: ALPHA_COUPLING_4-12 INCH_XL		AUTHOR: Tyler Matthews	

1

2

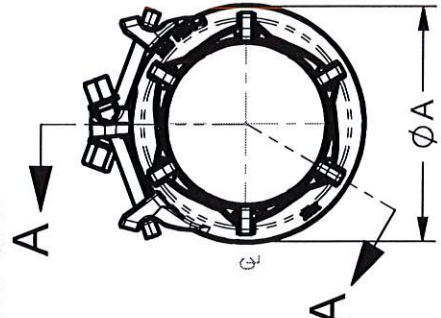
SIZE	PIPE OD RANGE (STANDARD)	PIPE OD RANGE (XL)	BODY OD		LENGTH	HEIGHT		MAX PRESSURE [PSI]	MAX DEFLECTION PER SIDE [DEGREES]	APPX. WEIGHT [LBS]
			ϕ A	A		B	C			
4	4.50-4.90	4.80-5.10	8.1		11.8	9.8		350	4	40
6	6.60-7.00	6.90-7.10	10.4		12.0	12.0		350	4	50
8	8.60-9.10	9.05-9.40	13.5		13.2	15.1		350	4	75
10	10.75-11.20	11.10-11.45	15.6		13.2	17.2		350	4	95
12	12.75-13.30	13.20-13.60	17.6		13.3	19.2		350	4	100

CAD-045808

Revisions			
REV	DESCRIPTION	SHEET #	DATE
R2	A	1	7/27/21
EDITOR			
CMB			

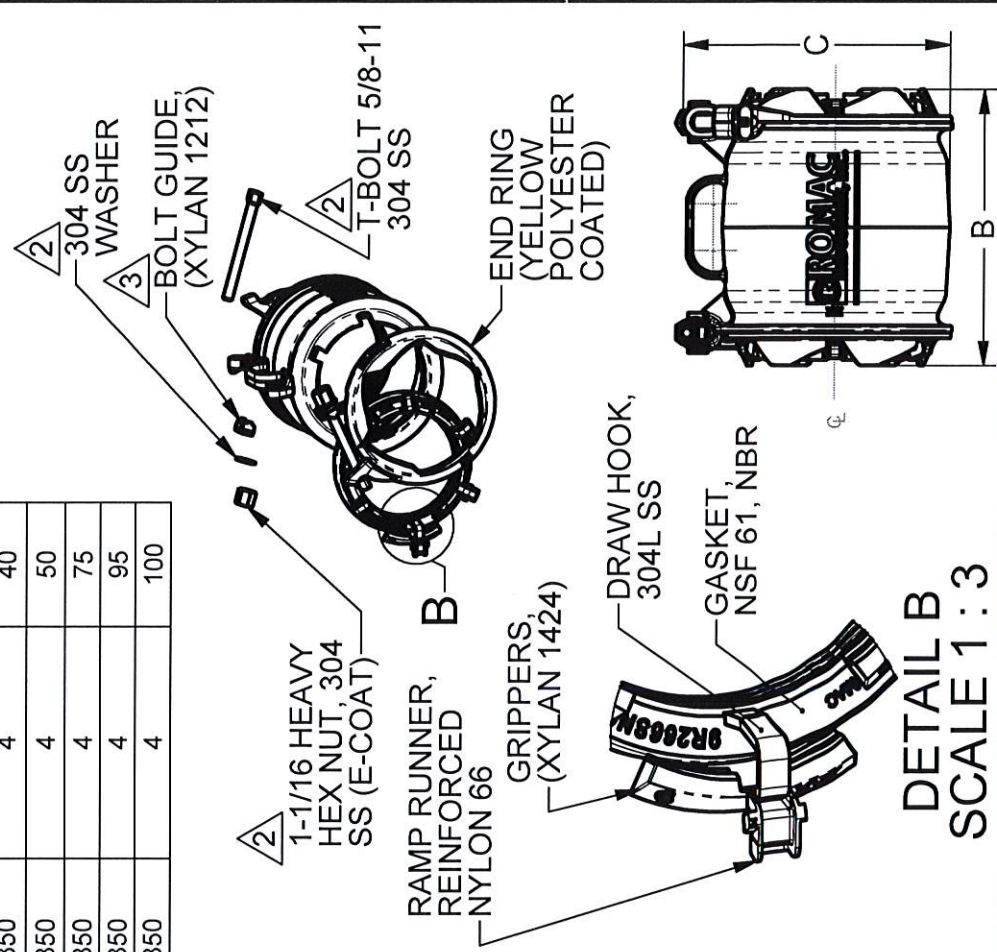
HANDLE

BODY, NSF 61 FUSION BONDED EPOXY



SECTION A-A

- NOTES:
1. ALL MATERIALS ASTM A536 GRADE 65-45-12 DUCTILE IRON UNLESS OTHERWISE SPECIFIED
 2. FASTENER MATERIAL: TYPE 304 STAINLESS STEEL, 316 AVAILABLE UPON REQUEST
 3. BOLT GUIDE COATING BLACK Xylan 1212. BLACK E-COAT AVAILABLE UPON REQUEST
 4. REFER TO INSTALLATION INSTRUCTIONS FOR MINIMUM INSERTION DEPTH



DETAIL B
SCALE 1:3

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				APPROVED	James Protzeller	7/27/2021		DWG. NO.	CAD-045808
MODEL NAME ALPHA COUPLING, ASSEMBLY, TRANSITION, 4 INCH		MODEL CAD # CAD-045809		CONFIGURATION NAME: Default		THIRD ANGLE PROJECTION		LEGACY DRAWING #	
								DRAWING FILE NAME: ALPHA COUPLING, 4-12 INCH, TRANSITION	AUTHOR: Tyler Matthews
								SIZE	SCALE
								A	1:8
								REV. NO.	SHEET
								R2	1 OF 1

4/16/21

1

2

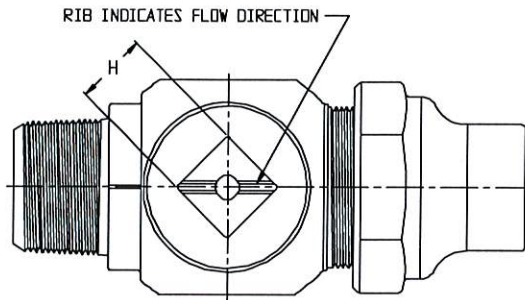
FOR CUSTOMER USE

RELEASED

SUBMITTAL DATA SHEET

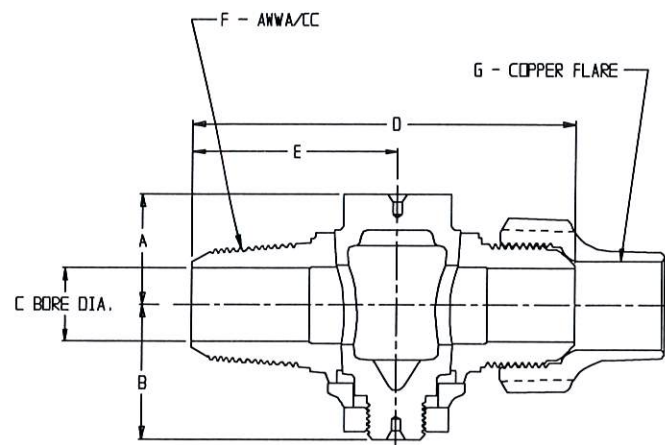
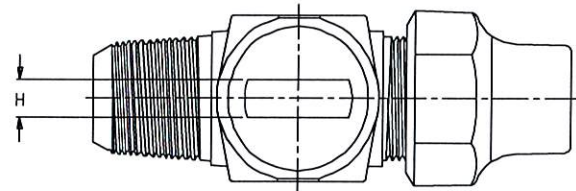
NL Plug Style Corporation Stop - 74701

AWWA/CC x Copper Flare



*NOTE: 1 1/2 & 2 INCH PLUGS HAVE SQUARE HEAD WRENCHING SURFACES

MODEL	SIZE	A	B	C	D	E	F	G	H
74701	1/2	1.12	1.16	.50	3.34	1.73	1/2	1/2	.34
74701	5/8 X 3/4	1.10	1.23	.63	3.66	2.02	5/8	3/4	.34
74701	3/4	1.13	1.37	.75	4.00	2.15	3/4	3/4	.38
74701	3/4 X 1	1.13	1.37	.75	4.15	2.15	3/4	1	.38
74701	1	1.41	1.48	1.00	4.57	2.40	1	1	.38
74701	1 1/4	1.67	1.77	1.25	5.63	2.94	1 1/4	1 1/4	.44
74701	1 1/2	1.98	2.28	1.50	6.35	3.35	1 1/2	1 1/2	*1.13
74701	1 1/2 X 2	1.98	2.28	1.50	6.87	3.31	1 1/2	2	*1.13
74701	2	2.39	2.41	2.00	7.77	3.97	2	2	*1.25



SUBMITTAL INFORMATION

- Manufactured in compliance with ANSI/AWWA C800 (latest revision)
- Brass components in contact with potable water conform to ASTM B584, UNS C89833 (latest revision) and identified with "NL"
- Certified to NSF/ANSI 61 and NSF/ANSI 372
- Brass components not in contact with potable water conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision)
- Large wrench flats provided for proper installation
- Plug rotates 360°
- 1/2" - 1" rated for 100 PSIG water pressure
- 1 1/4" - 2" rated for 80 PSIG water pressure



A.Y. McDonald Mfg. Co.
P.O. Box 508
Dubuque, IA 52004-508

Toll Free: 1-800-292-2737
Fax: 1-800-832-9296
Hours: 7:00 a.m. - 5:00 p.m., CST

sales@aymcdonald.com
www.aymcdonald.com

A.Y. McDonald considers the information on this assembly drawing correct when published. Item and option availability, including specifications, are subject to change without notice.

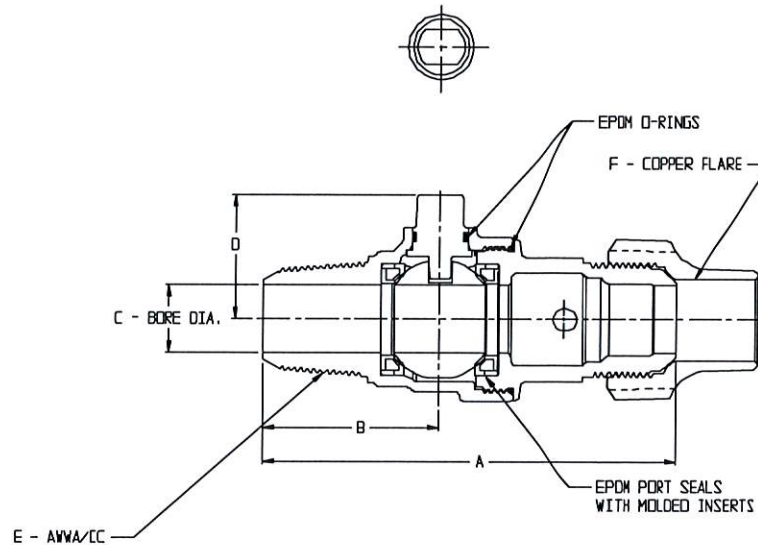
Submitted by:

09-14

SUBMITTAL DATA SHEET

NL Ball Style Corporation Stop - **74701B**

AWWA/CC x Copper Flare



MODEL	SIZE	A	B	C	D	E	F
74701B	3/4	4.65	1.96	.75	1.39	3/4	3/4
74701B	3/4 X 1	4.58	1.96	.75	1.39	3/4	1
74701B	1	4.60	2.11	1.00	1.50	1	1
74701B	1 x 1 1/4	5.20	2.11	1.00	1.50	1	1 1/4
74701B	1 1/4	6.53	3.02	1.25	1.88	1 1/4	1 1/4
74701B	1 1/2	6.80	3.05	1.50	2.15	1 1/2	1 1/2
74701B	1 1/2 X 2	7.11	3.05	1.50	2.15	1 1/2	2
74701B	2	7.66	3.21	2.00	2.46	2	2

SUBMITTAL INFORMATION

- Manufactured in compliance with ANSI/AWWA C800 (latest revision)
- Brass components in contact with potable water conform to ASTM B584, UNS C89833 (latest revision) and identified with "NL"
- Certified to NSF/ANSI 61 and NSF/ANSI 372
- Brass components not in contact with potable water conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision)
- PTFE coated brass ball rotates 360°
- Rated for 300 PSIG water pressure
- Blow out proof EPDM port seals
- End piece joint sealed with an EPDM o-ring and thread locker



A.Y. McDonald Mfg. Co.
P.O. Box 508
Dubuque, IA 52004-508

Toll Free: 1-800-292-2737

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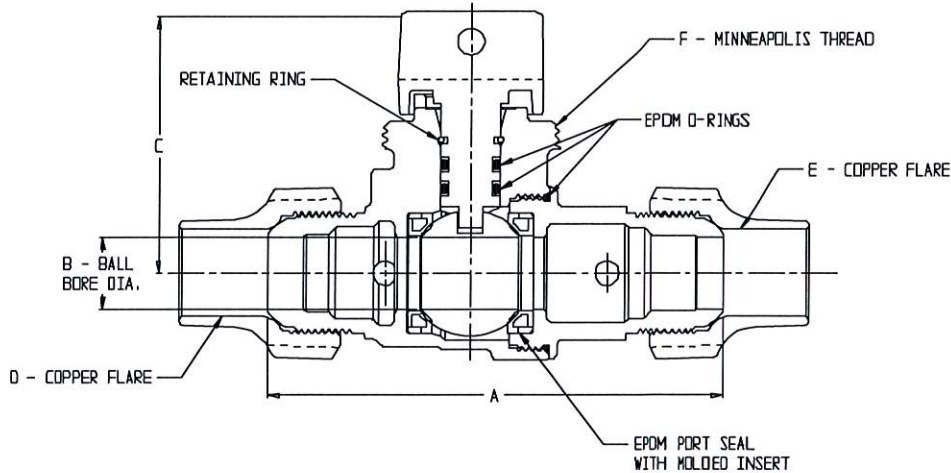
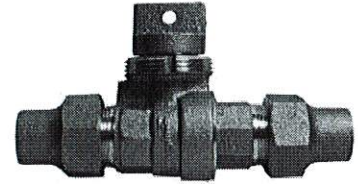
A.Y. McDonald considers the information on this assembly drawing correct when published. Item and option availability, including specifications, are subject to change without notice.

Submitted by:

SUBMITTAL DATA SHEET

NL Ball Style Curb Stop - 76104

Copper Flare x Copper Flare



MODEL	SIZE	A	B	C	D	E	F
76104	3/4	4.81	.75	2.68	3/4	3/4	1 1/2
76104	1 X 3/4 X 3/4	4.92	.75	2.68	1	3/4	1 1/2
76104	1 X 3/4 X 1	4.86	.75	2.68	1	1	1 1/2
76104	1	5.48	1.00	2.65	1	1	1 1/2
76104	1 1/4 X 1 X 1	5.75	1.00	2.65	1 1/4	1	1 1/2
76104	1 1/4 X 1 X 1 1/4	6.34	1.00	2.65	1 1/4	1 1/4	1 1/2
76104	1 1/4	6.50	1.25	2.94	1 1/4	1 1/4	2
76104	1 1/2	6.84	1.50	3.41	1 1/2	1 1/2	2
76104	2	8.76	2.00	3.67	2	2	2

SUBMITTAL INFORMATION

- Manufactured in compliance with ANSI/AWWA C800 (latest revision)
- Brass components in contact with potable water conform to ASTM B584, UNS C89833 (latest revision) and identified with "NL"
- Certified to NSF/ANSI 61 and NSF/ANSI 372
- Brass components not in contact with potable water conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision)
- PTFE coated brass ball
- Valve rated for 300 PSIG water pressure, end connections not to exceed rated pipe pressures.
- Blow out proof EPDM port seals
- End piece joint sealed with an EPDM o-ring and thread locker



A.Y. McDonald Mfg. Co.
P.O. Box 508
Dubuque, IA 52004-508

Toll Free: 1-800-292-2737
Fax: 1-800-832-9296
Hours: 7:00 a.m. - 5:00 p.m., CST

sales@aymcdonald.com
www.aymcdonald.com

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Submitted by:

04-20

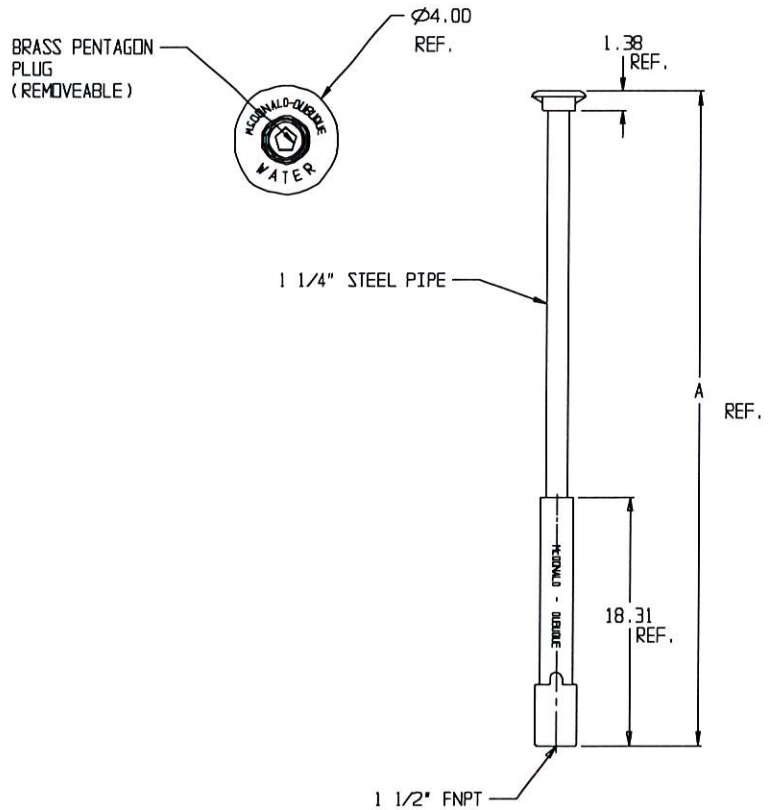
SUBMITTAL DATA SHEET

Curb Boxes - 5614

Minneapolis Pattern



MODEL NO.	SIZE	A-RANGE
5614	2 1/2	1 1/2' TO 2 1/2'
5614	3	2' TO 3'
5614	3 1/2	2 1/2' TO 3 1/2'
5614	4	3' TO 4'
5614	4 1/2	3 1/2' TO 4 1/2'
5614	5	4' TO 5'
5614	5 1/2	4 1/2' TO 5 1/2'
5614	6	5' TO 6'
5614	6 1/2	5 1/2' TO 6 1/2'
5614	7	6' TO 7'
5614	7 1/2	6 1/2' TO 7 1/2'
5614	8	7' TO 8'
5614	8 1/2	7 1/2' TO 8 1/2'
5614	9	8' TO 9'
5614	9 1/2	8 1/2' TO 9 1/2'
5614	10	9' TO 10'



SUBMITTAL INFORMATION

- Brass components conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision) or ASTM B584, UNS C84400 -81-3-7-9 (latest revision)
- Lid and Base made of Cast Iron per ASTM A48, Class 25
- Upper Section made of steel pipe
- Coated with black dip



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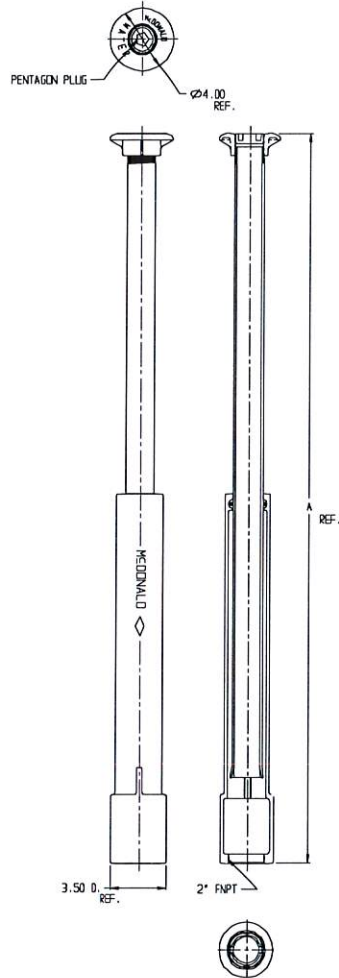
09-14

SUBMITTAL DATA SHEET

Curb Boxes - 5623

Minneapolis Pattern

MODEL	SIZE	A-RANGE
5623	2 1/2	1 1/2' TO 2 1/2'
5623	3	2' TO 3'
5623	3 1/2	2 1/2' TO 3 1/2'
5623	4	3' TO 4'
5623	4 1/2	3 1/2' TO 4 1/2'
5623	5	4' TO 5'
5623	5 1/2	4 1/2' TO 5 1/2'
5623	6	5' TO 6'
5623	6 1/2	5 1/2' TO 6 1/2'
5623	7	6' TO 7'
5623	7 1/2	6 1/2' TO 7 1/2'
5623	8	7' TO 8'
5623	8 1/2	7 1/2' TO 8 1/2'
5623	9	8' TO 9'



SUBMITTAL INFORMATION

- Brass components conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision) or ASTM B584, UNS C84400 -81-3-7-9 (latest revision)
- Lid and Base made of Cast Iron per ASTM A48, Class 25
- Upper Section made of steel pipe
- Coated with black dip



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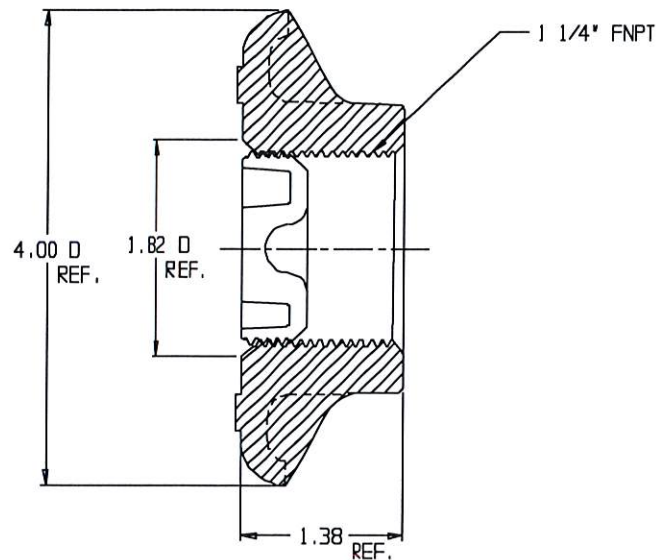
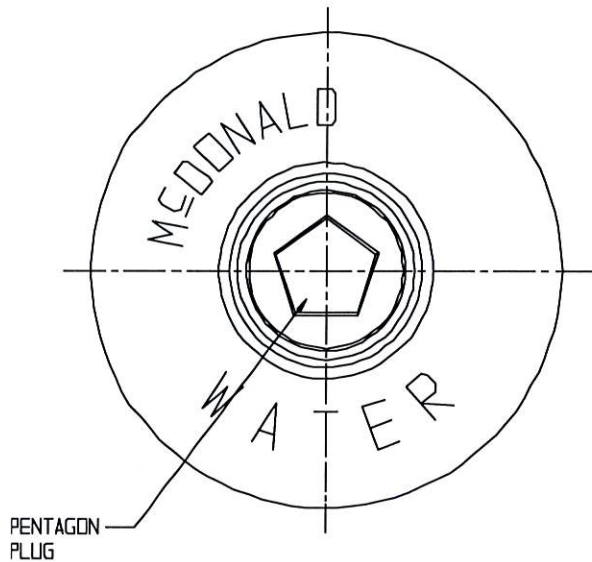
Submitted by:

09-14

SUBMITTAL DATA SHEET

Curb Boxes - 5614L

FNPT



SUBMITTAL INFORMATION

- Brass components conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision) or ASTM B584, UNS C84400 -81-3-7-9 (latest revision)
- Lid and Base made of Cast Iron per ASTM A48, Class 25
- Upper Section made of steel pipe
- Coated with black dip



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Submitted by:

09-14

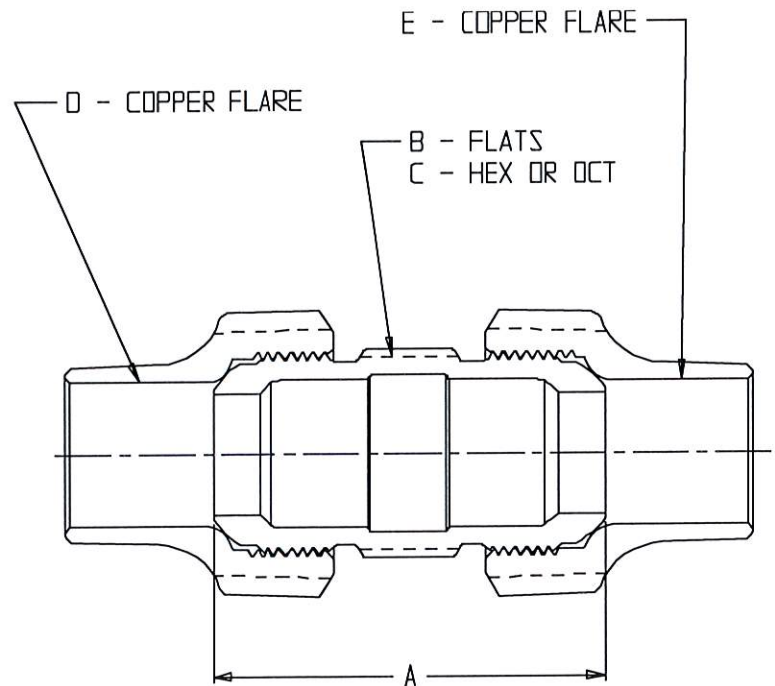
SUBMITTAL DATA SHEET

NL Service Fitting - 74758

Copper Flare x Copper Flare



MODEL	SIZE	A	B	C	D	E
74758	1/2	2.06	1.06	HEX	1/2	1/2
74758	1/2 X 3/4	2.21	1.38	HEX	1/2	3/4
74758	3/4	2.50	1.20	OCT	3/4	3/4
74758	3/4 X 1	2.57	1.34	HEX	3/4	1
74758	1	2.88	1.38	OCT	1	1
74758	1 1/4	3.87	2.38	HEX	1 1/4	1 1/4
74758	1 1/2	3.88	2.88	HEX	1 1/2	1 1/2
74758	2	4.25	3.29	HEX	2	2



SUBMITTAL INFORMATION

- Manufactured in compliance with ANSI/AWWA C800 (latest revision)
- Brass components in contact with potable water conform to ASTM B584, UNS C89833 (latest revision) and identified with "NL"
- Certified to NSF/ANSI 61 and NSF/ANSI 372
- Brass components not in contact with potable water conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision)
- Large wrench flats provided for proper installation



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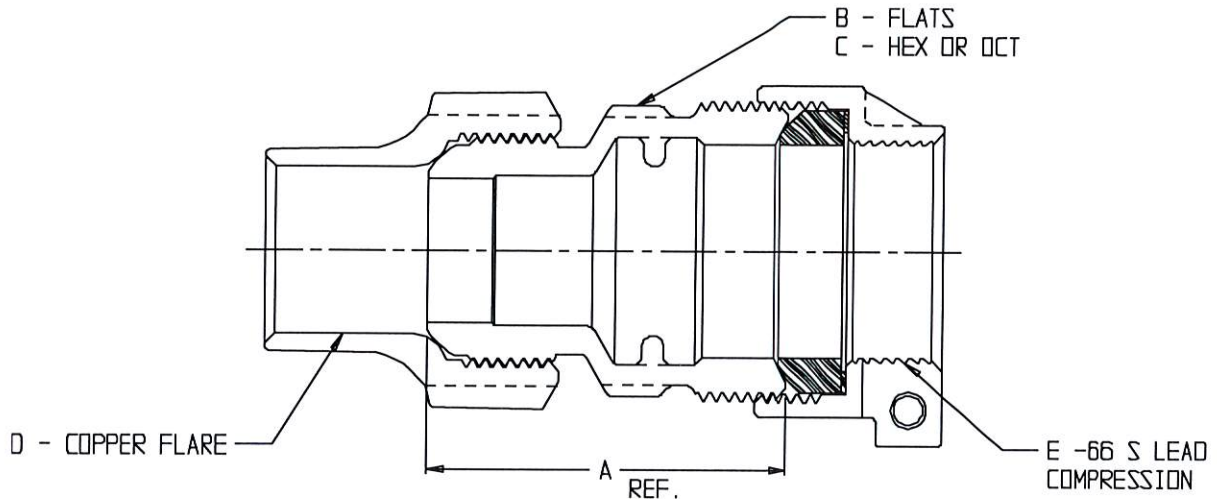
Submitted by:

09-14

SUBMITTAL DATA SHEET

NL Service Fitting – 74758C-66

Copper Flare x -66 S Lead Compression



MODEL NO.	SIZE	A	B	C	D	E
74758C-66	3/4	2.22	1.34	HEX	3/4	3/4
74758C-66	3/4 X 5/8	2.40	1.34	HEX	3/4	5/8
74758C-66	1	2.51	1.85	OCT	1	1
74758C-66	1 X 5/8	2.74	1.38	OCT	1	5/8
74758C-66	1 X 3/4	2.64	1.38	OCT	1	3/4

SUBMITTAL INFORMATION

- Manufactured in compliance with ANSI/AWWA C800 (latest revision)
- Brass components in contact with potable water conform to ASTM B584, UNS C89833 (latest revision) and identified with "NL"
- Certified to NSF/ANSI 61 and NSF/ANSI 372
- Brass components not in contact with potable water conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision)
- Large wrench flats provided for proper installation



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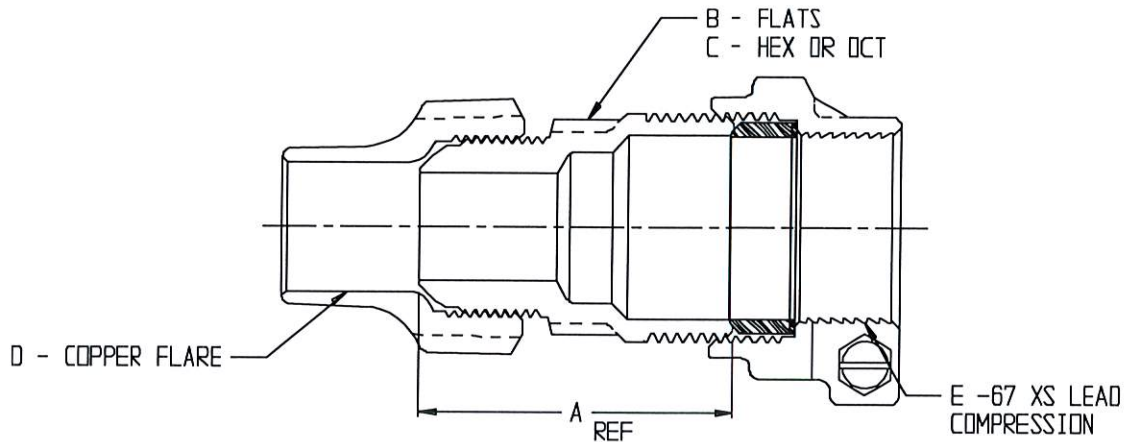
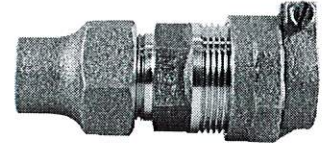
Submitted by:

09-14

SUBMITTAL DATA SHEET

NL Service Fitting – 74758C-67

Copper Flare x -67 XS Lead Compression



MODEL NO.	SIZE	A	B	C	D	E
74758C-67	3/4	2.22	1.34	HEX	3/4	3/4
74758C-67	3/4 X 1/2	2.22	1.20	OCT	3/4	1/2
74758C-67	3/4 X 5/8	2.29	1.34	HEX	3/4	5/8
74758C-67	1	2.51	1.85	OCT	1	1
74758C-67	1 X 5/8	2.76	1.38	OCT	1	5/8
74758C-67	1 X 3/4	2.93	1.78	HEX	1	3/4

SUBMITTAL INFORMATION

- Manufactured in compliance with ANSI/AWWA C800 (latest revision)
- Brass components in contact with potable water conform to ASTM B584, UNS C89833 (latest revision) and identified with "NL"
- Certified to NSF/ANSI 61 and NSF/ANSI 372
- Brass components not in contact with potable water conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision)
- Large wrench flats provided for proper installation



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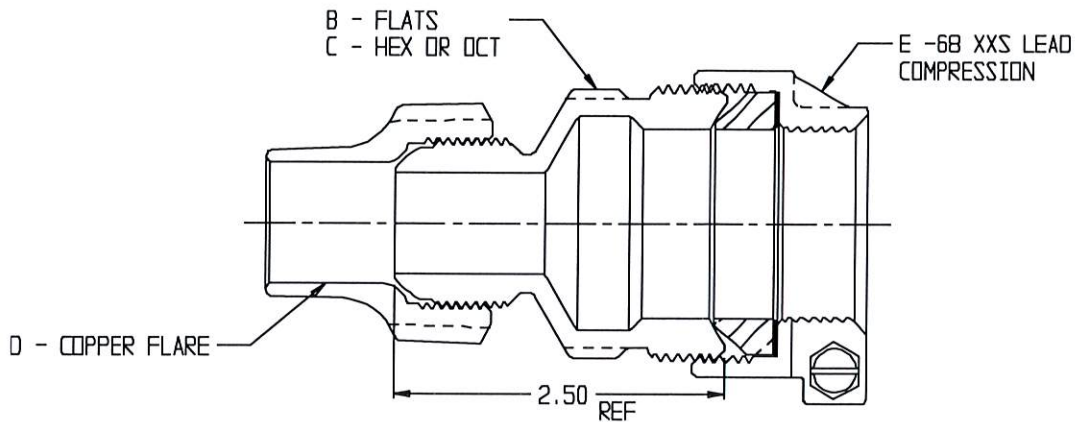
Submitted by:

09-14

SUBMITTAL DATA SHEET

NL Service Fitting – 74758C-68

Copper Flare x -68 XXS Lead Compression



MODEL NO.	SIZE	A	B	C	D	E
74758C-68	3/4	2.50	1.85	OCT	3/4	3/4
74758C-68	3/4 X 1/2	2.40	1.34	HEX	3/4	1/2
74758C-68	3/4 X 5/8	2.22	1.34	HEX	3/4	5/8
74758C-68	1	2.51	1.85	OCT	1	1
74758C-68	1 X 1/2	2.74	1.38	OCT	1	1/2
74758C-68	1 X 5/8	2.64	1.38	OCT	1	5/8
74758C-68	1 X 3/4	2.76	1.85	OCT	1	3/4

SUBMITTAL INFORMATION

- Manufactured in compliance with ANSI/AWWA C800 (latest revision)
- Brass components in contact with potable water conform to ASTM B584, UNS C89833 (latest revision) and identified with "NL"
- Certified to NSF/ANSI 61 and NSF/ANSI 372
- Brass components not in contact with potable water conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision)
- Large wrench flats provided for proper installation



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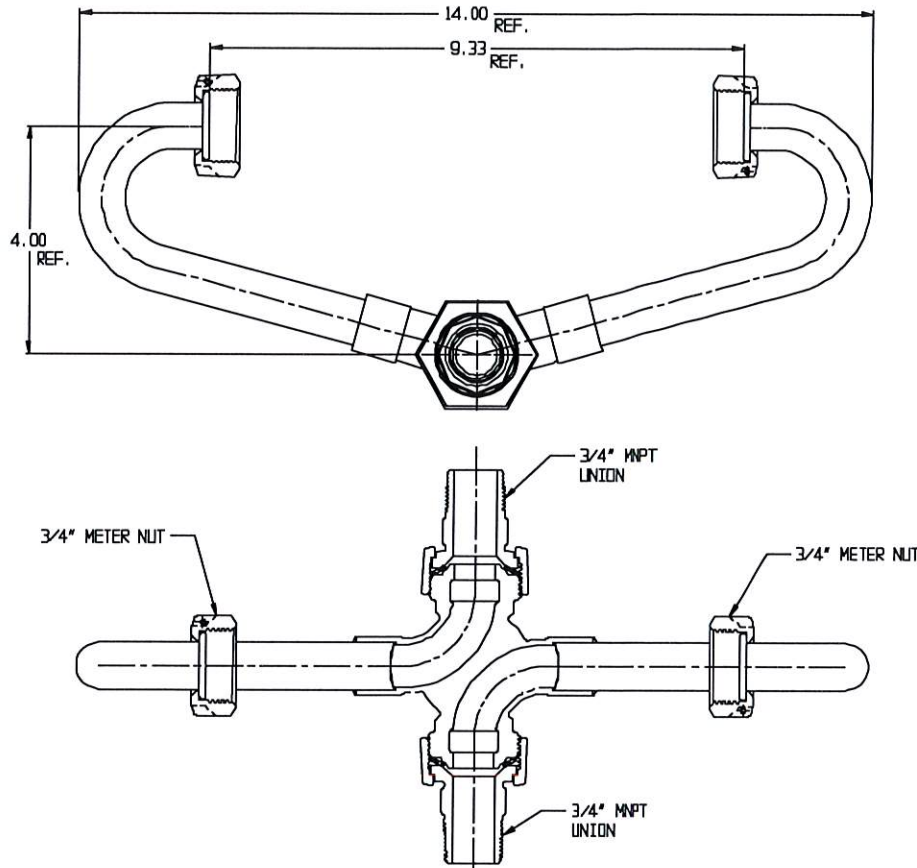
Submitted by:

09-14

SUBMITTAL DATA SHEET

NL Inside Setter – 743-3----MM 33

MNPT Union x MNPT Union



SUBMITTAL INFORMATION

- Manufactured in compliance with ANSI/AWWA C800 (latest revision)
- Brass components in contact with potable water conform to ASTM B584, UNS C89833 (latest revision) and identified with "NL"
- Certified to NSF/ANSI 61 and NSF/ANSI 372
- Brass components not in contact with potable water conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision)
- Copper tubing made in compliance with ASTM B75 or B88, UNS C12200 (latest revision)
- Lead free solder joints
- Designed to provide proper meter spacing for ease of installation



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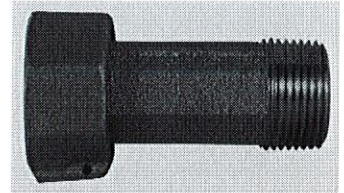
Submitted by:

03-13

SUBMITTAL DATA SHEET

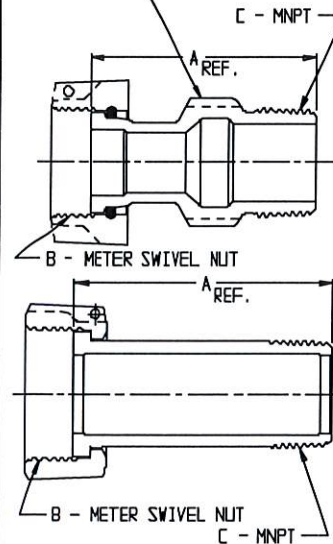
NL Meter Coupling - 74620

Meter Swivel Nut With Wire Seal Hole x MNPT



*NOTE: USE RETAINING RING AS PICTURED HERE

MODEL	SIZE	A	B	C
74620	5/8 X 1/2 X 2.38	2.38	5/8	1/2
74620*	5/8 X 3/4 X 2.19	2.19	5/8	3/4
74620	3/4 X 3/4 X 2.50	2.50	5/8 X 3/4, 3/4	3/4
74620	3/4 X 1/2 X 1.63	1.63	5/8 X 3/4, 3/4	1/2
74620	3/4 X 1/2 X 2.38	2.38	5/8 X 3/4, 3/4	1/2
74620*	3/4 X 1 X 2.50	2.50	5/8 X 3/4, 3/4	1
74620	3/4 X 3/4 X 2.00	2.00	5/8 X 3/4, 3/4	3/4
74620	3/4 X 3/4 X 2.25	2.25	5/8 X 3/4, 3/4	3/4
74620	3/4 X 3/4 X 2.75	2.75	5/8 X 3/4, 3/4	3/4
74620	3/4 X 3/4 X 3.00	3.00	5/8 X 3/4, 3/4	3/4
74620	3/4 X 3/4 X 3.28	3.28	5/8 X 3/4, 3/4	3/4
74620	3/4 X 3/4 X 3.50	3.00	5/8 X 3/4, 3/4	3/4
74620	3/4 X 3/4 X 8.50	8.50	5/8 X 3/4, 3/4	3/4
74620*	3/4 X 3/4 X 12.00	12.00	5/8 X 3/4, 3/4	3/4
74620	1 X 3/4 X 1.75	1.75	1	3/4
74620	1 X 1 X 2.63	2.63	1	1
74620	1 X 1 X 3.00	3.00	1	1
74620	1 X 1 X 3.35	3.35	1	1
74620	1 X 1 X 3.50	3.50	1	1
74620	1 X 1 X 8.50	8.50	1	1
74620	1 X 1 X 12.00	12.00	1	1
74620	1 1/2 X 1 1/2 X 2.84	2.84	1 1/2	1 1/2
74620	2 X 2 X 3.00	3.00	2	2



SUBMITTAL INFORMATION

- Manufactured in compliance with ANSI/AWWA C800 (latest revision)
- Brass components in contact with potable water conform to ASTM B584, UNS C89833 (latest revision) and identified with "NL"
- Certified to NSF/ANSI 61 and NSF/ANSI 372
- Brass components not in contact with potable water conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision)
- Large wrench area provided for proper installation



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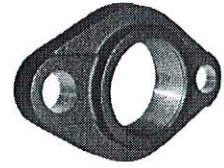
Submitted by:

08-17

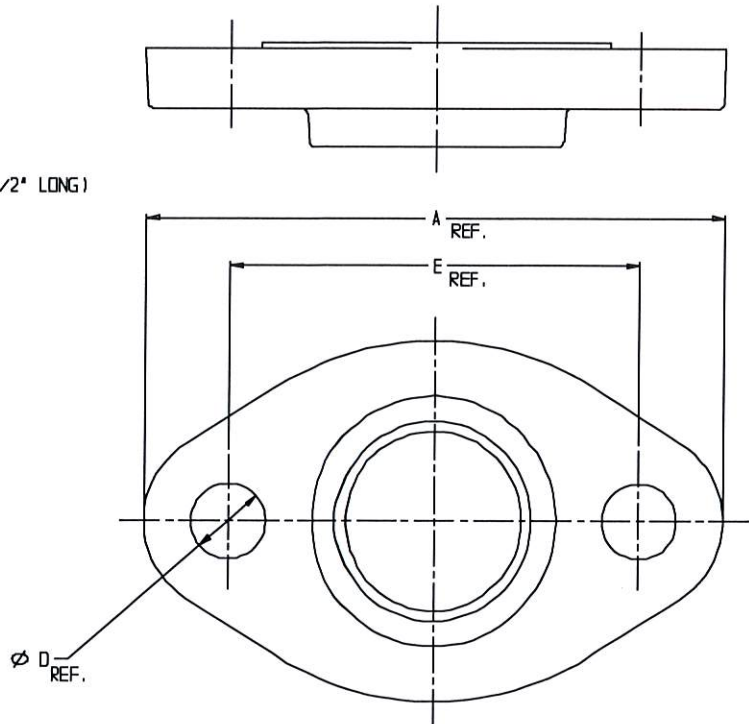
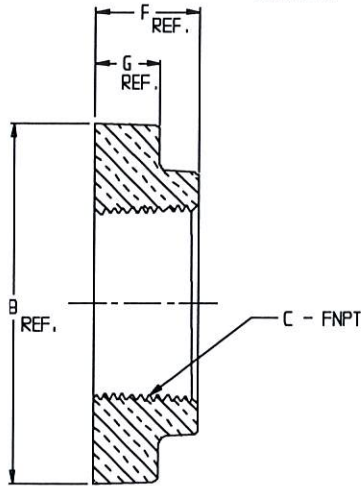
SUBMITTAL DATA SHEET

NL Meter Coupling - 7610FKIT

Oval Flange x FNPT



KIT CONTAINS
2 FLANGES AND
FOUR 5/8" BOLTS (2 1/2" LONG)
AND NUTS



MODEL	SIZE	A	B	C	D	E	F	G
7610FKIT	1 1/2	5.62	3.44	1 1/2	.72	4.00	1.00	.63
7610FKIT	2	6.00	3.88	2	.81	4.50	1.20	.81

SUBMITTAL INFORMATION

- Manufactured in compliance with ANSI/AWWA C800 (latest revision)
- Brass components in contact with potable water conform to ASTM B584, UNS C89833 (latest revision) and identified with "NL"
- Certified to NSF/ANSI 61 and NSF/ANSI 372
- Brass components not in contact with potable water conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision)
- Large wrench area provided for proper installation



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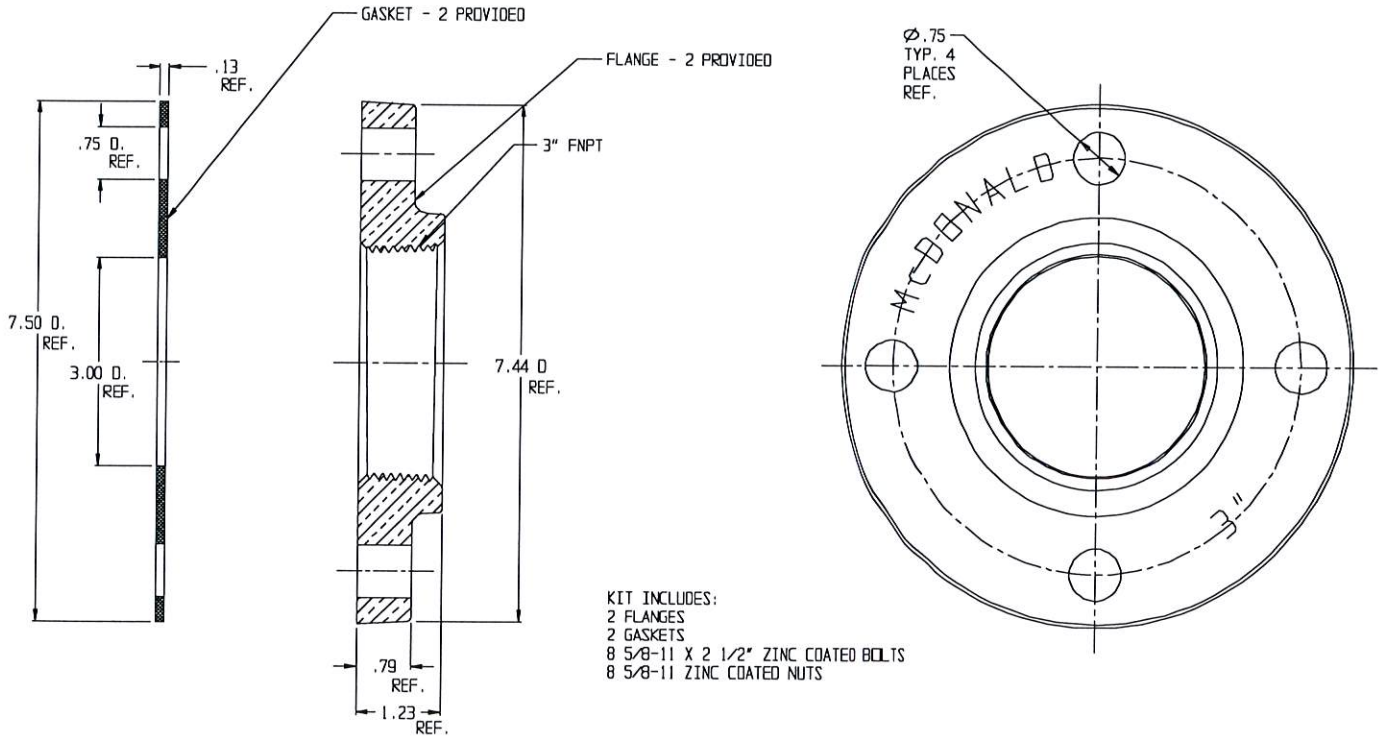
Submitted by:

06-15

SUBMITTAL DATA SHEET

NL Meter Coupling - 7610RK 3

Round Flange x FNPT



SUBMITTAL INFORMATION

- Manufactured in compliance with ANSI/AWWA C800 (latest revision)
- Brass components in contact with potable water conform to ASTM B584, UNS C89833 (latest revision) and identified with "NL"
- Certified to NSF/ANSI 61 and NSF/ANSI 372
- Brass components not in contact with potable water conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision)
- Large wrench area provided for proper installation



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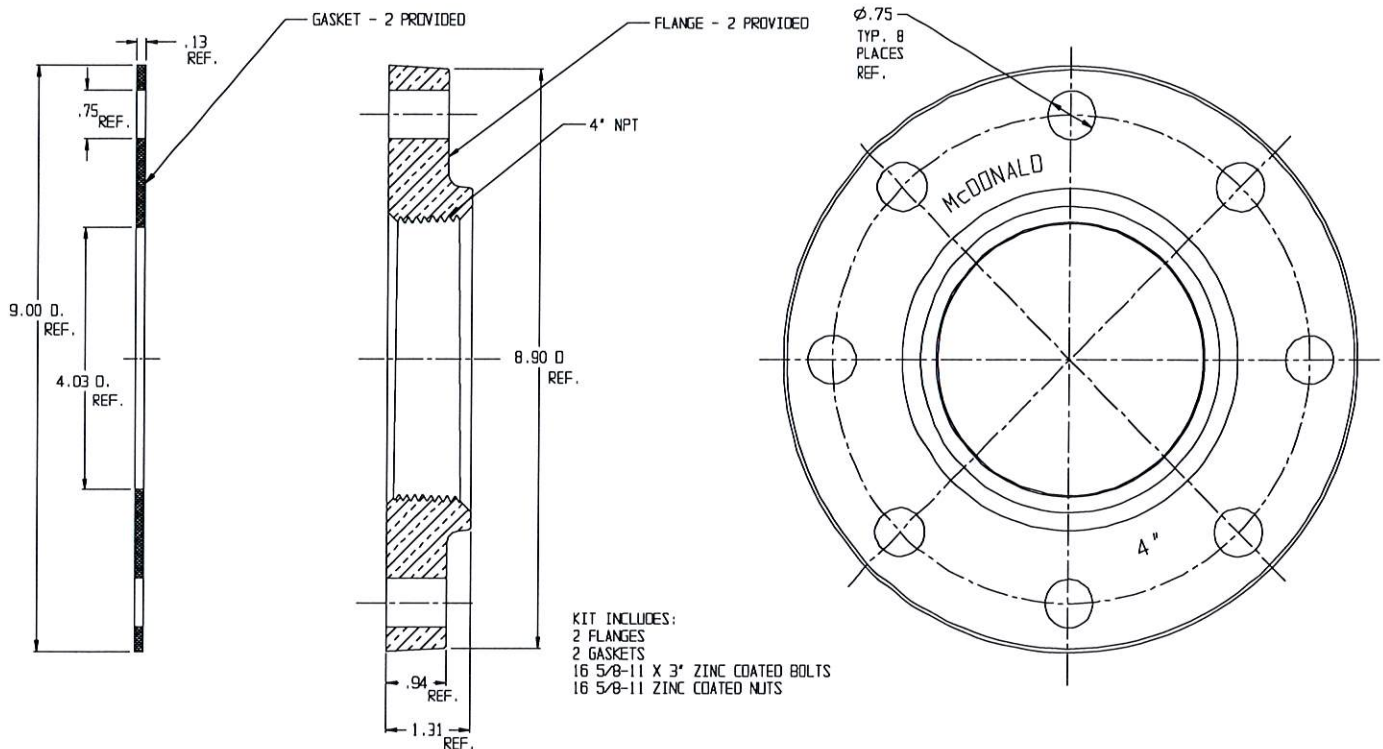
Submitted by:

09-14

SUBMITTAL DATA SHEET

NL Meter Coupling - 7610RK 4

Round Flange x FNPT



SUBMITTAL INFORMATION

- Manufactured in compliance with ANSI/AWWA C800 (latest revision)
- Brass components in contact with potable water conform to ASTM B584, UNS C89833 (latest revision) and identified with "NL"
- Certified to NSF/ANSI 61 and NSF/ANSI 372
- Brass components not in contact with potable water conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision)
- Large wrench area provided for proper installation



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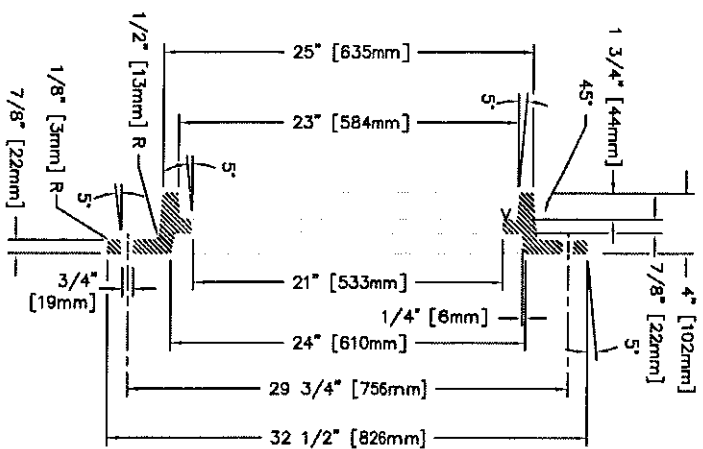
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Submitted by:

09-14



RIB DETAIL

DR.	CSK	SCALE	TITLE	
CH.		1/8" = 1'	R-1647 FRAME	
APP.		DRAWN BY	NEENAH FOUNDRY COMPANY FEDERAL DIVISION 14-0000	IN-16470001
DATE	11-02-87	CHK.		BR

Technical drawing of a mechanical part with the following dimensions and tolerances:

- Overall width: 24 1/4"
- Overall height: 23"
- Top flange thickness: 1 3/4"
- Top flange width: 25/32"
- Top flange radius: 1/2" RAD.
- Top flange angle: 5/16"
- Top flange width: 21"
- Top flange width: 25"
- Top flange width: 34"
- Top flange width: 3/4" RAD.
- Top flange width: 5/8"
- Top flange width: 7"
- Top flange width: 5/16"

5/16"

30°

15°

1"

R1/4"

R1/4"

5/8"

DETAIL A

SCALE 1:4

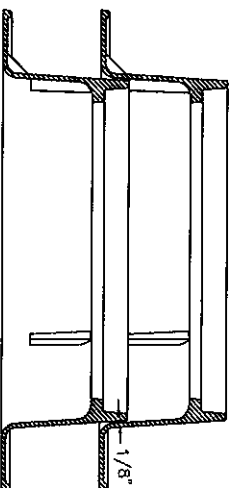
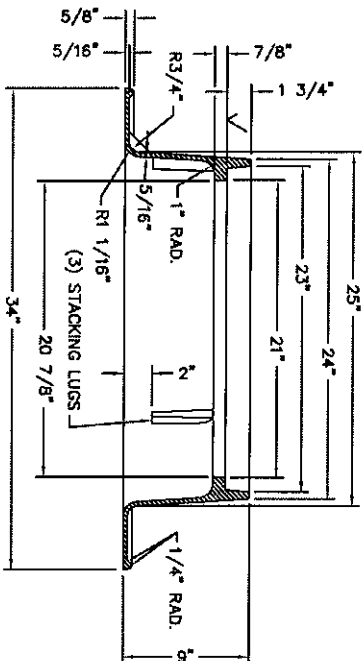
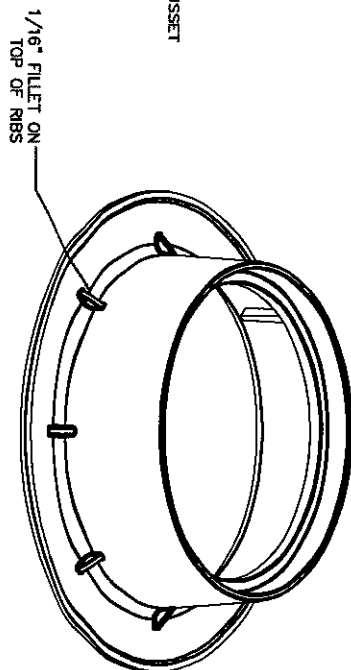
(1/2) x 1 1/2 x 3/8"

STACKING DETAIL

NOTES: MEETS LOADING REQUIREMENTS OF HS-25.
MADE IN THE USA.
QUALIFIES FOR "LEED" CREDITS.
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 40A
FINISH: NO PAINT
WEIGHT: 125#
W/A:

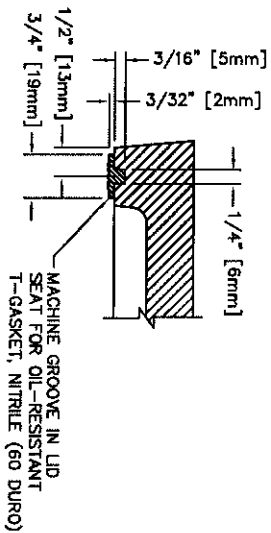
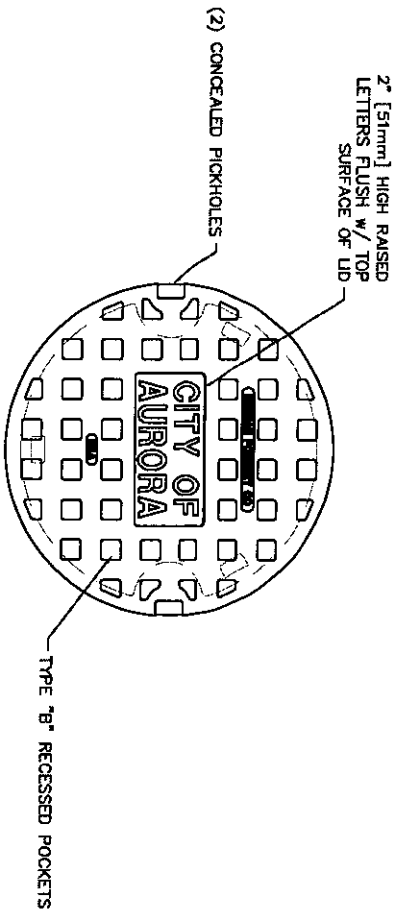
WAS 1772T69

[illegible]

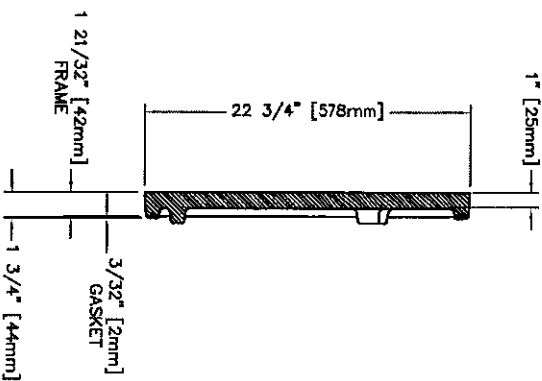


NOTES: MEETS LOADING REQUIREMENTS OF HS-25.
MADE IN THE USA.
QUALIFIES FOR "LEED" CREDITS.
ALL FILETS AND RADII ARE 1/8" UNLESS OTHERWISE SHOWN.
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 40A
FINISH: NO PAINT
WAS NF-1713 T30

[illegible]

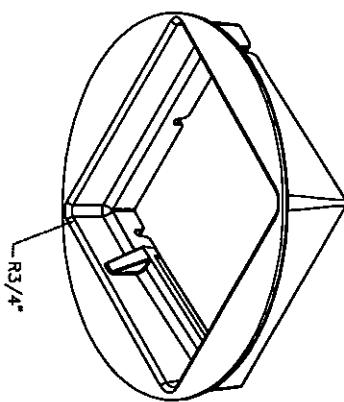


"T" GASKET DETAIL
SCALE 1:2

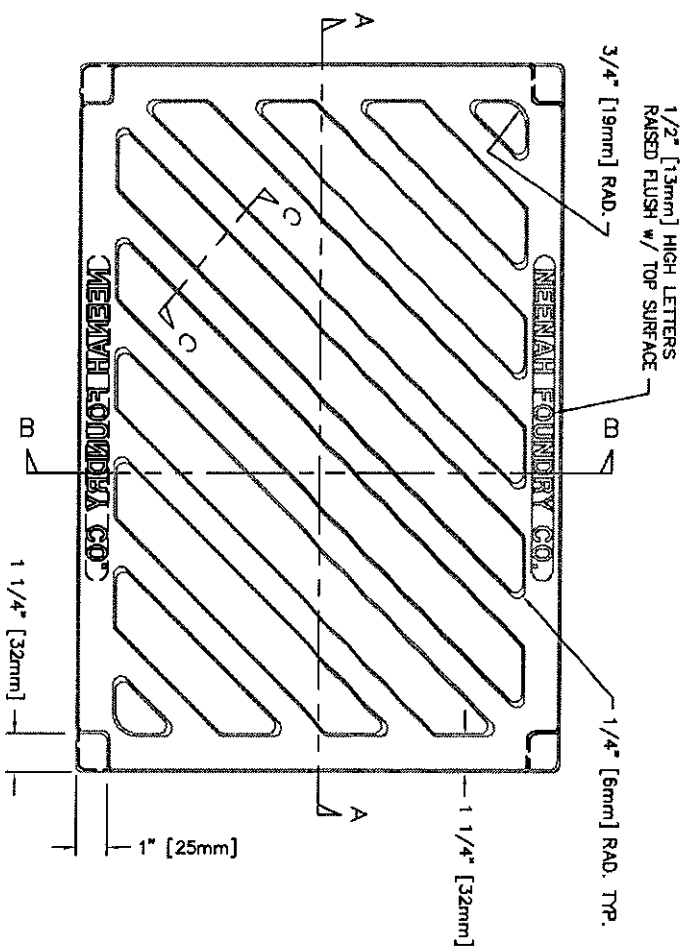
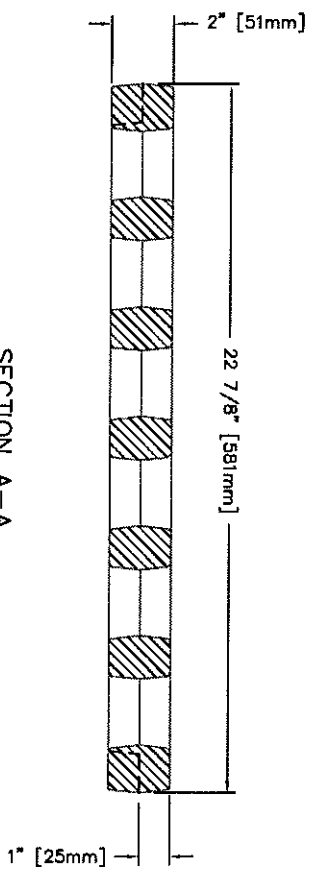


NOTE: ALL DIMENSIONS SHOWN ARE IN ENGLISH AND [METRIC]
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
FINISH: NO PAINT
WEIGHT: 127#

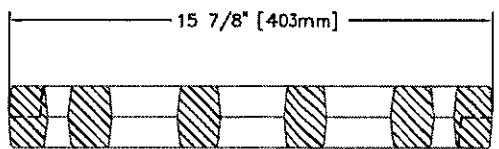
DR.	RKB	SCALE	TITLE
CR.	ELN	1/8"=1"	R-1772
APP.	JLF		LID LTRD. "CITY OF AURORA"
DATE	03-27-2018		
www.nfa.com		NEENAH FOUNDRY	
		NEENAH, WISCONSIN 54956	
		PHONE 800-258-8075	
		LINCOLN, NEBRASKA 68508	
		PHONE 800-234-7488	
NF-17725419			B



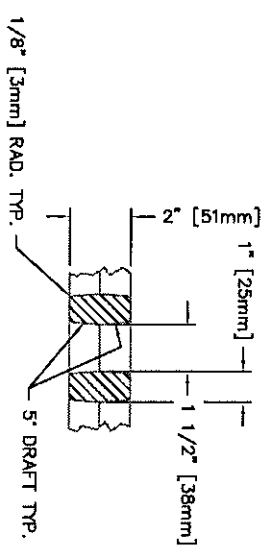
SECTION A-A



SECTION B-B



SECTION C-C



FREE OPEN AREA = 161 SQUARE INCHES

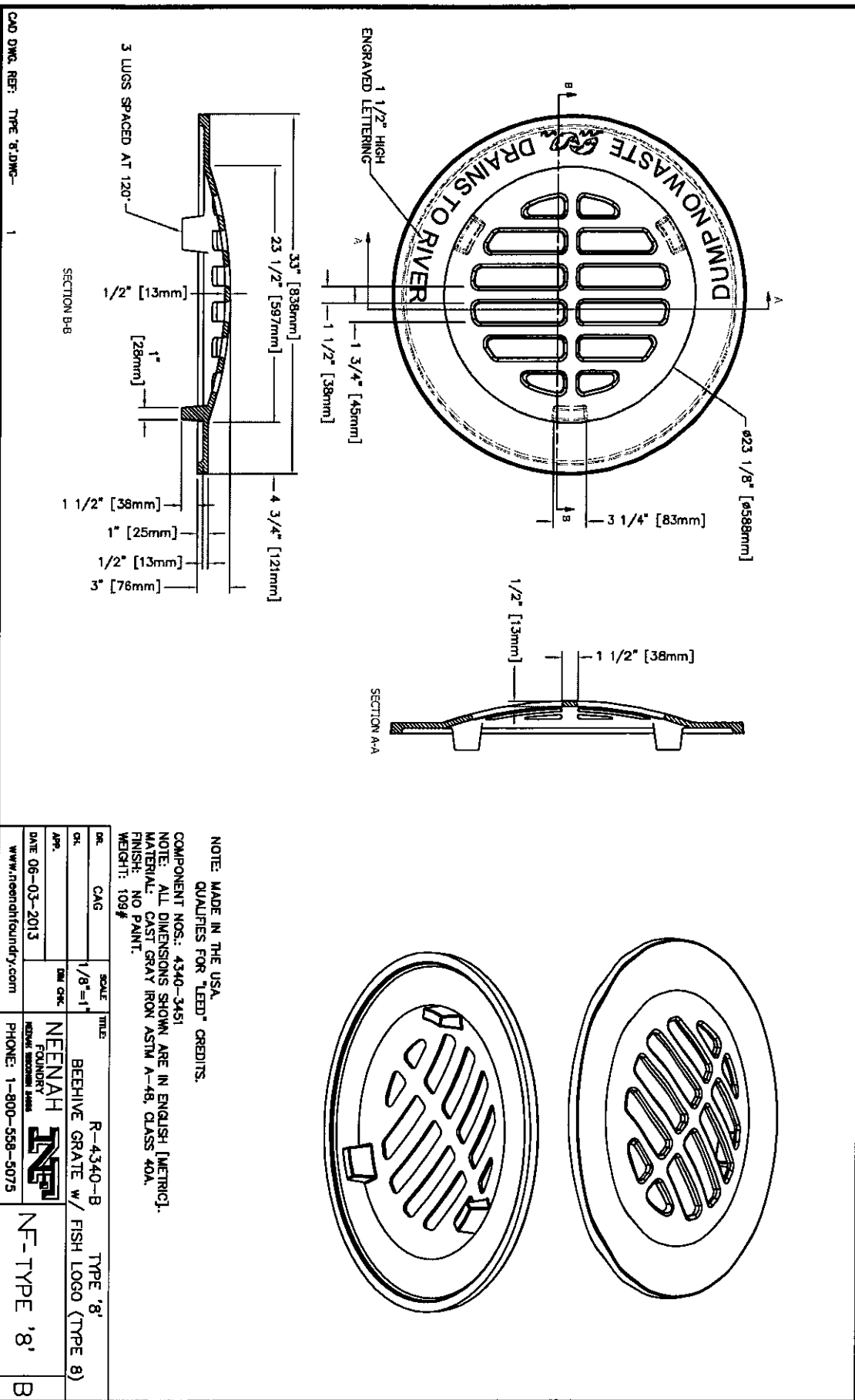
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B

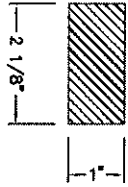
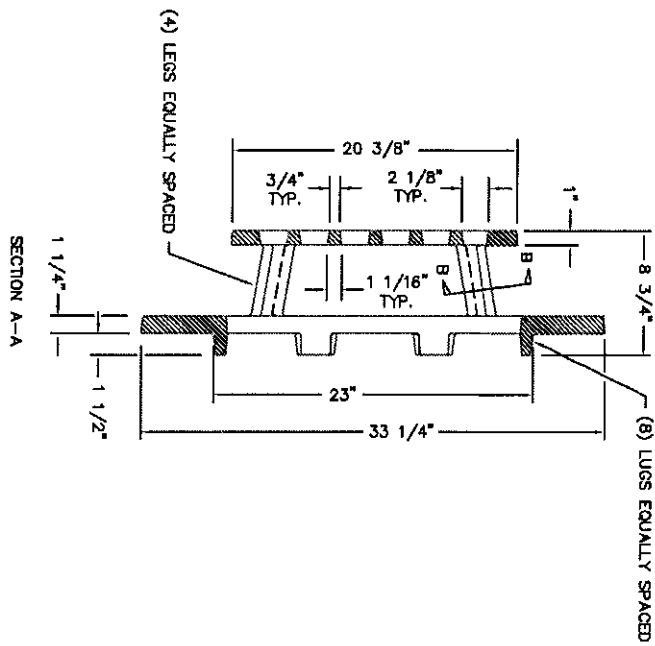
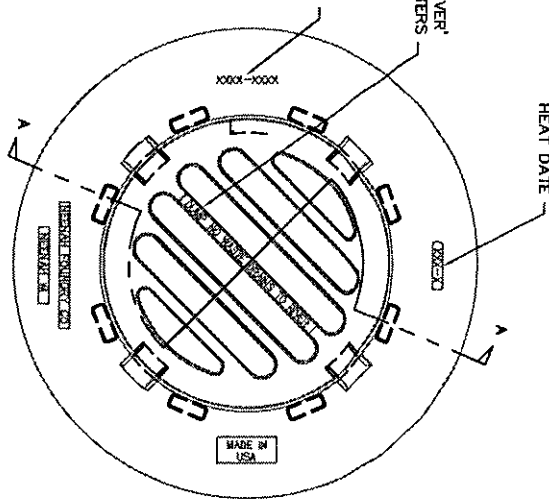
FINISH: NO PAINT

WEIGHT: APPROX. 92#

NO.	DATE	REVISION
1	1-18-87	ISSUED FOR REVIEW
2	1-23-87	ISSUED FOR REVIEW
3	1-23-87	ISSUED FOR REVIEW


DR.	SCALE	TITLE
DR.	1:4	R-3015
CHK.		DIAGONAL GRATE w/ 4 POS. NOTCHES
APP.		NEENAH FOUNDRY COMPANY
DATE	1/23/87	NEENAH FOUNDRY COMPANY
		NEENAH FOUNDRY COMPANY





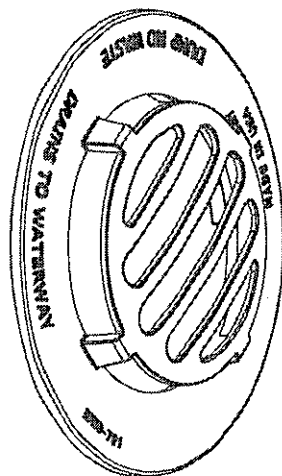
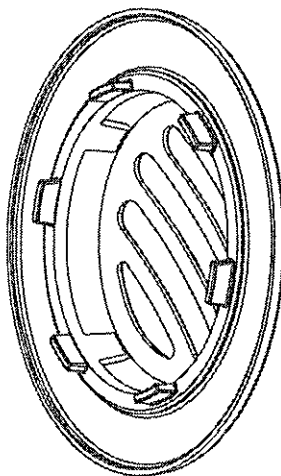
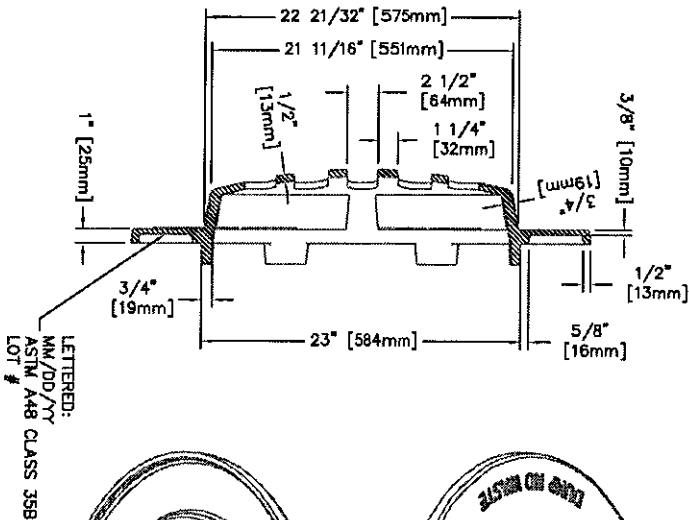
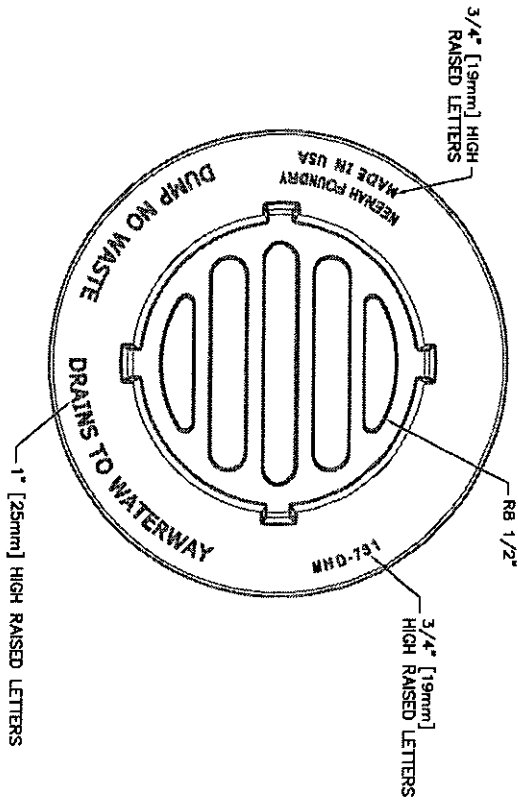
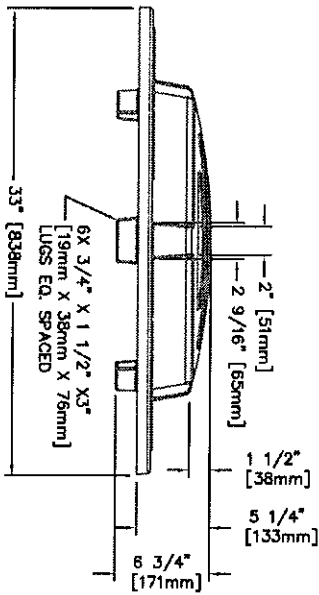
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B		SCALE 1/8"=1'	TITLE
FINISH: NO PAINT			
WEIGHT: 208#			
DATE 02-27-2008			
DR.	CSM		
CH.		1/8"=1'	
APP.		DN CHK.	

NEENAH
FOUNDRY COMPANY
FACILITY: GREENSBORO, OHIO



GRATE V

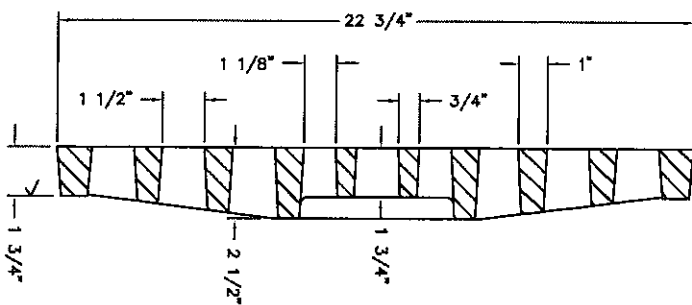
DR.	CSM	SCALE	TITLE	
CH.		1/8"=1'	R-4341-A GRATE w/ DOME AND LEGS	
APP.		DRN CHK.		
DATE 02-27-2008		NEENAH FOUNDRY COMPANY <small>NEENAH, WISCONSIN 54956</small>  NF- 43414001 B		



NOTE: ALL DIMENSIONS SHOWN ARE IN ENGLISH AND [METRIC].
 FREE OPEN AREA: 278 SQ. IN.
 MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
 FINISH: NO PAINT
 WEIGHT: 107#

DATE	REVISION	BY	CHK
11-18-2013	1	SP	SP

DATE	SCALE	TITLE
11-18-2013	1/8"=1"	R-4342-W STOOL TYPE GRATE
NEENAH FOUNDRY		
NEENAH WISCONSIN 54956		
PHONE 800-558-5073		
LINCOLN, NEBRASKA 68503		
PHONE 800-234-7468		
NF-43424302		



WAS 2015 T17

[illegible]