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1ST PUBLIC UTILITY DISTRICT

REQUEST FOR SEALED BID'S

(DATE) MAY 21, 2026

OWNER: Olivehurst Public Utility District
PROJECT: OPUD WATER MAIN & SERVICE LINE MATERIAL RFB

TO: Contractor / Bidder
BID DUE DATE: June 12, 2026 2:00 P.M.
BID OPENING DATE/TIME: June 12, 2026 Shortly after Bid Due Date.

SUBMIT BID
TO: Olivehurst Public Utility District
 1970 9th Avenue
 Olivehurst, CA 95961
 (530) 682-0736

Notice is hereby given to all prospective Contractors /Suppliers to **submit a sealed BID** on or before the above date. Contractor / Supplier agree to supply all equipment described in the available CONTRACT DOCUMENTS consisting of Plans, proposal document and Specifications. OPUD is looking for BIDS for the purchase of various water service material and pipe material. Copies of the CONTRACT DOCUMENTS may be obtained from Olivehurst Public Utility District, upon the non-refundable payment of \$ 50 per set, or you may request a free electronic copy from the District Public Works Manager via email at sboyal@opud.org.

Any question should be submitted to the Public Works manager via email at sboyal@opud.org or via phone at 530-682-0736. All questions are due by **Wednesday, June 3rd at 2 PM** for Clarification or addendum items.

Sincerely,

Swarnjit Boyal

Swarnjit Boyal, MS
 Public Works Manager

OLIVEHURST PUBLIC UTILITY DISTRICT
 1970 9TH Avenue
 Olivehurst, CA 95961
 Phone: (530) 682-0736

OLIVEHURST PUBLIC UTILITY DISTRICT
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Olivehurst, CA 95961
Phone: (530) 682-0736

OLIVEHURST PUBLIC UTILITY DISTRICT

Our mission is to provide high quality services to enhance our community's quality of life.



BOARD OF DIRECTORS

Dennise Burbank Lacey Nelson John Floe Mary Jane Griego Marc Perrault

GENERAL MANAGER

John Tillotson

May 21st, 2026

To: Prospective Bidders

RE: Purchase of aforementioned Water Service Materials for Service Line Replacements throughout Historic Olivehurst

Bids shall include any and all taxes, freight, federal/state fees, hazardous waste disposal fee, weight certificate of completed unit, etc. and be an 'Out-The-Door' cost. Please make sure to include a specification page/build sheet of materials in order to verify compliance with the requested specifications above. Any questions shall be directed to the OPUD Public Works Department at 530-682-0736 or via email at sboval@opud.org. Attached please find an example of what OPUD is looking for (or similar). Item # & MFG# was used as sample from local vendor as reference only. Olivehurst Public Utility District will be accepting as specified below:

Bid FORM for following water service materials:

RFB - BID SHEET FOR WATER SERVICES MATERIAL SUBMITAL - BID FORM

Title	Brand	Item #	MFG #	Unit of Measure	Quantity	Price	TOTAL
1 B-25028N Ball Corporation Stop, 1 in, MNPT x 1/10 CTS, Brass	Mueller Co or similar	MUEB25028N1	025028330N	Each	160	91.16	14585.60
2 Angle Meter Valve, 1 in, 1/10 CTS x Meter Nut Brass	Mueller Co or similar	MUEB24258N1	024258330N	Each	160	168.73	26996.80
3 Bushing 5/8 x 3/4 to 1 in, MNPT x Meter Nut Brass	Mueller Co or similar	MUEH10879N58344	H-10879N 5/8x3/4x1	Per Pair	80	80.34	6427.12
4 Potable Water Polyethylene Pipe, SDR 9, 4710, 1 in, 100 ft, CTS	VARIES	WPP1100BLK	WPP1100BLK	Per Roll	35	6.64	2310.00
5 Double Strap Pipe Saddle, 10 in, 1 in FNPT	A.Y. McDonald or similar	MCD3826101	4748-035	Each	30	234.01	7020.30
6 Hinged Pipe Saddle, 8 in, 1 in FNPT	FORD or similar	FORS91804	S91-804	Each	10	100.88	1008.80
7 Double Strap Pipe Saddle, 8 in, 1 in FNPT	A.Y. McDonald or similar	MCD382681	4748-015	Each	95	188.89	17944.55
8 2-Piece Pipe Saddle, 12 in, 1 in FNPT	FORD or similar	FORS911204	S91-1204	Each	30	243.58	7307.40
9 Tracer Wire, 10 AWG, 45 mil, Blue, (500 ft rolls or spool)	VARIES	TRW10BLU45	TRW10BLU45	Each	8	215.00	1720.00
10 Copper Split Bolt Connector (Needs to be compatible with 10 AWG Tracer wire mentioned above)	VARIES	TRWCSB8CS8	TRWCSB8CS8	Each	160	4.25	680.00
11 DR 18 PVC Pipe, 6 in, Bell x plain, 20ft L sticks, Blue	VARIES	PV/DR186	PV/DR186	LF	20	10.42	208.40
12 DR 18 PVC Pipe, 8 in, Bell x plain, 20ft L sticks, Blue	VARIES	PV/DR188	PV/DR188	LF	300	17.82	5347.00
13 DR 18 PVC Pipe, 12 in, Bell x plain, 20ft L sticks, Blue	VARIES	PV/DR1812	PV/DR1812	LF	20	37.83	756.60
14 Cross, 12 x 8 in, Flange, Cement Lined	Various Vendors	DCFCSOSSF1G128	DCFCSOSSF1G128	Each	1	1824.90	1824.90
15 Reducer Coupling, 8 x 6 in, Flange, Cement Lined	Various Vendors	DCFREDFLG86	DCFREDFLG86	Each	1	332.54	332.50
16 Reducer Coupling, 12 x 8 in, Flange, Cement Lined	Various Vendors	DCFREDFLG128	DCFREDFLG128	Each	1	717.50	717.50
17 22.5 deg Elbow, 8 in, Mechanical Joint, Fusion Bond Epoxy Coated	Various Vendors	DCFED212M18	DCFED212M18	Each	2	276.90	553.80
18 22.5 deg Elbow, 8 in, Mechanical Joint, Flange, Cement Lined	Various Vendors	DCF2212M1FG8	DCF2212M1FG8	Each	1	326.90	326.90
19 Non-Rising Stem Gate Valve, 8 in, Flange, Ductile Iron	Various Vendors	WGV/F8	WGV/F8	Each	2	1636.82	3273.64
20 Non-Rising Stem Gate Valve, 12 in, Mechanical Joint x Flange, Ductile Iron	Various Vendors	WGV/MF12	WGV/MF12	Each	1	3228.25	3228.25
21 Non-Rising Stem Gate Valve, 6 in, Flange, Ductile Iron	Various Vendors	WGV/F6	WGV/F6	Each	1	1027.72	1027.72
22 Gland, 6 in, Mechanical Joint, PVC, Steel Hardware, Domestic	Star Pipe Products	STDSRETFVCA56	PVCRSA008G2DD	Each	2	161.13	322.26
23 Gland, 8 in, Mechanical Joint, PVC, Steel Hardware, Domestic	Star Pipe Products	STDSRETFVCA58	PVCRSA008G2DD	Each	3	215.80	647.40
24 Gland, 12 in, Mechanical Joint, PVC, Steel Hardware, Domestic	Star Pipe Products	STDSRETFVCA512	PVCRSA012G2DD	Each	1	385.79	385.79
25 Bolt Set, 10 to 12 in 150#, Zinc CR+3, Grade 2	Various Vendors	WBLBS1012	WBLBS1012	Each	2	2074	4148
26 Bolt Set, 8 in 150#, Zinc CR+3, Grade 2	Various Vendors	WBLBS8	WBLBS8	Each	8	800	6400
27 Ring Gasket, 8 in, Star Tite	Star Pipe Products	STRG8	FAH08RG	Each	4	32.00	128.00
28 Ring Gasket, 6 in, Star Tite	Star Pipe Products	STRG6	FAH06RG	Each	4	27.36	109.44
29 Full Face Gasket, 12 in, Star Tite	Star Pipe Products	STTFG12	FAH12FTG	Each	2	54.73	109.46
30 Full Face Gasket, 8 in, Star Tite	Star Pipe Products	STTFG8	FAH08FTG	Each	2	32.11	64.22
31 860 Transition Coupling, 12 in, Various, Carbon Steel	HYMAX	HYM2CPUG12	860-540-0315-16	Each	1	1032.79	1032.79
32 874 Transition Coupling, 8 in, Flange x Various, Carbon Steel	HYMAX	HYMFA8	874-54-08021712	Each	1	574.61	574.61
33 22.5 deg Elbow, 6 in, Mechanical Joint x Flange, Cement Lined	Various Vendors	DCF2212M1FLG6	DCF2212M1FLG6	Each	1	202.67	202.67
34						TAX (8.25%)	9890.48
						SUM	116813.68



CUSTOMER NO	QUOTING BRANCH	QUOTE NO	QUOTE DATE	PAGE
238082	FORTILINE SACRAMENTO	6862971	5/22/26	1

CUSTOMER	PROJECT INFORMATION
ALL BIDDERS SACRAMENTO 3650 SEAPORT BOULEVARD WEST SACRAMENTO, CA 95691	RFB OPUD WATER MAIN & SVC LINE PART

LINE	QTY	UOM	DESCRIPTION	UNIT PRICE	TOTAL PRICE
			***** IF, AFTER THE DATE OF THIS QUOTE, ANY NEW OR INCREASED TARIFFS, DUTIES OR OTHER GOVERNMENT-IMPOSED COSTS ON MATERIALS USED IN THE WORK BECOMES EFFECTIVE, THE CONTRACT PRICE SHALL BE ADJUSTED TO REFLECT THE ACTUAL INCREASED COST TO FORTILINE. FORTILINE SHALL PROMPTLY NOTIFY THE CUSTOMER OF ANY SUCH COST IMPACT. FAILURE OF FORTILINE AND THE CUSTOMER TO AGREE ON ANY PRICE ADJUSTMENT SHALL NOT RELIEVE THE CUSTOMER'S OBLIGATION TO PAY THE INCREASED COST. *****		
10	160	EA	1" BALL CORP MIPX110C B-25028N LOW LEAD	91.1600	14,585.60
20	160	EA	1"BALL ANGVLV 110CXMSN B24258N LOW LEAD	168.7300	26,996.80
30	160	EA	5/8X3/4"MTR BUSH TO 1" H10879N LOW LEAD 010879 216N	40.3400	6,454.40
40	3500	FT	1"X100' CTS PE BLK 250PSI TUBING	.6600	2,310.00
50	30	EA	10X1 IP BR2B SDL 11.04-12.12 BR2B1104IP10	234.0100	7,020.30
60	10	EA	8X1 IP H13492 SDL F/C900 PVC	100.5600	1,005.60
70	95	EA	8X1 IP BR2B SDL 8.99-9.67 BR2B0899IP10	188.8900	17,944.55
80	30	EA	12X1 IP H13494 SDL F/C900 PVC	243.5800	7,307.40
90	4000	FT	10GA SOLID COPPER WIRE BLUE	.4300	1,720.00
100	160	EA	SPLIT BOLT CONNECT. 10GA	4.2500	680.00
110	20	FT	6" C900 DR18 PIPE BLUE	10.4200	208.40
120	300	FT	8" C900 DR18 PIPE BLUE	17.8900	5,367.00
130	20	FT	12" C900 DR18 PIPE BLUE	37.8300	756.60
140	1	EA	12"X8" FLG CROSS C110	1,824.9000	1,824.90
150	1	EA	8"X6" FLG CONC REDUCER C110	332.5000	332.50
160	1	EA	12"X8" FLG CONC REDUCER C110	717.5000	717.50
170	2	EA	8" MJ 22-1/2 FUSION BOND C153	276.5000	553.00
180	1	EA	8" MJXFLG 22-1/2 C153	326.9000	326.90
190	2	EA	8" FLG GV O/L 2" OP NUT A2361	1,636.8200	3,273.64
200	1	EA	12" MJXF GV O/L A2361-19 L/ACC	3,228.2500	3,228.25
210	1	EA	6" FLG GV O/L 2" OP NUT A2361	1,027.7200	1,027.72
220	2	EA	6" STARGRIP PVCPKS4006G2DD	161.1300	322.26
230	3	EA	8" STARGRIP PVCPKS4008G2DD	215.8000	647.40
240	1	EA	12" STARGRIP PVCPKS40126G2DD	385.7900	385.79

ALL STOCK DELIVERIES ARE SUBJECT TO SHIPPING CHARGES

All PVC and HDPE material is quoted for shipment within 7 days of quote/bid date. All other material is quoted for shipment within 30 days of quote/bid date. After 7 days for PVC and HDPE or 30 days for all other material, ALL quoted prices are subject to review based on current market conditions.

CUSTOMER NO	JOB NAME	QUOTE NO	QUOTE DATE	PAGE
238082	RFB OPUD WATER MAIN & SVC LINE PAR	6862971	5/22/26	2

LINE	QTY	UOM	DESCRIPTION	UNIT PRICE	TOTAL PRICE
250	2	EA	10"-12" ZINC FLG BOLT KIT GR2	20.7400	41.48
260	8	EA	8" ZINC FLG BOLT KIT GR2	8.0000	64.00
270	4	EA	8" STAR TITE RING GASKET	32.0000	128.00
280	4	EA	6" STAR TITE RING GASKET	27.3600	109.44
290	2	EA	12" STAR TITE FF GASKET	54.7300	109.46
300	2	EA	8" STAR TITE FF GASKET	32.1100	64.22
310	1	EA	12" HYMAX2 CPLG 12.40-13.66 W/FLIP GASKET	632.7900	632.79
320	1	EA	8" HYMAX2 FLG ADPT 8.54-9.84 874-54-08021712	574.6700	574.67
330	1	EA	6" MJXFLG 22-1/2 C153	202.6700	202.67
				Subtotal:	106,923.24
				Tax:	9,890.41
				Bid Total:	116,813.65

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After 7 days for PVC and HDPE or 30 days for all other material, ALL quoted prices are subject to review based on current market conditions.

Ent By CM9 6/10/26 11:50:39

Letter of Transmittal

Fortiline Waterworks
 3650 Seaport Blvd.
 W. Sacramento, CA 95691



Date: 6/9/2026

Contact: _____

Job: RFB OPUD WATER MAIN

Customer: _____

Page(s)	Date	Vendor	Description
3		Westlake	C900 PVC Pipe
5		JM Eagle	C900 PVC Pipe
6		Diamond Plastics	C900 PVC Pipe
7		Sigma	FLG DI Fittings
8		Sigma	MJ DI Fittings
9		Sigma	MJ FB DI Fittings
10		ADS	CTS Poly Tubbing
11		AGAVE	Tracer Wire
12		ITP	Zinc FLG Bolt Kit
13		Pacific Coast Bolt	Zinc FLG Bolt Kit
14		Starpipes	PVC Mega Lug
15		Smith Blair	FCA
16		Hymax	FCA
17		Hymax	Range CPLG
18		Smith Blair	Range CPLG
19		Mueller	Meter Bushing H-10879N
20		AY Mcdonald	Meter Bushing 710J24Kit
21		Mueller	Angle Ball Vlv B-24258N
22		AY Mcdonald	Angle Ball Vlv 74602BSQ
23		Mueller	Ball Corp B-25028N
24		Ay Mcdonald	Ball Corp 74704BQ
25		AVK	65 Series FLG Gate Valve
26		Mueller	A-2361 Gate Valve
27		Mueller	Saddle BR2B
28		Ay Mcdonald	Saddle 3826
29		Mueller	Saddle H1300 Seires
30		Ay Mcdonald	Saddle 3806
31		Mueller	Saddle H1300 Series 10-12"
32		Sigma	PVC Megalug
33		EBAA	PVC Megalug
34		Starpipes	FLG DI Fittings

35		Starpipes	MJ DI Fittings
36		Kristech	Tracer Wire
37		Mueller	A2361 Gate Valve MjxFLG
38		AVK	65 Series MJxFLG Gate Valve

PRODUCT SPECIFICATION

AWWA C900/IB PVC PRESSURE PIPE

Gasketed Integral Bell

Our AWWA C900 Gasketed Integral Bell PVC Pipe product line is manufactured to meet the needs of modern municipal water, wastewater, and reclaimed water systems. With top quality raw materials and modern processing technology, our C900 pipe meets all industry standards in addition to our own rigorous quality control requirements.

Our C900 pipe utilizes Rieber style gaskets throughout the entire product offering to create a leak-free joint.

Short Form Specification			
Pipe Standard:	AWWA C900-16		
Diameter Std.:	Cast Iron Outside Diameter (CIOD)		
Nominal Sizes:	4", 6", 8", 10", 12", 14", 16", 18", 20", 24", 30", 36"		
Dimension Ratios & Pressure Ratings	<table border="1"> <tr> <td>DR 51 – 80 psi DR 41 – 100 psi DR 32.5 – 125 psi DR 25 – 165 psi DR 21 – 200 psi</td> <td>DR 18 – 235 psi (185 psi)** DR 14 – 305 psi (250 psi)**</td> </tr> </table>	DR 51 – 80 psi DR 41 – 100 psi DR 32.5 – 125 psi DR 25 – 165 psi DR 21 – 200 psi	DR 18 – 235 psi (185 psi)** DR 14 – 305 psi (250 psi)**
DR 51 – 80 psi DR 41 – 100 psi DR 32.5 – 125 psi DR 25 – 165 psi DR 21 – 200 psi	DR 18 – 235 psi (185 psi)** DR 14 – 305 psi (250 psi)**		
Lay Length:	20' [6.1m]		
Pipe Compound:	ASTM D1784 Cell Class 12454		
Pipe Joint Std.:	ASTM D3139		
Max. Angular Joint Deflection: ^f	1°		
Gasket Standard:	ASTM F477, UL 157		
Gasket Material Offerings:	Standard – SBR Optional – NBR or EPDM		
Installation Std.:	AWWA C605		

Applications	Potable Water	Wastewater	Reclaimed Water
Color:	Blue	Green	Purple
Certifications: [*]	NSF 14, NSF 61 CSA B137.3* UL 1285 FM 1612** BNQ 3624-250 (24in)* BNQ 3660-950 (24in)	CSA B137.3*	CSA B137.3*

^{*}See Certification Letter for full explanation and list of exceptions.

^{**}FM 1612 calculates pressure ratings differently than AWWA for 4"-12" only with DR 18 as 185 psi and DR 14 as 250 psi.

^fSee Installation Guide for more information.



Only products
bearing the NSF
Mark are Certified

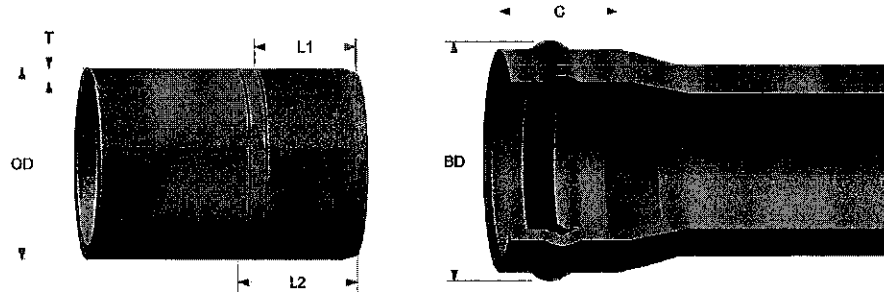




PRODUCT SPECIFICATION

AWWA C900/IB PVC PRESSURE PIPE

Gasketed Integral Bell



C900/IB PIPE DIMENSIONS & PERFORMANCE

Nom. Size	Outside Diameter (OD)	DR	Pressure Class psi (kPa)	Min. Wall Thickness (T)	Internal Diameter (ID)	Approx. Bell Diameter (BD)	Bell Depth (C)	1 st Insertion Mark (L1)	2 nd Insertion Mark (L2)
4" [100mm]	4.800 [121.9]	25	165 [1150]	0.192 [4.88]	4.416 [112.1]	6.250 [158.8]	5.000 [127]	3.375 [85.7]	4.375 [111.1]
		18	235 [1620]	0.267 [6.78]	4.266 [108.3]				
		14	305 [2130]	0.343 [8.70]	4.114 [104.5]				
6" [150mm]	6.900 [175.3]	25	165 [1150]	0.276 [7.00]	6.348 [161.3]	8.625 [219.1]	5.750 [146.1]	4.625 [117.5]	5.625 [135.3]
		18	235 [1620]	0.383 [9.72]	6.134 [155.9]				
		14	305 [2130]	0.493 [12.50]	5.914 [150.3]				
8" [200mm]	9.050 [229.9]	25	165 [1150]	0.362 [9.20]	8.326 [211.5]	11.500 [292.1]	7.000 [177.8]	5.625 [135.3]	6.625 [168.3]
		18	235 [1620]	0.503 [12.80]	8.044 [204.3]				
		14	305 [2130]	0.646 [16.40]	7.758 [197.1]				
10" [250mm]	11.100 [281.9]	25	165 [1150]	0.444 [11.30]	10.212 [259.3]	14.000 [355.6]	7.250 [184.2]	6.125 [155.6]	7.125 [181.0]
		18	235 [1620]	0.617 [15.70]	9.866 [250.3]				
		14	305 [2130]	0.793 [20.10]	9.514 [241.7]				
12" [300mm]	13.200 [335.3]	25	165 [1150]	0.528 [13.40]	12.144 [308.5]	16.563 [420.7]	8.000 [203.2]	6.875 [174.6]	7.875 [200]
		18	235 [1620]	0.733 [18.60]	11.734 [298.1]				
		14	305 [2130]	0.943 [23.90]	11.314 [287.5]				
14" [350mm]	15.300 [388.6]	32.5	125 [860]	0.471 [12.0]	14.358 [364.7]	19.063 [484.2]	9.000 [228.6]	7.500 [190.5]	8.500 [215.9]
		25	165 [1150]	0.612 [15.6]	14.076 [357.5]				
		21	200	0.729	13.842				
		18	235 [1620]	0.850 [21.6]	13.600 [345.4]				
		14	305	1.093	13.114				
16" [400mm]	17.400 [442.0]	41	100	0.424	16.552	21.750 [552.5]	10.000 [254.0]	8.500 [215.9]	9.500 [241.3]
		32.5	125 [860]	0.535 [13.6]	16.330 [414.8]				
		25	165 [1150]	0.696 [17.7]	16.008 [406.6]				
		21	200	0.829	15.742				
		18	235 [1620]	0.967 [24.6]	15.466 [392.8]				
		14	305	1.243	14.914				

Blue Brute | C900

PRESSURE-RATED PVC PIPE



DELIVERING GOOD WATER TO YOU



AWWA C900-16, CSA B137.3
ASTM D1784 Cell Class 12454
ANSI/NSF 61/14, UL 1285

Gasket: ASTM F477
Joint: ASTM D3139

MARKETS



Potable



Irrigation



Reclaim



Sewer

DESCRIPTION

Available Pipe Sizes (CIOD)

4", 6", 8", 10", 12", 14", 16", 18", 20", 24", 30", 36", 42", 48"

Nominal Laying length = 20 feet (Laying length tolerances are in accordance with AWWA and CSA standards)

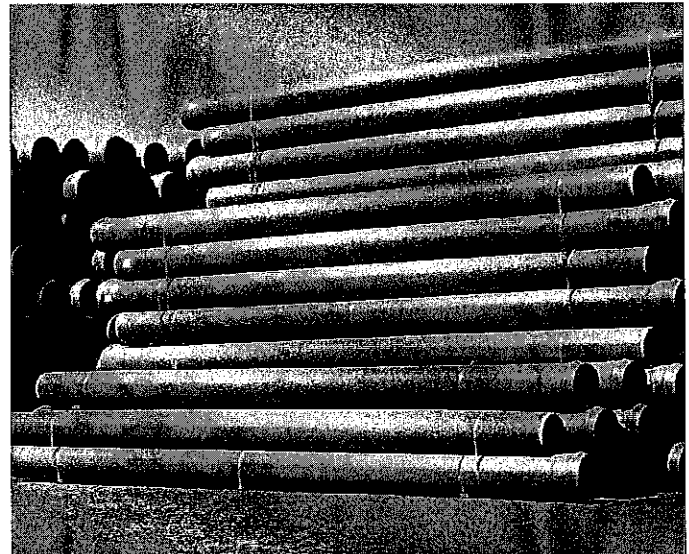
Color: Blue Green Purple White



AWWA C900-16	
305 psi	(DR 14)
235 psi	(DR 18)
200 psi	(DR 21)
165 psi	(DR 25)
125 psi	(DR 32.5)
100 psi	(DR 41)
80 psi	(DR 51)

Note: FM Approvals Pressure Class 185 psi for DR18 and 250 psi for DR14.

CSA B137.3	
309 psi	(DR 14)
235 psi	(DR 18)
167 psi	(DR 25)



BENEFITS

INSTALLATION

Field-cut with a power saw or handsaw; bevel without complicated machinery.

Does not need lining, wrapping, coating, or cathodic protection to prevent galvanic corrosion.

FEATURES

Corrosive resistant, safe, long-lasting, and stable solution for a modern infrastructure.

Consistency in carrying capacity (flow coefficient, C=150), for savings in pumping costs, and size of the pipe.



C900 PVC PRESSURE PIPE

4"-12" SPECIFICATION DATA

Diamond (C900) PVC Pipe (4" through 12") is made of 12454 compound per ASTM D1784, in accordance with the dimensional chemical, and physical requirements of AWWA C900.

Diamond (C900) PVC Pipe bears the mark of NSF, International (NSF) and the listing of Underwriters Laboratory, Inc. (UL). Some factory locations produce C900 bearing the mark of the Canadian Standards Association (CSA) and NSF14.

Diamond (C900) PVC Pipe utilizes a gasket, per ASTM F477, to seal the integral bell socket to the spigot of the next joint (which conforms to the requirements of ASTM D3139.) Each male end is beveled to facilitate joint assembly, and the spigot is referenced marked to ensure proper insertion depth. Diamond furnished lubricant is to be used in the joining process. Specialty gaskets may be available upon request.

PHYSICAL PROPERTIES OF PVC 12454:

Property	ASTM Test	Minimum
Specific Gravity	D792	1.40
Tensile Strength, psi	D638	7,000
Tensile Modulus, psi	D638	400,000
IZOD Impact Strength	D256	.65ft., lb./in.

SHORT FORM Specification for Diamond C900 PVC Water Pipe

Diamond C900 PVC Water Pipe shall be made of compounds conforming to ASTM D1784 with a cell classification of 12454. Diamond C900 shall meet all the dimensional, chemical, and physical requirements as outlined in AWWA C900 and will be supplied in 20 and 22 foot laying lengths. Joints shall meet the requirements of ASTM D3139 and shall be formed using Rieber Technology. Gaskets shall meet the requirements of ASTM F477.

Potable water pipe shall be manufactured from National Sanitation Foundation (NSF) approved compounds.

C900™

AWWA C900 SPECIFICATION DATA. SUPPLIED IN 20 AND 22 FOOT LAYING LENGTHS.

Nominal Pipe Size (in./mm)	A Outside Dia. Inches	B Bell Dia. Inches	C Approximate Bell Depth Inches	D Assembly Mark 1 Inches	E Assembly Mark 2 Inches	t C900 DR-14 305 psi Min Wall Inches	t C900 DR-18 235 psi Min Wall Inches	t C900 DR-25 165 psi Min Wall Inches
4" (100)	4.800	6-1/2"	6	4-1/4"	5-1/4"	0.343	0.267	0.192
6" (150)	6.900	9-1/4"	6.5	4-5/8"	5-5/8"	0.493	0.383	0.276
8" (200)	9.050	11-3/4"	7	5-1/8"	6-1/8"	0.646	0.503	0.362
10" (250)	11.100	14-1/4"	7.5	5-3/4"	6-3/4"	0.793	0.617	0.444
12" (300)	13.200	16-3/4"	8	6-1/8"	7-1/8"	0.943	0.733	0.528

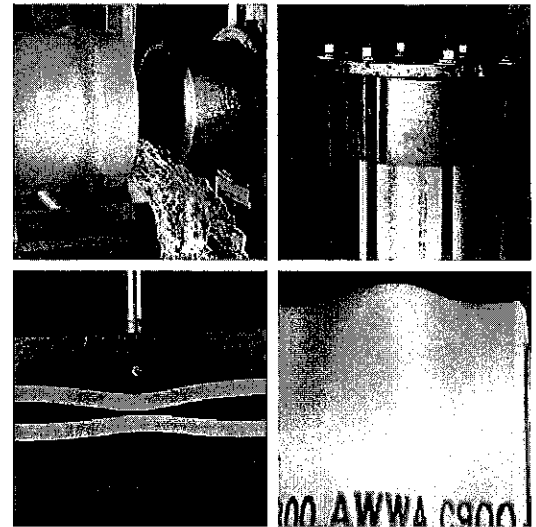
Prices are subject to a firm policy of "Price in effect at time of shipment on regular purchases"

Possession of this page does not constitute an offer of sale

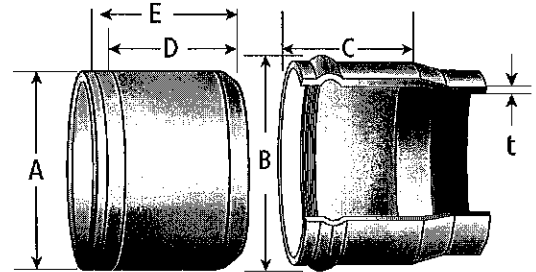
*Tolerance of +/- 1/4" allowed

EXTREME TESTING CONDITIONS

C900 PVC pressure pipe, available in pressure ratings for a wide range of water transfer applications (Available in sizes from 4" through 12")



RIEBER JOINT ILLUSTRATION

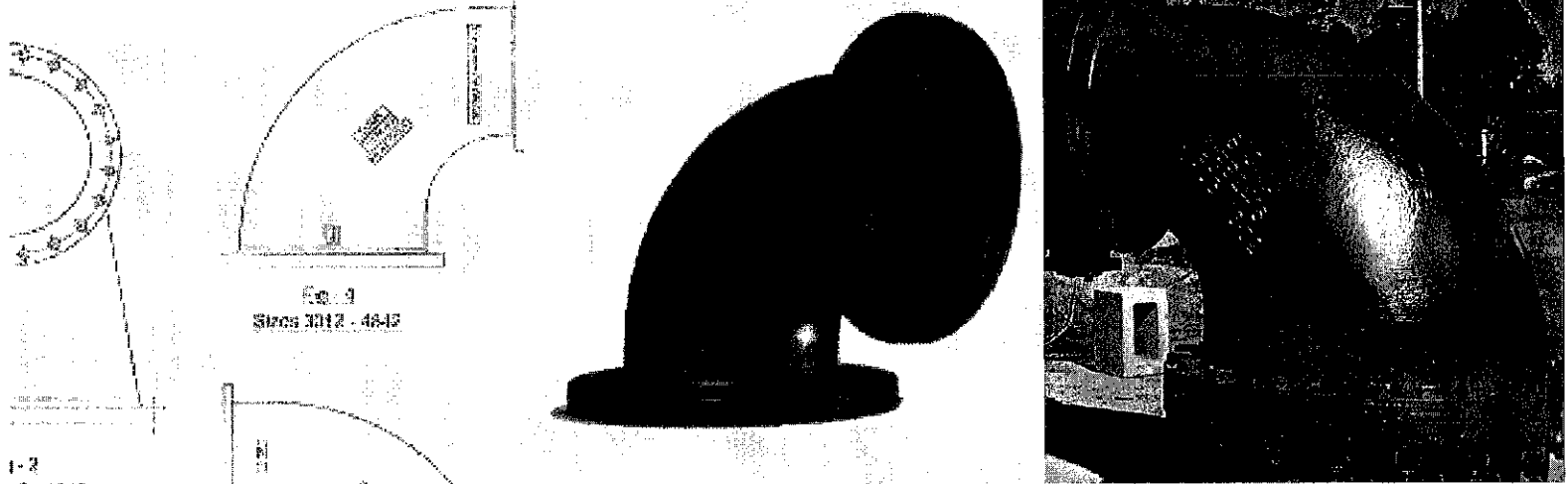




SIGMA™

Quality – Service – Commitment – Delivered.

C110 DUCTILE IRON FLANGED FITTINGS



C110 DUCTILE IRON FLANGED FITTINGS BASIC SPECIFICATIONS

- SIZES:** • 2" - 64"
- MATERIAL:** • Ductile Iron ASTM A536 Grade 60-42-10, 65-45-12 or 70-50-05.
- PRESSURE:** • 250 PSI Water Working Pressure for Ductile Iron sizes 2" - 48",
• 150 PSI Water Working Pressure for Ductile Iron sizes 54" - 64".
- TESTING:** • In accordance with ANSI / AWWA C110 / A21.10 where applicable.
• Other items are in accordance with manufacturer's standards.
• 54" and above Flanged Fittings are manufactured as per AWWA C153/A21.53.
• All fittings are hydrostatically tested in accordance with SIGMA Quality Management Standard.
• All fittings are heat coded to ensure traceability and verification of metallurgical properties in accordance with SIGMA Quality Management Standards.
- LAYING LENGTH:** • In accordance with ANSI / AWWA C110 / A21.10 where applicable.
• Other items are in accordance with manufacturer's standards.
• 54" and above Flanged Fittings are manufactured as per AWWA C153/A21.53.
- CEMENT LINING:** • Double cement lined in accordance with ANSI/AWWA C104 / A21.4.
- COATING:** • Interior of fitting is seal coated (asphalt material) in accordance with ANSI / AWWA C104/A21.4 and NSF61 approved.
• Red Primer Outside.
• For special conditions, other types of coatings and linings are available.
• Please specify when ordering.
- GASKETS:** • SBR in accordance with ANSI/AWWA C111/A21.11 & ANSI/AWWA C111/A21.11.
• Also available in EPDM, NBR and CR.
- APPROVALS:** • 2"-16" Underwriters Laboratories listed and Factory Mutual Approved.
- STANDARDS:** • Certified to NSF/ANSI/CAN 61 and NSF/ANSI 372.
• ANSI / AWWA C110 / A21.10 Where applicable.
• Other items are in accordance with manufacturer's standards.
• 54" and above Flanged Fittings are manufactured as per AWWA C153/A21.53.
- INSTALLATION:** • Per ANSI/AWWA C600 and C111 using DIP conforming to C150/C151 and PVC pipe conforming to C900/ C905 and C909.

SIGMA Corporation

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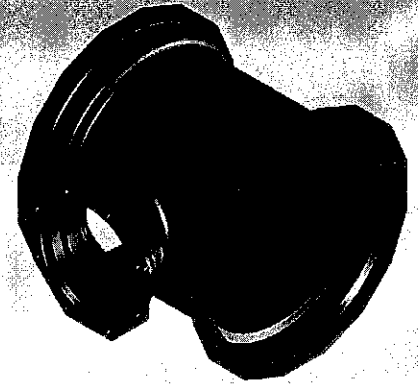
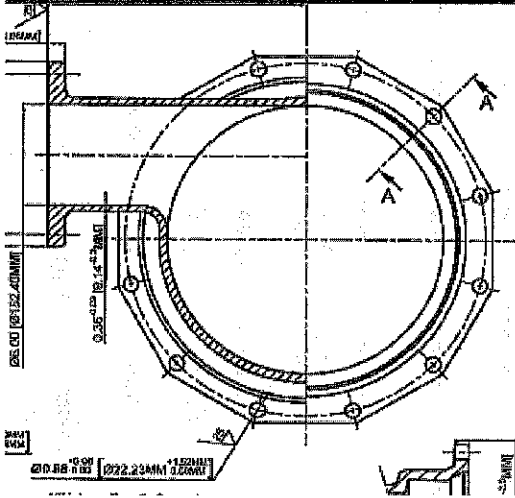
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SIGMA™

Quality – Service – Commitment – Delivered.

C153 DUCTILE IRON MECHANICAL JOINT FITTINGS



C153 DUCTILE IRON MECHANICAL JOINT FITTINGS BASIC SPECIFICATIONS

- SIZES:** • 2" - 64"
- MATERIAL:** • Ductile Iron ASTM A536, Grade 65-45-12, 60-42-10 or 70-50-05.
- PRESSURE:** • 350 PSI Water Working Pressure 2" - 24".
• 250 PSI Water Working Pressure 30" - 48".
• 150 PSI Water Working Pressure 54" - 64".
- TESTING:** • In accordance with ANSI/AWWA C153/A21.53.
• In accordance with UL - FM requirements.
• All fittings are hydrostatically tested in accordance with SIGMA Quality Management Standard.
• All fittings are heat coded to ensure traceability and verification of metallurgical properties in accordance with the prevailing standards and SIGMA Quality Management Standards.
- LAYING LENGTH:** • Short body design - straight section of body deleted to provide a compact and lighter fitting without reducing strength or flow characteristics.
• In accordance with ANSI/AWWA C153/A21.53.
- DEFLECTION:** • Maximum allowable deflection for MJ Joint is as mentioned below:
1. 3" - 4" = 8 Degrees
2. 6" = 7 Degrees
3. 8" - 12" = 5 Degrees
4. 14" - 48" = 3 Degrees
- CEMENT LINING:** • Double cement lined in accordance with ANSI/AWWA C104 / A21.4.
- COATING:** • Interior of fitting is seal coated (asphaltic material) in accordance with ANSI AWWA C104/A21.4 and NSF61 approved.
• Exterior of fitting is seal coated (asphaltic material) in accordance with ANSI/AWWA C153/A21.53 and NSF61 approved.
- GASKETS:** • SBR in accordance with ANSI/AWWA C111/A21.11.
• Also available in EPDM, NBR and CR.
- T-BOLTS:** • Low Alloy corrosion resistant high strength steel in accordance with ANSI/AWWA C111/A21.11.
- APPROVALS:** • 3"-16" Underwriters Laboratories listed and Factory Mutual Approved.
- STANDARDS:** • Certified to NSF61 Standard including Annex G & 372.
• ANSI/AWWA C153/A21.53 for Compact Ductile Iron Fittings 2"-64" for water and other liquids.
- INSTALLATION:** • Per ANSI/AWWA C600 and C111 using DIP conforming to C150/C151 and PVC pipe conforming to C900/C905.

For sewer applications that require mandrel passage after installation, SIGMA recommends the end user check the fitting with the respective size mandrel BEFORE installing the fitting. SIGMA Corporation will NOT take responsibility for any back charges incurred due to the fitting not being checked with a mandrel prior to installation.

SIGMA Corporation

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C153 DUCTILE IRON MECHANICAL JOINT FITTINGS

Project Name: _____	Contractor: _____	Date
Engineer: _____	Spec Section: _____	06/09/26

Optional Specifications

Gaskets	<input type="checkbox"/> SBR <i>(In accordance with ANSI/AWWA C111/A21.11)</i>	Coating	<input type="checkbox"/> Asphaltic Seal Coat <i>(In accordance with ANSI / AWWA C104/A21.04 and ANSI / AWWA C153/A21.10)</i>
	<input type="checkbox"/> EPDM		<input checked="" type="checkbox"/> Fusion Bonded Epoxy (FBE)*Interior and exterior <i>(In accordance with ANSI / AWWA C116/A21.16)</i>
	<input type="checkbox"/> Neoprene		<input type="checkbox"/> Zinc <i>(In accordance with ISO 8179-2)</i>
	<input type="checkbox"/> Nitrile		<input type="checkbox"/> Others- Specify _____
	<input type="checkbox"/> Others -Specify _____		
Bolts & Nuts	<input type="checkbox"/> High Strength Low Alloy Steel (HSLA) <i>(In accordance with ANSI/AWWA C111/A21.11)</i>	Lining	<input type="checkbox"/> Cement-Mortar *Double thickness with asphaltic coating <i>(In accordance with ANSI/AWWA C104/A21.4)</i>
	<input type="checkbox"/> Stainless Steel <input type="checkbox"/> Type 304 <input type="checkbox"/> Type 316		<input checked="" type="checkbox"/> Fusion Bonded Epoxy (FBE)*Interior and exterior <i>(In accordance with ANSI/AWWA C116/A21.16)</i>
	<input type="checkbox"/> Blue Fluoropolymer		<input type="checkbox"/> Protecto 401 Ceramic Epoxy
	<input type="checkbox"/> Other- Specify _____		<input type="checkbox"/> Others- Specify _____
			<input checked="" type="checkbox"/> Refer to: <u>Lining Technical Bulletin and Guideline</u> for more information



UL
WHEN QUALITY
Certified to NSF/
ANSI/CAN 61
and NSF/ANSI 372



Product Specifications

Material:	Ductile Iron ASTM A536 Grade 60-42-10, 65-45-12 or 70-50-05
Pressure Rating:	350 PSI rating for 2"-24" sizes, 250 PSI rating for 30"-48" sizes and 150 PSI rating for 54" - 64" Sizes
Testing:	In accordance with ANSI/AWWA 153/A21.53 & UL-FM Requirements. Hydrostatically Tested in accordance with SIGMA Quality Management Standard.
Traceability:	All fittings are heat coded to ensure traceability and verification of metallurgical properties in accordance with the prevailing standards and SIGMA Quality Management Standards.
Size Range:	2" - 64"
Laying Length:	Short body design - straight section of body deleted to provide a compact and lighter fitting without reducing strength or flow characteristics. In accordance with ANSI/AWWA C153/A21.53. Non-Standard items will be as per SIGMA design.
Deflection:	Maximum allowable deflection for MJ Joint is as mentioned: 2"-4" =8° 6" =7° 8"-12"=5° 14"-48"=3° 54"-64"=2°
Approvals:	3"-16" Underwriters Laboratories listed and Factory Mutual Approved. UL/NSF61 & 372.
Standards:	ANSI/AWWA C111/A21.11 and ANSI/AWWA C110/A21.10 for Ductile Iron Fittings 2"-48" for water and other liquids. Certified to NSF/ANSI/CAN 61 and NSF/ANSI 372
Installations:	Per ANSI/AWWA C600 and C111 using DIP conforming to C150/C151 and PVC pipe conforming to C900/905 and C909

ADS PolyFlex® Potable Water Service Pipe (SIDR IPS PE4710)

ADS PolyFlex Potable Grade Water Service Pipe is a leader in today's water service and irrigation markets. Its flexibility and durability distinguish it from the competition and make it ideal for a variety of application.

ADS Potable Water Service Pipe is strong and resistant to many common causes of damage such as vibrations, surface loads and pressure surges.

Applications

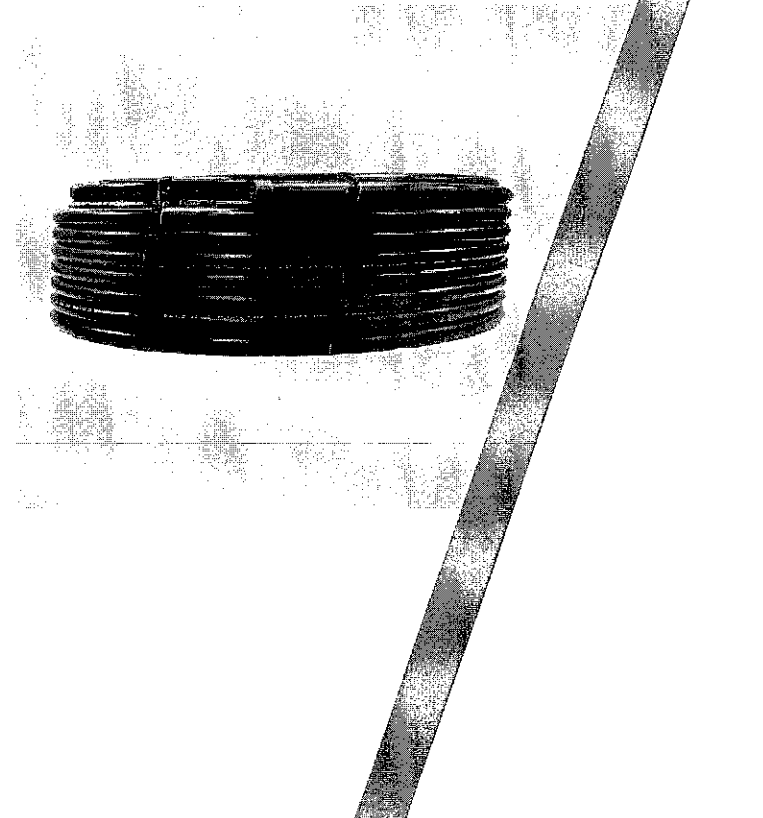
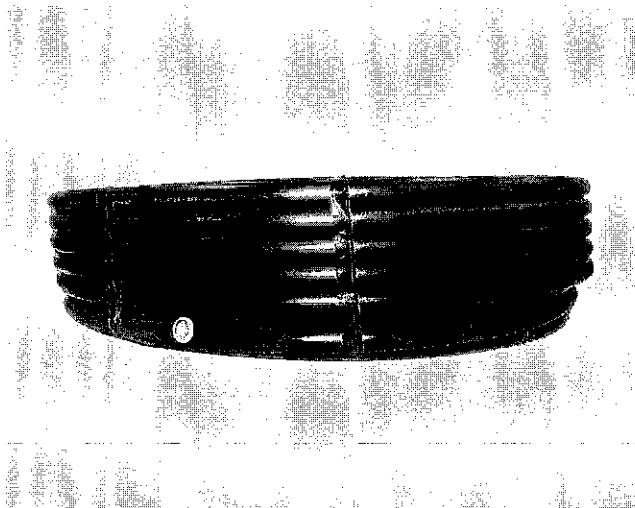
- Non-AWWA Water Service Lines
- Well/pump water systems
- Landscape & agricultural irrigation systems
- Slurry pipelines

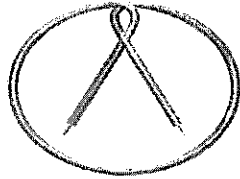
Features

- Certified to meet NSF/ANSI 14/61 standard
- Available in blue or black pipe
- Durable plastic material stands the test of time
- Strength withstands weather and the human element
- Incremental footage markers printed every 2' (0.6 m) throughout each coil length
- Light weight for easy handling
- Chemically resistant

Benefits

- Resistant to rot or corrosion
- Fast and easy to install
- Easy installation provides cost efficiency
- Flexible lengths can be installed in uneven terrain
- Flexibility makes it ideal for a variety of projects
- Available in a variety of lengths





AGAVE WIRE, LTD

Toll-Free (800) 690-3408

An ISO 9001 Certified Quality Management System

Fax: (469) 547-4242

PRODUCT DATA SHEET

PRODUCT OVERVIEW:

APE-1001

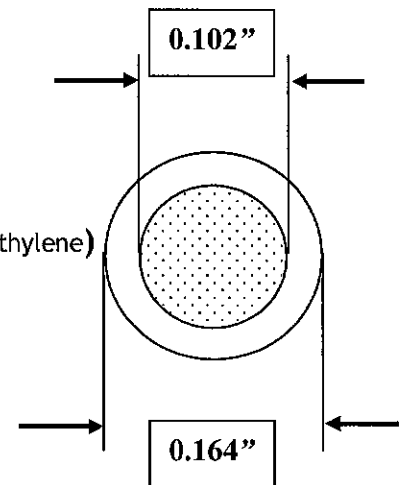
CONSTRUCTION: One 10 AWG Solid Copper HMW-PE Insulated Conductor

APPROVALS: UL - Tracer Wire

APPLICATION: Tracer Wire Suitable For Detecting Buried Facilities

CONSTRUCTION PARAMETERS:

CONDUCTOR: 10 AWG Annealed Bare Copper
STRANDING: Solid
NUMBER OF CONDUCTORS: 1
INSULATION MATERIAL: HMW-PE (High Molecular Weight Polyethylene)
INSULATION THICKNESS: 0.030" Nominal
COPPER O.D.: 0.102" Nominal
FINISHED O.D.: 0.164" Nominal
WEIGHT PER 1000ft: 36.59-lbs/1000'



ELECTRICAL & ENVIRONMENTAL PROPERTIES:

TEMPERATURE RATING: -20° c to 80° c
OPERATING VOLTAGE: 30v -300v
DC RESISTANCE @ 20° c: 0.9988 Ohms/1000'
INSULATION COLOR: Various Colors Available

PRINT LEGEND:

"AGAVE WIRE - 10AWG HMW-PE-(30) TRACER WIRE 30v (UL) E246360"

On special orders, the customer will accept all mil lengths and +/- 10% of total order requested. The information presented here is, to the best of our knowledge, is true and accurate. However, since conditions of use are beyond our control, all recommendations or suggestions are presented without guarantee or responsibility on our part. We disclaim all liability in connection with the use of information contained herein or otherwise

This specification is proprietary intellectual property of Agave Wire. Any information contained herein shall not be disclosed to any party without written consent of Agave Wire.

Manufactured in the U.S.A.



Phone: (800) 978-BOLT
 Web: itpbolt.com
 Email: sales@itpbolt.com
 Email: purchasing@itpbolt.com

BREA
 FRESNO
 RANCHO CUCAMONGA
 UNION CITY

HEX BOLTS A307 GRADE A

SUBMITTAL SPECIFICATIONS ABSTRACT OF ASTM A307 GRADE A

GRADE: Low Carbon Steel 60,000 PSI

CHEMICAL REQUIREMENTS

Chemical analysis shall be performed in accordance with ASTM A751

CARBON MAX	MANGANESE MAX	PHOPHOUS MAX	SULFER MAX
0.29	1.20	0.04	0.15

MECHANICAL REQUIREMENTS

HARDNESS BRINEL		HARDNESS ROCKWELL		TENSILE STRENGTH (KSI)		ELONGATION IN 2 IN (50MM)
MIN	MAX	MIN	MAX	MIN	MAX	MIN
121	241	69	100	60	-	18

Hex Nuts ASTM A563 (ASME B18.2.2) Heavy Hex Nuts ASTM A563 (ASME B18.2.2)

Washers ASTM F844-04 (ASME B18.22.1)

BOLTS AND NUTS MAY BE SUPPLIED

Plain Zinc Plated per ASTM B633 Hot Dip Galvanized Per ASTM A153 Cadmium Plated

LOCATION

Buried Submerged Above Grade Below Grade Other

DIMENSIONAL DATA: Unless otherwise specified in the purchase order, parts shall be the coarse threaded series as specified in the latest issue of ANSI / ASME B1.1, page A-26. Having a 2A tolerance. Grade A Bolts shall have Hex Bolt Dimensions as given in the latest issue of ANSI / ASME B 18.2.1, Page C1. Unless otherwise specified Grade A Bolts should be used with Hex Nuts.

ADDITINOAL INFORMATION: Additional information can be found in ASTM A307A-07B, ASTM A563-04A



ASTM A307 GRADE A HEX BOLT

Low Carbon Steel Bolts & Studs, 60,000 PSI Tensile Strength

Material to be Supplied

	IMPORT		DOMESTIC
--	--------	--	----------

Chemical Requirements %

CARBON	MANGANESE	PHOSPHORUS	SULFUR
0.29	1.20	0.04	0.15

Mechanical Requirements

ALL DIAMETERS	Tensile Strength (KSI)	Yield Strength (KSI)	Elongation	Brinell Hardness	Rockwell Hardness
MINIMUM	60	-	18	121	B69
MAXIMUM	-	-	-	241	B100

Recommended Hardware

Nuts	ASTM A563 GR. A HEX FINISH	ASTM A194 GRADE 2H HEAVY HEX
Washers	ASTM F844 FLAT WASHER	ASTM F436 SAE FLAT WASHER

Material Finish

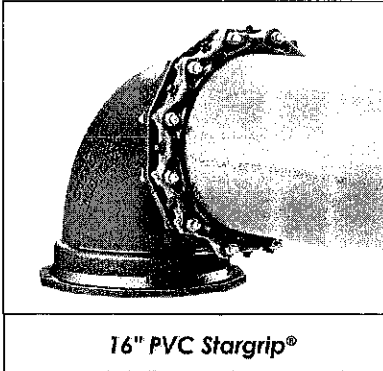
	PLAIN		ZINC		HDG		BLUE TEFLON
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ALL BOLTS & STUDS, UNLESS OTHERWISE SPECIFIED IN THE PURCHASE ORDER, SHALL BE THREADED IN ACCORDANCE WITH ANSI/ASME B1.1 UNIFIED INCH SCREW THREADS, CLASS 2A FIT. BOLT HEADS SHALL BE IN ACCORDANCE WITH THE DIMENSIONS OF ANSI/ASME B18.21, HEX BOLTS. UNLESS OTHERWISE SPECIFIED IN THE PURCHASE ORDER, THE HEX BOLT SERIES SHOULD BE USED. ADDITIONAL INFORMATION CAN BE FOUND IN ASTM A307, (CARBON STEEL BOLTS AND STUDS 60,000 PSI TENSILE STRENGTH).



PVC Stargrip® series 4000

Mechanical Joint Wedge Action Restraint
for Plastic Pressure Pipe
Sizes 3" - 48"



16" PVC Stargrip®

SUBMITTAL INFORMATION

PROJECT NAME:

ENGINEER:

CONTRACTOR:

SPEC. SECTION:



FEATURES & ADVANTAGES

- Sizes 3" - 12" consists of G2 design.
- Can be used on 4"-48" AWWA C900 PVC, 4"-18" AWWA C909 PVCO and AWWA C906 HDPE pipes along with 3"-12" IPS OD* ASTM D2241 PVC pipe. (*A transition gasket is required on IPS Plastic Pipe). See Tables A and B for further details.
- Sizes 4"-12" are listed with Underwriters Laboratories, approved by Factory Mutual Research, and tested to and meets the requirements of ASTM F1674.
- Safety factor is twice (2:1) the standardized pressure rating listed in Tables A and B.
- Offers 5° of deflection on 3"-12" AWWA C900, 3° on 14"-24", 2° on 30"-36" and 1° on 42"-48".
- Standard gland color is Coral Red and is made from high strength Ductile Iron per ASTM A536 Grade 65-45-12 and is compatible with all Mechanical Joints that conform to ANSI/AWWA C111/A21.11.
- Eliminates the need for tie rods and thrust blocks
- Fewer wedges and lower wedge-bolt torque results in quicker and easier installation (see specifications and tables C, D & E).
- Sizes 4"-12" uses a spacer that is easily removed when restraint is used on IPS Plastic pipe.
- Curved wedges reduce the amount of localized pipe deformation.
- The gland's larger inside diameter allows restraint to be installed on pipe with more ovality.
- Improved design of the wedge bolts prevents over torquing which can damage PVC pipe.
- For sizes 3"-12" and 42"-48" wedges are mechanically attached to wedge bolts, which eliminates the possibility of falling out during shipping and handling.
- US Patent# 9,822,910 applies to sizes 3"-12" and 42"-48".

MATERIAL SPECIFICATIONS:

- Wedges: Ductile Iron per ASTM A536, Grade 65-45-12. Wedge coating is a thermally cured fluoropolymer epoxy.

GLAND FINISH OPTIONS (Please check one):

- Standard: alkyd enamel coating
- Optional: Starbond™ TGIC polyester powder coating applied by an electrostatic spray process
- Optional: Other (specify) _____

COUNTRY OF ORIGIN OPTION (Please check one):

- Import
- Domestic - AIS Compliant

HARDWARE OPTIONS (Please check):

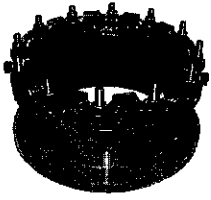
- Standard: T-bolts and nuts are high strength low alloy steel manufactured in accordance with ANSI/AWWA C111/A21.11
- Optional: T-bolts alloy SS 304 per ASTM F593; Nuts alloy SS 304 per ASTM F594 CW
- Optional: T-bolts SS 316 per ASTM F593; Nuts SS 316 per ASTM A194 Grade 8M
- Optional: T-bolts and nuts Fluoropolymer Star-Blue coated high strength low alloy steel manufactured in accordance with ANSI/AWWA C111/A21.11

REV.2501



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www.starpipeproducts.com



Flange-Lock Restrained FCA

Ductile Iron and Steel

FOR CONNECTING AND RESTRAINING FLANGED FITTINGS TO PIPE

Patents US 7484775, US 7748100, CA 2511782

911

IMPORTANT LINKS

Click appropriate words to go to:

- Standard Limited Warranty
- Sales Terms & Conditions
- Freight Policy
- Returns Policy
- Corrosion & Product Selection Notice

NOTE:*300 lb. flanges available for 300 PSI applications. For other flanges, contact Smith-Blair for specific details and pricing. The pass-through feature may not be available with some flanges. 300 PSI rating is limited to series 911 on Ductile Iron pipe only through 16". All 18"-48" 911 on Ductile Iron pipe applications will be limited to 250 PSI. All 911 on Steel pipe 3"-12" will be limited to 250 psi..

Description: A fabricated Steel FCA with integral restraint.

Application: For connecting and restraining plain end D.I. or Steel pipe to flanged pipe fittings, valves, meters, or other flanged equipment.

Key Features:

- Mechanical restraint shall be an integral part of the follower gland utilizing multiple single tooth wedges
- Reducing style available
- Breakaway nut torque per wedge is 45 to 60 ft. lbs.
- Longer adapters available

Materials Specifications (subject to change):

SLEEVE:ASTM A36 A283 Gr. C or Carbon Steel having a minimum yield of 30,000 PSI

FLANGE: *AWWA C207 Class D, ANSI 150 lb. drilling, Flat face

FINISH: Flexi-Coat®, Fusion-Bonded epoxy

Cam-Lock™ Specifications:

GLAND: 65-45-12 Ductile Iron (ASTM A536)

WEDGES: Single Tooth, Ductile Iron, heat treated for Ductile Iron pipe applications

ACTUATING BOLTS: 60-40-18 Ductile Iron (ASTM A536)

BREAKAWAY NUTS: Carbon Steel or Cast iron

FINISH: Gland is Flexi-Coat® Fusion-Bonded Epoxy, per AWWA C213; Wedges and actuating bolts are E-coated Epoxy

Kit Specifications:

GASKET: SBR Standard Mechanical Joint. AWWA C111 and ANSI A21. 11 SBR or Multi-Seal Gasket

T-BOLTS: High strength, low alloy, per AWWA C111; Optional:304 Stainless Steel, fluoropolymer-coated

Pipe Applications: D.I., Steel

Sizes (in inches):

DUCTILE IRON: 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 24, 30, 36, 42, 48

CARBON STEEL: 3, 4, 6, 8, 10, 12

Working Pressure: 150 PSI

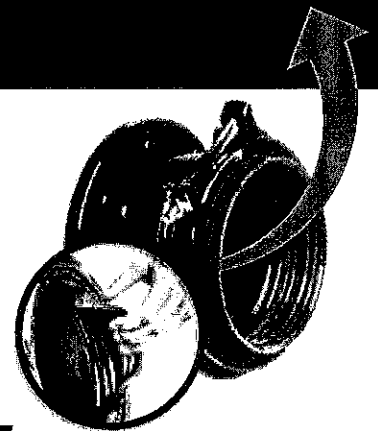
Deflection: Assembled joints into each follower gland through 12" shall allow for five degrees deflection, two degrees 14"-24", 1.5 degrees 18"-24", one degree 30"-48"

PRODUCT SPECIFICATIONS

HYMAX[®] 2

FLANGE ADAPTOR (2"-12")*

AND FLANGE ADAPTOR LONG BODY (2"-12")



FEATURES

- ADVANCED WIDE-RANGE COUPLING WITH A PATENTED FLIP GASKET
- ELIMINATES GASKET REMOVAL MISTAKES AND MAXIMIZES INSTALLER WORK EFFICIENCY
- USING THE GAME-CHANGING HYMAX TECHNOLOGY, PROVEN IN OVER 1M INSTALLATIONS IN THE US
- SUITABLE FOR ALL TYPES OF PIPES - DUCTILE IRON, CAST IRON, STEEL, COPPER, PE, PVC, AC, GRP
- PATENTED HYDRAULICALLY-ASSISTED GASKET WITH 2-STAGE SEALING
- LIGHTWEIGHT CONSTRUCTION ENABLES FAST AND EASY INSTALLATION
- ALLOWS 4° DYNAMIC DEFLECTION, REDUCING FUTURE PIPE DAMAGE

SPECIFICATIONS

STANDARDS

HYMAX FLANGE ADAPTOR AND LONG BODY MEETS OR EXCEEDS REQUIREMENTS OF STANDARDS: AWWA C-219, NSF-61, NSF 372.

SIZE

AVAILABLE IN NOMINAL DIAMETER
FLANGE ADAPTOR 2"-12"
FLANGE ADAPTOR LONG 2"-12"

MATERIAL

FLANGE BODY ASTM A283 / A283M GRADE C STEEL.

FLANGE **F/A** Meets ANSI B16.5, Class 150.
F/A Long 2" OVAL FLANGE FOR FLOW METER
3" Meets ANSI B16.5
4"-12" Meets AWWA class D

END RING ASTM A283 / A283M GRADE C STEEL.

SPHERICAL SPACERS AISI 304 STAINLESS STEEL.

BRIDGE AISI 304 STAINLESS STEEL.

GASKET EPDM COMPOUNDED FOR WATER AND SEWAGE, MEETS INTERNATIONAL STANDARDS FOR CONTACT WITH DRINKING WATER.

COATING 100% FUSION BONDED EPOXY FOR ENHANCED CORROSION PROTECTION. AVERAGE THICKNESS 14 MIL.

NUTS & BOLTS AISI 304 STAINLESS STEEL. ROLLED THREAD AND ANTI-GALLING COATING.

HYMAX[®]

Repair the past. Connect the future.

KRAUSZ is the creator of HYMAX

HYMAX[®]

a **MUELLER** brand

HYMAX[®] 2 COUPLING (1.5" - 12")

Product Specifications

FEATURES

- Advanced wide-range coupling with a patented flip gasket.
- Eliminates gasket removal mistakes and maximizes installer work efficiency.
- Only 2 - 4 top facing bolts, for faster and safer installation.
- Ready-to-use design to eliminate extensive under-pipe digging.
- Allows 4° dynamic deflection on each end, reducing future pipe damage.
- Patented hydraulically-assisted gasket with 2-stage sealing.
- Suitable for many types of pipe.
- One product can connect pipes of two different materials.
- Based on the game-changing HYMAX that has been field-proven in millions of installations in the US.
- Product performance, OD range and pressures are identical to those of the original HYMAX.
- Lifting T-handle only on 3"-12".

SPECIFICATIONS STANDARDS

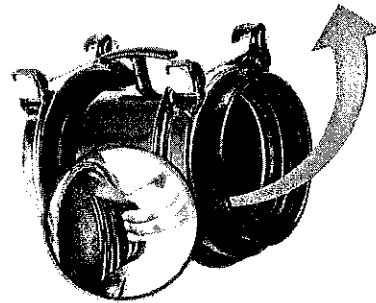
- HYMAX2 meets or exceeds standards AWWA C219, NSF 61, NSF 372.

SIZE

- Available in nominal diameter from 1.5" - 12" standard.

MATERIALS END RINGS

- ASTM A283/A283M Grade C steel.



CENTER RING

- ASTM A53 Grade A steel.

GASKETS

- EPDM compounded for water and sewage in accordance with ASTM D2000, meets international standards for contact with drinking water.

BRIDGE

- Available in AISI 304 or 316 Stainless Steel, ASTM A240.

SPHERICAL SPACERS

- Available in AISI 304 (ASTM A351 CF8) or SS316 (ASTM A351 CF8M) Stainless Steel.

COATING

- 100% fusion bonded epoxy for enhanced corrosion protection.
- Average thickness 14 mm.

BOLTS, NUTS & WASHERS

- Available in AISI 304 or SS316 stainless steel. Rolled thread and anti-galling coating. ASTM F593, ASTM F594 and ASTM A240 respectively.



JOIN



REPAIR

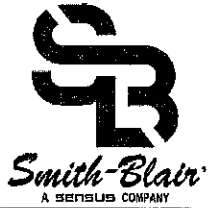


RESTRAIN



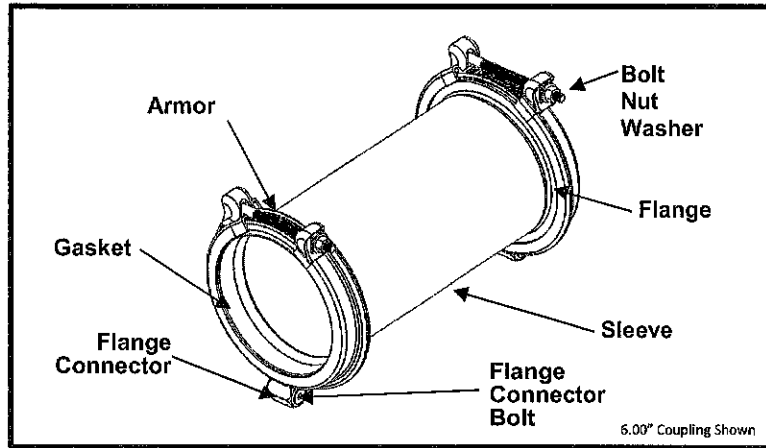
TAP

MUELLER



SPECIFICATION

TOP BOLT® WIDE RANGE TWO BOLT COUPLING MODEL 422



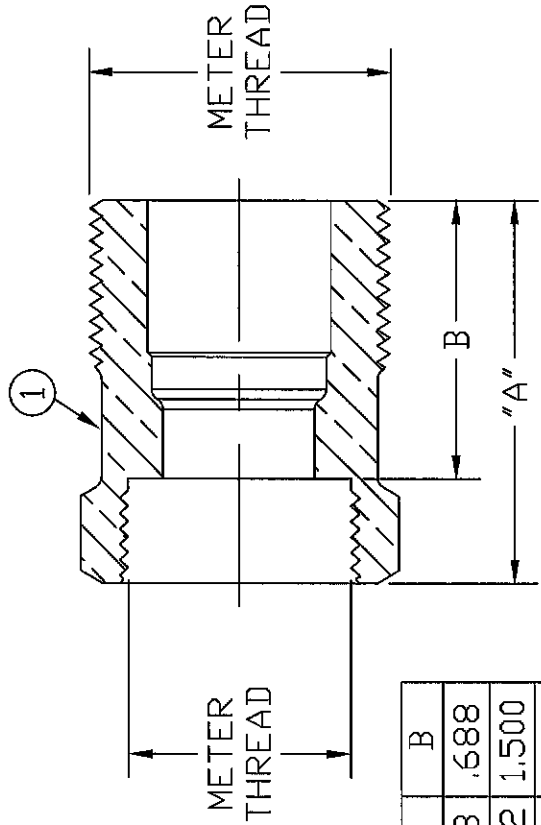
APPLICATIONS

- **Typical Uses**
 - Joining a wide range of plain-end pipe of same outside diameters
 - Joining a wide range of plain-end pipe of different outside diameters with same nominal size
 - Replace split or excessively damaged pipe
- **Standard Pipe Sizes**
 - 2" to 12" nominal
- **Type of Pipe**
 - Carbon Steel, Stainless Steel, Ductile Iron, Asbestos Cement, PVC, HDPE, Copper Tube
(see notes for thin wall PVC & HDPE applications)
- **Working Pressure**
 - 260 psi

MATERIALS

- **Flange**
 - Carbon Steel per ASTM A283C, A285A or A36
 - Flexi-Coat® fusion bonded epoxy finish which meets application methods AWWA C213
 - Integral bolt head pocket for one wrench installation
 - Split flange design
- **Sleeve**
 - Carbon Steel per ASTM A283C, A285A or A36
 - Flexi-Coat® fusion bonded epoxy finish which meets application methods AWWA C213
 - Twice the length of Standard 421 Series Top Bolt® Coupling
- **Gasket**
 - Nitrile (Buna-N) per ASTM D2000
 - NSF/ANSI 61 and 372 certified
 - Compounded to resist water, oil, acids, alkalis, most (aliphatic) hydrocarbon fluids, and many other chemicals
 - Temperature range: -20°F to +180°F
 - Bi-Directional removable inner gasket to accommodate wide range of pipe
 - Inner gasket can be reinstalled after removal
 - Allow for up to 8° (4° per end) of pipe deflection

DWG NUMBER H10879N 44 ² -MRKTG	No.	DESCRIPTION	MATERIAL
	1	HEX BUSHING	CAST NO LEAD BRASS ALLOY
	2	RUBBER GASKET	EPDM D2000



SIZE	A	B
5/8" x 3/4"	1.188	.688
5/8" x 1"	2.062	1.500
3/4"	2.000	1.375
5/8" x 3/4" x 1"	2.062	1.500
3/4" x 1"	1.312	.750

ALL WETTED PARTS ARE NO LEAD BRASS ALLOY
 FILEPATH: PROD-ENG\MUELLER\ASYSUBMITTAL\S\H10879N

TITLE AND OWNERSHIP OF THIS ENGINEERING DRAWING REMAINS IN THE SOLE POSSESSION OF THE ENGINEER OR FIRM FOR WHOM IT WAS PREPARED. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN CONSENT OF THE ENGINEER OR FIRM. THE ACCEPTANCE OF THIS DRAWING BY THE RECIPIENT TO THESE CONDITIONS IS PRESUMED.

MUELLER

DR/FR	JGarvin	2/21/12
CHKR		
ENGR		
MGR		
	BY	DATE
	STK No:	
	MAT'L	

UNLESS OTHERWISE NOTED
 SURFACE PREPARATION: --- .000
 BREAK CORNER(S) --- XX RMS
 SURFACE FINISH --- XX RMS
 TOLERANCE(S):
 LINEAR --- ± .000
 ANGULAR --- ± 0°00'

THIRD ANGLE PROJECTION

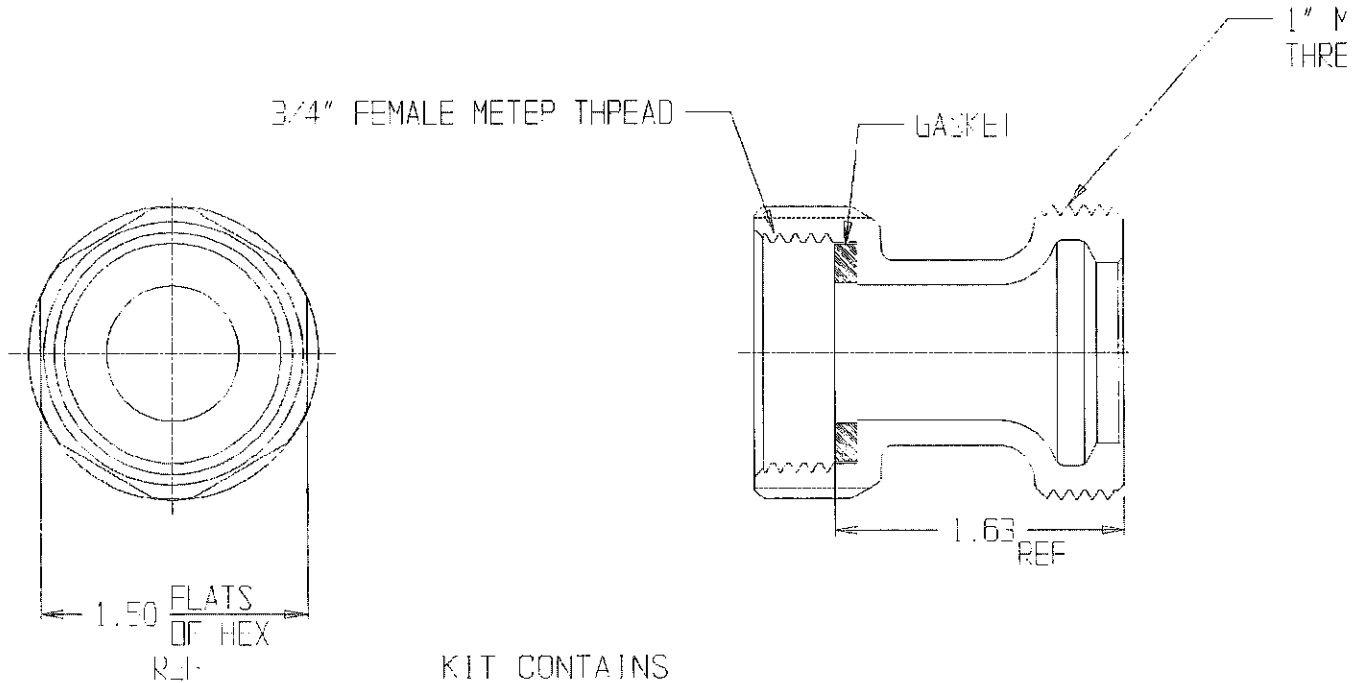
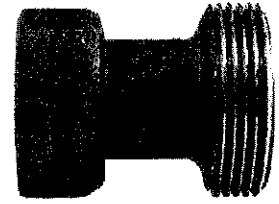
REF. No. SCALE FULL

REV	ECR	DESCRIPTION	DATE	BY	CHKR
PER EST NO: X-XXXX EST FIN WT = 0.0000 lbs					
DESCR. STRAIGHT METER BUSHING - NLB (FEMALE METER X MALE METER)					
DWG NUMBER					H10879N

SUBMITTAL DATA SHEET

NL Meter Coupling – 710J24KIT

Female Meter Thread x Male Meter Thread



KIT CONTAINS
2 PIECES OF
THIS ADAPTOR

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



A.Y. McDonald Mfg. Co.
4800 Chavenelle Rd
Dubuque, IA 52002

Toll Free: 1-800-292-2737
sales@aymcdonald.com
aymcdonald.com

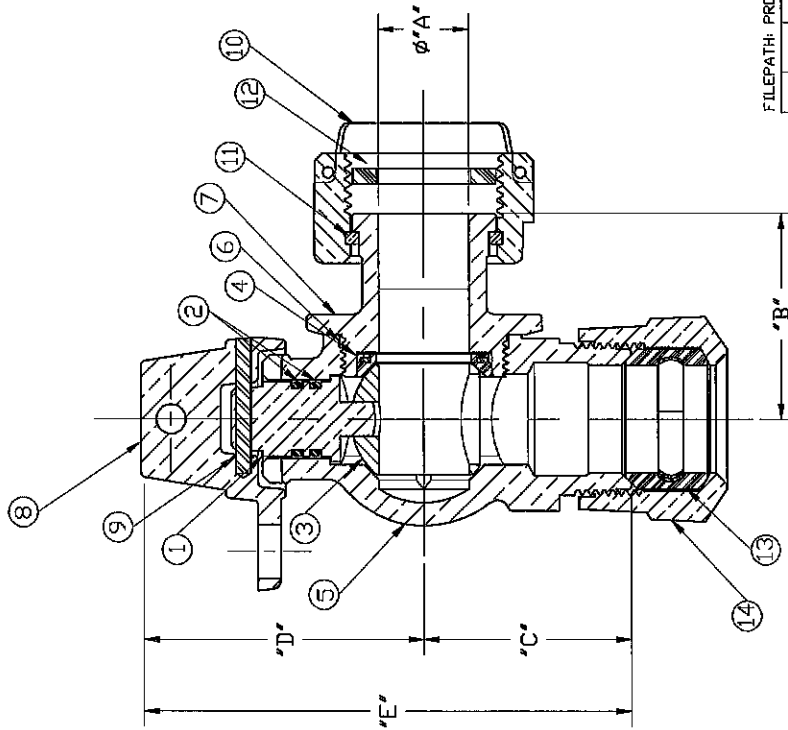
A.Y. McDonald considers the information on this assembly drawing correct when published. Item and option availability, including specifications, are subject to change without notice.

Submitted by:

06-21

No.	QTY.	DESCRIPTION	MATERIAL
1	1	STEM	LOW LEAD BRASS
2	2	O-RING	EPDM D2000
3	1	BALL	LOW LEAD BRASS
4	1	GASKET - SEAL	NITRILE D2000
5	1	BODY	CAST LOW LEAD BRASS
6	1	O-RING	EPDM D2000
7	1	END PIECE	CAST LOW LEAD BRASS
8	1	CAP	BRASS ASTM B62 ALLOY C83600
9	1	SOLID PIN	AISI 303 STAINLESS STEEL
10	1	SADDLE NUT	BRASS ASTM B62 ALLOY C83600
11	1	SNAP RING	COPPER ALLOY CDA521
12	1	RUBBER GASKET	NITRILE D2000
13	1	CTS GSKT SUB	SBR D2000 - GSKT 410SS - BAND
14	1	CONNX NUT	CAST BRASS ASTM B62 ALLOY C83600

SIZE	ØA	B	C	D	E
5/8x3/4	.625	1.696	1.719	2.323	4.042
5/8x3/4x3/4	.750	1.696	1.719	2.323	4.042
5/8x3/4x1	.750	1.696	2.125	2.323	4.448
1	1.000	1.952	2.125	2.617	4.742



FILEPATH: PROD-ENG\MUELLER-APPROVED\B24258N

DRFTR	Gar/Vin	6/25/03		
CHKR				
ENGR				
MGR				
	BY	DATE		
	STK No			
	MAT'L			
	DESCR.			
REV	DESCRIPTION	DATE	BY	CHKR
PER	EST. NO. BXXXX	EST FIN	WT. = 0.0000	Lbs

Mueller Co.		THIRD ANGLE PROJECTION
UNLESS OTHERWISE NOTED		
SURFACE PREPARATION: --- .000		
BREAK CORNERS: --- .000		
SURFACE FINISH: --- .000 RMS		
TOLERANCES:		
LINEAR	± .000	SCALE
ANGULAR	± 0'00"	REF. No.
		NONE

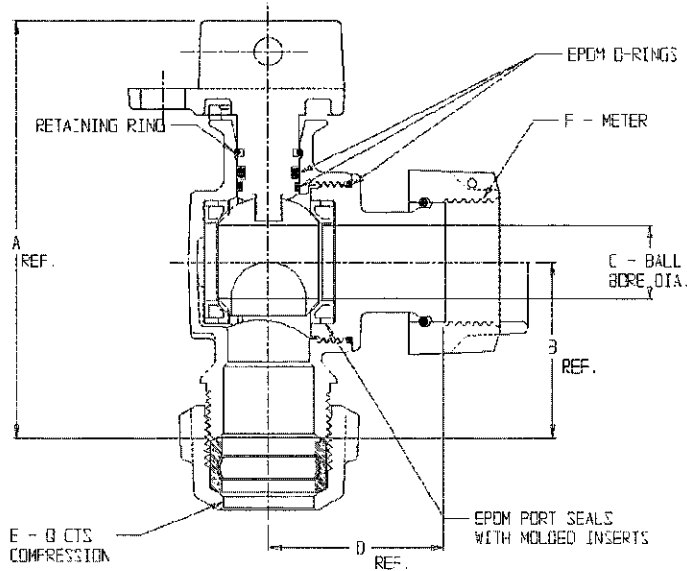
PART NUMBER	B24258N
LOW LEAD MUELLER ANGLE METER	
BALL VALVE (110 CTS" x MTR)	
PART NUMBER	B24258N

44-MRKTG
B24258N

SUBMITTAL DATA SHEET

NL Ball Style Meter Stop – 74602BSQ

Q CTS Compression x Meter Nut W/Saddle



MODEL	SIZE	A	B	C	D	E	F
74602BSQ	3/4 x 3/4 x 5/8	4.20	1.76	.75	1.94	3/4	5/8
74602BSQ	1 x 3/4 x 5/8	4.64	2.21	.75	1.94	1	5/8
74602BSQ	3/4	4.20	1.76	.75	1.78	3/4	5/8 x 3/4, 3/4
74602BSQ	1 x 3/4 x 3/4	4.64	2.21	.75	1.78	1	5/8 x 3/4, 3/4
74602BSQ	1	4.90	2.25	1.60	2.45	1	1
74602BSQ	1 1/4 x 1 x 1	5.15	2.50	1.00	2.45	1 1/4	1

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)
- Low friction coated brass ball
- Valve rated for 300 PSIG water pressure, end connections not to exceed rated pipe pressure.
- Blow out proof EPDM port seals
- End piece joint sealed with an EPDM o-ring and thread locker
- Insert stiffeners required on all flexible plastic connections



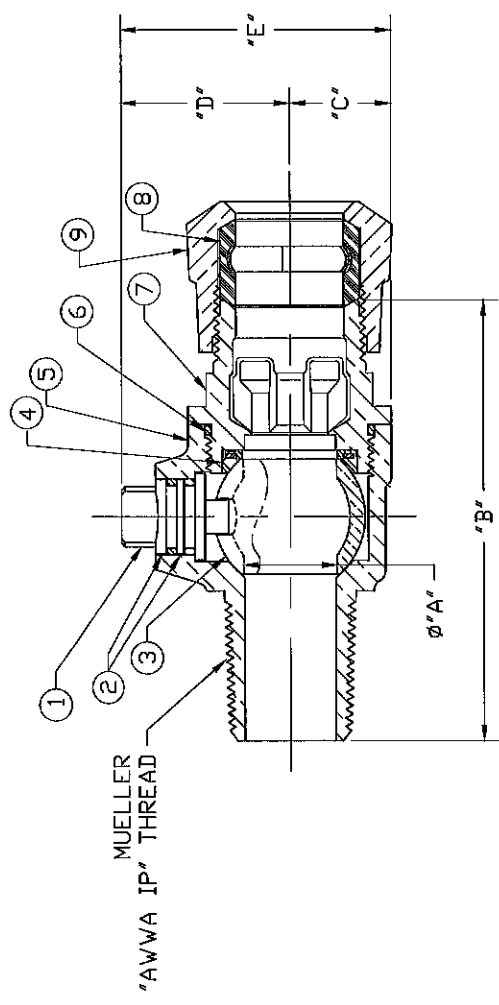
A.Y. McDonald Mfg. Co.
4800 Chavenelle Rd
Dubuque, IA 52002

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sales@aymcdonald.com
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:

No.	DESCRIPTION	MATERIAL
1	STEM	LOW LEAD BRASS ALLOY
2	O-RING	EPDM D2000
3	BALL	LOW LEAD BRASS ALLOY
4	GASKET - SEAL	NITRILE D2000
5	BODY	CAST LOW LEAD BRASS ALLOY
6	O-RING	EPDM D2000
7	END PIECE	CAST LOW LEAD BRASS ALLOY
8	CTS GSCT SUB	SBR D2000 - GSCT 410SS - BAND
9	CONNX NUT	CAST BRASS ASTM B62 ALLOY C83600



SIZE	φA	B	C	D	E
3/4	.750	3.621	.840	1.363	2.203
3/4x1	.750	3.855	.840	1.390	2.230
1-1/2	1.000	4.648	1.150	1.564	2.714
1-1/2x2	1.500	5.157	1.500	2.120	3.620
2	2.000	5.612	1.820	2.443	4.263

ALL WETTED PARTS ARE LOW LEAD BRASS ALLOY

FILEPATH: PROD-ENG\MUELLER\ASYSUBMITTALS\B25028N

DRFTR	RWB	6/19/13
CHKR		
ENGR		
MGR		
BY	DATE	
STK NO		
MAT'L		



UNLESS OTHERWISE NOTED	THIRD ANGLE PROJECTION
SURFACE PREPARATION:	
BREAK CORNERS	--- .000
SURFACE FINISH	--- XX RMS
TOLERANCE(S):	
LINEAR	± .000
ANGULAR	± 0'00'
REF. No.	
SCALE	NONE

TITLE TO AND OWNERSHIP OF THIS ENGINEERING DRAWING REMAINS IN THE HANDS OF THE ENGINEER. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER. IF THE RECIPIENT TO THESE CONDITIONS IS PRESUMED.

REV	ECR	DESCRIPTION	DATE	BY	CHKR
PER EST. NO. DXXXX EST. FIN. WT = 0.0000 lbs					

BALL CORPORATION LLB VALVE
(FAWA IP" x 110 CTS)

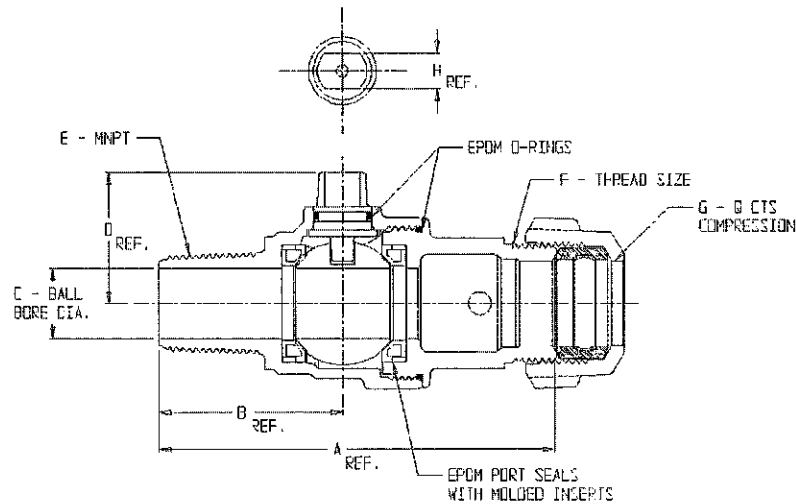
DWG NUMBER
B25028N

DWG NUMBER
B25028N
44-MRKTG

SUBMITTAL DATA SHEET

NL Ball Style Corporation Stop – 74704BQ

MNPT x Q CTS Compression



MODEL	SIZE	A	B	C	D	F	F	G	H
74704BQ	3/4	4.22	1.96	.75	1.39	3/4	3/4 AWWA FLARE	3/4	.36
74704BQ	3/4 X 1	4.44	1.96	.75	1.39	3/4	1 AWWA FLARE	1	.36
74704BQ	1	4.37	2.11	1.00	1.50	1	1 AWWA FLARE	1	.26
74704BQ	1 X 1 1/4	4.63	2.15	1.00	1.47	1	1 1/4 AWWA FLARE	1 1/4	.26
74704BQ	1 1/4	5.90	3.02	1.25	1.88	1 1/4	1 1/4 AWWA FLARE	1 1/4	.42
74704BQ	1 1/2	6.42	3.05	1.50	2.15	1 1/2	2 1/8-16 SPECIAL	1 1/2	.42
74704BQ	1 1/2 X 2	6.97	3.05	1.50	2.15	1 1/2	2 5/8-16 SPECIAL	1 1/2	.38
74704BQ	2	6.86	3.21	2.00	2.46	2	2 5/8-16 SPECIAL	2	.42

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)
- Low friction coated brass ball rotates 360°
- 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
- Insert stiffeners required on all flexible plastic connections



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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:

AMERICAN AVK RESILIENT SEATED DUCTILE IRON GATE VALVE
250 PSI, Tested to AWWA C515 (NRS)
Flanged Ends to ASME B16.42 Class 150 - Valve sizes 2.5" - 12"

65/FFN-WD
FLxFL

Use:

For water and neutral liquids to maximum 160°F.

Tests:

Hydraulic test to AWWA C509:

Shell Test: 500 PSI 3"-16"

Seat Test: 250 PSI 3"-16"

Operating Torque Test

Optional Materials:

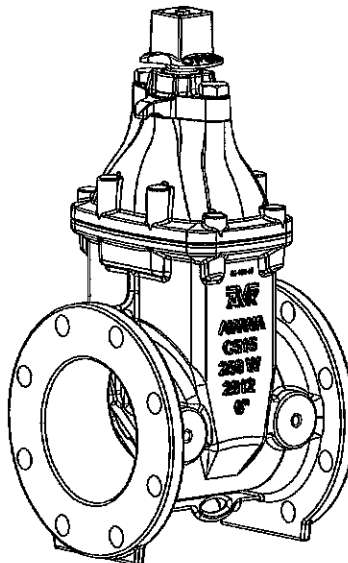
Wedge Ductile iron ASTM A536
 encapsulated with NBR-rubber
 compound

Standard Materials:

Body, Bonnet, Gland Flange, Wrench Nut	Ductile iron ASTM A536 (Wrench Nut-painted black for open left, red for open right)
Coating	Electrostatically applied fusion- bonded epoxy-resin Meets or exceeds AWWA C550
Stem	Standard: Stainless steel 430F
Wedge	Ductile iron ASTM A536 encapsulated with EPDM-rubber compound
Wedge Nut, Thrust Collar	Bronze
Bonnet Bolts	Stainless Steel - 316 sealed with hot melt
Gland Bolts	Stainless Steel - 316 Hexagon bolt
Bonnet Gasket, Wiper Ring, O-Ring Stem Seals, O-Ring Gland Seal	ASTM D2000 Buna "N" nitrile rubber

Approvals:

Certified to: ANSI/NSF 61, ANSI/NSF 372



10.6

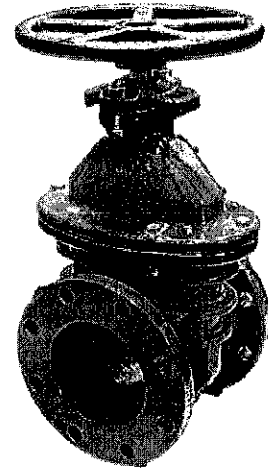


3" - 12" A-2361 RESILIENT WEDGE GATE VALVES - FL. x FL.

Rev. 5-18 Shaded area indicates changes

- Catalog number
A-2361-6 flanged ends
- Sizes – 3", 4", 6", 8", 10", 12"
- Meets or exceeds all applicable requirements of ANSI/AWWA C515*** Standard, UL 262 Listed, FM 1120/1130 Approved, and certified to ANSI/NSF 61 & 372
- Flanged end drilling complies with ASME/ANSI B16.1 Class 125**
- Iron body with nominal 10 mils Mueller Pro-Guard® Fusion Bonded Epoxy Coated interior and exterior surfaces
- Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard
- Iron wedge, symmetrical and fully encapsulated with molded rubber; no exposed iron
- Non-rising stem (NRS)
- Triple O-ring seal (2 above the thrust collar and 1 below)
- 350 psig (2400 kPa/24 barg) maximum working pressure; 700 psig (4800 kPa/48 barg) static test pressure
- UL Listed, FM Approved: 350 psig (2400 kPa/24 barg)
- Designed for potable water applications

† Approved for backflow prevention devices by USC (for 4" - 10" sizes)



A-2361-6 shown

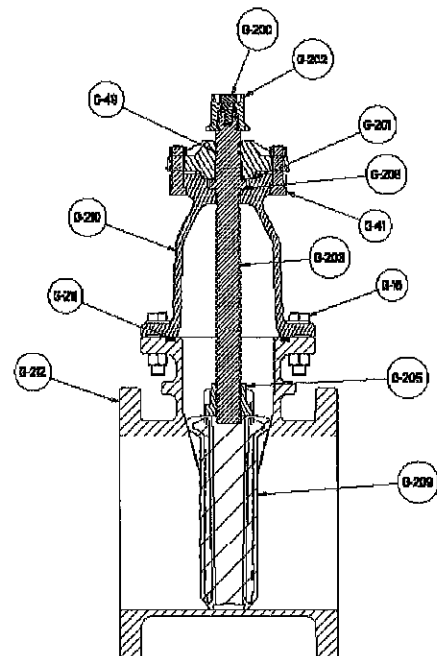
Options

See page 10.54 for more information on Resilient Wedge Gate Valve options

- Position indicators
- Stainless steel stem: Type 304, Type 316
- Low zinc, silicon bronze ASTM B98-C66100/H02 stem
- 2" square wrench nut
- P/N 10/16 Drilling
- EPDM Disc and O-rings

Resilient wedge gate valve parts

Catalog Part Number	Description	Material	Material Standard
G-16	Bonnet Bolts & Nuts	316 Stainless Steel	ASTM F593 (bolt) ASTM F594 (nut)
G-41	Stuffing Box Bolts & Nuts	316 Stainless Steel	ASTM F593 (bolt) ASTM F594 (nut)
G-49	Stem O-rings (3)	Nitrile	ASTM D2000
G-200	Wrench Nut Cap Screw	316 Stainless Steel	ASTM F593
G-201	Stuffing Box O-ring	Nitrile	ASTM D2000
G-202	Wrench Nut	Ductile Iron	ASTM A536 ▼
G-203	Stem	Bronze	ASTM B138
G-204	Hand Wheel	Cast Iron +	ASTM A126 CL.B
G-205	Stem Nut	Bronze	ASTM B584
G-206	Guide Cap Bearings	Acetal	-
G-207	Stuffing Box with dirt seal	Ductile Iron Nitrile	ASTM A536 ▼ ASTM D2000
G-208	Anti-friction Washers (2)	Acetal	-
G-209	Wedge, Rubber Encapsulation	Ductile Iron* SBR	ASTM A536 ▼ ASTM D2000
G-210	Bonnet	Ductile Iron	ASTM A536 ▼
G-211	Bonnet O-ring +++	Nitrile	ASTM D2000
G-212	Body	Ductile Iron	ASTM A536 ▼



+++ 3" valves use a bonnet gasket

*Fully encapsulated in molded rubber with no iron exposed;

▼ Material strength ASTM A536 65-45 minimum

** Per ANSI/AWWA C111 working pressure above 250psi requires the use of a special gasket rated for higher pressure.

+ Manufacturer's option to change material to ductile iron ASTM A536

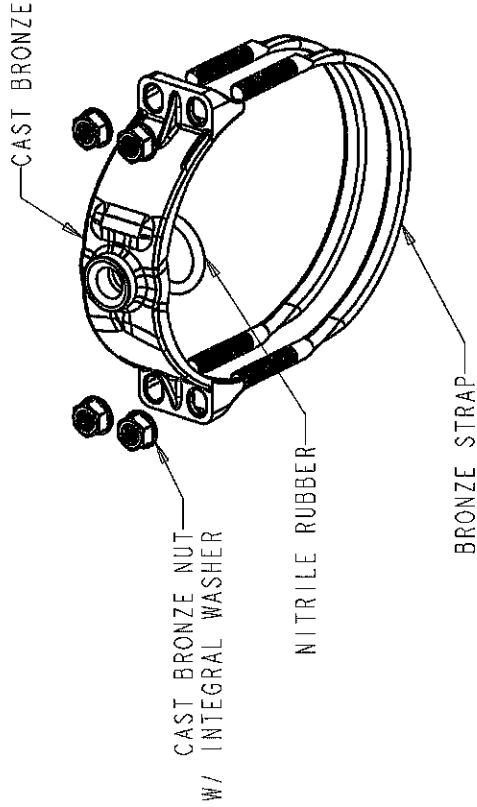
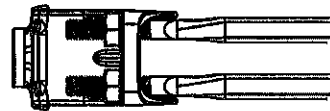
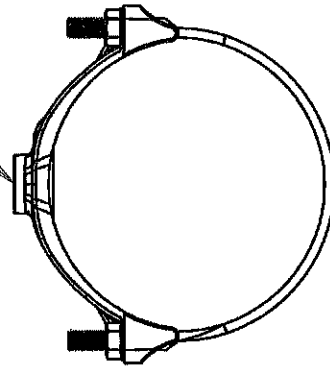
*** 3" valves meet or exceed all applicable requirements of ANSI/AWWA C509 Standard

SEE PAGE 10.57 FOR ORDERING INSTRUCTIONS

PIPE SIZE	PIPE RANGE	TYPE	AVAILABLE TAP SIZES							
			TAP THREAD*	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
4"	4.74-5.32	BR2B0474	CC OR IP	050	062	075	100	-	-	-
4"	4.74-5.10	BR2B0474	CC OR IP	-	-	-	-	125	150	200
4"	5.10-5.40	BR2B0510	CC OR IP	-	-	-	-	125	150	200
6"	6.84-7.45	BR2B0684	CC OR IP	050	062	075	100	125	150	200
8"	8.99-9.67	BR2B0899	CC OR IP	050	062	075	100	125	150	200
10"	11.04-12.12	BR2B1104	CC OR IP	050	062	075	100	125	150	200
12"	13.14-14.58	BR2B1314	CC OR IP	050	062	075	100	125	150	200
14"	15.22-16.88	BR2B1522	CC OR IP	-	-	075	100	-	150	200
16"	17.32-19.19	BR2B1732	CC OR IP	-	-	075	100	-	150	200

*IP STANDS FOR AWWA I.P. THREAD (F.I.P.T.)
 CC STANDS FOR AWWA TAPER THREAD (C.C.)

SEE TABLE FOR
 AVAILABLE TAP SIZES



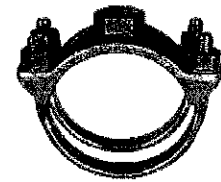
DR. BY	TBE	07/19/17	THIRD ANGLE PROJECTION	C.B. NO.
CHKD				
ENGR				
MR				
MFG				
TOOL				
DRY				
DIM'TO: SEE DRAWING CALLOUTS				
TOLERANCES - SAME CASTING UNLESS OTHERWISE NOTED				
UP TO 3" ±.039 12.61 25" ±.080				
3.61 - 6" ±.045 ABOVE 25" ±.125				
6.01 - 12" ±.060 FLATNESS .030				
ANGLES ±1°				
DRAFTS 2°				
FINISH				
SCALE				
REF. NO.				
PURCH.				
PATT. NO.				
STK. NO.				
DESCR. 4"-16" BR2B STYLE SERVICE SADDLE				
NUMBER BR2B				
WITH ALL AVAILABLE TAP OPTIONS				

BR2B

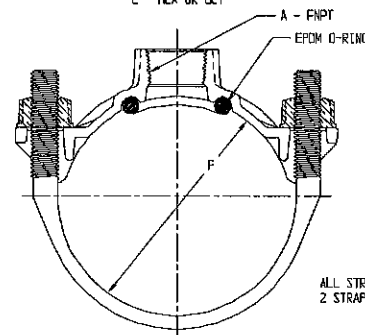
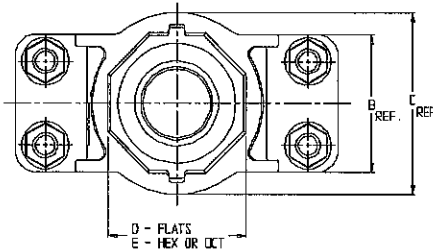
SUBMITTAL DATA SHEET

Silicon Bronze Strap Saddle - 3826

Ductile Iron/Cement-Asbestos/Cast Iron x FNPT



MODEL	SIZE	A	B	C	D	E	F
3826	4 X 3/4	3/4	3.19	3.19	1.69	HEX	4.74 - 5.40
3826	4 X 1	1	3.19	3.19	1.69	HEX	4.74 - 5.40
3826	4 X 1 1/2	1 1/2	3.19	4.19	3.10	OCT	4.74 - 5.40
3826	4 X 2	2	3.19	4.19	3.10	OCT	4.74 - 5.40
3826	6 X 3/4	3/4	3.19	3.19	1.69	HEX	6.84 - 7.50
3826	6 X 1	1	3.19	3.19	1.69	HEX	6.84 - 7.50
3826	6 X 1 1/4	1 1/4	3.19	4.19	3.10	OCT	6.84 - 7.50
3826	6 X 1 1/2	1 1/2	3.19	4.19	3.10	OCT	6.84 - 7.50
3826	6 X 2	2	3.19	4.19	3.10	OCT	6.84 - 7.50
3826	8 X 3/4	3/4	3.19	3.19	1.69	HEX	8.99 - 9.67
3826	8 X 1	1	3.19	3.19	1.69	HEX	8.99 - 9.67
3826	8 X 1 1/4	1 1/4	3.19	4.19	3.10	OCT	8.99 - 9.67
3826	8 X 1 1/2	1 1/2	3.19	4.19	3.10	OCT	8.99 - 9.67
3826	8 X 2	2	3.19	4.19	3.10	OCT	8.99 - 9.67
3826	10 X 3/4	3/4	3.19	3.19	1.69	HEX	11.04 - 12.12
3826	10 X 1	1	3.19	3.19	1.69	HEX	11.04 - 12.12
3826	10 X 1 1/2	1 1/2	3.19	4.19	3.10	OCT	11.04 - 12.12
3826	10 X 2	2	3.19	4.19	3.10	OCT	11.04 - 12.12
3826	12 X 3/4	3/4	3.19	3.19	1.69	HEX	13.20 - 14.39
3826	12 X 1	1	3.19	3.19	1.69	HEX	13.20 - 14.39
3826	12 X 1 1/2	1 1/2	3.19	4.19	3.10	OCT	13.20 - 14.39
3826	12 X 2	2	3.19	4.19	3.10	OCT	13.20 - 14.39
3826	18 X 3/4	3/4	4.93	5.00	3.46	OCT	19.50 - 20.50
3826	18 X 1	1	4.93	5.00	3.46	OCT	19.50 - 20.50
3826	18 X 1 1/2	1 1/2	4.93	5.00	3.46	OCT	19.50 - 20.50
3826	18 X 2	2	4.93	5.00	3.46	OCT	19.50 - 20.50
3826	30 X 3/4	3/4	4.93	5.00	3.46	OCT	31.74 - 32.74
3826	30 X 1	1	4.93	5.00	3.46	OCT	31.74 - 32.74
3826	30 X 1 1/2	1 1/2	4.93	5.00	3.46	OCT	31.74 - 32.74
3826	30 X 2	2	4.93	5.00	3.46	OCT	31.74 - 32.74



DRAWING MAY NOT RESEMBLE
ACTUAL SADDLE CONFIGURATION

SUBMITTAL INFORMATION

- Manufactured in compliance with ANSI/AWWA C800 (latest revision)
- Brass components conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision)
- Certified to NSF/ANSI 61
- Silicon Bronze strap(s) and cast brass nuts with enlarged washer bearing surface
- EPDM o-ring
- Pipe and tap size, and thread type identified on saddle
- Outlet boss with large wrench flats



A.Y. McDonald Mfg. CO.
4800 Chavenelle Rd
Dubuque, IA 52002

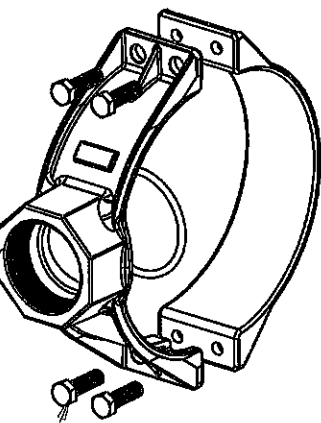
Toll Free: 1-800-292-2737
sales@aymcdonald.com
aymcdonald.com

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:

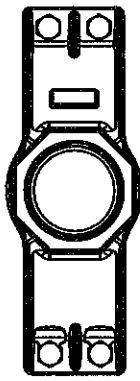
AWWA C900 PVC PIPE							
NOMINAL PIPE SIZE	BASE CATALOG NUMBER	THREAD TYPE	SIZE OF TAPPING			FASTENER MATERIAL	
			.75"	1"	1.5"		2"
4"	OD4B0480	CC or IP	075	100	150	200	316 SS
6"	OD4B0690	CC or IP	075	100	150	200	S6
8"	OD4B0905	CC or IP	075	100	150	200	S6

TAPPING SIZE (SEE TABLE)

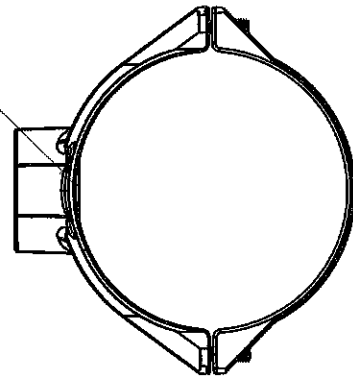
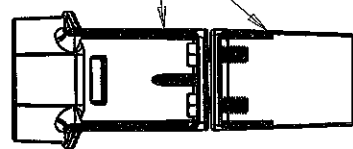


BOLT MATERIAL 316 SS

SADDLE AND STRAP MATERIAL
BRONZE ASTM B62 ALLOY C83600



NITRILE O-RING



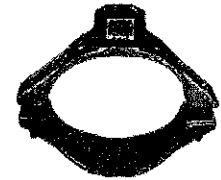
DR. BT.	TBE	10/17/17	UNLESS OTHERWISE NOTED	THIRD ANGLE PROJECTION	C.B. NO.
CHKR			BREAK CAST CORNER(S)---	FINISH	PATT. NO.
ENGR			BREAK MACH CORNER(S)---		
MR			TOLERANCES	REF. NO.	SCALE
HW			UNLESS OTHERWISE NOTED	STK. NO.	NONE
TOOL			LINEAR		
DRY			ANGULAR		
MKT'L: SEE PRINT					
DESCR: OD SERIES SERVICE SADDLES FOR C900 PVC PIPE SIZES 4" THROUGH 8" WITH 316 SS FASTENERS					NUMBER
					OD4B-S6



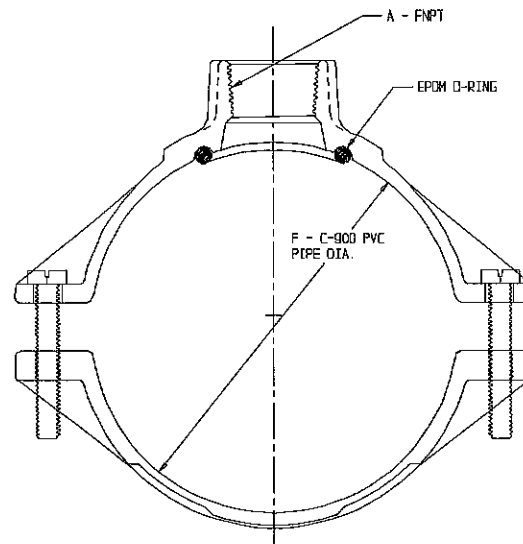
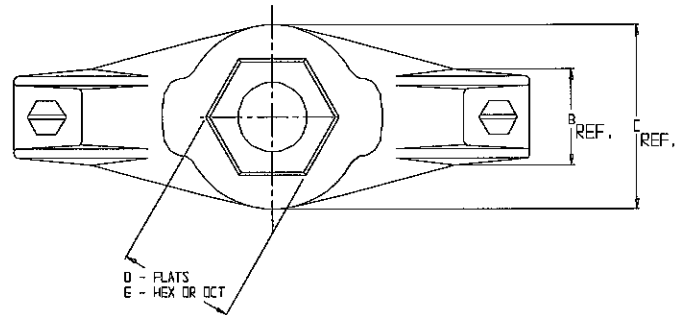
SUBMITTAL DATA SHEET

Two Piece Brass Saddle - 3806

C900 PVC x FNPT



MODEL	SIZE	A	B	C	D	E	F
3806	4 X 3/4	3/4	1.23	2.38	1.50	HEX	4.800
3806	4 X 1	1	1.32	2.56	1.72	HEX	4.800
3806	4 X 1 1/2	1 1/2	1.50	3.46	2.34	OCT	4.800
3806	4 X 2	2	1.50	3.72	2.82	OCT	4.800
3806	6 X 3/4	3/4	1.28	2.26	1.50	HEX	6.900
3806	6 X 1	1	1.24	2.56	1.72	HEX	6.900
3806	6 X 1 1/2	1 1/2	1.63	3.40	2.34	OCT	6.900
3806	6 X 2	2	1.63	3.72	2.82	OCT	6.900
3806	8 X 3/4	3/4	1.26	2.30	1.50	HEX	9.050
3806	8 X 1	1	1.26	2.56	1.72	HEX	9.050
3806	8 X 1 1/2	1 1/2	1.50	3.66	3.10	OCT	9.050
3806	8 X 2	2	1.50	3.96	3.10	OCT	9.050
3806	10 X 3/4	3/4	2.32	2.92	1.69	HEX	11.100
3806	10 X 1	1	2.32	2.92	1.69	HEX	11.100
3806	10 X 1 1/2	1 1/2	2.30	4.37	3.10	HEX	11.100
3806	10 X 2	2	2.30	4.37	3.10	HEX	11.100
3806	12 X 3/4	3/4	2.32	2.92	1.69	HEX	13.200
3806	12 X 1	1	2.32	2.92	1.69	HEX	13.200
3806	12 X 1 1/2	1 1/2	2.30	4.37	3.10	HEX	13.200
3806	12 X 2	2	2.30	4.37	3.10	HEX	13.200



SUBMITTAL INFORMATION

- Manufactured in compliance with ANSI/AWWA C800 (latest revision)
- Brass components conform to ASTM B62 and ASTM B584, UNS C83600 -85-5-5-5 (latest revision)
- Certified to NSF/ANSI 61
- Silicon Bronze bolts
- EPDM o-ring
- Pipe and tap size, and thread type identified on saddle
- Outlet boss with large wrench flats



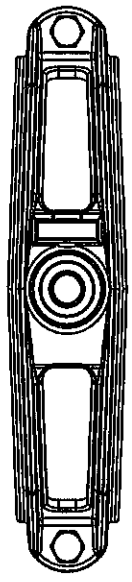
A.Y. McDonald Mfg. CO.
4800 Chavenelle Rd
Dubuque, IA 52002

Toll Free: 1-800-292-2737
sales@aymcdonald.com
aymcdonald.com

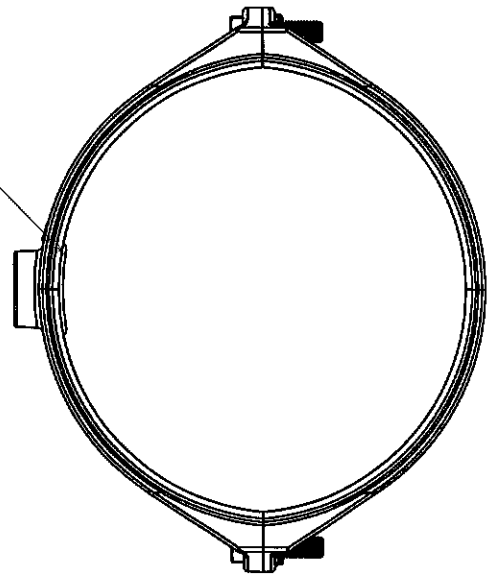
A.Y. McDonald considers the information on this assembly drawing correct when published. Item and option availability, including specifications, are subject to change without notice.

Submitted by:

AWWA C900 PVC PIPE					
NOMINAL PIPE SIZE	BASE CATALOG NUMBER	THREAD TYPE	SIZE OF TAPPING	FASTENER MATERIAL	
			.75"		1"
10"	OD2B1110	CC or IP	100	-	S6
12"	OD2B1320	CC or IP	100	-	S6

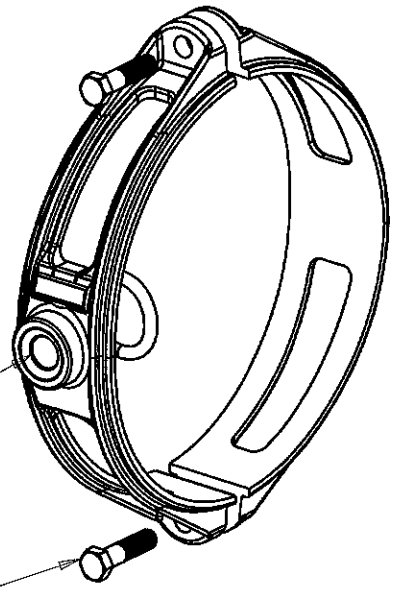


NITRILE O-RING



TAPPING SIZE (SEE TABLE)

BOLT MATERIAL 316 SS



SADDLE AND STRAP MATERIAL
BRONZE ASTM B62 ALLOY C83600



DR. BY	TBE	0/17/17	UNLESS OTHERWISE NOTED	FEED ANGLE PROJECTION	C.B. NO.
CHKD			BREAK CAST CORNERS(1)---	FINISH	
ENGR			BREAK MACH CORNERS(2)---	REF. NO.	
MR			TOLERANCES	SCALE	
W/C			UNLESS OTHERWISE NOTED	STK. NO.	
TOOL			LINEAR		
FORM			ANGULAR		
FACT'L: SEE PRINT					
DESCR: OD SERIES SERVICE SADDLES					NUMBER
FOR C900 PVC PIPE SIZES 10" THROUGH 12"					OD2B-S6
WITH 316 SS FASTENERS					



ONE-LOK™ MODEL SLCE WEDGE ACTION RESTRAINT FOR PVC PIPE

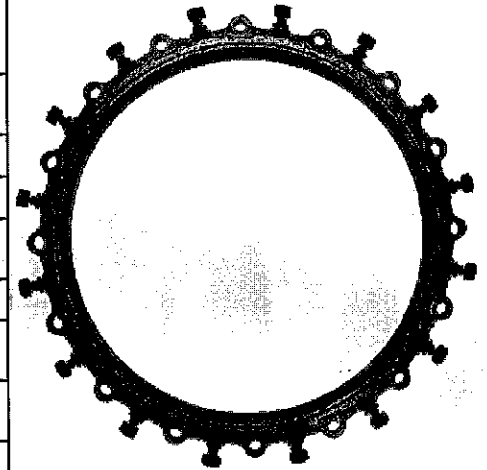
Project Name: _____	Contractor: _____	Date: _____
Engineer: _____	Spec Section: _____	06/09/26

Optional Specifications

Bolts & Nuts	<input type="checkbox"/>	High Strength, Low Alloy Steel (HSLA) <i>(In accordance with ANSI/AWWA C111/A21.11)</i>	Gaskets	<input type="checkbox"/>	SBR <i>(In accordance with ANSI/AWWA C111/A21.11)</i>
	<input checked="" type="checkbox"/>	Stainless Steel <input type="checkbox"/> Type 304 <input type="checkbox"/> Type 316		<input type="checkbox"/>	EPDM
	<input type="checkbox"/>	Blue Fluoropolymer		<input type="checkbox"/>	Neoprene
	<input type="checkbox"/>	Other- Specify _____		<input type="checkbox"/>	Nitrile
Coating	<input checked="" type="checkbox"/>	Red Alkyd paint		<input type="checkbox"/>	Other- Specify _____
	<input type="checkbox"/>	Electro-deposition "CORSAFE™"			

Product Specifications

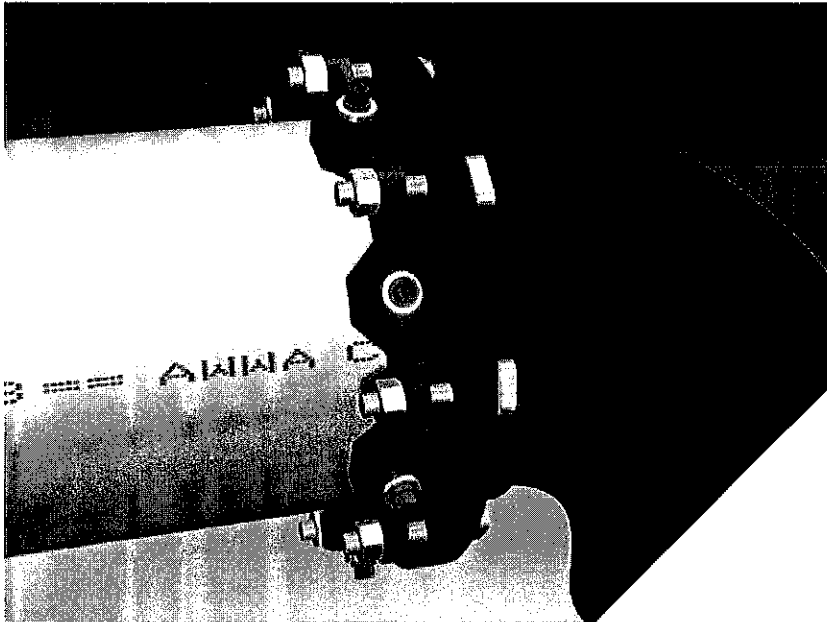
Material:	Gland body, wedge inserts and break-off top actuating bolts are manufactured of high strength ductile iron in accordance with ASTM A536, Grade 65-45-12.
Pressure Rating:	Equal to the water working pressure rating of the pipe on which it is installed.
Factor of Safety:	2:1
Size Range:	3" - 60"
Approvals:	Underwriters Laboratories' listed in sizes 4"-12" and Factory Mutual approved in sizes 4"-12".
Deflection:	5° on 3" - 12", 2° on 14" & 16", 1.5° on 18" - 30" and 1° on 36" - 60"
Dimension:	Conform to ANSI/AWWA C111/A21.11 & ANSI/AWWA C153/A21.53 standards.
Traceability:	Gland body, wedge inserts and break-off top actuating bolts are individually cast with exact heat code information.
Installations:	In accordance with manufacturer's recommendation and applicable AWWA standards





Series 2000PV

Mechanical Joint Restraint for PVC Pipe



Series 2012PV on 12inch C900 PVC pipe at a ductile iron fitting

Features and Applications:

- For restraining plain end PVC pipe at mechanical joint fittings and appurtenances
- Sizes 3 inch through 36 inch
Sizes 42 inch through 48 inch accommodated by Series 2200
- MEGA-BOND® Restraint Coating System
For more information on MEGA-BOND, refer to www.ebaa.com
- Constructed of ASTM A536 Ductile Iron
- The mechanical joint follower gland is incorporated into the restraint
- Accommodates full deflection of the mechanical joint on which it is used
- Heavy duty thick wall design
- Support Products Available:
 - Split mechanical Joint style available for 3 inch through 12 inch EBAA Series 2000SV
 - Solid restraint ring harness available for C905 PVC pipe bells EBAA Series 2800
 - Split restraint ring harness available for C900 and C905 PVC pipe bells and PVC fittings EBAA Series 1500, 1600 and 2500
- All 2000PV and related restraint products can be furnished as packaged accessories complete with appropriate restraint, gasket, lubrication and bolting hardware

Nominal Pipe Size	Series Number	Shipping Weight
3	2003PV	7.0
4	2004PV	8.8
6	2006PV	12.1
8	2008PV	16.3
10	2010PV	26.0
12	2012PV	31.4
14	2014PV	47.6
16	2016PV	52.8
18	2018PV	61.8
20	2020PV	70.9
24	2024PV	92.9
30	2030PV	128.5
36	2036PV	161.3
42	2242*	652.0
48	2248*	711.1

*Restraint for pipe size 42 inch and greater, please refer to Series 2200 Brochure found at www.ebaa.com.

U.S. Patent No.
4627775 4896903 5071175

For use on water or wastewater pipelines subject to hydrostatic pressure and tested in accordance with either AWWA C600 or ASTM D2774.



Ductile Iron Flanged Fittings

ANSI/AWWA C110/A21.10

GENERAL SPECIFICATIONS

- MATERIAL:** Ductile iron per ASTM A536
- PRESSURE:** 250 PSI rating for 1" - 48" sizes and 150 PSI rating for 54" - 64"
- TESTING:** In accordance with ANSI/AWWA C110/A21.10, UL and FM requirements
- LAYING LENGTH:** 2" - 48" sizes in accordance with ANSI/AWWA C110/A21.10 and ANSI B16.1 and 54" - 64" sizes in accordance with ANSI/AWWA C153/A21.53 (fittings not listed in ANSI/AWWA have dimensions per Star design as noted in the catalog)
- WEIGHTS:** Are in pounds, unless noted otherwise and do not include accessories, cement lining and coatings
- DRILLING:** In accordance with ANSI/AWWA C110/A21.10, ANSI/AWWA C153/A21.53 and ANSI B16.1 Class 125 Flanges
- CEMENT LINING:** In accordance with ANSI/AWWA C104/A21.4 -- sizes 1" - 3" single thickness and sizes 4" - 64" double thickness
- COATING:** Asphaltic seal coat inside in accordance with ANSI/AWWA C104/A21.4 and prime coat outside
- APPROVALS:** 2" - 12" Underwriters Laboratories and ULC Listed and Factory Mutual approved for 300 PSI rating. Please consult factory for detail listing and approvals. 2" and greater are UL/NSF-61.
- DIMENSIONS:** All dimensions are in inches unless noted otherwise.
- INSTALLATION:** Per ANSI/AWWA C110 and C111



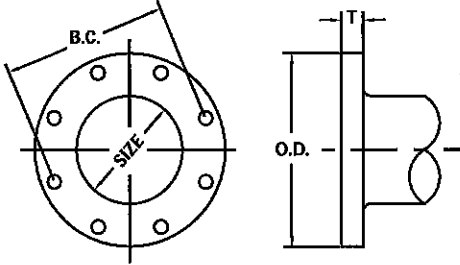
SUBMITTAL INFORMATION

PROJECT NAME: _____

ENGINEER: _____

CONTRACTOR: _____

SPEC. SECTION: _____



NOM. SIZE	O.D.	B.C.	T	BOLT HOLE DIA.	BOLTS	
					SIZE	NO.
1	4.25	3.12	0.44	0.62	1/2 x 2	4
1 1/2	5.00	3.88	0.56	0.62	1/2 x 2	4
2	6.00	4.75	0.62	0.75	3/8 x 2 1/4	4
2 1/2	7.00	5.50	0.69	0.75	3/8 x 2 1/2	4
3	7.50	6.00	0.75	0.75	3/8 x 2 1/2	4
4	9.00	7.50	0.94	0.75	3/8 x 3	8
5	10.00	8.50	0.94	0.88	3/4 x 3	8
6	11.00	9.50	1.00	0.88	3/4 x 3 1/2	8
8	13.50	11.75	1.12	0.88	3/4 x 3 1/2	8
10	16.00	14.25	1.19	1.00	7/8 x 4	12
12	19.00	17.00	1.25	1.00	7/8 x 4	12
14	21.00	18.75	1.38	1.13	1 x 4 1/2	12
16	23.50	21.25	1.44	1.13	1 x 4 1/2	16
18	25.00	22.75	1.56	1.25	1 1/8 x 5	16
20	27.50	25.00	1.69	1.25	1 1/8 x 5	20
24	32.00	29.50	1.88	1.38	1 1/4 x 5 1/2	20
30	38.75	36.00	2.12	1.38	1 1/4 x 6 1/2	28
36	46.00	42.75	2.38	1.63	1 1/2 x 7	32
42	53.00	49.50	2.62	1.63	1 1/2 x 7 1/2	36
48	59.50	56.00	2.75	1.63	1 1/2 x 8	44
54	66.25	62.75	3.00	2.00	1 3/4 x 8 1/2	44
60	73.00	69.25	3.12	2.00	1 3/4 x 9	52
64	80.00	76.00	3.38	2.00	1 3/4 x 9	52

SIZE RANGE (Please specify):

Size Range _____

LINING OPTIONS (Please check one):

- Standard: Cement-lined and asphalt seal coat per ANSI/AWWA C104/A21.4 and UL/NSF-61
- Optional: FBE (Fusion Bonded Epoxy) per ANSI/AWWA C116/A21.15 and UL/NSF-61 - ID & OD Only
- Optional: P401 (Protecto 401) Ceramic Epoxy - sewer applications only. Not NSF-61
- Optional: Other (specify) _____

COATING OPTIONS (Please check one):

- Standard: Red Prime Coat
- Optional: Asphaltic seal coat per ANSI/AWWA C104/A21.4
- Optional: FBE (Fusion Bonded Epoxy) per ANSI/AWWA C116/A21.15 and UL/NSF-61 - ID & OD Only
- Optional: Other (specify) _____





Ductile Iron MJ Compact Fittings

ANSI/AWWA C153/A21.53

GENERAL SPECIFICATIONS

- MATERIAL:** Ductile Iron per ASTM A536
PRESSURE: 350 PSI rating for 2" - 24" sizes, 250 PSI rating for 30" - 48" sizes and 150 PSI rating for 54" - 64" sizes
TESTING: In accordance with ANSI/AWWA C153/A21.53 and UL requirements
LAYING LENGTH: In accordance with ANSI/AWWA C153/A21.53 (fittings not listed in ANSI/AWWA have dimensions per Star design as noted in the catalog)
DEFLECTION: 2" - 4"=8° | 6"=7° | 8" - 12"=5° | 14" - 16"=3 1/2° | 18" - 24"=3° | 30" - 48"=2°
WEIGHTS: Are in pounds, unless noted otherwise and do not include accessories, cement lining and coating
FLANGES: Flanged ends on fittings match ANSI/AWWA C115/A21.15 and ANSI B16.1 class 125 flanges
CEMENT LINING: In accordance with ANSI/AWWA C104/A21.4 -- size 2" - 3" single thickness and sizes 4" - 64" double thickness
COATING: Asphaltic seal coat inside and out in accordance with ANSI/AWWA C104/A21.4 and referenced in ANSI/AWWA C153/A21.53
GASKETS: SBR in accordance with ANSI/AWWA C111/A21.11
T-BOLTS/NUTS: Low alloy steel in accordance with ANSI/AWWA C111/A21.11
APPROVALS: 3" - 12" UL/ULC Listed | 2" and greater are UL/ANSI/NSF Standards 61 and 372 | 3" - 16" FM APPROVED. Please consult factory for detail listing and approvals.
DIMENSIONS: All dimensions are in inches unless noted otherwise.
INSTALLATION: Per ANSI/AWWA C600 and C111 using DIP conforming to C150/C151 and PVC pipe conforming to C900/C905



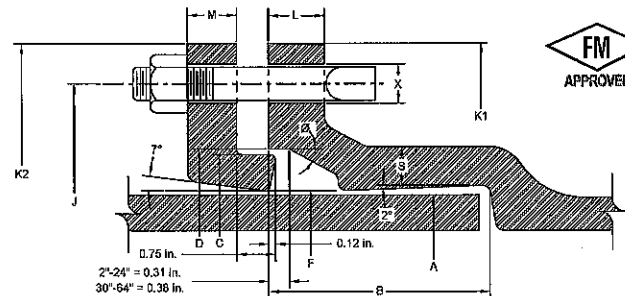
SUBMITTAL INFORMATION

PROJECT NAME: _____

ENGINEER: _____

CONTRACTOR: _____

SPEC. SECTION: _____



MECHANICAL JOINT DIMENSIONS

NOM. SIZE	A DIA.	B	C DIA.	D DIA.	F DIA.	J DIA.	K1 DIA.	K2 DIA.	L	M	S	Ø	X DIA.	BOLTS	
														SIZE	NO.
2	2.50	2.50	3.39	3.50	2.61	4.75	6.19	6.25	0.58	0.62	0.36	28°	3/4	3/8 x 3	2
3	3.96	2.50	4.84	4.94	4.06	6.19	7.62	7.69	0.58	0.62	0.39	28°	3/4	3/8 x 3	4
4	4.80	2.50	5.92	6.02	4.90	7.50	9.06	9.12	0.60	0.75	0.39	28°	7/8	3/4 x 3 1/2	4
6	6.90	2.50	8.02	8.12	7.00	9.50	11.06	11.12	0.63	0.88	0.43	28°	7/8	3/4 x 3 1/2	6
8	9.05	2.50	10.17	10.27	9.15	11.75	13.31	13.37	0.66	1.00	0.45	28°	7/8	3/4 x 3 1/2	6
10	11.10	2.50	12.22	12.34	11.20	14.00	15.62	15.62	0.70	1.00	0.47	28°	7/8	3/4 x 3 1/2	8
12	13.20	2.50	14.32	14.44	13.30	16.25	17.88	17.88	0.73	1.00	0.49	28°	7/8	3/4 x 3 1/2	8
14	15.30	3.50	16.40	16.54	15.44	18.75	20.25	20.25	0.79	1.25	0.55	28°	7/8	3/4 x 4	10
16	17.40	3.50	18.50	18.64	17.54	21.00	22.50	22.50	0.85	1.31	0.58	28°	7/8	3/4 x 4	12
18	19.50	3.50	20.60	20.74	19.64	23.25	24.83	24.75	1.00	1.38	0.68	28°	7/8	3/4 x 4	12
20	21.60	3.50	22.70	22.84	21.74	25.50	27.08	27.00	1.02	1.44	0.69	28°	7/8	3/4 x 4	14
24	25.80	3.50	26.90	27.04	25.94	30.00	31.58	31.50	1.02	1.56	0.75	28°	7/8	3/4 x 4 1/2	16
30	32.00	4.00	33.29	33.46	32.17	36.88	39.12	39.12	1.31	2.00	0.82	20°	1 1/2	1 x 5 1/2	20
36	38.30	4.00	39.59	39.76	38.47	43.75	46.00	46.00	1.45	2.00	1.00	20°	1 1/2	1 x 5 1/2	24
42	44.50	4.00	45.79	45.96	44.67	50.62	53.12	53.12	1.45	2.00	1.25	20°	1 3/8	1 1/4 x 6	28
48	50.80	4.00	52.09	52.26	50.97	57.50	60.00	60.00	1.45	2.00	1.35	20°	1 3/8	1 1/4 x 6	32
54	{Fittings & Dimensions Available On Request}														
60															
64															

SIZE RANGE (Please specify):
 Size Range _____

- LINING OPTIONS (Please check one):**
- Standard: Cement-lined and asphalt seal coat per ANSI/AWWA C104/A21.4 and UL/NSF-61
 - Optional: FBE (Fusion Bonded Epoxy) per ANSI/AWWA C116/A21.15 and UL/NSF-61 - ID & OD Only
 - Optional: P401 (Protecto 401) Ceramic Epoxy - sewer applications only. Not NSF-61
 - Optional: Other (specify) _____

- COATING OPTIONS (Please check one):**
- Standard: Asphaltic seal coat per ANSI/AWWA C104/A21.4
 - Optional: FBE (Fusion Bonded Epoxy) per ANSI/AWWA C116/A21.15 and UL/NSF-61 - ID & OD Only
 - Optional: Other (specify) _____



UCAT:15.01-SUB
 *REGISTERED TRADEMARK OF STAR PIPE PRODUCTS

STAR PIPE PRODUCTS
 HOUSTON CORPORATE TOLL FREE 1-800-999-3009 FAX 281-538-9000
 www.starpipeproducts.com

TW/THW



APPLICABLE TESTS AND STANDARDS

- ✓ ASTM B-1, B-3, B-8, B-33, AND B-173
- ✓ UL 1685
- ✓ NFPA 70/NEC 310
- ✓ CSA C22.2 NO. 75

FEATURES

- ✓ 600V RATED
- ✓ -25°C TO 75°C MAX CONTINUING OPERATING TEMPERATURE IN WET OR DRY LOCATIONS

PRINT LEGEND

- ✓ KRIS-TECH WIRE CO. #XX AWG TYPE TW OR THW 75C 600V (UL)

VALUE ADD SERVICE

- ✓ CUSTOM LENGTHS AND PUT-UPS
- ✓ 12 AVAILABLE COLORS
- ✓ WIRE PARALLELING AND CABLING
- ✓ WIRE STRIPING
- ✓ CUSTOM PRINT LEGENDS AND LABELS

SCOPE

This single-conductor cable is commonly used in general purpose wiring circuits, as machine tool wiring, and for internal wiring in appliances. Other applications include refrigeration wiring, air conditioning equipment, machine control wiring, service entrances, and some motor types.

CONSTRUCTION

Conductors: Single conductors are stranded, annealed, tin coated or uncoated copper.

Insulation: Conductors are insulated with a concentrically applied PVC (polyvinyl chloride).

IDENTIFICATION AND PACKAGING

Print legends on the wire include the manufacturer, conductor size, voltage rating, UL symbol (if applicable) and type designation. Standard length spools are 500 or 2500 feet.

AWG	Standard Number of Strands	Insulation Thickness (Mils)	Alternative Insulation Thickness (Mils)	Nominal Overall Diameter (Inches)	Approx. Shipping Weight (Lbs./1000')	Ampacity @ 75°C*
14	1,7	30	45	0.13 / 0.16	18 / 22	15
12	1,7	30	45	0.15 / 0.18	27 / 31	20
10	1,7	30	45	0.18 / 0.21	40 / 45	30
8	1,7	45	60	0.24 / 0.27	66 / 73	40
6	1,7	60	-	0.30	107	55
4	7,133	60	-	0.38	163	70
2	7,133	60	-	0.45	246	95
1	19	80	-	0.49	316	110
1/0	19	80	-	0.53	390	125
2/0	19	80	-	0.58	481	145
3/0	19	80	-	0.63	593	165
4/0	19	80	-	0.69	739	195
250	37	95	-	0.77	884	215
300	37	95	-	0.82	1045	240
350	37	95	-	0.87	1213	260
400	37	95	-	0.95	1379	280
500	37	95	-	1.00	1725	320

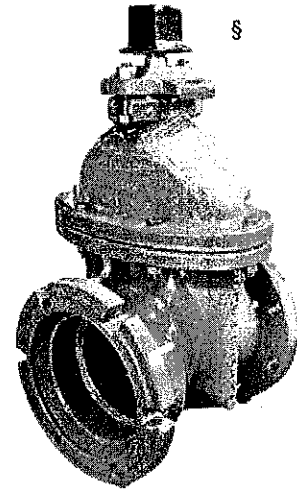
*Ampacity is from NEC Article 310. Check with local codes authority for guidance with your application.



SNAP FOR MORE INFORMATION

Rev. 3-16 Shaded area indicates changes

- Catalog number –
 - A-2361-16** mechanical joint x flanged ends (with accessories unassembled)
 - A-2361-19** mechanical joint x flanged ends (less accessories)
- Sizes – 4", 6", 8", 10", 12"
- Meets or exceeds all applicable requirements of ANSI/AWWA C515 Standard, UL Listed, FM Approved, and certified to ANSI/NSF 61 & 372.
- Flanged end drilling complies with ANSI B16.42 Class 150**
- Mechanical joint end complies with ANSI/AWWA C111 Standard
- Iron body with nominal 10 mils MUELLER[®] Pro-Guard[®] Fusion Epoxy Coated interior and exterior surfaces
- Epoxy coating meets or exceeds all applicable requirements of ANSI/AWWA C550 Standard.
- Iron wedge, symmetrical & fully encapsulated with molded rubber; no exposed iron
- Non-rising stem (NRS)
- Triple O-ring seal stuffing box (2 upper & 1 lower O-rings) with fourth o-ring serving as dirt seal
- 2" square wrench nut (optional handwheel available) – open left or open right
- 350 psig (2400 kPa/24 barg) maximum working pressure
700 psig (4800 kPa/48 barg) static test pressure
- UL Listed, FM Approved – 350 psig (2400 kPa/24 barg)
- Mueller valves are designed for potable water application



A-2361-16
M.J. accessories
shipped unassembled

Options

See page 10.46 for more information on Resilient Wedge Gate Valve options

- Position indicators
- ASTM B98-C66100/H02 stem
- Stainless steel stem: Type 304, Type 316
- Handwheel
- EPDM Disc and o-rings
- Stainless steel fasteners: Type 316

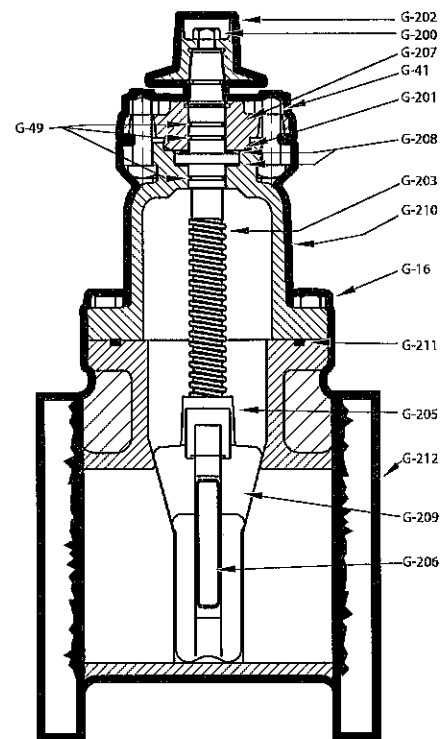
Resilient wedge gate valve parts

Catalog Part No.	Description	Material	Material Standard
G-16	Bonnet Bolts & Nuts	304 Stainless Steel	ASTM F593 (bolt) ASTM F594 (nut)
G-41	Stuffing Box Bolts & Nuts	304 Stainless Steel	ASTM F593 (bolt) ASTM F594 (nut)
G-49	Stem O-rings (3)	Nitrile	ASTM D2000
G-200	Wrench Nut Cap Screw	304 Stainless Steel	ASTM F593
G-201	Stuffing Box O-ring	Nitrile	ASTM D2000
G-202	Wrench Nut	Ductile Iron	ASTM A536 ▼
G-203	Stem	Bronze	ASTM B138
G-204	Hand Wheel (not shown)	Cast Iron	ASTM A126 CL.B
G-205	Stem Nut	Bronze	ASTM B584
G-206	Guide Cap Bearings	Acetal	-
G-207	Stuffing Box with dirt seal	Ductile Iron Nitrile	ASTM A536 ▼ ASTM D2000
G-208	Anti-friction Washers (2)	Acetal	-
G-209	Wedge, Rubber Encapsulation	Ductile Iron* SBR	ASTM A536 ▼ ASTM D2000
G-210	Bonnet	Ductile Iron	ASTM A536 ▼
G-211	Bonnet gasket	Nitrile	ASTM D2000
G-212	Body	Ductile Iron	ASTM A536 ▼

*Fully encapsulated in molded rubber with no iron exposed

▼ Material strength ASTM A536 65-45 minimum

** Per ANSI/AWWA C111, working pressure above 250psi requires the use of a special gasket rated for the higher pressure.



AMERICAN AVK RESILIENT SEATED DUCTILE IRON GATE VALVE 65/MFN-WD
250 PSI, Tested to AWWA C515 (NRS) MJxFL
Mechanical Joint by Flanged Ends to ASME B16.42 Class 150 - Valve Sizes 3" - 12"

Use:

For water and neutral liquids to maximum 160°F.

Tests:

Hydraulic test to AWWA C515:

Shell Test: 500 PSI

Seat Test: 250 PSI

Operating Torque Test

Optional Materials:

Wedge Ductile iron ASTM A536
 encapsulated with NBR-rubber
 compound

Standard Materials:

Body, Bonnet, Gland Flange, Wrench Nut	Ductile iron ASTM A536 (Wrench Nut-painted black for open left, red for open right)
Coating	Electrostatically applied fusion- bonded epoxy-resin Meets or exceeds AWWA C550
Stem	Standard: Stainless steel 430F
Wedge	Ductile iron ASTM A536 encapsulated with EPDM-rubber compound
Wedge Nut, Thrust Collar	Bronze
Bonnet Bolts	Stainless Steel - 316 sealed with hot melt
Gland Bolts	Stainless Steel - 316 Hexagon bolt
Bonnet Gasket, Wiper Ring, O-Ring Stem Seals, O-Ring Gland Seal	ASTM D2000 Buna "N" nitrile rubber

Approvals:

Certified to: ANSI/NSF 61, ANSI/NSF 372

