



Appendix F

Watermain Material Specifications

Product	Specification	Manufacturer	Description/Model No.
Pipes			
PVC pipe 100 mm – 300 mm (4" – 12" dia.)	PVC Class 150 DR-18 AWWA C900, CSA-B137.3 Capped in Factory, blue in colour	IPEX	Blue Brute and Bionax
		REHAU	Aqualoc
		NAPCO	CIOD PVC Pressure Pie
PVC Pipe 350 mm – 400 mm (14" – 16" dia.)	PVC DR-18 (Pressure rated 235 psi) AWWA-C905, CSA-B137.3 Capped at Factory, Blue in Colour	IPEX	Centurion
PVC Pipe 450 mm – 600 mm (18" – 24 ") Prior approval required	PVC DR-25 (Pressure rated 165 psi) AWWA-C905, CSA-B137.3 Capped at factory, Blue in colour	IPEX	Centurion
High Density Polyethylene pipe 100 mm – 1575 mm (4" – 63" dia.)	High Density Polyethylene DR-11 Ductile Iron Pipe Size (DIPS) Pressure rating of 160 psi AWWA-C906, CSA B137.1, ASTM D3035/D3350, CGSB 41-GP-25M	IFRA PIPE	SCLAIRPIPE
Pipe End Caps	OPSS 441.07.07. Tamper evident seals to display manufacturer or logo.		
Service Piping			
Copper 19 mm – 50 mm (3/4" – 2" dia.)	Copper tubing AWWA-C800 Certified ASTM B88-49 Type "k" soft copper	Great Lakes Copper Mueller	
		CERRO	CERROTUBE
Polyethylene 25 mm – 50 mm (1" – 2" dia.)	Polyethylene Class 160 CTS AWWA-C901 CSA B137.1	IPEX	BLUE904
		LEGEND	AquaPure PE-RT
		REHAU	Municpex
		Mueller	
D.I. Standpipes	"Ductile Iron Pipe, Centrifugally Cast for Water" ANSI/AWWA-C151/A21.51		

Product	Specification	Manufacturer	Description/Model No.
Foam Swabs	High Density Polyurethane for Pipe Cleaning to fit 100 mm - 300 mm (4" – 12" dia.)		High Density Polyurethane for Pipe Cleaning to fit 100 mm - 300 mm
Fittings			
D.I Bends, Tees, Reducers and Crosses LONG BODY	ANSI A21.10 AWWA C153/C111 Cement Mortar lined as per ANSI A21.4 (AWWA-C104)	SIGMA STAR BIBBY/TYLER/UNION	Notes: Furnished with push-on Tyton Joints as per ANSI A21.11 (AWWA-C111) Only used for tying into existing watermains or on special approval
D.I Bends, Tees, Reducers and Crosses COMPACT FITTINGS SHORT BODY	ANSI A21.10 AWWA C110 Cement Mortar lined as per ANSI A21.4 (AWWA-C104)	SIGMA STAR BIBBY/TYLER/UNION	Notes: Mechanical type ends
D.I Bends, Tees, Reducers and Crosses	PVC AWWA-C907 Class 150 CSA-B137.2 UL listed and FM approved	IPEX	Blue brute injection-molded PVC 100 mm – 400 mm (4" – 16")
		HARCO	Injection-molded PVC 100 mm – 200 mm (4" – 8")
Transition Couplings	To AWWA C-219 Sleeve -Ductile Iron minimum - ASTM A 536 End Rings -Ductile Iron ASTM 536 Grade 65-45-12 Bolts and Nuts Stainless steel OR Carbon Steel Exceed ASTM A 307 Epoxy coated to AWWA C-213	VIKING JOHNSON	Maxifit and Large Diameter Maxifit
		FORD	Flex FC2w and FC1 (100 mm - 300 mm)
		ROMAC	XR501 (100mm to 300mm)
			TC400 (300mm to 2400mm)
		ROBAR	1406 (100mm to 600mm)
		STRAUB	Straub Flex/Open and Straub Grip
		SMITH BLAIR	Series 441, 441 (100 mm – 400 mm)
Series 411 (450 mm – 500 mm)			

Product	Specification	Manufacturer	Description/Model No.
2 Bolt Coupling	To AWWA C-219 Epoxy coated to AWWA C-213 Stainless steel or Carbon steel exceed ASTM C-213 304 Stainless steel bolts and nuts	SMITH BLAIR	Series 421
		ROBAR	1696-2B
		HYMAX	Hymax 2
		ROMAC	Macro HP
Flanged Couplings	To AWWA C-219 Sleeve -Ductile Iron or carbon steel Minimum - ASTM A 536 End Rings -Ductile Iron ASTM 536 Grade 65-45-12 Bolts and Nuts, Stainless Steel or Carbon Steel exceed ASTM A 307 Epoxy coated to AWWA C-213	SMITH BLAIR	OMNI 912 Series (100 mm – 300 mm)
		ROBAR	7400 Series (100 mm – 300 mm)
		ROMAC	FCA 501 (100 mm – 300 mm)
		FORD	Flex FFCA (100 mm – 300 mm)
Reducing Couplings	Sleeve -Ductile Iron Minimum - ASTM A 536 End Rings -Ductile Iron ASTM 536 Grade 65-45-12 Bolts and Nuts, Stainless Steel or Carbon Steel exceed ASTM A 307 Epoxy coated to AWWA C-550	FORD	Flex FRC
		SMITH-BLAIR	415
		ROBAR	1506R and 1508R
		ROMAC	RC501 and RC400
Repair Clamps	Band – stainless steel Type 304, 18 gauge with tapered conductivity pad Lugs – ASTM A536 epoxy coated Gasket - Grade 60 Bridge Plate - stainless steel bolts - Stainless Steel to ASTM A325 or A242 Nuts - Type 304 Teflon coated	CAMBRIDGE BRASS	Series 425 Teck (100 mm – 300 mm)
			Series 835 Teck (350 mm – 500 mm)
		FORD	FS1 (100 mm – 300 mm)
			FS3 (400 mm to 600 mm)
		SMITH BLAIR	series 261, 262 (100 mm – 300 mm)
			series 263 (350 mm – 600 mm)
ROBAR	Robar5616 (100 mm – 300 mm)		

Product	Specification	Manufacturer	Description/Model No.
			Robar 5636 (350 mm – 750 mm)
		STRAUB	
		CONCORD	D76R-Series 200 (100 mm - 350 mm)
PVC Repair Coupling 100mm to 300mm (4" to 12")	AWWA C907 Injected molded PVC CSA B137.2 PVC gasketed fittings ASTM D1598	IPEX - Blue Brute Molded PVC Fittings	073404, 073406, 073408, 273529, 273530
Thrust Blocks Concrete	OPSS 1350, 20mpa at 28 days 10mpa as per OBA		
Thrust Restraining Devices (Mechanical)			
Thrust Restraint Device For PVC Pipe	Gland Ring to ASTM 536, Ductile Iron, Side square head clamping bolts and hex nuts to ANSI B 18.2.1 and zinc plated to ASTM A 153. Sizes compatible to AWWA C900 and C905 PVC Extra-long T bolts to AWWA/ANSI C111/A21.11	FORD	Uniflange 1300C w/ mech joint/push on
			Uniflange 1350C for pipe bell joints
			Uniflange 1400C MJ retainer gland restraint
		STAR	1000G2, 4000, and 4000G2 MJ fittings only
			1100G2 for pipe bell joints
			1200G2 PVC fittings only
			4300 series
		CLOW	Series 300 and 360 Restrainers
		SIGMA	Series PWP for pipe bell joints
			Series PWM MJ fittings only
			Series PWPF PVC fittings only
		EBAA IRON	Series 1500 and 1600 for pipe bell joints
			Series 2000 MJ fittings only

Product	Specification	Manufacturer	Description/Model No.
			Series 2600 PVC fittings only
Thrust Restraint Device for Ductile or Cast Iron Pipe	High Tensile Ductile iron to ASTM A 536. dimensions to suit Mechanical fittings made as per ANSI/ AWWA C111/A21.11and ANSI/ AWWA C153/A21.53 T bolts and nuts to AWWA C 111	FORD	Uniflange Series 1400
		EBAA IRON	Megalug Series 1100
		CLOW	Tyler Union TufGrip Series 1000
		STAR	Series 3000 and 4300
		SIGMA	One-Lok SLD
Thrust Restraint Device for PVC pipe (Molecularly oriented PVC)	High Tensile Ductile Iron to ASTM A 536 T bolts and nuts to AWWA C-111 CSA B137.3.1-09 certified AWWA C909 and NSF 61 certified	SIGMA	Series PWPF PVC fittings only
			Series PWP for pipe bell joints
			Series PWM MJ fittings only
		CLOW	Series 300, 360 and 390 Restrainers
		STAR	3500PF and 1200R PVC fittings only
			3500C and 1100C for pipe bell joints
			3500, 1000C and 4000G2 MJ fittings only
			series 4300
		FORD	Uniflange Series 1369 PVC fittings only
			Uniflange Series 1399 and 1559 for pipe bell joints
			Uniflange Series 1309-C MJ fittings only
		EBAA IRON	Series 1900 for pipe bell joints

Product	Specification	Manufacturer	Description/Model No.
Gland Rings for MJ/Dismantling joints/Flange Adapters			
Dismantling Joints	Flanged adaptor body to be carbon steel per ASTM A53, ASTM A512, ASTM A283 GRC, ASTM A36. Follower flange to be ductile iron per ASTM A536, steel section per ASTM A576 GR1020HR. Finish to be fusion bonded flexi-coat epoxy. Flanges to be carbon steel per AWWA C207, Class D	Smith-Blair	Series 971, 972 and 975
Flange Adapters for DI pipes Size 100 mm - 300 mm. (4" - 12" dia.)	High Tensile Ductile iron to ASTM A 536. Grade 65-45-12 colour code red for D.I .O.D. Gasket - EPDM Drilling-ANSI B16.1 for cast iron flange and ANSI B 16.5 for steel Flange	FORD	Uniflange Series 200 and 400
		CLOW	Series 40
Flange Adapters for PVC pipes Size 100 mm – 300 mm (4" -12" dia.)	High Tensile Ductile iron to ASTM A 536. Grade 65-45-12 colour code red for D.I .O.D. Gasket - EPDM Drilling-ANSI B16.1 for cast iron flange and ANSI B 16.5 for steel Flange	FORD	Uniflange Series 900
		CLOW	Series 90-C
MJ Gland Rings For MJ Fittings Sizes 100 mm - 300 mm (4" - 12" dia.)	Ductile Iron to ASTM A 536 pressure rated same as the pipe rating Asphaltic coating manufactures identity stamped or casted as per AWWA C111 and C153	BIBBY/TYLER/UNION	D011 – D014
		SIGMA	FMC9149 – 9152
		STAR	MJG06, MJG08, MJG10, MJG12

Product	Specification	Manufacturer	Description/Model No.
Hydrants			
Hydrants	<p>AWWA C-502</p> <p>3-Way Dry Barrel Type</p> <p>One Storz pumper connection</p> <p>Barrel - Two piece with Break away Safety Flange operating nut- CSA 1.5"(37mm) Square open to the left (Counter clockwise) Externally Plugged.</p> <p>2- 65(2.5") mm hose connection</p> <p>AND ONE 4" Storz nozzle</p> <p>6" M.J. Shoe</p> <p>1650mm in bury length unless stated otherwise</p> <p>Exterior above ground - One coat neutral Orange Rust inhibitive Primer and one coat quick dry brushing enamel - Yellow in Colour</p> <p>Ductile under- Ground portion of Hydrant shall be coated with Bitumen.</p> <p>Type 316 Stainless Steel</p> <p>Nuts and Bolts on boot Assembly</p> <p>All interior epoxy coated. Use food grade lubricant on hydrants only.</p> <p>Hydrant bases shall be 150 mm mechanical joint. Each hydrant shall have a shut-off valve.</p>	<p>CLOW CANADA</p> <p>MUELLER CANADA/ CANADA VALVE</p>	<p>McAivity Brigadier M67B</p> <p>Century and Darling B-50 and B-18</p>

Product	Specification	Manufacturer	Description/Model No.
Valves			
Gate Valves non rising stem 100 mm - 300 mm (4" - 12" dia.)	AWWA C-509 and C-515 Red Operating Nut, open clockwise pressure rated to minimum of 200psi Non rising stem Epoxy coated inside and out to C-550 Fully encapsulated Resilient Wedge Mechanical joint only for 250 mm (10") and 300 mm (12")	CLOW	C.I. MODEL 2640 D.I. MODEL 2638
		MUELLER	SERIES A-2361
Gate Valves non rising stem > 300mm (> 12")	AWWA C-509 and C-515 Red Operating Nut, open clockwise pressure rated to minimum of 200psi Non rising stem Epoxy coated inside and out to C-550 Fully Encapsulated Resilient Wedge mechanical joint only	CLOW	C.I. MODEL 2640 D.I. MODEL 2638
		MUELLER	SERIES A-2361
Tapping Valves 100 mm - 300 mm (4" - 12" dia.)	2" sq. Red Operating Nut pressure rated to minimum of 200psi. opening clockwise, one end mechanical unless specified as flanged Non Rising Stem Bronze stem Resilient Seat, complete with paper Gasket, fully encapsulated wedge with Elastomer minimum 8 mm thick Epoxy coated inside only C/W 8 - 3/4" X 4" UNC Type 316 S/Steel Hex Head Nuts and Bolts To meet A.W.W.A Specification C-509, C-515 and C-550	MUELLER	SERIES A-2361
		AVK	SERIES 45 (FULL WALL) SERIES 65 (REDUCED WALL)
		CLOW	C.I. MODEL 2640 D.I. MODEL 2638
		EJ	SERIES 2500

Product	Specification	Manufacturer	Description/Model No.
Tapping Valves 400 mm - 600 mm (16" - 24" dia.)	2" sq. Red Operating Nut opening clockwise one end mechanical unless specified as flanged Non Rising stem Bronze stem Resilient Seat, complete with paper Gasket fully encapsulated wedge with Elastomer minimum 8 mm thick Epoxy coated inside only C/W 8 - 3/4" X 4" UNC Type 316 S/Steel Hex Head Nuts and Bolts to meet A.W.W.A specification C-509, C-515 and C-550	Requires prior approval from The Town	
Backflow Preventers			
Reduced Pressure Principle Backflow Preventer (RP)	Reduced pressure principle back flow preventer as per CSA B- 46.10 and the Town of LaSalle Backflow Prevention By-law.	WATTS	
		WILKENS	
		FEBCO	
Tapping Sleeves and Service Saddles			
Service Saddles	Saddle Clamp, Single Band, 2- Bolt Stainless Steel, 18 gauge AWWA Tapper Outlet, Stainless Steel Nuts and Bolts, Fluorocarbon Teflon coated. 19 mm - 50 mm (1" to 2") Belleville Washers required on all saddles	CAMBRIDGE BRASS	TECK 8403-BW, TECK 8410, 8413, 8415
		SMITH-BLAIR	SERIES 370
		ROBAR	2616
Tapping Sleeves for PVC and Iron Mains 100 mm - 300 mm (4" - 12" dia.)	Pressure rated to175 psi, min test pressure of 200psi Body, Lugs and neck: Full circumference band 18-8 Type 304 Stainless steel, 18 gauge	FORD	Fast Series
		ROBAR	6606
		ROMAC	SST
		SMITH-BLAIR	663
		POWERSEAL	3480AS

Product	Specification	Manufacturer	Description/Model No.
	Flange as per AWWA C-207 class D 18-8 Type 304 Stainless Steel, Stainless steel studs and nuts 18-8 Type 304 with Type 304 stainless steel and Nylon Washers- Fluorocarbon / Teflon Coated 19mm (3/4") NPT bronze test plug with square head. Nitrile Gaskets		
Tapping Sleeves for PVC and Iron Mains 400 mm - 600 mm (16" - 24" dia.)	Pressure rated to 100-150 psi, 18-8 Type 304 Stainless steel, 18 gauge Flange as per AWWA C-207 class D 18-8 Type 304 Stainless Steel, Stainless steel studs and nuts 18-8 Type 304 with Type 304 stainless steel and Nylon Washers- Fluorocarbon / Teflon Coated 19mm (3/4") NPT bronze test plug with square head Nitrile Gaskets		Requires approval from the Town
Gaskets			
Rubber Gaskets for Push on Joints	CAN/CSA-B137.3 and have a minimum pressure rating of 1100 kPa Flexible elastomeric seals (SBR) as per ASTM D-3139, also AWWA C-111 Sec. 4.4.4	IPEX ROYAL DIAMOND REHAU	
Rubber Gaskets for M.J. fittings 100 mm – 1200 mm (4" - 48" dia.)	SBR as per AWWA C111 Sec 4.4.4 Size, mould number, manufactures mark, country,	ROL	WWW55 (204, 206, 208 SERIES)
		SIGMA	PTL (04, 06, 08, 10, 12 SERIES)

Product	Specification	Manufacturer	Description/Model No.
	year of manufacture shall be moulded or permanently marked on the gasket.	STAR	MJGAS (04, 06, 08, 10, 12 SERIES)
Rubber Gaskets for Flanged Joints			
Nitrile Gaskets for special site conditions	ASTM Designation NBR, Generally resistant to hydrocarbons, fats, oils, greases, hydraulic fluids and chemicals.		
Blow-offs			
50 mm Valves	50 mm (2") Brass Gate Valve/Ball Valve F.I.P.T x F.I.P.T		
50 mm dia. Blow-off valve	50 mm (2") Galvanized Pipe 1.5 M (5 ') long M.I.P.T x M.I.P.T		
50 mm dia. Cap	50 mm (2") Galvanized Cap F.I.P.T		
50 mm diameter bend	50 mm (2") Galvanized 45 ^o or 90 ^o elbow F.I.P.T/ F.I.P.T		
50 mm Nipples	50 mm (2") brass or galvanized nipples x 150 mm (6") long		
Cathodic Protection			
5.4 Kg (12 Lbs) Zinc	Packaged to meet ASTM B418-73 Type 11 Purity Standards Including #10-7 Strand 5' Copper Wire with Jacket	MAPLE AGENCIES	ADZBP12
		INTERPROVINCIAL CORROSION CONTROL	ICCC: 12S14ZP
		BTI	ZA-12
10.9 Kg (24 Lbs) Zinc	Packaged to meet ASTM B418-73 Type 11 Purity Standards Including #8 Solid Copper Wire with Jacket – 5'	INTERPROVINCIAL CORROSION CONTROL	24SI-4ZP
		CORROSION SERVICES	2448
		MAPLE AGENCIES	SP-24
		COREXCO	Cor Z-24
		BTI	ZA-24

Product	Specification	Manufacturer	Description/Model No.
14.5 Kg (32 lbs) Magnesium Anode	High Potential Magnesium Supplied with 3 m. 10 AWG Copper Wire TWU 75', 600 V Black Coated Jacket	INTERPROVINCIAL CORROSION CONTROL	32D5GG – 32lb
		BTI	MA-32
Petroleum Tape Systems	Anti-corrosion wrap shall consist of Denso paste or Denso priming Solution(cold Temp), Denso Profiling Mastic and Denso LT Tape	Denso North America Inc.	Denso North America Inc
Sac Caps			
12 mm – 19 mm (1/2" – 3/4" dia.)	Zinc Caps 1/2" UNC 5/8" UNC 3/4" UNC	INTERPROVINCIAL CORROSION CONTROL	
Cadweld Powder Cartridge	Cadweld Connections	ERICO PRODUCTS	
Cathodic Protection Test Stations	Flush Mount	PRO-MARK	PM-TS5
Insulation			
Rigid Foam 600 mm x 2400 mm x 50 mm	Expanded, Extruded Polystyrene Boards. Min. R 10 and Blue in colour ASTM C578 Type VI or IV UL Classified	DOW CHEMICAL	HI 40
		CELFORTEC INC.	Formula R-400
Insulated Pipe 25 mm – 600 mm (1" – 24" dia.)	Factory applied Polyurethane Foam	URECON	Refer to Manufacturer's Spec.

Product	Specification	Manufacturer	Description/Model No.
Tracer Wire and Appurtenances			
Tracer Wire	#12 AWG high-strength copper clad steel insulated with a 30 mil, high density polyethylene insulation, blue in colour	COPPERHEAD	1230Blue-SF Open Cut only
			1245Blue-EHS Directional Drill
		PROTRACE	HF-CCD-PE30 Open Cut Only
			HDD-CCS-PE45 Directional Drill
		DRYCONN	Direct Bury Waterproof Connectors
Insulating Mastic Tape		PLYMOUTH BISHOP	#10 Polyseal
Curb Boxes			
Curb Service Box	1.35 m - 1.65 m (4.5' - 5.5') Deep Marked "water" Brass Pentagon Plug Arch Base Type Bolt on curb box lid for tracer wire	BIBBY/TYLER/UNION STE. CROIX	VSB1 19 mm – 25 mm (3/4" – 1")
			VSB2 37 mm – 50 mm (1 ½" – 2")
		MUELLER	A-726 19 mm – 25 mm (3/4" – 1")
			A-728 37 mm – 50 mm (1 ½" – 2")
		DOMCAST	DF9007
Stainless steel road for curb service box	304 Stainless Steel Road SCH 40 900 mm (36") Long Top of the rod Shaped 25 mm Wide x 6.5 mm thick (1" x ¼")	BIBBY/TYLER/UNION STE. CROIX	
		MUELLER	
		DOMCAST	
Stainless Steel Cotter Pin	304 Stainless steel		
Service Box Repair Cover	Marked "water" 3/8" set Screw – Unthreaded 1" pipe	Mueller	165

Product	Specification	Manufacturer	Description/Model No.
Valve Boxes			
Upper Section	OPSS 1850 Cast Iron to ASTM-A48 or ASTM-A536 Drilled for tracer wire 130 mm (5 ¼") dia. X 700 mm (28" Screw Type)	BIBBY/STE. CROIX	VB650
		STAR	VB-5007
		DOMCAST	DF69 SERIES
Lower Section	OPSS 1850 Cast Iron to ASTM-A48 or ASTM-A536 600 mm (24")	BIBBY/STE. CROIX	VB550
		STAR	VB-006 VBDHD
		DOMCAST	DF69 SERIES
Iron Cover	OPSS 1850 Cast Iron to ASTM-A48 or ASTM-A536	BIBBY/STE. CROIX	VB825
		STAR	VB-5007
		DOMCAST	DF69 SERIES
Valve Box Base	OPSS 1850 Cast Iron to ASTM-A48 or ASTM-A536	BIBBY/STE. CROIX	VB900
		STAR	VB-5007
		DOMCAST	DF69 SERIES
Extensions	300 mm (12") Long OPSS 1850 Cast Iron to ASTM-A48 or ASTM-A536	BIBBY/STE. CROIX	VB750
		STAR	VB-5023, VB-5024, VB-5025
		DOMCAST	
Fasteners			
T-bolts with nuts	AWWA-C110 High Strength, Corten (low alloy steel), min yield strength of 45, 000 psi	BIBBY	FMC2337, FMC2112
¾" UNC x 4"		INGERSOL FASTNER	
¾" UNC x 4 ½"		SELCO	
		SIGMA	
¾" UNC x 4" Anti Rotational "T" Bolt and Nut	AWWA-C110 High Strength, Corten (low alloy steel), min yield strength of 45, 000 psi	STAR	Bolt CS40, CS45
¾" UNC Galvanized Plated All Threaded Rod			
¾" UNC Corten Nuts			

Product	Specification	Manufacturer	Description/Model No.
Water Service Materials			
Curb Stops	AWWA-C800 Ball Type and Non-draining Inlet/Outlet Compression Joints for CTS	CAMBRIDGE	202NL-H4H4 25 mm (1")
			202NL-C4C4 Copper flare 25 mm (1")
			202NL-H6H6 37 mm (1 1/2")
			202NL-C6C6 37 mm (1 1/2")
			202NL-H7H7 50 mm (2")
			202NL-C7C7 50 mm (2")
		MUELLER	B25209N
		FORD	B-44-444-Q-NL 25 mm (1")
			B-44-566-Q-NL 37 mm (1 1/2")
B-44-777-Q-NL 50 mm (2")			
Main Stop	AWWA-C800 Ball type, Inlet male AWWA Taper Thread/Outlet compression joint for CTS	CAMBRIDGE BRASS	301NL-A4C4 25 mm (1")
			301NL-A6H6 37 mm (1 1/2")
			301NL-A6C6 37 mm (1 1/2")
			301NL-A7H7 50 mm (2")
			301NL-A7C7 50 mm (2")
		MUELLER	B25008N
		FORD	FB1000-4-NL 25 mm (1")
			FB100-6-Q-NL 37 mm (1 1/2")
			FB100-7-Q-NL 50 mm (2")
Compression Coupling	Inlet/outlet compression for CTS	CAMBRIDGE BRASS	118NL-H4H4 25 mm (1")
			118NL-H3H3 19 mm (3/4")
			118NL-H4H3 19 mm x 25 mm transition
			120NL-V3V3 19 mm (3/4")
			120NL-V4V4 25 mm (1")
			120NL-V6V6 37 mm (1 1/2")
			120NL-V7V7 50 mm (2")
		MUELLER	H15403N
		FORD	C44-44-NL 25 mm (1")
C44-33-NL 19 mm (3/4")			

Product	Specification	Manufacturer	Description/Model No.
			C44-34-NL 19 mm x 25 mm transition
Transition Couplings			
5/8" XS x 3/4" CTS Lead x Copper/Plastic Coupling	Inlet Compression for CTS/Outlet compression joints for various pipe size	CAMBRIDGE BRASS	Q24-23
		FORD	CB119NL U2, U3, U4, U5
5/8" XXS x 3/4" CTS Lead x Copper/Plastic Coupling	Inlet Compression for CTS/Outlet compression joints for various pipe size	CAMBRIDGE BRASS	Q34-23
		FORD	CB119NL U2, U3, U4, U5
3/4" XS x 3/4" CTS Lead x Copper/Plastic Coupling	Inlet Compression for CTS/Outlet compression joints for various pipe size	CAMBRIDGE BRASS	Q24-33
		FORD	CB119NL U2, U3, U4, U5
3/4" XXS x 3/4" CTS Lead x Copper/Plastic Coupling	Inlet Compression for CTS/Outlet compression joints for various pipe size	CAMBRIDGE BRASS	Q34-33
		FORD	CB119NL U2, U3, U4, U5
1" XXS x 1" CTS Lead x Copper/Plastic Coupling	Inlet Compression for CTS/Outlet compression joints for various pipe size	CAMBRIDGE BRASS	Q34-44
		FORD	CB119NL U2, U3, U4, U5
Inserts 19 mm (3/4") – CTS 25 mm (1") – CTS 37 mm (1 1/2") –CTS 50 mm (2") – CTS	Stainless steel inserts fluted end for 100 Compression connection	FORD	INSERT-51, 52, 54, 55
		CAMBRIDGE BRASS	86-3, 86-4, 86-6, 86-7
		MUELLER	INSERTS
Meter Pits	Seek Lasalle Water Dept. Approval		
Sample Station		KUPFERLE	Model #88-SS-R Eclipse Sampling Station

Product	Specification	Manufacturer	Description/Model No.
Miscellaneous			
Pipe Joint Lubricant	NSF/ANSI 61-2008 AWWA-C111 SEC. 4.4.4 Lubricant to be food grade only		
Casing Spacers	Plastic, polyethylene Town Approval Required	ADVANCED PRODUCTS and SYSTEM	Model SS1 or CI
Casing Rubber End Seals	Synthetic Rubber	LINK SEAL	Thunderline Link Seal
		ADVANCED PRODUCTS and SYSTEM	
		PSI	PSI End Seal
Automatic and Continuous Flusher		KUPFERLE	Eclipse #9800
Hardwood Wedges	Seek Lasalle Water Dept. Approval		
Solid Concrete Bricks/Blocks	Seek Lasalle Water Dept. Approval		