



**Approved Products List Section 600  
Water Distribution System**

Product Category	Approved Manufacturer	Model/Series	Pressure/Load Rating	Website	Reference/Standard	Requirements
Ductile Iron Pipe (DIP)	US Pipe	Tyton Joint	250-350 psi Per Specification	<a href="http://www.uspipe.com/">http://www.uspipe.com/</a>	AWWA C150 and AWWA C151	Cement Mortar Lined with Exterior Bituminous Coating McWane Pipe stamped: McWane by Atlantic States or Clow only
	American (ACIPCO)	Fastite Joint		<a href="https://www.american-usa.com/products">https://www.american-usa.com/products</a>		
	McWane	Tyton Joint		<a href="http://mcwaneductile.com/">http://mcwaneductile.com/</a>		
Ductile Iron Fittings	Sigma	Mechanical Joint	250-350 psi Per Specification	<a href="http://www.sigmaco.com/">http://www.sigmaco.com/</a>	AWWA C110/C111 and AWWA C153	Shall always meet or exceed pipe pressure rating
	Tyler Union	Mechanical Joint		<a href="http://www.tylerunion.com/">http://www.tylerunion.com/</a>		
	SIP Industries	Mechanical Joint		<a href="http://www.sipindustries.com/">http://www.sipindustries.com/</a>		
	Star	Mechanical Joint		<a href="http://www.starpipeproducts.com/">http://www.starpipeproducts.com/</a>		
	American	Mechanical Joint		<a href="https://www.american-usa.com/products">https://www.american-usa.com/products</a>		
Ductile Iron Restrained Joint Pipe	American	Flex Ring	250-350 psi Per Specification	<a href="https://www.american-usa.com/products">https://www.american-usa.com/products</a>	AWWA C150 and AWWA C151	Boltless restraint unless otherwise specified
	McWane	TR Flex (pipes ≤24")		<a href="http://mcwaneductile.com/">http://mcwaneductile.com/</a>		
	US Pipe	HDSS (pipes ≤36")		<a href="http://www.uspipe.com/">http://www.uspipe.com/</a>		
Fire Hydrants	Mueller	Super Centurion	250-psi	<a href="http://www.muellercompany.com/water/default.aspx">http://www.muellercompany.com/water/default.aspx</a>	AWWA C502	5" Storz connection required
	American Flow Control	American Darling Mark 73-5		<a href="https://liberty.american-usa.com">https://liberty.american-usa.com</a>		
	Clow	Medallion, F2545		<a href="http://www.clowvalve.com/">http://www.clowvalve.com/</a>		
	Kennedy	K-81D		<a href="https://kennedyvalve.com">https://kennedyvalve.com</a>		
Vertical Hydrant Shoe	Mueller	A-421 Vertical Shoe	250-psi	<a href="http://www.muellercompany.com/water/default.aspx">http://www.muellercompany.com/water/default.aspx</a>		For new installations with a maximum bury depth of 5.5-ft
	Clow	Vertical Shoe		<a href="http://www.clowvalve.com/">http://www.clowvalve.com/</a>		
	American Flow Control	Vertical Shoe		<a href="https://www.american-usa.com/products">https://www.american-usa.com/products</a>		
	Kennedy	Vertical Shoe		<a href="https://kennedyvalve.com">https://kennedyvalve.com</a>		
Post Indicator Valve	Clow		250-psi	<a href="http://www.clowvalve.com/">http://www.clowvalve.com/</a>		Must include electronic tamper switch
	Mueller	Series 2300,A-20806		<a href="http://www.muellercompany.com/water/default.aspx">http://www.muellercompany.com/water/default.aspx</a>		
	Kennedy	350		<a href="https://kennedyvalve.com">https://kennedyvalve.com</a>		
	American Flow Control	Model 2500		<a href="https://www.american-usa.com/products">https://www.american-usa.com/products</a>		
Gate Valves (Threaded End Connections) Less than 4-inches	Mueller	Series 2360	250-psi	<a href="http://www.muellercompany.com/water/default.aspx">http://www.muellercompany.com/water/default.aspx</a>	AWWA C509	Left opening & Valves less than 2-inches shall meet 'no lead' requirements
	Clow	2639 - F6103		<a href="http://www.clowvalve.com/">http://www.clowvalve.com/</a>		
	American Flow Control	Series 2500		<a href="https://www.american-usa.com/products">https://www.american-usa.com/products</a>		
	Kennedy	C509		<a href="http://www.mh-valve.com/">http://www.mh-valve.com/</a>		
Gate Valves (Handwheel & Flange Connections) 4-6 inch	Mueller	Series 2360-6	250-psi	<a href="http://www.muellercompany.com/water/default.aspx">http://www.muellercompany.com/water/default.aspx</a>	AWWA C509	Handwheel operators with non- rising stem
	AFC (American Flow Control)	Series 2500		<a href="https://www.american-usa.com/products">https://www.american-usa.com/products</a>		
	Clow	2639 - F6102		<a href="http://www.clowvalve.com/">http://www.clowvalve.com/</a>		
	Kennedy	C515		<a href="http://www.mh-valve.com/">http://www.mh-valve.com/</a>		
Gate Valves (MJ or RJ End Connections) 4-inch and larger	Mueller	Series 2360 or 2361	250-psi	<a href="http://www.muellercompany.com/water/default.aspx">http://www.muellercompany.com/water/default.aspx</a>	AWWA C509 or C515	Sealing gaskets shall be EPDM. Gear operators as follows: 18"-2:1, 20" & 24"-3:1, ≥30"-4:1
	American Flow Control	Series 2500 (alpha ends also allowed for 12" and under)		<a href="https://www.american-usa.com/products">https://www.american-usa.com/products</a>		
	Clow	2638 or 2639 - F6100		<a href="http://www.clowvalve.com/">http://www.clowvalve.com/</a>		
	Kennedy	C515		<a href="http://www.mh-valve.com/">http://www.mh-valve.com/</a>		
Combination Air Valve	Vent-O-Mat	RBX	230-psi	<a href="http://www.ventomat.com/">http://www.ventomat.com/</a>	AWWA C512	ARV's with spheres are not approved
	Vent-Tech	Series C - WTR		<a href="http://www.internationalvalve.com/">http://www.internationalvalve.com/</a>		
	ARI	2" only -- D-040 STST		<a href="http://www.arivalves.com">http://www.arivalves.com</a>		
Check Valve	American Flow Control	Series 2100	250-psi	<a href="https://www.american-usa.com/products">https://www.american-usa.com/products</a>	AWWA C508 NSF 61	EPDM or Viton encapsulated disc. FBE coated DI body. Stainless steel bolts.
	Val-Matic	Swing-Flex 500A		<a href="http://www.valmatic.com/">http://www.valmatic.com/</a>		
Ball Drip Valve	Tyco	AD-2	175-psi	<a href="http://www.tyco-fire.com">http://www.tyco-fire.com</a>	UL/FM approved	Only install vertically with the arrow pointed down.
Insertion Valve 12" and under	Team	InsertValve	250-psi	<a href="http://www.teamvalve.com">www.teamvalve.com</a>	AWWA C515	Resilient Wedge must Seat on Valve Body, not Pipe
Insertion Valve 16" to 24"	AVT	EZ Valve	250-psi	<a href="https://www.cs-nri.com/brands/avt/">https://www.cs-nri.com/brands/avt/</a>	AWWA C515	Installed by AVT installers. Requires 2" coupon from pipe prior to valve installation.
Valve Box	E. Jordan Iron Works	Screw Type 8550 (or 8560)	N/A	<a href="http://www.ejco.com/">http://www.ejco.com/</a>		Telescoping Box Assembly & 6" lid height with 4" skirt
	Bingham & Taylor	Screw Type 4905		<a href="http://www.binghamandtaylor.com/">http://www.binghamandtaylor.com/</a>		
Curb Stop Box	Bingham & Taylor	I4B142RWHVTRI	N/A	<a href="http://www.binghamandtaylor.com/">http://www.binghamandtaylor.com/</a>		#142 Roadway Box w/ Arched Base and heavy duty tri-skirt lid



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Wedge Action Retainer Glands	EBAA	Mega-Lug	350-psi through 12" 250-psi through 48"	<a href="http://www.ebaa.com/">http://www.ebaa.com/</a>	UL/FM approved through 12"	All retainer glands shall be epoxy coated or polyester powder coated
	Ford	Uni-Flange Series 1400		<a href="http://www.fordmeterbox.com/">http://www.fordmeterbox.com/</a>		
	Romac	RomaGrip		<a href="http://www.romac.com/">http://www.romac.com/</a>		
	Sigma	One Lok Model SLDE		<a href="http://www.sigmaco.com">http://www.sigmaco.com</a>		
	SIP	EZ-Grip		<a href="http://www.sipindustries.com">http://www.sipindustries.com</a>		
	Star	Stargrip		<a href="http://www.starpipeproducts.com">http://www.starpipeproducts.com</a>		
	Tyler Union	TUFGrip TLD		<a href="http://www.tylerunion.com/">http://www.tylerunion.com/</a>		
Wide Range Restrained Fitting	Romac	ALPHA	350-psi through 12"	<a href="http://www.romac.com/">http://www.romac.com/</a>		Coupling/End Cap/Flanged Coupling
	Krausz USA	Hymax Grip	350-psi through 16"	<a href="https://krauszusa.com/">https://krauszusa.com/</a>		
Sampling Stations	Kupferle	Eclipse #88-SS	200-psi	<a href="http://www.hydrants.com/">http://www.hydrants.com/</a>		All Piping to be Stainless Steel
Mechanical Joint, Full Body Tapping Sleeves	Mueller	H-615 (≤ 24")	200-psi	<a href="http://www.muellercompany.com/water/default.aspx">http://www.muellercompany.com/water/default.aspx</a>	AWWA C110/C111	Full body Ductile Iron Tapping Sleeves approved for all applications
	American Flow Control	Series 2800 (≤24")		<a href="https://www.american-usa.com/products">https://www.american-usa.com/products</a>		
	Tyler Union	Full Body (≤12")		<a href="http://www.tylerunion.com/">http://www.tylerunion.com/</a>		
Stainless Steel Tapping Sleeves (w/ Stainless Steel Flange)	Ford	FTSS-xxx-x-Z	200-psi	<a href="http://www.fordmeterbox.com/">http://www.fordmeterbox.com/</a>	AWWA C223	See Specifications. Stainless Steel Flange Required
	Mueller	H-304		<a href="http://www.muellercompany.com/water/default.aspx">http://www.muellercompany.com/water/default.aspx</a>		
	Romac	6"-12" only -- SST-III		<a href="http://www.romac.com">http://www.romac.com</a>		
Tapping Saddles	US Pipe	Ductile Iron Saddle Outlet	250-psi	<a href="http://www.uspipe.com">http://www.uspipe.com</a>	AWWA C110	Available for 14" to 24" mains
Curb Stop w/ Lock Wing	AY McDonald	76102WQ	300-psi	<a href="http://www.aymcdonald.com/">http://www.aymcdonald.com/</a>		"No Lead" Brass meeting UNS/CDA C89833 per ASTM B584
	Mueller	B25209N		<a href="http://www.muellercompany.com/water/default.aspx">http://www.muellercompany.com/water/default.aspx</a>		
	Ford	B44-444W(Q or G)-NL		<a href="http://www.fordmeterbox.com/">http://www.fordmeterbox.com/</a>		
	Cambridge	212NL-H4H4		<a href="http://www.cambridgebrass.com/">http://www.cambridgebrass.com/</a>		
Corporation Stops	Mueller	B-25008N	300-psi	<a href="http://www.muellercompany.com/water/default.aspx">http://www.muellercompany.com/water/default.aspx</a>	AWWA C800	"No Lead" Brass meeting UNS/CDA C89833 per ASTM B584
	Ford	FB1000-4-[Q or G]-NL		<a href="http://www.fordmeterbox.com/">http://www.fordmeterbox.com/</a>		
	AY McDonald	74701-BQ		<a href="http://www.aymcdonald.com/">http://www.aymcdonald.com/</a>		
	Cambridge	301NL-A4H4		<a href="http://www.cambridgebrass.com/">http://www.cambridgebrass.com/</a>		
Service Saddles	Smith Blair	Model 325	200-psi	<a href="http://www.smith-blair.com/water.php">http://www.smith-blair.com/water.php</a>	AWWA C800	Requires 2 silicon bronze straps with brass body
	Mueller	BR2B		<a href="http://www.muellercompany.com/water/default.aspx">http://www.muellercompany.com/water/default.aspx</a>		
	AY McDonald	3825		<a href="http://www.aymcdonald.com/">http://www.aymcdonald.com/</a>		
	Cambridge	810		<a href="http://www.cambridgebrass.com/">http://www.cambridgebrass.com/</a>		
	Ford	202B		<a href="http://www.fordmeterbox.com/">http://www.fordmeterbox.com/</a>		
	Romac	202B		<a href="http://www.romac.com/">http://www.romac.com/</a>		
Meter Box, 3/4 & 1-inch	Old Castle	Carson 1182520 (3/4") Carson 13242520 (1")	AASHTO HS20 Rated	<a href="http://www.tricastnc.com">www.tricastnc.com</a>		HDPE, See Standard Detail 600.01 3/4" Box: 11"x18"x18" / 1" Box: 13"x24"x18"



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Meter Box Lids, 3/4 & 1-inch	Old Castle	MST-1118AMR4 (3/4") Oldcastle FL30-AMR4 (1")	AASHTO HS20 Rated	<a href="http://www.tricastnc.com">www.tricastnc.com</a>		HDPE, Lid shall have a 4-1/8" diameter recessed hole for for transmitter. See Standard Detail 600.01
3/4" & 1" Copper Setters	Ford	VBHC72-12W-22-33-NL (3/4") VBHC74-12W-22-44-NL (1")	300-psi	<a href="http://www.fordmeterbox.com/">http://www.fordmeterbox.com/</a>	ASSE 1024	Lockable 300 psi rated full port ball valve on the inlet, 12" Setter Height with dual check valve on residential applications or approved separate backflow preventer on commercial applications
	Mueller	B-2532-2AN (3/4" / 1")		<a href="http://www.muellercompany.com/water/default.aspx">http://www.muellercompany.com/water/default.aspx</a>		
	AY McDonald	723-212JDCC 33 (3/4") 723-412JDCC 44 (1")		<a href="http://www.aymcdonald.com/">http://www.aymcdonald.com/</a>		
1-1/2 inch Custom Setters	Ford	VBHH76-18HB-44-66-NL	300-psi	<a href="http://www.fordmeterbox.com/">http://www.fordmeterbox.com/</a>	UNS/CDA C89833 per ASTM B584	Lockable 300 psi rated full port ball valve on the inlet and bypass. Ground key valves are not approved. Residential applications may use a dual check valve on the outlet or have a separate backflow preventer. High bypass required. 18" setter height. CTS compressing fittings for the service inlet/outlet.
	Mueller	B-2423-2-99000N		<a href="http://www.muellercompany.com/water/default.aspx">http://www.muellercompany.com/water/default.aspx</a>		
	AY McDonald	722-R618WW22 666		<a href="http://www.aymcdonald.com/">http://www.aymcdonald.com/</a>		
2-inch Custom Setters	Ford	VBHH77-18HB-44-77-NL	300-psi	<a href="http://www.fordmeterbox.com/">http://www.fordmeterbox.com/</a>	UNS/CDA C89833 per ASTM B584	Lockable 300 psi rated full port ball valve on the inlet and bypass. Ground key valves are not approved. Residential applications may use a dual check valve on the outlet or have a separate backflow preventer. High bypass required. 18" setter height. CTS compressing fittings for the service inlet/outlet.
	Mueller	B-2423-2-99000N		<a href="http://www.muellercompany.com/water/default.aspx">http://www.muellercompany.com/water/default.aspx</a>		
	AY McDonald	722-R718WW22 777		<a href="http://www.aymcdonald.com/">http://www.aymcdonald.com/</a>		
Meter Vaults, 1-1/2 & 2 inch services	CDR	A142436518	Assembly Tier 15 or greater	<a href="http://www.cdrsistemas.com">http://www.cdrsistemas.com</a>		Concrete or polymer concrete box 24"x36"x30" and HS-20 rated 24"x36" lid with 4" x 4" mouse holes / knockouts. Lid must have a recessed 4-1/8" diameter hole for the transmitter. See Standard Details 600.02 Standard Spec 604.B.9
	Quazite	PG2436Z960		<a href="http://www.hubbell.com">http://www.hubbell.com</a>		
Dismantling Joint	Romac	DJ405	175-psi	<a href="http://www.romac.com/">http://www.romac.com/</a>	AWWA C219, NSF 61, NSF 372	Install next to meter in 3", 4", & 6" meter vault installations. Dismantling Joints must be coated. Hymax, Ford & JCM with Tie Rods.
	Smith Blair	Model 975	150-psi	<a href="http://www.smith-blair.com/water.php">http://www.smith-blair.com/water.php</a>		
	Ford	FDJ-DxxR-R	150-psi	<a href="http://www.fordmeterbox.com/">http://www.fordmeterbox.com/</a>		
	Krausz USA	Hymax	175 psi	<a href="https://www.hymaxusa.com">https://www.hymaxusa.com</a>		
	JCM	Model 309	150-psi	<a href="http://www.jcmindustries.com/">http://www.jcmindustries.com/</a>		
Flange Coupling Adaptor (Restrained)	Star	3200	3"-16" 350-psi 18"-36" 250-psi	<a href="http://www.starpipeproducts.com/">http://www.starpipeproducts.com/</a>	UL/FM approved NSF-61 & NSF- 372	Install next to bypass valve in 3", 4", & 6" meter vault installations. Flange coupling adaptors must be FBE coated. Sizes approved as noted. Note EPDM gasket shall be specified when ordering.
	Ford	RFAD	4"-12" 350-psi	<a href="http://www.fordmeterbox.com/">http://www.fordmeterbox.com/</a>		
	SIP	EZ Grip	3"-12" 350-psi	<a href="http://www.sipindustries.com">http://www.sipindustries.com</a>		
	Hymax Grip	130-56-xxxx-16	1.5"-12" DIP 350-psi	<a href="https://www.hymaxusa.com">https://www.hymaxusa.com</a>		
	Romac	ALPHA	4"-12" 350-psi	<a href="http://www.romac.com/">http://www.romac.com/</a>		
Precast Concrete Meter Vaults for 3, 4 & 6 inch services	Lindsay Precast	9 X 12	N/A	<a href="http://www.stayright.com/">http://www.stayright.com/</a>	ASTM C913	Contact Water Resources at 919-372-7478 for water meter costs and meter separation distance for meters ≥3". 3" Meter Vaults shall be 9' x 12'. Meters 4" and above require a special detail and approval from Water Resources. See Standard Details 600.03 Standard Spec 604.B.10 and 604.B.11
	Mack Industries	9 X 12		<a href="http://www.mackconcrete.com/">http://www.mackconcrete.com/</a>		
	Precast Solutions	9 X 12		<a href="http://www.precast-solutions.com/">http://www.precast-solutions.com/</a>		
	CP&P (Hanson, Carolina Precast)	9 X 12		<a href="http://www.concretePandP.com/">http://www.concretePandP.com/</a>		
	Tindall	9 X 12		<a href="http://www.tindallcorp.com/">http://www.tindallcorp.com/</a>		
	OldCastle (NC Products)	9 X 12		<a href="http://www.oldcastleprecast.com">http://www.oldcastleprecast.com</a>		
	Foltz	9 X 12		<a href="http://www.foltzconcretepipe.com">http://www.foltzconcretepipe.com</a>		
Meter Vault Doors	Halliday	48" X 48"	N/A	<a href="http://www.hallidayproducts.com/">http://www.hallidayproducts.com/</a>	H20 Loading, no exceptions	Meter vault access aluminum doors shall meet HS-20 loading requirements and include a recessed 4-1/8" diameter hole for the transmitter. Doors shall include stainless steel slam lock with a flush drop lift handle, and compressions springs to allow for easy opening.
	Bilco	48" X 48"		<a href="http://www.bilco.com">http://www.bilco.com</a>		
	US Foundry	48" X 48"		<a href="http://www.usfoundry.com">http://www.usfoundry.com</a>		



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Repair Clamps	Smith Blair	Full Circle Repair Clamp - 261	200 to 250-psi	<a href="http://www.smith-blair.com/water.php">http://www.smith-blair.com/water.php</a>	AWWA C230 for Clamps ≤12"	Type 304 Stainless Steel Body, SS Fasteners, and SS cast finger lug
	JCM	Full Circle Repair Clamp, #131		<a href="http://www.jcindustries.com">http://www.jcindustries.com</a>		
	Mueller	Full Seal Clamp - 540 or 550		<a href="http://www.muellercompany.com/water/default.aspx">http://www.muellercompany.com/water/default.aspx</a>		
	Krausz	Hymax or Hymax Versa		<a href="http://www.krauszusa.com">http://www.krauszusa.com</a>		
	Romac	SS Repair Clamp - SS1		<a href="http://www.romac.com">http://www.romac.com</a>		
Ford	All Stainless Repair Clamp FS1	<a href="http://www.fordmeterbox.com">http://www.fordmeterbox.com</a>				
Transition Coupling	Krausz	Hymax or Hymax Grip (rest.) 890	250-psi	<a href="http://www.krauszusa.com">http://www.krauszusa.com</a>	AWWA C219 NSF 61	For Connections Between AC and PVC or DIP, Macro HP shall be used. Utilize stainless steel fasteners.  ALPHA - For Connections Between Cast Iron, PVC or DIP only.
	Smith Blair	Quantum		<a href="http://www.smith-blair.com/water.php">http://www.smith-blair.com/water.php</a>		
	JCM	Model 242, Optimum Range		<a href="http://www.jcindustries.com">http://www.jcindustries.com</a>		
	Ford	FC2W		<a href="http://www.fordmeterbox.com">http://www.fordmeterbox.com</a>		
Romac	XR-501 or Macro HP or ALPHA	<a href="http://www.romac.com">http://www.romac.com</a>				
Marking Tape & Marker Balls	3M Marker Ball	1403-XR	N/A	<a href="http://solutions.3m.com/en_US">http://solutions.3m.com/en_US</a>	APWA	Blue for Potable Water
	3M Marking Tape	7903 EMS				
Automatic Flushing Device Controller	Hunter Industries	Node 100 Controller	N/A	<a href="http://www.hydrants.com">http://www.hydrants.com</a>	Brass components shall meet UNS/CDA C89833	Install with Hunter 1"-2" PGV Valve
Reduced Pressure Principle Backflow Assembly [RP], Reduced Pressure Principle Detector Assembly [RPDA Type I or II], Double Check Valve Assembly [DCVA], Double Check Detector Assembly [DCDA],	Febco		175-psi	<a href="http://www.febcoonline.com">www.febcoonline.com</a>	ASSE 1013 AWWA C511 UL/FM ASSE 1015 AWWA C510 UL/FM ASSE 1048 AWWA C510 UL/FM ASSE 1047 AWWA C550 UL/FM	All Brass components shall be lead free. See cross connection ordinance.
	Zurn Wilkins			<a href="http://www.zurn.com">http://www.zurn.com</a>		
	Watts/Ames			<a href="http://www.watts.com">www.watts.com</a>		
	Apollo			<a href="https://apollovalves.com/products/#/criteria">https://apollovalves.com/products/#/criteria</a>		
Polyethylene Pipe Encasement (Polywrap)	DIPRA	V-Bio	N/A	<a href="https://dipra.org/">https://dipra.org/</a>	ANSI/AWWA C105/A21.5	Enhanced with anti-microbial layer
	AA Thread	VB3		<a href="https://www.aathread.com">https://www.aathread.com</a>		
	Spider	A36 SPP-###		<a href="https://www.spiderpipesupports.com">https://www.spiderpipesupports.com</a>		