



APPROVED MATERIALS

AM-3 WATER SUPPLY

Table 3: Water Supply

Materials that are not on the following table MUST be approved by Council – refer to – Engineering Manager

Note: All parts of the water supply system in contact with drinking water need to be designed using components and materials that comply with AS/NZS 4020

Updated 20.01.25

S.no	Category / Material	Application	Standard	Product / Comment	Recommended Manufacturer	Recommended Supplier
AM-3.1	Water Pipe					
AM-3.1.1	Ductile Iron Class K9	Bulk mains unless otherwise approved	AS/NZS 2280 and amendments	<ul style="list-style-type: none"> ▪ Light cement lined with Tyton joints. External protection with green sleeve. ▪ Generally suspended pipes and high structural loadings 	Tubemakers of Australia	Mico Pipelines
AM-3.1.2	Ductile Iron Pipe, Light Cement Lined Tyton Excel PN20 and PN35	Bulk mains unless otherwise approved	AS/NZS 2280 and amendments	<ul style="list-style-type: none"> ▪ With Tyton joint elastomeric seals and socket/spigot joints (with blue polyethylene sleeving) not for use in high water table areas Asmuss Water Systems Licence #SMK0883	Asmuss Water Systems	Asmuss Water Systems
AM-3.1.3	PVC Pipes and Fittings for Pressure Applications	Bulk, principal and rider mains	AS/NZS 14717	<ul style="list-style-type: none"> ▪ Coloured white ▪ Joints should be spigot and socket rubber ring type (Z joint). Solvent cement joint should not be used. ▪ IPLEX Licence #SMK02570 RX Plastics Licence Tel.Lic0001 	IPLEX Pipelines Ltd Marley Ltd RX Plastics Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-3.1.4	uPVC Minimum PN12.5	Bulk, principal and rider mains	AS/NZS 1477	<ul style="list-style-type: none"> ▪ Coloured white ▪ Joints should be spigot and socket rubber ring type (Z joint). Glue/ Solvent cement joint should be project specific and must be reviewed and accepted by QLDC P&I. ▪ IPLEX Licence #SMK02570 RX Plastics Licence Tel.Lic0001 	IPLEX Pipelines Ltd Marley Ltd RX Plastics Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines

AM-3.1.5	Polyethylene Pipe (MDPE) PE80, PN12.5 (minimum), SDR11 Pipes >63mm OD should be PE100	Rider mains/ laterals up to and including 63mm OD	AS/NZS 4130 and amendments	<ul style="list-style-type: none"> Pipes should be butt welded in accordance with the manufacturer's recommendations and be the standard coloured blue or blue jacket. EF couplers should only be used where for repairs and connections to existing mains. Unrestrained mechanical couplers are only used for repairs. IPLEX Licence #SMKP20400 RX Plastics Licence #SMKP21662 	IPLEX Pipelines New Zealand Ltd Marley N Ltd RX Plastics Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-3.1.6	Polyethylene Pipe (HDPE) PE100, PN12.5 (minimum), SDR13.6	Watermain Bulk watermain Trunk watermain Rising/falling main Rider main	AS/NZS 4130 and amendments AS/NZS 2566.2:2002	<ul style="list-style-type: none"> Pipes should be butt welded in accordance with the manufacturer's recommendations and be the standard coloured blue or blue jacket. EF couplers should only be used for repairs and connections. Unrestrained mechanical couplers are only used for repairs. 	Asmuss Water Systems IPLEX Pipelines Ltd Marley Ltd	Asmuss Water Systems Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-3.2	Fittings					Water supply products
AM-3.2.1	Ductile Iron Fittings and Pipes	For water supply connections	AS/NZS 2280:2014 ISO9001:2015	Requires specific QLDC's approval for Ductile Iron connection to a different material.	Derwent Industries Ltd Daemco	Hygrade Products Ltd Hynds pipe systems Ltd Mico Pipelines Plumbing world Pipe & Infrastructure Ltd
AM-3.2.2	Cast-Iron Socket and Spigot Fittings	For water supply connections	Flanges to be to AS 4087-2011	<ul style="list-style-type: none"> Rated at PN16 or higher. Epoxy coated 	Gillies Metaltech	HJ Asmuss & Company Limited

	Cast-Iron Flanges		with the required pressure (PN) rating to be specified. Flange coatings to be to AS/NZS 4158			
AM-3.2.3	Ductile-Iron Pipe Flanges, Socket and Spigot Fittings Flanges	For water supply connections	Flanges to be to AS 4087-2011 with required pressure (PN) rating to be specified. Flange coatings to be to AS/NZS 4158		Crevet Pipelines Asmuss Water Systems	Humes Pipeline Systems Hygrade Products Ltd Mico Pipelines Asmuss Water Systems
AM-3.2.4	Stand-Alone Flanges	For water supply connections	Flanges to be to AS 4087-2011 or AS 2129 (for mild steel) with required pressure (PN) rating to be specified. Flange coatings to be AS/NZS 4158	<ul style="list-style-type: none"> ▪ PVC, ductile or cast-iron Steel and tube – unflanged adaptor ductile iron	IPLEX Pipelines Ltd Marley Ltd Steel and Tube Holdings Ltd Asmuss Water Systems	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines Asmuss Water Systems
AM-3.2.5	Bolts, Nuts, and Washers are to be Hot- Dipped Galvanised as an Alternative to 316-Grade Stainless Steel	For connecting water supply flanges	AS/NZS 1111 and 1112	<ul style="list-style-type: none"> ▪ ISO metric hexagon commercial bolts and screws and ISO metric hexagon nuts, including thin nuts, slotted nuts, and castle nuts. ▪ Hot-dipped galvanised bolts, nuts, and washers need to be wrapped in Denso tape 	The manufacturer must meet the required standard	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines

				This particularly applies to corrosive soil and marine conditions.		Asmuss Water Systems
AM-3.2.6	Stainless Steel Bolts, Nuts and Washers are acceptable alternatives to Hot-Dipped Galvanised Fastenings, provided they are 316-Grade Stainless Steel with Factory Applied Molybond Coating	For connecting water supply flanges	Complying with AS 1252 – high strength steel fastenings	<ul style="list-style-type: none"> Stainless steel bolts, nuts, and washers need to be wrapped in Denso tape. This particularly applies to corrosive soil and marine conditions <p>Thread binding may occur, and the bolts should be cut off if needed to be un-wound</p>	Manufacturer who meets the required standard	<p>Humes Pipeline Systems</p> <p>Hynds Pipe Systems Ltd</p> <p>Mico Pipelines</p> <p>Asmuss Water Systems</p>
AM-3.2.7	<p>Gibaults/ unrestrained coupling</p> <ul style="list-style-type: none"> Cast-Iron (coating as per standard) M16 316 Stainless Steel (with clips fusion coating as per standard) 	For watermain repairs and for connecting into existing PVC mains	<p>AS/NZS 4158 and amendments</p> <p>Coating to ASTM A276</p>	<ul style="list-style-type: none"> Use 316-grade stainless steel bolts as a preference Use 316-grade stainless steel fasteners as a preference 	<p>Gillies Metaltech</p> <p>Viking Johnson – Maxifit (with Sheraplex coated bolts)</p> <p>Crevet Pipelines Milnes Pty Ltd</p> <p>Asmuss Water Systems</p>	<p>Humes Pipeline Systems</p> <p>Hynds Pipe Systems Ltd</p> <p>Mico Pipelines</p> <p>Asmuss Water Systems</p>
AM-3.2.8	Unrestrained Mechanical Couplings	Up to 200mm DI barrels and backing rings or SS barrels	<p>AS/NZS 4998</p> <p>AS/NZS 4158</p>	<ul style="list-style-type: none"> Use hot-dipped galvanised bolts as per 3.1.4 or 316-grade stainless steel bolts 	Gillies	Humes Pipeline Systems

	<ul style="list-style-type: none"> Ductile-iron (nylon coating as per standard) M16 316-Grade Stainless Steel Barrel (with clips fusion coating as per standard)	with DI backing rings. Above 200mm note in item 1		Use 316-grade stainless steel fasteners	Metaltech Viking Johnson Crevet Pipelines Milnes Pty Ltd AVK Australia Pty Ltd Asmuss Water Systems Daemco	Hynds Pipe Systems Ltd Mico Pipelines Asmuss Water Systems
AM-3.2.9	MDPE Fittings	For lateral/ ridermain connections	AS/NZS 4129	<ul style="list-style-type: none"> Agru butt welding and electro-fusion fittings “Plassim” MDPE fitting to AS/NZS 4129 – Licence No: WMKA21062 “Magnum” MDPE fitting to AS/NZS 4129 – Licence No: SMK02432 Viking Johnson aqua fast, aqua grip and ultra-grip mechanical fittings for polyethylene pipe Hawle System 2000 mechanical fittings for polyethylene pipe Innogaz Marley Licence #1271 Plasson Licence #1494 and 1271 Asmuss Alprene A16 Easygrip Licence #1157 	IPLEX Pipelines Ltd Marley Ltd Plasson Waters & Farr Friar Couplings George Fischer Hanson	Asmuss Plastic Systems Limited Hygrade Products Ltd RX Plastics Ltd Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines IPLEX Pipelines Ltd

				<ul style="list-style-type: none"> ▪ Plasson series one pushfit fitting ▪ Hawle HAKU Saddle No.5250 Hanson EasyFit MDPE Compression		
AM-3.3.10	Brass Fittings Alloy 486	For existing PVC/ AC fittings	AS 1567 – 486 ASTM – B21 485000	Recommend New Zealand manufacturer due to variability of imported materials	Spartan Engineering Co. Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines Asmuss Water Systems
AM-3.3.11	Manifold	For residential isolation valves	AS 4796:2016	<ul style="list-style-type: none"> ▪ Acuflo GM900STR Bronze Manifold Assembly ▪ Strongcast manifold and fittings 	Acuflo Industries Ltd Strongcast Pvt Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines Asmuss Water Systems
AM-3.3.12	Ferrules: Gunmetal Polyethylene Fittings	For valve/ lateral connections from water/ rider main	AS/NZS4129 AS/NZS413	<ul style="list-style-type: none"> ▪ Tapping bands/ saddles ▪ Talbot ferrule ▪ Polyethylene fittings 		Humes Pipeline Systems Hynds Pipe Systems Ltd
AM-3.3.13	Gaskets	Potable water supply fittings	AS/NZS 4020	Gasket must be suitable for min 1600kpa pipeline operating pressure.	Garlock Sealing Industries	Blackwood Paykels Humes Pipeline Systems Hynds Pipe Systems Ltd

						Asmuss Water Systems
AM-3.3.14	Repair and Offtake Stainless Steel Clamps	For repairing cracks, seal for decommissioned service connections, holes, splits and pinholes in rigid water and sewerage pipes.	AS 4181-2013	For temporary pipe repairs.	Derwent Industries Ltd Rapid clamps SA (Promains) Derwent	Hygrade, Hynds, Mico Pipelines, Plumbing world, Pipe & Infrastructure, Water supply products, Promains.
AM-3.3.15	Compression Pipe Fittings	For medium Density Polyethylene pipe Fittings	AS/NZS4129 AS/NZS4020	Used only on MDPE80 up to 63mm.	Hansen Products Ltd	All Plumbing and Pipeline suppliers
AM-3.4	Valves					
AM-3.4.1	Sluice Valves / Resilient seated ≥80mm	Bulk, principal and rider mains	AS/NZS 2638.2 NZS/BS 5163 Class 1 AS/NZS 4158 and amendments Flanges to be to AS 4087-2011 with required pressure (PN) rating to be specified	<ul style="list-style-type: none"> ▪ Teflon gland packing or 2 or more O ring seals and dust cover. ▪ In-line valves should be the same diameter as the reticulation main ▪ Asmuss Water Systems Licence #PRD / R61 / 0412 / 2 ▪ Hawle Licence #SMK20123 ▪ AVFI non-rising stem resilient valve DN375 Resilient Seated Anti-Clockwise Closing Rated at PN16 external and Internal Protective Coating refer QLDC COP 6.3.14.3. Flanges are to be Raised Face and Drilled as per Standard.	Gillies Metaltech Asmuss Water Systems Crevet Hawle AVK Australia Pty Ltd Hygrade Products Ltd Daemco	Pipe & Infrastructure Ltd Asmuss Water Systems Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines Daemco

			Flange coatings to be to AS/NZS 4158			
AM-3.4.2	Resilient seated gate valve 25mm and 40mm	For replacing existing ridermain valves.	BS 5154 or AS 1628	<ul style="list-style-type: none"> ▪ Clockwise closing, resilient seating 	Hawle (Licence #WMKA20123) AVK Australia Pty Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Pipe & Infrastructure Ltd Mico Pipelines Asmuss Water Systems
AM-3.4.3	Resilient seated gate valve 50mm	Rider mains and connections	NZS/BS 5163	Clockwise closing, resilient seating	Hawle (Licence #WMKA20123) AVK Australia Pty Ltd Daemco	Humes Pipeline Systems Hynds Pipe Systems Ltd Pipe & Infrastructure Ltd Mico Pipelines Asmuss Water Systems Daemco
AM-3.4.4	Butterfly Valves	Reservoirs Water treatment plant	AS 4795.2	Butterfly valves are not normally used in reticulation mains as they hinder swabbing operations and the quick closing action (refer QLDC COP 6.3.14.4)	Derwent Industries Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Pipe & Infrastructure Ltd

						Mico Pipelines Asmuss Water Systems Daemco
AM-3.5	Fire Hydrants					
AM-3.5.1	Tall/Medium Pattern Screw-Down Standard Clockwise Closing, Rated to PN16 or Higher coated as Per Standard	Firefighting Watermain operational maintenance	NZS/BS 750 AS/NZS 4158 and amendments	<ul style="list-style-type: none"> ▪ O ring sealing system. Drain holes for frost protection are not permitted. ▪ The use of ball hydrants is not permitted ▪ Fire hydrants shall not be fitted to reticulation mains DN <100 refer to QLDC COP 6.3.15.3 	Crevet Pipelines Hydravalve Gillies Metaltech Asmuss Water Systems Hawle Derwent Industries Promains (Beta Valvo Co.)	Tudor Pipeline Supplies Co Ltd Humes Pipeline Systems Pipe & Infrastructure Ltd Mico Pipelines Derwent Promains

AM-3.6	Tapping Bands and Saddles		Standards Australia MP52			
AM-3.6.1	40mm (ID) minimum LG2 bronze DR Type Fully enclosed Polyethylene-type	For connections only	AS/NZS 4793 MP52 – Spec025	<ul style="list-style-type: none"> ▪ For live connections requires QLDC’s specific approval. ▪ Tapping bands should be 40mm (ID) or greater for live tapping. ▪ Fully enclosed for mPVC blue brute, super blue, cast iron and spiral steel (AC sizing). ▪ Swivel bolt type with a flexible band for existing AC water main ▪ Milnes Pty Ltd Licence #W134 ▪ Milnes Pty Ltd Series GM60A ▪ Milnes Pty Ltd Series 61 ▪ Maintenance ▪ Milnes Pty Ltd insulated type for ductile, cast or steel mains Licence #W134 ▪ Giltech Precision Castings 	Milnes Pty Ltd Daemco	Mico Pipelines Daemco Humes Pipeline Systems
AM-3.7	Water meters					
AM-3.7.1	20mm Manifold Meters	For residential	OMIL R49-1	<ul style="list-style-type: none"> ▪ Meters must be rated Q3 = 2.5m³/hour and must have a minimum R-value (Q3/Q1) of 160 ▪ Meters must be capable of transmitting a pulse output (for the purposes of data logging or remote reading) ▪ Construction should be dezincification-resistant (DR) brass to NZ/AS 3688 or; 	Elster / Kent Ltd Sensus Actaris Pty Ltd Sapel Aquadis	A.D Riley and Co. Ltd DEECO Services Ltd Chatswood Trading Asmuss Water Systems Humes Pipeline Systems

				Construction of composite materials subject to the approval of material specification		Hynds Pipe Systems Ltd Mico Pipelines
AM-3.7.2	25mm Inline Meters	For residential and commercial	OMIL R49-1	<ul style="list-style-type: none"> ▪ Meters will be rated Q3 = 6.3m³/hour and must have a minimum R value (Q3/Q1) of 160 ▪ Meters must be capable of transmitting a pulse output (for the purposes of data logging or remote reading) ▪ Construction should be dezincification-resistant (DR) brass to NZS/AS 3688 	Elster / Kent Ltd Sensus Actaris Pty Ltd Sapel Aquadis	A.D Riley and Co. Ltd DEECO Services Ltd Chatswood Trading Asmuss Water Systems Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-3.7.3	40mm Inline Meters	For residential and commercial	OMIL R49-1 NZS/AS 3688	<ul style="list-style-type: none"> ▪ Meters will be rated Q3 = 6.3m³/hour and must have a minimum R value (Q3/Q1) of 160 ▪ Meters must be capable of transmitting a pulse output. 	Elster / Kent Ltd Sensus Actaris Pty Ltd	A.D Riley and Co. Ltd DEECO Services Ltd Chatswood Trading
AM-3.8	Tracer Wire					
AM-3.8.1	Tracer Wire	Tracer wire must be installed for rising/falling mains and trunk mains. It must be located at valves and hydrants.		<ul style="list-style-type: none"> ▪ A continuous 4.0mm² multi- strand (minimum of 4) polythene sleeved cable 		Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines

AM-3.8.2	Warning Tape / Detection Tape	Open cut installation	AS/ NZS 4275	<ul style="list-style-type: none"> ▪ Width – 100mm (min.) ▪ Thickness – 80µm ▪ Printing – TBC ▪ Printing Height – 80mm ▪ Tape Colour – Blue Warning tape must be detectable (foil or wire).	Polymark Packaging	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-3.9	Boxes (Valve, Fire Hydrant, Meter), and Valve Marker Plate Cast-Iron / Ductile- Iron	Hydrant and valve covers	NZS/BS 750 AS3996.	<ul style="list-style-type: none"> ▪ Hydrant cast box to NZS/BS 750 ▪ Valve cast box – to Council Standard Drawings ▪ Valve Marker Plate 		Humes Pipeline Systems Hygrade Products Ltd Hynds Pipe Systems Ltd Mico Pipelines Asmuss Water Systems
AM-3.10	Concrete Products					
AM-3.10.1	Concrete Valve / Hydrant Marker Post			Refer to QLDC COP drawings	Williamson Creative Products Newstead Concrete Products	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-3.10.2	Valve/ Fire Hydrant Concrete riser			QLDC COP standard drawings B2-2		Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines

						Asmuss Water Systems
AM-3.10.3	Valve Concrete Surrounds			QLDC COP standard drawings B2-2		Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines Asmuss Water Systems
AM-3.12	Toby Boxes Polyethylene	Residential only	AS/NZS:4586 AS3996:2006	QLDC COP standard drawings B2-3	Surecast Metals Chevron Industries 2001 Ltd Acuflo Industries Ltd Draper Enterprises Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines Asmuss Water Systems
AM-3.12A	Mega/ Multi-lot water distribution box	Used for multiple water connections, flow meters and backflow devices.	AS3996:2006		Channell USA (Promains) Acuflo Industries Ltd	Promains Acuflo
AM-3.13	Backflow Prevention Devices		AS/NZ 2845.1	<ul style="list-style-type: none"> Types and classification of devices to meet Council requirements as assessed 	Reliance Worldwide Ltd Asmuss	Hydroflow Distributors Ltd DEAMCO Services Ltd

				For dedicated fire systems, use Verifier standard	Water Systems Acuflow Industries Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines Asmuss Water Systems
AM-3.14	Pipe Wrapping	All dress sets and flanged connections		<ul style="list-style-type: none"> Refer to manufacturer guidelines for denso installation. 	Polyken Petrotech Denso 40	Asmuss Water Systems