



# APPROVED MATERIALS

AM-2 WASTEWATER

**Table 3: Wastewater**

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

Updated 20.01.25

S.no	Category / Material	Application	Standard	Product / Comment	Recommended Manufacturer	Recommended Supplier
AM-2.1	Wastewater Pipe					
AM-2.1.1	Spiral-Welded Steel Pipe Internal Linings Include Concrete or Epoxy	Structural mains	NZS 4442 and AS 1579	<ul style="list-style-type: none"> <li>▪ Specific design and approval</li> <li>▪ Polyken YG111 external wrapping or speed steel with polyethylene coatings. Note internal coating must be resistant to hydrogen sulfide.</li> </ul> <p>Manufacturer capable of meeting the required standard</p>	Steelpipe NZ Ltd	Mico Pipelines
AM-2.1.2	Ductile Iron Class K9 / K12	Structural mains	AS/NZS 2280 and amendments	<ul style="list-style-type: none"> <li>▪ Light cement lined with Tyton joints. External protection with green sleeve.</li> <li>▪ Generally suspended pipes and high structural loadings. Note internal coating must be</li> <li>▪ resistant to hydrogen sulfide</li> </ul> <p>Manufacturer capable of meeting the required standard.</p>	<p>Tube makers of Australia Ltd</p> <p>Asmuss Water Systems Ltd Ltd</p>	<p>Mico Pipelines</p> <p>Asmuss Water Systems Ltd</p>
AM-2.1.3	Ductile Iron Pipe Light Cement-Lined Tyton Excel PN20 and PN35	Structural mains	AS/NZS 2280 and amendments	<ul style="list-style-type: none"> <li>▪ Specific design and approval</li> <li>▪ With Tyton elastomeric seals and socket/spigot joints (with blue polyethylene sleeving). Note: internal coating must be resistant to hydrogen sulfide.</li> <li>▪ Manufacturer capable of meeting the required standard.</li> </ul>	Asmuss Water Systems Ltd	<p>Mico Pipelines</p> <p>Asmuss Water Systems Ltd</p>

AM-2.1.4	uPVC Pipes (solid wall) and Fittings for Gravity Applications  SN8, SN10, SN12.5 or SN16 for Trenches	Reticulation mains and lateral connections	AS/NZS 1254	<ul style="list-style-type: none"> <li>Rubber ring jointed</li> </ul>	Iplex Pipelines Ltd  Marley New Zealand Limited  RX Plastics Ltd	Humes Pipeline Systems  Hynds Pipe Systems Ltd  Mico Pipelines
AM-2.1.5	Polyethylene Pipe (PE) for pressure applications	Pressure applications  (minimum PN16)	AS/NZS 4130 and 4131	<ul style="list-style-type: none"> <li>Specific design and approval</li> <li>Pipes should be joined in accordance with the manufacturer's recommendations and be a standard black colour with cream stripe or solid cream. EF couplers should only be used for repairs and connections to existing mains</li> </ul>	Iplex Pipelines Ltd  Marley New Zealand Limited  RX Plastics Ltd Waters & Farr	Humes Pipeline Systems  Hynds Pipe Systems Ltd  Mico Pipelines  Asmuss Water Systems Ltd
AM-2.1.6	Profile wall Polyethylene Pipe (PE) for gravity applications	Gravity applications	AS/NZS 5065:2005	Pipes should be joined and tested in accordance with the manufacturer's recommendations.	Hynds PKS Ltd  Infrapipe Ltd	Hynds Pipe Systems Ltd  Infrapipe Ltd  Promains Ltd  Paramount Plumbing Ltd
AM-2.1.7	Tracer Wire / Warning Tape					
AM-2.1.7A	Warning / Detection Tape	Open cut installation.	AS/NZS 4275	<ul style="list-style-type: none"> <li>Width – 100mm (min.)</li> <li>Thickness – 80mu</li> <li>Printing – TBC</li> <li>Printing Height – 80mm</li> <li>Tape must be labeled “sewer” or “wastewater”</li> </ul> <p>All the warning tapes (foil or wire) must be detectable.</p>	Polymark Packaging	Humes Pipeline Systems  Hynds Pipe Systems Ltd  Mico Pipelines

AM-2.2	Seal Rings	Elastomeric seals for wastewater purposes	Comply with AS 1646.1	Elastomeric seals for wastewater purposes	IPLEX Pipelines Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-2.3	Fittings					
AM-2.3.1	Cast-iron socket and Spigot Fittings  Cast-Iron Flanges	For pressure applications	AS/NZS 1830 and AS/NZS 2544  Table D and coated to AS/NZS 4158 and amendments	<ul style="list-style-type: none"> <li>Epoxy coated. Minimum standard - PN16</li> </ul>	Gillies Metaltech	HJ Asmuss & Company Limited  Mico Pipelines
AM-2.3.2	Ductile Iron Pipe Flanged, Socket and Spigot Fittings Flanges	For pressure applications	AS/NZS 2280 to Table D or raised face and drilled to AS 4087, and coated to AS/NZS 4158 and amendments	<ul style="list-style-type: none"> <li>Epoxy coated. Minimum standard - PN16</li> </ul>	Crevet Pipelines  Surecast Metals  Asmuss Water Systems Ltd  Gillies Metaltech  Derwent Industries Ltd Daemco Ltd	Humes Pipeline Systems  Hygrade Products Ltd  Mico Pipelines  Asmuss Water Systems Ltd  Derwent Industries Ltd  Daemco Ltd
AM-2.3.3	Stand-Alone Flanges	For pressure applications	Table D coated to AS/NZS 4158 and amendments	<ul style="list-style-type: none"> <li>PVC, ductile or cast iron</li> <li>Steel and tube – unflanged adaptor – ductile iron</li> </ul> Minimum standard – PN16	Iplex Pipelines Ltd  Marley New	Mico Pipelines  Asmuss Water

					Zealand Limited  Steel and Tube Holdings Limited  Asmuss Water Systems Ltd	Systems Ltd
AM-2.3.4	Bolts, Nuts and Washers to be Hot-Dipped Galvanised as an Alternative to 316-Grade Stainless Steel	For connecting WW pipe flanges	AS/NZS 1111 and 1112	<ul style="list-style-type: none"> <li>ISO metric hexagon commercial bolts and screws and ISO metric hexagon nuts, including thin nuts, slotted nuts and castle nuts</li> <li>Hot-dipped galvanised bolts, nuts and washers need to be wrapped in denso tape</li> </ul> <p>This particularly applies for corrosive soil and marine conditions</p>	Manufacturers who can supply to the relevant standards	Humes Pipeline Systems  Hynds Pipe Systems Ltd  Mico Pipelines  Asmuss Water Systems Ltd
AM-2.3.5	Stainless Steel Bolts, Nuts, Washers and Fastenings Provided they are 316-Grade Stainless Steel with Factory Applied Molybond Coating	For connecting WW pipe flanges	Complying with AS 1252 – High Strength Steel Fastenings	<ul style="list-style-type: none"> <li>Stainless steel bolts, nuts and washers need to be wrapped in denso tape</li> <li>This particularly applies for corrosive soil and marine conditions</li> </ul> <p>Thread binding may occur and the bolts should be cut off if needed to be un-wound</p>	Manufacturers who can supply to the relevant standards	Humes Pipeline Systems  Hynds Pipe Systems Ltd  Mico Pipelines  Asmuss Water Systems Ltd
AM-2.3.6	Gibaults (unrestrained)	For pressure applications	AS/NZS 4158 and amendments	<ul style="list-style-type: none"> <li>Use 316-Grade Stainless Steel Bolts</li> <li>Preference for Long Barrel</li> </ul>	Gillies Metaltech  Daemco Ltd	Humes Pipeline Systems

	couplings) <ul style="list-style-type: none"> <li>- Cast Iron (coating as per standard)</li> <li>- Gunmetal DR LG2 with ABS belly</li> <li>- M16 316 stainless steel (with clips fusion coating as per standard)</li> </ul>		Coating to ASTM A276	Use 316-Grade Stainless Steel Fasteners	Viking Johnson – Maxifit (with Sheraplex coated bolts)  Crevet Pipelines  Milnes Pty Ltd  Asmuss Water Systems Ltd	Daemco Ltd  Hynds Pipe Systems Ltd  Mico Pipelines  Asmuss Water Systems Ltd
AM-2.3.7	PE Fittings	For pressure applications	AS/NZS 4130 and 4131	<ul style="list-style-type: none"> <li>▪ Agru butt welding and electro fusion fittings</li> <li>▪ Viking Johnson aqua fast, aqua grip and ultra-grip mechanical fittings for polyethylene pipe</li> <li>▪ Hawle System 2000 mechanical fittings for polyethylene pipe</li> <li>▪ Philmac Licence #1271</li> <li>▪ Pushlok Licence #1494</li> <li>▪ Plasson Licence #1494 and 1271</li> <li>▪ Alprene A16 Easygrip Licence #1157</li> <li>▪ “Plassim” MDPE fitting to AS/NZS 4129 – Licence #WMKA21062</li> <li>▪ “Magnum” MDPE fitting to AS/NZS 4129 – Licence #SMK02432</li> </ul>	Iplex Pipelines Ltd  Marley New Zealand Limited  Asmuss Plastic Systems Limited  PPI Corporation (NZ) Limited  Waters & Farr RX Plastics Ltd	Hygrade Products Ltd  Humes Pipeline Systems  RX Plastics Ltd Mico Pipelines
AM-2.3.8	uPVC Fittings	For gravity laterals	AS/NZS 1260	<ul style="list-style-type: none"> <li>▪ RRJ fitting only to be used.</li> <li>▪ IPLEX Licence #SMK1174</li> </ul> Marley Licence #WMKA20224	Iplex Pipelines Ltd  Marley Ltd	Keyplas  Humes Pipeline Systems  Hynds Pipe Systems Ltd

						Mico Pipelines
AM-2.3.8.1	uPVC Fittings and Bends	For rodding eye covers below the surface lid	AS/NZS 1260	<ul style="list-style-type: none"> <li>▪ 45-degree swept bend</li> <li>▪ Solvent welded threaded male fitting with cap.</li> <li>▪</li> </ul>	Iplex Pipelines Ltd  Marley New Zealand Limited	Keyplas  Humes Pipeline Systems  Hynds Pipe Systems Ltd  Mico Pipelines
AM-2.3.9	Rubber Sleeves  (Stainless steel sheer band)	Reticulation pipes (non-pressure)	AS/NZS 4326	All couplings used shall have a central 316-grade stainless steel sheer band	Furnco Pty Ltd	Humes Pipeline Systems  Hynds Pipe Systems Ltd  Mico Pipelines  Asmuss Water Systems Ltd
AM-2.3.10	Repair and Offtake Stainless Steel Clamps	For temporary repairs only	AS 4181-2013	For repairing cracks, seal for service connections, holes, splits, and pinholes in sewerage pipes.	Derwent Industries Ltd  Promains	Humes Pipeline Systems Ltd Hynds Pipe Systems Ltd Mico Pipelines Ltd Asmuss Water Systems Ltd Daemco Ltd Hygrade, plumbing world, Derwent industries Ltd, promains Ltd.
AM-2.4	Valves					
AM-2.4.1	Valves ≥50mm (ID) Resilient Seated Anti-Clockwise Closing Rated at	Pump station and rising mains  For isolating water	AS/NZS 2638.2 NZS/BS 5163 Class 1  AS/NZS 4158	<ul style="list-style-type: none"> <li>▪ Teflon gland packing or 2 or more O ring seals and dust cover.</li> <li>▪ In-line valves should be the same diameter as the reticulation main</li> <li>▪ AVK Australia Pty Ltd Licence</li> </ul>	AVK Australia Pty Ltd  Gillies Metaltech	Humes Pipeline Systems Ltd Hynds Pipe Systems Ltd Mico Pipelines Ltd Asmuss Water

	PN16	supply and sewerage pressure pipelines  Note: Mergence AM-2.4.1 and AM 2-4.2	and amendments AS 4087  AS/NZS 2638.2:2011	#SAI2420 and 2573 <ul style="list-style-type: none"> <li>Asmuss Water Systems Ltd Licence #PRD/R61/0412/2 Crevet Pipelines Licence #1327</li> <li>Hawle 4060E2 and 4500E2AS series Licence #SMK20123.</li> </ul> Product must be fit for purpose	Asmuss Water Systems Ltd  Crevet Pipelines Hawle  Daemco  Derwent Industries	Systems Ltd Daemco Ltd Hygrade, plumbing world, Derwent industries Ltd
AM-2.5	PE Manholes					
AM-2.5.1	PE manholes	For horizontal and or vertical junctions as well as inspection points.	AS/ NZS 5065	PE manholes require a specific design, with particular emphasis on the lid connection details, benching radius, as well as flood/leak testing of the entire manhole system up to the lid level. These designs must undergo review and approval from QLDC.	Humes Pipeline Systems  Hynds PKS Ltd  Infrapipe Ltd  Australasia moulding	Humes Pipeline Systems  Hynds Pipe Systems Ltd  Mico Pipelines  Romold chambers
AM-2.6	Concrete manholes					
AM-2.6.1	Concrete manholes: 1050mm to 2500mm ID with Precast Base	Gravity applications  Air valve chambers	NZS 3109	<ul style="list-style-type: none"> <li>Must comply with CPAA guidelines and design loading. Specific design and approval are required from QLDC for manholes &gt;2500mm. Hybencher manhole requires specific design and approval from QLDC.</li> </ul>	Humes Pipeline Systems  Hynds Pipe Systems Ltd	Humes Pipeline Systems  Hynds Pipe Systems Ltd  Mico Pipelines
AM-2.6.2	Inspection chamber	Gravity Applications	NZS 3109	600mm Minimum	Humes Pipeline Systems  Hynds Pipe	Humes Pipeline Systems  Hynds Pipe Systems Ltd



					Systems Ltd	Mico Pipelines
AM-2.6.3	Leveling rings	To adjust manhole covers to the surface level	NZS 3101 NZS 3109	Refer to the manufacturer guidelines for installation	Hynds Pipe Systems Ltd	Hynds Pipe Systems Ltd
AM-2.6.4	Hyseal Type 1050 to 2500mm ID	Prebenched concrete manhole	NZS 3109	Specific design and approval required from QLDC.	Hynds pipe systems Ltd	Hynds pipe systems Ltd
AM 2.6.4	Hynbencher Manholes (precast concrete manholes)	For wastewater applications	PS1 from the designer, AS/NZS 4058:2007 NZS3101	The use of Hybencher manholes requires specific design approval by the QLDC.	Hynds pipeline systems	Hynds pipeline systems
AM-2.6.5	Concrete Lid (flat top) with 600mm Openings	Covers to the manholes and inspection chambers	NZS 3101 : 2006	Must comply with the design loading.	Humes Pipeline Systems Hynds Pipe Systems Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-2.6.6	Manhole Sealant, Flexible Jointing Compound	Sealant between manhole risers and lids		BM100 or SM9020	Humes Pipeline Systems Hynds Pipe Systems Ltd	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-2.6.7	Access Steps – 316-Grade Stainless Steel Access Steps	Accessing into manholes	EN 13101	Stainless manholes steps – 16mm Ø	Costavic	Humes Pipeline Systems Hynds Pipe Systems Ltd Mico Pipelines
AM-2.6.8	Plastic-encapsulated Stainless Steel Access Steps	Nextep License #JP-JQA-QM6570	AS/NZS 1657 AS 4198		Nextep Miyama NZ Ltd	Humes Pipeline Systems

					Licence #JP-JQA-QM6570	Hynds Pipe Systems Ltd Mico Pipelines
AM-2.6.9	Ductile Iron Covers and Frames: 600mm Nominal Diameter Minimum	Covers to the manholes	AS 3996 210kN (Class D) load rating	<ul style="list-style-type: none"> <li>▪ Includes “non-rock”</li> <li>▪ Webforge NZ – Code DCC6DIPAC</li> <li>▪ Gatic – Code GM300S6D4</li> <li>▪ St Gobain – Korum</li> <li>▪ Hygrade – 600mm Maestro</li> </ul>	Gatic Pty Ltd  Saint Gobain  PAM Webforge NZ	Humes Pipeline Systems  Hynds Pipe Systems Ltd  Pipe & Infrastructure Ltd  Mico Pipelines
AM-2.6.10	Cast-Iron Cover and Frames 600mm Nominal Diameter Minimum		BS EN 124 vehicle loading or AS 3996 load rating		Gatic Pty Ltd  Saint Gobain  PAM Webforge NZ	Humes Pipeline Systems  Hynds Pipe Systems Ltd  Hygrade Products Ltd  Pipe & Infrastructure Ltd  Mico Pipelines
AM-2.7	Manhole Connectors					
AM-2.7.1	Epoxy	Sealing joints and step irons	AS/NZS 4020: 2005	2-part epoxy (e.g. Humebond, Hybond)		Humes Pipeline Systems Ltd  Hynds Pipe Systems Ltd  Mico Pipelines
AM-2.8	Concrete	Lid surround	NZS 3104	20MPa		
AM-2.9	Reinforcing Steel	On-site reinforced concrete works	AS/NZS 4671	D10 Grade 300		
AM-2.10	Manhole landing platform	Midway platform to the manhole for the deeper manholes		<ul style="list-style-type: none"> <li>▪ Caliber Safety Grill 02104076 Grill MH TCC Galvanised 500mm</li> <li>▪ Caliber Safety Grill 02104078 Grill MH TCC Maestro Galvanised 600mm</li> </ul>	Hygrade Products Ltd  Humes Pipeline	Hynds Pipe Systems Ltd  Humes Pipeline Systems

				<ul style="list-style-type: none"> <li>▪ Caliber Safety Grill 02104079 Grill MH TCC Maestro Stainless Steel 600mm</li> <li>▪ All other products are subject to specific approval or trial installations.</li> <li>▪ Humes 48502 – 520mm Nominal Safety Grille</li> <li>▪ Humes 48504 – 600mm Nominal Safety Grille</li> </ul> <p><b>Product requirements</b></p> <ul style="list-style-type: none"> <li>▪ The mesh size should be equal to or greater than 75mm square.</li> <li>▪ If made of steel, it must be hot-dipped 10alvanized; if made of stainless steel, it should be of 316L-grade stainless steel. This ensures compatibility with existing manhole structures without requiring significant modifications.</li> <li>▪ The grill must be capable of locking securely onto the manhole and capable of withstanding a test load of at least 400kg. It should be easily removed by a single person within 5 minutes.</li> <li>▪ A chain or similar mechanism must be provided to ensure that the grill remains connected and does not fall into the manhole. This chain must be capable of supporting the weight of the grill.</li> </ul> <p>The manufacturer’s name and relevant product information must be clearly</p>	Systems	
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				displayed. The installation of the grill should not introduce any additional health and safety concerns.		
AM-2.11	Pump Stations			Fibre glass / Glass Reinforced Plastic (GRP) packaged pump stations by specific design and approval only.		
AM-2.11.1	Wet Well			GRP pump stations are subject to specific design and approval		
AM-2.11.1.1	Centrifugally Spun Flushed Jointed Concrete Pipes – Class 2 (X)	Pump stations		<ul style="list-style-type: none"> <li>▪ Concrete pump stations must require specific design and approval from QLDC.</li> <li>▪ Minimum 1800mm Ø</li> <li>▪ Altex – Carboline product range: Carboguard 504 as the primer to new or used concrete surfaces followed by 2 x coats of Carboguard 690</li> </ul>		Humes Pipeline Systems  Hynds Pipe Systems Ltd
AM-2.11.1.2	Guide Rails	Pump stations		<ul style="list-style-type: none"> <li>▪ Schedule 10, 316-grade stainless steel pipe</li> </ul> Any joints to be an internal pressed fit stainless steel sleeve		
AM-2.11.1.3	Guide Rail Brackets	Pump stations		Flygt 316-grade stainless steel		
AM-2.11.1.4	Cable Brackets	Pump stations		316-grade stainless steel		
AM-2.11.2	Pump Valve Chamber					
AM-2.11.2.1	Chamber Floor	Pump stations		Cast in-situ concrete/ precast – min 30MPa		
AM-2.11.2.2	Chamber Top Slab	Pump stations		Concrete may be precast – 30MPa		
AM-2.11.2.3	Flanges	Pump stations		Gaskets shall be 3mm full face neoprene		
AM-2.11.2.4	Access Lids	Pump stations		<ul style="list-style-type: none"> <li>▪ 6mm aluminum chequer plate</li> <li>▪ Stainless steel 316-grade frame and fittings</li> </ul>	McBerns safety lids	McBerns safetylids

				<ul style="list-style-type: none"> <li>Specific design that considers odour and water infiltration</li> <li>Safety grills</li> </ul>		
AM-2.11.2.5	Valves ≥50mm Resilient Seated Anti-Clockwise Closing rated at PN16. External and Internal Protective Coating Flanges to be raised face and drilled as Per Standard	Pump stations	AS/NZS 2638.2 NZS/BS 5163 Class 1  AS/NZS 4158 and amendments  AS 4087	<ul style="list-style-type: none"> <li>Teflon gland packing or 2 or more O ring seals and dust cover</li> <li>In-line valves should be the same diameter as the reticulation main</li> <li>Resilient seated anti-clockwise closing</li> <li>Rated at PN16</li> <li>External and internal protective coating</li> <li>Flanges to be raised face and drilled as per standard</li> <li>Valves to have hand wheels</li> <li>AVK Australia Licence #SAI2420 and 2573</li> <li>Crevet Pipelines Licence #1327</li> <li>Hawle 4060E2 and 4500E2AS series Licence #SMK20123</li> </ul>	AVK Australia Pty Ltd  Gillies Metaltech  Asmuss Water Systems Ltd  Crevet Pipelines Hawle	Humes Pipeline Systems  Hynds Pipe Systems Ltd  Mico Pipelines  Asmuss Water Systems Ltd
AM-2.11.2.6	Ductile Iron Non-Return Valves (PN16)	Pump stations	AS 4974	<ul style="list-style-type: none"> <li>Ball type</li> <li>Other types require specific approval</li> </ul>		Humes Pipeline Systems  Hynds Pipe Systems Ltd  Mico Pipelines
AM-2.11.2.7	Ductile Iron Fittings and Pipes	Sewage application Pump stations	AS 2280  AS/NZS 4158	All ductile valves, fittings and pipes should be coated in accordance with AS/NZS 4158	Derwent Industries Ltd	Humes Pipeline Systems  Hynds Pipe Systems Ltd  Mico Pipelines
AM-2.11.3	Pumps	Pump stations		<ul style="list-style-type: none"> <li>Flygt Submersible wastewater pumps</li> </ul>	ITT Flygt Ltd Sulzer pumps	

AM-2.11.4	Pump Discharge Pipes	Pump stations	AS 2280	<ul style="list-style-type: none"> <li>Ductile iron pipes and fittings AS 2280:1999</li> <li>Schedule 10, 316-grade stainless steel</li> </ul>		<p>Humes Pipeline Systems</p> <p>Hynds Pipe Systems Ltd</p> <p>Mico Pipelines</p>
AM-2.11.5	Submersible Pumps	For wastewater pumping	Sira Certification - ISO9001:2015		Sulzer Australia PTY Ltd	<p>Sulzer Australia PTY LTD, Pump and Valve Specialties Ltd, Wallace Murray Electrical Ltd</p>