

# Register of Approved Products for use in Water Services Infrastructure

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## Introduction

This document lists products that are approved for use in Hutt, Porirua, Upper Hutt and Wellington cities' water supply and drainage infrastructure projects. The list is generally restricted to commonly used fixtures and fittings. Specialised items, such as pumps, radio transmitters and electrical components, are not included in this list. Prior to design, the designer should confirm the specifications for these specialised items with Wellington Water.

Where a product is not listed, it should be assumed that the product has not been approved and confirmation should be sought from Wellington Water.

To apply to have a product included on the register, consideration should be made towards the Council's material specifications prior to any application. Any application should be lodged with Wellington Water for further consideration.

The Council material specifications can be found in the Regional Specification for Water Services.

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## APPROVED WATER SUPPLY PRODUCTS

### WS-01: Water Supply Pipes



Product	Notes	Application Ref
Concrete Lined Ductile Iron Pipe (AS/NZS 2280) – Tyton 2100	<ul style="list-style-type: none"> <li>• Must be used with Tyton-lok rings</li> <li>• Polyethylene wrap used where ground conditions or specifications require. Alternative coating may be considered by Council upon application</li> </ul>	
Concrete Lined Ductile Iron Pipe (AS/NZS 2280) – Saint Gobain PAM pipe (AS/NZS 2280)	<ul style="list-style-type: none"> <li>• Must be used with Grip-Lok rings.</li> <li>• Zinalium coating required as a minimum</li> <li>• Polyethylene wrap used where ground conditions or specifications require. Alternative coating may be considered by Council upon application</li> </ul>	2010-0003
Concrete Lined Ductile Iron Pipe (AS/NZS 2280) – Humes AS/NZS 2280 DICL pipe (Ø150 & Ø200 PN35 only)	<ul style="list-style-type: none"> <li>• Must be used be used with Grip-lok restraining rings.</li> <li>• Polyethylene wrap used where ground conditions or specifications require. Alternative coating may be considered by Council upon application</li> </ul>	2010-0001
Concrete Lined Ductile Iron Pipe (AS/NZS 2280) – Gillies Hydrotite AS/NZS 2280 DICL pipe	<ul style="list-style-type: none"> <li>• Must be used be used with Grip-lok restraining rings.</li> <li>• Polyethylene wrap used where ground conditions or specifications require. Alternative coating may be considered by Council upon application</li> </ul>	2014
Concrete Lined Ductile Iron Pipe (ISO 2531)	<ul style="list-style-type: none"> <li>• Proprietary rubber ring joints with restrained jointing rated to a minimum PN16. Concrete or epoxy lining plus epoxy over zinc coating.</li> </ul>	
MPVC, RRJ Series 1 (AS/NZS 4765)	<ul style="list-style-type: none"> <li>• Pressure classification as per Regional Specification for Water Services</li> <li>• EPDM rings</li> <li>• Series 2 can be used for repairs on existing pipelines</li> </ul>	
UPVC, RRJ Series 1 (AS/NZS 1477)	<ul style="list-style-type: none"> <li>• Pressure classification as per Regional Specification for Water Services</li> <li>• EPDM rings</li> <li>• Series 2 can be used for repairs on existing pipelines</li> </ul>	

Product	Notes	Application Ref
PE100 (AS/NZS 4130)	<ul style="list-style-type: none"><li>• SDR11 PN16</li></ul>	
Concrete lined mild steel (NZS 4442)	<ul style="list-style-type: none"><li>• Externally coated with an approved tape wrapping system unless alternative approved</li></ul>	
Sintalock concrete lined steel (AS 1579)	<ul style="list-style-type: none"><li>• For pipe 600mm nominal bore or smaller</li><li>• Choose min. wall thicknesses in-line with NZS 4442 Table 2 Column B or as specified in the specification</li></ul>	
ABS (AS/NZS 3518)	<ul style="list-style-type: none"><li>• For pump station pipe work. Generally not used in underground applications.</li></ul>	
Stainless Steel (ASTM A312)	<ul style="list-style-type: none"><li>• Schedule 40</li><li>• 316 or 316L for underground/wet-well applications</li><li>• 304 or 304L for drywell/chamber or above ground applications</li></ul>	

*Note: All pipes shall be rated to the appropriate pressure class as defined in the Regional Standard for Water Services.*

## WS-02: Bends, Tees & Connectors



Product	Notes	Application Ref.
Ductile iron bends, tees, tapers, spools (AS/NZS 2280)	<ul style="list-style-type: none"><li>Fittings shall be protected from corrosion by a factory applied coating; eg Rilsan, Levasit etc.</li></ul>	-
Ductile iron bends, tees, tapers, spools (ISO 2531)	<ul style="list-style-type: none"><li>To be used with ISO 2531 D1CL pipe</li></ul>	-
PE Electrofusion couplings (see Electrofusion Fittings)	<ul style="list-style-type: none"><li>For all pipe diameters</li></ul>	-
PE Compression fittings (see Compression Fittings and Mechanical Couplings)	<ul style="list-style-type: none"><li>For use on 630OD pipelines or less</li></ul>	-

*Note: Other fittings may be considered upon special application.*



## WS-03: Gate valves – Resilient Seated

Product	Notes	Application Ref.
AVK series 57 (AS/NZS 2638.2)	<ul style="list-style-type: none"> <li>• <math>\geq 80</math> mm nominal diameter, anti-clockwise closing</li> </ul>	-
Hawle E2 (AS/NZS 2638.2)	<ul style="list-style-type: none"> <li>• <math>\geq 80</math> mm nominal diameter, anti-clockwise closing</li> </ul>	-
Sureflow Figure 500 (AS/NZS 2638.2)	<ul style="list-style-type: none"> <li>• <math>\geq 80</math> mm nominal diameter, anti-clockwise closing</li> </ul>	-
Sufa / Maxiflo (AS/NZS 2638.2)	<ul style="list-style-type: none"> <li>• <math>\geq 80</math> mm nominal diameter, anti-clockwise closing</li> </ul>	-
Derwent (P&I) (AS/NZS 2638.2)	<ul style="list-style-type: none"> <li>• <math>\geq 80</math> mm nominal diameter, anti-clockwise closing</li> </ul>	-
Hawle E2 RS service valve (AS/NZS 2638.2 compliant only)	<ul style="list-style-type: none"> <li>• 50 mm <b>Clockwise</b> closing with hand-wheel</li> </ul>	-
AVK Series 57 service valve (AS/NZS 2638.2 compliant only)	<ul style="list-style-type: none"> <li>• 50 mm <b>Clockwise</b> closing with hand-wheel</li> </ul>	-

## WS-05: Service valves (Tobies)

(Gate valves can also be used as service valves with larger services)



Product	Notes	Application Ref.
Acuflo DR Brass Manifold (20 mm NB)	<ul style="list-style-type: none"><li>GM900 with dual-check valve</li></ul>	-
Acuflo DR brass diaphragm valve (20 mm NB)	<ul style="list-style-type: none"><li>Must be installed with downstream approved dual-check valve.</li></ul>	-

## WS-06: Hydrants



Product	Notes	Application Ref.
Gillies Metaltech Hydrant (NZS 4522)		-
AVK (NZS 4522)		-

Notes: All hydrants shall be clockwise closing and without frost plugs.

## WS-07: Polyethylene Electrofusion Fittings



Product	Notes	Application Ref.
Frialen (AS/NZS 4129)		-
Plasson (AS/NZS 4129)		-
Agru (AS/NZS 4129)		14/08/2012
Durafuse (AS/NZS 4129)		14/08/2012
Innogaz (AS/NZS 4129)		24/09/2012
George Fischer (AS/NZS 4129)		-
Fusion Provida (AS/NZS 4129)	PE100 SDR11 fittings DN355 or smaller	28/11/2017



## WS-08: Polyethylene Compression Fittings

Product	Notes	Application Ref.
Talbot Pushfit (AS/NZS 4129)	For use on <b>PE80b (MDPE) only</b> Up to 63mm OD only To be used with inserts	-
Philmac Metric (AS/NZS 4129)	For use on PE80b and PE100 Up to 63mm OD only To be used with inserts	-
Plassim (AS/NZS 4129)	For use on <b>PE80b (MDPE) only</b> Up to 63mm OD only To be used with inserts	-
Plasson "Series One" (AS/NZS 4129)	For use on PE80b and PE100 Up to 63mm OD only To be used with inserts	30/10/2012
Hansen "Easy Fit" (AS/NZS 4129)	For use on PE80b and PE100 Up to 63mm OD only To be used with inserts	7/11/2014

See also *Mechanical Couplings for fittings for larger diameter PE*

*Compression fittings shall only be used for the repair of pipelines or to connect from a new pipeline to an old pipeline.*



## WS-09: Tapping Connections

Product	Notes	Application Ref.
Plasson PN16 mechanical tapping saddle (PE80b)	<ul style="list-style-type: none"><li>For use 63OD pipe and smaller</li></ul>	-
RX Fittings (for PE pipe only)	<ul style="list-style-type: none"><li>For use 63OD pipe and smaller</li></ul>	-
LG2 or Aluminium bronze, stainless steel, or fusion bonded epoxy coated D1CL tapping band. Fully encircled, metal to metal seating and hydraulically activated lip seal		-

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## WS-10: Mechanical Couplings

Product	Notes	Application Ref.
Viking Johnson range		-
AVK Supacoupler range		-
Tyco Vari-Gib		-
For Polyethylene Pipes	Notes	Application Ref.
Georg Fischer Waga Multi/Joint 3000 Plus		
AVK Supa Plus		
Hawle System 2000		
Hawle Synoflex		
Viking Johnson UltraGrip		
Nova Siria Multigrip		

**Note:** All installed mechanical couplings shall be protected using the Denso paste and wrapping protection system.  
 Only to be used for transition joints from new to existing mains where non-mechanical joints are not practicable, and for repairs. Not to be used as a standard pipe jointing method on new pipelines.  
 PE restraint fittings to be used with pipe inserts



## WS-11: Dismantling Joints

Product	Notes	Application Ref.
Viking Johnson		-
AVK Dismantling Joint		-

## WS-12: Flanged Flexible Joints

Product	Notes	Application Ref.
Flex-tend		-
Saint Gobain PAM Geoflex		-
Havle Vario	<ul style="list-style-type: none"><li>Not to be used for seismic flexibility.</li></ul>	-



## WS-13: Water Meters

Product	Notes	Application Ref.
Sensus (formerly Socam and Meinecke)	<ul style="list-style-type: none"> <li>• 620B/C/MB/MC (min. R160)</li> <li>• Meitwin combination meters</li> <li>• Sensus Meistream Plus "Class C" min. R315 (DN50 to DN80 only)</li> </ul>	-
Elster-Kent	<ul style="list-style-type: none"> <li>• In-line and manifold type meters</li> <li>• Combination meters</li> <li>• H5000 Woltmann (extended version – R1250)</li> </ul>	-
ABB Magmaster	<ul style="list-style-type: none"> <li>• Magnetic flow meter. Check with Council for electrical requirements</li> </ul>	-
ltron (formerly Actaris and Neptune)	<ul style="list-style-type: none"> <li>• In-line meters only</li> </ul>	-
Sappel (Diehl)	<ul style="list-style-type: none"> <li>• In-line and manifold meters</li> </ul>	-

*Note: All meters should comply with the requirements of OIML R49.*

## WS-14: Other Water Supply Items

Product	Notes	Application Ref.
Mainscock – Tita gunmetal in-line ball valve	<ul style="list-style-type: none"><li>Used mostly when tapping under pressure.</li></ul>	-
Check valve – AVK Swing Check	<ul style="list-style-type: none"><li>For mains 80 mm and above (water supply only)</li></ul>	-
Pressure Reducing Valve – Bermad	<ul style="list-style-type: none"><li>To be installed as per standard detailing</li></ul>	-
Pressure Reducing Valve – Cla-Val	<ul style="list-style-type: none"><li>To be installed as per standard detailing</li></ul>	-
Back Flow Preventer – Wilkins-Zurn, Watts, Febco or Pentair ValCheQ. To comply with AS/NZS 2845.1	<ul style="list-style-type: none"><li>BFP type to be determined by Council in conjunction with activity hazard class.</li></ul>	-

*Other items may be used on specific jobs with approval from the Engineer. Consultation with the Council's material specification should be carried out prior to application.*

## APPROVED STORMWATER AND WASTEWATER PRODUCTS

### DR-01: Standard Manhole Covers

Product	Notes	Application Ref.
WCC Patterned "Maestro" Class E ductile iron AS 3996	<ul style="list-style-type: none"><li>Hinged. To be used in WELLINGTON CITY ONLY.</li></ul>	-
HCP ductile iron hinged frame and centre WCC Pattern (EN124)	<ul style="list-style-type: none"><li>Hinged. To be used in WELLINGTON CITY ONLY.</li></ul>	-
"Maestro" Class E ductile iron (standard pattern) AS 3996	<ul style="list-style-type: none"><li>Hinged. To be used in only Hutt, Upper Hutt and Porirua cities.</li></ul>	-
HCP ductile iron hinged frame and centre Standard Pattern (EN124 D400)	<ul style="list-style-type: none"><li>Hinged. To be used in only Hutt, Upper Hutt and Porirua cities.</li></ul>	-

These covers are to be used on standard manhole installation for sewage and stormwater applications.

## DR-02: Pipes

The products listed here are permitted for typical network construction. Where scenarios exist where the products listed below are not suitable, the Regional Standard for Water Services and Regional Specification for Water Services should be consulted for alternatives.

Product	Notes	Application Ref.
<b>Wastewater</b>		
Polyethylene PE100 (Series 1) AS/NZS 4130	<ul style="list-style-type: none"> <li>To be used for general reticulation pipes in the public network for all cities</li> <li>Butt welded or electrofusion jointed</li> </ul>	-
Concrete pipes AS/NZS 4058	<ul style="list-style-type: none"> <li>Must be factory lined with PE or manufactured with approved additives and a sacrificial layer to achieve durability requirements in a wastewater environment</li> <li>Rubber-ring jointed and Class 2 minimum</li> <li>Will not typically be permitted for drains 375 mm and smaller.</li> <li>Humes Spun pipe and RCP pipe are approved</li> <li>Hynds Hyspec Spun pipe and VCT pipe are approved</li> </ul>	
PVC-U AS/NZS 1260	<ul style="list-style-type: none"> <li>Can be Used in: Hutt City, Upper Hutt City, and Porirua City for public drains</li> <li>Permitted for wastewater laterals connecting to private drainage for all cities</li> <li>Can be used for repairing existing PVC or Vitrified Clay drains</li> <li>Rubber ring joints only, minimum SN16</li> </ul>	
Vitrified Clay AS 1741	<ul style="list-style-type: none"> <li>Permitted only for invert tiles in manholes and chambers</li> </ul>	

Stormwater		
Concrete pipes AS/NZS 4058	<ul style="list-style-type: none"> <li>• Rubber-ring jointed and Class 2 minimum</li> <li>• Humes Spun pipe and RCP pipe are approved</li> <li>• Hynds Hyspec Spun pipe and VCT pipe are approved</li> </ul>	
Polyethylene PE100 (Series 1) AS/NZS 4130	<ul style="list-style-type: none"> <li>• Butt welded or electrofusion jointed</li> <li>• SDR 17.6 minimum</li> <li>• Permitted for use in all cities</li> </ul>	-
Profiled Polyethylene or Polypropylene AS/NZS 5065	<ul style="list-style-type: none"> <li>• Can be Used in: Hutt City, Upper Hutt City, and Porirua City for public drains</li> <li>• Rubber ring joints only, minimum SN16</li> </ul>	
PVC-U AS/NZS 1260	<ul style="list-style-type: none"> <li>• Permitted only for laterals connecting to private drainage</li> <li>• Can be used for repairing existing PVC or Vitrified Clay drains</li> </ul>	

SUPERSEDED