

Hamilton City Development Manual	
Volume 3 : Standard Technical Specifications	Part 5 —Wastewater Pump Stations
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SECTION A : ACCEPTABLE FITTINGS AND MATERIALS

1.0 SCOPE

This specification covers the list of materials acceptable for use in Hamilton City Council wastewater pump stations, and covers materials which Council has or will, assume responsibility for. Fittings not in accordance with this list will be rejected, unless written approval from Council is obtained prior to installation. Rejected products and materials will be subject to removal at the Contractor or Developer's cost.

This list of Acceptable Fittings and Materials will be updated in July and December each year or at other times when four or more acceptable products need to be incorporated into the list.

All applications to the Acceptable Fittings and Materials list must be accompanied by the pro-forma Volume 4: Quality Checklists & Appendices: Part 9 Appendix 6: Application for Acceptance of Water or Drainage Product for Use in the Hamilton City Council Water Supply Area or Drainage District.

Requirements for acceptance of materials are as follows:

- conforms to appropriate New Zealand, Australian or British standards with evidence of the licence number issued;
- manufacturer operates to an acceptable quality assurance standard;
- details of composition, dimensions and specific use and design life are supplied by the manufacturer;
- details of acceptance by other New Zealand local authorities
- details are supplied by the manufacturer on how the product should be installed;
- the product is acceptable to HCC (taking into account such factors as compatibility with other approved products, ease of use, availability of supply, etc).

Where there is no standard, the manufacturer will be required to supply copies of their quality assurance procedures and producer statements to support their performance and composition claims for the products concerned.

Completed applications and supporting information should be addressed to:

The Manager
City Waters
Hamilton City Council
Private Bag 3010
Hamilton

Council reserves the right to refuse any material or fitting from the Acceptable Fittings and Materials list for any reason and at any time. In such circumstances, Council will provide written notification, stating reasons why the material or fitting has been refused or removed from the Acceptable Fittings and Materials list.

For pump station requirements in participating districts refer to Volume 5.

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2.0 PUMP STATION MATERIALS

Manufacturer

- | | | |
|------|--|--------------------------------------|
| 2.1 | Chamber - Centrifugally Spun Manufactured Concrete Pipes
Flushed Jointed pipes - Class 4 1200mm —
2300mm | Humes (Lic # 2618 BV)
Hynds |
| 2.2 | Pump Valve Chamber Walls
200mm Concrete Block | |
| 2.3 | Pump & Valve Chamber Floor
Cast insitu concrete — 21 MPa | All certified concrete suppliers |
| 2.4 | Pump & Valve Chamber Top Slab
may be precast — 21 MPa | All certified concrete suppliers |
| 2.5 | Access Lids
6mm Chequer Aluminium plate | 316 SS Frames and Hinges |
| 2.6 | Guide Rails
50mm diameter, Schedule 10, 316 grade stainless steel pipe. Any joints to be an internal pressed fit stainless steel sleeve. | NZ Fasteners |
| 2.7 | Guide Rail Brackets
“Flygt” hot dipped galvanised | Flygt |
| 2.8 | Bolts
All to be 316 grade stainless steel | |
| 2.9 | Cable Brackets
316 grade stainless steel | |
| 2.10 | Riser Pipes

- Schedule 10, 316 grade stainless steel | |
| 2.11 | Rising Main
- PE 100 polyethylene pipe manufactured to AS/NZS 4130: 2003, pressure rating PN16, coloured black with welded or flanged joints (fusion welded fittings are acceptable). Due to the limited size range available in PE100, PE70 materials may be suitable and site specific solutions shall be subject to HCC approval at the time of designing pump station. | Iplex Licence # SMK P20400
Marley |
| 2.12 | Gate Valves | |

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Resilient Seated — manufactured to NZ/AS 2638.2:12006, anti-clockwise closing with Teflon gland packing or 2 or more “o” ring seals and dust cover. External and internal protective coating to AS/NZS 4158:2003 & amendments. Rated at PN16. Flanges to be raised face and drilled to AS 4087:2004.

AVK valves (Licence SAI #2420 & 2573)
 Gillies SF Series, Hawle 4060E2 and 4500E2AS Series (Licence #SMKP20123)
 Tyco Figuer 500 Series (Licence # PRD/R61/0412/2)

2.13 Ductile Iron Sluice Valves

-to AS 4794-2001

2.14 Ductile Iron Fittings

i.— Cast iron pipe flanged, socket and spigot fittings to AS/NZS 1830:2007 and AS/NZS 2544: 1995 with flanges to Table D and coated to AS/NZS 4158: 2003 and amendments. Rated at PN16 or higher

Gillies

ii.- Ductile iron pipe flanged, socket and spigot fittings to AS/NZS 2280: 2004 with flanges to Table D, or raised, faced and drilled as AS 4087:2004, and coated to AS/NZS 4158:2003 and amendments

Crevet Griptite (Licence #943 & 950)
 Humes (Licence #2029)
 Surecast
 Tyco TYTON JOINT (Licence # PRD/R61/0412/1)

iii. - Stand Alone Flanges to Table D, PVC; Ductile or Cast Iron coated to AS/NZS 4158:2003 & amendments

Iplex PVC
 Marley PVC
 Uniflange Adaptor DI (as supplied by Steel & Tube NZ Ltd)

iv. - Bolts, nuts and washers to be hot dipped galvanised with minimum of 15mm diameter in accordance with AS 1111:2000 “ISO Metric Hexagon Commercial Bolts and Screws: and AS 1112:2000 “ISO Metric Hexagon Nuts, including Thin Nuts, Slotted Nuts and Castle Nuts.

Ajax

v. - Stainless steel bolts, nuts and washers are acceptable alternatives to hot dip galvanised fastenings provided they are 316 grade stainless steel with factory applied molybond coating and complying with AS/NZS 1252:1996 — High Strength Steel Fastenings.

2.15 Pumps

Submersible wastewater pumps
 - refer Vol 2, Part 5, Clause 5.19.3

Flygt

2.16 Backflow Devices

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3.0 ELECTRONIC COMPONENTS APPROVED EQUIPMENT LIST

Description	Manufacturer	Model	Part Number
Main Switch Isolator or Main Switch (MCCB)	Merlin Gerin Terasaki	NS INS	
Mains/Generator Changeover Switch	Kraus& Naimer		KG64BT904NZ007VE KG100T904NZ007VE
Distribution Board	Vynco	VCP Range	VCP18
Control Enclosure	Vynco/DSE	HIBOX Don 3	NEAG 3030
Soft Starter Enclosure	Vynco/DSE	HIBOX Don 3	NEAT 3030
MCB's	Merlin Gerin GE	C60 Redline	As Required
RCD Power Point	PDL	600 Series	691RCD-30
Light Switch	PDL	600 Series	661VH& 681M20
Light	Thorn	R960 Minipak	ML8S
Pump Motor Isolators	PDL	56 Series	56SW4XX
Enclosed DOL Starter with Reset Only	Allen Bradley		As per Specification
Overloads	Allen Bradley	Bulletin 193	193-EE
Soft Starter	Allen Bradley	SMC-3	150-C__ NBD
Auto/Off/Manual Switches Extra N/O Contacts	Allen Bradley	800 FP	800 FP- SM32PX20 800FP — X1O
Push Buttons — Illuminated	Allen Bradley	800 FP	800FP-LF-5 800FP-LF-6 800FP-N3Y 800FP-N3B 800F-ALP / 800F-X10
Amp meters	Carrel & Carrel	CEQ-72	To Suit Motor Size
Terminals	Allen Bradley Weidmuller Contra Clip	1492-J Series WDU Series RK Series	As Required
Fuse Terminals	Allen Bradley Weidmuller Contra Clip	1492-WFB4 ASK1 STK Series	As Required
Control Relays	Omron	G2R LY	G2R-1-SN DC12 G2R-2-SN DC12 G2R-1-SN AC230 G2R-2-SN AC230 LY4N DC12
Power failure Relay	TELE Automation Components	ENYA	E3PF400VSY02
Power Factor Correction Capacitors	Metalect		To Suit Motor Size
Level Floats	Flygt	ENM	ENM 10-13
Level Ultra Sonic	ABB/ Pulsar	Black Box	130-D
Level Ultra Sonic	ABB/ Pulsar		DB6/10

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Solenoid Transformer	ATCO		100VA
Thermostat	Seitron		TAM011
Heater	Hbar		HB1613
Generator Inlet Socket	Scame	3P+N+E	As per Specification
Flow meter	ABB	Water Master	Sized as required