

WasteWorx® Pressure

PUMPING STATION SOLUTIONS

When Gravity Just Won't Work.

Watercare Specification WasteWorx® Pressure Pumping Stations



Discover the future of wastewater management with our latest Generation Pressure Sewer Chambers. Crafted from 100% recyclable Polyethylene in New Zealand, our eco-conscious design eliminates the need for concrete ballast, reducing embodied carbon. Featuring high head approved pumps and controllers, our system ensures pump protection and seamless communication with SCADA and the cloud.



Features

- Full commissioning included.
- Chamber is 100% recyclable.
- Anti-flotation ring built in, no need for concrete around base, reducing embodied carbon.
- Manufactured to AS/NZ 4766:2020 and AS/NZ 1546.
- Pre-delivery network design service available.
- Connectivity to Scada networks available by demand.
- State of the art controllers help protect the pump from burnout.
- Maintenance service available, please contact APD for recommendations.

**Versatile
Adjustable
Lid Options
for Lawn and
Pavement**

For more information contact
your APD account manager
or call (09) 263 7741 or 0800 263 774

www.apd.co.nz

August 2024

APD

Doing Good From The Ground Up

WasteWorx® Pressure

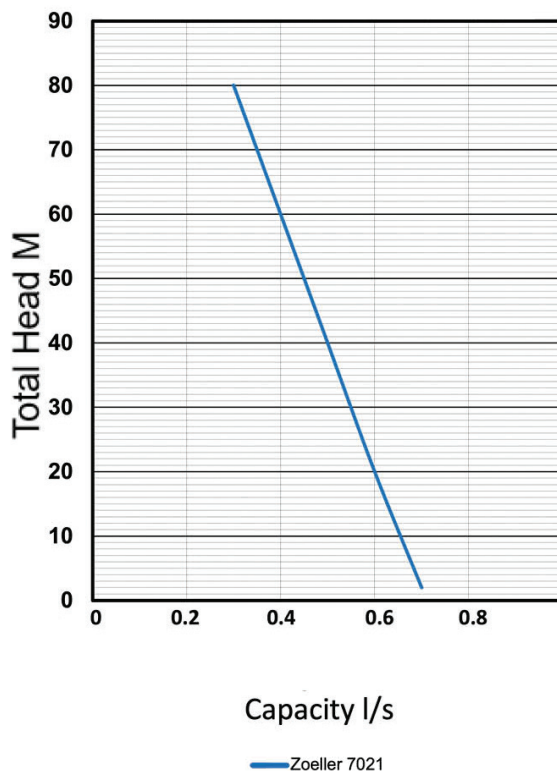
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Pumps

- Oil-filled motor for optimal heat dissipation: This design minimises concerns about the pump overheating or breaking down due to extreme heat generation during extended-use applications.
- Corrosion-resistant, powder coated epoxy finish.
- Surface hardened shredder mechanism: This feature enables the pump to cut through challenging materials while also providing excellent corrosion protection.
- 100% factory tested: Our factory-tested pumps ensure reliable performance in challenging applications with fewer concerns about mechanical failures.
- Automatic thermal overload protection (1 Phase).
- Cradle provides for freestanding installation.
- RCM certification.

Wastewater Pressure Pump



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Controllers

Key Features

The controller will come with the following:

- Waterproof, UV resistant, polycarbonate enclosure with flange mounting brackets.
- Internal connections for mains power supply, pump power supply, high-level float, and start/stop float (optional use).
- A buzzer with mute switch.
- A dry contact output for any alarm failure (a BMS function).
- A LED alarm light that flashes on alarm, activating a buzzer.
- Ability to be mounted without opening front cover.
- Rated to 200-260VAC, 3.5kW, 50NZ rated IP64.

Network Design Service

APD provide an in-house design service based on the Rational Method as outlined in the Water New Zealand 'Pressure Sewer National Guidelines' Feb 2020 below.

Analysis/Design Method

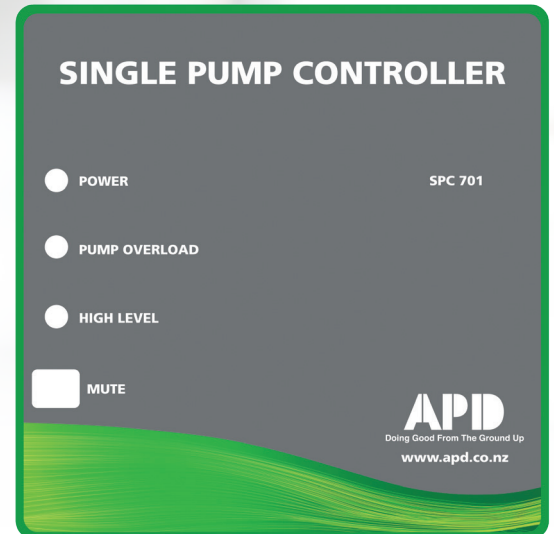
The Rational Method is based on a linear equation to estimate the peak flow rate based on the number of accumulated pumps:

Key Design Aspects

There are various requirements for the correct design of a pressure sewer system, which include velocities, retention times, system layout, service clearances, pipe cover, flushing schemes, property connections, etc. This section presents a summary of the key aspects for design of the system.

Design Criteria

- Design flow based on Average Day Flow (ADF).
- Maximum total dynamic head (TDH) of 55 metres.
- Pressure sewer pipeline material to be polyethylene pipe.
- Solids self-cleansing velocities to be achieved daily.
- Minimise pipe length and diameter, as much as practical, to reduce retention times.
- Velocities to be maximised within the design constraints specified in this section.
- Discharge manhole to be the highest elevation in the system such that the pressure sewer pressure pipelines remain full at all times.
- Design should be carried out for each stage of the project, not just ultimate development.



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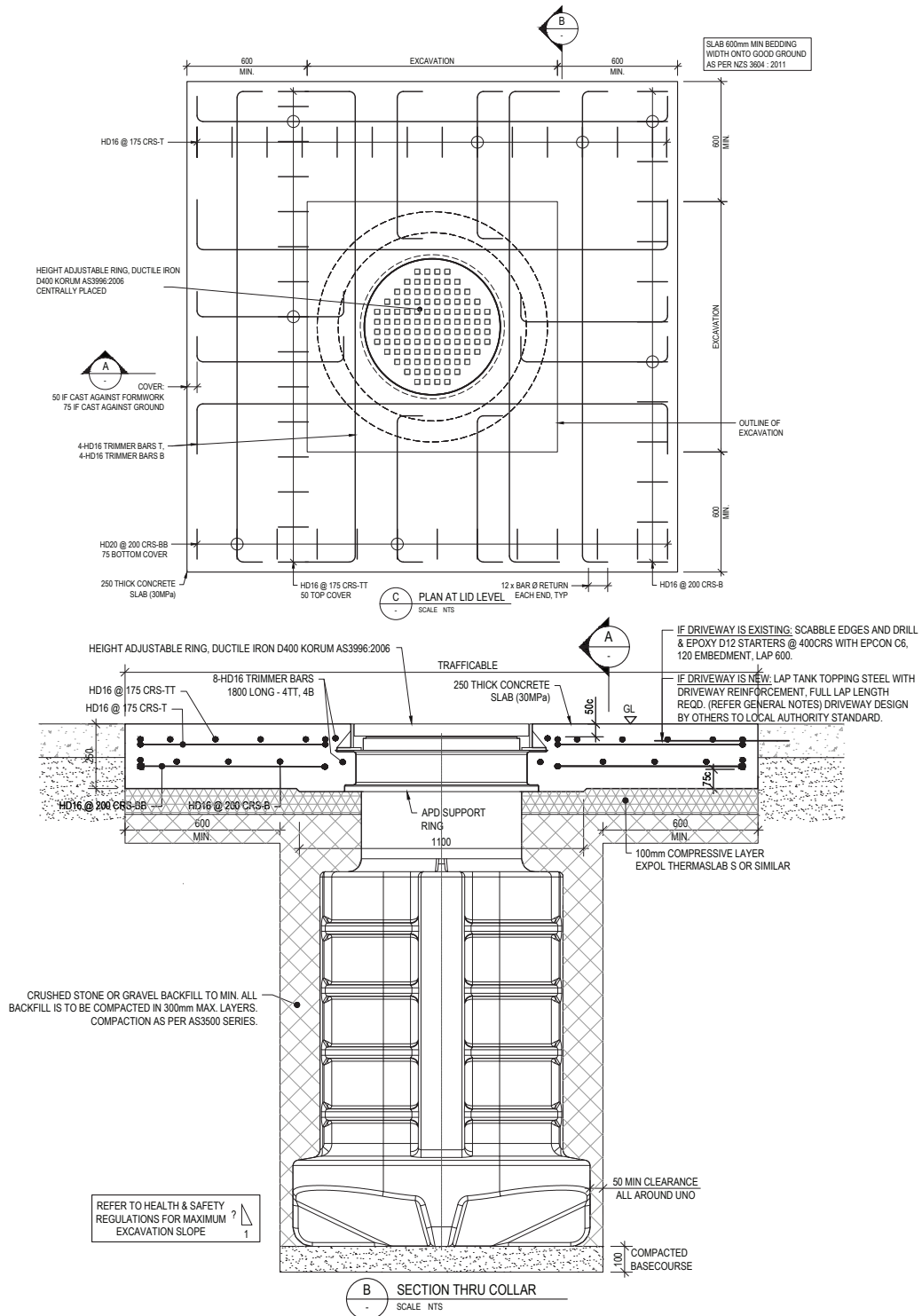
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Installation Tools

Detailed installation drawings available for:

- Most New Zealand soils up to and including H2.
- Garden, Concrete, Asphalt and flexible paving detailed.
- PS1 available.
- All these are on our website www.apd.co.nz.
- Use Korum D400 ductile iron lids.



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