

Aquate Commercial Pump Station

Technical Guide PS1

Aquate Commercial Pump Stations are ideal for commercial applications where sewage or stormwater needs to be discharged into a reticulation network or wastewater treatment plant.



03.25 | PUMP STATION | PS.1.1 AQUATE COMMERCIAL PUMP STATIONS

Applications

From residential subdivisions, schools, factories and commercial developments to stormwater networks, our complete range of pump stations is the solution for any sewer, stormwater or trade waste application.

Approvals/Standards

Concrete components designed and manufactured to AS/NZS 4058:2007
Precast Concrete Pipes

AS/NZS 1546:1 2008 – tank certification

AS/NZS3000 – electrical controller

Powder Coating Institute® certified
Powder Coated Tough™

Built under ISO9001:2008 QA System

Approvals/Standards

AS/NZS 3500.2.2021 Sanitary plumbing and drainage

AS/NZS 3500.3.2021 Stormwater drainage

Polyethylene Tanks designed and manufactured to: (TBA)

Quality/Environment/Health & Safety

ISO 9001:2015, ISO 14001:2015 and
ISO 45001:2018

Aquate Pump Stations are ideal for civil infrastructure applications where conventional gravity systems are impractical or not cost effective. Sewage or stormwater needs to be discharged into a reticulation network or wastewater treatment plant.

Introduction

Hynds offers a wide range of high performance and durable Aquate packaged pump stations. These systems include chambers, pumps, level controls, control equipment, piping and valves etc. Aquate Pump stations are manufactured in Hynds Precast Factories and available in either Concrete or Polyethylene.

Our dedicated design team at Aquate provide a complete design and specification for consulting engineers and contractors. No matter what challenges your project presents, Aquate's expert engineers will work with you step by step to custom design the perfect pump station solution. Safety in design, environmental risk mitigation, and ease of maintenance for servicing is always front of mind.

Hynds' dedicated Project Manager oversees the entire pump station project, including supply, on site installation, commissioning and quality assurance. Together with Aquate's world standard design service, the whole process from design through to installation is seamless.

Residential Aquate Pump Systems are also available. See our website for more information: www.hynds.co.nz/product/aquate-residential-pump-station/

Features & Benefits

1. Flexible design: Aquate Pump Stations are designed to provide the required on-site storage and optimal pump performance.
2. Easy installation: The systems are prefabricated in the factory providing easy of installation on site.
3. High quality tanks: Size range from 1.2m – 3m diameter in concrete and 1.2m – 2.5m polyethylene.
4. High quality pumps: Brands include Flygt, Grundfos and Zenit and pumps are designed to meet the site specific requirements.



Technical data

Aquate Model No.	AQ1200	AQ1500	AQ1800	AQ2050	AQ2500	AQ3000
Internal diameter (mm)	1200	1500	1800	2020	2550	3000
Max chamber depth (m)	4.8	4.8	6.0	6.0	8.0	10.0
Min. riser sections (mm)	300	300	300	300	300	300
Valve chamber diameter (m)	1.2	1.2	1.5	1.5	1.8	1.8
Min volume wet-well (L)	2000	3500	5000	7000	10000	17000
Volume per additional metre depth (L)	1130	1760	2550	3100	5100	7050
Maximum pipework size (mm)	100	150	200	250	300	300

Control Panel

Hynds Aquate Pump Stations come complete with an electrical controller. This can be located on the pump chamber or installed at a nearby building. Features include:

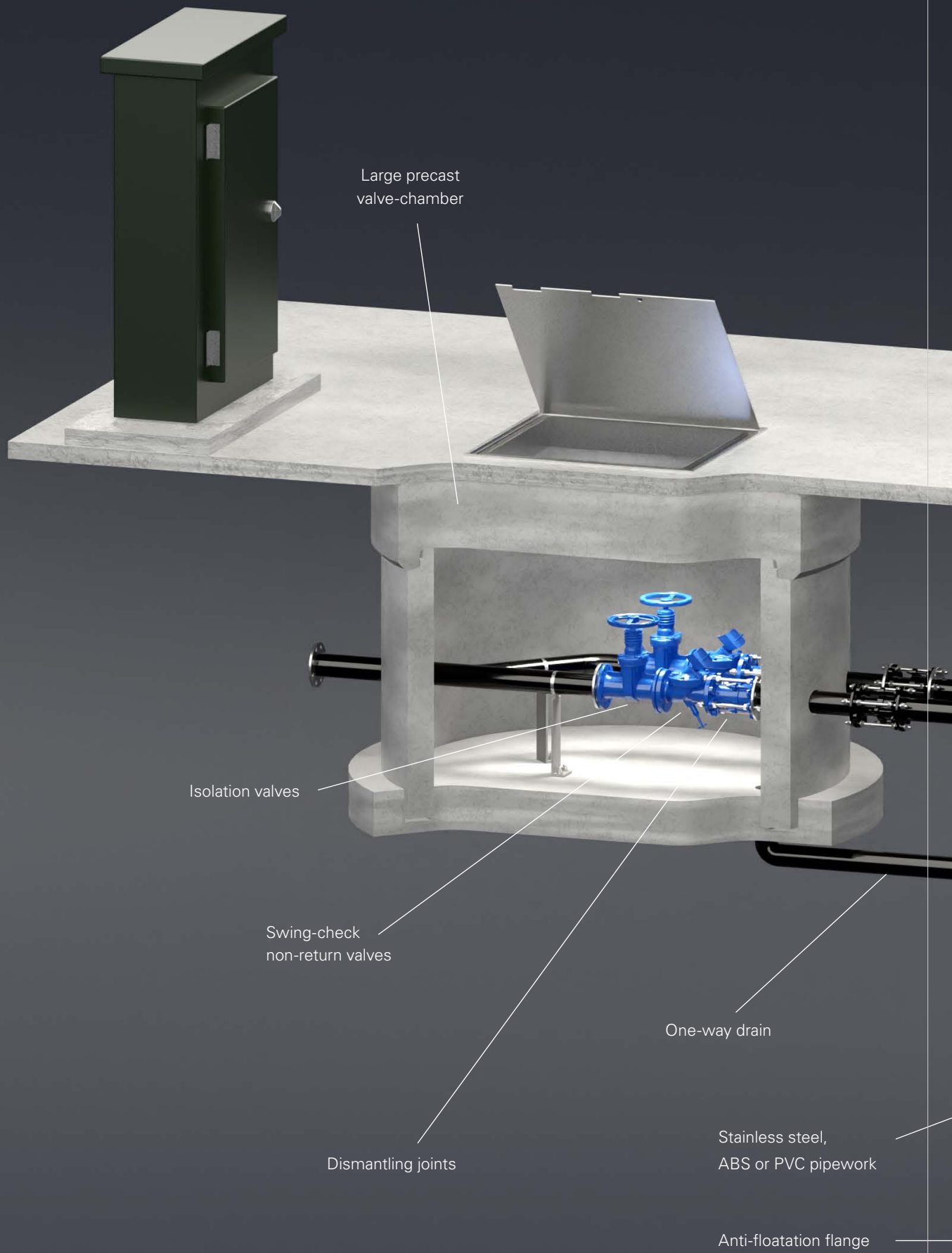
- Single or three phase option
- Simplex or duplex pump operation
- Lockable IP 65 rated enclosure
- Visual and audible pump failure alarm system
- High level alarm
- Over pressure protection
- Pump motor protection against variable electricity supply
- Performance data recorded



Options

- Web Based monitoring
- Float switches, hydrostatic transducers or ultrasonic level sensors
- Steel cabinets
- Hour run and start count
- Integration into a SCADA System
- Mag flow metres
- Alarm telemetry (SMS alarms), radio transmission, or outputs to BMS





Large precast
valve-chamber

Isolation valves

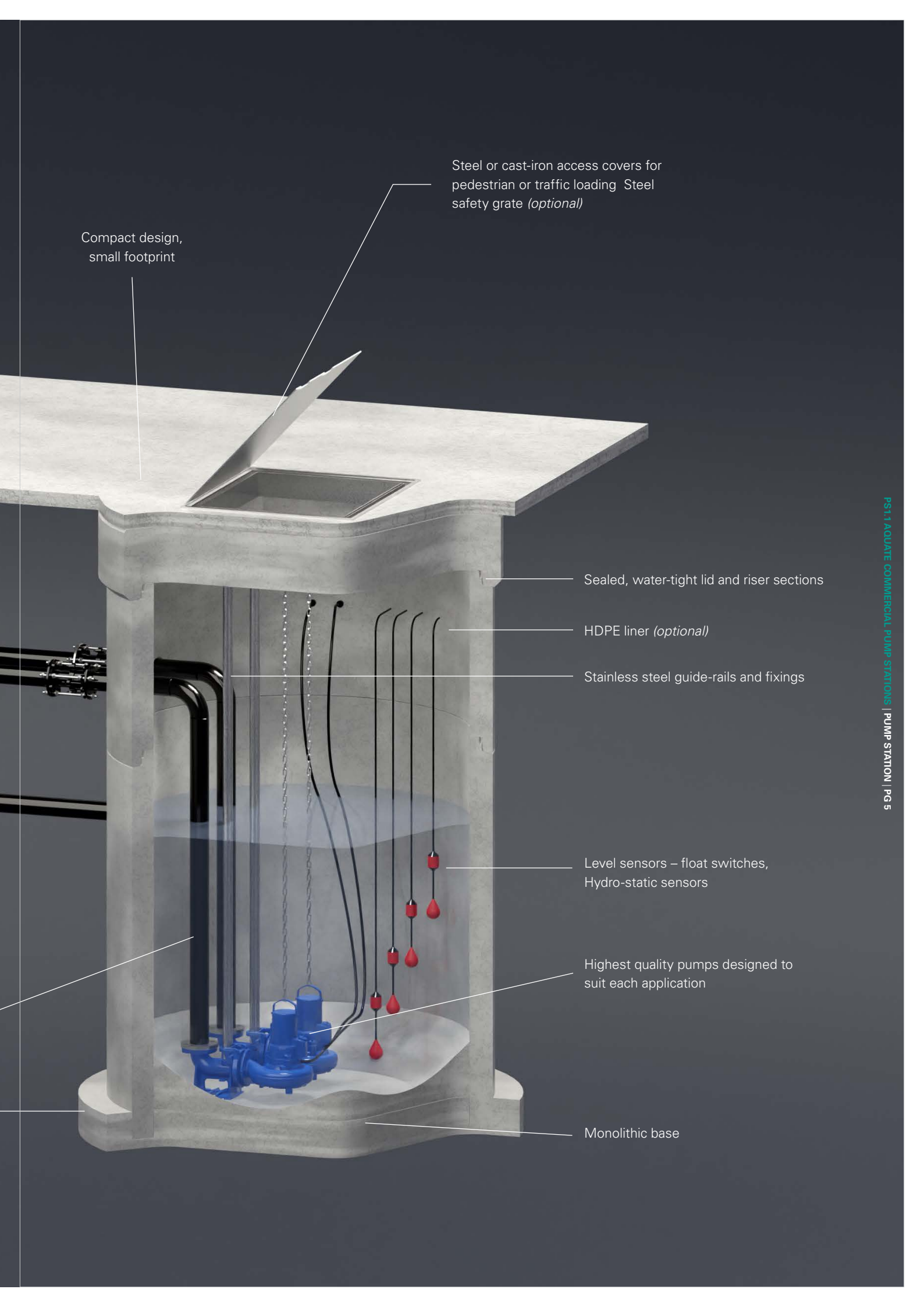
Swing-check
non-return valves

Dismantling joints

One-way drain

Stainless steel,
ABS or PVC pipework

Anti-floatation flange



Compact design,
small footprint

Steel or cast-iron access covers for
pedestrian or traffic loading. Steel
safety grate *(optional)*

Sealed, water-tight lid and riser sections

HDPE liner *(optional)*

Stainless steel guide-rails and fixings

Level sensors – float switches,
Hydro-static sensors

Highest quality pumps designed to
suit each application

Monolithic base

Accessories

- Flow Meters to monitor usage
 - Auto well-washer for automatic station cleaning
 - Odour filters
 - Internal linings to prevent corrosion
- Lifting arm socket to simplify maintenance procedures

Back up and support

Hynds has service agents throughout New Zealand. In the unlikely event of an alarm activation there is typically sufficient storage in the tank for 24 hours of normal operation. In the event of an alarm, either Hynds or the Local Council's Utility Services Team can provide onsite service.

Design Assistance

Hynds dedicated Aquate Design Team are available from the very beginning to assist engineers design the ultimate pump station for their projects.

The following information will need to be considered to complete the full design:

- Expected daily wastewater volumes
- Emergency storage requirements
- Private or Council owned
- Static lift of rising main
- Length of rising main
- Special requirements for the controller (see options available)
- Depth of inlet pipes
- Pedestrian or traffic loading

Based on the information provided, Aquate will supply a design and specification including :

- Size of wet-well required
- Emergency storage tank if required
- Pump model and design
- Rising main sizing
- GA drawings of the pump station and valve chamber

Contact

Contact our Project Manager to discuss your project

E: John.Bradford@hynds.co.nz

M: 027 538 9724





Branches Nationwide *Support Office & Technical Services* 0800 93 7473

Disclaimer: While every effort has been made to ensure that the information in this document is correct and accurate, users of Hynds product or information within this document must make their own assessment of suitability for their particular application. Product dimensions are nominal only, and should be verified if critical to a particular installation. No warranty is either expressed, implied, or statutory made by Hynds unless expressly stated in any sale and purchase agreement entered into between Hynds and the user.

hynds.co.nz
0800 93 7473

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