

Engineering Standard X-LST-STD-001

Seqwater Preferred Equipment

Document number: REG-01074

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10	Amended Version	Lead Mechanical Engineer	Refer to supporting Info in REX	Principal Engineering Standards and Assurance	Refer to supporting Info in REX	05/06/2026

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1. Purpose

This document is part of a suite of Seqwater Engineering Standards which are in alignment with the Seqwater Quality Management System. Their purpose is to provide a consistent approach to the development, modification, and management of Seqwater infrastructure that is fit for purpose, economic over the life of the asset, and meets Seqwater's risk appetite and compliance requirements including Work Health and Safety obligations.

To maintain standard equipment in the fleet, this document lists preferred equipment for use on Seqwater assets and shall be used in conjunction with the documents it references as well as other relevant documentation. Unless specifically approved by Seqwater, all equipment shall be selected from this preferred equipment list.

This preferred equipment list was developed through open market procurement processes for each category of equipment listed. A separate Commercial Services evaluation report, approved by the Commercial Services Manager, details the procurement process and the resultant pre-qualified equipment and suppliers for each category.

This document must be used in conjunction with the documents it references to assist in ensuring fit for purpose infrastructure. This Standard Specification is not intended to be relied on solely for design, supply, and installation works; advice from specialist engineers and/or manufacturers may be required on a case-by-case basis.

2. Scope

This Register applies to all Seqwater employees, contractors, suppliers and consultants working for or on behalf of Seqwater unless otherwise stated. It applies to all new assets and to all existing assets undergoing refurbishment or modification. It must be used in conjunction with other relevant Seqwater Engineering Standards and project specific documents to define the technical requirements for infrastructure design and construction.

Where single or discrete components of an existing non-compliant system are to be replaced, refurbished or modified, this standard should not automatically be applied to the entire system retrospectively, however consideration should be given, in consultation with relevant stakeholders, to the extent of the application of the standard outside of the components requiring replacement, refurbishment or modification, to ensure safe, economic, and fit for purpose infrastructure.

Seqwater Engineering Standards include Standard Specifications, Drawings, Procedures, Templates, Forms and Preferred Equipment Lists. Together they detail Seqwater's minimum requirements and recommendations to provide infrastructure that will be fit for purpose, safe, and cost effective to operate and maintain. However, compliance with these requirements and recommendations does not remove, and cannot be relied on as meeting, the designer's overarching responsibility for ensuring infrastructure designed is fit for purpose and safe to construct, operate, maintain, and demolish. The designer must exercise appropriate due diligence to identify and manage hazards so far as is reasonably practicable.

Designers must also ensure compliance with relevant Australian Legislation, Standards, Codes and Guidelines (including those produced by Water Services Association of Australia). Where no Australian Standard exists for a particular application, work must conform to the most current version of an industry accepted international standard. Seqwater Engineering Standards use the International System of Units (SI), unless noted otherwise.

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Deviation from meeting the minimum requirements in this Standard Specification requires written agreement from Seqwater as per the deviation process detailed in Procedure X-PRO-STD-008 Asset Standards Management and Application. That process includes completion of an X-TMP-STD-022 Asset Standards Deviation Request Form together with relevant supporting documentation, and submission by the Seqwater Project Representative to the Seqwater Engineering Mailbox. Where noted in this Standard Specification that Seqwater approval, agreement, or acceptance shall/must be sought, such approval, agreement or acceptance must be gained through the Seqwater Asset Standard Deviation process, as outlined above.

Responsibility for ensuring compliance with Seqwater Engineering Standards lies with those engaged in the management and execution of design, construction, and modification of Seqwater infrastructure. This includes modifications to the functional design of the infrastructure including technical changes made which would extend an asset outside of its design operating envelope and/or approved operation and maintenance practices.

Any ambiguities or conflicts identified between specific requirements within this Standard and project documents, another Seqwater Engineering Standard or Australian Legislation, Standards, Codes or Guidelines, must be brought to the attention of the Seqwater Document Owner as listed in the document footer, via the Engineering Mailbox, for clarification. Where it is proposed to proceed without meeting the requirements of this standard, agreement must be obtained via the Deviation Process, as outlined above.

Seqwater undertakes regular updates of its Engineering Standards. Before utilising this Engineering Standard the complete list of Seqwater Engineering Standards should be reviewed to ensure currency and applicability of standards to be applied to the works. These can be accessed on the Waternet Seqwater Engineering Standards & Framework page or from your Seqwater project manager, design manager, or engaging officer.

3. Objective

It is the intent that the pre-qualified equipment listed within will be used to assist Seqwater to improve efficiencies in project delivery, operations and maintenance activities through component and process standardisation. This list is applicable for new works, major refurbishment, end of life and maintenance replacement.

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4. Preferred Equipment List

The following table specifies Seqwater's preferred equipment listed in order of manufacturer preference for each product category.

Table 1 Preferred Equipment List

Category	Preference Order	Manufacturer	Supplier	Model	Comment
Dosing Pump	1	Grundfos	Grundfos Australia Pty Ltd	Digital pump range	Fitted with diaphragm leakage alarm
		Grundfos	Grundfos Australia Pty Ltd	DMH	Fitted with auto stroke length servo and diaphragm leakage alarm
	2	Iwaki	Iwaki Pumps Australia Pty Ltd	AX range	Fitted with auto stroke length servo and diaphragm leakage alarm and Profibus
		Iwaki	Iwaki Pumps Australia Pty Ltd	IX-B digital pump range	Fitted with Profibus
		Iwaki	Iwaki Pumps Australia Pty Ltd	ALH Peristaltic Pump Range	
	3	ProMinent	ProMinent Fluid Controls Pty Ltd	Sigma Control Type range	
Dosing Skids	1	Hydramet	Hydramet Australia Pty Ltd (Trility)	All	Custom designed for application
	2	Dioxide Pacific	Dioxide pacific Pty Ltd	All	Custom designed for application
	3	Iwaki	Iwaki Pumps Australia Pty Ltd	All	Custom designed for application

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Category	Preference Order	Manufacturer	Supplier	Model	Comment
Flow Meter	1	Krohne	Krohne Australia Pty Ltd	Optiflux	For Water and Chemical applications
		Krohne	Krohne Australia Pty Ltd	Waterflux	For Water and Chemical applications
		Krohne	Krohne Australia Pty Ltd	Optiflux with IFC300	For Potable Water Billing/Revenue Meter applications
		Krohne	Krohne Australia Pty Ltd	Waterflux 3070C	For Irrigation applications
	2	ABB	ABB Australia Pty Ltd	Water Master	For Water applications
		ABB	ABB Australia Pty Ltd	Process Master	For Chemical applications
		ABB	ABB Australia Pty Ltd	Aqua Master 4	For Irrigation applications
	3	Endruss+ Hauser	Endress + Hauser Pty Ltd	Promag W500	For Water applications
		Endruss+ Hauser	Endress + Hauser Pty Ltd	Promag series	With 500 series Transmitter. For Chemical applications
Monochloramine and Free Ammonia Analyser	1	Chemscan	Royce Water Technologies	UV-2250/S	Refer I-SPE-STD-017 for supply conditions

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Category	Preference Order	Manufacturer	Supplier	Model	Comment
Online Fluoride Analyser	1	ProMinent	ProMinent Fluid Controls Pty Ltd	56003336 56003338 56003465 56003466	Single or dual measurement station with Dulcotest FLEP sensor
Turbidity Analyser – Filtered & Treated Water	1	Swan	Swan Analytical Australia Pacific	AMI Turbiwell W/LED A-25.412.700.1	Transmitter with 24VDC included. Flow sensor A-87.933.010
	2	Thermo Fisher Scientific	Thermo Fisher Scientific Australia Pty Ltd	Lovibond PTV 1000 WL	Transmitter with 24VDC and flow sensor included.
	3	Hach	Hach Pacific	TU5300	Transmitter SC4500 @ 24VDC, with flow sensor.
Turbidity Analyser – Settled and Supernatant Return Water	1	Swan	Swan Analytical Australia Pacific	AMI Turbiwell W/LED A-25.412.700.1	Transmitter with 24VDC included. Flow sensor A-87.933.010
	2	Thermo Fisher Scientific	Thermo Fisher Scientific Australia Pty Ltd	Lovibond PTV 1000 WL	Transmitter with 24VDC and flow sensor included.
	3	Hach	Hach Pacific	Ultraturb	Transmitter SC4500 @ 24VDC, with flow sensor.
Turbidity Analyser – Raw Water Type 1	1	Hach	Hach Pacific	Ultraturb	Raw water turbidity expected to be 0 - 1,000 NTU. Type 1. Transmitter SC4500 @ 24VDC, with flow sensor.
Turbidity Analyser – Raw Water Type 2	1	Hach	Hach Pacific	Surface Scatter 7SC	Raw water where turbidity may exceed 1,000 NTU (0-9999). Type 2. Transmitter SC4500 @ 24VDC, with flow sensor

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Category	Preference Order	Manufacturer	Supplier	Model	Comment
Valve Actuators	1	Rotork	Rotork Australia Pty Ltd	IQ series	IQ, IQD, IQM, IQML, IQS, IQT, IQTF, IQTM,
Valves - Gate	1	AVK	AVK Valves Pty Ltd	57, 570 series 54, 580, 2580 series	Resilient Seated, PN16, DN50 – 750 PN25, DN50 – 300 Metal Seated, PN16, DN80 – 1000 PN35, DN80 - 900
	2	Dobbie	Dobbie Dico Meter Co. (WA) LTD	VGR Series VGM Series	Resilient Seated, PN 16, DN50 – DN600 Metal Seated, PN16, DN50 – DN1000 Metal Seated, PN35, DN50 – DN900
	3	Challenger	CMW-BVA Valves Pty	RSGV MSGV	Resilient Seated, PN16 DN80 – 800 Metal Seated, PN35, DN80 - 300
Valves - Butterfly	1	AVK	AVK Valves Pty Ltd	75 Series 756 Series 756 Series EV series	Seal on Body concentric PN16 – 25, DN50 - 1200 Seal on Disc double eccentric DN600- 1200
	2	Ozkan	Hygrade Water Australia Limited	Seal on Disc, double eccentric	DN150 – 2500, PN16 - 40
	3	Ebro	Ebro Armaturen Pacific Pty Ltd	F012 Series Z014 Series WS Series	PN16, DN150 – 2000 PN25, DN50 – 1400 PN16, DN100 – 2500 PN25, DN100 – 1600

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Category	Preference Order	Manufacturer	Supplier	Model	Comment
					PN40, DN100 – 1000
Valves - Check	1	AVK	AVK Valves Pty Ltd	Series 41	Metal Seated Swing, PN16, DN350 – 600 Resilient Seated Swing, PN16, DN50 - 300
	2	Ozkan	Hygrade Water Australia Limited	Ozkan series	Tilting Disc Slanted Seat Silent Check
	3	Ebro	Ebro Armaturen Pacific Pty Ltd	TDC Series	Tilting Disc Check Valve
	4	Dobbie	Dobbie Dico Meter Co. (WA) LTD	Swing Check Valve	PN16 DN80 – 900 PN36 DN100 - 600
Valves - Air	1	AVK	AVK Valves Pty Ltd	851/00 series 851/20 series 851/50 Series	Single Orifice, DN25, PN16 Double Orifice, DN50-150, PN16 Double Orifice, Raw Water & Sludge
	2	Ozkan	Hygrade Water Australia Limited	Dynamic Air Release valve	Large and small orifice with anti-slam PN16-25, DN50 – 300 PN40, DN50 - 200

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5. Definitions and Abbreviations

Table 2 Definitions and Abbreviations

Term	Definitions
Employees	Means persons employed directly by Seqwater in a permanent, temporary or casual capacity.
Leader	Means any Level 1, 2, 3 and 4 Leader with responsibility for managing a functional area of the business, including people management responsibilities within their functional area.
Worker(s)	Includes all permanent, temporary, and casual employees of Seqwater, and: • vocational and work experience placements • volunteers • contractors and consultants employed by another entity but temporarily assigned to do work for or on behalf of Seqwater.
Seqwater approval / acceptance	Written sign-off gained via the deviation process, as detailed in <i>X-PRO-STD-008 Asset Standards Management and Application</i> .
Engineering Standard	Includes Seqwater Engineering Standard Procedures and Standard Specifications and associated supporting documents such as Standard Drawings, Guidelines, Lists, Manuals, Registers, and Templates.
REX	Seqwater Electronic Document and Records Management System.
shall / must	Indicates a mandatory requirement
should	Indicates a recommendation
ESA	Engineering Standards and Assurance
DN	Nominal Diameter
PN	Nominal pressure

6. Roles and Responsibilities

Table 3 Roles and Responsibilities

Role	Responsibility
Leaders	In addition to the responsibilities of a worker, ensure compliance with this Standard Specification by those they lead.
Workers / Employees	Be aware of and comply with this Standard Specification

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7. References and Related Materials

Table 4 Reference Documents

Description	Location
D17/170518 Commercial Services - Evaluation Report - 02769 Final Evaluation Report – Free Ammonia Monochloramine Analyser	REX
D19/177385 Commercial Services - Evaluation Report – 03324 - Preferred Equipment Package – Dosing Skids	REX
D19/46670 Commercial Services - Evaluation Report – 03325 - Preferred Equipment Package – Valve Actuators	REX
D19/53035 Commercial Services - Evaluation Report – 03322 - Preferred Equipment Package – Dosing Pumps	REX
D19/57174 Commercial Services - Evaluation Report – 03323 - Preferred Equipment Package – Flow Meters	REX
D20/87904 Commercial Services - Evaluation Report – 03326 - Preferred Equipment Package – Valves	REX
D25/240945 Commercial Services - Evaluation Report – 05241 - Preferred Equipment - Turbidity analysers	REX
SPE-00503 Engineering Standard I-SPE-STD-016 Turbidity Analysers	REX
SPE-00432 Engineering Standard I-SPE-STD-017 Monochloramine and Free Ammonia Analyser	REX
SPE-00323 Engineering Standard M-SPE-STD-003 Valves for Water Applications	REX
SPE-00434 Engineering Standard M-SPE-STD-009 - Flow Meters	REX
SPE-00435 Engineering Standard M-SPE-STD-010 - Chemical Dosing Skid	REX
SPE-00430 Engineering Standard M-SPE-STD-012 Chemical Dosing Pumps	REX

Note: The Evaluation Reports are Commercial in Confidence documents and restricted for internal use only. Access to these reports must be requested from Commercial Services.

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8. Changes from Previous Version

This Register will be regularly reviewed and updated, including the consideration of requested alterations, in accordance with Seqwater Procedure X-PRO-STD-004, Development and Review of Asset Standards. Changes made from the previous version of this document are summarised in Table 5 below.

Table 5 Changes from Previous Revision

Section Number	Change
All	Updated document to current template.
4	Monochloramine and Free Ammonia Analyser: Updated model number from UV-2150/S to UV-2250/S
4	Added Turbidity Analysers
7	Added reference to specification and evaluation report for Turbidity Analysers

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