# UV Systems and UV Parts

Class 1 designated building product information, published under the Building (Building Product Information Requirements) Regulations 2022.

## (a) DESCRIPTION AND INTENDED USE

**Product name:** Aquano Complete UV Systems and UV Parts

**Description and intended use:** Ultraviolet (UV) water disinfection for homes and light commercial sites. Water flows through a 304 stainless steel chamber around a UV lamp in a quartz sleeve, which inactivates bacteria, viruses and protozoa such as Giardia and Cryptosporidium without chemicals. Each Complete UV System is a kit: chamber, countdown ballast, lamp, quartz sleeve and O-rings. Replacement parts and service kits keep Aquano Complete UV Systems and Aquano Klarify UV systems working.

## (b) PRODUCT IDENTIFIERS

### Complete UV Systems (½" female and ¾" male connections; AC 240 V / 50 Hz)

| Product | Code | Barcode (GTIN) | Lamp | Chamber length | Max flow at 30 mJ/cm² |
|---|---|---|---|---|---|
| Complete UV System, 16W | CUVS16W | 5060172016884 | 16 W | 345 mm | 11 L/min |
| Complete UV System, 25W | CUVS25W | 5060172016891 | 25 W | 565 mm | 25 L/min |
| Complete UV System, 40W | CUVS40W | 5060172016907 | 40 W | 860 mm | 70 L/min |

### Replacement parts for Complete UV Systems

| Product | Code | Barcode (GTIN) |
|---|---|---|
| 16W UV lamp, 320 mm | TUV16W | 5060172016914 |
| 25W UV lamp, 550 mm | TUV25W | 5060172016921 |
| 40W UV lamp, 843 mm | TUV40W | 5060172016938 |
| Quartz domed sleeve, 360 mm (16W) | QT360 | 5060172016945 |
| Quartz domed sleeve, 580 mm (25W) | QT580 | 5060172016952 |
| Quartz domed sleeve, 875 mm (40W) | QT875 | 5060172016969 |

### Replacement parts and service kits for Klarify UV systems

| Product | Code | Barcode (GTIN) |
|---|---|---|
| UV lamp, 46W, 520 mm | UVL46W | 5060172017867 |
| Countdown ballast, 46W | BAL46W | 5060172014835 |
| Quartz sleeve with O-rings, 540 mm | QTOR540 | 5060172016433 |
| O-ring | OR46L | 5060172014842 |
| Sleeve spring, 316L stainless | SPR316L | 5060172014859 |
| Service kit for Klarify UV-210C/I | SKUV210CI | 5060172016624 |
| Service kit for Klarify UV-220C/I | SKUV220CI | 5060172016617 |
| Service kit for Klarify UV-310C/I | SKUV310CI | 5060172016600 |
| Service kit for Klarify UV-320C/I | SKUV320CI | 5060172016594 |

### Compatible replacement UV lamps for other systems

| Product | Code | Barcode (GTIN) |
|---|---|---|
| UV lamp, 14W, 520 mm | UVL14W | 5060172017874 |
| UV lamp, 23W, 287 mm, 4 even pins | UVL23W | Not yet assigned |
| UV lamp, 30W, 600 mm, 4 even pins | UVL30W | 5060172017881 |

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| Product | Code | Barcode (GTIN) |
|---|---|---|
| UV lamp, 40W, 843 mm, 4 even pins | UVL40W | 5060172017898 |
| UV lamp, 50W, 436 mm, 4 even pins | UVL50W | 5060172017904 |
| UV lamp, 55W, 550 mm, wire connection | UVL55W-W | 5060172017911 |
| UV lamp, 1148 mm, uneven pins | UVL120 | 5060172017928 |

Service kits contain replacement filter cartridges, O-rings, a quartz sleeve and a UV lamp.

## (c) MANUFACTURER AND IMPORTER

| Products | Place of manufacture | Manufacturer | Importer |
|---|---|---|---|
| Klarify UV service kits | Assembled in Cambridge, New Zealand, from imported components | Aquano Limited | Not applicable |
| Complete UV Systems and all UV parts | Overseas | Manufactured to Aquano Limited's specification. Manufacturer details are commercially sensitive and available to MBIE on request | Aquano Limited |

### Aquano Limited (trading as Aquano)

| | |
|---|---|
| **NZBN** | 9429052121272 |
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| **Phone** | 0800 225 700 |

## (d) BUILDING CODE COMPLIANCE

| Clause | Requirement | How the products contribute |
|---|---|---|
| G12.3.1 | Water for human consumption must be potable | UV disinfection inactivates bacteria, viruses and protozoan cysts at a dose of 30 mJ/cm² within the rated flow |
| G12.3.2(c) | Water supply components must not contaminate the water | 304 stainless steel chamber, quartz sleeve and O-rings; no chemicals are added to the water |
| G12.3.7(b) | Avoid the likelihood of leakage | Chamber rated to 0.8 MPa (116 psi) maximum, sealed with O-rings |
| G12.3.7(c) | Reasonable access to components needing maintenance | Lamp and sleeve are removed from the end of the chamber without removing it from the pipework; the countdown ballast shows when the lamp is due |
| B2.3.1(c) | 5-year durability for elements that are easy to access and replace | Chamber and ballast are designed for at least 5 years with normal maintenance. Lamps and sleeves are consumables |

**Compliance statement:** These products are intended to contribute to compliance with the clauses above when installed by a licensed plumber, with electrical work by a licensed electrician where required, in accordance with Acceptable Solution G12/AS1 and the product instructions (Building Act 2004, section 19(1)(b)).

**Evidence:** Supplier documentation is available to MBIE on request, and confirmed certifications will be added to this sheet.

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## (d) LIMITATIONS ON USE

- Cold water only. Maximum pressure 0.8 MPa (116 psi). Ambient temperature 4–40 °C. Protect from freezing.
- Do not exceed the rated flow. Above it, the UV dose falls below 30 mJ/cm² and disinfection is not assured.
- Water entering the UV must be clear: UV transmittance above 75%, turbidity below 1 NTU, hardness below 120 mg/L, iron below 0.3 mg/L, manganese below 0.05 mg/L, hydrogen sulphide below 0.05 mg/L. Pre-treat water outside these limits.
- UV disinfects only while the lamp is on and within its service life. It does not remove chemicals, metals, taste or odour, and gives no residual protection downstream.
- Replacement lamps, sleeves and kits must be the correct size and type for the system they are fitted to.

## (e) DESIGN REQUIREMENTS

- Install after sediment pre-filtration (typically 20 then 5 micron) and after the pump and pressure tank.
- Power the ballast from a permanent, non-switched AC 240 V / 50 Hz outlet so the lamp stays on.
- Leave clearance at the end of the chamber at least equal to the lamp length, to remove the lamp and sleeve.
- Fit isolation valves either side of the chamber, and a backflow prevention device where required by G12/AS1.

## (f) INSTALLATION REQUIREMENTS

Installation must be carried out by a licensed plumber in accordance with G12/AS1 and the product instructions. Key points:

- Mount the chamber securely, horizontally or vertically, with flow in the direction marked.
- Fit the quartz sleeve and O-rings, then insert the lamp and connect it to the ballast. Handle the lamp and sleeve with clean gloves.
- Connect the ballast to a non-switched 240 V outlet in a dry location.
- Turn the water on slowly, check for leaks, then switch on the power.
- On first install, flush and disinfect the pipework after the UV.

## (g) MAINTENANCE REQUIREMENTS

| How often | Task |
|---|---|
| Every 12 months (365 days) | Replace the UV lamp; the countdown ballast shows when it is due |
| Every 12 months, or sooner if dirty | Clean the quartz sleeve with a soft cloth and mild acid such as vinegar. Replace if scratched or etched |
| At each lamp change | Replace the O-rings (Klarify service kits include lamp, sleeve, O-rings and filters) |
| Every 3–6 months | Replace sediment pre-filter cartridges |
| After a lamp failure or power outage | Disinfect the pipework downstream of the UV |

Always turn off the power and isolate the water before servicing. Never look directly at a lit UV lamp.

## (h) WARNINGS AND BANS

These products are not subject to a warning or ban under section 26 of the Building Act 2004.

## DECLARATION

As the responsible person under regulation 3, I confirm this information is correct to the best of my knowledge, based on information from our manufacturers and Aquano's own processes.

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|---|---|
| **Name** | Daniel Edward Suckling |
| **Position** | Director, Aquano Limited |
| **Signature** |  |
| **Version** | 1.0 |
| **Date** | 5 November 2026 |