Waterflow Control

WFC-US-0700

UV Disinfection System

Contact Us:

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37 / 317-321 Woodpark Rd, Smithfield NSW 2164

WFC-US-0700

The **WFC-700** ultra-violet water disinfection unit for disinfecting drinking or process water. This model can also be sized to disinfect treated waste water, and other liquids with low UV transmission.

Reactor: Stainless steel reactor, horizontal mounting with outlet pointing up.

Material	Stainless steel g316L, electropolished
In-outlet connnection	2" male BSPT
Max vol. flow 400 J/m2 at T100 = 70% transmission	10.00M3h
Reactor volume (litres)	3.6 l
Reactor length overall approx. (A)	1,006 mm
Space required for servicing (B)	1,000 mm
Reactor Weight dry (kg)	3.6 kg
Max. operating pressure (bar)	10 bar
Lamp power W	80 watts
UV-C output W	28 watts
Number of lamps (per unit)	1
Lamp life	9000 hours

This information assumes the following conditions:
Water Source: Roof collected rainwater (filtered)
UV Transmissivity (assumed): 90% (this is a reasonable assumption as there should not be much dissolved organics contamination)
Application: Toilet flush and irrigation
UV Dose: 25mJ/cm2. (this dose will provide greater than 99.999% kill rate for E coli / Faecal coliform

UV Unit	lps	lpm	lph	m3/h
WFC700	1.673	100.38	6,023	6.02

Features:

- Lamp parallel to water flow
- View/monitor port
- Easy to install mounting brackets

Options: (additional cost)

- Sampling ports

Power Supply Box: Different versions available all with standard 10A GPO plug and 2m lamp lead.

Version: PSL1B-080-DDCV
Includes visible and audible lamp fail alarm, lamp operation countdown timer 365 – 0 days, lamp change alert, dry contacts for remote fault indication, for indoor operation only.
Dimensions: 205 x 75 x 53 mm, Weight: 0.7 kg

Version: PSL1B-080-A
Includes power on indicator, visible and audible lamp fail alarm, hours run meter, IP65.
Dimensions: 300 x 300 x 150 mm, Weight: 5.5 kg

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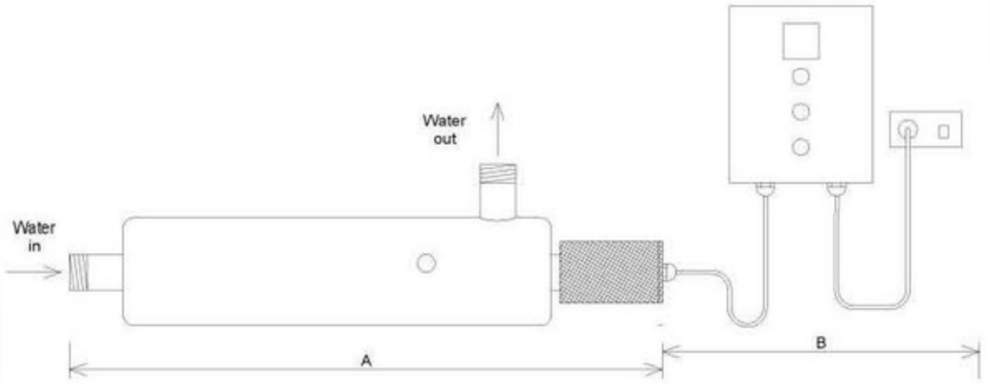
Options: (additional cost)

- UV intensity monitor
- Stainless steel enclosure or glass reinforced polyester enclosure
- Spare set of volt free contacts
- Longer lamp lead
- Different mains supply
- Chamber thermostat with solenoid valve for over-temperature protection

WaterMark
WaterMark Level 1
Certificate No. 030024



For Advanced UV Disinfection 1405

Installation and Maintenance Manual for Waterflow Control Pty Ltd UV Systems Water Disinfection Units

Covering Models WFC-100 – WFC-3800

(WFC C Manual 1405 Rev. 01 19/4/16)

Installing and Planning

Please check the following conditions will be met before installation.

- Maximum operating pressure must not exceed 10 bar (1000 kPa).
- Maximum ambient temperature should not exceed 40°C.
- Maximum water temperature should not exceed 65°C for units with amalgam lamps (seek advice from your supplier).
- The UV reactor should be installed so that is remains full of water at all times while the UV lamp is operating.
- If there are going to be extended periods with no flow then, there should be over-temperature mitigation installed to prevent overheating (seek advice from your supplier).
- Ensure there is sufficient space available to remove the UV lamp and quartz thimble during servicing.
- If there is a risk of water hammer then precautions need to be taken to prevent water hammer from damaging the quartz thimble, such as installing a water hammer arrestor.

Installing the Stainless-Steel Reactor

- The reactor vessel or chamber comes with brackets for mounting the unit on a wall or frame.
- The reactor should be installed horizontally with the outlet pointing up. This orientation will ensure there will be no entrapped air in the chamber while there is flow. Other orientations are possible, but steps must be taken to ensure there is no entrapped air.
- If there is a risk of water hammer, then precautions need to be taken to prevent water hammer from damaging the quartz thimble.
- The weight of the chamber when filled with water must be taken into consideration when mounting the unit.
- The stainless-steel chamber and any metal pipework must be properly earthed to ensure safe operation and eliminate the risk of electrolysis and corrosion.

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Installing the Power Supply Box

- The power supply box should be mounted above the reactor where it is protected from the weather and direct sunlight. Some of the power boxes are not suitable for outside installation.
- The standard lamp lead length is 2m. Please contact your supplier if you need longer lamp lead.
- The weight of the chamber when filled with water must be taken into consideration when mounting the unit.
- The stainless-steel chamber and any metal pipework must be properly earthed to ensure safe operation and of the UV disinfection reactor as UV radiation can cause serious damage to eyes and skin.

General Safety Instructions

- Use the UV system only for the intended purpose as described in this manual.
- Correctly install your Waterflow C series UV disinfection system as per instructions in this manual.
- Do not use a Waterflow UV disinfection system with damaged electrical cable/plug/switch.
- Make sure that the Waterflow UV system is unplugged when it is not being used, before installation, or removing any parts, and before servicing the unit.
- Depressurize and drain the Waterflow UV system before maintenance.
- Do not operate the Waterflow UV lamp outside of the UV disinfection reactor as UV radiation can cause serious damage to eyes and skin.
- Only install WFC approved UV lamps to avoid warranty issues

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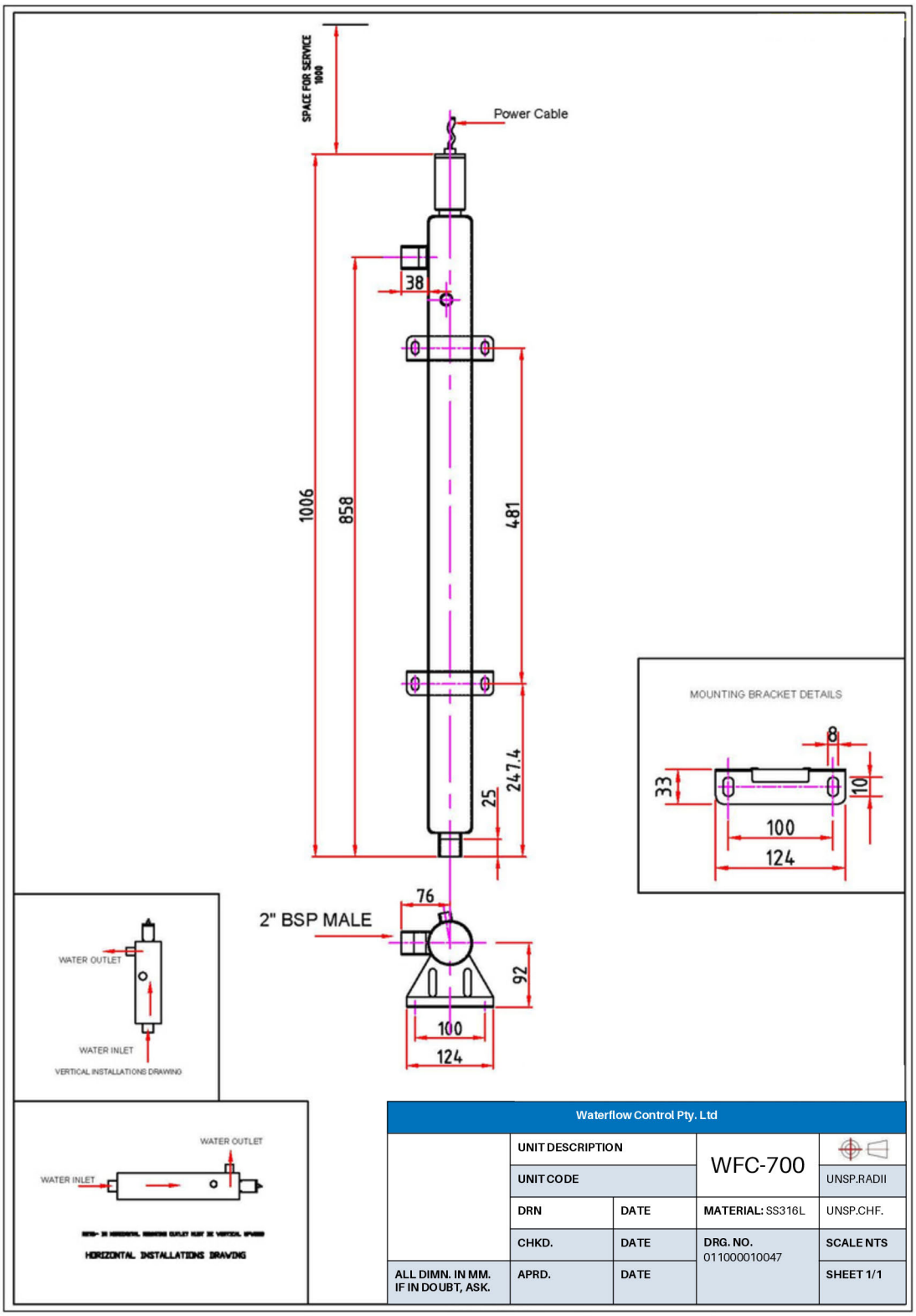

Waterflow Control Pty. Ltd				
	UNIT DESCRIPTION		WFC-700	
	UNIT CODE			UNSP.RADII
	DRN	DATE	MATERIAL: SS316L	UNSP.CHF.
	CHKD.	DATE	DRG. NO. 011000010047	SCALE NTS
ALL DIMN. IN MM. IF IN DOUBT, ASK.	APRD.	DATE		SHEET 1/1

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