

# WMX-20

## Water System



### Description

The WMX-20 water system is a compact system to mix hot and cold water and provide it at a constant temperature and pressure for an external device. The system can accept water inputs at a low pressure and it will pump the water to a higher pressure. It can also accept water at a high pressure and it will regulate it down to a lower pressure. Internal back flow preventers stop the system or output from contaminating the source water.

The mixed water is buffered by a bladder tank before being sent out through two identical water connections. A meter inside the WMX-20 water system measures the amount of water that is used by the external device.

Although the system can be used for any external system that requires water at a certain temperature, it is of particular value when used with an LFC biodigester. It ensures that water is at an optimum temperature to enable the microorganisms to thrive (and therefore to optimally digest the food waste). The output pressure is sufficient to ensure that the washout cavity is properly flushed out.

### Features

- Provides water at correct temperature and pressure to systems in a kitchen that need regulated pressure and water temperature
- Accepts hot and cold water and mixes it to constant output
- Incorporates back flow preventers
- Accepts water at low or high pressures and provides it out at a constant pressure
- Incorporates filters to remove hardness and particles
- Internal bladder tank provides surge capacity at full pressure and temperature and mitigates water hammer on downstream devices



- Water flow meter shows water usage with high resolution
- Universal ac power input
- If ac power fails, water will still flow through
- Compact size can be mounted horizontally or vertically
- Oil filled pressure gauges for both hot and cold water

### Benefits

- Simple plumbing fitting to regulate pressure and temperature for an external device
- Two outputs of regulated water from single set of hot and cold water
- Easy to position and fix in place
- Saves procuring and assembling all the plumbing parts required to provide water at correct pressure and temperature to an LFC biodigester
- 3 year warranty

# WMX-20

## Installation Requirements

### Construction

All stainless steel chassis

Plumbing fixtures are brass or stainless steel

### Operating environment

Indoors or covered patio

Must not be exposed to rain, snow, or sunshine

### Ingress protection

IP54 – splash proof and dust proof

### Operating altitude

0~3000 m (9800 ft)

### Ambient operating temperature

4°C~38°C (39°F~100°F)

### Input water pressure

100 kPa~700 kPa (15 psi~100 psi, 1.3 bar~7 bar).

Both hot and cold water inputs must be at the same pressure if less than the output water pressure

### Input water temperatures

Hot: nominal >50°C (122°F)

range: 45°C~80°C (113°F~176°F)

Cold: nominal 12°C (54°F)

range: 5°C~45°C (41°F~113°F)

### Input water filters

Stainless steel with manual flush valve at bottom

### Output water pressure

Nominal: 420 kPa (61 psi, 4.2 bar) ± 5%

Adjustable 275 kPa~ 420 kPa (40 psi ~ 61 psi, 2.8 bar~4.2 bar)

### Output water temperature

Nominal: 48°C (118°F)

Adjustable: 38°C~50°C (100°F~122°F)

### Flow meter

Measures cubic metre (1000 litre, 264 gallon) and resolves to 100 ml (3 fl oz)

### Water fittings

4 of DN15 (½”) female NPT

### Mounting surface flatness required

±10 mm (0.4”)

### Weight when empty

38 kg (84 lb)

### Moving and positioning

Machine can be carried to site and fitted with the four supplied L brackets

### Weight when full

57 kg (126 lb) maximum

### Internal bladder tank

19 litre (5 US gallon)

### AC supply

Universal ac input: 100 V~260 V, 47 Hz~63 Hz

Single phase + PE

External circuit breaker: 12 A maximum

Inlet socket: IEC 60320-1 C14, fused with two 3 A 5x20 mm fuses

### Maximum ac power

185 W

### Electrical energy per day

1 kWh typical

### Operating lifetime

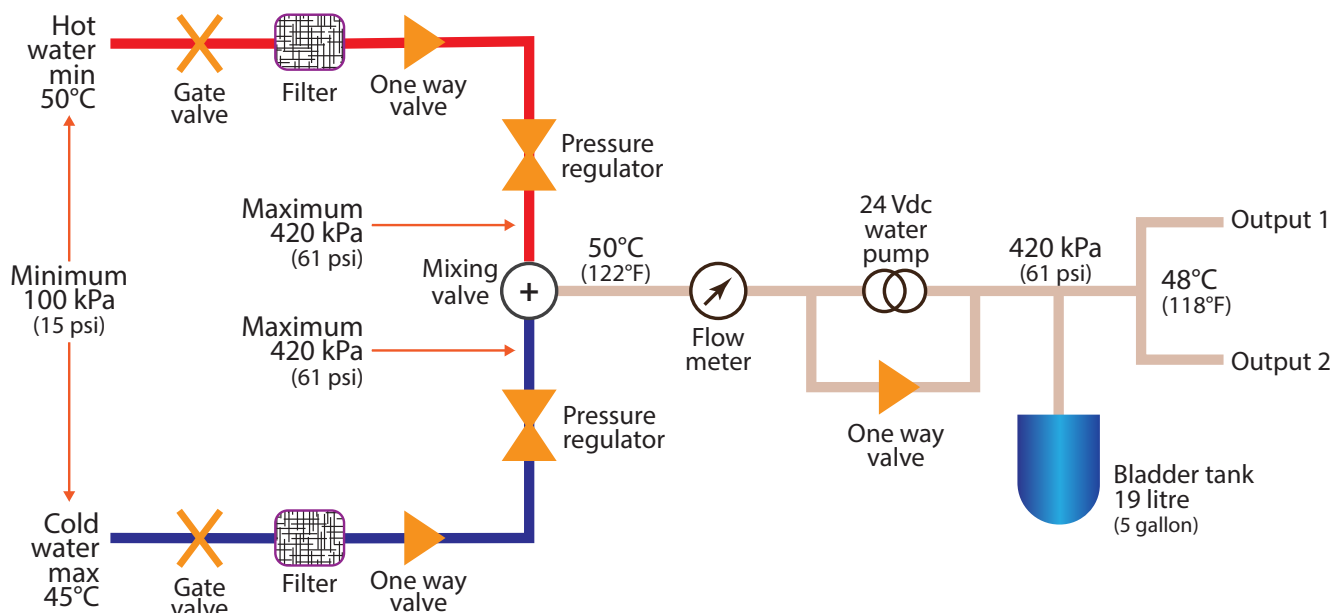
Expected to be 15 to 25 years

### Warranty

3 years on all parts and components (1 year for marine, security, and rentals)

Subject to terms and conditions

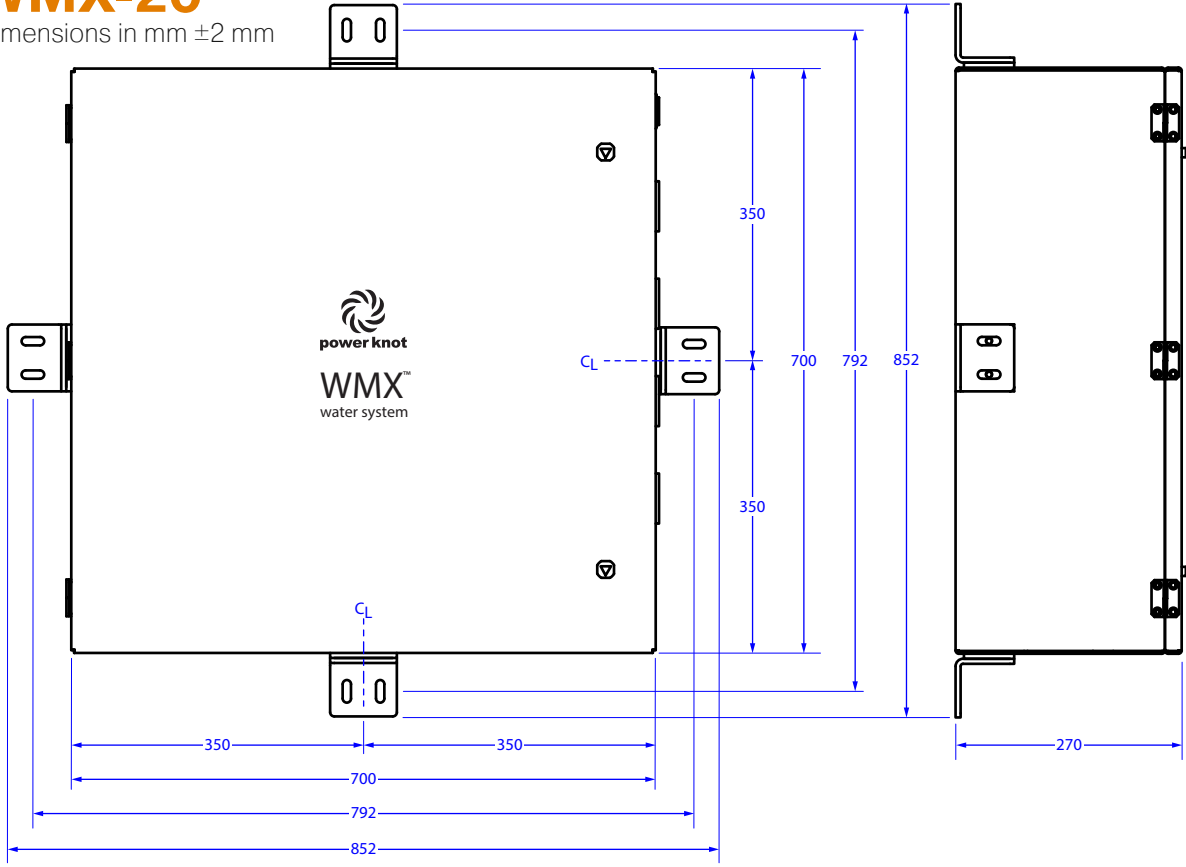
## Simplified schematic showing nominal values



For complete details see User's Manual

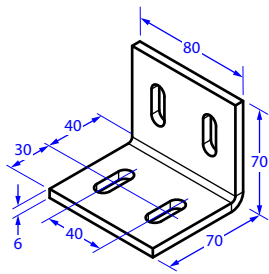
# WMX-20

Dimensions in mm ±2 mm



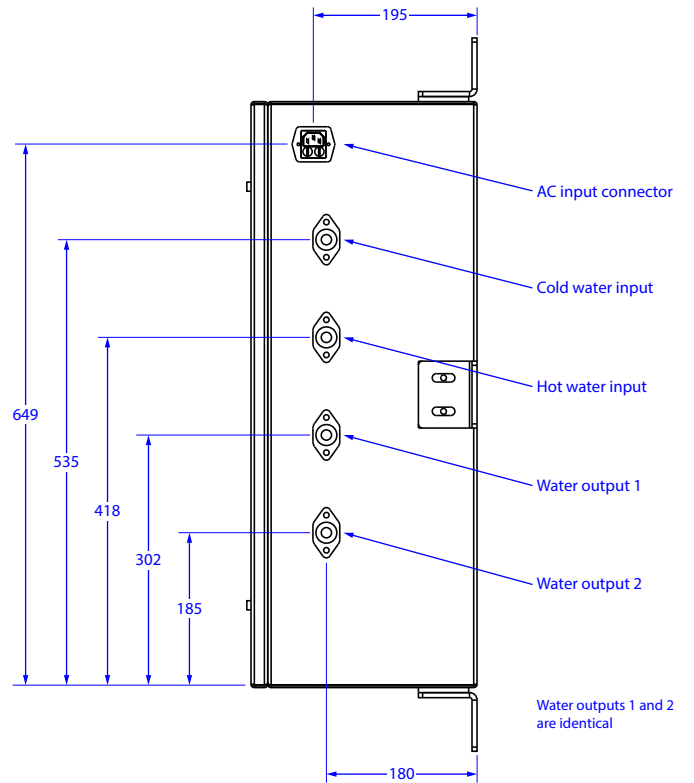
**Front**

**Left**



Use M8x10 bolt with flat washer

**Detail of L bracket**

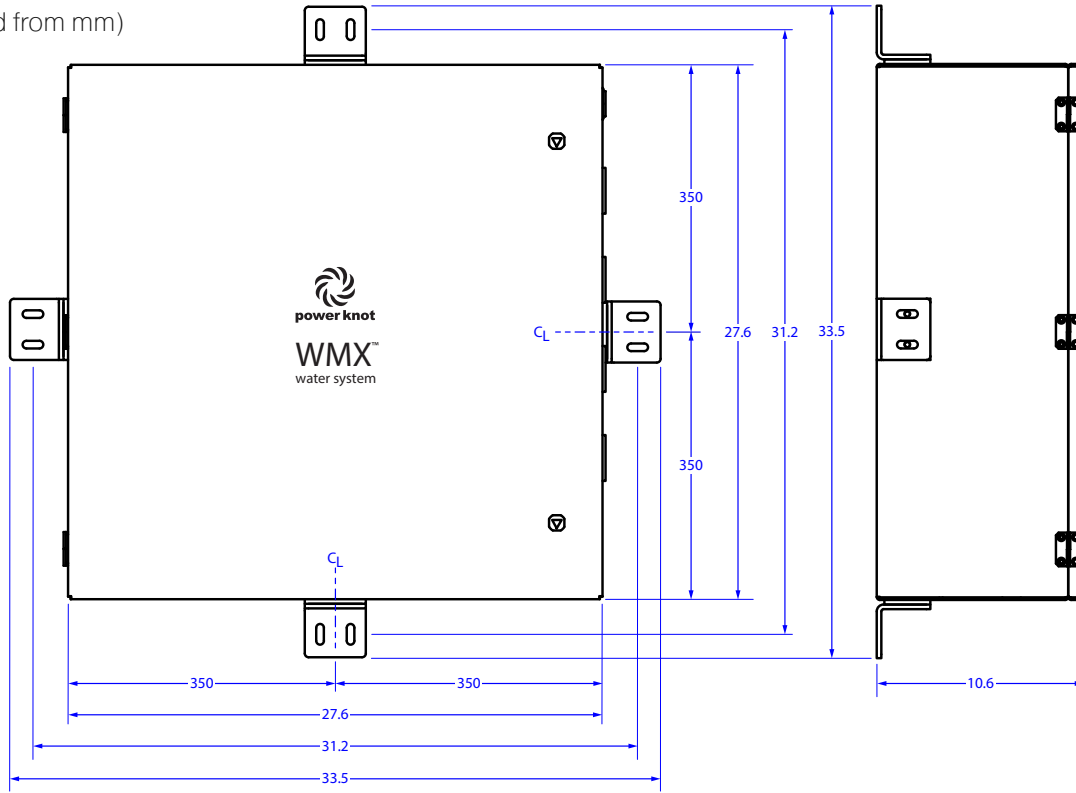


Water outputs 1 and 2 are identical

**Right**

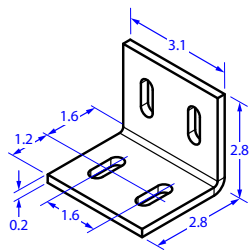
# WMX-20

Dimensions in inches ±0.1"  
(derived from mm)



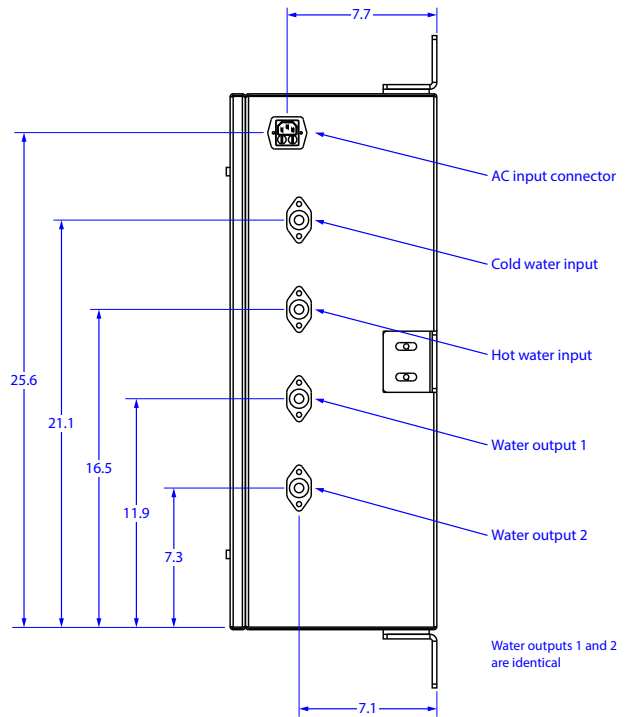
**Front**

**Left**



Use M8x10 bolt with flat washer

**Detail of L bracket**



Water outputs 1 and 2 are identical

**Right**



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