Product Manual
Solid Surface WC Pans

CWC-80 & CWC-280 series
CWC-150 & CWC-250 series
CWC-170 & CWC-270 series
CWC-155 & CWC-255 series

Wallgate®
ROBUST. INNOVATIVE. WASHROOMS

AS 1172
Certificate No 23109

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1. Disclaimer

The specifications of Wallgate products can change without notice because of developments in design and manufacturing.

2. Conventions

Certain conventions are used in this manual to make it easier to read and understand. They are given in the sections below.

2.1. Warning

A warning with white text on a red background is used to give information about hazards that can cause injury or death. Read and understand these warnings before you install and commission the CWC water closet. Failure to heed these warnings can have serious consequences.

WARNING! This is a warning!

2.2. Note

A note with black text on a yellow background is used to draw your attention to important
and useful information.

NOTE: This is a note.

2.3. Numbered procedures

Steps in procedures are numbered, starting from 1.

1. This is step 1.
2. This is step 2 etc.
2.4 Bullet lists

2.4. Bullet lists

- A bullet list is used to give information that is not sequential.

2.5. Menu items

Menu items, submenu items and settings, where available, are given in bold.

3. Glossary

The glossary lists all words, abbreviations and technical terminology used in this manual, along with a short description of these terms.

Term	Description
Anti-Ligature	Recently we have become aware that there is some inconsistency in the market as to the exact meaning of "anti-ligature". Where we use this phrase in connection with our products it means that we have designed and tested the product in order to reduce any risk of that product being used as a ligature attachment point.
Flushing device Cistern flushing device Direct flushing device	A flushing device distributes water to the flush inlet of the Water Closet to flush the pan. Such devices include cisterns with integral flush & fill valves. Cistern types include options for electrical & pneumatic operation of the flush valve. Direct flush valves that are connected directly to a dedicated water supply that has the required pressure & flow performance to suit the application. (These devices are not suitable for domestic & some commercial installations).
Piezo-electric Touch button	A piezo-electric touch button converts the force applied to the face of the pushbutton into an electrical signal. Piezoelectric pushbuttons are used on related optional flush devices for the CWC water closets to activate the flush cycle.
IR Sensor	The infrared (IR) sensor detects infrared radiation from your hand, this creates an electrical signal. IR sensors are used are used on related optional flush devices for the CWC water closets to activate the flush cycle. Operate the sensor switch by holding your hand within 50mm of the sensor.
Control unit	An electronic unit with inputs & outputs & requires an electrical supply for operation (i.e. 230VAC 50Hz). Inputs allow for connection of piezo touch buttons or IR sensors for user operation of the product. Outputs provide 12VDc to operate water solenoid valves to control the water flow ON/OFF. Inputs & outputs provide control to basin, shower & WC flush.

4. Overview

The CWC model water closets are a range of molded product in solid surface material.

The CWC range includes models of which some are listed below, the range is not limited to the list as there are numerous variants and new models may also be added from time to time.

CWC-80 / 280*	Back to wall WC pan with M6 fixing points for hinged seat option.
CWC-80-ST / 280-ST*	Back to wall WC pan with fixed solid surface seat.
CWC-81 / 281*	Back to wall WC pan (455mm height) for use with hinged seat for disabled users.
CWC-81-EXT / 281-EXT*	Back to wall WC pan (455mm height) for use with hinged seat & supplied with rear extension to project pan out from wall, for disabled users.
CWC-88 / 288*	Back to wall WC pan with M6 fixing points for hinged seat option & with fixed extension shroud to accommodate soil connectors exiting through floor.
CWC-150 / 250*	Back to wall WC pan.
CWC-150-AST / 250-AST*	Back to wall WC pan with fixed solid surface anti-ligature seat.
CWC-151 / 251*	Back to wall WC pan (455mm height) for disabled users (seat fixings optional).
CWC-151-EXT / 251-EXT*	Back to wall WC pan (455mm height) for use with hinged seat & supplied with rear extension to project pan out from wall, for disabled users.
CWC-155	Back to wall WC pan with M6 fixing points for hinged seat option & with fixed extension shroud to accommodate soil connectors exiting through floor.
CWC-170L / 270L*	Back to wall corner fit pan left hand orientation.
CWC-170R / 270R*	Back to wall corner fit pan right hand orientation.

*Models variant of 200 series (i.e. 280) have lower height outlet spigot.

For model identification refer to individual model drawing supplied separately & available from the Wallgate website.

5. Installation and Commissioning
5.1.   Package Contents

Before you begin the installation, make sure that you have the following items:

- ✓ 1 Product manual

- ✓ 1 CWC Water closet

- ✓ 1 or 2 Wall fixing kits (Quantity of kits included varies by CWC model type).

Each wall fixing kit includes:

M10 Wall Fixing studs with nuts & washers (x 2 or 4 or 5)

Wall clamp bracket (x1 or 2).

CWC models with a separate extension or fixed shroud (i.e. CWC-81-EXT, CWC-155) are provided with M10 Wall fixing studs of a longer length usually 500mm.

NOTE: An electronic control unit & flushing device (i.e. Cistern & flush valve) with cables are supplied separately as an option. Various control options are available, contact the Wallgate sales desk for more information.

5.2.   Site Preparation
5.2.1.   Mounting Guidelines

- The CWC is a back to wall type pan for installations with a concealed but accessible flushing device.

- The CWC is suitable for various types of flushing device that Wallgate can provide & have been tested, to ensure compliance & compatibility with the WC pans. The flushing device is to provide a max full flush volume of 6 litres. If a dual flush is required, then the reduced flush volume is to be 4 litres max. Where the flushing device is a cistern with flush valve, then the cistern should be a low level mounted type. Refer to section 6 for additional technical information. The WC pans are not compatible for use with close coupled cisterns.

- Suitable cisterns & alternative operating push buttons, sensors & flush valves are available from Wallgate.

- An electrical supply of 230V 50Hz with a 2 Amp rating is required for the optional electronic control units.

- A 110mm Ø soil pipe should be provided for connection to the CWC. The soil pipe can be connected to the tail on the CWC using a suitable connector such as those made by McAlpine which Wallgate can supply as an optional extra.

- A mains cold water supply should be provided and terminated with a suitable isolating tap for connection to the flushing device. Refer to the product instructions of the flushing device for details of connection sizes and water supply ratings for pressure & flow.

- Apertures or holes are required in the wall for the flush pipe & the wall fixing bolts to the WC pan. Details of their position are shown on the relevant drawing provided with the pan model type.

NOTE: A 1:1 scale template for drilling the holes is available on request.

5.3.   Preparing & fitting the Water Closet

WARNING! The CWC Water Closets weigh in excess of 25Kg so a two man lift is recommended. Always use safe lifting procedures when lifting heavy loads. For large installations of several water closets, an optional lifting hook is available from Wallgate.

WARNING! In order to maintain the anti-ligature & anti-vandal properties of this product it must be installed in line with the following points.

1. **Ensure product fixings are correctly fitted as detailed in the following instructions.**

2. **Ensure all fixings are tightened to the recommended torque as detailed in the following instructions.**

3. **Seal the edges of the product to the wall using anti-pick hard set mastic, examples of recommended types are:**

Arbokol 1025, manufactured by Adshead Ratcliffe & Co Ltd (www.arbo.co.uk).

Sikadur 33 manufactured by SIKA Ltd (www.sika.co.uk)

1. Remove the CWC from its packaging and place carefully onto a protective sheet on the floor such as cardboard to avoid damage to the base edges. Under no circumstances should the CWC be knocked or dropped when placing onto the floor as damage to the bottom rim edges may result.

2. The CWC models that include a separate rear extension (i.e.; CWC-81-EXT) that is clamped between the WC pan & the wall, are provided with longer length wall fixing threaded M10 studs.

3. The CWC models that include a fixed rear shroud (i.e. CWC-155) are fitted with 4 x M10 bolts (inside the rear shroud section) fastened into the rear of the WC pan; there are two upper and two lower bolts. The two lower bolts need to be removed (viewed with the WC pan standing the correct way up) to fit the lower wall fixing studs.

4. Fit the wall fixings (M10 studs) into the threaded inserts on the back of the WC pan.

5. If model of pan or pan extension has floor fixings, position the pan & extension into place against the wall and mark the position of the floor fixing holes. Remove the pan and then drill the floor to fit the Rawl plugs supplied with the fixing kit.

NOTE: Do not drill into the floor through the holes in the WC pan or extension as there is a risk that it may result in damage to the products.

6. Fit the flush pipe seal provided with the flushing device into the top hole on the back of the WC pan.

7. Locate the CWC outlet spigot into the soil pipe connector and position the WC into place (with the extension if applicable).

8. Assemble the wall bracket nuts and washers onto the M10 wall studs. Check that the back of the wc pan has fitted to the wall without any gaps due to an uneven wall finish prior to tightening each fixing to a torque of 13Nm. Gradually tighten all fixing nuts evenly in a rotational method so each one gradually tightens to the stated torque.

NOTE: The wall fixing threaded studs can be cut down in length if required should they protrude through the wall excessively.

9. Tighten the floor fixings (if used) ensuring that they are not overtightened as that may result in damage to the pan, the recommended max torque is 6Nm. It is vital that the floor surface is level as an uneven floor surface may also result in damage to the pan when the fixings are tightened. Fit the floor fixing screw covers.

WARNING! Fitting the water closet to an uneven floor surface or overtightening the floor fixings may result in damage to the product.

10. Apply an anti-pick, hard set mastic, such as Arbokol 1025 or Sikadur 33 around the back and bottom edges of the pan (& extension if appropriate) to seal it to the wall & floor.

11. Install the flushing device in accordance with the instructions provided with it. Note that for a cistern type device it must be mounted at the correct height to its base from floor level as shown on the installation drawing provided to ensure the flush performance is not impaired.

12. An external overflow pipe for a cistern type flushing device may be required if the flush valve type being used does not provide internal overflow into the WC pan.

13. Hinged type WC seats can be fitted to the appropriate model WC pan that provides for seat fixing points (i.e.; CWC-80, CWC-81, CWC-151-SF). Fitting the seat must be done in accordance with the instructions provided with the WC seat.

5.4.   Commissioning for use

To commission the CWC Water Closet:

1. Turn ON the water supply & check all around for leaks on the flushing device & the pan water inlet & outlet connectors.

2. Depending upon which type of flushing device has been fitted; you will need to refer to the instructions provided with it to ensure it is set correctly to give the correct operation & performance.

3. Operate the flush and check that the toilet flush's satisfactorily.

4. Check again for any leaks as detailed in (a) above.

5. Ensure that on completion these instructions & those for the flushing device & associated controls are passed onto the customer.

5.5.   Technical Specifications

Weight	50 - 70Kg (Dependent on CWC model).
Dimensions	Refer to CWC model drawing supplied separate to these instructions.
Water Supply	Refer to the applicable product manual for the WC flush device.
Soil pipe connection	105/108mm external diameter male spigot.
Flush pipe inlet	55mm internal diameter female for 1.5" size pipe & pipe seal. (as supplied with flushing device).
Flushing device flow requirements	Cistern flush: 1.85 – 2 Litres per second. Direct flush: 1.5 Litres per second (nominally). Refer to flushing device product information for full details.
Optional Control Unit Specifications	
Power supply	230V AC 50/60Hz 2 Amp single phase ***USA / CANADA:*** 120V AC 2Amp, 60Hz for models WDCA100 and WDCA200.
Power rating	Maximum power rating 60 W
Weight	1.0 Kg
Dimensions	200mm (W) x 150mm (H) x 80mm (D)
Enclosure IP Rating	IP53
Regulatory compliance	Complies with RoHS, LVD 2006/95/EC and EMC 2004/108/EC directives.

6. User and Maintenance Instructions

6.1.　Operation

The CWC can be used in conjunction with various types of flushing devices and/or controls. Refer to the instructions provided with those products for full details regarding operation & set up.

6.2.　Maintenance

The CWC is manufactured from a cast solid surface composite that is very durable. A planned on going care & maintenance routine will ensure that the product will last for many years.

Refer to the "Care & Maintenance Instructions Leaflet" available from Wallgate (www.wallgate.com).

Further advice on this & other Wallgate products may be obtained by contacting the "Wallgate Sales or Service Offices".

7. Related Documentation

The CWC can be used with any of the following control units & flushing devices, product manuals & drawings listed below are available from the Wallgate website:

- WDC100 control unit.
  For more information on this control unit, refer to the WDC100 product manual.

- WDC200 control unit.
  For more information on this control unit, refer to the WDC200 product manual.

- WDC400 control unit.
  For more information on this control unit, refer to the WDC400 product manual.

- CIST19-ELEC Cistern, electronic flush control.
  For more information on this flushing device, refer to the CIST19-ELEC product manual.

- CIST19-PNEU Cistern, pneumatic flush control.

For more information on this flushing device, refer to the CIST19-PNEU product manual.

Drawings of CWC pan models & typical installation layout drawings:

- CWC-80, CWC-80-EXT, CWC-80ST, CWC-80ST-EXT
- CWC-81, CWC-81-EXT, CWC-81ST, CWC-81ST-EXT
- CWC-280, CWC-280-EXT, CWC-280ST, CWC-280ST-EXT
- CWC-281, CWC-281-EXT, CWC-281ST, CWC-281ST-EXT
- CWC-150, CWC-150-SF, CWC-150-AST
- CWC-151, CWC-151-SF, CWC-151-AST
- CWC-155, CWC-155-SF, CWC-155-AST
- CWC-156, CWC-156-SF, CWC-156-AST
- CWC-250, CWC-250-SF, CWC-250-AST
- CWC-251, CWC-251-SF, CWC-251-AST
- CWC-170L & CWC-170R & CWC-270L & CWC-270R
- INS-SCPK01-PB(CIST19-E), INS-SCPK02-PB(CIST19-E), INS-SCPK03(CIST19-E)-PB, INS-SCPK04(CIST19-E)-PB
- INS-SCPK01-IR(CIST19-E), INS-SCPK02-IR(CIST19-E), INS-SCPK03-IR(CIST19-E), INS-SCPK04-IR(CIST19-E)
- INS-CWC-80-CIST19-ELEC, INS-CWC-81-CIST19-ELEC
- INS-CWC-80-CIST19-PNEU, INS-CWC-81-CIST19-PNEU
- INS-CWC-150-CIST19-ELEC, INS-CWC-151-CIST19-ELEC
- INS-CWC-150-CIST19-PNEU, INS-CWC-151-CIST19-PNEU

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