

wasteflo

Installation & Maintenance Instructions

Please leave this instruction booklet with the home owner as it contains important guarantee, maintenance and safety information



WC3 shown

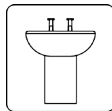
WC1

Pt. No. 46626



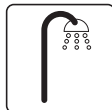
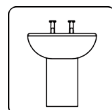
WC2

Pt. No. 46575



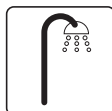
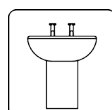
WC3

Pt. No. 46576



WC4C

Pt. No. 46653



IMPORTANT

In the unlikely event of experiencing a problem with this product, please contact PumpAssist on +44 (0) 800 31 969 80

Due to the nature of this product DO NOT attempt to return or remove this product from its installation.

Please read installation details carefully as they are intended to ensure this product provides long, trouble free service. Failure to install the unit in accordance with the installation instructions will lead to invalidation of the warranty.

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PRODUCT DESCRIPTION

The **WC1**, **WC2** and **WC3** are slimline sanitary macerators for domestic use, designed for the drainage of fixed WC and requiring just 140 mm clearance between the WC spigot and bathroom wall.

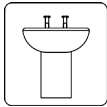
The **WC4C** is a slimline sanitary macerator for domestic use, designed for the remote drainage of a wall mounted fixed WC as well as wall mounted pans and capable of being concealed behind a panel.

WC1



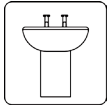
Designed to pump waste away from one WC.

WC2



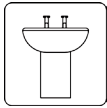
Designed to pump waste away from one WC and one sanitary device.

WC3



Designed to pump waste away from one WC and two sanitary devices.

WC4C



Designed to pump waste away from one WC and three sanitary devices.

Please note the following warning signs.



Warning of possible electrical hazard.



Possible danger to personnel or important installation requirement.

APPLICATION



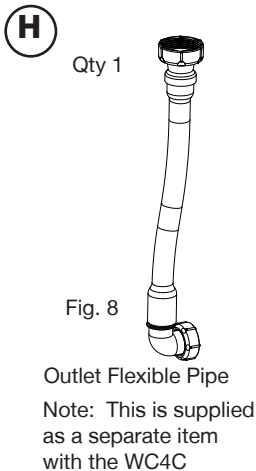
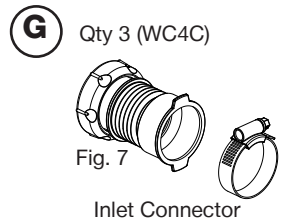
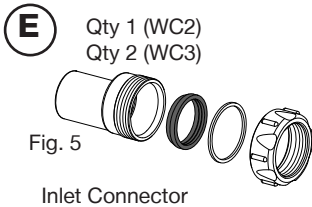
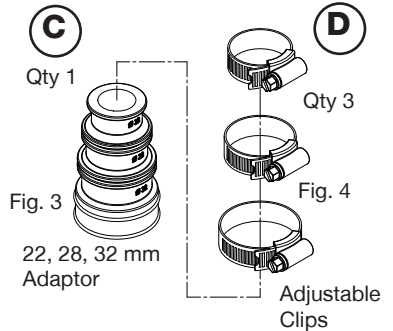
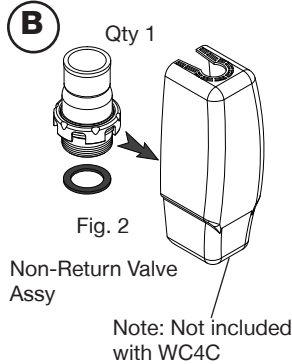
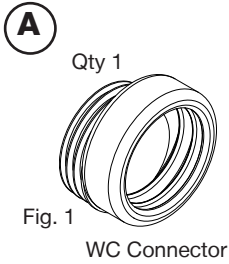
- **All the safety & operating instructions in this booklet must be followed.**
- **The unit must not be used for any other application without the written consent of Stuart Turner Limited.**
- **The unit must be installed by a qualified person.**
- **The unit is not suitable for heavy commercial/industrial applications.**
- **The plumbing installation must comply with the Building Regulations.**
- **This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.**
- **Children should be supervised to ensure that they do not play with the appliance.**
- **All pipework referred to in this installation manual are typical PVC waste pipe size's used in the UK.**

STORAGE

If this product is not to be installed immediately on receipt, ensure that it is stored in a dry, frost and vibration free location in its original packaging.

ACCESSORIES CHECKLIST

IMPORTANT: With the product removed from its packaging check for any damage prior to installation. If any damage is found contact Stuart Turner Ltd within 24 hours of receipt.



Cont ...

1 LOCATION

WC1, WC2, WC3

- 1.11 The unit must be connected directly to the outlet spigot of the WC pan. Allow a minimum height of 220 mm above the unit, for maintenance and servicing (see Fig 9).
- 1.12 The unit must be positioned away from heat sources, such as radiators and heaters.
- 1.13 Care must be taken to protect the unit against frost and freezing. All pipes at risk of freezing must be protected by thermal insulation.
- 1.14 The unit must be located immediately behind the WC pan and **must not** be mounted behind a partition wall.

WC4C

- 1.15 The unit must be connected to the outlet spigot of the WC by an elbow (not supplied) and waste pipe that has a minimum gradient of 1:50 and a maximum length of 0.5 m from the WC down to the unit to ensure full drainage.
- 1.16 The unit must be positioned away from heat sources, such as radiators and heaters.
- 1.17 Care must be taken to protect the unit against frost and freezing. All pipes at risk of freezing must be protected by thermal insulation.
- 1.18 The unit can be positioned to the side of the WC (see 1.15 above) and can be concealed behind a panel but **must** have a minimum void around it as shown below for access/maintenance (see Fig. 10).

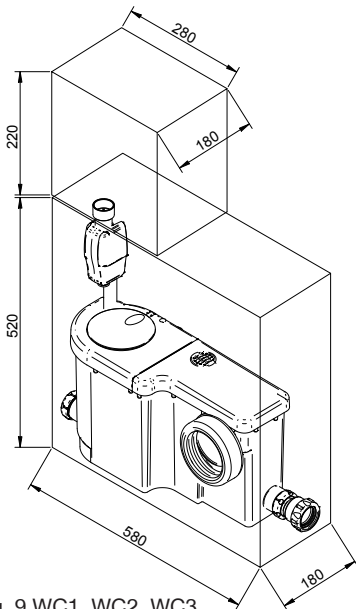


Fig. 9 WC1, WC2, WC3

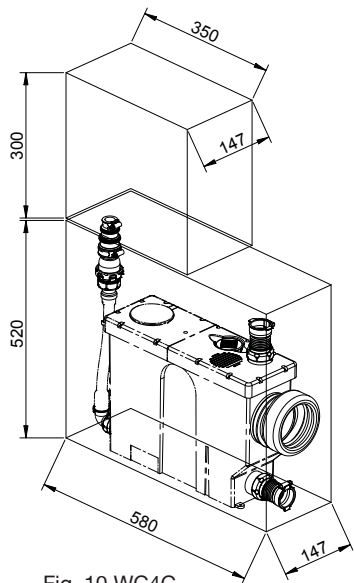
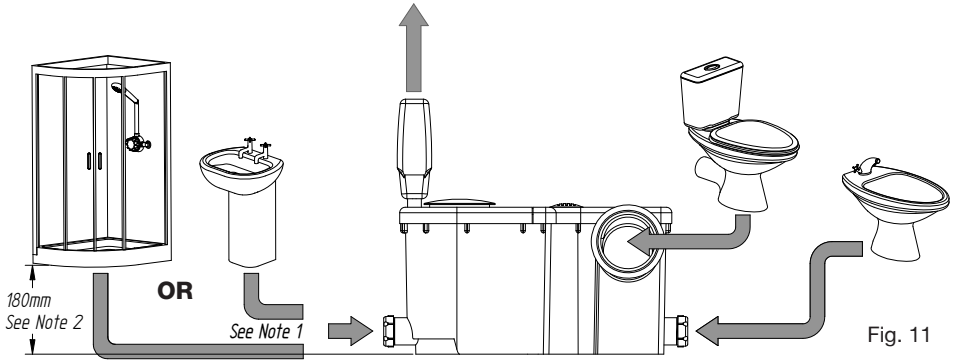


Fig. 10 WC4C

Cont ...

2 CONNECTIONS

Outlet - 22, 28 or 32 mm outside diameter piping using flexible adaptor



2.11 Note 1: Only connect one sanitary device per inlet connection.

2.12 Note 2: The shower tray (lowest waste outlet) must be a minimum of **180 mm** above the base of the macerator, to ensure necessary drainage **and must not contain a trap.**

3 INSTALLATION

INSTALLATION GUIDELINES

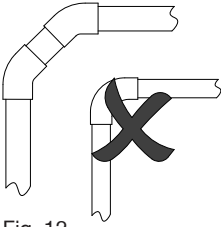


Fig. 12

- 3.11 All units
Always use smooth bends or 2 x 45° bends. **Do not use 90° elbows.**

- 3.12 All units
Vertical pipework must be installed first, pipework may be inclined up to 45° but will need to be included in the vertical height calculation.

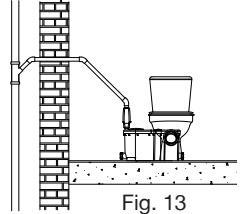


Fig. 13

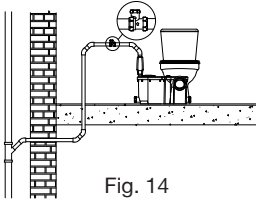


Fig. 14

- 3.13 All units
If the discharge is lower than the unit, to prevent water siphoning from the outlet pipe, an air admittance valve must be used (not supplied) capable of withstanding 10 psi. Example only: Wickes SKU 424903 can be used on 32 mm pipework.

- 3.14 WC1, WC2, WC3
Unit must be placed directly behind the WC.

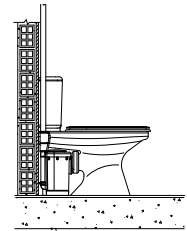


Fig. 15

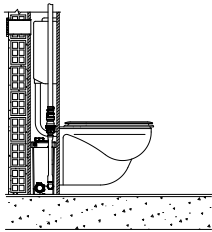


Fig. 16

- 3.15 WC4C
Ensure adequate ventilation and access when the unit is placed behind a panel and the pipework is fitted as per section 1 (A minimum gradient of 1:50 and a maximum length of 0.5 m).

- 3.16 All units
Do not connect to washing machines, dishwashers or baths.

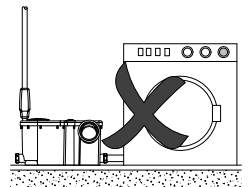


Fig. 17

Cont ...

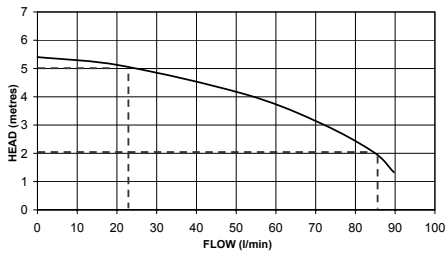


Fig. 18

- 3.17 Ensure that the total flow drained at any given time never exceeds the total pumped flow from the unit, taking into account the height and length of the outlet pipe. For instance,
- At 5 metres outlet head, the outlet flow is 23 l/min.
 - At 2 metres outlet head, the outlet flow is 85 l/min.



3.18 **Always ensure full access to the unit is possible for maintenance.**

STEP 1 WC CONNECTION

3.18 The unit is supplied with a WC pan connector (A), suitable for 102 mm WC outlet. Fit this connector into the unit, and rotate so that the connector is level with the WC outlet spigot.

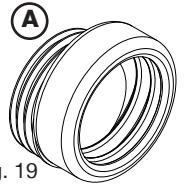


Fig. 19

STEP 2 OUTLET CONNECTION

3.19 We recommend the use of 32 mm outlet pipework for minimising blockages, however 28 or 22 mm pipework can, as an alternative be used.

Either pipework size: The horizontal outlet pipe must have a minimum fall of 1:100 (1°).

3.20 If either 28 or 22 mm dia. pipework is to be used from the unit, we recommend it is increased to 32 mm dia. as soon as possible.



Fig. 20

3.21 See diagram above for typical combinations of maximum height and length of discharge when using 32 mm, 22 mm or 28 mm pipework. Do not exceed the guidelines given for pipe diameters.

3.22 The unit is supplied with a non-return valve with cover (B) and a flexible rubber adaptor (C) for 22, 28 or 32 mm outside diameter pipe with adjustable clips (D).

3.23 The adaptor requires cutting to fit the selected pipe size (28 or 32) as shown in the diagram below.

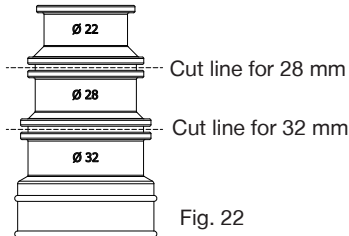


Fig. 22

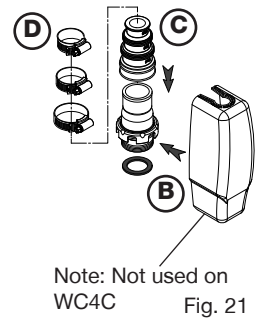


Fig. 21

3.24 Fit the adjustable clips over the adaptor (note: fit the top one over the required pipe size section).

Fit the adaptor onto the top of the one-way valve with an adjustable clip.

The selected pipe can then be fitted down to the appropriate stops as shown.

Tighten the adjustable clips to 5.0 N.m

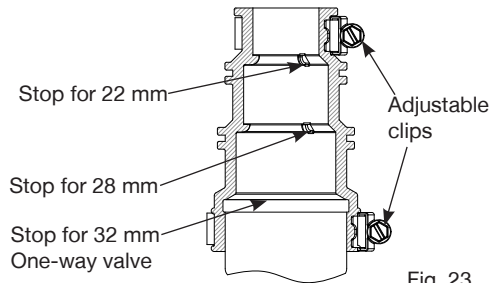


Fig. 23

3.25 In the case of the WC4C, connect the outlet flexible pipe to the unit, tighten the screw clip to create the seal before fitting the non-return valve to the connector.

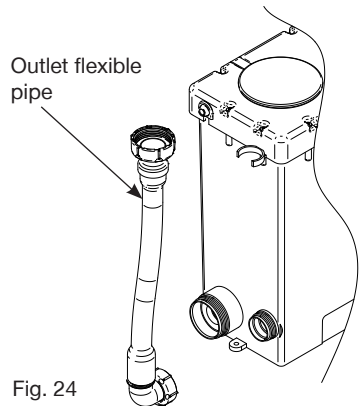


Fig. 24

Cont ...

3.26 The non-return valve can then be fitted to the connector on the flexible pipe from the unit, ensuring that the rubber sealing washer is fitted, and it is tightened to produce a water tight seal.

3.27 The non-return valve cover has cut out sections for a good fit over the pipe used - remove the appropriate section and fit the over the one-way valve/adaptor assembly.

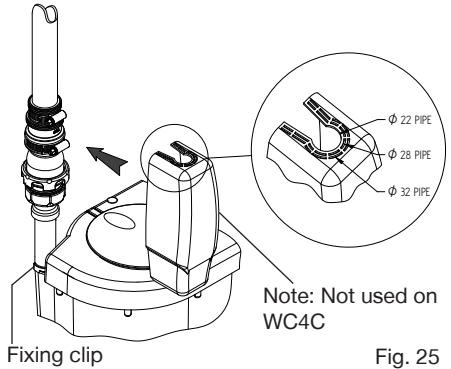


Fig. 25



3.28 **The flexible pipe must be supported by the fixing clip, along with all relevant fitted pipework to prevent the flexible pipe being bent which can cause an obstruction.**

STEP 3 ADDITIONAL SANITARY CONNECTIONS

WC1, WC2, WC3

3.29 The unit is factory fitted with a cap, to seal the additional connections.

If the additional connection is to be used, unscrew the 1½ " nut to remove the cap and seal.

3.30 The connection pipe must have a minimum fall of 1:33 (3°) into the unit.

3.31 This unit is supplied with an inlet connector (E), to allow connection to 40 mm (1½ ") diameter pipe.

3.32 Use the seal and nut with the inlet connector (E), to connect to your inlet pipe. Tighten to produce a watertight seal.

All pipe connector nuts should be hand tight to seal.

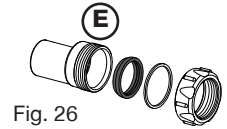


Fig. 26

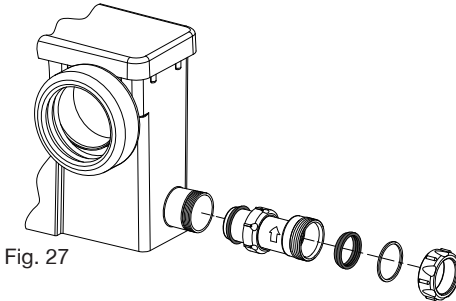


Fig. 27

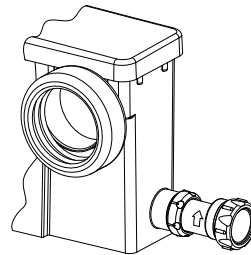


Fig. 28

WC4C

3.33 The unit is factory fitted with a cap, to seal the additional connections.

If the additional connection is to be used, unscrew the 1½ " nut to remove the cap and seal.

3.34 The connection pipe must have a minimum fall of 1:33 (3°) into the unit.

3.35 This unit is supplied with a flexible inlet connector (G), to allow connection to 40 mm (1½ ") diameter pipe.

3.36 Fit the connector to the unit, place the screw clip over the flexible end, and push the pipe into the connector. Tighten the screw clip to create the seal.

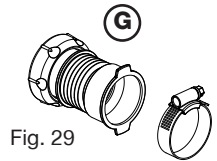


Fig. 29

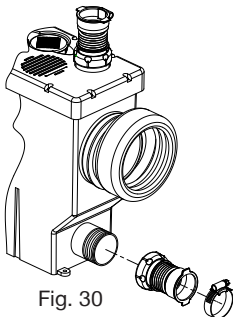


Fig. 30

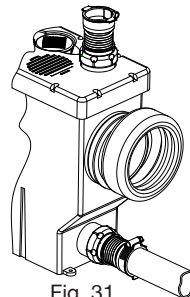


Fig. 31

Cont ...

4 ELECTRICAL INSTALLATION



- 4.11 **Regulations:** The electrical installation must be carried out in accordance with the current national electrical regulations and installed by a qualified person.
- 4.12 **Safety:** In the interests of electrical safety a 30 mA. residual current device (**R.C.D. not supplied**) should be installed in the supply circuit. This may be part of a consumer unit or a separate unit.
- 4.13 Before starting work on the electrical installation ensure the power supply is isolated.
- 4.14 This appliance must be earthed.
- 4.15 The wiring must not be exposed to water.
- 4.16 The supply cable must be positioned so that it is not stepped on, cut or damaged.

4.17 **Electrical Connection:**

The unit is provided with a factory fitted supply cord. This must be permanently connected to the fixed wiring of the mains supply. Means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules. A suitable method of connection would be via a double pole switched, fused connection unit complying with BS 1363-4, protected with a fuse (see Section 7 - Technical Specification).

The connection unit should be mounted in an easily accessible position and should be labelled if confusion is possible, to allow easy identification of the macerator isolating switch.

4.18 **Wiring Of Connection Unit:**



WARNING: This appliance must be earthed.

The wires in the mains lead (supply cord) are coloured in accordance with the following code:

Green and Yellow: Earth Blue: Neutral Brown: Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your connection unit proceed as follows:

The wire which is coloured green and yellow must be connected to the terminal in the connection unit which is marked with the letter E or by the earth symbol: ⊕ or coloured green or green and yellow.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

5 COMMISSIONING

- 5.11 The macerator will operate automatically as soon as the required level of water enters the case.
- 5.12 Check that the unit operates after the WC is flushed, using toilet paper, operate all the inlets one after the other. Finally check that all connections are watertight.
- 5.13 The unit should operate for no more than 10 to 20 seconds at a time, depending on the height and length of the discharge pipe, it is quite normal for the pump to cut in and out several times during the sanitary device emptying.

6 MAINTENANCE



- 6.11 The macerator should only be used for the removal of normal human waste, toilet paper and household WC cleaners.
- 6.12 AVOID COTTON WOOL, SANITARY TOWELS, TAMPONS, WET WIPES, PAPER TOWELS, CONDOMS, HAIR, FOOD WASTE, PLASTIC BAGS, NAPPIES, CIGARETTES ETC, as this will damage the unit.
- 6.13 Do not pour in any corrosive liquids such as acids, solvents, oil, paint stripper, as this will damage the unit, and is NOT covered under the guarantee.
- 6.14 Acid based descalents and aggressive cleaning agents must not come into contact with the unit.
If in any doubt as to the suitability of the chemical solutions, please contact our PumpAssist Helpline.
- 6.15 As water is heated scale deposits are released in areas of hard water. Scale can cause the mechanical seal to stick if left unused for long periods. We recommend the unit to be run every four weeks to “exercise” all working parts.
It is also recommended that a non acid based descalent is used to remove limescale. To be carried out twice a year.
- 6.16 There should be no dripping from the WC cistern or taps, as this will cause the unit to operate.
- 6.17 Do not use the toilet or connected sanitary device in the event of a power failure.
- 6.18 The adhesive warning label (Fig. 32), as provided is to be fixed in a visible area (suggest under toilet seat cover).



Fig. 32

- 6.19 Should the unit start to release odours the charcoal filter (Part No. 28170) should be changed (Figs. 33 & 34).
- 6.20 No other maintenance is required under normal working conditions.

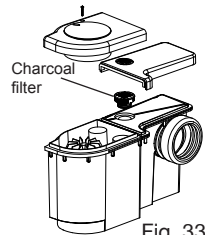


Fig. 33

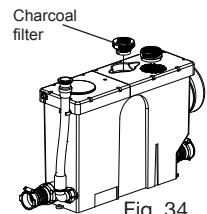


Fig. 34



WARNING: The macerator must be disconnected from the power supply before replacing the filter.

Contact Stuart Turner for spares replacement.

- 6.21 **For Further Technical Support:** Phone the Stuart Turner PumpAssist team on +44 (0) 800 31 969 80. Our staff are trained to help and advise you over the phone.

7 TECHNICAL SPECIFICATION

Pump Model		WC1 46626	WC2 46575	WC3 46576	WC4C 46653
General	Guarantee	2 years			
Features	Adjustable WC coupling	✓	✓	✓	✓*
	Slimline design	✓	✓	✓	✓
	Easy access cassette unit	✓	✓	✓	✓
	Noise level	50 dB (typical)			
Performance	Maximum head	5.4 metres			
	Pumping distance (vertical)	Up to 5 metres			
	Pumping distance (horizontal)	Up to 52 metres			
	Maximum flow	90 l/min			
	Maximum ambient air temperature	40 °C			
	Min / Max water temperature	Min 4 °C / Max 50 °C			
Connections	WC	102 mm dia.			
	Inlet(s)	N/A	40 mm (1½ ") dia.		
	Outlet	32 mm, 28 mm, 22 mm waste pipe adaptor			
Motor	Duty rating	Continuous			
Electrical	Power supply / phase / frequency	230 V a.c. / 1 / 50 Hz			
	Current (full load)	2.2 Amps			
	Power consumption	500 Watts			
	Fuse rating	5 Amps			
	Power cable (pre-wired)	1.5 metres			
Physical	Enclosure protection	IPX4			
	Length	482 mm			529 mm
	Width	180 mm			146 mm
	Width behind pan	140 mm			N/A
	Height (excluding hoses)	278 mm			318 mm
	Weight (including fittings)	7.9 Kg	8.0 Kg	8.2 Kg	7.4 Kg

* Side entry.

Stuart Turner reserve the right to amend the specification in line with its policy of continuous development of its products.

WC1

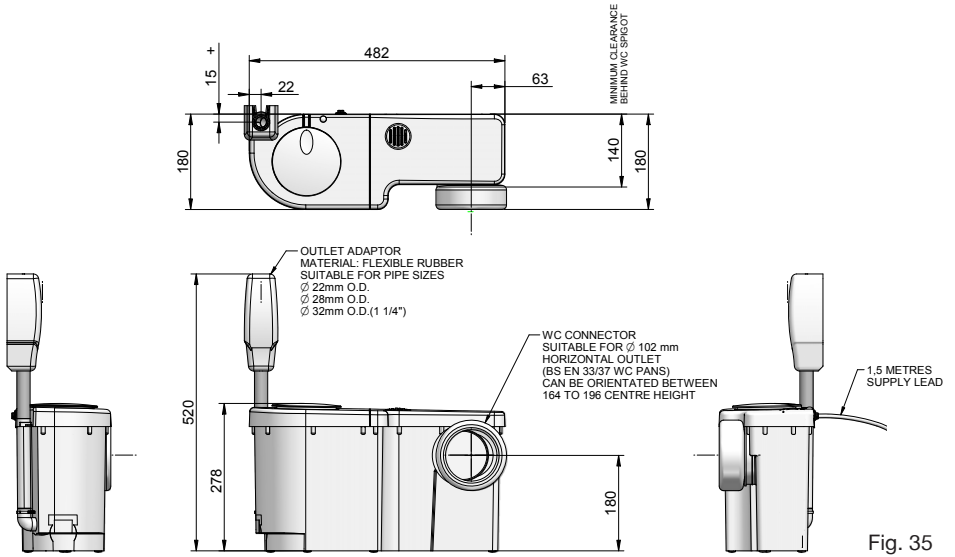


Fig. 35

WC2

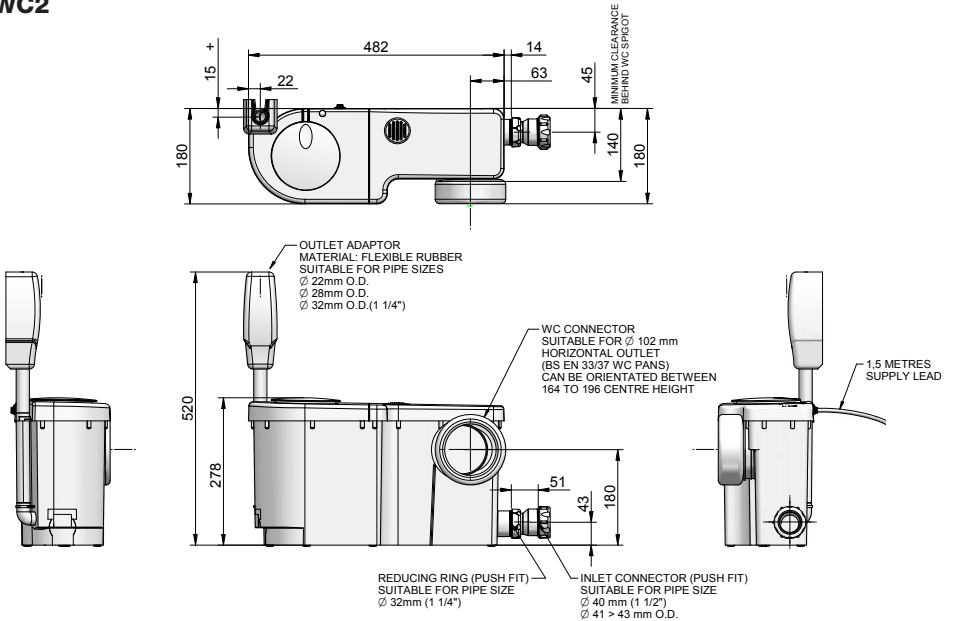


Fig. 36

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WC3

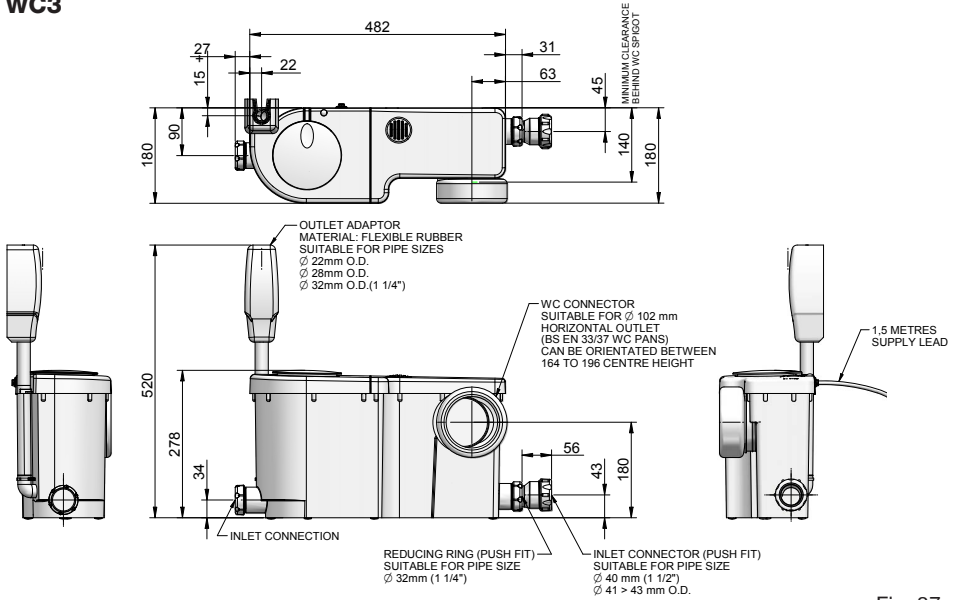


Fig. 37

WC4C

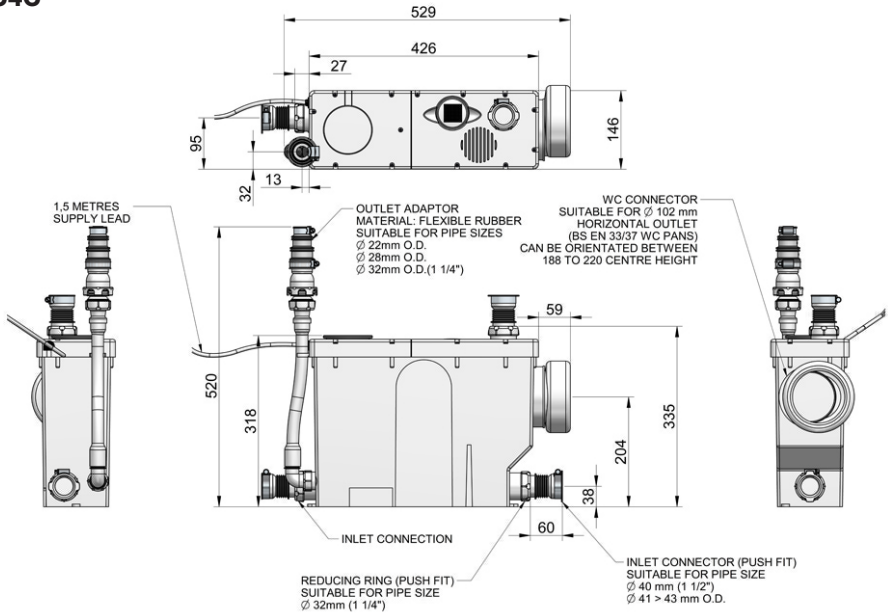


Fig. 38

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8 TROUBLE SHOOTING GUIDE



8.11 **WARNING:** The macerator must be disconnected from the power supply before any service.



8.12 All work involving dismantling the macerator, except for the service of the filter and inlet/outlet non-return valves, must be carried out by an approved engineer. Contact Stuart Turner Ltd for details of approved service engineers.

Symptoms	Probable Cause	Recommended Action
Macerator will not start.	Electrical supply. Motor thermotrip activated.	Check wiring connections. Check all switches are 'on'. Check fuse (see technical specification section). Check circuit breaker is set. Wait approximately 20 minutes for the thermotrip to auto-reset.
Macerator works, but does not discharge, or discharges slowly.	The outlet pipe is blocked.	Clean the outlet pipe.
The motor buzzes, but does not spin.	Pump is blocked.	Do not attempt to service the macerator. Contact Stuart Turner Ltd.
After use, the macerator hunts on and off.	The outlet non-return valve is leaking or there is water loss from the WC or auxiliary sanitary connections.	Clean the non-return valve. Fix the leaks from the WC or auxiliary connections.
The macerator does not stop.	The outlet pipe is too high or too long. The outlet pipework is restricted. The internal pressure switch has failed.	Correct installation. Clean the outlet pipe. Pressure switch in need of replacement contact Stuart Turner Ltd.
The macerator works with the WC, but not with the auxiliary sanitary connections.	The inlet pipework or inlet non-return valve is blocked.	Clean the inlet pipe or non-return valve.
Accumulation of waste inside WC, after flushing.	Inadequate water volume in cistern.	Adjust water level in cistern (minimum 6 litres).
Water returns to the shower tray.	The minimum fall for the inlet pipe has not been met. The inlet non-return valve is blocked.	Correct installation. Clean the non-return valve.
Odd noises when the macerator operates.	Obstruction due to foreign object.	Do not attempt to service the macerator. Contact Stuart Turner Ltd.
Nasty smells from the macerator.	Active carbon filter need replacing. Pipework is obstructed.	Replace the filter.

8.13 **Environment Protection:** Your appliance contains valuable materials which can be recovered or recycled.
At the end of the products' useful life, please leave it at an appropriate local civic waste collection point.

9 THE WASTEFLO GUARANTEE

Congratulations on purchasing a Stuart Turner macerator.

We are confident this macerator will provide many years of trouble free service as all our products are manufactured to the very highest standard.

All Wasteflo macerators are guaranteed to be free from defects in materials or workmanship for 2 years from the date of purchase.

Within the guarantee period we will repair, free of charge, any defects in the macerator resulting from faults in material or workmanship, repairing or exchanging the whole unit as we may reasonably decide.

Not covered by this guarantee: Damage arising from incorrect installation, improper use, unauthorised repair, normal wear and tear and defects which have a negligible effect on the value or operation of the macerator.

Reasonable evidence must be supplied that the product has been purchased within the guarantee term prior to the date of claim (such as proof of purchase or the macerator serial number).

This guarantee is in addition to your statutory rights as a consumer. If you are in any doubt as to these rights, please contact your local Trading Standards Department.

Guarantee Call Out Procedure

In the event of a claim, **DO NOT remove or try to return the unit**, please telephone **'PumpAssist'**.

+44 (0) 800 31 969 80

Have the following information ready before you call **'PumpAssist'**.

- **Proof of purchase**
- **Serial number of product**

Full details will be given when contacting **'PumpAssist'**.

You should obtain appropriate insurance cover for any loss or damage which is not covered by Stuart Turner Ltd in this provision.

Please record here for your records.

TYPE NO.	SERIAL NO.	DATE PURCHASED

Installers – Register with Stuart Turner and move up to Approved Installer status

We receive thousands of enquiries every month from people seeking a Stuart Turner installer and by registering your details with us, we can offer consumers the opportunity to quickly locate an installer in their area.

Registration is free - simply click on the **'register as an installer'** link on our homepage at **www.stuart-turner.co.uk** and complete a short form which will enable visitors to find your contact details on our web site 'installer finder'. Alternatively use your smartphone to scan this QR code and go straight to the form.



We'll do the rest!

In addition we will ensure you receive advance notice on all new product launches and access to any special offers or promotions.

Following initial registration, Stuart Turner offers a professional training programme, enabling you to achieve Approved Installer status and opening the door to a range of additional benefits.

Contact approvedinstaller@stuart-turner.co.uk for further details.

NOTES



DECLARATION OF CONFORMITY

2006/42/EC

BS EN ISO 12100-1, BS EN ISO 12100-2

2014/35/EU

BS EN 12050-3, BS EN 12050-4, BS EN 60335-1

2014/30/EU

BS EN 55014-1, BS EN 61000-3-2, BS EN 61000-3-3,

1999/519/EC

BS EN 62233

2011/65/EU

IT IS HEREBY CERTIFIED THAT THE STUART ELECTRIC MOTOR DRIVEN PUMP AS SERIAL NUMBER BELOW, COMPLIES WITH THE ESSENTIAL REQUIREMENTS OF THE ABOVE E.E.C. DIRECTIVES.



RESPONSIBLE PERSON
AND MANUFACTURER

STUART TURNER LIMITED
HENLEY-ON-THAMES, OXFORDSHIRE
RG9 2AD ENGLAND.

Signed.....  Business Development Director

Stuart Turner are an approved company to BS EN ISO 9001:2008



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