

# ~~MAX~~ 3 Flow

Instantaneous Electric Over-Sink Hand Wash  
Installation and User Instructions

**IMPORTANT!**

**This Step-by-Step guide should be given to the customer  
after installation and demonstration.**

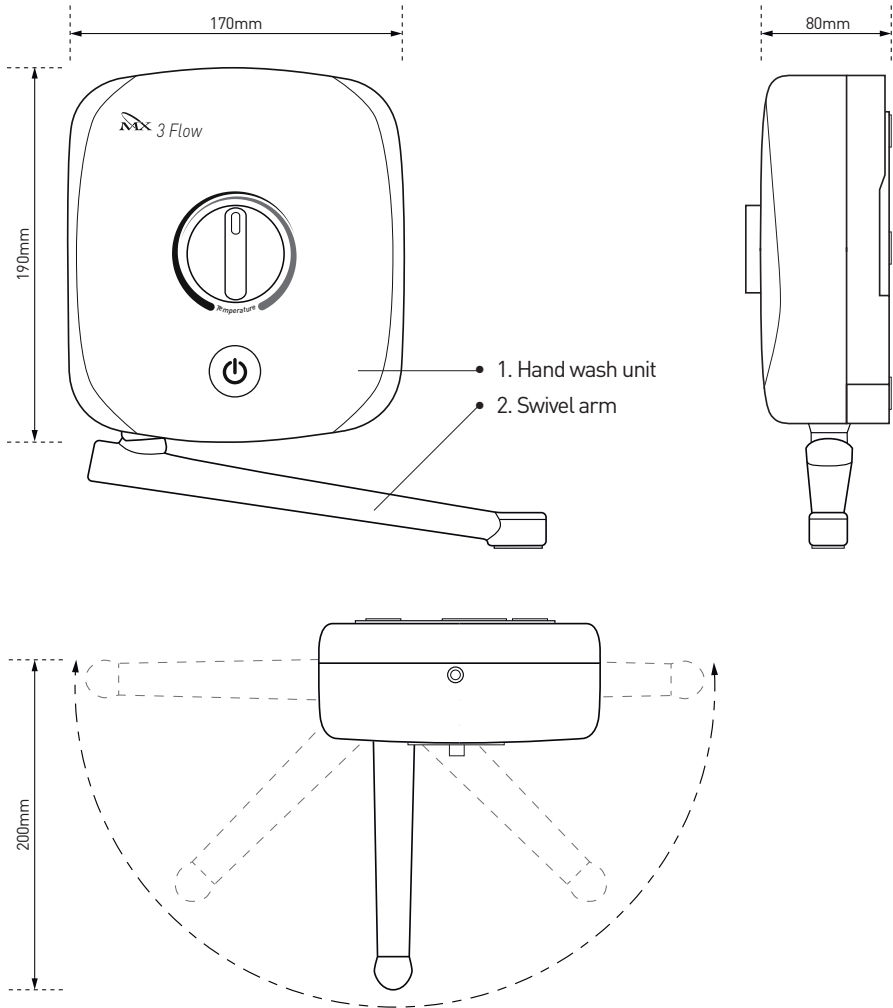
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**These instructions contain all the necessary fitting and operating instructions for your electric hand wash. Care taken during the installation will provide a long, trouble free life from your hand wash.**

# 1. PRODUCT DIMENSIONS

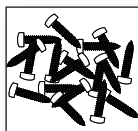


## 2. PACK CONTENTS

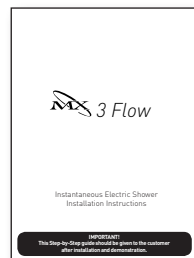
**Please make sure ALL components are included before starting the installation.**

1. Hand wash heater unit.
2. Swivel arm assembly complete with spray plate.
3. Screw pack for wall fixing.
4. Installation and user instructions.

- 3. Screw pack



- 4. Installation and user instructions.



### 3. PLEASE READ THIS IMPORTANT SAFETY INFORMATION

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Products manufactured by the MX Group are safe and without risk provided they are installed, used and maintained in good working order in accordance with our instructions and recommendations.



The installation **MUST** be carried out by a suitably qualified person and conform with IEE regulations and national water council bylaws.



The MX hand wash unit is designed to be connected to a 15 mm cold water mains supply. **Do not connect to a tank supply unless a suitable booster pump is fitted.**



The MX hand wash unit **MUST** be connected to the mains cold water supply with a **minimum** running pressure of 100kPa (15psi – 1 bar) and a **maximum** static pressure of 1000kPi (150psi – 10 bar).



The MX hand wash unit **MUST NOT** be fitted where it may be exposed to frost, for example in an outdoor area. The hand wash **MUST NOT** be used if suspected of being frozen. Frost damage is not covered by the guarantee.



Plumbers jointing compound **MUST NOT** be used. Where required use PTFE tape to make the joint secure. The use of compound will invalidate the guarantee.



All plumbing connections **MUST** be completed before making the final electrical connection to the MX hand wash unit.



The outlet of the MX hand wash acts as an open outlet vent and **MUST NOT** be connected to any form of tap or fitting not recommended by the manufacturer.

**For long periods of inactivity it is recommended that the MX hand wash unit is switched off at the electrical isolation switch.**

## 4. INSTALLATION PROCEDURE

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Plan the installation carefully. Check on the nearest and most convenient rising cold water mains supply. **Do not connect to a tank supply unless a suitable booster pump is fitted.**

Avoid connecting the hand wash unit where it will be affected by water drawn off by other appliances. For example from the mains feed to a WC as this could cause a drop in pressure too low for the hand wash unit to work correctly.

A WRAS (Water Regulations Advice Scheme) listed isolating valve must be fitted between the rising main and the unit to allow for routine maintenance and servicing.

We recommend that the MX hand wash unit is installed in the following sequence.

## 5. INSTALLATION SEQUENCE

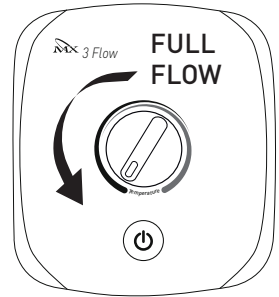
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1. *Select a suitable position for the hand wash unit* .....
2. *Check that water and cable entry points of the unit meet requirements* .....
3. *Fit the swivel arm to the unit* .....
4. *Fix the unit to the wall* .....
5. *Plumbing connection* .....
6. *Electrical connection* .....
7. *Fit the front cover* .....
8. *Commission the hand wash unit* .....

Tick off as you complete

## 6. POSITIONING AND MOUNTING THE UNIT ON THE WALL

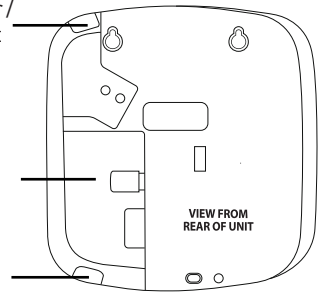
1. Before removing the front cover check that the rotary temperature control is set **fully anti-clockwise to full flow**.
2. Remove the cover retaining screws which are located at the top and bottom of the unit and lift off the front cover complete with the controls.
3. Remove the water inlet cover positioned to the bottom right of the back plate.
4. Choose the entry position for the mains water supply pipe and cable. Bottom, top or rear on the right hand side are options and remove the relevant recess in the back plate to allow easy positioning and should be marked and drilled using a sharp 5.5 mm masonry drill.
5. The unit should be sited so that all the spray from the spray outlet is contained in the sink or basin. Two keyhole slots are provided at the top of the back plate to allow easy positioning and should be marked and drilled using a sharp 5.5 mm masonry drill.
6. Insert the top screws into the wall plugs leaving about 6–8 mm of the head protruding and hook the back plate over the screw heads. Align the unit horizontally and mark and drill the lower fixing position.
7. Secure the unit on the wall. The slots are elongated to allow for final adjustment.



Top mains water / cable entry point

Water inlet with removable filter for cleaning

Bottom mains water / cable entry point



**NOTE:** You may find it easier to fit the spray arm to the heater before the unit is mounted to the wall. Ensure the connection is tight and that the arm is free to swivel through 180 degrees.

## 7. PLUMBING CONNECTION

**IMPORTANT:** Plumbing the hand wash unit must precede the wiring connection.

1. Turn off the water supply at the isolating stop tap. Check that the inline filter is fitted to the inlet pipe.

**IMPORTANT:** Before completing the mains water connection to the inlet of the unit flush out the pipe work to remove all swarf and system debris. This can be done by attaching a hose to the mains water inlet pipe and directing the flow into the basin.

2. Connect the mains water supply to the inlet of the hand wash using a 15mm copper, stainless or plastic pipe with a 15mm compression elbow or 15mm push fit elbow. **Do not use excessive force**

**when making the connection to the unit.**

3. If rear entry pipe work is used we recommend the use of a suitable sealant to seal around the incoming pipe work to prevent water entering the wall.
4. Turn on the water supply at the isolating stop tap and check for leaks in the pipe work connection to the hand wash.

**IMPORTANT:** Re-fit the water inlet cover. Fix the spray arm to the heater (if not already done) and tighten ensuring that it is free to swivel through 180 degrees. **Check again that the wall fixing screws are secure.**

# 8. ELECTRICAL CONNECTION

The MX 3 kW hand wash unit must be connected to a 240-230V single phase AC electrical supply with a switched spur fused at 13 Amps.

The electrical installation must be in accordance with the current BS 7671 (IEE wiring regulations) and part P of the building regulations and or local regulations.

1. Switch off the electricity supply.

**NOTE:** The cable can be surface clipped, hidden or via conduit. Use 3 core cable, 1.5mm cross sectional area and double insulated.

2. The incoming mains cable can enter the unit from the top, bottom or rear of the unit on the right hand side. If top or bottom entry is chosen remove the relevant recess in the back plate with a sharp knife, taking great care.

3. Strip back the mains cable approximately 10 mm and connect:

**Earth** cable to terminal marked  $\oplus$

**Neutral** cable to terminal marked **N**

**Live** cable to terminal marked **L**

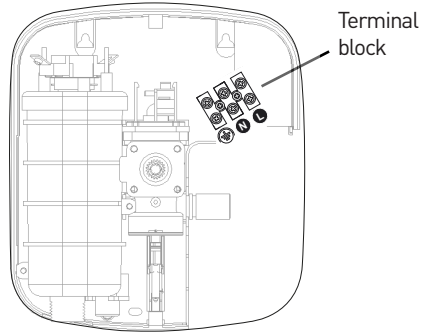
**IMPORTANT:** Ensure that the terminal block screws are fully tightened and that NO cable insulation is trapped under the screws. Loose connections can result in cable overheating.

**IMPORTANT:** Failure to ensure that the retaining screws are **VERY** tight could result in a failure of the terminal block.

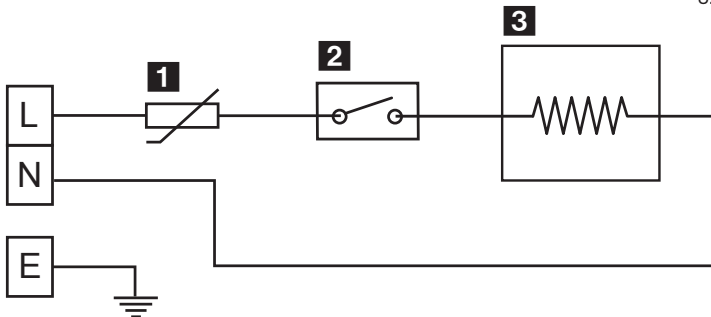
**IMPORTANT: DO NOT** switch on the electricity supply until the front cover and commissioning the unit has been completed.

The diagram below shows a schematic wiring diagram.

**IMPORTANT:** The use of connections within the unit or other points in the hand wash circuit to supply power to other equipment such as an extractor fan or pump etc will invalidate the guarantee.



- 1. Thermal cut-out
- 2. Micro switch
- 3. Heater body

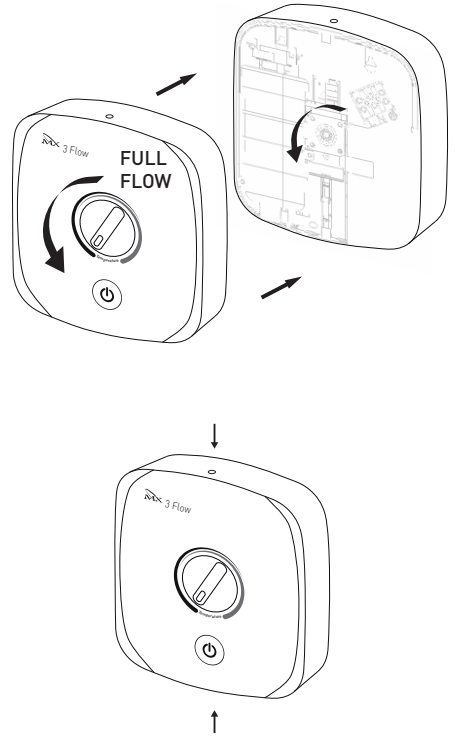


## 9. FITTING THE FRONT COVER

**IMPORTANT:** It is necessary to engage the temperature control knob in the correct position on the valve spindle before the front cover is located.

1. Before replacing the front cover check that the valve spindle and temperature control knob are set fully anti-clockwise to full flow.
2. Secure the front cover with the two fixing screws provided.

**IMPORTANT:** Ensure that the rotary temperature control is positioned fully anti-clockwise and that the valve is fully open. This will ensure a fast water fill up of the hand wash unit and avoid potential damage to the heating elements.



## 10. COMMISSIONING THE UNIT

1. Ensure that the power is switched **OFF** at the local isolating switch.
2. Position the outlet spray arm over the sink.
3. Push the start/stop button and water will flow.
4. Once the heater is full of water and all the air has been emitted from the system, switch **ON** the power at the local isolator then turn the temperature control knob clockwise in the direction of the red graphic until a satisfactory temperature is obtained.

5. Push the start/stop button again to turn the hand wash unit off.

6. Check for leaks.

**NOTE:** Please demonstrate the operation to the prime user and leave this booklet with them for future reference.



# 11. OPERATING THE HAND WASH

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The flow of water through the heater is controlled via a start /stop push button. **The mains electricity and water supply to the heater should normally be left on.**

1. Push the start /stop button and water will flow through the heater.
2. The outlet water temperature can be adjusted by rotating the temperature control knob and once set

will only require changing for seasonal variations of the incoming water supply temperature.

3. When you have finished hand washing push the start /stop button and the unit will stop.

# 12. HOW YOUR HAND WASH UNIT WORKS

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1. Water is heated instantaneously as it flows over the heating elements in the heat exchanger.
2. The required water temperature is achieved by adjusting the rate of water flow. The higher the flow rate the lower the temperature rise and the lower the flow rate the higher the temperature rise.
3. The heating element is only switched on when sufficient water is flowing through the hand wash unit. This is done automatically with an internal switch that works on water pressure.
4. The flow of water through the hand wash is automatically held at the level set buy the user even if the inlet supply pressure fluctuates. This is done

with a flow stabilizer built into the temperature control valve.

5. If the incoming water supply pressure falls below a set limit, the pressure switch will operate and switch off the power to the heating element.
6. The heater unit incorporates a pressure relief device to safeguard against abnormal pressure conditions and provides a safeguard should an excessive build up of pressure occur within the unit.

# 13. ROUTINE MAINTENANCE

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We recommend that the electrical isolating switch is turned off, thus avoiding accidentally switching the unit on whilst cleaning.

The hand wash casing should only be cleaned using a soft cloth. The use of abrasive or solvent base cleaners will damage the plastic surface.

The spray head should be cleaned periodically to remove lime scale or debris which will reduce the performance of the hand wash. The frequency of cleaning will vary according to local water quality. In hard water areas cleaning will be needed more often than in soft water areas.

Scrub the spray plate at the end of the spray arm with a small, stiff bristled brush, if the deposits are stubborn remove the spray rings and immerse in a lime scale remover solution.

**IMPORTANT:** Ensure all traces of lime scale remover are rinsed off before re-fitting

# 14. TROUBLESHOOTING AND FREQUENTLY ASKED QUESTIONS

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If the hand wash unit is not working satisfactorily make the following checks before calling out the installer.

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## **Q. Water is too HOT.**

**A.** Increase water flow by rotating the temperature control knob in direction of blue graphic. Allow time for temperature to reduce. Clean inline filter of any dirt or debris.

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## **Q. Water is too COLD.**

**A.** Decrease water flow by rotating the temperature control knob in direction of red graphic. Allow time for the temperature to increase.

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## **Q. Water takes longer to heat up.**

**A.** Thermal cut-out has operated after previous use and will automatically re set when the unit cools down.

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## **Q. Water goes cold while using hand wash.**

**A.** Check power is on to the unit.

Check water pressure has not fallen so far as to let the pressure switch turn off.

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## **Q. Spray pattern is poor.**

**A.** Remove spray plate from spray arm and de-scale.

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# 15. TROUBLESHOOTING CHECKLIST FOR THE INSTALLER

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Should the checks listed above fail to restore the performance of the hand wash unit you should seek professional help. The person who installed the unit is the best one to repair it and is the person to contact if you have the problem in the guarantee period.

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## **Q. Water is too COLD.**

**A.** Check the circuit through the thermal cut out.

Check the circuit through the micro switch on the pressure switch.

Check the element circuit.

Check the tightness of the electrical connections.

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## **Q. Water discharges from the unit base.**

**A.** Pressure relief device has blown.

Check for cause of high internal pressure such as blocked or scaled up outlet and remove it.

Replace the pressure relief disc. Please note that this is not covered by the product guarantee.

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## **Q. No control over the water.**

**A.** Remove the head works of the temperature stabilizer valve.

Check the stabilizer tapered core and 'O' ring is in place.

Remove any debris from the valve.

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## **MX Customer Care Department**

**Telephone: 0845 505 2211**

**Fax: 0845 850 0757**

**9.00 am - 5.00 pm**

**Monday to Friday**

# 16. THE MARLETON CROSS LTD - 1 YEAR REPLACEMENT GUARANTEE

Marleton Cross Limited (MX Group) hopes you are satisfied with your purchase and in the unlikely event that you encounter a problem which is caused exclusively by the MX Group manufactured product (the "product") we will take responsibility on the terms set out here.

We aim to supply components which have been manufactured to the highest standards. In respect of the product you have a one year replacement guarantee which covers any defect in manufacture.

Any part found to be defective during the guarantee period will be replaced without charge providing that the product has been installed in accordance with our instructions, used as intended and maintained/ serviced as recommended.

In the unlikely event that any problems are encountered with this component's performance on installation, please contact our Customer Care Department for help, as below.

Please supply proof and date of purchase when contacting MX Group.

The company reserves the right, in the event of a claim not covered by the guarantee, to charge the claimant for parts and labour at current rates. This guarantee is given in addition to and does not affect your statutory rights.

## Exclusions:

1. Any product found to be defective during this period, as the result of misuse, neglect or damage, will not be covered by this guarantee such as:
  - Damage caused by accident
  - Those components subject to wear and tear such as 'O' rings and washers etc.
  - Effects of scaling
  - Damage caused by faulty installation.
  - Damage caused by waterborne debris.
  - Damage caused by improper cleaning components.
  - The components being used for a purpose other than intended.
2. Breakdown due to:
  - a) Use other than domestic use by you or your resident family
  - b) Wilful act or neglect
  - c) Any malfunction resulting from the incorrect use or quality of water or incorrect setting of controls; and
  - d) Faulty installation.
3. Repair costs for damage caused by foreign objects of substances or the inappropriate use of jointing compounds or blow torches.
4. Total loss of the product due to non-availability of parts or other reason, (MX Group will maintain stocks of spare parts for repair for at least 5 years from end of product line to cover this guarantee).
5. Compensations for loss of use of the product or consequential loss of any kind.
6. Call out charges
7. The cost of routine maintenance, adjustments, overhaul modifications or loss or damage arising there from, including the cost of repairing damage, breakdown, malfunction caused by corrosion, furring, pipe scaling, limescale, system debris or frost.
8. Components and/or units including components purchased and installed other than in the United Kingdom.

## Limitations

1. This guarantee lasts for a single continuous period of 1 year from the date of delivery to you the customer.
2. This guarantee is personal to the original purchaser of the product and is not transferable.
3. Original proof of purchase(s) must be shown for any claim under this guarantee.
4. This guarantee does not cover any components that have been modified, altered or transformed in any way.
5. This guarantee applies to an original installation in accordance to our fitting instructions and does not cover previously installed components (showroom displays etc) or components that have been moved from their original installation position for any reason.
6. This guarantee applies only to manufacturing or material defects. It does not apply to normal wear and tear, accidental damage, inappropriate use (including inappropriate cleaning) or other events outside the manufacturer's control.
7. This guarantee applies only to the product itself and as a result any liability attributed to MX Group is limited to the cost of the component.
8. If a product is deemed to be of faulty manufacture MX Group will at their discretion replace the component. Any related consequential loss or damage is excluded.
9. No claim will be accepted if a product is installed with a fault (ours or otherwise) that would have been clearly evident before installation.
10. We make no representations, and exclude any and all liability, in respect of any third party products or services supplied by way of extensions to this guarantee.

## Liability

1. Except as required or agreed by us, you will not in any circumstances return any of the product to us, and where the property in any of the goods returned to us has passed to you, they will nevertheless remain your property and at your risk unless we have agreed otherwise in writing before their return.
2. Except as stated above, we will not be liable for any direct, consequential or other loss, damage or injury suffered or incurred by you, and you will indemnify us fully against any claims made by third parties, in respect of the goods or otherwise arising from the contract.
3. Nothing contained in the contract will be treated as excluding or restricting any liability on our part for death or personal injury resulting from our negligence.
4. Except as stated above, and to the fullest extent permitted by law, all conditions, warranties and representations, whether express or implied, statutory or otherwise in relation to the product (other than such as relate to title to the component) are excluded.
5. You acknowledge that our prices for the goods reflect these Terms and Conditions, and accordingly that you accept the above limitations on and exclusions of liability in exchange for those prices.
6. When providing information to MX-Group you understand that you are doing this subject to our terms and other policies (including data protection) we have in place from time to time, copies of which are available on our website [www.mx-group.com](http://www.mx-group.com) or on request as per the MX Group contact details given herein.
7. This guarantee does not affect your statutory rights.

In the interest of continuous product development we reserve the right to alter the specification as necessary.

In the unlikely event that you need to make a claim on our guarantee please contact MX Customer Care on 0845 505 2211 or [sales@mx-group.com](mailto:sales@mx-group.com)

# 17. SERVICE POLICY

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In the event of you needing to contact the MX Group Customer Care Department, the following procedure should be followed:-

1. Before telephoning the MX Group Customer Care Department you should ensure that you have the model number, power rating, serial number, this can be found on the bottom of the shower unit plus the date of purchase.
2. The MX Group Customer Care Department will be able to inform you whether the fault can be rectified by the provision of a replacement part or an on site visit by a Qualified Service Engineer.
3. If a service call is booked, you or a representative must be present during the Engineers visit.
4. A charge will be made where a call under the terms of the guarantee has been booked and a failure was not product related, or an engineer arrives and is not able to gain access.
5. If the product is no longer covered by the Guarantee, a charge will be made for the site visit and for any parts supplied.

## Customer Care Department

**Telephone: 0845 505 2211 Fax: 0845 850 0757**

**9.00 am - 5.00 pm Monday to Friday**

MX3FLOW KL/MARCH2015

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### **Marleton Cross Limited Trading as The MX Group**

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Tel: 01684 293311 Fax: 01684 293900 Email: sales@mx-group.com www.mx-group.com

**CUSTOMER CARE: 0845 5052211**

#### **TRADE DESCRIPTIONS ACT**

Variations in terms of colour finish, materials and all other aspects of appearance may occur on occasions, either through non-availability of materials or due to our policy of continuing technical improvement. Therefore the Company reserves the right to change specification or withdraw products from this list without prior notice being given.