



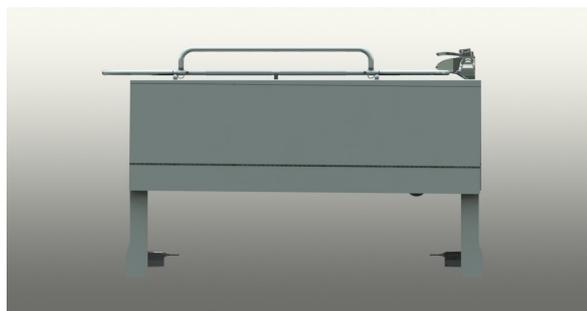
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Pre-Installation Services Requirements And Installation Instructions

Kingkraft 1700 & 1800 Argent

Please read very carefully before commencing.

If in any doubt, please contact Kingkraft Ltd.



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**PLEASE READ CONTENTS VERY CAREFULLY
PRIOR TO COMMENCING**

*Please contact Kingkraft to confirm the issue number on the front cover is current
and the information provided is relevant to the unit supplied.*

This booklet describes the ideal conditions to which a site should be prepared prior to the installation of the 1700 & 1800 Argent and form recommended guidelines for installing the Argent.

At any stage, Kingkraft can provide telephone advice, on site assistance with installation, and / or a full commissioning service if required, e.g. following installation by others. Kingkraft also offer a maintenance service. Please call the company for details. If requested Kingkraft will also undertake a pre-delivery site survey and offer advice.

This bath should only be installed by competent individuals and Kingkraft would always recommend that commissioning of the bath is carried out by Kingkraft qualified personnel.

**Throughout this pre-installation guide
'left handed' and 'right handed' Argents are shown.**

**This means when facing the 'front' side of the bath,
the plug hole is either at the 'left hand' or 'right hand' side of the bath**

**If your specification of bath is the opposite of what is shown at any point in this booklet, simply 'mirror' the
enclosed images.**

The bath can be installed in various positions. The tap / drain end can be at either end of the bath depending on the specification.

Check that the positioning of any fixings to be used will not interfere with any under floor pipe work or cables.

The bath is heavier than a conventional unit and is rated to support a bather of up to 133kg in weight. Together with the weight of water in a full bath, it is imperative that the floor is fully load bearing.

Product Weights:

A standard 1700/1800 Argent, fully assembled weighs approximately: 100 kg.

(Accessories and cushioning / supports not included in these weights)

Please note this bath is a very large and heavy product and will require careful consideration on how the bath and other parts / components are moved into the designated room in the building. If the bathroom is not particularly large, it is recommended to leave other fittings not in place, e.g. basins, WC's, etc., until after installing the bath.

The Argent may need to be disassembled to allow easier access into the room. The bath tub can be separated from the lifting framework and panels. (This should be only done by or under strict supervision of Kingkraft engineers) **The dedicated area for the bath installation should be finished to allow assembly of the Argent.**

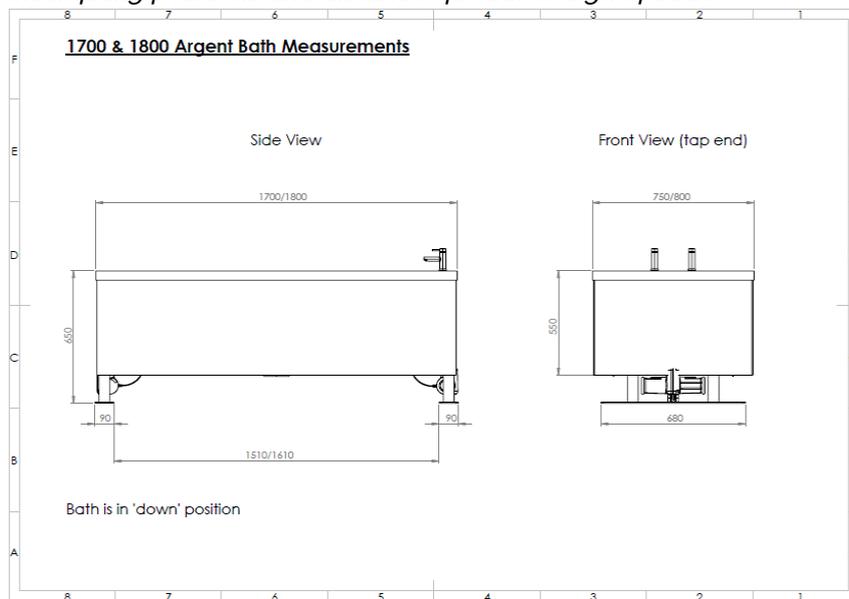
CAUTION! The bath and lifting columns are very heavy. Group lifting techniques or suitable devices must be used when moving / handling the unit.

Positioning

The drain of the bath is built into the bathtub itself. The flat plate must be screwed down to prevent sliding of the Bath.

The full weight / load of the bath is taken through the two flat plates at each end of the bath and if strengthening of the floor is necessary it should take into account the positions of the feet below.

If the Argent specified is produced specifically for a customer, differing from the standard 1700 / 1800 dimensions then the distances away from walls and other fixtures and fittings might be different. Please phone Kingkraft to check fixing positions and distances for this design of bath.



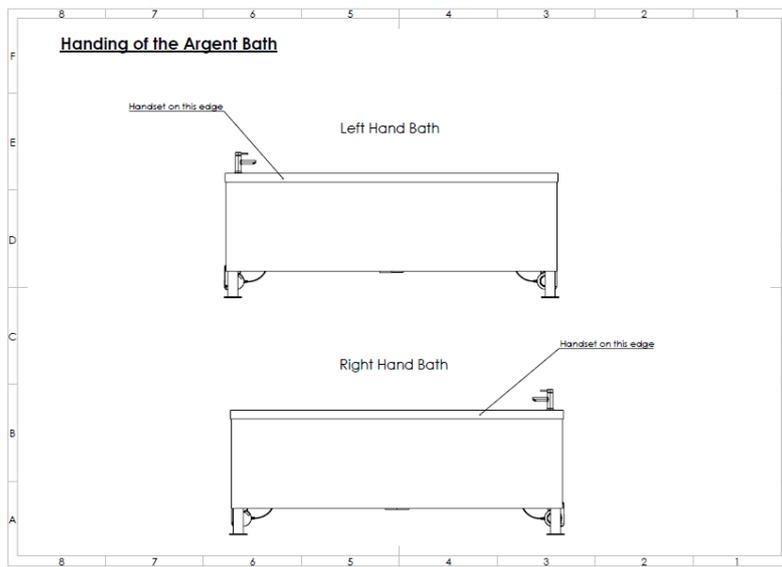
The Argent bath at full height from floor level to top of tub is 1050mm.

The bath can be screwed down to the floor to stop any possible movement of the bath and improve stability. If this is to be done it must be done before commissioning. Great care must be taken if under floor heating has been installed.

When deciding on positioning the bath, allowance will have to be given for wall clearance. **To comply with BS ISO 17966:2016 there must be at least 300mm clearance around your Argent to avoid trapping.** Nothing should be wall mounted above the bath as this may cause a risk of trapping as the bath traverses upwards.

Handing of the Bath

When ordering the bath Kingkraft need to know the orientation of the bath in the bathroom. There is a 'left hand' and 'right hand version' and this will dictate the side which we position the handset (please note we can position the handset in various locations at the customer's request). The diagram below illustrates the handing we use.



Water Supply Regulations

Depending on the nature of the establishment where the bath is to be used, UK water regulations stipulate certain conditions of supply. It is understood that the bath might be classed by the water authorities as either a Category 3 fluid container (typically if used in a private domestic dwelling) or a Category 5 fluid container if used in a medical multi-user environment (e.g. Hospital). The categorisation is important. If the installation is a Category 5, the local water provider should be informed in advance of the installation by the person responsible for the installation and a regulation air gap must be included in the cold water supply. The air gap is to prevent back siphoning down the shower hose.

Kingkraft can supply a Category 5 compliant system for the shower. This shower option stops the shower head from being submerged in the bath water. Please contact kingkraft regarding this optional extra.

By definition, a category 5 installation cannot be supplied via a Combi-Boiler. If there is any doubt as to the nature of the installation, please refer to your local water supply authority.

If the installation is for a Category 3 container, back siphoning will need to be adequately prevented by the provision of the twin non-return valves on the cold and hot supplies. (Not supplied as standard with the bath)

A standard Argent has a volume of no more than 230 litres to the depth of the overflow hole, but special sizes may be more. ***In this case please inform the Local Water Authority.*** Your local water authority should be able to advise you on the likely categorisation of the bath in your particular establishment.

Water Supply Requirements

The bath can either be 'stepped' into or the user lowered into the bath using a hoisting system. If the bather enters the bath before it has water in, the bath can subsequently be filled with water mixed to a safe temperature by the mixer valve / bath fill tap, but this is only if a thermostatic valve / tap option is chosen!

In order that the bather does not become cold, the bath is designed to permit as high as possible flow rates (although they may work with low flow rates, then the fill time will of course be longer). Depending on how the bath is to be used, it is therefore important to establish that there is sufficient flow available.

Typical high flow rates are **20 litres per minute**. low rates are, say, 5 litres per minute.

The mixer valves / taps provided, together with the necessary non-return valves and filters can cause restrictions that reduce flow rate still further. If high flow rates are available then it is preferable to pipe supplies in 22mm. (Combi-Boilers require 15mm pipework, and will generally fill quite slowly).

Consideration may need to be given to providing a pumped supply to the bath if flow rate is likely to be an issue. **A minimum head of water of 4 metres (0.4 Bar) is preferable potentially to avoid the need for a pump.** (Combi-boilers or mains supplies cannot be pumped) A competent plumber should be able to advise the best option before the bath is delivered. Kingkraft do not supply booster pumps.

In addition to adequate flow rates, the incoming water pressures must ideally be in a ratio of 5:1 cold to hot for on-board valves, 2:1 or equal pressures for the digital mixing valves and equal pressures for the Rada Autotherm and Reliance Caremix mixer taps, with no tendency for air locks and with a **nominal hot temperature of 55°C or higher**. The mixer valves / taps will need to be set up and checked at commissioning to mix the incoming water to supply controlled water at 43°C to the bath and 39°C to the shower. Please also reference the manufacturers instructions provided with the bath.

If the bath is being used in continuous cycles, adequate hot water storage must be available. **A standard Kingkraft bath is 230 litres or less in volume up to the overflow hole depth, but special size baths may be larger.** Please check with Kingkraft if you are in doubt.

The boiler must be plumbed in and working to the correct temperatures before final commissioning can commence. Please note this must be completed prior to an agreed install. Further charges may apply for return visits.

Pipework

Hot and Cold supplies should be preferably through the floor. (As shown below)

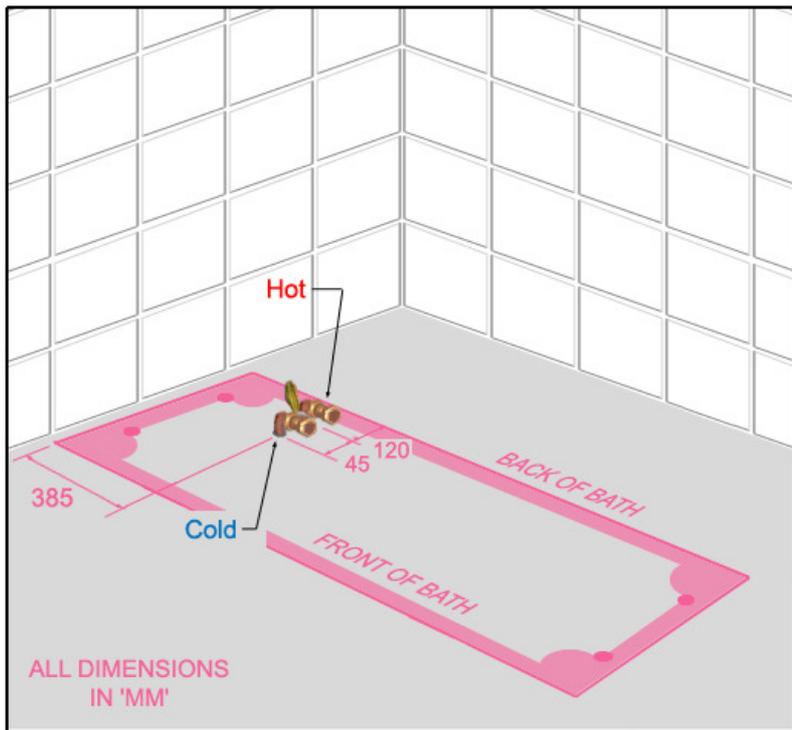
If pipework is run along the wall, then the pipework needs to terminate at the same places as shown below. All pipework must be safely routed within the room and to relevant and current plumbing standards.

Hot + Cold Water Supplies

- 1 x 15mm copper pipe for hot water, elbow as soon as above floor + Ball / Isolation valve attached + Earthing wire.
- 1 x 15mm copper pipe for cold water, elbow as soon as above floor + Ball / Isolation valve attached + Earthing wire.
- Earth bonding point

If different diameter pipes are used, the bath fill rate will alter. (See earlier information on flow rates and pressures)

A 'Peninsula' 'Left Handed Bath' is shown in the following illustrations:



If these pipe positions can not be exactly followed, please raise and lower the bath through the whole of its travel before committing the positions of the pipes to ensure they are not trapped or kinked in any way or straining any connected pipes or wires.

Check these do not interfere with the use of floor hoists. If so, these may have to be moved to a more suitable position if possible.

Do NOT use jointing paste with the supply pipework.

Only PTFE tape should be used if required.

All pipework must be earthed.

Drainage / Waste Pipes

The bath is supplied with a single drain. The drain passes through a low level on board bottle trap, connected to a 40mm flexible drain hose with a sleeve fitting / compression straight connector.

A rigid 40mm tail should be provided **at low level**, no more than 50mm above floor, **at the tap/drain end of the bath**, to allow for an elbow to be glued on top.

The pipe/s may require cutting down to an exact required length and an elbow and short straight length of pipe glued on for the straight connector to fix to, this is specific to individual installations and TBC at the time of fitting.

Waste fittings up to the point where the Kingkraft straight connector attaches to the pipe must be glued together - not using the 38mm push-fit type.

(Note: the below inner image is for illustration purposes only, the bottle trap supplied and side / direction of the pipe may vary in design and according to the individual installation / bath orientation). Please note, below picture does not show the underside of the argent bath but the drainage fitting is the same.



Thermostatic Mixer Valves and Taps

There are three options available for mixer valves / taps. These are 'on-board' thermostatic mixer valves, a thermostatic mixer tap (a Rada Autotherm or a Reliance Caremix) or a RADA sense 'digital adjustable mixer'

Please check which type you have ordered and refer to the following appropriate instruction sections.

Two non-return valves and in-line filters must be fitted between the ballofix type isolation valves fitted to the supply pipes and inlets of the mixer valves.

Digital Adjustable Mixer Valves

The hot and cold water mixer unit is mounted underneath the bath unit and the control panel either mounted remotely from bath, for example on an adjacent wall, or directly on the top surface of the tap end of the bath, or on a bracket on the top surface or side of the bath.

The mixer valves are set to maximum and minimum temperatures which the user can vary the temperature between these using the infra-red sensing control unit. Please discuss with Kingkraft the positioning of the control panel if mounting on the wall next to the bath. This must not interfere with the bath or the opening side when raising / lowering, but must be a reachable distance for the cabling.

Nothing should be wall mounted above the bath that can cause a risk of trapping as the bath traverses upwards.

Thermostatic Mixer Taps

If a thermostatic mixer tap has been specified this will be mounted at the drain end of the bath, on the top surface of the bath tub.

Examples of mixer taps commonly fitted:



(Makes / models of Thermostatic Mixer Tap can vary; see enclosed manufacturers instructions included with the bath supplied for specific tap details)

- The thermostatic mixer valves / tap temperatures must be checked and correctly set by a competent individual once installed and regularly maintained thereafter.
- Should the flow rate and / or pressure of the supply alter, the valves may need to be reset by a Kingkraft or qualified engineer.
- If the tap is incorrectly set up there is a danger of scalding!
- Kingkraft recommend a yearly service, or every 6 months if in hard water area or a 'high usage' installation.



Electrical Requirements

The room into which the baths will be installed must comply with the latest electrical zoning / building regulations, a qualified electrical engineer should advise on this. These regulations stipulate the minimum distance from the bath to electrical equipment in the room.

The Argent Fixed Height version does not require power unless optional extras such as a Whirlpool System have been specified. All other specifications require a suitable mains power supply.

Please note that various other safety options are available, for example to isolate the power supply to the bath and additional safety devices can be fitted if deemed necessary. These are available at extra cost. This will vary for different installation sites and situations. Please consult Kingkraft if relevant.

Kingkraft will not be able to complete installation / commissioning of a bath unless an *Electrical Installation Certificate (Including Test Details covering the room in which the bath is to be installed)* is issued to the Kingkraft engineer prior to the work commencing. This certificate is normally held by the householder / property owner.

This can only be supplied by a qualified electrician and will not be provided by Kingkraft Ltd.

Part P of the Building Electrical Safety Regulations applies to domestic dwellings where persons reside or share a common supply of electricity with a business premise. These regulations were effective from 1st January 2005. At the very least, residential type properties require a confirmation in writing that the installation complies with the requirements of BS 7671.

A competent electrician must carry out the installation of the electrical supply and should be consulted at all times. Please ensure any relevant Building Electrical Safety Regulations / Electrical Standards that apply to the installation are followed, especially regarding installations in bathrooms.

The electrical low voltage installation for the bath facility shall conform to the following specification.

1. The supply shall be 240V, 50Hz, Single Phase & Neutral on a fused spur. (a 5 amp fuse for only the raise / lower option, a 13 amp fuse if the supply is powering the additional whirlpool option as well)
2. The supply shall be protected by a suitably rated RCD with a 30mA trip and shall be of a dedicated type, i.e. supplying the bath installation only. (Not supplied with bath) A suitable isolation switch (not supplied) must be included in a suitable location within sight of the bath.
3. The supply shall terminate at an agreed position nominally 200mm above floor level *preferably* at the 'non drain' end of the bath. If this is not practicable then other locations can be considered. The water ingress risk must be minimised when considering other locations. Kingkraft is to be consulted in this event. This positioning must not impede raise / lower movement of the bath / surrounding paneling.
4. The supply shall terminate in an enclosure of IPX5/6 rating; the enclosure shall have facility for 'glanding off' using waterproof compression glands to preserve the IPX5/6 rating of the installation. (Not supplied with bath)
5. The Enclosure shall be 100mm x 100mm x 50mm in dimension. Armoured cable is to be used with mains powered lifting columns / frames and whirlpool option connections.
6. The final cable terminating at the bath SELV unit will be armored via the braid protection of the cable; facility shall be left within the enclosure to accept the termination of the armoring as part of the installation earthing system.
7. Accessible metallic parts of the bath and its frame are equipotential bonded, an earth bonding connection close to hot and cold water supplies should be made available for the installer to connect to the bath framework and lifting columns via a flexible connecting bond.
8. The entire electrical installation shall comply with the requirements of BS 7671.
9. An NIC Certificate should be produced.

Positioning for the electrical junction box:

- Waterproof Junction box
- IP55 / IP65, 240V
- 200mm from floor, to one side of the bath
- Route the Argent armoured cable safely under the lower skirting panels and up to the waterproof junction box on wall.



Please ensure only competent individuals undertake this work and remember at all times to consult Kingkraft if there is any doubt.

Kingkraft Engineers are able to carry out pre-installation site surveys depending on location, check over any work done following installation of the bath by others, and provide a full commissioning service and certificate.

This is the recommended course of action.

INSTALLATION INSTRUCTIONS

These are recommended Installation Procedures for Kingkraft Argent, Variable Height.

Instructions are also provided for the connection of the whirlpool option if it is supplied with the bath. Please note, specially manufactured versions of the Argent to the customer's specification may require different or extra procedures. Please refer to the manufacturer / Kingkraft.

The following instructions form recommended guidelines for installing the above equipment and should be read in conjunction with the previous *Pre-Installation Service Requirements Instructions*



WARNING

Kingkraft Ltd can provide full telephone or on site assistance with installation if this is required. Please contact the company and we will be pleased to help if possible.

We always recommend that commissioning of the bath is carried out by Kingkraft qualified personnel

Before starting

Check that all the required services, as per the Kingkraft pre-installation instruction, are available in the correct positions and to the required standards.

The bath can be installed against a wall or in an island position. See previous diagrams.

The tap/drain end can be either end of the bath depending on the specification.

The bath does not need to be secured to the floor, see fixing guide section. If it is decided to fix the bath to the floor, please check that the positioning of any fixings used will not interfere with any under floor pipework or cables.

Remember that the bath is heavier than a conventional bath and is rated to support a bather up to 133kg in weight. Together with the weight of water in a full bath, it is imperative that the floor is fully load bearing.

BEGINNING INSTALLATION – POSITIONING THE BATH

At this stage, the bath can be positioned.

Remember that the drain of the bath is built into the tub base itself, adjustable feet can be altered to level the bath tub

Position the complete assembled bath where required and very carefully operate the bath through the full extent of its travel to ensure free up / down movement without any fouling.

CONNECTION OF CONTROL BOX

Do not try to operate the equipment before the armoured cable is connected to the IPX5/6 junction box on the wall, the electricity supply has been tested/completed and turned on and all earth wire connections made.

Once the bath is assembled in the desired final position, the control box can be wired to the mains electricity supply. Please see the electrical section of the pre-installation instructions.

The control box is fitted underneath the bath, in the middle at one end of the bath.

The mains connection must be wired into the small power junction box fitted next to the control box.. The baths comes fitted with a length of armoured cable for this.

If a whirlpool option is fitted, the armoured cable provided must be wired into the IPX5/6 junction box on the wall as well.

Waterproof glands must be fitted to all connections into the wall mounted junction box for each individual cable. Be very careful about the routing of the armoured cable underneath the bath.

Armoured cable must be used on any exposed wiring connecting any electrical components to a suitable mains supply IPX5/6 distribution box. (i.e raise/lower lifting columns and whirlpool pump option) Connect all earthing straps/wiring.

Important notice to the installer of this Argent

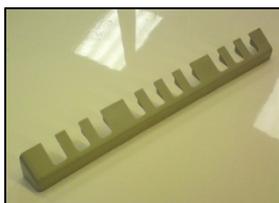
If the control box cables are removed for installation requirements, please note the cable retainer piece must be fitted once all cables are connected

IMPORTANT NOTICE TO THE INSTALLER OF THIS BATH

If the control box cables are removed for installation requirements, please note the cable retainer piece must be fitted once all the cables are connected to the control box underneath the bath (A)

This ensures the cables can not be removed by someone without a screwdriver / tool.

The red safety clip around the mains cable connection must also be fitted for the same reasons. (B)



(A)



(B)



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| Issued to: KK | LINAK-UK LTD Initialisation Procedure | <u>KK-IP-070226</u> |
| | <u>KingKraft</u> CU20 Software (Ref. MA-T9-00-030-rev G) | Issue No A Issue Date 26/02/2007 Raised By JT Pages 1 of 1 |

VERY IMPORTANT!

This Initialisation Procedure is regarding the lifting mechanism / columns on the following products:

Kingkraft Variable Height Argent

Before the first time of operating the actuators, or if the bath will not respond to the pressing of the raise or lower buttons on the handset and you can hear a beeping sound coming from the bath, you will have to follow this initialisation sequence to re-set the bath.

Failure of the mains power to the bath, or running the bath off the back-up battery only could lead to the synchronisation of the lifting columns becoming compromised, causing the system to stop working until it is reset.

Mains power must be connected to the bath and the small green light on the control box must be on before attempting this:

Initialisation Procedure

1. Press both up and down button at the same time for at least 5 seconds. This will activate the new manual mode. The Buzzer will beep.
2. After the 5 seconds the beep will change to a shorter/different kind of beep. Release the up and down button and then press the down button only (this has to be done within 5 seconds. If not then the beep will stop and you have to start all over again from point 1).
3. During pressing the down button all columns will drive inwards. The beep will be continuous as long as the columns are driving inwards. Columns have to be driven all the way down after which the beep will stop. The System is then initialized and ready for use.

Having determined the required position of the bath, piping up the supply can begin.

Plumbing / pipework must be prepared as described in the pre-installation instructions.

Thermostatic valves / taps

If two mixer valves are supplied, a 15mm will be for the shower and 22mm for the bath fill, or if the digital mixer valve system option is fitted, the valves are enclosed in a large plastic casing/box. The shower and bath connections are identified on the plastic casing. Both of these options are mounted underneath the bath and have threaded connections onto which the two flexible hoses can be fitted directly. If thermostatic mixer taps are fitted, please refer to the manufactures mixer tap instructions regarding correct connections.

Connect the water supply flexible hoses to the hot and cold supplies, ensuring all supplied /specified parts are fitted as shown in the pre-installation information. (non-return valves, filters and isolation valves)

Connect the flexible waste hose (using PTFE tape)

Do NOT use any joining compound, only PFTE tape for all plumbing fittings.

Isolation valves must be fitted to ensure the bath can be isolated for maintenance of the pipework and mixer valves/tap etc.

The mixer valves/taps will require setting up and a formal commissioning process will be needed prior to use. The valves are manufactured and tested to DO8 standard and should also be commissioned and maintained in accordance with the standard. Kingkraft can supply a commissioning service if required. This is recommended in all cases.

At this stage do not attempt to put any supplied cushioned supports in the bath or attempt to use the bath. The cushions may become stained before the pipework is flushed for the first time.

FINAL CHECKING OF THE BATH & COMMISSIONING OF THE MIXER VALVES / TAPS

- Check all electrical connections are correct and secure
- Check all pipe work joints are correct and secure
- Check all bolts and cabling on the lifting columns/framework and panelling appear correctly positioned and secure
- Check for full and free movement of the bath and that this movement presents no danger to the user or the carers
- Check the operation of the taps and waste mechanisms
- Secure the bath to the floor to prevent sliding of the bath.

Whirlpool (if fitted)

- Fill the bath above the whirlpool jets with clean water and check the operation of the whirlpool system. IF THE BATH HAS WHIRLPOOL SYSTEM, PLEASE REFER TO THE MANUFACTURERS INSTRUCTIONS REGARDING THE USE AND PARTICULARLY THE DISINFECTION ROUTINES FOR THIS SYSTEM PRIOR TO USE. The system must be regularly cleaned and disinfected in use with suitable frequency and with the correct cleaning solutions / fluids. Kingkraft can supply recommended cleaners.
- WARNING! Only low foaming liquids/lotions/agents must be used with a bath fitted with a whirlpool system.

The mixer valves / tap must be commissioned in accordance with DOg and manufactures procedures. These can be found in instructions supplied with the bath. Kingkraft normally adjust the valves to give a maximum 43°C for the bath fill and 38°C for the shower. So not attempt to use the bath if these valves have not been installed and commissioned in accordance with the se procedures/DOg standards.

Finally insert the cushions and any other supports supplied with the bath.

If there is any doubt in the users mind as to the correct use of the bath and its supports then please ring Kingkraft immediately for advice and assistance.

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