ABACUS

SPECIALIST BATHROOM SOLUTIONS

ARIES 2000
PRE-INSTALLATION MANUAL

Gainsborough Healthcare Group

Life enhancing bathing

BioCote®

MADE IN THE UK

Tel: 01527 400024
Email: info@abacushealthcare.co.uk
www.abacushealthcare.co.uk

Pre-install

Access

When deciding on a suitable location to install the bath, there are a number of points that should be taken into consideration:

- Hoist/ wheelchair access.
- Service/cleaning access.
- Positions of any existing under floor pipe work or cabling.
- Conflict between doorways.
- Distance from walls/other objects.
- Under-floor obstructions (water/heating pipes, waste pipes, under-floor heating).
- Level flooring.

IMPORTANT – The bath should ideally be sited at least **100mm** away from any wall. It must not be sited closer without reference to the sales office or technical support.

Note: The bath is only to be installed on concrete ground level flooring. If upper level installation is required it must be on concrete flooring. Check floor loading capacity against bath weight. Total weight (maximum) is 800kg (including water and maximum user weight).

FLOORING

Prepare the floor area for installation. Please ensure that the flooring is flat, level and structurally sound. There should be **no services** or **underfloor heating** buried within the 'foot plate' areas detailed in Figure 1.0 below. All floor finishes should be in place prior to installation (i.e. altro/tiling). Detailed instructions regarding the placement of plumbing feeds and waste outlet are provided in the Pre-Install Plumbing instructions on page 5.

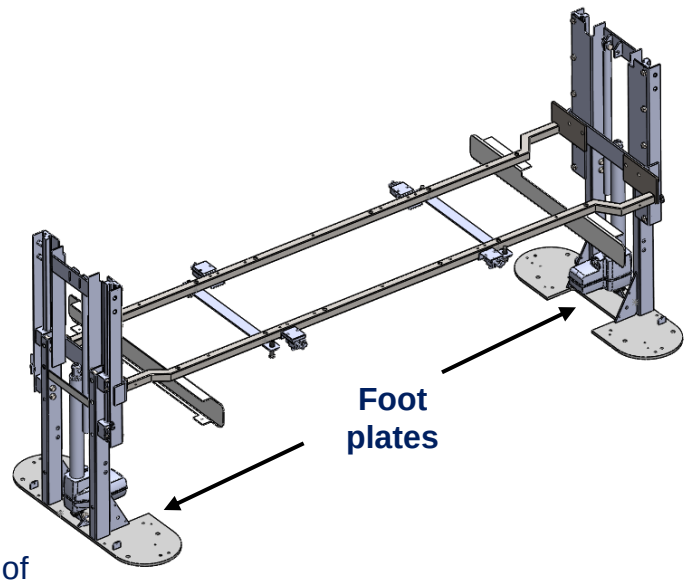


Figure 1.0

Pre-install Electrics

The bath should be connected via a 5 Amp IP65 rated non-switched fused spur unit, with 2 metres of 1.5mm 3 core flex. Located at the tap end of the bath, positioning and specification to be in accordance with IET regulations. The spur box should be mounted between 300-500mm off the floor (**Figure 2.0).**

Where options are fitted (i.e. spa, lights etc.) a 13 Amp IP65 rated non-switched fused spur is also required. The second spur is required to ensure the bath will continue to operate should there be a fault in the accessory fitted.

Electrical Connection & Earth Bonding
A 30mA RCC or RCBO is required in accordance with current IET regulations. This should be located outside the bathroom or on the consumer unit covering that area of the building. Earth Bonding and Cross Bonding are to be fitted and tested for continuity in accordance with IET regulations. Trailing flex should be protected by use of protective conduit.

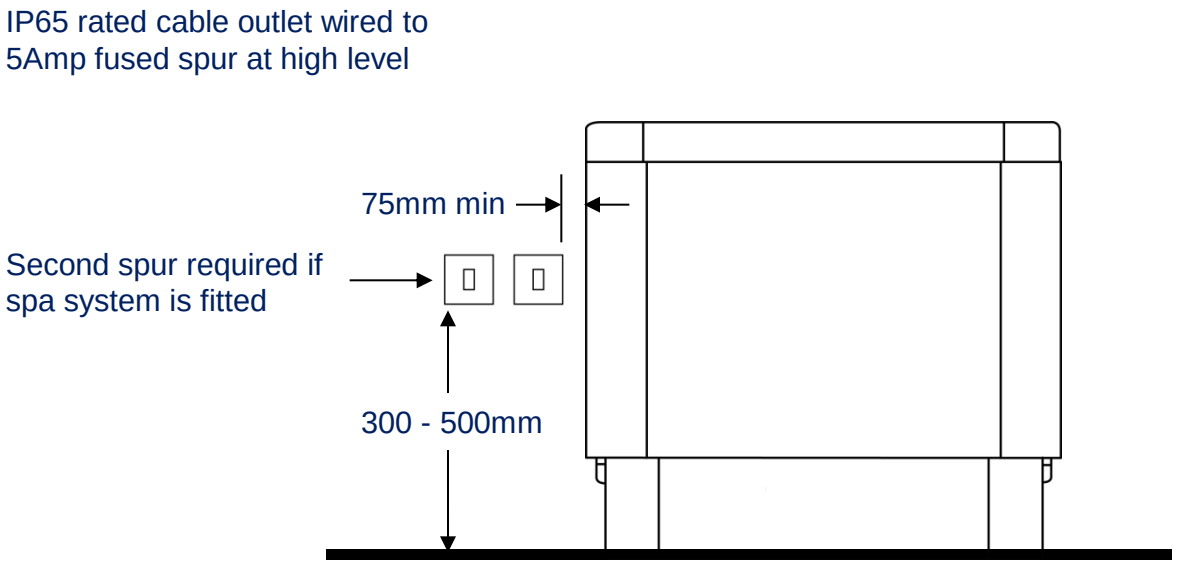


Figure 2.0

The spur box should be mounted between 300-500mm off the floor.

Side Wall Pre-install Plumbing

When fitted against a side wall, all pipework connections to the bath should be made through the foot side panel (tap end).
(figure 3.0).

This will provide the neatest solution for side wall installation.

Waste outlet and water feed connections will exit the panel as shown in figure 3.0 when installed correctly.

Tap end of bath – Plumbing connections

Left hand bath tap end shown shown

Note: for right handed bath plumbing connectors will be mirrored to opposite side of the bath foot.

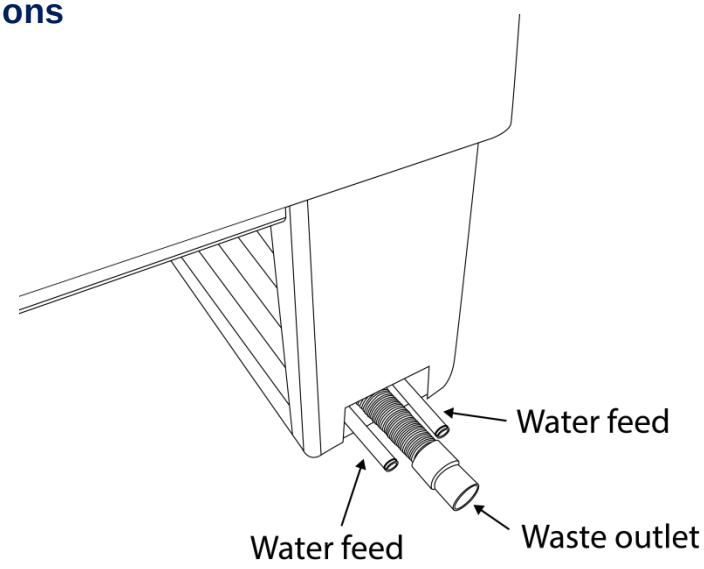


Figure 3.0

Waste feed: Ensure that of the 3 water Pipes which come through the wall/floor, The waste pipe is the closest to the 'bath plumbing connections' (figure 4.0).

Hot & Cold water feeds:
Notice the position of the hot and cold pipes entering the bath in figure 4.0.
This orientation will be mirrored for a right hand bath, with cold water pipe being closest to the bath foot plate.

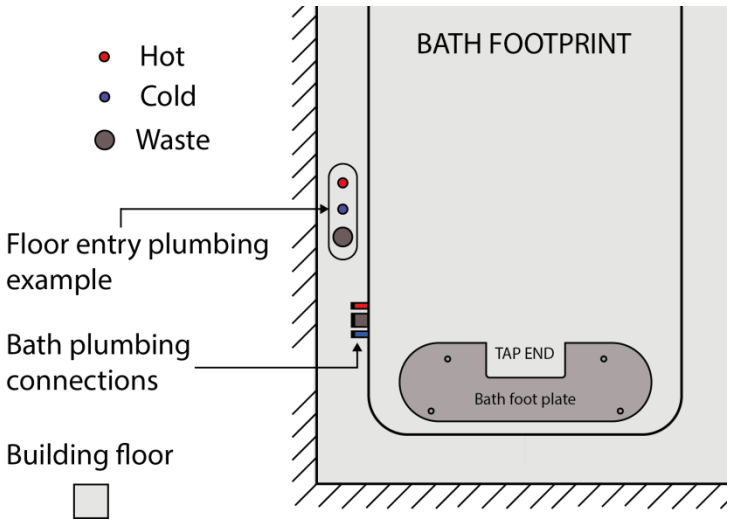


Figure 4.0

Side Wall Pre-install Plumbing

Plumbing feeds - Wall fed *(Dimensions shown in mm)*

As plumbing connections will be from the side of the bath as shown, side wall plumbing is preferred as it is the most straightforward and hidden solution. End wall plumbing is also possible, however pipework will be required to follow the perimeter of the bath (see fig 5.0)

Note: when a peninsula layout in chosen, all visible pipework must also be boxed and identified as a trip hazard.

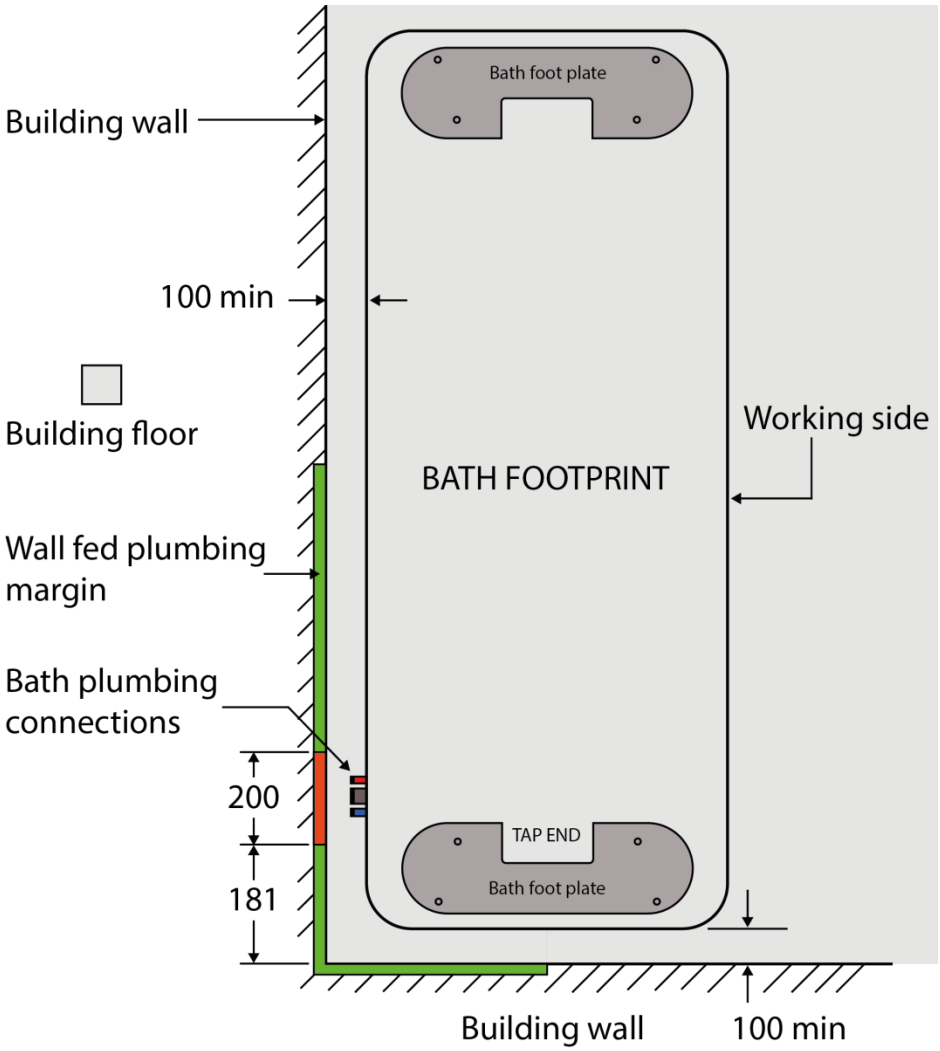
Figure 5.0

Left hand bath wall fed plumbing locations shown.

Note: for right handed bath plumbing will be mirrored to opposite side.

It is preferable that plumbing enters the room anywhere in the green area shown.

Pipework must not enter the room in the location shown in **orange**, as doing so will hinder installation.



Hot & Cold - Feeds should be fed in 22mm. Feeds should terminate with **full bore isolating valves** 25mm from the wall. These should be set between **20- 40mm centres off the floor** where possible to ensure a neat connection.
Isolation valves must be located so that they are easily accessible.

Waste - 40mm Waste outlet @ 3ltr/sec. It is recommended that the waste should be set at between **30-100mm centre from the floor**.

Side Wall Pre-install Plumbing

Plumbing feeds - Floor fed *(Dimensions shown in mm)*

Where wall entry is not possible, floor fed connections may also be made.

Figure 6.0

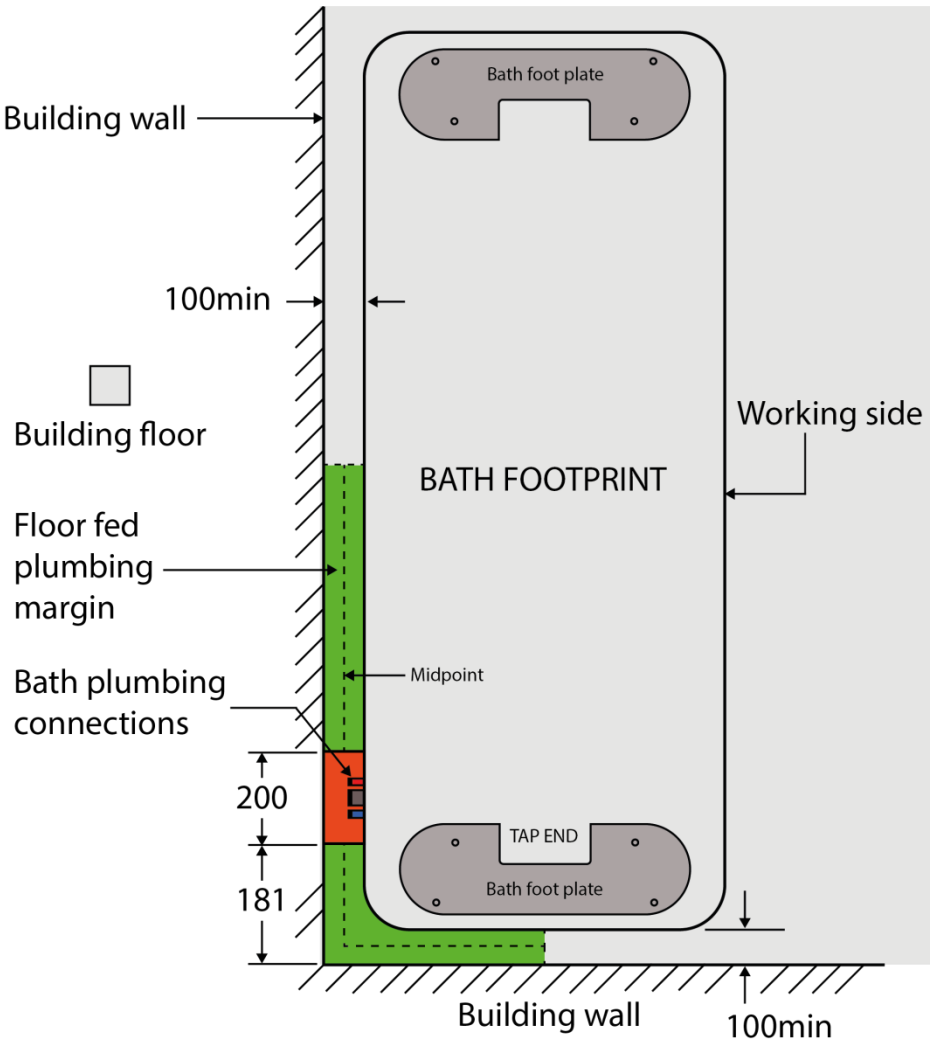
Left hand bath floor fed plumbing locations shown.

Note: for right handed bath plumbing will be mirrored to opposite side.

It is preferred that plumbing feeds will terminate anywhere along the midpoint of the green area outlined.

When the bath is fitted at more that 100mm from the wall, floor feed centres should be 50mm from the wall.

Pipework must not enter the room in the location shown in **orange**, as doing so will hinder installation.



Hot & Cold - Feeds should be fed in 22mm. Feeds should terminate with **full bore isolating valves.** Elbow isolation valves may be used to improve plumbing routing where possible.

Isolation valves must be located so that they are easily accessible.

Waste - 40mm Waste outlet @ 3ltr/sec. Waste pipe highest point **should not exceed 120mm from the floor.**

End Wall Pre-install Plumbing

The bath may also be supplied with pipework fitted to exit the foot end panel (tap end).

This configuration of plumbing is preferred when the bath is fitted with a foot end panel against a wall (peninsula).

Waste outlet and water feeds will exit the foot end panel as shown in either figure 7.0 and 8.0, depending on the handing of the bath.

Note: plumbing will exit the foot end panel slightly differently depending on bath handing, with either the waste outlet at the far end (right hand, figure7.0) or in the centre (left hand, figure 8.0).

Tap end of bath – Plumbing connections

Note: Consider which handing the bath is, this will influence where the plumbing will enter.

Right hand bath

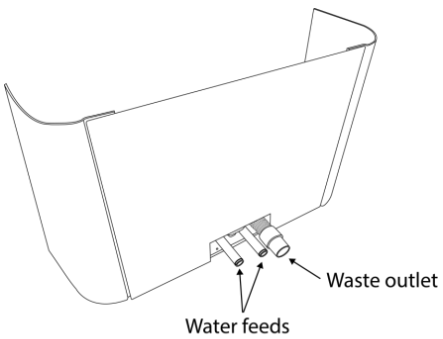


Figure 7.0

Left hand bath

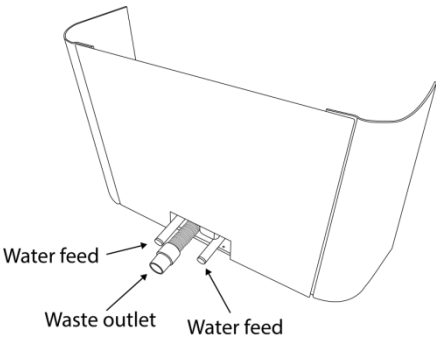


Figure 8.0

Waste feed: Ensure that of the 3 water pipes which come through the wall/floor, the waste pipe is the closest to the 'bath plumbing connections' (figure 9.0).

Hot & Cold water feeds:
The hot and cold water feeds entering the bath will always maintain the same order, regardless of bath handing. Cold water to the left of the bath, hot water to the right of the bath (figure 9.0).

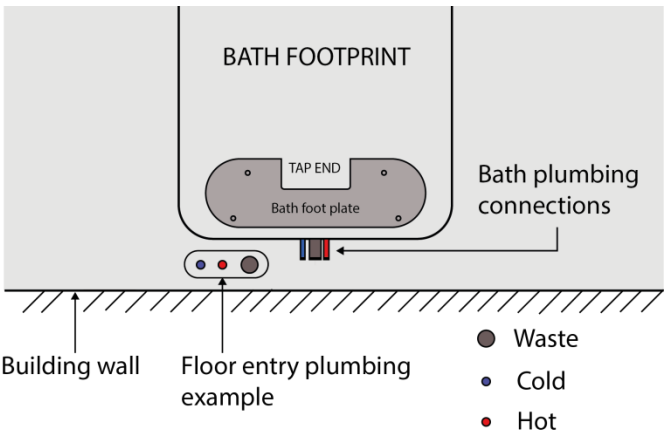


Figure 9.0

End Wall Pre-install Plumbing

Plumbing feeds - Wall fed *(Dimensions shown in mm)*

As plumbing connections will be from the end of the bath as shown, end wall plumbing is preferred as it is the most straightforward and hidden solution. Side wall plumbing is also possible, however pipework will be required to follow the perimeter of the bath (see fig 10.0).

Note: when a peninsula layout in chosen, all visible pipework must also be boxed and identified as a trip hazard.

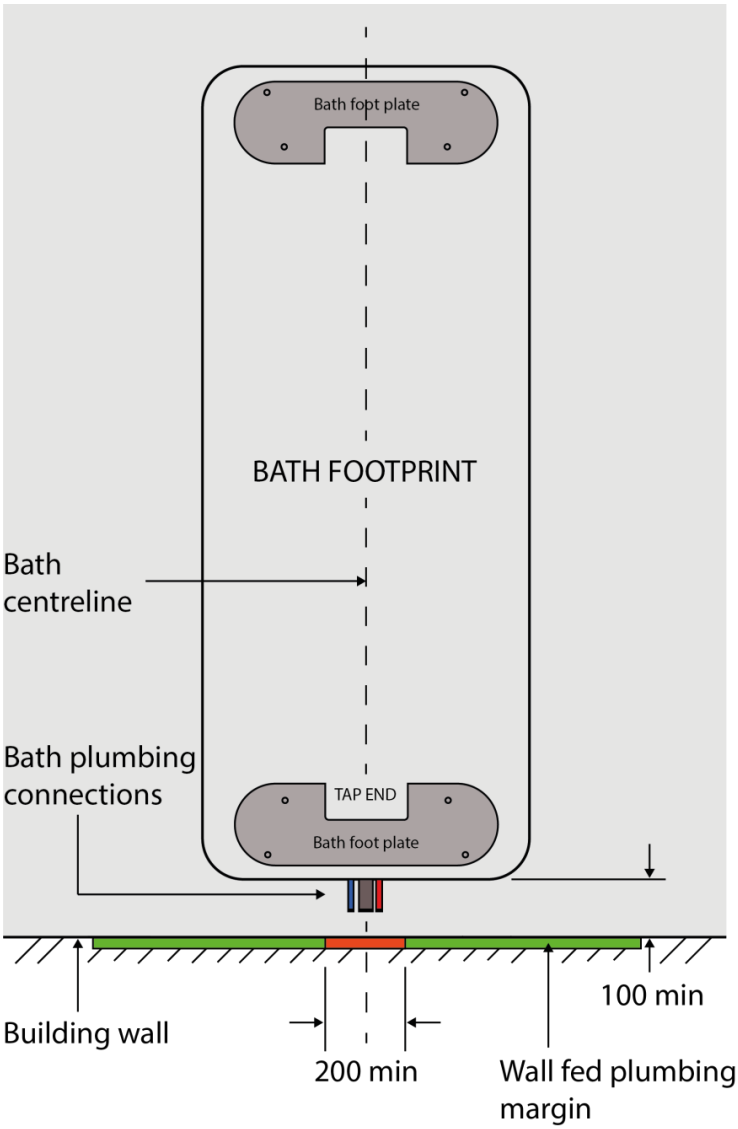
Figure 10.0

End wall peninsula plumbing shown.

Note: plumbing connections terminate in the same location for both left and right handed baths.

It is preferable that plumbing enters the room anywhere in the green area shown.

Pipework must not enter the room in the location shown in **orange**, as doing so will hinder installation (unless the bath is positioned 150mm or more from the wall.



Hot & Cold - Feeds should be fed in 22mm. Feeds should terminate with **full bore isolating valves** 25mm from the wall. These should be set between **20- 40mm centres off the floor** where possible to ensure a neat connection.
Isolation valves must be located so that they are easily accessible.

Waste - 40mm Waste outlet @ 3ltr/sec. It is recommended that the waste should be set at between **30-100mm centre from the floor**.

End Wall Pre-install Plumbing

Plumbing feeds - Floor fed

(Dimensions shown in mm)

Where wall entry is not possible, floor fed connections may also be made.

Note: when a peninsula layout in chosen, all visible pipework must also be boxed and identified as a trip hazard.

Figure 11.0

Floor fed peninsula plumbing locations shown.

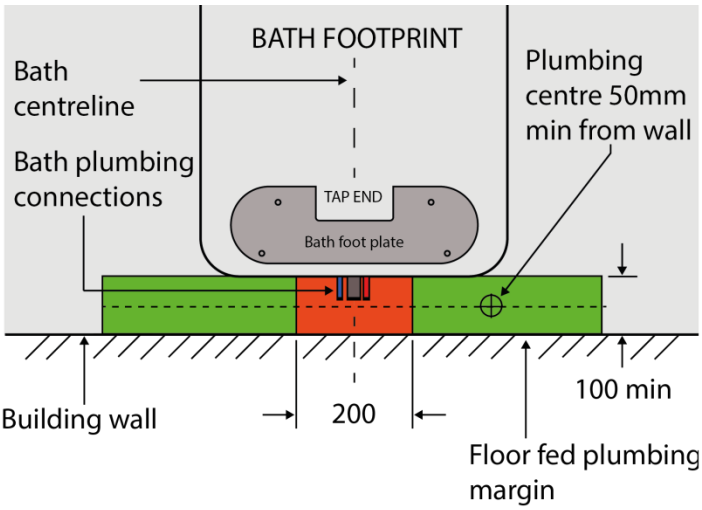
Note: plumbing connections terminate in the same location for both left and right handed baths

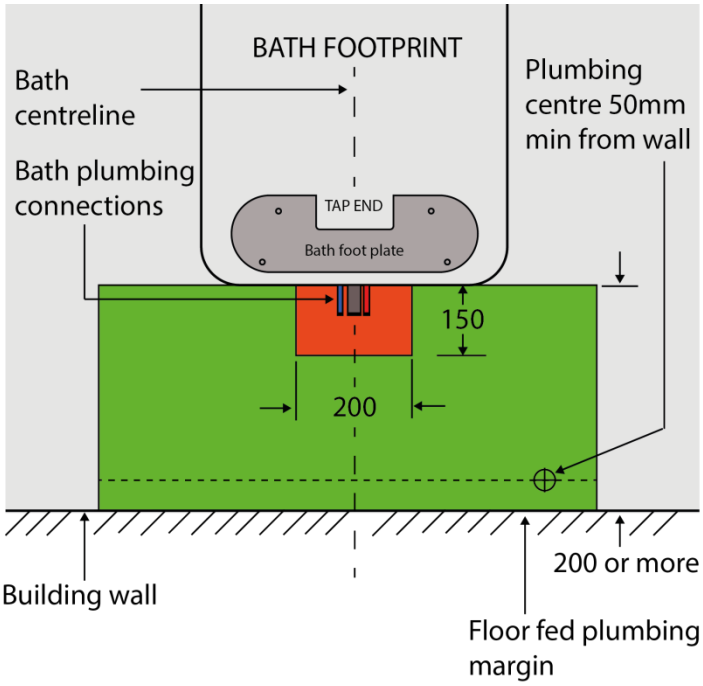
It is preferred that plumbing feeds will terminate in the green area as close to the bath centreline as possible, **without entering the orange margin**.

Pipework must not enter the room in the location shown in **orange**, as doing so will hinder installation.

When the bath is fitted 200mm or more from the wall plumbing may terminate along the bath centreline, providing it **does not enter the orange margin.**

Plumbing pipes should terminate the floor with centres a minimum of 50mm form the wall.





Hot & Cold - Feeds should be fed in 22mm. Feeds should terminate with **full bore isolating valves.** Elbow isolation valves may be used to improve plumbing routing where possible.

Isolation valves must be located so that they are easily accessible.

Waste - 40mm Waste outlet @ 3ltr/sec. Waste pipe highest point **should not exceed 120mm from the floor.**

Pre-install. Flooring & Fixings

Location of bath end feet assembly

It is important that the bath is installed completely level.

The floor should be a sound, solid surface with no movement or flex. If the floor slopes (i.e. wet room installation with a centre drain) employ shims which should be fitted under the bath foot frame plates, making sure that the fixings hold the feet firmly in place.
The most common issue with bath failures is the bath not being fitted level and securely to the floor.

Note:
Bath detailed is located 100mm from side wall, and 100mm from end wall to allow correct access for installation and to prevent trappage.

Use the image to set out where the foot plates will be mounted.

UNDERFLOOR HEATING
In the event there is underfloor heating in the area of the bath foot plates then chemical/resin fixing will be required.
Note that this is a two day installation and requires extra work to be carried out. Please advise if this is the case to prevent second call out charges being made.

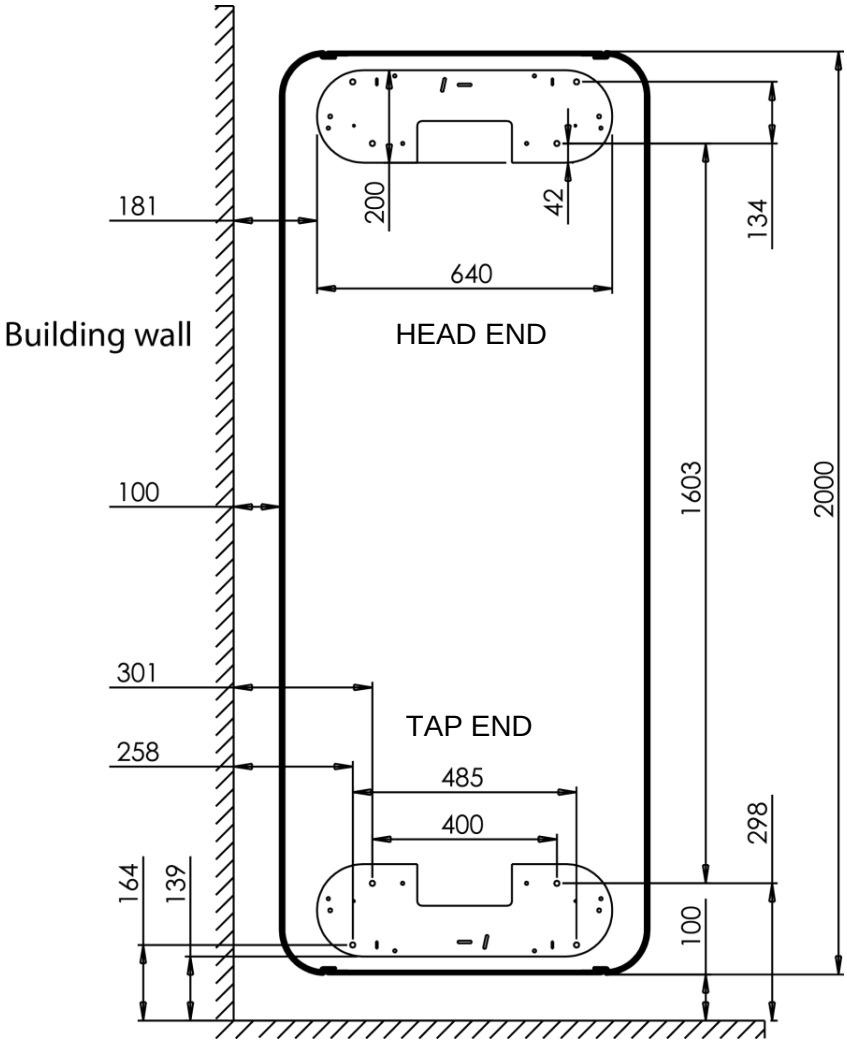


Figure 12.0

Attention should be paid to the flooring in the footplate area which will be drilled to a depth of 80mm to receive fixings. This must be of sound construction with no buried services in foot plate area.

Water Pressure Requirement

As the bath requires a Thermostatic Mixing Valve, which has been manufactured to NHS model engineering specification D08, and approved under the TMV scheme, please read the following which outlines how a TMV may affect the use of your bath.

The working parameters of the TMV require a water pressure of 1-5 bar with a maximum pressure loss ratio of no greater than 10:1 between hot and cold feeds.
The maximum bath water temperature according to DO8 is no higher than 43°C and the maximum for the shower is 39°C.

It is important to note that a pressure difference between hot and cold pipes will have a great effect on the time it takes to fill a bath, i.e;

Hot water 1.4 bar and Cold water 2.4 bar = Approx. 12.5min. to fill bath with 250 litres
Hot water 2.2 bar and Cold water 2.2 bar = Approx. 7min. to fill bath with 250 litres

If in doubt a pressure test should be carried out prior to installation of the bath, and if required a booster pump or pressure reducing valve fitted, as required.