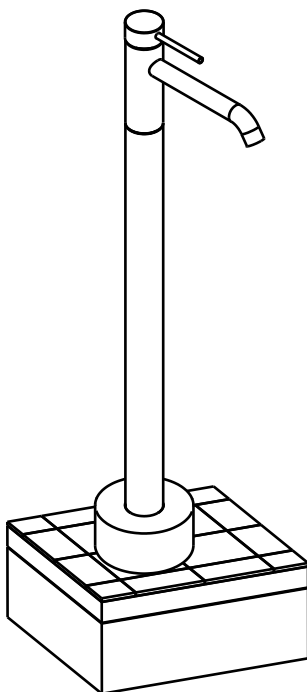


CAROMA

LIANO II - FREESTANDING BATH FILLER

PLUMBERS INSTALLATION INSTRUCTIONS



IS1930A(05/22)

Important Information

- * Water Service Pipes must be installed in accordance with the requirements of AS/NZS 3500 and relevant building codes.
- * Water Service Pipes for connection to the Hot & Cold inlets of the Mixer must be DN15B BQ Copper Tube to AS 1432.
- * Brazed connections should NOT be made directly onto the mixer, as excessive heat will cause permanent damage.
- * All pipework must be thoroughly flushed prior to installation.
- * Fasteners used to anchor the base of the Mixer to the floor must be manufactured from stainless steel and are the responsibility of the installer as they are dependant on floor type.
- * It is recommended that stop taps be installed in a suitable location to isolate the hot and cold water supply pipes if required.

Special requirements

- * An installation template (2) is available (Product Code SP2138) and must be used to ensure correct installation.
The installation template has 2 functions:
 1. To accurately position the DN15B copper water pipes.
 2. To provide a cavity for the Mixer base when installing into new concrete slab.
Consideration must be given to the position of the installation template in relation to the waste pipe for connection to the bath.
- * A Waterproofing collar (3) is provided and must be fitted before fitting the membrane.
For installations onto concrete slab, the waterproofing collar (3) can be discarded if the overall floor covering is 2mm or less.
The Waterproofing collar has 2 functions:
 1. To ensure waterproofing between floor tiles and concrete slab/floor sheeting.
 2. To act as a tiling guide.

IMPORTANT	
<u>Pressure & Temperature Requirements.</u>	
<ul style="list-style-type: none">• Hot and cold water inlet pressures should be equal.• Static inlet pressure range : 150 -1000 kPa New Regulation :-500 kPa maximum static pressure at any outlet within a building.(Ref. AS/NZS 3500.1)• Maximum hot water temperature : 80°C.	
<u>Pipework Requirements</u>	
<ul style="list-style-type: none">• DN15B (Ø12.70 X 0.91) BQ Copper Tube to AS 1432	
<u>Installation Requirements.</u>	
<ul style="list-style-type: none">• The installing plumber is responsible for waterproofing all penetrations for Taps on horizontal surfaces surrounding baths at installation by a proprietary flange system or a sealant. (Ref AS3740)	

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INSTALLATION INTO CONCRETE SLAB

Note: For installation of the mixer onto overlaid timber flooring, go to page 5.

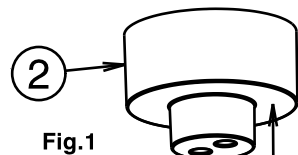


Fig.1

This face must rest on top surface of finished concrete slab.

1a) Prior to pouring of the concrete slab, install the pipework for hot & cold water supplies in accordance with AS/NZS 3500.1. Slide the installation template (2) over the vertical section of each pipe (1) which will penetrate the slab and position the bottom face of the template at the approximate finished floor level. Crimp or cap the end of each pipe taking care that heat does not damage the installation template (2). Tag the pipe which will supply hot water for identification later in the installation.

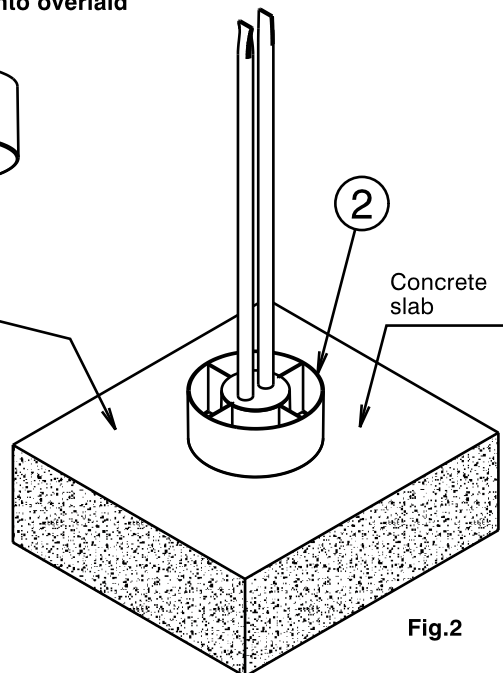


Fig.2

Important :

* During the concrete pour and prior to setting of the concrete the installation template (2) must be pushed into the slab so that a cavity is formed in the concrete and the bottom face is resting on the top surface of the slab (an allowance must be made to ensure that any pipe insulation does not prevent the installation template (2) from sliding down the pipes to the rest position). The pipes (1) must be at right angles to the surface of the slab. (Fig.4)

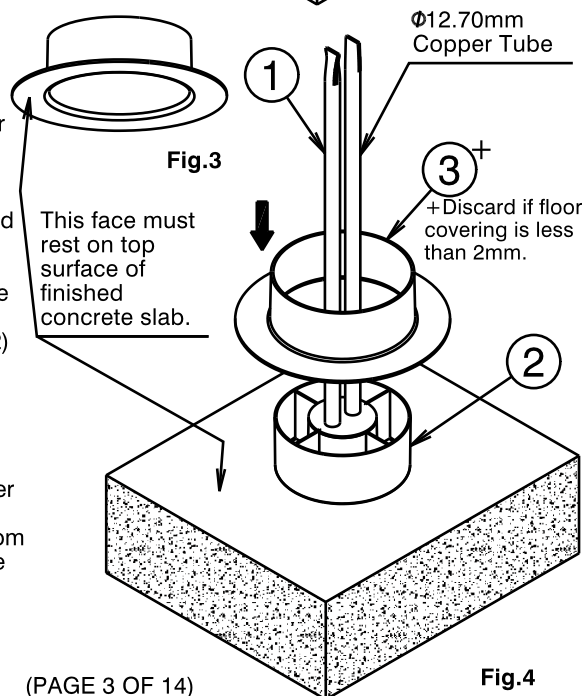
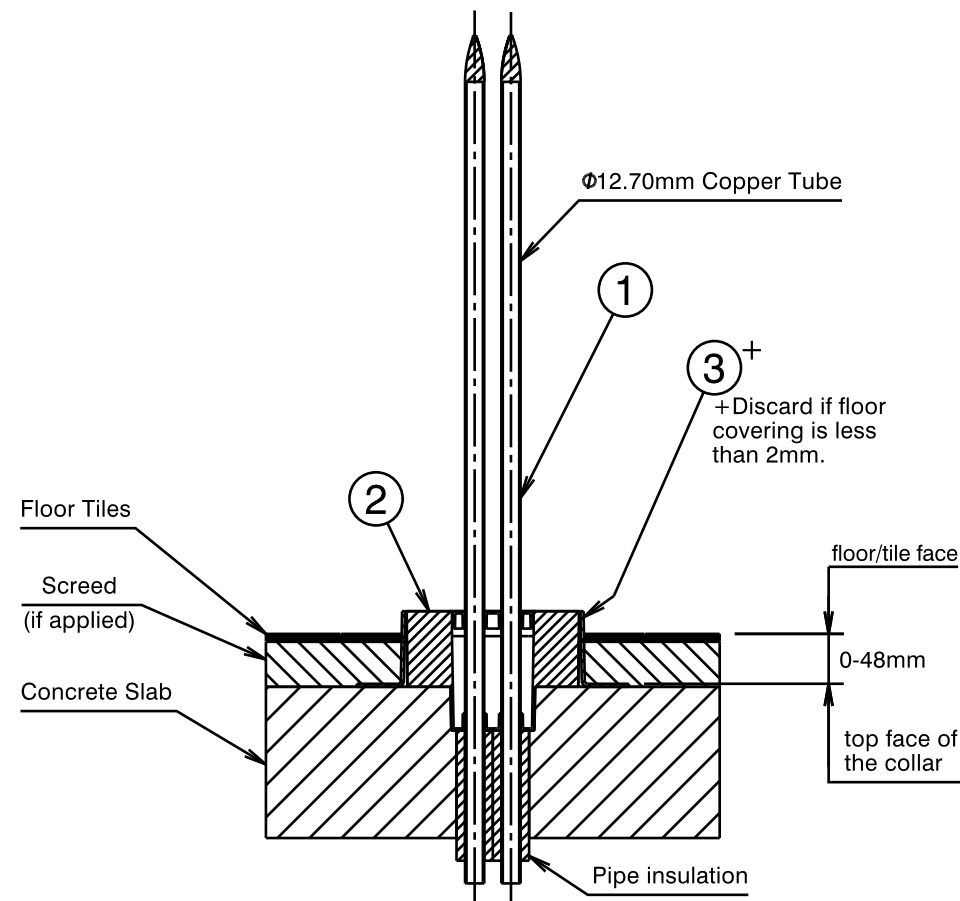


Fig.4



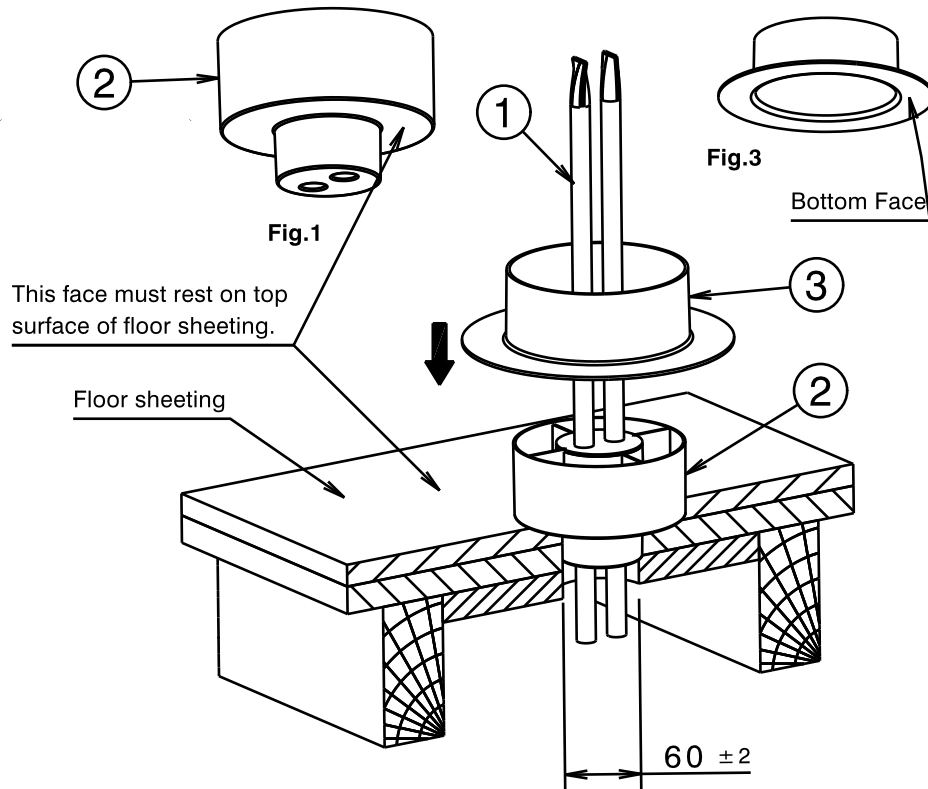
2a) Regardless of the type of floor covering chosen (if any), be it screed/tile, stone, timber, or other, the combined total thickness of all floor coverings, measured from the top face of the floor/tile face to the top face of the waterproofing collar (3+), must be within the range of 0-48mm as shown.

Important:

- The top edge of the installation template (2) indicates the maximum recommended overall floor covering thickness of 50mm.
- Any floor covering applied to the slab must finish up to the cylindrical face of waterproofing collar (3+). This will ensure that the base cover of the mixer conceals the penetration in the finished floor surface.
- The installation template must not be removed until floor trades are completed.

For the next step in the installation procedure, go to page 7.

INSTALLATION ONTO OVERLAID TIMBER FLOORS



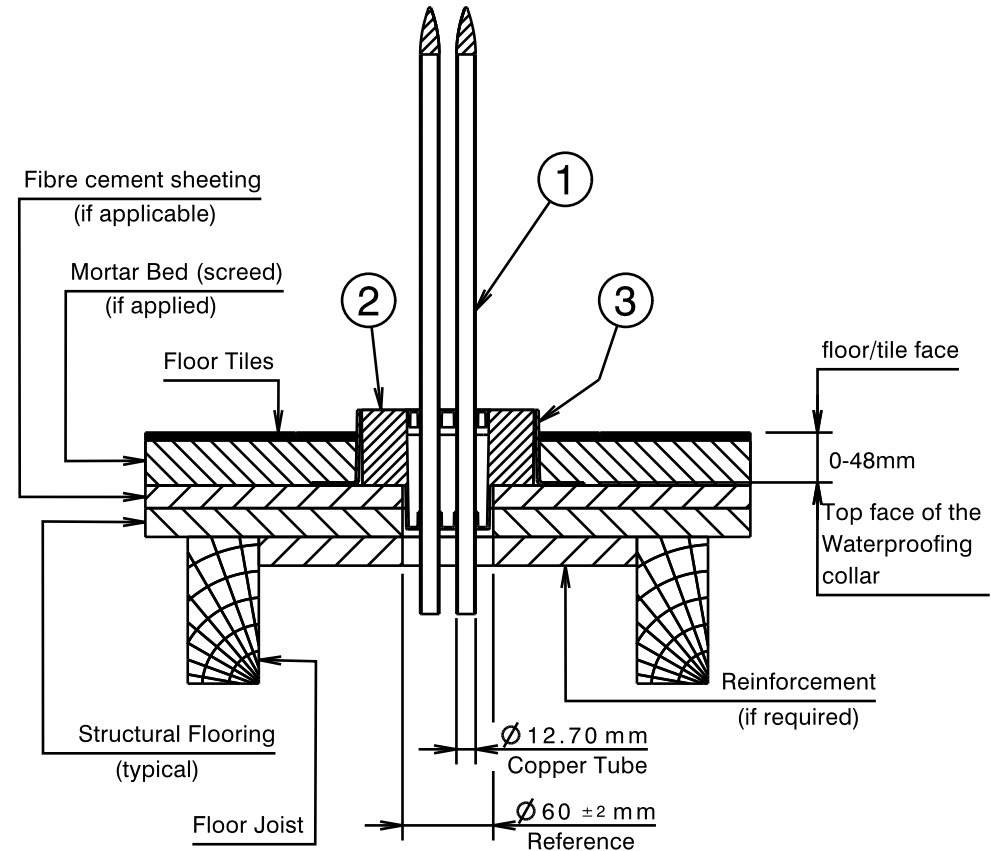
1c) Mark the centre position of the desired location for the Mixer then drill a hole $\varnothing 60 \pm 2$ mm through the flooring base materials. Install the pipework for hot & cold water supplies in accordance with AS/NZS 3500.1. Slide the installation template (2) over the vertical section of each pipe (1) protruding from the floor and position the bottom face (see Fig. 1 above) of the template on the top surface of the floor. Crimp or cap the end of each pipe taking care that heat does not damage the installation template (2). Secure the pipework under the floor using suitable brackets, clips or hangers. Care must be taken that undue strain is not applied to the vertical pipe legs which may influence the pipe centres when the installation template is removed after floor trades are complete.

1d) Slide the water proofing collar (3) over the pipes and installation template (2) then position the bottom face (see Fig. 3) of the collar at the approximate finished floor level. Tag the pipe which will supply hot water for identification later in the installation.

Important:

When determining a suitable location for the Mixer consideration must be given to the following:

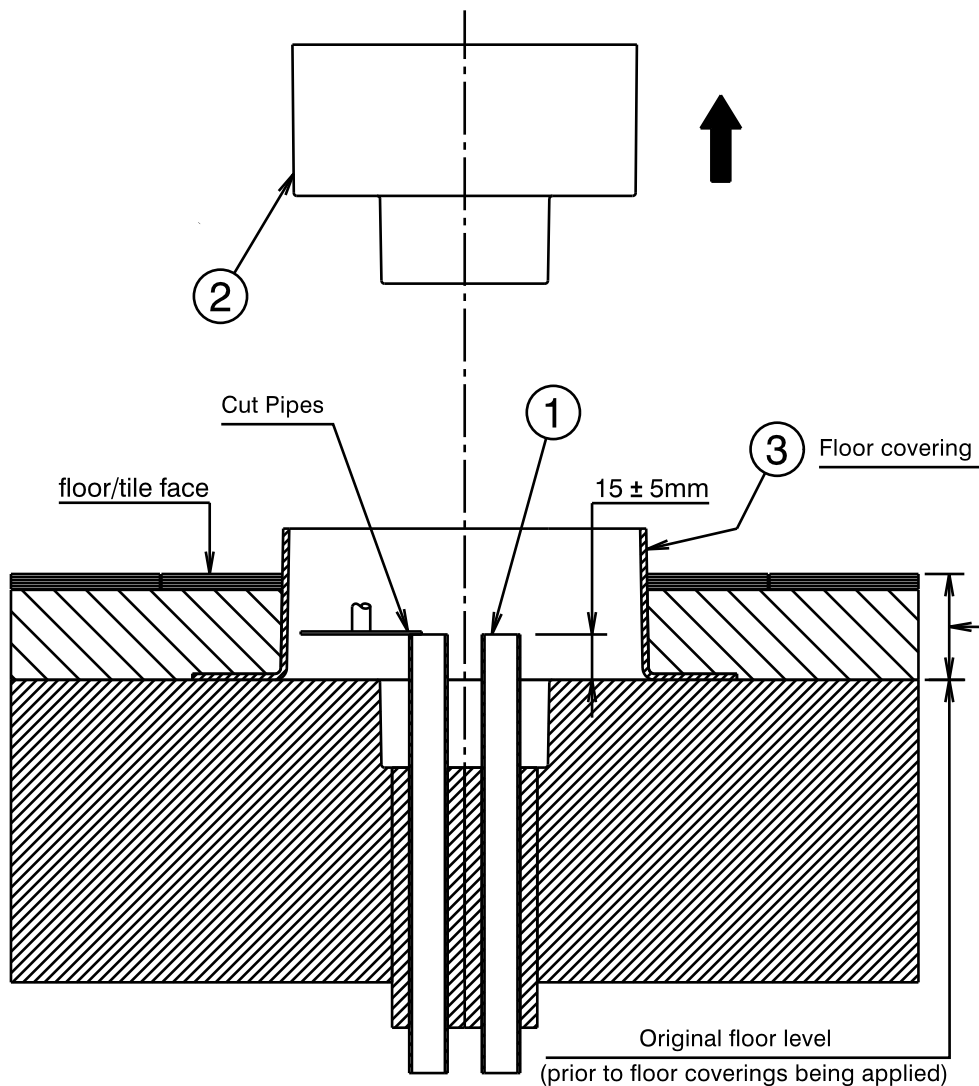
- Pipework must be clear of floor joists.
- If floor substrate is not rigid, the floor must be reinforced from underneath with suitable timber or brackets, to prevent the floor from flexing if Mixer is misused.
- The floor must be drilled ($\varnothing 60$ mm hole) and pipework installed with installation template (2) and waterproofing collar (3) in place prior to the application of any floor covering (screed/tiles etc.).



2b) Regardless of the type of floor covering chosen (if any), be it screed/tile, stone, timber, or other, the combined total thickness of all floor coverings, measured from the top face of the waterproofing collar (3) to the finished floor/tile face, must be within the range of 0-48mm as shown.

Important:

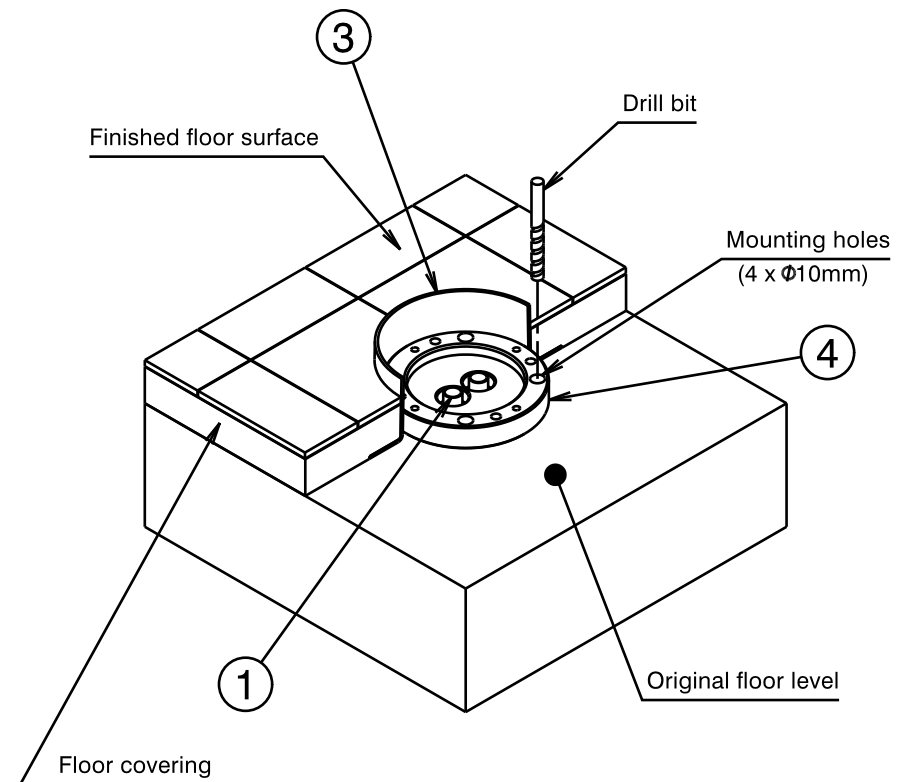
1. The top edge of the installation template (2) indicates the maximum recommended overall floor covering thickness of 50mm.
2. Any floor covering applied to the floor must finish up to the cylindrical face of the waterproofing collar (3). This will ensure that the base cover of the mixer conceals the penetration in the finished floor surface.
3. The installation template must not be removed until floor trades are completed.



3) When the floor covering has been completed, the installation of the mixer can continue. Ensure that the hot & cold water supplies are isolated then trim the ends of the copper pipes (1) to allow removal of the installation template (2). Extract the installation template (2) from the floor covering & slide off the copper pipes. The installation template can now be discarded while leaving the Waterproofing collar (3) as it is. Trim the copper pipes (1) to the specified length of $15 \pm 5\text{mm}$, measured from the top surface of the original floor to the end of the pipe as shown.

Important:

1. Ensure that the cavity surrounding the copper pipes is clear of debris.
2. The ends of the copper pipes must be trimmed to the correct length, be reasonably square and free of burrs.
3. Remember to identify the hot water supply pipe to ensure correct installation of the mixer.



4) Fit mixer base (4) over the two trimmed copper pipes (1), ensuring that the hot water supply pipe enters the hole marked 'H' in the mixer base (4). For secure anchoring of the mixer to the floor, select a good quality stainless steel fastener to suit the floor structure being used. For mounting onto a concrete base it is recommended to use $\varnothing 8$ stainless steel 316 DynaBolt of minimum length 75mm.

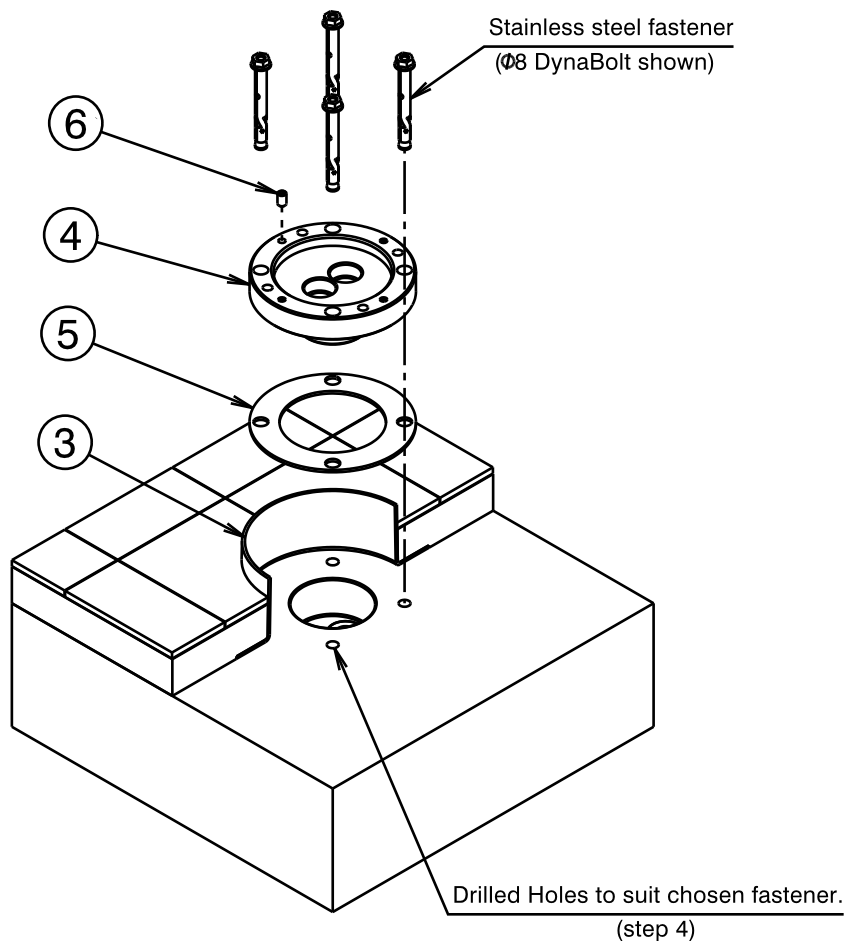
Important: Care must be taken while drilling to ensure the Waterproofing collar (3) is not damaged.

For other floor structures a stainless steel fastener must be selected with equivalent performance.

Using the four $\varnothing 10\text{mm}$ holes in the flange of the mixer base as a template, drill suitable holes as per the recommendations of the fastener manufacturer. Lift out mixer base (4) & remove any debris from the drilling operation.

Important:

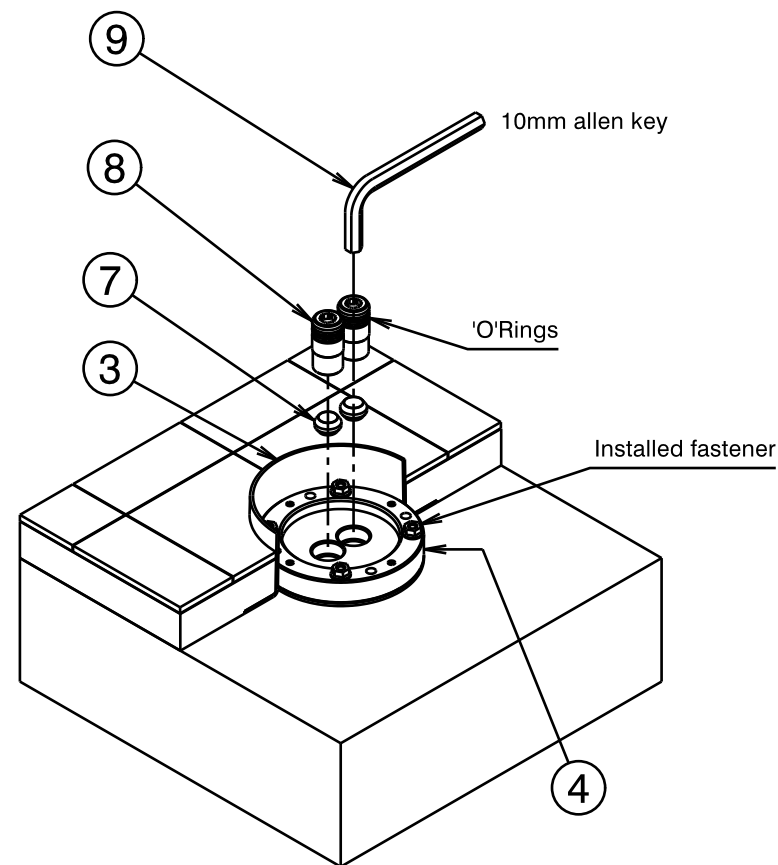
- The cavity in the floor covering left after the installation template (2) has been removed must be clean with a flat bottom to ensure that the mixer is seated correctly when installed.
- Fasteners for attachment of the mixer base to the floor are not supplied as they are dependant on the floor structure.



5) Place spacing washer (5) onto the prepared floor and align its four holes with the pre-drilled holes (step 4). Ensure the four jacking screws (6) are contained within the flange of the mixer base (4) without protruding. Slide the mixer base (4) over the copper pipes (1) as before, ensuring the hole marked 'H' coincides with the HOT water supply pipe. The step on the bottom of the mixer base must engage with the large hole in the spacing washer (5) so that the mixer base is resting on the top face of the spacing washer. Install the selected fasteners (not supplied, as discussed in step 4) through the holes in the mixer base (4) and spacing washer (5) into the pre-drilled holes in the floor, but do not fully tighten at this stage.

Important:

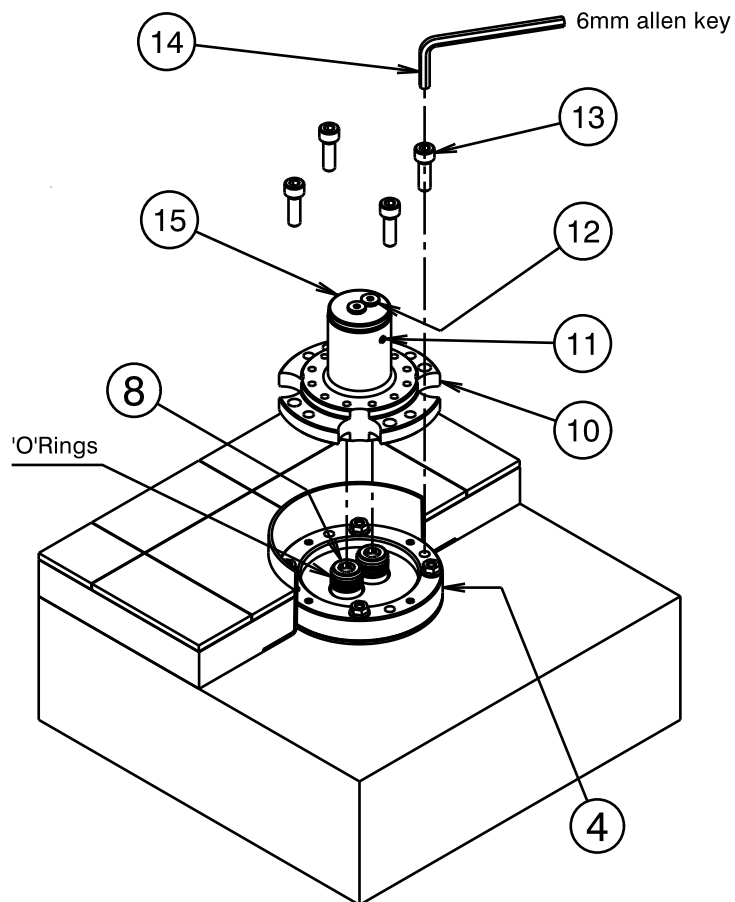
- The spacing washer (5) provides a flat surface for adjustment of the vertical alignment later in the installation process.
- Selected fasteners must be installed as per the manufacturers instructions.



6) Fit one compression olive (7) over each copper pipe (1, step 3). Screw each spigot adaptor (8) into mixer base (4) by hand until it bottoms against the compression olive (7). (As a guide the spigot adaptor (8) is screwed in approximately 6 turns before it bottoms against the olive). Using the 10mm allen key (9) supplied, ensure that each adaptor spigot (8) has bottomed the compression olive (7) in the mixer base (4), then tighten each adaptor a further 1 1/2 - 2 turns to provide a watertight seal. The installed fasteners may now be tightened fully to securely fix the mixer base (4) to the floor.

Important:

- The Ø12.70mm copper pipes must be round with no damage as the compression olives (7) seal on the outside diameter of the pipe.
- The adaptor spigots must be tightened as specified.
- Selected fasteners must be tightened as per the manufacturers recommendations.



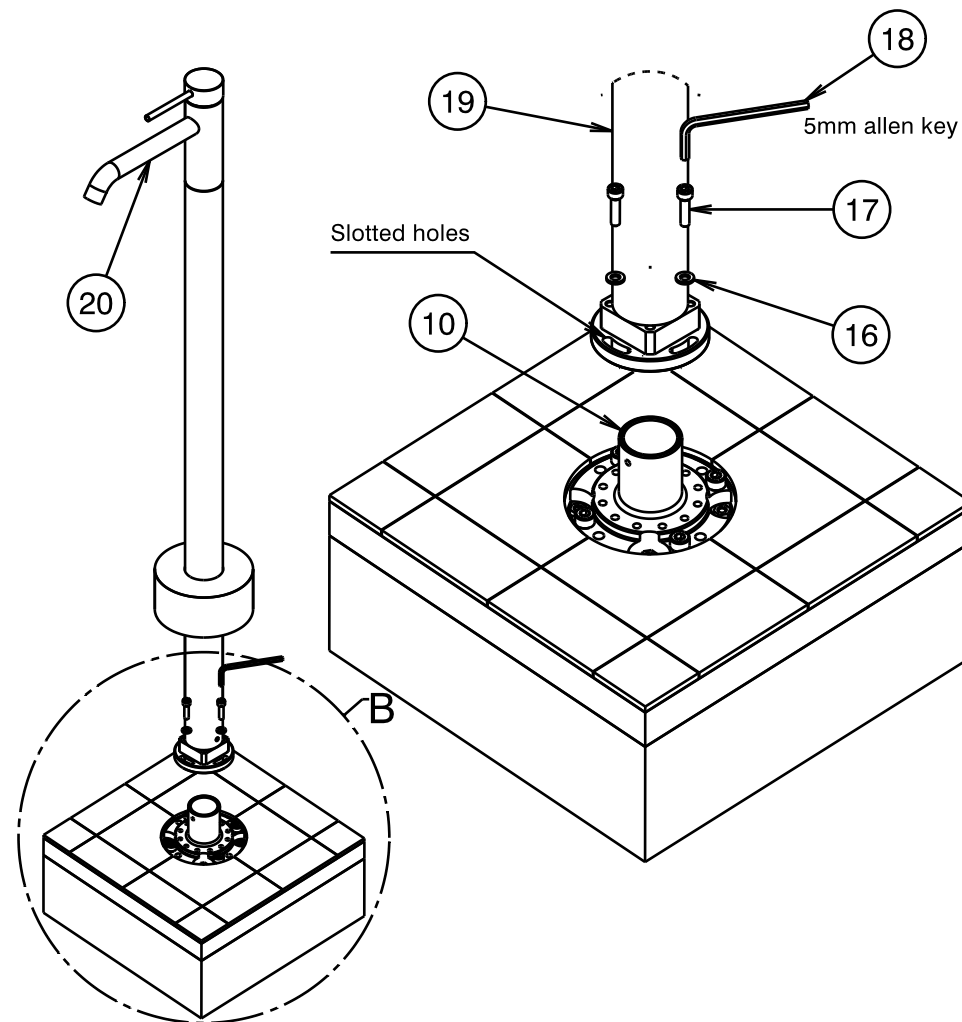
- 7) Apply a suitable lubrication grease to the 'O' rings on the installed spigot adaptors (8). Align the hole marked 'H' on mixer base (4) with the hole marked 'H' on connector flange (10) then carefully assemble the connector flange (10) over the two spigot adaptors (8) until the connector flange (10) is seated on the mixer base (4), taking care not to damage the 'O' ring's. Secure the connector flange (10) to mixer base (4) using the four cap screws (13) supplied and tighten with the 6mm allen key (14) provided.

Pressure test the system:

The connector flange (10) is supplied fitted with a pressure test adaptor (15). The installation is now watertight and the system should be pressure tested.

- To bleed air from the system the plugs (12) can be removed using a 3mm allen key. It is recommended that the plugs (12) be removed before water pressure is applied, then flush the system to remove air & foreign material.
- Remove pressure from the system then replace the plugs (12) and pressure test in accordance with the requirements of AS/NZS 3500.

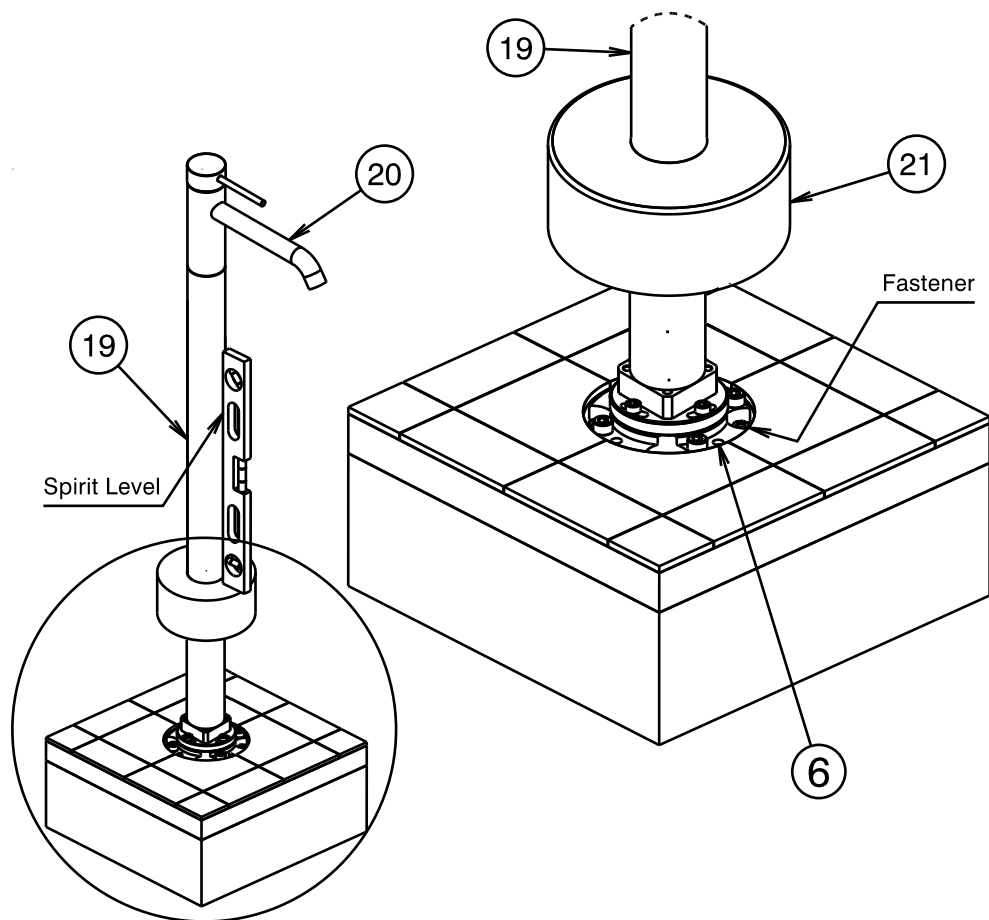
To continue with the installation of the mixer, isolate the hot & cold water supply pipes from the system, release pressure in the lines by partially unscrewing plugs (12), then unscrew grub screw (11) using a 2.5mm allen key and extract the pressure test adaptor (15). The pressure test adaptor (15) and grub screw (11) are not required after the installation of the mixer is completed and may be discarded.



- 8) This mixer has a feature which allows the outlet (20) to be aligned with the bath prior to fixing to the base. Carefully slide the riser (19) onto the connector flange (10) until the base of the riser rests on the mating face of the connector flange (10). Rotate the mixer outlet (20) until the outlet is facing the desired direction in alignment with the final bath position then install the four screws (17) together with washers (16) into the threaded holes which are visible when looking into the slotted holes in the flange of the riser (19). Check the final position of the outlet (20) then tighten the screws (17) using the 5mm allen key (18) provided.

Important:

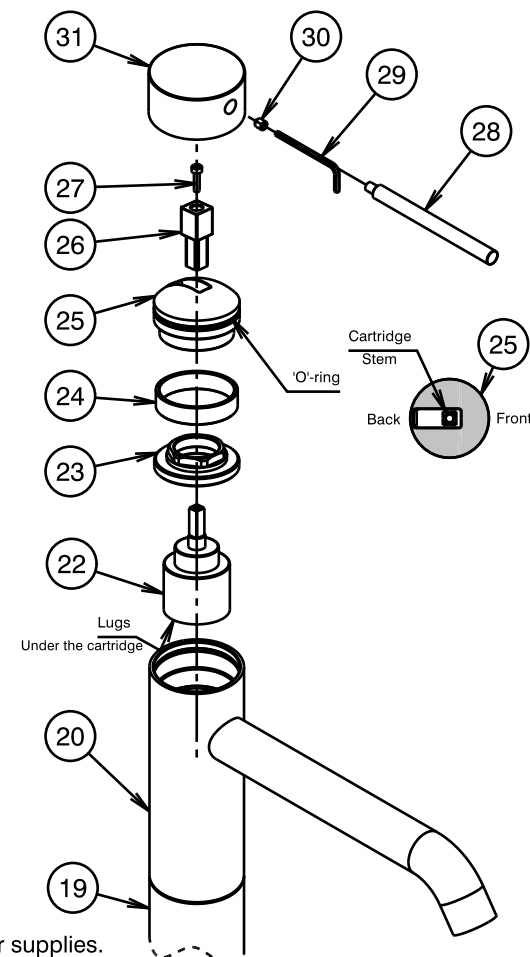
- The screws (17) must be tightened firmly to prevent rotation of the mixer after installation.



9) The mixer is now fixed firmly to the floor, however further adjustment may be required if the mixer is not in vertical alignment. To test the vertical alignment of the mixer, place a spirit level on the cylinder of the riser (19) as shown. If adjustment is required, loosen the mounting fasteners (determined at step 4) and gradually tighten jacking screws (6) against the base cover (21) down until it contacts the floor surface. Wipe clean any excess sealant from the floor surface and the chrome surfaces of the base cover (21).

Important:

- Only adjust the jacking screws (6) which are necessary to achieve vertical alignment, do not adjust screws more than necessary.



Replacing Cartridge

- 1) Turn off hot and cold water supplies.
- 2) Carefully unscrew handle pin (28) before using a 2.5mm allen key (29) to loosen grub screw (30) and remove handle (31). Unscrew the screw (27) by using allen key (29) then Remove insert (26) followed by swivel cap (25) and then thrust washer (24) taking care not to damage the decorative finish. Unscrew nut (23) then lift out old cartridge (22).
- 3) Ensure inside face of mixer body (20) is clean. Check that seals are in position in base of new cartridge (22). Fit new cartridge (22) into mixer body (20), taking care that two lugs on base of cartridge (22) fit into mating holes in mixer body (20).
- 4) Screw on nut (23). **Important:** Nut (23) should be tightened to a torque of 10 Nm.
- 5) Clean all contact surfaces of swivel cap (25), 'O'-ring and thrust washer (24), ensure they are clean and free from any debris. Lubricate the thrust washer (24), underside of cap (25) and 'O'-ring then fit the thrust washer (24) around the nut (23). Ensure that the cartridge stem is in closed position with the flats on the stem orientated square with the outlet. Fit the swivel cap (25) along with 'O'-ring into the mixer (20) and ensure the swivel cap cut-out is positioned as shown above. Fit the insert (26) over the cartridge (22) stem and push it down. Fit insert (26) and secure it with screw (27) using allen key (29). then fit handle (31) taking care that it is pushed fully onto insert (26), then tighten grub screw (30). Screw handle pin (28) into handle bore taking care not to damage the decorative finish.
- 6) Turn on water supplies and check operation.