DIY GUIDE

Coloured Isometric How to Graphics

DO IT YOURSELF GUIDE TO LEAKING SHOWER REPAIR

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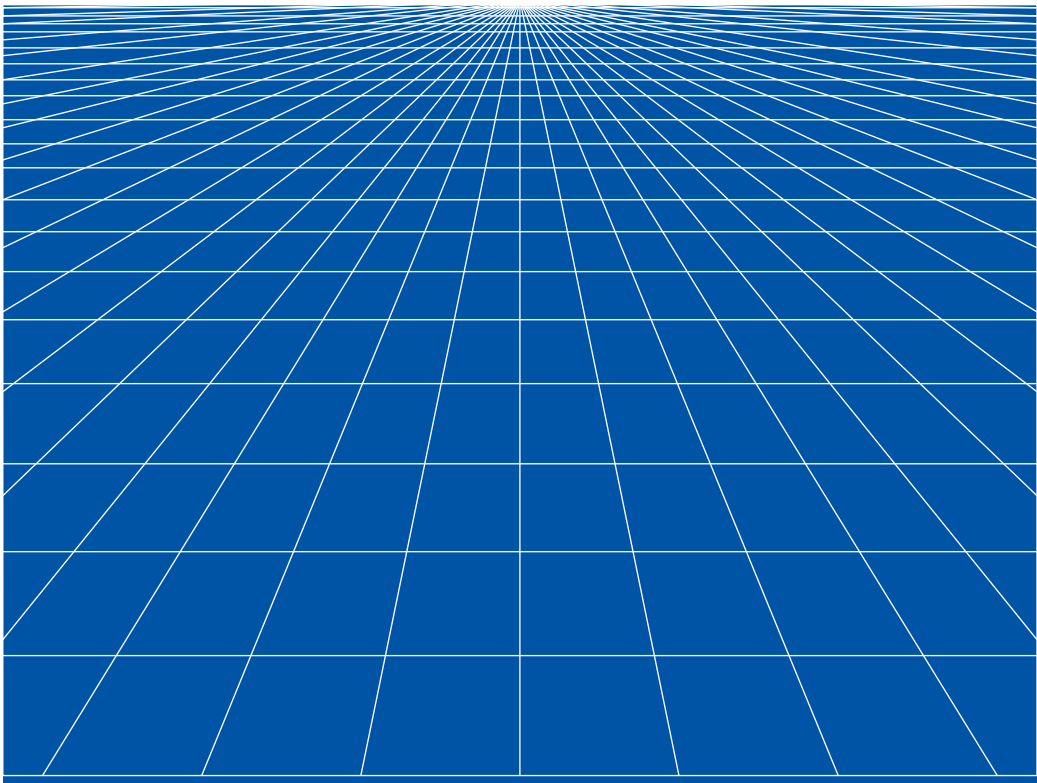
Specializing in Waterproofing of Buildings

(02) 9018 7900

REAL WATERPROOFING



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DIY LEAKING SHOWER REPAIR KIT

Are you a person that's been there done that and still have the leaking shower problem? We know what it's like we have dealt with people like you for years.

Unique Waterproofing Business

There are four arms to ASW Pty Ltd these services are used by quality conscious Builders:
Supply and install high quality PVC waterproofing membrane systems to those builders that carry out remedial building.

Supply and install high quality PVC waterproofing systems for bathrooms, balconies, planter boxes, retaining walls, box gutters and flat roof areas in new construction.

Supply Bathroom Renovators with made to measure PVC shower trays.

Supply Home Handymen with made to measure PVC shower trays and components.

ASW Pty Ltd are supplying made to measure flexible sheet PVC shower trays to people who are really great handymen, we don't offer paint on stuff that you slop on and hope for the best.

ASW Pty Ltd will not supply any materials that are known to fail; we believe that all materials used to make a building watertight must last as long as the overlaying surfaces.

Rogues Gallery Liquid Applied Membrane

Rogues Gallery Ruined Particle Board Floor Substrate

Rogues Gallery the Underside of the Floor

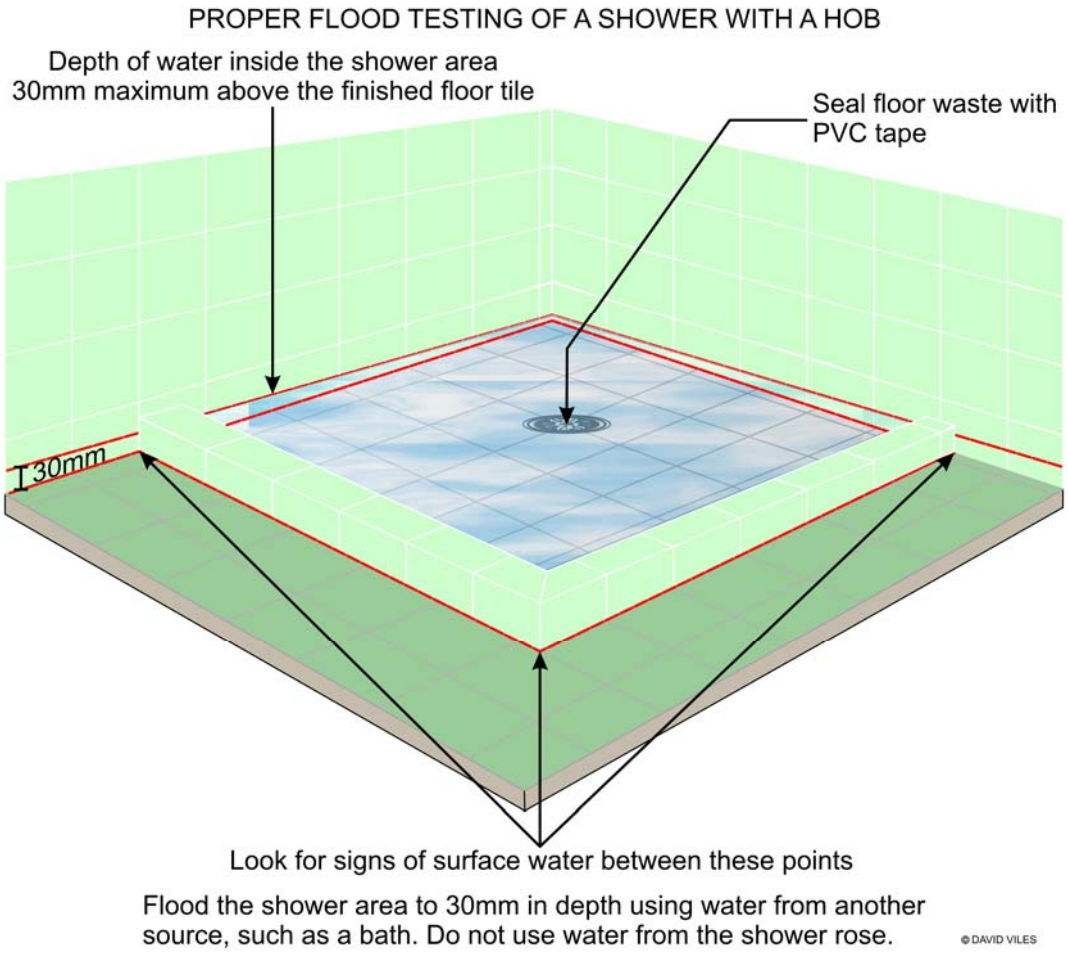
Testing the Shower and Surrounding Areas

These are the things to know before you start:

Have you flood tested the base of the shower to make sure that it is leaking?

See figure 1 below for flood testing procedure.

FIGURE 1

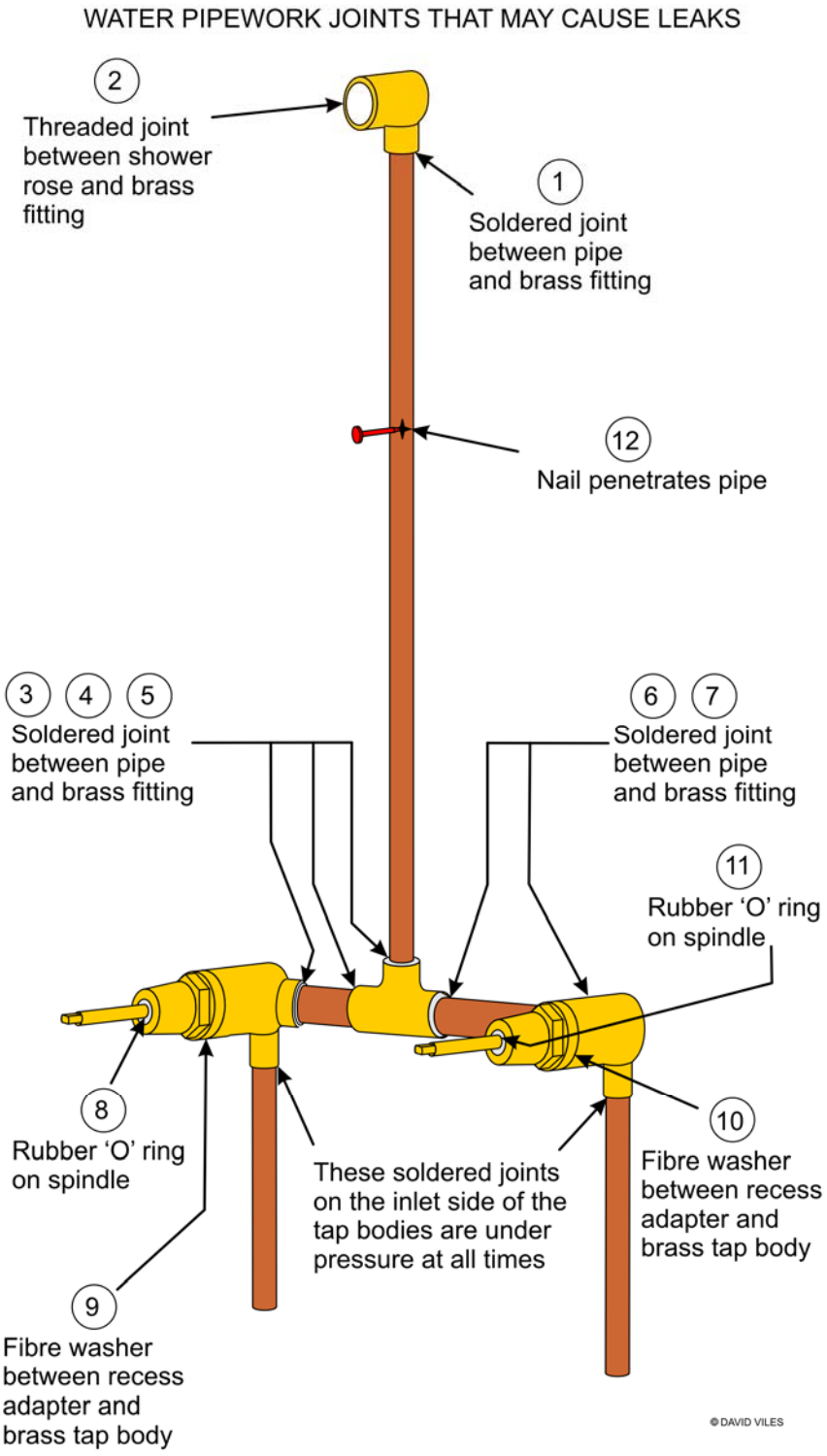


Note:

Check for leaks in ceilings and floor spaces directly below the shower area, if leaking water is evident drain the shower immediately.

Other areas where problems may occur are set out in figure 2 below; you may have to engage the services of a licensed plumber to carry out the procedure of pressure testing.

FIGURE 2



Remember that the pipe work between the outlet sides of the tap bodies are only under pressure when the taps are turned on. By removing the shower rose and fitting a screwed cap or plug and then turning the taps on you can then start to make observations of leaking water. As usual if any water becomes visible immediately close the shower taps and remove the cap or plug. If this area leaks then you will need the services of a plumber to fix the leak.

OTHER AREAS OF A BATHROOM YOU SHOULD CHECK

If young children use this shower area ask the following questions:
When you use the shower, do you block the drain and fill it up like a bath?
If the answer is yes, this maybe the cause of your leaking problem and the simple fix will be to tell them not to do it again. (Cheapest Fix of All)

If your shower rose is on the end of a flexible hose ask the users of the shower, do you take the flexible hose from its fixing and spray water over all the surfaces within the confines of the shower?
If the answer is yes, then this could be another source of your water leak as the shower rose is forcing water under pressure into areas that would normally be subjected to trickling water from splashes. The weak areas within the shower are as follows:

The dress fittings around the hot and cold tap penetrations allowing water to penetrate behind the wall tiles, wall substrate and into a wall cavity. A cheap fix is to apply silicone bathroom sealant behind the tap dress fittings so as the water is redirected over the wall tile surface.

The junction between the shower screen and the tiled surfaces.

Check that the vanity is not leaking, unseen water maybe entering the tile bed and showing up at what is thought to be your problem area.

Check the outlet of the WC at the junction with the floor tiles, flush the WC a few times and see if there are any signs of surface water or change in colour of the grout between the floor tiles. A problem area in this vicinity maybe also the connection of the flush pipe from the cistern to the WC pan, so check for perished rubbers. If the flush pipe rubbers are perished, replace them. (Another cheap fix)

For your benefit I hope you find that your problem is one of the easy and less costly repairs as above, so it is an advantage to you that you put an effort in yourself and carry out these elimination procedures and don't get caught out by unscrupulous operators in the industry.

If you are certain it is a waterproofing or design failure of the shower area, read on as I explain how it can be repaired, and repaired in a manner that will last the lifetime of the over laying finishes.
We will deal with:
Basic leaking shower repair in timber frame construction.
Basic leaking shower repair in masonry construction.
Full height shower repair in timber frame construction.
Full height shower repair in masonry construction.
The rating of the various designs in showers. (Star Rated)

BASIC LEAKING SHOWER REPAIR IN FRAMEWORK

Make sure you acquire and wear all safety protection against injury to the eyes, dust protection mask, gloves and RCD protection for electrical tools you use. Isolate the room from the rest of the house and cover fittings and fixtures with drop sheets.

A basic leaking shower repair would cost you from $2,800.00 if a contractor did it. So if you are handy and enjoy working with your hands and brain you will have money left over after you finish the task. Having said that, consider buying battery operated tools, these days they are good value and tough.

TOOLS YOU WILL REQUIRE (SEE FOLLOWING DRAWINGS)

Battery drill
Battery grinder
Diamond blade for the grinder
Hammer
Cold chisel
Snap off blade knife
Level
Cartridge gun
Hire a small jack hammer
Scraper/broad knife

MATERIALS YOU WILL NEED (SEE FOLLOWING DRAWINGS)

Galvanised chipboard screws
Villaboard sheet 6mm thick
Bathroom silicone
Tile adhesive
Sand and Cement mix
Bricks or Pavers

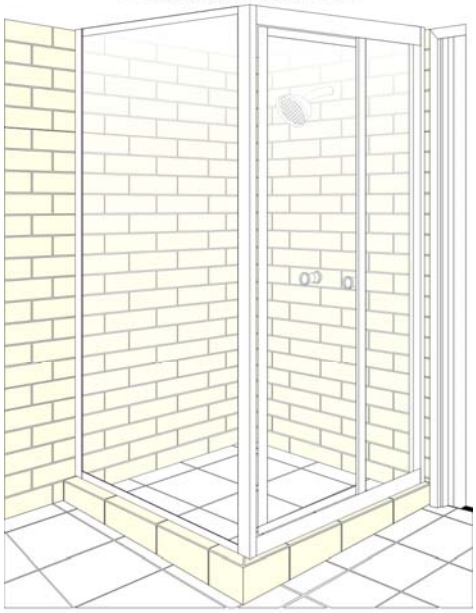
THINGS THAT WE SUPPLY

The made to measure PVC shower tray
The drainage grate
The drainage connection flange
The primer
The fast cure polyurethane
The hob tiling strips
A PVC wall membrane (For full height shower repairs only in framework)
A drum of multi mastic (For full height shower repairs in masonry walls only)

FIGURE FILES

FIGURE 1

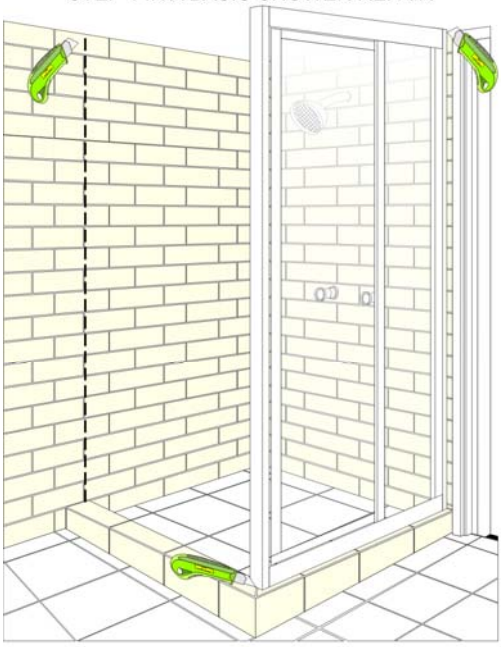
BASIC SHOWER REPAIR



Before demolishing carry out the checklist below:
Check the tap assembly for leaks
Pressure test the breaching piece to the shower rose
Check that the tap dress fittings are sealed to the wall
Check the sealant around the shower screen
Check that the shower base is not being over-filled by children
Check for missing tile grout on the top edge of the hob

FIGURE 2

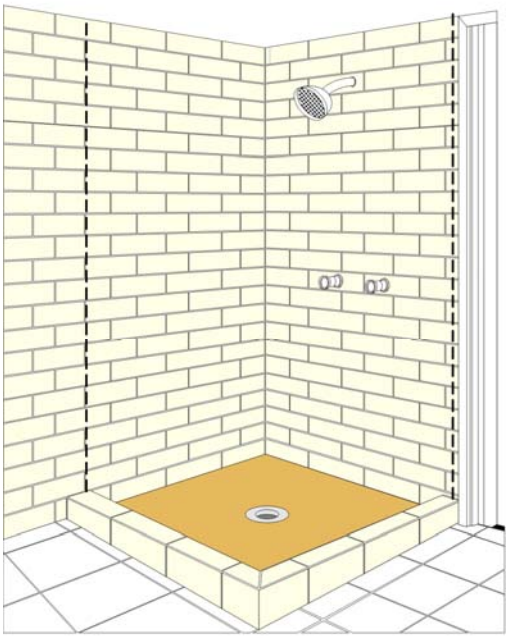
STEP 1 IN A BASIC SHOWER REPAIR



Using a snap off blade knife, cut the silicone at all junctions between the shower screen frame and the ceramic tiles.
Unscrew the fixings holding the shower screen frame to the wall tiles.
Drill out the pop rivets holding the shower screen frame together.
Remove each section of the shower screen and store in a safe area.

FIGURE 3

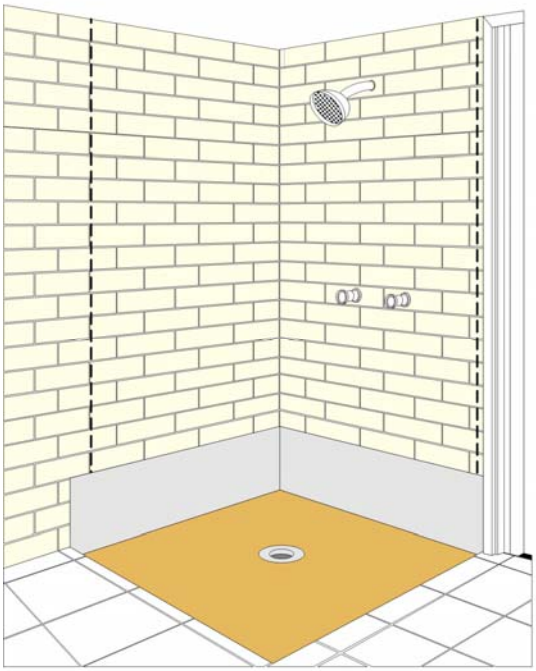
STEP 2 IN A BASIC SHOWER REPAIR



Temporarily block the drainage outlet.
Using an electric impact hammer, remove the floor tiles and tile bed.
Remove the failed waterproofing membrane.
Inspect the floor substrate for damage.

FIGURE 4

STEP 3 IN A BASIC SHOWER REPAIR



Remove the tiled hob by knocking it inwards into the shower area.
Remove 1 to 3 rows of wall tiles depending on the size of the wall tile.

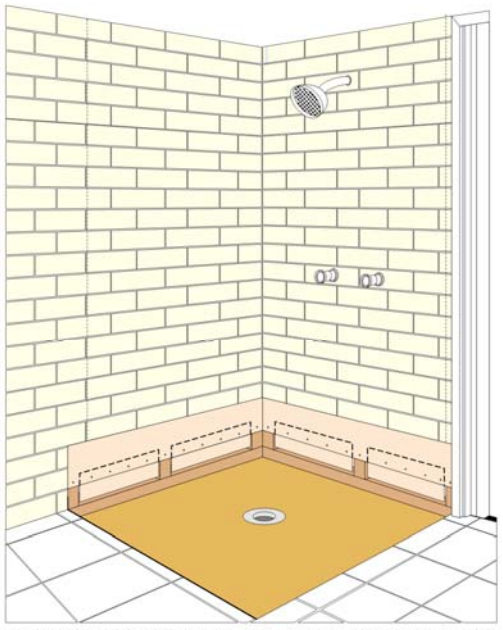
FIGURE 5

STEP 4 IN A BASIC SHOWER REPAIR

Mark a level line at 150mm above the floor substrate on both walls
Cut the wall lining on the level lines and remove the lining to expose the framework. Check the framework for wet rot damage.
At 25 mm above the cut in the wall lining screw the wall lining to the framework into the studs.

FIGURE 6

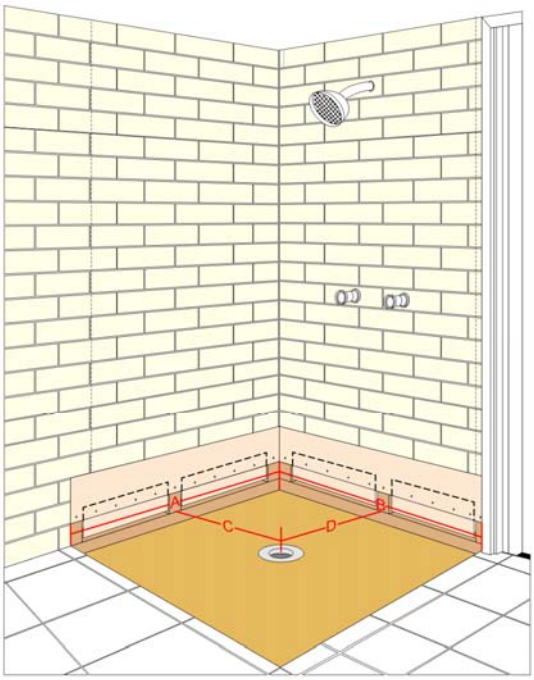
STEP 5 IN A BASIC SHOWER REPAIR



Cut to size four pieces of fibre cement wall sheet to 250mm wide X the distance between the studs.
Apply polyurethane on the surfaces of the fibre cement wall lining that lap behind the existing wall lining.
Use chip-board screws to fix the pieces in position.

FIGURE 7

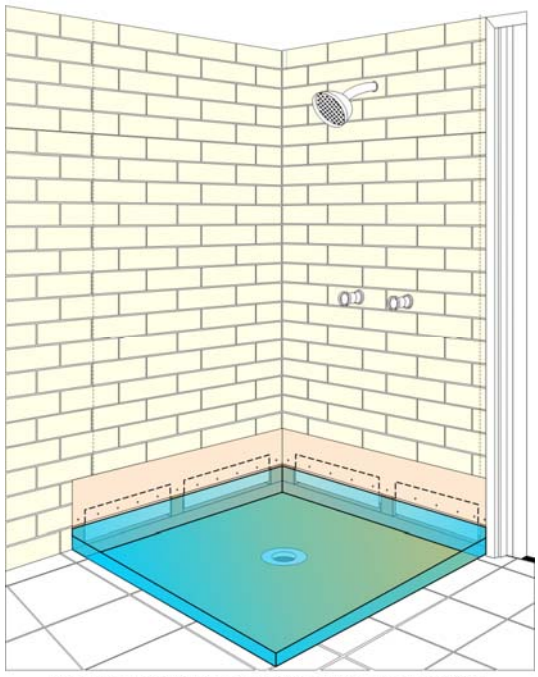
ORDER THE MADE TO MEASURE PVC SHOWER TRAY



On a piece of paper draw the perimeter shape of the PVC shower tray and mark as follows:
Dimension A = 0000mm less 6mm
Dimension B = 0000mm less 6mm
Dimension C = 000mm
Dimension D = 000mm
The drainage outlet size = 000mm
When you phone (02) 9018 7900 with your order you will be asked a series of questions dealing with your order.

FIGURE 8

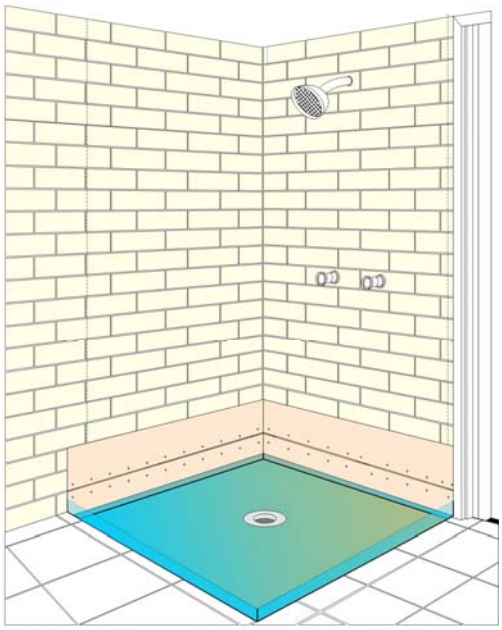
STEP 6 IN A BASIC SHOWER REPAIR



Install the made to measure PVC shower tray in position.
Follow the installation procedure described in this manuel.

FIGURE 9

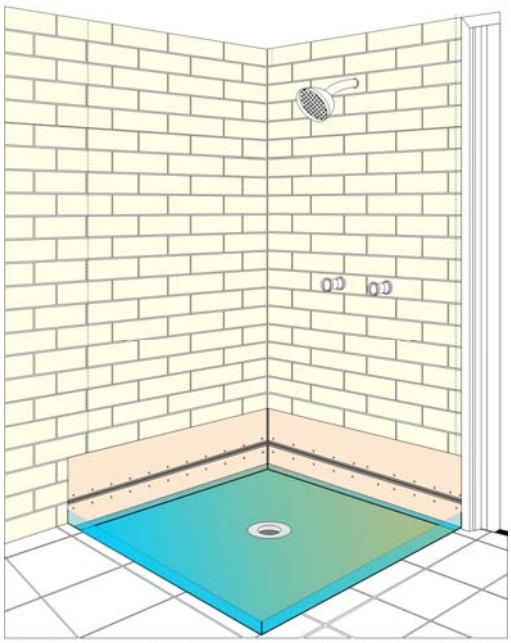
STEP 7 IN A BASIC SHOWER REPAIR



Cut to size new fibre cement wall linings giving consideration to the finish height of the bottom edge of the new wall lining to finish 35mm above the base of the PVC shower tray.
Screw the new wall lining in position through to the splicing pieces as well as the studs.

FIGURE 10

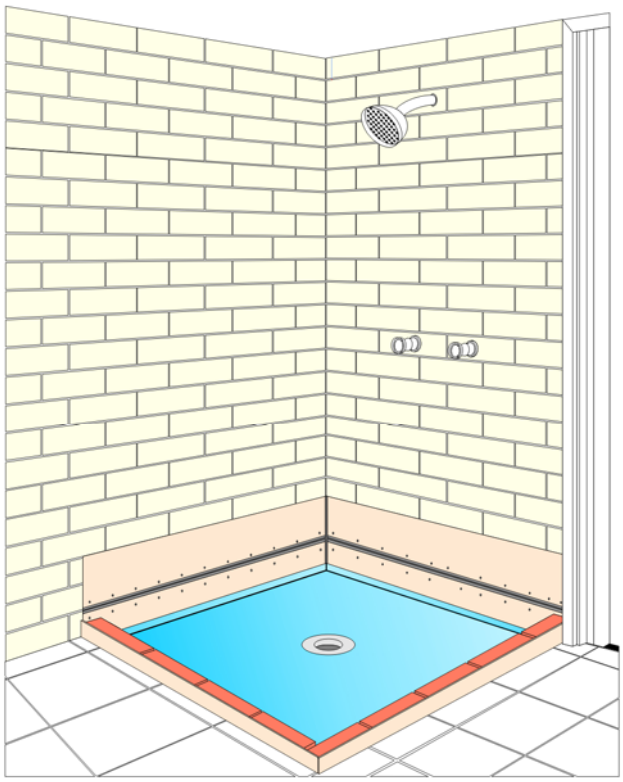
STEP 8 IN A BASIC SHOWER REPAIR



Use the fast cure polyurethane to caulk the joints between the fibre cement wall linings.
Use a broad knife to smooth the polyurethane to the face of the fibre cement wall lining.

FIGURE 11

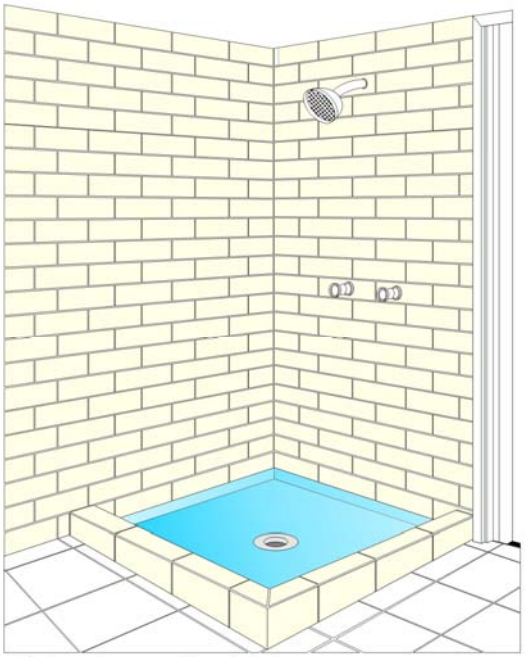
STEP 9 IN A BASIC SHOWER REPAIR



Install the new brick hob on edge inside the PVC shower tray by priming the PVC and bonding the brickwork to the tray with polyurethane
Cut to size two fibre cement tiling strips, prime the PVC and bond the tiling strips onto the outside face of the PVC shower tray with the polyurethane.

FIGURE 12

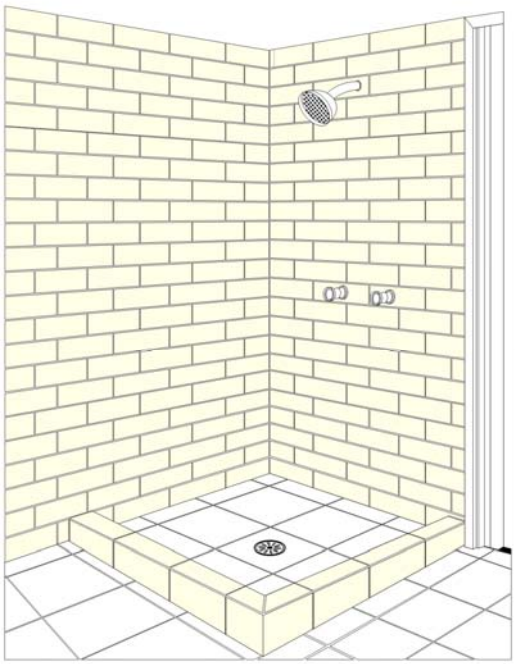
STEP 10 IN A BASIC SHOWER REPAIR



Re-tile the wall areas and then the hob.
Do not use tile edge strips on the inside horizontal edges of the hob.
Tile edge strips can be used on the outside horizontal edges of the hob.

FIGURE 13

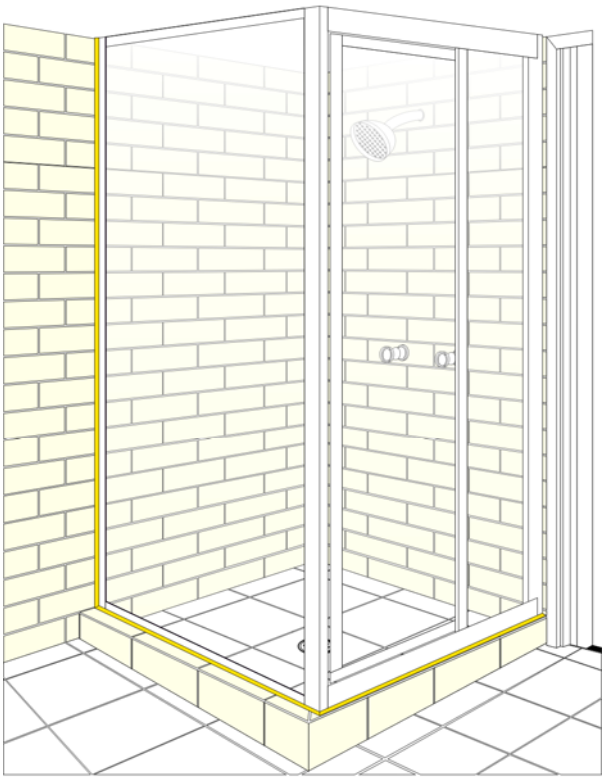
STEP 11 IN A BASIC SHOWER REPAIR



Cut the grated outlet down to the correct height.
Cut weep hole slots in the side of the drainage grate and install it over the center of the drainage riser.
Re-tile the floor within the shower area.

FIGURE 14

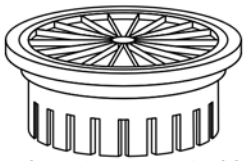
FINAL STEP IN A BASIC SHOWER REPAIR



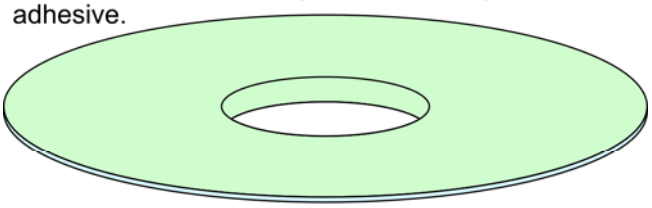
The Yellow at the shower screen perimeter indicates the area where the silicone sealant bead is to be applied
Re-install the shower screen in its position on top of the tiled hob.
Fix the shower screen frame to the wall using stainless steel screws.
Seal the shower screen/wall/hob junctions on the outside edges with an anti-mould silicone sealant.

DRAINAGE CONNECTIONS 1

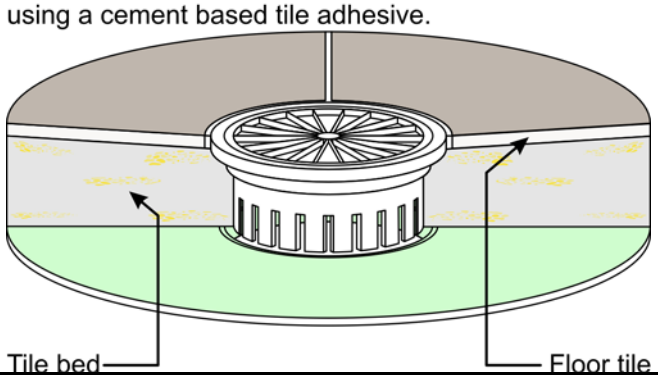
100mm or 80mm Floor grate cut to height of finished floor tile and slotted to allow water buildup in the tile bed to bleed into the drainage.



100mm or 80mm downturn created in the base of the PVC shower tray. This must be primed and bonded to the bore of the drainage riser with polyurethane adhesive.

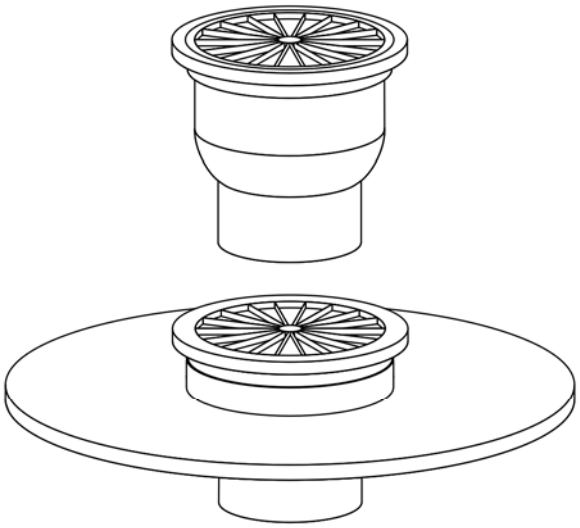


It maybe easier for some to install a 3:1 sand and cement graded tile bed and let it cure. Lay the tiles using a cement based tile adhesive.



DRAINAGE CONNECTIONS 2

80mm x 50mm floor grate with 80mm floor flange this suits 50mm PVC drainage pipe. And maybe required to connect to your shower.



The 80mm x 50mm floor grate is glued to the 80mm floor flange using PVC solvent cement (Blue Glue).

The underside of the floor flange and the top of the PVC shower tray are primed, polyurethane adhesive is applied to the shower tray and the outlet assembly is bedded into the polyurethane adhesive.

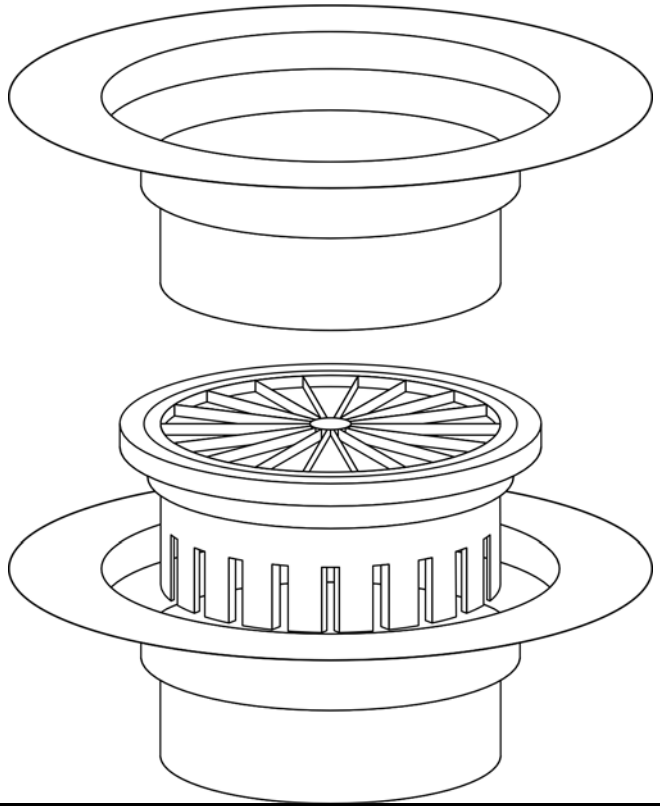
Downward pressure is applied so as to force the polyurethane out and around the perimeter of the floor flange and shower tray, it is then tooled off to form a continuos gasket.

DRAINAGE CONNECTIONS 3

100mm Outlet and Flange Combination

The combination outlet/flange by Art Plastics is one of the better products as the 100mm outlet fits inside the bore of 100mm PVC drainage pipe.

This can be a huge advantage when carry out a leaking shower repair as the underside of the flange and the top of the PVC shower tray can be primed and bonded together with polyurethane sealant.



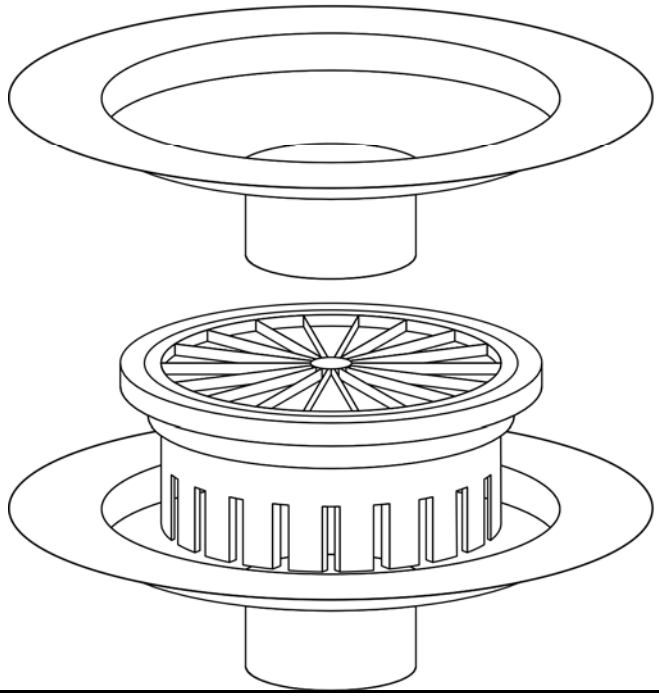
DRAINAGE CONNECTIONS 4

50mm Outlet and Flange Combination

The 50mm combination outlet/flange by Art Plastics, the 50mm outlet fits over the outside of a 50mm PVC drainage pipe.

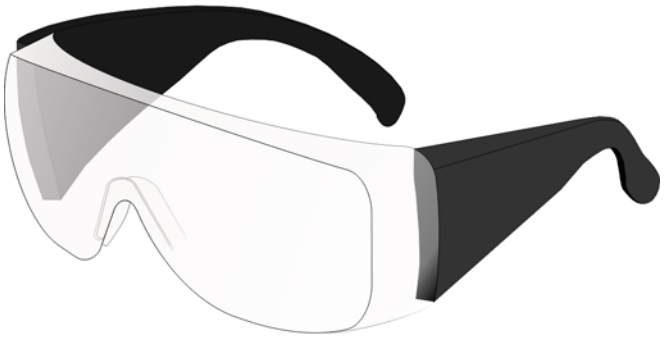
This outlet is also available with a 40mm drainage connection that will fit inside the bore of a 50mm PVC pipe.

Both these fittings can be a huge advantage when carry out a leaking shower repair as the underside of the flange and the top of the PVC shower tray can be primed and bonded together with polyurethane sealant.



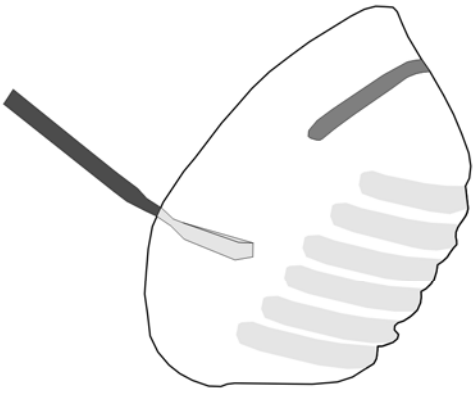
SAFETY EQUIPTMENT YOU MUST HAVE 1

Eye Protection Safety Goggles

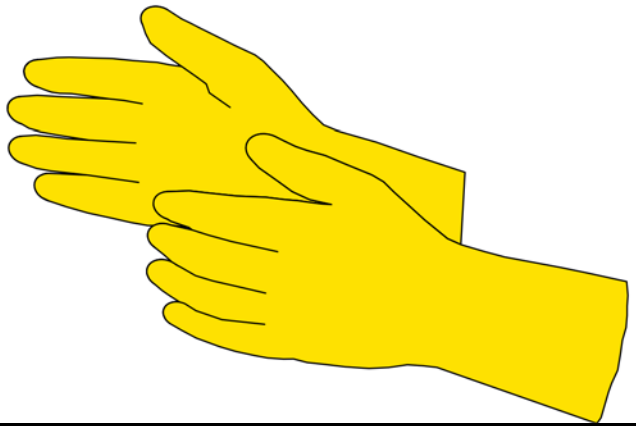


Hearing Protection Ear Plugs

Respiratory Protection Dust Mask

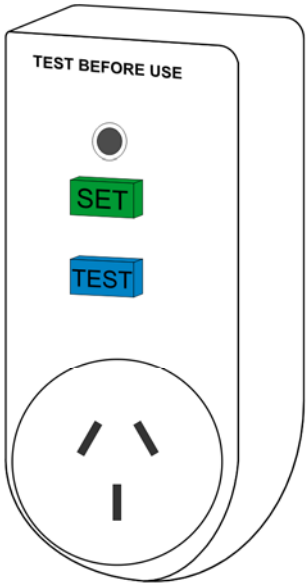


Skin Protection Rubber Gloves



SAFETY EQUIPTMENT YOU MUST HAVE 2

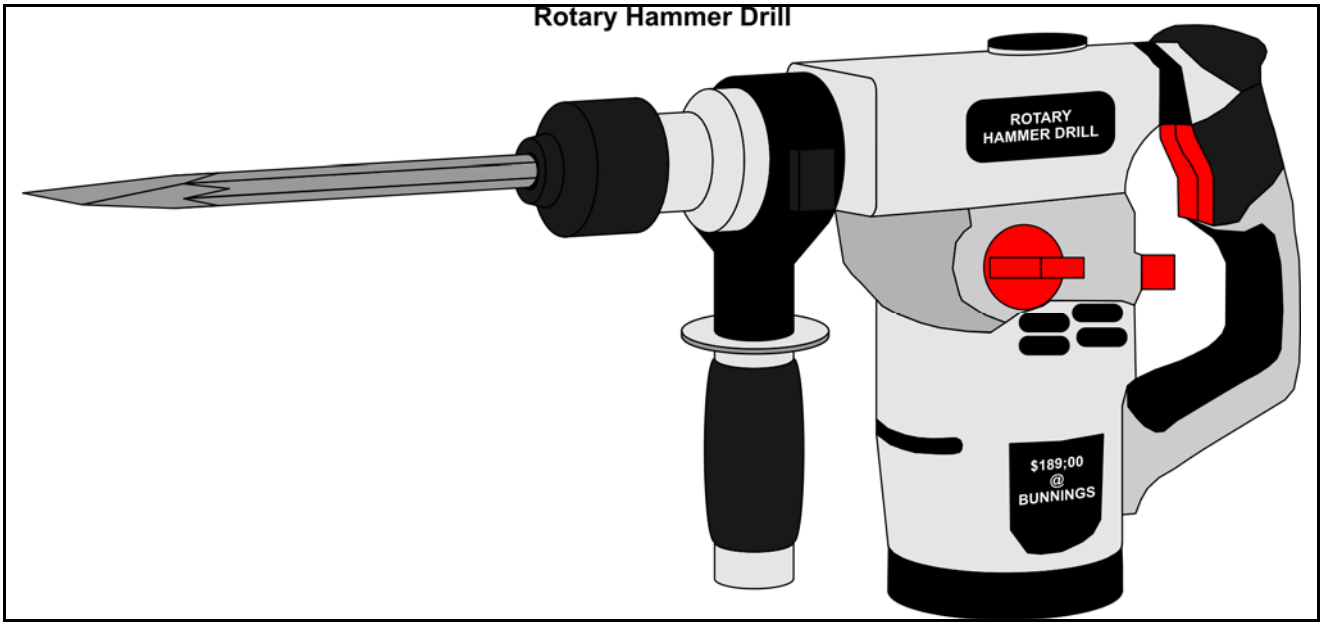
RCD Device



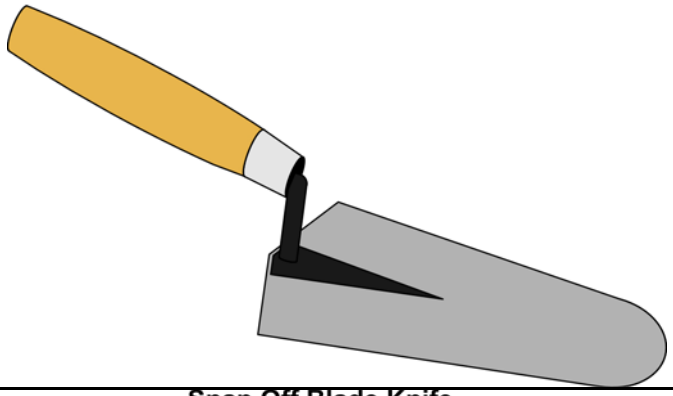
An **RCD**, or **residual current device**, is a life-saving device which is designed to prevent you from getting a fatal electric shock if you touch something live, such as a bare wire. It can also provide some **protection** against electrical fires.

TOOLS REQUIRED 1

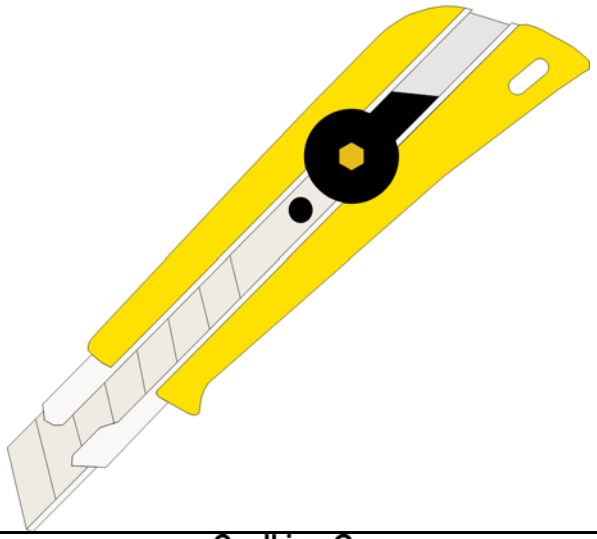
Rotary Hammer Drill



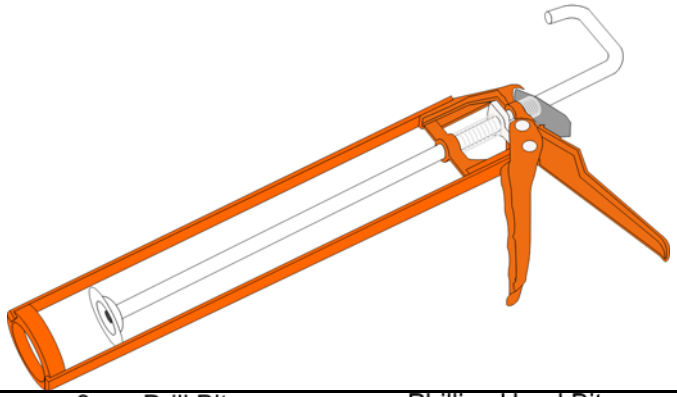
Gauging Trowel



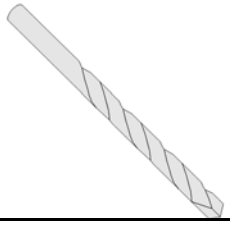
Snap Off Blade Knife



Caulking Gun

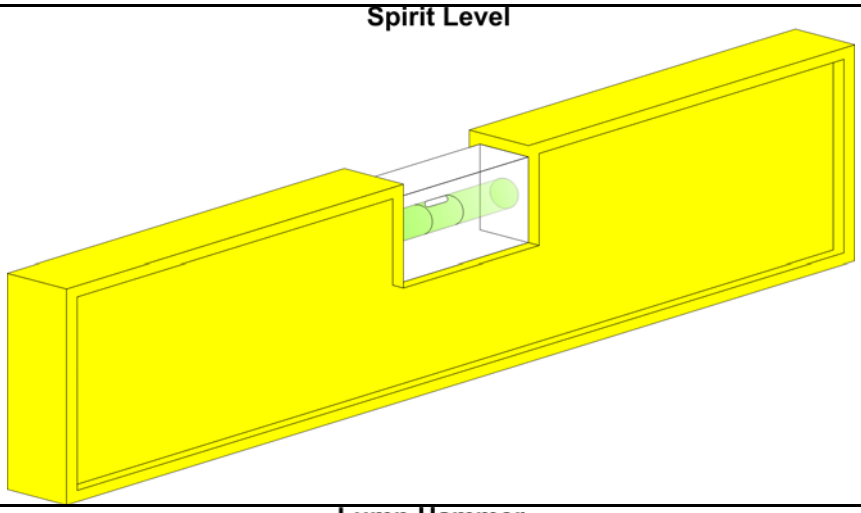


3mm Drill Bit

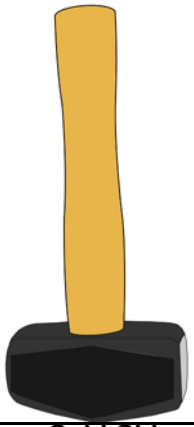


Phillips Head Bit

Spirit Level

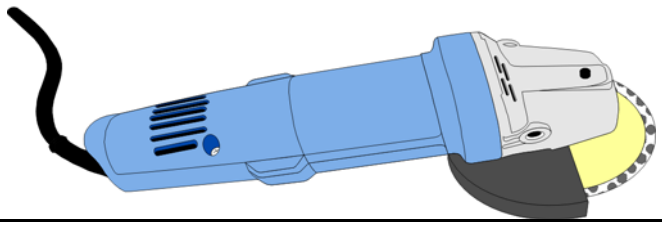


Lump Hammer

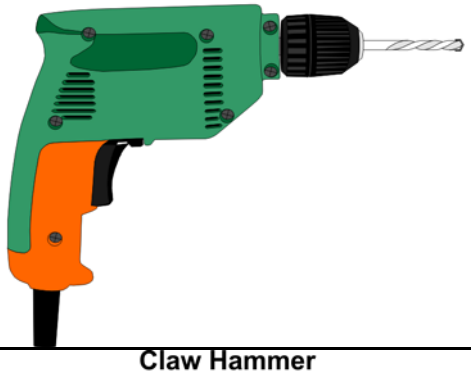


Cold Chissel

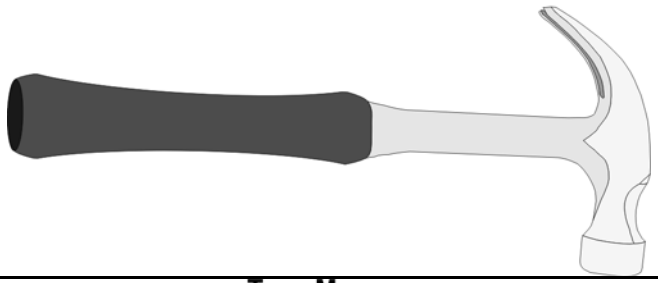
Grinder - Electric or Battery with Diamond Blade



Drill - Electric or Battery with Tungsten Drill Bit

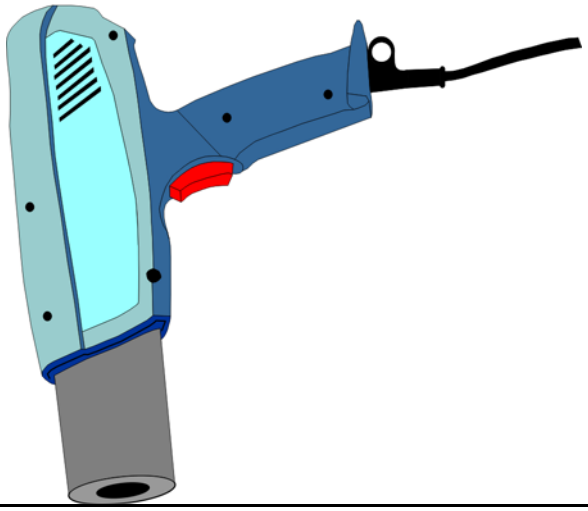


Claw Hammer



Tape Measure

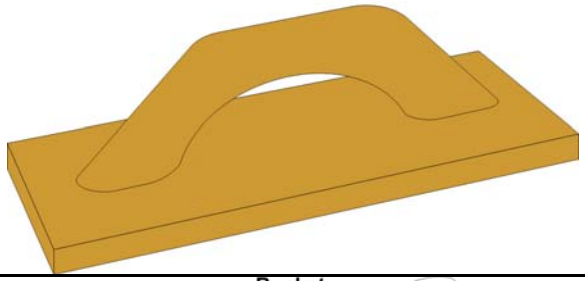
You may need a cheap Heat Gun



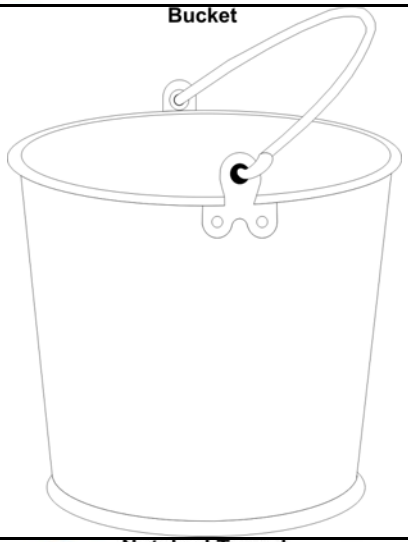
Cheap Throw away Brushes

Score and Snap Tool

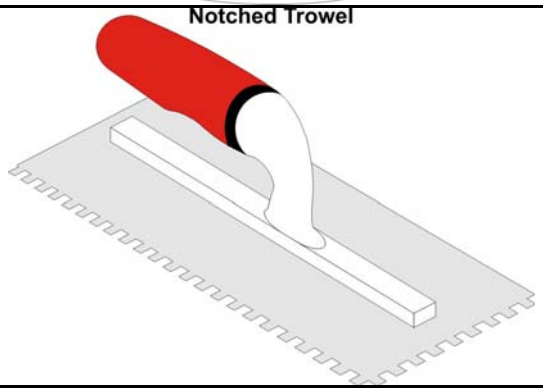
Wooden Float



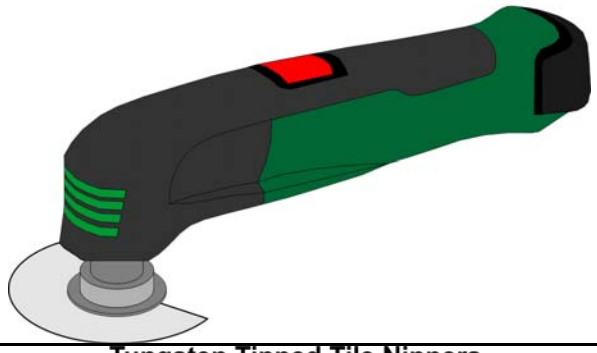
Bucket



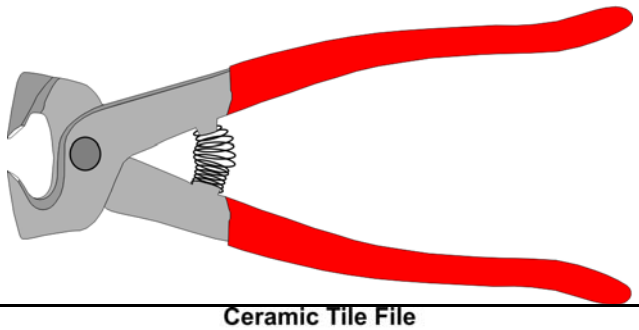
Notched Trowel



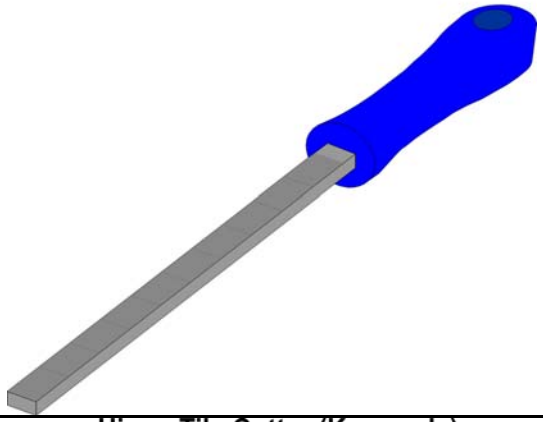
Rotary Multi-Tool (Removing Grout)



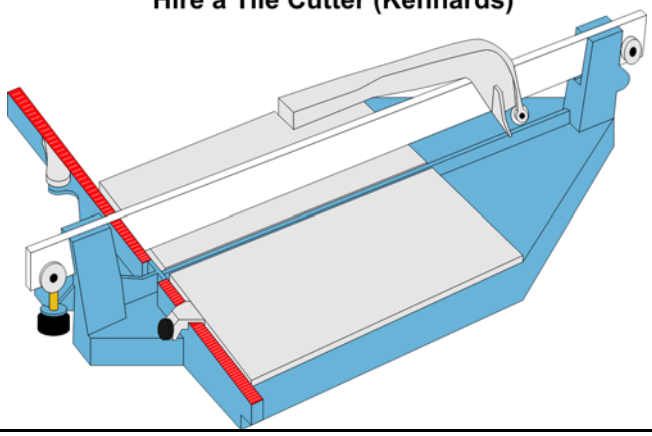
Tungsten Tipped Tile Nippers



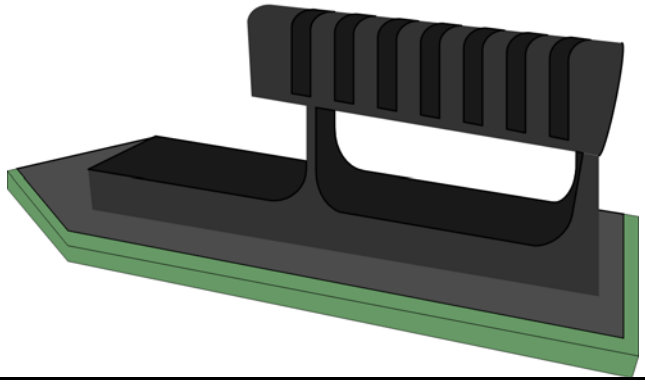
Ceramic Tile File



Hire a Tile Cutter (Kennards)



Grout Applicator



MATERIALS YOU MAY REQUIRE

Sand and Cement Mix

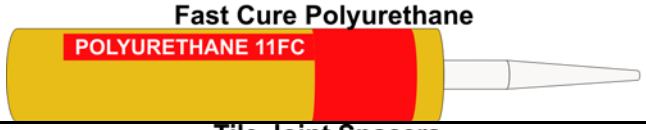
Cement Based Tile Adhesive

Premixed Tile Adhesive

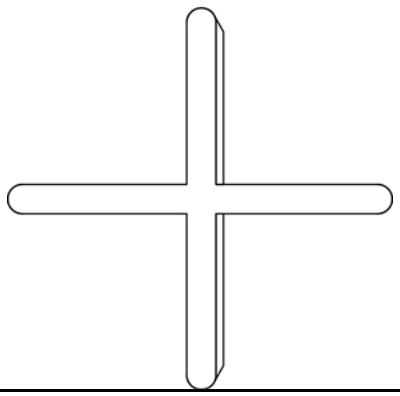
Tile Grout

Bathroom Silicone

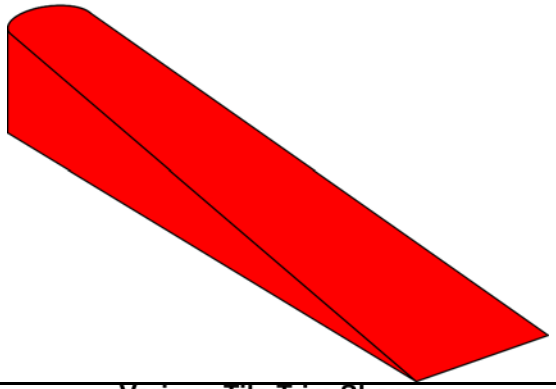
Fast Cure Polyurethane



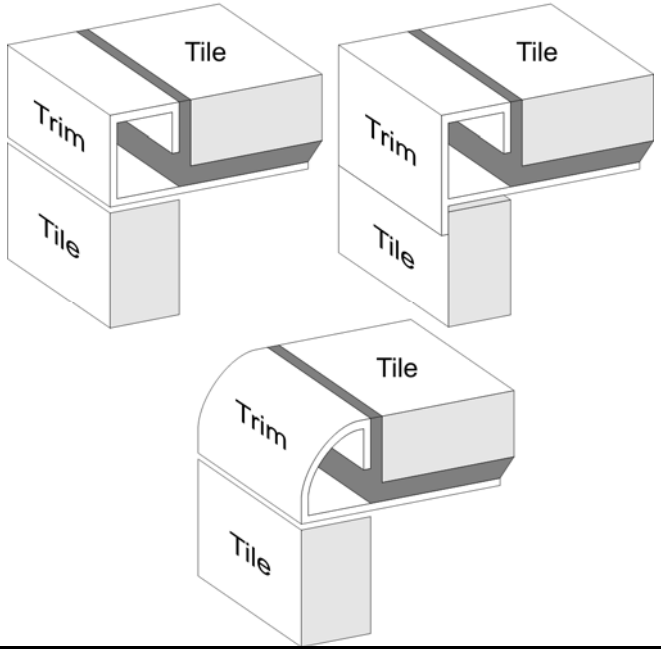
Tile Joint Spacers



Tile Wedges

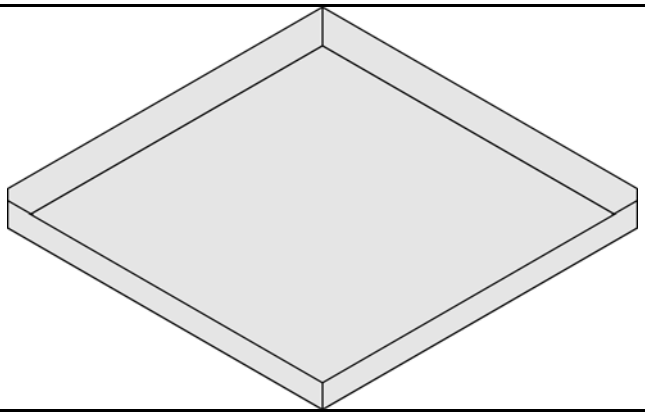


Various Tile Trim Shapes

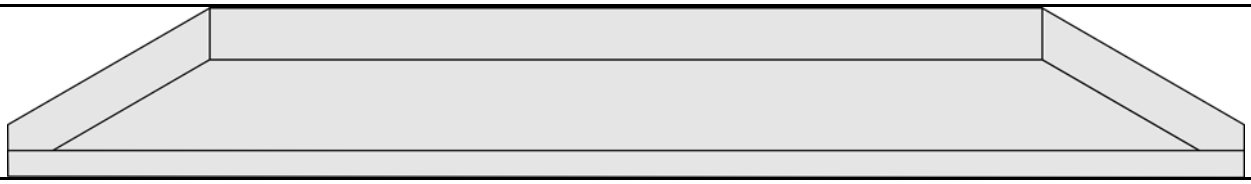


MADE TO MEASURE FLEXIBLE PVC SHOWER TRAY SHAPES

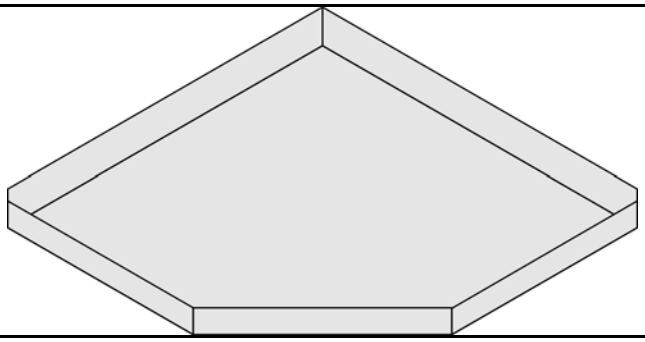
Square



Rectangular



Five Sided

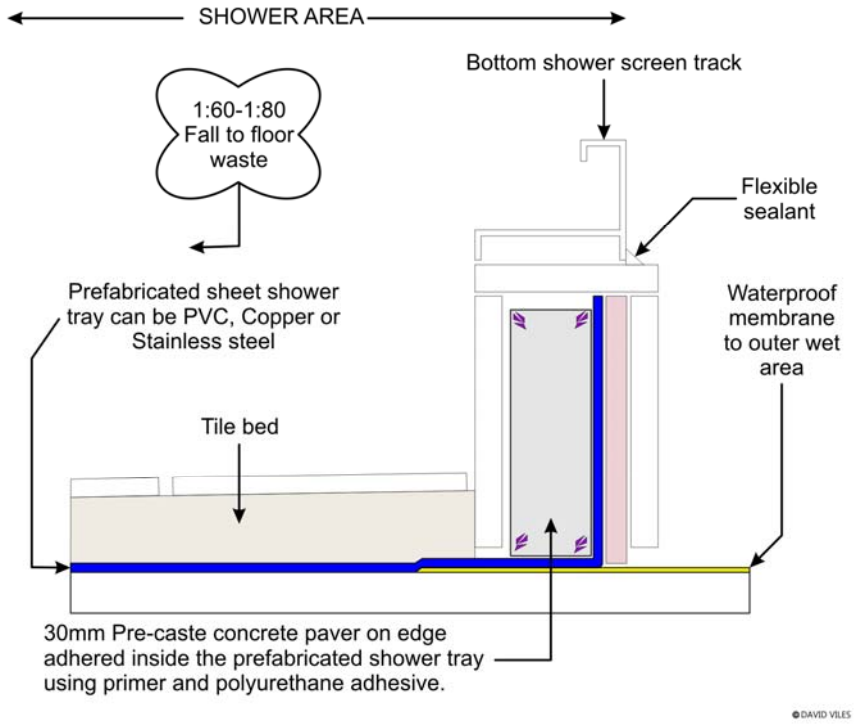


All Shower Tray Wall Up Stands Are 150mm In Height

SHOWER EDGE FINISHING DETAILS

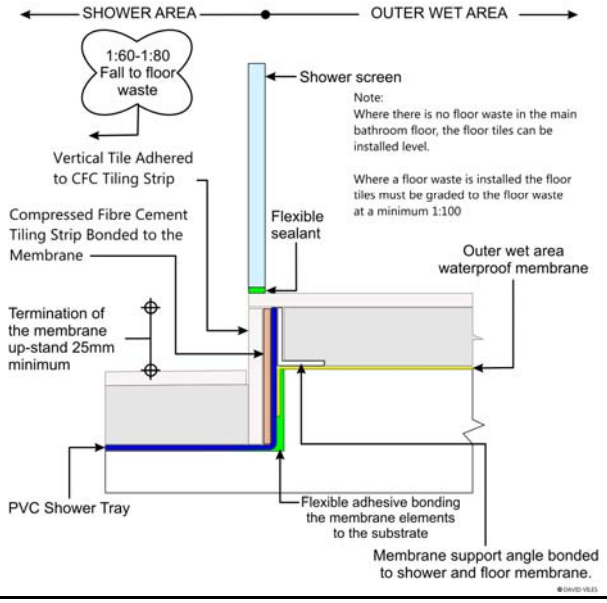
A Shower with a Hob

Five Star Rated ✪✪✪✪✪



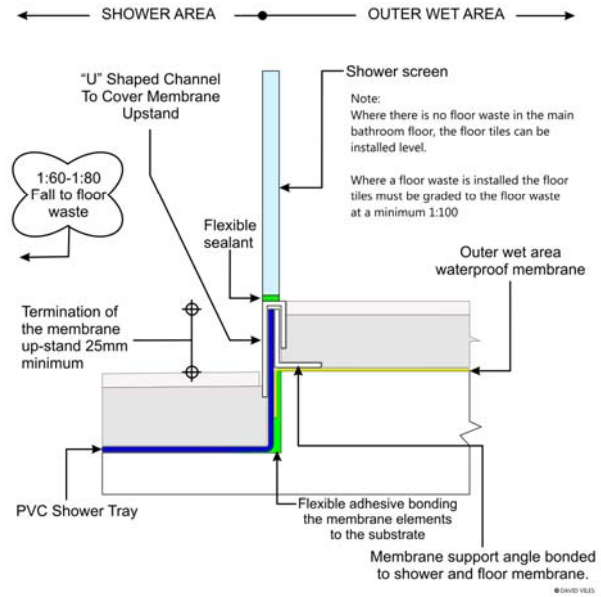
A Shower with a Step-Down 1

Four Star Rated ✪✪✪✪



A Shower with a Step-Down 2

Four Star Rated ✪✪✪✪

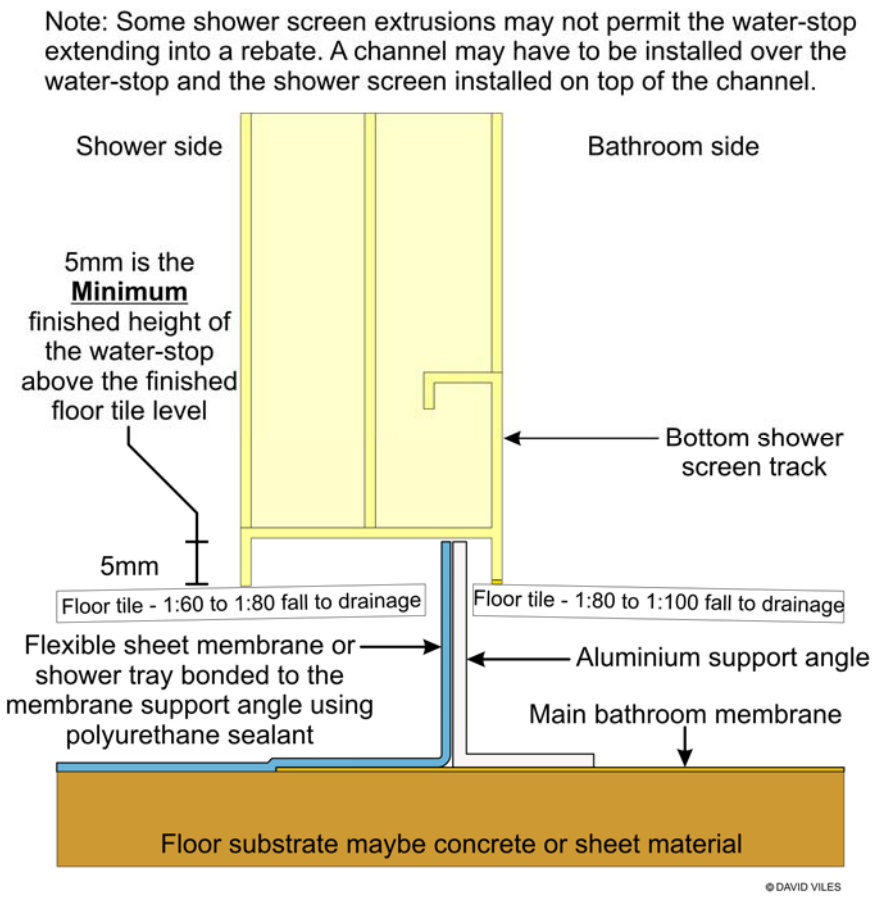


When carrying out a leaking shower repair it may not be practical to have a step-down as the existing substrate may not be deep enough to allow the thickness of the tile bed and tile to give a recommended 25mm termination height of the shower tray up stand above the finished height of the shower floor tiles.

It would be recommended to install a mini hob as shown in the first figure file.

Hob-Less Shower

Three Star Rated ✪✪✪

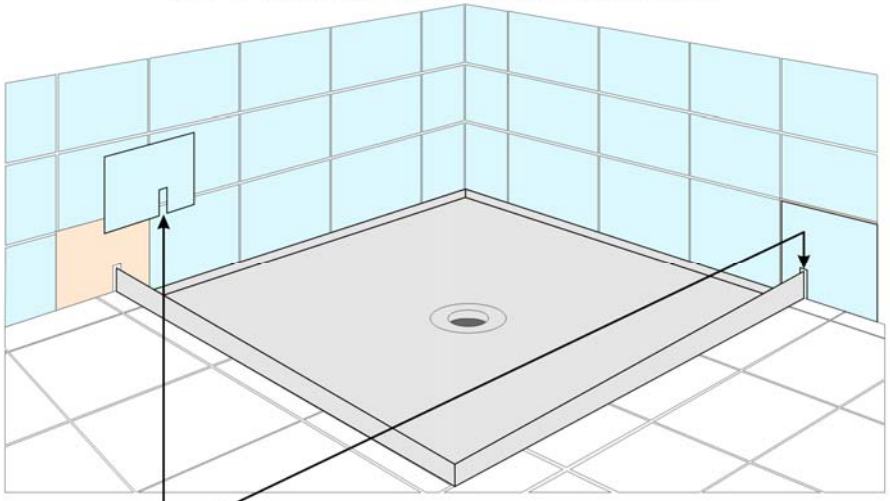


We don't recommend hob-less showers, if the up stand of the shower is trimmed in a scallop fashion above the finished floor tiles or is trimmed flush the shower WILL LEAK.

If the bottom wall tile is not notched where the shower tray exits the wall and is cut vertically down to the floor tile level, it WILL LEAK.

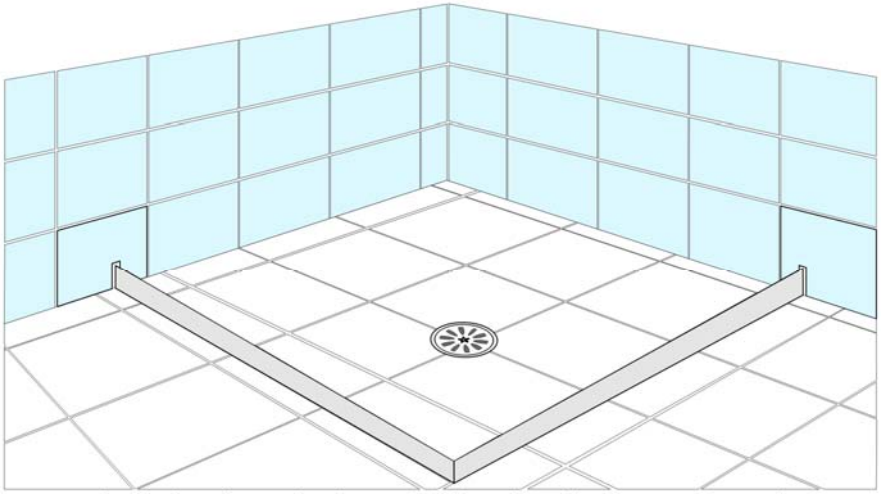
TILING IN A HOB-LESS SHOWER

STEP 1: TILING THE WALLS IN A HOB-LESS SHOWER



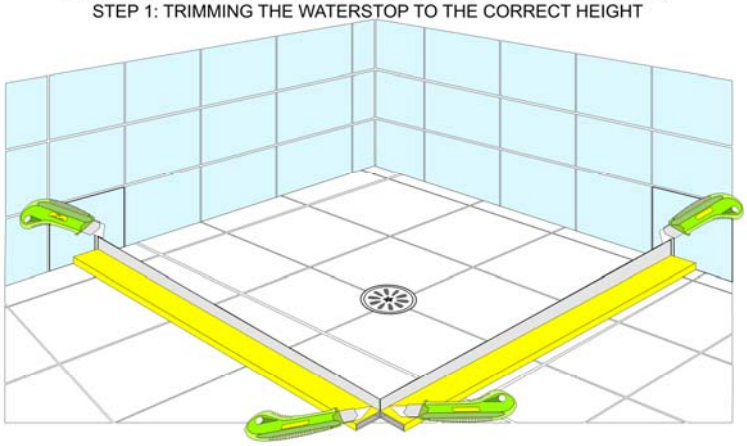
Notch the wall tile so that it fits over the waterstop where it exits the wall.

STEP 2: TILING THE FLOOR IN A HOB-LESS SHOWER



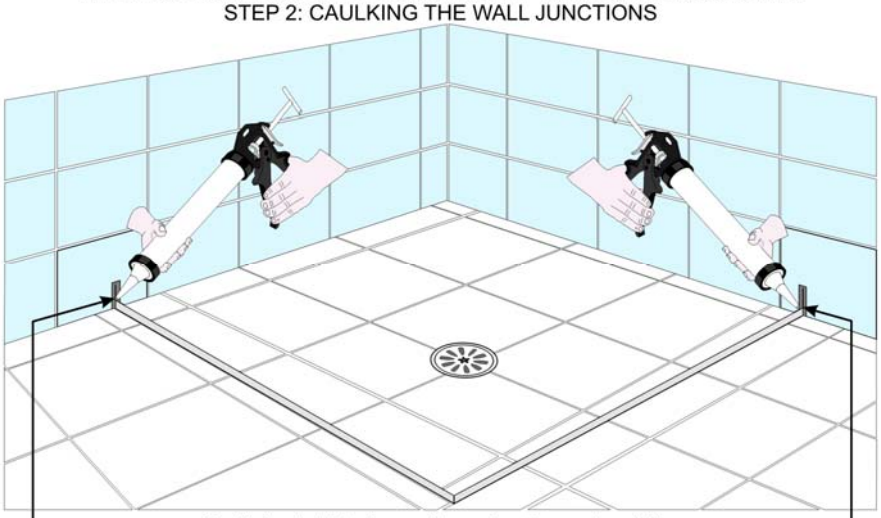
Cut the floor tiles so that they match either side of the waterstop upstand.
Lay the floor tiles so that they are the same level either side of the waterstop upstand.
DO NOT CUT THE WATERSTOP AT ANY POSITION

FRAMED SHOWER SCREEN INSTALLATION FOR A HOB-LESS SHOWER
STEP 1: TRIMMING THE WATERSTOP TO THE CORRECT HEIGHT



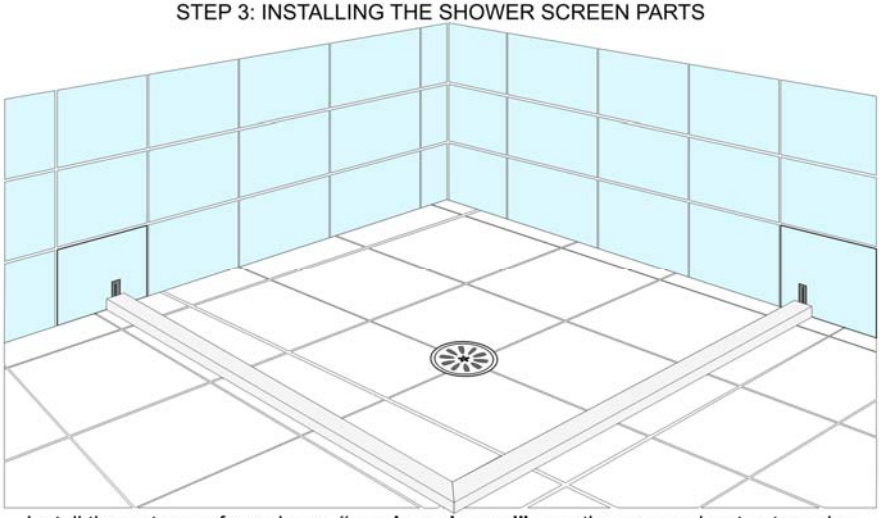
Select a straight edge that has a thickness equal to the depth of the base channel that supports the shower screen. (Minimum of 10mm)
Place the straight edge against the waterstop upstand and using a sharp snap-off blade knife, trim the waterstop down flush with the top of the straight edge.
At the vertical wall tile intersection, cut the waterstop flush with the face of the wall tile and down too the top of the straight edge.

FRAMED SHOWER SCREEN INSTALLATION FOR A HOB-LESS SHOWER
STEP 2: CAULKING THE WALL JUNCTIONS



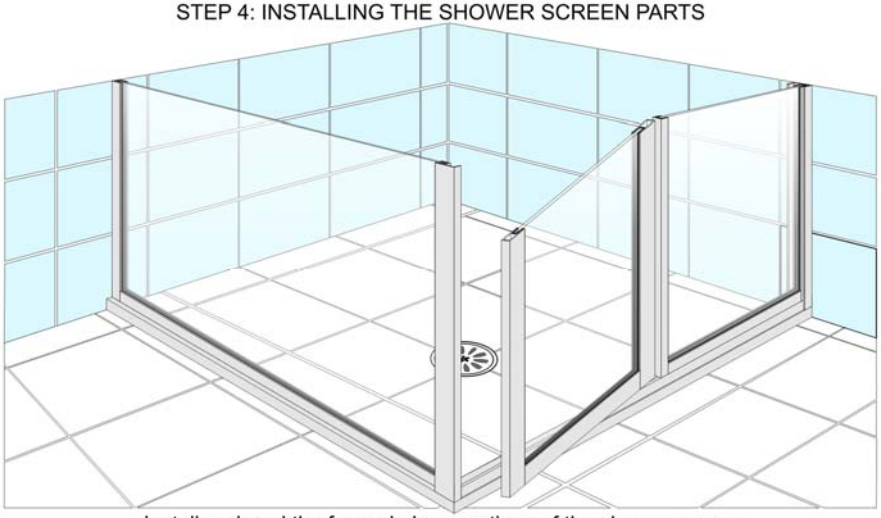
Caulk the joint between the waterstop and wall tile.

FRAMED SHOWER SCREEN INSTALLATION FOR A HOB-LESS SHOWER
STEP 3: INSTALLING THE SHOWER SCREEN PARTS



Install the waterproof membrane **"receiver channel"** over the prepared waterstop edge that is protruding above the finished floor tile

FRAMED SHOWER SCREEN INSTALLATION FOR A HOB-LESS SHOWER
STEP 4: INSTALLING THE SHOWER SCREEN PARTS



Install and seal the framed glass sections of the shower screen on top of the receiver channel

DESIGN

The waterproofing system must be designed and installed to protect the structure and amenity of the building from water ingress.

The waterproofing system should function as a collection tank that directs water to the drainage system.

The building elements above the waterproofing system must be designed to direct water into the waterproofing system.

It is imperative that the structure above the waterproofing system is designed and installed to prevent moisture bypassing the waterproofing system.

After reading the above statement one has to ask, if I apply a liquid membrane over the face of a substrate would it full fill the requirements stated above. Has it been installed in an age old roof flashing principle?

Another question would be: Did I leave the up stand of the shower tray at the shower screen position greater in height than the top of the finished floor tile in the shower area? If you have you have stopped the water table that builds up in the tile bed from migrating out of the shower area into the main bathroom.

Disclaimer

This document is intended as a guide only to waterproofing wet areas in standard building construction. The guidelines are general and refer to typical applications only. No part of this document is intended to override or supersede manufacturer instructions, specifications, or architectural and engineering specifications. Advice from qualified professionals and / or the manufacturer should be sought if there is an apparent conflict between the guidelines and instructions and / or specifications.