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Certikin

brings water to life

Heatwave Swimming Pools

Installation Manual

Deluxe -125mm Thick Fully Insulated Pool Shell

Heatwave Insulated Panel Pool System by Certikin

There are many good reasons for owning a swimming pool. There are also many good reasons for it being a Heatwave Pool.

Heatwave Pools use fully patented design uses heat retaining thermal panels. The panels act as a thermal break preventing outside ground temperature extracting heat from the pool water.

Rapid construction is the basic principle of our patented design with major benefits over any other block or panel pool.

Benefits include instant marking out with our unique channel, only a 375mm over-dig, less spoil removal, less back fill, no footings, no dig outs for large A-frames, lower all- round excavation and raw material costs.

Other benefits include: Strong lightweight panels for easy handling, self-squaring channel system for simple assembly, pre-plumbed thermal cam-locked panels, a choice of 600mm radius corners, 45 degree corners and 90 degree corners. All panels are supplied with built in liner-lock. Step units are also cam-locked to the pool shell. Heatwave Pool kits are also now available in 1.2m deep and 1.5m deep modules.

All Heatwave Pool kits come with a standard wall vacuum point and a full patterned mosaic liner. Liners can also be upgraded to a heavy-duty commercial liner, which is electronically welded on site.

All materials and equipment, including the filtration are of the highest quality and to pool industry standards.

Please refer to your technical support CD for stage-by-stage photos of your HEATWAVE POOL installation. Each section of this technical manual will refer to a specific folder on the CD containing the relevant images.

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PRELIMINARIES

Before starting work on your Heatwave Pool kit, carefully read the following instructions. Please ensure that you also familiarise yourself with the technical support CD, which comes with this manual. You will then be aware of what is involved in the assembly of your Heatwave Pool. Remember, the finish of your pool will depend on the quality of your work. You may want to employ the services of professional trade's people, such as local contractors or your Heatwave Pool dealer, if you feel you are not sure about tackling these tasks yourself. A qualified electrician MUST carry out all electrical work. A Gas or OFTECH registered engineer MUST also be used for all gas and oil connections and boiler/heater commissioning.

PLANNING PERMISSION

The majority of authorities do not insist on planning permission for building a private swimming pool in your garden. However, a pool with a permanent enclosure over it will require planning permission. Restrictions do apply in areas of outstanding beauty, green belt or conservation areas. If in doubt, consult your local planning officer for advice.

LOCATION OF POOL

Some notes of importance you should bear in mind before starting work on your pool. The pool should be positioned away from trees, to reduce the problem of leaves falling into the pool and so the pool has the benefit of as much sun as possible. Prevailing winds must also be considered as this may affect the circulation of the water towards the skimmers. Ideally, the pool should be sited on level ground and as close to the house as possible, so that changing and toilet facilities are convenient.

SERVICES FOR YOUR POOL

The filtration for your swimming pool should be sited as close as possible to your pool and enclosed to protect it from the elements. The enclosure can be a garden shed, a summer house, or a garage, with availability of the following:

An electrical supply and, if required, a natural gas/propane gas or oil supply for pool water heating.

A mains water tap. A hose from the tap to the pool will do, or you can have an automatic water top up installed to your pool, which is mains water fed. (This unit can be supplied with your Heatwave Pool kit as an extra if required.)

You will also require a soak-away or a drain to discharge the wastewater used in backwashing the filter. The size of your filtration pump will determine the requirement for the drain or soak-away. If you are unsure of the capacity required please contact your Heatwave Pool dealer.

TYPES OF HEATING

Your pool can be heated either by a gas or oil pool heater, a heat pump, a solar heating system or a heat exchanger coupled with a domestic boiler. Your Heatwave Pool dealer can advise you on a suitable option.

CAUTION

Check to ensure that underground services, i.e. telephone cables, sewage pipes etc. do not run through the proposed site of you excavation.

N.B. The metric sizes given for each pool are only an approximate guide and therefore should not be used for construction purposes.

SPECIALIST TOOLS THAT YOU WILL NEED TO INSTALL YOUR HEATWAVE POOL

- String line
- Laser level
- Spirit level
- Shovel
- Fork
- Pegs
- Paint spray /line marker
- Drill & Philip's screw bits
- Commercial vacuum cleaner
- Protective gloves
- Protective eye goggles

SETTING OUT THE POOL

There are various ways of excavating your pool. Access to the site will determine the size of the digging machine. Although heavier JCB and Hymac machines can be used we recommend use of a 360-degree mini excavator. It is easier and cheaper if the excavated spoil can be 'lost' on the site, either around the pool itself, if the pool is built partially out of the ground, or used to make a bank or mound in the garden. If the spoil has to be removed from the site, this is a costly operation, involving the hire of grab Lorries or tidy bins, thus lengthening the digging time. Prepare for marking out by scraping off the turf and levelling the ground.

DATUM

It is advisable to set in a datum peg outside the excavation, so that the top of the peg is the top height of the pool wall channel and the point from which all dimensions down are measured. The final finished level of the top wall channel is important, as the pool surround will be laid to a fall away from the pool as it may have to join up with a patio or path. If you have chosen reconstructed stone copings for the finish around your pool. The final finished level of the pool coping will be 65mm above the top of the datum peg. This represents the thickness of the coping and its bed. The most accurate method of determining levels is by hiring a Laser level from a local hire shop.

MARKING OUT THE POOL-PROFILES

There are two methods of marking out your pool. We recommend the profile method outlined below, which you will also find in stage-by-stage pictures on your technical support CD. We recommend the profiles of the pool be set up between 200mm and 600mm above top of level of pool coping. Please note that the top of coping is 65mm above the finished pool shell.

Option 1. Marking out the pool using profiles:

A profile represents two pegs with a horizontal cross baton. Two markers/nails are positioned on the horizontal baton 375mm apart. One mark/nail represents the face of pool the other the excavation (over-dig). Please see images on technical support CD for help. We recommend eight (8) profiles when marking out your pool. These should be located well outside the excavation area. (see CD). By stretching string lines across all profiles this will give you two grids. The inner grid is the face of pool and the external grid is the excavation (over-dig). You will notice that on the technical support CD the pictures clearly show a yellow string line as the face of pool and a red string line as the excavation. Once the grids/string lines are in place, simply use a liner marker spray to transfer both lines onto the ground and mark out the pool.

Option 2. Marking out the pool using the two peg method:

Having selected the dimensions required for your pool from the EXCAVATION DRAWING TABLES, set the four corner pegs for the excavation, ensuring the diagonals are equal. Measure out the pool dimensions and drive in pegs outside the excavation. Stretch string lines between these pegs and mark on the ground with the line markers. During excavation, a line should be stretched across between pegs, to check that the hopper (if applicable) is dug in the correct place, with the correct depth. Ideally, all the pegs should be set to the same level as the original datum peg. Should any areas of the pool floor be accidentally over dug, the hollows MUST be filled with an 18-1 lean mix of cement and ballast to avoid future settlement. To ensure accuracy of the base dimensions, it is best to hand trim the final few inches of the pool. While you have the digger on site, it would be easier to excavate the pipe work trench from the pool to the plant room.

INSTANT MARK OUT OF THE POOL

Assemble the bottom channels of the pool at the place where the pool is to be sited. Using the line spray marker, spray a line 375mm back from the inside edge of the channels all around the pool. Now remove all channels. You are now left with the excavation line of the pool. Refer to above instructions for the levels of the pool.

EXCAVATING THE POOL

Bulk out the soil using the large bucket and move soil working towards the over-dig. Establish the finished level of the Heatwave Pool bottom channel. Using the blade for more accurate shaping, form the base of the pool as per the supplied excavation plan. Carry out regular checks on the excavation using a laser level.

This will initially be the same whether the pool has a constant depth or a hopper profile. The hopper will be excavated later as per the following section of your manual.

MARKING OUT AND EXCAVATING A HOPPER

Please refer to the supplied excavation drawing for hopper position and intersection points. Using the blade of the excavator prepare the shelf for the hopper. Then mark out the shelf for the hopper and bottom channel using the face of pool marker or string line on the profiles. Establish the corners of the pool by placing a level against the face of pool marker/string line on the profiles and transfer the corner

intersection onto the ground. Using a straight edge then join up the corners of the pool and spray lines on pool floor to create a rectangle. Mark out the intersection points of the hopper square and spray intersection lines on the wall of the dig. Mark out the hopper square on the base of the excavation. Spray a diagonal line from the corner of the pool to the nearest corner of the hopper square. Then spray a diagonal line from the corners of the hopper square to the relevant intersections of the shallow area of the pool. Again please check your technical support CD and the supplied excavation drawing for this information. Then position the excavator to the square of the hopper and dig to required shape and depth. Shape the slopes of the hopper from the sides of the pool to the base of the hopper square. Complete this on all three sides. Finally shape the slopes from the shallow end intersections to the corners of the hopper square and leave any excess soil in one corner of the pool at the shallow end for removal.

MARKING OUT AND EXCAVATION FOR STEP UNITS

Roman End Steps

Refer to the drawing applicable to your pool (showing the Roman end step). Mark a centre line along the dig of the pool. Using a tape measure, ask someone to hold the end of the tape on the mark. Now read 1.8M on the tape measure. Swing the tape measure in an arc, at the same time using the line spray to form a 1.8M radius line on the ground, this represents the radius of the excavation for the Roman end steps. Excavation for the steps should be a 45-degree slope, leaving a clearance of 100mm behind the steps to the ground.

Square Step Unit 1530 x 1200

Refer to the drawing applicable to your pool (showing the step unit), mark a centre line along the dig line of the pool. Measure 1.075M each side of the centre line. Using the line spray, make a mark. This will represent the side dig lines of the step unit. Next, measure back from the pool dig line 1.500M and make a mark. This represents the back of the step unit dig line. You should now have a square shaped excavation mark. Excavation for the steps should be a 45-degree slope, leaving a clearance of 100mm behind the steps to the ground.

Corner Step Unit

The corner step unit is fitted directly into the corner of the pool, so no extra excavation will be necessary.

UNDER POOL DRAINAGE

This is not required on a free draining subsoil, i.e. gravel, sand or chalk, but if the subsoil is composed of clay, there is the possibility of water collecting under the liner, so an under pool drainage system must be installed. The ideal solution is to dig a trench with a fall from the bottom of the hopper (or the floor of a constant depth pool), to a lower area in the garden, filled with 75mm land drains, surrounded by shingle. This method can only be carried out on sites where there are big variations in levels, or if there is a deep ditch nearby. Most pools are built on comparatively level sites and the following procedure must be carried out. Over dig the shallower end slopes of the hopper (if applicable) by 75mm and dig out the drainage pit approximately 1000mm x 1000mm and 600mm deep at the bottom of the pool. Fill this

pit with 150mm of shingle and lay in the under pool drainage pipe with pipe work to the outside of the pool area and enclosed in a chamber with an access lid. The under pool drainage pipe will suck any water through a collection tube, which prevents stones being sucked into the pump. Having installed the under pool drainage pipe, completely fill the drainage pit with shingle. The over-dig can now be filled in with 75mm of dry-lean concrete (18-1 mix). This will shape up the slopes (if applicable), cover up any slippery, muddy clay, provide good drainage and will not subside. Please note that the installation of the main drain suction fittings as specified later, should be carried out in conjunction with the dry-lean mix topping. (SEE ENCLOSED UNDER POOL DRAINAGE DIAGRAM AND IMAGES ON TECHNICAL SUPPORT CD)

WATER SEEPING OR POURING INTO EXCAVATION

If water is seeping or pouring in from a definite place or places, dig drainage trenches from these places approximately 200mm wide and 200mm deep, down to the under pool pit. Lay 75mm drainage pipes on a bed of shingle and surround with shingle. After completion of the drainage pit and trenches, a diaphragm pump hired from the local plant hire firm, coupled up to the end of the pipe, will pump out any water from the excavation and construction can continue. The over-dig can now be filled in with 75mm of dry-lean concrete (18-1 mix). This will shape up the slopes, cover up any slippery, muddy clay, provide good drainage and will not subside. Please note that the installation of the main drain suction fittings (as specified later) should be carried out in conjunction with the dry-lean mix topping.

UNDER POOL DRAINAGE IN RUNNING SAND

If running sand is encountered, it is best to seek professional advice.

INSTALLING MAIN DRAINS

The main drains, sometimes called sumps, are sited at the centre of the deep end of the hopper or wedge, or at one end of a constant depth pool. Dig two pits 800mm apart, 400mm x 400mm x 300mm deep, from the base of the pool floor and a small trench from the main drain pits up the side of the slope (if applicable) to the outside of the pool wall. Make sure it is the side nearest to the filtration plant room. Remove the main drains from their boxes.

Leave the grilles, flanges and screws in their boxes for later use. Do not remove the plastic covers from the main drains, as it protects the screw holes from getting blocked with debris. In the bottom of the main drain you will note a 1.5" threaded hole.

Screw into it a 1.5" threaded plug (provided), or a collection tube if a hydrostatic relief valve is to be fitted (this can be obtained from your swimming pool dealer if required).

Each side of the main drains should be fitted with a 2"-1.5" reducer and a 1.5" socket nipple. Note these screw joints must be sealed with P.T.F.E. tape (provided) to make a watertight joint.

JOINING THE TWO MAIN DRAINS TOGETHER

Cut a 450mm length of 1.5" ABS pipe, making sure it is clean, and apply glue to the socket nipple and the end of the pipe then push together. Next, glue into one end of the tee the other end of the pipe, making sure the tee outlet is facing sideways. (See MAIN DRAIN PIPEWORK LAYOUT DRAWING.) Clean and glue another 450mm length of pipe into the other end of the tee. Glue the other main drain to the end of the pipe, making sure both main drains are level with each other. Position the main drains into the pit, ensuring the tops of the main drains are level and 25mm lower than the finished floor level. (If ever you should have to empty the pool, this will make it easier.) To stop the main drains moving out of position, place concrete around the main drains, making sure you do not get any in the tee outlet. Cut a 450mm length of solid pipe, making sure it is clean, and apply glue to the tee and the end of the pipe then push together. Glue a flexfit elbow to the pipe facing the plant room side of the pool. Unroll a coil of flexible pipe and insert one end into the flexfit elbow. Lay the flexible pipe into the trench and up the slope (if applicable) and under the base of the bottom channel, taking it to the back of the pool wall, and leave it coiled up on top of the over site for now. (See MAIN DRAIN SUCTION FITTING DRAWING.)

KIT COMPONENTS

Before starting to assemble the bottom wall channels, we recommend you spend some time identifying the names of the kit components used to build your Heatwave Pool (see COMPONENTS DRAWING) and the BOTTOM CHANNEL LAYOUT DRAWING applicable to your pool. Photographs of all the components can also be found on your technical support CD. PLEASE ALSO REFER TO ABBREVIATIONS LIST ON PAGE 26.

N.B. PROTECTIVE GLOVES MUST BE WORN WHEN HANDLING POOL COMPONENT

BOTTOM WALL CHANNEL CONSTRUCTION

Position a corner channel so that the internal edges of the channel form the inside edge of the pool. Working Clockwise, position a bottom channel shoe under the corner channel, locating the stud on the shoe through the hole in the corner channel. Note the swivel lug on the bottom of the shoe.

This should be facing towards the outside of the pool. (See Bottom Channel Shoe Joining Detail Drawing.) Now position a straight channel to the corner channel, again locating the hole in the channel over the stud of the shoe. Now position a shoe plate over the studs and with the nuts . fix the shoe into position. (See Bottom Channel Shoe Joining Detail Drawing.) Do not over tighten the nuts.

Carry on until you have laid the last channel.(The bottom channel is designed to adjust to the length of the wall panels.)If you find that after installing the wall panels the bottom channel is not long enough, you can adjust the length of the channel by inserting a flat headed screw driver into the slot on the face of the channel shoe, and levering the channels apart. Check the dimensions. (This means that once the channels are laid, the width of the space between the channels in the middle of the pool is the same as it is at each end.)

Now drive the 300mm long12mm steel pin through the 13mm hole in the swivel tag bottom channel shoe, leaving 150mm of pin sticking up.

Next, check the levels of the channels. This is important, as your pool has to be level. If the channels are low in places, pack up with slate or other materials that won't rot. If the channels are high in places, you will have to scrape out the high spots of the ground, so that the channels are level.

BOTTOM WALL CHANNEL WITH CORNER STEP UNIT CONSTRUCTION

Position the corner step unit so that the internal edges of the step unit form the inside edge of the pool. Working Clockwise, position a bottom channel shoe under the step unit, locating the hole in the bottom of the step unit channel over the stud in the channel shoe. Carry on as instructed in BOTTOM CHANNEL CONSTRUCTION until you have laid the last channel.

Next, check the levels of the channels. This is important, as your pool has to be level. If the channels and step unit are low in places, pack up with slate or other materials that won't rot. If the channels are high in places, you will have to scrape out the high spots of the ground, so that the channels are level.

INDOOR BLOCK & BEAM BRACE BAR FIXING

With reference to the top channel layout drawing applicable to your pool (see separate sheets in envelope) note the positions of the abbreviated TCBS around the channels. You will need to fix the horizontal brace bar, with the two raw bolts supplied, to the wall approximately 40mm down from the top of the block and beam sleeper wall, opposite the position of the TCBS

POOL WALL PANEL IDENTIFICATION

Firstly, identify any wall panels which contain pre-plumbed fittings, as these must be the right way up (identified by arrows on them) and with the faces of fittings on the inside of the pool (see PANEL IDENTIFICATION DRAWING.)

The above instructions also apply to panels that do not have fittings.

SKIMMER PANEL

Ideally the wall panel with a skimmer fitted should be sited facing the prevailing wind. This is so that the debris floating on the surface of the pool water is assisted into the skimmer by the wind.

POOL LIGHT PANEL

Pool lights, if fitted, should be facing away from the seating area, or from the house view, to avoid looking into the glare.

PIT BUTTRESS LOCATION (For Automatic Covers)

Position the buttresses as shown on BOTTOM CHANNEL AND BUTTRESS LAYOUT DRAWING applicable to your pool.

BUTTRESS ASSEMBLY

Under certain circumstances you will have to move a buttress to one side of the pool wall fitting. This is then shown on the BOTTOM WALL CHANNEL LAYOUT DRAWING, labelled OFF SET BUTTRESS.

INDOOR BLOCK & BEAM OVERSITE

Having located the bottom of the buttress over the bottom wall channel, insert the spring nuts into the buttress and into the brace bar that is fixed to the block and beam sleeper wall. Next, depending on the distance from the buttress to the sleeper wall, cut the threaded rod to the required length. Now attach the rod to the buttress by screwing into the spring nut in the buttress. Then unwind the rod so that it screws into the brace bar spring nut. Note, by screwing in and out, it will adjust the linement of the wall. Refer to Wall Block & Beam section drawing.

Next, fix another spring nut above the threaded rod spring nut and screw in to the 10mm hook bolt. Repeat on all other buttresses (see separate fixing instruction for Automatic cover pit buttress)

Now locate the top channel buttress shoe over the wall panel, locating the two studs on the shoe with the two stud holes on the buttress. Fix the shoe to the buttress with the two 8mm nuts provided. Making sure the buttress is vertical,

CORNER PANELS

Pool Wall Construction 45 deg Corner

Starting with a corner panel, lower it down into the channels. Now position a corner post locating the corner panel. Note the two 5mm holes located at the top of the corner post. Fix the post with the small self drilling screw (provided) to the wall panel. Lower a side panel down into the channel locating the corner post. Now continue around the pool, locking the panels together with the L-shaped key. (Note: There are no cam-lock holes in the corner panels.) It is important at this stage to half-turn the key only. If your pool is fitted with a step unit, this should be positioned before the straight wall panels (as it is easier to reposition a wall panel than the step unit if necessary).

Pool Wall Construction 90 deg Corner Post

Starting with the corner panels, lower them down into the channels and camlock them together. Lower a side panel down into the channel locating the corner panel. Continue around the pool locking the panels together with the L-shaped key. It is important at this stage to half-turn the key only. If your pool is fitted with a step unit, this should be positioned before the straight wall panels (as it is easier to reposition a wall panel than the step unit if necessary).

CORNER POSTS

Pool Wall Construction 45 deg Corner

Starting with a corner panel, lower it down into the channels. Now position a corner post locating the corner panel. Note the two 5mm holes located at the top of the corner post. Fix the post with the small self drilling screw (provided) to the wall panel. Lower a side panel down into the channel locating the corner post. Now continue around the pool, locking the panels together with the L-shaped key. (Note: There are no cam-lock holes in the corner panels.) It is important at this stage to half-turn the key only. If your pool is fitted with a step unit, this should be positioned before the straight wall panels (as it is easier to reposition a wall panel than the step unit if necessary).

Pool Wall Construction 90 deg Corner

Position a corner post into the bottom channel. Next lower a panel down into the channel locating the corner post. Note the two 5mm holes located at the top of the corner post. Fix the post with the small self drilling screw (provided) to the wall panel. Continue around the pool locking the panels together with the L-shaped key. It is important at this stage to half-turn the key only. If your pool is fitted with a step unit, this should be positioned before the straight wall panels (as it is easier to reposition a wall panel than the step unit if necessary).

INSTALLATION OF STEP UNITS

Carefully lower the step unit in position, and support the back of the step unit with wood or bricks, so it will not move. Next cam-lock the step unit to the wall panel. Fit the other wall panel and cam-lock it to the step unit .

TOP WALL CHANNEL CONSTRUCTION

Before starting, refer to TOP CHANNEL AND CHANNEL SHOE LAYOUT DRAWING applicable to your pool. Starting with a top channel corner shoe, position it into the corner of the wall panel. Now position a top channel shoe each side of the corner shoe, Now remove the corner shoe for the time being. Position all the other top channel shoes applicable to your top channel and channel shoe layout drawing. On certain pools you will see a channel support shoe, these are again shown on the top channel shoe layout drawing applicable to your pool. Now fit the top channel over the channel shoes, then position the corner channel shoe over the channel.

WALL PANEL CAMLOCKS

Now insert the L-shaped key into the wall panel holes and fully tighten all panel cam-locks. N.B. Don't use excessive force.

BRACING BARS

Brace bars and brace rods are used as a method of bracing the pool walls before backfilling. The location of the brace bars and rods will be the same as the top channel brace shoe location (TCBS) (see TOP CHANNEL LAYOUT DRAWING delivered with your Heatwave Pool kit).

It is important to brace the walls before backfilling. Dig a 450mm cube hole opposite the top channel brace shoe allowing 900mm from the top channel shoe to the centre of the hole. (If longer brace bars are needed due to ground conditions, these are available from your Heatwave Pool dealer).

Position the brace rod with the slot at the top and side (see WALL SECTION DRAWING) and drive it into the centre of the hole so that the top of the brace rod is below the top of the wall channel, allowing it to stand up.

Before threading the brace bar through the slot in the brace rod, wind a 10mm nut onto the brace bar about 100mm in from the end nearest to the brace rod. Now screw the threaded rod into the threaded hole in the top channel brace shoe(see WALL SECTION DRAWING WITH BRACE BAR). Then wind onto the end of the threaded rod the other 10mm nut. Leave both nuts loose at this stage.

Next, fill the hole with concrete. Carry on fixing and concreting all the other brace bars and brace rods. It is important that you let the concrete set before you can align the pool walls.

Before moving onto the bottom channel ring beam section check that the wall panel(s) are plum and in a straight line by adjusting the two nuts on the bars.

CHANNEL FIXINGS

Bottom Channel

On the bottom inside edge of the straight channel, using the 5mm drill bit provided, you need to fix the channel in three places. Once in the middle and once on each end of the inside edge of the channel. Making sure there is no sag in the bottom channels, fix the bottom channel to the wall panels.

Top Channel

Using the 6mm drill bit provided, drill through the pre-drilled holes in all the metal shoes and through the top channel making sure that you do not penetrate the wall panel. Using the 60mm screws, fix the metal shoes to the top channel and through into the wall panel. Next insert a brown top channel spacer into the channel slot. This will keep the channel slot level. Remove the spacer just before the pool liner is fitted. Before concreting the top ring beam or oversite, screw a 10mm shoe anchor bolt into the threaded hole in the top channel shoe. This will hold the pool walls to the concrete.

Bottom Channel Ring Beam

Pour concrete (six of ballast to one of cement mix) to a depth of 300mm. This should be placed around the pool by hand (do not use mechanical equipment), all around the outside of the bottom channel. (See WALL SECTION DRAWING.) Before the concrete sets don't forget to check that the wall panel(s) where the buttress(es) are fixed are plumb.

BRACING THE POOL

If the excavation is left open for any length of time we recommend that once the pool walls have been installed and are plumbed, cross braces are installed at 2.5m centres along the length of the pool. This is to avoid the wall panels bowing in due to unstable ground conditions brought on by adverse weather conditions.

CONCRETING OF STEP UNIT

Mix concrete (8-1 mix) and carefully place the concrete behind the steps. Make sure the concrete gets to the bottom. Fill until it reaches the bottom step and then stop. When the concrete has set you can concrete again to the second step. Carry on as before, until it is 200mm from the top.

BACKFILLING

Standard .375mm Backfilling

Backfilling behind the pool walls can now be carried out. 22mm stone or pea shingle must be used to ensure maximum consolidation. This should be placed around the pool by hand. Do not use mechanical equipment. Stop when you have reached the underside of the pool wall fittings. Keep the backfilling down to 700mm from the top of the pool wall where the skimmer opening is. This is so that it will be easier to fit the skimmer throat to the wall panel.

Backfilling Overdig

If the pool excavation has been overdug on the length and width for more than the normal .375mm, the backfill has to be constructed of a layer of pea shingle and a layer of concrete (See wall section with brace bar for over dig) drawing. NB The concrete layer has to set before the next layer of pea shingle is laid.

PIPEWORK AND PLUMBING

Before carrying out pipe work, please refer to 'SUGGESTED POOL PLUMBING LAYOUT' drawing applicable to your pool size, 'FLEXFIT JOINTING INSTRUCTIONS' and 'MAKING SOLVENT CEMENT JOINTS'.

MAKING SOLVENT CEMENT JOINTS

1. Ensure that the pipe is cut square. Remove swarf and put a small chamfer on the leading edge of the pipe.
2. Mark the socket entry depth on the pipe.
3. Clean all jointing surfaces with pipe cleaner on a lint free cloth.
4. Abrade jointing surfaces with emery cloth and then repeat the cleaning process.
5. Using a brush or applicator of approximately half the pipe diameter, apply a generous coat of solvent cement to the pipe, ensuring that the full joint surface is well covered. Without delay, apply a coat of cement to the inside of the fitting. Immediately push the pipe and fitting together using a quarter turn twisting motion, until the pipe hits the stop in the fitting.
6. Hold the joint for a short while until the initial bond takes place. Finally, wipe off any excess cement.
7. Although the joint can be moved shortly after bonding pressure cannot be applied until the joint has set. As a general guide, one hour for every one bar of pressure should be allowed before pressurisation.
8. We recommend that all pipes be pressure tested before backfill commences.

SKIMMER

The skimmer underside has two holes; one is threaded, the other is not. Glue in the plug provided to the underside of the skimmer. Screw the socket nipple to the underside of the skimmer, making sure that it has enough P.T.F.E. tape around the threads to make the joint watertight. Glue both sides of the skimmer throat slot and the end of the skimmer (see separate instructions in skimmer box) and slide down the skimmer into the throat. Make sure you wipe off any excess glue from inside the skimmer throat. Glue a short stub of pipe into the socket nipple. Using a 90o elbow, glue the elbow to the stub of pipe. Next, fit the pipe to the 90o elbow joining each length of pipe with a pipe socket and lay them in the trench to the plant room.

TWO SKIMMERS

Fix the same as above. When you come to fix the 90^0 elbows, make sure you glue them facing each other. Measure the distance between the two 90^0 elbows and make a mark on the wall panel. Position the centre of the tee on the mark and measure the distance between the 90^0 elbows and the tee. Cut lengths of pipe and fix to the elbows and the tee. Now fix the pipe into the tee, joining each length of pipe with a pipe socket and lay it in the trench to the plant room.

INLETS

Glue 60mm stubs of pipe into the inlet sockets on the back of the wall panel, then glue 90^0 elbows to the stubs of pipe making sure that the elbows are facing each other. Next, measure between the inlets and mark the centre on the side of the pool wall. Position the centre of this tee on the centre mark and measure to the inlets. Cut the pipe to size and fix it to the tee and the inlets. Fix a length of pipe to the tee, joining each length with a pipe socket and lay it in the trench to the plant room.

VACUUM POINT

Glue a 60mm stub of pipe into the vacuum socket on the back of the wall panel, then glue a 90^0 elbow to the stub of pipe, making sure it is facing towards the plant room. Fix a length of pipe to the elbow and lay it in the trench towards the plant room.

SUMPS/MAIN DRAINS

Cut the vertical length of pipe from the main drains to approx 500mm from the top of the pool wall. Glue onto it an elbow, making sure it is facing towards the plant room in the trench. Now glue the lengths of pipe with pipe joiners and lay it in the trench towards the plant room.

LIGHTS

Screw the flexible conduit tubes into the back of the lights. Make sure the tubes are not bent or kinked. The flexible conduit tubes will later be connected to the light deck boxes.

BACKFILLING CONTINUED

You can now continue backfilling. Taking care that you do not damage the pipes or fittings, backfill to 200mm from the top of the pool.

CONCRETING TOP RING BEAM/OVERSIGHT AND PATIO

The most vulnerable part of the pool wall is the top 150mm where thick ice on the pool can exert great pressure and do damage to the pool panels so a concrete ring beam must be cast around the pool (and Roman end steps, if fitted). See 'POOL WALL SECTION DRAWING'. Scaffold boards or planks held in place with pegs or concrete blocks should be positioned to act as shuttering whilst casting the ring beam. Place a 6-1 mix of ballast and cement into the shuttering. Fill to the top of the pool wall and level off. Consideration should be given at this stage to the installation of deck equipment such as steps, diving boards, slides and deck boxes for lights. These items can be incorporated in with the casting of the ring beam. See later sections and diagrams for these items. Also see technical support CD for help.

PROTECTING LINERLOCK

Protect the slot on the front edge of the liner lock with masking tape or liner lock infill (which can be obtained through your swimming pool dealer). This will help stop any sand and cement getting into it if pool coping stones are laid. (It is important that the liner lock slot is clean from any debris when the liner is fitted.)

COPINGS

The coping stones are made of reconstructed stone and have a bull nose front edge. An additional set of copings is supplied for the step units (if fitted).

LAYING THE POOL COPINGS

Before laying the copings, the top of the wall channels should have a bonding agent or cement slurry applied to help the coping sand and cement bed to stick. We recommend Feb-bond-SBR. Mix a 6-1 mixture of sand and cement and level around the top of the wall channels slightly higher than the liner lock. This screed must be perfectly flat and level. The corner copings are laid first, after pasting the back of these corner copings with the bonding agent or cement slurry. Position the corner copings so that the flat base projects approximately 10mm over the front edge of the liner lock. When the corner stones are in position, a taut line can be stretched along the front edge to establish a perfect line, for positioning the intermediate straight copings. As there is some slight deviation in thickness of the copings, it may be necessary to slightly build up or reduce the sand and cement bed to make a perfect top line. The straight copings should be laid working in from the corners to the middle of the sides and ends. This will ensure that any cutting of the copings is in the middle of the walls. The coping stones are easily cut by using a disc cutter hired from your local tool hire shop. An even gap of 12mm must be left between the copings for pointing. This should be composed of a 1-1 mix of silver sand and white cement, mixed to a putty-like consistency. Care must be taken when it is trowelled into the joints and any surplus immediately wiped off the surface of the copings with a sponge, to stop staining of the copings.

FLOOR SCREED - PREPARING THE FLOOR OF THE POOL

The accuracy of finishing can be improved by installing a frame of 50mm x 28mm timber at the hopper or wedge bottom, and also a straight length of timber set at the correct height at the shallow end division. The dimensions of the timber frame and division timber are shown on the 'EXCAVATION DRAWING TABLE'. Use timber pegs or steel pins to hold the timbers in place.

N.B. The top of the timber frame for screeding level at the bottom of the hopper and wedge pools should be 50mm less than the depth shown in column K (hopper) or column J (wedge) on the EXCAVATION DRAWING TABLE applicable to your pool. On the constant depth pools, the level of screed is the top of the bottom wall channel.

(THIS FINISHED LEVEL IS VITALLY IMPORTANT AS THE LINER IS MADE TO FIT THESE DIMENSIONS EXACTLY)

The mixture used for screeding should be a 6-1 mix of grit/sharp sand and cement. The mixture should be damp but not wet. Level the mixture down the hopper slopes (if applicable), straighten up with a length of timber, and finish off with a metal plastering trowel. When the hopper sides have been completed, level the bottom of the hopper and work back up the long slope to the shallow end. The last bit of floor will have to be finished off by leaning over the edge of the pool. The floor screed will be firm enough to walk on the day after it has been laid. Do not forget that all pegs, battens and steel pins are removed once the floor screed is completed, and any damage made good.

PREPARING FOR THE LINER

Remove tape or rubber insert from the front of the liner lock and vacuum out the slot. Brush and wipe down the wall panels. Insert plastic caps (provided) into the cam-lock holes. Brush the pool floor with a soft broom and vacuum away all dust and debris. If lights are to be included in your pool, fit the underwater lights to the light niches in the wall panels. Undo the cable gland in the niche, slide the gland assembly over the light cable, and push the cable into the niche and up the conduit to the deck box. Screw the gland assembly up tight to the niche, coil the cable around the back of the light and push the light into the niche, line up the two screws on the light to the screw holes on the niche and tighten. Next remove the protective covers on the main drains. Clean the wall and floor fittings and make sure all screw holes are clear. The fittings' gaskets should now be fitted. The inlets, vacuum and lights have self-adhesive gaskets. The skimmers and main drains do not. A little drop of superglue is an ideal way of fixing them.

LINER UNDERLAY (OPTIONAL)

Underlay whether felt, foam, if fitted, helps to provide additional protection against abrasion between the liner and the floor screed and can give some degree of insulation. The felt or foam is cut to size and glued down. The underlay and glue can be obtained from your Heatwave Pool dealer.

LINER INSTALLATION

The liner fitted to your Heatwave Pool is fabricated slightly smaller than the pool. This is so that it can stretch into position during installation to give a perfect fit with no creases and wrinkles. Choose a warm sunny day to fit the liner, as the heat of the sun will make the liner material more pliable. If this is not possible, store the liner in a warm room for a day or two before fitting.

IT IS VITAL WHEN FITTING THE LINER THAT CLEAN, SOFT, FLAT-SOLED SHOES (OR NO SHOES) ARE WORN BY EVERYONE ASSISTING IN THE INSTALLATION TO AVOID PUNCTURING THE LINER. SIMILARLY, WHEN ENTERING THE POOL TO CUT IN POOL FITTINGS (RETURN INLET, VACUUM POINT, SUMPS, ETC) IF WELLINGTON BOOTS OR WADERS ARE WORN, THE SOLES MUST BE FREE FROM SMALL STONES AND GRIT.

Lower the liner down in its box to the shallow end of the pool floor. Remove the liner from the box and carefully place it in the centre of the shallow end. Look for the label on the liner indicating the position of the deep end. Unroll the liner down the length of the pool and unfold, making sure that the label faces the deep end. On the top edge of the liner is a beading. This clips into the slot of the liner lock and holds the liner in place. Starting from the shallow end corner, make sure that the corner of the liner is exactly positioned into the corner of the wall panel.

Using your foot, hold liner in position and push the liner bead into the slot of liner lock track until it is held in position. Work around the perimeter of the pool until the whole of the beading is locked into the track. Ensure all four corners are correctly positioned. If not, adjust by sliding along the track as necessary.

On hopper or wedge shaped pools, to stop the liner, (when filling with water) sliding down to the deep end of the pool, we recommend you use sand bags to hold the liner into place at the shallow end.

VACUUMING THE LINER INTO POSITION

An industrial vacuum cleaner hired from your local hire shop is the most effective way of positioning the liner. The vacuum sucks the air trapped from behind the liner and sucks the liner tightly back against the wall panels and ensures an exact fit. To gain maximum suction from the vacuum; you will have to obtain a seal that is as airtight as possible. Seal off with masking tape the open ends of the pipes going to the plant room and the top of the skimmer (or skimmers). Approximately 500mm from one of the hopper end corners, lift a small section of liner beading out of the liner lock track. Push the flexible hose of the vacuum carefully down behind the liner to within 150mm from the base of the wall. Fill the gap where the vacuum hose enters the liner with duck tape and then switch on. The liner will be sucked back to the walls and floor. If the liner has been fitted correctly, it should be crease and wrinkle free.

Make sure all four corners fit correctly. At the base of the wall the liner may not be back hard to the walls but, providing the liner is the same all the way round, it will go back when the pool is filled. If vertical creases are present from the top of the wall to the floor seam, you will have to adjust the liner by sliding it along the track. Make sure you turn off the vacuum while adjusting the liner. When you are sure you have corrected the liner, switch on the vacuum and start to fill the pool. When there is 100mm of water over the main drains stop filling the pool but leave the vacuum on. (The vacuum should be left on until the water level has reached 150mm over the shallow end floor.)

CUTTING THE MAIN DRAINS

When you work on the main drains you will need:

- The main drain flange plates – grilles – screws
- Phillips screwdriver
- Bradawl
- Stanley knife

The main drains can be easily felt through the liner. Using the bradawl, puncture the screw holes. Position the flange plate on top of the liner and line up the screw holes. Screw in the eight screws lightly and then screw them fully home on a diagonally opposed rota. Using the Stanley knife, remove the liner material in the centre of the main drain and locate the grille by screwing in the two grille screws. Do the same to the other main drain. Continue to fill the pool.

INSTALLATION OF THE LINER AROUND THE STEP UNIT

The liner is fitted to the step unit with a U-shaped flange plate and a neoprene gasket, which seals the joint with the liner. The flange plate is secured by means of stainless steel bolts. Remove the flange plate and put it to one side. Lay a scaffold board or a strong timber across the top of the step unit. (This timber should be long enough to extend 300mm approximately each side of the steps). Screw the length of liner lock (provided) to the front edge of the timber and clip in the bead of the liner. Tape the back of the liner to the step unit. This section of liner will eventually be cut out. Retain this section of liner for patches in the event of accidents. With the vacuum running, continue to fill the pool until the water is about 150mm above the shallow end of the floor.

Remove the liner bead from the liner lock track fixed to the timber. The weight of the water will stretch the liner into the floor beneath the steps. The tension of the liner against the step unit should now reveal the shape of the bolt holes, which should be clearly apparent.

Using a Stanley knife, nick the centre of the holes to allow the bolts or screws to penetrate through the liner. Line the flange plate holes over the step unit holes and secure the flange plate with the bolts. Starting along the bottom of the flange plate, tighten all bolts. Now using a Stanley knife cut out the section of liner covering the steps on the step side of the flange plate.

CUTTING THE UNDERWATER LIGHT FITTING

The underwater light fitting must NOT be cut out until the water level is immediately below the light. The twelve holes are easily located through the liner and pierced with a bradawl. The gasket and faceplate should be aligned and securely screwed tight on a diagonally opposed rotation until firm. Using a Stanley knife carefully cut out the inner circle of liner and fit the faceplate cover.

CUTTING THE RETURN INLET FITTINGS

The return inlet, or inlets, must not be cut until the water level has reached the underside of the fittings. If the inlet fittings are cut before the water has reached this level, there is a possibility of the liner stretching, causing creases around the fittings. Locate the holes in the fitting and pierce them with a bradawl. Firmly screw the flange plate in place using a rotating basis. Cut out the circular section of liner from the flange plate using a Stanley knife. The eyeball faceplate can now be screwed in place.

CUTTING THE VACUUM POINT

Follow the instructions for the return inlet fittings. Screw the vacuum face cover plate in place when you have removed the sections of liner from the flange plate.

AUTO WATER TOP UP FITTING (IF FITTED)

Follow the instructions for return inlets and the instructions inside the box.

CUTTING THE SKIMMER

When the water level is below the skimmer (or skimmers), using a bradawl, pierce the screw holes. Align the flange plate. Screw carefully and in diagonal rotations. Carefully cut out the rectangular inner section of liner. Now clip on the skimmer face-plate. Continue to fill the pool. The normal level of the pool should be halfway up the skimmer throat.

THE SKIMMER LID

You can move the skimmer lid up and down to suit the level of the pool copings and pool surround. When you have established the final level of the lid, it must be bedded with sand and cement. Take off the protective plastic film when work is completed.

POOL SURROUNDS

Pool surrounds can consist of paving, block pavers, tiles or a rubber/non slip surround. All these must be fixed to a firm base. The surround should have a slight fall away from the pool rear edge coping stones, to ensure surface water and any dirt is not washed into the pool. If the surrounding area of the pool is made-up ground, it is best to lay a reinforced concrete slab upon which you can lay your choice of finish. If the ground is solid then you could lay your choice of finish on sand and cement.

STAINLESS STEEL POOL STEPS

The steps are fixed into the pool surround by two pinch anchors that are set into the concrete ring beam. You will note that there is a screw in each anchor. The stainless tube ends are held tight in the anchors by the screws and can be loosened to enable the steps to be removed in the winter. Before setting the anchors in the concrete ring beam, assemble the steps and push the tube ends into the anchors. Temporarily, support the steps into position, making sure the step legs are upright and tight against the pool wall. (SEE 'STAINLESS STEEL STEP' DRAWING). When positioning the anchors, make sure that the screws are next to the pool edge. This is so that when the screws are tightened the ladder tubes are pulled towards the pool wall. This stops the ladder coming out of the anchors when someone climbs in or out of the pool. N.B. Do not disturb the temporary set up of the steps until the concrete has cured for at least seven days.

DIVING BOARDS

Diving boards are not suitable for pools under 9.7m x 5.2m (33ft x19ft) or that have a water depth of less than 3.0m (10ft). Most modern diving boards are constructed in glass fibre and coated with a non-slip finish. Diving boards come either with stainless steel fixing rods that are concreted in the oversite or a moulded glass fibre base, which is bolted to the oversite, allowing removal in the winter. Fixing instructions are supplied with each diving board.

N.B. IT IS VITALLY IMPORTANT THAT DIVING BOARDS ARE NOT INSTALLED ON POOLS WITH A DEPTH OF LESS THAN 3.0 METRES, AND S.P.A.T.A. STANDARDS SHOULD BE REFERRED TO.

SLIDES

Pool slides are available either with straight or curved chutes. They are made of glass fibre and have built-in water jets to help reduce friction in the chute. Pool slides must be positioned so that you have at least a water depth of 1.2m to slide into the pool. The framework of the slide can be fixed to the pool surround by two methods: The permanently cast-in anchor method or the deck anchor method, which enables you to remove the slide. A mains water supply is required to supply the water to the chute. Fixing instructions are supplied with each slide.

POOL ELECTRICS

It is essential that a qualified electrician carry out this work. The pump starter switch must be protected with a correctly sized thermal overload to protect the motor. Starter overloads are supplied in different sizes. Pump motors up to 1 HP require a 4-8 AMP overload and motors from 1 HP to 2HP require a 7-15 amp overload. We also recommend a control panel be supplied with your Heatwave Pool system. Please contact your Premier dealer for advice.

UNDERWATER LIGHTS (IF FITTED)

The light transformer is usually installed on the plant room wall. A 2 core PVC insulated steel wire armoured cable, connecting the transformer to the light unit joins at the deck box at the side of the pool. It is important that the cable is correctly sized. See separate light instructions for full wiring details.

In order to accommodate the varying lengths of cable from the deck box to the transformer, there are separate tapings on the transformer. These increase the electrical output and overcome the resistance of the cable. These tapings should be used in accordance with the enclosed table found inside the transformer box.

NEVER SWITCH ON THE LIGHT UNTIL THE POOL IS FULL OF WATER as the special sealed beam light bulbs are water-cooled. A 30-milliamp-earth leakage circuit breaker must be fitted to the electrical installation of all swimming pool equipment to conform to current electrical safety regulations. Optional control panels are available from you swimming pool dealer. These would simplify the electrical installation, giving you protection and time control over the electrical equipment.

PLANT ROOM PLUMBING

The Heatwave Pool filtration consists of a pump and sand filter complete with multiport valve capable of filtering the pool water in under eight hours. The pipe lines, skimmer, vacuum, sump and return that come from the pool to the plant room, should be positioned 180mm apart. Fix to each pipe, a flexfit elbow with a length of solid pipe glued into the flexfit elbow, rising vertically into the plant room. (N.B. Make sure the return pipe is approximately 400mm in length above the finished plant room floor as the pipe has to be long enough to reach the return port on the multiport valve.) Set out the pump and filter so that the pump is sited to the left of the filter. (SEE PLANT ROOM LAYOUT DRAWING). Before doing any cutting and gluing of pipe work, you will have to work out the level from the front suction port of the pump to the skimmer, vacuum and sump pipe lines. Glue and fix elbows onto the skimmer, vacuum and sump pipe lines, making sure that they all face the same way towards the pump. Glue small lengths of pipe to the skimmer, vacuum and sump lines' elbows. Glue to the small lengths of pipe the three ball valves then glue short pipe stubs into the ball valves. Next, make a manifold to fit onto the pipe stubs. The manifold will consist of an elbow and two tees. (SEE PLANT ROOM LAYOUT DRAWING). Glue the manifold together with short lengths of pipe; making sure the centres of the elbow and tees are the same as the skimmer, vacuum, and sump pipe lines (180mm apart). Now, glue the manifold to the pipe stubs in the ball valves. Next, cut a length of pipe 300mm long and glue it to the tee of the manifold. Undo the pump union and glue the other half on to the 300mm pipe. Position the pump so that you can do up the union. Assemble the multiport valve to the filter. Note union ports marked 'pump' and 'return'. Glue a short stub of pipe into the pump port on the multiport valve. Join up the pump union with the multiport union, marked 'pump'. Using 90 elbows or 45 bends, you may have to move the filter to make it line up. Next join up the return line to the union on the multiport, marked 'return'. If the plant room is below water line you will have to fit a ball valve to the return pipeline. (This can be purchased from your swimming pool dealer). This is to safeguard against flooding, if any work has to be carried out on the filtration system. On the right of the multiport you will find a port marked 'waste'. Glue into it, a hose connector. A flexible flat backwash hose is jubilee-clipped to the hose connector. This would be simply unrolled, when backwashing is required or draining of the pool. When the filter is in position and the pipe work connected, the sand should be added by removing the filter lid and removing the top spreader (depending on the type of filter supplied with your Heatwave Pool – some filters do not have spreaders.) This is either a funnel shaped or rounded plastic piece, with lots of holes. In the bottom of the filter you will find under drain collector tubes.

Check them for tightness and then pour water into the filter until the collector tubes are covered to a minimum depth of 300mm. This prevents damage to the collector tubes when the sand is being added.

Cover the end of the vertical tube from the under drain collectors with tape. Carefully pour the filter sand into the filter. Make sure the vertical tube stays central. Continue filling with sand to about halfway up the filter. Level off the sand with your hand.

Before fitting the filter lid, make sure you remove all traces of sand that might be in the threads of the filter. It is essential that the threads are clean. Remove the tape from the vertical tube and replace the lid. Do not over tighten the lid.

STARTING UP THE POOL

Make sure that the water level in the pool is at the correct level, i.e. halfway up the skimmer throat. If the plant room is above water level, the pump will require priming with water. Close all ball valves on the skimmer, vacuum and sump lines. Remove the pump lid and fill with water. Replace the lid, making sure that the pump lid seal is clean and in place. It is important that the lid makes an airtight seal, otherwise the pump will not prime. Set the multiport valve handle to 'RINSE' position. The water will pass through the filter and out to waste. Unroll the flexible flat hose and take it to a discharge point. Start the pump and immediately open the skimmer ball valve. It may take a few minutes to clear the air in the pipe before the pump primes up. If after a few minutes this has not taken place, turn off the pump and the skimmer ball valve and repeat the procedure.

When the pump is pumping satisfactorily you will see water through the pump and filter lid and the pressure gauge will register. Now open the second ball valve and then the third until all air is cleared. The pump should now be working and well established. Turn off the pump. Set the multiport valve handle to 'BACKWASH' position and start the pump.

In this position, the water will pass up through the sand, washing it and discharging the dirty water to waste. You can observe the dirty water through the sight glass in the multiport valve and through the filter lid. It will take about 2-3 minutes for the water to clear completely. Switch the pump off and select 'RINSE' position on the multiport valve. Switch on the pump and run for about 10 seconds. This is to make sure that all dirty water in the filter will be flushed to waste. Switch off the pump and select 'FILTER' position on the multiport. Switch on the pump. With the multiport valve in 'FILTER' position the filtered water will now be flowing back to the pool. If your pool has not been fitted with an automatic water top up, you will have to fill the pool to its correct level, as back washing and rinsing reduces the level of the pool. With the pump working, note the pressure on the gauge. Backwashing followed by rinsing should be carried out on a weekly basis or when you note a rise in the pressure gauge of 2-3 PSI over its normal filtered reading. NEVER move the multiport valve lever when the pump is running, as damage will occur to the multiport valve.

PLANT ROOM BELOW WATER LEVEL

Always remember to close all ball valves and set the multiport valve to 'CLOSED' position before removing the pump lid or working on the filter. Failure to carry out instructions will result in flooding of the plant room.

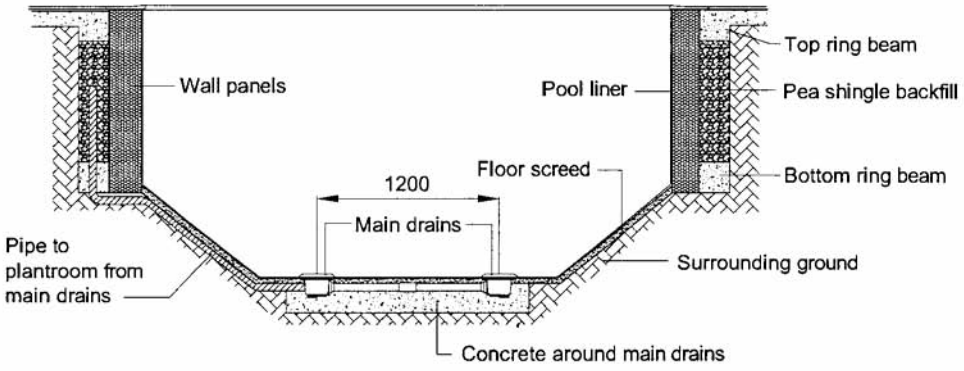
DO NOT FORGET to open valves when starting pump.

We confidently wish you many happy years of swimming in your Heatwave Pool.

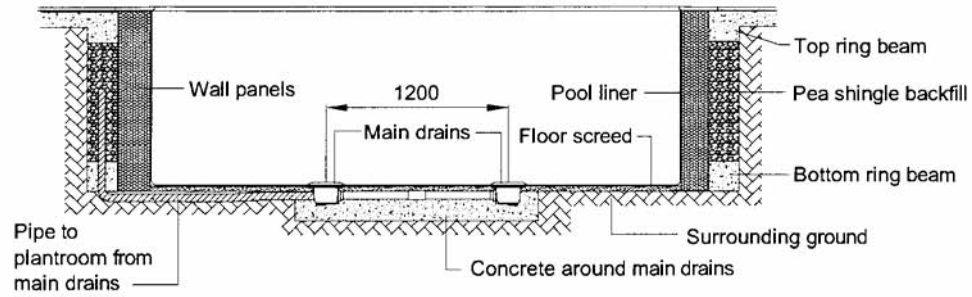
APPENDIX

INSERTS

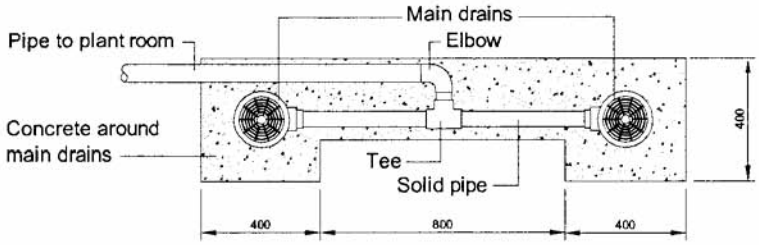
MAIN DRAIN SUCTION FITTING WITH HOPPER OR WEDGE POOL FLOOR



MAIN DRAIN SUCTION FITTING CONSTANT DEPTH POOL



MAIN DRAIN AND PIPEWORK LAYOUT



MAIN DRAIN ASSEMBLY

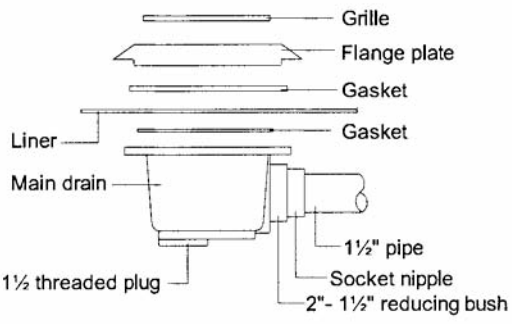
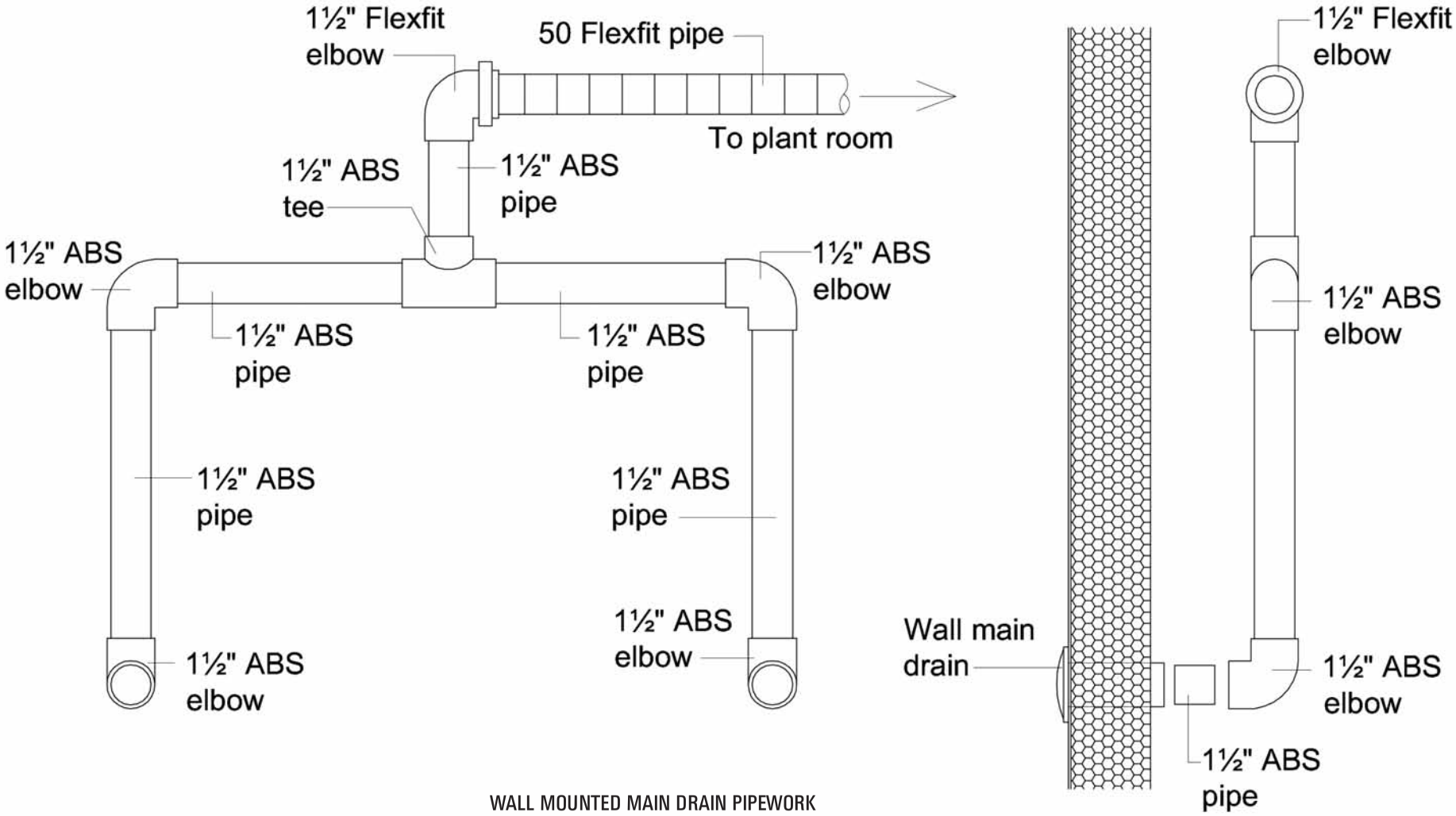


FIGURE 1:

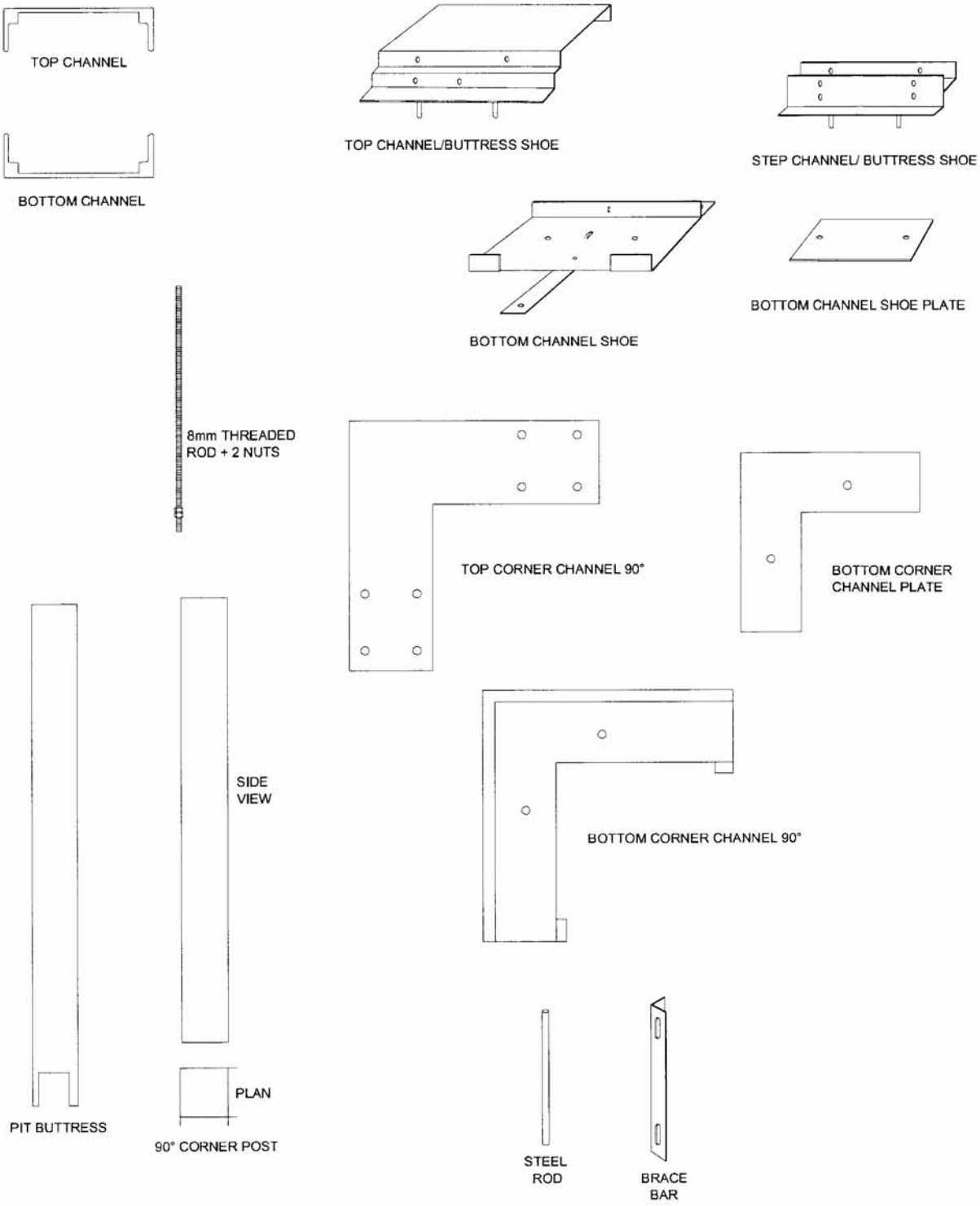
MAIN DRAIN PIPEWORK FOR ALL POOLS USING 1.5" / 50MM PIPES

FIGURE 1A:



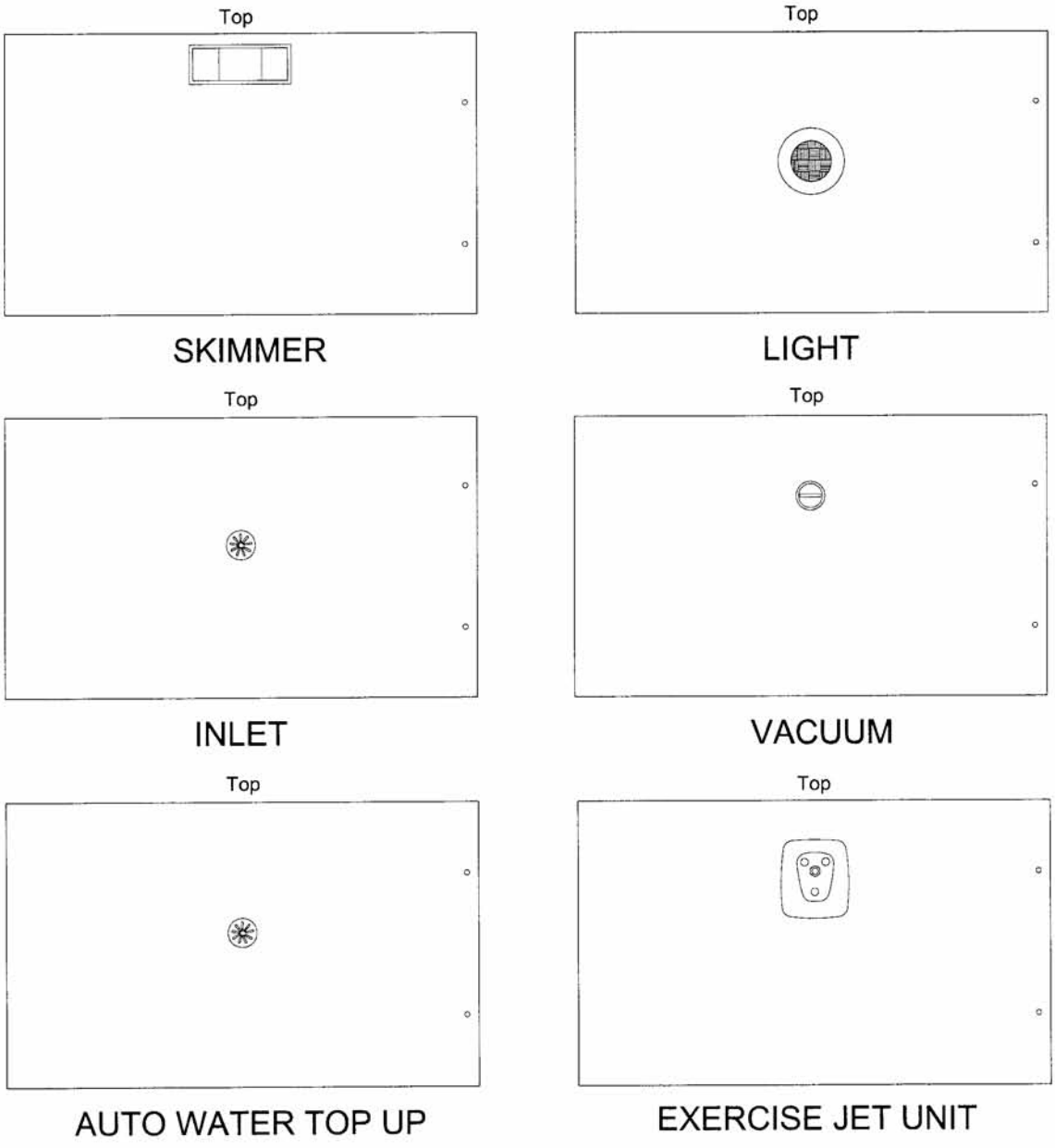
WALL MOUNTED MAIN DRAIN PIPEWORK
FOR ALL POOLS USING 1.5" / 50MM PIPES

FIGURE 1B:



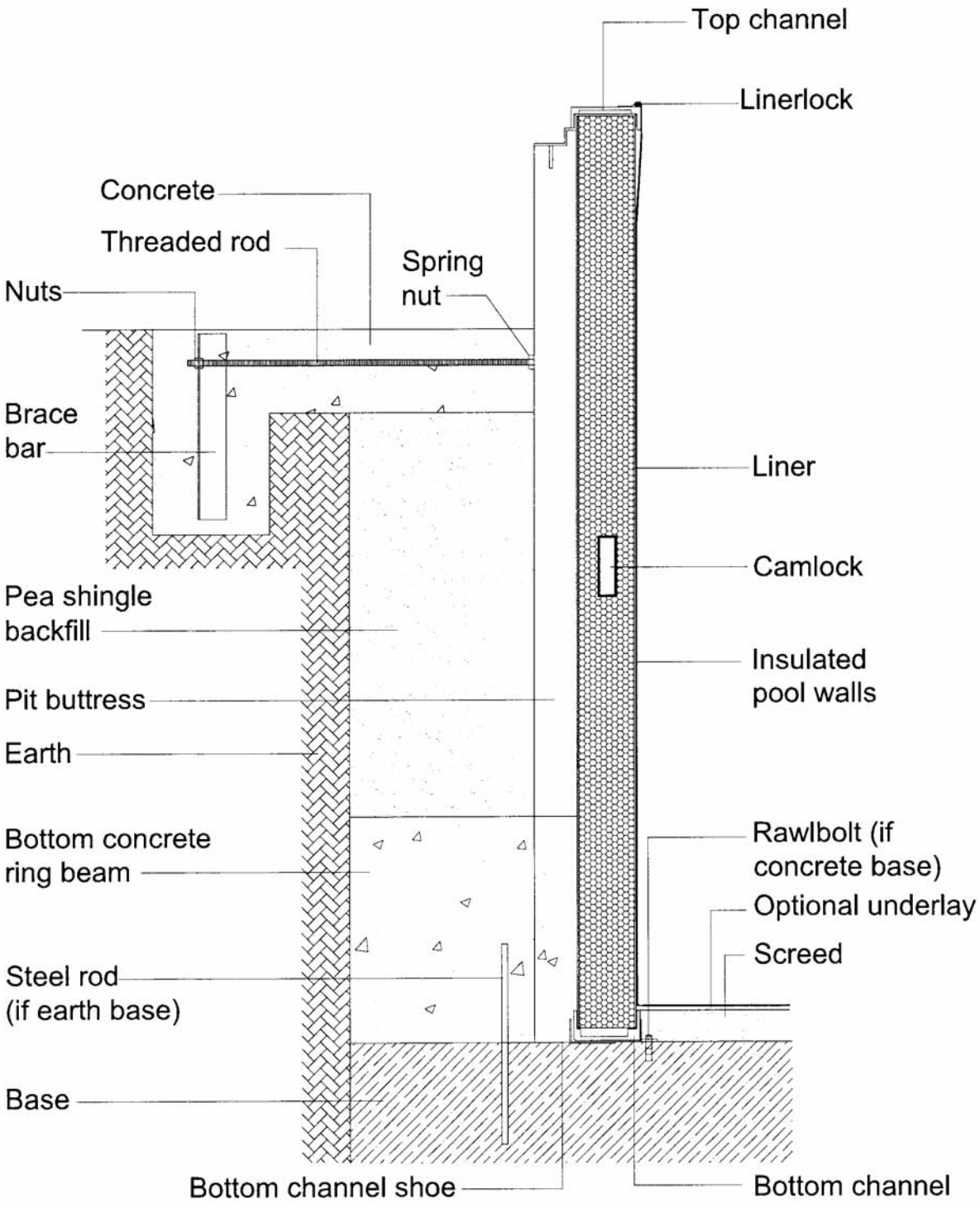
DELUXE WALL POOL COMPONENTS

FIGURE 2:



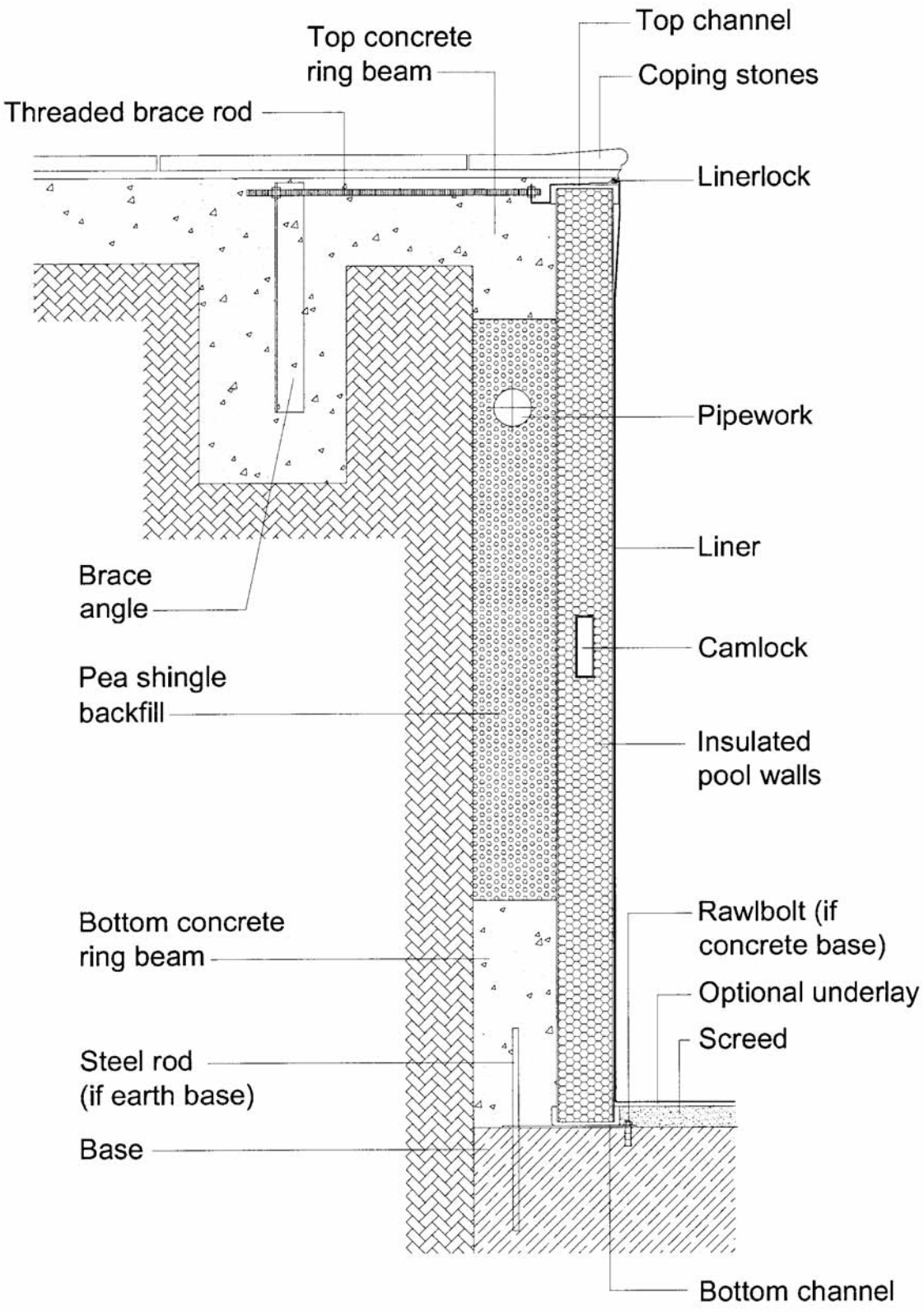
PANEL IDENTIFICATION

FIGURE 3:



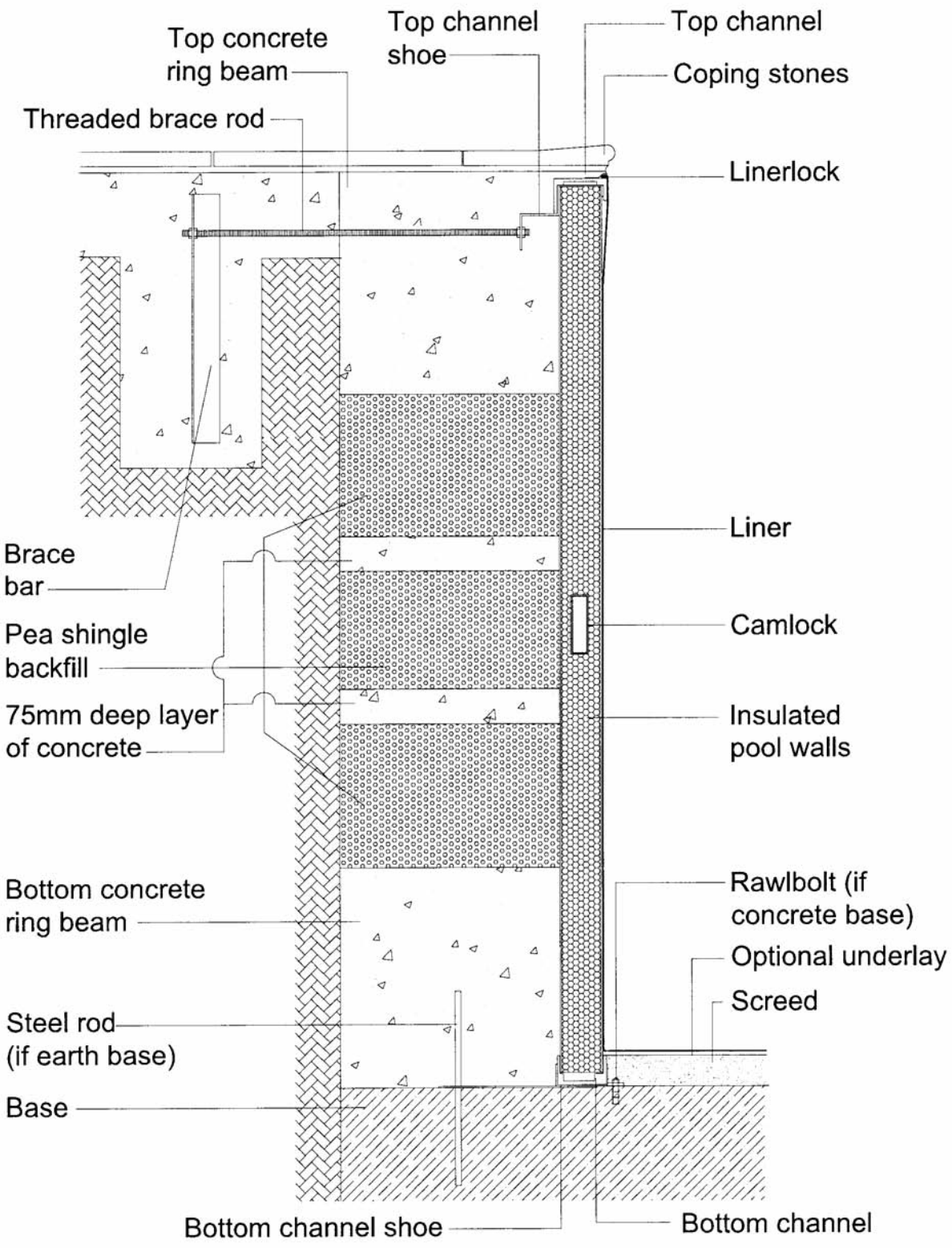
WALL SECTION WITH PIT BUTTRESS

FIGURE 4:



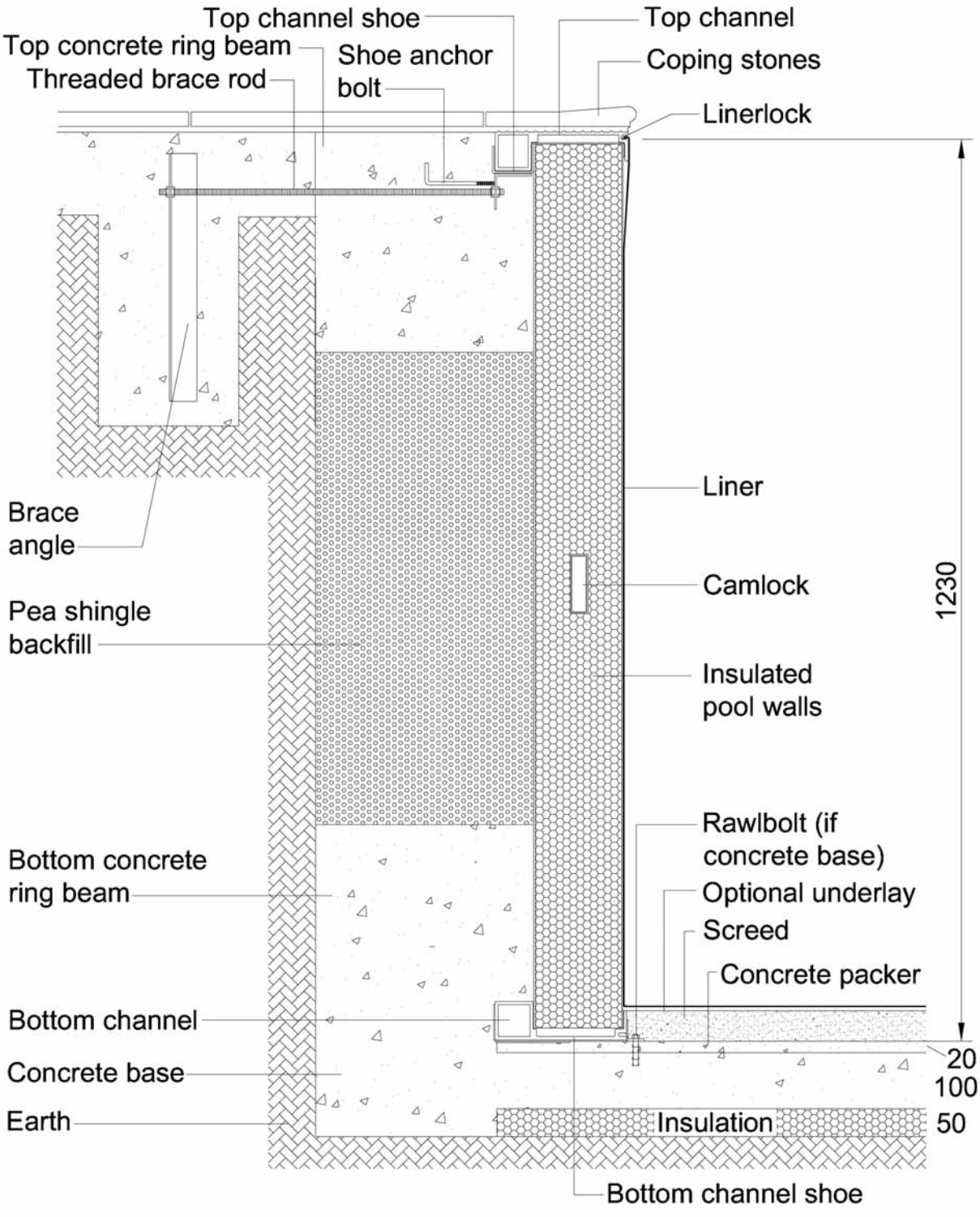
STANDARD WALL SECTION WITH BRACE BAR

FIGURE 5:



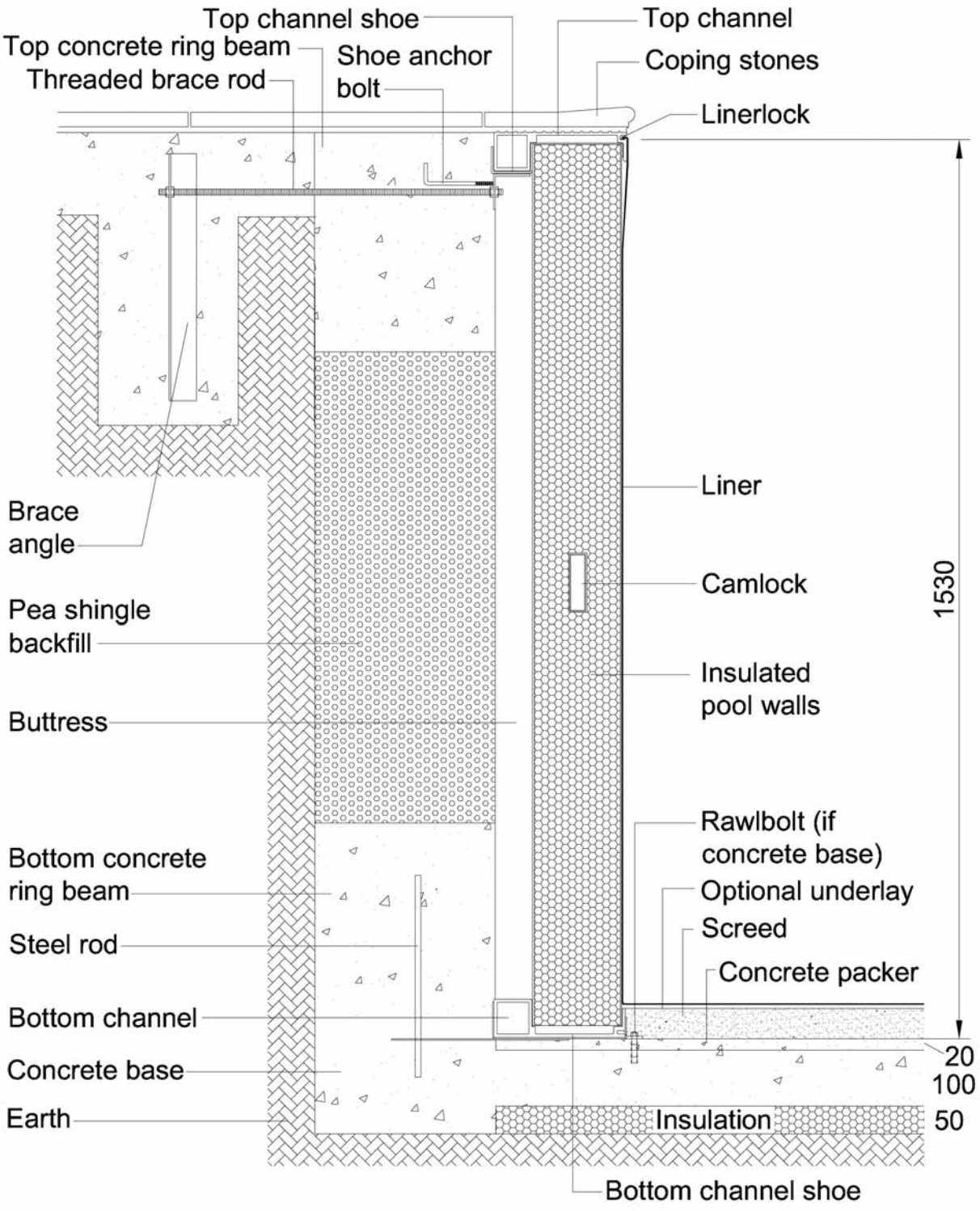
WALL SECTION WITH BRACE BAR FOR OVERDIG

FIGURE 5A:



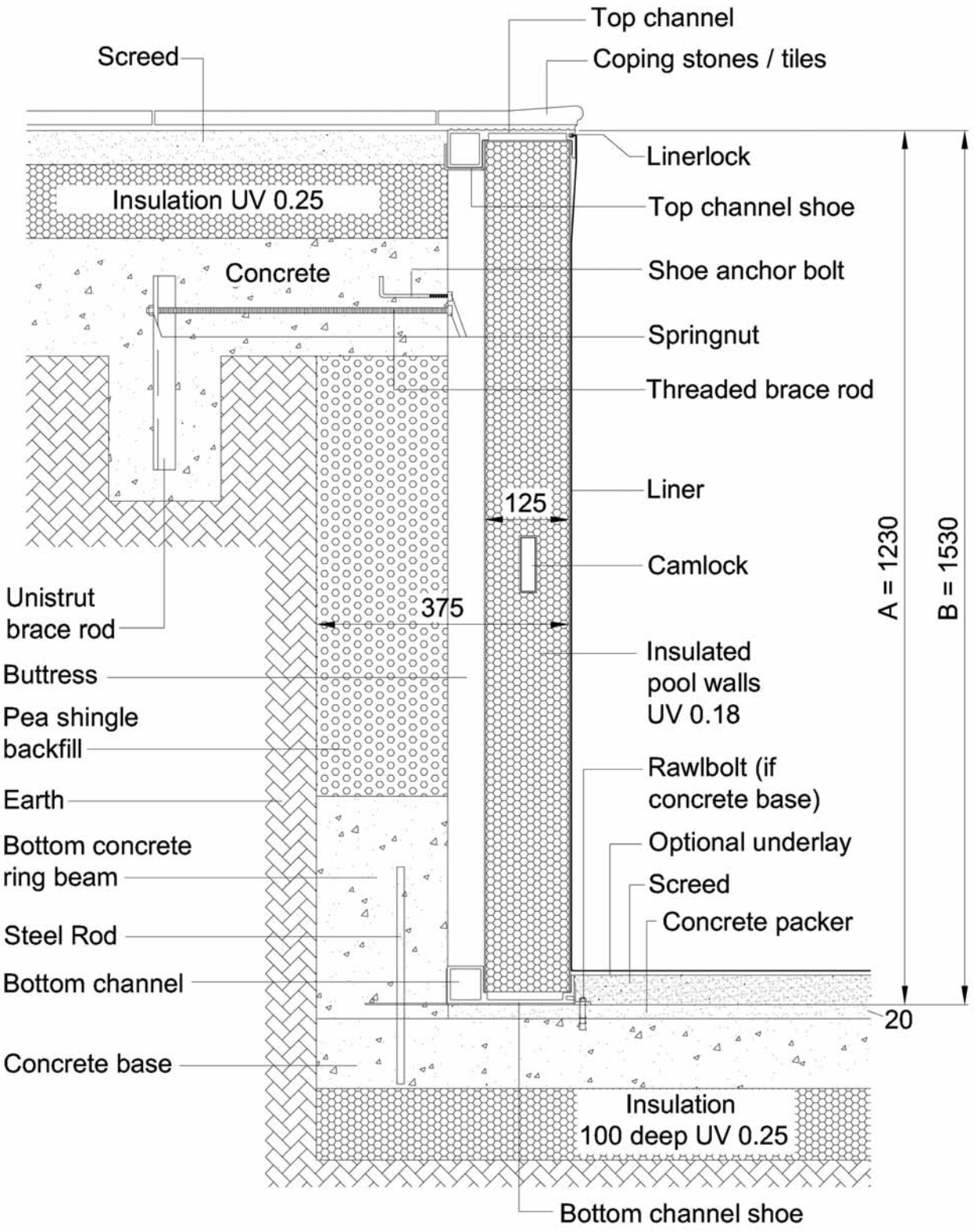
CONSTANT DEPTH ONLY (OUTDOOR ONLY) 1.2D DELUXE WALL SECTION WITH BRACE BAR AND INSULATED FLOOR

FIGURE 5B:



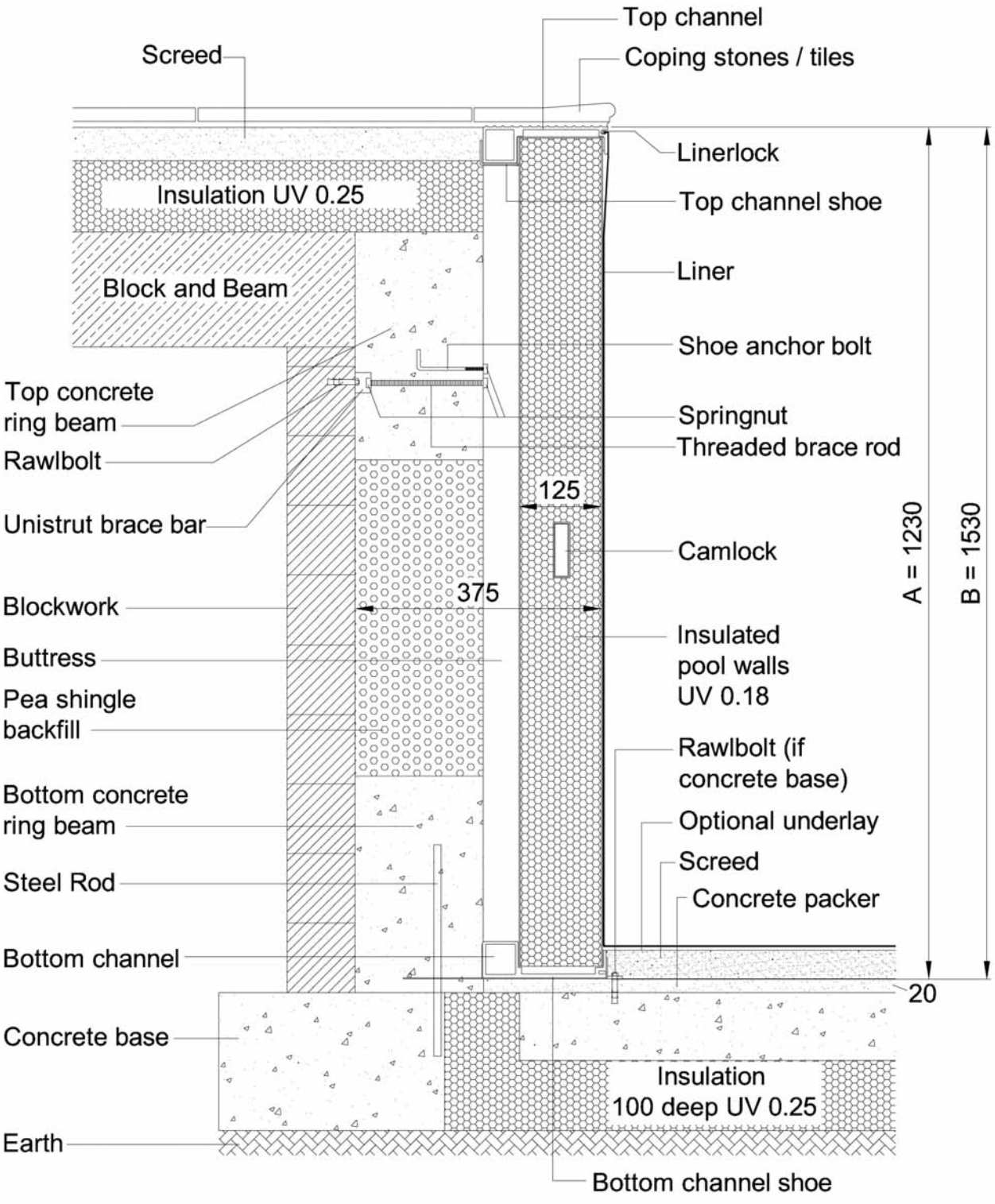
CONSTANT DEPTH ONLY (OUTDOOR ONLY) 1.5D WALL SECTION
WITH BRACE BAR AND INSULATED FLOOR

FIGURE 5C:



CONSTANT DEPTH ONLY DELUXE WALL SECTION (INDOOR POOL) WITH CONCRETE OVERSTITE SURROUND SLAB FOR LINER POOLS

FIGURE 5D:



CONSTANT DEPTH ONLY DELUXE WALL SECTION (INDOOR POOL) FOR BLOCK AND BEAM SURROUND SLAB FOR LINER POOLS

FIGURE 5E:

BOTTOM CHANNEL SHOE JOINING DETAIL

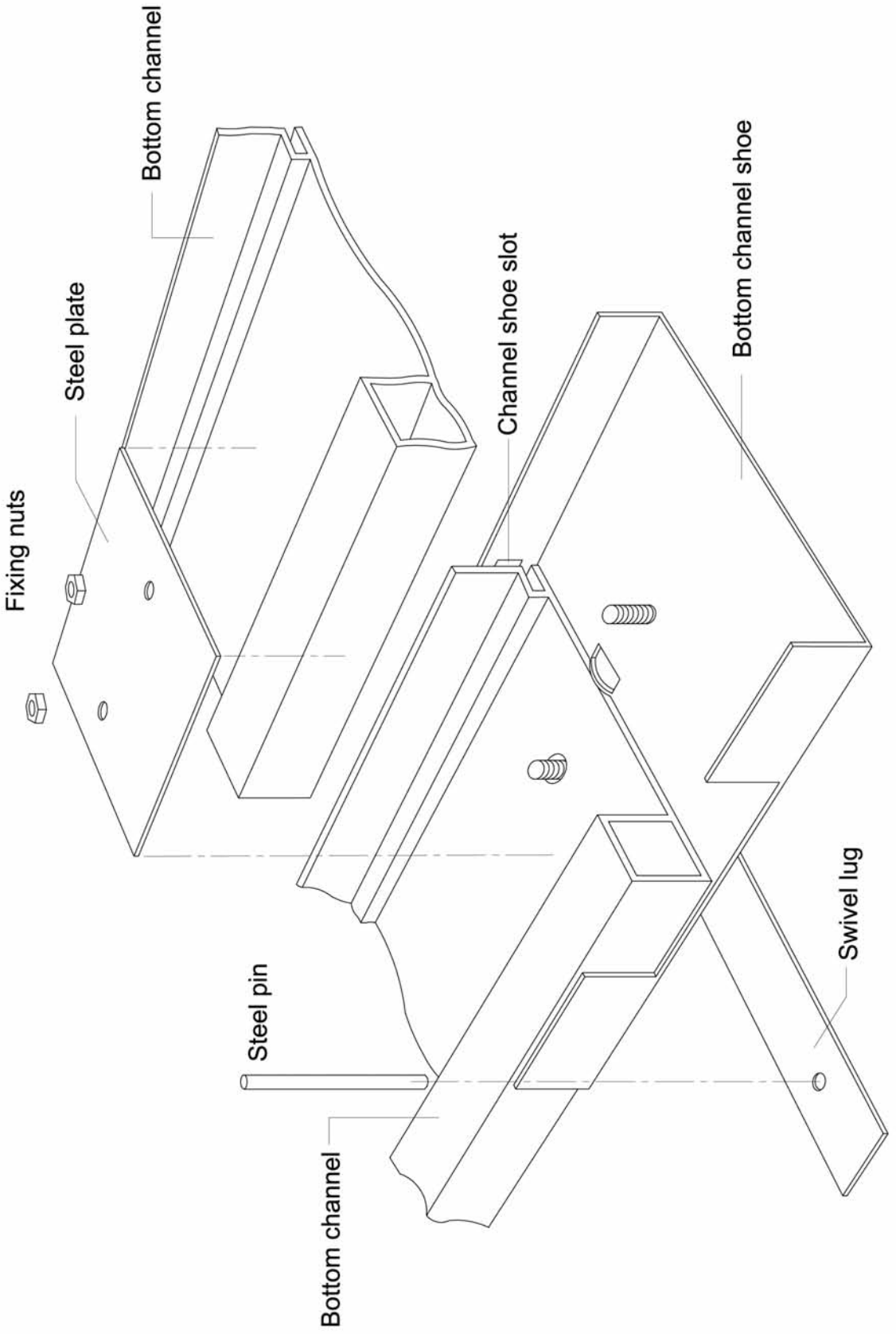


FIGURE 6:

PIT BUTTRESS SHOE JOINING DETAIL

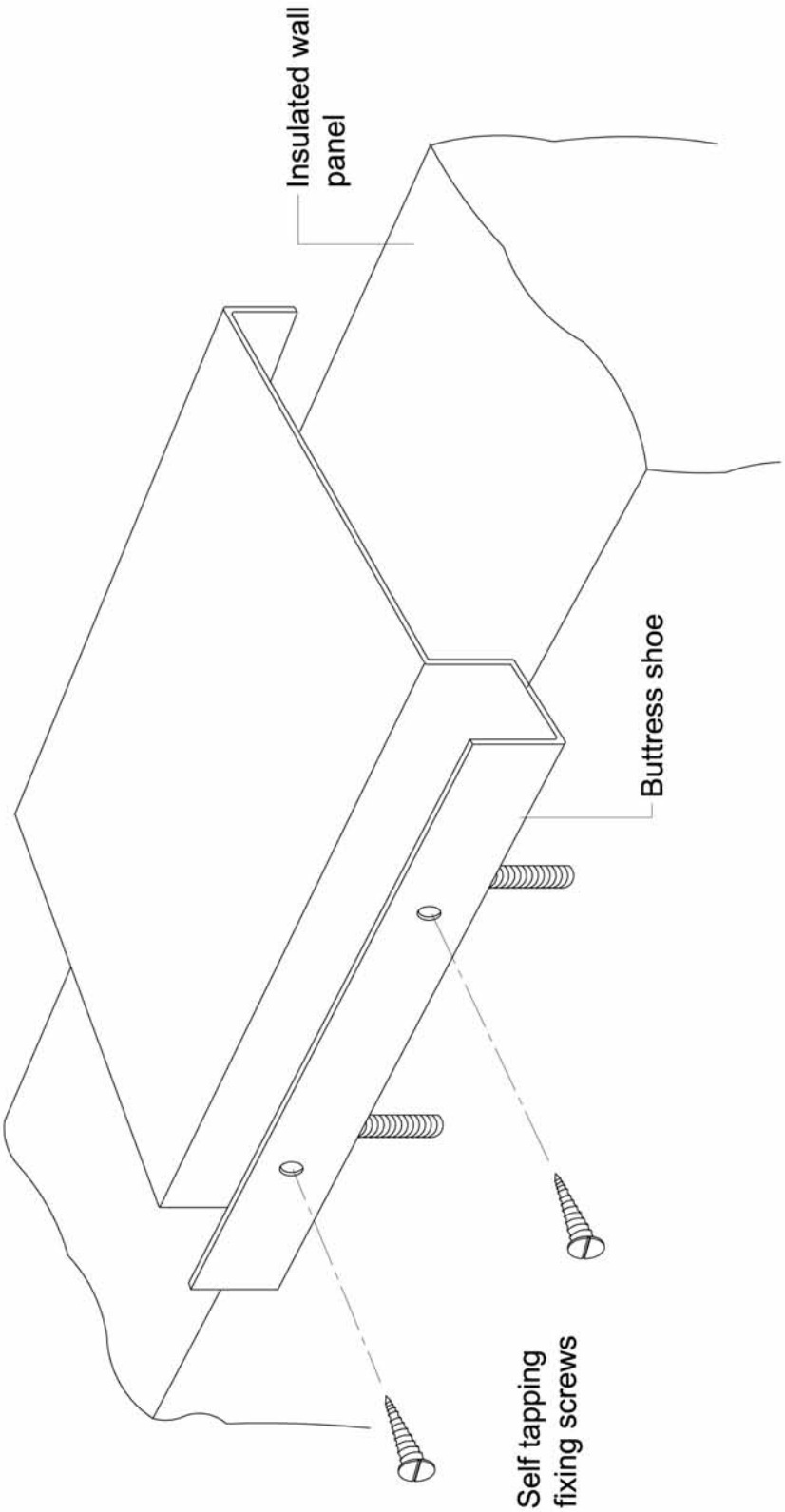


FIGURE 7:

BOTTOM CHANNEL SHOE JOINING DETAIL

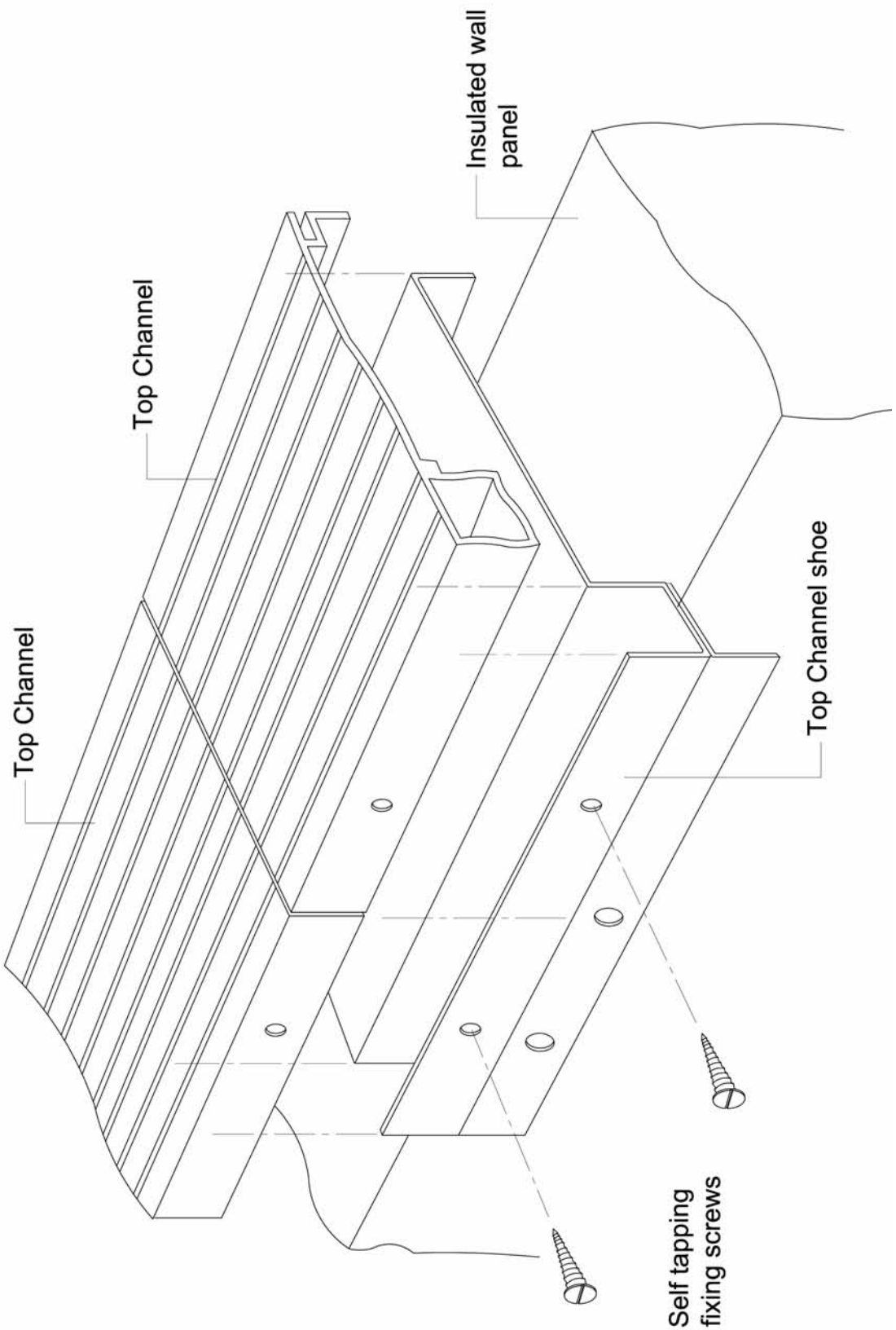


FIGURE 8:

DELUXE SYSTEM SUGGESTED POOL PLUMBING LAY-OUTS - HOPPER / WEDGE POOLS

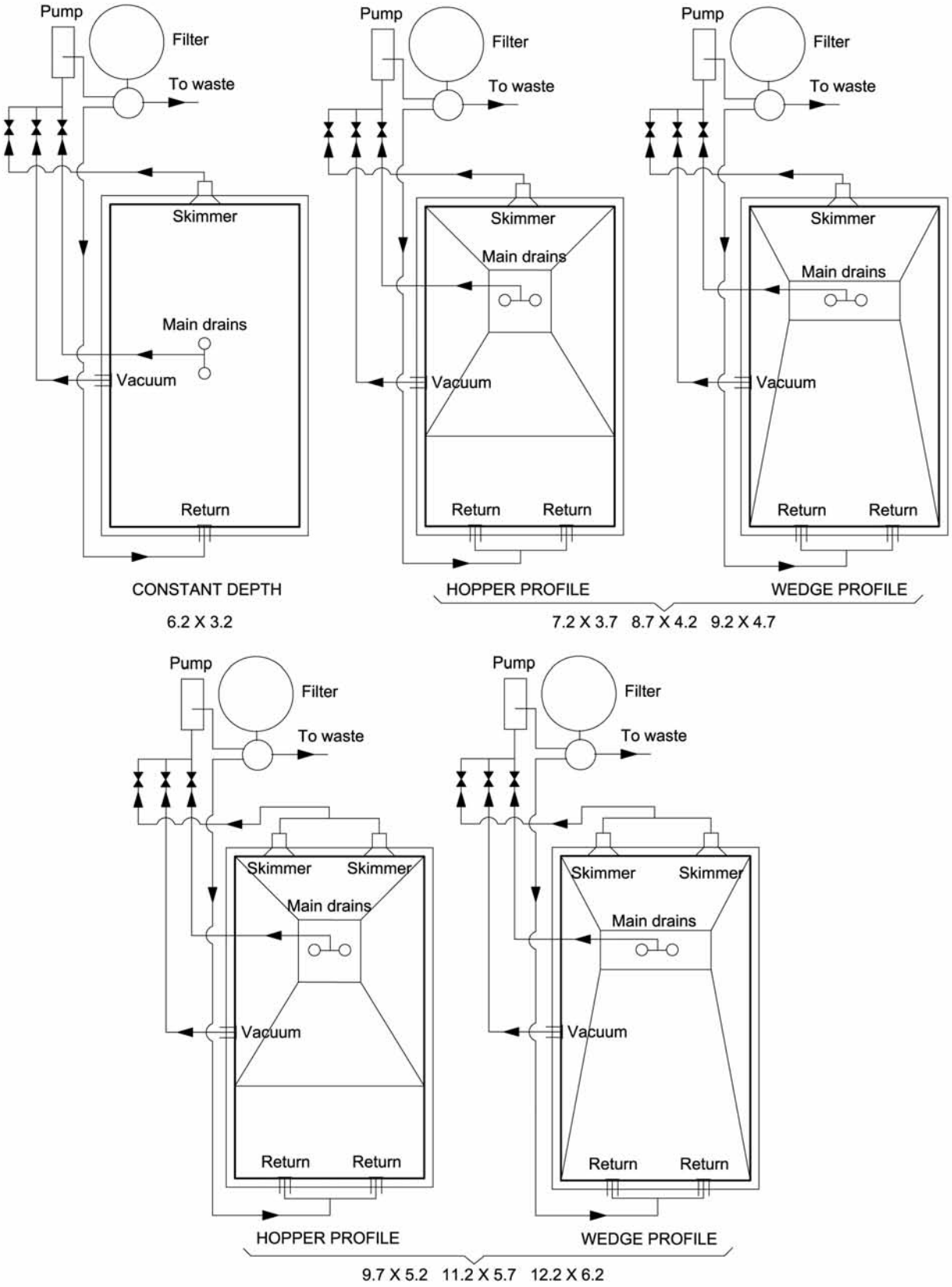
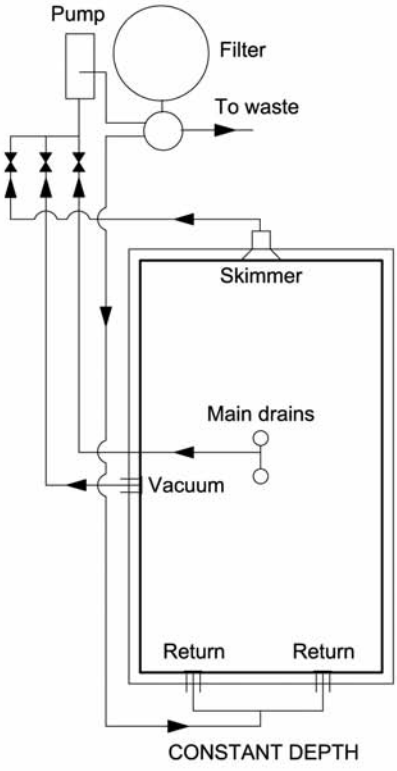


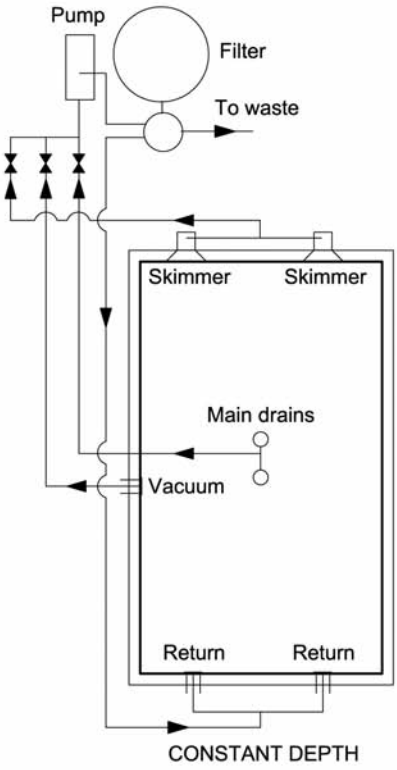
FIGURE 9:

DELUXE SYSTEM SUGGESTED CONSTANT DEPTH
PLUMBING LAYOUTS



CONSTANT DEPTH

7.2 X 3.6 8.4 X 4.2 9.0 X 4.8



CONSTANT DEPTH

9.6 X 5.4 11.4 X 6.0 12.0 X 6.6

FIGURE 9A:

STAINLESS STEEL STEPS WITH BRACE

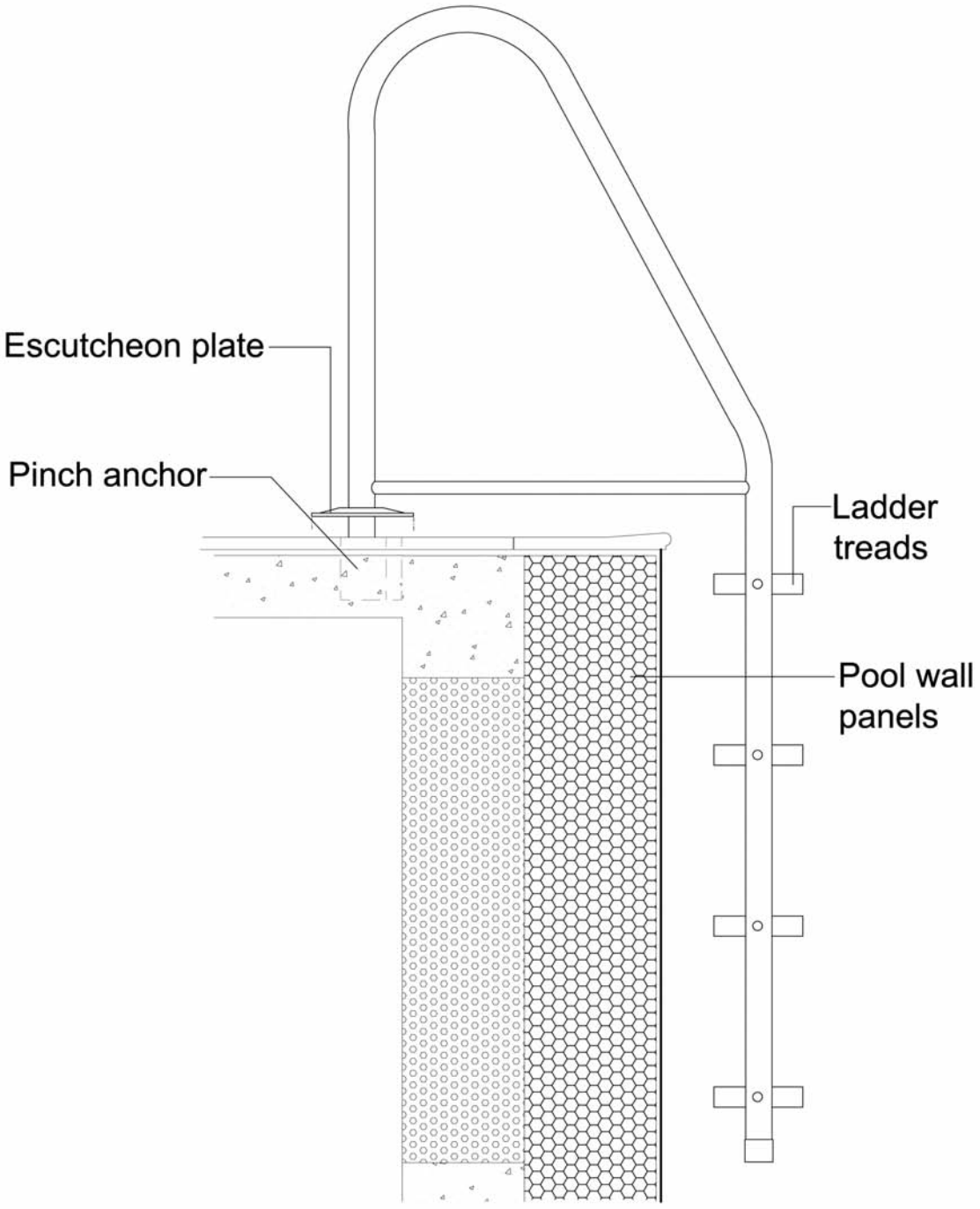


FIGURE 10:

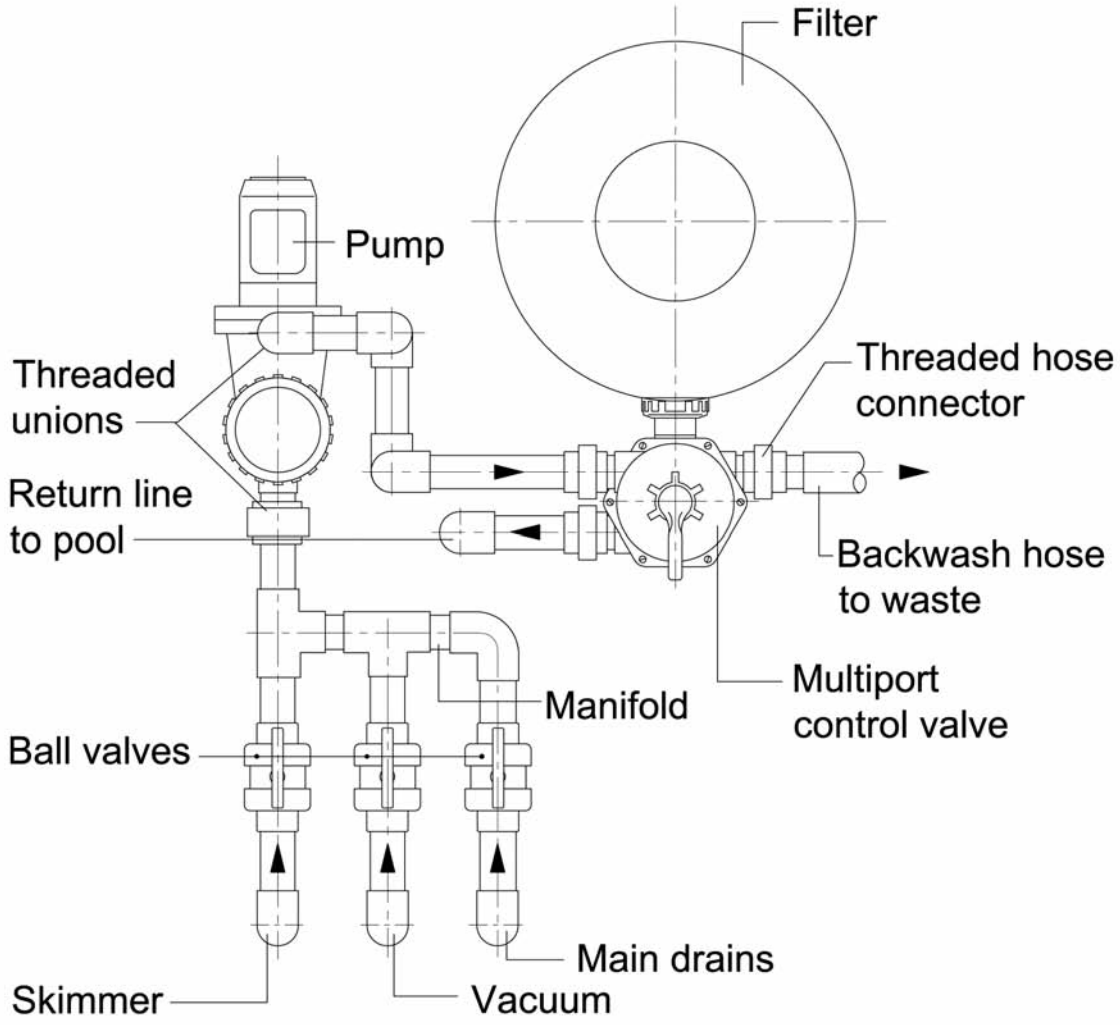

Filter
Pump
Threaded unions
Threaded hose connector
Return line to pool
Backwash hose to waste
Manifold
Multiport control valve
Ball valves
Main drains
Skimmer
Vacuum

FIGURE 11:

DELUXE PLANTROOM PLUMBING WITH 18" FILTER

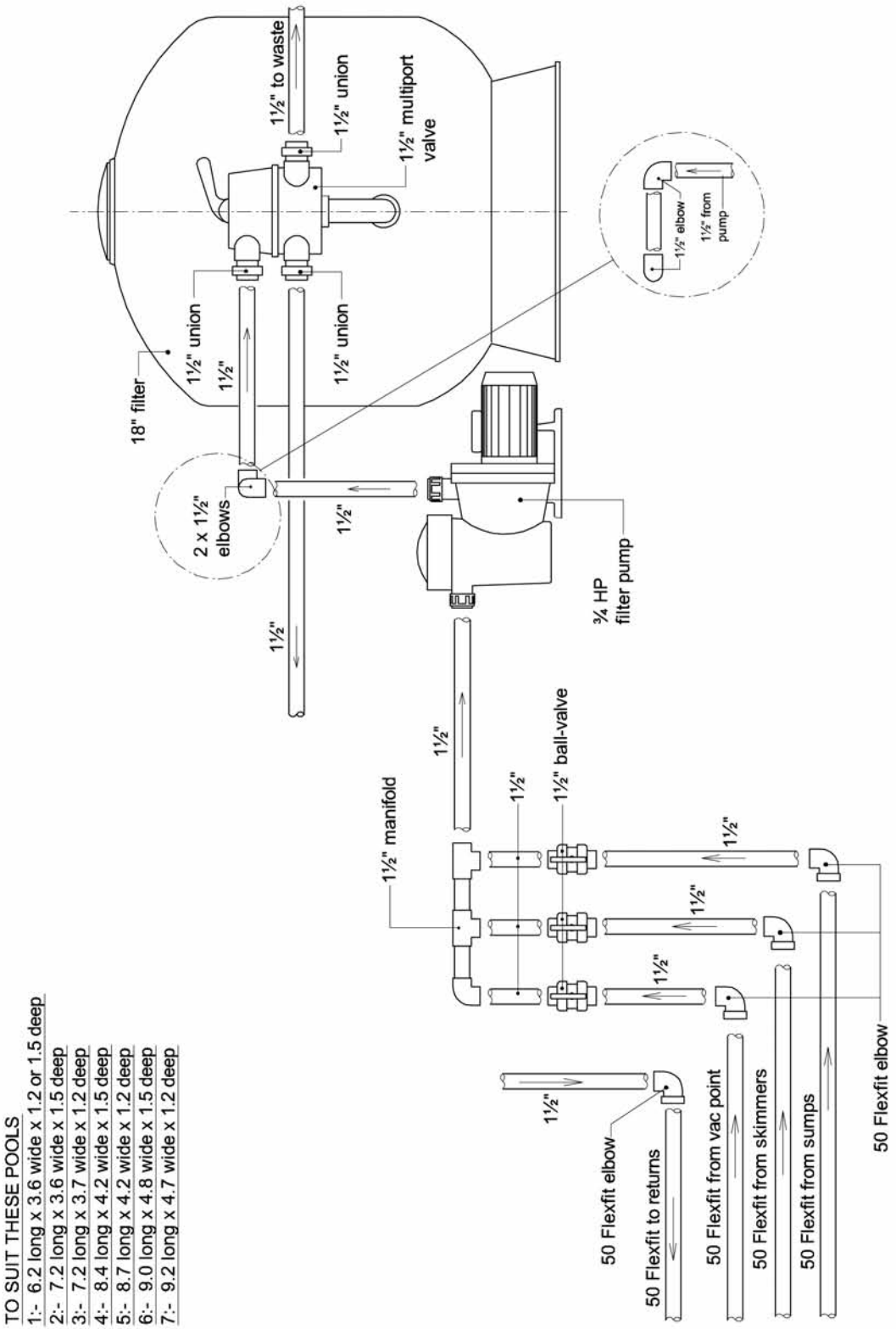


FIGURE 12:

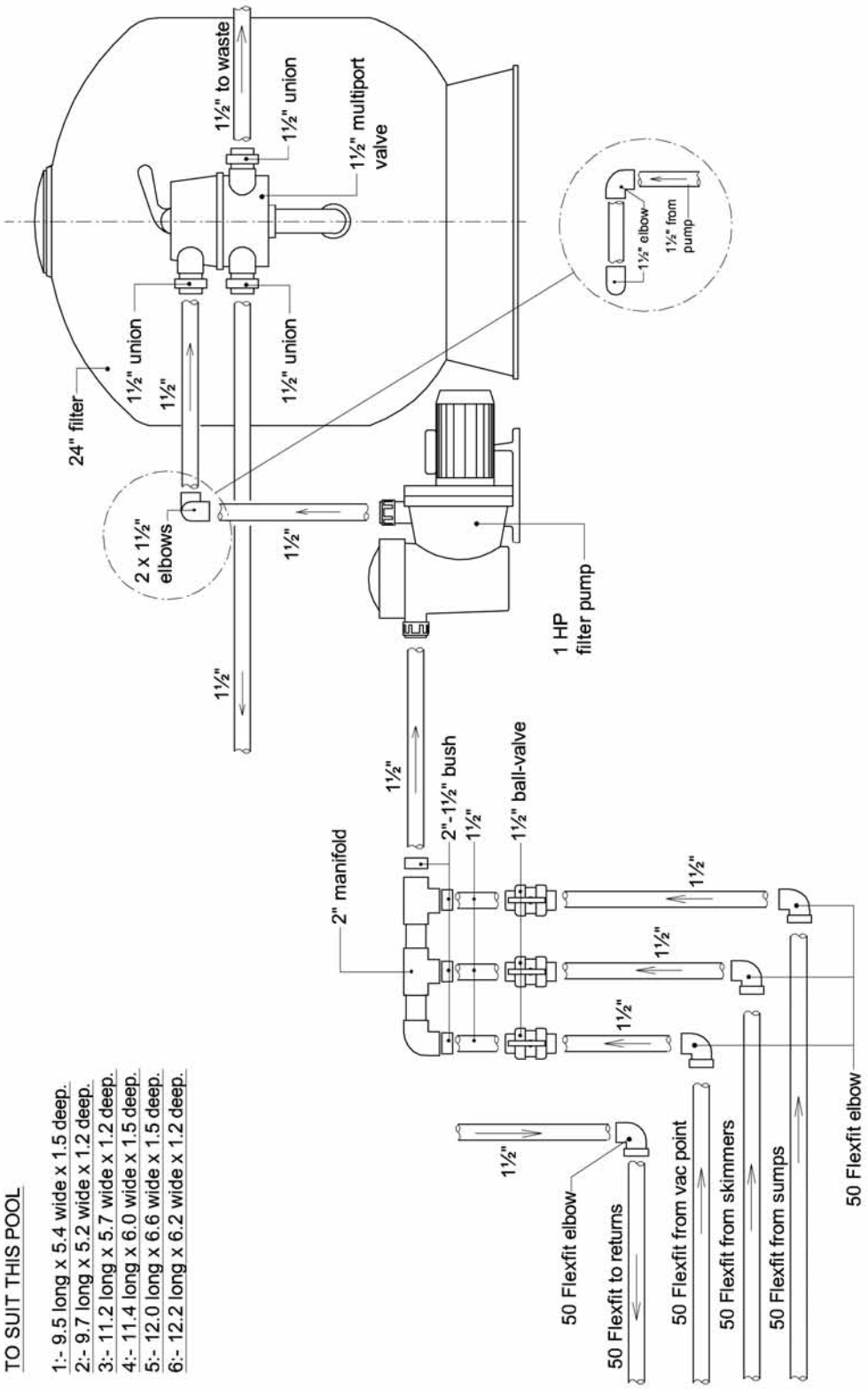
TO SUIT THESE POOLS
1:- 6.2 long x 3.6 wide x 1.2 or 1.5 deep
2:- 7.2 long x 3.6 wide x 1.5 deep
3:- 7.2 long x 3.7 wide x 1.2 deep
4:- 8.4 long x 4.2 wide x 1.5 deep
5:- 8.7 long x 4.2 wide x 1.2 deep
6:- 9.0 long x 4.8 wide x 1.5 deep
7:- 9.2 long x 4.7 wide x 1.2 deep

SK Surface water skimmer.
R Return inlet spreaders (2qty.).
MD Main drains (2qty.).
V Vacuum point.

Note:-
Fitting locations are diagramatic only

FIGURE 12A:

DELUXE PLANTROOM PLUMBING WITH 24" FILTER
TYPE A



TO SUIT THIS POOL

1:- 9.5 long x 5.4 wide x 1.5 deep.
2:- 9.7 long x 5.2 wide x 1.2 deep.
3:- 11.2 long x 5.7 wide x 1.2 deep.
4:- 11.4 long x 6.0 wide x 1.5 deep.
5:- 12.0 long x 6.6 wide x 1.5 deep.
6:- 12.2 long x 6.2 wide x 1.2 deep.

FIGURE 13:

TO SUIT THESE POOLS

1:- 9.6 long x 5.4 wide x 1.5 deep.
2:- 9.7 long x 5.2 wide x 1.2 deep.
3:- 11.2 long x 5.7 wide x 1.2 deep.
4:- 11.4 long x 6.0 wide x 1.5 deep.
5:- 12.0 long x 6.6 wide x 1.5 deep.
6:- 12.2 long x 6.2 wide x 1.2 deep.

SK Surface water skimmers (2qty.).
R Return inlet spreaders (2qty.).
MD Main drains (2qty.).
V Vacuum point.

Note:-
Fitting locations are diagramatic only

FIGURE 13A:

DELUXE PLUMBING FOR MEDIUM SIZE POOLS WITH CONSTANT FLOOR DEPTH AND WALL DRAINS

TO SUIT THESE POOLS

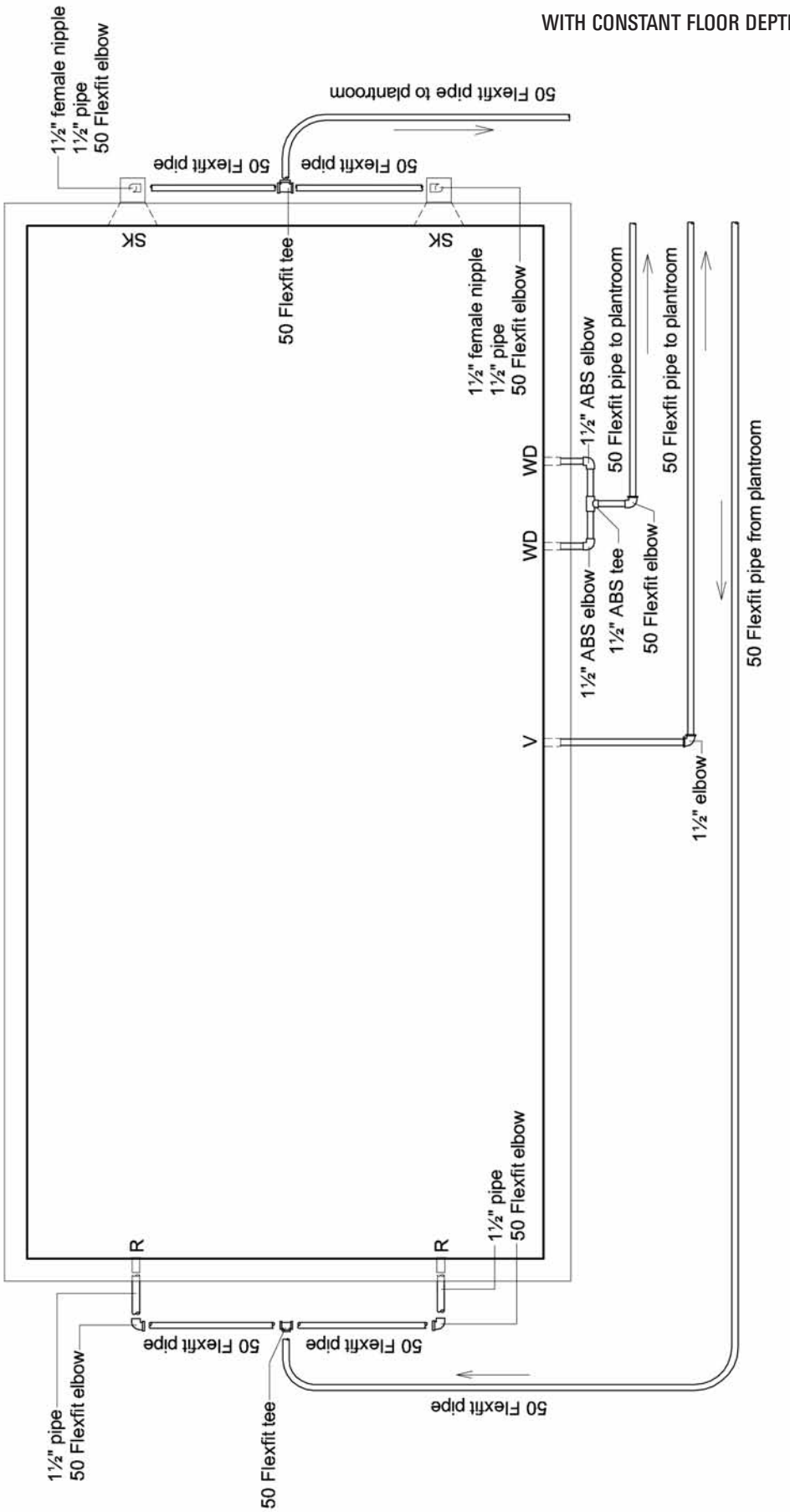
1:- 6.2 long x 3.6 wide x 1.2 or 1.5 deep
2:- 7.2 long x 3.6 wide x 1.5 deep
3:- 7.2 long x 3.7 wide x 1.2 deep
4:- 8.4 long x 4.2 wide x 1.5 deep
5:- 8.7 long x 4.2 wide x 1.2 deep
6:- 9.0 long x 4.8 wide x 1.5 deep
7:- 9.2 long x 4.7 wide x 1.2 deep

SK Surface water skimmer.
R Return inlet spreaders (2qty.).
WD Wall drains (2qty.).
V Vacuum point.

Note:-
Fitting locations are diagramatic only

FIGURE 14:

DELUXE PLUMBING FOR MED / MID SIZE POOLS
WITH CONSTANT FLOOR DEPTH AND WALL DRAINS



TO SUIT THESE POOLS
1:- 9.6 long x 5.4 wide x 1.5 deep
2:- 9.7 long x 5.2 wide x 1.2 deep
3:- 11.2 long x 5.7 wide x 1.2 deep
4:- 11.4 long x 6.0 wide x 1.5 deep
5:- 12.0 long x 6.6 wide x 1.5 deep
6:- 12.2 long x 6.2 wide x 1.2 deep

SK Surface water skimmers (2qty.).
R Return inlet spreaders (2qty.).
WD Wall drains (2qty.).
V Vacuum point.

Note:-
Fitting locations are diagramatic only

FIGURE 14A:

ESTIMATED SCHEDULE OF BUILDING MATERIALS

The quantities below are to be used as a guideline and depend on individual siting arrangements and soil conditions etc.

Pool Size (m/ft)	Volume (Cu/m)	Profile	Excavated Soil (Cu/m)	Floor screed		Backfill Pea shingle (Cu/m)	Bottom Ring Beam		Top Ring Beam		Roman End Step		Square Step		Corner Step	
				Bags of Cement	Grit Sharp Sand (cubic tonnes)		Bags of Cement	Ballast Cubic Tonne	Bags of Cement	Ballast Cubic Tonne	Bags of Cement	Ballast Cubic Tonne	Bags of Cement	Ballast Cubic Tonne	Bags of Cement	Ballast Cubic Tonne
6.2x3.2 20.3x10.4	24	Constant Depth	31	5	1.3	3.50	5	1.0	5	1.0	10	3.5	9	3	7	2.4
7..2x3.7 23.6x12.1	42	Hopper & Wedge	57	8	2.0	4.00	8	1.0	8	1.0	10	3.5	9	3	7	2.4
8.75x4.2 28.7x13.7	57	Hopper & Wedge	74	11	2.8	5.00	10	1.25	10	1.25	10	3.5	9	3	7	2.4
9..2x4.7 30.1x15.4	64	Hopper & Wedge	83	12	3.0	5.50	12	1.5	12	1.5	10	3.5	9	3	7	2.4
9.7x5.2 31.8x17.0	75	Hopper & Wedge	94	13	3.6	5.75	12	1.5	12	1.5	10	3.5	9	3	7	2.4
11.2x5.7 36.7x18.7	108	Hopper & Wedge	133	16	4.3	6.00	14	1.75	14	1.75	10	3.5	9	3	7	2.4
12. 2x6.2 40.2x20.8	129	Hopper & Wedge	156	21	5.6	7.00	16	2.0	16	2.0	10	3.5	9	3	7	2.4