Handbook

Build Your Own Outdoor Hot Tub

With Stove and Mount Kit
from Logosol

Introduction

These instructions are based on the assumption that you have bought the Hot Tub Kit (which includes a stove, mounts and accessories) from Logosol, art. no. 9999-000-9999.

These instructions are very exhaustive and describe all steps in detail. Do not let the mass of text scare you off. Building an outdoor hot tub is quite easy; the first time you do it, it will take about 15-25 hours, starting from unprocessed boards. It will take considerable less time if you build more than one, since you then already have everything set up. Read all the instructions before starting the work.

Accuracy

Most of the time, accuracy is not all that important. One centimetre more or less does not matter so much. There are some exceptions, though. Accuracy within +/- 1 mm is required when you carve the lines with the compass. Also, be as careful as possible when you are cutting with the jigsaw.

Accuracy within +/- 0.3 mm is required when the side boards are being cut into length, and when you are cutting the recess where the bottom will be fitted. (Take it easy, it is not hard to saw correctly when you know how to do it.)

Safety instructions

While building

❗ Work on a level ground.

⚠ Risk of injury!

❗ Use the safety equipment stipulated for each of the machines you are operating.

❗ Use approved eye protectors, preferably a visor, when the groove in the side boards is being cut out. Your face will surely be in the line of fire when chips and splinters are hurled out.

❗ Use gloves when handling the stove and the metal hoops.

⚠ Risk of crush injury when turning the hot tub over.

❗ A minimum of three persons is required. The hot tub weighs approx. 250 kg, but this can vary depending on what sort of wood you have used and the size of the tub.

Other risks

⚠ Drowning risk!

❗ Consider the risk of children drowning. Use a stable and solid cover when the hot tub is not being used. Ensure that small children cannot open it!

❗ Do not bath in hot water if you have cardiovascular problems.

❗ Bathing alternately in hot and cold water can cause dangerously high blood pressure.

❗ Do not bath in water hotter than 39° C.

❗ Never bath alone in the hot tub.

❗ Bathing under the influence of alcohol or other drugs increases the drowning risk considerably.

The stove

⚠ Risk of fire.

❗ Place the hot tub so that it is at least 10 m from the nearest building. Do not light a fire when local warnings of fire risk have been issued.

⚠ Risk of burn!

❗ A deficiently secured stove is immediately dangerous.

❗ Always use gloves when loading the stove with firewood.

❗ Never touch the sides of the stove or the chimney flues when the stove is hot. Only the wooden handle of the stove cover may be touched.

❗ Avoid having fire in the stove when you are bathing in the hot tub, especially when there are children in the tub.

❗ Risk of damaging the stove. Do not light a fire until the top side of the stove is covered by water.

Material

Outdoor Hot Tub Kit

Art. no: 9999-000-9999
1 Stove of aluminium
1 Stainless grating
1 Stainless baffle plate
1 Cover with wooden handle
2 Galvanized chimney flues
1 Galvanized chimney top
1 Stainless outlet
2 Rubber pipe connection
1 Plastic pipe with bend
1 Straight plastic pipe (overflow outlet)
1 Hose clamp
2 Hoops of aluzink, L:6.7 m
4 Bolted joints of lacquered steel
4 Screw plates for the bolted joints
4 M12 Threaded bars
8 M12 nuts with washers
16 M8 Flathead screws with washers and nuts
10 Fleur-de-lis of lacquered steel
6 Bench brackets of galvanized steel

Wood needed (fittings not included):

Side boards: approx. 45x95 mm, 90 linear metres for a hot tub of D:2 m.
Tongued and grooved bottom boards: 25-40 mm, approx. 4 m^2.
Bottom joists: 8 linear metres, approx. 50x120 mm.
Larch, spruce or oak is preferable for the bottom and side boards.
Boards: 10 m 22x120 mm of which 7 linear metres should be of rot resistant wood, e.g. larch or pine heartwood.
A couple of sturdy planks that will be used as work surface
Some boards for building the work station at the compound saw, and for the compass (see below)

Tools needed

PH260 or DH410 with moulding knives for bottom, sides and joists.
Jigsaw
Electric slide compound saw with a linear length of stroke of at least 100 mm and adjustable cutting depth (Art. No. 95-210)
Handheld belt sander
Sandpaper on a block
Rubber mallet or plastic hammer
Carpenter's hammer
Electric screwdriver with screw bit
Spanners: two 18 mm, one 13 mm
Polygrip pliers
Angular grinder with abrasive cut-off wheel
Strong electric drill
8 mm metal drill bit
8 mm wood drill bit
65 mm hole saw (check the diameter of the outlet)
Two C-clamps
Pencil, tape measure, folding rule, set square
Four 100 mm nails
Transparent silicone
Approx. 120 screws, 35 mm (The screws should be of good quality, preferably Torx.)
Approx. 50 screws, 25 mm (The screws should be of good quality, preferably Torx.)
Eight stainless carriage bolts M8x60 and nuts

Moulding

Bottom boards

The bottom is made of straight boards without big open knots. For the machining you use e.g. the knives 9017/9016 HSS. In these instructions the bottom will be 30 mm thick, but everything from 25 to 40 mm works. You just have to have the same measurement on the cut-out (recess) in the side boards. The width of the bottom boards should be 120 mm.

Side boards

The side boards can be made 40 mm (knives 95038/95039 HSS) or 45 mm (knives 95049/95050 HSS). Most people prefer the narrower alternative. If you want to mould the outside this should, of course, be done at the same time as the tongue and groove. It does not matter whether the heartwood side of the boards faces outwards or inwards, but be consistent and turn all the boards the same way. Some experts claim that the pith should face outwards, others claim the opposite. 95 mm is a suitable width, which will give a width of about 80 mm when fitted in the next board's groove.

A nice moulding can add character to the hot tub!

Start Building

Building instructions for an outdoor hot tub, 2m.

The hot tub is built upside down.

Make a compass: Take a narrow board that is just over one metre long. Drive two nails straight through the board. The distance between the nails should be the same as the radius of the hot tub, 1 m (Diameter/2). The nails should stick out 3 cm on the underside. Check the distance between the nail points, and bend the outermost nail until you have the correct measurement.

Approximate list of boards for the bottom:

Nine or ten 210 cm long boards; two 175 cm long boards; two 155 cm long boards; two 130 cm long boards; two 100 cm long boards.

Laying out the bottom boards

Lay out two planks on a level surface. Lay out the tongued and grooved boards on the two planks. The future upper side should face downwards. Use the compass to check if the boards are long enough and have a safety margin of at least 6 cm in all directions. Hammer them together properly. Use a stop on one side to facilitate this operation. To avoid damaging the tongue on the bottom boards, you can use a remaining piece of the tongued and grooved boards as a buffer between the mallet (or hammer) and the bottom boards. Using the compass, check that the boards lie within the circle. If not, hammer them into place. Check again with the compass when you have put half the bottom together, so that you know exactly how many boards you will need (concerning the outermost boards, see below).

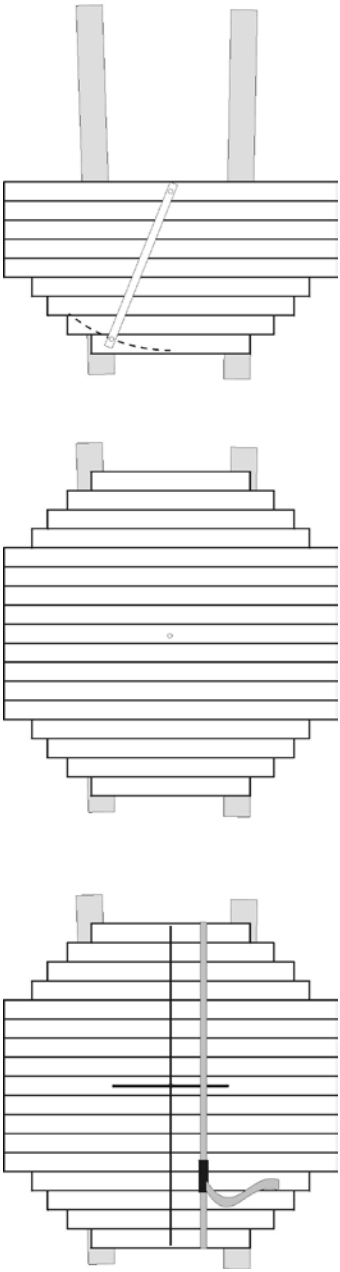
Temporary board: Cut a board into length, approx. ¾”4 (20x100 mm). The board should be 80 mm shorter than the diameter of the bottom (i.e. 192 cm).

With the help of the compass, measure where the centre of the bottom is to be. Make sure that the outermost (and shortest) boards will be of the same width, and that they will be at least 60 mm wide. This means that the centre nail of the compass should be placed either centred on a bottom board, or between two boards.

Use a pencil to draw a line that goes perpendicular to the boards straight across the whole bottom, and another line that is half a metre long and goes over the centre in line with the boards.

Use a ratchet strap, which you place 15 cm from the long line, to strap the boards together. Here, you can use the help of two friends: Weigh the outermost boards down so that they do not bend upwards. Hammer lightly on the outermost boards when they have been strapped together. Having placed it centred in both directions on the drawn cross, screw the temporary board to the bottom so that the tongued and grooved boards stay together. A couple of screws in the outermost boards, and one screw in the middle will suffice. Continue to weigh down the outermost boards until you have loosened the ratchet strap. Offer your friends some coffee or some other suitable drink.

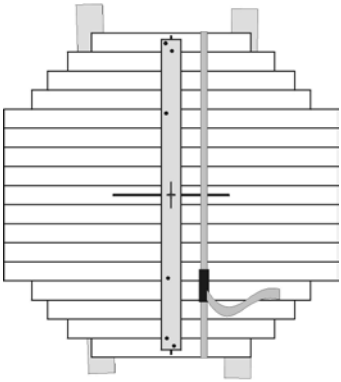
(If you have to do this alone, skip the ratchet strap and hammer the boards together. They will be tightly fitted together anyway.)

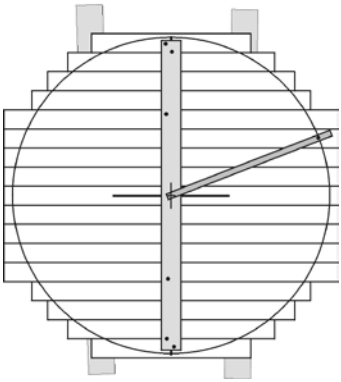


Carve the diameter of the hot tub in the bottom boards: Mark the centre of the temporary board, which is now covering the centre of the cross. Check the measurements of the outermost bottom boards. Hold the compass slightly angled and carve around the bottom.

Cut along the line with a jigsaw: Make sure that the saw blade can cut freely, and that you do not cut into anything under the bottom boards. This is to prevent the saw blade from breaking. Do not forget to move the planks, on which the bottom rests, when you have reached them with the saw. If the saw cannot pass the temporary board, you can stop and wait until later when you have turned the bottom over. Then you can cut the last part from below.

Be careful. Cut slowly so that the saw blade cuts as straight as possible through the bottom boards. Angular misalignments over 3 mm should be sanded with the belt sander (until the deviation is at most 3 mm).





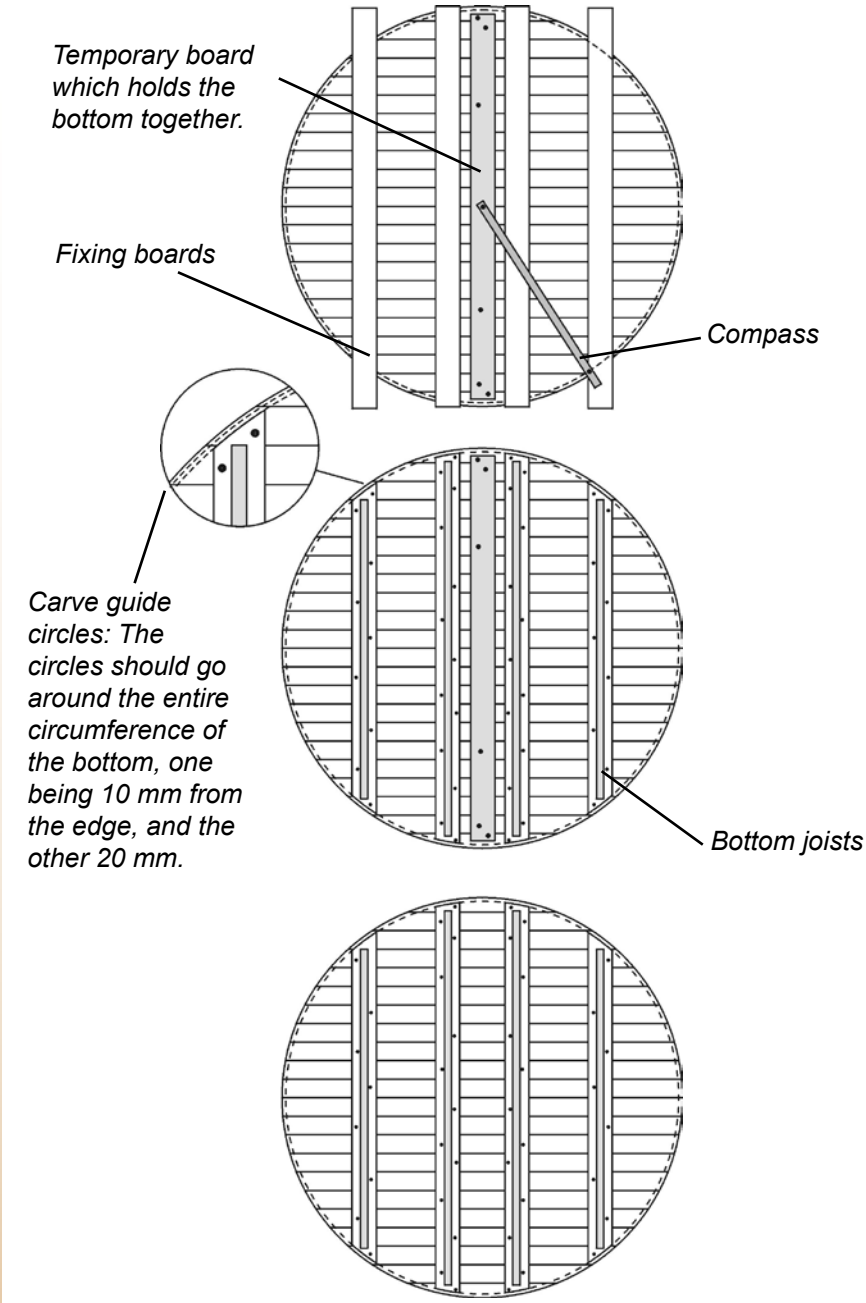
The underframe

Two circles are to be carved around the entire circumference of the bottom: one circle 10 mm from the edge, and the other 20 mm. Start by moving the outermost compass nail 10 mm further in on the compass. Measure the distance (990 mm) and bend the nail if necessary. Carve the circle. Move the nail another 10 mm further in on the compass (980 mm between the nails) and carve the other circle (20 mm from the edge) and around the entire circumference of the bottom.

Fixing boards

Lay out four 22X100 mm boards, preferably heartwood, on the bottom boards. The two in the middle should have a space of c/c 400 between them, and the two outer boards should lie centred between the middle boards and the edge of the bottom. Measure against the temporary board to make sure that the fixing boards become parallel. Draw with a pencil along both sides of the four fixing boards so that you get lines on the bottom boards. Use the compass to carve the 20 mm line on the fixing boards. Remove the fixing boards and saw along the carved line.

The fixing boards are cut into length along the carved line.


Temporary board which holds the bottom together.
Fixing boards
Compass
Carve guide circles: The circles should go around the entire circumference of the bottom, one being 10 mm from the edge, and the other 20 mm.
Bottom joists

Bottom joists

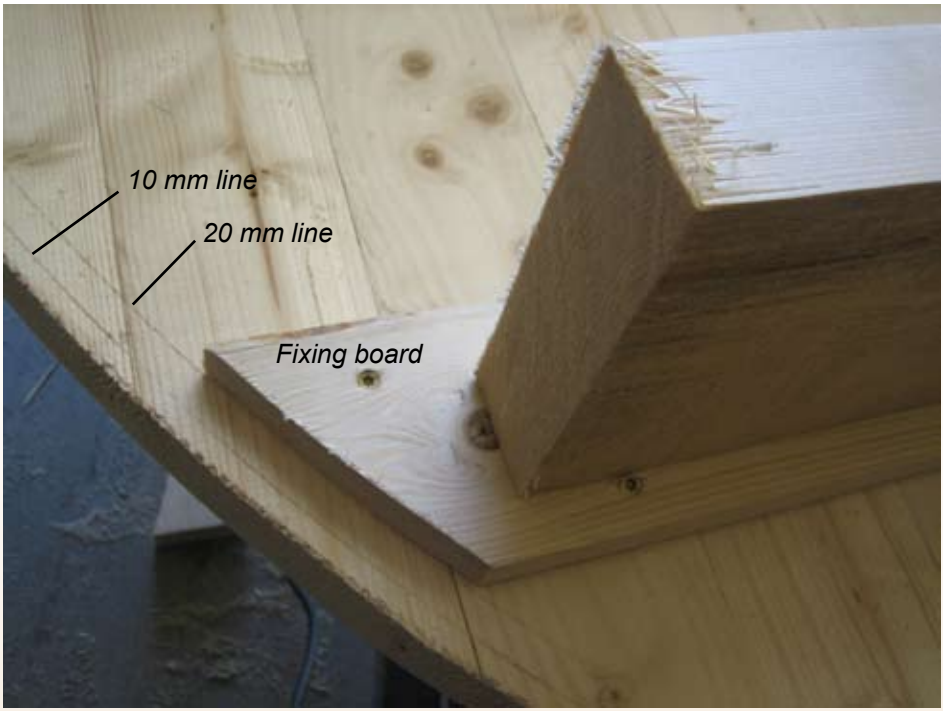
Cut 4 joists into lengths, approx. 45x120 mm, so that they are about 100 mm shorter than the fixing boards.

Centre each fixing board on a joist and screw them to the joists so that they become T-beams. Screw in zigzags every 15th centimetre using 35mm screws.

Place the T-beams on the bottom so that the fixing boards touch the 20 mm line. They must not extend over this line. If necessary, the T-beams can be moved a couple of millimetres sideways. Screw the T-beams to the bottom by screwing through the fixing boards using 35 mm screws. Screw in zigzags in every second or third bottom board, but shift the screw pattern on the T-beams so that every bottom board, including the two outermost boards, are fastened with at least two screws. Now you can remove the temporary board, which was used for keeping the bottom together.

The T-beams are screwed together.

The T-beams are screwed to the bottom.



The fixing boards and the bottom joists are screwed together into T-beams, which then are screwed to the bottom. The ends touch the 20 mm line.

Now the bottom is ready. Place the bottom (with the beams turned upwards) on a stable work table that is approx. 1.1 m high, for instance a pallet with 5 pallet collars. Put something over the top pallet collar to protect the bottom.

(If there is still a part of the bottom circle that you have not been able to cut away due to the temporary board, you can cut that part now. Saw from below with the jigsaw.)

Rub off splinters along the jigsawed edge with some sandpaper.

Preparation of the side boards

Use a compound saw with linear movement and adjustable cutting depth.

It can be used both for cutting the boards into length and for making the cut-out or recess in the boards. The machine can be ordered from Logosol.

Build a good workstation. Take two boards (for instance some remaining bottom boards) that are approx. 1.7 metres long. Screw them together and secure the saw on top of them. Ensure that there is a space of at least 1 metre on the left side of the saw blade. Place an additional board on both sides of the saw. Place short board pieces under them so that they become level with the saw table, then fasten the construction with screws. It should be room to fasten the stop boards (see below) with C-clamps.

Make sure that the saw blade cuts at a 90 degree angle. As lateral stops you use two short board pieces, which you secure with C-clamps. When you are satisfied with the adjustment (see the sections *Cutting into length* and *Setting for the cut-out*) you should also drive a couple of screws through the board pieces so that they do not become displaced.

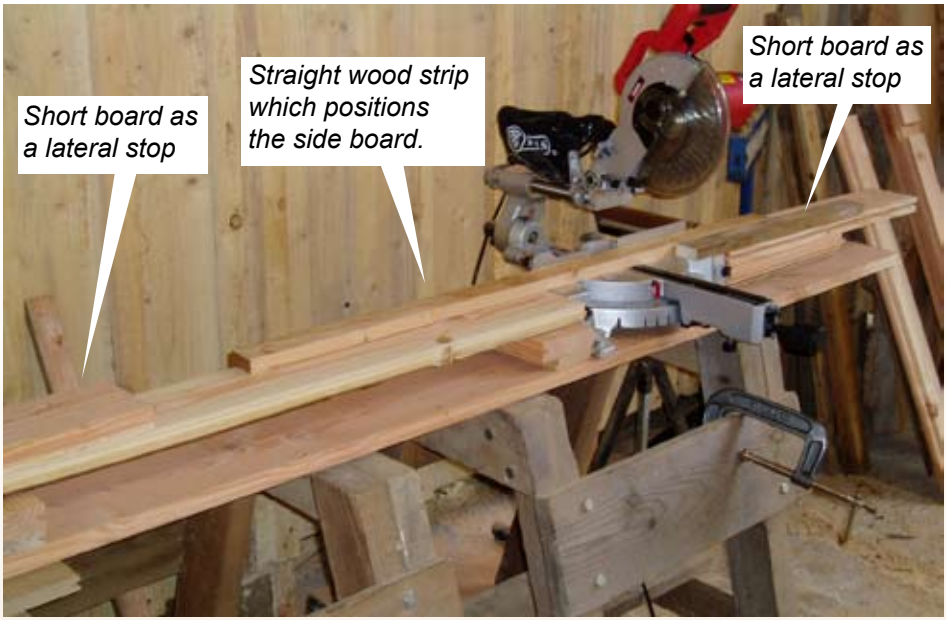
1. Cutting into length

Use a board piece as a stop 108 cm from the saw blade, and cut all boards into the correct length (the depth of the hot tub will then be 97 cm). You will need approx. 80 boards for a 2 m hot tub, but cut a couple of extra boards in reserve. Cut the ends clean. Avoid using boards with big open knots, and avoid getting knots in the cuts.

TIP: There is always a certain degree of play in the machine. Be careful you do not bend the saw head in any direction while sawing. Try to take all cuts the same way.

NB: Make sure that there is no saw dust between the stop and the boards that are to be sawn. Regularly check the result by comparing the length with side boards that you have cut before.

Workstation for making the cut-out



Here the cutting depth is adjusted to 18 mm.

2. Setting for the cut-out

Set the cutting depth of the saw so that the saw blade will cut 18 mm into the board.

Fit a 1 m straight strip of wood to the side stop of the saw so that the work piece will come in the area where the saw blade makes a horizontal cut. This is to avoid getting a cut-out with a rounded side. The wood strip should be approx. 50 mm wide. Check the angle of the cut after the strip is fitted. Fasten the strip with two screws on each side of the saw.

Measure the thickness of the bottom boards, in this case 30 mm. Fit a stop board on the left-hand side, about 1 m from the saw blade, so that you will get the first cut 80 mm from the bottom edge of the side board.

Fit another stop board on the right-hand side of the saw blade, so that you will get a cut 30 mm (the thickness of the bottom) from the first cut.

TIP: Make the cut-out a little bit too narrow at the start. Gently knock on the stops until one piece of the bottom boards fits in the cut-out. When you are satisfied, fasten the stops tightly with wood screws.

Sawing method for the cut-out

Protective glasses MUST be used.

Turn the boards so that ít lies properly against the wood strip, and have the future inside facing upwards. The rounded part of the moulding should be turned inwards when fitted onto the bottom, and the bevel should be turned outwards when using the knives 95038/95039.

First, make the two outer cuts. Make sure that the side board contacts the stop boards, and that there is no sawdust or splinters between. Regularly check the result by testing the cut-out on a bottom board.

Cut out the wood between the outer cuts by moving the side board a couple of millimetres for each cut. Make sure that the bottom gets a close fit in the cut-out or, at least, that the play is no more than 0.5 mm.

A cut-out that is difficult to fit on the bottom should be widened. Side boards with too much play should be discarded.

TIP: It is easy to turn a board the wrong way by accident. Screw a piece of a moulded side board to your sawing template so that you can check that you have placed the side board in the correct direction.

TIP: Be careful so that you do not bend the saw head in any direction when taking the outer cuts.

Assembly

Hang the side boards up on the bottom. Fit them as closely together as possible and push them onto the bottom, but make sure that the carved 10 mm line is still completely visible. Start at the future back of the hot tub and fit the next board in the direction of the tongue. Gently knock the boards together both at the top and bottom. If a board is too bent to fit, discard it.

The last board: If the gap is less than 10 mm, you can pull the hot tub together using ratchet straps. Otherwise, you remove a board so that the gap becomes 140 mm, for instance. Mould and cut two narrower side boards that will fit in the gap when they are fitted next to each other, i.e. 70+70 mm (excluding tongue and groove).

Strapping the side boards together

The ratchet strap

Fit a ratchet strap around the side boards approx. 10 cm below the bottom, and one approx. 10 cm above the future upper edge of the hot tub.

Let the buckles come at the side of the back of the hot tub. Put some protection under the buckle and the hooks. Pull the straps gradually tighter and gently knock on the side boards with a rubber mallet until they have formed a close circle. Measure against the carved 20 mm line to make sure that the distance between the line and the boards is fairly the same all around the tub. Do not worry if the hot tub should creak.

The side boards are adjusted with a rubber mallet until the distance between the 10 mm line and the boards is the same all around the hot tub.

The metal hoops

One of the hoops should be placed at the same height as the bottom, and the other should be placed 15 cm from the future top edge of the hot tub.

Measure where the hoops should be fitted, and drive four screws for each hoop in the sides of the hot tub. These screws will support the hoops while you are fitting them around the tub. Screw one of the bolted joints to one side of the hoop and insert the threaded bar with the screws being as close to the ends of the bar as possible. Place the hoop on the supporting screws and use a C-clamp to fix the end having the joint. The C-clamp should be fitted about 50 cm from the joint. Tighten the hoop manually around the tub. Draw a line on the hoop to indicate where the other bolted joint should be fitted. The threaded bar should reach 5 mm through the hole of the other bolted joint.

Remove the hoop and cut it into length using an abrasive cut-off wheel. Break off sharp edges on the hoop and the piece that was cut away.

Drill the holes in the hoop end for the other joint using an 8-9 mm drill bit. This can be made easier by first drilling pilot holes with a smaller drill bit.

Fit the two hoops. Place the bolted joints straight above one of the shortest bottom boards on the back of the tub. Put the piece of the hoop that was cut off under the hoop ends as a support for the bolted joints.

Tighten the nuts on the threaded bar and, if necessary, knock around the hoop with the rubber mallet. Tighten until you begin having difficulty in turning the nuts. Leave the ratchet straps on the tub.

TIP: Bend the metal hoop a little, just behind the bolted joint, so that the threaded bar can pass straight through the holes.

TIP: If the threaded bar tends to rotate, you can hold it with a pair of polygrip pliers. Adjust the nuts so that the threaded bar sticks out just as much on both sides.

TIP: Rub the side board edges off with the belt sander before turning the hot tub over.

The nuts can only just be fitted on the threaded bar before they have been tightened. The piece of the metal hoop that was cut off is placed under the bolted joints. The piece of cardboard under the ratchet strap protects the side boards. The metal hoop should be adjusted so that it rests on the support screws. One of these screws can be seen under the threaded bar in the photo above.

Tightened!

Turning the hot tub over

Go and get your friends again. You should be at least three persons when turning the hot tub over but, if possible, more than three is even better. The hot tub should be turned over in line with the bottom joists, and without getting any buckles or joints under it. Place something on the ground as a protection for the side boards, and a couple of thick planks on the sides in order to prevent the hot tub from rolling sideways when it is standing on its end. Tip the tub over on its end. Place boards under the middle bottom joists to avoid breaking the side boards against the ground before the hot tub is completely tipped over.

⚠ Take caution.

❗ Stand at the side of the hot tub when turning it over.

❗ Do not stand where you run the risk of getting the hot tub over you in case it should fall down accidentally.

Foundation-laying

Choose a site with a firm and level ground. Cover the ground with flagstones, or something else, to prevent grass from growing under the hot tub. Air must be allowed to circulate under the hot tub. The bottom joists should not be in contact with the soil. Each bottom joist should rest on three points: one in the middle and one on each end. Use, for instance, flagstones or sleepers on wich you lay tar paper.

❗ The hot tub should lean a couple of millimetres towards the outlet.

Fit the fleur-de-lis over the metal hoops.

Fittings

Now, the hot tub is ready. When it comes to fittings, you are free to use your creativity, but there is still a couple of important points you have to perform:

The stove

Screw the stove to the side boards so that it stands in line with the bottom boards on the side where the bolted joints are. The stove should be securely fastened with at least four 8 mm carriage bolts. The top of the stove should be 5 cm above the upper edge of the hot tub. Mark out where the holes are to be, and then drill them. The nuts should be on the inside, so that the stove is easy to detach. Put some silicone on the part of the bolt that is not threaded.

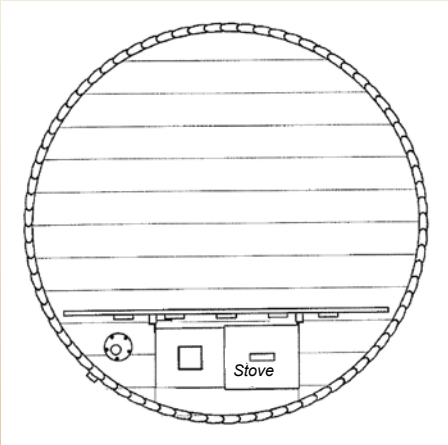
⚠ The lifting power of the stove is close to 200 kg when the hot tub is filled with water. A poorly secured stove can lead to serious burn injury.

The small mounting brackets on the other long side of the stove, are fixing points for the stove guard.

The outlet

The outlet should be placed behind the stove guard, approx. 10 cm from the side boards. Drill and cut out a hole that is approx. 65 mm in diameter. Make sure that you do not drill in the bottom joists! Put silicone under the screw plate and fasten it with 25 mm screws. Drill pilot holes with a small drill bit and it will be easier to get the screws straight. Fit a rubber pipe connection on the overflow outlet pipe (the straight, white plastic pipe) and secure it with the hose clamp. Press down the overflow outlet into the hole. Press the bent pipe with a pipe connection into the hole from underneath. Extend the outlet with a hose, a pipe, a rain gutter, or the like. Keep in mind that you will empty a lot of water out of the tub (approx. 3000 litres).

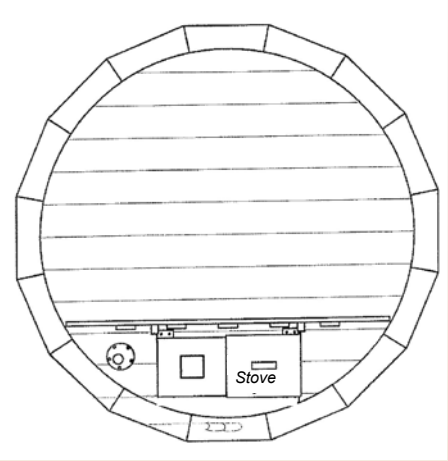
Tip: Counter sink the edge of the outlet with a router or a chisel, so that the last of the water runs out of the tub. This will also make it easier to rinse out dirt from the hot tub.



The upper edge

The easiest way to get the top even and the edges round or bevelled, is to use the belt sander. This is the method we first recommend.

Many people build a 16-sided top seat which, of course is even more elegant. It is, however, hard to keep such a construction neat, since the hot tub constantly moves. The pieces must be joined together and should only be screwed to one or a couple of points on the hot tub.



The benches

The benches and the stove guard can be made of the same material, for instance 22x120 mm decking boards or the like. First, cut the seat boards.

TIP: If you have difficulty in cutting the correct angle, you can first cut the boards into the correct length. Lay out the boards so that they overlap each other, and draw a line where the boards cross on the inner side. Cut along the drawn lines.

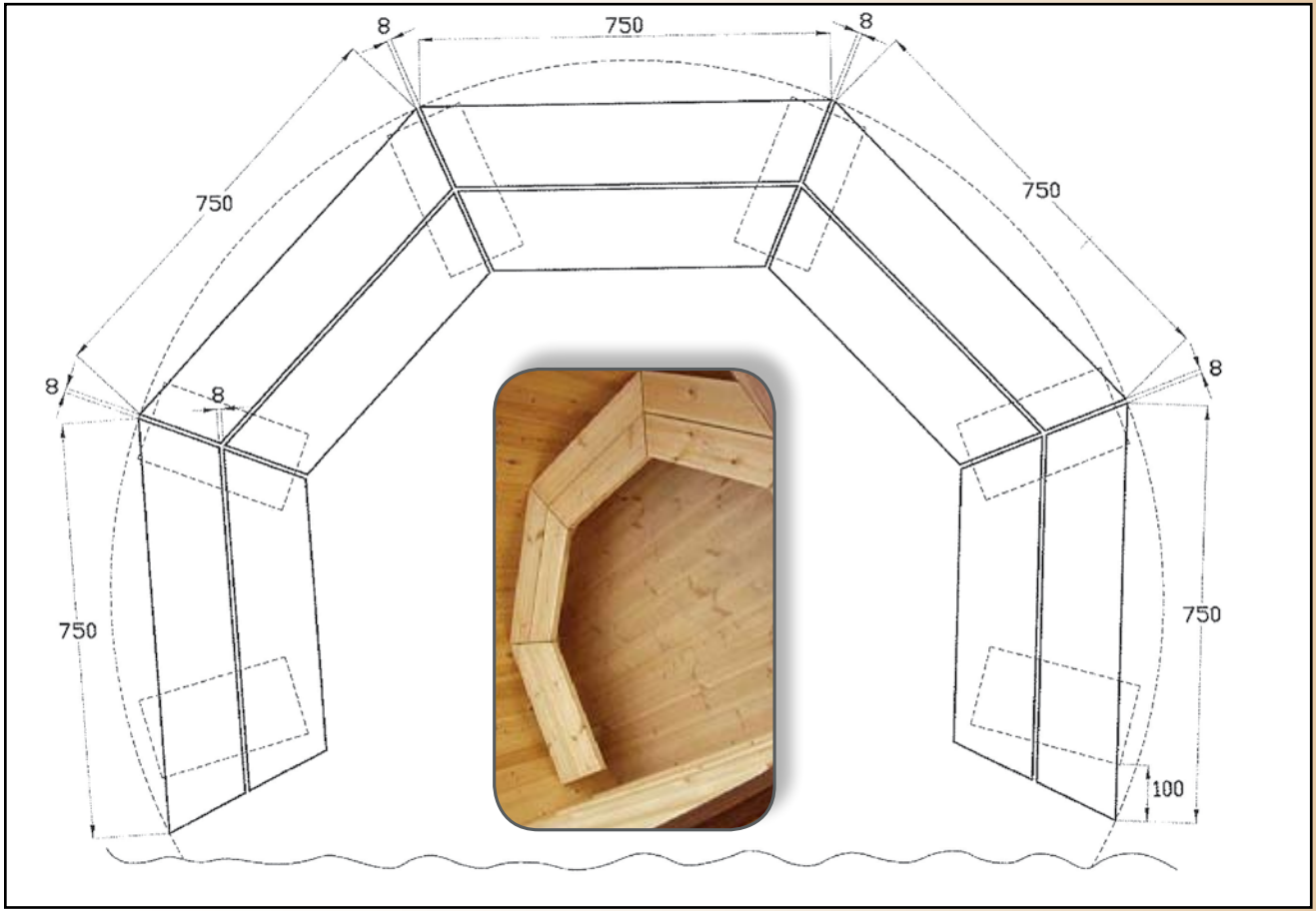
TIP: Router or sand off all the edges on the seat boards before mounting them in the hot tub.

TIP: Lay out all the finished seat boards on the bottom of the hot tub before deciding where the bench brackets should be.

TIP: When making the benches, take off your shoes before climbing into the hot tub. It is a sad thing to have footprints in the new hot tub.

Screw a short board piece to each bench bracket with short screws. Screw the brackets to the side boards inside the hot tub. They should be approx. 3 cm above the bottom with a c/c distance of about 75 cm. On both sides, the outermost bracket should be fitted somewhat closer to its adjacent bracket, so that it is covered by the seat boards. Fasten the seat boards with 25 mm wood screws.

Half-finished bench, see drawing on next page.


8
750
8
750
750
8
8
8
750
750
100

The stove guard

Screw two boards horizontally to the fixing points on the stove. Let there be a space of a couple of centimetres between them and the side boards. Build a vertical fence on the horizontal boards. The fence should be fitted about 15 cm above the bottom and 10 cm above the highest point of the stove.

TIP: Build the entire fence on a suitable work surface, and then screw it to the stove. It is difficult to reach the srews from behind so, in this case, use torx wood screws or through bolts.

TIP: The stove guard is a good fixing point for a narrow table, on a level with the upper edge of the hot tub, on which you can place a bowl of peanuts (see *Wooden cover*).

Wooden cover

Make a wooden cover of some kind of water-resistant wooden board, or thin tongued and grooved boards that bear at least 50 kg. The cover is best done in three sections. Two sections over the bath area, and one section that is cut to fit around the stove behind the stove guard. The ”peanut table” can serve as a support for one section of the cover.

The cover has three functions:

1. It is a protection preventing small children from falling into the hot tub when no adults are around.

2. It keeps the heat in the water during night.

3. It is a protection against leaves and bird droppings.

⚠ Drowning risk!

❗ Consider the risk of children drowning. Use a stable and solid cover when the hot tub is not being used. Ensure that small children cannot open it!

Congratulations! You have built your own outdoor hot tub.

Getting started

The first time you fill up the hot tub, you should start by filling it with a couple of buckets of warm water, so that the bottom is covered. Wait for 30-60 minutes.

After this, you fill the hot tub with the desired amount of water.

When the water reaches over the water ducts in the stove, you can start heating it up by lightening a fire.

Lightening the fire

Set fire to some paper and put it into the stove. Poke the burning paper in under the chimney, so that the chimney gets hot in order to give a good draught.

Make a fire by using small sticks.

Feed the fire with more wood on the grating. Use logs that are no more than 40 cm long, to prevent the wood from jamming in the wrong part of the stove, which gives poorer efficiency, and to prevent the part of the stove that is over water surface from getting too hot.

The heating-up time, 2-4 hours, depends on the water volume, the water temperature, and the quality of the wood.

When the hot tub is leaking

A new hot tub leaks for a couple of hours or up to twenty-four hours the first time it is filled with water.

If the hot tub does not stop leaking, you can apply sawdust in the gaps that leaks. The sawdust will swell inside the gaps.

If the hot tub has been left empty for a period of time, it should be moistened with clean water both on the outside and the inside at least 24 hours before being used. This will make the wood expand to some extent.

If the hot tub dries out completely after the wood has been swollen, it can be difficult to get it watertight again. Then, you may need to cover it with a tarpaulin and keep it wet on the inside and outside during a couple of days.

Other tips and ideas

TIP: Build a footbath, using the same method as for the hot tub, so that you can wash off grass and dirt from your feet before plunging into the bath.

TIP: Cresset holders beside the hot tub increase the cosiness factor. You should, however, not place them too close. The candle grease can 'explode' if water gets into the cresset.

TIP: A floating table, for instance a remodelled lifebuoy, gives you somewhere to place juice glasses and snacks that are easily reached by everyone in the hot tub.

TIP: As a help to climb into the hot tub, you can have a decking floor at a convenient height around the hot tub, or small steps on the inside and outside of the side boards.

TIP: Fit a beautifully carved pole to the outside of the hot tub, which can serve as a handgrip when you are climbing into or out of the hot tub.

TIP: Nail two boards (0.5 m and 1.5 m) together, so that they form a big T. This is the perfect tool to stir in the hot tub in order to get an even temperature.

Tips on purification accessories:

Water purification system with pump and sand filter: from about £300. A large, powerful aquarium filter costs about £150. Chlorine tablets 1 kg, £7-10. Chlorine meter, £7-10. (For 2000 litres of water a couple of teaspoons of chlorine is needed.) Talk to a retailer of swimming pool accessories.

TIP: If you use chlorine tablets, place them in a plastic jar with holes in it. The tablets can leave burn marks if they are in direct contact with wood.

Find out what regulations apply to the chemical you are using. Follow the safety instructions and the recommended handling of the chemical.

Maintenance

The outside of the hot tub

The outside of the hot tub does not require any complicated maintenance. If necessary, it can be painted with a linseed oil mixture, with or without pigment, consisting of one part linseed oil and two parts turpentine. This should be done once a year. Sun is probably the most damaging factor. Therefore you should, if possible, rotate the hot tub half a turn after a couple of years.

The inside of the hot tub

The inside of the hot tub, the wood heated stove and the stove guard should not be painted. Clean the hot tub with water and soft soap after each time it has been used. You can also add some bleach.

The stove

Remove ashes from the stove regularly. Wait until the stove has cooled. Remove the baffle plate and the grating. Use a long-handled dustpan to scrape the ashes out of the stove. Alternatively, unscrew the stove, lift it out, and turn it upside-down.

Regularly check the condition of the chimney. Sometimes, it may need to be replaced depending on the environment in which the outdoor hot tub is placed.

Other maintenance

Summer: Store the hot tub filled with water.

Autumn: Empty it before the water freezes, remove the plastic pipes, and cover it with a tarpaulin.

Winter: Fill the hot tub with snow, if there is any. Leave the outlet open.

Spring: Fill the hot tub with water when the spring sun begins to warm.

TIP: When you have finished bathing, add some chlorine (of the same type as is used for swimming pools) to the water. This prevents algal growth and, to some extent, protects the wood from rot.

Calculations

Calculation of water volume

Keep in mind that the water volume increases with about 300 litres per every decimetre added to the diameter, which affects the time it takes to fill and heat the hot tub.

D=Diameter

R= D/2

The water volume is calculated according to the formula below. The measurements are in metres:

R x R x 3.14 x Water depth = Volume in m^3 (or weight in tonnes)

Calculation of the number of boards needed:

To calculate the number of side boards needed, you can use this formula:

Use measurements in millimetres

B= The width of the side board, excluding the tongue and groove.

D= Diameter

The centre of the side board is about one centimetre outside the bottom of the hot tub, so add another 20 mm to the diameter.

D + 20 x 3.14 / B = The number of boards needed

LOGOSOL

Swedish Wood Processing Products

How to contact us:

Telephone: 01361 840 251
Fax: 01361 840 389
E-mail: enquiries@logosol.co.uk
Internet: www.logosol.co.uk
Address:
Logosol UK
The Sawmill
Abbey St Bathans
Duns
Berwickshire TD11 3TX