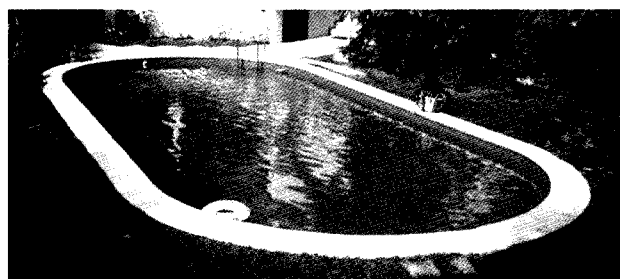
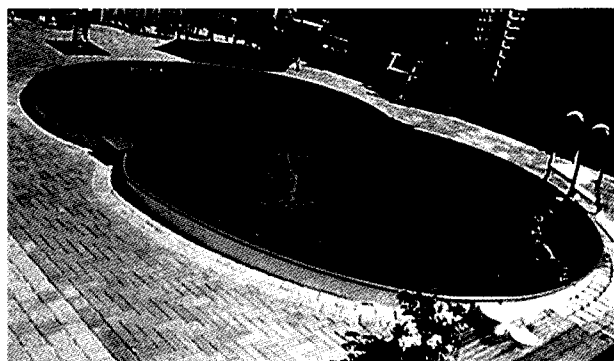
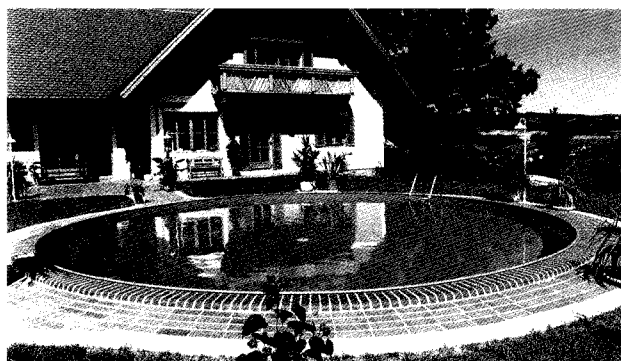


Made in Germany

... elegant
... perfect
... sporty

ASSEMBLY INSTRUCTIONS

hobby-pool swimming pools



MILANO – *Round-shaped pool*

ELBA – *Figure-eight-shaped pool*

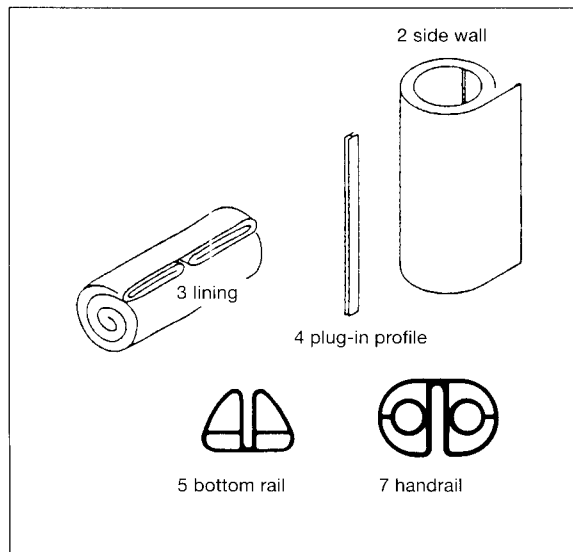
TOSCANA – *Oval-shaped pool*

WÜLFING+HAUCK

With the purchase of a hobby-pool swimming pool made by WÜLFING + HAUCK you have acquired a high-quality product which can be assembled quickly and easily thanks to a sophisticated design.

1. CHECKLISTS

1.1 ROUND-SHAPED POOL COMPONENT LIST

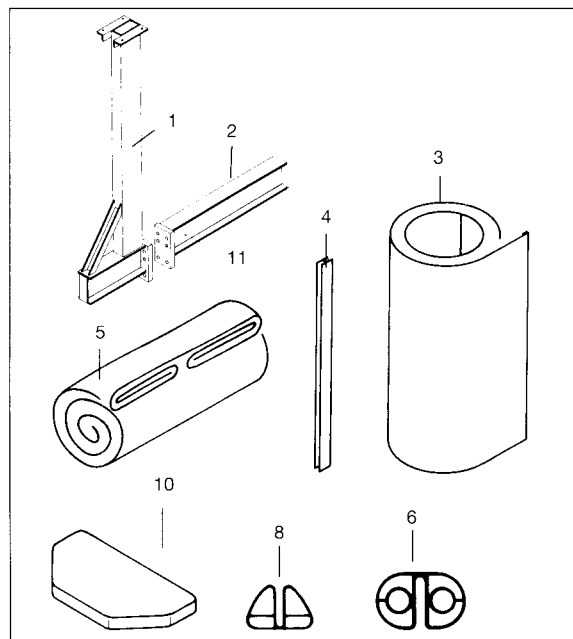


Number of pieces
for the swimming pool's diameter in m

No.	Description	2,00 3,00	3,50 4,16	4,50 5,00	6,00 7,00	8,00
2	side wall	1	1	1	1*	1*
3	lining	1	1	1	1	1
4	plug-in profile	1	1	1	1*	1*
5	bottom rail					
	in sections	6/8	10/12	12/14	18/20	22
7	handrail, in sections	6/8	10/12	12/14	18/20	22
No illustration	connecting tubes for handrail	14/18	22/26	26/30	38/42	46
No illustration	connecting tubes for bottom rail	14/18	22/26	26/30	38/42	46
No illustration	assembly instructions	1	1	1	1	1

* Side wall for pools 1, 5 m in depth, divided in 2 sections each.

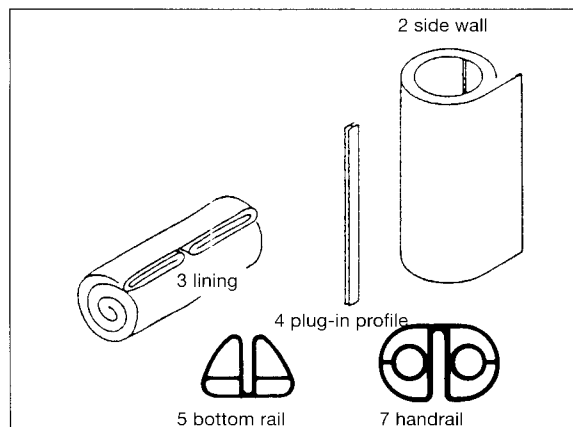
1.2 FIGURE-EIGHT-SHAPED POOL COMPONENT LIST



No.	Description	Pieces per swimming pool			
		3,20 × 5,25	3,60 × 6,25	4,60 × 7,25	5 × 8,55
1	side wall support	2	2	2	2
2	base support	1	1	1	1
3	side wall	1	1*	1*	1*
4	plug-in profile	1	1*	1*	1*
5	lining	1	1	1	1
6	handrail, in sections	14	16	18	20
7	connecting tubes for handrail	28	32	36	40
8	bottom rail, in sections	14	16	18	20
9	connecting tubes for bottom rail	28	32	36	40
10	cover platform	2	2	2	2
11	screws	1 parcel	1 parcel	1 parcel	1 parcel
13	assembly instructions	1	1	1	1

* Side wall for pools 1, 5 m in depth, divided in 2 sections each.

1.3 OVAL-SHAPED POOL COMPONENT LIST



No.	Description	3,20 × 5,25	3,00 × 7,00	4,16 × 8,00	5,00 × 9,00
		3,20 × 6,00	3,50 × 7,00	4,16 × 10,00	5,00 × 11,00
2	side wall	1	1*	1*	1*
3	lining	1	1	1	1
4	plug-in profile	1	1*	1*	1*
5	bottom rail, in sections	14/16	16/16	20/22	22/26
7	handrail, in sections	14/16	16/16	20/22	22/26
No illustration	connecting tubes for handrail	32/36	36/36	44/48	48/56
No illustration	connecting tubes for bottom rail	32/36	36/36	44/48	48/56
No illustration	assembly instructions	1	1	1	1

* Side wall for pools 1, 5 m in depth, divided in 2 sections each.

2. GENERAL GUIDELINES

applying to: round-shaped pools, figure-eight-shaped pools, oval-shaped pools

There are a few important guidelines before you start to assemble your pool:

The most important part of the pool is the foil lining. Swimming pool-foil is a thermoplastic material which expands under heat and contracts when it gets cold. The lining should be installed at temperatures between +15° C and +25° C degrees because the foil is most easily handled at these temperatures. At higher temperatures there is danger to overstretch the foil.

Please note also that soft foil can be very easily damaged by improper handling, so avoid any contact with sharp or rough objects and do not drag it over concrete or any other floor.

3. Pool location, subsoil

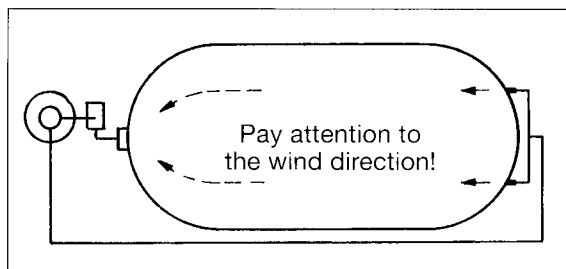
applying to: round-shaped pools, figure-eight-shaped pools, oval-shaped pools

We recommend to choose the pool site in a sunny area, with no trees around the pool. Pay attention to the wind direction and try to position the skimmer facing the prevailing winds so that the wind blows the dirt to the skimmer.

When the pool location is found it must be checked whether the ground is suitable for the erection of the pool. A filled-up ground is not suitable because it requires considerably more efforts regarding the foundation (refer to picture item 8). In such cases you need to ask an expert for professional help. Please make sure that you do not reach the ground water. We recommend the use of a concrete platform for the erection of your pool.

If there is danger of water flowing down the slope, we recommend to roll up a drainage layer of approx. 20 cm. The platform should be about 30 cm bigger than the main dimensions of the pool, and of course it should be level. When it is armoured with a steel mesh, a thickness of 15-20 cm is sufficient. On this ground the pool stands safe, the brim cannot sink in, and the ground is always smooth for cleaning. Welded wire mesh Q 131, concrete Bn 25. For figure-eight-shaped pools, please make sure to incorporate the delivered steel girder base support into the concrete platform.

Oval-shaped pools require additional supporting side walls to stabilize the pool walls. Supporting side walls must be connected to the platform by iron reinforcements (not part of the delivery).

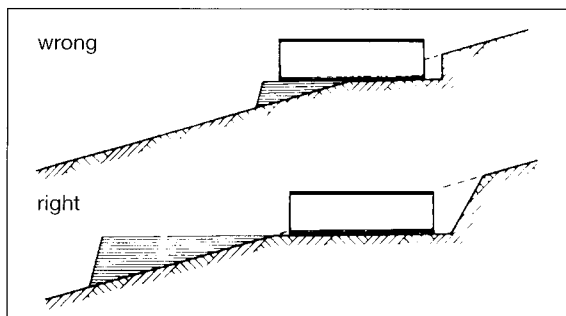


oval-shaped pool

4. SETTING UP THE POOL ON A SLOPE

applying to: round-shaped pools, figure-eight-shaped pools, oval-shaped pools

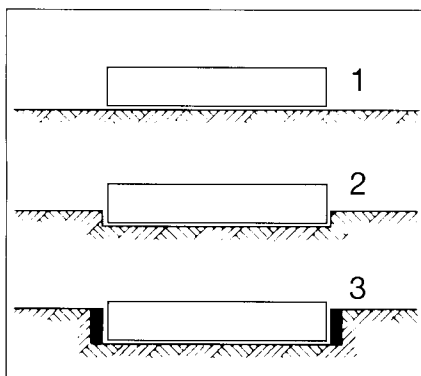
The level area for the pool must not be filled-up, but the surface prepared for the pool should be on solid ground. The slope must be stayed by a wall or by an embankment. Never use the wall of the pool to support the slope. You might want to contact an engineer engaged in statical calculations.



5. PREPARATION OF THE GROUND

Most of the oval-shaped pools / figure-eight-shaped pools can be erected above ground as well as embedded in the ground.

1. Round-shaped pool / figure-eight-shaped pool as above-ground pools
2. Round-shaped pool / figure-eight-shaped pool half sunk in, up to 20 cm (possible without back filling with lean concrete; for more than 20 cm, back filling with lean concrete is required).
3. Round-shaped pool / figure-eight-shaped pool as in-ground pool, with back filling of lean concrete, oval-shaped pool as in-ground pool.



round-shaped pool

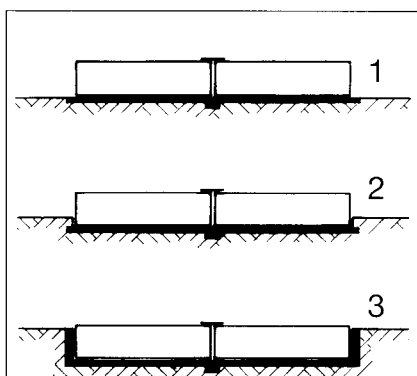
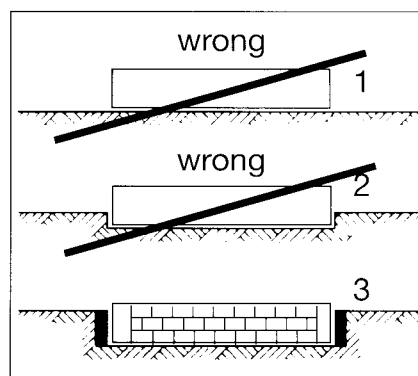


figure-eight-shaped pool



oval-shaped pool

The assembly of an embedded pool is subject to the same principles as the above-ground pool. Only at the beginning the pool site will be excavated according to the dimensions of the ground plan plus space for a lean concrete layer. The filled pool needs to be surrounded externally by a minimum of a 10 cm thick lean concrete wall. For the in-ground pool's isolation, lay 2 cm thick polystyrene mats outside between steel wall and concrete. Be careful that the steel wall will not be deformed by the pressure of the concrete. The concrete must not be stamped/tightened (for the definition of lean concrete, refer to page 10, item 16).

6. GROUND PLAN

6.1 For round-shaped pools, figure-eight-shaped pools, oval-shaped pools

The excavation for semi- and completely embedded pools should be about 15 cm bigger than the dimensions of the pool. When planning a technical room (filter unit etc.), this should have a size of 2,5 m x 2,00 m. Ventilation of the technical room is necessary. The depth of the excavation is calculated as follows: rollers + concrete platform + isolation + depth of the pool – pool overlapping = excavation site.

6.2 Figure-eight-shaped pools

Draw the exact ground plan acc. to the dimensions of your pool on your chosen location. Additionally dig a ditch (hatched area) for the base support. The base supporters are 14 cm high for 1,20 m-pools and 18 cm for 1,50 m-pools.

Thus it is obvious that the foundation ditch must be dug out bigger than the size of the girder.

The concrete platform must have a smooth finish.

Assembling the supporting frame

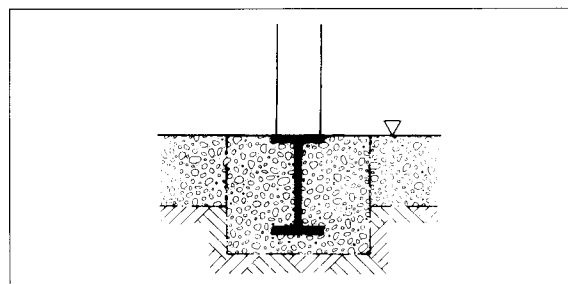
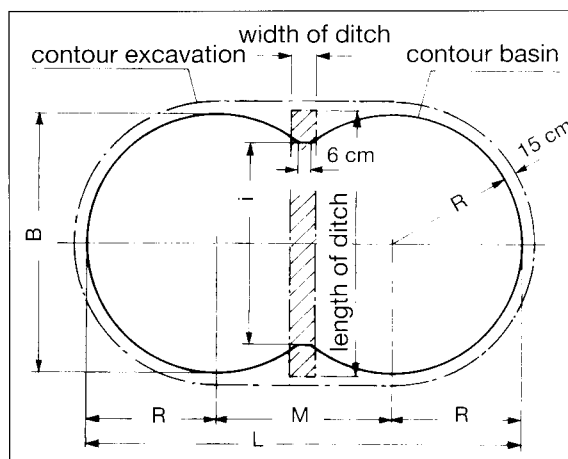
The supporting frame consists of the base support and two side wall supports. The components of the supporting frame must be carefully screwed to the front plates before installation.

Torque for the screws:

M 12 = 85 Nm, respectively 8,6 mkp

M 16 = 206 Nm, respectively 21 mkp

Place the supporting frame in the prepared site, level it out horizontally and vertically and fill in concrete. The concrete, respectively the ground plate must be level with the top edge of the base support (see sketch ▽). When using a ground isolation the base support = ground isolation. Do not forget the welded wire mesh (with a width of 150 mm and Ø of 5 mm).



Ditch for supporting frame (base support + steel wall supports)

Depth of basin 120 cm Depth of basin 150 cm

Length	Width	Depth	Length	Width	Depth*
310	25	10	330	28	15
310	25	10	330	28	15
440	25	10	460	28	15
420	25	10	440	28	15

*plus thickness of base plate

Size of basin

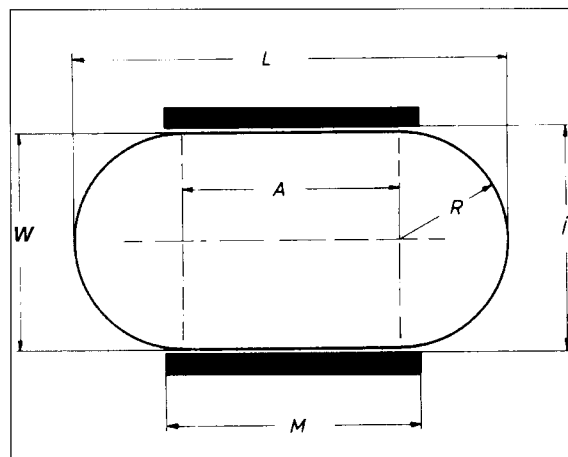
Dimensions in cm

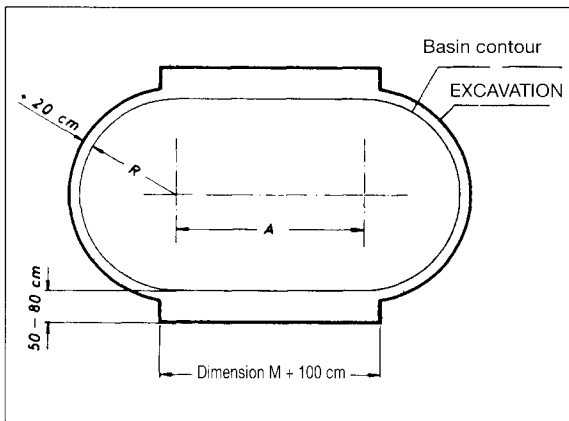
W	L	D	M	i
320 × 525	160	205	250	
360 × 625	180	265	250	
460 × 725	230	265	380	
500 × 855	250	355	358	

6.3 Oval-shaped pools

The dimensions of the pool are listed in the table below. Draw the ground plan of the pool on the floor and mark the outline with sand or flour.

Basin m	Wall m			
	W × L	A	R	i
3,20 × 5,25	2,05	1,60	3,24	2,25
3,00 × 7,00	4,00	1,50	3,04	4,20
3,20 × 6,00	2,80	1,60	3,24	3,00
3,50 × 7,00	3,50	1,75	3,54	3,70
4,16 × 8,00	3,84	2,08	4,20	4,00
4,16 × 10,00	5,84	2,08	4,20	6,00
5,00 × 9,00	4,00	2,50	5,04	4,20
5,00 × 11,00	6,00	2,50	5,04	6,20



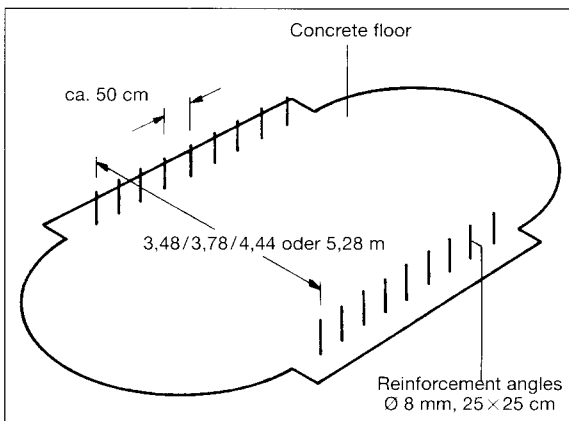


Excavation

For the excavation of the site refer to item 6.1. The excavation looks like the illustration opposite.

When the backfill of the round sides is not made with lean concrete, but as a wall, you have to excavate a suitably larger workspace. The depth of the excavation is 110 respectively 140 cm plus the thickness of the concrete platform.

In any case finally the top edge of the pool has to stick out of the ground for about 10 cm.

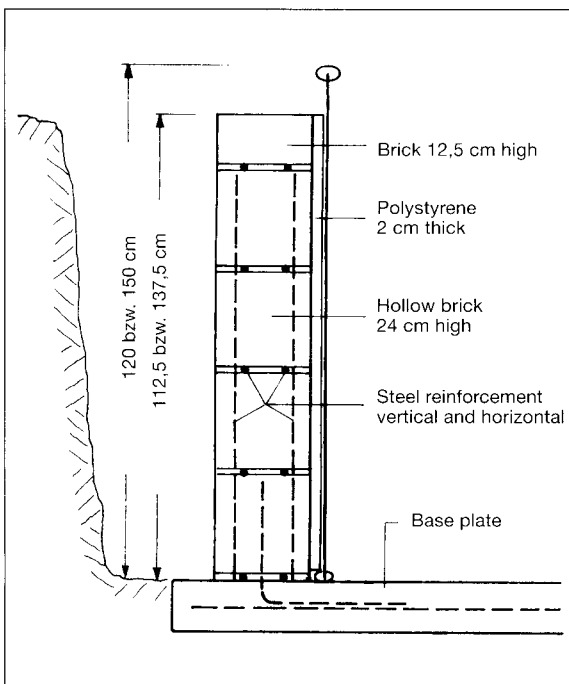


Platform

After digging and draining the excavation (drainage/rollers might be applied) you have to erect a concrete floor (25 N resistance per mm^2) with a minimum thickness of 10 cm. Insert welded wire mesh (with a width of 150 mm and Ø of 5 mm). Reinforcements have to be provided at the concrete platform where later the middle of the walls will be (structural steel Ø 8 mm, spacing approx. 50 cm, refer to sketch).

The size of the concrete platform corresponds to the dimensions of the excavation. The steel reinforcements are angled, about 25×25 cm. The distance between both lines of reinforcement is (when using hollow blocks with a width of 24 cm) 3,24 m, 3,48 m, 3,78 m, 4,44 m, respectively 5,28 m.

The concrete platform must have a smooth finish. The maximum slope of length and width must not exceed 1 cm.



Supporting walls

When the concrete floor permits you to step on it, both lateral supporting walls are erected. Every layer of the hollow blocks has to be filled with concrete before it will be armoured with structural steel (Ø 8 mm), vertically as well as horizontally.

Please ensure exact parallelism of both supporting walls.

For the dimensions between the walls please refer to sketch item 6.3.

Please note that the concrete does need a setting time (28 days).

The insides of the supporting walls have to be lined with 2 cm-thick polystyrene plates. They are fixed to the wall with polystyrene glue, which is applied in points. Please spare a gap of about 2 cm at the bottom of the wall. This is for the bottom rail.

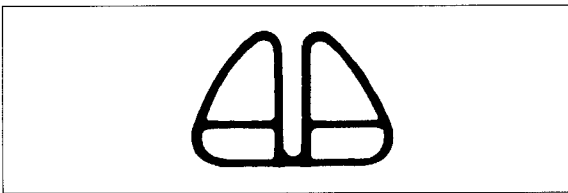
4 hollow blocks + 1 brick = 112,5 cm for 120 cm basin
5 hollow blocks + 1 brick = 137,5 cm for 150 cm basin

7. PROTECTIVE BASE PAD

applying to: round-shaped pools, figure-eight-shaped pools, oval-shaped pools

Attention! Do not drag the lining across the floor. This can cause damage and, if this causes leaking, will be excluded from the guarantee accordingly. **Always use an upholstery with fleece (synthetic fleece, thickness 5 mm).** Do not use any other base because it could cause a chemical reaction with the foil.

Lay out the protective base. It is laid down strip for strip, edge to edge on the ground, without overlapping. You might want to fix the strips with double-sided tape. Cut off overlapping pieces of the protective base. The protective base should be cleaned before the lining is installed (e.g. vacuum cleaner).



8. BOTTOM RAIL

applying to: round-shaped pools

Fit together the single pieces of the bottom rail, using the connecting tubes. Then lay out the closed contour of the pool on the ground.

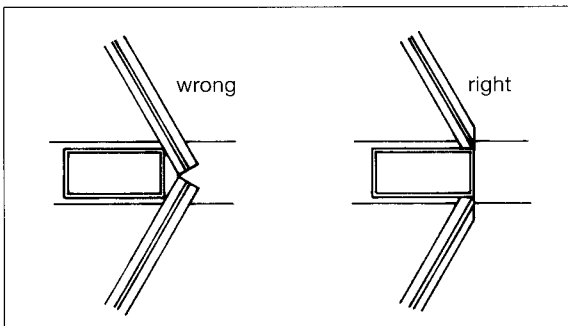
Please check the pool's exact symmetry. In order to close the wall of the pool, it might be necessary to shorten a bottom rail (refer to item 9). Please remove the burrs and fit the pieces together again.

applying to: figure-eight-shaped pools

The rails for the bent segments of the base are put together with the connecting tubes, forming marking two circle sectors. These sectors of the circle are laid out at the outside of the support of the side walls.

The bottom rail laying at the outside of the side wall support is sawn mitred as shown in the illustration opposite.

Please check the pool's exact symmetry. In order to close the wall of the pool, it might be necessary to shorten a bottom rail (refer to item 9). Please remove the burrs and fit the pieces together again.

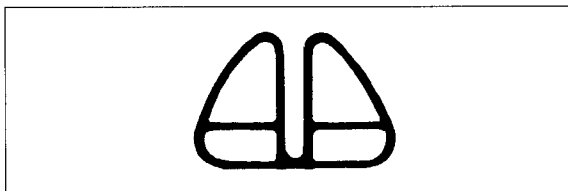


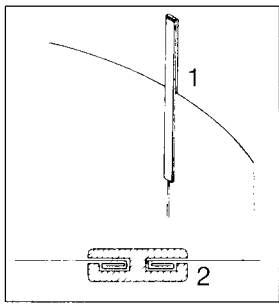
applying to: oval-shaped pools

First fit together the straight pieces of the bottom rail with the help of connecting tubes.

Lay the straight bottom rails directly in front of the wall, put them into the polystyrene slit and arrange it according to the wall. The wall is slightly longer. Then fit together the bent parts of the bottom rail and add them to the curve of the round sides of the pool.

Please check the pool's exact symmetry. In order to close the wall of the pool, it might be necessary to shorten a bottom rail (refer to item 9). Please remove the burrs and fit the pieces together again.





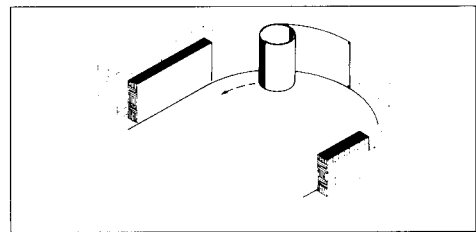
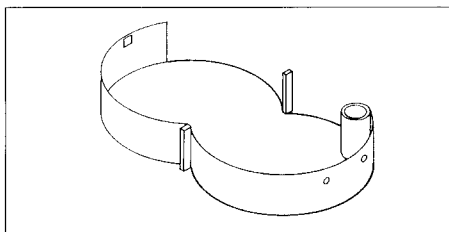
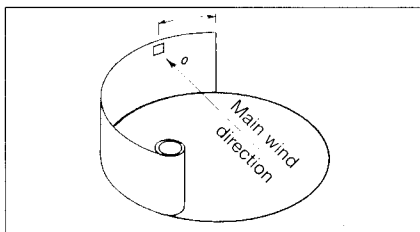
9. SETTING UP THE SIDE WALL

applying to: round-shaped pools, figure-eight-shaped pools, oval-shaped pools

We recommend first to assemble the ladder as you will need it for the rest of the building time to climb inside the pool. Furthermore, put the bag with the lining inside the pool before you start assembling the pool wall. We recommend to wear safety gloves. Now, place the pool wall on the spot where the skimmer will be installed later on. Here you start unwinding. Please make sure that the cutting for the skimmer is positioned in the top area of the steel wall. The white covered side of the wall is the outside. On one end of the wall a plug-in profile (no. 4 in the checklist) is positioned. Pull off this plug-in profile. Now you can unwind the rolled up steel jacket slowly at the inside of the given outline and, at the same time, put it in the slit of the bottom rail. Put the steel jacket – if possible- with some helping hands up, in order to avoid wrinkles in the jacket. Please make sure that no strong wind is blowing because this would make the setting up of the steel jacket more difficult. Position the ends of the jacket closely in front of each other, take the plug-in profile and put it over the ends according to illustration 1. The bevelled edge of the plug-in profile must be on top.

Please make sure the lock seam sits in the plug-in profile in the right position (see illustration 2). Pushing the plug-in profile over the lock seam has to go smooth. Gentle moving of both steel jacket ends improves the flexibility of the plug-in profile. Wrong assembling and forced setting up the plug-in profile causes damage to the steel jacket and effects the stability of the swimming pool. Install the flange sealing of the skimmer and fasten the skimmer with two attached screws at the steel jacket.

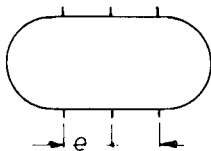
Components: If you want to include additional fittings (nozzles, spots) in your pool, the cuttings in the steel jacket have to be made now, refer to item 15.



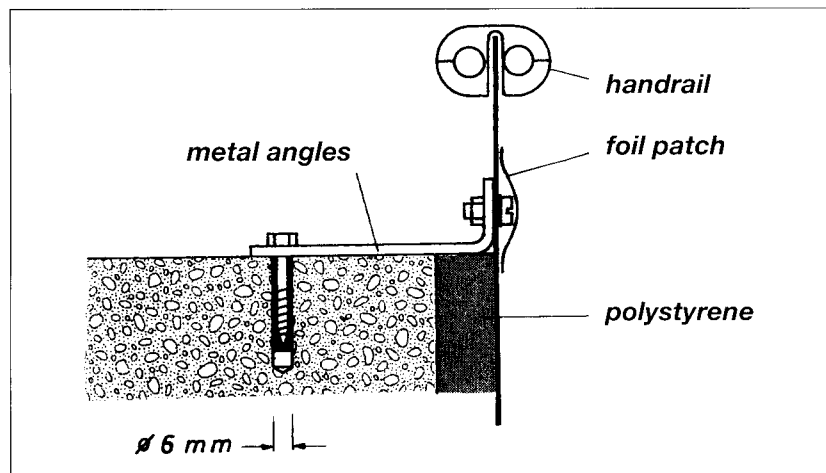
10. FIXING OF THE SIDE WALLS

applying to: oval-shaped pools

In the area of the straight supporting walls the pool wall has to be fastened with the attached steel angles. The necessary holes have to be drilled and afterwards protected against rust. Stick double-sided tape over the bolt and upholster it with a foil patch.



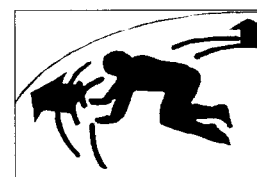
Basin size m	Number of holders	Holders per length side	Dimensions m
3,20 × 5,25	6	3	0,75
3,20 × 6,00	6	3	1,10
3,00 × 7,00	6	3	1,60
3,50 × 7,00	6	3	1,40
4,16 × 8,00	6	3	1,60
4,16 × 10,00	8	4	1,60
5,00 × 9,00	6	3	1,60
5,00 × 11,00	8	4	1,60



11. INSTALLING THE LINING

applying to: round-shaped pools, figure-eight-shaped pools, oval-shaped pools

Do not install the foil when it is too hot or too cold. The foil is a thermoplastic material. So you should do the installation at temperatures between $+15^{\circ}\text{C}$ and $+25^{\circ}\text{C}$ only. First lay out the lining in the pool, with the welded joint of the base lying at the bottom rail in the shape of the pool. Please make sure that the vertical weld is not positioned close to the skimmer, the underwater spots or the inlet nozzles as otherwise the water tightness of the pool cannot be guaranteed. To avoid damage, only walk barefoot or in socks on the lining. Now pull the lining up to the edge of the swimming pool and hang it up using the inset profile. Wrinkles in the lining on the wall can be levelled out by moving the liner. Wrinkles on the ground of the liner have to be levelled out evenly from the centre of the pool towards the outside. For the figure-eight-shaped pool, make sure that cutting edges of the bottom rail close to the base support are covered with protective fleece.

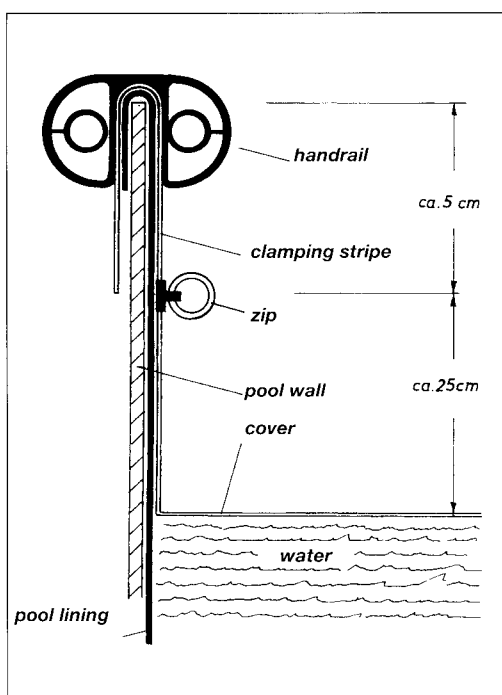
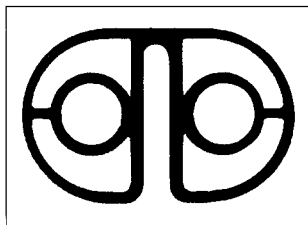


12. FILLING THE POOL WITH WATER

applying to: round-shaped pools, figure-eight-shaped pools, oval-shaped pools

Take care that the welding seam of the lining between bottom and wall is placed exactly in the corner bottom/wall of the pool. Remove the last wrinkles before filling the pool.

Again, make sure that the liner lies tightly at the walls and that there are virtually no wrinkles left. The last remaining wrinkles can be 'ironed' easiest by filling the pool with 2 cm of water. Now the wrinkles can be corrected. The correction is done best by getting into the pool, with no shoes on, in order to smooth the foil with your feet. Now you can continue filling your pool up to 10 cm beneath the first fittings. Please, only use taped water and not water from a well. Water from wells often contains metal particles (iron, manganese) and may in combination with the pool-care products cause oxidation and discolouring of the pool water.



13. ASSEMBLING THE HANDRAIL

applying to: round-shaped pools, figure-eight-shaped pools, oval-shaped pools

For an oval-shaped pool start at the straight side (wall).

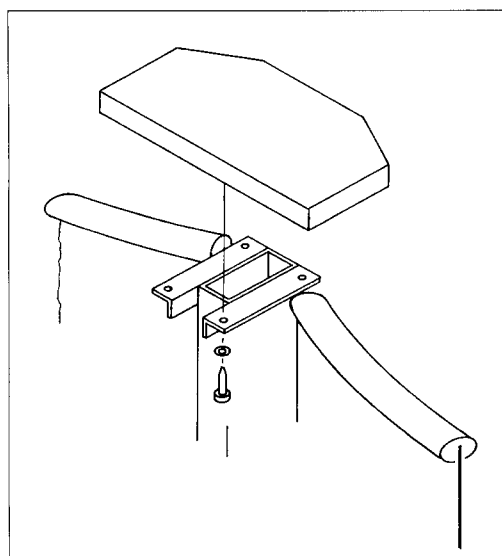
Fittings/SafeTop® – assembly: If you purchased our SafeTop® cover, please observe the according assembly instructions.

Connect two handrail sections with a connecting tube and press the handrail over the hanging profile with the groove onto the pool wall. However, before you press down the handrail completely, insert the next handrail section thus gradually completing the whole handrail.

If necessary, spaces between the sections have to be closed tightly by removing the handrail once more. Where the first and the last handrail segment meet, the last handrail segment might be too long.

If so, cut the section to the right length on one side with a metal saw. In order to close the last handrail segments, please take off the ends of both segments from the side wall. Now insert the connecting tubes into the last piece and press the complete handrail back onto the pool wall.

Changes in temperature may cause spaces between the single handrail segments which is quite normal. You might want to insert a sawn off piece. Attention: Do not stand or sit on the pool wall (handrail)!



14. ASSEMBLING THE COVER PLATFORM

applying to: figure-eight-shaped pools

Now fix both cover platforms, each with 4 screws, on top of the vertical rails. The platform should provide a clean top finish of the base support and should cover sharp edges. Do not use as springboard.

15. ASSEMBLING SKIMMER, INLET NOZZLE, SPOTS AND OTHER FITTINGS

applying to: round-shaped pools, figure-eight-shaped pools, oval-shaped pools

Prior to the assembly fill the pool with water up to 10 cm below the height where you want to install the concerned fittings. That way the foil is pressed evenly to the wall.

There are different ways of assembling. On demand our swimming pools can have punched cut-outs for the skimmer (item No. 502010310), as well as punched cut-outs for the inlet or several inlets. Note: The cut-outs for underwater spots or other fittings cannot be made in our works. They have to be made during the assembly. Attention! The punched cut-outs should always be made before the lining is installed.

Pay attention to the wind direction. Try to position the skimmer facing the prevailing winds so that the wind already blows the dirt to the skimmer.

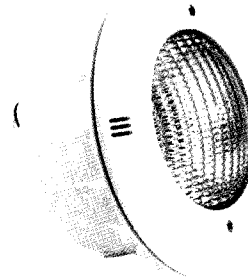
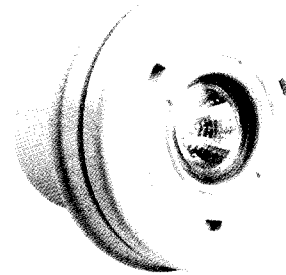
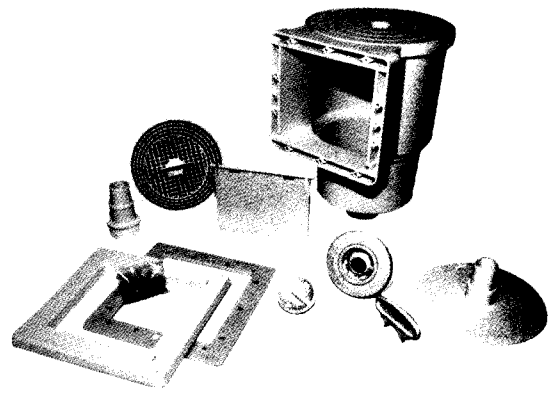
For further information about the assembly of skimmer, halogen spots, or other fittings please refer to the according assembly instructions.

We want to emphasize that all cut-outs for additional fittings, like inlets or underwater spots, have to be deburred and sealed with corrosion protection paint or zinc paint.

The pool's guarantee is void if other than original W+H fittings are used.

The same applies if the steel jacket gets rusty because cutting edges have not been protected against corrosion the way described above.

If there are any further questions, please contact your specialist supplier.



16. BACKFILL OF HALF AND COMPLETELY EMBEDDED POOLS

applying to: round-shaped pools, figure-eight-shaped pools, oval-shaped pools

The pool basin should be back-filled with a lean concrete layer 15 to 20 cm thick (lean concrete B10 approx. 10 N/mm² strength, or a mixture of approx. 1 : 10 depending on the grain size of the aggregate gravel). For heat insulation and protection of the steel wall we recommend to put a layer of 2 cm thick polystyrene mats between basin wall and concrete. Take care that the steel wall is not deformed by the pressure of the concrete. The backfill has to be built in layers of about 30 cm in height. Every layer has to set before the next layer can be filled in. The basin must be filled with water while doing this.

The concrete must not be too wet and should be neither shaken nor stamped. Otherwise, the walls of the pool will deform inwards.

17. POOL CARE

Your swimming pool has a PVC-foil lining. Normal dirt can be removed easily with water and a soft brush. Gross contamination can be removed with Edge Cleaning Agent (item No. 502010848) or Base Cleaning Agent (item No. 502010849). Use only cleaning and care products recommended by the manufacturer. Excessive use of care-products for the water (e.g. chlorine) can cause discolouring of the foil.

18. REPAIR

applying to: round-shaped pools, figure-eight-shaped pools, oval-shaped pools

If your pool should be damaged, small holes can be repaired with no difficulties. We recommend our WÜLFING + HAUCK underwater-repair kit (item 502010830, not part of the delivery).

19. HIBERNATION

applying to: round-shaped pools, figure-eight-shaped pools, oval-shaped pools

After the pool season, late in autumn, first steps for the hibernation of your swimming pool should be taken. Experience has shown that the safest way is to leave the pool filled with water. A pool which is not or only partly filled can be destroyed by wind and might cause loss of your guarantee.

First, we recommend to optimise the water values (pH-value, disinfecting) and to add our winter preservative (item No. 50201087) to the water in order to prevent the growth of algae. Switch on the filter unit to circulate for several hours.

In order to prevent damage caused by frost the water has to be drained until the level is about 10 cm beneath the skimmer. Close inlets with the winter sealing cover. Afterwards drain the pipe work (water) and the filter unit (water + quartz sand). Store the filter unit in a frost-proof place. In spring fill the filter vessel with new special pool quartz sand (item No. 502010392).

Fittings:

Furthermore we recommend to cover the pool with a SafeTop® cover or an extra cover in order to prevent the growth of algae. Should an excessive amount of water accumulate on top of the cover, it has to be pumped off with our cover-pump (item 501530035).



*Have a nice time and a lot of fun with a pool
made by*

WULFING + HAUCK

* look at garanty card