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USER'S MANUAL

Together with this written manual, we developed very detailed, visual step by step instruction drawings for every model. They are supplied on a CD.

READ THIS MANUAL VERY THOROUGHLY BEFORE ASSEMBLING THE RAMPS !
When this manual isn't followed step by step during the assembly of the ramps, our guarantee will expire completely.

1. ASSEMBLY INSTRUCTIONS

1.1 General instructions

- Don't open all boxes in 1 time. Open box by box and screw the sides together with the struts. Put the rest of the components on the labelled covering of the box. In this way you can find back every component in a later stage.
- Ramps which will be assembled sideways together, must be fixed to each other with 12 mm bolts. Use the holes provided. When the ramps are placed back to back, you'll have to screw them together through the struts.
- When different models are assembled together, don't forget to put the steel protection sheets between the different sections.
- The surface on which the ramps will be placed must be level and not allow any standing water.
- The safety zone around the ramps must be respected (assemble the park according to the groundplan).
- Where facilities for users of roller sports equipment are to be erected in combination with playgrounds, sports grounds, holiday parks and similar establishments they have to be physically separated with an appropriate, distance, fence or other constructional measures from the general playing activities.
- Near the entrance of each skate park, a sign should be placed that lists the rules for use of the equipment :
 - A helmet must be worn at all times.
 - Wrist/ hand protection, elbow protection and knee protection is required.
 - Appropriate footwear must be worn while using the skateramps.
 - Only inline skaters and skateboarders may use the skateramps.
 - Don't hamper the other users. The skatepark is no meeting place for the youth but a sports ground for skaters.
 - Do not bring obstacles into the skate park. The skateramps may not be moved, because this may result in the safety-zones being obstructed. Should this happen, notify the manager immediately.
 - Before starting to skate, check the ramps for possible damage such as loose screws, missing or broken safetyrails or damaged surfaces.
 - In case of damage, inform the manager immediately.
 - Skate at your own risk; the skate ramp builder can not be hold responsible for any possible accidents.
 - Responsible manager :

Obligatory check of the skateramps

- Weekly :
- check for any visible damage, and inform the park manager.
 - check the silicone in the joints, replace if necessary.
 - check that the ramps have not been moved or that other obstacles have not been placed in the clearance areas, and inform the park manager.
 - Remove broken glass, metal or other potentially dangerous material in the skate park area.
- Monthly :
- check that there are no loose screws or fittings.
Tighten the screws or fittings
 - check that the safetyrails are in place and secure.
Inform the park manager about loose, damaged safetyrails
 - check that the skate surface is not cracked or otherwise damaged.
Report damaged surface to the park manager
- Yearly :
- complete check of the entire skate park, and repair any damage.
 - replace any damaged or worn out parts or components.
 - confirm that all safety zones are in compliance with current guidelines.

Check the skatepark according to the use of it. Check the skatepark more often, when the skatepark is used alot.

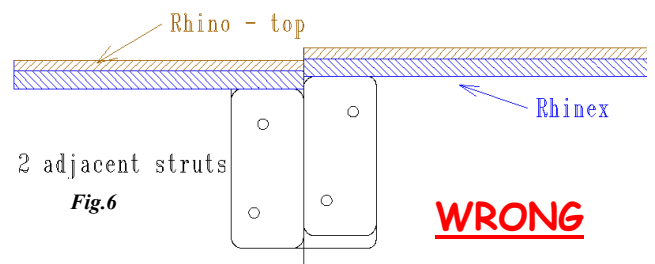
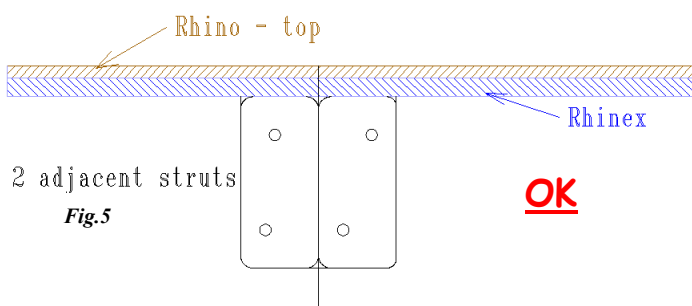
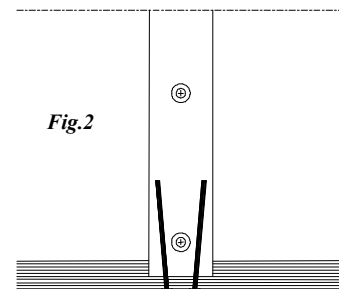
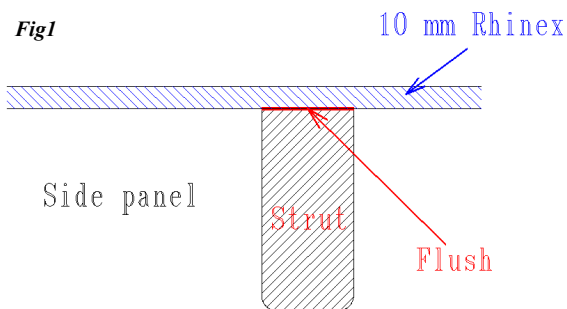
1.2 Tool list

High quality cordless screwing gun (min. 12 V)	T25 bits	Push Broom
12 mm Hammer drill	16 mm concrete bit	Polyurethaan kit + gun (310 ml)
Right angle vise-grips	12 mm wood bit	Plastic/rubber hammer
Metal File	6 mm wood bit	Tape
10 mm wrench/socket	3 mm metal bit	Ladder
17 mm wrench/socket	4 mm metal bit	
19 mm wrench/socket	6 mm metal bit	
Rivet gun	12 mm metal bit	

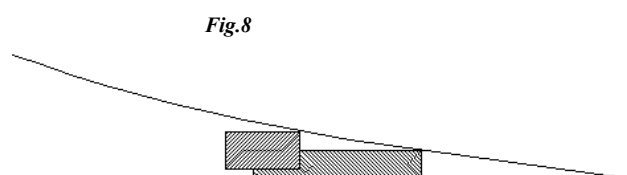
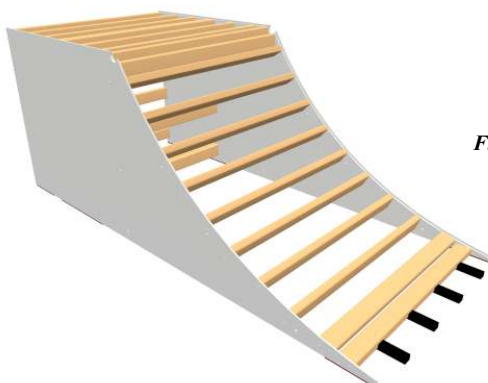
2. ASSEMBLY OF THE RAMPS

2.1 Placing the struts and the aluminium strips

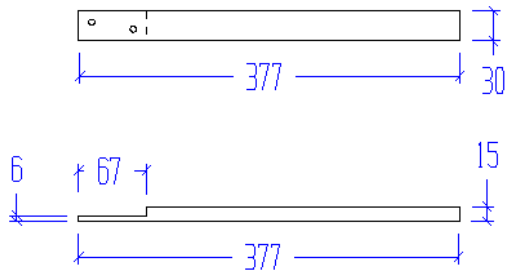
- A minimum of two people is required to assemble the ramps. One person holds the two side panels on the right place ; the other screws the struts. Use the 70 mm screws (Fig. 4) to fasten the struts. The struts should be seated in the cut out in the side panel (Fig. 3). Take care that the struts don't extend past the top of the groove, so that the skate surface can be placed flush afterwards (Fig. 1, Fig. 3).
- When there are two adjacent struts, they have to be leveled out ! (Fig. 5, Fig. 6)
- Place the screws a little to the outside, so that they won't be placed in the same position as the screws of the surface. Otherwise, the screw that has to draw the surface tighter, will come against the screws that attach the struts to the side. Do this in order to prevent the breaking of the screws (Fig. 2).



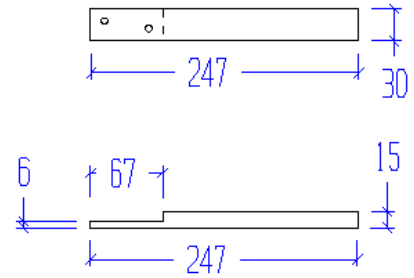
- For ramps with a toeplate, the bottom strut (for the nose of the ramp) will be foreseen of extra PE support blocks (Fig. 7, Fig. 8). These struts are prepared in the factory and carry the name of the model they belong to (Fig. 9).



Fly wedge



Flat bank, Flat wedge, Streetspine, Roller



Quarterpipe, Large streetspine, Large fly wedge

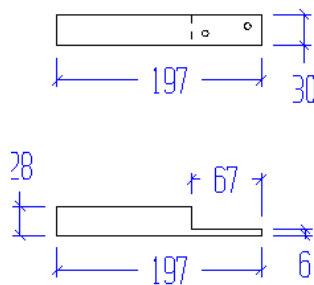


Fig.9

- After all the sides and struts (frames) are assembled, stand the sections upright and attach the HPL 6 mm protection strips to the bottom side of the 16 mm side panels. Use the long strips for 'the nose of the ramp' and the short strips at the back end of the side panels (Fig. 10). Use the 20 mm screws (Fig. 11) to fix these aluminium strips. Screw the 4 x 20 mm screws carefully! (Fig. 12)

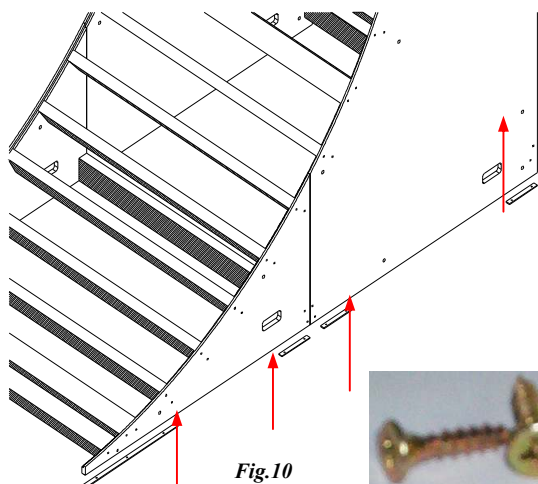


Fig.10



Fig.11

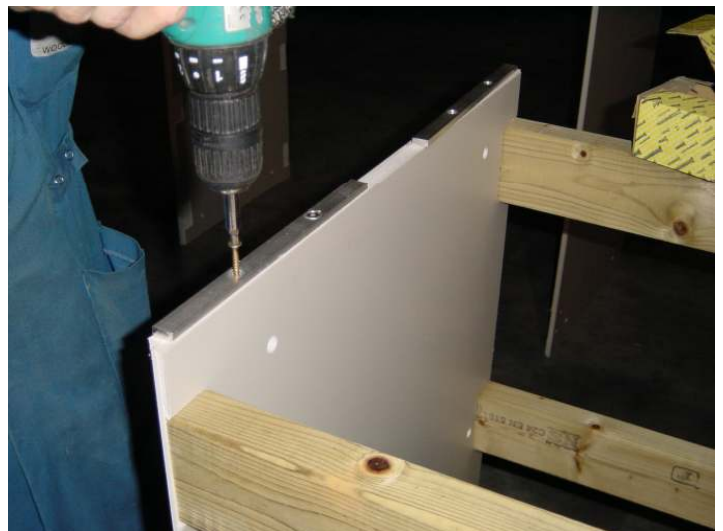


Fig.12

2.2 Fastening the sections together

- First fasten the different parts of a ramp together length-wise. The adjacent struts must be screwed together with a minimum of 3 screws (length 70 mm) per strut (Fig. 4, Fig. 13). Spread the 3 screws evenly over the length of the strut.



Fig.13

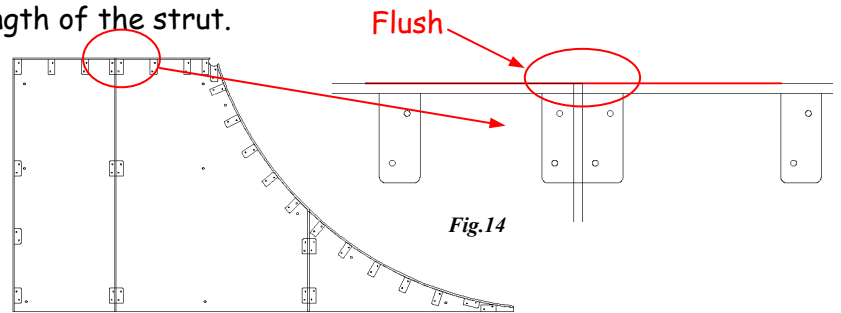


Fig.14

Take care that the side panels firmly touch each other and that the tops are perfectly flush (Fig. 14). If necessary, you also have to fill up the parts at the bottom with the extra supplied shims of 3,6, or 10 mm. Take care that the side panels touch the surface on the positions where the aluminium strips are fixed.

U can also use a adjuster (Fig. 15, Fig. 16) to level (support) the ramp when the surface is not perfectly flat.



Fig.15

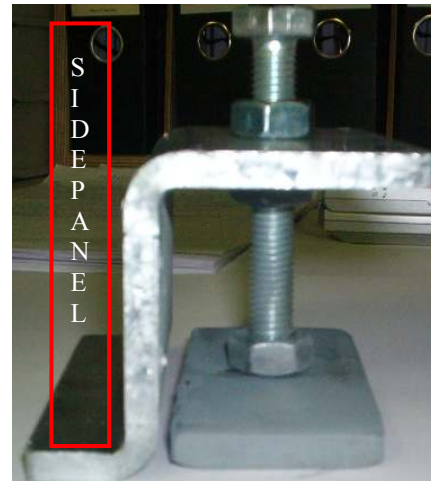


Fig.16

- In order to fix the several sections in the width ; fasten them with 12 mm hex bolts and two washers. (Fig. 17, Fig. 18)



Fig.17

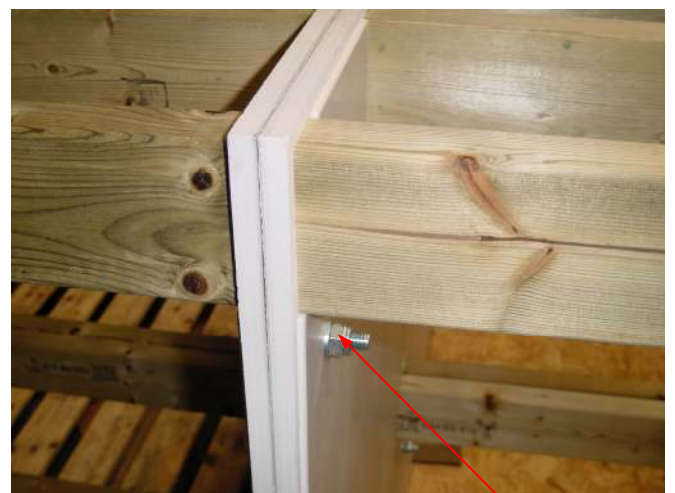


Fig.18

- Tighten the hex bolts strongly with a nr. 19 open-end wrench or socket. (Fig. 19, Fig. 20) Please, be aware of the fact that when you have to bolt two different types of ramps together, some of the steel side protection sheets have to be put between different sections before you bolt them together !!! You may have to drill a 12 MM (1/2 ``) hole through one of the sides.



Fig.19



Fig.20

- Take care that the ramps are perfectly lined up and fasten them to the surface with the supplied edge profile and anchor bolt at the inside of the ramp. Use the 4 x 20 mm (Fig. 9) screws to screw the L - profile to the side of the ramp. (Fig. 21, Fig. 22)



Fig.21

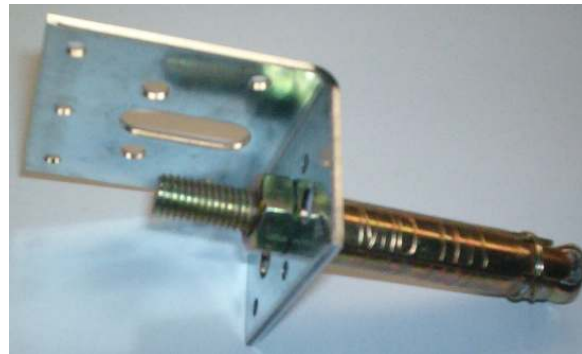


Fig.22

- Every nose needs one anchor and for the backs of the ramps only put anchors in the outside edges. (Fig. 23)

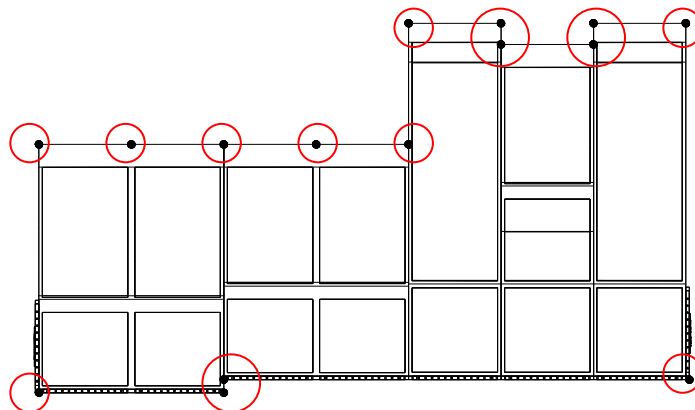


Fig.23

2.3 Placing the galvanised steel side protections

The protection sheets for the sides have rectangular holes (Fig 24). Hold these plates to the side which has to be protected and drill with a 7 mm drill (the bolt must have space to move !) through the holes in the side panel (be sure that you line them up with the top of the side panel and that they don't touch the ground ! You better put 6 mm shims under the galvanised sheets to level them up). Bolt the plates to the ramp with the delivered round headed M6x30 bolts. (Fig. 25, Fig. 26).

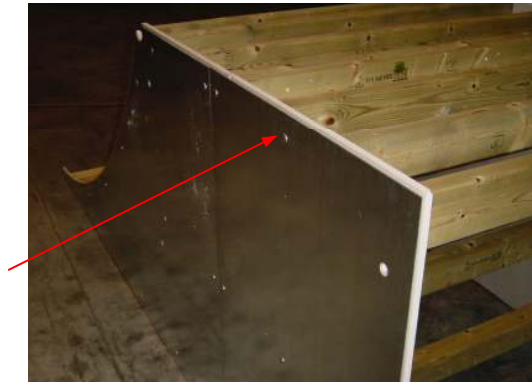


Fig.24

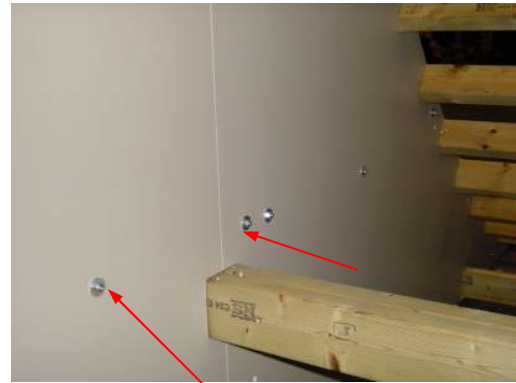


Fig.25



Fig.26

2.4 Fastening the 9 mm backpanel

- Place the backpanel between the sides and take care that the top of the back is placed even with the top of the side of the skateramp (this has to be done carefully, because this action will level out the safety rails in a later stage !) (Fig. 27). Use 50 mm screws (Fig. 29) to attach the backpanel. Make sure that the backpanel has the correct side up (the holes for mounting the safetyrails must be on top) (Fig. 28).

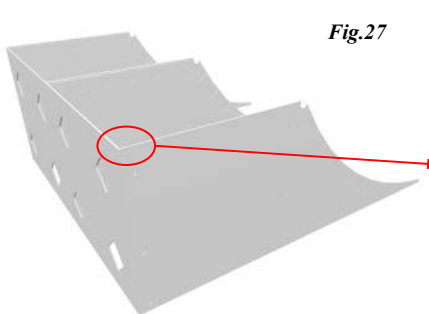


Fig.27

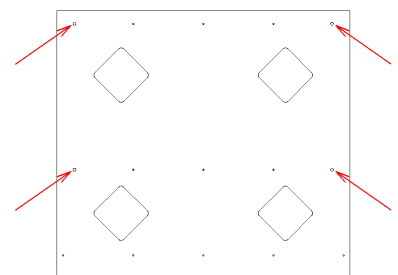
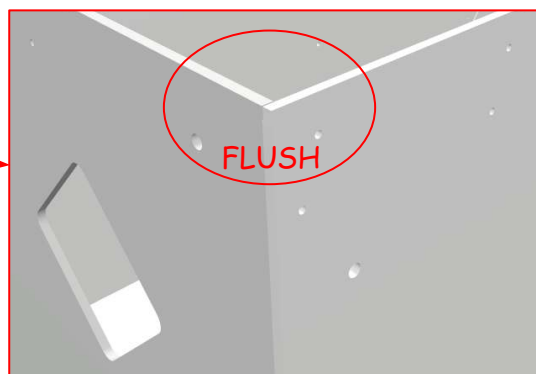


Fig.28

For the protection of the backs of the ramps, we supply galvanised protection plates with countersunk screw holes, which have to be fastened with 5x70 mm screws (Fig. 29, Fig. 30).



Fig.29

Fig.30



2.5 Installing the safetyrails

2.5.1 backrails

- For the safetyrails of the backside (rails without a steel plate for the logo), you'll have to drill 12 mm holes in the struts of the backs. These holes will be used to attach the safetyrails. Use the holes in the backpanel as a guide.
- Before you start with assembling the safety rails, you have to put the special hooks in the backs to strengthen the construction (Fig. 31, Fig. 32, Fig. 33, Fig. 34). Use 5 x 50mm screws (Fig. 29) to hold these hooks into position.



Fig.31

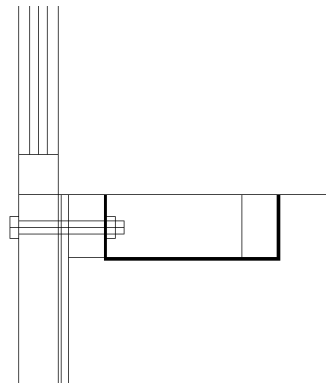


Fig.32

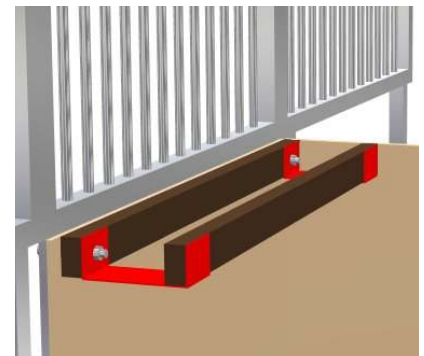
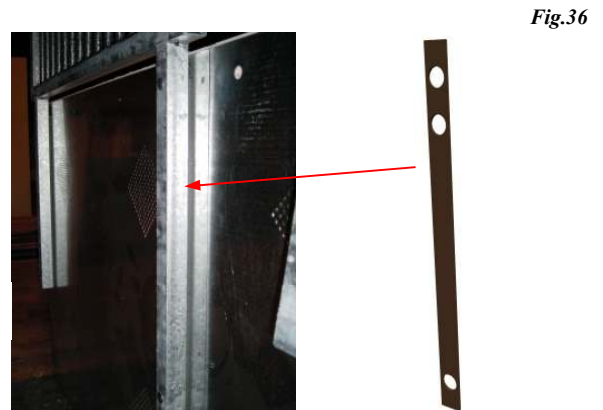
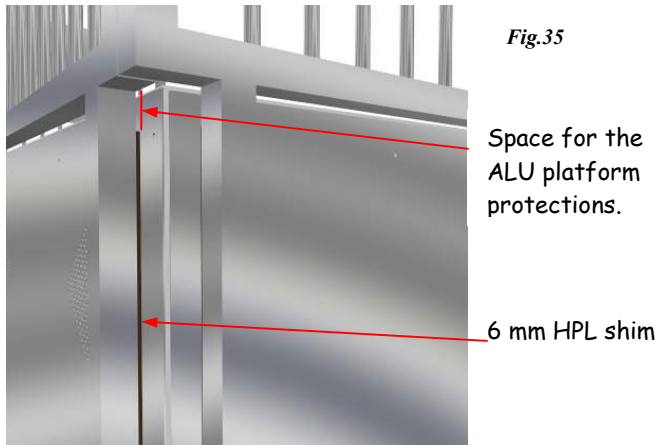


Fig.33



Fig.34

With each delivery we provide shims of 6 mm HPL that have to be placed between the safetyrail and the ramp (Fig. 36). These blocks take care that the aluminium coverings can be assembled on the platforms by finishing the ramp (Fig. 35).



- Use M10 x 120 mm bolts (Fig. 37) to attach the rails to the back of the ramps. Use the big washers and the M10 locking nuts to fasten the bolts.
- NOTE : On occasion due to custom configurations of ramps, special safetyrails may be required. These will be clearly marked and accompanied by specific installation instructions.

2.5.2 Side rails

- For the side rails (with the steel plate to attach the logo), you have to drill 12 mm holes through the side panels, using the holes in the steel protection sides as a guide.
- For the side rails you have to use the same 6mm shims as a spacer for the alu edgeprotection later in the assembling proces (Fig. 35, Fig. 36).
- Use M 10x 90 mm bolts for the side rails (Fig 38)



2.5.3 Side rail-back rail connection

Where side and back rails meet, we have to connect them with M10 x 120 mm bolts (Fig. 37). Use the white caps (Fig.41) to cover one end of the bolt. When you have different heights, please drill the holes yourself. Don't forget to put the black rectangular infill caps in the backrail as spacers (Fig. 39, Fig. 40).

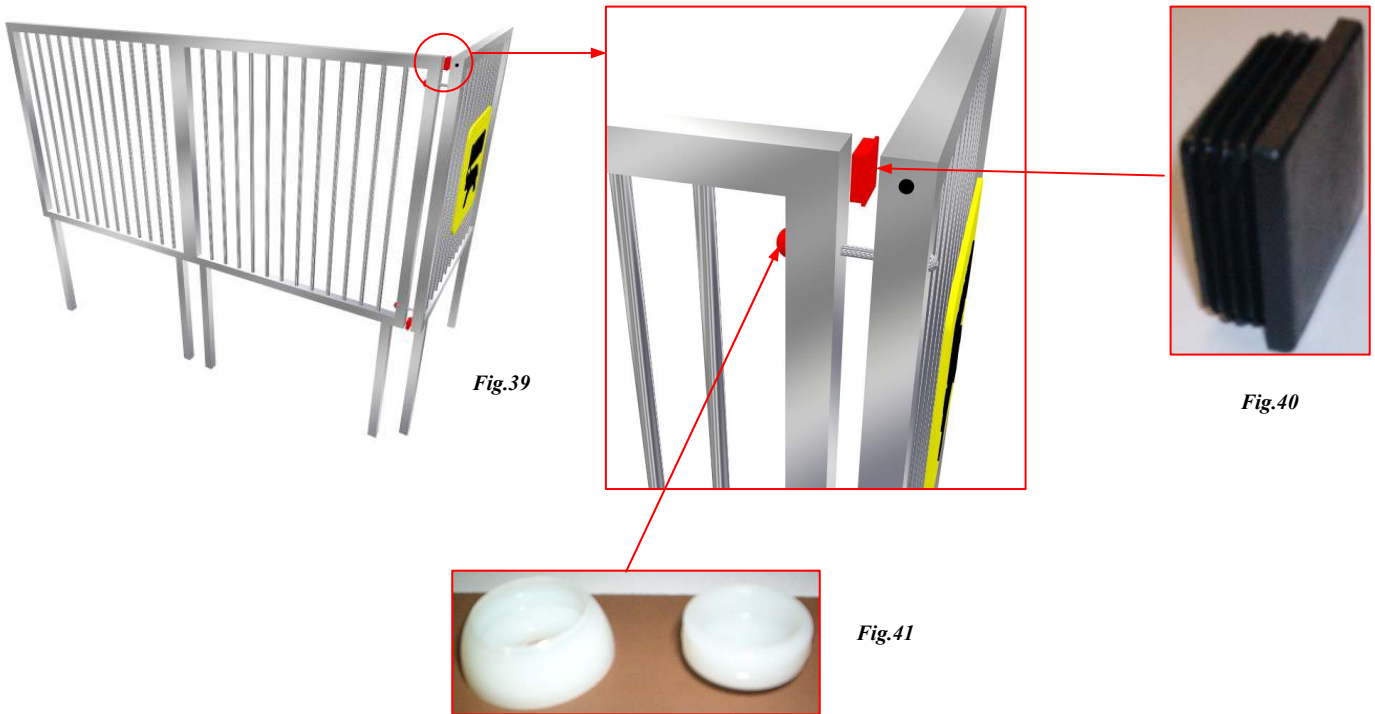


Fig.39

Fig.40

Fig.41

2.5.4 Back rail- back rail connection

2.5.4.1 Same level

Where two backrails meet on the same level, we supply special caps (Fig. 42, Fig. 43) that fit on top of the back rail. These caps have 4 mm holes and must be attached to the ramps with rivets.



Fig.42



Fig.43

2.5.4.2 Same depth different level

Where two rails meet on a different level, we supply little plates with 4 holes of 4mm (Fig. 45). Place one at the inside and one at the outside of the two adjacent rails. These plates have to be riveted to the rails (Fig. 44).

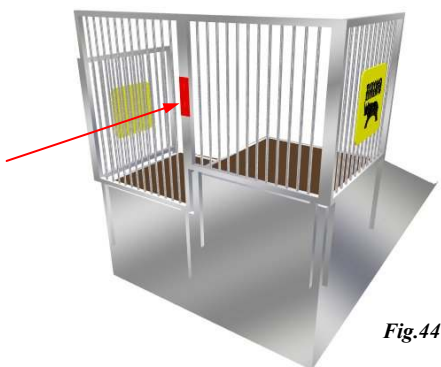


Fig.44



Fig.45

2.5.4.3 Different depth, different level

Where two back rails meet on a different level and a different depth (1.1QP-1.5QP and 1.5QP-1.8QP), we supply special profiles, which have to be riveted to the rails (Fig. 46, Fig. 47).



Fig.46

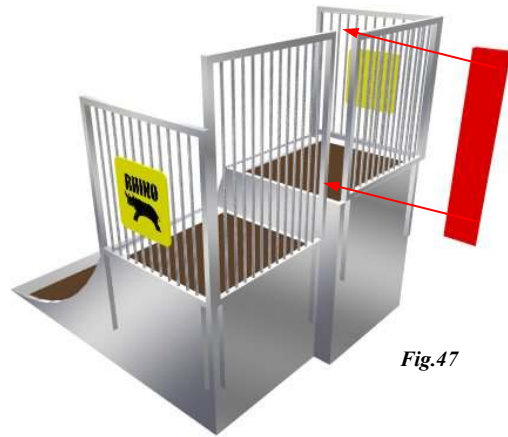


Fig.47

2.5.5 Stand alone side rail

In some configurations, we can have a stand alone side rail (Fig. 49).

Fig.49

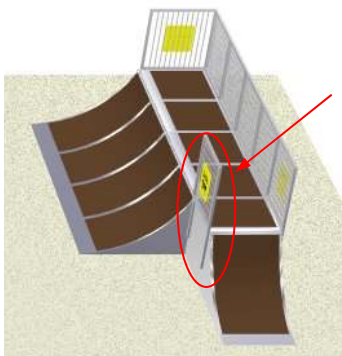


Fig.50

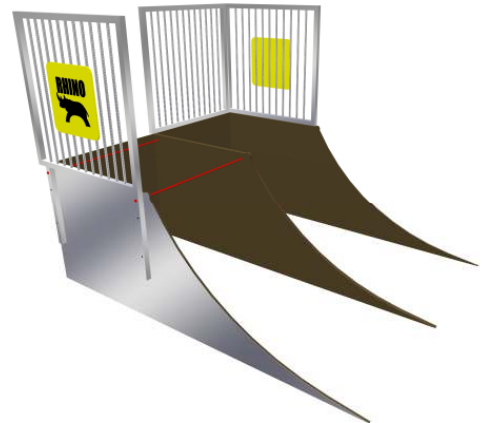
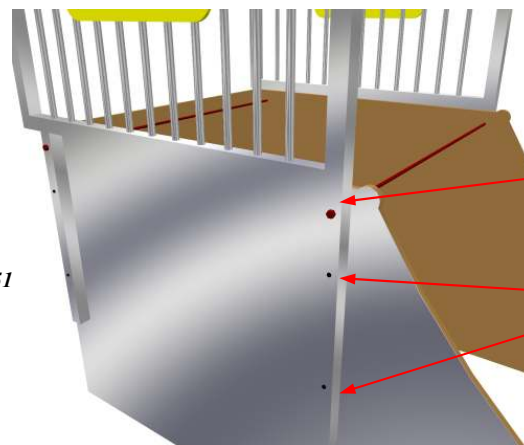


Fig.51



Drill a extra hole
for the long bolts

Normal bolts for the
safetyrails

Lenght 1.5M



Fig.52

To prevent this rail from ripping of the ramp structure, we supply special connectors (long bolts) (Fig. 50, Fig. 51, Fig. 52) to connect the rail with a complete section of the ramp (Fig. 50). Use the white caps (Fig. 41) to protect the outside end of this bolt.

2.6 Placing the coping

2.6.1 For Halfpipes and Quarterpipes (always diameter 60 mm)

- To fasten the coping on HP and QP, use M6x120 mm bolts and locking nuts (Fig. 54). Make sure that the bolt holes in the coping are to the front and horizontal to the ground (Fig. 53). This is for safety reasons. Drill with a long 7mm drill into the adjacent strut and fasten the coping to the strut with the bolt and locking nut.

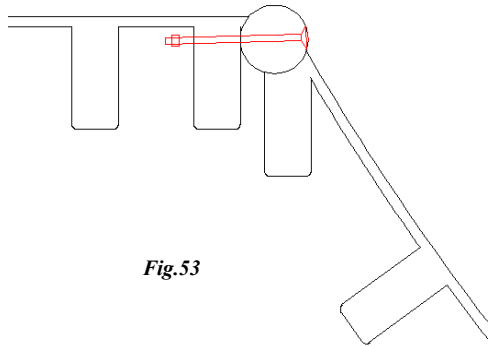


Fig.53



Fig.54

- When the coping consists of more than one piece, aluminium tube connections will be provided (Fig. 56) These connections make sure that the coping is equal over the complete width of the skateramp (Fig. 55).

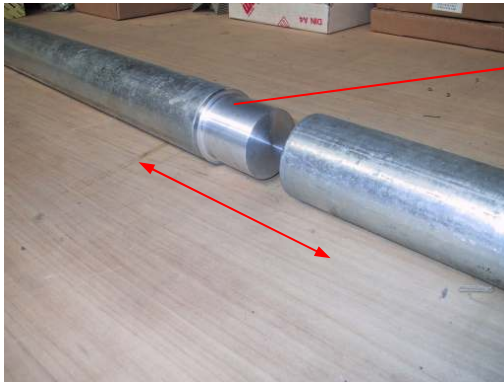


Fig.55



Fig.56

- Insert a PE infill cap (Fig. 58) in the ends of the copings (Fig. 57); glue this with the Sikaflex.



Fig.57



Fig.58

2.6.2 For 0.6M streetspine (diameter 42 mm) and 1.1 - 1.5M Streetspines (diameter 60mm)

the copings of the streetspines must be attached to the struts differently. Use 6x120mm woodscrews (Fig. 60). Be aware that you screw these screws in the middle of the struts (maybe a little bit in an angle) to attach them firmly. To avoid that these screws will come loose, we advise to put Sikaflex on the screws before you screw them in! You will need a special bit what will be supplied with each delivery. Put enough Sikaflex in the joint between the copings. Put also glue between the copings and the support struts (Fig. 59).

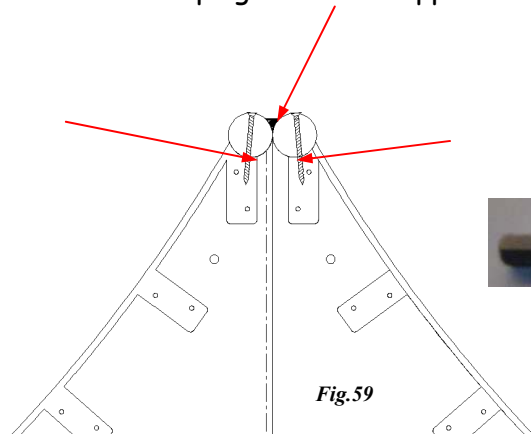


Fig.60

2.7 Assembling the skate surface for ramps with a toeplate (WEDGES, FLAT BANKS, QUARTERPIPES, STREETSPIPES)

NOTE : Where horizontal seams come together from the Rhino - top and Rhinex, we have to protect the struts with a Plastic film (Fig. 63). This sheet will prevent the water to go between the seams underneath the construction. You need to place this sheet under the Rhinex, and glue it to the double strut (Fig. 61, Fig. 62). (also see the detailed construction drawings of the different ramps). Make sure that the adjacent struts are perfectly leveled out to each other !

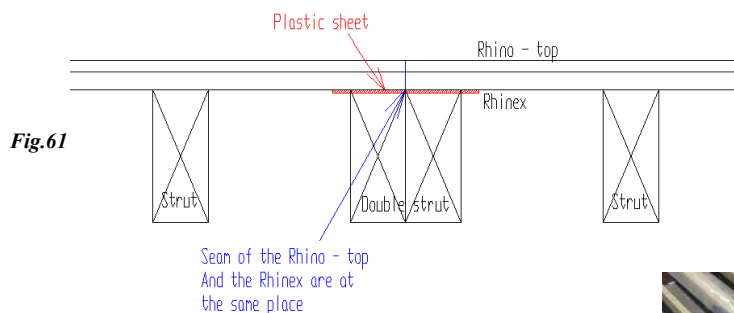


Fig.63

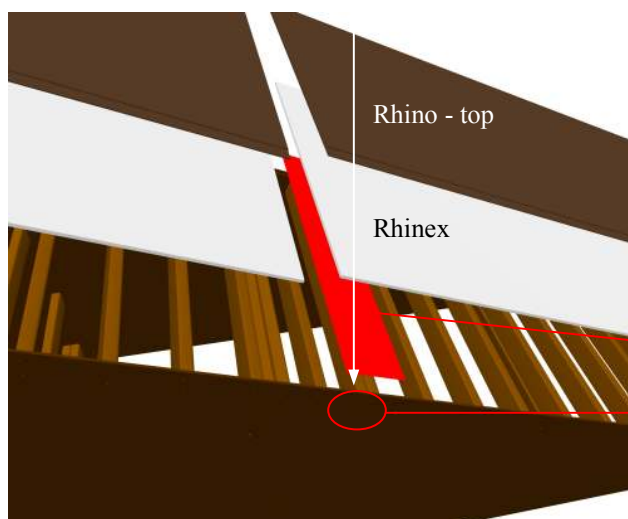


Fig.62

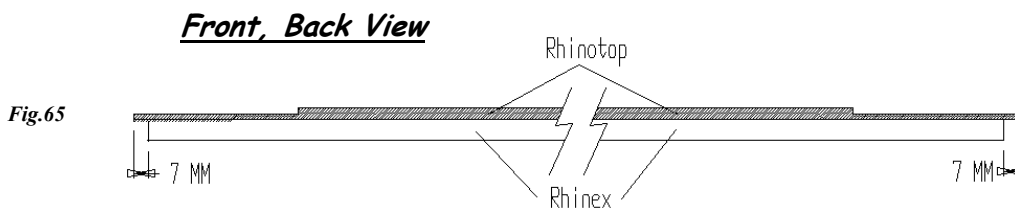
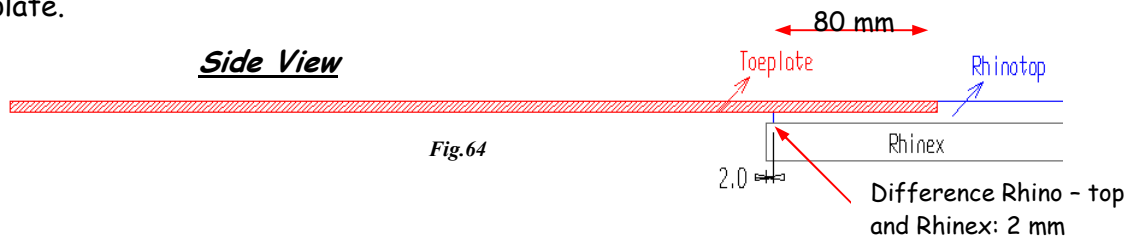
PVC sheet

Double strut

2.7.1 Putting together the rhinotop + 10 mm rhinex + toeplate

NOTE : There are two types of toeplates : 250MM wide (10'') for flat ramps, and 330MM wide (12'') for curved ramps.

Put the 10 mm Rhinex on a table (if it's possible you have to use a large funbox as a working table and leave out one head panel), then place the skate surface on top of it. Make sure that the Rhinex is overlapping the Rhino - top (Fig. 64) for 2 mm at the bottom. Devide the rhinotop along the width of the Rhinotop sheet in equal parts (about 7 mm on both sides, and put clamps on the sides so the sheets won't move) (Fig. 65) . Place the toeplate in the fraised out part of 80 mm and drill the ten holes through the Rhinex sheet with a 8 mm (!!) wood drill (when you use a 6mm drill the Rhinex will bend the toeplate in the sun !!!). Use the bolts 6 x 25 with torks head (Fig. 66) to fasten the toeplate. Don't forget to use the washers M6. Tighten the hex bolts (don't overtight them !) with a screwdriver and a 10 mm open-end wrench or socket (Fig. 67). Some Rhinotop sheets will have fraised out parts on two sides , watch out that you use the 80 mm fraised out part for the toeplate.

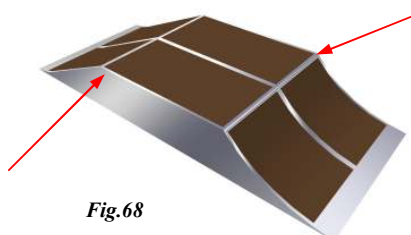


2.7.2 Screwing the surface with galvanised transition protection to a straight ramp

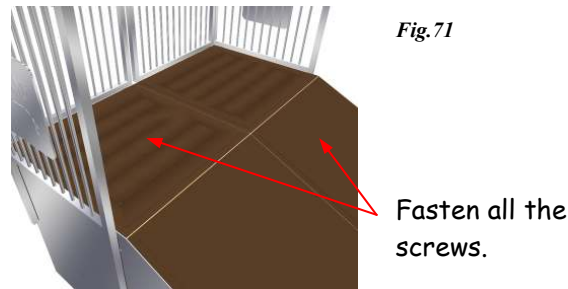
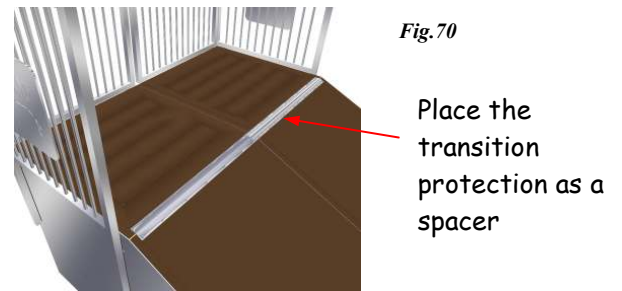
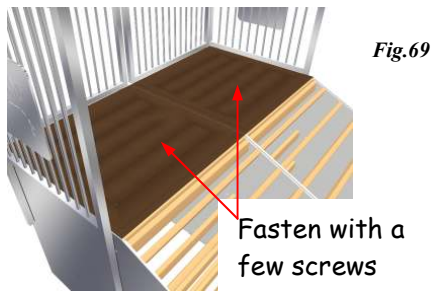
Before screwing the rhinotop, make sure that the rhinotop is in the right position according to the Rhinex. When you have more sections next to each other, always start in the center and work to towards the side. You have to use a seam protection strip as a test spacer so you will have space enough afterwards to screw the seamprotection into position !

Watch out for assembling the rhinotop plates when there are galvanised transition protections (Fig. 68) for the transitions, such as :

- Funbox - Fly Wedge
- Funbox - Flat Wedge
- Flat Banks - Platforms
- Large Funbox - Small Flat Bank
- Large Funbox - Large Fly Wedge
- Pyramid Edges



Screw the rhinotop of the funbox, or platform with a few screws into position (Fig. 69). Bring the galvanised protection in the groove and push the rhinotop, together with the Rhinex and the toeplate, of the ride up elements (flat wedges, fly wedges, etc.) into position (Fig. 70). When everything lies in the good position, fasten all the screws (Fig. 71).

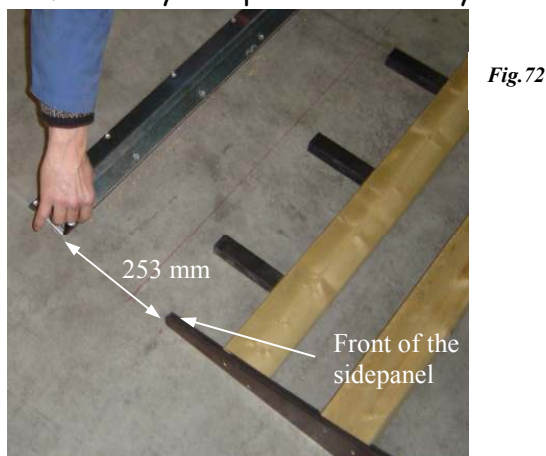


2.7.3 Screwing the surface to a curved ramp

Before screwing the rhinotop, make sure that the rhinotop is in the right position according to the Rhinex. When you have more sections next to each other, always start in the center and work toward the side. You have to use a seam protection strip as a test spacer so you will have space enough afterwards to screw the seamprotection into position !

To place the surface on a curved ramp, you first have to draw a line in front of the ramp, at a distance of 253 mm in front of the front of the sidepanel (Fig. 72). The distance from the front of the sidepanel till the line is 253 mm for all the ramps, This line is the place where the toeplate will end on the ground when the riding surface is placed.

When you are working on asphalt, you can put screws in the asphalt at the same distance of 253 mm from the front of the sidepanel, and place the toeplate against these screws, this way the surface stay's in place and nobody has to stand on the toeplate. (Fig. 73)



Place the pre assembled riding surface (rhinotop, rhinex and toeplate (see 2.7.1)) with the toeplate on the drawn line, and the top of the pre assembled riding surface on the coping. One person has to stand on the toeplate to keep the riding surface in the right position (Fig 74), and check if the top of the surface is in the right position (fit into the rebate).



Fig.74



Fig.75



While one person keeps standing on the toeplate, two other persons push the surface to the structure and start screwing. First screw the Rhinotop to the structure with some washers (Fig 75), when the Rhinotop is the right place, remove the washers and place back the screw.

- * Start screwing (5 x 70 mm) from the BOTTOM to the top !
- * Start screwing from the second row of holes from the bottom.
- * Start screwing the two middle rows from the bottom to the top at the same time (with 2 persons). (Fig. 76)
- * Use washers (Fig 75) to place the Rhino - top.



Fig.76

- * screw your way up to the top of the riding surface. (only the two middle rows).
- The riding surface will fit right under the coping while you are going up. (Fig. 77)
- * Use Washers (Fig 75) to place the Rhino - top.



Fig.77

When you have screwed all the holes from the 2 middle rows, you can screw the bottom row and start screwing the side rows of holes. Use screws of 5 x 50 mm for the bottom row, otherwise you will lift the nose of the ramp.

Now the riding surface is perfect in place, and the Rhinex supports the Rhino - top all over the surface of the ramp. (Fig. 78)

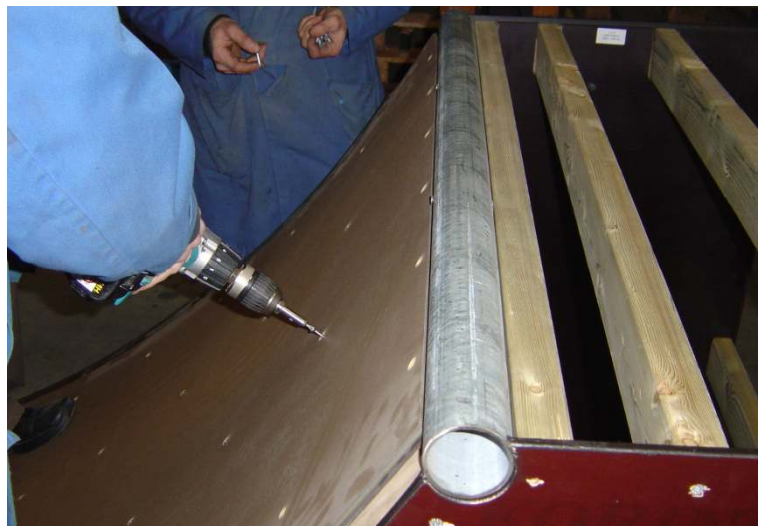


Fig.78

When all the surfaces are screwed, you'll have to kick the surface a few times with your feet and, when necessary, fasten the screws. When you don't do this, the surface will go down after a few days of use, and the screws will stick out. It seems then that the screws come loose !
 Be sure that the first strut (closest to the toeplate) has a support piece (Fig. 7, Fig. 8), and use 50 MM screws (Fig. 29) for this first strut !

2.8 Assembling the skate surface on halfpipes, funboxes en platforms

a) On flat ramp surfaces

Place the Rhinex sheet on the struts of the funboxes and on the platforms of the quarterpipes, large flat banks and the halfpipes. The Rhinex sheet will be screwed down, together with the rhinotop with screws of 50 mm (Fig. 29). Before screwing the surface to the basic construction, please measure out starting on the side with the alu/steel/inox edge protection, the seam protection and the grindplates.

Watch out ! When grindrails have to be installed on the ramp, you must assemble them first to the surface (see 2.11).

b) On curved sections of the halfpipes

Screw down the 10mm rhinex sheet to the halfpipe in the right position with a few screws before starting with the rhinotop (the Rhinex has predrilled holes for the curved pieces of the half pipe). Start always in the middle of the ramp (Fig. 79) and work to the outside.

When fixing the rhinotop, use 70 mm screws (Fig. 4) on the curved parts. Put 3 mm shims between the horizontal seams as a spacer.

Devide the rhinotop plates over the total width of the ramp. Leave a space of approximately 6 mm between the plates for the seam protections (Fig. 80). Test with a seamprotection if the space between the sheets is enough !These rhinotop plates may not touch each other.

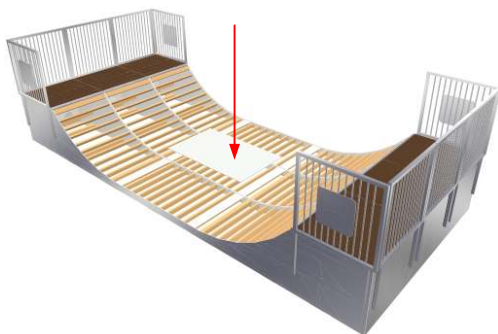


Fig.79



Fig.80

2.9 Placing the seam protections, stainless steel edge protections and tranistion protections

Every edge of the Rhinotop has a fraised out rabbet of 42mm wide and 3mm deep, so we can put in an overlapping seam protection and transition protection, that protects the inside edges of the surface. Put sikaflex in the joint (Fig. 82) and under the seamprotection (Fig. 81, Fig. 83) and put the seam protection in the right position. The screwholes have to line up with the holes in the

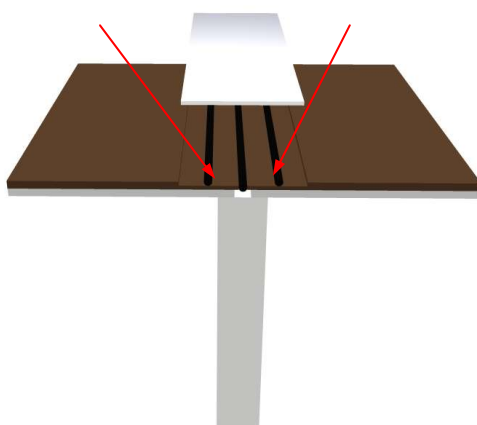


Fig.81



Fig.82

Rhinotop.



Fig.83

One person has to hold this strip and another person drills the holes of 8mm only through the Rhinotop (not trough the rhinex), and screws the seamprotection, transition protection, to the ramp construction. Don't screw all the holes at once, but drill and screw hole by hole !!
Most rhinotop edges at the outside of the ramps are protected by a stainless steel or galvanised steel edge protections (Fig. 84). Put sikaflex on the edge protection. One person holds the protection edges strongly to the ramp, while an other person drills with a 8 mm drill through the rhinotop and Rhinex. Screw from bottom to the top with 50 mm screws. Here also ; drill and screw hole by hole !!



Fig.84

Sikaflex

2.10 Placing the grindplates (quarterpipes, halfpipes, Piano's) and aluminium edge protections on the platforms

Put the the grindplates, seam protection and alu edge protections on the platform. Put all the items into position and put Sikaflex under the metal pieces. (Fig. 85). Screw the pieces to the platform with 50 mm screws (Fig. 29)

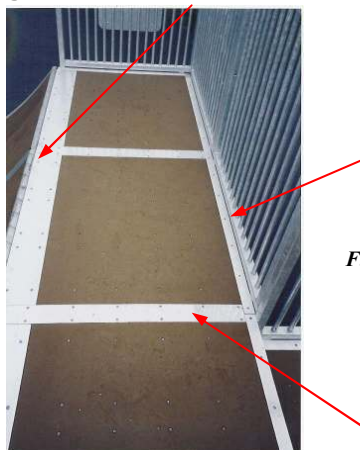


Fig.85

2.11 Assembling the grindrails

a) On the funbox

Screw the Rhinotop and rhinex with a few screws to the surface (Fig. 86). Put the rail on the funbox and drill the holes. When you have 2 funboxes, always put the rail on 1 of the 2 funboxes ! Drill the holes through the rhinotop and the 10mm Rhinex-plate (Fig. 87) and remove the rhinotop together with the 10 mm Rhinex plate. Fix the rail, together with the rhinotop and the 10 mm Rhinex plate (Fig. 89), with M12 x 60 mm bolts (Fig. 17). Place under the washers, the delivered block (Fig 88). Put the whole now back to the ramp (Fig. 90).

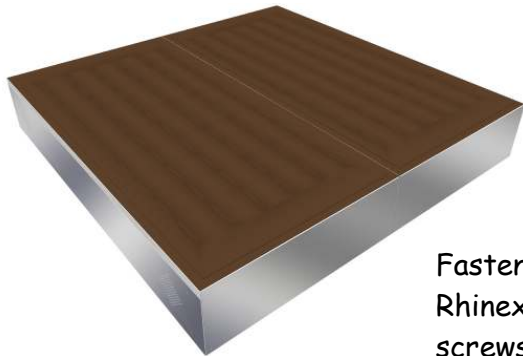


Fig.86

Fasten Rhinotop and Rhinex with a few screws

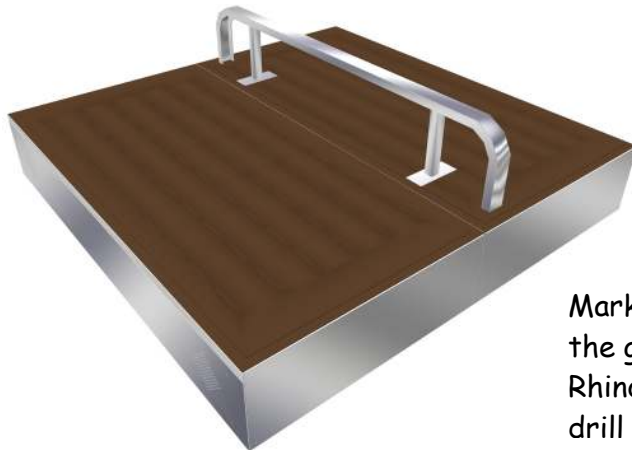


Fig.87

Mark and drill the holes for the grindrail through the Rhinotop and Rhinex with a drill of 12mm.



Fig.89

Remove Rhinotop and Rhinex, and fasten the grindrail to the Rhinotop and Rhinex, Use the special delivered blocks to fasten the grindrail (Fig. 88)

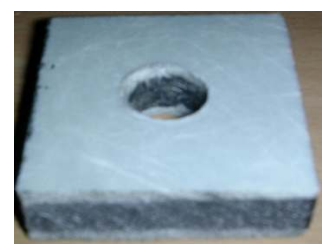


Fig.88

Place the Riding surface + Rhinex + grindrail back on the funbox and fasten the surface with all the screws

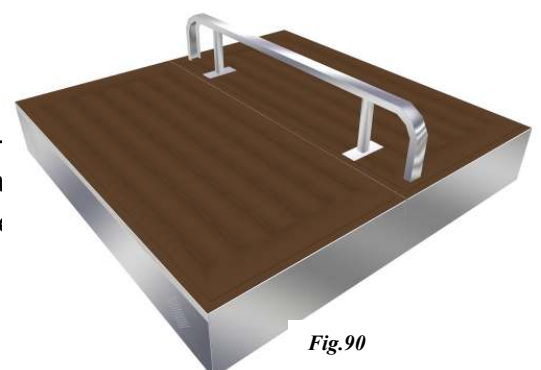


Fig.90

b) On the ground

When the surface is made of concrete, you can fix the rail with anchor bolts (Fig. 91). When the surface is made of asphalt, you have to make holes and mould concrete, on the places where the grindrail touches the ground. We can supply special feet (anchors) that can be attached to the feet of the grindrails to put into the concrete (Fig. 93 , Fig. 94, Fig. 95). Make sure the feet are covered in concrete, so the bolts can not be loosened.



Fig.91

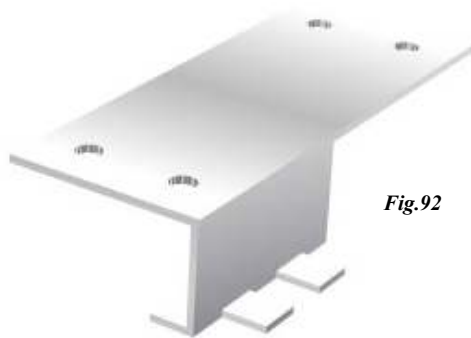


Fig.92

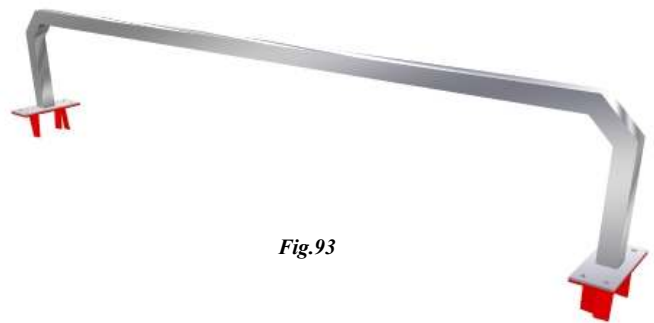


Fig.93



Fig.94

All types of grindrails can be found at page 37-45

2.12 Assembling of special models.

2.12.1 Assembling the ledge.

Put the ledge on his right position (without the covering) (Fig. 95) and place the delivered L-profile in the edge at the inside of the ledge. Mark the holes and drill these through the rhinotop and the 10mm Rhinex-plate. Take off the rhinotop + 10mm Rhinex-plate and bolt (M12 x 60) the L-profile on the surface (Fig. 96). Use the special delivered blocks (Fig. 88) to fasten the L- profile to the surface. Screw the surface completely and put the ledge over the L-profile.

Drill with a 13 mm drill through the wall of the ledge and the L-profile and fasten them (Fig.97) with the delivered bolts (M12 x 35 (Fig. 98)).

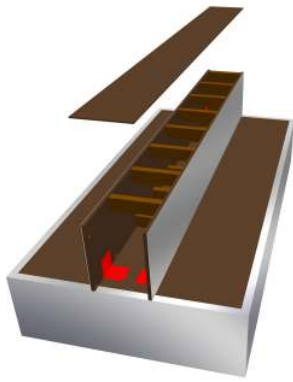


Fig.95

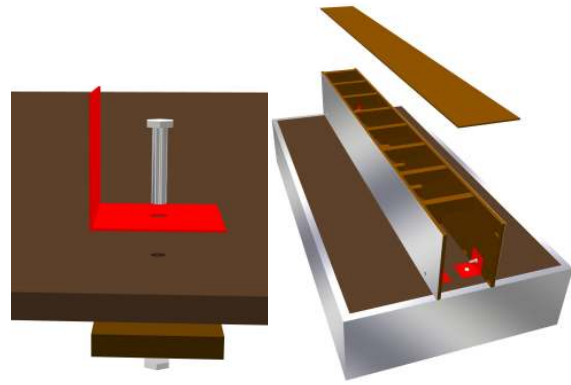


Fig.96

Fig.97



Fig.98

2.12.2 Placing the surface on pyramid edges.

First , put the PVC sheets on the double strut, (level the double strut out). For the pyramid edges you have to work in a different way. Screw the 10 mm Rhinex in position with 2 screws per sheets and put the rhinotop on the pyramid edges, use the edge protection and seam protections a spacer. When everything fits well, screw with 2 screws per plate the rhinotop in position (Fig. 104). Then, fit the groundplates in and drill with a 8 mm(!) drill through the toeplate (Fig. 105). Unscrew then the rhinotop and the 10 mm Rhinex plate and assemble the toeplate together with the 10mm Rhinex and the rhinotop (Fig. 107). Then, screw everything to the pyramid edge (Fig. 102). (See detailed assembling drawing).

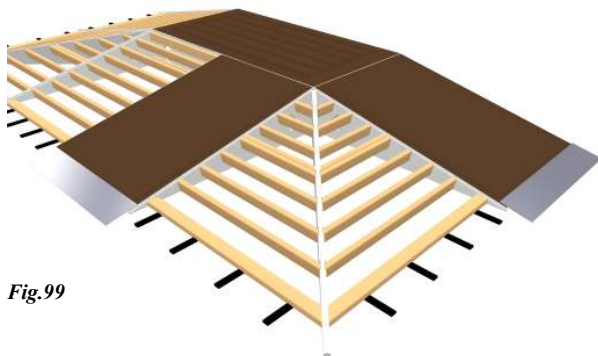
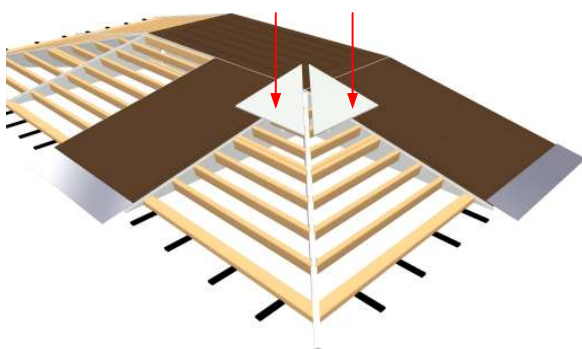


Fig.99

Place the Rhino - top, Rhinex and toeplates of the Flat wedges and the funbox



Screw the upper Rhinex with 2 screws to the structure.

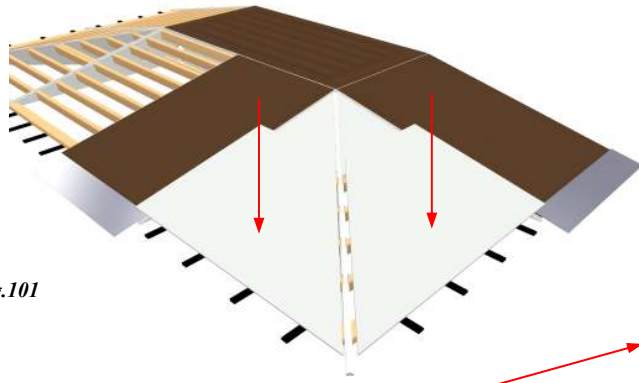


Fig.101

Place the bottom Rhinex on the structure, fasten this sheet with 2 screws.

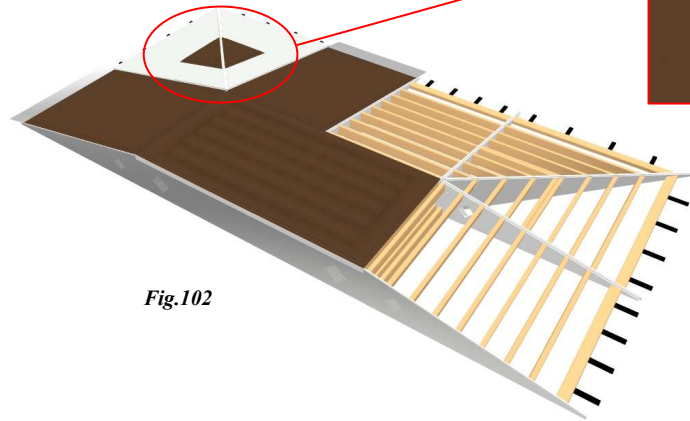
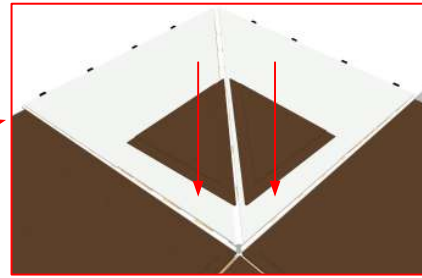


Fig.102

Place the upper Rhino - top of the pyramid edge. Use the transition protections to position the Rhino - top in the right place.

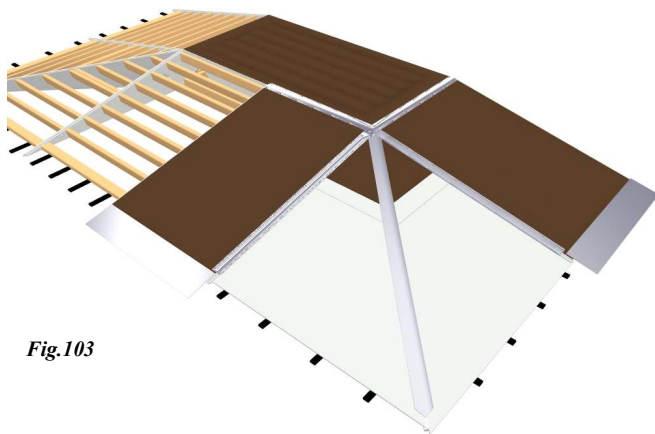


Fig.103

Use the metal protections to position the Rhino - top in the right position and fix the Rhino - top with 2 screws.

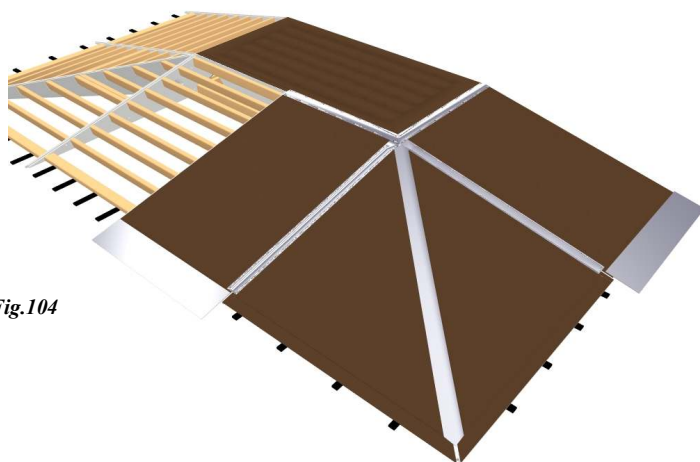


Fig.104

Place the bottom Rhino - top on the structure. Use the metal parts to position the Rhino - top in the right position, and fix the Rhino - top with 2 screws.

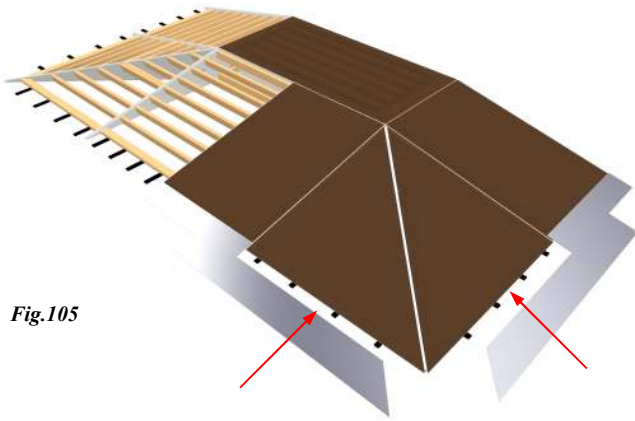


Fig.105

Place the toeplates in the right position and predrill the holes through the Rhino - top and Rhinox with a drill of 8 mm.

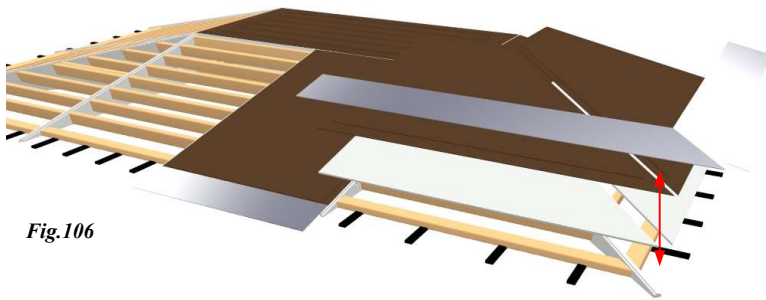


Fig.106

Take back off the Bottom Rhino - top, Rhinox and toeplate. Pre assemble these sheets with the toeplate. Use the pre drilled holes to position the sheets according to each other.

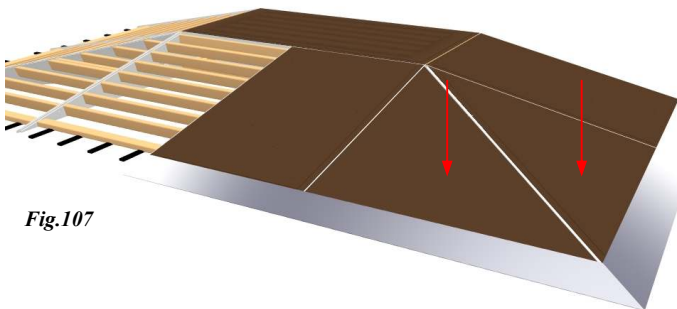


Fig.107

Place the pre assembled riding surface (Rhinox, Rhino - top and toeplate) back on the structure and fasten all the screws.

2.12.3 Placing the surface on the 1.8m Quarterpipe.

First put the PVC sheets on the double strut (level them out). Then place at the 1.8 m quarter pipe the Rhinox sheet (length 1023 mm) under the coping (Fig. 108). After doing this, place the bottom part (the Rhinox + rhinotop + toeplate) (Fig. 109). Place afterwards the Rhinotop under the coping (Fig. 110). (See detailed assembling drawing). **Use washers** to place the Rhinotop. (Fig. 75)

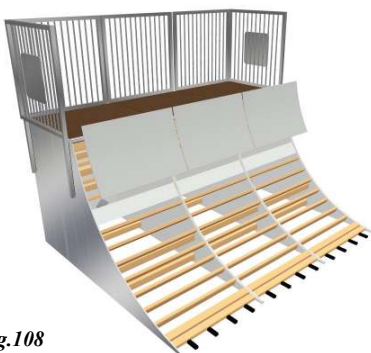


Fig.108



Fig.109



Fig.110

2.12.4 Placing the surface on the 1.5M roll - in.

First put the PVC sheets on the double strut (level them out). Then start to put the Rhinotop and Rhinex on the platform, then put the Rhinex (predrilled and grooved) on the round shape (Fig. 109). Then take the pre assembled Rhinotop together with the toeplate and the Rhinex sheet, and place it on the structure (Fig. 110), and screw the Rhinotop **with some washers** in to position (Fig. 111). (See detailed assembling drawing). Place the Rhino - top on the round shape as the last part (use washers and screw carefully, there is a lot of tension on this surface).

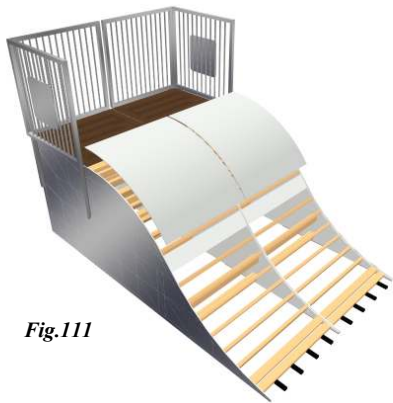


Fig.111

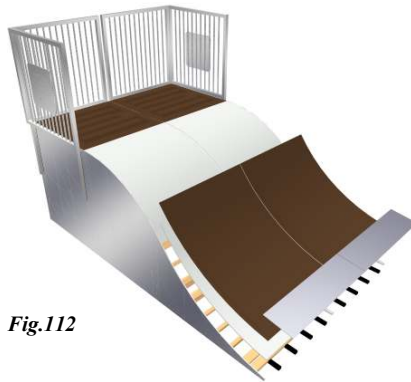


Fig.112

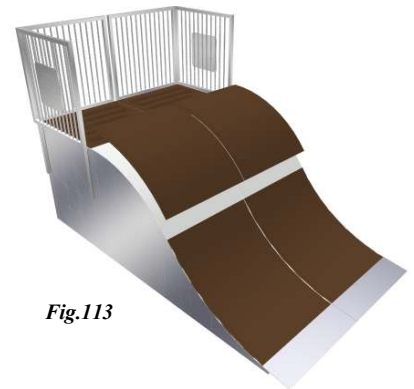


Fig.113

2.12.5 Placing the surface on the roller.

First put the PVC sheets on the double struts (Level them out) (where the seams of the Rhinex and Rhino - top fall at the same place) (Fig. 118) Start with the predrilled and grooved Rhinex in the middle of the ramp (put a mark in the middle of the rhinex and position the mark equal with the middle of the top strut (Fig. 114, Fig. 115) and screw the rhinex to the structure. Then mark the middle rhinotop in the middle (as you did with the rhinex) and place it at the middle of the rhinex (as you did with the rhinex) (Fig. 116, Fig. 117). Now you can place the pre assembled Rhinotop (with toeplate and rhinex) to this middle piece (Fig 119).

Screw the Rhinotop, **using washers** to prevent the holes to collapse. (Fig. 75) (see detailed assembling drawing).

Fig.114



Fig.115

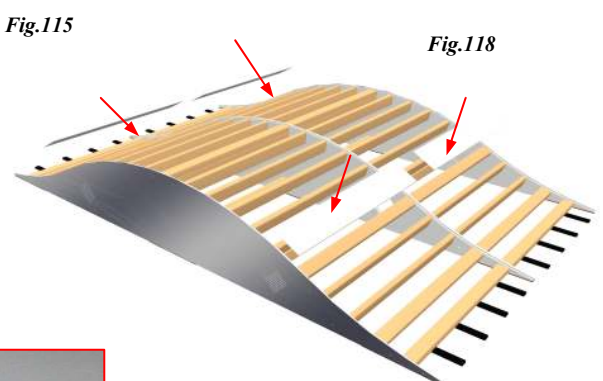


Fig.118

Fig.116



Middle of Rhinex and Rhinotop

Fig.117



Fig.119

2.12.6 Placing the surface on the 1.5M hip

First put the PVC sheets on the double trut (level them out), then you have to place the riding surfaces of the Flat banks left and right of the hip. Now you have to screw the Rhinex of the hip with a few screws in to position. Put the Rhinotop together with the metal protection strips into position with a few screws. Put the toeplate in the 80mm fraised out part of the Rhinotop and drill the holes trough the Rhinotop and Rhinex (8 mm drill !!) (Fig. 120). Now take back off again the Rhinex and the Rhinotop and assemble these two layers with the toeplates (Fig. 125). Now you can screw the surface to the ramps (Fig. 126). (see detailed assembling drawing).

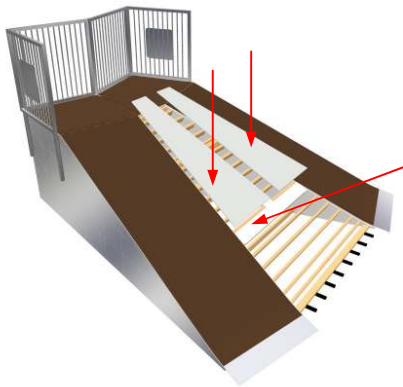


Fig.120

Place the upper Rhinex of the hip section on the structure and fasten it with a few screws. Don't forget to place the horizontal pvc sheet underneath the Rhinex. And one PVC sheet on the vertical seam of the upper Rhinex.

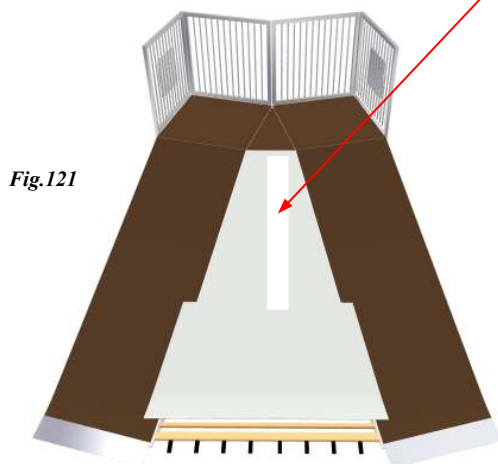
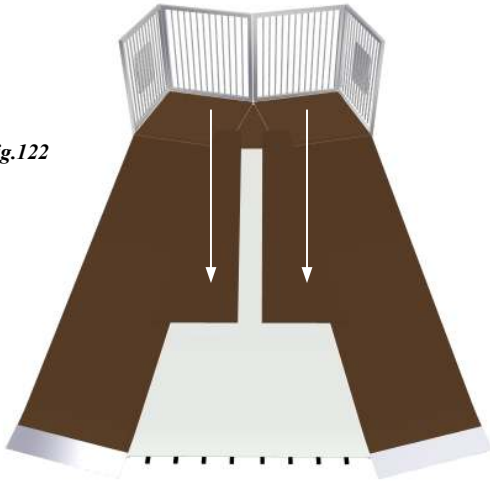


Fig.121

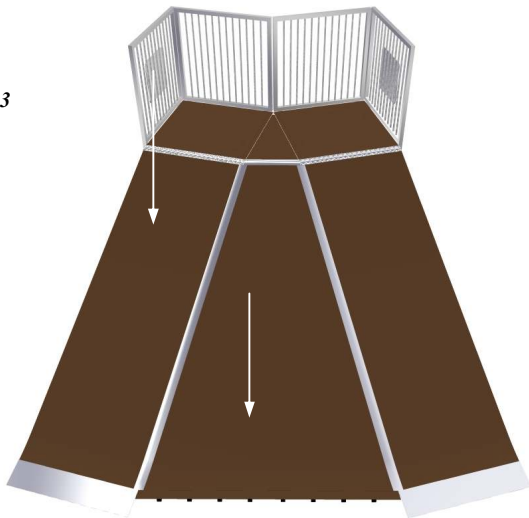
Fasten the bottom Rhinex to the structure with a few screws.

Fig.122



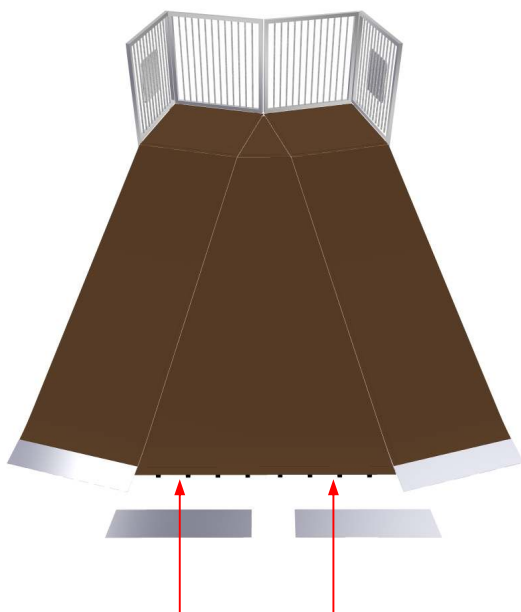
Place the upper Rhino - top on the structure. Use the metal protections to position the Rhino - top into the right position. Fasten with a few screws.

Fig.123



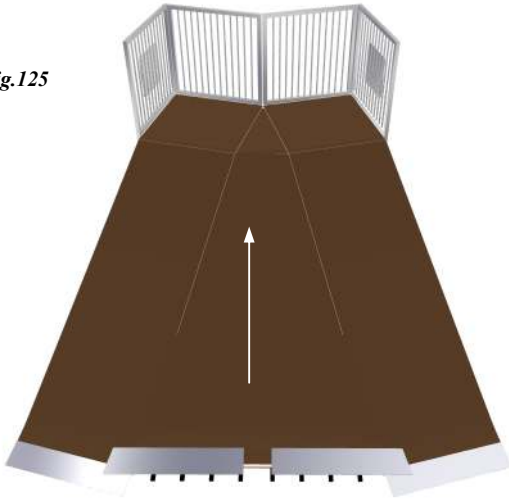
Place the bottom Rhino - top on the Rhinex, place it in the right position with the metal parts. Screw the bottom Rhino - top with a few screws.

Fig.124



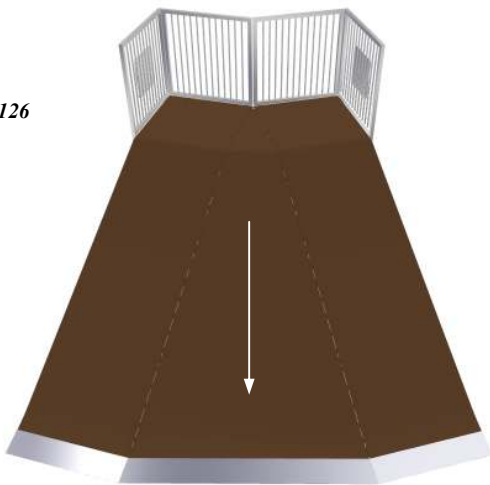
Place the toeplates in the right position and pre drill the holes trough the Rhino - top and Rhinex with a drill of 8 mm.

Fig.125



Take back off the Rhinex, Rhino - top and toeplate, and pre assemble them together. Use the pre drilled holes to place the sheets in the right position according to each other.

Fig.126

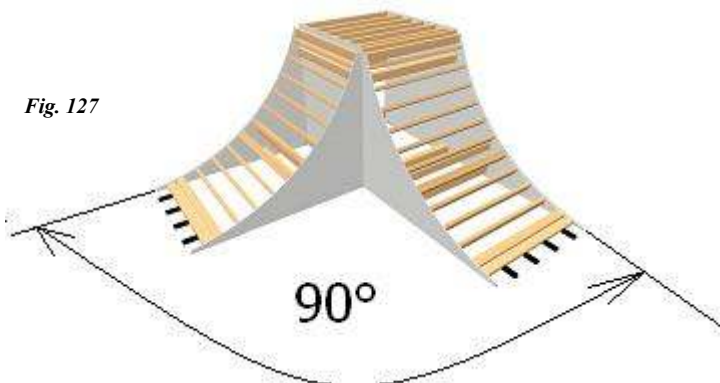


Place back the pre assembled riding surface (Rhino - top + Rhinex + toeplate) and fasten all the screws.

2.12.7 Assembling a 1.5M hipped quarterpipe.

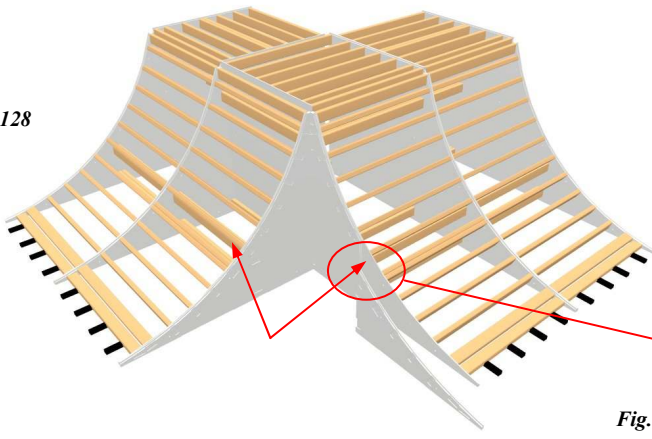
First you have to assemble the structure of the 1.5M Quarterpipe, and screw them together in an angle of 90° (Fig. 125) . Now you can start assembling the corner part of the hipped Quarterpipe. Bolt the side panels against the side panels of the Quarterpipes (Fig. 126, Fig. 127) and bolt the sides of the corner-center to each other (Fig 128, Fig 129). Bring these bolted together side panels in the middle of the corner. Start screwing the strut's in the corner part. You first have to place the strut second of the top (don't screw the top strut : it is too small and will break) and the two bottom struts (Fig. 130), to keep an angle of 45° . You have to place the screws from the inside of the corner (Fig. 131, Fig. 133) for all the struts in the corner. Now you can place the struts starting from the top to the bottom two by two (Fig. 134).

Fig. 127



Place the structures in a perfect angle of 90° , Draw a line on the floor before you start assembling

Fig.128

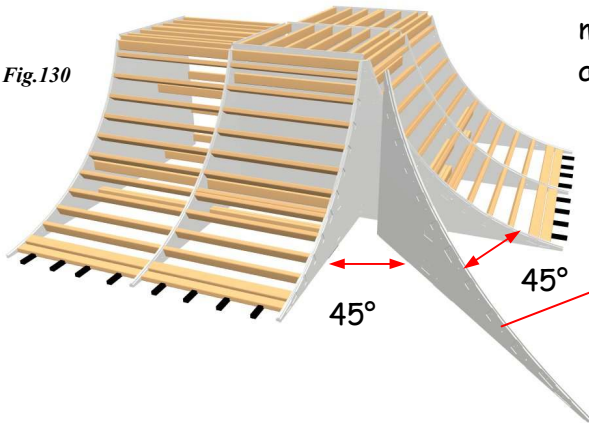


Bolt the side panles of the corner to the side panels of the Quarterpipes.



Fig.129

Fig.130

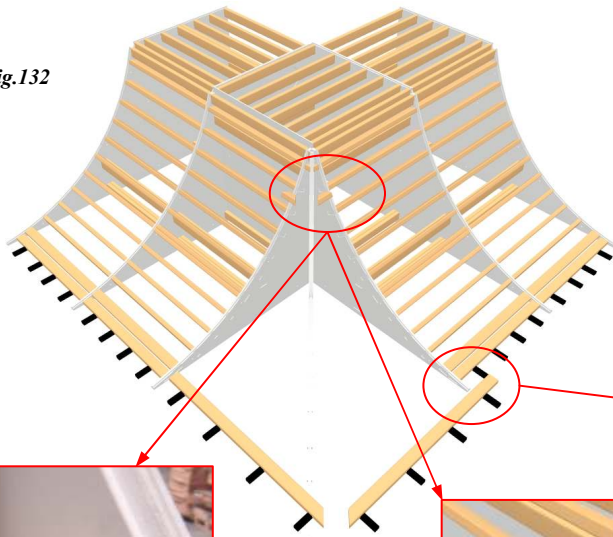


Place the bolted together side panel in the middle of the corner. Make sure it is placed in an angle of 45°.



Fig.131

Fig.132



First you have to place the second strut from the top (Don't screw the upper strut, it will break) and the bottom strut (Fig 135). Place the strut's 2 by 2 to keep an angle of 90°. You have to screw the strut's from the inside of the ramp. Place the upper and



Fig.133

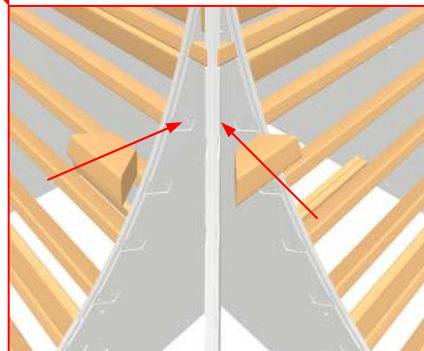
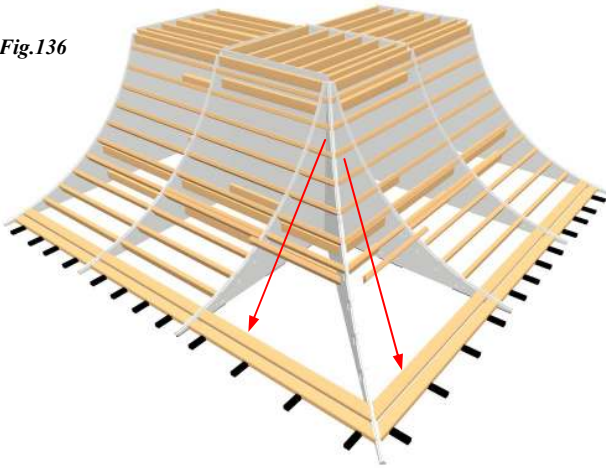


Fig.134



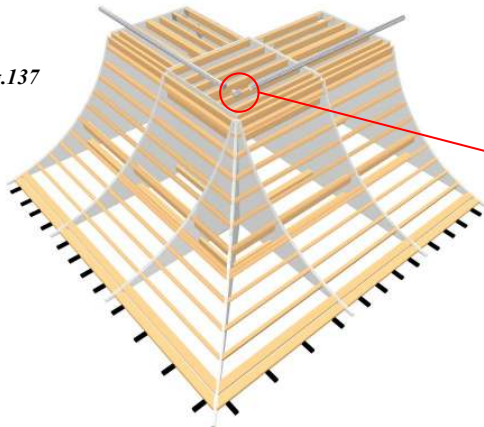
Fig.135

Fig.136



Place the other strut's in the corner, place them 2 by 2 starting from the top to the bottom. This way you keep the right angle.

Fig.137



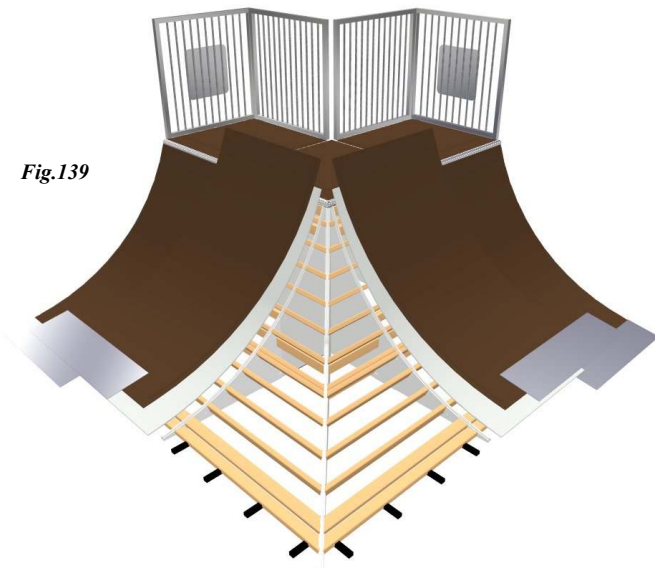
Place the coping on the structures, use the special coping connector (Fig. 138) to connect the coping in an angle of 90°.

Fig.138



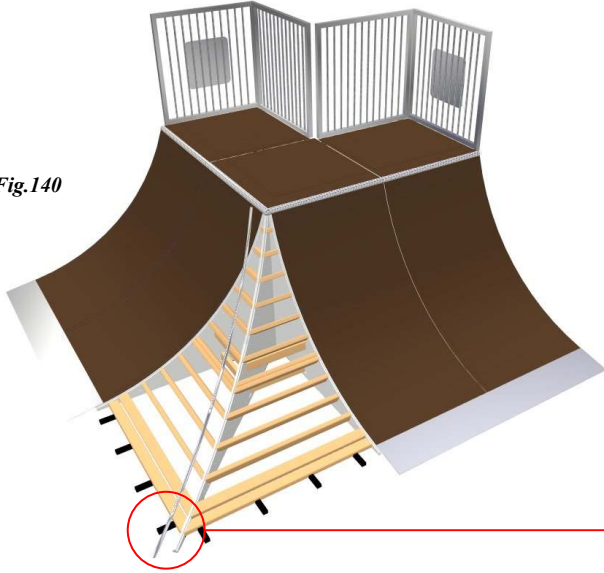
When the structure is completely ready, you can start placing the riding surfaces on the platforms and on the 1.5M Quarterpipe sections. To place the riding surface on the corner part, you should first place the upper Rhinex on the corner (Don't forget to place the PVC sheets on the double strut, level them out), then you can place the bottom pre assembled riding surface (Rhino - top + Rhinex + Toeplate). The pre assembling of the riding surface of the hipped quarterpipe is different according to other models. You have to measure out the position of the toeplate and rhinex starting from the straight side of the sheets, as clearly discibed on (Fig. 119). When the pre assembled bottom part is placed, you can place the upper rhinotop. **Use washers** to place the curved riding surfaces. (To prevent collapsing of the screwholes). (see detailed assembling drawing).

Fig.139



Place the riding surfaces of the Quarterpipes next to the hipped quarterpipe first

Fig.140



Place the ALU transition strip in the middle of the side panel, with screws of 5 x 70 mm. Make sure the point of the profile is at the bottom with the toeplates. (Fig. 141)

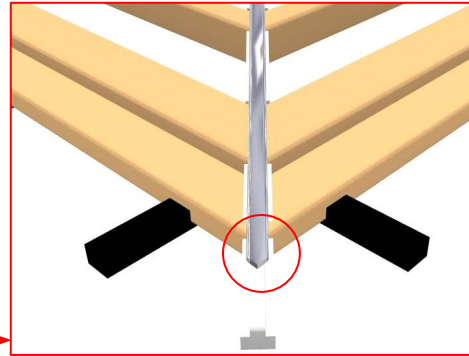
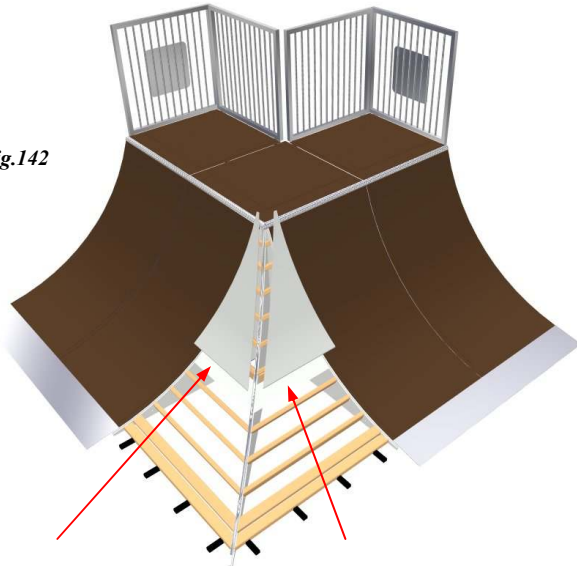


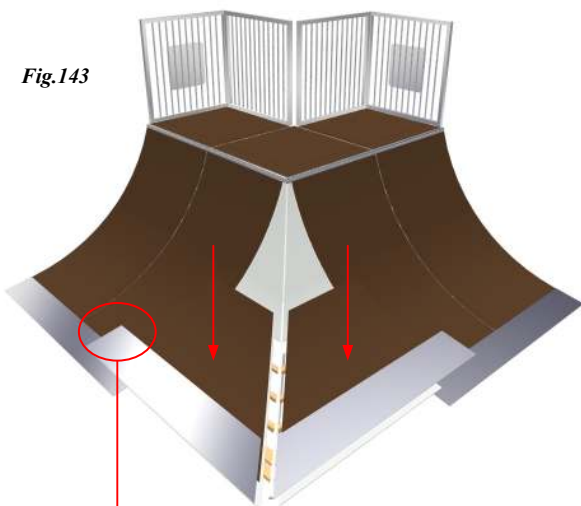
Fig.141

Fig.142



Before you place the upper Rhinex on the structure, you have to place the PVC sheet. Fasten the Rhinex with a few screws to the structure. **Use washers** to screw this sheet (Fig. 75).

Fig.143



Now you have to place the pre assembled riding surface (Rhino - top + Rhinex + Toeplate). **ATTENTION, the rebate of the Bottom sheet is different according to other models.** To pre assemble the riding surface you have to measure the position of the Rhinex and Rhino - top from the straight side of the Sheets. (Fig. 144)

Detail : Fig 144

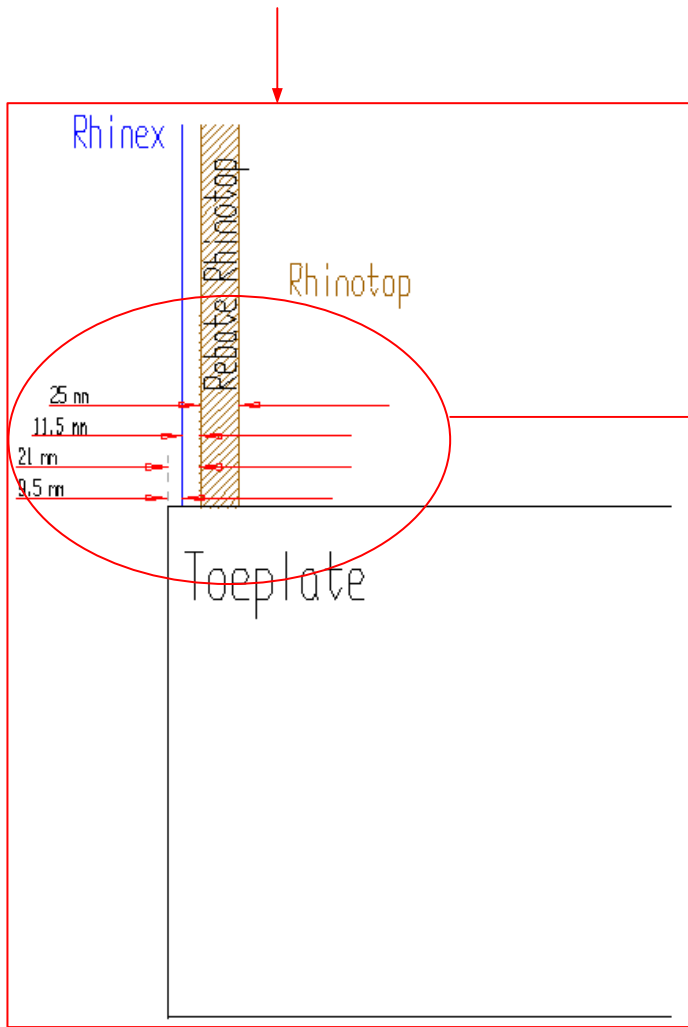
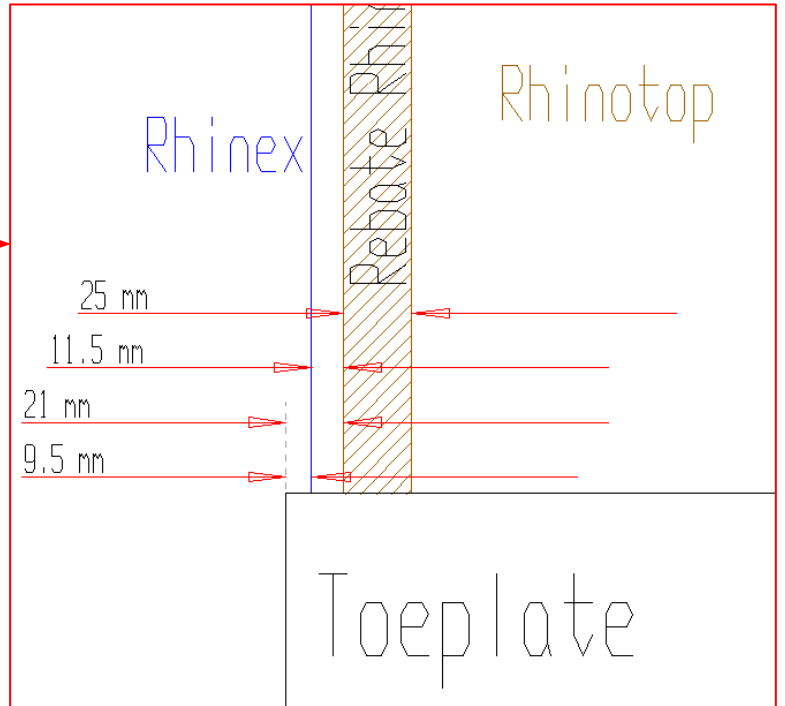
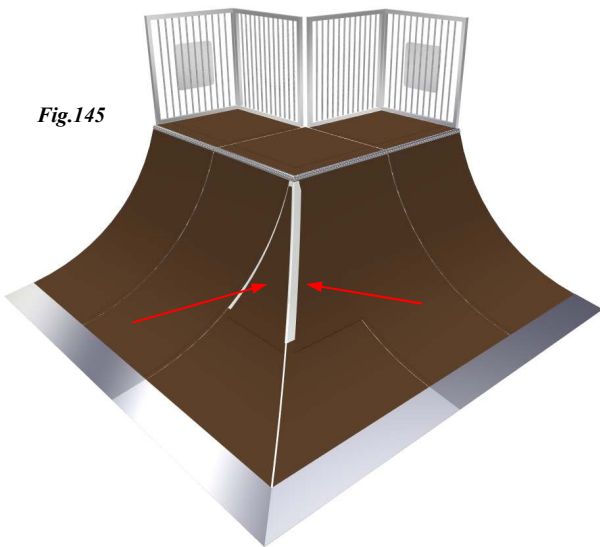


Fig.144



When you have pre assembled the bottom riding surface, you can place it on the structure. **Use washers when you place the Rhino - top sheets, to prevent collapsing of the holes (Fig.75).**

Fig.145

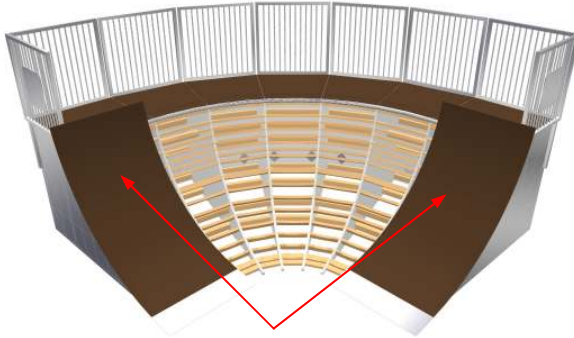


Now you can place the upper Rhino - top on the structure. **Use washers when you place the Rhino -top sheets to prevent collapsing of the holes (Fig. 75).**

2.12.8 assembling a Bowl.

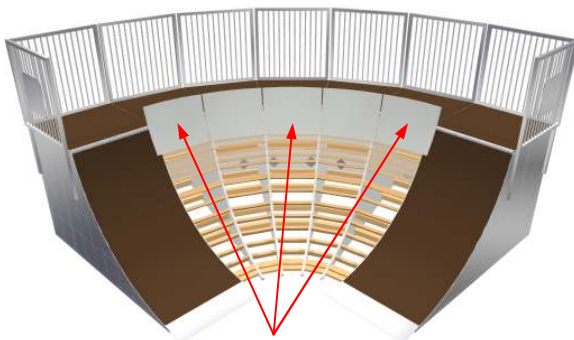
Screw the sections together, and first you have to place the riding surfaces on the 1.5M or 1.8M Quarterpipes, next to the bowl sections (Fig. 146). Then you have to place the Rhinex on the structure. Start from the top and work your way down to the bottom of the bowl section. Don't place the lowest Rhinex yet (this has to be pre assembled with the riding surface). Screw the rhinex **with some washers** (Fig 75) to the structure (Fig. 147, Fig. 148).

Fig.146



Place the pre assembled riding surfaces on the Quarterpipes next to the bowl section. Use washers to place the riding surface on the structure to prevent collapsing of the holes (Fig 75).

Fig.147



Place the Rhinex sheets starting from the top. Use washers to place these Rhinex sheets. (Fig. 148). Don't place the bottom Rhinex sheet, (it has to be pre assembled with the toeplate and top-sheet).

Fig.149

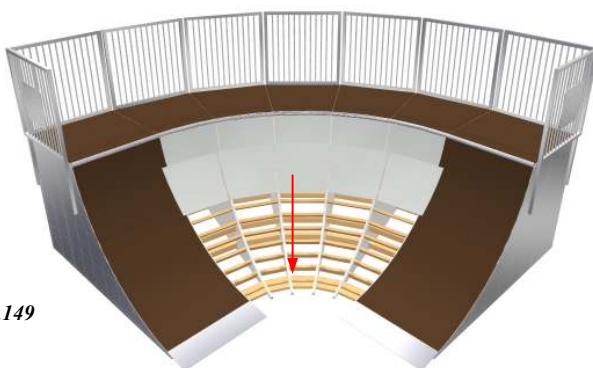


Fig.148

Then you can place the upper riding surface to the bowl (Fig. 150) Also **use washers** to place the riding surface (Fig. 151). Then you can place the pre assembled riding surface at the bottom of the Bowl (Fig 152), and finish the ramp with all the protections. (See detailed assembling drawings)

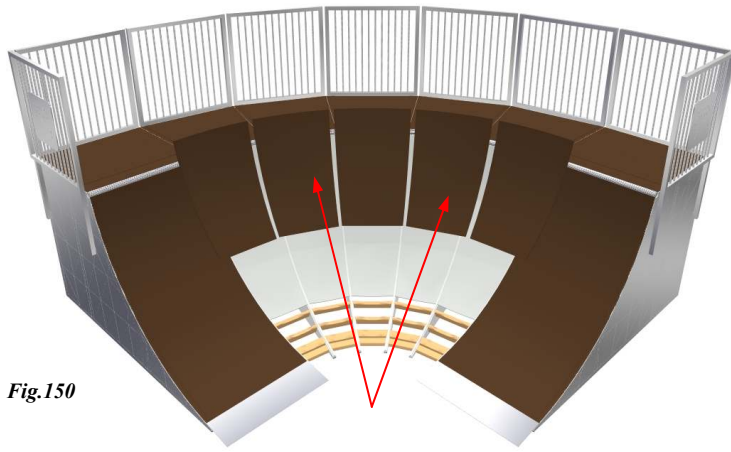


Fig.150

Place the upper sheet, Use washers to place this sheet. (Fig. 151)



Fig.151

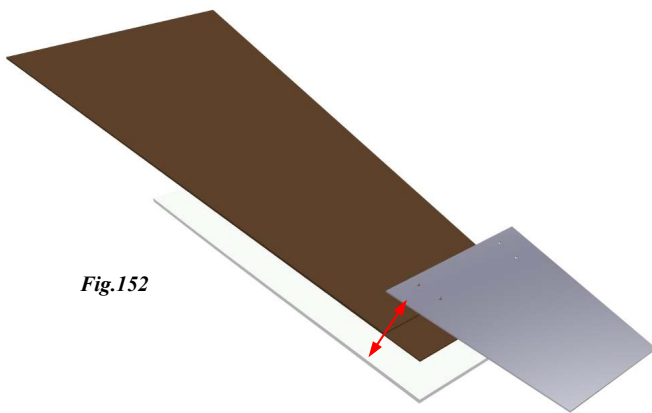


Fig.152

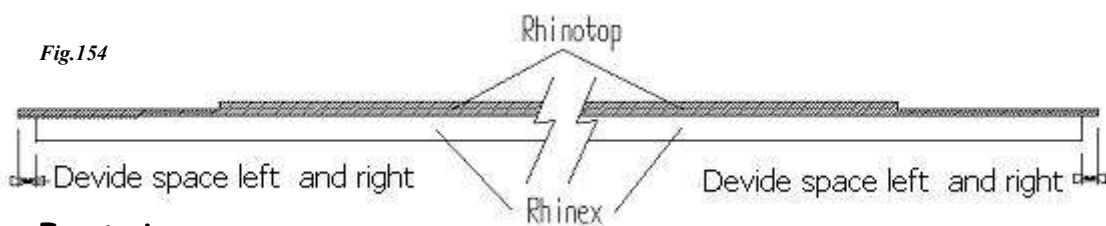
Place the toeplate in the rebate. The Rhinotop should overlap the Rhinox on both sides with the same distance (Fig. 154). The 10 mm Rhinox sheet should stick out 2 mm below the Rhino - top (Fig 153). Place the sheets in the right position according to each other, place a clamp on the sheets, so they won't move, and drill the holes through the Rhino - top and Rhinox.

Fig.153

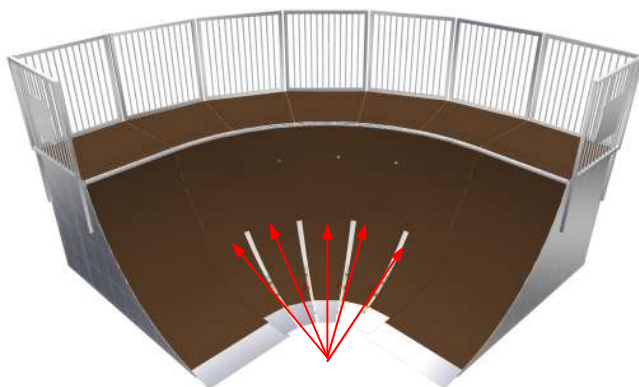


Side view

Fig.154



Front view



Place the bottom pre assembled riding surface (Rhinox, toeplate, top sheet). Use washers to place the Riding surface (Fig. 151).

2.13 General information

2.13.1 Drainage tubes

Put drainage tubes on all flat parts where there can remain water.

Drill a hole with a 12 mm diameter through the skate surface and the Rhinex-plate in the positions marked on the diagram (Fig. 156). Put a little silicon on the outside of the delivered tube (Fig. 157). Put the tube in the hole, a little below the top of the skate surface. The silicon will keep the tube on the right place and the angled bottom will allow the water to drain. Make sure to place those *Fig.155* in the flat parts of the halfpipes when water stays on the surface. This is a solution when the ramps are on a floor without an incline ! Normally all ramps should be installed on a floor that drains very quickly, otherwise the warranty will void !

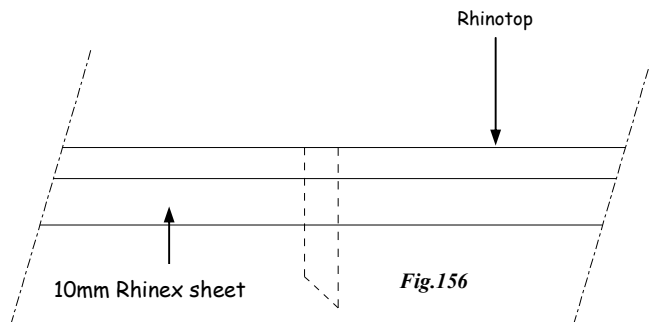


Fig.157

All the joints of the rhinotop with the coping (Fig. 159) and where we don't have a seamprotection (horizontal seams !) (Fig. 158), have to be filled with an elastic polyurethane kit. All metal parts have to be glued with the Sikaflex to the ramp (Fig. 161). Also glue the aluminum parts (corner protections, and platform protections) to the Rhinotop with the Sikaflex. (Fig. 160). We can deliver them in tubes of 310 mm.

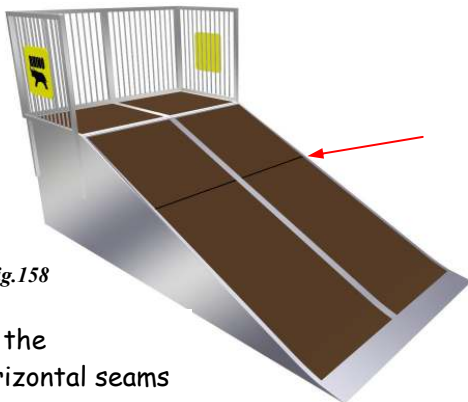


Fig.158

All the horizontal seams

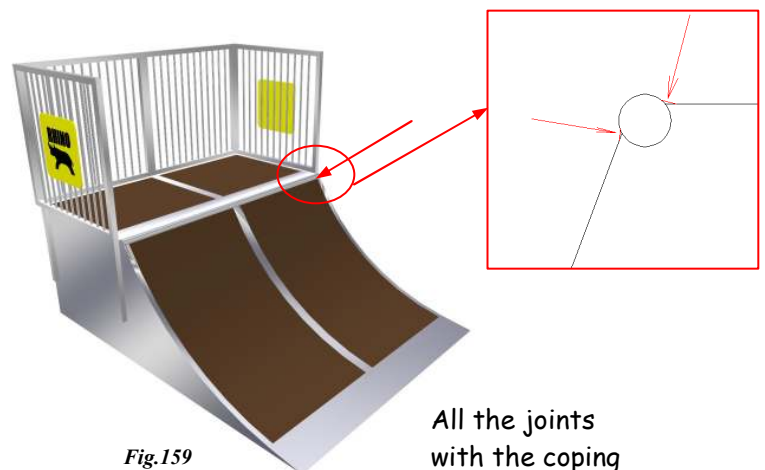


Fig.159

All the joints with the coping



Fig.160

All the Aluminum parts

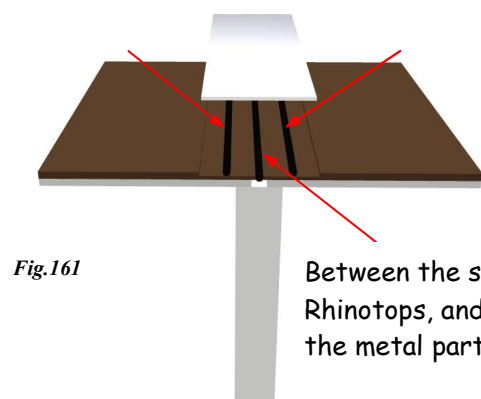


Fig.161

Between the seams of the Rhinotops, and under all the metal parts

We advise Sikaflex 11FC+ ; this product is obtainable all over the world. As we already mentioned, all metal parts which are put on the ramps have to be glued with this kit !

As we explained before, put a polyurethane kit in all the seams (Fig. 158) and put the same kit under the galvanised protection strip (Fig. 161), so we get a completely closed construction .

When it's very hot, you can moisten the joint with water. The complete harding will take 48 hours. Keep the skaters minimum 24 hours off the ramps !

When you make a mess, there's no problem. You let dry the kit and it can easily be removed from the surface. In the seams this kit has a very strong stitch.

2.13.2 Aluminium edge protection

On the place where the sides and the backs come together, you'll have to place an aluminium covering. Place this aluminium covering strongly against the edge and drill through the predrilled holes with a drill of 6 mm through the galvanised plate. Screw with 5x50 mm screws the edge to the ramp. Put a little kit under this edge protection (Fig. 162, Fig. 163).



Fig.162

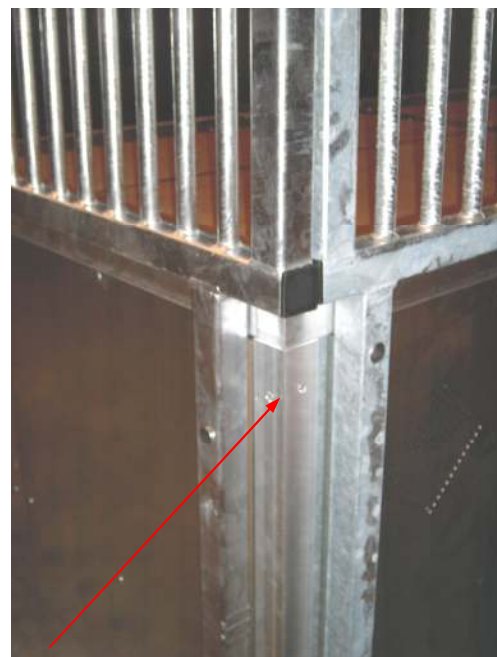
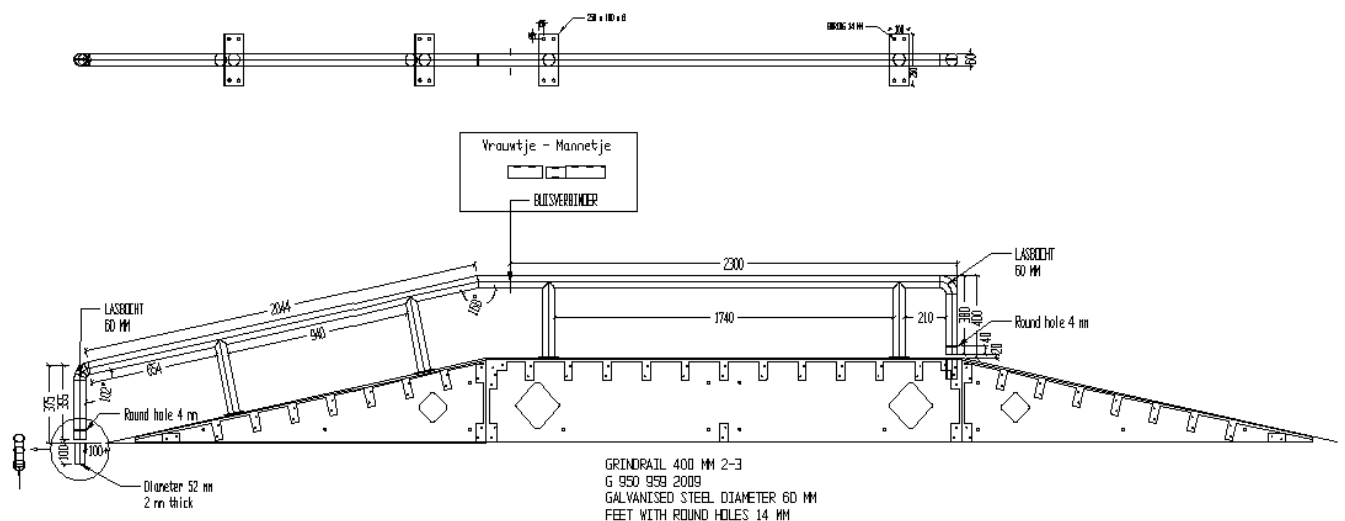


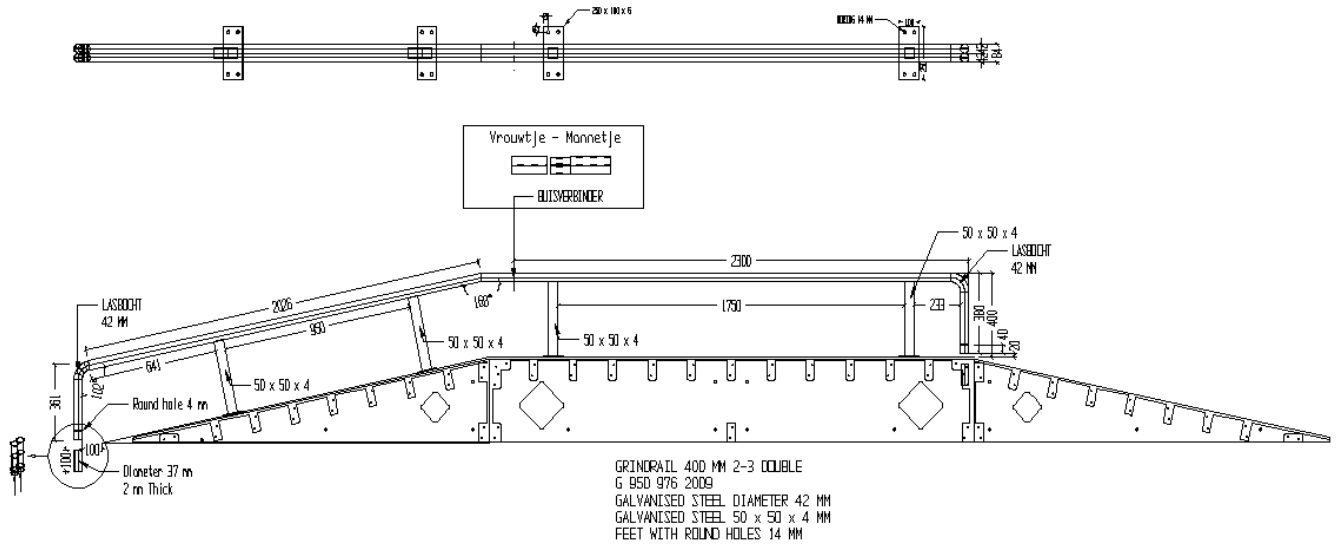
Fig.163

2.13.3 Grindrails

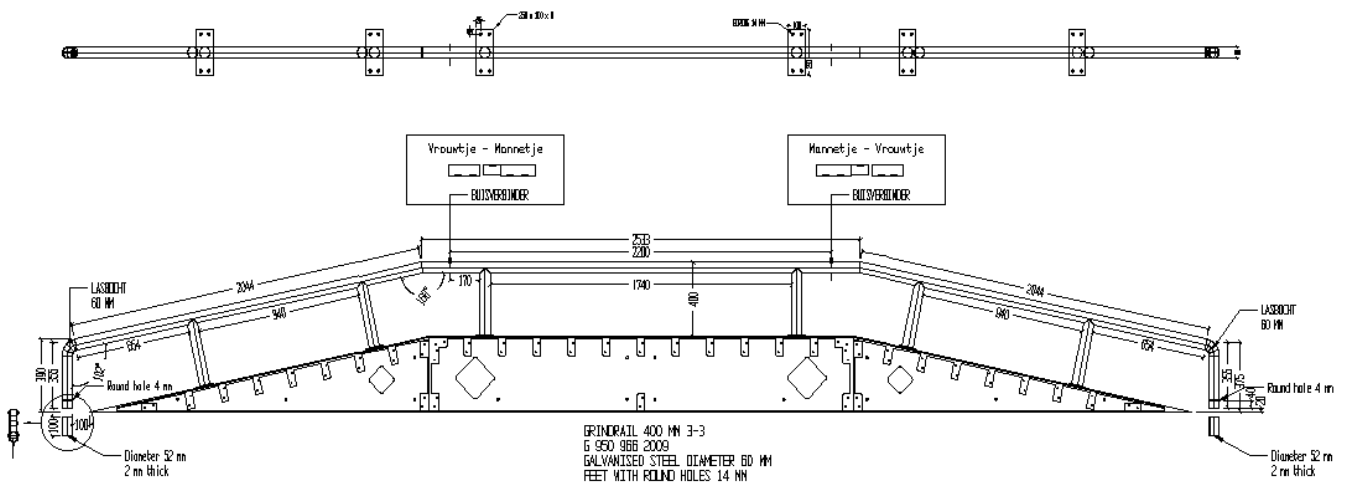
2.13.3.1 Grindrail 2/3 400 mm



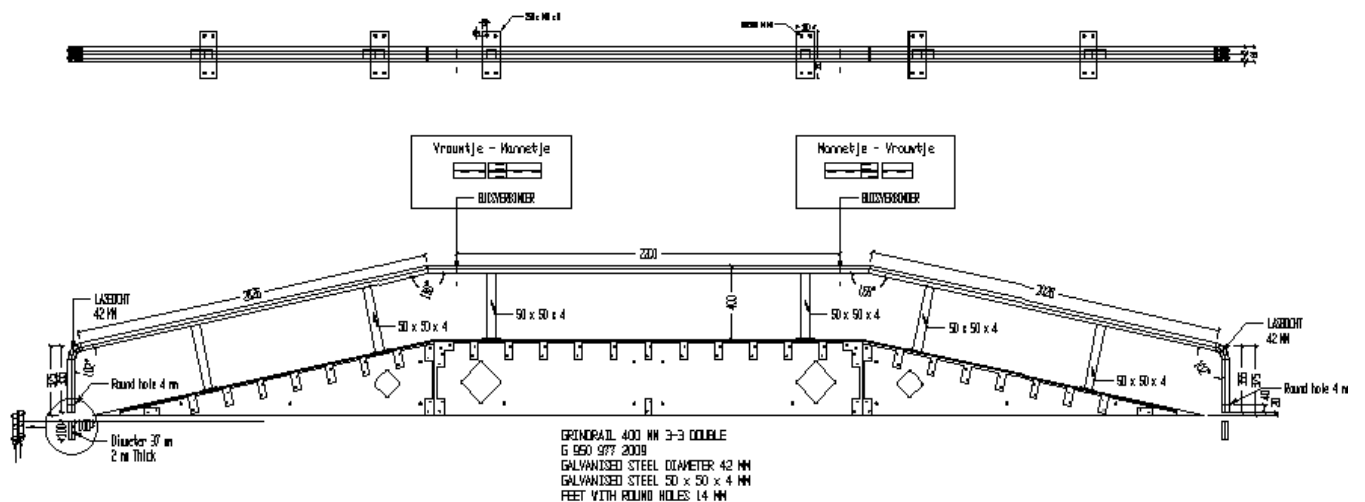
2.13.3.2 Grindrail 2/3 400 mm DOUBLE



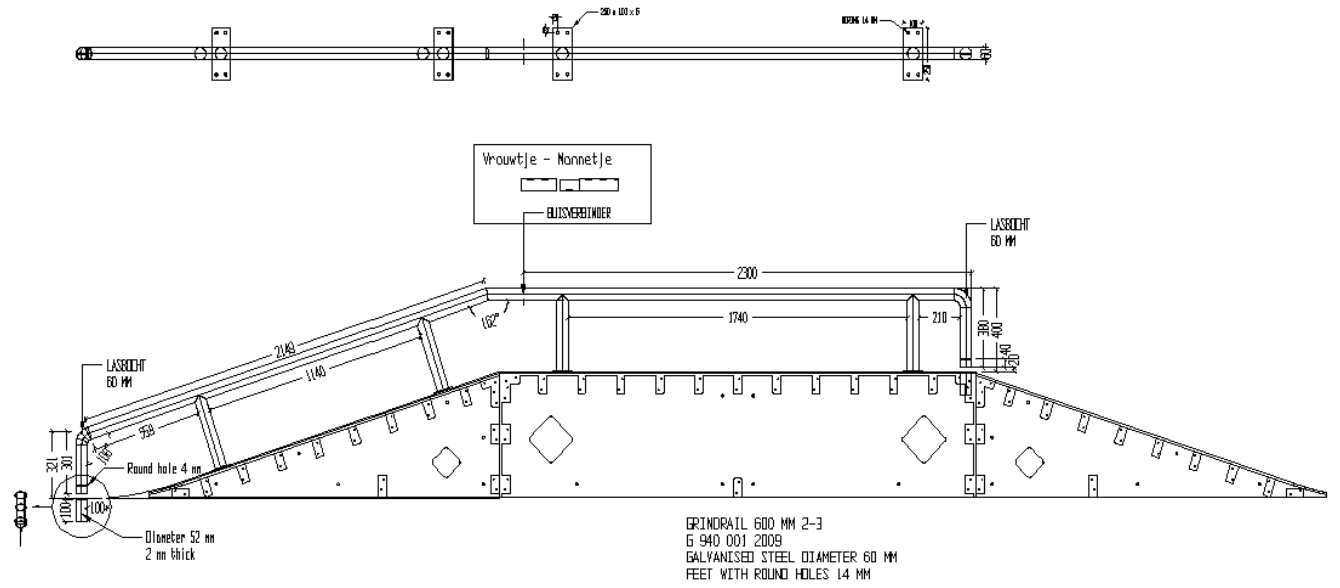
2.13.3.3 Grindrail 3/3 400 mm



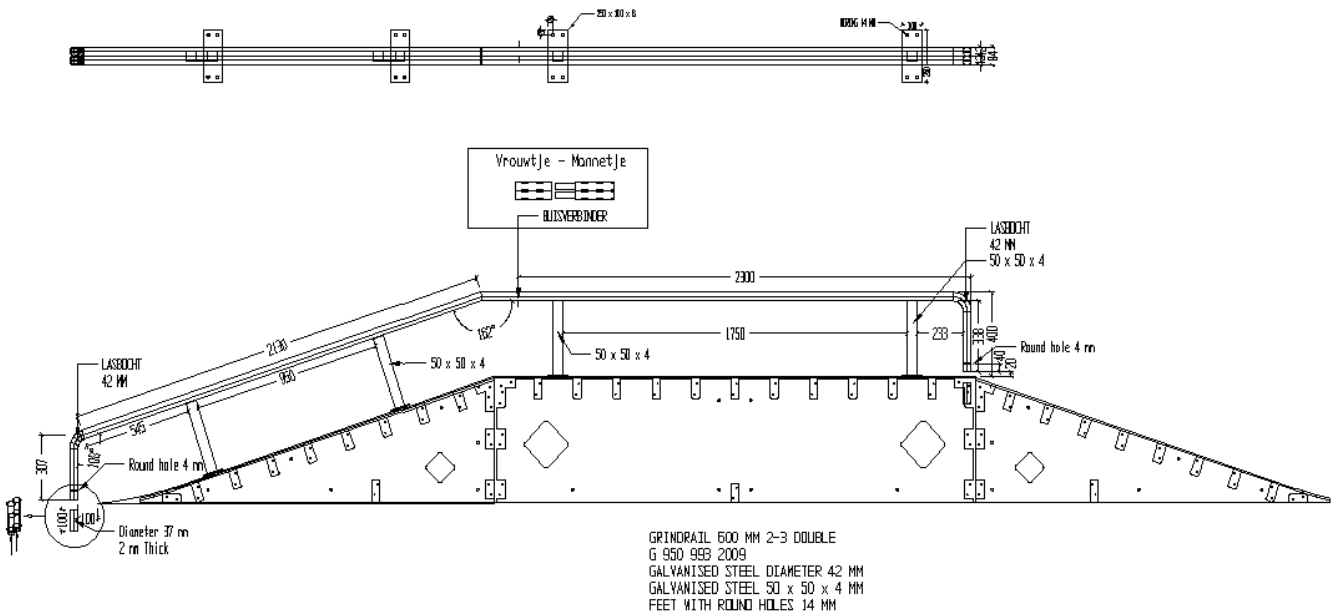
2.13.3.4 Grindrail 3/3 400 mm DOUBLE



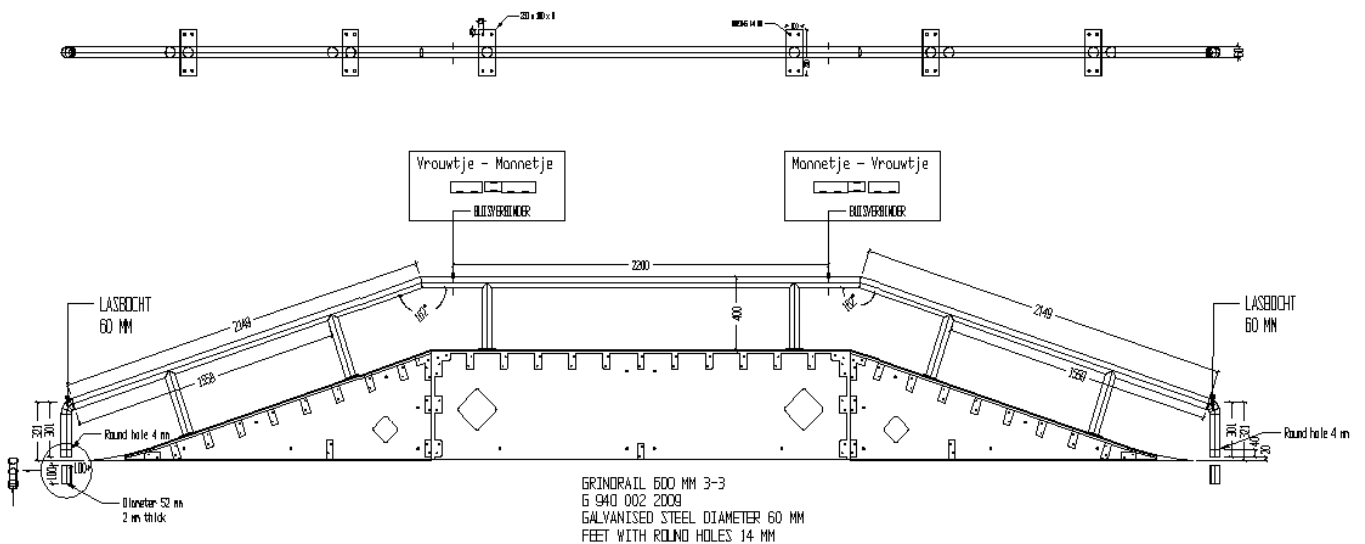
2.13.3.5 Grindrail 2/3 600 mm



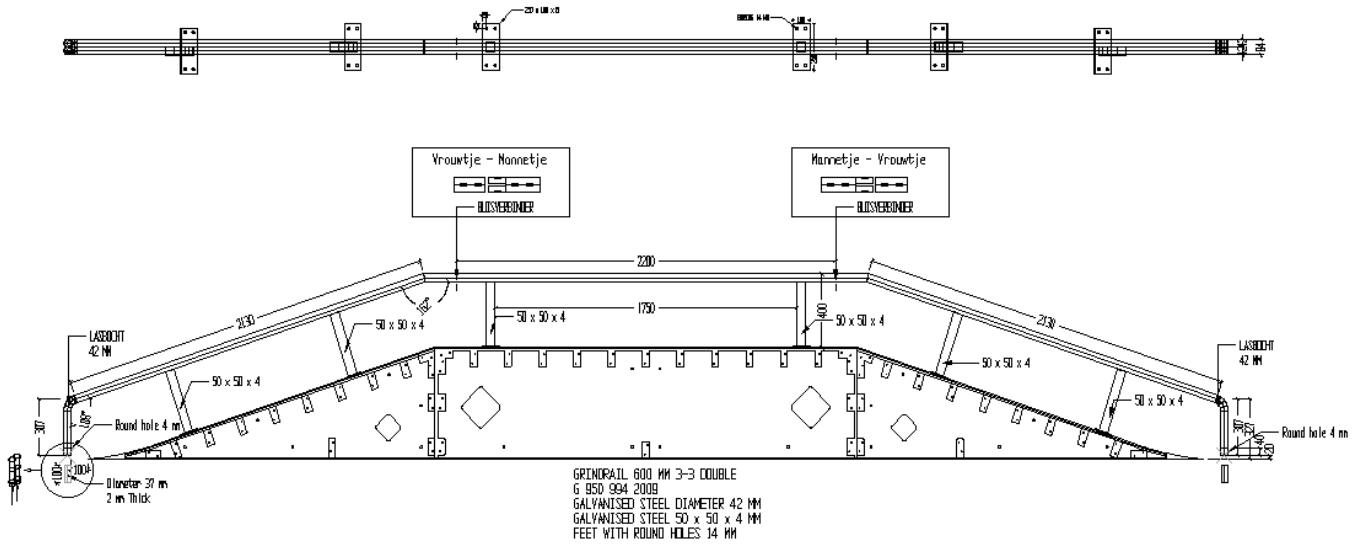
2.13.3.6 Grindrail 2/3 600 mm DOUBLE



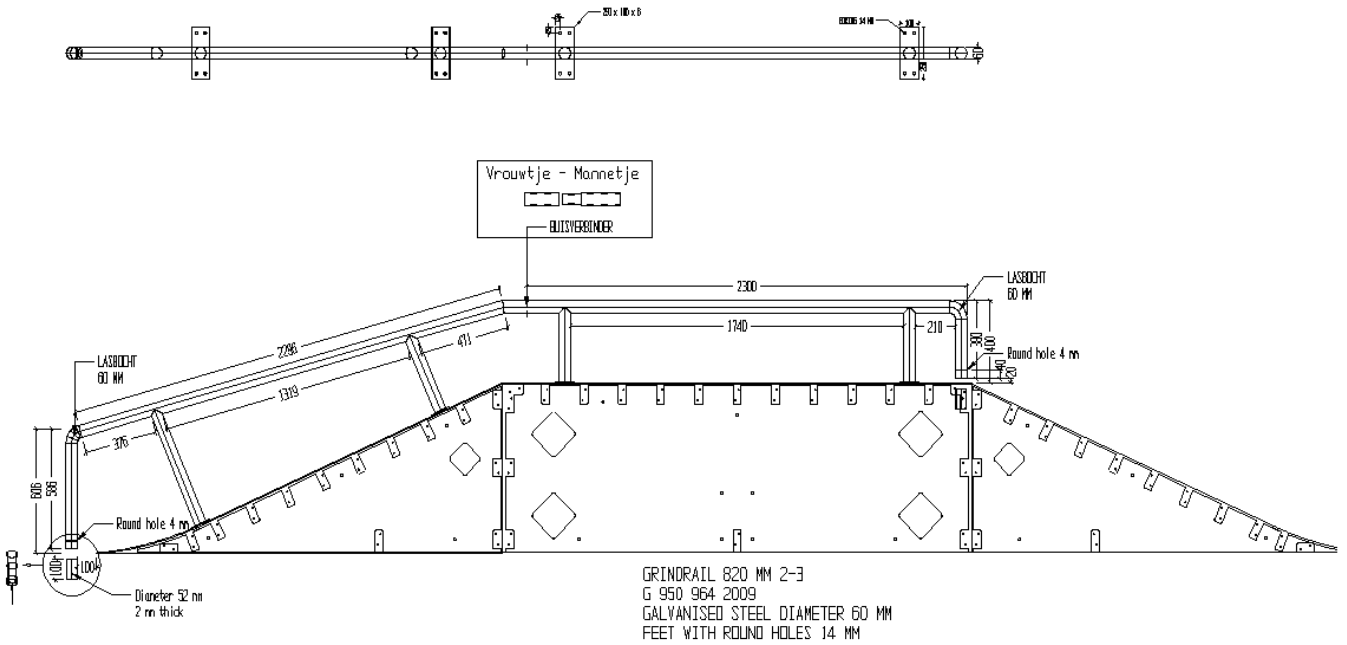
2.13.3.7 Grindrail 3/3 600 mm



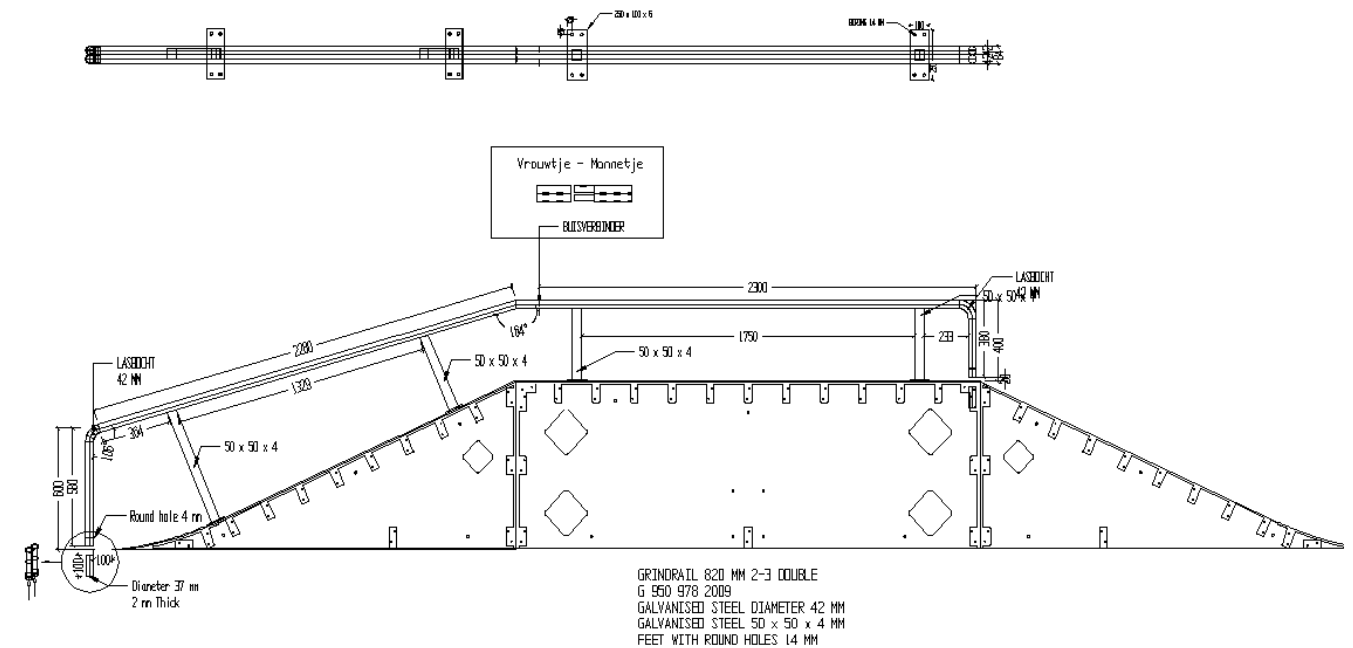
2.13.3.8 Grindrail 3/3 600 mm DOUBLE



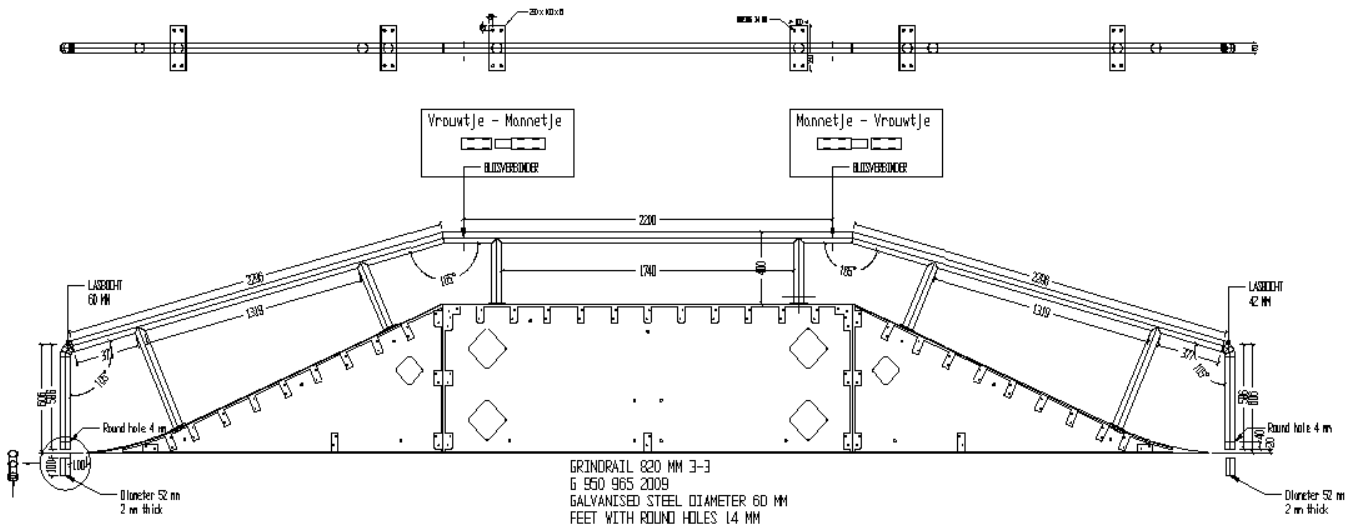
2.13.3.9 Grindrail 2/3 820 mm



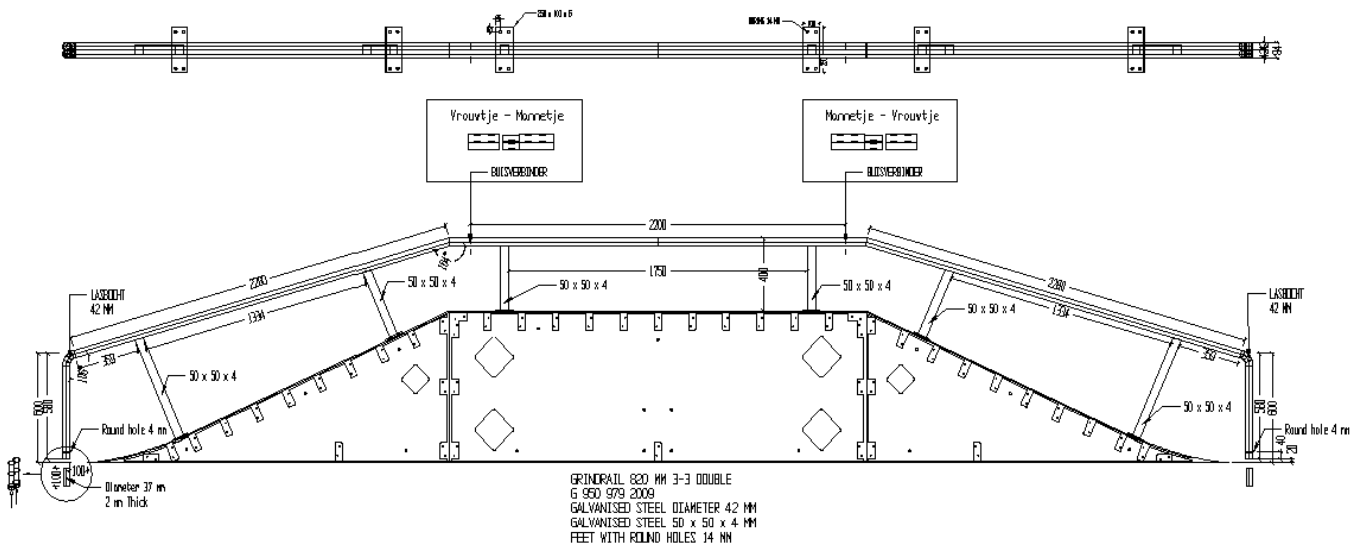
2.13.3.10 Grindrail 2/3 820 mm DOUBLE



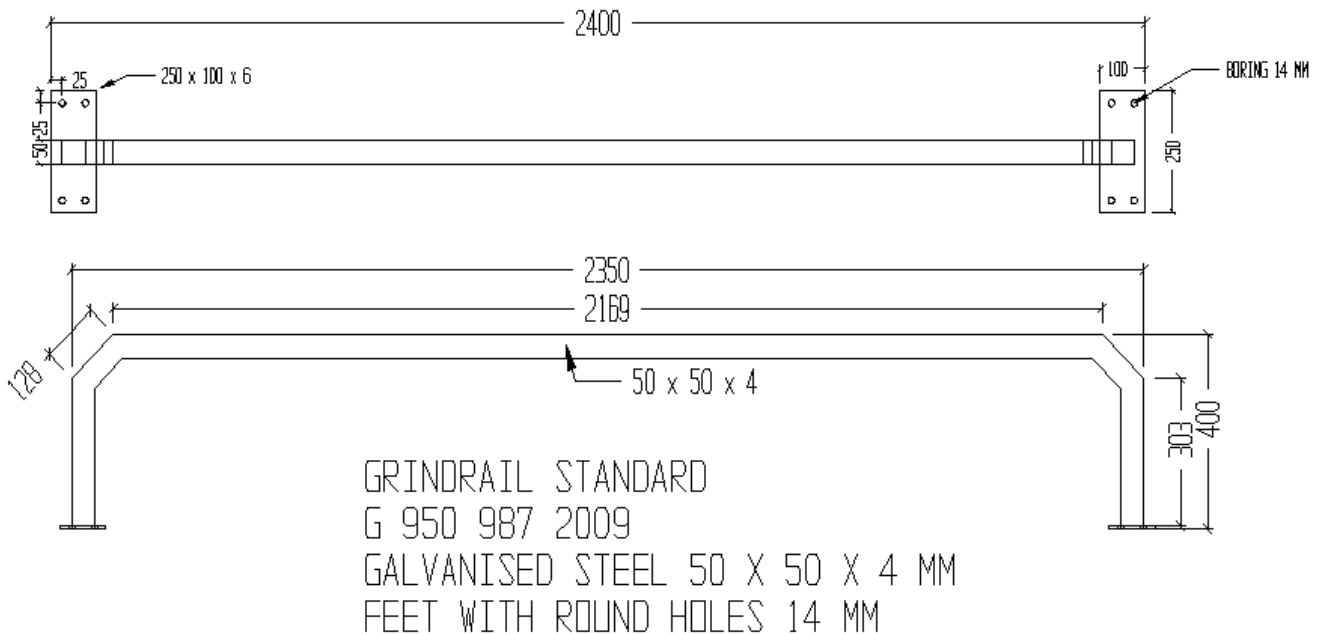
2.13.3.11 Grindrail 3/3 820 mm



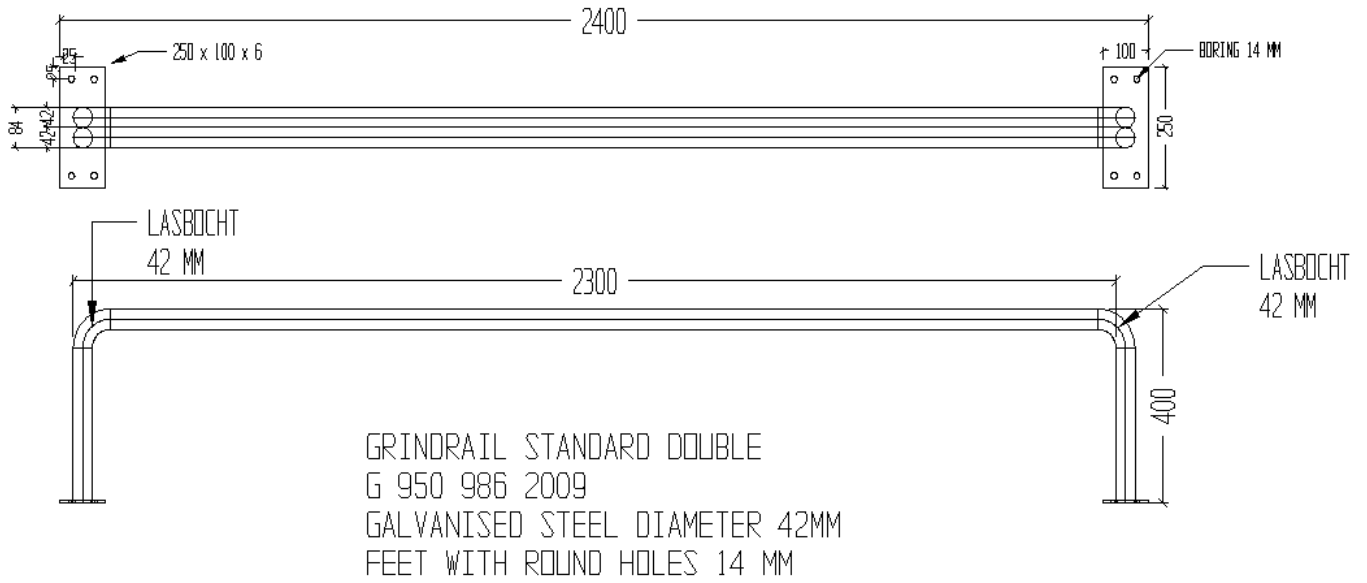
2.13.3.12 Grindrail 3/3 820 mm DOUBLE



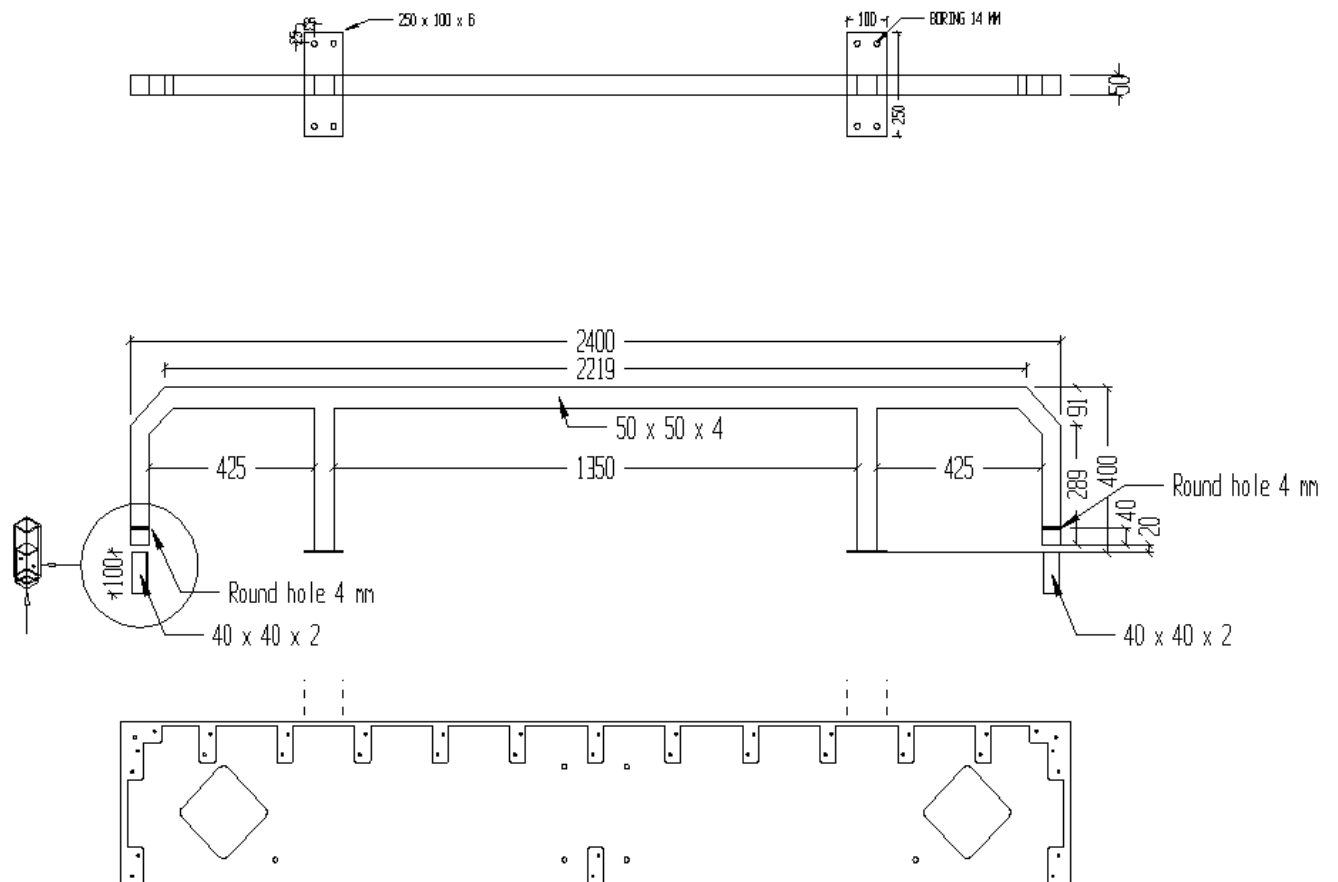
2.13.3.13 Standard grindrail floor



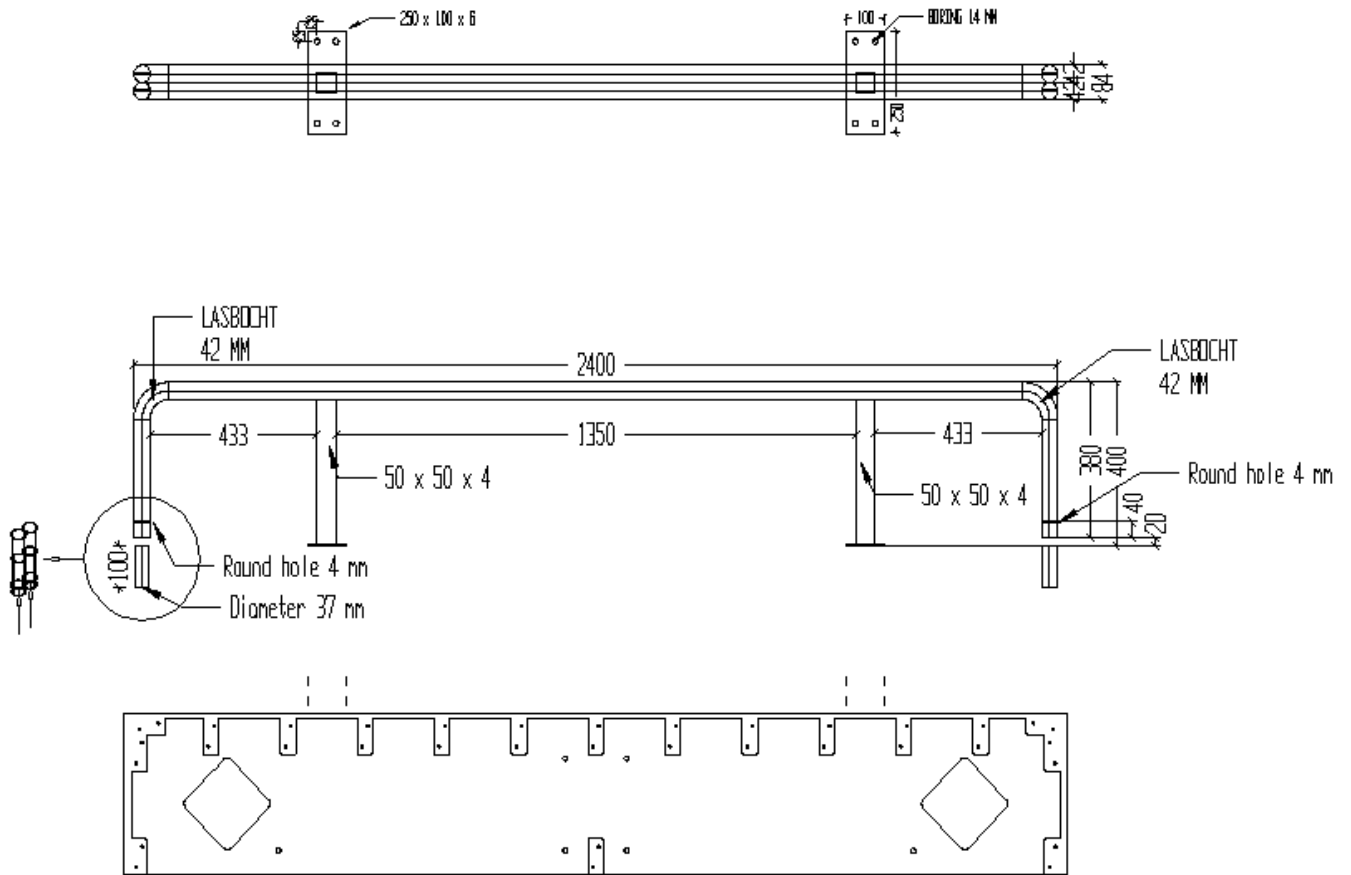
2.13.3.14 Standard grindrail floor DOUBLE



2.13.3.15 Standard grindrail funbox

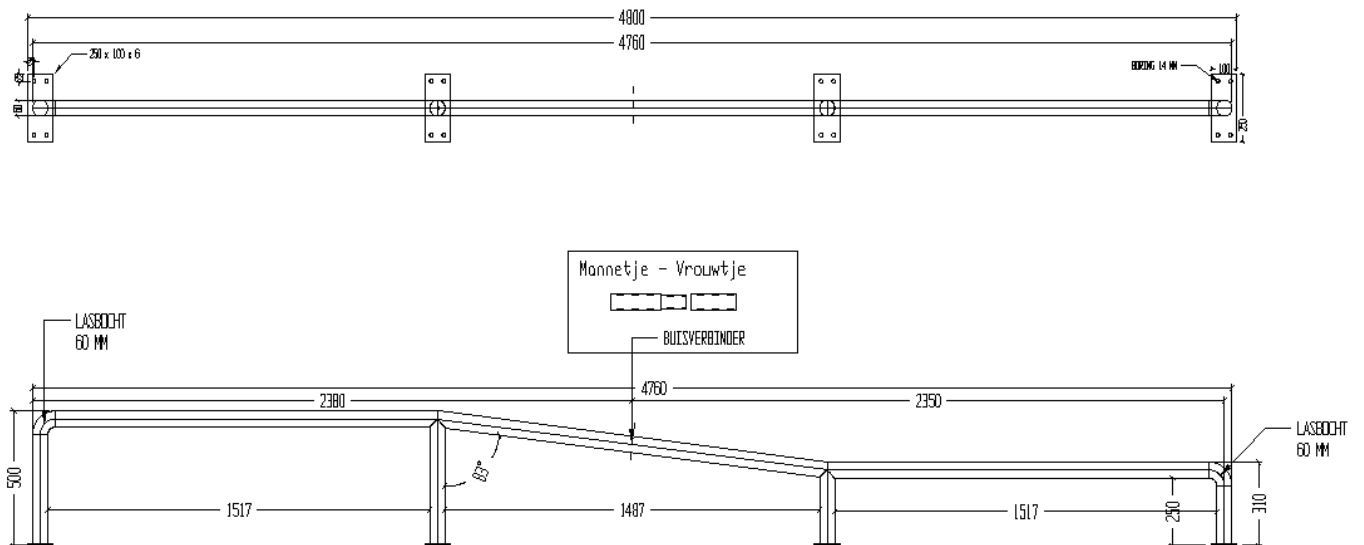


2.13.3.16 Standard grindrail funbox DOUBLE



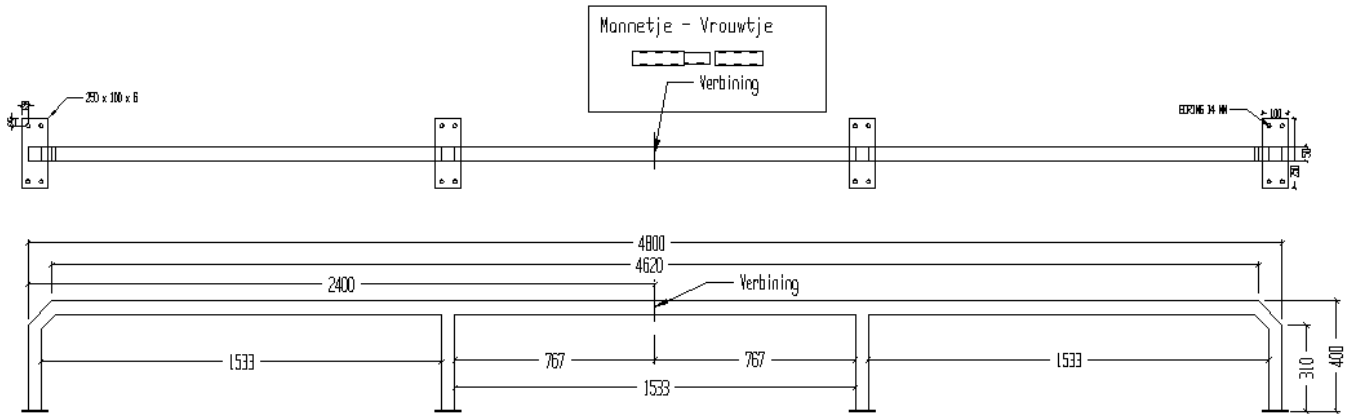
GRINDRAIL STANDARD FUNBOX DOUBLE
 G 950 988 2009
 GALVANISED STEEL DIAMETER 42MM
 GALVANISED STEEL 50 x 50 x 4 MM
 FEET WITH ROUND HOLES 14 MM

2.13.3.17 Kinked grindrail



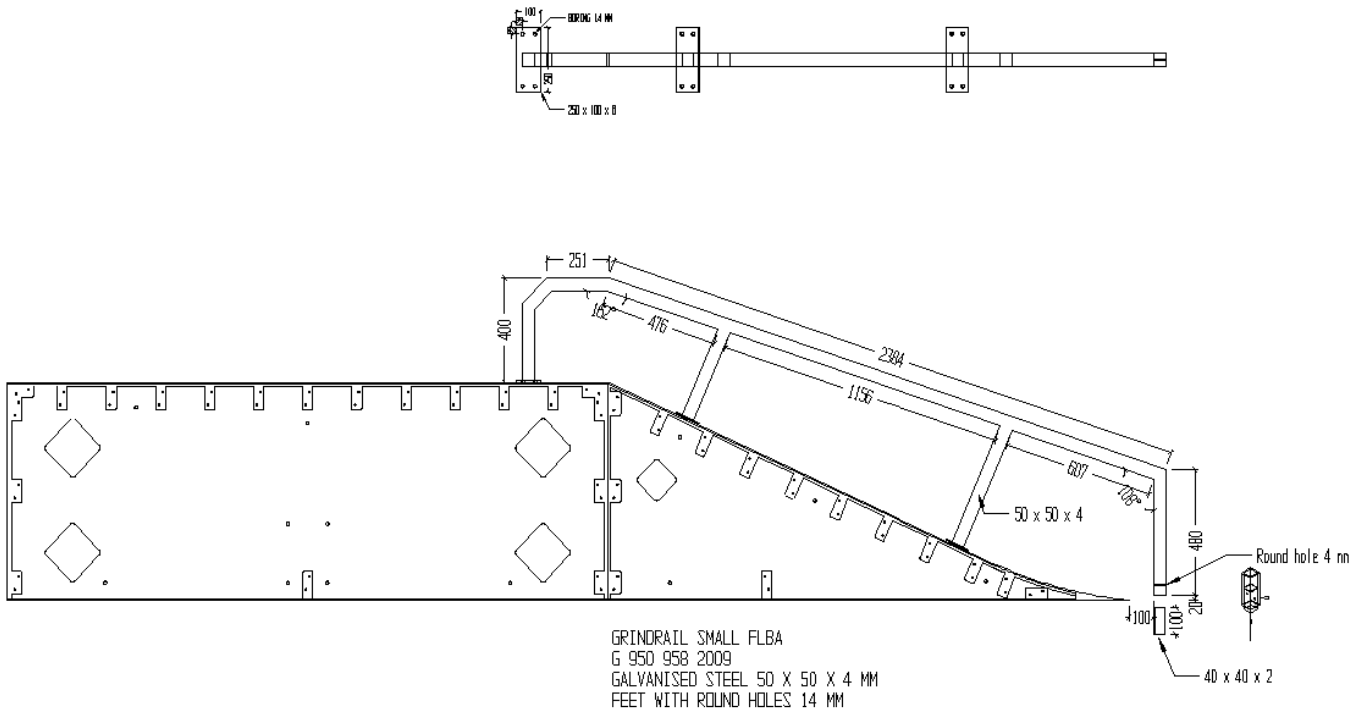
GRINDRAIL KINKED
 G 950 963 2009
 GALVANISED STEEL DIAMETER 60 MM
 FEET WITH ROUND HOLES 14 MM

2.13.3.18 Large grindrail



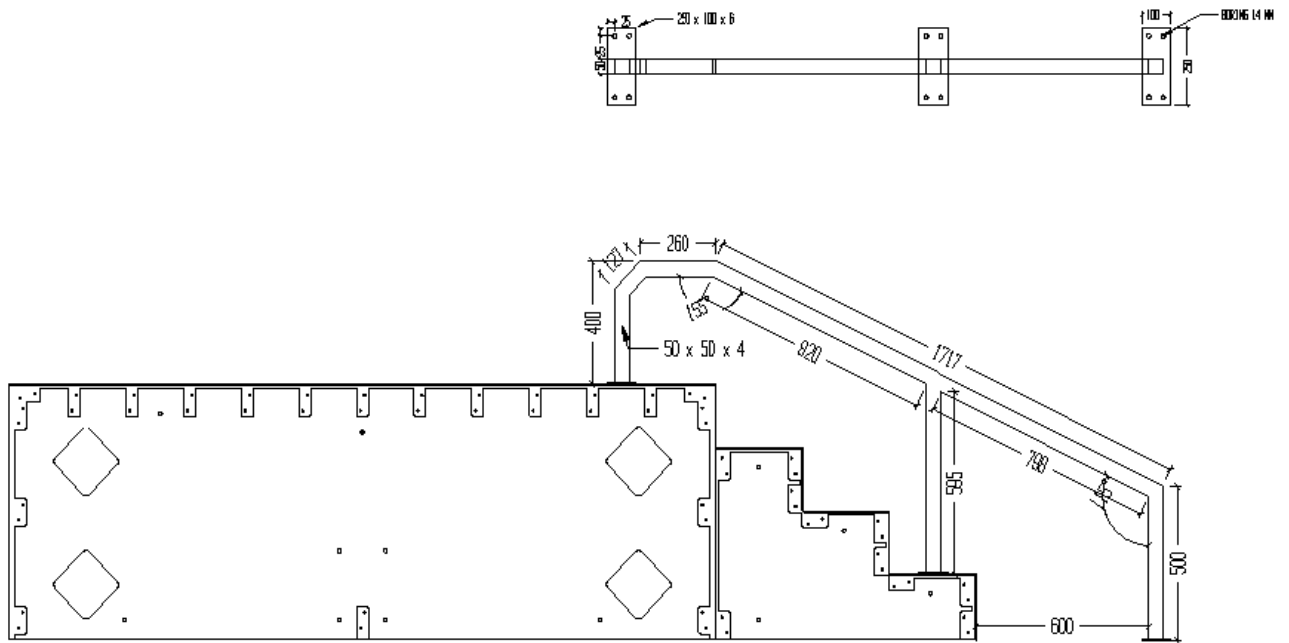
GRINDRAIL LARGE
G 950 962 2009
GALVANISED STEEL 50 X 50 X 4 MM
FEET WITH ROUND HOLES 14 MM

2.13.3.19 Grindrail small Flat bank



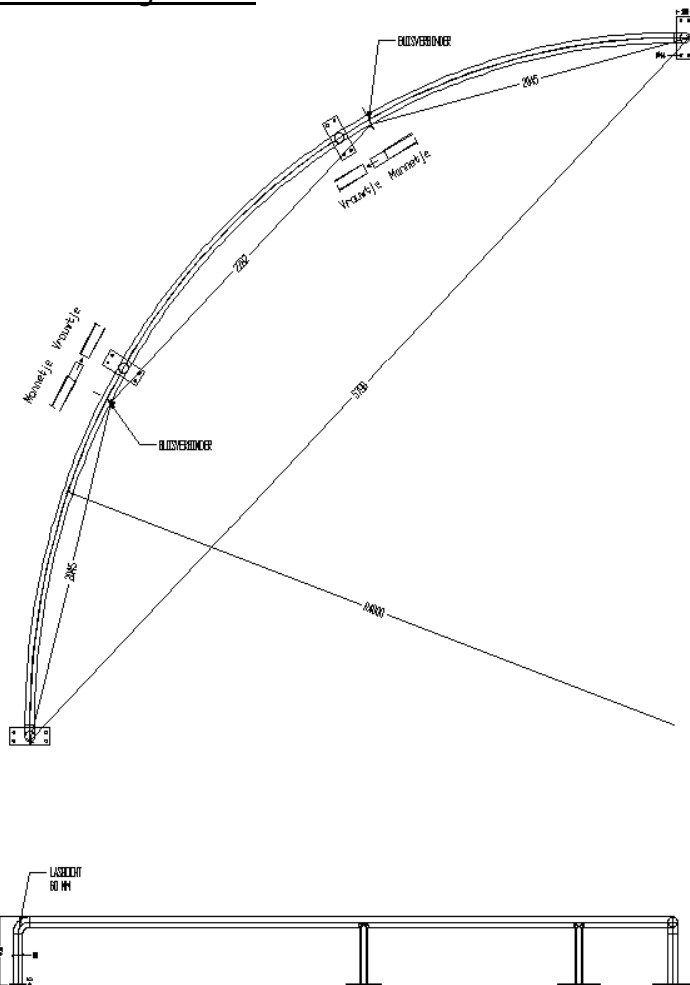
GRINDRAIL SMALL FLBA
G 950 958 2009
GALVANISED STEEL 50 X 50 X 4 MM
FEET WITH ROUND HOLES 14 MM

2.13.3.20 Grindrail stairs



GRINDRAIL STAIRS
 G 950 967 2009
 GALVANISED STEEL 50 X 50 X 4 MM
 FEET WITH ROUND HOLES 14 MM

2.13.3.21 Curved grindrail



GRINDRAIL CURVED
 G 950 972 2009
 GALVANISED STEEL DIAMETER 60 MM
 FEET WITH ROUND HOLES 14 MM

2.13.4 Installation checklist

Check the following things afther each installation, and make sure the finished skatepark complies with the listed arguments below.



Installation Checklist

- Manufacturer ID placed on each ramp
- Installer ID placed on each ramp
- There is less then 5 mm difference, in hight, on the riding surfaces
- The surface is flat (no toeplates are lifted from the ground)
- There are no seams larger than 5 mm
- The maximum falling hight is not higher than 1,5M
- All scharp edges are rounded
- The skatepark is installed according to the safety distances as shown on the delivered plan
- The height of the safetyrails is min 1200mm from the platform
- The position of the coping

