

ALUMINIUM Greenhouse

Riga XL

As at 10/2009

Assembly Instructions







Dear Garding Friend,

thank you for buying a top quality greenhouse from HOKLARTHERM in Germany.

Please read these Assembly Instructions and helpful suggestions carefully. If you follow them step by step you should not have any difficulty assembling your **EXTRA LARGE RIGA Greenhouse**.

Good Luck!

What to do First:

Check all the boxes you have received. Make sure you have received the correct number as shown on the Bill of Lading from the freight carrier. If you are missing a box or if any of the boxes are damage please write this down on the Bill of Lading, before the driver leaves.

Note:

Please do not refuse any of the boxes or the whole shipment, because of any damage. We will gladly replace any damaged items. Sending replacement parts is much simpler, quicker and less costly for all involded.

In the case of damage:

Please, if possible, make digital pictures and contact our USA distributor ASAP: Excaco Trading, Austin, TX: Customer Service: 877-760-8500 or by email at: marian@exaco.com.

Placing your greenhouse:

When possible place your greenhouse in a location with as much sun as possible. We do not recommend putting it directly under trees since branches might damage the glazing.

Protection from heavy winds:

If your area is subject to very strong wind gusts we strongly recommend against putting your greenhouse up without some kind of protection: a row of small trees, large shrubs of a wooden fence. Please contact our distributor to discuss additional anchoring options.

Direction:

If you intend to primarily grow vegetables: north-south; for flowers: east-west.

Warning:

Do not try to assemble this greenhouse in windy conditions, as your glazing panels might blow away and become damaged. Damages during assembly process, due to bad weather, are not covered by our warrantly.

What you will need:

- Patience do not rush
- 2 people (3 will make it easier when inserting the glazing panels)
- Gloves the ends of the aluminium profiles can be "sharp"
- Measuring tape
- 2 A-frame step ladders (10' and 8' preferable)
- 2 Rubber mallet
- Adjustable wrench
- 10 mm socket wrench
- 10 mm wrench
- Philips head screwdriver (manual and electric)
- Level
- Permanent Marker (to mark glazing panels)

Depending on the greenhouse you have received 9 to 10 boxes:

Quantity			Content table
1x	Basic construc- tions	Gables	Page 5
1x	Basic construc- tions	Long parts (with floor profile - gable)	Page 5
1x	Roof window/door		Page 7 und 8
1x	Accessories	Seals, automatic window opener, etc.	Page 6 - 8
2x bundles	Curved center profiles		Page 5
2x	Glazing		Page
1x	Foundation frame	(special accessories)	Page 8

Special accessories:

Table-shelf, Shelf for pots

ever a box extra

Contents of main box - basic construction

Please check out the tables, the completeness of the components.

Profiles for both gables:

Profile design	Pos.	Description		Length [mm]
	1	ront/Back floor profiles		4145
	2	Edge stay bar - curved - right side	2	
	3	Edge stay bar - curved - left side	2	
	4	Vertical profile - middle - left - with 50° angle at top	2	1929
<u>جانات</u>	5	Vertical profile - middle - right - with 50 $^\circ$ angle at top	2	1929
	6	Vertical door profile - left - with 30° angle at top	2	2641
, <u>, , , , , , , , , , , , , , , , , , </u>	7	Vertical door profile - right - with 30° angle attop	2	2641
	8	Crossbar	10	952

Profiles for side walls:

Profile design	Pos. _{Type}			Description	Quantity/Length [mm]			
i i cine accigi	IV	V	VI		Type IV	Type V	Type VI	
	16	17	18	Floor profile - side	2 3914	2 4909	2 5903	
		19		Curved center profiles	6	8	10	
L L	20	21	22	Lateral supports (wind braces)	4 3970	4 4965	4 5960	
		25		Cross bar - under window	2 952	4 952	4 952	
	26	27	28	Roof beam	1 4013	1 5008	1 6002	
<u>ال</u>	29	30	31	Re-enforcement bar - roof beam	1 3971	1 4966	1 5960	

Accessories bag basic construction

Part design	Pos.	Description		Quantity
	100	Plastic corner connector		4
0 0 0 0 0	101	Straight connector plate	for cross bars above doors	4
	102	T-connector slanted	for door upright and edge clamp	4
	103	T-connector	door profiles to cross bars	8
	104	T-connector slanted	vertical profile middle/cross bar/ edge clamp	4
0 0	105	Floor profile connectors	inside	4
	107	Hexagon head screw M6 x 16 + nuts M6	screws for feeding	160*
\bigcirc	108	Washers (f. pos. 8)	to be used in the later support connections	28
PP -	110	Insulation seal 6 - 8 thick	used on the inside	See table below.
	111	Phillips head screws 4,2 x 13	for cross bar/roof beam- end cap/ cover plate	12
Autorite	142	Phillips head screws 4,2 x 50	for cross bars in front and back walls	4
	113	Phillips head screws 4,8 x 16	for floor profile corner connectors	16
•••	114	Roof beam - end cap/cover plate		2
0 0	115	Connector plate	for cross bars under windows	4/8/8 depends on type
	116	Floor profile corner con- nector covers		4
	117	Self drilling screws 3,5 x 13	t-connector 102 + 104	32

*plus substitute screws

Heavy insulation seal 6-8 mm in pre cut section

Length Type	952 mm	571 mm
Riga XL IV	12 pc	4 pc
Riga XL V	14 pc	4 pc
Riga XL VI	16 pc	4 pc

Profiles for each roof window

Profile design	Pos.	Description	Quan- tity	Length [mm]
	34	Window profile - roof	2	865
	35	Window profile - roof	2	993

Profiles for each divided revolving door - at the bottom

Profile design	Pos.	Description	Description		
	44	Door profile - left	with borings for Sash lock	1	887
	45	Door profile - right	with hinge borings	1	887
	46	Door profile - top		1	864
	48	Door profile - bottom		1	864
	47	Rectangular tube	with cross holes	1	933

Profiles for each divided revolving door - top

Profile design	Pos.	Description		Quan- tity	Length [mm]
وسالبسالس	41	Door profile - left		1	949
	42	Door profile - right	with hinge borings	1	949
	48	Door profile - top		1	864
	43	Door profile - bottom	with large hole for door handle	1	864

Accessories and hardware for each roof window

Part design	Pos.	Description	Quan- tity	Length [mm]
*	126	T-seal	1 2	974 1027
	127	Plastic corner connector	2x left 2x right	
	112	Phillips head screws 4,2 x 60	8	
	107	Hexagon head screws M6 x 16 + nut M6	3	
	143	Glazing block 30 x 16 x 4	2	

* **Note:** The rubber seal is bundled in one hank for all doors and windows. Cut accordingly please.

Accessories bag for divided revolving door - at the bottom

Part Design	Pos.	Description	Quan- tity	Length [mm]
	135	Hinge	2	
	136	Sash lock	1	
	137	End cap for rectangular tube	2	
*	138	T-seal	2 2	936 973
	139	Phillips head screw 4,8 x 25 (for hinges)	4	
	140	Phillips head screw 4,8 x 16 (for hinges)	4	
	112	Phillips head screw 4,2 x 60 (for doors)	8	
Junnan	141	Phillips head screw 3,5 x 22 (sash lock)	2	
	142	Phillips head screw 4,2 x 50 (to attach square tube)	2	
₩	143	Glazing block 30 x 16 x 4	2	
	127	Plastic corner connector	2x left 2x right	

Accessories bag for divided revolving door - top

Part design	Pos.	Description	Quan- tity	Length inches
see page 19/20	150	Door sets, 8-piece (Assembly see page 18.)	1	
	112	Phillips head screws 4,2 x 60 (door)	8	
	143	Little white spacers 30 x 16 x 4	2	
∧	153	T-seal	2 2	966 973
	135	Hinge	2	
	139	Phillips head screws 4,8 x 25 (hinges)	4	
Automates	140	Phillips head screws 4,8 x 16 (hinges)	4	
	136	Sash Lock	1	
	141	Phillips head screws 3,5 x 22 (Sash Lock)	2	
	158	Door holder - black - 2 parts	1	
<000000000	159	Phillips head screws 3,5 x 16 (door holder)	4	
	127	Plastic corner connectors	1 x left 1 x right	

* Note: The rubber seal is bundled in one hank for all doors and windows. Cut accordingly please.

Attaching the foundation frame (special accessories)

Drofile/port dogion	Doo	Pos. Description		Quantity/Length inches			
Profile/part design	F05.	Description	Type IV	Type V	Type VI		
	6.1	Foundation frame profile for gable	2 4100	2 4100	2 4100		
	6.2	Foundation frame profile for sides	2 3869	2 4864	2 5858		
	6.3	Foundation corner connectors 40/40/2	4 135	4 135	4 135		
	117	Hexagon head screw M6 x 12 + nut M6	36	40	44		
{	118	Self drilling screw 3,5 x 13	8	8	8		

Profile and accessoiries for foundation frame:

Assembly of foundation frame





1. The foundation frame individually in the floor profiles rotate and align the center.

Note: Foundation frame profiles are shorter than the floor profiles.

2. For each profile 2 self drilling screws 3,5 x 13 (pos. 118) fixation.

3. Both sides fill up with soil!



Insert one screw M6 x 12 into each of the corners of the foundation frame profile, detach angles and screw down with nut M6.



For stabilization purposes of the house some plates (pos. 6.4) will be screwed on the foundation frame and lateral stay bars or door profiles by means of pulled in screws M6.

Establishment greenhouse

Mounting brackets for the basis profile to doweling on customer requires a foundation.

Part design	Pos.	Description	Quantity/Length in mm			
Fait design		Description	Type IV	Type V	Type VI	
L	6.7 Mounting brackets XL		14	16	18	
	107 Hexagon head screw M6 x 12 + nut M6		56	64	72	





Foundation plan Riga XL (All the dimensions in [mm])

Establishment of your greenhouse with ...stripe-foudation"

If you did not buy a foundation frame, the greenhouse has to be erected safely by means of a stripe-foundation.

Please arrange then such a foundation according to the dimension presets given below.

You also have the possibility to found your greenhouse on flash kerb edge beams. (for ex.: 50 x 25 x 8 cm or better 50 x 30 x 10 cm)

Please pay attention to the foundation being even and horizontal.

Then fasten the greenhouse by the supplied angles with dowels 8/10 mm (2 pc.) per side minimum) into the concrete.

Screws and dowels is not a part of the delivery.

	founda	ition	greenhouse		
-	B1	L1	B2	L2	
Riga XL/IV	442	419	425	402	
Riga XL/V	442	519	425	501	
Riga XL/VI	442	618	425	601	



Assembly course gable

Warning: If you have bought the foundation frame, it has to be attached to the base profiles FIRST! (Page 8)





Assembly course gable <u>Warning:</u> If you have bought the foundation frame, it has to be attached to the base profiles **FIRST**! (Page 8)





Assembly roof window



Components window openers



1

- 2 pressure cylinder
- 3 | splint pin
- 4 mounting plate window profile
- 5 mounting plate cross bar



Operation of a window opener

Assembling instructions:

- 1. Check, that the window of the greenhouse can open and close freely and without hindrance. For other brands please dismantle the existing handopener in advance.
- 2. At first you mount the window openers with the mounting plate (4) on the window profile (5).
- 3. Choose mounting plate (5) when you ask the average hole and attach it to the crossbar below window.
- 4. Please secure the pressure-cylinder in the threaded device at the upper end with a splint pin in the t-coupling (upper hole).

Justification:

The window opener needed for the assembly approximately 3 to 4 hours to adapted the temperature in the greenhouse. The more you screw in the pressure-cylinder into the threaded device, the further open the roof window. Do you want earlier/higher opening, turn the pressure-cylinder clockwise. For later/lower opening counter-clockwise. One rotation corresponds to approximately 0,5°C. Please keep the mind that can vary the temperature in your greenhouse and different windows opener have small tolerances.

Winter storage:

If you are not the greenhouse "frost-free" hold, we recommend the entire window opener or just the pressure cylinder dismantle. Please keep the window opener in a dry and frost-free place. Before remounting in the spring particularly, check the cylinder rod and the cylinder threads are greased. The cylinder rod please look for ease of movement.

Mounting divided revolving door - at the bottom

View from outside



Mounting revolving divided door - top

View from outside



Assembly instructions for lockable handle



	Polycarbonate Glazing Panels: 16mm triple wall							
RIGA XL Size	Curved Panel for Gables	Curved Panel small f.Gables	Square panel for Gables	5-sided panel for Gables	Door Panels	Side Wall Panels Large	Roof Windows	Side wall panels under Roof Windows
		q	٩	q	٩			م
	Quantity and Size (a,b)	Quantity and Size (a,b)	Quantity and Size (a,b)	Quantity and Size (a,b)	Quantity and Size (a,b)	Quantity and Size (a,b)	Quantity and Size (a,b)	Quantity and Size (a,b)
Riga XL/IV	4 602 x 1922	4 980 x 727	8 980 x 944	2 980 x 1008	4 888 x 835	6 980 x 3893	888 x 943	² 980 x 2830
Riga XL/V	4 602 x 1922	4 980 x 727	8 980 x 944	2 980 x 1008	4 888 x 835	6 980 x 3893	4 888 x 943	4 980 x 2830
Riga XL/VI	4 602 x 1922	4 980 x 727	8 980 x 944	980 × 1008	4 888 x 835	8 980 x 3893	4 888 x 943	4 980 x 2830

Good advice for a quick and perfect assembly of the greenhouse from HOKLAR-THERM

Most of the assembly can be done by you alone.

It is best if you have further two persons being able to hold it for approximately half an hour when putting the greenhouse upright.

If you want to go on mounting it alone you have to look for a secure, suitable mounting course by means of stay bars, ladder or other fixings.

Unlike the most usual greenhouses, the mounting of the aluminium profiles is done together with the glazing. This results into an absolutely secure glazing and the biggest possible stability of the greenhouse.

You obtained 9 to 10 boxes depending on the greenhouse.

1x	basic construction	gable	page 4
1x	basic construction	long parts (with floor profile - gable)	page 4
1x	roof window/door		page 6 and 7
1x	accessories	seals, automatic window opener, etc.	page 5 - 7
2x bundles	curved center profiles		page 4 (pos. 2, 3 a. 19)
2x	glazing		page 20

Please stay all the boxes in a dry place and protected against sunlight (see note below). Please frist open und unpack only the main box with the basic construction to avoid a mixing of the many different parts.

Assembly course gable

Start with the assembly of the greenhouse gables. Door wall gable and back wall gable are nearly the same.

Push the profile of the vertical profile - middle - (pos. 6) left and (pos. 7) right - profile with 8 borings with a slope of 30° up to the smaller borings in the centre of the fbor profile. The slopes there have to point to the outside direction. Then detach the plastic corner connector.

Attention:

Move in both ends of the floor profile 1 each screw.

Already now you need the lateral glazing. (Measurement: 980 x 944 mm). Push it with the web direction - vertical - into the floor profile and push laterally into the verticale profiles.

Important note:

The ISO-celluar sheets, that is the glazing, are always to build in with the UV-coated side to the outside. On the protection foil you find a corresponding note or a blue foil. Loosen the protection foils only at the edge and the complete rest of the foil only after the finish assembly. With some days of isolation the foil can burn "tight" on the plates and is to stripe off with difficulty. Do not stripe it completely off when unpacking the goods because then you cannot see the side with the UV-protection.

Now detach the crossbar (pos. 8) from the top of the glazing. Then the beveled glazing is to put in the same way. Joint the vertical profiles with the t-connector (pos. 103).

Attention:

In advance 4 screws have to be screwed in both vertical profiles and 4 screws into the crossbar.

Push the glazing (Measurement: 980 x 944 mm) into the crossbar (pos. 8) and vertical profile (pos. 6 + 7).

Push the verticale-profile - middle - left (pos. 4) and right (pos. 5) from a page in the floor-profile up to the glass side. The slope have to show to the outside. Then attach the corner connector (pos. 100).

Attention:

In advance 4 screws have to put in both verticale profiles.

Vertical profiles and crossbars with the t-connector 3 (pos. 103) and collected screws connect. The crossbars (pos. 8) put on the glazing.

Attention:

In all crossbars you put in 4 screws and in the verticale profile - left and right (pos. 4 and 5) each one screw.

Connect the straight connector plate 1 (pos. 1), the crossbars in the verticale profile - left and right - with previously collected screws. The lower crossbar (already mounted in step 3) attached on the verticale profiles - left and right - with the t-connector 3 (pos. 103) and bolts. In addition, the crossbars are laterally screwed with Phillips head screw 4,2 x 50 (pos. 112) from the inside.

Now the large, rounded glass sides merge into the floor profile. The small, rounded glazing have to be thread into the upper crossbar and verticale profile. A 5-angular slice centered to pushing up between the verticale profile direction crossbar.

The edge stay bar must to connected on the corner connector.

Attention:

You have to put in the vertical profiles (pos. 6 and 7) and vertical profiles - middle - left and right (pos. 4 and 5) each 2 screws.

The edge stay bar are screwed to the connecting plates 2 (pos. 102) and 4 (pos. 104) on the vertical profiles and the vertical profiles - middle.

Note:

Hexagon bolts can be inserted later into most profiles through a special "hole" in the channel. Look page 14!)

Assembly of the lateral and roof segments

Now you need some more assistance or corresponding aids!

Set the gable upright, hold it or support it safely.

Attention:

You have to put in each one screw in the both sides of the floor profile.

At first the lateral floor profile are to detach on the corner connector of the gable. The roof beam is now to introduce into the existing nuts/slots of the gable that the profile is flush in front. Now screw together with the roof beam-end cap by means self-drilling-screws 4,2 x 13 (pos. 111).

A lateral glazing is to push into the floor profile and the edge profile. It is best, if at both sides. Thus the gable stad safely.

The next to push in a pane of the roof glazing into the grooved profile and into the verge flashing profile. Introduce roof stay bars into the grooved profiles and eaves profile and push up until the glazing (thread-up glazing). The remaining pnes are to complete.

Please determine the position of the window in time!

Here put in the short pane of the roof glazing and close with the window crossbeam (pos. 25). The connection plates (pos. 115) have to be used to screw.

Attention:

You have to put in each one screw in the both sides of the floor profile.

Push the grooved profile and roof beam into the nuts/slots of the gable profiles. Screw down as well with the grooved with roof beam-end caps. Now a small angle (pos. 105) can be screwed with bolts M6 x 16 with nuts to secure the floor profiles.

The stabilizing/edge angles (pos. 20/21/22) are to fix at the edge stay bars and lateral stay bars by means of screws M6 x 16 and plain washers. These have a stabilihing effect and give a protection of the greenhouse against stormy weather. All the same time these angles are the back wall profiles for the tables and shelves (see separate mounting instruction).

Now the skeletal structure is finished - topping-out ceremony is the order of the day!

Please open now the accessories box. Here you find:

2 pc. roof window by type IV incl. automatic window opener

- 4 pc. roof window by type V/VI incl. automatic window opener
- 2 pc. divided revolving door

These parts are to mount according to the instructions.

The roof window is to push from the lateral into the roof beam. This system is generally very simple and explains itself.

<u>Question:</u> Is it necessary to "seal" the greenhouse or greenhouse glazing respectively? Principally: not.

However, we recommend to seal the horizontal transitions from the glazing to the profile (see sketch - broken lines ---) with neutrally linking, transparent silicon in order to have the most possible small amount of water and thus little dirt in the glazing reception.

<u>Advantage:</u> In the long term the greenhouse has a better appearance The tendency to the algae formation just in this area decreases tremendously.



Humidity/water can also appear within the glazing/celluar sheets according to the weather situation because te PVC-sheets are not "steam-diffusion-tight", that means that humidity in the form of steam penetrates into the sheet. This is a purely optical disadvantage which cannot be avoided. The sheets cannot suffer any damage, even not with frosty days.

Attention:

Use ony "neutrally linking" silicon due to possible stress cracks in the PVC-glazing. This is most common silicon sealent being available with any DIY superstore or with your HOKLAR-THERM - expert dealer priced at 4 - 6 €/310 mm cartridge.

Cleansing and maintenance:

Clean the greenhouse with much water only (for ex.: with a car wash-brush or a HP-cleaning apparatus. You can additionally use any purifiers.

We wish alle the buyers and users of this HOKLAR-THERM - greenhouse much fun with their hobby of gardening and have much success with growth!

All our statements are based upon many years of experience and are drawn up to the best of our knowledge and belief and they do not cover any legal entitlements in case of any possibly arising events of claim.