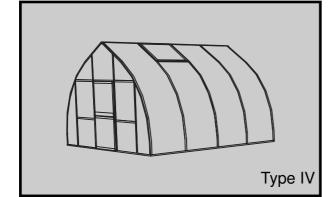


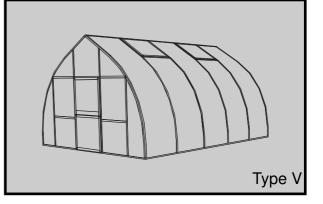
### ALUMINIUM Greenhouse

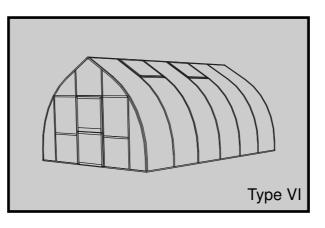
## Riga XL

As at 9/2016

# Assembly Instructions







#### Dear Gardening 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 damaged please write this down on the Bill of Lading, before the driver leaves. Please notify Exaco as soon as possible of any damage noted.

#### 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 involved.

#### In the case of damage:

Please, if possible, take digital pictures and contact our USA distributor ASAP: Exaco Trading, Austin, TX: Customer Service: 877-760-8500 or by email at: customerservice@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 and window bracing kits for high wind.

#### **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 profi les can be sharp
- Measuring tape
- 2 A-frame step ladders (10' and 8' preferable)
- 2 Rubber mallets
- 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	Front/Back floor profiles	2	4145
	2	Edge stay bar - curved - right side	2	
	3	Edge stay bar - curved - left side	2	
	4	/ertical profile - middle - left - with 50° angle at top		1929
<u>نابات</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
	7	Vertical door profile - right - with 30° angle attop	2	2641
	8	Crossbar	10	952

#### Profiles for side walls:

Profile design		Pos. <sub>Type</sub>		Description	Quan	tity/Length [r	nm]
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
Autore	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	6 for floor profile corner connectors	
•••	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		Quan- tity	Length [mm]
	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]
ومالبسالي	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]
<b>*</b>	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	
Junnan	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	
<b>★</b>	153	T-seal	2 2	966 973
	135	Hinge	2	
	139	Phillips head screws 4,8 x 25 (hinges)	4	
Autorite	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	
	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.

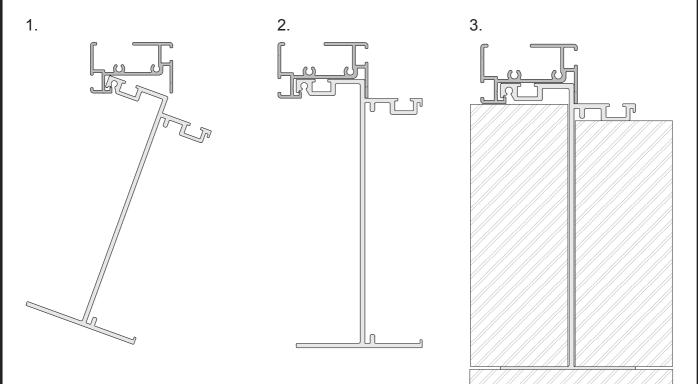
#### Attaching the foundation frame (special accessories)

<b>Profiles and accessories for foundation frame:</b>
---

Profile/part design	Pos.	Description	Quantity/Length in mm		
Frome/part design			Typ IV	Тур V	Typ VI
l l	6.1	Foundation frame profile for gable	2 4085	2 4085	2 4085
	6.2	Foundation frame profile for the sides	2 3864	2 4859	2 5853

#### Assembly of foundation frame

**Note:** Foundation frame profiles are shorter than the floor profiles!



1. The foundation frame hooks into, then rotates to attach to the floor profiles. Center the foundation on the floor profile.

Note: Foundation frame is shorter than the floor profiles.

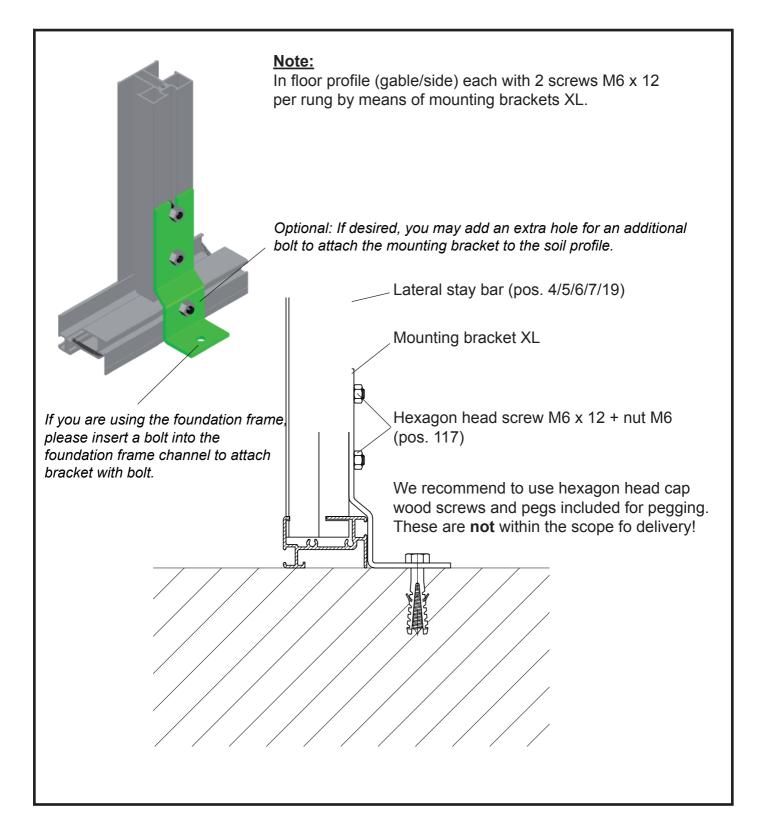
- 2. When installed. You may use a few self-tapping screws to attach the foundation frame to the soil profile to make installation easier
- 3. Fill both sides with soil after greenhouse is fully assembled.



#### Establishment greenhouse

Mounting brackets for the basis profile to doweling customers requiring a foundation.

Part design	Pos.	Description	Quantity/Length in mm			
Part design		Description	Typ IV	Тур V	Typ VI	
Ĺ	6.7	Mounting brackets XL	14	16	18	
	117 Hexagon head screw M6 x 12 + nut M6		56	64	72	





### Foundation plan Riga XL

(All the dimensions in cm and inches as noted)

#### 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.

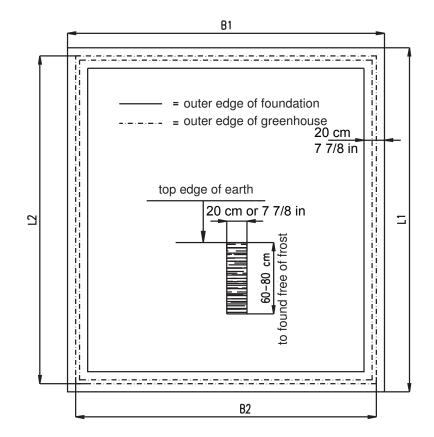
You also have the possibility to found your greenhouse on fl ash kerb edge beams. (for ex.:  $50 \times 25 \times 8 \text{ cm} (19 \text{ }3/4" \times 9 \text{ }3/4" \times 3 \text{ }1/8")$  or better 50 x 30 x 10 cm (19 3/4" x11 3/4" x 4"))

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.

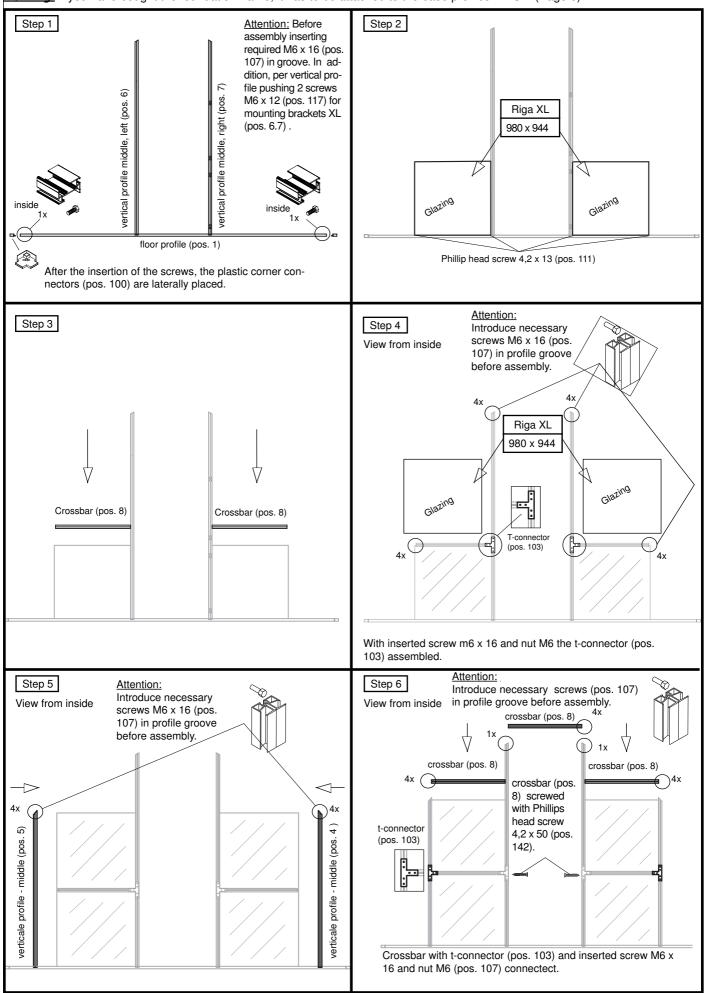
Screws and dowels is not a part of the delivery.

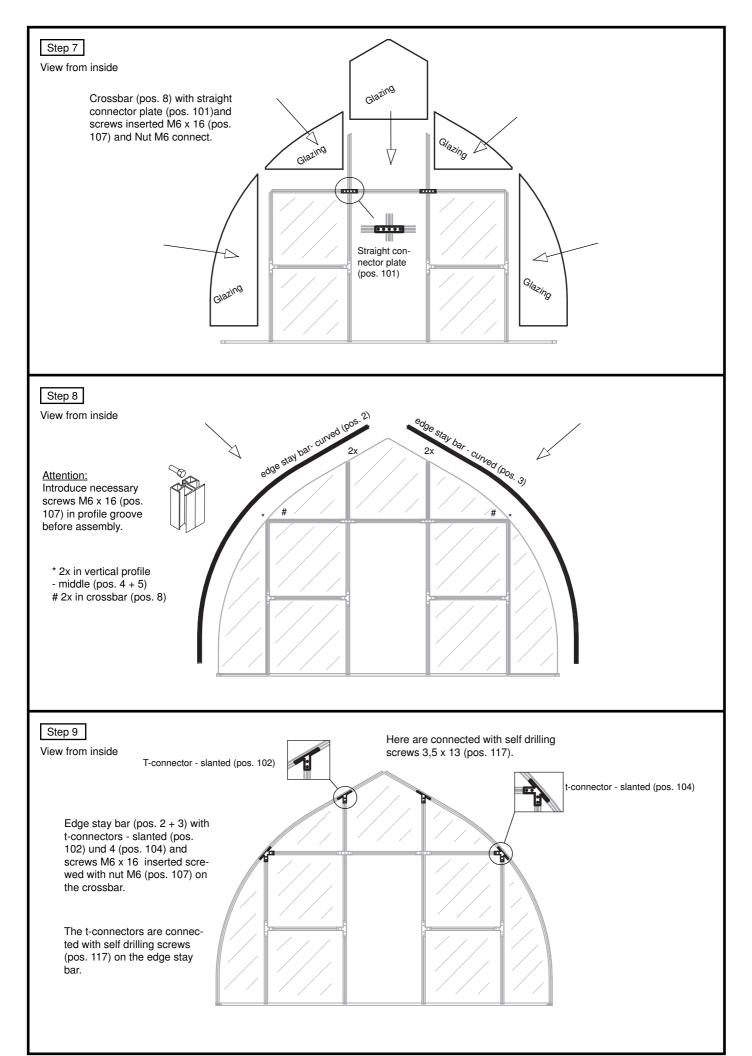
	founda	ation	greenhouse		
	B1	L1	B2	L2	
Riga XL/5	442 cm	519 cm	425 cm	501 cm	
	174 in	204 <sup>5/16</sup> in	167 <sup>3/4</sup> in	197 <sup>1/4</sup> in	
Riga XL/6	442 cm	618 cm	425 cm	601 cm	
	174 in	243 <sup>5/16</sup> in	167 <sup>3/4</sup> in	236 <sup>5/8</sup> in	
Riga XL/7	442 cm	718 cm	425 cm	701 cm	
	174 in	282 <sup>11/16</sup> in	167 <sup>3/4</sup> in	276 in	
Riga XL/8	442 cm	818 cm	425 cm	801 cm	
	174 in	322 <sup>1/16</sup> in	167 <sup>3/4</sup> in	315 <sup>3/8</sup> in	
Riga XL/9	442 cm	918 cm	425 cm	901 cm	
	174 in	361 <sup>7/16</sup> in	167 <sup>3/4</sup> in	354 <sup>3/4</sup> in	



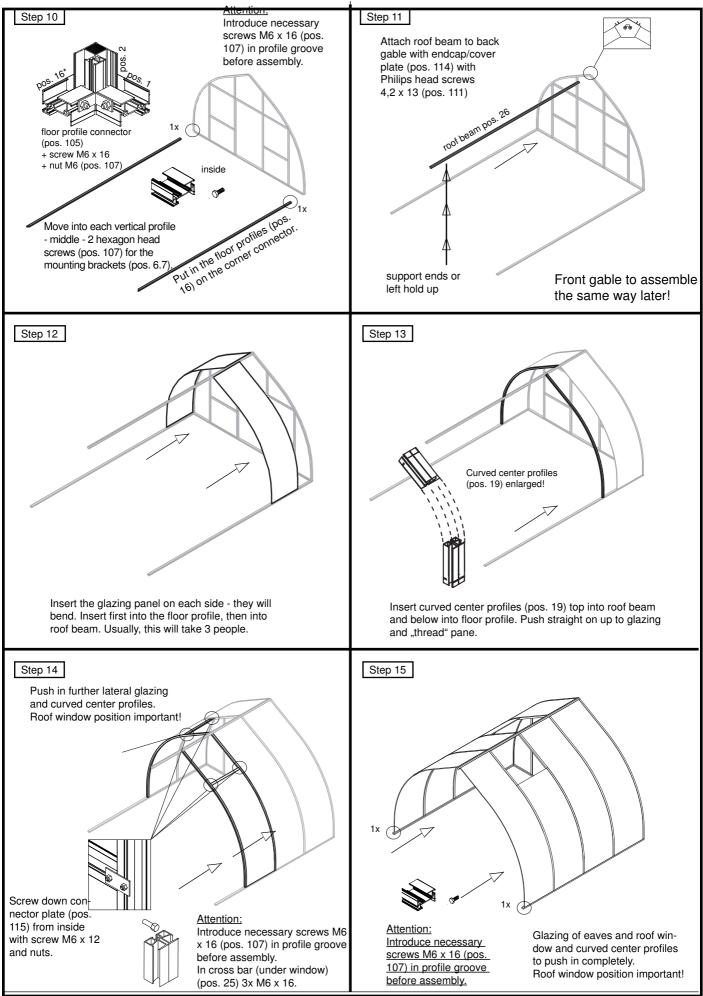
#### Assembly course gable

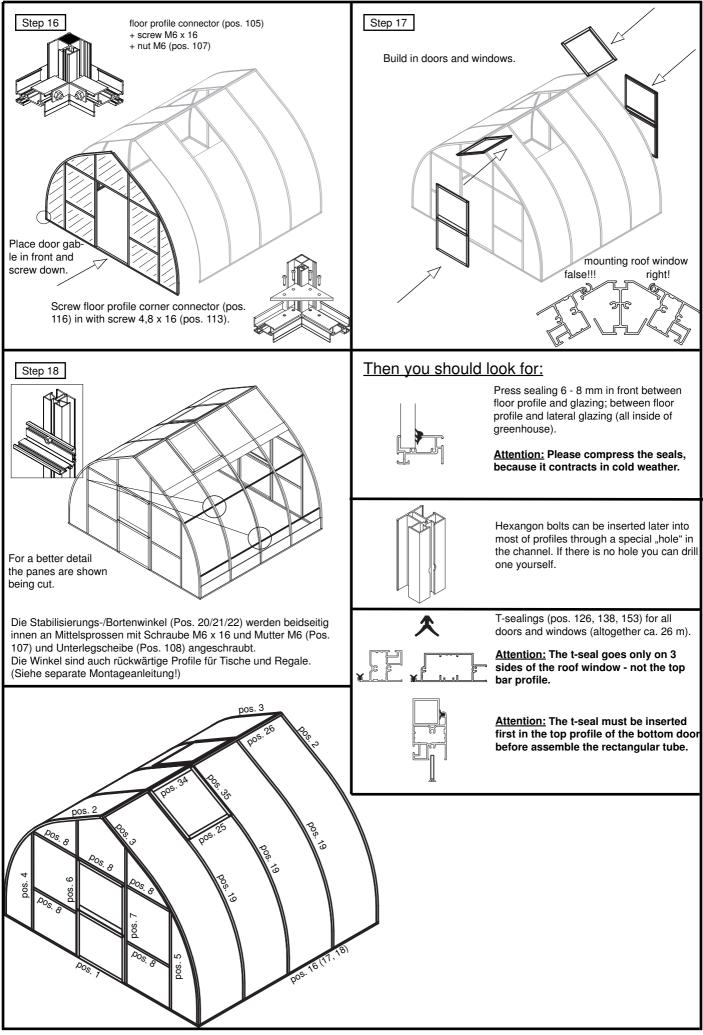
Warning: If you have bought the foundation frame, it has to be attached to the base profiles FIRST! (Page 8)



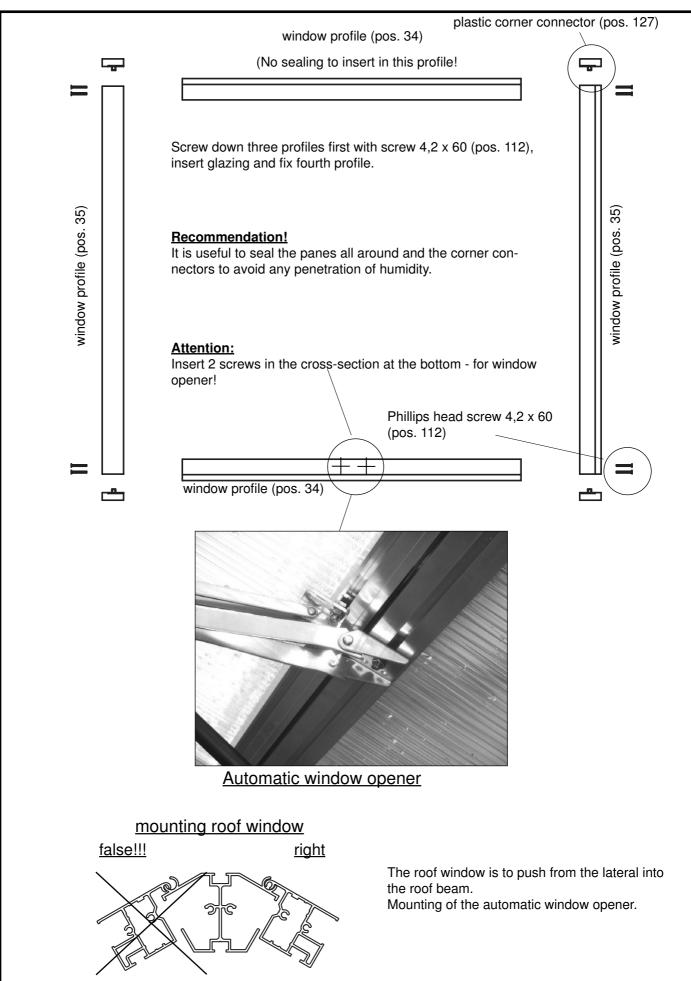


Assembly course gable <u>Warning:</u> If you have bought the foundation frame, it has to be attached to the base profiles **FIRST**! (Page 8)

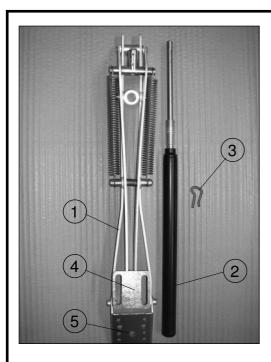




#### Assembly roof window



#### 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.

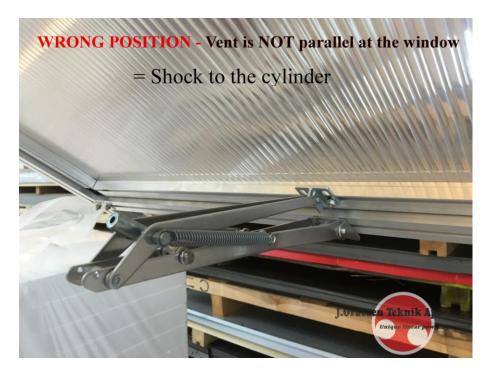
#### **Riga Greenhouse Window Auto Opener Correct Installation**





Window bracket

In the correct position, the opener is sitting parallel to the window, which means that it will not demand a lot of pressure from the cylinder when the opening starts. Before fitting a new cylinder to the openers, you must check that the window can open freely right from the start. If not you must change the position of the aluminum profiles. Right position - be careful at not interfere with rubber



#### **Roof Vent Recommendation for High Wind Areas**

If you get strong wind gusts, we recommend protecting your roof vents and openers with restraint cables. Roof vent restraints can be purchased from Exaco Trading (US distributor of Rigas) or can be made. They are not a standard part from the Riga manufacturer.

Two restraints are used for each window; one on each side of the window. Install each loop between two flat washers on screws inserted into the channel. Position the restraint as illustrated and adjust as needed to avoid interference from the crossbar as the window is raised and lowered.

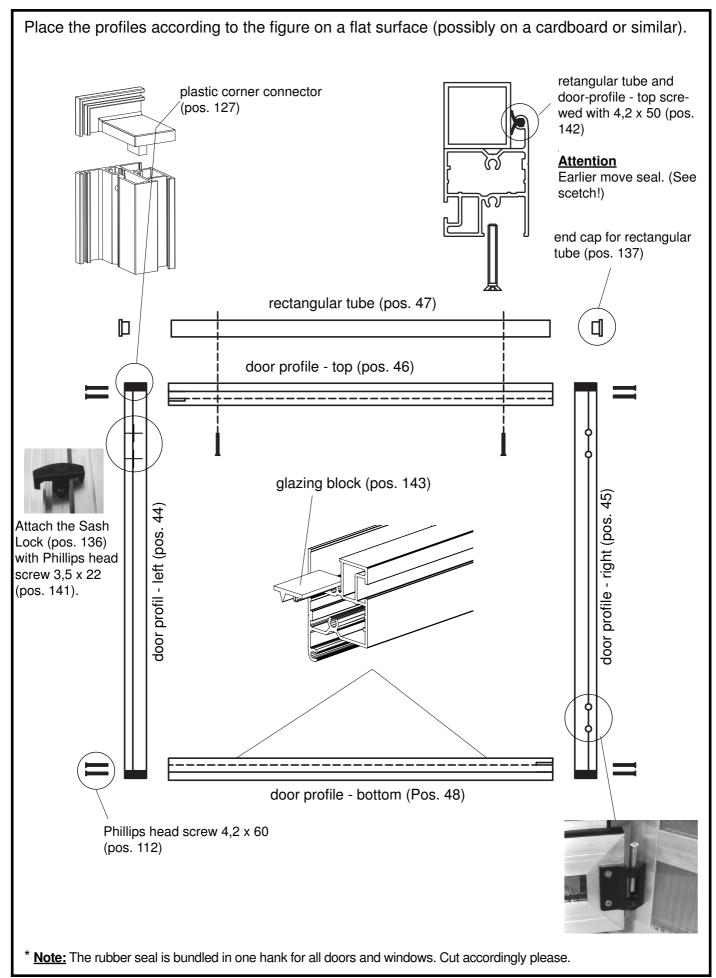


You can make your own restraints from 1/16 " stainless wire rope, stranded 7x19 for maximum flexibility. Overall length should be about 16". When installed near the crossbar, they will limit the window opening to less than the safe extents of the hinge and window opener, but greater than the maximum thermal extent of the opener. More important than the exact length of the restraint is a close length match for each window's pair. If you are not equipped to swage the binding sleeves you can use wire rope clamps.



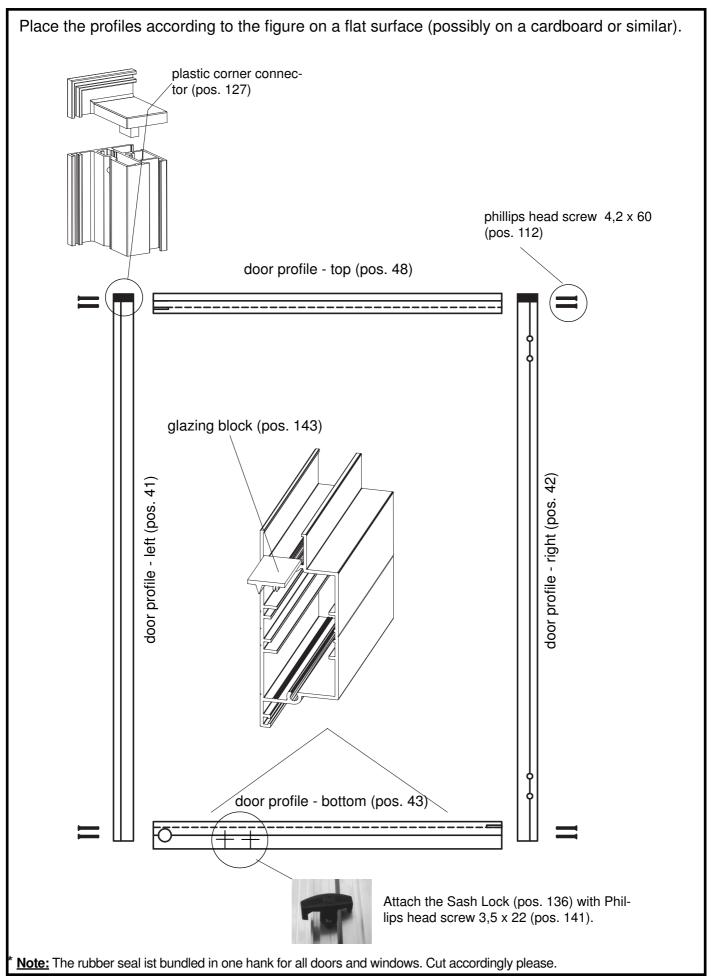
#### Mounting divided revolving door - at the bottom

#### View from outside

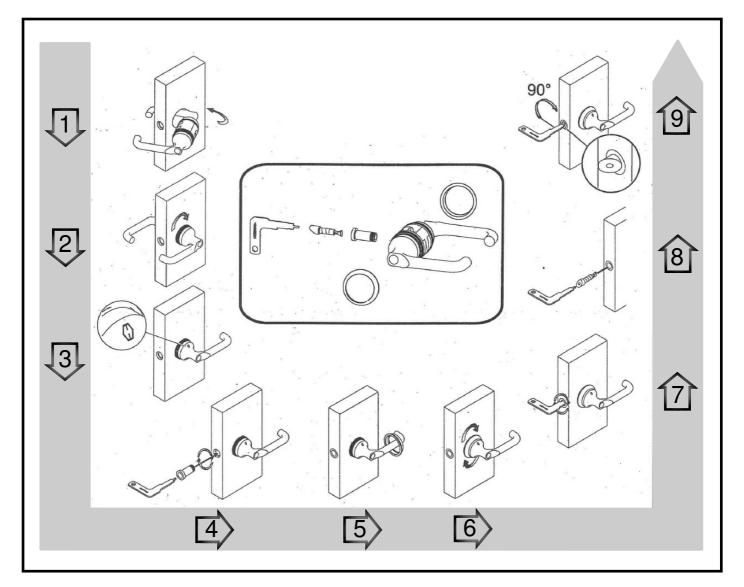


#### Mounting revolving divided door - top

#### View from outside



#### Assembly instructions for lockable handle





#### **Riga XL Metal Door Holder**

After the door is assembled and installed, you may place the door holder as seen to the left.

You may use self-tapping screws or predrill a small hole.

		Polycarbc	nate Glaz	zing Panel	s: 16mm	triple wc	1	
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	q	٩	q				٩
	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	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 x 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

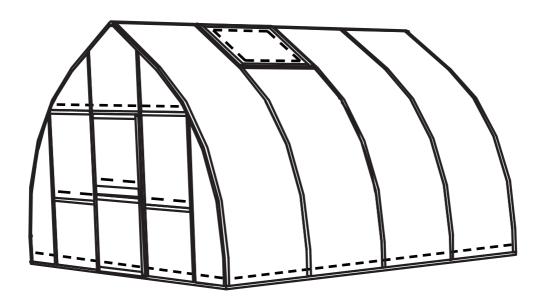
These parts are to mount according to the instructions.

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" sllicon 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.