

# **ALUMINIUM**

### Riga S/Riga

Subject to technical changes!

Current as of 09/2013

## Basic kit assembly instructions



model Riga S system width 2,32 m

model Riga system width 2,96 m



#### Dear garden friend,

congratulations on the purchase of an aluminium greenhouse made by



The construction is simple. First read the assembly instructions and follow them step by step.

#### Parts and parts list

Please complete all boxes stored dry and protected from direct sunlight!

#### number of cartons

	basic construction (gable/eaves)	curved center profiles	windows/ doors	glazing
Riga S/II/III/IV	1	1	1	1
Riga III/IV/V	1	1	1	1

Start with the basic kit. Please do not open all the boxes at the same time. Let's not get confused by the variety of items.

Before you begin assembly, check on the parts lists, if all parts are present. Each box goes through a quality check before it is closed, thus missing parts are almost excluded. Should any parts are missing, please give us the wrong position.

Customer Service: 877-760-8500 or 512-407-8500 sales@Exaco.com

Exaco Trading

10203 Metropolitan Dr. Austin, TX 78758

#### Location

Choose, if possible, a sunny place for your greenhouse. Avoid the shadow of buildings and trees. For vegeteables, like tomatoes, cucumbers and melons, make your greenhouse as possible in north-south-direction. For flowers and potted plants in east-west-direction.

#### Warning:

The greenhouse should preferably be placed in a sheltered spot and not in stormy weather. It is dangerous to leave a partly assembled house!

With the correct assembly resists this greenhouse and strong winds. The manufacturer assumes no responsibility for any damage by improper installation or acts of God.

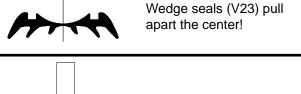
The constructions of the greenhouse must be conducted by at least two people. Work with secure, craft-oriented tools. Be careful when assembling on a secure stand of the ladder (risk of accident!).

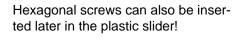
In principle, only with gloves on (risk of injury, average risk!).

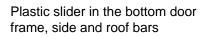
#### For the configuration you need the following tools:

- 1 pc. Phillips screwdriver size 2
- 1 pc. foot-end wrench10 mm
- 1 pc. screwdriver
- 1 pc. allen key 3 mm (in the accessoires bag of the roof window)
- 1 pc. level
- 1 pc. stepladder
- 1 pc. file to remove any burrs on the profiles
- 1 pc. rubber hammer
- 1 pc. tape measure

#### You should be careful:









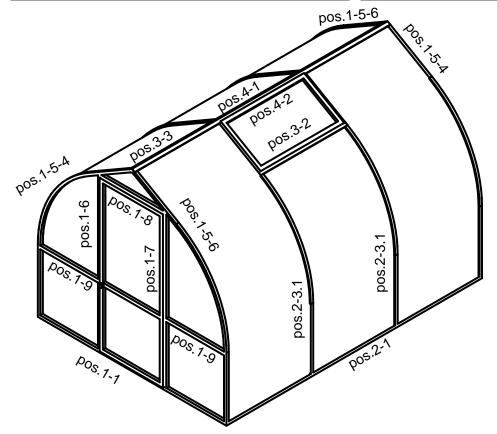
Push the seal 3 - 5 mm between the soil profile and the glazing. Both within the greenhouse!

<u>Important:</u> This compress the seals because they contract in cold weather!

#### numbers of wedge seals

	3 - 5 mm	3 - 5 mm	6 - 8 mm
length	712 mm	768 mm	1030 mm
Riga S II	4	1	7
Riga S III	4	1	11
Riga S IV	4	1	14

	3 - 5 mm	3 - 5 mm	6 - 8 mm
length model	768 mm	1030 mm	1030 mm
Riga III	1	4	11
Riga IV	1	4	14
9	-	-	



#### !!!Note: Important information for glazing!!!

The ISO-Cellular sheets, speak glazing, always install the UV coated side out. The plates have on the protective film has a hint.

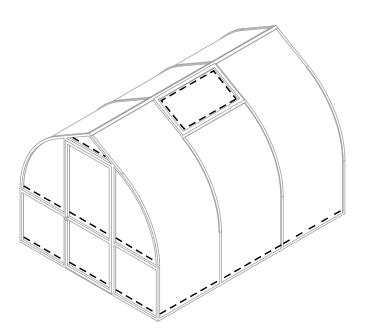
The protective film, first loosen the edges and only after the complete assembly pull it off immediately. After several days of sunlight can burn the film firmly on the plates and can be solved only with difficulty.

**<u>Do not</u>** pull the box right after the film, otherwise you could not tell which side has the UV protection!

Question: Do I have a greenhouse and the greenhouse glazing and "seal"? In principle: **No**.

But we recommend the horizontal transitions of the glazing to the profile (see sketch --> dashed line ----) sealed with neutral cure, silicone transparent, so that as little water and can therefore get a little dirt in the glas shots.

<u>Advantage:</u> The greenhouse looks to length of optically better. The tendency to formation of algae just takes considerably in these areas.



Moisture/water can also occur within the glass/hollow chambers depending on the wheather, since the plastic plates are not "water-vapor-permeable solid", ie moisture occurs in the form of water vapor into the plate. This is possible a purely optical disadvantage, however, can not be avoided. The plates can thus take no damage, even at freezing temperatures.

**Warning:** Use only neutral cure silicone, otherwise it may lead to stress cracks in plastic deglazing. This is the most common silicone sealant.

It is in any hardware store or at HOKLAR-Therm for about 4 - 6 € available/cartridge.

#### Cleaning and care:

The greenhouse with plenty of water such as car washing brush. In addition, using a little detergent.

#### Foundation frame for digging (optional)

#### !!!Warning: Use only according to instructions under foundation. See below!!!

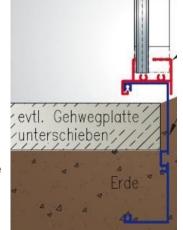
This is the easiest, safest and also foundation of a greenhouse.

The foundation frame is hooked force-fit into the soil profile of the green-house screwed into the corners with a corner angle (V26). (See page 6).

#### The foundation frame is assemble to coincide with the greenhouse together.

#### Setting up the foundation frame

A small ditch, sod (about 10 - 12 cm deep), dug into the dimensions of the foundation frame. Use in the corners as a paving stone according to the other horizontally.



These are then the safe circulation and avoid "bagging" a possibly of the greenhouse. The greenhouse and the foundation frame in this "gab" and set them with earth fill.

Expedient is also the creation of garden slaps or stone pavement, so the greenhouse at eg heavy rain is not covered by mud splashes is.

In addition, the work made easier around the greenhouse, such as mowing the lawn.

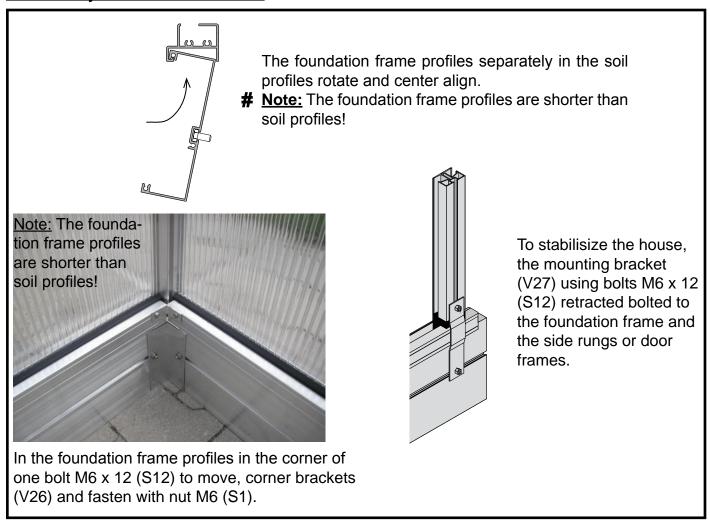
#### Profiles and accessoires for foundation frame Riga S: # - See next page!

overview	pos. description		number/length in mm		
overview	pos.	pos. description –		type III	type IV
	6.1	foundation frame profile/ #	2 2199	2 2199	2 2199
N	6.2	foundation frame profile/ #	2 2033	2 3091	2 4149
	V26	foundation frame corner bracket 40/40/2 x 105 item no 9999 0078	4 105	4 105	4 105
	V27	mounting bracket (rung/foundation frame) item no 9999 0267	10 135	10 135	10 135
	S12 S1	hexagonal screw M6 x 12 + nut M6 item no 9999 0124 + 9999 0128	20	20	20

#### Profiles and accessoires for foundation frame Riga: (V26/V27/S12/S1 as above)

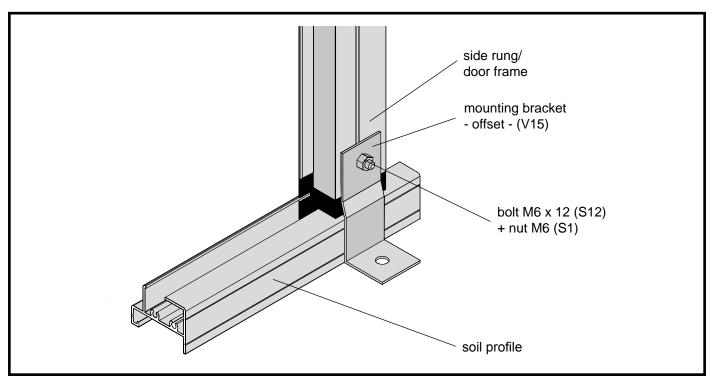
ovorviow	pos. description		number/length in mm			
overview			type III	type IV	type V	
	6.1	foundation frame profile/ gable	2 2835	2 2835	2 2835	
2	6.2	floundation frame profile/ eaves	2 3091	2 4149	2 5207	

#### Assembly foundation frame



#### Foundation of the greenhouse

We recommend that you use for the bolt in place anchor bolts. These are **not** included!





# Foundation plan Riga S/Riga

all dimensions in [cm]

# Foundation of your greenhouse with a strip foundation

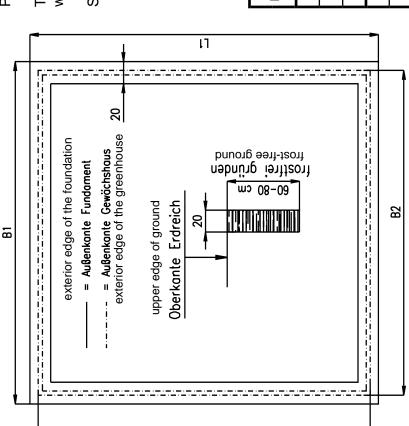
If you have not bought a foundation frame, the secure foundation by means fo strip foundation. Then please create such a foundation in accordance with the specified dimensions below.

You have set up your possibility to the greenhouse on low cur stones such as,  $50 \times 25 \times 8$  cm or better  $50 \times 30 \times 10$  cm.

Please note that the foundation is made evenly horizontally.

The greenhouse then please anchoring with the included mounting brackets (V15) with the dowels (minimum)

Screws and ancors are **not** included.



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lobow	foundation	ation	greenhouse	onse
inodei	B1	L1	B2	L2
Riga S II	249	232	233	216
Riga S III	249	338	233	322
Riga S IV	249	443	233	427
Riga III	312	338	796	322
Riga IV	312	443	796	427
Riga V	312	533	296	533

#### Content main box - basic kit Riga S/Riga

Please check in the tables list the completeness of the components.

#### **Profiles for both gables:**

			number/length in mm					
overview	pos.	description		Riga S		Riga		
			II	III	IV	Ш	IV	V
	1.1	soil profile/gable	2 2238	2 2238	2 2238	2 2874	2 2874	2 2874
	1.5.4	rand rung left - curved	2	2	2	2	2	2
	1.5.6	rand rung right - curved	2	2	2	2	2	2
	1.6	door frame left with slant	2 1876	2 1876	2 1876	2 2059	2 2059	2 2059
	1.7	door frame right with slant and drilling	2 1876	2 1876	2 1876	2 2059	2 2059	2 2059
	1.8	door frame above	2 758	2 758	2 758	2 758	2 758	2 758
1.8	cross bar in the side door without	1 758	1 758	1 758	1 758	1 758	1 758	
	1.9	cross bar left and right	4 702	4 702	4 702	4 1020	4 1020	4 1020

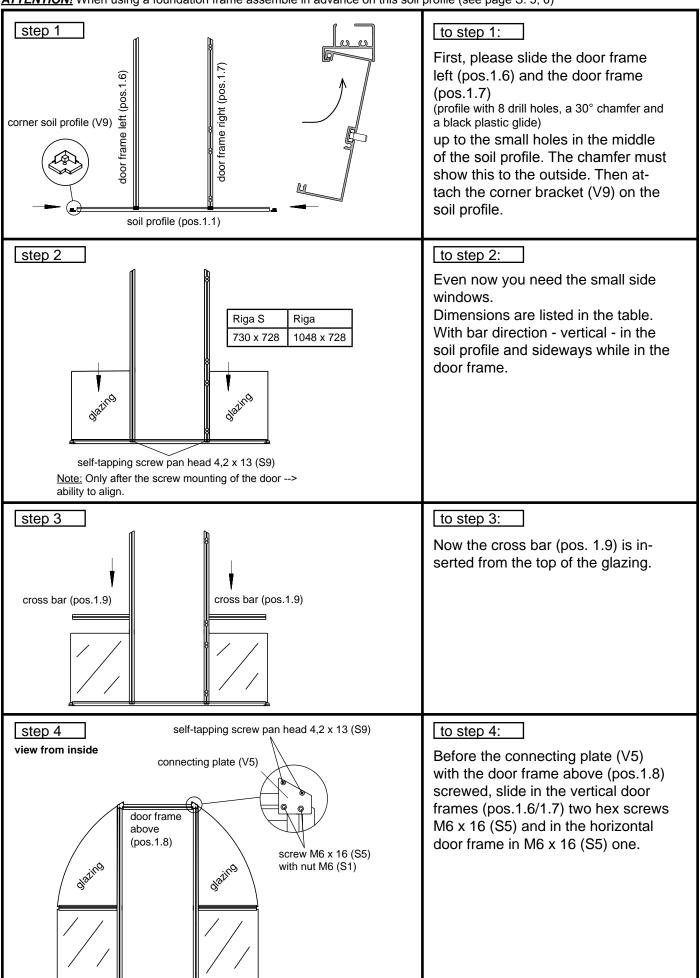
#### **Profiles for eaves:**

			number/length in mm						
overview	pos.	description		Riga S			Riga		
			Ш	Ш	IV	Ш	IV	V	
	2.1	soil profile/eaves	2 2072	2 3130	2 4188	2 3130	2 4188	2 5246	
	2.3	side rung - curved	2	4	6	4	6	8	
	3.2	cross bar/roof window	1 1020	1 1020	2 1020	1 1020	2 1020	4 1020	
	3.3	ridge profile	1 2137	1 3195	1 4253	1 3195	1 4253	1 5311	
	3.4	angle stabilization	4 2104	4 3162	4 4220	4 3162	4 4220	4 5278	

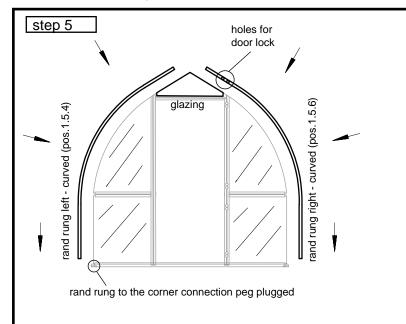
#### Accessories bag basic kit Riga S/Riga

				num	num
		description/		num-	num-
overview	pos.	item number		ber	ber
		nom nameer		RigaS	Riga
	V9	corner soil profile item no 9999 0003		4	4
	V5	connecting plate item no 9999 0028	Ortgangprofil/Türzarge	4	4
0 0 0	V10	connecting plate 90 x 35 mm item no 9999 0030	mounting cross bar/rear	2	2
5	V11	endplate ridge/gutter item no 9999 0075		2	2
• •	V4	connecting plate item no 9999 0031	for cross bar/roof window	II = 2 III = 2 IV= 4	III = 2 IV = 4 V = 8
	V12	corner 30/30/2/15 mm item no 9999 0072	soil profile screw the corner from inside	4	4
1	S21	blind plug Ø10 mm item no 9999 0097	rand rung -drilling cross bar	4	4
	V14	hose section 760 mm lg.	door threshold seal	1	1
	V23	wedge seal 3 - 5 mm item no 9999 0119	sealing the soil profile inside	See table below!	See table below!
Januar	S9	self-tapping screw pan head 4,2 x 13	door frame-soil profile/ cover plate/corner (V12)	38*	38*
( <del>)</del>	S13	self-tapping screw pan head 4,8 x 45	gable	6	6
	S5/ S1	hexagnal screw M6 x 16 + nut	screws for pulling	II = 40* III = 40* IV = 44*	III = 40* IV = 44* V = 48*
•	V15	mounting bracket - offset 74 x 30 x 33 mm item no 9999 0183 + 9999 0128	for the attachement of the greenhouse on foundation by customer (not with foundation frame)	10	10
0	S32	washer A6,4 item no 9999 0173	door frames, roof and side rungs	20	20 V = 24
	V1	mounting corner bracket inside		je 2x lks. 2x rts.	je 2x lks. 2x rts.

ATTENTION! When using a foundation frame assemble in advance on this soil profile (see page S. 5, 6)



ATTENTION! When using a foundation frame assemble in advance on this soil profile (see page 5, 6)



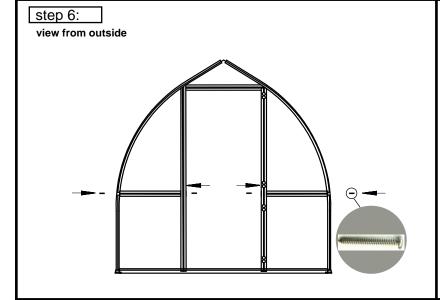
#### to step 5:

The square peg of the corner connector is plugged in the rand rung (pos.1.5.4/1.5.6).

Small triangular glazing positioned on the door frame (pos.1.8).

The rand rung by means of connecting plate (V5) screwed to the door frame. On the rand rung you need 2 self-tapping screws pan head 4,2 x 13 (S9), on the door frame 2 hexagonal screws M6 x 16 (S5).

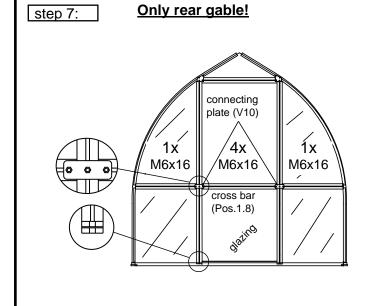
- See also step 4! -



#### to step 6:

The cross bars (pos.1.9) are mounted sideways with the self-tapping screw pan head 4,8 x 45 (S13).

#### The rear gable is assembled in the same way!!!



#### to step 7:

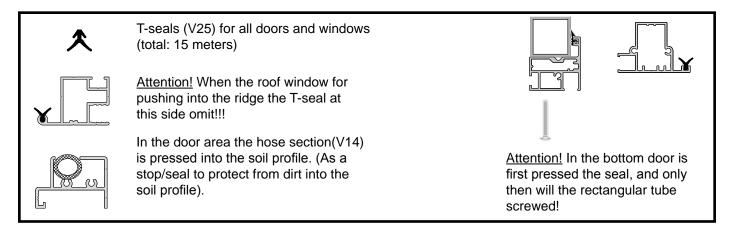
Slide before mounting the cross bar required hex screws M6 x 16 (S5) into the profile of the cross bar (pos.1.8 und 1.9).

The cross bar in the rear gable is used the same height as the existing cross bar. Attachment is to the connecting plate (V10).

Now comes the glazing (787 x 728 mm).

The remaining opening is later closed by the supplied rear window.

#### You should be careful:



#### Profiles for roof windows (per roof window)

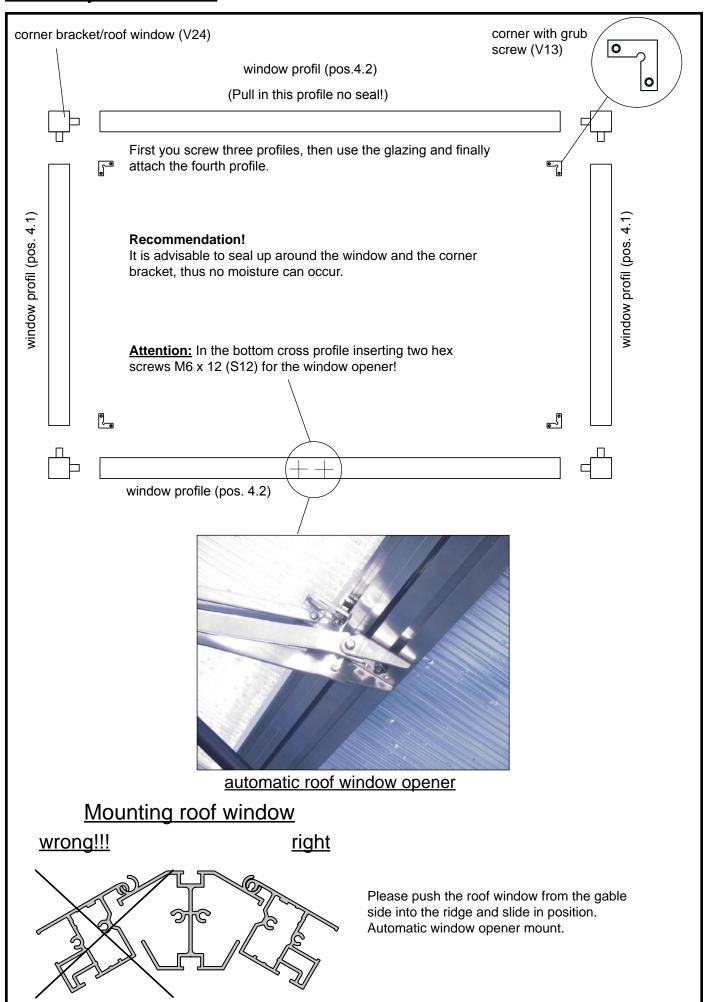
overview	pos.	description	num- ber	length in mm
	4.1	roof window profile	2	541
	4.2	roof window profile	2	953

#### Content accessories bag roof window (per roof window)

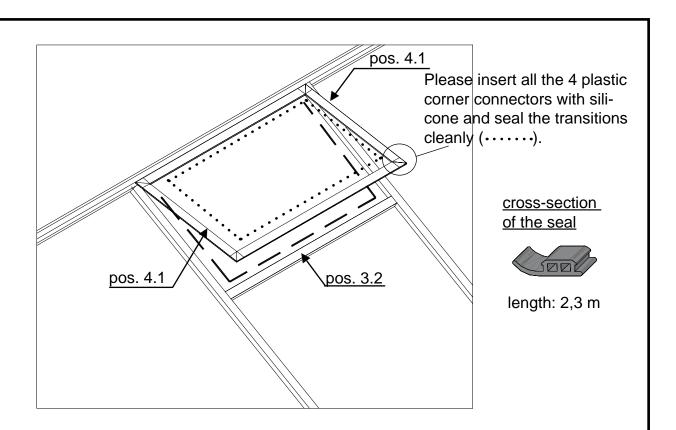
overview	pos.	description/item number	num- ber	length in mm
*	V25	T-seal item no 9999 0032	2 1	641 1052
	V13	corner with grub screw, internal hex and flat point item no 9999 0070		
	V21	allen key item no 9999 0056	1	
	S12/ S1	hexagonal screw M6 x 12 item no 9999 0124 nut M6 item no 9999 0128	3	
	V24	corner bracket/roof window item no 9999 0005	4	

<sup>\*</sup> Note: The seal is bundled in one strand for all doors and windows, please cut accordingly.

#### Assembly roof window



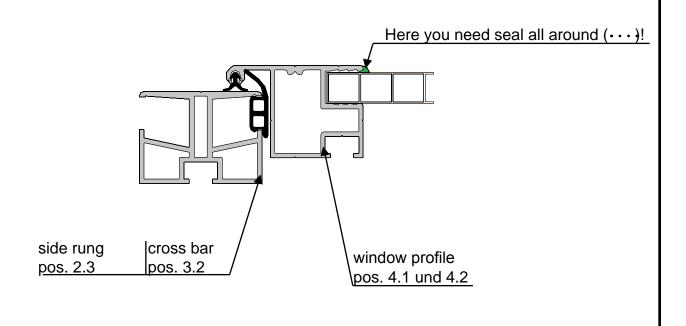
#### Insertion of the seal in the roof window area



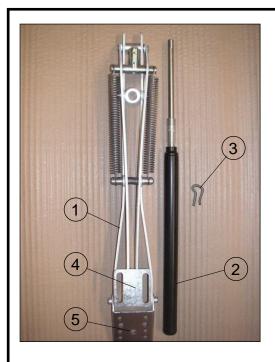
The seal is inserted as the sketch above.

**Attention:** Seal does **not** cut into the corners! Important!

The transitions of the glazing and the corner bracket/roof window to roof window profile, please seal  $\cdots$  it with silicone  $\rightarrow$  see sketch.



#### Parts window opener



1	window opener
2	pressure cylinder
3	cotter pin
4	mounting plate window profile
5	mounting plate cross bar



#### User quide - window opener -

#### Assembly instructions:

- 1. Check whether the greenhouse window can open and close freely and unhinderedly. Please remove from other manufacturers in advance the existing hand openers.
- 2. First install the window opener with the mounting plate (4) to the roof window profile (pos. 4.2).
- 3. Choose from the mounting plate (5) the middle hole and attach it to the cross rung (pos.3.2) below the roof window.
- 4. The pressure cylinder at the upper end of threaded device secure with the cotter pin in the t-coupling (upper hole).

#### Ajustment:

The window opener needed after the assembly about 3 - 4 hours to adjust the temperature in the greenhouse. The more you screw the pressure cylinder into the threaded device, the earlier and more highly opens the window. Do you want earlier/higher opening, turn the pressure cylinder clockwise. In a later/lower opening counter-clockwise, with one turn is about 0,5°C. Please keep in mind that can vary the temperature in your greenhouse and several window openers have small tolerances.

#### Winter-storage:

If the greenhouse is not "frost-free" hold, we recommend you to remove the entire window opener or only the pressure cylinder. Please keep the window opener in a dry or frost-free place. Before reassembly in the spring especially the cylinder rod and the cylinder threads are greased to check if it is. The cylinder rod check for ease of movement, please.

#### Profiles for divided revolving door - bottom -

overview	pos.	description		num- ber	length in mm
لر المال	5.3.1	door profile bottom		1	700
	5.6	door profile left	with hole for sash lock	1	692
	5.7	door profile right	with hinge hole	1	692
<u> </u>	5.9	door profile top	with transverse hole	1	700
	5.8	square tube	with transverse hole	1	740

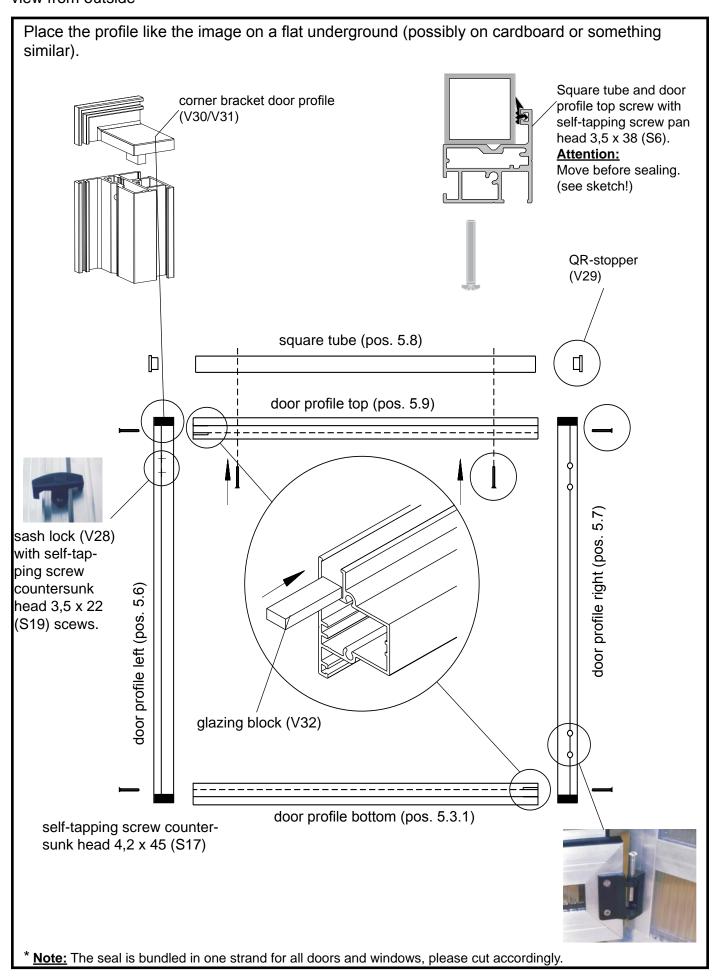
#### Content accessories bag divided revolving door - bottom -

overview	pos.	description	num- ber	length in mm
	V51	metal hinge, black	2	
	V28	sash lock item no 9999 0023	1	
	V29	QR-stopper 30 x 30 x 1,5-2 item no 9999 0099	2	
*	V25	T-seal item no 9999 0032	2 2	710 744
*COMMUNITY	S18	self-tapping screw countersunk head 4,8 x 25 (hinges) item no 9999 0163	8	
*Committee	S17	self-tapping screw countersunk head 4,2 x 45 (doors) item no 9999 0160	4	
<b>COMMUNIT</b>	S19	self-tapping screw countersunk head 3,5 x 22 (sash lock) item no 9999 0152	2	
January 1997	S6	self-tapping screw pan head 3,5 x 38 (square tube) item no 9999 0138	2	
	V32	glazing block 30 x 10 x 4	2	
	V30/ V31	corner bracket door profile left - item no 9999 0009 right - item no 9999 0011	4	

<sup>\*</sup> Note: The seal is bundled in one strand for all doors and windows, please cut accordingly.

#### Assembly - divided revolving door - bottom -

view from outside



#### Profiles for divided revolving door - top -

overview	noc	description		number/ler	ngth in mm
Overview	pos.	description		Riga S	Riga
	5.1	door profile left		1 1081	1 1264
	5.2	door profile right	with hinge hole	1 1081	1 1264
	5.3	door profile top		1 700	1 700
	5.4.1	cross bar	with hole for lockable door handle	1 700	1 700

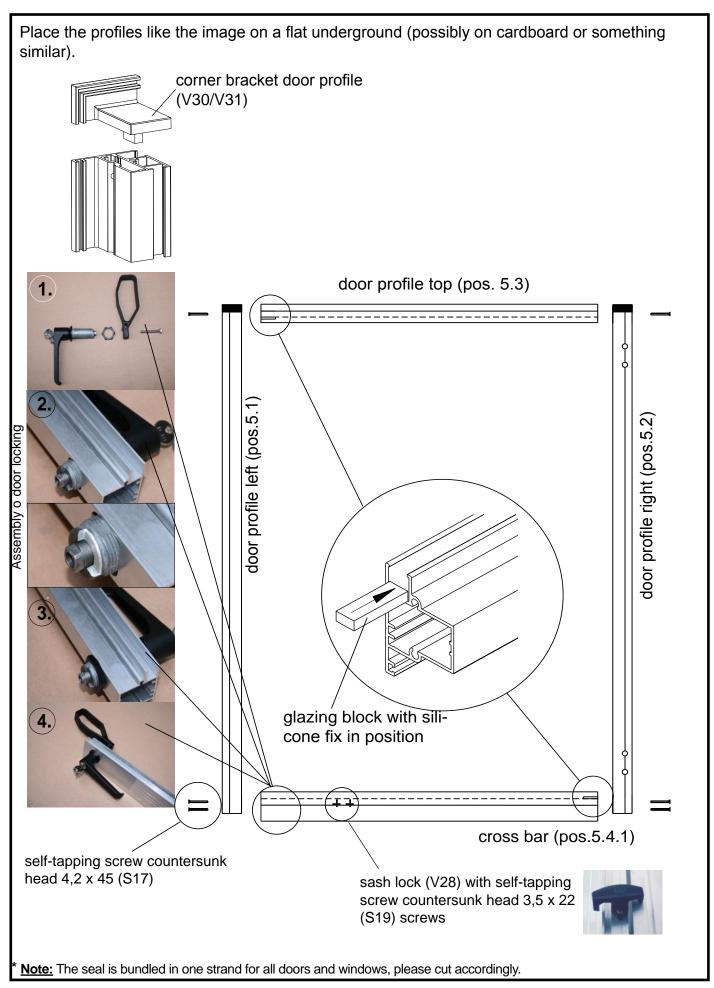
#### Content accessories bag - divided revolving door - top

overview.	naa	description	number/ler	ngth in mm
overview	pos.	description	Riga S	Riga
	V52	door handle, lockable outside - item no 9999 0035 inside - item no 9999 0244	1	1
<b>AUTHERITY</b>	S17	self-tapping screw countersunk head 4,2 x 45 (door) item no 9999 0160	6	6
	V32	glazing block 30 x 10 x 4	2	2
*	V25	T-seal	2 710	2 710
	VZS	item no 9999 0032	2 1112	2 1295
	V51	metal hinge, black	2	2
	S18	self-tapping screw countersunk head 4,8 x 25 (hinge) item no 9999 0163	8	8
R	V28	sash lock, small item no 9999 0023	1	1
<b>₹₩₩₩₩</b>	S19	self-tapping screw countersunk head 3,5 x 22 (sash lock) item no 9999 0152	2	2
-	V33	door locking device item no 9999 0230	1	1
A)mes	S22	wing-type self drill, screw counters head 3,5 x 13 (door stop) item no 9999 0189	1	1
	V30/ V31	corner bracket door profile left - item no 9999 0009 right - item no 9999 0011	2	2

<sup>\*</sup> Note: The seal is bundled in one strand or all doors and windows, please cut accordingly.

#### Assembly - divided revolving door - top -

view from outside



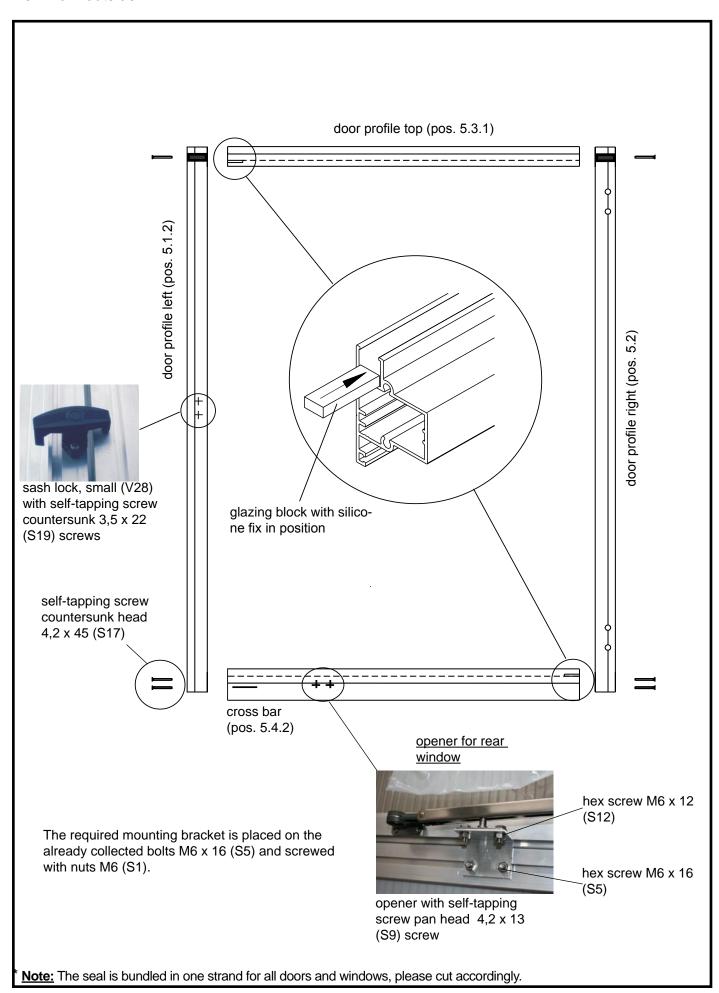
#### **Profiles for rear window**

overview	200	description		number/ler	ngth in mm
overview	pos.	description		Riga S	Riga
	5.1.2	door profile left	with hole for sash lock	1 1081	1 1264
	5.2	door profile right	with hinge hole	1 1081	1 1264
	5.3.1	door profile top		1 700	1 700
	5.4.2	door profile bottom	with hole for window opener	1 700	1 700

Content accessories bag - rear window -

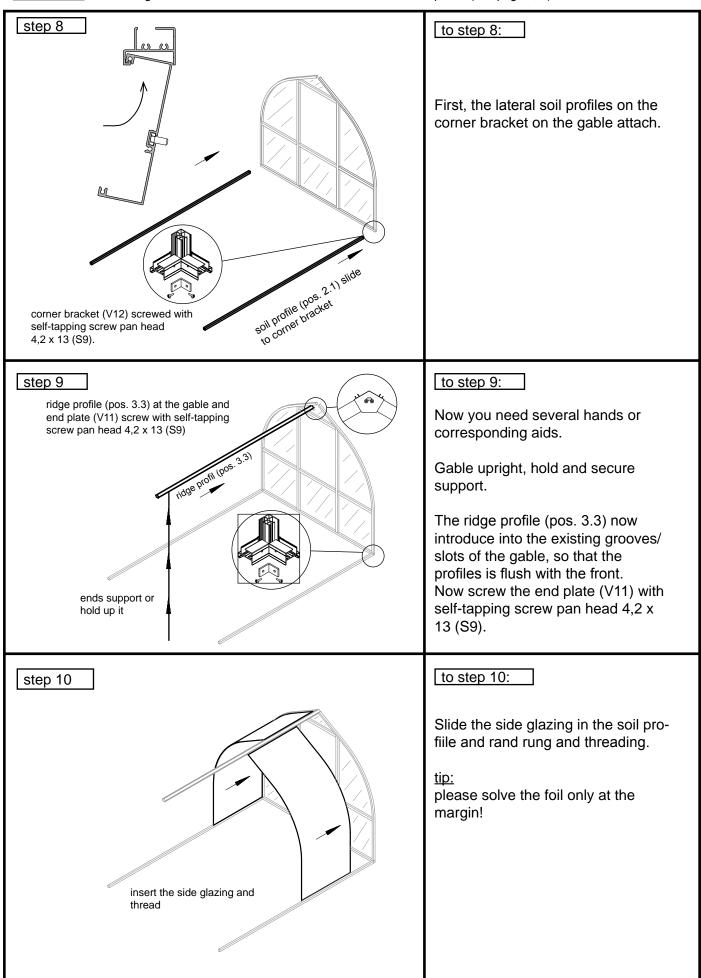
		description	number/ler	ngth in mm
overview	pos.	description	Riga S	Riga
√ mmm  √ mm  / mm	S17	self-tapping screw countersunk head 4,2 x 45 (window) item no 9999 0160	6	6
	V32	glazing block 30 x 10 x 4	2	2
<b>*</b> *	V25	T-seal	2 710	2 710
		item no 9999 0032	2 1112	2 1295
	V51	metal hinge, black	2	2
<b>AMMINITE</b>	S18	self-tapping screw countersunk head 4,8 x 25 (hinges) item no 9999 0163	10	10
	V28	sash lock, small	1	1
√ mmmm  √ mmm  √ mm  / mm	S19	self-tapping screw countersunk head 3,5 x 22 (sash lock) item no 9999 0152	2	2
o/lo	V85	opener for rear window item no 9999 0303	1	1
2 3	V145	CORNER (fixation of window) item no 9999 0416	1	1
Janaan-	S9	self-tapping screw pan head 4,2 x 13	2	2
	V30/ V31	corner bracket door profile left - item no 9999 0009 right - item no 9999 0011	2	2
	S12/ S1	hexagonal screw M6 x 12 with nut M6 item no 9999 0128	4	4

<sup>\*</sup> Note: The seal is bundled in one strand for all doors and windows, please cut accordingly.



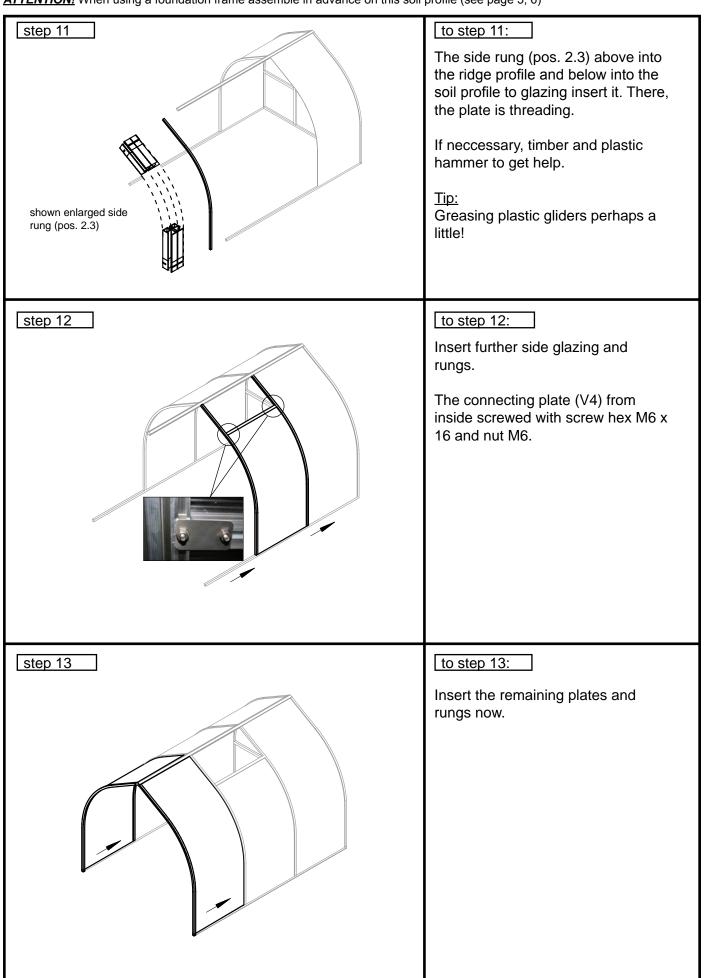
#### Assembly procedure - eaves -

ATTENTION! When using a foundation frame assemble in advance on this soil profile (see page 5, 6)



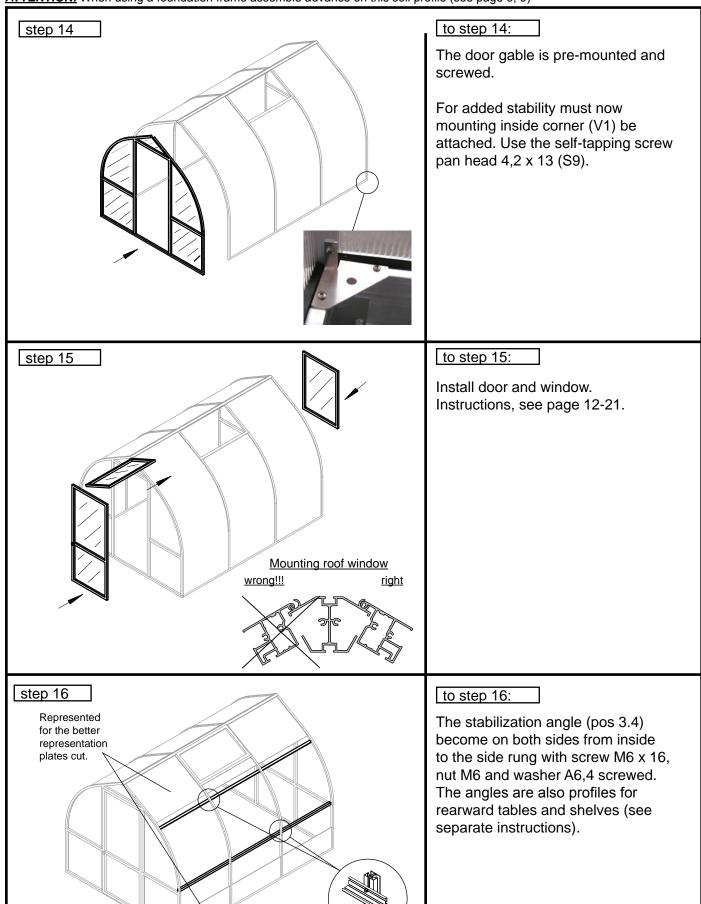
#### Assembly procedure - eaves -

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#### Assembly procedure - eaves -

ATTENTION! When using a foundation frame assemble advance on this soil profile (see page 5, 6)



glas plan with ISO-cellular sheets 10 mm

type of house	gable above	gable below	gable triangular	door/ window	div. revolv. door/bottom	rear gable below	side plate	roof window	below roof window
	a b	d d	σ\ e	a b	a d	a b	d a	a b	d a
	number	number	number	number	number	number	number	number	number
	size (a x b)	size (a x b)	size (a x b)	size (a x b)	size (a x b)	size (a x b)	size (a x b)	size (a x b)	size (a x b)
Riga II S	4	4	2	2	1	1	3	1	1
	730 × 1135	730 × 728	779 x 239	724 x 1031	724 x 676	787 × 728	1048 x 2634	974 x 565	1048 x 1984
Riga III S	4	4	2	2	1	1	5	1	1
	730 × 1135	730 × 728	779 x 239	724 x 1031	724 x 676	787 × 728	1048 x 2634	974 x 565	1048 x 1984
Riga IV S	4	4	2	2	1	1	6	2	2
	730 x 1135	730 × 728	779 x 239	724 x 1031	724 x 676	787 × 728	1048 x 2634	974 x 565	1048 x 1984
Riga III	4	4	2	2	1	1	5	1	1
	1048 x 1319	1048 x 728	779 x 239	724 x 1215	724 x 676	787 × 728	1048 x 3000	974 x 565	1048 x 2345
Riga IV	4	4	2	2	1	1	6	2	2
	1048 x 1319	1048 x 728	779 x 239	724 x 1215	724 x 676	787 × 728	1048 x 3000	974 x 565	1048 x 2345
Riga V	4	4	2	2	1	1	6	4	4
	1048 x 1319	1048 x 728	779 x 239	724 x 1215	724 x 676	787 × 728	1048 × 3000	974 × 565	1048 x 2345