# RIGA German Greenhouses: Product Knowledge Sheet

## Selling Points

**Why buy a RIGA greenhouse?**

- Because, if you intend to grow your own food during the winter, then the RIGA greenhouse is the most suitable product – it offers more insulation than other units.
- Because, its special shape is designed to offer optimal head room inside, but with enough slope on the outside so that heavy snow loads slide down and severe winds blow over the greenhouse.
- Because, the RIGA unit comes with significantly larger and more windows than other units.
- Because it has a large Dutch Barn style door – with a key lock in the door handle
- Because, its shelves hang from the roof and do not sit on braces – more storage space.
- The unique design of the RIGA greenhouse has the best ratio between aluminum framing and polycarbonate panels, which allows for maximum light transmittance and less “moving” shade. (The side glazing panels are wider (40”) than those of

other greenhouses, as such the RIGA greenhouse utilizes significantly less aluminum profile materials)
- Designed, engineered and manufactured in Germany.

**What are other unique features of the RIGA greenhouse?**

- It comes standard with oversized rear-wall window, 1 or 2 large roof windows (depends on the size) and an oversized 30" wide Dutch barn style door.
- 8 mm twin-wall polycarbonate glazing as side panels
- 10 mm twin-wall polycarbonate glazing in the front and back walls.
- Roof windows come with Automatic Window Openers
- Heavy-duty rubber seals are used are used on all the windows and doors as well as at the bottom and top of each of the large side glazing panels.

**Warranty**: Aluminum Profiles: 15 years and Polycarbonate glazing 10 years, both against manufacturer's defects.

- **The Warranty of the glazing panels is prorated after 5 years.**

## General Description

**Materials**:

- Frame: Smooth finished anodized aluminum frame/profiles
- Glazing: UV coated 8 mm Twin-Wall Polycarbonate Glazing on the sides, and 10 mm twin-wall polycarbonate glazing in the front and back walls
- Heavy duty rubber seals
- Silicon caulk to seal around windows
- Door handle with key lock

**Expected Lifetime**:

- Well in excess of the Manufacturer's Warranty period – however, depending on level of exposure to bright sunlight the UV coated glazing might need replacement after 10 years – more a decision of choice based on discoloration of the glazing.

**Country of Origin**:

- The RIGA greenhouse has been designed, engineered and manufactured by the Hoklartherm factory in German. An industry leader with 30 years of experience.

**Length of time the RIGA model has been available?**

- New to the USA, but introduced in Germany 3 years ago, by a well established (30 years) major manufacturer of greenhouses, pavilions, home additions and pool covers etc.

## Frequently Asked Questions

**Does the warranty cover damage due to severe wind or a hail storm?**

- No it does not. However, the type of weather which would damage the RIGA greenhouse would be such that it would also damage your main house and/or other structures in your garden. In which case this damage would be covered by your home-owners insurance policy.

**How long does it take to assemble the greenhouse**?

- Installation requires two people minimum
- Not considering site preparation – the assembly should take between 6-10 hours, depending on how many shelves are bought and/or the foundation frame is added.

**Who should buy a RIGA greenhouse - The Perfect Customer?**

- Usually a some what serious gardener: either likes to grow most of their plants and vegetables from seeds, and wants to start before the winter is over, or
- The serious gardener, who wants to grow some of their own vegetables and flowers during the winter season.
- Some one who has already had experience with a greenhouse – but they bought an entry-level unit – and they now are ready to buy a real-greenhouse (to upgrade).
- An orchid grower/lover.
- Some one very concerned about eating only organic foods – very health conscious.

**Why buy a greenhouse in the first place?**

- Generally: To grow your own plants, vegetables and flowers from seed
- To protect plants, shrubs, small trees etc. against frost during the winter.
- To show-off – to pretend to be a serious gardener.

**Cost Justification - Why do prices of greenhouses vary so much?**

- Look at it this way: why is there such a wide price range in cars – they all have an engine, 4-wheels and can get you from one place to another? The more expensive the car the more value/features etc. you generally get. This is also the case with greenhouses.

- Because: for one thing the experts don't call all covered garden structures greenhouses, as is currently the case in our country. But in Europe where the greenhouse concept was invented over 100 years ago, they consider any structure using less than 8 mm twin-wall polycarbonate not a proper greenhouse but a "season-extender".

**What is a "Season Extender"?**

- It is a structure covering flowers and plants designed to prevent a late frost from damaging the flowers and plants. They are too expensive, relatively speaking, or sometimes impossible, to keep warm enough (above 50ºF) during day time frost.
- These structures usually include all "greenhouses" which use 5 mm or less twin-wall polycarbonate glazing. Or use only single layers of heavy polyvinyl sheeting, or 3 mm or less single layered glass.
- To keep these warm enough in the middle of the winter you need so much heat that often the plants near the heating unit are damaged from too much heat.
- The cost of heating these units properly is too high; in the long run it is cheaper to buy a better-insulated greenhouse.

**What is a (proper) greenhouse?**

- Usually, a structure which uses at least 4 mm glass or better still at least 8 mm twin-wall polycarbonate glazing. These units are designed to be used in cold weather – including continuous day-time frost conditions
- A unit designed to be kept comfortable (about 50-53ºF) during the middle of the winter with out costing an arm and a leg to do so.
- Less insulation can mean significantly higher heating costs.

**Why use twin-wall polycarbonate instead of glass?**

- In the old days twin-wall polycarbonate glazing did not exist and therefore all older greenhouses have only glass or a corrugated plastic type walls.
- Cheap glass was/is cheaper than good polycarbonate
- Since the invention of the twin-wall polycarbonate glazing it has become the new material to use – even the professional growers are using it now.
- Twin-wall polycarbonate glazing is much more efficient – like a double pane window it provides much better insulation.
- **At least 40% cheaper to heat** – for a same size greenhouse with 4 mm single layered glass or less.
- Twin-wall polycarbonate glazing defuses direct sunlight – glass does not. This is important to sensitive plants.
- **Provides much better UV protection**
- Easier to handle – not dangerous
- **Easier to assemble – safer and lighter**
- **Safer for children and pets**

**Why would you want to use glass instead of twin-wall polycarbonate glazing?**

- Because clear glass looks better
- Because you don't care how much it cost to heat your greenhouse
- Because you are not a serious grower, but want to simply have a great looking structure in your back yard.

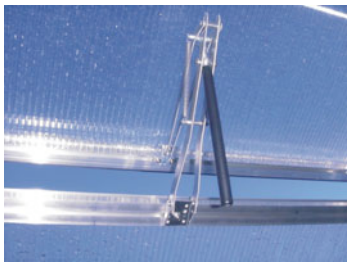
**Why is ventilation so important?**

- Because, in this country temperature can change drastically from cold nights to hot afternoons. To compensate for this, the RIGA greenhouse comes standard with larger and more windows than similar greenhouses. For this reason it comes with an oversized window in the back wall. In addition, you can leave the top half of the front door open allowing a breeze to flow through.

**What kind of ventilation is provided?**

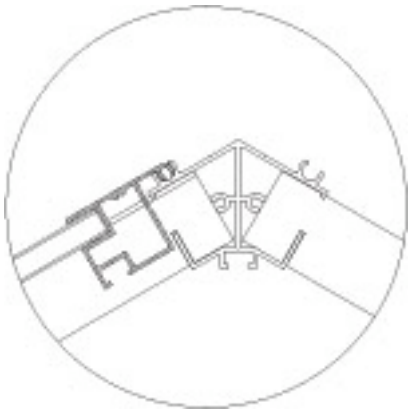
- Automatic Window Openers with each roof window
- An oversized 30" x 42" or 30" x 49" rear-wall window
- An oversized Dutch barn style front door - 30" x 72" or 30" x 79" high.
- Additional windows can be added.

**How does the Automatic Window Opener work – does it need electricity?**



- No electricity is needed.
- It comes with a special cylinder (black) filled with unique paraffin oil, which expands, and contracts due to temperature changes. It pushes the window open when it gets hot inside and closes the window when it cools down.
- Temperature range is adjustable

**How are the roof windows attached?**



- FYI: with most greenhouses they hang form simple hinges, which can break if the window is left open in heavy winds.
- The RIGA roof windows are attached with a ‘tongue and grove” hinge system, which spans the full length of the top profile of the roof window
- The top profile sits “inside” a grove in the roof beam.
- It is attached by sliding the assembled roof window down the grove in the roof beam from either end of the roof beam.

**Can I install an electric fan?**

- Yes, you can – simply cut the required hole with a utility knife in the polycarbonate glazing either in the back or front walls

**Do we sell/offer a fan?**

- No we don’t offer any electrical accessories at this time.

**Does the greenhouse require heating in the winter?**

- Yes, it might depend on outside temperatures and the needs of your plants. Standard recommendation is to keep the temperature inside at about 50-53º F.

**Do we provide heaters?**

- No, we don't provide electrical or propane heaters.
- Ask your local nurseryman for advice
- However, in many parts of the country a simple electrical oscillating space heater might do the trick, as long as there is no frost during the daytime.

**Do we provide some kind of watering/misting system?**

- Although one might be needed in hot climates – we do not provide such a system. These might be available through your local garden center and/or website.

**Zoning Restrictions**:

- In many areas of the country there are restriction with respect to adding some kind of permanent structure in your back yard, set by either your local government or by your neighborhood association.
- Most common restriction: everything over 100 sq. ft. needs a permit
- Or anything requiring a slab.
- However, we are finding that more and more places are willing to make exceptions for a nice greenhouse – associations understand and respect the environmental benefit of growing your own food and plants. Just ask them for permission.
- This greenhouse does not require a slab
- It is not a permanent structure.

**Wind resistance**:

- Although there is no official wind rating the RIGA greenhouses were driven on a flat bed truck down the German highway at 80 miles per hour and suffered no damage.
- Basically due to its unique roof slope strong winds are diverted over the roof.
- Additional wind resistance is provided through the 4 lateral support bars, which span from the front to the back of the greenhouse.
- Recommendation: like any greenhouse the RIGA greenhouse must be fixed to its location. We offer a specially heavy duty foundation frame – which can also be used to raise the greenhouse up to 5".

**Snow load/capacity**:

- Due to the aggressive angle of the roofline it is impossible to measure the RIGA snow load capacity – snow and other debris simply slide down the roof.
- As the roof has no "shoulder" there is no ridge, for any snow to build-up on.
- However, the roof is more than strong enough to allow a 185 lbs person to stand on top of it – in the middle of the polycarbonate panels.

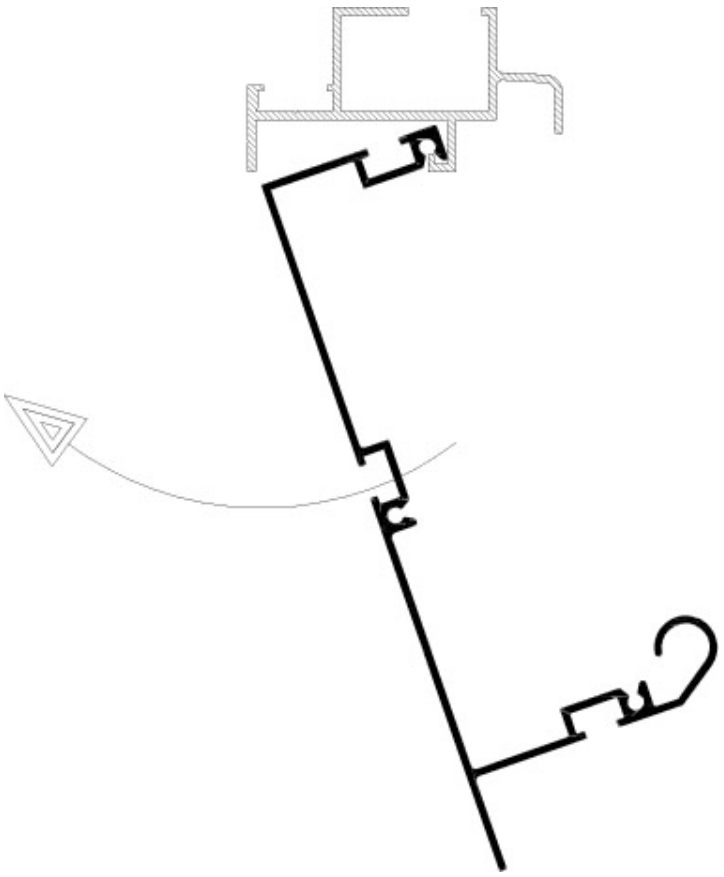
**How strong are the shelves?**

- Strong enough to put several flats with plants on them or take a nap
- Hanging from chains is stronger than traditional braces.

**What type of flooring do we recommend?**

- Please do not put any greenhouse on a concrete slab. Standing water on concrete is dangerous, especially when it freezes over.
- A greenhouse floor should be free draining.
- Usually people will create some sort of path (i.e. flag stones) down the center of a greenhouse – to walk on. The rest of the ground might be covered with riverbed stones, pea gravel, or pine straw or a similar material.
- Other drawbacks of a concrete slab: stays too cold in the winter and too hot in the summer (reflects heat back up – making things even worse inside).
- We do recommend, removing all grass and weeds etc. from inside the greenhouse area before assembling the greenhouse. And to cover this area with a weed control mat.
- You can put a greenhouse on a deck but be aware that this will allow cold air to blow in through the deck. We don't recommend this.

**Foundation Frame / Mounting system**:



- The Foundation Frame attaches to the bottom of the RIGA greenhouse profiles and usually sits in the ground, but it can also be mounted on top of 6" x 6" treated lumber, a concrete or brick wall to provide 5" of additional headspace inside.
- This frame is designed such that when "filled" with dirt all around the greenhouse cannot and will not blow away in anything less than a hurricane wind. (We do not guaranty this)

**Can I make the unit longer/bigger latter on?**

- Unfortunately you cannot. The reason for this is that the roof beam, Base Profiles and the Lateral Supports are the same length as the greenhouse originally bought - this ensures optimal strength of the unit.
- Roof Beam and Base Profiles are one piece and cannot be extended

**Can I buy a bigger unit than is offered currently?**

- Yes, you can – but on a special order basis only
- Each additional section comes in 3'6" lengths.
- Lead time: 8-12 weeks.

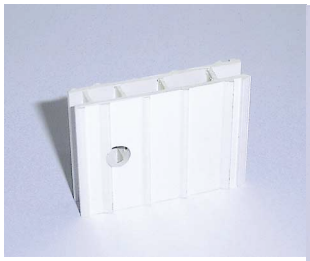
**If for some reason some part breaks – can I get a replacement part?**

- Not a problem – we carry spare parts of all parts of the greenhouse.

**Are there other window and/or door options?**:

- Yes, additional roof windows (with Automatic Openers) and it is possible to put an additional door in the back wall

**What other accessories do we offer?**



- A bag with 10 plastic hooks – these can be used to attach a string to, to guide tall growing plants to (i.e. Tomatoes and beans).
- A set of 5 adjustable metal hooks: for hanging flower baskets and/or ceiling lights and fans.

**Does the RIGA greenhouse require shade cloth**?

- If you are planning to use the greenhouse to grow and house exotic plants in during day time temperatures in excess of 85-90º F than virtually any greenhouse will need some kind of shade cloth and or missing system in order to keep temperatures down.

**Available Options**:

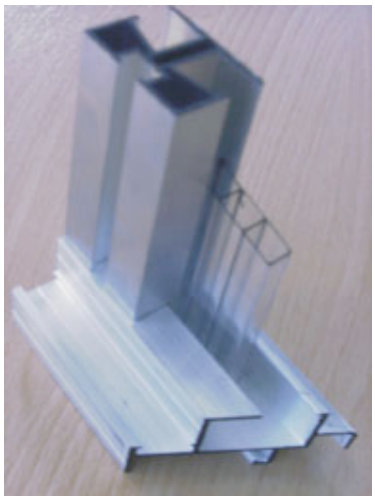
- Additional Roof Windows with Automatic Opener – recommended in case the RIGA greenhouse is to be actively used in very hot climates (during the summer) – for instance for Orchids. Temperatures in excess of 90º F.

## Technical Details

**Product specifications**:

- There are 2 widths; 7'.8" or 9'8"
- There are 3 Lengths: 7', 10'6" and 14"
- There are 2 heights: 6'11" and 7'6"
- Choice of 5 different sizes:
  - RIGA II s 54 sq.ft. – 7' long x 7.8" w x 6'11" high
  - RIGA III s 81 sq.ft. – 10'6" l x 7'8" w x 6'11" high
  - RIGA III 102 sq.ft. - 10'6" l x 9'8" w x 7'6" high
  - RIGA IV s 108 sq.ft. – 14' l x 7'8" w x 6'11" high
  - RIGA IV 135 sq.ft. – 14' l x 9'8" w x 7'6" high
- Door size:
  - RIGA II s, III s, IV s: 30" w x 72" tall
  - RIGA III & IV: 30" w x 79" tall
- Rear Wall Window Size:
  - RIGA II s, III s, IV s: 30" w x 42" tall
  - RIGA III & IV: 30" w x 49" tall
- Roof Window size: 40" wide x 24" deep
- UV Coated Polycarbonate Glazing
- R-Value: 3.0-3.2
- Warranty: Frame 15 years, Glazing 10 years against Manufacturer' Glazing warranty is prorated after 5 years

**Frame: Aluminum Profiles**:



- The RIGA profiles are thicker/bigger diameter and with more channels than other greenhouses in its class – this makes them stronger.
- Extra strength in the unit comes from the main uprights being attached to the Base Profiles by sliding into each other (no bolts & nuts to come loose over time)

## Maintenance Requirements

**Does the Riga Greenhouse require maintenance?**

- No routine maintenance is require, however we recommend annually checking that all nuts and bolts and screws are still tight – note this is not a requirement just a suggestion.

**How to keep greenhouse clean?**

- Wash down with mild soapy water annually.

## Return Qualifications

**Buyer's Remorse**:

- Point out that the customer has to pay for return freight – several hundred dollars?
- And we require a 20% restocking charge.

**What to do if freight arrives damaged?**

- If possible make a digital picture and email it to supplier and/or importer Exaco Trading: sales@exaco.com
- Receiving customer must note damage on Bill of Lading when signing for receipt of product.
- Unless more than one box is severely damaged product should not be refused from the carrier.
- Customer needs to tell their retailer/website/supplier which of the boxes was damaged and identify what parts are damaged.
- Damaged parts will be replaced by the importer.
- They can also call the importer Exaco Trading directly: 1-877-760-8500

**What to do if customer damages any of the parts during the assembly process?**

- If possible make a digital picture and email it to supplier and/or importer Exaco Trading: sales@exaco.com
- Customer can either call their supplier's customer service and/or the importer directly on their call free #: 877-760-8500. To request a replacement part.
- Depending on the damage and /or the size of the part the customer might be asked to pay for either the cost of the part and/or the shipping cost.

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**Does the warranty cover damage due to severe wind or a hailstorm?**

- No it does not. However, the type of weather, which would damage the RIGA greenhouse, would be such that it would also damage your main house and/or other structures in your garden. In which case this damage would be covered buy your home-owners insurance policy.

## Field Destroy never applicable!