

2025-2026 PA Agricultural Sales CDE

Updated 2/12/2026

Chairmen:

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Please update your Agricultural Sales study materials and scorecards to reflect the current [National FFA Guidelines](#) revised February 2026.

2026 Product: Rimol Greenhouse Systems

You and your team are authorized dealers for Rimol Greenhouse Systems, operating a retail warehouse in Pennsylvania. You specialize in the sale of Rimol high tunnels and related accessories. While your dealership does not provide installation services for high tunnel structures or accessories, you maintain an extensive list of recommended contractors throughout your sales territory. Additionally, your customer service team is available to provide installation support by phone.

****This product is similar to the 2025 National Product****

The full product information is located at the end of this document.

Contest Rules

- Chapters may enter a four-member team and up to three additional individuals for a possible total of 7 students per school. A team must consist of four members.
- The team score will be the sum of all 4 written exam scores, all 4 individual sales call scores, all 4 customer service call scores and the team activity score. The team score will be used to select the chapter to represent PA at the National FFA competition. There is no Big E trip for Ag Sales.
- All individuals and teams of less than 4 members will only be eligible for individual awards.
- Individual total scores will not include the Team Activity.
- The four-member team must be identified on the official team registration form.

The PA Ag Sale CDE is a Two Day, Four Part CDE

- In this CDE, you and your team will demonstrate the professional sales process for the designated PA FFA agricultural sales product. The event has four parts.
 - PART I – WRITTEN EXAM
 - PART II – TEAM ACTIVITY
 - PART III – INDIVIDUAL SALES CALL
 - PART IV – CUSTOMER SERVICE CALL
- Please refer to [2026 National Ag Sales Scorecards](#) for more information.

Instructions from National FFA Ag Sales CDE Committee

- Participants will directly sell the product(s) to judge(s).
- The judge(s) will act as a real customer which may include not buying the product.
- Participants will have to establish rapport with the customer and ask probing questions to ensure they meet the customer's needs and wants using the features and benefits of the product.
- This is an interactive activity (not a public speaking event) with the judge(s) acting as customer(s).

AG SALES CDE SCHEDULE for 2026 PA FFA ACTIVITIES WEEK

Official FFA Dress is required on both days

First Day – Tuesday

- Review the Ag Sales CDE event
- Determine the appointment times for Wednesday's individual and team activities.
- Complete Part I: Written Exam (120 points/individual)
 - The written exam evaluates an individual's knowledge of sales skills. The PA Ag Sales written exam is made of questions from any previous years' National FFA Ag Sales written exams that are posted on the National FFA website. The written exam may also include questions related to the current year's product. The test will not exceed 40 questions and 45 minutes. The questions will consist of multiple choice, fill-in-the-blank, short answer and essay format. Point values will be assigned to each question based on the skill level of the question. The National Ag Sales committee has posted resource materials on the National FFA Ag Sales page. <https://ffa.app.box.com/s/a5dkpp2007k9rpaolzhv5xg6o852d04i>

Second Day – Wednesday

- The first team starts at 8:30 AM and will follow the order determined on Tuesday.
- Complete Part II: Team Activity (175 points/team)
 - The Team Activity will be 30 minutes total, with 10 minutes allotted for a team discussion and 20 minutes for individual questions. You will be judged during the entire 30 minutes. Please reference the Team Activity rubric for specific expectations.
 - Team members will utilize teamwork, group dynamics, problem-solving, data analysis, decision making and oral communication skills to prepare themselves to individually answer questions. These individual questions will be utilized to determine a team's grasp of sales principles and the ability to apply those principles to real world situations while also ensuring all members are participating.
 - No materials will be provided to the team. No presentation equipment will be allowed, such as laptops, flipcharts or dry-erase boards. Individuals will be allowed to use their 1-inch binder during the Team Event.
 - The team will be given the profile of a customer and will have 10 minutes to interact and discuss a pre-call plan (utilizing the product(s) released before the event) in preparation to sell the product(s) in a face-to-face sales call to that customer.
 - After the 10 minutes, team members will have 20 minutes to answer questions individually from the judges. Judges will address questions to specific individual team members. Questions will be related to the product(s), the provided customer and the application of selling principles to both. In addition, clarifying questions will be asked to ensure they can accurately assess each answer/team member.

- Students will answer individually, without assistance from their team members.
- Students cannot use the same answer a teammate has previously given.
- Please note this is not a presentation. A brief introduction at the beginning with the chapter being represented and each team member's name will suffice.
- Any notes taken and the Customer Profile will be left with the judges after your Team Event ends.

- Complete Part III: Individual Sales Call (130 points per individual)
 - At the conclusion of the Team Activity, each team member will report to their assigned room for the Individual Sales Call. During this activity, participants will directly sell the product(s) to judge(s). Students will be given a preliminary customer profile and will have at least five minutes to review the preliminary customer profile before meeting with the judge(s). The judge(s) will act as the customer, which may include not buying the product. Participants will have to establish rapport, ask probing questions to ensure they meet the customer's needs and clarify customer information during the sales call. Participants will have 20 minutes to interact with the judge(s). Participants may use their 1-inch product information binder during the individual activity. Students will be evaluated using the Individual Sales Call Rubric.
- Complete Part IV: Customer Service Call (100 points per individual)
 - Customer service is the support and assistance provided to customers before, during, and after they purchase or use a product or service. It aims to ensure customer satisfaction, resolve issues, answer questions, and build positive relationships to encourage loyalty and repeat business.
 - At the conclusion of the Individual Sales Call, participants will directly interact with a customer(s) who has questions or problems with their respective products or services sold to them. Students will be given a preliminary customer profile and will have at least five minutes to review it before meeting with the judge(s). The judge(s) will act as the customer. Participants will have to establish communication, ask probing questions to determine the customer's situation and clarify customer information while working within the given policy, resolve the situation and/or build the customer relationship. Participants will have 20 minutes to interact with the judge(s). Participants can use their 1-inch product information binder during the customer service call activity. Students will be evaluated using the Customer Service Call Rubric.

1" Binder Guidelines

PLEASE REMEMBER TO REFERENCE THE CONTEST SCORECARDS – The majority of points for the individual sales call are based on building rapport and matching the features and benefits of the product to the needs and wants of the buyer. While additional materials in the 1" binder are nice, they directly add very few points on the scorecard. However, they could improve how well a student explains the features of a product to the customer, so I still see an importance to a well prepared and organized binder.

The following items may be included in the 1" binder.

- Product information sheets (Direct from the Chairman/website)
- Order forms, blank invoices
- Other student created product materials
 - Students/Teams may create additional brochures, flyers, charts, printed advertisements, and customer testimonials utilizing the provided product information. NEW INFORMATION CANNOT BE MANUFACTURED/MADE-UP. For example: special sales promotions, 10% discounts, warranties, free upgrades etc.
 - Handouts explaining how to use the product may also be included. For example: safe lawn mower operation, how to hitch a trailer, tractor PTO safety etc.

***National FFA says no business cards

***Printed materials must fit in the binder and be no larger than 8.5" x 11".

***At the conclusion of the individual sales activity, students are asked to remove all materials from the contest room.

Scoring

Activities	Individual Points	Team Points
Written exam	120	480
Individual sales call	130	520
Customer service call	100	400
Team activity		175
TOTAL POSSIBLE SCORE	350	1,575

Tiebreakers

- In the event of a tie, the following components will be used to determine award recipients:

Individual

1. Written exam
2. Individual sales call
3. Customer service call
4. Team activity

Team

1. Written exam total
2. Team activity
3. Individual sales activity total
4. Customer service call total



2025 PRODUCT CATALOG



Hip Peas Farm | Hooksett, NH



Encompass Farm | Union Mills, NC



Milk House Flower Farm | West Chazy, NY



Divide Creek Farm | Silt, CO



Seven Bends Nursery | Berryville, VA



Frith Farm | Scarborough, ME



Who We Are

Bob Rimol founded Rimol Greenhouse Systems in 1994 with the aim of “building a better mousetrap” for the greenhouse industry.

In the three decades since, Rimol Greenhouse Systems has developed into a first-class commercial greenhouse manufacturing and distribution company, shipping greenhouses and high tunnels all over the United States to garden centers, nurseries, educational institutions, farms, homesteads and more.

Rimol Greenhouses is based out of Hooksett, NH where all of our products are designed and fabricated on site in our state-of-the-art manufacturing facility. Our team of greenhouse experts are located remotely around the country and are available to come on site to help design a customized greenhouse solution that fits your exact needs.

Rimol is dedicated to satisfying customers' needs with solutions that are:

- **Creative:** We provide innovative products to our customers and be innovative in the way we do business internally.
- **Quality Oriented:** We have absolute focus on achieving 100% satisfaction of our customers' expectations relative to the quality of our products and service.
- **Customer Oriented:** All company activities, both internal and external, are performed with impact to the customer in mind.
- **Economical:** We strive to increase the customer's profits by keeping our costs down and eliminating events and activities that result in additional costs (in time and money) to the customer.



Wisconsin Dells High School | Wisconsin Dells, WI

Contact Us



Call (603) 629-9004



Email customerservice@rimol.com



Visit rimol.com



40 Londonderry Tpke, #2D
Hooksett, NH 03106



rimolgreenhouse Tag us on Instagram for a chance to be featured on our page! [#hightunnels](#)



Six River Farm | Bowdoinham, ME

High Tunnels

Our super-strong Nor'Easters, Northpoints and Eastpoints with extended ground posts.

High tunnels are a popular trend for growers and a proven technology for crop production. The term “high tunnel” is a loosely defined phrase for growing fruits and vegetables in greenhouses. High tunnels may be used to extend the growing season by providing protection for early or late season production or they may be used for year round growing. High tunnels are increasingly popular due to their

low start-up cost and the quick rate of return on investment.

Today's high tunnels may be as simple as a greenhouse frame with one layer of poly and roll-up sides to more sophisticated greenhouses that have roof vents, year-round covering, and irrigation systems. These freestanding greenhouses are available in all different widths and lengths. The most common high tunnel is 30 ft. x 96 ft. in size.



**Rimol high tunnels are
NRCS-APPROVED**

Many crops are grown in high tunnels such as tomatoes, cucumbers, lettuce, strawberries, raspberries and herbs. Rimol high tunnels are all customized to meet the individual grower's needs and specific to the crop that is being produced. We have many different options based on the size of your operation, the crops you are growing, your climate and location, and your goals.

The Rimol Advantage

- All high tunnels are designed for heavy snow and wind loads with extra support for crops
- All greenhouses are pre-drilled, pre-cut, include all hardware and assemble very easily
- Included are thorough and complete instructions with great customer service from our experienced sales staff
- Many different options available for cooling, doors and end wall design
- Crop support systems available
- Quick turnaround on shipping
- All Rimol high tunnels are approved structures meeting the requirement for USDA Natural Resource Conservation Service (NRCS) cost share programs.

**Manufactured in
New Hampshire by:**



*Worried about
constructing your
greenhouse?*



Scan to download a free copy
of our instruction manuals!



Slack Hollow Farm | Argyle, NY



Exclusive to Rimol high tunnels is our polycarbonate and aluminum baseboard system, which provides more effective water management and pest control than traditional wooden baseboards – plus, they do not need to be regularly replaced!



Cooper Moose Farm | Park City, UT



Center for Discovery | Harris, NY

The Nor'Easter High Tunnel

The Strongest Free-Standing Greenhouse

Features & Benefits

- Available in 30 ft. and 34 ft. widths
- Available in 48 ft., 72 ft. and 96 ft. lengths
- Includes 6' ground posts (3' in the ground, 3' out of the ground)
- Bows are 1.90 in., 13 ga. galvanized steel tubing, spaced every 4 ft.
- There is a truss assembly with every bow, resulting in unmatched strength
- 5 purlins per 30 ft. greenhouse and 7 purlins per 34 ft. greenhouse
- Purlins connect to the bows using a cross connector which prevents unnecessary drilling into the bow
- Truss support system allows for additional purlin pipe to be hung for hanging baskets
- Wind bracing kits included with all greenhouses
- Engineering meets International Building Codes (IBC)

Frame

The frame includes all of the steel tubing pre-drilled, all hardware and ground posts, and materials to frame your ends with 2x4 lumber. You can purchase metal end wall framing kits as an upgrade. Does not include baseboard or end wall lumber.

Roof Covering

The roof covering includes two layers of 4-year poly, wire lock for the sides and an inflation kit.

Woven Poly End Walls

Woven poly end walls include enough long-lasting woven poly for a single layer and wire lock to fasten poly to end walls.

Polycarbonate End Walls

Polycarbonate end walls (upgrade) include twin wall clear

polycarbonate, all extrusions, hardware and gable wire lock.

Mechanical Ventilation

Mechanical ventilation options include exhaust fan(s), shutters and environmental control systems to control all equipment.

Roll-Up Sides

Roll-up sides include woven poly, rope & hooks, hardware and T-handle kit for 2 roll-up sides. Gear box kit and controllers to automate roll-up sides can be purchased as an upgrade.

Gas Heat

Gas heat options include a Reznor high efficiency heater and HAF fans to facilitate even heat distribution.

The Northpoint High Tunnel

The Ultimate in Free-Standing Greenhouses

Features & Benefits

- Available in 22 ft. and 26 ft. widths
- Available in 48 ft., 72 ft. and 96 ft. lengths
- Includes 6' ground posts (3' in the ground, 3' out of the ground)
- Bows are 1.66 in., 14 ga. galvanized steel tubing, spaced every 4 ft.
- There is a truss assembly with every bow, resulting in unmatched strength
- 3 purlins for 22 ft. & 26 ft. greenhouse
- Purlins connect to the bows using a cross connector system which prevents unnecessary drilling into the bow
- Truss supports allow for additional purlin pipe to be hung
- Wind bracing kits included with all greenhouses
- Engineering meets International Building Codes (IBC)



Bogie's Blooms | Bismarck, ND

Frame

The frame includes all of the steel tubing pre-drilled, all hardware and ground posts, and materials to frame your ends with 2x4 lumber. You can purchase metal end wall framing kits as an upgrade. Does not include baseboard or end wall lumber.

Roof Covering

The roof covering includes two layers of four-year poly, wire lock for the sides and an inflation kit.

Woven Poly End Walls

Woven poly end walls include

enough long-lasting woven poly for a single layer and wire lock to fasten poly to end walls.

Polycarbonate End Walls

Polycarbonate end walls (upgrade) include twin wall clear polycarbonate, all extrusions, hardware and gable wire lock.

Mechanical Ventilation

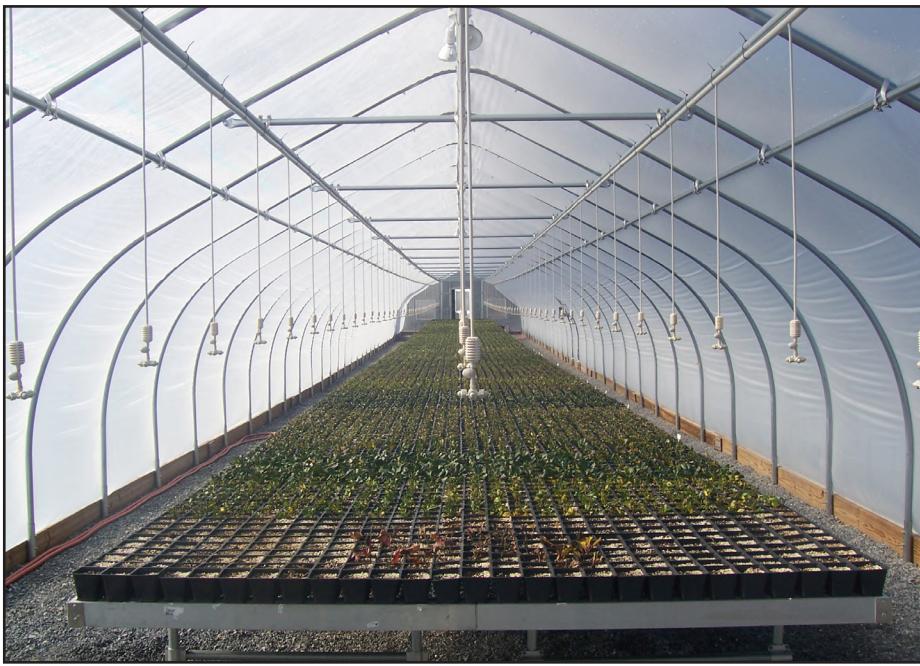
Mechanical ventilation options include exhaust fan(s), shutters and environmental control systems to control all equipment.

Roll-Up Sides

Roll-up sides include woven poly, rope & hooks, hardware and T-handle kit for 2 roll-up sides. Gear box kit and controllers to automate roll-up sides can be purchased as an upgrade.

Gas Heat

Gas heat options include a Reznor high efficiency heater and HAF fans to facilitate even heat distribution.



Lakedale Nurseries | Berlin, NJ

*Worried about
constructing your
greenhouse?*



Scan to download a free copy of our
instruction manuals!

The Eastpoint High Tunnel

Strength and Versatility at an Affordable Price!

Features & Benefits

- Available in 18 ft. and 20 ft. widths
- Available in 48 ft., 72 ft. and 96 ft. lengths
- Includes 6' ground posts (3' in the ground, 3' out of the ground)
- Bows are 1.66 in., 14 ga. galvanized steel tubing, spaced every 4 ft.
- 3 purlins per greenhouse
- Can be used for overwintering, growing or season extension of vegetables
- Strong and able to withstand heavy snow loads
- Low cost per square foot
- Great for starter greenhouses
- Truss supports optional
- Engineering meets International Building Codes (IBC)

Frame

The frame includes all of the steel tubing pre-drilled, all hardware and ground posts, and materials to frame your ends with 2x4 lumber. You can purchase metal end wall framing kits as an upgrade. Does not include baseboard or end wall lumber.

Roof Covering

The roof covering includes two layers of four-year poly, wire lock for the sides and an inflation kit.

Woven Poly End Walls

Woven poly end walls include enough long-lasting woven poly for a single layer and wire lock to fasten poly to end walls.

Polycarbonate End Walls

Polycarbonate end walls (upgrade) include twin wall clear

polycarbonate, all extrusions, hardware and gable wire lock.

Mechanical Ventilation

Mechanical ventilation options include exhaust fan(s), shutters and environmental control systems to control all equipment.

Roll-Up Sides

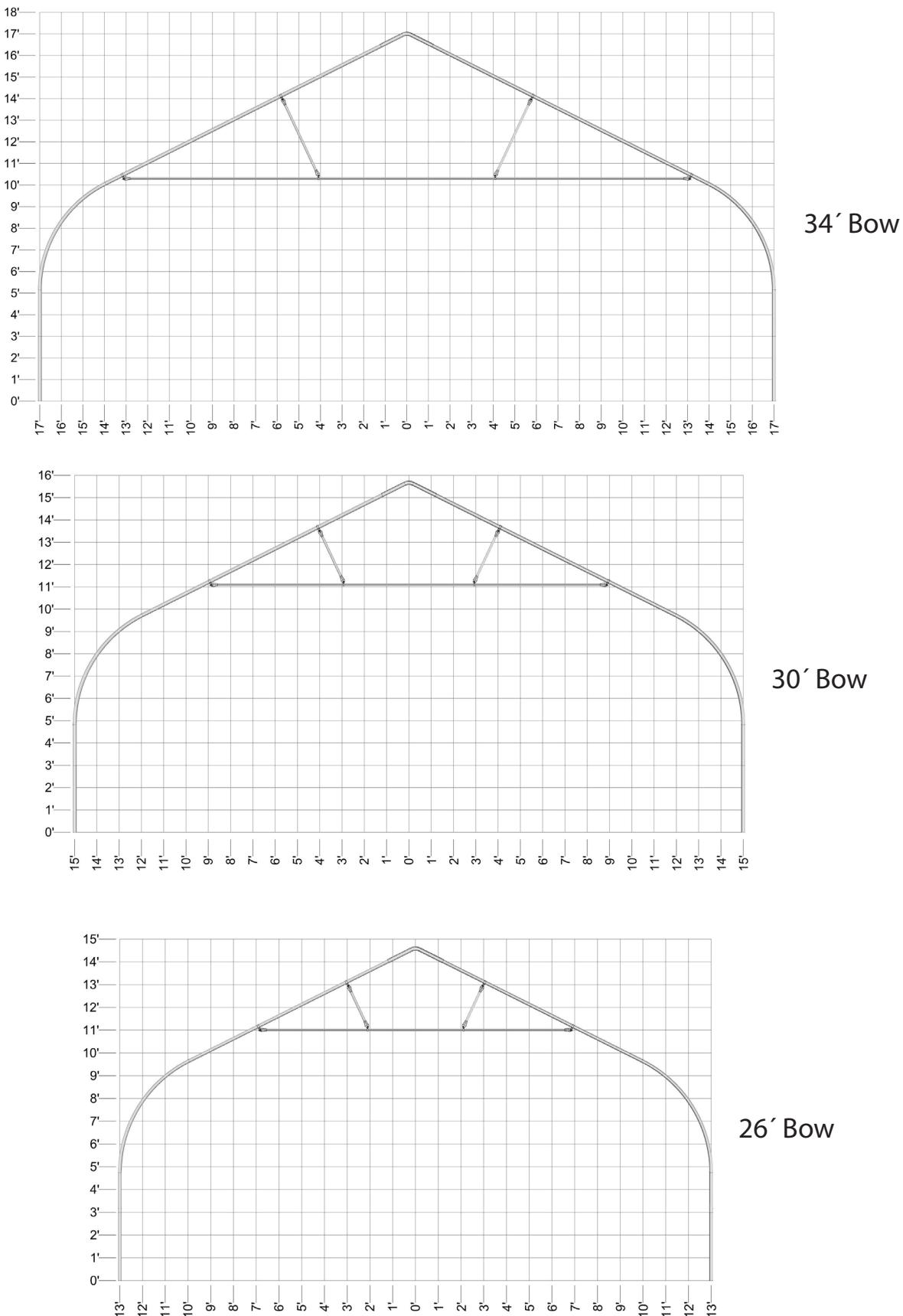
Roll-up sides include woven poly, rope & hooks, hardware and T-handle kit for 2 roll-up sides. Gear box kit and controllers to automate roll-up sides can be purchased as an upgrade.

Gas Heat

Gas heat options include a Reznor high efficiency heater and HAF fans to facilitate even heat distribution.

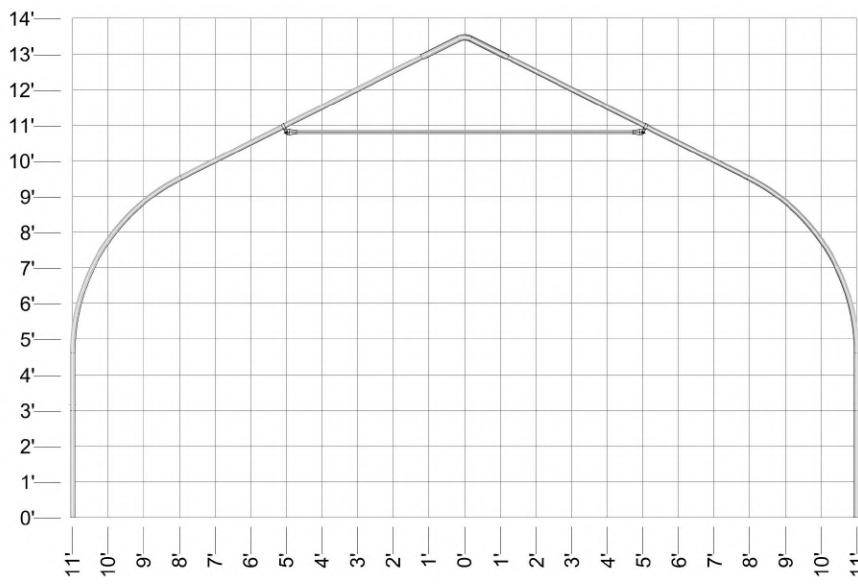
Heights of the RGS High Tunnels

Our super-strong Nor'Easters, Northpoints and Eastpoints with longer ground posts.

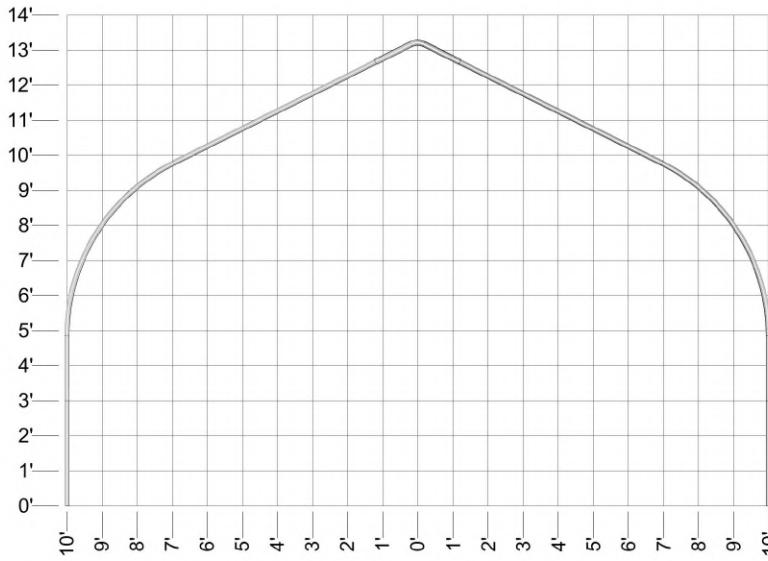


Heights of the RGS High Tunnels

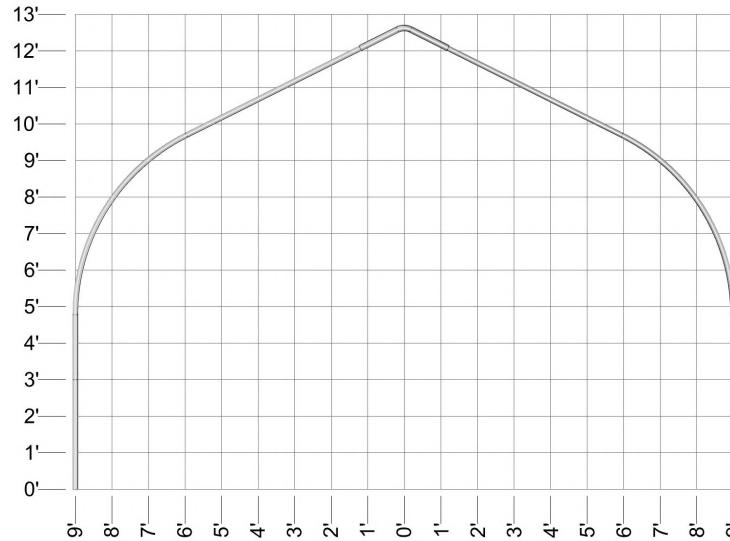
Our super-strong Nor'Easters, Northpoints and Eastpoints with longer ground posts.



22' Bow



20' Bow



18' Bow

Door Options

Doors are more important than you may realize!



Double Sliding 4' x 8' Doors

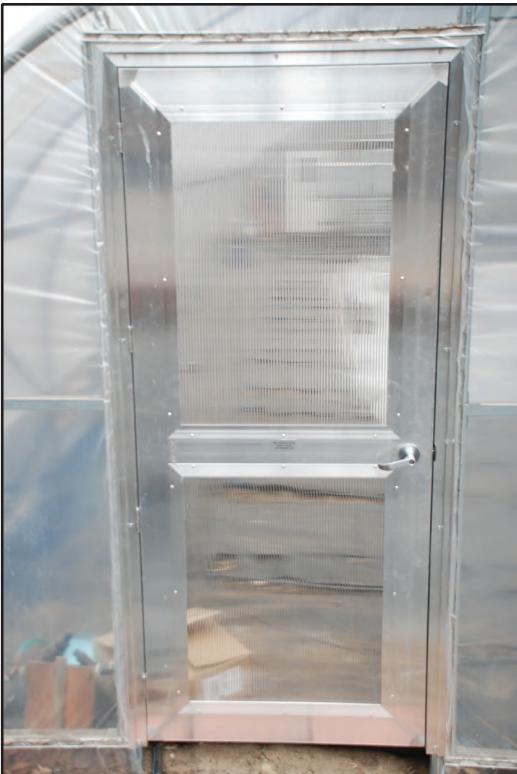
Providing an 8' x 8' opening.

HCDS253HT **\$1,199**



Single Sliding 3.5' x 7' Door

HCSS20242 **\$780**



Single Pre-Hung 3' x 7' Hinged Door

HCSH100L **\$778**



8' x 8' Insulated Roll-Up Door

TR9448x81 **\$1,242**

Polyethylene Coverings for Greenhouses



Rimol high tunnels are covered with polyethylene plastic sheeting, known simply as poly. Our high tunnel packages include a double layer of four-year poly for your roof covering. The top layer can be swapped for IR poly as an upgrade. Our packages also include woven poly for the end walls, which can be swapped for polycarbonate end walls as an upgrade.

Four-Year Poly

A high clarity, 6 mil covering, fully warranted for four years. Contains UV block and an anti-dust additive.



IR Poly

A four year, 6 mil energy saving covering, with all the features of Drip-Less plus an additional additive that disperses light and helps to delay the exit of heat from the greenhouse during the night.

Make sure you do not pull your poly tight when using two layers. You want to have a "bubble effect" on the roof for proper inflation.

Reinforced Woven Poly for End Walls

- Made of UV-resistant woven polyethylene
- Ideal for end walls on high tunnels
- Tear resistant, long lasting coated material
- Four-year warranty
- In-stock for immediate shipment
- Can be used on roof as a second layer of poly



Polycarbonate: It's Like Safety Glasses for Your Crops!

Polycarbonate End Walls Provide the Ultimate in Safety for Your "Budding" Business

- **Virtually Unbreakable**

Able to stand extreme abuse, its impact strength is 200 times greater than glass and 10 times greater than acrylic.

- **Condensation Control**

Includes a factory applied condensation control.

Reducing surface tension, the condensation control allows water to spread into a thin sheet rather than form into droplets.

- **Easy to Install**

Polycarbonate won't crack or split when cut or drilled.

- **Transparent**

Offering 81% light

transmission in clear.

- **Lightweight**

Weighing just one-eighth the weight of glass, these panels are self supporting and do not require the extensive structural support that a heavier glass wall or glazing material needs.

- **Highly Flexible**

Unlike glass and acrylic, polycarbonate panels can be readily cold formed to many bending radii and can be fabricated on site to precise dimensions.

- **Saves Energy**

The multiwalled construction of these panels give excellent

thermal insulating values while blocking UV transmission.

- **Flammability**

Polycarbonate sheets are classified as self-extinguishing. Compared with other plastic products used in the building industry. Polycarbonate multiwall sheets have an exceptional fire performance and most importantly, do not give off toxic gases.

- **Warranty**

Polycarbonate is backed by a 10 year prorated warranty on light transmission and breakage caused by hail.



Polycarbonate End Walls

The polycarbonate end walls upgrade package includes twin wall clear polycarbonate, all extrusions, hardware and gable wire lock for both end walls.

Polycarbonate end walls offer additional protection from the weather and will last for 10 years or more.

Aluminum/Polycarbonate Baseboard Kit



You'll Never Have to Replace a Wooden Baseboard Again!

Rimol has developed a polycarbonate baseboard system that uses an aluminum extrusion, as an alternative to a wooden baseboard.

- Outstanding and long-lasting product that replaces wood baseboards – a great investment!
- Polycarbonate can be buried over a foot deep for rodent control
- Especially beneficial for organic growers
- Easy to assembly and durable
- Sold as a kit that includes polycarbonate and all hardware for both sides
- Aluminum extrusion also includes wire lock channel
- Wire lock can be used for insect screen attachment with roll-up sides



Our custom-designed aluminum extrusion makes it easy to fasten roll-up sides to the polycarbonate baseboard system.



Aluminum/Polycarbonate Baseboard Kit

Part #	Size	Price Each
POLYCARBONATE BASEBOARD KIT		
RGSALBB48	48' kit	\$1,187
RGSALBB72	72' kit	\$1,733
RGSALBB96	96' kit	\$2,247

Natural Ventilation: Accessories for Roll-Up Sides



Woven Polyethylene

A reinforced woven poly with excellent light transmission will outlast regular poly because of its durability. It will not tear or fade for many years, and can be used for roll up sides or end wall covering.



Rope Hook

Used at top of roll-up sides to hold rope.



Rope

A strong, weather resistant polyester rope for securing roll-up curtains.



T-Handle Kit

The T-Handle Kit is a simple, cheap and easy way to attach a handle to a roller bar.



Upgrade: Gear Box Kits for (1) Pair of Roll-Up Sides

For curtains 60 ft. or less.

RGSGB2460 **\$336**

For curtains 72 ft. to 96 ft.

RGSGB7296 **\$473**

Gear Box Operators for Roll-Up Sides

- Gear box operators have internal brakes holding the roll-up sides in place very easily
- Simple to install and very reliable, makes rolling up and down sides much safer and easier
- Drill brace adapter can be used with cordless drill
- All gear box kits include 2 operators, 2 roll bar adapters, 2 (7 ft.) guide pipes, all hardware and 30 ft. hand brace

Mechanical Ventilation: Galvanized Angle Wall Fans

Features and Accessories

- Galvanized construction
- Quiet operation at low RPM
- Dust, dirt and moisture proof bearings
- High-efficiency, heavy-duty, totally enclosed motors have a low operating cost
- All aluminum gravity shutters/ louvers
- Permanently lubricated fan shaft ball bearings
- Guards included meet OSHA requirements

The six-bladed propeller with high-efficiency design produces more CFM/WATT at lower RPM. This saves on your electric bill!

The automatic belt tightener eliminates belt tension problems and one maintenance operation, plus the fan stays super quiet. This key feature is included in the price of each fan and will guarantee quiet operation.



Fan CFMs and Pricing

Fan Size	Motor HP	SP at .10	SP at .125	SP at .25	Fan Pricing	
		Standard Cooling	Evaporative Cooling	Light Traps	1 Speed	2 Speed
24"	1/2	6,006	5,864	4,740	\$1,256	\$1,283
30"	1/2	6,956	6,582	3,418	1,368	1,402
30"	3/4	8,131	7,930	5,757	1,394	1,576
36"	1/2	9,553	8,992	3,430	1,395	1,413
36"	3/4	11,253	10,924	7,481	1,412	1,594
42"	3/4	13,460	12,939	7,005	1,797	1,957
48"	1/2	14,166	12,910	-	2,085	2,054
48"	3/4	16,989	16,273	4,527	2,113	2,393
48"	1	19,563	19,031	13,723	2,167	-
56"	1	24,300	21,400	-	2,522	2,726
56"	1.5	28,500	26,500	8,400	2,628	-

Mechanical Ventilation: Aluminum Shutters



They Don't Let the Cold Air in When They Are Sealed Shut!

These heavy duty aluminum wall shutters are designed to open and close according to air flow with minimum friction. Rain and foreign objects are prevented from entering when the shutters are open or closed.

Gable shutters at each end of the high tunnel can be motorized for automatic control.

- Excellent for cooling in colder months without having to roll up your sides
- Helpful in releasing trapped humidity, especially in the winter months.

Aluminum pivot rods and nylon bearings resist corrosion and prevent sticking. Counterbalanced aluminum blades ensure trouble-free operation.

Shutter CFMs and Pricing*		
Size**	CFMs	Price
24"	2,400	\$252
30"	3,700	273
36"	5,400	326
42"	7,300	378
48"	9,500	462
54"	12,000	431
60"	14,800	851
60"W x 24"H	5,900	683
60"W x 36"H	8,900	761
60"W x 48"H	11,900	893

* All shutters are motorized.

** Add 1/4" on each side for rough openings



How to Size Fans & Shutters

An easy and simple way to size greenhouse ventilation:

1. First, calculate your total CFMs required in your greenhouse. If you have a 18 ft., 20 ft., 22 ft., 26 ft., 30 ft. or 34 ft. greenhouse, multiply width times length times 7. For example, a 30 ft. x 96 ft. greenhouse will be $30 \times 96 \times 7 = 20,160$ CFMs per minute of air flow.
2. Divide total CFMs by the number of fans. For larger houses, use two fans so that you can stage your cooling in two or three different levels. So by using two fans, each fan will be required to move 10,080 CFMs of air. Using the chart on the next page, you will see that two 36 in., 1/2 HP fans will meet your requirements.
3. To calculate shutter size, take your total CFMs and divide by 600. The number is an air velocity number that means that the air is traveling at 600 feet per second. Smaller shutter openings will create a higher air velocity and create more of a breeze and larger openings will create a lower air velocity



and create less of a breeze. For example, a 30 ft. x 96 ft. greenhouse with two 36 in., 1/2 HP fans will equal $(10,308 \times 2) 20,616$ CFMs of air movement. Divide by 600 and it will equal 34.36 square feet of opening required. Therefore, you can use two 51 in. shutters, or you can use two 45 in. shutters and one 30 in. gable shutter.

4. By using two large shutters and one small gable shutter, you can stage your cooling so that on stage one of cooling, the low speed of a two speed fan

turns on, and the small gable shutter opens. This is ideal for winter cooling. On stage two of cooling, the large shutters open in addition to the small gable shutter, and the high speed of the two speed fan turns on. This is ideal for spring and fall cooling. On stage three of cooling the other fan turns on which is a single speed fan, and now that both fans are running, you have full ventilation with one air exchange per minute. This is ideal for summer cooling.

Reznor UDXC: High Efficiency Natural Gas Heaters



Pricing for Reznor UDXC Natural Gas Heaters

Model Number	BTU Input	Vent Size	Price
REZUDXC75	75,000	4"	\$1,800
REZUDXC100	100,000	4"	2,076
REZUDXC125	125,000	4"	2,320
REZUDXC150	150,000	5"	2,471
REZUDXC175	175,000	5"	2,747
REZUDXC200	200,000	5"	2,943
REZUDXC225	225,000	5"	3,499
REZUDXC250	250,000	5"	3,419
REZUDXC300	300,000	6"	4,091
REZUDXC350	350,000	6"	5,117
REZUDXC400	400,000	6"	5,506

Standard Features

- 82–83% thermal efficient
- Can be field-converted to separated combustion
- Integrated circuit board with seven-segment display
- Easily-viewed status-indicating LED
- Hinged access door panel with quarter-turn latch
- Improved cabinet design with removable front face
- Painted galvanized-steel cabinet with two-toned black and white glossy, scratch-resistant paint scheme
- Patented single-burner combustion system
- TCORE2® titanium-stabilized aluminized-steel heat exchanger
- External terminal strip for 24V wiring
- Built in disconnect switch
- Four-point suspension standard on all unit sizes
- Heater pricing includes vent pipe kit and heater hanger kit for easy installation in your greenhouse.

How to Size a Greenhouse Heating System

Here is our methodology for sizing greenhouse heating systems:

1. Determine the total exterior surface area; for example, let's use a 22 ft. wide, 96 ft. long greenhouse.
2. Start by calculating end wall surface area: 22 ft. (width) x 8 ft. (average wall height) = 176 ft. (one end) x 2 = 352 ft. (both ends).
3. Finally, calculate roof surface area. In our example, the roof uses 36 ft. wide poly. 36 ft. x 96 ft. = 3,456.
4. Multiply sq. ft. by the "U" Factor (see chart). In this example, the house is covered with 8 mm polycarbonate on the ends, which has a U Factor of .58, so $352 \times .58 = 204$.
5. The roof is covered with double poly, which has a U Factor of .7, so $3,456 \times .7 = 2,419$.
6. Next, add up the numbers. $204 + 2,419 = 2,623$
7. Next multiply 2,606 by "Delta-T." Delta-T is an expression of heat loss over the length of the house. We use a Delta-T of 70, the highest, to insure plenty of heat. So, $2,623 \times 70 = 183,619$. Since most heaters are 80% efficient, 183,610 divided by .8

= 229,513, the amount of BTUH's needed to heat the house with a heater.

8. So, we need a heater with an input of 229,513 BTUH for gas heat.

U Factors	
Single Layer Glass	1.13
Single Layer Poly	1.15
Double Layer Poly	.7
Corrugated Polycarb	1.00
8 mm Polycarbonate (2-wall)	.58
1" Thick Insulation	.14



Horizontal Air-Flow (HAF) Fans

Supporting Even Heat Distribution and Disease Suppression

HAF fans make greenhouse heating and cooling more effective by evening out temperatures throughout the structure.

It is done with gentle but high volume air circulation to eliminate hot and cold spots. The objective is a smooth flowing mass of air circulating throughout your greenhouse.

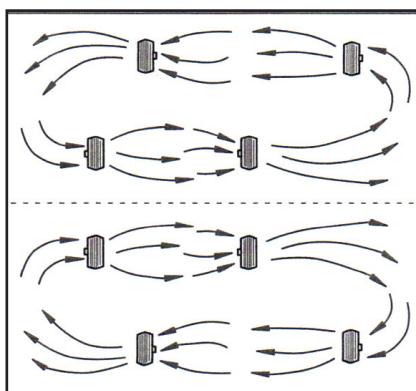
As a guideline, one fan is required every 50 feet.

Features

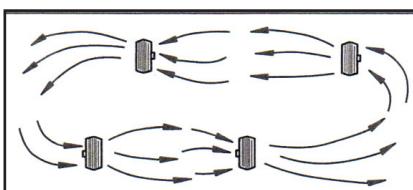
- Totally enclosed, ultra high efficiency motor with built-in thermal protection and selfaligning sleeve bearings
- Quiet and maintenance free
- OSHA approved
- 2 year warranty
- Mounting brackets included



Multi-Bay Greenhouse



Single Greenhouse



12" variable speed fan recommended for greenhouses that need more control with air flow.



20" fan recommended for larger greenhouses and for maximum air circulation.

Model	Size	CFMs	Volts	Amps	Price
JDVBG12	12"	2,600	115/230	1.12/.56	\$210
JDVDB20G	20"	5,080	115/230	3.64/1.82	235

Environmental Control Systems

From Simple to Sophisticated — Automate Your Heating and Cooling for Better Greenhouse Management



Thermostats

TSTAT1STAGE	Single-stage	\$86
TSTAT2STAGE	Two-stage	173

Basic Controls: Thermostats

Thermostats are an inexpensive way to turn on and off equipment based on temperature.

Each piece of equipment (i.e., each heater) will need its own thermostat for control. The exception would be an exhaust fan and shutter combination, which would only need 1 thermostat to control both pieces of equipment. However, each exhaust fan/shutter combination requires its own thermostat.

For example:

- If a high tunnel had 1 heater, 1 exhaust fan and 1 shutter, it would require 2 thermostats: 1 for the heater, 1 for the fan/shutter combination.
- If it had 2 fans and 2 shutters, it would require 2 thermostats: 1 for each exhaust fan/shutter combination.

Thermostats cannot control roll-up sides.

Upgraded Controls: Advancing Alternatives VCU2-24

With a fairly inexpensive controller from Advancing Alternatives, you can motorize and control your roll-up sides and run them based on temperature. The VCU2-24 controller has several set points such as desired temperature, run time, idle time, and overrides. Not only does this control system more accurately control your tunnel's temperature for better yields, it is a labor saver from manually opening and closing your rollup sides.

Roll-Up Sides Controls	
VCU2-24	\$1,250
Motors & Adapters for (1) Pair of Roll-Up Sides	985



Environmental Control Systems

From Simple to Sophisticated — Automate Your Heating and Cooling for Better Greenhouse Management

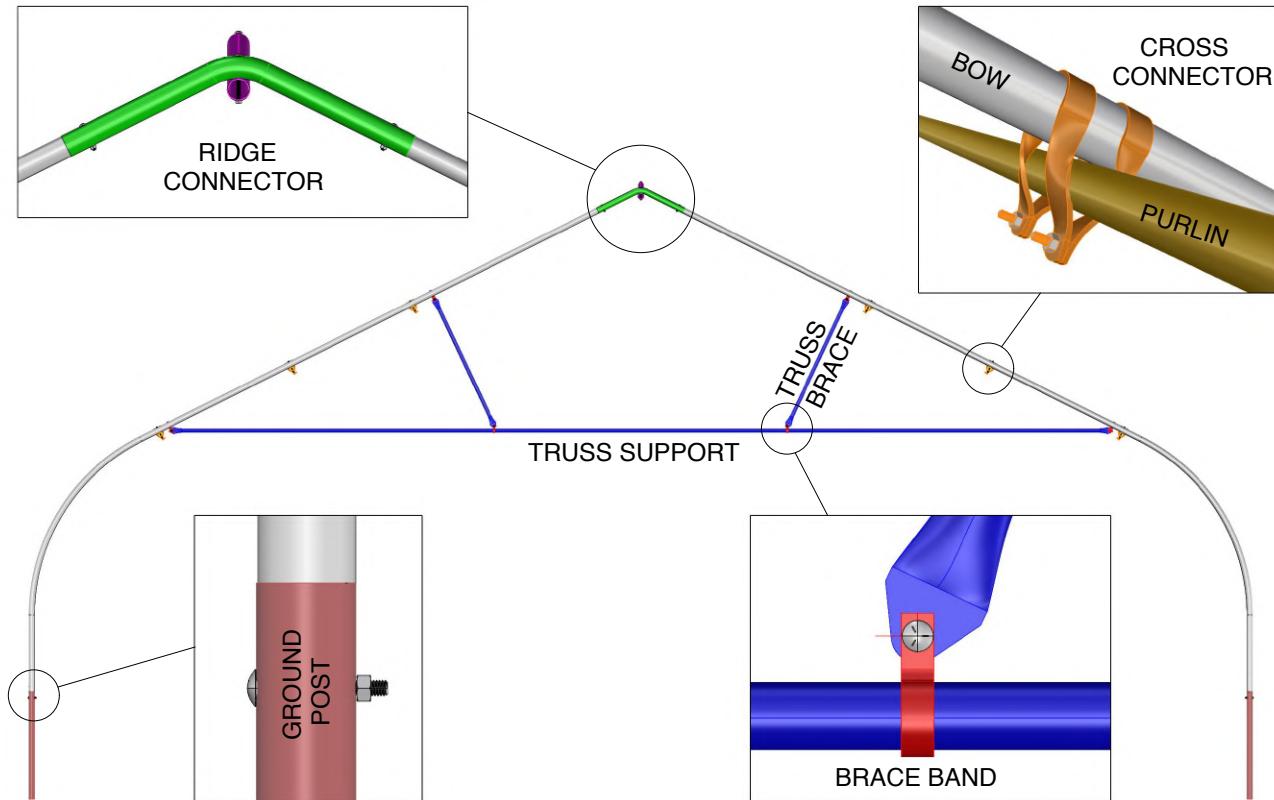
Advanced Controls: Bartlett Instruments Environmental Controls Packages

With an environmental controls system from Bartlett Instruments, all of your high tunnel equipment is controlled by a central unit. This controller has many setpoints for individual pieces of equipment and be controlled based on time, temperature and humidity.

All your equipment works together, so there is no chance for the vents to be open with the heat running. The unit captures information so you can look back and make data-driven decisions about your greenhouse management, modifying setpoints accordingly.



Bartlett Instruments Packages		
Climate Boss Controller	Powerful environmental controller able to control heating, fans and shutters based on time, temperature and humidity.	\$1,550
Vent Boss Controller	Add-on to control roll-up sides.	650
Weather Boss	Optional upgrade that allows programming based on wind/rain sensing.	1,380
Remote Access	Optional subscription that allows remote access to your controls system.	50/mo.



All truss supports located at 8 ft. above ground level.

Rimol Greenhouses are Built to Last

Rock-solid construction – it's all about strength and durability.

This diagram shows how every bow is constructed with a truss support system on our Northpoint and Nor'Easter greenhouses. Since we include the truss assemblies with every bow, this virtually doubles the strength of every bow. Notice how all of the possible weak points have all the stress transferred to other parts of the frame. In addition to the strength attributes, the truss assembly provides an ideal location to hang swaged tubing for hanging baskets or vegetable supports.



This is a cross connector that is used to attach purlin pipe to bows or swaged tubing to truss supports. Since the purlins are attached to the bows in this manner, virtually all of the strength of the steel is maintained. Most other greenhouse companies drill a hole through the bow and the purlin which creates a weak spot. This weak spot will eventually cause a failure as the greenhouse ages.

The Rimol Difference

Detail-Driven vs. "Cutting Corners"

At Rimol Greenhouses, our products go above and beyond the “cookie cutter” greenhouse structures offered by our competitors. We have spent 30 years designing greenhouses that are stronger, more durable and easier to construct than anything else on the market — ensuring that our customers get the most value from their investment.



Built for Harsh Winter Climates

All Rimol Greenhouse frames have been load tested and certified for snow load requirements. Our greenhouses have a 6:12 roof pitch for the best snow slide.

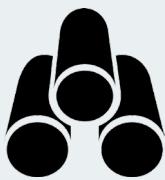
The competition may make these claims, but they cannot back it up with engineering standards. Many only offer a 5:12 roof pitch or an oval-shaped design.



Braced to Stand Up to High Winds

Rimol Greenhouse frames have been load tested and certified for wind load requirements. Wind bracing kits for all four corners are included as part of our greenhouse packages with two braces or more per corner.

Other manufacturers don't offer wind bracing or charge extra for it, and some have only one brace per corner.



Longer-Lasting Steel

Rimol bows are G90 galvanized steel, meaning they are specially coated for corrosion resistance, extending their service life.

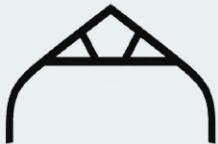
Most manufacturers only offer G60 galvanized steel bows. The service life of a G90 bow is approximately 1.5 times that of a G60 bow.



More Durable Hardware

All Rimol products are built with specialized coated tek screws that provide top-of-the-line strength, corrosion resistance and easier handling. The coating on these screws is 50% stronger than a typical coated screw.

No other greenhouse manufacturer in the market today offers this hardware!



Extra Structure Support Is Built In

4' bow spacing with trusses on every bow is our standard. Rimol structures are also built with a single-piece half-bow, making them stronger than anything on the market.

Many competitors do not offer trusses or only have them on every other bow. Competitors may only offer 5-6' bow spacing and use a multi-piece half bow.



Stronger Purlin to Bow Connections

Rimol uses a cross connector to connect purlins to our greenhouse bows. We do not cut corners with cheaper straps or weaken bows by drilling them.

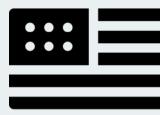
The competition through-bolts purlins or attaches purlins to the bow using a two-hole pipe strap. This weakens the structure, especially in wind and snow.



Designed for Ease of Installation

Every Rimol Greenhouse comes with a comprehensive instruction manual complete with photos. Color-coded parts make it easy to follow each step, and the Rimol team is always available for live installation support.

Most companies provide instructions that are vague or confusing, and support takes days to return a phone call.



Manufactured in the USA with American-Made Steel

All of our structures are proudly built and fabricated in our factory in Hooksett, NH with American-made steel. We source all of our parts from trusted manufacturers.

Our competitors cut corners using cheaper components or foreign steel.



Rimol Greenhouse Systems

Structure Pricing Guide

	Frame	Base Package Upgrades					Ventilation	
		Base Package (Includes Frame, Double Poly for Roof, Woven Poly End Walls)	Steel End Wall Framing	IR Poly for Roof	Polycarbonate End Walls	Polycarbonate Baseboard	Roll-Up Sides	Gear Box Kit
Eastpoint	18x48	\$5,280	1,141	196	1,428	1,187	819	336
	18x72	\$7,634		466		1,733	1,055	473
	18x96	\$9,818		684		2,247	1,292	473
	20x48	\$5,820		150	1,544	1,187	819	336
	20x72	\$8,369		608		1,733	1,055	473
	20x96	\$10,655		751		2,247	1,292	473
Northpoint	22x48	\$6,485	1,475	147	2,153	1,187	819	336
	22x72	\$9,171		213		1,733	1,055	473
	22x96	\$11,797		690		2,247	1,292	473
	26x48	\$7,351		147	2,344	1,187	819	336
	26x72	\$10,436		637		1,733	1,055	473
	26x96	\$13,465		831		2,247	1,292	473
Nor'Easter	30x48	\$8,474	2,053	234	2,557	1,187	819	336
	30x72	\$12,049		639		1,733	1,055	473
	30x96	\$15,579		965		2,247	1,292	473
	34x48	\$9,703		248	2,746	1,187	819	336
	34x72	\$13,871		720		1,733	1,055	473
	34x96	\$17,936		1100		2,247	1,292	473



Rimol Greenhouse Systems

High Tunnel Quote Worksheet

Component	Quantity	Unit Price	Subtotal
Frame			
Base Package:			
Doors			
First Door:			
Second Door:			
Base Package Upgrades			
Steel End Wall Framing			
IR Poly			
Polycarbonate End Walls			
Polycarbonate Baseboard			
Natural Ventilation Option			
Roll-Up Sides			
Gear Box Kit			
Mechanical Ventilation Option			
Wall Fans – Size(s):			
Shutters – Size(s):			
Gas Heat Option			
Heater – Size:			
HAF Fans – Size:			
Environmental Control Systems			
Controller Package:			
GRAND TOTAL			