



FOUR SEASON TOOLS

PROFESSIONAL PRODUCTS & SERVICES
FOR COMMERCIAL FARMERS

SMALLFARMTOOLS.COM

(816)444-7330



The Fourth Season with Four Season Tools

Over the last decade, the team at Four Season Tools has been on the forefront of innovation and implementation of systems and solutions for year-round organic vegetable production. Our farmers and engineers have identified the gaps between the existing products and efficient systems needed for small-scale food production.

With the launch of this catalog, we are able to offer established scale-appropriate products alongside a whole new line of industry leading and ground breaking season extension technologies.

Greg Garbos
Founder & President



Section	Page #	TABLE OF CONTENTS	
What We Offer	3	Sidewall Ventilation	35
High Tunnels	5	Ridge & Roof Vents	37
High Tunnel Upgrades	11	Vent Automation	38
Project Profile: City Bitty Farm	13	Irrigation	39
Movable Buildings For Livestock	15	Radiant Benchtop Heating	41
Additional Tunnels	17	Books & DVDs	42
What Is Season Extension?	19	Project Profile: Turner Farm	43
Anchoring & Movable Tunnel Parts	21	Our System	45
Endwalls & Doors	23	Low Tunnels / DIY Tunnels	47
Project Profile: True Leaf Gardens	25	Seed Starting Equipment	49
Bracing Kits	27	Cultivation & Harvest Tools	51
Trellising Kits	28	Trays & Bins	53
Shelving & Benches	29	Post-Harvest Tools	54
Overhead Trolley Systems	30	Resources	55
Project Profile: Brooklyn Grange	31	Thank You	57
Plastic & Air Inflation	33	Online Ordering	59
Polycarbonate & Shade Cloth	34	Order Forms	61

FEATURED IN



HOW TO ORDER FROM FST

Online

Visit www.smallfarmtools.com to see our complete offering of products and services. Purchase is available through our online store.

Mail & Fax

Use the included order form to denote which products and quantities you would like to purchase.

Fax orders to **(888) 704-0037**

Mail orders to:

Four Season Tools
9615 Grandview Road
Kansas City, MO 64137

Telephone

For support through the ordering process, FST can be reached at **(816) 444-7330**.

WHO WE ARE

We are a product development and manufacturing company run by farmers that serves year-round commercial market farmers. We focus on scale-appropriate, systems-based technologies. We build our systems to order and focus on developing products suited for the individual. We utilize vendors around the country to provide our complete offering. At this time, we do not have a retail location, but we invite you to view and purchase items at our website or using the included order form.



TURN-KEY SOLUTIONS

- Design-Build Services
- Standardized and Systemized Technology for Year-Round Vegetable Production
- Pre-engineered High Tunnel Structures and Systems Optimized for Small-Scale Production
- Packaged Season Extension Solutions



MOVABLE HIGH TUNNELS

- Industry-Leading Designs
- Patented V-Track System
- Pipe Skid Movable System
- Pipe Track Movable System
- Modular High Tunnels
- Removable Endwalls for Perennial Production



FIXED HIGH TUNNELS

- Propagation Houses
- In-ground Production
- Equipment Storage
- Washing & Packing Stations
- Seasonal Flexibility
- Custom Structures Optimized Around Your Operation



STRUCTURES FOR LIVESTOCK

- Movable Hoop Coops
- Movable Chickshaws
- Predator-Proof Structures for Poultry, Cattle, Goats, and Sheep
- Movable Structures that Integrate into Existing Pasture-Based Models

HIGH TUNNEL OPTIONS & UPGRADES

- Automated Ventilation Options
- Integrated Shelving and Free-Standing Benches
- Radiant Heating Systems
- Movable System Conversion Kits
- Prefabricated Endwalls and Full Metal Construction



HIGH TUNNEL COMPONENTS & HARDWARE

- Hardware Kits for High Tunnel Construction & Repair
- High Tunnel Pipe, Connectors, and Brackets
- High Tunnel Braces and Bracing Kits
- Trellis and Overhead Irrigation Kits



HORTICULTURAL SUPPLIES

- Full-Service Horticultural Supplier
- Products and Materials for Market Farmers
- Products Available from Distributors Around the Country
- Knowledgeable Sales and Product Support



EDUCATIONAL WORKSHOPS & EVENTS

- Workshops on Year-Round Vegetable Production
- Field Days and Farm Tours
- Conference Presentations and Lectures
- Farm Dinners and Special Events





30ftW x 48ftL V-Track High Tunnel with Wide Open Endwalls and 30ftW x 48ftL Fixed High Tunnel with Metal Endwall with Double Hinged Doors

ABOUT FST HIGH TUNNELS

Four Season Tools' 238 series high tunnels feature 13-14ga 2-3/8in galvanized steel construction. The category is broken down into three series based on the features shared by kits within the series. Kits are distinguished within the series primarily by their moving system.

FST Moving Options

The main difference between FST movable high tunnels and our competitors' models is the design process. Our movable systems were not viewed as an afterthought. Our tunnels were designed around our movable systems. This means more significant bracing kits, stronger frames, and more substantial anchoring system.

- **V-Track Moving System** – Our premier moving system features our patented integrated anchoring system, providing the most robust anchoring and moving system available. In addition to its incredible strength, the V-Track

moving system is our easiest to move, requiring only human power in most cases.

- **Pipe Skid Moving System** – This FST original design features 2-3/8in pipe skids that allow the tunnel to be dragged like a sled. This flexible and durable moving system requires more horsepower to move, but allows more position options and even lateral movement with the optional upgrade.
- **Pipe Track Moving System** – This simple system relies on a pipe and a series of rollers to allow for easy movement using human power. Earth anchoring provides adequate support to the structure when not moving.
- **Fixed Tunnels** – Not to be overlooked, the FST fixed high tunnel option provides excellent space for in-ground growing or transplant production. With the same frame components, FST fixed high tunnels are the strongest high tunnel frames on the market.



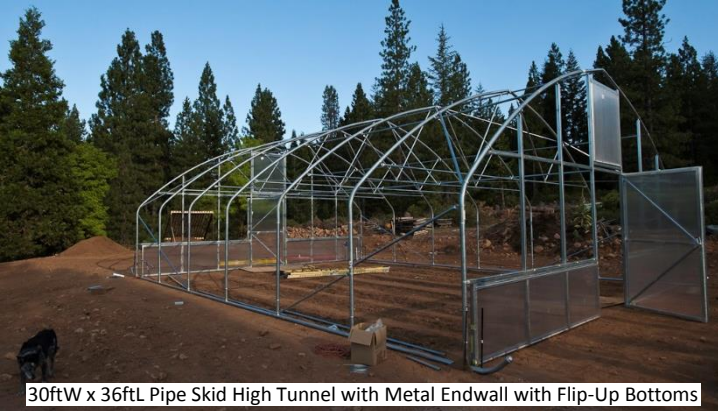
How the Process Works

Four Season Tools is a high tunnel manufacturer and distributor of horticultural products. Every kit is built to order, meaning clients must anticipate a 3-6 week lead time for any tunnel or fabricated kit purchase. Alongside the offering in this catalog, we provide comprehensive quoting services to ensure that you receive the tunnel and systems best suited to your needs.

This also means that many of our offerings are restricted by our distribution practices. We are not a retail operation and will not be able to distribute many things in small quantities.

SPECIFICATIONS

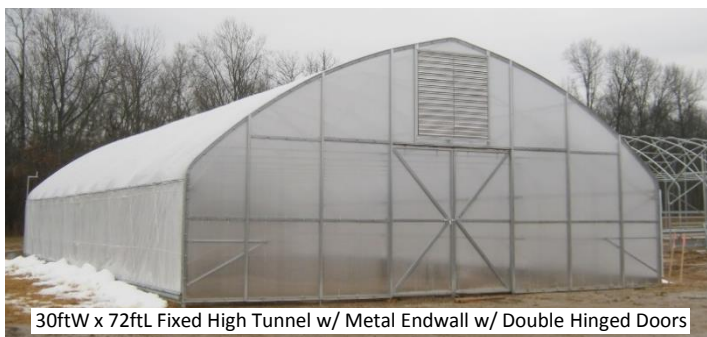
- **Widths:** Available in 16, 22, and 30ft
- **Hoop Spacing:** 6ft Center-to-Center
- **Sidewall Height:** Tall Sidewalls for 8ft Trellis Height
- **Sidewall Ventilation:** Manual Metal Roll-Up
- **Hoop Material:** 2-3/8in OD Galvanized Steel (13ga – sidewalls 14ga Roof)
- **Bracing Kit:** 1.315in OD 14ga Galvanized Steel Corner Bracing (Fixed & Movable), Cable X & Ridge Bracing (Movable)
- **Truss Kit:** W-Truss
- **Movable Anchoring:** 1/8in Galvanized Cable Anchoring and Exterior Earth Anchors
- **Endwall Material:** 2in (1.5in for 16ftW) OD Prefabricated Galvanized Steel. Fixed tunnels come with single hinged door endwalls (N-641-67). Movable tunnels come with single hinged door Flip-Up bottom endwalls (N-671-67).
- **Sidewall Material:** Aluminum Hip Boards and Galvanized Steel Base Boards
- **Roof Geometry:** Gable (16ftW) and Gothic (22 & 30ftW)
- **Covering:** 6mil Greenhouse Film
- **Endwall Covering:** 8mm Twin-Wall Polycarbonate



30ftW x 36ftL Pipe Skid High Tunnel with Metal Endwall with Flip-Up Bottoms

Optional Upgrades – Pages [11-12](#)

- Structural Upgrades – Additional Hoops, Bracing, & Purlins
- Double-Layer Air Inflation or Shade Cloth
- Irrigation Upgrades – Overhead & Drip Kits
- Sidewall Ventilation – Upgrade to Drop Down or Add Gutters
- Ridge Ventilation – Add Roof Ventilation System
- Ventilation Automation – Temperature Controlled Motor
- Many More Options Found in Corresponding Catalog Section including – Endwalls & Doors, Trellising, Shelving & Benches



30ftW x 72ftL Fixed High Tunnel w/ Metal Endwall w/ Double Hinged Doors

238M SERIES – HIGH TUNNEL PACKAGES WITH METAL ENDWALLS & SIDEWALLS

DESCRIPTION	SIZE OF STRUCTURE (ft)				
	16 x 24	22 x 48	30 x 48	30 x 72	30 x 96
Fixed High Tunnel	K-116-16x24F	K-117-22x48F	K-113-30x48F	K-114-30x72F	K-115-30x96F
Movable High Tunnel on Pipe Skids	K-216-16x24PS	K-217-22x48PS	K-213-30x48PS	K-214-30x72PS	K-215-30x96PS
Movable High Tunnel on V-Track w/ 2-Positions	K-316-16x24VT2	K-317-22x48VT2	K-313-30x48VT2	K-314-30x72VT2	K-315-30x96VT2
Movable High Tunnel on V-Track w/ 3-Positions	K-416-16x24VT3	K-417-22x48VT3	K-413-30x48VT3	K-414-30x72VT3	K-415-30x96VT3
Movable High Tunnel on Pipe Track w/ 2-Positions	K-516-16x24PT2	K-517-22x48PT2	K-513-30x48PT2	K-514-30x72PT2	K-515-30x96PT2
Movable High Tunnel on Pipe Track w/ 3-Positions	K-616-16x24PT3	K-617-22x48PT3	K-613-30x48PT3	K-614-30x72PT3	K-615-30x96PT3



Three 30ftW x 48ftL Skid High Tunnels with Tall Sidewalls, Truss Kits, and Wooden Endwalls

HIGH TUNNEL OPTIONS FROM FST

We believe it is important to get a tunnel that will function in a way that matches the needs of your farm. That is why we have created such a wide offering of features available on FST high tunnels.

Size Options

With several width and length options, the covered space inside your tunnel can take many different forms. The size of your high tunnel will be defined by your budget, management potential, and farm layout.

Movable Options

With our multiple moving systems, you can achieve a new level of flexibility on your farm. The intended use of the high tunnel on your farm will dictate what type of moving system, if any, is best.



✔ Visit www.smallfarmtools.com/pages/contact-us to request a quote for a tunnel specific to your needs.

Material Options

FST structures can feature wood or metal endwall and sidewall construction. The benefit of metal is that it does not need to be replaced over time. Wood is often available locally and can be a more affordable option initially for many individuals. As with anything, there are advantages to each option, and it is important to consider how the different materials will work for you.

Ventilation Options

With several sidewall, endwall, and peak ventilation options, FST tunnels can function in any climate. It is important to be aware of the climatic qualities of your farm in order to ensure your tunnel features the appropriate ventilation options. This will prevent damage to crops from overheating and excessive cooling.

Customize Your FST High Tunnels

- Additional Bracing & Anchoring
- Double-Layer Air Inflation Kit – Maximize insulation with an additional layer of plastic. Ideal for heated tunnels.
- Automated Sidewall and Peak Ventilation – Worry-free ventilation management.
- Roof Ventilation – Plug-in roof vents or ridge vents maximize ventilation directly from the peak, releasing the hottest air quickly and efficiently.
- Multiple Endwall Designs – Several endwall designs featuring multiple entrance and ventilation options.
- Integrated Shelves and Benches – For fixed tunnels used for transplant production.
- Off-the-Grid Upgrade – Automate your systems using solar or wind power.



Solar-Powered Automated High Tunnel

Optional Upgrades – Pages [11-12](#)

- Structural Upgrades – Additional Hoops, Bracing, & Purlins
- Double-Layer Air Inflation or Shade Cloth
- Irrigation Upgrades – Overhead & Drip Kits
- Sidewall Ventilation – Upgrade to Drop Down or Add Gutters
- Ridge Ventilation – Add Roof Ventilation System
- Ventilation Automation – Temperature Controlled Motor
- Many More Options Found in Corresponding Catalog Section including – Endwalls & Doors, Trellising, Shelving & Benches



Three 30ftW x 48ftL Skid High Tunnels with Wooden Endwall Construction

SPECIFICATIONS

- **Widths:** Available in 16, 22, and 30ft
- **Hoop Spacing:** 6ft Center-to-Center
- **Sidewall Height:** 5ft Sidewalls (Fixed), Tall Sidewalls for 8ft Trellis Height (Movable)
- **Sidewall Ventilation:** Manual Wooden Roll-Up
- **Hoop Material:** 2-3/8in OD Galvanized Steel (13ga – sidewalls 14ga Roof)
- **Bracing Kit:** 1.315in OD 14ga Galvanized Steel Corner Bracing (Fixed & Movable), Cable X & Ridge Bracing (Movable)
- **Truss Kit:** V-Truss (Fixed) or W-Truss (Movable)
- **Movable Anchoring:** 1/8in Galvanized Cable Anchoring and Exterior Earth Anchors
- **Endwall Material:** Lumber (**not included**)
- **Sidewall Material:** Lumber (**not included**)
- **Roof Geometry:** Gable (16ftW) and Gothic (22 & 30ftW)
- **Covering:** 6mil Greenhouse Film
- **Endwall Covering:** 6mil Greenhouse Film

238W SERIES –HIGH TUNNEL PACKAGES WITH WOODEN ENDWALLS & SIDEWALLS

DESCRIPTION	SIZE OF STRUCTURE (ft)				
	16 x 24	22 x 48	30 x 48	30 x 72	30 x 96
Fixed High Tunnel	K-101-16x24F	K-102-22x48F	K-103-30x48F	K-107-30x72F	K-108-30x96F
Movable High Tunnel on Pipe Skids	K-203-16x24PS	K-204-22x48PS	K-205-30x48PS	K-206-30x72PS	K-207-30x96PS
Movable High Tunnel on V-Track w/ 2-Positions	K-303-16x24VT2	K-304-22x48VT2	K-305-30x48VT2	K-306-30x72VT2	K-307-30x96VT2
Movable High Tunnel on V-Track w/ 3-Positions	K-403-16x24VT3	K-404-22x48VT3	K-405-30x48VT3	K-406-30x72VT3	K-407-30x96VT3
Movable High Tunnel on Pipe Track w/ 2-Positions	K-506-16x24PT2	K-507-22x48PT2	K-508-30x48PT2	K-509-30x72PT2	K-510-30x96PT2
Movable High Tunnel on Pipe Track w/ 3-Positions	K-606-16x24PT3	K-607-22x48PT3	K-608-30x48PT3	K-609-30x72PT3	K-610-30x96PT3



16ftW x 24ftL Movable High Tunnel with Wooden Endwall Construction

WHAT YOU GET FROM FST

When you purchase a high tunnel from Four Season Tools, you are not just buying a structure. We pride ourselves on our extensive offerings and top-notch customer service.

High Tunnel Kit

The purchase of a high tunnel kit from FST includes the high tunnel frame, all necessary hardware, specified ventilation systems, anchoring and bracing kits, covering materials, and any optional upgrades.

Documentation

With your high tunnel, you will receive paper and electronic installation documentation, including installation

instructions, CAD drawings, and access to our online archive of installation videos.

Add-ons

We work with a variety of suppliers and can arrange the shipment of equipment and supplies with your high tunnel.

Support

We are here to support you during every step of the process. We will assist you in determining the right structure, completing the purchase, and through the installation of your high tunnel. We look forward to growing with you, and are excited to provide you with horticultural supplies and other professional services long after your tunnel is erected.



Fixed High Tunnel with Ridge Vent Upgrade

Who You are Buying From

We are not just high tunnel manufacturers. We are farmers, engineers, builders, chefs, and teachers. We have diverse backgrounds but share a specific passion in small-scale agriculture. We are dedicated to making your farm as productive and profitable as possible and believe it is our duty to serve those working to improve our food system.





SPECIFICATIONS

- **Widths:** Available in 16, 22, & 30ft
- **Hoop Spacing:** 6ft Center-to-Center
- **Sidewall Height:** 5ft
- **Sidewall Ventilation:** Manual Wooden Roll-Up
- **Hoop Material:** 2-3/8in OD Galvanized Steel (13ga – sidewalls 14ga Roof)
- **Bracing Kit:** 1.315in OD 14ga Galvanized Steel Corner Bracing
- **Truss Kit:** No Truss, Single-Piece Collar Tie, or V-Truss
- **Movable Anchoring:** 1/8in Galvanized Cable Anchoring and Exterior Earth Anchors
- **Endwall Material:** Lumber (**not included**)
- **Sidewall Material:** Lumber (**not included**)
- **Roof Geometry:** Gable (16ftW) and Gothic (22 & 30ftW)
- **Covering:** 6mil Greenhouse Film
- **Endwall Covering:** 6mil Greenhouse Film

Optional Upgrades – Pages [11-12](#)

- Structural Upgrades – Additional Hoops, Bracing, & Purlins
- Double-Layer Air Inflation or Shade Cloth
- Irrigation Upgrades – Overhead & Drip Kits
- Sidewall Ventilation – Upgrade to Drop Down or Add Gutters
- Ridge Ventilation – Add Roof Ventilation System
- Ventilation Automation – Temperature Controlled Motor
- Many More Options Found in Corresponding Catalog Section including – Endwalls & Doors, Trellising, Shelving & Benches



238B SERIES –BASIC HIGH TUNNEL PACKAGES

DESCRIPTION	SIZE OF STRUCTURE (ft)				
	16 x 24	22 x 48	30 x 48	30 x 72	30 x 96
Fixed High Tunnel	K-104-16x24F	K-105-22x48F	K-110-30x48F	K-111-30x72F	K-112-30x96F
Movable High Tunnel on Pipe Skids	K-201-16x24PS	K-202-22x48PS	K-210-30x48PS	K-211-30x72PS	K-212-30x96PS
Movable High Tunnel on V-Track w/ 2-Positions	K-301-16x24VT2	K-302-22x48VT2	K-310-30x48VT2	K-311-30x72VT2	K-312-30x96VT2
Movable High Tunnel on V-Track w/ 3-Positions	K-401-16x24VT3	K-402-22x48VT3	K-410-30x48VT3	K-411-30x72VT3	K-412-30x96VT3
Movable High Tunnel on Pipe Track w/ 2-Positions	K-504-16x24PT2	K-505-22x48PT2	K-501-30x48PT2	K-502-30x72PT2	K-503-30x96PT2
Movable High Tunnel on Pipe Track w/ 3-Positions	K-604-16x24PT3	K-605-22x48PT3	K-601-30x48PT3	K-602-30x72PT3	K-603-30x96PT3

STRUCTURAL UPGRADES FOR HIGH TUNNELS KITS (238B, 238W, & 238M SERIES)

DESCRIPTION	LENGTH OF STRUCTURE			
	24ft Long	48ft Long	72ft Long	96ft Long
Upgrade from 6ft Hoop Spacing to 4ft Spacing – Fixed Kits	U-101-41	U-102-41	U-103-41	U-104-41
Upgrade from 6ft Hoop Spacing to 4ft Spacing – Movable Kits	U-106-41	U-107-41	U-108-41	U-109-41
Shoulder Brace Upgrade (Interior Hoops) – 6ft Hoop Spacing	U-111-41	U-112-41	U-113-41	U-114-41
Shoulder Brace Upgrade (Interior Hoops) – 4ft Hoop Spacing	U-116-41	U-117-41	U-118-41	U-119-41
Additional Purlins (Purlins, Purlin Ends, & Hardware)	U-121-41	U-122-41	U-123-41	U-124-41
Set of 4 Endwall Braces (2 per Endwall)	U-131-41			

AIR INFLATION & SHADE CLOTH UPGRADES FOR HIGH TUNNEL KITS (238B, 238W, & 238M)

DESCRIPTION	SIZE OF STRUCTURE (ft)				
	16 x 24	22 x 48	30 x 48	30 x 72	30 x 96
Air Inflation Upgrade	U-201-78	U-203-78	U-205-78	U-207-78	U-209-78
Shade Cloth – 30%	U-211-72	U-213-72	U-215-72	U-217-72	U-219-72
Shade Cloth – 50%	U-221-72	U-223-72	U-225-72	U-227-72	U-229-72
Shade Cloth – 70%	U-231-72	U-233-72	U-235-72	U-237-72	U-239-72

IRRIGATION UPGRADES FOR HIGH TUNNELS KITS (238B, 238W, & 238M SERIES)

DESCRIPTION	LENGTH OF STRUCTURE			
	24ft Long	48ft Long	72ft Long	96ft Long
Manual Overhead Irrigation Kit: 1-Zone	I-741-76	I-741-76	I-741-76	N/A
Automated Overhead Irrigation Kit: 1-Zone	I-742-76	I-742-76	I-742-76	N/A
Manual Overhead Irrigation Kit: 2-Zones	I-743-76	I-743-76	I-743-76	I-745-76
Automated Overhead Irrigation Kit: 2-Zones	I-744-76	I-744-76	I-744-76	I-746-76
Drip Irrigation Kit: For Kits Up 1,600ft² (2 Lines / 30in Bed)	I-501-76			
Drip Irrigation Kit: For Kits Up 1,600-3,000ft² (2 Lines / 30in Bed)	N/A		I-502-76	

SIDEWALL VENTILATION UPGRADES FOR HIGH TUNNELS KITS (238B & 238W SERIES)

DESCRIPTION	LENGTH OF STRUCTURE			
	24ft Long	48ft Long	72ft Long	96ft Long
Upgrade Wooden Roll-up to Metal Roll-up Sidewalls	U-401-74	U-402-74	U-403-74	U-404-74
Upgrade Wooden Roll-up to Metal Roll-up Sidewalls with Gutters	U-411-74	U-412-74	U-413-74	U-414-74
Change Wooden Roll-up to Wooden Drop-Down Sidewalls	U-421-74	U-422-74	U-423-74	U-424-74
Change Wooden Roll-up to Metal Drop-Down Sidewalls	U-431-74	U-432-74	U-433-74	U-434-74
Change Wooden Roll-up to Metal Drop-Down Sidewalls with Gutters	U-441-74	U-442-74	U-443-74	U-444-74

SIDEWALL VENTILATION UPGRADES FOR HIGH TUNNELS KITS (238M SERIES)

DESCRIPTION	LENGTH OF STRUCTURE			
	24ft Long	48ft Long	72ft Long	96ft Long
Upgrade Metal Roll-up to Metal Roll-up Sidewalls with Gutters	U-451-74	U-452-74	U-453-74	U-454-74
Change Metal Roll-up to Metal Drop-Down Sidewalls	U-461-74	U-462-74	U-463-74	U-464-74
Change Metal Roll-up to Metal Drop-Down Sidewalls with Gutters	U-471-74	U-472-74	U-473-74	U-474-74

RIDGE VENTILATION UPGRADE FOR HIGH TUNNELS KITS (238B, 238W, & 238M SERIES)

DESCRIPTION	LENGTH OF STRUCTURE			
	24ft Long	48ft Long	72ft Long	96ft Long
Upgrade to Manual Ridge Vent	V-251-46	V-252-46	V-253-46	V-254-46

VENTILATION AUTOMATION UPGRADES (238B, 238W, 238M)

DESCRIPTION	
Automated Endwall Peak Vents (2 Linear Actuators / 1 Thermostat)	V-133-46
Upgrade to Automated Roll-up Sidewalls (2 Tube Motors / 1 Controller)	V-482-46
Upgrade to Automated Drop-Down Sidewalls (2 Motors / 1 Controller)	V-492-46
Upgrade to Automated Ridge Vent (1 Tube Motor / 1 Controller)	V-259-46





Owned and operated by FST President and co-founder, Greg Garbos, and his wife, Jen, City Bitty Farm is a gem in the heart of Kansas City, Missouri. Sitting on a 2-acre lot in the city, City Bitty Farm provides local restaurants with high-quality, naturally grown specialty greens and vegetables. In his custom-built, 25ftW x 30ftL greenhouse, Greg and his family utilize every inch of space to make the most of the itty bitty space.

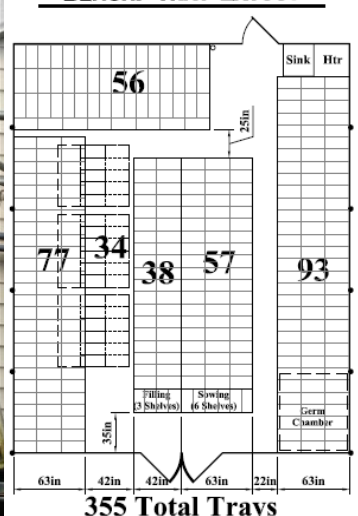
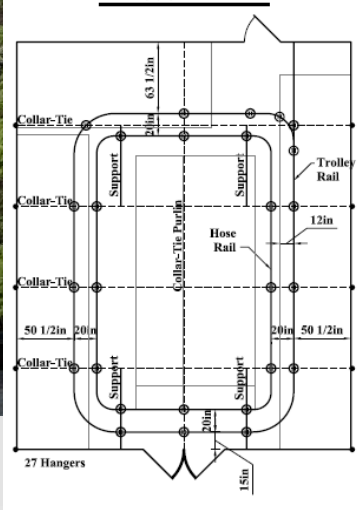
Microgreens, petite greens, and other specialty crops have allowed CBF to carve a niche in the urban agriculture scene in Kansas City. Greg's greens are now sought out by James Beard award-winning chefs and top-notch restaurateurs in and around Kansas City. In addition to this, CBF has proven to be a model for urban agricultural practices, influencing the development of regulations and language in the city's code. By hosting several high-caliber events and visits from individuals from all over the country, CBF has proven to be a valuable contributor to Kansas City and urban agriculture as a whole.

But what makes CBF most unique is the amount of production from the limited space. To achieve this, Greg has

developed and implemented numerous techniques and technologies that maximize efficiency and profit.

Inside the structure, vertical space is used for storage, germination, and growth. His free-standing benches are on tracks, allowing a flexible layout of benches and walkways. The sidewalls feature integrated shelves for bench top growing and workspace. Roll-out benches tucked beneath the shelves and free-standing benches provide a perfect environment for germination.



BENCH/TRAY LAYOUT**TROLLEY LAYOUT**

☑ To learn more about City Bitty Farm, visit www.citybittyfarm.com

Flip-up benches provide flexible surfaces and allow ready access to areas beneath the benches.

Material handling is managed with ease with the overhead trolley system. A custom-built cart holds twelve seeded trays at a time, moving them around the perimeter of the structure and to switch tracks by utilizing manual switches. An interior track supports a hose trolley, keeping hoses organized off the ground for easy access and use.

A revolutionary heating system has been installed in the greenhouse and has drastically cut heating costs, even in the dead of winter. The modular radiant bench top heating system provides heat directly to the root zone through a series of insulated tubes. When it is particularly cold, a simple floating row cover traps the heat in the immediate area surrounding the plant. Supplemental heat is rarely needed, but when it is, the double-layer outside air-inflated plastic covering adds additional insulation, ensuring that the heat that enters the greenhouse is slow to leave.

Another significant input for any greenhouse is water. Greg has developed a rainwater capture system that takes runoff and transforms it into a valuable commodity. Galvanized steel gutters are affixed to the structure at hip board height. The PVC roof-washer kit discards the first flush of water and all the contaminants within before directing the clean water into a partially buried cistern inside the greenhouse. This water provides thermal mass to regulate the temperature of the tunnel environment, as well as a valuable store of water that can be used for a variety of purposes.

City Bitty Farm has served as a location to develop and test new technologies, resulting in a hyper-efficient operation that can now be replicated anywhere. All the systems and technologies used at City Bitty are available for use on your farm. For more information on any of these systems, see the related sections in this catalog and on our website, or contact FST to talk to someone directly.



16ftW x 24ftL Movable Hoop Coop with Lateral Movement Kit

The movable **Hoop Coop** has proven to be a great year-round or seasonal predator-proof pasturing option for poultry, goats, sheep, and cattle. The Hoop Coop features our pipe skid movable system with an optional lateral movement upgrade for added flexibility.

☑ For more information regarding livestock structures, visit www.smallfarmtools.com/pages/hoop-coops

HOOP COOP SPECIFICATIONS

- **Hoop Spacing:** 6ft Center-to-Center
- **Sidewall Height:** 5ft
- **Sidewall Ventilation:** Manual Metal Roll-Up
- **Hoop Material:** 2-3/8in OD Galvanized Steel (13ga – sidewalls 14ga Roof)
- **Bracing Kit:** 1.315in OD 14ga Galvanized Steel Corner Bracing
- **Movable Anchoring:** 1/8in Galvanized Cable Anchoring and Exterior Earth Anchors
- **Truss Kit:** Single-Piece Collar Tie
- **Endwall Material:** 1.5in (2in for 20ftW) OD Prefabricated Galvanized Steel
- **Roof Geometry:** Gable (16ftW) and Gothic (20ftW)
- **Lateral Movement Option:** Additional 2-3/8in cross-bracing allows structure to move laterally. Welded pegs provide substantial support during moving.
- Predator Protection & Animal Containment materials provided by client

MOVABLE HOOP COOP KITS

DESCRIPTION	SIZE OF STRUCTURES (ft)		
	16 x 24	16 x 36	20 x 48
238W Hoop Coop Kit w/ Wood Endwalls	K-711-16x24HC	K-712-16x36HC	K-721-20x48HC
238W Hoop Coop w/ Wood Endwalls & Lateral Movement	K-731-16x24HCL	K-732-16x36HCL	K-741-20x48HCL
238M Hoop Coop Kit w/ Metal Endwalls	K-713-16x24HC	K-714-16x36HC	K-722-20x48HC
238M Hoop Coop w/ Metal Endwalls & Lateral Movement	K-733-16x24HCL	K-734-16x36HCL	K-742-20x48HCL



6ft x 6ft Chickshaw

The **Chickshaw** is a movable coop for layers and broilers designed by Eliot Coleman that provides all the benefits of pasture and complete protection during the night. Unique design allows for the coop dome to be removed, providing a utility cart for a variety of purposes. Designed for use with electrified poultry netting to allow day ranging. Kit does not include hardware cloth or roof covering. Lumber and Laying Box not included.

CHICKSHAW SPECIFICATIONS

- **Hoop Spacing:** 3 or 4ft Center-to-Center
- **Hoop Material:** 1.315 OD Galvanized Steel, Pre-welded Peak Joints
- **Wheel:** 26in Rubber Wheel on 3/4in Axle
- **Removable Dome:** For use as a utility cart
- **Day Ranging System:** Designed for use with electrified poultry netting.



CHICKSHAWS

DESCRIPTION	SIZE OF STRUCTURES (ft)	
	6 x 6	6 x 8
Chickshaw Kit	K-750-6x6CH	K-751-6x8CH

34 & 35.5ft WIDE HIGH TUNNELS

DESCRIPTION	SIZE OF STRUCTURE (ft)	
	34 x 96	35.5 x 96
Fixed High Tunnel – 238W Series	K-109-34x96F	K-118-35.5x96F
Fixed High Tunnel – 238M Series	K-119-34x96F	K-120-35.5x96F

34ft WIDE SPECIFICATIONS

- **Hoop Spacing:** 6ft Center-to-Center
- **Sidewall Height:**
 - 238W Series – 5ft Sidewalls
 - 238M Series – Tall Sidewalls for 8ft Trellis Height
- **Sidewall Ventilation:** Manual Roll-Up
- **Hoop Material:** 2-3/8in OD Galvanized Steel (13ga – sidewalls 14ga Roof)
- **Bracing Kit:** 1.315in OD 14ga Galvanized Steel Corner Bracing
- **Truss Kit:** W-Truss
- **Endwall Material:**
 - 238W Series – Lumber (**not included**)
 - 238M Series – 2in (1.5in for 16ftW) OD Prefabricated Galvanized Steel (design fees apply)
- **Sidewall Material:**
 - 238W Series – Lumber (**not included**)
 - 238M Series – : Aluminum Hip Boards and Galvanized Steel Base Boards
- **Roof Geometry:** Gothic
- **Covering:** 6mil Greenhouse Film
- **Endwall Covering:**
 - 238W Series – 6mil Greenhouse Film
 - 238M Series – 8 mm Twin-Wall Polycarbonate

35.5ft WIDE SPECIFICATIONS

- **Hoop Spacing:** 6ft Center-to-Center
- **Sidewall Height:**
 - 238W Series – 5ft Sidewalls
 - 238M Series – Tall Sidewalls for 8ft Trellis Height
- **Sidewall Ventilation:** Manual Roll-Up
- **Hoop Material:** 2-3/8in OD 13ga Galvanized Steel
- **Bracing Kit:** 1.315in OD 14ga Galvanized Steel Corner Bracing, Shoulder Bracing, and Endwall Bracing
- **Truss Kit:** 6-Piece Truss for 35.5ft Wide
- **Endwall Material:**
 - 238W Series – Lumber (**not included**)
 - 238M Series – 2in (1.5in for 16ftW) OD Prefabricated Galvanized Steel
- **Sidewall Material:**
 - 238W Series – Lumber (**not included**)
 - 238M Series – : Aluminum Hip Boards and Galvanized Steel Base Boards
- **Roof Geometry:** Gothic
- **Covering:** 6mil Greenhouse Film
- **Endwall Covering:**
 - 238W Series – 6mil Greenhouse Film
 - 238M Series – 8 mm Twin-Wall Polycarbonate

Custom Built Structures



Have a unique high tunnel need? Four Season Tools has the engineering expertise to handle your request. Custom projects require long lead times and design fees. Visit www.smallfarmtools.com/pages/contact-us and let us create the building that is perfect for you.

FST FARM PACKAGE



PRODUCT CONCEPT: We are commonly asked: What if I need to start an entire farm from scratch? What of your products and services are available internationally. We came up with the idea of a turn-key farm design developed to provide all the systems and structures necessary to start a year-round vegetable farm. Delivered in a standard shipping container, this kit would include fixed and movable season extension structures, tools and systems to manage a vegetable operation, and the supplies necessary to convert the container itself into a washing & packing structure with integrated cold storage. With a single purchase, you could start a productive and efficient four season farm. Please contact FST for more information on this unique concept.

BASIC HIGH TUNNEL FRAME

DESCRIPTION	SIZE OF STRUCTURE (ft)	
	30 x 48	30 x 96
High Tunnel Frame	K-902-30x48F	K-901-30x96F

Pared down to just the basics, these contain all the steel and hardware for a high tunnel frame. These fixed structures feature 2-3/8in OD 13-14ga galvanized steel construction, three 1-3/8in 14ga OD roof purlins, and 1-3/8in 14ga OD corner bracing. Designed to be truly economical, these kits exclude lumber, lumber hardware, plastic and plastic attachment components. This entry into high tunnel growing allows flexibility and simplicity in one economical package.



TURN-KEY GREENHOUSE KITS



These greenhouse structures were purpose designed and engineered to be the most efficient greenhouse structures available. With various options optimized for specialty greens production and 100% bench efficiency, these structures will not only provide you with an effective season extension structure, but they will also equip you with the most profitable layout possible. These kits include complete greenhouse structures, integrated shelving, free-standing benches, ventilation packages, and comprehensive hardware kit. Start a successful agricultural business with the most efficient and profitable season extension structures on the market. Contact FST for more information on our turn-key kits.

LOW RIDER MOVABLE TUNNELS

WIDTH (ft)	LENGTH OF STRUCTURES (ft)		
	48	72	96
22ft	K-252-22x48LR	K-253-22x72LR	K-254-22x96LR
30ft	K-255-30x48LR	K-256-30x72LR	K-257-30x96LR



30ftW x 72ftL Low Rider

Designed specifically for winter greens production, these low-profile structures feature 2-3/8in galvanized steel construction, single-piece collar tie, movable pipe skid system, bracing and anchoring kits, and manual roll-up sidewall ventilation. By completely removing the sidewall hoops, we have created a lighter, affordable, but functional option for winter production.

DEFINITIONS

High tunnels, hoop houses, cold frames, and greenhouses are all terms commonly used to describe season extension structures. In general terms, greenhouses are defined as more permanent structures, while high tunnels, hoop houses, and cold frames are viewed as more temporary in their anchoring and covering. The Natural Resource Conservation Service's EQUIP grant program has adopted the term high tunnel to define the terms of their program.

HIGH TUNNELS & DOUBLE COVERING

We have also decided to use the term high tunnel to define the primary structures we offer. This is due to the fact we aim to emphasize the importance of double coverings. By adding another layer of low tunnels underneath the high tunnel, the season extending properties of those materials can be maximized.

DOUBLE LAYER PLASTIC

In addition to layering with low tunnels, an additional layer of plastic can be added to the high tunnel structure. Air is blown between the layers to create an inflated pocket, which greatly increases the insulating properties of the covering. This is strongly recommended whenever a structure is heated in order to prevent the escape of the heated air. The challenge with this approach is the decreased light transmission due to multiple layers of plastic. It is important to balance the gained insulation with the decreased light transmission so that your setup supports your goals.



FIXED VS. MOVABLE

Many growers are realizing the benefits of movable season extension structures, and the confidence in these systems is well-founded. However, fixed high tunnels are not without their benefits and thought must be put into how a structure is going to be used by itself and within the whole farm system to best understand what type of structure works for you.

HIGH TUNNEL ANCHORING

With any structure, fixed or movable, proper anchoring is essential. This could be a flexible anchoring system like what is present on FST movable structures, or it could include concrete footers for fixed ground posts. Your environmental conditions will strongly determine how your tunnel must be anchored. However, one thing is always true – it is always better to over-anchor.

COVERED VS. OUTDOOR SPACE

When developing a farm plan that incorporates season extension structures, it is important to have the proper balance of covered and outdoor space and to allow the two systems to support each other. By understanding your market, your budget, and your personal goals, the amount of necessary covered space will quickly become apparent. Sometimes it is a simple equation – if you are producing your own transplants for field production, your transplant house must be large enough to accommodate the amount of starts you will need throughout the year. Additionally, your tunnels may be what supports you throughout the winter, and you must ensure you have enough covered space to serve the necessary markets throughout the winter season.

There are many other considerations when determining how season extension fits into your farm system. Visit www.smallfarmtools.com/pages/season-extension to learn more about all our structures and the systems.





Early Movable High Tunnel at Four Season Farm, ME



V-Track



Pipe-Skid



Pipe Track

For farmers and gardeners considering the use of greenhouses for the first time, as well as for those looking to expand current availability, it is important to understand the many advantages protected cultivation provides. Four Season Tools specializes in movable greenhouse technology because we feel it is a crucial component of maximizing the economic viability of diversified farms while also improving farm efficiency, increasing food security, and simply providing more delicious locally grown food year-round. The information below is meant to provide a better understanding of the many advantages of movable greenhouses.

- In soil building years, mobile greenhouses allow planting long-term, deep-rooting, leguminous green manure crops on the exposed sections.
- Avoid the increased pest pressure while also minimizing excess soil nutrients and soil borne disease issues that are often problems for stationary greenhouses.
- Plant cold hardy crops in the spring and fall/winter while still taking advantage of full season warm crop production.
- Movable greenhouses instantly control soil problems by exposing the soil to the purifying effects of sun, rain, wind, snow, and freezing temperatures.
- Eliminate the expense of cooling the greenhouse when planning for fall/winter harvestable crops. While summer crops are in the greenhouse growers can sow outdoors in the field where the greenhouse will move.
- Movable greenhouses provide the opportunity to diversify crop rotations while at the same time incorporating long-term green manures without sacrificing greenhouse cropping potential.
- Many of the crops are harvestable up to five weeks earlier and/or five weeks later than crops without greenhouse protection, thus extending the length of the marketable season by as much as 2 ½ months.



ANCHORING KITS

FST PART #	PART DESCRIPTION
M-580-52	Interior Anchoring Kit, Connects to Two Hoops <ul style="list-style-type: none">1 – Earth Auger2 – Adjustable Turn-Buckles2 – Forged Eye-Bolts1 – Set of Cables & Cable Hardware
M-581-52	Exterior Anchoring Kit, Connects to One Hoop <ul style="list-style-type: none">1 – Earth Auger1 – Adjustable Turn-Buckle1 – Forged Eye-Bolt
M-582-52 (2-3/8in)	Ski Tip Anchoring Kit (per Ski Tip) <ul style="list-style-type: none">2 – Galvanized T-Posts
M-583-52 (1-3/8in)	<ul style="list-style-type: none">2 – Welded Rings2 – Brace Bands w/ Hardware
M-584-52	Set of 4 Ground Post Anchors for 2-3/8in OD Hoops (Set of 4)
M-585-52	1.315in OD Ground Post Anchors for Endwalls (Set of 8 w/ Hardware - Excludes Post Driver)

Four Season Tools recommends purchasing tunnels that are engineered to be movable structures. Although we cannot guarantee the compatibility with non-FST structures, we offer a variety of movable conversion kits and anchoring kits for movable structures. Movable conversion kits include anchoring hardware.

Considerations:

- It is the client’s responsibility to follow all local building codes.
- It is always wise to over-anchor structures to avoid damage from environmental conditions.
- Additional bracing may be required for the structure to withstand the forces during moving.
- Prior to purchasing an anchoring or conversion kit, we recommend discussing your options with a FST team member.

☑ For more information on the movable systems, visit www.smallfarmtools.com/pages/high-tunnels

PARTS

FST PART #	PART DESCRIPTION
M-373-55	V-Track Rollers w/ 6in Bolts (Set of 2)
M-376-55	Pipe Track Rollers w/ 6in Bolts (Set of 2)
M-525-11	Rebar T-Anchors for V-Track (Set of 10)
M-536-11	Galvanized T-Posts (Set of 2)
M-585-52	100ft of Nylon Strapping & 20 Steel Clips





PIPE SKID CONVERSION KITS

FST PART #	PART DESCRIPTION
M-761-24PSC	Pipe Skid Conversion Kit for 24ft Long Structures at 6ft Hoop Spacing
M-762-48PSC	Pipe Skid Conversion Kit for 48ft Long Structures at 6ft Hoop Spacing
M-763-72PSC	Pipe Skid Conversion Kit for 72ft Long Structures at 6ft Hoop Spacing
M-764-96PSC	Pipe Skid Conversion Kit for 96ft Long Structures at 6ft Hoop Spacing
NOTE: Pipe Skid Conversion Kits assume 2-3/8in hoops at 6ft hoop spacing. Additional options and custom fabrication available upon request – Lead times & design fees apply	

V-TRACK CONVERSION KITS

FST PART #	PART DESCRIPTION
M-701-24VTC2	2-Position V-Track Conversion Kit for 24ft Long Structures at 4ft Hoop Spacing
M-702-24VTC2	2-Position V-Track Conversion Kit for 24ft Long Structures at 6ft Hoop Spacing
M-703-24VTC	Upgrade to Extra Position of V-Track & Anchoring for 24ft Long Structures
M-704-48VTC2	2-Position V-Track Conversion Kit for 48ft Long Structures at 4ft Hoop Spacing
M-705-48VTC2	2-Position V-Track Conversion Kit for 48ft Long Structures at 6ft Hoop Spacing
M-706-48VTC	Upgrade to Extra Position of V-Track & Anchoring for 48ft Long Structures
M-707-72VTC2	2-Position V-Track Conversion Kit for 72ft Long Structures at 4ft Hoop Spacing
M-708-72VTC2	2-Position V-Track Conversion Kit for 72ft Long Structures at 6ft Hoop Spacing
M-709-72VTC	Upgrade to Extra Position of V-Track & Anchoring for 72ft Long Structures
M-710-96VTC2	2-Position V-Track Conversion Kit for 96ft Long Structures at 4ft Hoop Spacing
M-711-96VTC2	2-Position V-Track Conversion Kit for 96ft Long Structures at 6ft Hoop Spacing
M-712-96VTC	Upgrade to Extra Position of V-Track & Anchoring for 96ft Long Structures

PIPE TRACK CONVERSION KITS

FST PART #	PART DESCRIPTION
M-731-24PTC2	2-Position Pipe Track Conversion Kit for 24ft Long Structures at 4ft Hoop Spacing
M-732-24PTC2	2-Position Pipe Track Conversion Kit for 24ft Long Structures at 6ft Hoop Spacing
M-733-24PTC	Upgrade to Extra Position of Pipe Track & Anchoring for 24ft Long Structures
M-734-48PTC2	2-Position Pipe Track Conversion Kit for 48ft Long Structures at 4ft Hoop Spacing
M-735-48PTC2	2-Position Pipe Track Conversion Kit for 48ft Long Structures at 6ft Hoop Spacing
M-736-48PTC	Upgrade to Extra Position of Pipe Track & Anchoring for 48ft Long Structures
M-737-72PTC2	2-Position Pipe Track Conversion Kit for 72ft Long Structures at 4ft Hoop Spacing
M-738-72PTC2	2-Position Pipe Track Conversion Kit for 72ft Long Structures at 6ft Hoop Spacing
M-739-72PTC	Upgrade to Extra Position of Pipe Track & Anchoring for 72ft Long Structures
M-740-96PTC2	2-Position Pipe Track Conversion Kit for 96ft Long Structures at 4ft Hoop Spacing
M-741-96PTC2	2-Position Pipe Track Conversion Kit for 96ft Long Structures at 6ft Hoop Spacing
M-742-96PTC	Upgrade to Extra Position of Pipe Track & Anchoring for 96ft Long Structures



Prefabricated Wide-Open Metal Endwall Laid Out & Exploded



Pre-Welded Joints

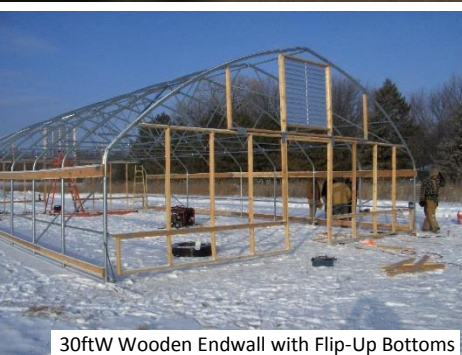
☑ To learn more about FST Endwalls, visit www.smallfarmtools.com/pages/endwalls

PREFABRICATED METAL ENDWALLS FOR FST HIGH TUNNELS

PART #	WIDTH	F / M	S/W	DOORS	# VENTS	STEEL	PART DESCRIPTION
N-601-67	16ft	Movable	Tall	1: 4ft x 8ft	1	1.5in Sq	Endwall & Door w/ Flip-up Bottoms
N-602-67	16ft	Movable	-	1: 3ft x 7ft	None	1.5in Sq	Hoop Coop Endwall w/ Tow Bar 1ft Up
N-605-67	20ft	Movable	-	1: 3ft x 7ft	None	1.5in Sq	Hoop Coop Endwall w/ Tow Bar 1ft Up
N-611-67	22ft	Movable	Tall	None	3	2in Sq	Wide Open Endwalls w/Retract. Studs
N-634-67	30ft	Fixed	5ft	2: 4ft x 7.5ft	1	2in Sq	Endwall w/ Double-Hinged Doors
N-641-67	30ft	Fixed	Tall	1: 54.25in x 8ft	1	2in Sq	Endwall w/ Single Hinged Door
N-651-67	30ft	Movable	Tall	None	4	2in Sq	Wide Open Endwalls w/Retract. Studs
N-661-67	30ft	Movable	Tall	None	1	2in Sq	Removable Endwall w/Retract. Studs
N-671-67	30ft	Movable	Tall	1: 54.25in x 8ft	1	2in Sq	Endwall w/ Flip-up Bottoms
N-672-67	30ft	Movable	Tall	2: 4ft x 8ft	1	2in Sq	Endwall w/ Flip-up Bottoms
N-681-67	35.5ft	Fixed	Tall	2: 4ft x 90in	3	2in Sq	Endwall w/ Double-Hinged Doors (6in Shorter than Other Tall Sidewalls – Design Fees Apply)



30ftW Metal Endwall with Flip-Up Bottoms



30ftW Wooden Endwall with Flip-Up Bottoms



30ftW Removable Metal Endwall



30ftW Wide Open Metal Endwall



22ftW Fixed Wooden Endwall & Ridge Vent

FST prefabricated endwalls are designed to offer a variety of entrance and ventilation options to suit your needs. Prefabricated Kits include all necessary hardware and materials. Wooden Endwall Kits include the necessary hardware to secure lumber to the frame (lumber not included).



30ftW Fixed Metal Endwall

DOORS

FST PART #	PART DESCRIPTION
N-721-65	Sidewall Door for 6ft Hoop Spacing
N-722-63	4ft x 7.5ft Hinged Door
N-723-63	4ft x 8ft Sliding Door
N-724-63	4ft x 8ft Hinged Door
N-725-63	54in x 8ft Sliding Door
N-726-63	54.25in x 8ft Hinged Door
N-727-63	6ft x 8ft Sliding Door

FEATURES

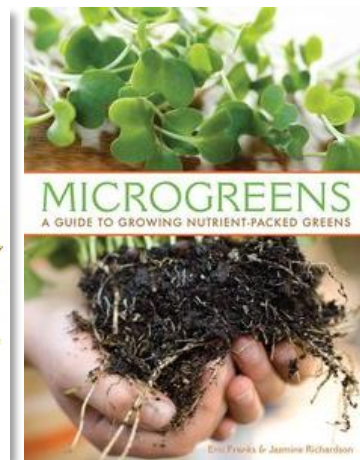
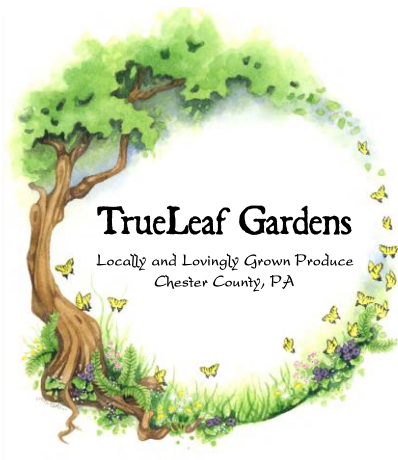
- Complete hardware kit
- Metal Endwalls feature welded pegs for added strength and improved ease of installation
- 8mm Twin-Wall Polycarbonate covering for Metal Endwalls (Some Metal Endwalls use a combination of Polycarbonate & Plastic), 6mil Greenhouse Plastic for Wooden Endwalls
- 2in OD galvanized steel endwall construction (1.5in OD for 16ftW & 20ft Hoop Coops)
- Doors and vents feature welded corners and polycarbonate covering
- Cost savings in labor of metal endwall installation often offset additional expense of materials



Owned and operated by Eric Franks and Jasmine Richardson, True Leaf Gardens produces microgreens, specialty greens, and mixed vegetables year round in Pottstown, PA. The two co-authored *Microgreens*, a book providing definitive methods of growing microgreens at home and commercially, so that other growers can benefit from the knowledge and experience they have gained over the years.

True Leaf Gardens is a prime example of how FST grows with clients. They began with a 30ft x 48ft fixed high tunnel for their greens production. They soon outgrew their high tunnel and eventually expanded it to 30ft x 66ft. In 2013, FST worked with the farmers to create a fully custom 35.5ft x 120ft fixed tunnel that is truly one-of-a-kind.

The atypical dimensions of True Leaf Garden's latest high tunnel is due to the fact that it was built around the dimensions of a standard 1020 tray, which is their primary growing module. The bench and shelf sizing and layout were designed to maximize usable space and minimize waste. As opposed to added length, the extra width was found to offer far more usable space, and was incorporated into the plan.



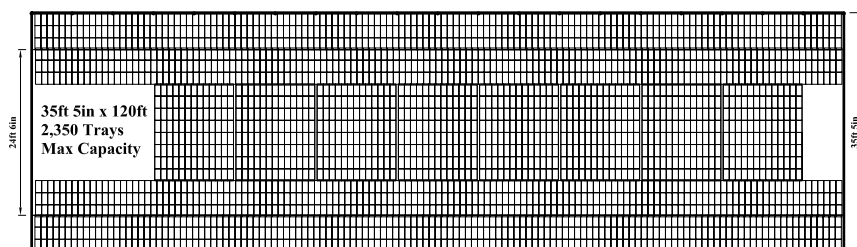
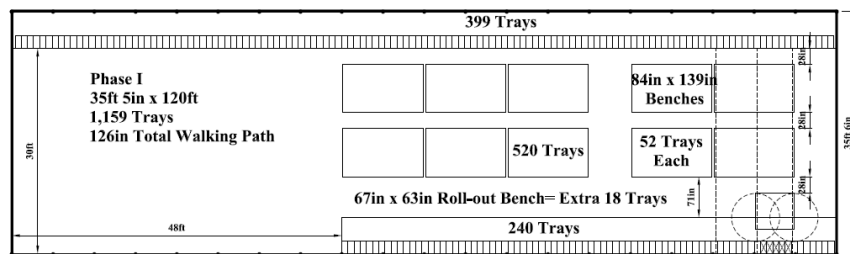
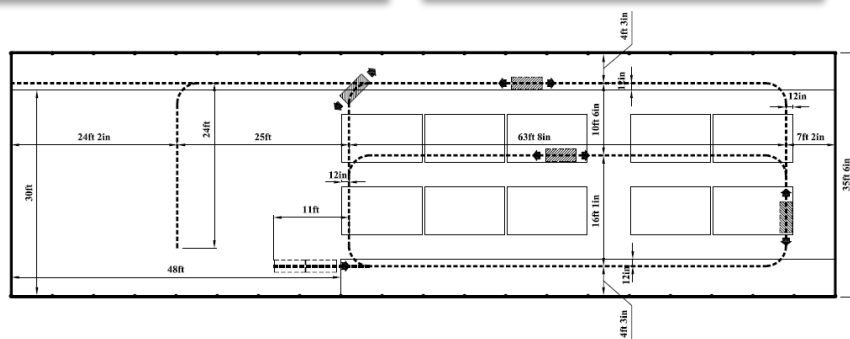
This 35.5ft tunnel is now offered as a turn-key high tunnel kit. See our Extended Width High Tunnels and Turn-Key Greenhouse Kits for more information.



The flexible layout of the free-standing and roll-out benches and integrated shelving has allowed Eric and Jasmine to expand their production while greatly increasing bench efficiency. Vertical layering provides germination areas, only utilizing valuable bench top space when essential.

A custom-built overhead trolley system allows multiple trolley carts to move independently on multiple tracks and reach all necessary areas of the tunnel, including a direct line out of the tunnel. This allows the farmers and employees to work independently, maximize efficiency, and optimize processes.

This design process is one of the many services FST offers to help farmers create systems that seamlessly integrate into their business plans. By utilizing space and structures wisely, the initial investment can be paid off more quickly and maximize profits into the future. With adequate lead time, our engineering and design teams have the skills and experience to create these systems in response to individual needs and goals. Contact FST for more information on custom-designed structures and systems.





Shoulder Braces



Coming Soon! Purchase our individual braces & hardware online at www.smallfarmtools.com



Purlin End on Metal Endwall

FST PART #	DESCRIPTION
H-710-45	Cable X-Brace Kit (Set of 2): <ul style="list-style-type: none"> • 1/8in Galvanized Cable • 2 – Adjustable Turn-Buckles • 4 – Cable Thimbles • 12 – Cables Clamps • 4 – Brace Bands (2-3/8in, 2in, or 1-3/8in) • 16 – 5/16in x 1-3/4in Carriage Bolts and Nuts
P-801-44	Sidewall Corner Bracing Kit for 4ft Spacing (Set of 8) <ul style="list-style-type: none"> • 8 – 52in Sidewall Corner Braces for 4ft Spacing • 16 – 5/16in x 1-3/4in Carriage Bolts and Nuts • 16 – Brace Bands (2-3/8in, 2in, or 1-3/8in)
P-802-44	Sidewall Corner Bracing Kit for 6ft Spacing (Set of 8) <ul style="list-style-type: none"> • 8 – 76in Sidewall Corner Braces for 6ft Spacing • 16 – 5/16in x 1-3/4in Carriage Bolts and Nuts • 16 – Brace Bands (2-3/8in, 2in, or 1-3/8in)
P-811-44	Roof Corner Bracing Kit for 20ft W & 22ft W (Set of 8) <ul style="list-style-type: none"> • 8 – 102in Roof Corner Braces for 6ft Spacing • 16 – 5/16in x 1-3/4in Carriage Bolts and Nuts • 16 – Brace Bands (2-3/8in, 2in, or 1-3/8in)
P-812-44	Roof Corner Bracing Kit for 30ft W & 34ft W (Set of 8) <ul style="list-style-type: none"> • 8 – 118in Roof Corner Braces for 6ft Spacing • 16 – 5/16in x 1-3/4in Carriage Bolts and Nuts • 16 – Brace Bands (2-3/8in, 2in, or 1-3/8in)
P-821-44	Shoulder Bracing Kit (Set of 2) <ul style="list-style-type: none"> • 2 – 42in Shoulder Braces • 4 – 5/16in x 1-3/4in Carriage Bolts and Nuts • 4 – Brace Bands (2-3/8in, 2in, or 1-3/8in)
P-831-44	Endwall Brace Kit (Set of 4) <ul style="list-style-type: none"> • 4 – 84in Endwall Braces • 8 – 5/16in x 1-3/4in Carriage Bolts • 8 – Brace Bands (2-3/8in, 2in, or 1-3/8in)
P-841-44	Ridge Brace Kit for 20ft W & 22ft W (Set of 2) <ul style="list-style-type: none"> • 2 – 77in Ridge Braces • 4 – 5/16in x 1-3/4in Carriage Bolts • 4 – Brace Bands (2-3/8in, 2in, or 1-3/8in)
P-842-44	Ridge Brace Kit for 30ft W (Set of 2) <ul style="list-style-type: none"> • 2 – 96in Ridge Braces • 4 – 5/16in x 1-3/4in Carriage Bolts • 4 – Brace Bands (2-3/8in, 2in, or 1-3/8in)
P-147-34	12ft 3in Purlin w/ 3in Swage 1.315in OD Heavy-Duty (14ga) Pipe with One Swaged End
P-012-43	Purlin End Kit (1 Set) <ul style="list-style-type: none"> • 2 – 1ft Purlin Ends • 4 – 2-3/8in Brace Bands • 4 – 5/16in x 1-3/4in Carriage Bolts

TRELLISING KITS

FST PART #	PART DESCRIPTION
A-660-11	16 x 24ft Trellis/Irrigation Kit for Structures with Wooden Endwalls
A-661-11	30 x 48ft Trellis/Irrigation Kit for Structures with Wooden Endwalls
A-662-11	30 x 72ft Trellis/Irrigation Kit for Structures with Wooden Endwalls
A-663-11	30 x 96ft Trellis/Irrigation Kit for Structures with Wooden Endwalls
A-664-11	16 x 24ft Trellis/Irrigation Kit for Structures with Metal Endwalls
A-665-11	30 x 48ft Trellis/Irrigation Kit for Structures with Metal Endwalls
A-666-11	30 x 72ft Trellis/Irrigation Kit for Structures with Metal Endwalls
A-667-11	30 x 96ft Trellis/Irrigation Kit for Structures with Metal Endwalls
A-614-08	White Vine Clips for Trellising (Box of 1000)
A-616-11	White Vine Clips for Trellising (Box of 6000)
A-631-11	Roller Hook Wire Frame (Box of 550)
A-632-11	Roller Hook Spools w/ Twine (Box of 550)
A-681-11	36in Tomato Cage (Set of 10)
A-691-08	Hortnova- Trellising Net 79in x 250ft
A-692-08	Hortnova Trellising Net 79in x 3280ft



Roller Hook Frame, Spool, and Vine Clips

FST Trellis Kits include all the necessary hardware for wooden or metal endwalls. The kit consists of tensioned 1/8in galvanized wire to which Roller Hooks are connected.

Purchased separately, Roller Hooks are suspended from the trellis wire and the end of the twine is secured to the base of the plant. As the plant outgrows the twine, more twine is released from the spool and vine clips are used to continue supporting upward growth.

☑ To learn about benefits and techniques of trellis crops, see www.smallfarmtools.com/pages/trellising



Trellis Kit for Tomatoes with Roller Hooks at Four Season Farm, ME

Make the most of every square foot of your high tunnel. Flexible and integrated benches and shelving allow for increased bench efficiency, meaning more profit. Layout can change seasonally to match the needs of your operation throughout the year.

INTEGRATED SHELVES

FST PART #	PART DESCRIPTION
P-701-48	26in Wide (Ordered in 12ft Lengths)
P-703-48	50in Wide (Ordered in 12ft Lengths)
P-705-48	63in Wide (Ordered in 12ft Lengths)



- 1.315in OD Galvanized Steel
- Secures directly to high tunnel sidewall
- Adds structural support when installed along entire length of tunnel
- Installation recommended at time of structure install

FREE-STANDING BENCHES

FST PART #	PART DESCRIPTION
P-741-48	2-Layer Bench (Per Square Foot)
P-742-48	Bracing for Additional Layer (Per Square Foot)
P-731-48	Adjustable Feet - Stationary Benches (set of 6)

- Available in Sizes: 63x139in, 84x139in, 4x8ft, or 4x12ft



- 1.315in OD Galvanized Steel
- Pre-fabricated bent corners
- Can be on Rollers or Casters for movable option or Adjustable feet for leveling and height adjustment
- Flexible walkway arrangement

ROLL-OUT BENCHES

FST PART #	PART DESCRIPTION
P-721-48	2-Layer Roll-Out (Per Square Foot)

- Size: Dependent on Shelf or Bench to fit under



- 1.315in OD Galvanized Steel
- Uses rollers or casters for movement
- Designed and Sized to fit under integrated shelves or free-standing benches

TRAY RACKS

FST PART #	PART DESCRIPTION
P-751-48	5-Layer Rack: 20in x 42in
P-752-48	5-Layer Rack: 20in x 48in
P-753-48	5-Layer Rack: 20in x 63in



- 1.315in OD Galvanized Steel
- Include adjustable feet for leveling or height adjustment
- Vertical storage of filled trays for efficient use of space

BENCH SURFACE & MOVING OPTIONS

FST PART #	PART DESCRIPTION
P-771-48	2ft x 4ft Plastic Bench Surface w/ 4 clips – Interlockable to create larger sizes
P-732-48	V-Track Rollers (Per Pair)
P-733-48	12ft of V-Track (Set of 2)
P-734-48	Bench Casters (Per Pair)

NOTE: All of our benching, shelving, and racks are sold as frames with no surfaces. We suggest our Plastic Bench Surface or sourcing your own metal surfaces.

☑ To learn more about our overhead trolley systems, visit www.smallfarmtools.com/pages/trolley-systems

TROLLEY SYSTEMS



Trolley Cart and Hose Trolley

Our overhead trolley systems are designed to greatly minimize fatigue and increase efficiency in the greenhouse – a trial using an overhead trolley system cut the required time to move 100 trays in half! Heavy-duty construction and a customizable cart allow you to save time, money, and your back. Used with Carts, Hoses, or both.

OVERHEAD TROLLEY SPECIFICATIONS

- **Rail:** 1-3/8in OD 14ga galvanized steel purlin pipe
- **Cart:** Multiple configurations – Includes all brackets and pipe for build-your-own kit
- **Support:** C-Brackets secure directly to truss kit
- **Switches:** Right and Left switches allow moving from one rail to another
- **Curves:** 1-3/8in OD 14ga single-piece, pre-bent curves
- **Removable and Telescoping Track:** Allows flexible track layout to bring cart through doorways or over areas temporarily

Considerations

- Use with FST Structures. Truss & Bracing kits strongly recommended. Otherwise, components sold as parts only
- Layout of track and switches must not cause trolley rollers to interfere with C-brackets
- FST not responsible for ensuring track is properly supported by existing structures



Overhead Trolley Cart



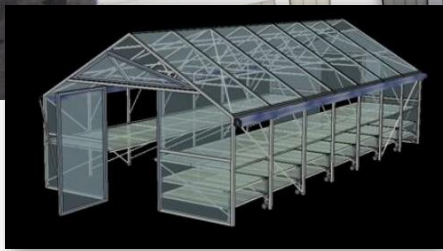
Trolley Switch - Down



Trolley Switch - Up

TROLLEY SYSTEMS

FST PART #	PART DESCRIPTION
A-305-28	Trolley Roller Assembly
A-350-48	Build Your Own 3-Layer Trolley Cart Kit
A-302-48	Drop-Assembly to Support Track
A-320-01	Right Switch (Requires 45deg Bend)
A-321-01	Left Switch (Requires 45deg Bend)
A-330-01	Track Curve – 45deg Bend
A-331-01	Track Curve – 90deg Bend
A-335-28	Set of Knuckles for Removable Track Sections
P-147-34	12ft 3in Track Pipe w/ 3in swage



BROOKLYN GRANGE

Situated high in the New York skyline, the farms that make up Brooklyn Grange cover 2.5 acres of rooftop space converted to highly productive agricultural ground, producing over 50,000 pounds of organic vegetables yearly. Now spanning two rooftop locations and including products like honey and mushrooms, Brooklyn Grange has changed the NYC food system for good.

Four Season Tools and Brooklyn Grange partnered on a project that proved to be an exciting challenge for both parties – design, manufacture, and install a high-efficiency greenhouse for use at the Navy Yard Farm. What resulted



was a fully functional structure, many lessons learned, and several new technologies that can now be integrated into the other systems provided by FST.

The project required special considerations, such as structural support to withstand extreme wind loads, certification by licensed structural engineers, optimized bench and shelf layout, and innovative methods of securing greenhouse structures to alternative surfaces. This step outside of our normal offering has allowed us to improve existing technologies and invent new and exciting solutions.



The Brooklyn Grange rooftop greenhouse is as unique as the farm itself. At 14ftW x 28ftL, the structure utilizes custom hardware to accommodate the 2in square steel frame. Galvanized square steel hoops, custom bracing, and custom anchoring kits allow this structure to withstand winds in excess of 190 mph. Glazed entirely in 8mm twin-wall polycarbonate, the structure is not only efficient in its heat retention, but the materials also add a level of durability and longevity. Complete metal construction eliminates the need to replace structural materials over time. Roll-up sidewall ventilation provides ample air circulation to provide ideal growing conditions.

Stepping inside the structure, the complexity of the design continues to reveal itself. With a combination of integrated

shelving along the sidewalls and roll-out benches, the bench efficiency could reach 100%, meaning the entire footprint of the structure can be utilized as growing space. With automated peak ventilation, the system does not need consistent monitoring to prevent overheating or excessive cooling.

The best part is that we now have a turn-key greenhouse option for future clients that is rated for extreme conditions. This model can be purchased as a kit so you, too, can have all of these features on your farm. See our turn-key greenhouse section or contact FST for more information.

We appreciate the opportunity to work on projects like this and thank the team at Brooklyn Grange and all the others who helped develop this concept and craft it into a reality.



☑ To learn more about Brooklyn Grange, visit www.brooklyngrangefarm.com

PLASTIC & AIR INFLATION



Air Inflation Blower

Pulling Plastic on a 30ftW x 48ftL Movable High Tunnel

AIR INFLATION KITS

FST PART #	PART DESCRIPTION
A-103-28	Air Inflation Blower Kit for Air Inflation with Outside Air
A-106-28	12V Air Inflation Blower for Air Inflation with Inside Air
A-155-28	Air Inflation Jumper Hose 36in
T-155-01	110V Plastic Sealer

6 MIL GREENHOUSE PLASTIC

FST PART #	PART DESCRIPTION
C-P50150	50x150ft Roll of UV Plastic
C-P50100	50x100ft Roll of UV Plastic
C-P48150	48x150ft Roll of UV Plastic
C-P48100	48x100ft Roll of UV Plastic
C-P42150	42x150ft Roll of UV Plastic
C-P42100	42x100ft Roll of UV Plastic
C-P40100	40x100ft Roll of UV Plastic
C-P36100	36x100ft Roll of UV Plastic
C-P32100	32x100ft Roll of UV Plastic
C-P28100	28x100ft Roll of UV Plastic
C-P24100	24x100ft Roll of UV Plastic
C-P20125	20x125ft Roll of UV Plastic
C-P20100	20x100ft Roll of UV Plastic
C-P14100	14x100ft Roll of UV Plastic
C-P10100	10x100ft Roll of UV Plastic

PLASTIC ATTACHMENT

FST PART #	PART DESCRIPTION
C-454-11	Wiggle Wire (Pack of 50)
C-422-03	12ft Plastic Attachment Channel
C-418-11	8ft Plastic Attachment Channel (Pack of 20)
C-515-05	Batten Tape (500ft)
C-524-04	Poly-Patch Tape (4in x 48ft)
C-527-04	Foam Tape
C-682-05	5ft Woven Curtain w/ Pocket
C-683-05	8ft Woven Curtain w/ Pocket
C-555-11	Sandbags (Pack of 100)

INFRARED GREENHOUSE PLASTIC

FST PART #	PART DESCRIPTION
C-I50150	50x150 Roll of IR Anti-Drip Plastic
C-I50100	50x100 Roll of IR Anti-Drip Plastic
C-I48150	48x150 Roll of IR Anti-Drip Plastic
C-I48100	48x100 Roll of IR Anti-Drip Plastic
C-I42150	42x150 Roll of IR Anti-Drip Plastic
C-I40150	40x150 Roll of IR Anti-Drip Plastic
C-I40100	40x100 Roll of IR Anti-Drip Plastic
C-I32150	32x150 Roll of IR Anti-Drip Plastic
C-I32100	32x100 Roll of IR Anti-Drip Plastic
C-I28150	28x150 Roll of IR Anti-Drip Plastic
C-I28100	28x100 Roll of IR Anti-Drip Plastic
C-I24150	24x150 Roll of IR Anti-Drip Plastic
C-I24100	24x100 Roll of IR Anti-Drip Plastic
C-I20150	20x150 Roll of IR Anti-Drip Plastic
C-I20100	20x100 Roll of IR Anti-Drip Plastic



Single-H for sheet edges and Double-H Channel for sheet seams

Add strength and longevity to your covering by upgrading to 8mm twin-wall polycarbonate. Ideal for endwall covering for the traditional high tunnel, polycarbonate increases insulating effects and extends the lifespan of your covering. Although there is a learning curve, our easy-to-use channel allows for quick and clean installation, providing a professional appearance and function.

POLYCARBONATE SPECIFICATIONS

- 8 mm Twin-Wall Polycarbonate
- Up to 10-15 year lifespan
- Extruded aluminum channel



Shade Cloth on a 30ft x 72ft Movable High Tunnel

Increase flexibility of your structure by using a shade cloth. Use these easy-to-install coverings to cool crops inside the tunnel, or create a space to cure crops like garlic or squash. Select the percentage of shade that suits your needs and maximize the return on your investment.

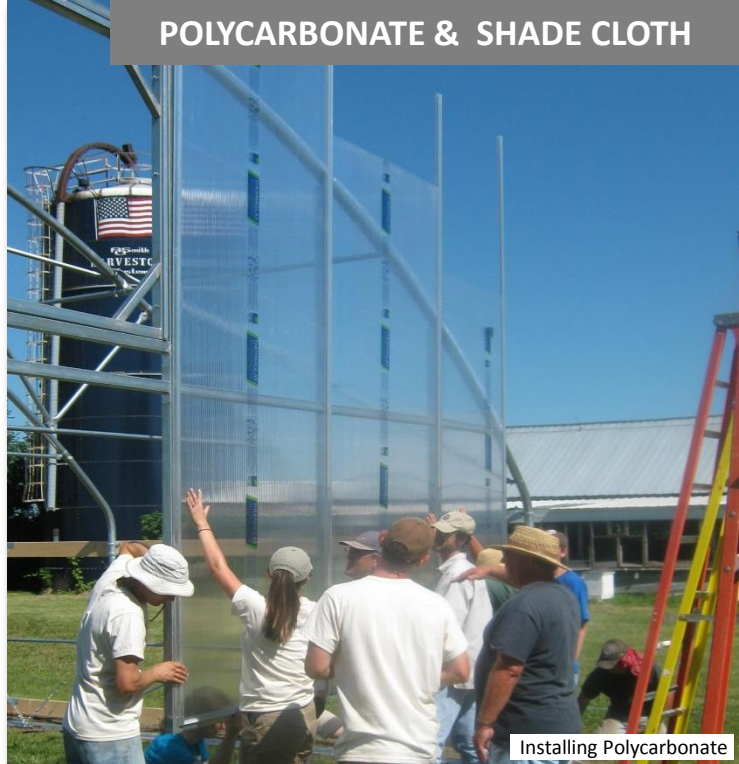
SHADE CLOTH SPECIFICATIONS

- Knitted construction – lightweight and durable
- Reduces UV penetration
- Can be cut without unraveling

SHADE CLOTH

FST PART #	PART DESCRIPTION
C-S30-05	30% Shade (Per Square Foot)
C-S50-05	50% Shade (Per Square Foot)
C-S70-05	70% Shade (Per Square Foot)
C-S01-11	Shade Cloth Clip (Pack of 50)

POLYCARBONATE & SHADE CLOTH



Installing Polycarbonate

8 MM TWIN-WALL POLYCARBONATE

FST PART #	PART DESCRIPTION
C-C408-05	4ft x 8ft Sheet of Polycarbonate
C-C410-05	4ft x 10ft Sheet of Polycarbonate
C-C412-05	4ft x 12ft Sheet of Polycarbonate
C-C414-05	4ft x 14ft Sheet of Polycarbonate
C-C416-05	4ft x 16ft Sheet of Polycarbonate
C-C608-05	6ft x 8ft Sheet of Polycarbonate
C-C610-05	6ft x 10ft Sheet of Polycarbonate
C-C612-05	6ft x 12ft Sheet of Polycarbonate
C-322-03	12ft Single-h Channel (Secures One Edge of a Polycarbonate Sheet)
C-328-03	8ft Single-h Channel (Secures One Edge of a Polycarbonate Sheet)
C-332-03	12ft Double-H Channel (Joins Two Sheets of Polycarbonate End-to-End)
C-338-03	8ft Double-H Channel (Joins Two Sheets of Polycarbonate End-to-End)
C-316-02	10ft L-Flashing (Covers Top of Polycarbonate)
C-529-04	Roll of Vent Tape for Bottom of Polycarbonate
C-528-04	Roll of Aluminum Tape for Top of Polycarbonate

SIDEWALL VENTILATION



Manual Metal Roll-Up Sidewalls



Manual Wooden Drop-Down Sidewalls

✓ To learn more about our ventilation systems, visit www.smallfarmtools.com/pages/ventilation

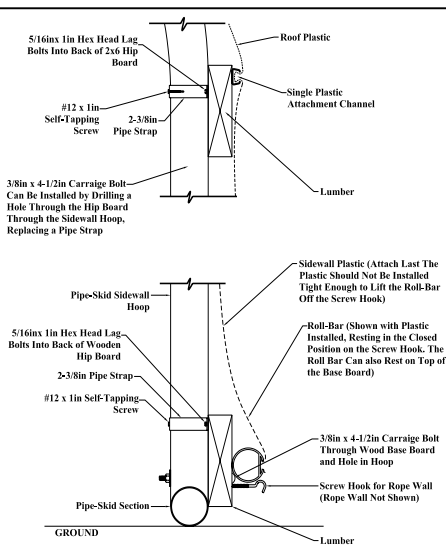
KITS FOR ROLL-UP SIDEWALLS

FST PART #	PART DESCRIPTION
V-481-46	Manual Crank Kit for Roll-Up Sidewalls
V-483-46	Aluminum Roll-Bar Kit for 8ft
V-530-46	Pocket Kit for Roll-Up Sidewalls

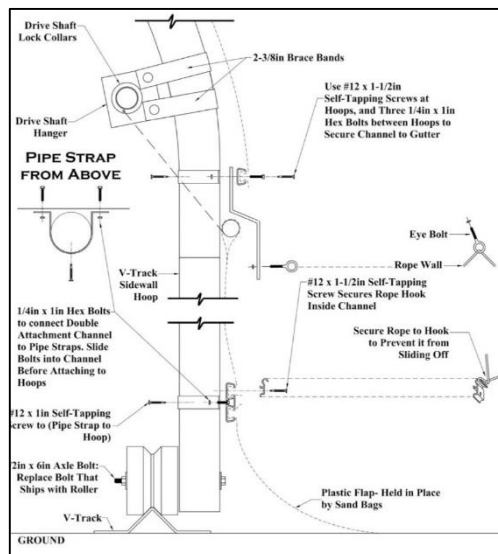
KITS FOR DROP-DOWN SIDEWALLS

FST PART #	PART DESCRIPTION
V-491-46	Manual Crank Kit for Drop-Down Sidewalls
V-493-46	Drop-Down Driveshaft Kit for 12ft
V-540-46	Pocket Kit for Drop-Down Sidewalls

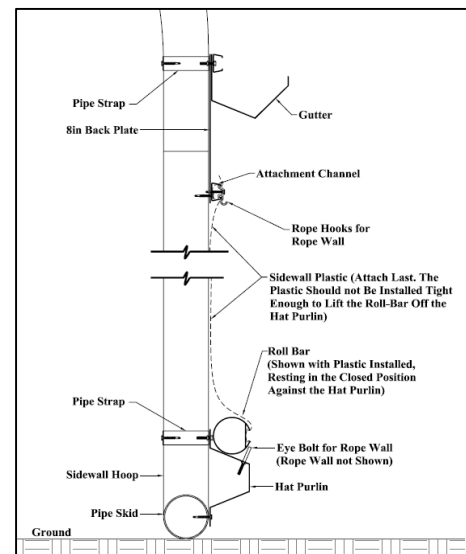
WOODEN ROLL-UPS



METAL DROP-DOWNS



METAL RUs w/ GUTTERS



VENTILATION KITS: BASE BOARDS

DESCRIPTION	LENGTH OF STRUCTURE			
	24ft Long	48ft Long	72ft Long	96ft Long
Base Board Kit for No Sidewall Ventilation (Double Channel)	V-601-24L	V-601-48L	V-601-72L	V-601-96L
Hardware Kit for Wooden Base Boards (Does Not Include Lumber)	V-611-24L	V-611-48L	V-611-72L	V-611-96L
Metal Base Board Kit for Drop-Down Sidewalls (Double Channel)	V-621-24L	V-621-48L	V-621-72L	V-621-96L
Metal Base Board Kit for Roll-up Sidewalls (Hat Purlin)	V-631-24L	V-631-48L	V-631-72L	V-631-96L

BASE BOARD SPECIFICATIONS

No Sidewall Ventilation:

- Extruded aluminum Double Plastic Attachment Channel
- Complete mounting hardware kit

Wooden Base Boards:

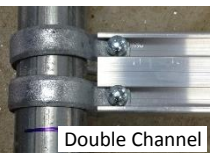
- Complete hardware kit for mounting 2x6 or 2x8 wooden base boards to 2-3/8in OD sidewalls

Metal Base Board Kit for Drop-Down Sidewalls:

- Extruded aluminum Double Plastic Attachment Channel
- Complete mounting hardware kit

Metal Base Board Kit for Roll-Up Sidewalls:

- Galvanized steel Hat Purlin
- Complete mounting hardware kit



Double Channel



Hat Purlin



Wooden Hardware Kit

HIP BOARD SPECIFICATIONS

Wooden Hip Boards:

- Complete hardware kit for mounting 2x6 or 2x8 wooden base boards to 2-3/8in OD sidewalls

Metal Hip Board Kit for Roll-Up Sidewalls:

- Extruded aluminum Double Plastic Attachment Channel
- Complete mounting hardware kit

Metal Hip Board Kit for Drop-Down Sidewalls:

- Galvanized steel hip board
- Complete mounting hardware kit

Metal Hip Board Kit w/Gutters for Drop-Down Sidewalls:

- Galvanized steel gutter kit
- Complete mounting hardware kit

Metal Hip Board Kit w/Gutters for Roll-Up Sidewalls

- Galvanized steel gutter kit
- Galvanized steel back plate
- Complete mounting hardware kit



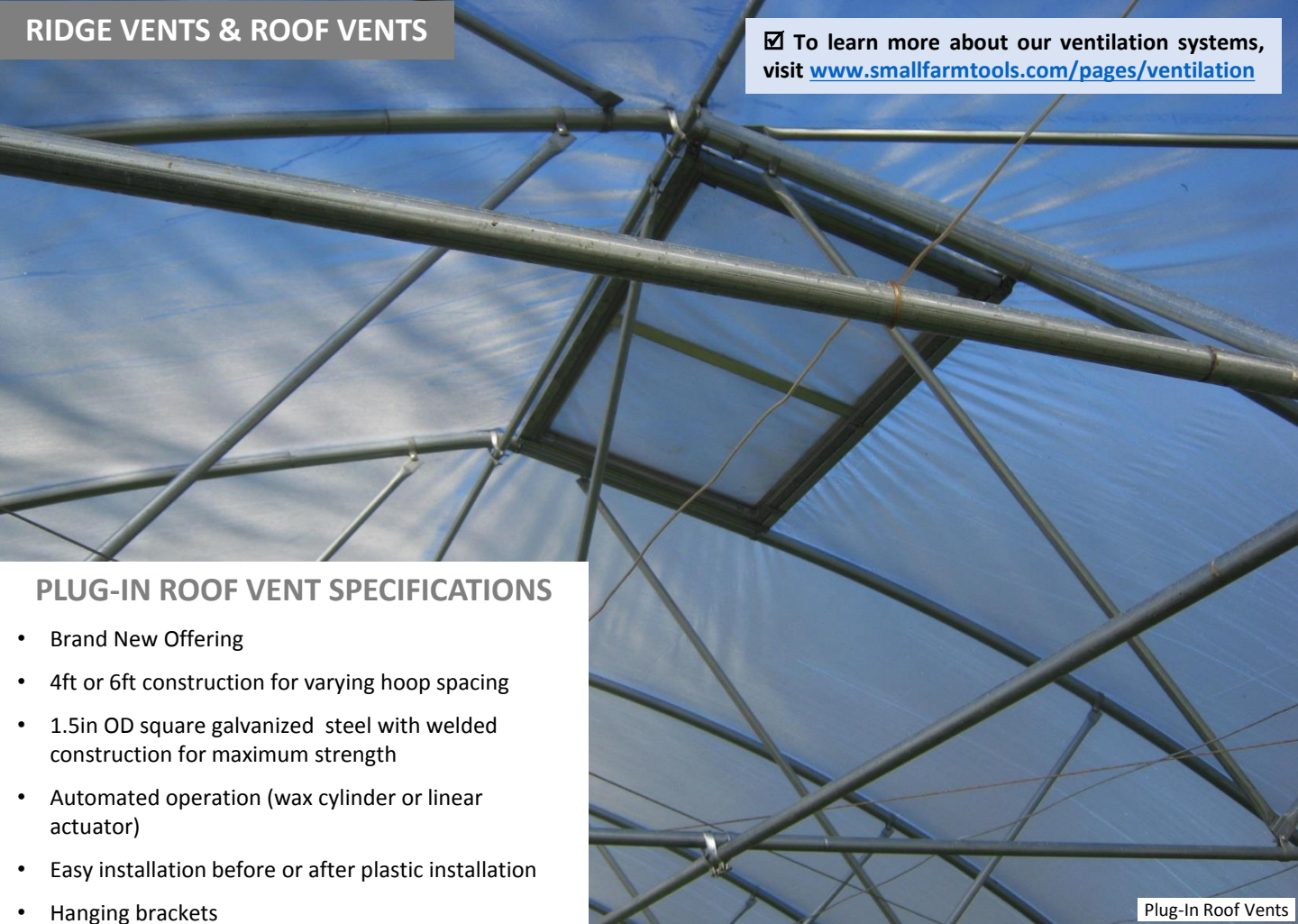
Metal Gutter Material



Metal Drop-Down Hip Board

VENTILATION KITS: HIP BOARDS

DESCRIPTION	LENGTH OF STRUCTURE			
	24ft Long	48ft Long	72ft Long	96ft Long
Hardware Kit for Wooden Hip Boards (Does Not Include Lumber)	V-651-24L	V-651-48L	V-651-72L	V-651-96L
Metal Hip Board Kit for Roll-up Sidewalls (Recommend Sidewall Purlin)	V-661-24L	V-661-48L	V-661-72L	V-661-96L
Metal Hip Board Kit Drop-Down Sidewalls – Formed Sheet Metal	V-671-24L	V-671-48L	V-671-72L	V-671-96L
Metal Hip Board Kit w/ Gutters for Drop-Down Sidewalls	V-681-24L	V-681-48L	V-681-72L	V-681-96L
Metal Hip Board Kit w/ Gutters for Roll-up Sidewalls	V-691-24L	V-691-48L	V-691-72L	V-691-96L



Plug-In Roof Vents

PLUG-IN ROOF VENT SPECIFICATIONS

- Brand New Offering
- 4ft or 6ft construction for varying hoop spacing
- 1.5in OD square galvanized steel with welded construction for maximum strength
- Automated operation (wax cylinder or linear actuator)
- Easy installation before or after plastic installation
- Hanging brackets

RIDGE VENT SPECIFICATIONS

- 1.315in OD 14ga pre-bent Ridge Vent Frames
- 1.315in OD 14ga Ridge Vent Purlin
- 6ft hoop spacing
- Extruded aluminum roll bar with integrated plastic attachment channel
- Extruded aluminum roll-lock
- Metal or wooden ridge vent base board construction
- Manual or automated operation
- Note: There is complexity in the installation & maintenance of this system



Metal Ridge Vent

PLUG-IN ROOF VENTS

FST PART #	PART DESCRIPTION
V-204-65	4ft Plug-In Roof Vent w/ Hardware
V-206-65	6ft Plug-In Roof Vent w/ Hardware

MANUAL RIDGE VENT KITS

FST PART #	PART DESCRIPTION
V-252-46	48ft Long Building at 6ft Hoop Spacing
V-253-46	72ft Long Building at 6ft Hoop Spacing
V-254-46	96ft Long Building at 6ft Hoop Spacing

Roll-Up & Drop-Down Systems:

- Guide Pipe Hanger Kit for Roll-Up Systems
- Weather-Resistant Construction
- Adjustable Internal Limits
- External Lower Limit Switch for Roll-Up Systems

Pull-In & Push-Out Peak Ventilation

- 115V AC or 12V DC Linear Actuators
- Mounting Hardware
- Weather-Resistant Construction
- Single Stage Thermostat

Aluminum Shutter Vent

- 115V Thermostatically Operated Motor
- Aluminum Construction
- Interlocking Shutter Blades and Nylon Bearings
- Not intended for high wind applications

Wax Cylinder

- Electricity-free Operation
- 12in Vent Opening
- Note: Battery & Solar Kits can be compatible with 12V applications

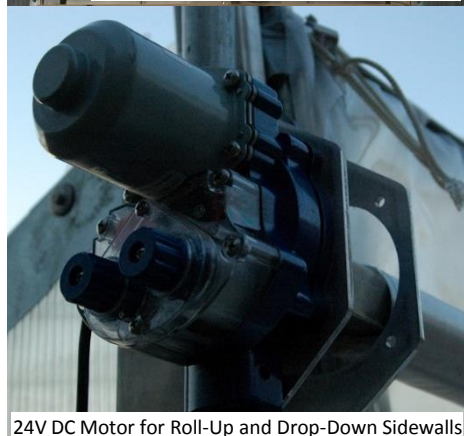
NOTE: All Automation Components are sold as parts only and do not include wiring or conduit. Electronics are supported directly by our vendors, not FST.

VENT AUTOMATION

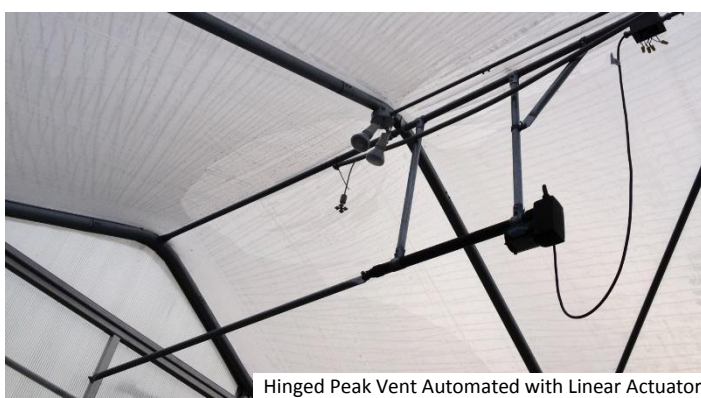
FST PART #	PART DESCRIPTION
V-482-46	Automated Upgrade for Roll-Up Sidewalls <ul style="list-style-type: none"> • 1 – Vent Controller • 2 – 24V DC Motors • 2 – Limit Switches
V-492-46	Automated Upgrade for Drop-Down Sidewalls <ul style="list-style-type: none"> • 1 – Vent Controller • 2 – 24V DC Motors
V-259-46	Automated Upgrade for Ridge Vent <ul style="list-style-type: none"> • 1 – Vent Controller • 1 – 24V DC Motors • 1 – Limit Switches
V-133-46	115V AC Auto Upgrade for Hinged Peak Vents <ul style="list-style-type: none"> • 1 – Single-Stage Thermostat • 2 – 110V AC Linear Actuators
V-134-46	12V DC Auto Upgrade for Hinged Peak Vents <ul style="list-style-type: none"> • 1 – Single-Stage Thermostat • 1 – Relay Pack • 2 – 12V DC Linear Actuators
V-132-09	Automated Aluminum Shutter Vent Kit
V-466-28	Wax Cylinder for Electricity- Free Operation
E-511-28	Single-Stage Thermostat



Aluminum Shutter Vent with 115V Motor



24V DC Motor for Roll-Up and Drop-Down Sidewalls



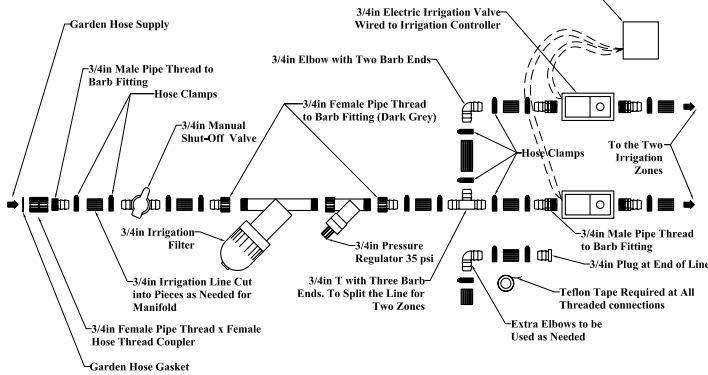
Hinged Peak Vent Automated with Linear Actuator



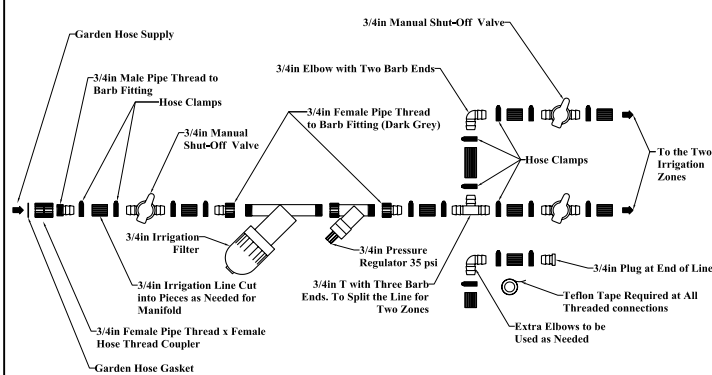
110V AC Linear Actuator, 12V DC Linear Actuator, Wax Cylinder Opener

IRRIGATION

2-Zone Automatic Overhead Irrigation Kit



2-Zone Manual Overhead Irrigation Kit



OVERHEAD IRRIGATION

FST PART #	PART DESCRIPTION
I-741-76	Manual 1-Zone Irrigation Kit for Tunnels up to 72ft Long
I-742-76	Automated 1-Zone Irrigation Kit for Tunnels up to 72ft Long
I-743-76	Manual 2-Zone Irrigation Kit for Tunnels up to 72ft Long
I-744-76	Automated 2-Zone Irrigation Kit for Tunnels up to 72ft Long
I-745-76	Manual 2-Zone Irrigation Kit for Tunnels 72ft to 120ft Long
I-746-76	Automated 2-Zone Irrigation Kit for Tunnels 72ft to 120ft Long



Overhead Irrigation

DRIP IRRIGATION

FST PART #	PART DESCRIPTION
I-501-76 (Buildings up to 1600 sq ft)	Drip Irrigation Kit <ul style="list-style-type: none"> • Filter • Pressure Regulator • 25 .420 Barb x Drip Lock Fitting w/ Valve • 10 – Goof Plugs
I-502-75 (Buildings 1600-3000 sq ft)	<ul style="list-style-type: none"> • 10 – Repair Couplers • 100ft of 3/4in Header Line • 1000ft (or 2000ft) - Drip Line • Punch
I-251-04	7500ft Drip Tape 8 MIL, .5 GPM/100 ft, 12in Spacing
I-252-04	7500ft Drip Tape 8 MIL, 1 GPM/100 ft, 4in Spacing
I-253-04	7500ft Drip Tape 8 MIL, 1.33 GPM/100 ft, 6in Spacing
I-254-04	7500ft Drip Tape 8 MIL, .65 GPM/100 ft, 8in Spacing
I-255-04	1000ft Drip Tape 10 MIL, 1 GPM/100 ft, 4in Spacing
I-256-04	3000ft Drip Tape 10 MIL, 1 GPM/100 ft, 4in Spacing
I-257-04	3000ft Drip Tape 10 MIL, .5 GPM/100 ft, 12in Spacing
I-258-04	6000ft Drip Tape 10 MIL, 1.33 GPM/100 ft, 4in Spacing
I-259-04	6000ft Drip Tape 10 MIL, .5 GPM/100 ft, 12in Spacing



Overhead and Drip Irrigation Assemblies

WOBBLERS FOR OUTDOOR IRRIGATION

FST PART #	PART DESCRIPTION
I-870-76	Wobbler Kit <ul style="list-style-type: none"> • Wobbler Stand • Wobbler Kit • Y-Valve
I-811-28	Wobbler Stand
I-831-08 to I-859-08	Wobbler Head – Choose Nozzle Size : 3/32, 1/8, 5/32, 3/16, 7/32 or 1/4in And Nozzle Pressure: 10, 20, 30, or 40 PSI

IRRIGATION AUTOMATION

FST PART #	PART DESCRIPTION
E-554-28	Four-Zone Irrigation Controller
E-565-01	Electric Valve for 3/4in (one per zone)

HOSES & WATERING

FST PART #	PART DESCRIPTION
I-611-08	24in Aluminum Water Wand
I-620-08	Blue Watering Wand Breaker 170 Holes
I-621-08	Blue Watering Wand Breaker 400 Holes
I-622-08	Red Watering Wand Breaker 1000 Holes
I-623-08	Yellow Watering Wand Breaker 750 Holes
I-626-11	Fogg-It Misting Nozzle (Pack of 2)
I-472-01	Brass Garden Hose Shut-Off Valve
I-624-28	Wonder Waterer
I-471-01	Plastic Garden Hose Shut-Off Valve
I-470-01	Garden Hose Y-Splitter with Two Valves
I-484-76	Full-Flow Hose Quick Connects (4 Sets)
I-486-76	Standard Hose Quick Connects (4 Sets)
I-491-28	3/4in Garden Hose Coupling
I-492-28	3/4in Garden Hose to Pipe Thread Adapter

FILTERS / PRESSURE REDUCERS

FST PART #	PART DESCRIPTION
I-323-28	1in Disc Filter (1in Pipe Threads)
I-325-28	3/4in Disc Filter (3/4in Pipe Threads)
I-315-01*	35psi Pressure Reducer (3/4in Pipe Threads)
I-312-01*	12psi Pressure Reducer (3/4in Pipe Threads)



Wobblers for Overhead Irrigation



Breakers for Hand Watering with Quick Connects



Hand Watering in a High Tunnel

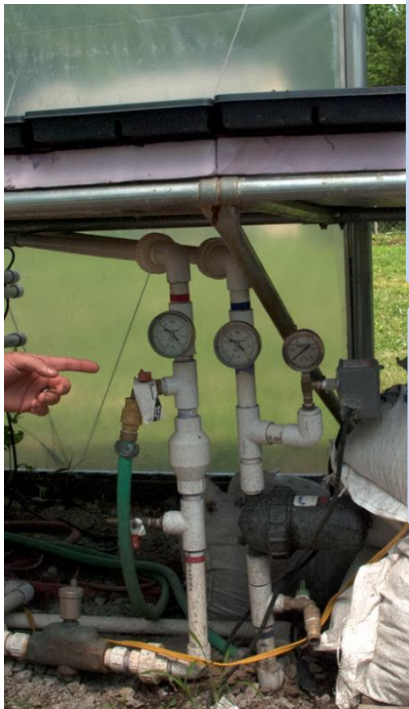
☒ For more information about irrigation kits and supplies, visit www.smallfarmtools.com/pages/irrigation

* - Require specific flow-rates to maintain pressure



RADIANT BENCHTOP HEATING MODULES

PART #	PART DESCRIPTION
A-701-80	Supply Module <ul style="list-style-type: none">1 – Inlet with Fill Valve1 – 1in Water Filter1 – Temperature Gauge1 – Pressure Gauge
A-702-80	Return Module <ul style="list-style-type: none">1 – Temperature Gauge1 – Pressure Gauge1 – Check Valve1 – Air Purge Valve1 – Outlet
A-703-80	Air Purge Module <ul style="list-style-type: none">1 – Air Scoop1 – Air Vent
A-705-80	Single Pump Module <ul style="list-style-type: none">1 – Circulation Pump1 – Temperature Control Module
A-706-80	Double Pump Module <ul style="list-style-type: none">2 – Circulation Pumps1 – Temperature Control Module
A-708-80	Radiant Line Kit for Benches Up to 5ft W & 150ft ² <ul style="list-style-type: none">1 – 1,000ft Spool of Flexible Radiant Line40 – Clamps for Radiant Line Fittings32 – Elbow Fittings for up to 15 Loops4 – Repair Couplings



RADIANT HEATING SPECIFICATIONS

- Modular design for easy installation and repair
- Schedule 80 PVC
- Efficient heating of root zone to limit inputs and costs
- 1/4in OD, 1/8in ID radiant line

Maximize Heating Efficiency

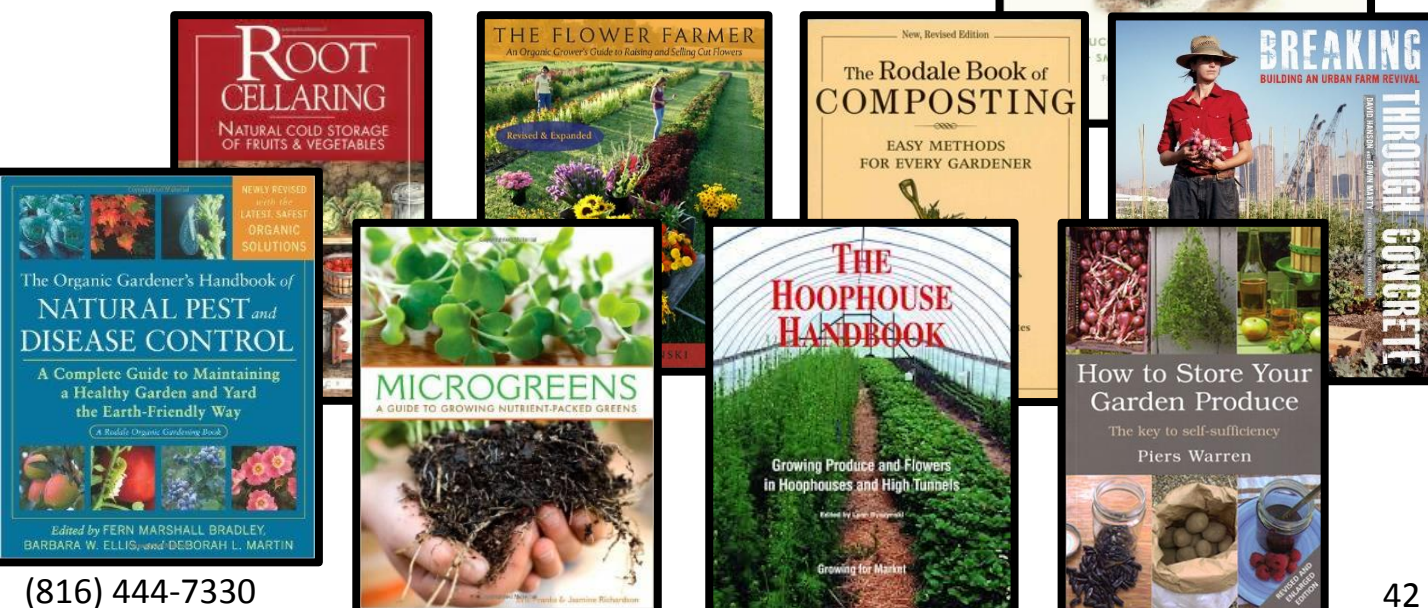
- Directly heat the soil, as opposed to the air
- Minimize heat loss
- Only heat the benches you're using

NOTE: Intended for professional use. Modules only, does not include systems design, documentation, or plumbing between modules. Designed for users already trained or skilled in radiant benchtop heating installation and use.



BOOKS & DVDS

FST PART #	DESCRIPTION
B-901-08	DVD: Year-Round Vegetable Production by <i>Eliot Coleman</i>
B-101-08	The Winter Harvest Handbook by <i>Eliot Coleman</i>
B-102-08	Four Season Harvest by <i>Eliot Coleman</i>
B-103-08	The New Organic Grower by <i>Eliot Coleman</i>
B-119-08	The Four Season Farm Gardener's Cookbook by <i>Eliot Coleman & Barbara Damrosch</i>
B-104-08	The Garden Primer by <i>Barbara Damrosch</i>
B-114-08	The Organic Gardener's Handbook of Natural Insect and Disease Control by <i>Barbara Wells</i>
B-106-08	Microgreens by <i>Eric Franks & Jasmine Richardson</i>
B-120-08	The Market Gardener by <i>Jean Martin-Fortier</i>
B-121-08	Breaking Through Concrete by <i>David Hanson & Edwin Marty</i>
B-115-08	The Flower Farmer by <i>Lynn Byczynski</i>
B-107-08	The Hoophouse Handbook by <i>Lynn Byczynski</i>
B-110-08	How to Store Your Garden Produce by <i>Piers Warren</i>
B-111-08	The Rodale Book of Composting
B-113-08	Root Cellaring by <i>Mike Bubel</i>





TURNER FARM

Turner Farm is a four-season farm owned by Congresswoman Chellie Pingree in North Haven, ME and her husband. The farm aims to provide food for the residents of North Haven Island, as well as serve as a model to lawmakers and citizens of successful, diverse small-scale food production.

Farm managers, James Blair and Brenna Chase, and their talented crew produce vegetables, fruits, flowers, pork, beef, chicken, eggs, and goat cheese on the small island off the coast of Maine. Situated on a historic farm property on a beautiful peninsula, the farm battles wind, cold temperatures, and rocky soils. Despite these challenges, Turner Farm has proven to be an amazingly successful and beneficial addition to the small New England community.

Currently the crew at Turner Farm uses six FST structures to extend the season and provide shelter to livestock. A single 30ft x 48ft fixed high tunnel provides space for transplant and microgreens production. Two 30ft x 48ft movable skid structures offer ample in-ground growing space for

vegetables, herbs, and flowers. The newest FST structures on the farm are two 30ft x 48ft 4-position V-Track high tunnels that sit on the water's edge, providing beautiful views and year-round vegetable production. In addition to these structures, Turner Farm uses a 22ft x 36ft Movable Hoop Coop to provide protection for their dairy goats and cattle throughout the year.

These structures have seen quite a few challenges and changes throughout the year, but have proven durable enough to withstand the pressures this harsh climate presents. Initial installation was challenged by shallow soils on top of solid ledge, necessitating the building up of a site. To do this, soil was brought from other areas of the farm and sifted on site before being laid and leveled in position. Anchoring needed to be able to withstand the 80 mph winds sometimes seen on the island, so extra thought and effort were put into creating an anchoring system that was robust enough for these adverse conditions.



Historic Photograph

☑ To learn more about Turner Farm - www.turner-farm.com

Two of the early high tunnels were upgraded from their initial lumber construction to fully metal in order to withstand the wind and water that coastal Maine provides. All of the movable tunnels now feature the Wide Open Endwall design, maximizing Endwall ventilation and eliminating the need for sidewall ventilation systems.

Turner Farm has proven to be a farm where different aspects of the project are designed to work together. The balance of fixed and movable structures allows each to compliment the other. Livestock is integrated into the farm in order to provide

alternate income streams and to manage ground and fertility effectively. Diverse marketing strategies provide ample hyper local outlets for the exceptionally high-quality products the farm has to offer year-round. By designing these systems to work together and to match the conditions in which they will be implemented, Turner Farm has created a thriving food-production environment.

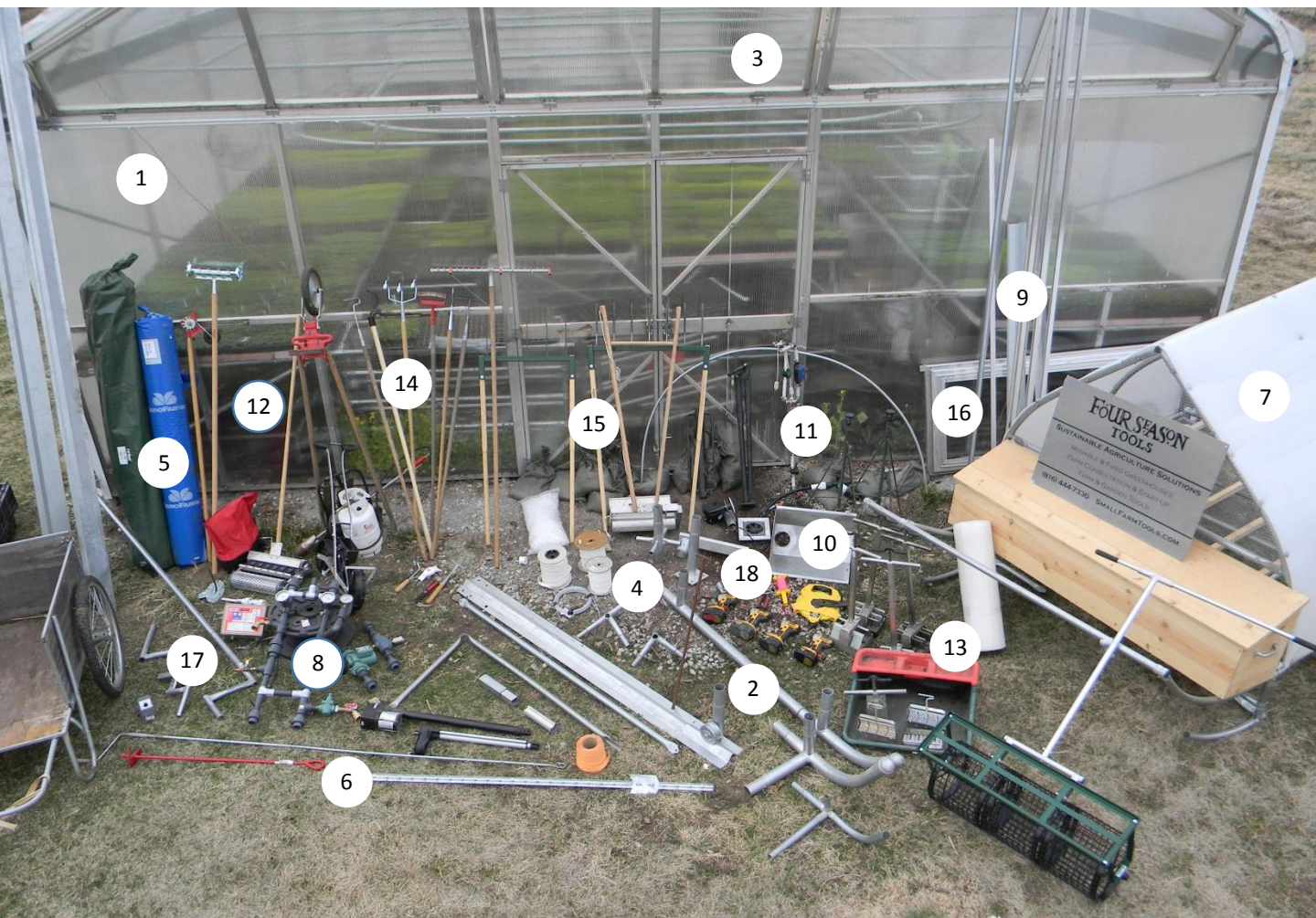
FST is excited to work with farms like Turner Farm to develop systems of season extension, livestock integration, community involvement, and organic production.



EQUIPMENT FOR YEAR-ROUND VEGETABLE PRODUCTION

#	DESCRIPTION
1	High Tunnels
2	Movable Tunnels & Conversion Kits
3	High Tunnel Ventilation
4	Kits & Components for High Tunnels
5	Polycarbonate, Plastic, & Row Covering
6	Anchoring for High Tunnels
7	Structures for Livestock
8	Radiant Heating for High Tunnels
9	High Tunnel Bracing & Extrusions

#	DESCRIPTION
10	Rain Water Capture Systems
11	Irrigation
12	Mechanized Seeders
13	Seed Starting Tools & Soil Blocking
14	Cultivation Tools
15	Bed Preparation Tools
16	Roof Ventilation for High Tunnels
17	Thermostats & Controllers
18	High Tunnel Installation Tools





☑ To learn more about our systems, visit www.smallfarmtools.com/pages/tools-kits

Four Season Tools promotes and offers systems of tools and techniques that are designed to be used in concert to enhance the functionality and efficiency of every component. It is truly a case where the whole is greater than the sum of its parts.

These systems span the entire vegetable production process, seed to sale. With an emphasis on scale-specific, labor-

saving, and purpose-built technologies, these systems allow small farms to maximize productivity and profit.

We advocate the use of 30-inch beds to increase the efficiency of these technologies and to seamlessly integrate with our season extension structures. Establishing a uniform system allows spacing, labor, and profit & yield calculations to be easily managed. This

uniformity also allows for the development of size-specific tools that interact with a 30-inch system.

We believe that process and efficiency are the two main components that all successful farms share. With the proper tools, techniques, and technologies, small farms can prove to be productive and profitable enough to change the way we produce our food.



Seed Starting/Direct Seeding



Bed Preparation/Transplanting



Season Extension



Cultivation



Harvest



Processing and Storage



Homemade Displaceable High Tunnel with 1.315in OD Hoops Bent with a Hoop Bender



Bending Low Tunnels with with a Hitch-Mounted Low Tunnel Bender

Due to the low cost per square foot and ease of construction, DIY tunnels provide a great entry into season extension. These 3-season structures can be bent to several diameters and can be covered with a variety of materials to maximize versatility.

LOW & HIGH TUNNEL SPECIFICATIONS

- **Hoop Material:** 1/2-3/4in EMT Tubing or 1-3/8in OD 17-18ga chain link fence tubing
- **Covering Options:** Greenhouse Plastic, Floating Row Cover, Shade Cloth, or Bird Netting
- **Hoop Spacing:** 4-6ft Center-to-Center
- **Hardware:** Complete hardware kits available for DIY tunnel construction

HOOP BENDERS

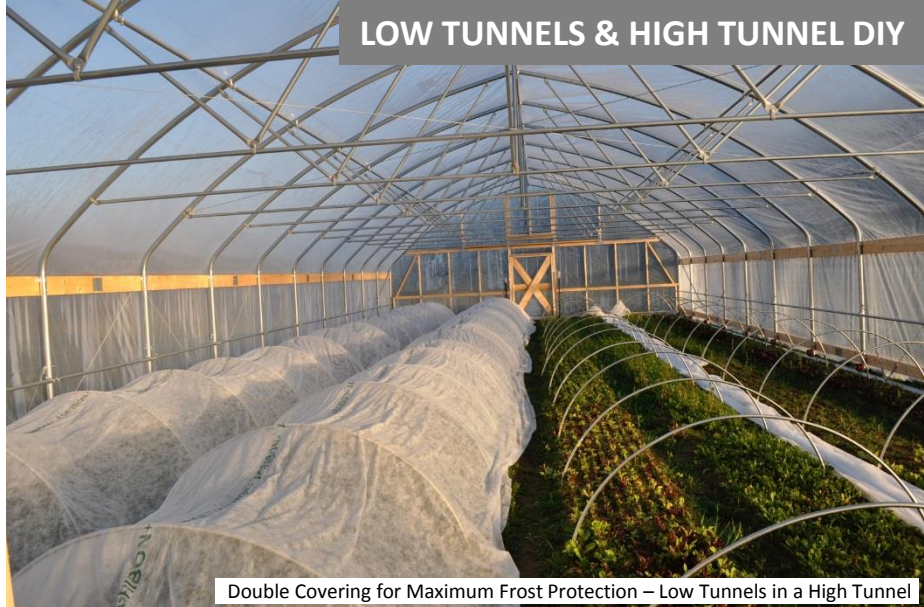
FST PART #	DESCRIPTION	HOOP MATERIAL
T-703-28	3ft Tunnel Hoop Bender	10ft x 1/2-3/4in EMT tubing
T-704-28	4ft Tunnel Hoop Bender	10ft x 1/2-3/4in EMT tubing
T-706-28	6ft Tunnel Hoop Bender	10ft x 1/2-3/4in EMT tubing
T-710-28	10ft Tunnel Hoop Bender	2 - 10ft 6in x 1-3/8in OD 17ga or 18ga chain link fence tubing
T-712-28	12ft Tunnel Hoop Bender	2 - 10ft 6in x 1-3/8in OD 17ga or 18ga chain link fence tubing
T-720-28	20ft Tunnel Hoop Bender	3 - 10ft 6in x 1-3/8in OD 17ga or 18ga chain link fence tubing
T-701-08	Tunnel Bender Hitch Mount	Mounts tunnel bender to a vehicle's trailer hitch for added stability

FST PART #	SIZE
Agribon+ AG-19 Floating Row Cover	
C-850-08	83in x 50ft
C-851-08	83in x 250ft
C-853-08	83in x 500ft
C-854-08	83in x 1000ft
C-852-08	83in x 1500ft
C-855-08	83in x 2000ft
C-860-08	10ft x 50ft
C-861-08	10ft x 250ft
C-862-08	10ft x 500ft
C-863-08	10ft x 1000ft
C-866-08	30ft x 1000ft

Agrofabric Pro 19 Floating Row Cover	
C-870-08	7ft x 100ft
C-871-08	7ft x 250ft
C-872-08	7ft x 500ft
C-873-08	7ft x 1000ft
C-874-08	7ft x 2000ft
C-880-08	10ft x 500ft
C-881-08	10ft x 1000ft
C-884-08	20ft x 1000ft
C-886-08	32ft x 1000ft
C-888-08	50ft x 1000ft

Agrofabric Pro 34 Floating Row Cover	
C-834-08	7ft x 100ft
C-835-08	7ft x 250ft
C-836-08	7ft x 800ft
C-837-08	13ft x 819ft
C-839-08	19ft x 819ft
C-840-08	25ft x 500ft

Agrofabric Pro 50 Floating Row Cover	
C-820-08	7ft x 500ft
C-821-08	10ft x 500ft
C-822-08	13ft x 819ft
C-823-08	30ft x 500ft



Double Covering for Maximum Frost Protection – Low Tunnels in a High Tunnel

Row covers in the field and tunnel provide a wide range of benefits. Used for frost protection, row covers can serve as a blanket, trapping moisture and warmth to extend the season. This application can be used within high tunnel structures to maximize the effects of both season extension systems. See the included chart for information on row cover weights and their degrees of frost protection.

Lightweight row covers can also be used as a physical barrier to pests, eliminating the need for application of pesticides and providing an ideal habitat for strong growth at the beginning of the plant's life cycle.

Product	≈Frost Protection	Light Transmission
Agribon AG-19	4°	85%
Agrofabric Pro 19	2-4°	95%
Agrofabric Pro 34	4-6°	70%
Agrofabric Pro 50	6-8°	50%

LOW TUNNEL ACCESSORIES

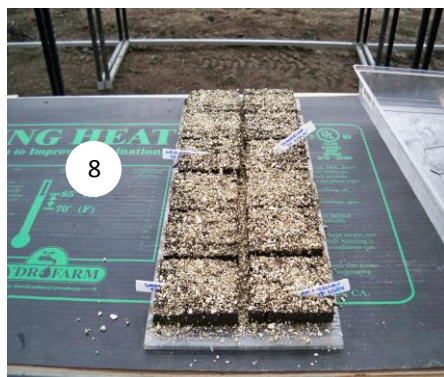
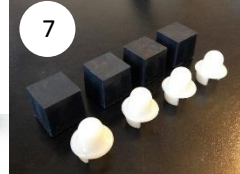
FST PART #	DESCRIPTION
C-555-11	Sandbags for Anchoring Row Cover (Pack of 30)
C-811-11	76in Wire Hoops 3/16in High Tensile Steel, Pre-Cut Arched (Bundle of 100)



Outdoor Low Tunnels with AG-19 Floating Row Cover

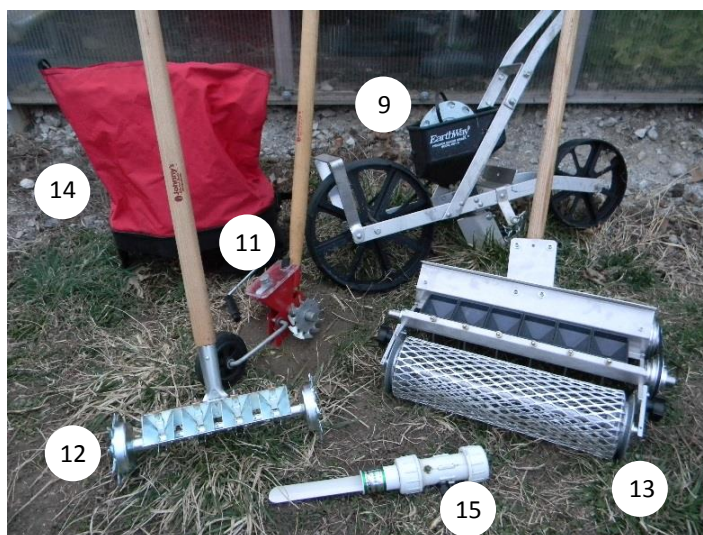
TRANSPLANTING TOOLS

PART #	DESCRIPTION	
T-411-08	Soil Block Maker (20: 3/4in)	(1)
T-412-08	Hand-Held Soil Block Maker (4: 2in)	(2)
T-413-08	Hand-Held Soil Block Maker (5: 1.5in)	
T-414-08	Hand-Held Soil Block Maker (1: 4in)	(3)
T-415-08	Stand-Up Soil Block Maker (12: 2in)	(4)
T-416-08	Stand-Up Soil Block Maker (20: 1.5in)	(5)
T-417-08	Stand-Up Soil Block Maker (6: 2in x 3 in)	(6)
T-418-08	Soil Block Inserts for 2in Blockers (Set of 4)	(7)
T-432-08	Heated Seedling Mat (20in x 48in)	(8)
T-433-08	Heated Seedling Mat Temperature Controller	



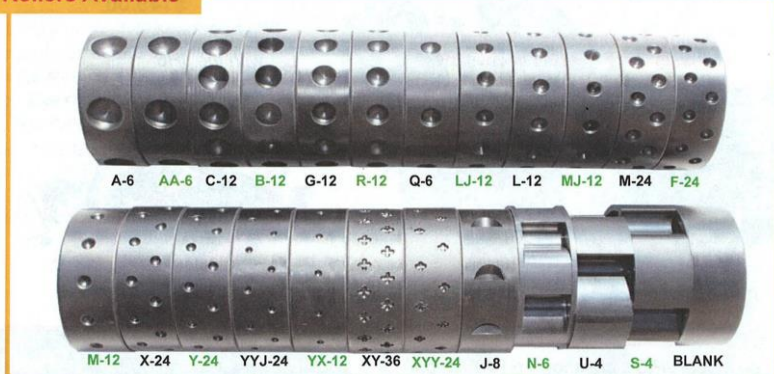
☑ To learn more about our seeders and transplant systems, visit www.smallfarmtools.com/pages/soil-blocks and www.smallfarmtools.com/pages/seeder

FST PART #	DESCRIPTION	
T-459-08	Earthway Seeder	(9)
T-461-08	Jang JP-1 Single Row Seeder	(10)
T-451-08	Glaser Pinpoint Seeder (Mount up to 3 on a Wheel Hoe)	(11)
T-453-08	Four-Row Pinpoint Seeder	(12)
T-454-08	Four-Row Extended Range Shaft for Additional Seed Sizes	
T-456-08	Six-Row Pinpoint Seeder	(13)
T-457-08	Six-Row Extended Range Shaft for Additional Seed Sizes	
T-443-08	Ev-N-Spred Broadcast Seeder	(14)
T-493-08	Vibro Hand Seeder	(15)



☑ More Rollers and Hole Configurations Available at
www.smallfarmtools.com/collections/seeder

Rollers Available



ROLLERS FOR JANG SEEDER

FST PART #	Roller Code	# of Holes in Roller	Application
T-462-08	F-12	12	Cilantro, Radish, Dill, & Spinach
T-464-08	L J-12	12	Basil, Beets, Chard, #13 Pellet – Carrots, Lettuce
T-465-08	M-6	6	Radish, Fennel, & Peppers
T-469-08	MJ-24	24	Beets, Cilantro, Spinach, Swiss Chard, & #11.5 Mini Pellet – Carrots
T-470-08	MM-12	12	Shallow, for flat seeds like Tomato or Peppers
T-472-08	N-6	6	Beans (1-3 Seeds), Corn
T-473-08	X-4	4	Raw Lettuce, Cabbage, Mache, Onions, Shallots, & Radishes
T-478-08	XY-24	24	Raw Lettuce w/ 300,000-400,000 seeds/Lb.
T-482-08	Y-24	24	Broccoli, Onions, Cauliflower, Dill, Greens, & Raw-Seeded Carrots



CULTIVATION TOOLS

☑ To learn more about our cultivation systems, visit www.smallfarmtools.com/pages/cultivation

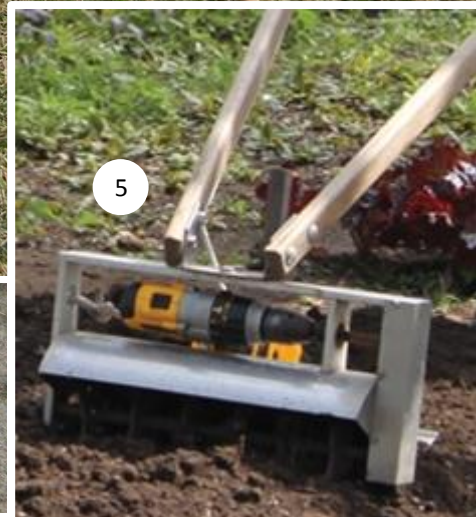


CULTIVATION TOOLS



FST PART #	DESCRIPTION	
T-221-08	Glaser Wheel Hoe	(1)
T-225-08	Glaser Wheel Hoe – Hiller Attachment	(2)
T-232-08	7in Fixed Blade Collinear Hoe	(3)
T-231-08	Narrow Blade Collinear Hoe	(4)
T-262-08	Cobrahead Long Handled Weeder/Cultivator	(5)
T-261-08	3-Tooth Cultivator	(6)
T-259-08	Long-Handled Wire Weeder	(7)
T-251-08	Hand-Held Wire Weeder	(8)
T-252-08	Lucko Wire Weeder	(9)
T-531-08	Hand Tiller	(10)
T-218-08	7in Stirrup Hoe	(11)
T-256-08	Backpack Flame Weeder	(12)
T-257-08	Squeeze Valve w/ Adjustable Pilot for Backpack Flame Weeder (Recommended with T-256-08)	(13)

☑ To learn more about our hand tool collection, visit
www.smallfarmtools.com/collections/tools-hand-tools



FST PART #	DESCRIPTION	
T-561-08	30in Bed Preparation Rake	(1)
T-562-08	Row Markers for Bed Prep Rake	(2)
T-553-08	727 Broadfork for 30in Beds	(3)
T-555-08	Hard-Pan Broadfork	(4)
T-533-08	Stainless Steel Tilther	(5)
T-363-08	Quick Cut Greens Harvester	(6)
T-481-08	Right Angle Trowel	(7)
T-565-08	30in Seedbed Roller	(8)



TRAYS & BINS



Potting On Tomatoes from 2in Soil Block to Quart Square Pots

HARVEST BINS (Different Sizes Are Different Colors)

FST PART #	DESCRIPTION	
T-311-08	7/8 Bushel Harvest Bin w/ Drain Holes	(1)
T-312-08	1-1/8 Bushel Harvest Bin w/ Drain Holes	
T-315-08	1.22 Bu Utility Harvest Box – No Drain Holes	
T-316-08	1.22 Bu Utility Harvest Box w/ Drain Holes	
T-317-08	1.75 Bu Utility Harvest Box w/ Drain Holes	

1020 TRAYS (Actual Footprint Larger than 10in x 20in)

FST PART #	DESCRIPTION	
T-963-08	Case of Shallow 1020 Light-Duty Trays with Rib & Drain Holes (100/Case)	(2)
T-962-08	Case of Deep 1020 Light-Duty Trays with Drain Holes (100/Case)	(3)
T-941-08	Case of 10x20 Flats for Inserts with Webbed Bottom (50/Case)	
T-944-08	Case of 1020 Inserts (One Sheet per Flat), 8 Packs with 4 Cells (100/Case)	
T-946-08	Case of 1020 Inserts (One Sheet per Flat), 8 Packs with 6 Cells (100/Case)	



ROUND / SQUARE POTS & CARRYING TRAYS

FST PART #	DESCRIPTION
T-922-08	Case of 4in Round Pots (1,550/Case)
T-962-08	Case of 4in Round Transport Trays, Holds 15 Pots / Tray (50/Case)
T-973-08	Case of 4.5in Round Pots, 4in Deep (675/Case)
T-974-08	Case of 4.5in Round Transport Trays, Holds 15 Pots / Tray (90/Case)
T-912-08	Case of Quart Square Pots, 4.5in x 5in Deep (441/Case)
T-952-08	Case of Quart Square Transport Trays, Holds 15 Pots / Tray (50/Case)
T-923-11	Case of Gallon Round Pots (77/Case) – Shipped Loose, But Banded





CAS S200Jr Shown with Produce Platter



SCALES

FST PART #	DESCRIPTION
T-380-08	CAS S2000Jr Scale , Max Weight: 15 lb, Precision: 0-6lb/0.002lb, 6-15lb/0.005lb
T-381-08	CAS S2000Jr Scale , Max Weight: 30 lb, Precision: 0-15lb/0.005lb, 15-30lb/0.01lb
T-382-08	CAS S2000Jr Scale , Max Weight: 60 lb, Precision: 0-30lb/0.01lb, 30-60lb/0.02lb
T-383-08	Produce Platter For CAS S2000Jr Scales

Scales can be shipped to various dealers & pre-certified in your state: IL, IN, MN, MO, & WI only. A full-line of CAS products are available.

SANITATION

FST PART #	DESCRIPTION
T-325-06	Sanidate 5.0 5gal (400:1)
T-327-06	Sanidate 12.0 5gal (1000:1)
T-321-09	Sanidate Test Strips



SALAD SPINNERS / VEGETABLE DRYERS




FST PART #	DESCRIPTION
T-331-08	5 Gallon Manual Salad Spinner
T-332-08	5 Gallon Electric Salad Spinner
T-333-08	2.5 Gallon Manual Salad Spinner
T-334-08	Stabilizing Base (for 5gal models)
T-335-09	Salad Spinner Replacement Gear Set

TEMPERATURE CONTROL

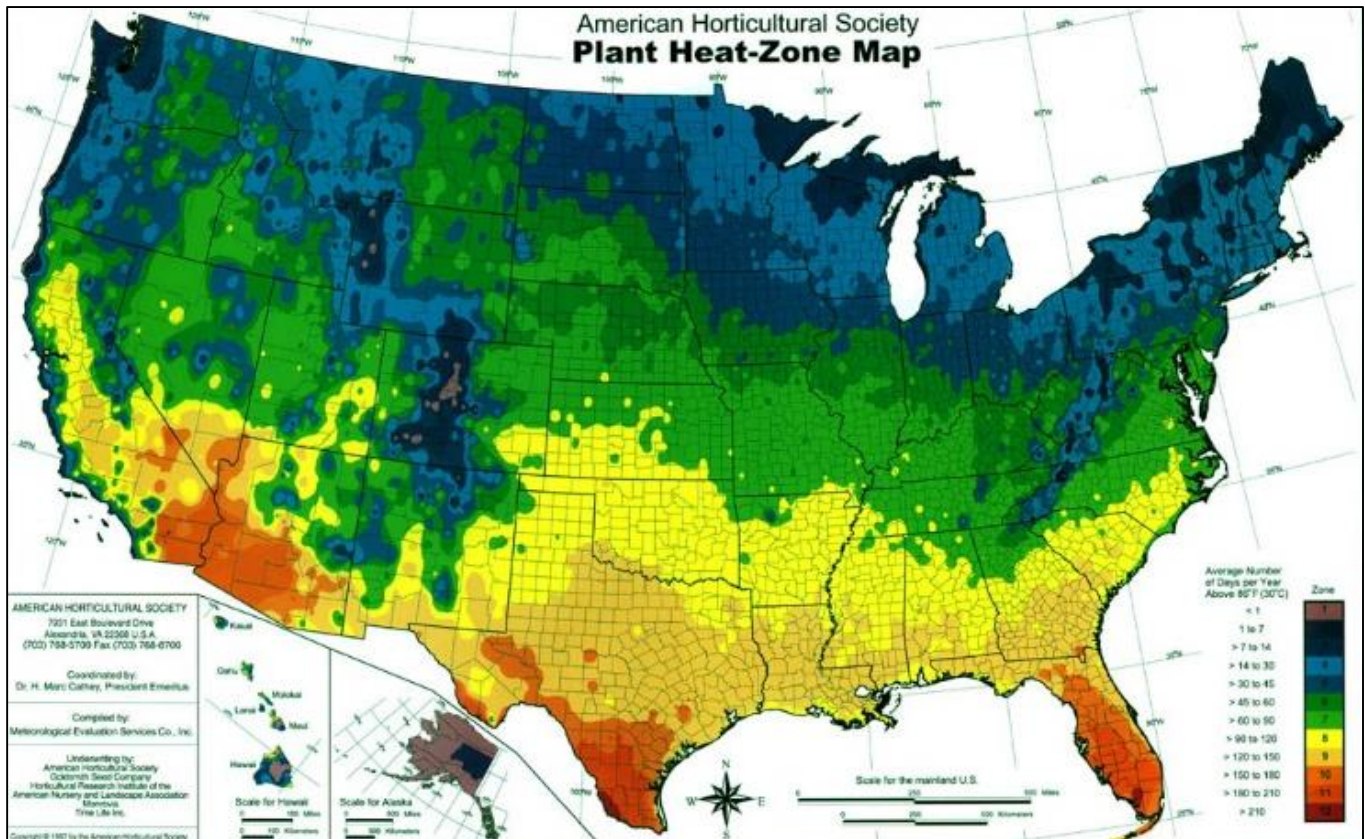
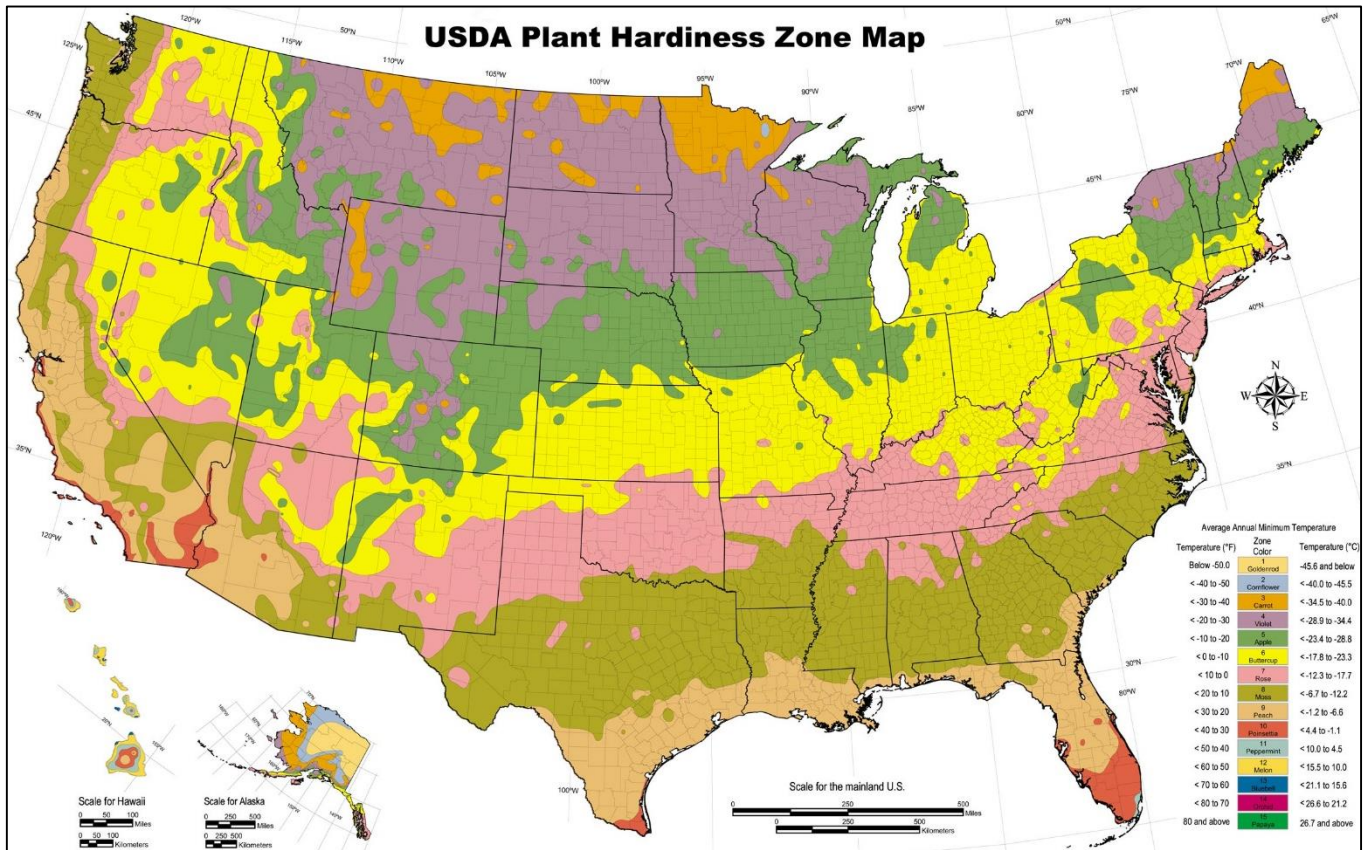
FST PART #	DESCRIPTION
E-580-28	Ranco Temperature Controller
E-600-28	Cool-Bot Cooling System - Allows a window AC unit to power a walk-in cooler system.



SAMPLE CROP ROTATION FOR 3-POSITION MOVABLE HIGH TUNNEL

 - High Tunnel	<u>Position 1</u>	<u>Position 2</u>	<u>Position 3</u>
Feb 15 th Move Tunnel	Direct Seed Carrots Under Low Tunnels	SNOW	SNOW
Apr 1 st Move, Leaving Low Tunnels	Carrots Under Low Tunnels	High Tunnel Warms Soil	EMPTY
Apr 21 st	Carrots Under Low Tunnels	Transplant 6 Week Old Tomatoes	Prep for Leeks
May 5 th	CARROTS	TOMATOES	Transplant 8-10 Week Old Leeks
Jun 1 st	Cover Crop or Summer Crop	TOMATOES	LEEKS
Sep 1 st	Direct Seed Spinach	TOMATOES	LEEKS
Nov 1 st Move Tunnel	SPINACH	Tomatoes Finished	Leeks Under Low Tunnels
Dec 1 st Next Year Starts in Pos 3	SNOW	SNOW	Leeks Under Low Tunnels

Dates Based on River Root Farm in Decorah, IA



THANK YOU





BUY ONLINE

www.SmallFarmTools.com

LIST OF PRODUCTS AVAILABLE ON OUR WEBSITE

The screenshot shows a web browser window with the address bar displaying www.smallfarmtools.com/pages/site-map. The website header features the "FOUR SEASON TOOLS" logo, navigation links (Resources, Contact Us, Terms, Blog), and a search bar. A dark navigation bar contains links for HOME, STRUCTURES, SERVICES, INFO CENTER, ABOUT US, and ONLINE STORE. Below this, a breadcrumb trail reads "Home - Site Map - Products" and a "Your Cart (0)" button is visible.

SITE MAP - PRODUCTS

High Tunnel Kits – 238M Series

Kits featuring metal sidewalls & prefabricated endwalls.

- Movable High Tunnels on V-Track:
 - 2-position
 - 3-position
- Movable High Tunnels on Pipe Track:
 - 2-position
 - 3-position
- Movable High Tunnels on Pipe Skids
- Fixed High Tunnels

Turn-Key Farm Solutions

- Turn-Key Plant Houses
- Custom-Built Greenhouses
- Complete Farm Package
- Four Season Toolbox

Kits for High Tunnels

- Anchoring
- Benches & Shelves
- Endwall Kits
- Heaters & Heating Systems
- Irrigation Kits & Supplies
- Rainwater Capture
- Trellising Kits & Supplies
- Trolley Kits
- Ventilation Kits

Professional Services

- Farm Consultation & Start-Up
- Courses, Lectures & Workshops
- Professional Installation Services
- Economic Analysis & Modeling
- Product Development

High Tunnel Kits – 238W Series

Our best selling kits featuring wooden endwalls & sidewalls!

- Movable High Tunnels on V-Track:
 - 2-position
 - 3-position
- Movable High Tunnels on Pipe Track:
 - 2-position
 - 3-position
- Movable High Tunnels on Pipe Skids
- Fixed High Tunnels

Structures for Livestock

- Movable Hoop Coops on Pipe Skids
- Movable Hoop Coops w/ Lateral Movement
- Chickshaw Kits

DIY Tunnels and Benders

- Hardware Kits for DIY Tunnels
- Hoop Benders

High Tunnel Parts & Components

- Braces, Purlins & Pipe
- Doors
- Fans & Exhaust
- High Tunnel Hardware
- Hinges, Latches, & Pulleys
- Plastic, Plastic Attachment and Inflation
- Shade Cloths

Books & Media

- Books & DVDs

Clearance

- Clearance Items

High Tunnel Kits – 238B Series

Base model high tunnel kits.

- Movable High Tunnels on V-Track:
 - 2-position
 - 3-position
- Movable High Tunnels on Pipe Track:
 - 2-position
 - 3-position
- Movable High Tunnels on Pipe Skids
- Fixed High Tunnels

Low Rider Series

- Low-Rider Kits

Horticultural Supplies

- Cold Storage
- Compost, Potting Mixes & Amendments
- Irrigation Kits & Supplies
- Labels & Packaging
- Row Covers
- Trays & Pots

Tools

- Bed Preparation
- Cultivation & Digging
- Harvest
- Installation
- Seeders
- Tool Accessories
- Seed Starting, Germination & Transplanting
- Walk-Behind Tractors & Implements

LISTING OF PRODUCTS & SERVICES FROM FST

www.SmallFarmTools.com

ADDITIONAL INFORMATION AVAILABLE ONLINE

About FST

Contact Us
FST In The News
Innovations
Meet The Crew
Our Farms
Employment

Our System

Season Extension
Bed Preparation
Cultivation
Fertility
Irrigation
Machinery
Seeders
Transplanting

Structures

V-Track High Tunnels
Pipe Track High Tunnels
Pipe Skid High Tunnels
Fixed High Tunnels
Low Rider Tunnels
Hoop Coops
Chickshaw

Follow Us Online

FST Blog
YouTube Channel
Four Season Tools on Facebook
City Bitty Farm on Facebook
River Root Farm on Facebook
Mother Earth News Blog

Structural Components

Anchoring
Endwall Kits
Irrigation
Rainwater Collection
Ventilation
Trolley Systems

Resources

Installation Manual
High Tunnel Resources
Tool Resources
Maps & Tools
Seed Resources
Additional Resources



Order Form		Fax Order Form to (888) 704-0037 or mail to: Four Season Tools 9615 Grandview Road Kansas City, MO 64137		
Contact Name:		Date:		
Company Name:		Phone: ()		
Address:		Fax: ()		
City	ST	ZIP	Email:	
Part Number:	Description:	Price/Unit	x Quantity	Total Cost
Type of Card: <input type="checkbox"/> Visa <input type="checkbox"/> MC <input type="checkbox"/> Discover <input type="checkbox"/> American Express		Subtotal		
# _ _ _ _ - _ _ _ _ - _ _ _ _ - _ _ _ _		Sales Tax – 8.35% (MO) or 7% (IA)		
Expiration: _ _ / _ _ Security Code (last 3 digits on back) _ _ _		Total (less S&H charges)		
Name on Card: _ _ _ _ _		Signature		

Order Form

Fax Order Form to **(888) 704-0037** or mail to:

Four Season Tools
9615 Grandview Road
Kansas City, MO 64137

Contact Name:	Date:
Company Name:	Phone: ()
Address:	Fax: ()
City ST ZIP	Email:

[illegible]

Type of Card: <input type="checkbox"/> Visa <input type="checkbox"/> MC <input type="checkbox"/> Discover <input type="checkbox"/> American Express	Subtotal	
# _ _ _ _ - _ _ _ - _ _ _ - _ _ _	Sales Tax – 8.35% (MO) or 7% (IA)	
Expiration: _ _ / _ _ Security Code (last 3 digits on back) _ _ _	Total (less S&H charges)	
Name on Card: _ _ _ _ _	Signature	

FOUR SEASON TOOLS



(816)444-7330
SMALLFARMTOOLS.COM