

GK Greenhouse Options

These engineered endwalls are our standard kits. However, we welcome you to give us your specifications so that we may design an endwall package tailored to your needs.



Endwall for hard covering or poly with slide door system:

Door system includes: 14 ga top header rack track, trolleys, door frame, door guide, door jam channel and all hardware.

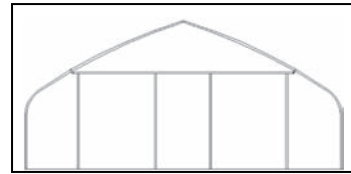


- Slide door system available for all series of greenhouses



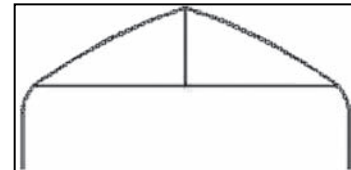
Roll-Up side kit

Kit includes crank, rollup bar, brackets, surelock for the top section and all hardware. Call for quotes on existing structures and for lengths under or over 96 ft. This works great in conjunction with our open roof ventilation system.

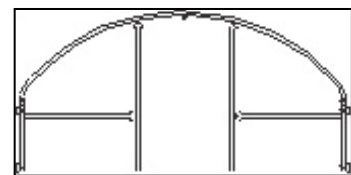


5000-Series endwall kits

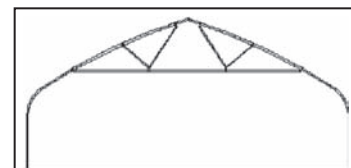
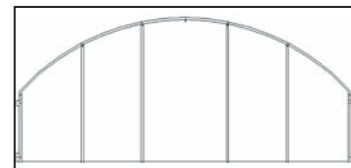
Standard endwall for Series 5000: (1) Truss with (4) Drop legs (adjustable) all hardware included. 20 ft wide code # GH2889 / 24 ft wide code #GH2890 / 30 ft wide code # GH2909



Series 5000 basic truss system



2000-Series standard endwall kits

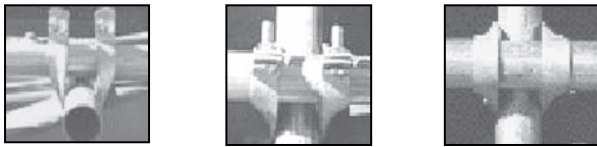


Series 5000 W-truss system

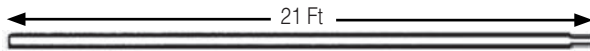
GK Greenhouse Clamps and Fasteners

GK Strap Clamp - This is an easy to use clamp system, made of 12 gauge galvanized steel it has two bolts to secure it, easy to install yet strong and stable. Ask about using this system on your next greenhouse quote from GK Machine, Inc.

Code	Size
GH10A00	1-3/8" X 1-3/8"
GH10A02	1-7/8" X 1-3/8"
GH10A01	1-5/8" X 1-3/8"
GH10A03	2-3/8" X 1-3/8"



GK Purlin
Code 1922X
 Swedged Purlin 1-5/16 X .065 X 21 ft long



Standard Clamps
 Heavy duty 2 hole
 zinc plated steel
 12 gauge

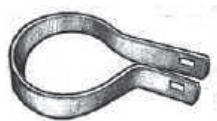
Size	Code	Price
1" Hvy duty 2-hole zinc	MCMA177	\$.79
1" Light 2 hole zinc	MCMA177L	\$.20
1-1/4" 2 Hole HD-270	MCMA209	\$.75
2" 2-Hole HD-280	MCMA204	\$1.15

(Price for clamps only, hardware extra)



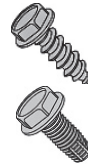
Size	Code	Price
1-3/8"	FENC 102	\$.35
1-5/8"	FENC 101	\$.32
1-7/8"	FENC 100	\$.39

(Price for clamps only, hardware extra)



Size	Code	Price
1-3/8"	FENC102BB	\$.37
1-5/8"	FENC101BB	\$.31
1-7/8"	FENC100BB	\$.41
2-3/8"	FENC99BB	\$.50

(Price for clamps only, hardware extra)



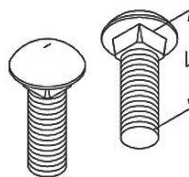
Wood Screws
 Self tapping hex 12 X 1-1/4"
Code # B12-1.25HEXST - \$.05 each
 Self tapping hex 12 X 3/4"
Code # B12-0.75HEXST - \$.16 each



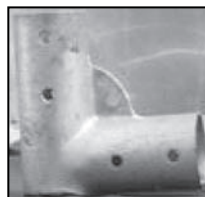
Fasteners
Metal Tek
 Self drilling tek 12 X 3/4" - \$.075 each
Code # B12-0.75TEKSD - \$.07 each



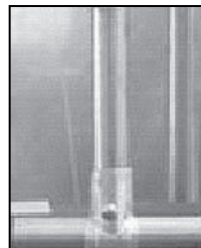
Serrated flanged nut 5/16"
Code # SFN.31 - \$.05 each



Size	Code	Price
5/16" X 1-1/4"	BC0.31-1.25	\$.06
5/16" X 2-1/4"	BC0.31-2.25	\$.53
5/16" X 2-3/4"	BC0.31-2.75	\$.12
5/16" X 3"	BC0.31-3.00	\$.20
5/16" X 3"-1/2"	BC0.31-3.50	\$.09
5/16" X 4-1/2"	BC0.31-4.50	\$.15



Size	Code	Price
1-3/8"	GE-PS-38B	\$3.10
1-7/8"	GATE200	\$6.55



Size	Code	Price
1-3/8"	FENC-GB138	\$.84
1-5/8"	FENC-GB158	\$1.20
1-7/8"	FENC-GB178	\$2.24

GK Shade Cloth Dept and Ground Cover Cloth

Woven Shade Cloth

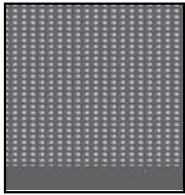
We offer custom shade cloth fabrication using monofilament thread and on-site sewing at our Donald, Or. location for quick service and top quality. We use commercial fabric which is available in seamless widths of 6', 10' and 12' to insure uniformity. We can seam together our three stock widths to obtain standard widths used in the industry.

Features:

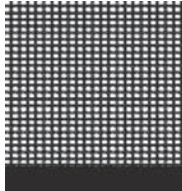
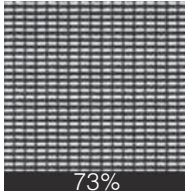
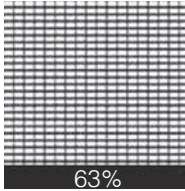
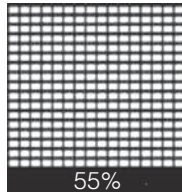
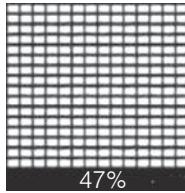
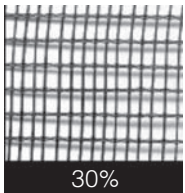
- Woven polypropylene fabric
- Resists mildew and abrasion
- Resistant to most acids, alkalis and solvents

TAPING-Needed if using grommets

- Special projects: We can customize special shapes per your drawing.
- Renovation: We can do re-work on your shade cloth, retape worn edges and replace missing grommets.



Taping-Needed for cut ends and if using grommets.
Slitting-For exact widths.



TRUCK TARPS - Allows air circulation while protecting plants,



Ground Cover Fabric 3.2 OZ.

Ground cover fabric 3.2 oz is the economical, lighter weight ground cover for use in greenhouses and outdoor areas. It is also a woven black polypropylene with guide stripes every 12". It is UV stabilized for up to 7 years and is permeable to air and water

Code	Size	Net Wt.
GHG062	3'X300'	21
GHG061	4'X300'	28
GHG060	6'X300'	44
GHG050	10'X300'	68
GHG055	12'X300'	84
GHG057	15'X300'	105



Ground cover staples

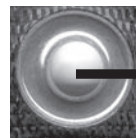
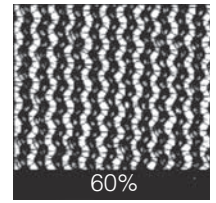
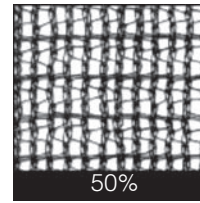
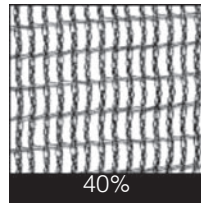
11GAx6" 1000/Box

Code - GHGSTAPLE11

White ground cover fabric available special order.

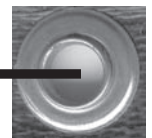
Knitted Shade Cloth

Knitted polypropylene fabric, resists tearing and puncturing, Not necessary to tape cut ends. Available in 10' & 12' widths



top view

Grommets
3/8" diameter



bottom view



Greenhouse Films and GK Surelock Poly Fastener and Greenhouse Film

K50 Long Life films - 4 years

K50 Clear

A 4 year, 6 mil covering for single or double layer applications. Starting with strong EVA resin for excellent durability and light transmission, it comes standard with an anti-static additive to repel dust and dirt and keep the light shining through. Klerk's UV protection uses the latest HALs technology for superior film life. Tri-layer construction gives maximum physical properties with less weight. Available in Clear or 55% White, sheet or tubes.

K50 IR/AC

Keep the heat and lose the drips! Klerk's sets the standard in the industry for long lasting anti-condensation, the standard to which all other companies compare. All anti-condensates work when they're new, but no other film's anti-condensate additive keeps on working for you after that first or second year like Klerk's does.

Call for pricing and sizes available of films listed

CODE	4 YEAR FILM	NET WT
GH3052	6 Mil 20X100	60
GH3053	6 Mil 24X100	72
GH3084	6 Mil 24X150	108
GH3054	6 Mil 28X100	84

CODE	4 YEAR FILM	NET WT
GH3085	6 Mil 28X150	126
GH3055	6 Mil 32X100	96
GH3086	6 Mil 32X150	143
GH3056	6 Mil 36X100	108

CODE	4 YEAR FILM	NET WT
GH3087	6 Mil 36X150	161
GH3057	6 Mil 40X100	120
GH3088	6 Mil 40X150	179
GH3058	6 Mil 42X100	125

CODE	4 YEAR FILM	NET WT.
GH3089	6 Mil 42X150	188
GH3059	6 Mil 48X100	143
GH3090	6 Mil 48X150	216
GH3060	6 Mil 50X100	149
GH3061	6 Mil 50X150	225

Call for pricing and sizes available of films listed

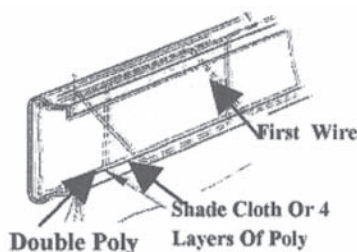
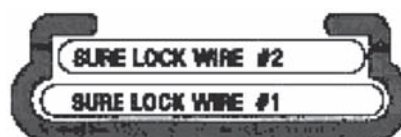
Anti-condensate, Infra-red retention, 1 year film, overwintering film and white opacity films available special order from both suppliers.

Are you sure your lock will hold?

GK Machine's 12 ft aluminum double extruded base and our rigid stainless steel 6 ft springs will.

Surelock Poly Fastener

It is capable of securing greenhouse plastic, shade cloth, screening and many other flexible materials. Installs easily over bows, around equipment...virtually anywhere! Stainless steel wire (will not corrode): available in 6' lengths aluminum double extruded base: Available in 12' lengths material thickness can range from 2-mil to 10-mil.



Double extrusion allows you to easily install 2-wires for four layered application

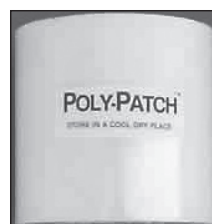
12 foot aluminum double extruded base WIGGLEB12 6 foot stainless steel wire WIGGLEW6

Base and wire also sold separately, Tek screws available see page 10 for sizes and pricing.

First Aid for Your Greenhouse

Poly Patch II Tape

Poly Patch tape is made from a highly UV stabilized 6 mil polypropylene film with a UV stabilized adhesive. Patch any polypropylene rips and tears for both inside and outside.



4'x48'
Code GH10A5



6'x48'
Code GH10A56

GE LEXAN[®] Corrugated Polycarbonate Sheet

Lexan Corrugated sheet, an extruded polycarbonate sheet, is an economical, long-term option for plant protection that is excellent for use as a greenhouse covering. Lexan corrugated sheet has smooth surfaces on both sides with one that is UV-protected. It is available with factory-applied condensate control to help prevent plant diseases caused by dripping condensation.

Lexan Corrugated sheet is the product of choice for cost-effective, high light-transmitting, long-lasting glazing applications.

Lexan Corrugated sheet is inexpensive and easy to install with simple woodworking tools. Light-weight and tough, it can be cold-formed to gentle curves or rolled up for easy handling.

Made from Lexan polycarbonate resin - a high-performance GE engineering thermoplastic - Lexan corrugated sheet offers the clarity of glass, transmitting up to 90% of visible light while filtering out harmful ultraviolet light. Its proprietary integral UV resistance is backed by a 10-year limited warranty* against yellowing and loss of light transmission. Its durability and high impact resistance reduce risk of breakage before, during, and after installation.

* Details Available Upon Request

• High Impact Strength

With 20 times the impact resistance of fiberglass and over 40 times the impact resistance of glass or acrylic) Lexan corrugated sheet resists hail, wind, and vandalism.

• Thermally Insulating

Corrugated sheet can help save energy because of its thermal insulating capability compared to fiberglass.

• Chemically Stable

Although Lexan corrugated sheet is unharmed by many chemical substances, it is important to avoid contact with adhesives, paints or solvents which are incompatible with polycarbonate.

• Light Weight

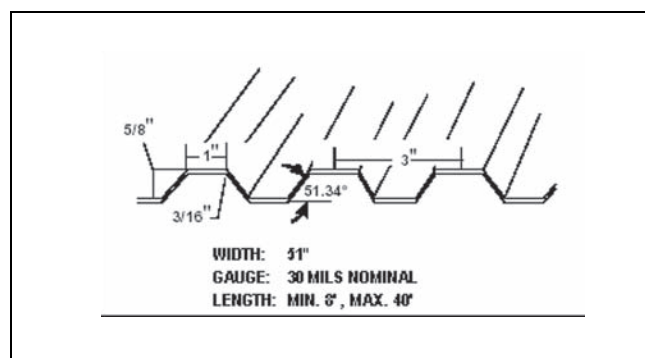
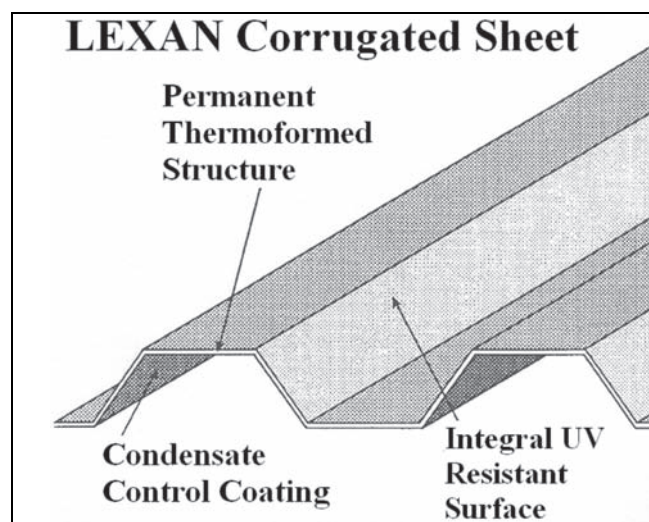
LEXAN corrugated sheet reduces labor costs because its light weight simplifies handling, transportation, and installation - particularly of long spans in high places. Lexan corrugated sheet is only 1/4 the weight of glass on a square-foot basis.

Lexan is a registered trademark of General Electric

Code	Size	Weight LBS
GHP011	50"X 8 Ft	8.85
GHP012	50"X10 Ft	11.05
GHP013	50"X12 Ft	13.25
GHP014	50"X14 Ft	15.5
GHP015	50"X16 Ft	

Fasteners

Code	Description
B12-14-1.00GALV	Type "S" galvanized screw with rubber washer 14x1.00 / 5/16" head (for wood)
B12-14-1.25GALV	Galvanized tek screw self-drill with rubber washer 12x14x1.25 5/16" head (for metal)
B12-2	5/16" magnetic nut drive starter for greenhouse kits



3" pitch X 9/16" height X 36" length Code: GHP030



3/4" X 1" X 36" Code: GHP031

L. B. White GreenGro™ Greenhouse Heaters

99.97% fuel conversion efficiency

The GreenGro's advanced, clean burning design offers 20% better fuel efficiency than traditional vented heaters

The GreenGro's patent-pending design combines advanced performance and superior fuel efficiency to reduce energy costs and grow profits. Unlike conventional vented heaters that exhaust 20% of heated air straight out the stack, the GreenGro converts 99+% of its fuel into clean heat energy. So you get more heated air into the house per fuel dollar.

Whether you are comparing thermal conversion or seasonal (year-round) efficiency, the GreenGro out performs even the most advanced competitive products for a lot less money.

Superior Heat Management

Offered in both 220,000 and 120,000 BTU/H propane or natural gas models, all GreenGro Plus heaters include:

- Dependable, fuel efficient spark ignition
- Quick response on-demand heat
- Powerful long reaching blower fan
- Easy integration with building controls

GreenGro Plus models offer several additional features for even greater fuel and heat management efficiency, including:

- Two stage temperature control
- Heating and air circulation modes
- Tri-Shield triple coated protection

CO2 Enriched Environment

The GreenGro not only saves you money on heating costs; it also delivers all the benefits of a highly efficient CO₂ generator, providing 1250 ppm concentration in only 15 minutes of full output. All delivered through an advanced, clean burning design that outperforms all U.S. greenhouse combustion and safety standards for CO, NO₂, CO₂ and ethylene.

Indoor or Outdoor Installation

The GreenGro is the only greenhouse heater that offers you the choice of inside or outside installation.

- Easy to install outdoor mounting kit saves growing space
- Efficient cabinet design offers multiple indoor location options



Code	Model
GHLB120P	GreenGro 120 Plus LP
GHLB120PN	GreenGro 120 Plus NG
GHLB220P	GreenGro 220 Plus LP
GHLB220PN	GreenGro 220 Plus NG
GHLB220P1	220 Plus LP gas 115 v motor
GHLB220PN1	220 Plus N.G. 115 v motor
GHLB23778	Thermostat kit 2 stage nema 4X

	GreenGro™	Gravity Vent	Power Vent
Thermal Efficiency	99%	80%	80%
Seasonal Efficiency	92%	65%	78%



L. B. White GreenGro™ Greenhouse Heaters

Ventilation Requirements

All heaters require ventilation for proper operation. The L.B. White GreenGro is no different. The GreenGro requires 2.5 CFM per 1000 BTU/H of air exchange. For a GreenGro 220, this translates to 550 CFM of air exchange for an indoor installation, and 220 square inches of exit area for an outside mount. Similarly, a GreenGro 120 requires 300 CFM per indoor mount, and 120 square inches of exit area per outdoor mount.

To make installation easy, L.B. White offers several preassembled ventilation equipment packages. Or, you can purchase your own ventilation equipment. Either way, the following ventilation is required for maximum performance.

Minimum Air Exchange Requirements:

	GreenGro 120 Plus	GreenGro 220Plus
Indoor Installation (cu. ft per min)	300 CFM	550 CFM
Outdoor Installation (sq. inches of exit area)	120 in ²	220 in ²

Installation & Ventilation Kits

Indoor Kits: (Includes motorized inlet shutter, shuttered exhaust fan, eyebolts and chains)

Code	Heater
GH24687	GreenGro 120
GH24693	GreenGro 220

Outdoor Kit: (Includes exhaust shutter outdoor mount kit)

Code	Heater
GH24690	GreenGro 120
GH24688	GreenGro 220

With the GreenGro, fully enclosed electronic controls, gas valve and motor are standard. There's no expensive heat exchanger to fix or replace. Safety features include a totally enclosed flame, built-in temperature protection and air flow safety devices. With heat treated, corrosion resistant components and a heavy gauge steel cabinet. GreenGro heaters offer a comprehensive one-year product warranty plus a 10-year warranty against heat chamber and case corrosion.



GreenGro™ Heater Specifications	GreenGro™ 120 Plus	GreenGro™ 220 Plus
BTU/H Rating (input / output):		
Maximum	120,000	220,000
Intermediate	65,000	120,000
Heater Configuration:		
Direct Spark Ignition	Yes	Yes
Centrifugal Blower Fan	Yes	Yes
Air Movement (CFM)	1,100	1,750
Heat / Air Circulation		
Switch:	Yes	Yes
Fuel Consumption:		
Liquid Propane Gas (lbs./hr.)		
Maximum / Intermediate	6.8 / 3.0	10.2/5.6
Natural Gas (cu. ft./hr.)		
Maximum / Intermediate	117.0 / 63.0	215.0/ 117.0
Power Requirements		
(Volts / Hz/ Phase):	115 / 60 / 1	220 / 60 / 1
Starting/ Continuous Amps	11.8/4.5	10.5 / 3.5
Combustion Air Requirements:		
Indoor Installation	300	550
Outdoor Installation	120	220
Combustion U.S. Standards For		
Performance Heater Discharge		
CO (ppm rise)5.0	1.5	1.5
NO ₂ (ppm rise .05	0.4	0.4
CO ₂ (ppm) 4,000	3,000	3,000
Ethylene(ppm)0.015	0.005	0.005
Air Temperature Rise		
(Farenheit):	110	120
Minimum Clearance (ft.):		
Top / Sides / Back	1 / 1 / 1	1 / 1 / 1
Blower Outlet	6	6
Dimensions (in.):		
Length/Width/Height	30.8x18.3x28.3	36.0x22.0x30.0
Net Weight (lbs.):	116	150
Steel Case Material:		
GreenGro™ Plus Both exclusive Tri-Shieldcoating*		

* Tri-shield coating consists of 3 unique protective layers including a non-corrosive hot-dipped galvanized steel, oven-cured epoxy primer and baked, thermosetting polyester.



Dayton Gas Fired Heaters/ J-D Fans

Dayton Gas Heaters

- Feature totally enclosed motors.
- Durable welded 20 gauge heat exchangers with over 80% thermal efficiency
- Efficiency and aluminized burners with adjustable air shutters
- Dayton heaters install easily with a minimum of maintenance
- Natural gas or LP gas all Special Order.



**Sunne
Thermostats**
Code# - GH522
Thermostat

Tolerates moist conditions, high humidity and airborne contaminants.



Code	Natural Gas Heater
GH52145	30,000 BTU (3E402)
GH52148	75,000 BTU (3E227)
GH521491	00,000 BTU (3E228)

Code	LP Gas Heater
GH52145LP	30,000 BTU (3E403)
GH52148LP	75,000 BTU (3E240)
GH52149LP	100,000 BTU (3E241)

Other size of heaters available
call 503-678-5525 for more details.



Green Breeze-FEATURES

- Only fan on the market with an **“Exclusive open front feature”**.
- Its unique design helps cut its cleaning and maintenance by 75%
- Special design guards allow more air flow through the fan than other guards
- No hot or cold spots throughout the building
- Energy efficient, totally enclosed ball bearing motors
- Complete distribution of air in every direction
- Reduces humidity /eliminates condensation
- Remove dust build up in just a minute.
- Maximizes heat distribution
- Epoxy coated front and rear guard (Two year warranty on motor)

Code	Description
GH542	12" Green Breeze (2600 CFM)
GH541	20" Green Breeze (6000 CFM)

Model	Size	CFM	HP	Volts	Amps	Variable
GH542	12"	2600	1/10	115 / 230.	9/.45	Yes
GH541	20"	6000	1/3	115 / 230	3.2/1.6	Yes

Typhoon Exhaust Fans Cone and No-cone Models Straight and Slant Wall Styles

The 48" Typhoon Cone Fan has been tested and certified by an independent testing agency. Our galvanized Scallop-Twist designed blade is engineered for high output-low noise. The energy efficient, thermally protected, totally enclosed ball bearing motor has a 2 year warranty.

Available Options:

- 36", 42", 48", 50"* and 54"*
- Straight and slant wall housing
- Cone and No Cone
- Motors 1/2, 1 and 11/2
- 3 and 6 galvanized blade
- NEW Cast Aluminum blade available on 50" models
- Single and 3 phase

Fan Housing:

- Cost efficient heavy-duty 18 gauge galvanized construction for superior durability and longevity. Smooth spun venturi maximize airflow dynamics.
- Galvanized Scallop-twist blade is engineered for high output-low noise.
- Galvanized Deep Cone to reduce back pressure and boost performance.
- Heavy-duty galvanized X-Frame motor mount provides solid motor mounting for increased motor life and quieter operation.

Fan Blades:

Galvanized 3, 4 and 6 blade props; highly efficient, easy cleaning, balanced for smooth operation and extended life of blade and motor. NEW cast aluminum 50" blades for high performance and low noise.

Motor:

- Tough, energy efficient, totally enclosed, automatic thermal protection, pre-lubricated ball bearings, dual voltage.
- 2-Year warranty.
- Heavy-duty Automatic belt tightener on all belt drive models.
- Matched motor & belt ratio for maximum air, without overloading the motor.
- Eccentric lock collar bearings.

Shutters:

High performance aluminum shutters.

Code	Description
GH529JD	36" Belt Drive
GH529DJD	36 Direct Drive
GH528JD	48" Belt Drive



Fans And Shutters

Slantwall exhaust fans- features all galvanized construction to resist corrosion in greenhouses. Units include housing, fan, shutter, motor and belt drive



Code **Slantwall Exhaust Fans**
 GH529 AG/Duty 36" (7H214)
 GH528 AG/Duty 48" (7H215)

	GH529	GH528
Propeller Dia	36"	48"
Volts 60 Hz	115/230	115/230
Motor HP	1/2	1
CFM@0.0-In. SP	20.9	19.0
Housing	Both Galvanized Steel	
Opening required H (in.)	43-7/8"	58-1/2"
Opening required W (in.)	41"	55"
Motor RPM	640	500

Slantwall cone fans- The discharge cone will increase fans performance and efficiency. The 1" dia. corrosion resistant fan shaft has self aligning, pre-lubricated pillow block ball bearings. Units include housing, intake shutter, discharge cone, outlet screen, belt tensioner, fan and motor.



Code **Slantwall Cone Fans**
 GH529 36" Cone Fan (5TR71)
 GH528 48" Cone Fan (5TR70)

	GH529CF	GH528CF
Propeller Dia	36"	48"
Volts 60 Hz	115/230	115/230
Full Loaded Amps	5.0 / 2.5	14.0 / 7.0
Motor HP	1/2	1
CFM@0.0-In. SP	12820 / 16	25029/23
Max. Fan BHP	0.86	1.60
Fan RPM	594	564
Motor RPM	1725	1725

Shutter mounted exhaust fan - efficient easy to install w/ automatic shutters. Heavy duty guards w/gray metallic vinyl polyester coating to resist corrosion. Enclosed ball bearing motors.

Code **Size**
 GH5214 20"
 GH5215 24"
 GH5216 30"



Single and double panel non-motorized galvanized steel shutters- for normal applications. Mill finish aluminum blades with stainless steel rivets and 19 gauge welded steel frame. Other sizes available please call for quote.

Code **Single Panel**
 GH5225 Std 20" (1C745)
 GH5226 Std 24" (1C746)
 GH5227 Std.30" (1C055)
 GH5228 Std 36" (4C521)



Code **Double Panel**
 GH5229 Std 36"(1C209)
 GH5230 Std 42"(1C210)
 GH524 Std 48"(1C211)
 GH5241 Std 54"(3C115)
 GH5242 Std 60"(3C116)



Code # GH523

Inflation fan - when installed the fan will inflate double layer of greenhouse film to give better heating economy. Bracket sold separately and jumper hoses available to inflate poly covered endwalls.



Optional Shutter Motors
Code **Size**
 GH526 Single Panel
 GH525 Double Panel



Shutter Motor

Mounting Bracket Hardware-Code # GROWBB
3 Ft Jumper Hoses -Code # GH5603

Thermostat-tolerates moist conditions, high humidity and airborne contaminants for heating or cooling.

Sunne
 Thermostats
 Code# - GH522



GK Mighty Max Garden Greenhouse Series

Standard Package Includes:

- 8'-6" Peak height
- 1-Purlin run
- Heavy 1.375" galvanized steel frame
- 1.50" Galvanized tube door frame (fits standard 36" storm door, door not included)
- Windbrace supports (detailed below)
- Greenhouse plastic covering 4-year, 6-mil
- Surelock fastening system for plastic cover
- All hardware included
- Instruction manual included

Optional Upgrades: (for 12X10)

- Second layer plastic covering with all inflation hardware & fan
- Add posts for a permanent structure (call for details)

Circulation system:

- 12" Shuttered fan
- 20" Galvanized steel shutter
- Shutter motor
- Thermostat

Optional Upgrades: (for 12X15)

- Second layer plastic covering with all inflation hardware & fan
- Add posts for a permanent structure (call for details)

Circulation System:

- 16" Shuttered fan
- 20" Galvanized steel shutter
- Shutter motor
- 2 Thermostats

Optional Upgrades: (for 12X20)

- Second layer plastic covering with all inflation hardware & fan
- Add posts for a permanent structure (call for details)

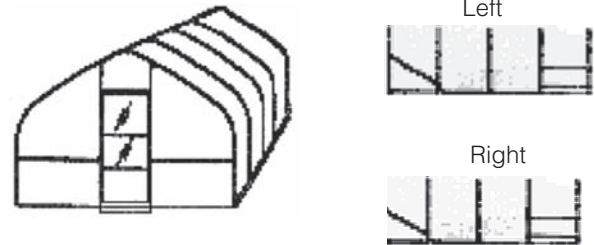
Circulation System:

- 20" Shuttered fan
- (2) 20" Galvanized steel shutters
- (2) Shutter motors
- (2) Thermostats

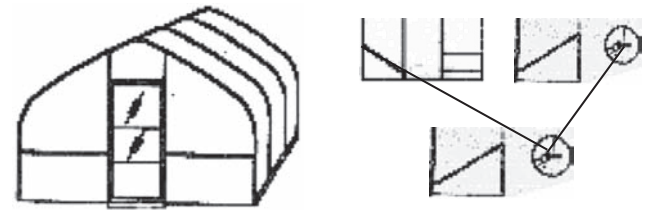
Code Mighty Max Series

GH44	12' wide X 10' long 5' O/C
GH45	12' wide X 15' long 5' O/C
GH38	12' wide X 20' long 5' O/C

Windbrace support diagram for 12x20



Windbrace support diagram for 12x15



Windbrace support diagram for 12x10

