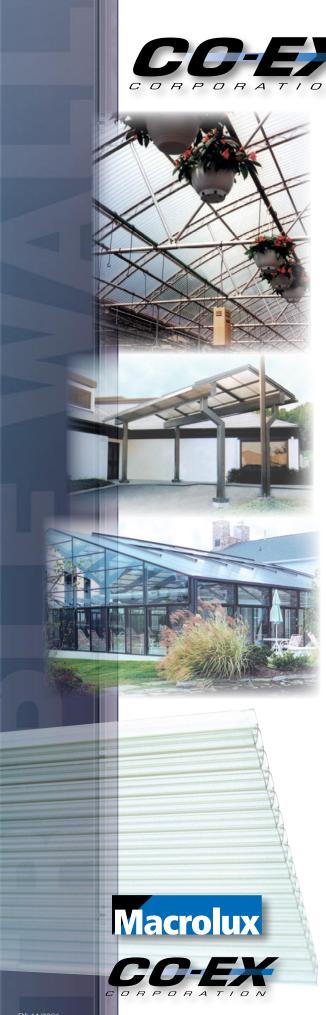




# Macrolux

6, 8 & 10 mm
TRIPLE WALL
SERIES



## MACROLUX TRIPLE WALL POLYCARBONATE

**CO-EX** is proud to offer **Macrolux® Triple Wall** Polycarbonate Sheet. Triple wall increases the R Value over traditional twin wall polycarbonate. The material is extruded with three layers of polycarbonate to create more air pockets, thus increasing the R Value. This makes **Macrolux® Triple Wall** an ideal covering for all greenhouse applications where heat saving is a concern. It is also ideal for industrial and residential building such as:

- Greenhouse Applications
- Roofing, Glazing
- Do-It-Yourself Projects
- SkylightsWindows
- Pool Enclosures

#### **MAIN CHARACTERISTICS**

- Minimum Bending Radius: 150 Times the Thickness of the Sheet
- Load: Comparable with 10mm Two Wall
- High Light Transmission
- Scratch Resistance

#### **EASY TO INSTALL**

Macrolux® Triple Wall Polycarbonate Sheet have been specifically designed for simple and rapid installation. It won't crack or split when cut or drilled.

#### WARRANTY – 10 year

	Í	o mm   <del>&lt; →</del>	1								
ı											6, 8, 10 mm
ı											0, 0, 10 11111
ļ.	-					48" ar	nd 72'	-			

#### TECHNICAL DATA

SHEET	MM	6 MM	8 MM	10 MM
THICKNESS	INCH	1/4"	5/16"	3/8"
Wall Type		Triple	Triple	Triple
Rib Spacing		0.3125"	0.3125"	0.3125"
Standard Width		48" & 72"	48" & 72"	48" & 72"
Standard Length		Up to 391	Up to 391	Up to 391
Light Transmission	Clear	75%	75%	75%
	Bronze	40%	40%	40%
	Opal	60%	60%	55%
Solar Control G-value	Clear	85%	84%	78%
	Bronze	69%	66%	63%
	Opal	63%	62%	55%
Thermal Insulation	U-Factor	.60	.53	.48
	R-Factor	1.67	1.89	2.10
Shading Coeffecient	Clear	.98	.97	.90
	Bronze	.79	.76	.72
	Opal	.72	.71	.68

#### CALL TODAY FOR MORE INFORMATION! (800) 888-5364

5 Alexander Drive Wallingford, CT 06492

(203) 679-0500

(203) 6/9-0300

(800) 888-5364

fax: (203) 679-0600 e-mail: info@co-excorp.com web: co-excorp.com **DISTRIBUTED BY:** 







LEADERS IN MOVING THE WORLD'S AIR

## **EZ-BREEZE BASKET FANS**

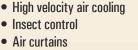
**High Output Performance** High Efficiency Air Circulators

J&D Manufacturing's EZ-Breeze HAF Circulation Fan is the answer to your air circulation needs. It features a "quiet blade" designed to reduce ambient noise levels while maintaining maximum circulation requirements. An efficient variable speed motor runs quietly and saves energy.

When it comes to transferring electrical energy efficiently into air energy for cooling, air recirculation or air movement, J&D Manufacturing is the world leader.

J&D Manufacturing re-circulation fans when applied properly can be used in the following applications:

- Air de-stratification can help reduce heating and cooling bills by up to 25%
- Air exchange when placed in a wall opening or in open sidewall buildings
- Consistent air temperature throughout a room or building
- Heat stress relief indoors and outdoors for young and old
- Surface drying (including animal bedding)
- People and animal cooling
- Machine/compressor cooling









#### **FEATURES**

- Quiet Operation
- Quiet efficient aluminum blade
- Guard meets OSHA standards
- Variable Speed Motor
- Corrosion resistant white powder coated guards and brackets
- Fan and guards come completely assembled.
- 6' Cord, 3-Prong Plug Attached wired for 115V
- Totally enclosed, maintenance free, direct drive high efficiency motors have completely sealed ball bearings, UL and ULC certification, built in automatic thermal overload protection, covered by a **Full Two Year Warranty**.
- Almost all J&D Manufacturing re-circulation fans can be used with our misting/fogging product line.



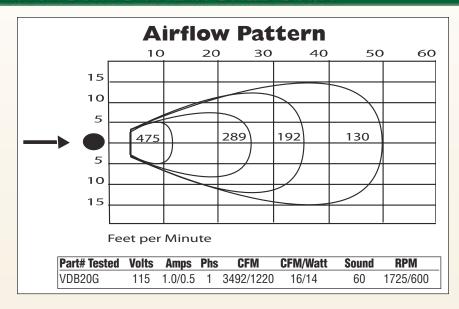






#### LEADERS IN MOVING THE WORLD'S AIR





EZ-B	EZ-BREEZE BASKET FANS														
	CFM CFM/Watt														
				Amps			Hi/Low	Hi/Low	Noise	RPM					
Part#	Size	HP	Volt	Hi/Low	HZ Phs	Spd	@.0"SP	<b>@.0"SP</b>	DB	Hi/Low	Drive	Blade	Cord	Color	Bracket Included
VDB12G	12"	1/10	115	1.0/0.5	60/50 1	S/Var	1436/500	10/8	56	1725/600	DD	3-Alum	6'	White	VRSBR736
VDB16G	16"	1/10	115	1.0/0.5	60/50 1	S/Var	2394/840	14/12	56	1725/600	DD	3-Alum	6'	White	VRSBR736
VDB20G	20"	1/10	115	1.0/0.5	60/50 1	S/Var	3492/1220	16/14	60	1725/600	DD	3-Alum	6'	White	VRSBR5
VDB24G	24"	1/3	115/230	3.5/1.7	60/50 1	S/Var	6715/2350	16/14	62	1725/600	DD	3-Alum	6'	White	VRSBR5
DD-Direct D	Orive, 1	12"–24	l" fans inclı	ude a U-Bo	It and Nuts	vith star	ndard bracke	ets							









HD10294 & HD10046

OPTIO	ONA	L MOUNTING BR	RACKETS
Part #	Fan Size	Description	Finish
Standard L b	rackets (12"	'–24" standard brackets do not come wi	th U-Bolt and Nuts)
VRSBR736	12"-16"	Standard L-Bracket	Powder Coated Black
VRSBR5	20"-24"	Standard L-Bracket	Powder Coated Black
VRSBR19	12"-24"	Twist L Bracket	Powder Coated Black
HD10294	12"-24"	U-Bolt	
HD10046	12"-24"	Nuts for U-Bolt	
Ceiling Mou	nt Brackets		
POWTPB	12"-24"	Tent Pole/Greenhouse Bracket w/U-Bolt	Powder Coated White

### **MSDS**

## Material Safety Data Sheet

Date of Issue: January 1, 2009 Data Sheet No. MSDS Macrolux®

Page 1 of 1

1. Identification of the substance/preparation and the company

Macrolux® Polycarbonate Multiwall Sheet CO-EX Corporation

**5 Alexander Drive** 

Telephone 203-679-0500 Wallingford, CT 06492

2. Composition/information on ingredients Plastic Sheets based on Polycarbonate

3. Hazardous Identification Hazard warning not required

4. First Aid Procedure

Burn from contact with hot melt: Cool the affected part with clean cold water.

Do not attempt to remove solidified plastics.

Obtain immediate medical attention.

Cuts: Obtain immediate medical attention.

5. Fire fighting measures

Extinguishing Media Water spray, extinguishing powder, CO<sup>2</sup>, foam, dry powder

Fire-fighters have to wear self-contained breathing apparatus.

6. **Accidental release measures** Take up mechanically

7. Handling and Storage Usual procedures are to be observed

8. Exposure controls/personal protection Not required

9. Physical and Chemical properties

Form: Sheets

Color: colorless or color with color agent

Odor: odorless
Melting Point: >150°C (302°F)

Density: approx. 1.2 gm/cc at 20°C (68°F)

Vapor Pressure: not applicable
Viscosity: not applicable
Solubility in water: insoluble
pH value: not applicable
Flash Point: FIT >400°C (752°F)
Ignition Point: SIT >450°C (842°F)
Explosive Limits: not applicable

#### 10. Stability and reactivity

**Thermal Decomposition:** Decomposition begins at 380°C (716°F). Fumes evolved by overheating or burning may be injurious to health.

**Hazardous Decomposition Product:** Caused by smoldering and incomplete combustion. Toxic fumes consisting of **CO** and **CO**<sup>2</sup> may be developed. Formation of traces of aliphatic and aromatic hydrocarbons, aldehydes, acids, phenol and phenol derivatives may occur.

Hazardous Reaction: No hazardous reaction observed.

11. Toxicological information None

12. Ecological information Water pollution class (WGK):0-not generally hazardous to water
 13. Disposal consideration Can be recycled. May be discharged or incinerated together

With household refuse observing local official rules and regulations.

14. Transport information Not dangerous cargo. Keep dry.15. Regulatory information No labeling is required in accordance.

Note: THE INFORMATION SET FORTH HEREIN HAS BEEN GATHERED FROM STANDARD REFERENCE MATERIALS AND/OR CO-EX TEST DATA AND TO THE BEST OF OUR KNOWLEDGE AND BELIEF IS ACCURATE AND RELIABLE. THIS INFORMATION IS OFFERED SOLELY FOR YOUR CONSIDERATION, INVESTIGATION AND VERIFICATION AND IT IS NOT SUGGESTED TO GUARANTEE THAT THE HAZARD PRECAUTION OR PROCEDURES MENTIONED ARE THE ONLY ONES WHICH EXIST. CO-EX MAKES NO WARRANTEES, EXPRESSED OR IMPLIED, WITH RESPECT TO THE USE OF SUCH INFORMATION OR THE USE OF THE SPECIFIC PROCESS AND, THEREFORE, ASSUMES NO RESPONSIBILITY.

### **MSDS**

## Material Safety Data Sheet

Date of Issue: January 1, 2009 Data Sheet No. MSDS Rooflite®

Page 1 of 1

1. Identification of the substance/preparation and the company

Rooflite® Polycarbonate Corrugated Sheet CO-EX Corporation

**5 Alexander Drive** 

Telephone 203-679-0500 Wallingford, CT 06492

2. Composition/information on ingredients Plastic Sheets based on Polycarbonate

3. Hazardous Identification Hazard warning not required

4. First Aid Procedure

Burn from contact with hot melt: Cool the affected part with clean cold water.

Do not attempt to remove solidified plastics.

Obtain immediate medical attention.

Cuts: Obtain immediate medical attention.

5. Fire fighting measures

Extinguishing Media Water spray, extinguishing powder, CO<sup>2</sup>, foam, dry powder

Fire-fighters have to wear self-contained breathing apparatus.

6. Accidental release measures Take up mechanically

7. Handling and Storage Usual procedures are to be observed

8. Exposure controls/personal protection Not required

9. Physical and Chemical properties

Form: Sheets

Color: colorless or color with color agent

Odor: odorless
Melting Point: >150°C (302°F)

Density: approx. 1.2 gm/cc at 20°C (68°F)

Vapor Pressure: not applicable
Viscosity: not applicable
Solubility in water: insoluble
pH value: not applicable
Flash Point: FIT >400°C (752°F)
Ignition Point: SIT >450°C (842°F)
Explosive Limits: not applicable

#### 10. Stability and reactivity

**Thermal Decomposition:** Decomposition begins at 380°C (716°F). Fumes evolved by overheating or burning may be injurious to health.

**Hazardous Decomposition Product:** Caused by smoldering and incomplete combustion. Toxic fumes consisting of **CO** and **CO**<sup>2</sup> may be developed. Formation of traces of aliphatic and aromatic hydrocarbons, aldehydes, acids, phenol and phenol derivatives may occur.

Hazardous Reaction: No hazardous reaction observed.

11. Toxicological information None

12. Ecological information Water pollution class (WGK):0-not generally hazardous to water
 13. Disposal consideration Can be recycled. May be discharged or incinerated together

With household refuse observing local official rules and regulations.

14. Transport information Not dangerous cargo. Keep dry.15. Regulatory information No labeling is required in accordance.

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## Power Vented, Low Static Axial Fan Unit Heaters for Residential and Commercial/Industrial Use Sizes 30-125

approved for utility applications such as residential garages under CSA International Requirement 10.96 - U.S. and CR96-0005 - Canada





CSA 2.6b







#### **DESCRIPTION**

Reznor® V3 Series Model UDAP gas-fired unit heaters are available in 14 sizes ranging from 30,000 to 400,000 BTUH gas input. Sizes 30-125 are approved for residential application. All sizes are approved for commercial/industrial installations. Model UDAP heaters are designed for 82-83% thermal efficiency and are approved for installation in the United States and Canada by the Canadian Standards Association (CSA).

Reznor V3 Series unit heaters have a refreshing new appearance with a glossy white cabinet finish and less visible hardware. Each size cabinet is easily suspended from either 2 or 4 suspension points. Or, an optional hanger kit for Sizes 30-125 allows for ceiling mounting. The low voltage terminal strip on the outside of the cabinet makes connecting control wiring easy with no panels to remove. The addition of a "G" terminal to the strip, along with the new design of the circuit board, allows for fan only operation (without adding relays). All units have a factory installed gas line nipple to the exterior of the cabinet for easy gas service connection.

The preeminent new internal feature is the TCORE2 ® heat exchanger and single burner combustion system. Other standard features include a single-stage gas valve, multi-try direct spark ignition with 100% lockout, pressure switch to verify vent flow, resiliently isolated venter motor, venter wheel with improved housing, resiliently isolated axial fan and motor assembly, and a high temperature limit control. Sizes 30-125 also include a flame rollout safety switch. Operation is controlled through an integrated circuit board. The circuit board monitors heater operation and has LED diagnostic indicator lights to identify abnormalities in control functions.

The V3 Series unit heaters are designed to provide all the features you expect in a Reznor heater plus improved efficiency, easier installation, and a new look **~ both inside and out.** Look for the unique white unit with no visible front and bottom hardware, deep red louvers, black side handle, and angled corner to know you have a genuine Reznor unit by Thomas & Betts.

#### **STANDARD FEATURES**

- Sizes 30-125 certified for residential heating application
- Sizes 30-400 certified for commercial/industrial heating application
- 82-83% Thermal efficient ~ TOP in its class!
- 50-60°F Rise range
- TCORE<sup>2®</sup> titanium stabilized aluminized steel heat exchanger
- Patented\*\* TCORE<sup>2®</sup> single burner combustion system including a one-piece burner assembly
- 115/1/60 Supply voltage
- 115 Volt open fan motor with internal overload protection
- Transformer for 24-volt controls
- Integrated circuit board with diagnostic indicator lights
- Multi-try direct spark ignition with 100% lockout
- Fan relay (included on the circuit board)
- Single-stage natural gas valve (field adjustable for operation to 9,000 ft. elevation)
- Vibration/noise isolated fan and venter motors ~ designed for low noise operation
- 2-pt and 4-pt Suspension ~ standard on all sizes
- External terminal strip for 24-volt wiring
- · External gas connection
- Full fan guard ~ engineered for safety
- Improved cabinet design with less visible hardware and a NEW Reznor appearance
- Single-stage, propane gas valve (field adjustable for operation to 9,000 ft. elevation)
- Two-stage natural gas or propane gas valve Sizes 60-400
- 409 or 316 Stainless steel heat exchangers
- 208 or 230 Single phase voltage
- Totally enclosed fan motor (Sizes 30-250, 115V only)
- Common venting with other gravity vented Category I appliance(s) (Sizes 30-100)

**OPTIONAL FEATURES -**

**FACTORY INSTALLED** 

<sup>\*</sup> U.S. Patent No. 6,889,686

#### **OPTIONAL FEATURES -**FIELD INSTALLED

- Vent cap
- Thermostat
- Thermostat guard with locking cover
- Vertical louvers ~ new design
- Downturn nozzle kits ~ new design
- Gas conversion kits (natural and propane)
- Master/Slave controls for zoning up to six units
- Ceiling suspension kit Sizes 30-125
- Hanger kits for 1" pipe
- Stepdown transformer (for 230/3 and 460/3 supply voltage)
- Manual shutoff valves

#### **TECHNICAL DATA**

Model UDAP

Size		30	45	60	75	100	125	150	175	200	225	250	300	350	400
Input Heating Capacity	BTUH	30,000	45,000	60,000	75,000	105,000	120,000	150,000	175,000	200,000	225,000	250,000	300,000	350,000	400,000
input ricating Capacity	kW/h	8.8	13.2	17.6	22.0	30.8	35.2	43.9	51.2	58.6	65.9	73.2	87.8	102.5	117.1
Thermal Efficiency (%)		82	83	83	83	83	83	83	83	83	83	83	83	83	83
Output Heating	BTUH	24,600	37,350	49,800	62,250	87,150	99,600	124,500	145,250	166,000	186,750	207,500	249,000	290,500	332,000
Capacity <sup>A</sup>	kW/h	7.2	11.0	14.6	18.3	25.6	29.2	36.4	42.5	48.6	54.7	60.8	72.9	85.1	97.2
Gas Connection	Natural	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4
(inches) <sup>B</sup>	Propane	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4
Vent Connection Size <sup>c</sup> diameter)	(inches	4	4	4	4	4	4	5	5	5	5	5	6	6	6
Control Amps (24 volt)		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Full Load Amps (115 vol		1.9	2.4	2.4	3.3	3.9	5.1	3.8	3.8	4.6	7.5	7.5	11.0	11.0	11.0
Maximum Over Current (115V) <sup>p</sup>		15	15	15	15	15	15	15	15	15	15	15	20	20	20
Normal Power Consumption (watts)		109	155	155	217	276	354	392	392	491	747	747	1086	1086	1086
Discharge Air Temperature Rise (°F)		50	55	60	60	60	60	60	60	60	60	60	60	60	60
Air Volume CFM		456	629	769	961	1345	1537	1921	2242	2562	2882	3202	3843	4483	5123
All volume	M³/minute	12.9	17.8	21.8	27.5	36.7	45.9	54.4	63.5	72.5	81.6	90.7	108.8	126.9	145.1
Discharge Air Opening	ft²	0.96	0.96	1.25	1.25	2.01	2.01	2.56	2.56	2.56	3.51	3.51	4.79	4.79	4.79
Area	M <sup>2</sup>	0.09	0.09	0.12	0.12	0.19	0.19	0.24	0.24	0.24	0.33	0.33	0.45	0.45	0.45
Output Velocity	FPM	475	656	616	770	668	763	752	877	1003	820	911	802	936	1069
output volocity	M/minute	145	200	188	238	196	245	229	267	306	250	278	244	285	326
Fan Motor HP <sup>€</sup>	Open	0.02	0.03	0.03	0.06	1/30	1/20	1/6	1/6	1/6	1/4	1/4	1/2	1/2	1/2
	Enclosed	0.06	0.06	0.06	0.06	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/2	1/2	1/2
Fan Motor RPM		1550	1550	1550	1550	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050
Fan Diameter (inches)		10	10	12	12	16	16	18	18	18	20	20	24	24	24
Sound Level	dBA @ 15 ft	40	40	40	49	54	55	51	52	53	56	56	59	61	62
Approximate Net	lbs	54	59	67	72	96	101	172	187	187	203	215	269	294	306
Weight	kg	24	27	30	33	44	46	78	85	85	92	98	122	133	139
Approximate Ship	lbs	61	66	74	79	118	123	204	219	219	245	257	321	346	358
Weight	kg	27	30	33	36	54	56	93	100	100	111	117	146	157	163

<sup>&</sup>lt;sup>A</sup> CSA rating for altitudes to 2000 ft.

Page Number \_\_\_\_\_ of \_\_\_\_

B Size shown is for gas connection to a single stage gas valve, not supply line size.
Smaller or larger vent pipe diameters may be allowed; refer to the Venting Installation Manual, Form I-V-PV. If vent diameter is different from vent connection, reducer/enlargers will be field-required.

MODP = 2.25 x (largest motor FLA) + smallest motor FLA. Answer is rounded to the nearest commercially available circuit breaker.

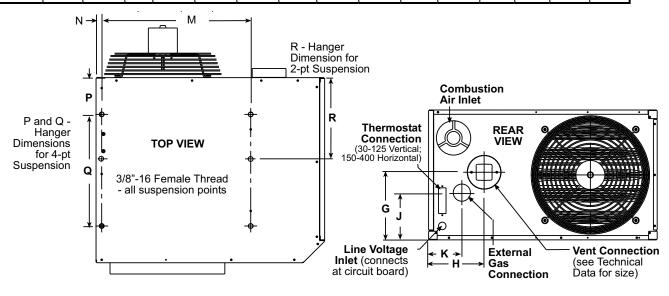
All other information in this table is based on a heater equipped with a standard 115 volt open fan motor.

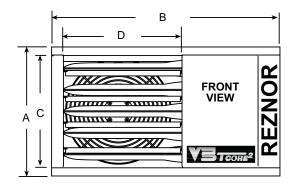
#### **DIMENSIONS**

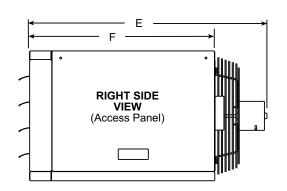
Model UDAP

±1/16" (2mm)

Size	Α	В	С	D	Е	F	G	Н	J	К	М	N	Р	Q	R
30, 45	12 1/8	25 5/8	10	13 13/16	26	21 9/16	5 3/16	6 1/2	2 11/16	3 7/8	17 3/8	11/16	4 5/16	13	9 9/16
60	15 1/8	25 5/8	13	13 13/16	27	21 9/16	7 7/8	6 1/2	5 1/2	3 7/8	17 3/8	11/16	4 5/16	13	10 1/2
75	15 1/8	25 5/8	13	13 13/16	27 5/8	21 9/16	7 7/8	6 1/2	5 1/2	3 7/8	17 3/8	11/16	4 5/16	13	10 1/2
100	23 1/8	25 5/8	21	13 13/16	28 5/8	21 9/16	14 1/2	6 1/2	8 3/4	3 7/8	17 3/8	11/16	4 5/16	13	10 1/2
125	23 1/8	25 5/8	21	13 13/16	29 3/8	21 9/16	14 1/2	6 1/2	8 3/4	3 7/8	17 3/8	11/16	4 5/16	13	10 1/2
150, 175, 200	20 1/8	38 3/16	16	23	42	35 3/8	8 1/2	8 1/4	5 7/16	6 1/2	25 11/16	1 3/8	8 3/16	22 3/16	16 3/8
225, 250	26 1/8	38 3/16	22	23	42	35 3/8	13 1/16	8 13/16	9	6 1/2	25 11/16	1 3/8	8 3/16	22 3/16	15 5/8
300, 350, 400	34 1/8	4 1	30	23	42	35 3/8	17 1/16	9	11 13/16	7 5/16	27 11/16	1 3/8	8 3/16	22 3/16	16 3/16
Size	Α	В	С	D	Е	F	G	Н	J	К	М	N	Р	Q	R
Size 30, 45	<b>A</b> (308)	<b>B</b> (651)	<b>C</b> (254)	<b>D</b> (351)	<b>E</b> (660)	<b>F</b> (548)	<b>G</b> (132)	<b>H</b> (165)	<b>J</b> (68)	<b>K</b> (98)	<b>M</b> (441)	<b>N</b> (17)	<b>P</b> (110)	<b>Q</b> (330)	<b>R</b> (243)
		<del>-</del> -				<del></del>			<u> </u>						
30, 45	(308)	(651)	(254)	(351)	(660)	(548)	(132)	(165)	(68)	(98)	(441)	(17)	(110)	(330)	(243)
30, 45 60	(308) (384)	(651) (651)	(254) (330)	(351) (351)	(660) (686)	(548) (548)	(132) (200)	(165) (165)	(68) (140)	(98) (98)	(441) (441)	(17) (17)	(110) (110)	(330)	(243) (267)
30, 45 60 75	(308) (384) (384)	(651) (651) (651)	(254) (330) (330)	(351) (351) (351)	(660) (686) (702)	(548) (548) (548)	(132) (200) (200)	(165) (165) (165)	(68) (140) (140)	(98) (98) (98)	(441) (441) (441)	(17) (17) (17)	(110) (110) (110)	(330) (330) (330)	(243) (267) (267)
30, 45 60 75 100	(308) (384) (384) (587)	(651) (651) (651) (651)	(254) (330) (330) (533)	(351) (351) (351) (351)	(660) (686) (702) (727)	(548) (548) (548) (548)	(132) (200) (200) (368)	(165) (165) (165) (165)	(68) (140) (140) (222)	(98) (98) (98) (98)	(441) (441) (441) (441)	(17) (17) (17) (17)	(110) (110) (110) (110)	(330) (330) (330) (330)	(243) (267) (267) (267)
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#### **CLEARANCES FROM COMBUSTIBLES**

	Тор		Flue Connector		Access Panel		Non-Access Side		Bottom*		Rear	
Size	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
30-125	1	25	6	152	18	457	1	25	1	25	18	457
150-400	4	102	6	152	18	457	2	51	1	25	18	457

<sup>\*</sup>Suspend the heater so that the bottom is a minimum of 5' (1.5M) above the floor.



#### **STEP Up** to increased control!

#### **STEP Up** TO INCREASED EFFICIENCY:

Reduce your labor costs with the STEP Up automatically controling your environment. Wadsworth custom programs your control based on the equipment in your greenhouse, leaving time for you to focus on running your business.

#### **STEP Up TO REDUCE ENERGY CONSUMPTION:**

Using a sensitive, central temperature sensor housed in an aspirated solar guarded housing reduces you energy consumption.

#### STEP Up TO EASY OPERATION:

It's as simple as turning a knob and pressing the select/save button.

#### **STEP Up** TO INCREASED FLEXIBILITY:

You can easily change your three set point temperature settings and adjust the temperature between each stage.

#### **STEP Up** TO EXPANDED OPERATIONS:

**STEP Up** automatically operates your equipment. In addition you can manually override the equipment based on time or use the manual toggle switches. Use the timed override to lock out cooling during fumigation.

#### ■ STEP Up TO IMPROVED CROPS:

Improve your crop quality by using the temperature data. **STEP Up** records 7 days of data in 15 minute intervals. It records the minimum/maximum/average temperature for each period and graphs the data on the LCD screen.

#### STEP Up TO A SAFER SYSTEM:

Battery backup retains your custom settings, the time and date. Manual toggle switches give you full control. Connect to Wadsworth's Alarm Manager to be notified of urgent conditions.

#### ■ STEP Up TO AN ENHANCED DISPLAY:

The front panel features a large LCD screen and oversized font displays current temperature, time, date and grow weeks. Red LED lights indicate currently active stages.

#### STEP Up CONTROL FEATURES:

#### 6 Stages

- 2 Stages of heating
- 4 Stages of cooling
- Easy adjustment of temperature between stages

#### ■ 3 Setpoint Periods

- Day/Night/DIF set points
- Ramping controls the rate of change between periods
- Periods can be set based on clock time or sunrise and sunset
- Tracks grow weeks
- **Modulating Output** o 10 volts or 4-20 milliamps controls heat valves or variable speed fans
- **■** Cycle Timer
- Password Protected
- Manual Override
  - Timed override buttons on the STEP Up control allow equipment to be forced on or off for a specific duration
  - Red LED indicate active stages
  - Manual override toggle switches are on the contactor panel

#### ■ Logs and Graphs Data

- Average, high and low temperature for each setpoint time period
- Average temperature in 15 minute increments
- Data is stored on the STEP Up for 7 days and can be viewed in logs or graphs
- STEPsaver software connects your STEP Up to a PC advanced data logging and graphing
- Settings are stored in memory in the event of power failure
- Fahrenheit/Celsius selectable
- Alarm notification with optional Alarm Manager
- On-line Help
  - Provides additional information
- Ability to return to factory settings
- STEP Up Control Includes
  - An aspirated temperature sensor and 100' of cable
  - Optional RH sensor
  - Connector cable to wire the STEP Up control to the contactor panel
  - Length is 9 1/2", Width is 3 3/4", Height is 6 1/4"

1.800.821.5829
www.wadsworthcontrols.com