



THE EFFINITY93 (MODEL PTC) FROM MODINE IS THE MOST EFFICIENT GAS-FIRED UNIT HEATER IN NORTH AMERICA.



GREENHOUSE HEATER

EFFINITY93® HIGH EFFICIENCY GAS FIRED UNIT HEATER

Modine's new Effinity93 Blower units (model BTC) are the only high efficient gas-fired condensing unit heaters on the market today with a blower option! Built on the same successful platform as the Model PTC Propeller Unit Heaters, these models include the same great features with the application flexibility of a blower unit heater:

Three model sizes from 215,000 to 310,000 Btu/hr offer unmatched application flexibility to cover the most popular blower unit heater sizes. Blower air flow performance matches similarly sized BTS units, with an Air Temperature Rise range of 40°F to 70°F available for all model sizes.

Proudly made in the USA at our Buena Vista, VA facility.

With the Effinity93 you are assured the following features:

- Modine's exclusive Conservicore™ technology withstands acidic condensate
- Designed with contractors in mind: faster installation and lower installation costs
- All Effinity93 box sizes are equal to a corresponding HDS or PTS model
- The standard Contractor Convenience Package allows for easy connectivity and troubleshooting
- Optional finger-proof fan guard for operation at low mounting heights
- MADE IN THE USA



MODINE'S PDP/BDP POWER VENTED UNIT HEATER

Modine's PDP/BDP power vented unit heaters are inexpensive to install, easy to use and offer excellent in-service economy. Our gas fired heaters are available in units rated from 150,000 to 400,000 BTU/hr. These units provide air circulation to reduce dead spots in the greenhouse, reducing high moisture areas that promote mold growth.

A power vented unit gives you many added advantages including:

- Versatility allows air to blow from the top of the greenhouse or through ducts
- Heaters are indirect fired, allowing all combustion products to be vented to the exterior of the greenhouse and protecting sensitive plants from toxins found in the products of combustion
- Modine gas-fired unit heaters maintain a minimum 80% efficiency, maximizing seasonal efficiency through the use of a collector box and the power exhauster
- Optional finger-proof fan guard for operation at low mounting heights
- A 100% shut-off, intermittent pilot-ignition system with continuous retry, at no extra charge. The ignition system allows for units to be field-converted to propane, if desired
- A safety pressure-switch to assure safe venting conditions
- Designed to utilize the smallest-diameter vent pipe possible
- A level hanging mechanism for easy field adjustments after adding accessories that may change the unit's center of gravity
- BDP is designed to operate against 0.5 inches of external static pressure
- MADE IN THE USA



GREENHOUSE HEATER

TUBULAR HEAT EXCHANGER

The Sterling tubular heat exchanger has been designed to provide maximum and uniform heat transfer. The low pressure drop associated with this design enables heated air to be evenly distributed to the conditioned space. This curved, non-welded serpentine design experiences less thermally induced stress making it highly durable for significantly longer service life. All standard Sterling tubular heat exchangers are constructed of heavy duty 20-gauge aluminized steel with an optional 409 stainless steel heat exchanger available for applications in mildly corrosive environments.

SEPARATED COMBUSTION

The “SF” separated combustion configuration allows application flexibility in areas where dust, dirt, humidity or mildly corrosive conditions are prevalent. A unique power-venting system draws clean combustion inlet air from the outside while exhausting flue gases through the outlet discharge. All critical components including the burner, pilot ignition system and flue are safely enclosed within the unit protected from potentially corrosive elements.

DIRECT SPARK IGNITION SYSTEM

Sterling “SF” units utilize a direct spark pilotless ignition of the burner, providing fast heat delivery. This highly reliable and efficient ignition system incorporates an integrated electronic control board to regulate the system sequence of operation, including an onboard LED indicator for simple troubleshooting.

VENTING

The Sterling “SF” unit heaters are ETL certified in accordance with categories I and III venting requirements. This certification allows units to be vented both vertically and horizontally using either single wall or double wall venting materials. This venting flexibility of the “SF” unit heaters make installation easier and more cost effective by allowing the installer to utilize existing venting components.

CONTROL ACCESSIBILITY

Designed with the service person in mind, every component of the Sterling “SF” Series is easily accessible. Ignition and fan controls are located in one centrally located control panel. The access door provides control isolation as well as a pleasing exterior appearance.

CATALOG #	DESCRIPTION	BTU
22-480100	Natural Gas Sterling Heater	150,000
22-480101	Propane Sterling Heater	150,000
22-482100	Natural Gas Sterling Heater	175,000
22-482101	Propane Sterling Heater	175,000
22-484100	Natural Gas Sterling Heater	200,000
22-484101	Propane Sterling Heater	200,000
22-486100	Natural Gas Sterling Heater	250,000
22-486101	Propane Sterling Heater	250,000

LINE VOLTAGE THERMOSTATS

Designed to control automatic ventilation or heating systems. Single stage (1UHH2): line voltage or low voltage control of fans or heaters. Two Stage (1UHH3): control two-speed fan or two stages of heat/cooling. Temp range: 30° to 110° F.

CATALOG #	ITEM #
75-332206	1UHH2
75-332207	1UHH3



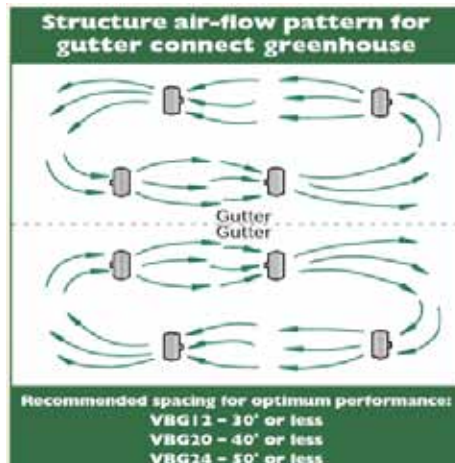


J&D Manufacturing is your commercial and hobby greenhouse supply specialist! Products include curtain systems, aluminum and poly shutters, variable speed and temperature controls, shaded pole blowers, evaporative pad cooling systems, and a complete line of Horizontal Air Flow (HAF) and ventilation exhaust fans to help control your greenhouse temperature for maximum productivity.

GREEN-BREEZE HAF FANS

Features:

- Available in 12"
- Includes hot dip galvanized standard flag mount bracket and mounting hardware
- Patented open front guard cuts cleaning time and maintenance costs (U.S. Patent No. 5,348,447)
- Variable speed motors for year round air circulation (requires separate variable speed control to adjust fan speed)
- Attached cord with 3-prong plug
- No belts or bearings to maintain
- Corrosion resistant white powder coated fan guard meet OSHA 1910.212(a)(5) requirements.
- Mounting bracket mounts directly to the yoke of motor to eliminate any vibration for smooth fan operation
- Fan ships completely assembled
- The tapered side guard creates a tight air pattern that throws air much further than conventional basket fans
- Provides airflow that helps to eliminate hot and cold spots throughout the greenhouse
- Totally enclosed, maintenance free, direct drive high efficiency motors have completely sealed ball bearings, UL and CUL certification (File# E219338/E315335) and are covered by a full TWO YEAR WARRANTY
- Can be used with our misting/fogging product line to reduce temperature and/or increase humidity for plants



ITEM #
VBG12 White 115V 1 PH s/var w/ Bracket & 10' cord
VDB16G White 115V 1 PH s/var w/ Bracket & 6' cord
VDB20G White 115V 1 PH s/var w/ Bracket & 6' cord
VDB24G White 115V 1 PH s/var w/ Bracket & 6' cord

CONTENT REVISED 11/19/15

EZ-BREEZE HAF FANS

J&D Manufacturing's EZ-Breeze HAF Fan is a high efficiency air circulator that effectively cools people, plants, animals and industrial equipment. The EZ-Breeze reduces condensation, dries animal litter and bedding, controls insects, and creates a uniform temperature throughout your building to reduce heating costs.

- Available in 20" and 24"
- Includes hot dip galvanized mounting bracket with u-bolts and nuts
- Aluminum propeller designed to reduce ambient noise levels while maintaining maximum circulation requirements
- Efficient variable speed motor (requires separate variable speed control)
- Corrosion resistant white powder coated guards meet OSHA 1910.212(a)(5)
- Pre-wired with 115V attached 6' cord and 3-prong plug
- Fan ships completely assembled
- Totally enclosed, maintenance free, direct drive high efficiency motors have completely sealed ball bearings, UL/CUL certification (File # E219338/E315335) and a full TWO YEAR WARRANTY
- For additional cooling, use with our misting/fogging product line
- Performance fan ratings certified by BESS Lab at the University of Illinois
- Made in the U.S.A.



ES SHUTTER FAN

J&D Manufacturing's ES Shutter Fan is a durable agriculture grade exhaust fan perfect for barn and building peaks, greenhouses, warehouses and more. ES shutter Fans are available without a cord, or pre-wired with a cord and plug for "No Electrician Required" installation. Fans ship fully assembled out of the box so you're up and running in no time!

- Available in 10", 12", 16", 20", 24" and 30"
- Smooth and quiet operation
- Comes totally assembled out of the box
- Models with cord have 3-prong plug and are pre-wired for 115 Volts. No electrician required!
- Balanced 3 bladed aluminum prop with a zinc plated steel hub
- Chrome guard allows for easy cleaning and meets OSHA 1910.212(a)(5) requirements to mount at any height on inlet side of fan. (When mounted, shutter side should be 7' above ground)
- High efficiency aluminum shutters with tie bar to eliminate shutter flapping and opening on windy days
- Totally enclosed, maintenance-free, direct drive high-efficiency motors have completely sealed ball bearings and are covered by a TWO YEAR WARRANTY Optional exterior weather hood available to protect your the exterior shutter side of fan from harsh winds and severe weather



MYN-FAN**HIGH PERFORMANCE
ECONOMY HAF FANS**

Meeting Your Needs is the driving force behind designing MYN Fan air movement products. Our circulation fans, galvanized exhaust fans, inflation blowers and intake shutters are designed to meet your needs in all markets including Commercial, Misting, Agriculture, Horticulture and Rental.

- High efficiency, quiet operating fans
- Longest distance air throw in the industry
- Industrial grade aluminum blade
- Guards have powder coating over zinc plating for added rust protection
- Engineered OSHA guard design for maximum air throw
- Bracket included
- Pre-wired with 5ft grounded cord
- 2 year limited warranty

CATALOG #	MODEL #	PRODUCT DESCRIPTION	CFM	RPM	MOTOR TYPE
25-118000	18B4W3	MYNFAN 18" HAF FAN 3-SPEED	3815/3225/2810	1725	TEAO

VERSA-KOOL DEEP GUARD CIRCULATION FANS



**Innovative Ventilation and
Thermal Comfort Solutions
Since 1951**

Reduce heat stress and improve air quality with Schaefer's uniquely designed circulation fans. Unrivaled in the market, these fans are engineered to produce greater air movement and superior cooling no matter the application. You don't hear them. You don't see them. You only feel them!

Also known as Horizontal Air Flow (HAF) fans, these fans move air in a coherent horizontal pattern creating a gentle 'racetrack' air pattern needed in greenhouses to maximize heat distribution and humidity control by mixing the air, from ceiling to floor.

Features and Benefits:

- Deep guard design for unmatched performance, low noise levels and safety without sacrificing airflow
- Matched high quality motors and blades for maximum efficiency
- Powder coated steel guards for increased durability and corrosion resistance
- Hot dipped galvanized guards on VK12-GA and VK20-GA models for even greater rust protection
- Powder coated steel mounting bracket and power cord included
- Wide variety of mounting options available for flexible and easy installation
- Variable speed controls available
- Misting kits available for even greater cooling
- 2 year warranty
- Made in the USA



TYPE NBF FANS

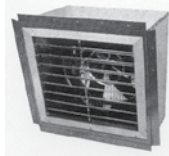
**ECONOMICAL,
PRACTICAL, EFFECTIVE**



American Coolair's Type NBF fan provides the solution to fresh air ventilation in most types of greenhouses. Type NBF fans are built to give you years of heavy-duty trouble-free service. The rugged, belt driven construction operates in any position, has permanently lubricated ball bearings, and is available with single or two speed totally enclosed motors. Coolair has developed a complete ventilation system for greenhouse use combining the Type NBF fan with all aluminum shutters (LRW) and heavy gauge galvanized steel slope wall housing for exterior mounting, allowing a maximum of unobstructed interior space.

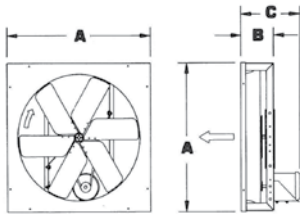
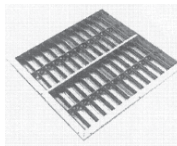
• TYPE SWH (SLOPE) WALL HOUSING

Allows shutter to be placed on intake side of fan and eliminates air turbulence that occurs with shutter on down-wind side of the fan. Prevents warm air from being lost through metal wall housing to outside cold air in cold climate operations. Constructed of galvanized steel for long, durable wear and low maintenance.

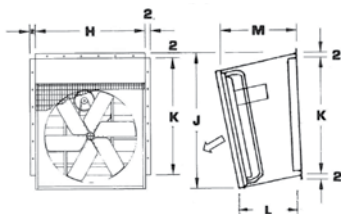


• TYPE LRW SHUTTER (ALL ALUMINUM)

Extruded aluminum frame with interlocking L aluminum blades for maximum weather seal. Double panel shutters constructed with rigid "T" section center member to prevent shutter blades from sticking. Nylon bearings on all movable linkage. Sturdy, extruded aluminum tie-bar is connected exactly on centers of blades, dual-tie bars on double panel units. Gravity or motor operated.



NBF Fan



Sloped Wall Housing



Aluminum Shutter

* For Net Opening Add 1/2" to I.D.

SWH (SLOPE) WALL HOUSING DIMENSIONS

Model	H	J	K	L	M	Ship Wt.
GSWH24	32 3/8	38 9/16	32 3/8	22 15/16	28	52
GSWH30	38 3/8	43 15/16	38 1/2	22	28	67
GSWH36	44 3/8	50	44 9/16	21 13/16	28 11/16	82
GSWH42	50 3/8	55 7/8	50 5/8	20 1/2	28 3/8	104
GSWH48	56 3/8	62 1/16	56 11/16	21 1/16	29 7/8	122
GSWH54	62 3/8	68 3/16	62 3/4	22 1/2	31 1/4	132

Rough Opening: Add 1/2" to H for width and for 2" wall add 3/4" to K for height, 4" wall add 1 1/4" to K for height, 6" wall add 1 1/2" to K for height

**Contact Your Regional Account Manager
For Current Pricing**

PERFORMANCE DATA - TYPE NBF FAN

All specifications subject to change without notice.

Model	Size	Motor H.P.	Fan RPM	Apx. Ship Wt.	.10" S. P.	
					CFM	BHP*
NBF24G	24"	1/4	627	70	4755	0.258
NBF24H	A: 32	1/3	706	73	5490	0.364
NBF24J	B: 10-5/16	1/2	815	79	6550	0.549
NBF24K	C: 17 7/8	3/4	972	93	7970	0.915
NBF30G	30"	1/4	486	77	6480	0.295
NBF30H	A: 38	1/3	533	80	7360	0.383
NBF30J	B: 10 5/16	1/2	627	86	9020	0.611
NBF30K	C: 17 7/8	3/4	706	106	10350	0.862
NBF36H	36"	1/3	419	100	8890	0.399
NBF36J	A: 44	1/2	474	110	10580	0.572
NBF36K	B: 10 1/16	3/4	541	118	12495	0.839
NBF36L	C: 17 7/8	1	609	120	14360	1.184
NBF42J	42"	1/2	365	122	11925	0.546
NBF42K	A: 50	3/4	433	128	14930	0.888
NBF42L	B: 9 7/16 C: 17 1/8	1	474	130	16685	1.157
NBF48J	48"	1/2	303	146	14300	0.593
NBF48K	A: 56	3/4	350	152	17650	0.910
NBF48L	B: 10 1/8	1	373	154	19220	1.104
NBFH48L	C: 17 7/8	1	396	154	20800	1.320
NBFA54L	54"	1	350	280	21360	1.058
NBFA54M	A: 62 B: 10 5/8 C: 18 1/4	1 1/2	414	296	26475	1.725

TYPE LRW SHUTTER DIMENSIONS

Model	F (O.D.)	G (I.D.)	Ship Wt.
LRW27	30 1/4	27	12
LRW33	36 1/4	33	14
LRW39	42 1/4	39	17
LRW45	48 1/4	45	20
LRW51	54 1/4	51	24
LRW57	60 1/4	57	30

HEATING & COOLING

TEMP° ALERT

Wall mount, mechanical temperature sensor to detect if air temperature is too high or too low. Alarm limits are adjustable from -30° to 130° F. Used in conjunction with the Sensaphone or use by itself.



CATALOG #	ITEM #	DESCRIPTION
75-209000	#TA - 1	Temp Alert Temperature Monitor

2.8K WEATHERPROOF TEMPERATURE

Small, sealed, general purpose temp probe for indoor or outdoor use. Comes with 12 feet of wire.



Catalog #	Item #	Description
75-270101	FGD-0101	2.8K Weatherproof Temperature Sensor

SENSAPHONE®

REMOTE MONITORING SOLUTIONS

SENSAPHONE® 400 & 800

Sensaphone 400 & 800 offer an easy, inexpensive way to monitor a remote facility. It can be installed in any indoor environment to monitor temperature, water on the floor, humidity, and much more and it can notify up to four people by making voice phone calls. The 800 has all of the same features as the 400, but it has of eight external inputs.



CATALOG #	ITEM #	DESCRIPTION
75-201400	FGD-0400	Sensaphone 400
75-201800	FGD-0800	Sensaphone 800

TAYLOR

Taylor offers the same accuracy today that we were known for in 1851. Chose from the basics – tube thermometers, or step up to a digital model. All outdoor thermometers are weather resistant and hold up with the ever changing elements.

INDOOR THERMOMETER w/HUMIDITY GAUGE #5535E

9.25" High/White. With Humidity Gauge.



Catalog #	Item #
75-290116	90116

JUMBO WALL THERMOMETER #5109

Easy read Jumbo Scale 14½" in length °F and °C scales.



Catalog #	Item #
75-005101	5109

6712N THERMOMETER WITH HUMIGUIDE

13.25" diameter. Weather resistant. Measures temp/humidity



Catalog #	Item #
75-102362	02362

INDOOR/OUTDOOR THERMOMETER #00880

This thermometer is 16" high and comes in white.



Catalog #	Item #
75-108800	880

INDOOR/OUTDOOR THERMOMETER #00346

5" Diameter Basic White Dial Thermometer.



Catalog #	Item #
75-103460	346

HANDY-TEMP® WALL THERMOMETER #5135

Indoor/outdoor use. Aluminum construction. Won't rust. Inexpensive. Both °F and °C scales. Measures 8-7/8" long.



Catalog #	Item #
75-005135	5135

MAX-MIN THERMOMETER #5460

One side shows the minimum temp while the other shows the maximum temp. The limit markers stay at the highest & lowest temp readings until reset. °F and °C scales. 8¾" long.



Catalog #	Item #
75-005460	5460

TEMPRITE® WINDOW THERMOMETER #5316

Attaches w/swing bracket. View at almost any angle. Large easy to read numbers. °F and °C scales. Mounting screws included.



Catalog #	Item #
75-005316	5316