

# Problem-Solving Exhaust, Ventilation, Transfer & Booster Fans



**Indoor Air Quality Fans & Accessories** 

**Duct Booster® Fans & Transfer Fans** 

**Clothes Dryer Duct Booster® Fans** 

**Hearth Products** 

**Draft Inducers** 

**Side Wall Power Venters** 

**In-Forcer™ Powered Combustion Air Intakes** 

**Interlock Controls & Accessories** 

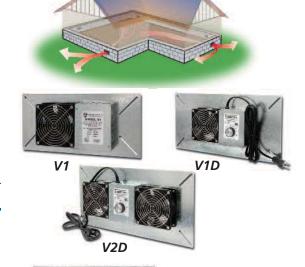


# **Indoor Air Quality (IAQ) Fans & Accessories**

# UnderAire<sup>™</sup> Crawl Space Exhaust Fans (Models V1, V1D & V2D)

Excess moisture in crawl spaces causes mold, mildew and wood rot with odors often migrating to the living space above. Crawl space fans quickly exhaust moisture and odors to the outdoors through existing passive vents. Models V1D and V2D include an adjustable Dehumidistat for automatic operation, a freeze protection thermostat and a 6' power cord.

Mounting plate can be trimmed for smaller opening.



# UnderAire<sup>™</sup> Crawl Space Supply Fans (Models CS1 & CS2)

Pair with V-Series fans to boost the supply of outdoor air into crawl spaces with too few or undersized passive vents or stagnant areas around knee walls or corners. Mounting plate can be trimmed for smaller opening.



Dehumidistat installed in metal junction box hardwires in series with power lead of V1 Crawl Space Fans.



Dehumidistat control with 2 outlets, individual on/off switches and a 6' power cord. Use with CS1, CS2 or any corded fan used for dehumidification.



CS1

**DH10** 

CS2

# **Crawl Space Exhaust**

Performance	Motor	Dehumidistat	Freeze Protection Thermostat	Dimensions
220 CFM	2@120/1/60 40 watts	Off/On or 20-80% RH	Opens at 40°F	18" x 9" x 2"
110 CFM	120/1/60 20 watts	Off/On or 20-80% RH	Opens at 40°F	18" x 9" x 2"
110 CFM	120/1/60 20 watts	Optional Model DH10 dehumidistat available separately	Opens at 40°F	14 3/8" x 6 7/8" x 2"

# Crawl Space Supply

Performance	Motor	Dehumidistat	Freeze Protection Thermostat	Dimensions
110 CFM	120/1/60 20 watts	Optional Model DH2P available or	Opens at 40°F	18" x 9" x 2"
220 CFM	2 @ 120/1/60 40 watts	control with V2D or V1D dehumidistat	Opens at 40°F	18" x 9" x 2"

CS1

V<sub>2</sub>D

V<sub>1</sub>D

V1

CS2

# **XchangeR<sup>™</sup> Reversible Basement Fans**

#### **X2D** Reversible Fan w/Dehumidistat Control

Cure damp, musty basements through automatic ventilation. Reversible fans can be positioned for 100% exhaust, supply or for balanced air exchange. Runs on only 40 watts compared to 1,000 watts consumed by a typical dehumidifier. Installs in a 5 1/4" x 12 1/4" cutout through a rim joist or wall. Includes screened exterior hood and Dehumidistat control with individual on/off switches and 6 foot power cord. Also works well for sealed crawl spaces, garages and to freshen seasonal homes.



		<u> </u>	0.0 21.12	
	Voltage	Watts	Amps	CFM
1 fan	120	20	0.3	90
2 fans	120	40	0.6	180



#### **X2R** Remote Mount Reversible Fan

Similar to the X2D but designed for applications where the fan section must be mounted remotely from the outside wall. Fan section connects to outdoor hood with 6" insulated flexible duct. Add the DH2P Dehumidistat control for automatic operation or activate with household timer. Fans have grounded 6' power cords.



#### DT2-6 Dual 6" Duct Take Off

Replaces rear fan guard of the X2D or X2R so that 6" ducts can be connected. Use for enclosed utility rooms with chimney vented heaters or for improved whole basement air exchange. Use model G-6 grilles to connect to opposite ends of ducts.

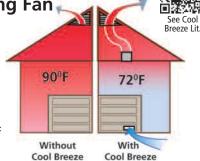


DT2-6

# **Garage Cooling & Ventilation Fan**

#### **CB14** Cool Breeze™ Garage Cooling Fan

Ventilate air trapped in closed garages to reduce temperature and to remove pollutants. Fan mounts in garage attic joist space. Outdoor air is drawn through grilles in garage door or outside wall while hot air is exhausted into the attic space and pushed to the outdoors through the attic's ridge, roof or gable vents. Includes 2 outdoor air intake grilles, 1 ceiling grille, ad-





justable joist brackets, fire damper, adjustable activation thermostat and mounting hardware. Optional accessories: SWS wireless wall switch, DH10 Dehumidistat and 950-9300 wall mount digital timer.

## Specifications: Model CB14

Voltage	Watts	Amps	CFM	RPM
120	155	2.17	1200	1450
Thermos	tat Range	: 90°F to	130°F	

# **Indoor Air Quality (IAQ) Fans & Accessories**

# **D-STRAT™** Compact, High Velocity Ceiling Fans

## DSF2W DSF2B

Stratification in high ceiling warehouse and commercial spaces create huge temperature differentials between the ceiling and the occupied floor level. It is typical for a differential of 20 degrees or more to exist.

D-STRAT 30 watt, 540 CFM high velocity fans can reduce this differential by 50% or more, shortening thermostat cycles and making occupants more comfortable.

Use 1 fan for every 1000 Ft2 floor space for ceilings up to 18 feet high.

Compact design can be installed between roof trusses for full access to upper level storage racking. Swivel mount allows for fan to be aimed to avoid obstructions or be concentrated at work areas.

Optional multi-voltage transformer model DSFTR converts all typical ceiling level power sources to 120 VAC.



Optional 120 VAC wall mount speed control P/N 950-8415 also available. Rated for use with up to 20 DSF2 Fans





# **Radon Mitigation Products**

## **RMS160** Side Wall Terminated Radon VAC System

The only engineered solution for Side Wall Venting radon gas. Exhaust radon gases in drain tiled basements from the sump pit or from underneath the sub-slab using PVC piped to the fan and termination hood. Eliminates unsightly PVC on the home's exterior. Installs faster and safer because all work is at ground level.

System includes sealed blower with 3" PVC pipe connectors and a patented high velocity, corrosion proof side wall exhaust hood. Permanently lubricated ball bearing motor is mounted outside of the damp airstream. The exhaust hood adjusts to maximize discharge dilution and velocity based on the resistance of the sub-slab soil and piping. Vibration isolated mounting bracket for quiet operation. 160 CFM, 75 Watts.







#### RX2 **Radon Ventilation Fan for Basements** and Sealed Crawl Spaces

Self-contained, requires no connection to PVC. Effectively reduce radon levels in homes with Radon levels of 10 pCi/l or less. Includes 2 reversible fans that can be positioned for a balanced air exchange or 100% exhaust or supply to dilute indoor radon levels. Uses only 40 watts to ventilate an 800 Ft<sup>2</sup> basement twice/hour. Installs in rim joist through a 5 1/4" x 12 1/4" cutout. 6' power cords. 220 CFM, 40 Watts.



#### **Radon Ventilation Fan for Ventilated Crawl Spaces** RV<sub>2</sub>

Self contained, requires no connection to PVC. Effectively reduce Radon levels of 10 pCi/l or less in crawl spaces. Installs behind existing passive vents. Pulls fresh outdoor air from passive vents on opposite wall to dilute crawl space Radon levels and moisture. Uses only 40 watts to ventilate a 3 foot high, 800 Ft<sup>2</sup> crawl space 5 times/hour. 6' power cord. 18" wide by 9" high faceplate. 220 CFM, 40 Watts.



#### **PVC4** 16 Watt, 4" PVC Radon Booster Fan

Improve the performance of non-fan powered Radon exhaust stacks with minimal power consumption. Connects directly to 4", schedule 40 PVC. Permanently lubricated ball bearing motor with 6' power cord. 90 CFM, 16 Watts.

#### R4B Low Profile Wall Mount Radon Fan

Wall hugging low profile design and heavy duty 20 gauge steel housing make the R4B the choice for discrete, architecturally sensitive, exterior wall installations. Directly connects to 4" PVC without the need for rubber couplers. White powder coat finish with stainless steel hardware.

#### **R4BC** Commercial Low Profile Wall Mount Radon Fan

The same heavy duty construction and finish as the R4B but with the performance required by commercial jobs with large floor footprints and extensive piping. Pressure producing capabilities exceeding 5" W.C.

# **Traditional In-Line Radon Fans**

The R-Series Radon Fans span a wide range of both pressure and flow performance. The housings are constructed of non-yellowing, UV resistant, fiberglass reinforced polyester with a light gray finish. All feature waterproof electrical junction box covers and high quality, maintenance-free motors made by ebm-papst.

#### Radon Fan Performance

Max Static Pressure	Max CFM	Watts	Application
2.71" w.c.	163	130	Moderate Suction/Low Flow
1.88" w.c.	220	85	Low Suction/Moderate Flow
2.60" w.c.	353	150	Moderate Suction/High Flow
0.90" w.c.	121	20	Low Suction/Low Flow
1.75" w.c.	294	85	Low Suction/High Flow
3.99" w.c.	124	160	High Suction/Low Flow
2.65" w.c.	520	142	Moderate Suction/High Flow
1.90" w.c.	195	90	Low Suction/Moderate Flow
5.51" w.c.	240	302	High Suction/Moderate Flow

# Flexible Radon Fan to PVC Couplers

Size

3"-3"

4"-3"

4"- 4"

6"-4"

Rubber couplers connect nominal diameter fan inlets/outlets to the OD of schedule 40 PVC pipe. Stainless steel tightening hardware allows for easy installation and fan replacement. Sold in sets of 2.

RC3X3 RC4X3 RC4X4 RC6X4

R3HF R4HF R5HF R3LW R5LW R3HS R8C R4B R4BC



# **RA1** Radon Fan Failure Alarm

Alerts of a radon fan failure or ice induced pipe blockage. Includes low voltage power supply, sensing tubing and mounting hardware. Compatible with all Active Sub-Slab Depressurization (ASD) systems.



## RS1 Safety Siren Pro 3 Continuous Radon Monitor

R4B & R4BC

R-Series

Easy-to-use radon monitor that plugs into a standard household wall outlet to continuously monitor your home for radon gas. An alarm will sound when radon levels reach 4.0 pCi/L or higher.



RS1



# **Duct Booster® Fans & Transfer Fans**

# **Duct Booster® Fans**

# **DB-2** The Original Duct Booster® (275 CFM)

Installs in round ducts up to 8" or in rectangular ducts as shallow as 3.25." Motor is outside of airstream for extended service life, good for temps up to 200°F. Quiet, 1500 R.P.M. operation. Use PS1503 Duct Airstat for automatic operation with any forced air system. 40 Watts.

# DBM4 Energy Saver Booster Fan for 4" Metal & Flex Duct

Delivers 100 CFM while consuming only 18 Watts. Features 2" deep collars for easy and secure duct connections. 6' power cord.

# FAI-4 Fresh Air Supply Fan with Intake Hood

Includes DBM4 fan and 4" galvanized steel intake hood. Activate manually, with household timer or with model DH2P Dehumidistat control.

# In Line Duct Booster® Fans

The toughest built and best performing prop fan style Duct Boosters. Use to boost airflow into hard to cool or heat areas. Also used for ambient air supply and exhaust fans. All models have 24 gauge galvanized steel housings with ribbed duct stops, crimped leading ends and electrical junction boxes. EF-6 & 8 models have 3000 RPM C-frame motors and EF-10, 12 & 14 models have 1500 RPM shaded pole motors. EF-Auto models automatically operate in tandem with a central blower and have 6' power cord. Use model PS1503 Duct Airstat to automatically operate all other models. Use model SC-1 to speed control models EF-6, 8 & 10. Rated for 150°F max temp.



DB-2

		Duct Length			in Feet	
Motor Specifications		Free Air CFM	25 Feet CFM	50 Feet FM		Max Air Temp
120V	40 \\/attc	200	150	100	95	200°F
1200	40 Watts	275	250	220	180	200°F
120V	28 Watts	180	150	100	90	150°F
120V	56 Watts	325	300	250	200	150°F
120V	48 Watts	475	400	325	275	150°F

DB-2, 6" Duct DB-2, 8" Duct EF-6 EF-8 EF-10 EF-12 EF-14

120V

120V

89 Watts

155 Watts

# **P-Series Plastic Housing High Pressure Inline Fans**

800

1100

700

1000

600

900

High performance fans maintain airflow in long or convoluted duct layouts. Plastic housings are great for high moisture environments. Include factory wired grounded power cord and metal mounting bracket. Rated for temperatures from 32°F - 140°F.

875

1200

	Inlet/Outlet	Free Air CFM	Volts	Watts
<b>-</b> 4	4"	190	120	80
<b>P-6</b>	6″	400	120	130



150°F

150°F

P-Series

# **RB-Series Register Booster Fans**

When there is no access to a duct install a Register Booster fan. Simply remove the existing register, drop the booster fan into the boot opening and cover with the included new floor grille. Quiet, cross-flow blower outperforms prop blade register booster fans. Operate continuously for best results. Available with white or brown colored floor grilles. Models for both 4"x10" and 4"x12" registers. All metal construction with 6' power cord and built-in on/off switch. Compatible with model SCP speed control. Activate with optional model SWR wireless remote.



RB-Series

# **CB-Series Register Booster Fans**

Economical booster fan for 3"x10" and 4"x10" register outlets. All in one design drops into register boot and plugs into power outlet. Operate manually or automatically with built-in temperature sensor.



RB10
<b>RB10W</b>
<b>RB12</b>
<b>RB12W</b>
CBB
CBW

Size	Grille Color	CFM	Volts	Watts	Sones
4"x10"	Brown	75	120	20	1.4
4"x10"	White	75	120	20	1.4
4"x12"	Brown	75	120	20	1.4
4"x12"	White	75	120	20	1.4
3&4"x10"	Brown	45	120	18	1.4
3&4"x10"	White	45	120	18	1.4

# **Duct Booster® Fan Accessories**

#### **Plug-in Speed Control for Fans with Power Cords SCP**

Plug SCP into outlet then plug fan power cord into outlet on SCP speed control. Speed control dial is on face of control. Use for fans up to 300 Watts.

#### SC-1 **Hard Wire Speed Control**

Wire in series with power to motor to control speed. Rated for models EF-6, 8 & 10. Compatible with PS1503 Duct Airstat.

#### **SWR** Switch-It™ Wireless Remote Controlled 120 V Outlet

Plug-in receiver and wireless remote. Control any plug-in device up to 15 Amp/1800 Watts via a wireless on/off remote up to 80 feet away.

#### **PS1503** Positive Pressure Duct AirStat™

Senses duct pressure via ¼" hole in duct between main blower and Duct Booster fan. Pressure from main blower actuates switch to operate Duct Booster fan automatically. 120 Volt, 15 AMP max. Makes on pressure rise of  $+.05 \pm .02$ " W.C.

#### **DR-10** Positive Pressure Clothes Dryer Vent Switch

Senses exhaust pressure from clothes dryer to activate booster fan. Features timer circuit to validate dryer operation. Includes sensing tube and mounting hardware. Rated for 115 Volt fans up to 3.8 amps.









PS1503



# **Duct Booster® Fans & Transfer Fans**

# G-Series Round Poly Grilles for Supply and Exhaust Air (Models G-4, G-6 & G-8)

Low profile grilles connect to duct with included metal collar. Screw action adjustable damper. Non-yellowing white finish may be painted.

# BD-Series Spring Loaded Back Draft Dampers (Models BD-4, BD-6 & BD-8)

Backdraft dampers with galvanized steel collar and lightweight aluminum damper blades. Spring loaded for positive closure.



# **AireShare™ Transfer Fans**

The quiet way to make hot or cold rooms more comfortable.

Extend the reach of Mini-Splits, PTAC's, Ductless Cooling / Heating and Fireplaces.



#### Room-to-Room

Power Supply
120V hard wired
120V plug-in
120V hard wired
120V hard wired

# **AS1** Room-to-Room Transfer Fans

Transfer air to adjacent rooms through interior wall cavities. All models include powder coated white intake grille and supply diffuser. Install intake blower at a height in wall that best takes advantage of cooler (low) or warmer (high) air. Models AS1 & AS2 can be activated with a wall switch or add the FC24 fan center to control with any 24 V t-stat. Switch-it wireless controls make retrofits easier. Model AS1P installs adjacent to power outlet and has switch on bottom of grille. Choose model size based on target room size. Use AS2 when high cooling loads are common.



# **ASLL** Level-to-Level Transfer Fans

Transfer air up or down through a sleeved blower housing that extends from 8 3/4" to 16 1/2" to accommodate most floor joist depths. Includes white ceiling grille and brown floor grille. On/Off switch on floor grille side or use Switch-it wireless controls.



Level-to-Level

				Target
	CFM	Speed	Watts	Room Size
AS1	60	Fixed	20	up to 150 ft <sup>2</sup>
AS1P	60	Fixed	20	up to 150 ft <sup>2</sup>
ASLL	70	Fixed	20	up to 175 ft <sup>2</sup>
AS2	80	Low	16	up to 200 ft <sup>2</sup>
	95	Med	21	up to 235 ft <sup>2</sup>
	110	Hi	30	up to 275 ft <sup>2</sup>



AS1P

AS<sub>2</sub>

#### FC24 24 Volt Fan Center

Use to interface AS1 & AS2 transfer fans with any 24 V thermostat. Includes 24 V transformer and switching relay.

#### DK<sub>2</sub> **Duct Kit for AS2 Transfer Fan**

For installation in obstructed wall cavities, where metal studs with wiring knock-outs are used or to conform to energy codes requiring metal ducts. Installs in cut out needed for AS2 blower. Centerline of diffuser in target room is 5" above blower discharge.

#### Switch-It<sup>™</sup> Wireless Wall Switch **SWS**

Control hard wired AireShares and other fans up to 3 Amps with a wireless wall switch. Locate switch up to 80 feet away from receiver. Includes rocker style wall switch with batteries, receiver and mounting hardware.



See Switch-It

#### Switch-It<sup>™</sup> Wireless Thermostat (Heat Only) **SWT**

Mount digital thermostat in receiving room of transfer fan to activate fan if room temp drops below set point. Also control fan operation through on/off buttons, Rated for 120 volt fans up to 3 Amps, Includes thermostat with batteries, receiver and mounting hardware. 80' range.





See Clothes Dryer Booster

# **Clothes Dryer Duct Booster® Fans**

#### No-Clog UL705 DEDPV Listed Residential Dryer Duct Booster® LB2

Dramatically reduce clothes drying time, energy use and lint build up by increasing exhaust velocity in extended or convoluted dryer exhaust ducts up to 150 equiv. feet. Pressure and temperature sensing control syncs booster fan with dryer operation. Status panel confirms proper fan operation. Vibration isolated mounting bracket for quiet operation. 6' power cord. 5-year, no-clog guarantee and warranty. 50 Watts.



See Dryer Booster Video

# CDB8 Commercial Capacity Clothes Dryer Duct Booster®

For both wall and roof terminated dryer exhaust. Features temp activated motor cooling fan and material handling blower wheel. 8" inlet/outlet connections, 1000 CFM, 120 VAC / 6.2 Amps.

#### **COP2DB Pressure Control**

Modulates fan to maintain desired exhaust pressure set point. Input Power: 115 VAC ±10%, 47-64 Hz. Single Phase, 6.2 Amps. Output Power: 115 VAC, 6-70 Hz. Single Phase. For use only with model CDB8 Booster Fan.

# **DEVH Series Vent Hoods (Models DEVH8 & DEVH12)**

G90 galvanized steel commercial dryer exhaust hoods with internal gravity flapper. 8" or 12" duct connectors. Select size equal to or greater than common manifold diameter.







# **Clothes Dryer Duct Booster® Fans**

#### IEK8 In-Line Elbow Kit

Allows the CDB8 to be installed in-line, maintaining a straight line exhaust duct. It replaces a 42" section of straight duct. Includes (2) 8" diameter sweep elbows, (1) 12" length and (1) 4" length of 8" diameter duct.



# **RT-Series Rooftop Exhaust Fans**

RT-Series Fans used in conjunction with DH-Series discharge hoods are also suitable for commercial dryer exhaust systems. Material handling stainless steel impeller repels lint.

See Page 12 for RT-Series information. Tjernlund Specified Systems are also available for larger capacities.



# **Hearth Products**

#### AD-1 Auto-Draft<sup>®</sup> Solid Fuel Draft Inducer

Increase draft of wood & coal stoves to end hard starts, smoky back-ups and lazy fires. Install in single wall pipe from 5"-8" in diameter between the stove outlet and the chimney. High temp flat black powder coat finish, permanently lubricated motor and material handling aluminized steel impeller. Includes speed control and mounting hardware. 120 Volt, 74 Watts.



# **RT-H Series Chimney Top Draft Inducers**

Increase fireplace draft to eliminate fire starting problems, smoky back-ups and problems like small, short or offset flues and structures under negative pressure. Attaches to either tile lined or metal chimneys with included mounting kits. Adapts to various flue shapes and sizes. Patented motor cooling system protects motor to 1,000°F flue temperature, twice the rating of other brands. Clam shell hinged housing for easy flue access. Features a permanently lubricated PSC motor and self cleaning stainless steel impeller.





RT750H & RT1500H

Install included speed control adjacent to hearth area for easy draft control.

RT750H RT1500H

Max CFM	Max Face Area	Inlet	Volts	Amps
800	14 Ft <sup>2</sup>	8"	120	1.2
1700	28 Ft <sup>2</sup>	12"	120	5.8

#### SB1 Hot Shot Universal Stove Blower

Captures and distributes heat from the stove top up to 5 times faster than a stove with no blower. Quiet, cross flow blower moves 75 CFM. Adjustable discharge directs warm air to desired area of room. Flat black high temp finish. 6' power cord, 25 Watts.



## In-Line Draft Inducers

Vent

16"

18"

20"

20"

24"

XL

HD

Use for non-condensing chimney vented gas and oil fueled heating equipment, including boilers, water heaters, furnaces and ovens. Increase draft for installations affected by restrictive heat exchangers, chimneys that are too short or small or to combat back drafts caused by negative building pressures. Install inducer in slot cut into single wall vent connector between heater and connection to chimney. Draft inducers must be interlocked with burner(s) using PS1505 Fan Proving Switch and UC1

Max Btu Input

4,000,000

3,250,000

2,100,000

5,200,000

3,750,000

interlock controls. See Controls and Accessories for details.

Max Btu Input



Max Btu Input

3,300,000

2,100,000

1,200,000

3,600,000

2,900,000

See Draft Inducer



	Dia.	Gas/Draft Hood	Gas/Barometric	Oil Barometric
	3"	69,000	72,000	58,000
	4"	105,000	109,000	92,000
DJ-3	5"	111,000	104,000	74,000
	6"	100,000	34,000	25,000
	5"	270,000	333,000	295,000
	6"	356,000	377,000	300,000
D-3	7"	360,000	330,000	230,000
	8"	320,000	222,000	123,000
	8"	900,000	1,200,000	1,100,000
	9"	1,100,000	1,330,000	1,100,000
	10"	1,250,000	1,260,000	840,000
	12	1,030,000	710,000	400,000
	10"	2,080,000	2,460,000	1,900,000
IL	12"	1,920,000	2,230,000	1,500,000
	14"	1,840,000	1,470,000	825,000
	16"	900,000	650,000	350,000



DJ-3 & D-3



I. IL & XL



This table is for general reference only. Refer to complete selection table in Draft Inducer Reference Guide for sizing details. Vents served by In-Line Draft Inducers must terminate above the roof line. Do not use for Side Wall Venting.

#### CSA1 **Chimney Stack Assist Kit for Water Heaters**

4,000,000

3,900,000

2,800,000

5,300,000

3,500,000

Use to stop spillage and condensation problems for gas water heaters orphaned in oversized chimneys. Installs in single wall vent connector between draft hood and chimney. Eliminates costs and roof safety issues associated with chimney lining. Quiet, 35 Watt fan with 6' power cord and 12' low voltage control cable. Includes gas pressure switch, linear limit spillage switch and thermocouple junction adapter. For heaters up to 65,000 BTU/hr.





CSA1

# **RT-Series Rooftop Exhaust Fans**

Use to increase draft for gas & oil fired heaters or to maintain velocity in exhaust chases and clothes dryer vents serving multiple floors/sources. Pair with COP2 Control for automatic pressure based speed control, ramping fan up and down based on the volume of exhaust entering the chase or common vent. Clamshell design simplifies installation, inspection and service. Material handling stainless steel impeller repels soot and lint. Includes PSA-1 Fan Proving switch. Black high temp powder coat finish.



RT750 & RT1500

# RT750 RT1500

# Max CFM Inlet H.P. Volts Amps 800 8" 1/12 120 1.2 1700 12" 1/2 120 5.8

#### **UCRT** Interlock Control for Gas & Oil Burners

Syncs RT Series fan operation with burner and provides interlock to satisfy mechanical codes. Includes manually adjusted speed control to match fan speed with application. Use MAC-Series controls to interlock additional burner circuits.



# **COP2** Demand-Based Automatic Variable Speed Control

Modulates fan speed to maintain constant exhaust pressure within vent or exhaust chase as source volume changes. Use on RT-Series fans exhausting common vents serving multiple clothes dryers. Reduces lint buildup and allows clothes to dry faster. Also used for venting bath and kitchen exhaust chases serving multiple floors. Saves energy by matching fan speed to actual demand. Simple 120 V single phase wiring and dip switch pressure set point selection. Includes integral VFD and Transducer. When used with common vented category 1 boilers/water heaters add the CIC1 interlock control.



#### **CIC1** Burner Interlock Control

Interlocks gas and oil burners with COP2 controlled exhaust fan. Add MAC1E or MAC4E expansion modules to match number of burners to be vented.



# DH750 Discharge Hoods with Damper DH1500 Use for clothes dryer exhaust applications to

Use for clothes dryer exhaust applications to replace standard screened outlet grilles that are included with RT-Series fans. Gravity damper closes when fan is not operating. 5052 aluminum construction. Use DH750 for RT750 and DH1500 for RT1500.



DH750 & DH1500

### RTS8 RTS12

# **Rooftop Stands for RT-Series Fans**

Use to support fan on a flat roof surface. Adjusts from 10"-16" high. Heavy duty 5052 aluminum construction. Use RTS8 for RT750 and RTS12 for RT1500.



RTS8 & RTS12

#### **HS-Series Power Venters**

**HSJ** 

HS<sub>1</sub>

HS<sub>2</sub>

HS<sub>3</sub>

HS4

HS<sub>5</sub>

Use to Side Wall Vent non-condensing gas and oil heating equipment that otherwise would require a conventional roof top terminated chimney. Eliminate roof penetrations, install heaters in places without chimney access and overcome negative building pressures. Permanently lubricated motors and aluminized steel housings. UC1 interlock control and fan proving switch included with all models. Adjustable pre/post purge, LED status indicators and fault code memory. Interlock with any 24 Volt or 120 Volt control circuit. Use model WHKE for millivolt heaters and models MAC1E or MAC4E for interlocking multiple heaters.



Inlet/Outlet Diam.	Vent Diam.	MBTU/Hr. Input	300°F	Vent L 400°F Fired	ength @ 500°F Oil Fired
4"	4"	25-100	100′	100′	100′
4"	4"	100-150	100′	60′	35′
	4"	200	87'	57'	27′
	6"	150-200	100'	100'	100′
	6"	250	100′	92′	
6"	6"	300-450	100′	100′	67′
	6"	500	100′	72′	
8"	8″	500-600	100′	100′	
8"	8"	700-900	100′	100′	
	10"	900-1,100	100′	100′	
10"	10"	1,100 -1,600	100′	100′	
	14"	1,600 -1,825	100'	100'	



HSJ. HS1 & HS2



HS3, HS4 & HS5

This table is for general reference only. Refer to complete selection table in Side Wall Power Venter Reference Guide for sizing details.

# **VH1-Series Side Wall Vent Hoods**

Use with HS-Series Power Venters or with any other non-condensing side wall terminated vent. Commercial grade 5052 aluminum construction is corrosion resistant. Models VH1-3 & 4 have built in clearance from combustibles. Mounting hardware included.

	Inlet Diameter	Rough-in Dimension	
VH1-3	3″	6 ¾"	Square
VH1-4	4"	8"	Square
VH1-6	6"	9"	Round
VH1-8	8"	8 ½"	Round
VH1-10	10"	10 ½"	Round





# SideShot® Series Vent Systems for Oil Fired Heaters

Use to Side Wall Vent non-condensing oil fired boilers, water heaters and furnaces that otherwise would require a conventional roof top terminated chimney. Built-in interlock control with redundant high limit safety switch interfaces easily with thermostat, aquastat or primary controls. Adjustable pre & post purge timing and easy fault code retrieval. Stainless steel construction in all critical components including outdoor terminus. Patented design jets flue gases away from the outside wall to eliminate potential staining of siding. Model SS2 features slide out service drawer and material handling stainless steel impeller.





SS2 & SS1

Natural & LP Gas	Flame Retention Oil Burner	Max. Vent Length in Equivalent Feet
40,000 – 125,000 BTU/Hr.	70,000 – 168,000 BTU/Hr.	50
50,000 – 160,000 BTU/Hr.	70,000 – 220,000 BTU/Hr.	50
N/A	50,000 – 315,000 BTU/Hr.	50

# **GPAK-Series Side Wall Vent Systems for Fan Assisted Gas Heaters**

Use to Side Wall Vent 80+ Fan Assisted furnaces & boilers that otherwise would require a B-vent roof terminated chimney. Kit includes Power Venter with UC1 interlock control, 4" draft control and model VH1-4 vent termination hood.

Vent Pipe Diameter	Btu/Hr. Input	Max. Vent Length in Equivalent Feet	
4"	45,000 – 120,000	60	
4"	120,000 – 150,000	60	



**GPAKJ & GPAK1** 

# GPAKJ GPAK1

SS<sub>2</sub>

SS<sub>1</sub>

SS<sub>1</sub>C

Tjernlund Also Offers Specified Systems Intelligent modulating draft, exhaust and combustion air systems adapt to changing conditions for precise control of exhaust and ventilation processes.



# **VP-Series Millivolt Water Heater Side Wall Vent Kits**

Use to Side Wall Vent millivolt gas water heaters that otherwise would require a conventional roof top terminated chimney. Works with all water heater brands of all ages. Includes power venter with low voltage control cable and 6' power cord, interlock controls and vent termination hood.

Capacity in BTU/Hr.	Max. Vent Length in Equivalent Feet	Vent Diameter
Up to 60,000	75′	3"
60,000 to 120,000	75′	4"



VP-2F & VP-3F

VP-2F VP-3F

PAI-2G

PAI-20 PAI-4 PAI-6 PAI-7

# **In-Forcer™ Powered Combustion Air Intakes**

### **Combustion Air In-Forcers**

Use to provide a fan powered supply of combustion air to mechanical rooms. Reduce wall opening size by up to 80% compared to standard louvers. Residential models PAI-2G/2O include a screened PVC intake elbow Video and temper delivered air by mixing with room air prior to discharge. Model PAI-2G has 24 Volt interlock and power cord. Model PAI-2O has 120 Volt interlock. Commercial models PAI-4, PAI-6, PAI-7 include low profile hood suitable for rooftop or a side wall intake. Duct outdoor air up to 100 feet. All include a fan proving pressure switch and outdoor air pre-filter. Use UC1 and MAC-Series interlocks to conform to mechanical codes for fan powered combustion air.



PAI-4, PAI-6 & PAI-7

Max. Btu/Hr. Gas Draft Hood	Max. Btu/Hr. Fan Assisted or Power Burner	Max. Btu/Hr. Oil Fired Flame Retention	Max. CFM
150,000	280,000	N/A	80
N/A	N/A	260,000	80
450,000	850,000	775,000	250
1,300,000	2,500,000	2,300,000	680
2,100,000	3,700,000	3,700,000	1175

This table is for general reference only. Refer to complete selection table in In-Forcer literature or instructions for details.

Tjernlund Specified Systems are proven performers in a wide range of commercial and industrial buildings throughout North America.



# **Interlock Controls and Accessories**

# **UC1** Universal Burner Interlock Control

UC1-1HP Interlocks mechanical draft and combustion air systems with a single gas or oil fired burner. It can be activated by any 18-130 VAC burner control circuit or by a gas pressure switch or relay using the 5 VDC output supplied by the UC1 control. Adjustable pre/post purge settings, LED status and fault code indicators. For less than 1 HP draft or combustion air motors use model UC1. Use model UC1-1HP for 1HP models.



**UC1 & UC1-1HP** 

# **PS1505** Fan Proving Switch for In-Line Draft Inducers

Monitors pressure within draft inducer housing to verify operation. Used in conjunction with UC1 burner interlock control. Aluminum sampling tube and connection hardware included.



PS1505

### MAC1E MAC4E

# **Multiple Appliance Interlock Controls**

Use with UC1 to interlock additional 18-130 volt burner circuits. MAC-Series controls are powered by and communicate with a UC1 through an included color coded whip. Use MAC1E for one additional heater or MAC4E for up to four additional heaters.



**MAC1E & MAC4E** 

#### **WHKE**

#### Millivolt Water Heaters Interlock

Use to interlock with self generated millivolt gas water heaters. Includes a gas pressure switch to sense main burner operation, a linear limit flue gas spill switch and a thermocouple junction adapter to tie into the heater's thermocouple circuit. Use with UC1 or MAC-Series controls.



# There's No Substitute for Experience, Outstanding Quality and Service

Tjernlund (Churn-lund) is a 4th generation Minnesotabased company. Since our founding in 1938, we have designed products that solve every day problems and are built to last. Tjernlund products are backed with superb customer service by dedicated support personnel.



# DIRECTORY

Customer Service and Support 800-255-4208

Mobile Friendly Troubleshooting: m.tjernlund.com

Complete Product Information: tjernlund.com

Email: fanmail@tjfans.com

Tjernlund Products are available through local HVAC distributors or online.

## **Available From:**



# TJERNLUND PRODUCTS, INC.

1601 Ninth Street White Bear Lake, MN 55110-6794 Phone: 651.426.2993 800.255.4208 Fax: 651.426.9547 Visit our web site: www.tjernlund.com