



# The **FB•Series**

## Pure and Simple Solutions

### **Make-Up Air Fan Boxes**

- 100% fresh air or blended outside/return air
- Tempered or untempered
- Capacities from 3,500 to 150,000 CFM
- Improved IAQ and occupant comfort



## The FB•Series

# AbsolutAire® Make-Up Air Fan Boxes

Design flexibility and application versatility are key advantages for *AbsolutAire*® FB-Series Fan Boxes. These proven, effective solutions for high-efficiency make-up air (MUA) systems can deliver 100% clean, fresh air to replace facility exhaust air, evacuate contaminants and odors, and improve indoor air quality (IAQ) to enhance occupant comfort and safety.

Available with airflow-volume capacities from 3,500 CFM to 150,000 CFM, *AbsolutAire* FB-Series Fan Boxes provide cost-saving efficiency and long-lasting durability to meet a wide range of make-up air and ventilation requirements. Typical applications include commercial, retail and institutional buildings; warehousing and distribution centers; sports facilities; water and wastewater treatment facilities; and both light and heavy industrial manufacturing plants.

Design flexibility is exceptional with two model lines built with a choice of fan technologies – each with selected cost-value advantages – an array of standard features and an extensive selection of optional features. Application versatility is ensured with numerous options for expanded performance capabilities, as well as a choice of horizontal and upright cabinets for outdoor and indoor installation options.

Basic standalone MUA systems can be designed to provide precisely controlled volumes of filtered, untempered air; more advanced MUA systems can include various technologies to provide tempered air. Heating, cooling, humidity control and energy recovery options can take system capabilities well beyond untempered make-up air and ventilation.

For a growing number of specifying engineers, HVAC contractors, building owners and facility operators, *AbsolutAire* FB-Series Fan Boxes can meet or exceed requirements for economical installation, easy maintenance and reliable high performance. Factory-assisted field start-up support, owner-operator training and technical service training are available.

## FB-Series Fan Box Advantages

### Design Flexibility

- Multiple Sizes for Required Airflow
- Extensive Standard/Optional Features
- Horizontal and Upright Models

### Application Versatility

- 100% Outside Air or Blended OA/RA
- Untempered or Tempered
- Performance Options for Heating, Cooling
- Installation Options for Outdoor/Indoor

### Optimized IAQ & Occupant Comfort

- Continuous or Variable-Volume Ventilation
- Reduced Contaminants and Odors
- Precise Unit and Network Control Systems



**MODEL FB466AF-HV:** 50,000 CFM, 40 HP, Untempered Ventilation, 4" MERV 13 Final Filters

**Economy, performance and durable reliability.** *AbsolutAire*® FB-Series Fan Boxes for high-efficiency make-up air and ventilation systems offer excellent design flexibility and application versatility to optimize indoor air quality (IAQ) and increase occupant comfort.

# Design Flexibility

AbsolutAir FB-Series Fan Boxes offer exceptional design flexibility with a choice of two high-performance fans, upright or horizontal cabinets, attractive standard features and an extensive selection of optional features.

## Standard Features and Options

**DWDI FC** (Double Width Double Inlet Forward Curved Fan)

Models have a lower first cost, but limited CFM range for applications with low to moderate static pressures

**SWSI BIAF** (Single Width Single Inlet Backward Inclined Airfoil Fan)

Models have a higher first cost, lower operating cost, an extended CFM range, and are non-overloading to provide consistent air delivery under high static pressure conditions

**High-Efficiency ODP or TEFC Fan Motor:** Magnetic motor starter with overload protection; available with belt drive or direct drive

**Fan/Motor Access Door:** Hinged with lock open

**Horizontal or Upright Cabinet:** Built for durability with heavy-gauge, aluminized-steel welded construction

**Siloxane-Epoxy Paint Finish:** Provides long-term resistance to weather, UV fading, salt spray and airborne pollutants

**Choice of Discharge Configurations:**

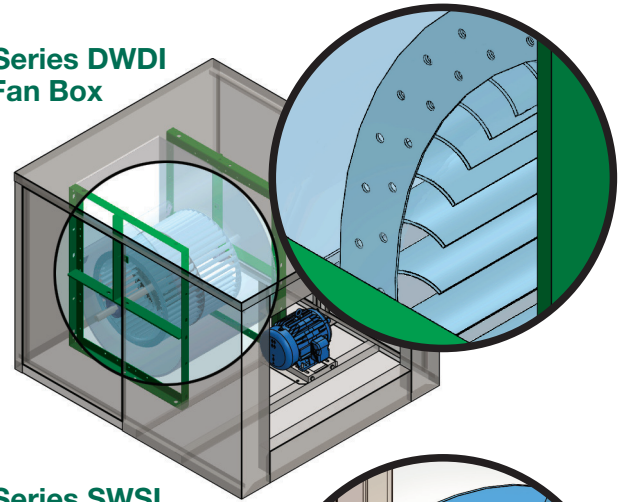
- **FB DWDI Models:** Up, down, end
- **FB SWSI Models:** Up, down, end, left side or right side

**Main Control Panel:** At unit with optional remote; can be supplied with DDC controls for BMS integration

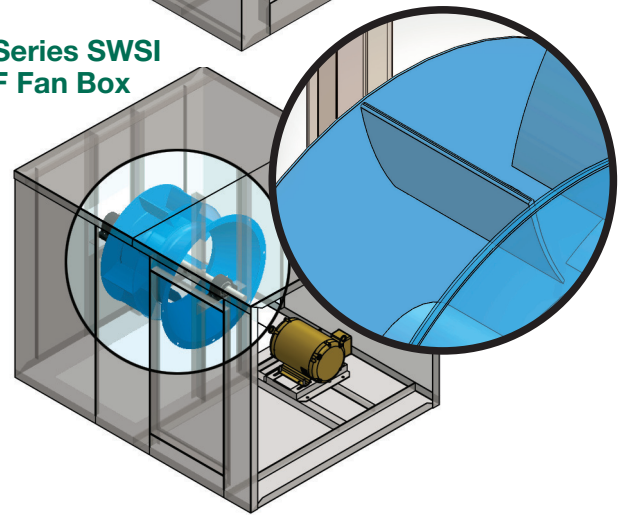
**Non-Fused Or Fused Disconnect Switch:** Reduces field wiring expense, increases maintenance safety

**Quality Assurance, Performance Tested:** 100% quality checked and factory tested; two-year parts and 90-day labor warranty

**FB-Series DWDI FC Fan Box**



**FB-Series SWSI BIAF Fan Box**



Standard	Options
<ul style="list-style-type: none"> <li>• Horizontal or Upright Cabinets</li> <li>• Heavy-Gauge Aluminized Steel Welded Construction</li> <li>• Durable Siloxane Epoxy Paint Finish (5500 hour salt-spray rated; 8 standard colors, special colors available)</li> <li>• DWDI FC Fan or SWSI BIAF Fan (model dependent)</li> <li>• L10 100,000-Hour Rated Fan Bearings</li> <li>• Extended Fan-Bearing Lube Line (Standard on FB SWSI-BIAF Models; Optional on FB DWDI-FC Models)</li> <li>• High-Efficiency ODP Fan Motor (TEFC Optional)</li> <li>• Choice of Discharge Configurations</li> <li>• Hinged Fan/Motor Access Door</li> <li>• Main Control Panel with Non-Fused (FB DWDI-FC models) or Fused (FB SWSI-BIAF models) Disconnect Switch</li> <li>• 100% Factory Testing</li> <li>• Two-Year Parts/90-Day Labor Warranty</li> </ul>	<ul style="list-style-type: none"> <li>• Stainless Steel or Aluminum Interior/Exterior</li> <li>• Motorized Inlet and/or Discharge Dampers</li> <li>• Precise Pressure-Differential Control with VFD Option</li> <li>• OA Side Access Filter Section; Multiple Options for Filter Types</li> <li>• OA Inlet Hood with Bird Screen</li> <li>• OA Filtered Inlet Hood with 1" or 2" Filters</li> <li>• Duct or Full 20" H Roof Curbs, Flat or Pitched</li> <li>• SA Filtering with 2", 4", 12", Bag; MERV II to HEPA Types</li> <li>• 1-, 3- or 4-Way Discharge Heads, Single or Double Deflection</li> <li>• Insulated Cabinet with 1" or 2" Thermafiber, Foil Faced or 1" or 2" Double Wall Construction, Stainless Steel or Aluminum Options</li> <li>• Heating with Electric, Steam or Hot Water Coils</li> <li>• Cooling with Evaporative Media, Chilled Water (CW) or Direct Expansion (DX) Coils</li> <li>• Energy Recovery and Special Performance Options</li> <li>• Factory Field Startup and Owner/Operator Training</li> </ul>

# Product Range and Selection

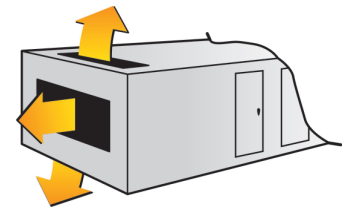
AbsolutAire FB-Series Fan Boxes are available in two model types, engineered and built with the best available technologies for make-up air and ventilation applications. Each offers a broad range of CFM capacities, and several considerations factor into model selection.

FB-Series Models with DWDI FC Fans							
AbsolutAire® FB-Series Models		Maximum CFM	DWDI Fan Diameter (inches)	Maximum Motor HP	Fan Box Dimensions (inches)		
Horizontal	Upright				Width	Height*	Length
FB10DW-HO	FB10DW-UO	3,500	10	3	32	28	46
FB12DW-HO	FB12DW-UO	5,500	12	3	34	30	50
FB15DW-HO	FB15DW-UO	8,000	15	7 1/2	40	33	56
FB18DW-HO	FB18DW-UO	9,500	18	10	48	38	60
FB20DW-HO	FB20DW-UO	14,000	20	15	55	47	63
FB22DW-HO	FB22DW-UO	20,000	22	20	62	50	70
FB25DW-HO	FB25DW-UO	26,000	25	25	74	54	77
FB30DW-HO	FB30DW-UO	35,000	30	30	90	70	93
FB33DW-HO	FB33DW-UO	44,000	33	50	90	70	93
FB36DW-HO	FB36DW-UO	54,000	36	60	98	78	100

\*NOTE: Height is for HO (horizontal) units; UO (upright) unit height is 1 inch less.

### Selection Considerations:

- Based on AbsolutAire AA-Series construction
- Value pricing with a lower first cost and reduced production lead times
- DWDI FC fans are most efficient at low to moderate static pressures
- Supply Air (SA) discharge options:



FB-Series Models with SWSI BIAF Fans							
AbsolutAire® FB-Series Models		Maximum CFM	SWSI Fan Diameter (inches)	Maximum Motor HP	Fan Box Dimensions (inches)		
Horizontal	Upright				Width	Height*	Length
FB320AF-HO	FB320AF-UO	8,000	20	10	56	53	70
FB327AF-HO	FB327AF-UO	13,000	27	15	56	53	70
FB330AF-HO	FB330AF-UO	17,000	30	20	66	63	75
FB333AF-HO	FB333AF-UO	20,000	33	20	66	63	75
FB336AF-HO	FB336AF-UO	22,000	36	20	66	63	75
FB340AF-HO	FB340AF-UO	30,000	40	30	74	71	70
FB344AF-HO	FB344AF-UO	35,000	44	40	84	81	84
FB349AF-HO	FB349AF-UO	40,000	49	40	84	81	84
FB354AF-HO	FB354AF-UO	50,000	54	50	92	89	92
FB360AF-HO	FB360AF-UO	60,000	60	60	98	95	96
FB366AF-HO	FB366AF-UO	75,000	66	75	107	104	108
FB373AF-HO	FB373AF-UO	85,000	73	100	118	115	108
FB380AF-HO	FB380AF-UO	105,000	80	100	128	125	120
FB389AF-HO	FB389AF-UO	150,000	89	150	135	132	128

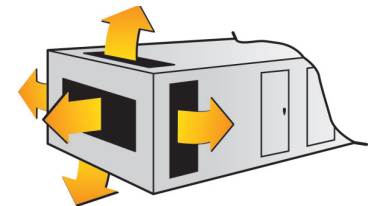
\*NOTE:

ON CURB – Height is for HO (horizontal) units; UO (upright) unit height is 1 inch less.

ON PLATFORM – Add 2” for models up to FB349AF, 3” for models FB354AF and larger.

### Selection Considerations:

- Based on AbsolutAire R-Series with robust construction and high efficiency
- Higher first cost with lower operating (electrical) costs
- Less noise, quieter operation
- Non-overloading SWSI BIAF fans can maintain consistent air delivery under high static pressure conditions
- Supply Air (SA) discharge options:



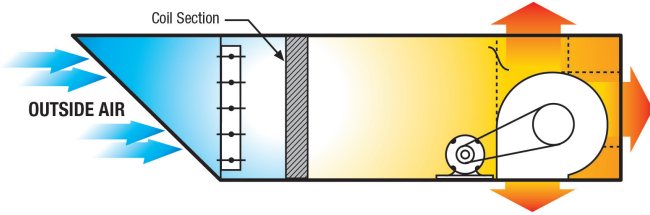
# Application Versatility

*AbsolutAire* FB-Series Fan Boxes ensure application versatility with numerous options for expanded performance capabilities, as well as choice of horizontal or upright cabinets with multiple discharge options for both indoor and outdoor installations.

## Performance Options

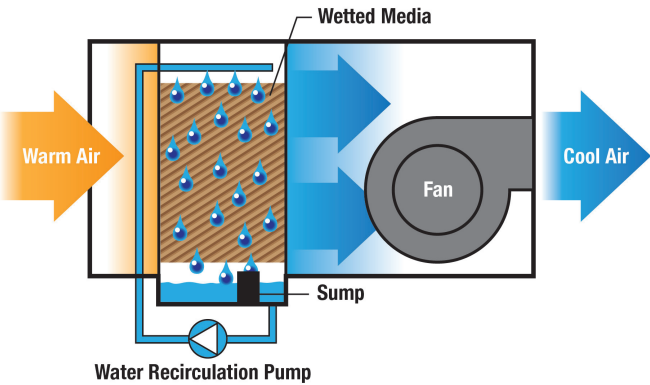
### Heating

- Hot Water Coils
- Steam Coils
- Electric



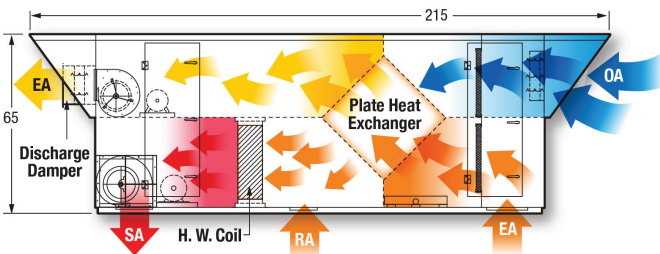
### Cooling

- Evaporative Media
- Chilled Water (CW) Coils
- Direct Expansion (DX) Coils



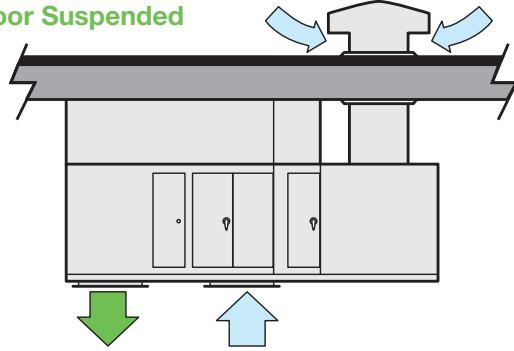
### Other Capabilities

- Humidity Control
- Energy Recovery
- Multiple-Stage Filtration

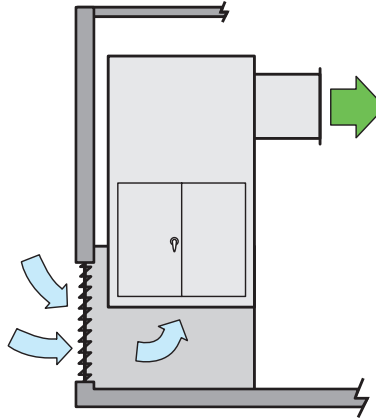


## Installation Options

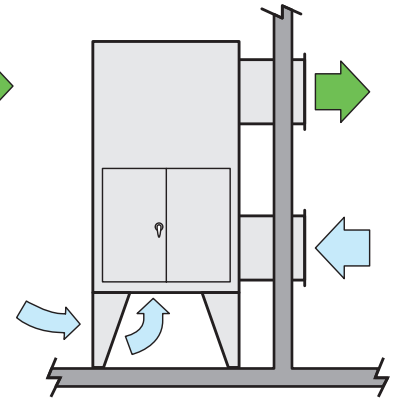
### Indoor Suspended



### Indoor Floor or Mezzanine



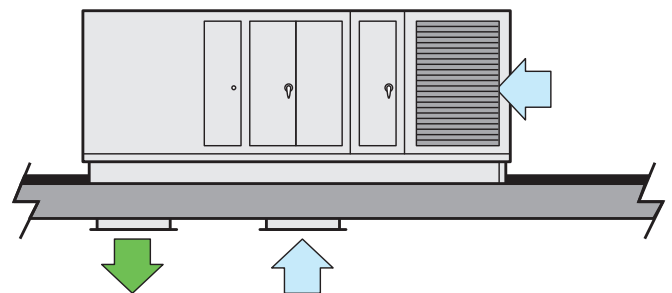
### Outdoor Through-Wall (Upright)



### Outdoor Pad (Horizontal)



### Outdoor Roof (Curb or Steel)



## Make-Up Air System Installations



**Untempered, Standalone MUA System.** An *AbsolutAire*<sup>®</sup> FB-Series fan box can provide clean, filtered air to replace facility exhaust air. Proper ventilation can evacuate contaminants to improve indoor air quality (IAQ) and occupant comfort.

**Model FB360AF-HV:** 54,500 CFM, 25 HP, 2" Aluminum Filters, No Heating or Cooling



**MUA System with Cooling Capabilities.** An *AbsolutAire*<sup>®</sup> FB-Series fan box can be fitted with direct-expansion (DX) coils or chilled-water (CW) coils to enhance ventilation cooling for comfort in some climates. Evaporative media is another option for adding cooling capabilities

**Model FB366SAF-UMDX:** 75,000 CFM, 30 HP, 200 Tons DX Cooling



**Make-Up Air System with Heating Capabilities.** *AbsolutAire*<sup>®</sup> MUA systems can include efficient heating capabilities for environments in which direct-fired heating may pose risks. Heating options for these systems include electric, hot-water coils and steam coils.

**Model FB473AF-HVST:** 50,000 CFM, 40 HP, 3,635 MBU Steam Heating, 4" MERV 13 Final Filters



**Integrated Make-Up Air System.** *AbsolutAire*<sup>®</sup> MUA systems can be engineered with a high-efficiency FB-Series fan box and systems for heating, cooling, humidity control, energy recovery or other specified ventilation needs. All are offered with advanced control technologies.

**Model FB366AF-HVHWCW:** 64,000 CFM, 60 HP, 225 Tons CW Cooling, 2,353 MBH HW Heat; 1" Aluminum Pre-Filters and 4" MERV 8 Final Filters



**Energy Recovery System.** FB-Series fan boxes can be equipped with plate-to-plate or Heat Pipe Technology<sup>®</sup> heat exchangers that recover waste heat from facility processes and exhaust air. Fresh outside air can be pre-heated to reduced energy costs.

**Model FB327AF-HOXER:** 4,900 FCM, 3 HP, 365 MBH gas-fired, heat pipe energy recovery, 2" pleated filters

## Other Pure and Simple Solutions

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- M-Series Make-Up Air Fan Boxes
- V-Series Direct-Fired Make-Up Air Value
- AA-Series Direct-Fired Heating & Ventilating
- R-Series Direct-Fired Heating & Ventilating
- E-Series Direct-Fired Air Turnover
- S-Series Air-Handling Systems
- H-Series HTLV Space Heating
- I-Series Indirect-Fired Heating & Ventilating
- Spray & Bake Paint-Booth Heating Systems
- CH Temporary (Construction) Heaters
- DH Door Heaters
- Coil & Evaporative Cooling Options
- Electric and Coil Heating Options
- Direct Digital Control (DDC) Systems
- Factory Field Startup and Owner Training
- Free Service Training at Factory



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