

## Indirect-Fired Air Handling Units

Heating • Cooling • Pressurization



### IDF-Series

- Can be ideal solution for wide range of applications: Unit can be designed to ventilate/pressurize, heat and/or cool using a variety of different technologies.
- Can be ideal for industrial applications requiring heavy-duty design: Unit designed with welded structural steel framework and painted, heavy-gauge cabinet panels.
- Energy saving design: Unique dual blower/single motor design helps reduce blower motor electrical use.
- Simplified maintenance: Supply blower motor, belts, bearings and drives are located outside of the airstream to help ease component replacement.
- Longer component longevity: Forced draft system avoids exposure of combustion blower to high temperature gases.

**1.800.589.3691**  
**[www.weather-rite.com](http://www.weather-rite.com)**



**Intertek**  
GAS/OIL HEATING ONLY

# WEATHER-RITE™ Indirect-Fired Air Handlers

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WEATHER-RITE™ indirect-fired air handlers can help minimize air quality problems by pressurizing a space with conditioned outdoor air and/or effectively heat a space with recirculated air. These units discharge the byproducts of combustion outside of the heated space when in heating mode.

## Reliable, Efficient System Operation Provided by:

- Availability of upright and horizontal configurations with a variety of discharge options to meet application requirements.
- Single or dual belt-driven DWDI, FC centrifugal blower(s), driven by a single-speed, premium efficiency, open drip-proof (ODP) motor. (Optional totally-enclosed, fan-cooled [TEFC] motor.)
- Adjustable blower sheaves to allow the fine-tuning of airflow levels.
- Fully-assembled and tested power burner with built-in combustion blower, helping eliminate the need for power venter in flue.
- Indirect-fired burners available at a variety of turndown levels and fuel options to meet specific application requirements.
- Fully-assembled and tested manifold assembly, available for gas (NG or LPG), oil or both and for FM or XL Insurance-compliant buildings.
- Direct expansion (DX) or chilled water cooling coils.
- Mounting and wiring of all necessary operating starters, relays, switches, controls and fuses to help eliminate the need for extensive wiring in the field.
- Optional Underwriters Laboratories (UL) or Intertek Semko (ETL)-listed control panel.
- Selection of remote panels and/or Building Management System (BMS)-interlock control in order to provide discharge temperature or space temperature control.

## Long Lasting Construction Provided by:

- Welded structural steel framework with welded-on galvanized steel cabinet panels.
- Double-wall cabinet construction in heat exchanger section.
- Multi-pass, positive-pressure heat exchanger with stainless steel primary drum and cold-rolled steel secondary tubes. (Optional stainless steel secondary tubes).

## Ease of Maintenance Provided by:

- Easy access to fan(s), motor(s), sheaves and belts. Power burner and manifold accessible on burner mounting shelf.
- Optional service receptacle to provide power during maintenance activities.

## Suit Most Applications with Available Options:

- External spring or neoprene pad vibration isolators.
- Fused disconnect switch (shipped loose or factory-mounted) for single point connection.
- Two-position inlet and discharge dampers to control airflow.
- Discharge heads and burners to deflect airflow in required direction.
- Inlet hood with birdscreen to prevent unwanted entrainment of water and other debris into horizontal unit.

## Applications

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### Steel Manufacturing Facilities

- Use of a heating unit where flue gases are ducted outside of the heated space can provide heated air without introducing combustion by-product water vapor into the space, which can cause surface rust on steel product.

### Wastewater Treatment Plants

- Utilizing a heating unit can provide tempered outdoor air to space for ventilation without exposing the potentially-contaminated supply air directly to the heating source.

### Chemical Manufacturing Facilities

- By selecting a heating unit with a combustion air flange on the burner, combustion air can be ducted in from outside of the heated space to ensure uncontaminated air is used for combustion.

### Educational Facilities

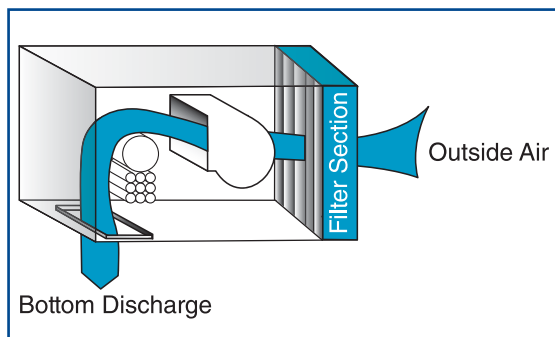
- Using a heating unit where combustion by-products are vented outside of the heated space is common in large open areas of schools and universities, such as in gymnasium spaces.

Model		IDF-35	IDF-45	IDF-50	IDF-65	IDF-75	IDF-85	IDF-100	IDF-125	IDF-150
Airflow	(CFM)	3,500-6,000	3,500-6,000	4,000-8,000	4,000-8,000	6,000-12,000	6,000-12,000	6,000-12,000	10,000-18,000	13,000-24,000
	(m <sup>3</sup> /h)	5,900-10,200	5,900-10,200	6,800-13,600	6,800-13,600	10,200-20,400	10,200-20,400	10,200-20,400	17,000-30,600	22,100-40,800
Output	(MBH)*	240-350	240-450	240-500	520-650	520-750	520-850	520-1,000	560-1,250	560-1,500
	(kW)	70.3-102.5	70.3-131.9	70.3-146.5	152.4-190.5	152.4-219.8	152.4-249.1	152.4-293.1	164.1-366.3	164.1-439.6

Model		IDF-175	IDF-200	IDF-225	IDF-250	IDF-275	IDF-300	IDF-350	IDF-400	IDF-450
Airflow	(CFM)	13,000-24,000	21,000-37,000	21,000-37,000	21,000-45,000	21,000-45,000	30,000-45,000	35,000-57,000	35,000-57,000	35,000-57,000
	(m <sup>3</sup> /h)	22,100-40,800	35,700-62,900	35,700-62,900	35,700-76,500	35,700-76,500	51,000-76,500	59,500-96,800	59,500-96,800	59,500-96,800
Output	(MBH)*	600-1,750	600-2,000	600-2,250	600-2,500	720-2,750	720-3,000	720-3,500	1,400-4,000	1,400-4,500
	(kW)	175.8-512.9	175.8-586.1	175.8-659.4	175.8-732.7	211.0-805.9	211.0-879.2	211.0-1,025.7	410.3-1,172.3	410.3-1,318.8

\*1 MBH = 1,000 Btu/h

## Model Configurations

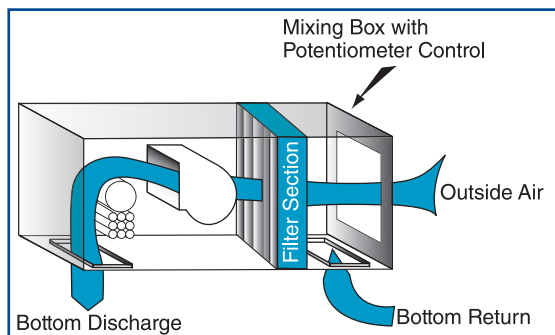


### Make-Up Air (MUA) Models

**Design:** 100% outside air with a fixed discharge air volume.

**Function:** Supplies direct replacement air for building mechanical exhaust.

**Application:** Used as make-up air for paint booths and other industrial processes which incorporate mechanical exhaust.

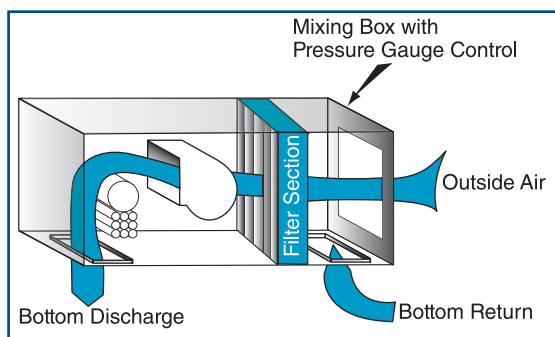


### Fixed Recirculation (FR) Models

**Design:** Manual modulation of outdoor air/return air mix from 0% to 100% with use of mixing box and factory-mounted potentiometer on remote panel.

**Function:** Provides efficient, low-cost heating where minimum ventilation rates are required.

**Application:** Used in warehouses, distribution centers, retail outlets, etc.



### Air Management (AM) Models

**Design:** Automatic modulation of outdoor air/return air mix from 0% to 100% with use of mixing box and pressure controller.

**Function:** Automatically responds to building pressure and temperature needs.

**Application:** Used in industrial and commercial buildings that have air quality and specific air management requirements.

# Remote Panels for Heat-Only Units



## 8.1 Remote Panel with any Type of Burner

This remote panel controls the air turnover unit based on return air temperature. It includes a Summer/Off/Winter switch and three indicator lights (blower operation, burner operation and flame failure).

### SUMMER Mode:

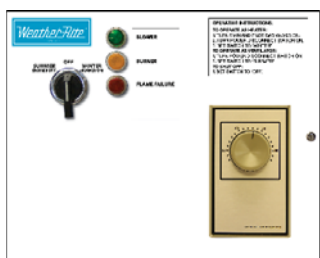
The blower operates continuously without the burner for summer ventilation.

### WINTER Mode:

The blower operates continuously. The burner cycles on/off with it staging on/off, staging high/low/off or modulating (depending on burner type) while in operation to meet the return temperature set point, as selected on the controller/duct stat. (The controller/duct stat is factory-mounted in the intake plenum.)

### Dimensions:

10" L x 8" H x 4" D (25 cm L x 20 cm H x 10 cm D) NEMA1 Enclosure



## 8.5 Remote Panel with On/Off or High/Low/Off Burner

This remote panel controls the air turnover unit based on space temperature. It includes a Summer/Off/Winter switch, three indicator lights (blower operation, burner operation and flame failure) and room thermostat.

### SUMMER Mode:

The blower operates continuously without the burner for summer ventilation.

### WINTER Mode:

The blower operates continuously. The burner cycles on/off with it staging on/off or staging high/low/off (depending on burner type) while in operation to meet the space temperature set point, as selected on the thermostat. (Thermostat is factory-mounted on the remote panel.)

### Dimensions:

10" L x 8" H x 4" D (25 cm L x 20 cm H x 10 cm D) NEMA1 Enclosure



## 8.5 Remote Panel with Modulating Burner

This remote panel controls the air turnover unit based on space temperature. It includes a Summer/Off/Winter switch, three indicator lights (blower operation, burner operation and flame failure) and room thermostat.

### SUMMER Mode:

The blower operates continuously without the burner for summer ventilation.

### WINTER Mode:

The blower operates continuously. The burner cycles on/off with it modulating while in operation to meet the space temperature set point, as selected on the thermostat. (Thermostat is factory-mounted on the remote panel.)

### Dimensions:

12" L x 16" H x 4" D (30 cm L x 41 cm H x 10 cm D) NEMA1 Enclosure

### Installation Code and Annual Inspections:

All installation and service of WEATHER-RITE™ equipment must be performed by a contractor qualified in the installation and service of equipment sold and supplied by Weather-Rite LLC and conform to all requirements set forth in the WEATHER-RITE™ manuals and all applicable governmental authorities pertaining to the installation, service and operation of the equipment. To help facilitate optimum performance and safety, Weather-Rite LLC recommends that a qualified contractor conduct, at a minimum, annual inspections of your WEATHER-RITE™ equipment and perform service where necessary, using only replacement parts sold and supplied by Weather-Rite LLC.

**Further Information:** Applications, engineering and detailed guidance on systems design, installation and equipment performance is available through WEATHER-RITE™ representatives. Please contact us for any further information you may require, including the Installation, Operation and Service Manual.

**This product is not for residential use.**

**This document is intended to assist licensed professionals in the exercise of their professional judgment.**

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