Indirect Gas-Fired Make-Up Air
Model IGK

- 800 to 5,000 cfm
- Up to 400,000 BTU/hr

- ☑ Simple
- ☑ Compact
- ☑ Economical

GREENHECK
Building Value in Air.

October
2008

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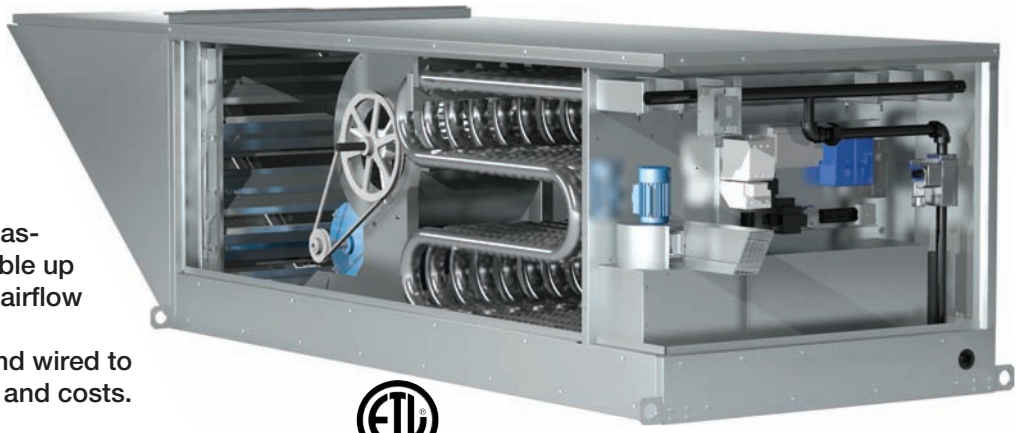
Indirect Gas-Fired Make-Up Air Unit



The Greenheck model IGK features a power vented, 80% efficient, ETL Listed, indirect gas-fired furnace. Heating is available up to 400,000 BTU/hr (input) with airflow volumes up to 5,000 cfm.
Units are factory assembled and wired to minimize field installation time and costs.

Indirect Gas-Fired Furnaces

- Power vented with post purge cycle
- ETL listed to ANSI standard Z83.8 and CGA 2.6
- 80% thermal efficiency
- 2:1 staged gas control
- Aluminized steel or stainless steel heat exchanger
- Direct spark ignition system
- Easy access burner controls
- Insulated double-wall construction

Control Center

The control center includes the following standard components:

- Magnetic motor starter
- Control transformer
- Disconnect switch
- Distribution terminal strip

Premium grade control components are selected for reliable operation. All electrical components are UL Listed, Recognized or Classified and factory prewired for single-point power connection.

Reliable Fan Performance/Durable Construction

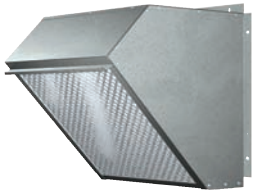
Air performance ratings from Greenheck's accredited test chamber ensure accurate data.

Double-width, double-inlet, forward-curved wheels for high-efficiency and low sound levels are constructed of heavy-gauge steel. Wheels are statically and dynamically balanced to ensure vibration-free operation. The entire fan and motor assembly is mounted on vibration isolators to minimize noise transmission into the building. Adjustable motor sheaves are standard.

Designed for maximum weather resistance, IGK housings are constructed of heavy-gauge G90 galvanized steel. Lifting lugs are standard.

Indirect Gas-Fired Heat

Weatherhood



A filtered weatherhood with G90 galvanized steel construction is standard. The filtered weatherhood includes aluminum mesh filters mounted in the intake, eliminating the need for an additional filter section.

Integrated Downturn Plenum

Greenheck's unique indirect furnace design includes an integrated downturned plenum, eliminating the need for an additional section to achieve a downblast discharge.

Fiberglass Insulation

Standard 1-inch foil-faced fiberglass insulation is used to line the housing, preventing the formation of condensation and forming an acoustical barrier.

Inlet Air Sensor

An on/off type duct stat automatically energizes the gas system when the inlet air temperature falls below the desired setting.

Access Panels

Large access panels are provided for easy inspection and maintenance of motors, drives, fan wheels, filters, and heater controls.

Factory Wired and Tested

All units are tested prior to shipment. Units are checked for proper operation of the gas train, electrical components and airflow.

OPTIONAL ACCESSORIES/ AIR PERFORMANCE

Access

Units can be ordered with either right or left hand access as determined looking into unit intake.

Propane Gas

A propane heater may be provided in lieu of natural gas.

Gas Pressure Regulator

Required if building gas line pressure exceeds the maximum inlet gas pressure of the make-up air unit. Ships separately for field installation.

Intake Dampers

Motorized intake damper prevents backdrafts when the fan is not in operation. Damper is factory mounted and wired.

Special Coatings

Greenheck's Permatector™ coating is available for a durable, long-lasting finish. Decorative paints are also available in a variety of colors to match existing building fixtures.

Duct Adapter

Provides easy means for attaching ductwork to curb and allows installation of top section of duct prior to setting the unit on the curb.

Roof Curb

Factory provided roof curbs are available to ensure compatibility between the make-up air unit and roof curb.

Remote Panels

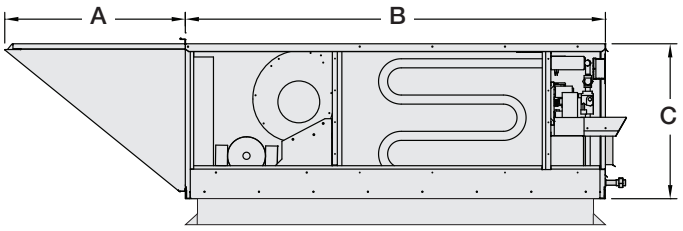
Kitchen style remote panels features toggle switches and a stainless steel face plate for flush mounting to a wall. The junction box is also included.

IGK Dimensions

Housing Size	Width	A	B	C
H05	31.625	39.75	92.5	34.0
H15	40.125			

All dimensions are shown in inches.

The model IGK is available for stand-alone installation with a downblast discharge (Arrangement DB).



Downblast Discharge - Arrangement DB

IGK Air Performance

Model	CFM		Total Static Pressure (in. wg)						Maximum Furnace Size
			0.75	1.00	1.25	1.50	1.75	2.00	Input MBH
IGK-109-H05	1,500	RPM	1014	1140	1255	1361	1460		200
		BHP	0.45	0.54	0.63	0.73	0.84		
	2,400	RPM	1216	1306	1397	1484	1569	1648	
		BHP	1.10	1.30	1.40	1.60	1.70	1.90	
IGK-110-H05	2,000	RPM	912	1013	1110	1199			200
		BHP	0.59	0.71	0.08	0.10			
	3,000	RPM	1097	1172	1244	1315	1386	1455	
		BHP	1.40	1.60	1.70	1.90	2.10	2.20	
IGK-112-H15	2,600	RPM	761	853	934	1009			400
		BHP	0.70	0.90	1.00	1.20			
	5,000	RPM	1014	1075	1135	1192	1250	1306	
		BHP	2.90	3.20	3.50	3.70	4.00	4.30	

Typical Specifications

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General: Make-up air unit shall be as manufactured by Greenheck or approved equal provided all specifications are met. Greenheck Model IGK is used as the basis of design. Performance shall be as scheduled on plans.

Furnace: Indirect fired gas furnace shall be 80% efficient, ETL Listed and have a blow through fan design. Furnace shall be capable of operation with natural or LP gas and have a power venting system. The heat exchanger shall be constructed of aluminized steel or stainless steel. Standard furnace features shall include main gas pressure regulator, main gas valve, electronic staged or electronic modulating controls, direct spark ignition system, high limit and a 24 volt control transformer.

Temperature Control: Furnace heat output shall be controlled based on a field adjustable discharge temperature set point. Discharge temperature sensor shall be factory mounted and wired to the unit control center. Furnace shall have electronic staged control.

Unit Casing and Frames: Unit shall be of internal frame type construction of galvanized steel. All frames and panels shall be G90 galvanized steel. Where top panels are joined there shall be a standing seam to ensure positive weather protection. All metal-to-metal surfaces exposed to the weather shall be sealed. All components shall be easily accessible through removable doors.

Insulation: The housing should be insulated with 1-inch foil-faced fiberglass insulation. Double-wall insulation is required in furnace section. Insulation shall be in accordance with NFPA 90A and tested to meet UL 181 erosion requirements.

Fan Section: Centrifugal fans shall be double-width, double-inlet. Fan and motor shall be mounted on a common base and shall be internally isolated. All blower wheels shall be statically and dynamically balanced. Ground and polished steel fan shafts shall be mounted in permanently lubricated ball bearings. Bearings shall be selected for a minimum (L10) life in excess of 100,000 hours at maximum cataloged speeds.

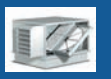
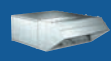
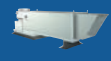
Weatherhood: Weatherhood shall be constructed of G90 galvanized steel and include 2-inch aluminum mesh filters to eliminate the need for an additional filter section.

Motors and Drives: Motors shall be energy efficient, complying with EPACT standards, for single speed ODP and TE enclosures. Motors shall be permanently lubricated, heavy duty type, matched to the fan load and furnished at the specified voltage, phase and enclosure. Drives shall be sized for a minimum of 150% of driven horsepower. Pulleys shall be cast and have machined surfaces, 10 horsepower and less shall be supplied with an adjustable drive pulley.

Electrical: All internal electrical components shall be prewired for single-point power connection. All electrical components shall be UL Listed, Recognized or Classified where applicable and wired in compliance with the National Electrical Code. Control center shall include motor starter, control circuit fusing, control transformer for 24 VAC circuit, integral disconnect switch and terminal strip. Contactors, Class 20 adjustable overload protection and single phase protection shall be standard.






Our Warranty

Greenheck warrants this equipment to be free from defects in material and workmanship for a period of one year from the purchase date. Any units or parts which prove defective during the warranty period will be replaced at our option when returned to our factory, transportation prepaid. Motors are warranted by the motor manufacturer for a period of one year. Should motors furnished by Greenheck prove defective during this period, they should be returned to the nearest authorized motor service station. Greenheck will not be responsible for any removal or installation costs.

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.

U.S. GREEN BUILDING COUNCIL MEMBER
Prepared to Support Green Building Efforts

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