Direct-Fired **Air-Turnover** Indirect-Fired Infrared Unit Heaters Duct Furnaces Cooling

7500-Series

Rapid® Engineering LLC

Air Turnover Units

Indirect-Fired Heating • Cooling • Destratification

- Helps provide even, consistent temperatures throughout space: Circulation of high air volumes at low velocities helps to uniformly distribute discharge air throughout space.
- Can be ideal solution for wide range of applications: Units available for unconditioned recirculation, heating, cooling and/or filtering of room air.
- Simplified installation and maintenance: Unit is housed entirely inside the building with most major components within reach from ground level.
- Can be ideal for industrial applications requiring heavy-duty design: Unit designed with welded structural steel framework and durable, long-lasting components.

1.800.536.3461

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Intertek
HEATING ONLY

RAPID® 7500-Series Air Turnover Units

RAPID® 7500-Series air turnover units can help minimize stratification problems by drawing in air from the floor, conditioning it and re-circulating it throughout the area. With heavy-duty, belt-driven propeller blade fans to move vast quantities of air quietly and efficiently, these units help produce a comfortable, evenly heated space.

Reliable, Efficient System Operation Provided by:

- Upright configuration for indoor use, can be ideal for establishing and maintaining rotation of space air.
- Single or multiple belt-driven propeller fan(s), each driven by a single-speed, premium efficiency, open drip-proof (ODP) motor. (Optional totally-enclosed, fan-cooled [TEFC] motor.)
- Adjustable fan sheaves to allow 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.
- Optional pleated or polyester filters on two, three or four sides of inlet plenum to provide air cleaning.

Long Lasting Construction Provided by:

- Welded structural steel framework with welded-on galvanized steel cabinet panels and screened inlet/discharge plenums.
- 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 through inlet plenum. Power burner and manifold accessible on burner mounting shelf.
- Optional service receptacle to provide power during maintenance activities.

Suit Most Applications with Available Options:

- 48" (1.2 m) field-assembled extensions.
- External spring or neoprene pad vibration isolators.
- Fan-only unit for circulating unconditioned space air.
- Fused disconnect switch (shipped loose or factory-mounted) for single point connection.
- Replacement of one or more sides of screened inlet and discharge plenums with solid sheet metal for units placed against wall or in corner.
- Two-position damper to control the inlet of optional outside air.

Applications

Consumer Goods Storage

- Unit with filters can reduce dust settling on product packaging, minimizing the consumer perception that dusty product is old product.

Distribution Centers for Candy and Alcoholic Beverages

- By using a unit with cooling capacity, a facility can be uniformly maintained at a particular temperature, helping to eliminate hot spots where candy could melt or alcoholic beverages could age improperly.

Indoor Sports Facilities

- 100% return air operation helps provide quick recovery of space temperature when switching from unoccupied periods to occupied periods, ideal for sports facilities with schedules that may vary daily.

Plastic Injection Molding Facilities

- Use of a cooling-only unit can help maintain proper space temperatures in molding facilities to help eliminate condensation on cold molds and thereby help prevent defective product.

Warehousing of U.S. Food and Drug Administration (FDA)-Regulated Products

- Utilizing a unit with both heating and cooling capabilities can help provide year-around maintenance of the FDA's strict approved storage temperature ranges for pharmaceuticals, cosmetics and other regulated products.

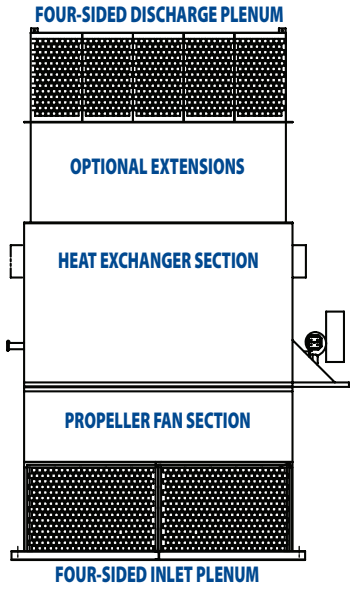
Capacities

Model		7500-136	7500-148	7500-154	7500-236	7500-242	7500-248	7500-254	7500-260	7500-272
Airflow	(CFM)	4,500 - 12,000	10,000 - 16,000	14,000 - 30,000	9,000 - 24,000	21,000 - 31,000	22,000 - 45,000	40,000 - 65,000	54,000 - 74,000	62,000 - 100,000
	(m^3/h)	7,600 - 20,300	16,900 - 27,100	23,700 - 50,900	15,200 - 40,700	35,600 - 52,600	37,300 - 76,400	67,900 - 110,400	91,700 - 125,700	105,300 - 169,900
Heating Output	(MBH)	240 - 450	240 - 750	240 - 1,250	240 - 1,000	240 - 1,250	240 - 1,500	560 - 2,500	600 - 4,000	600 - 4,500
	(kW)	70.3 - 131.9	70.3 - 219.8	70.3 - 366.3	70.3 - 293.1	70.3 - 366.3	70.3 - 439.6	164.1 - 732.7	175.8 - 1,172.3	175.8 - 1,318.8

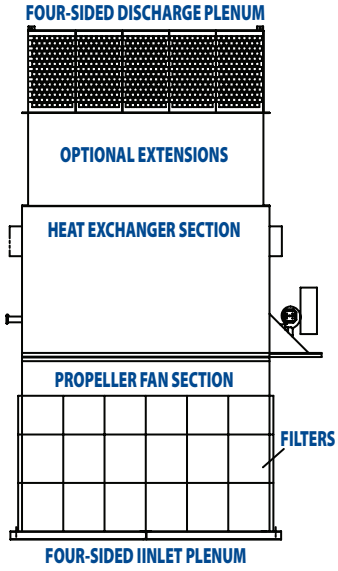
*1 MBH = 1,000 Btu/h

Configurations

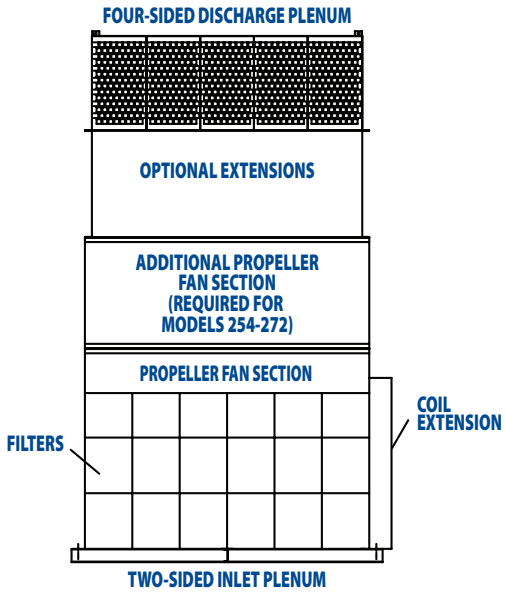
Heating Unit without Filtration



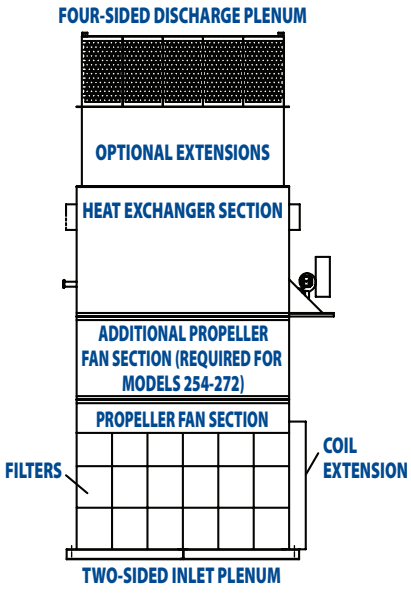
Heating Unit with Filtration



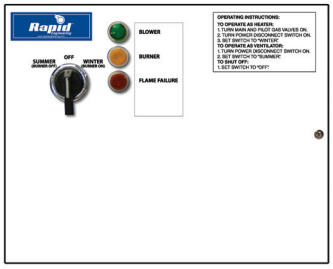
Cooling Unit with Filtration



Heating/Cooling Unit with Filtration



Remote Panels for Heating-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:

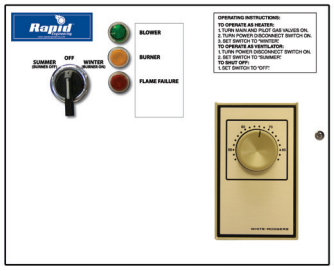
The fan(s) operate(s) continuously without the burner for summer ventilation.

WINTER Mode:

The fan 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 fan(s) operate(s) continuously without the burner for summer ventilation.

WINTER Mode:

The fan 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 fan(s) operate(s) continuously without the burner for summer ventilation.

WINTER Mode:

The fan 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 RAPID® equipment must be performed by a contractor qualified in the installation and service of equipment sold and supplied by Rapid Engineering LLC and conform to all requirements set forth in the Rapid Engineering LLC manuals and all applicable governmental authorities pertaining to the installation, service, operation and labeling of the equipment. To help facilitate optimum performance and safety, Rapid Engineering LLC recommends that a qualified contractor conduct, at a minimum, annual inspections of your RAPID® equipment and perform service where necessary, using only replacement parts sold and supplied by Rapid Engineering LLC.

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

These products (with the exception of the CGTH and UHA[X][S]30 - 75) are not for residential use.
This document is intended to assist licensed professionals in the exercise of their professional judgment.

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