



Johnson Air Rotation® Systems

Johnson Air Rotation® Heating and Cooling Unit Features

Standard Features:

- Cooling capacities up to 500 tons per unit
- Heating capacities up to 7,000,000 BTUH
- Air volumes up to 200,000 CFM
- Heavy 18-gauge, painted galvanized structural steel frame construction
- Stainless steel indirect-fired heat exchanger – 83% combustion efficiency
- 100% System efficiency
- Direct expansion or chilled water cooling coils
- Cooling coils operate in a “draw-through” design.
- A variety of filtration levels are possible, with standard being 30% efficient pleated filters
- Stainless steel triple pitched condensate drain pan with a single drain
- Galvanized steel walkway plank for easy maintenance of coils, fans and motors
- Coils and filters are mounted at floor or ground level for easy maintenance and cleaning
- Horizontal and vertical discharge louvers and turning vanes for air distribution control
- Insulated cabinet
- Wired and piped at factory (except main regulator and main gas valve)
- High temperature limit switch; heat on/off switch
- Flame failure alarm horn (gas and oil units only)
- Control circuit and power fusing; UV flame detection
- Low fire start; occupied thermostat
- Rear fan failure light (double fan units only)
- Non-fused motor disconnect switch; motor starter and overload protection
- NEMA 1 power and control panels
- Single-point power hook-up
- Long lasting paint finish; hinged access door
- UL® listed; 1 year parts warranty
- Factory tested for operation and sound in a UL®-approved Test Data Program

Available Optional Features:

- Outdoor construction
- Heating is available with gas, propane, steam, hot water or electric coils
- Aluminum mesh, pleated and oil mist filters
- Evaporative cooling systems
- Humidifier systems can be installed in our equipment.
- Set back clock
- Sound reduction package
- Seismic certifications

- Customized condensation control package
- Ultra-violet light for bacterial elimination
- Make-up air assemblies, make-up air on/off switch
- Make-up air damper potentiometer; motorized inlet dampers
- Unoccupied thermostat; smoke detectors
- FM or IRI manifolds; heat outlet extensions
- Access platforms
- UL listed flue system
- Chillers; condensing units
- Field startup supervision by factory technician
- Rigging and installing supervision
- Burners with outside air combustion collars for hazardous or special applications
- Extended warranty

Johnson Air Rotation[®] Heating and Cooling Benefits

1. Most efficient system in the industry

- Lower temperature rise between inside roof and outdoor temperatures, so less heat escapes from the building thus reducing fuel consumption.
- Utilizes heat generated in the building from lights, machinery, people and other sources of heat gain in the space; thus reducing the amount of heat required to condition the space.
- Neutral or positive pressure system maintains the conditioned air in the space
- Fuel consumption is drastically reduced by continuous heating of warmer room air versus much colder outside air.
- Highly efficient fans utilize lower motor horsepower.
- Most efficient system in industry.

2. Uniform temperature and humidity control

- Temperatures and humidity within space vary no more than $\pm 1^{\circ}$, 1% RH
- Eliminates air stratification utilizing any process or solar gains and associated condensation associated with stratification.
- Eliminates drafts and cold or hot spots in the space.
- Available with condensation control package.
- Available with factory-installed humidifiers.
- Controlled temperatures and humidity levels for any product requirements.

3. Long Equipment Life

- Heavy-duty construction.
- Minimal servicing required.
- Easy to maintain.
- Side-access door and walkway plank for easy maintenance of coils, fans and motors.
- Filters at floor level are easy to maintain and replace.
- Tube access cover doors to service heat exchanger tubes.
- Long life heat exchanger.
- 30+ year projected unit life.

4. Low Installation Cost

- Fewer units per area: one unit can condition up to 150,000 ft².
- Installation does not require cranes or helicopters and no duct work required.
- Only 1 gas piping run per unit.
- Single-point electrical connection.
- No bracing required for equipment.
- Units are “portable”; if you move, the unit can be used in your new facility.
- 3 men can erect the unit in _ day.

5. Engineering Support and Customer Service

- Our experienced application engineers will design the optimum system for your building.
- Since we have a variety of products to offer we can advise the best way to condition your building.
- We determine the amount of heating, cooling and air volume required in the space.
- We determine the quantity of units and best unit locations.
- Provide start-up service technician.
- 83 years of combined applications experience in buildings like yours.
- Applications can be offered with a performance guaranty.

6. Safety

- UL[®]-listed and approved.
- Manufactured and tested in a UL[®] Test Data Program.
- Products of combustion are not discharged into the heated space.