

# CASE STUDY GYMNASIUM



**JOHNSON**  
AIR-ROTATION® HVAC SYSTEMS



## JOHNSON AIR-ROTATION HVAC SYSTEMS PROVIDES PINGRY SCHOOL WITH A NONINVASIVE SYSTEM WITHIN THEIR GYMNASIUM

### APPLICATION:

This School Gymnasium & Recreation Center was in need to condition their space which was also used for assemblies, graduations and other occasions which were sound-sensitive. The gymnasium had limited space for an HVAC system and needed to guarantee precise performance.

### MARKET:

BASKING RIDGE, NJ

### BUILDING SIZE:

20,000 SQ. FT.

### SYSTEM STYLE AND QUANTITY:

One Indoor Air-Rotation HVAC Systems

### BUILDING COMPLICATIONS

**Low Sound Levels** - Due to the fact that the conditioned space is a gymnasium, it is also used for assemblies, graduations and other sound-sensitive occasions. Therefore, a primary design goal was to minimize the sound emitted from the air-rotation system.

**Limited Space** - The customer preferred all equipment be located in a nearby mechanical room instead of within the conditioned space. Despite the 31' height of the Air Rotation Unit, there was a 16' mezzanine within the mechanical room to design around.

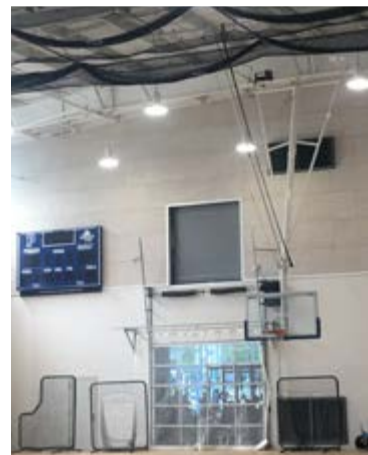
**Precise Performance** - Due to this application, it is imperative that the proposed HVAC system provide maximum indoor air quality and tight temperatures and humidity levels within the space at all times, whether occupied or not. If any of these aspects are neglected, occupants will be at increased risk of dehydration, muscle cramps, sickness, and other general discomfort.

### JOHNSON SOLUTION

**Low Sound Levels** - By fitting the Air Rotation Unit with premium fans, multiple silencers, and enhanced casing, the unit outputs very little sound on site. The fact that the unit is fully enclosed in a separate mechanical room helps to provide additional sound attenuation.

**Limited Space** - To save space, the smallest possible footprint was used. To accommodate the multi-level construction of the mechanical room, the section splits of the Air Rotation Units were matched up to the natural floor breaks within the space. This resulted in "ground level" service to all major internal components (such as supply fans, filters and panels) that would be accessed during routine maintenance.

**Precise Performance** - This unit conditions high volumes of fresh air, and includes multiple stages of filtration. For maximum control of temperature and humidity, this unit has an built-in reheat cycle and airflow measuring capabilities to ensure overall building performance and conditions.



Manufactured  
in the USA



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