



### A Higher Level of Comfort

## **Fan Array**

TMI takes pride in being able to incorporate current and emerging technologies into its Air Handling Unit (AHU) designs. TMI has incorporated Fan Array Systems into AHUs where this technology can bring benefit to the project.

# Advantages of FAN ARRAY™

- Lower Noise Output
- Reduced Footprint
- Increased Redundancy
- Simplified Maintenance Energy Savings



TMI's design consists of multiple direct drive fans assembled into an array controlled by a single VFD or multiple VFDs if required.



#### **Lower Noise Output**

- Smaller direct drive fans produce higher frequency sound which is easier to attenuate
- Acoustically lined enclosure significantly reduces sound output often eliminating the need for upstream and downstream sound attenuation

#### **Reduced Footprint**

- Sound attenuation upstream and downstream of the fans is often not required significantly shortening the unit length
- Fan section shorter than a traditional unit with a single larger fan

#### **Increased Redundancy**

• Should a fan/motor fail the VFD can be adjusted to bring the array close to or back to the design volume thereby eliminating a critical situation caused by prolonged reduced airflow

#### **Simplified Maintenance**

- Due to redundancy equipment replacements are no longer an emergency
- Smaller fans and motors are easier to remove and replace
- No belts or pulleys to maintain

# Increased Efficiency & Lower Energy Consumption

- Increased flexibility to create energy efficient designs
- More efficient air distribution
- Direct drive fans eliminate drive losses from belts and pulleys
- Reduced static losses due to elimination of sound attenuators and air blenders

#### **Optional Features**

- Integral flow measurement systems that do not degrade fan performance
- A variety of fan isolation options including: blank off plate, gravity damper, motorized damper or the TMI Fan Array™ Backflow Preventer<sup>(Patent Pending)</sup>
- Fans with EC Motor technology





