

Cooling Comfort Solutions also Available

Cooling Coils

Titan Air utilizes cooling coils that are designed to meet customer performance requirements. Options available are specified spacing, number of rows, fins per inch, and materials (copper, aluminum, steel, stainless steel, etc.). Additional selections are available for factory mounted expansion valves, hot gas bypass ports and special coil coatings. Chilled water coils and ammonia coils are also easily incorporated. Stainless steel sloped drain pans are standard.



Pledge to Our Customers

Titan Air pledges to continue product improvements and offerings through the use of customer input and new technologies that become available. As a valued customer, Titan Air realizes that you have come to expect nothing less.

Contact Titan Air

For complete information on our products and services, please contact Titan Air at:

13901 16th Street, PO Box 717
Osseo, WI 54758
Phone: 715.597.2050
Fax: 715.597.3620
www.titan-air.com

**Titan Air will be the best, build the best,
employ the best, and lead the rest.**



SOLUTIONS FOR INDUSTRIAL AND COMMERCIAL HEATING, COOLING, AND VENTILATION



Indirect Fired Air Turnover



Comfort Control Solutions with Titan Air

Heating Comfort

Titan Air's Air Turnover series is designed to heat large open areas for commercial and industrial applications. These units do not require outside air, so no intake duct work is required, allowing for location flexibility and ease of installation.

Titan Air Provides Quality Design and Manufacturing

Titan Air's Indirect Fired Air Turnover System decreases stratified air within a facility and minimizes fuel costs by recirculating air from floor to ceiling. Air Turnover units provide constant air circulation for employee comfort and building interior condensation reduction. A standard unit requires no intake duct work or remote controls to install, which allows for easy set up. Installation of an exhaust flue is required.

The Heart of an Indirect Fired Unit

Titan Air's Indirect Fired unit offers an in-shot type or a drum and tube type heat exchanger. The in-shot heat exchanger has formed dimples that control expansion and reduce noise. Standard heat exchanger is made of 304 SS and 409 SS is available.

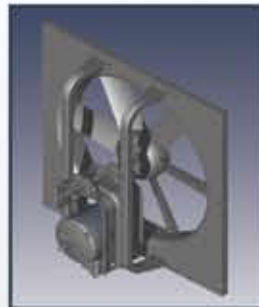


Drum and Tube Type



In-shot Type

Belt Drive Propeller Fan



The selected propeller fan is unique to the Indirect Fired line of units. This special propeller fan can handle high volumes of air at low static pressures. Its blade design makes the fan quieter and more efficient. Centrifugal fans are used for higher static applications.

Discharge Plenum Extension



Titan Air's Air Turnover units are designed specifically to recirculate the air from the floor to ceiling, creating a uniform temperature throughout. Whether your building is 20 feet, 40 feet or even higher, Titan Air's discharge extension allows versatility for the Air Turnover unit reaching any height to create maximum comfort.

Basic Unit Sizing for Air Turnover Heating Applications:

Step One:

Obtain square feet of building and average ceiling height to calculate total cubic feet of building. Volume of stored product may be subtracted from total cubic feet to obtain net building cubic feet if desired. Reference air turnover factor from table 1 (below) while taking into account building age, dimensions, insulation and weather stripping condition.

$$\frac{\text{Cubic Feet of Building} \times \text{Air Turnover Factor from Table 1 (below)}}{60 \text{ minutes}} = \text{Base unit CFM}$$

Example

80,000 square feet X 25-foot-high ceiling = 2,000,000 cubic feet.
Building construction is new

$$\frac{2,000,000 \times 2}{60 \text{ minutes}} = 66,667 \text{ unit CFM}$$

Step Two:

Determine building heat loss using ASHRAE guidelines and select model based on unit output MBH.

Table 1: Air Turnover Factor

Building Condition	Average Building Height		
	15' - 20'	20' - 30'	30' - 40'
New Construction	1.25 - 1.75	1.75 - 2.25	2.25 - 2.5
Mid-Range Construction	1.50 - 2.00	2.00 - 2.50	2.50 - 2.75
Older Construction	2.25 - 2.75	2.75 - 3.25	3.25 - 3.5