



RevolutionTFX

AIR HANDLER UNIT



RevolutionTFX: EXPERIENCE & FLEXIBILITY

A name you know and trust

Titus® RevolutionTFX® air-handling units (AHUs) — the only names you need to know for an AHU line that has no limits, ranging from basic indoor units up to penthouse mechanical-equipment rooms. And whatever the air-handling challenge — Titus can build a RevolutionTFX AHU that will meet your needs.

In the air distribution business, the reputation and experience of the manufacturer is as important as the product. Titus has been manufacturing air distribution equipment since 1946. We've consistently led the industry by breaking the barriers of expectation and convention when it comes to technology. We've redefined how technology drives, influences and supports air management. And by being first to market with the most innovative approaches to air distribution, we're proud to say that the marketplace has taken notice, and is counting on us to lead the way into the next decade. A challenge we're more than happy to accommodate.

Titus has raised the bar on design, proving that functional can also be beautiful. And we've redefined what it means to be energy efficient, with a collection of smart technology products that optimize the use of natural resources. The result is a company dedicated to providing uncompromising RevolutionTFXs for your air-handling needs.

For commercial and institutional facilities, for industrial manufacturing and process operations, and for critical hygienic applications in hospitals and cleanrooms, RevolutionTFX AHUs can be built to handle any requirement — no limits.

Design flexibility

Material flexibility: We offer a complete line of construction materials, including galvanized steel, pre-painted steel, and stainless steel.

Component flexibility: To enable you to meet any AHU requirement, RevolutionTFX units offer every available air-handling component. And as technology creates new capabilities, Titus will apply these to our RevolutionTFX line.



Use the Revolution TFX for:

- » Commercial space: office buildings, theaters, performance halls
- » Institutional space: schools, universities, churches
- » Industrial manufacturing: automotive, aerospace, chemical, petrochemical
- » Hygienic systems: hospitals, life sciences,
- » R&D facilities, food processing, cleanrooms
- » Process manufacturing: pharmaceutical, electronics, semiconductor

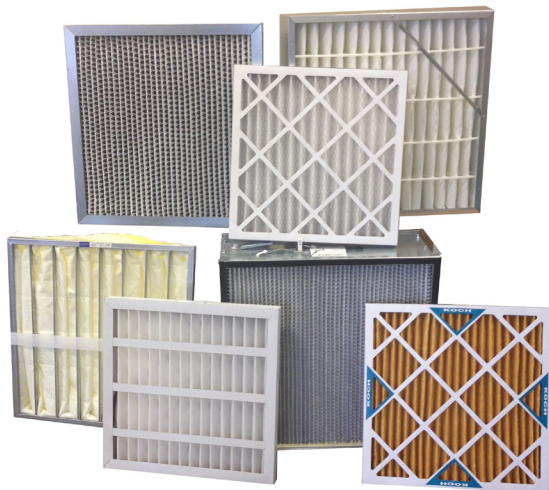
RevolutionTFX: THE SMART WAY TO RAISE YOUR IAQ

Excellent casing performance

Because indoor air quality (IAQ) is now vital to your project's success, your AHU's performance is absolutely critical. That's why Revolution TFX AHUs offer advanced features that can meet any IAQ challenge you face. It all begins with casing performance. Casing leakage can deteriorate the quality of the air supplied to the occupants by allowing dirty, unfiltered air to leak into the airstream downstream of the filters. To minimize leakage, all RevolutionTFX AHUs employ superior casing construction. As a minimum, air leakage is limited to a miniscule 0.5 cfm/ft² cabinet @ ±4" w.g.

Filters for every need

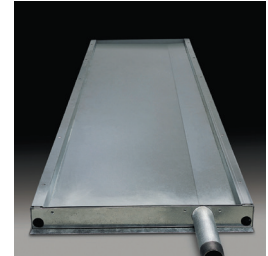
A complete line of filters is available for all RevolutionTFX AHUs. For light or prefiltering duty, use our pleated and extended-surface filters. For more stringent requirements, 60% to 95% efficient rigid or bag filters can be specified.



A complete line of filters is available, including pleated, rigid, bag, HEPA and carbon

Hygienic drain-pan design

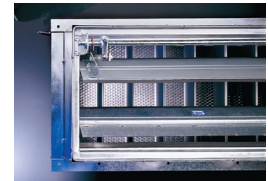
Micro-organisms can flourish in drain pans when cooling-coil condensate remains there during "off" or "heating" cycles. RevolutionTFX AHUs move that condensate out of the unit with multi-sloped drain pans that ensure positive drainage. All pan designs also offer accessibility for periodic cleaning, now required by ASHRAE Standard 62-2001.



Multi-sloped drain pans ensure positive drainage

Ensure proper ventilation

An adequate supply of ventilation air is critical for the health of facility occupants. However, having to condition too much outside air can drive up energy costs. The solution is the AMS-60 damper, which incorporates an airflow-measuring station. The AMS-60 damper simultaneously measures and controls the volume of ventilation air, making sure it's neither too little nor too much.



The AMS-60 damper measures and controls ventilation-air volume

IAQ Features

- » Double-wall construction
- » IAQ drain pans
- » AMS-60 dampers
- » Perforated liners
- » Low-leak dampers
- » P-cone fan monitoring
- » All filter types (flat, angle, rigid bag, etc)

RevolutionTFX: ENERGY SAVING OPTIONS

Our industry has taken a leadership role by creating energy-performance guidelines, such as ASHRAE 90.1. RevolutionTFX AHUs are designed with ASHRAE 90.1 in mind and can help you curb your energy intake.

Energy recovery

An energy-recovery wheel can economically transfer heat and moisture between the exhaust-air and fresh-air paths, reducing the cost of conditioning the fresh air.

Take advantage of “free” cooling with an economizer section. During spring and fall operation, cool/dry outside air cools and dehumidifies the facility, reducing the need for mechanical refrigeration.

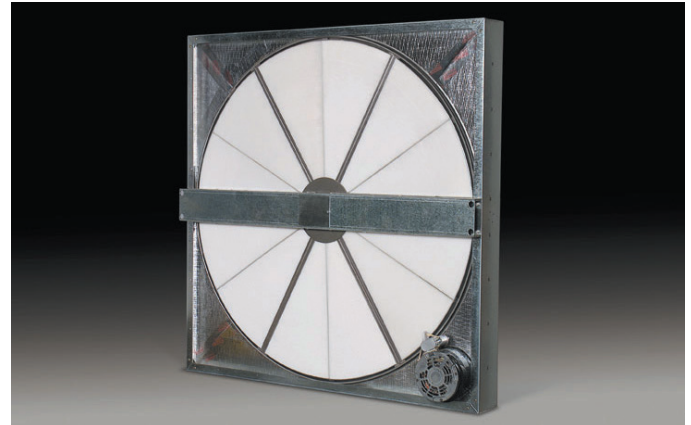
Keep heat where it belongs

Superior casing performance affects more than just indoor air quality. In extreme ambient conditions, heat transfer through the casing must be controlled. All RevolutionTFX casings offer R13 insulation in the floors, walls and roof. To prevent energy-robbing air leaks, units are designed for a maximum casing leakage of 2%.

Reduce fan operating costs

The fan is the largest energy consumer in an AHU. RevolutionTFX fans offer a range of energy-saving options. High- or premium-efficiency motors can be specified. Direct-drive plenum fans eliminate belt-and-pulley energy losses.

If the air system is designed for variable-air volume VAV, RevolutionTFX AHUs offer the most efficient method of VAV fan control. Factory-mounting a Titus variable-speed drive reduces jobsite labor costs and provides single-source responsibility.



Heat-recovery wheels reduce the cost of conditioning ventilation air



Variable-speed drives offer dramatic fan-energy savings

Features that Save Dollars and Make Sense

- » Variable-speed drives
- » Heat wheels
- » Heat pipes
- » High R-value insulation
- » High-efficiency motors

RevolutionTFX: NOISE REDUCING TECHNOLOGIES

When noise matters

Applications such as theaters, performance halls and churches consider acoustics to be as critical as occupant comfort. That's why RevolutionTFX AHUs ensure your success with a wide range of noise-reducing technologies.

Quiet fan design

Since the fan is the primary moving part in an air-handling system, it's the first place to look when reducing noise. RevolutionTFX AHUs are available with a variety of low-noise fans. Plenum fans generate less ductwork noise than do standard DWDI fans. Varying the number of blades in a fan wheel can also improve its sound characteristics.

Minimize vibration noise

RevolutionTFX AHUs offer an array of construction and isolation techniques to help control vibration noise and its transmission. All fans are mounted on an isolated steel base and the entire fan assembly is dynamically balanced to ensure vibration-free operation. Direct-drive plenum fans can further reduce vibration by eliminating the belt-and-pulley mechanism.

Sound attenuation

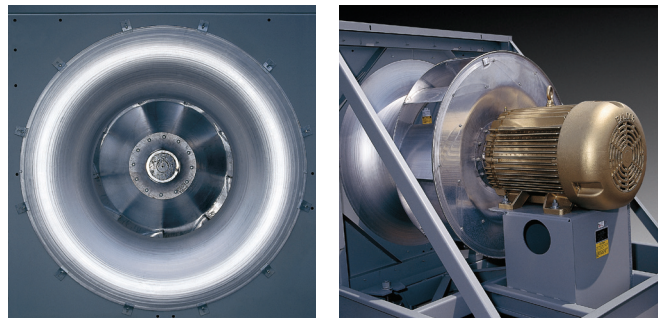
What little noise is left can be further reduced with direct methods of sound attenuation. Using sound-absorbing walls, and sound traps in the fan and discharge-plenum sections, Titus engineers can design a RevolutionTFX AHU to meet your critical sound requirements.

Tested sound levels

Being able to reliably predict the sound performance of an AHU is an engineering challenge. Our acousticians have created AHRI-260-compliant, acoustical-calculation tools based on thousands of hours of real-world testing on hundreds of units.



Theatres, performance halls, and churches often consider acoustics as critical as occupant comfort



RevolutionTFX AHUs offer a variety of techniques to improve fan acoustics

Sound Techniques to Improve Acoustics

- » Standard low-noise fans
- » Direct-drive plenum fans
- » Vane-axial fans
- » Sound attenuators
- » Sound-absorptive panels
- » Inertia bases
- » Special balancing and vibration-isolation options

RevolutionTFX: SUPPORT WHEN YOU NEED IT

Support after the sale

As assurance that your RevolutionTFX AHUs will meet your performance expectations, Titus offers validation for a variety of parameters: airflow, sound, vibration, and air-leakage, to name a few. We can provide certified technicians for jobsite installation and commissioning.

For air-handling units designed to meet your demanding requirements, call your nearby Titus representative.



Certified technicians ready to assist jobsite installations

RevolutionTFX AHUs are an Easy Choice

- » Worldwide support and resources
- » Powerful design tools
- » Backed by factory-engineering team
- » Factory validation- and witness-testing
- » Maintenance and repair services are also available

RevolutionTFX:
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