LOW PROFILE HORIZONTAL FAN COIL UNITS 37FH SERIES

SUPERIOR CAPACITY

SERENE COMFORT

SERIOUSLY COMPACT

Across commercial, hospitality, multi-family, and retrofit markets, today's HVAC designs are expected to achieve more with less - more comfort with less noise, more performance with less energy, and more capability with less space. Meeting these expectations requires equipment engineered with purpose that blends compact form with uncompromised performance.

LARGE CAPACITY, SMALL FRAME

The Engineered Comfort 37FH Low Profile Horizontal Fan Coil Unit is a solution that provides industry-leading performance, efficiencies and comfort, all in a compact 11" (279 mm) high design. The 37FH is able to maintain airflow stability and handle higher static pressure than most in its class. The 37FH can maintain near-design airflow up to 0.70 in. w.g., achieving more stable cooling

C ETL LISTED US Intertek

AHRI CERTIFIED™ www.ahridirectory.org Room Fan-Coils AHRI Standard 440

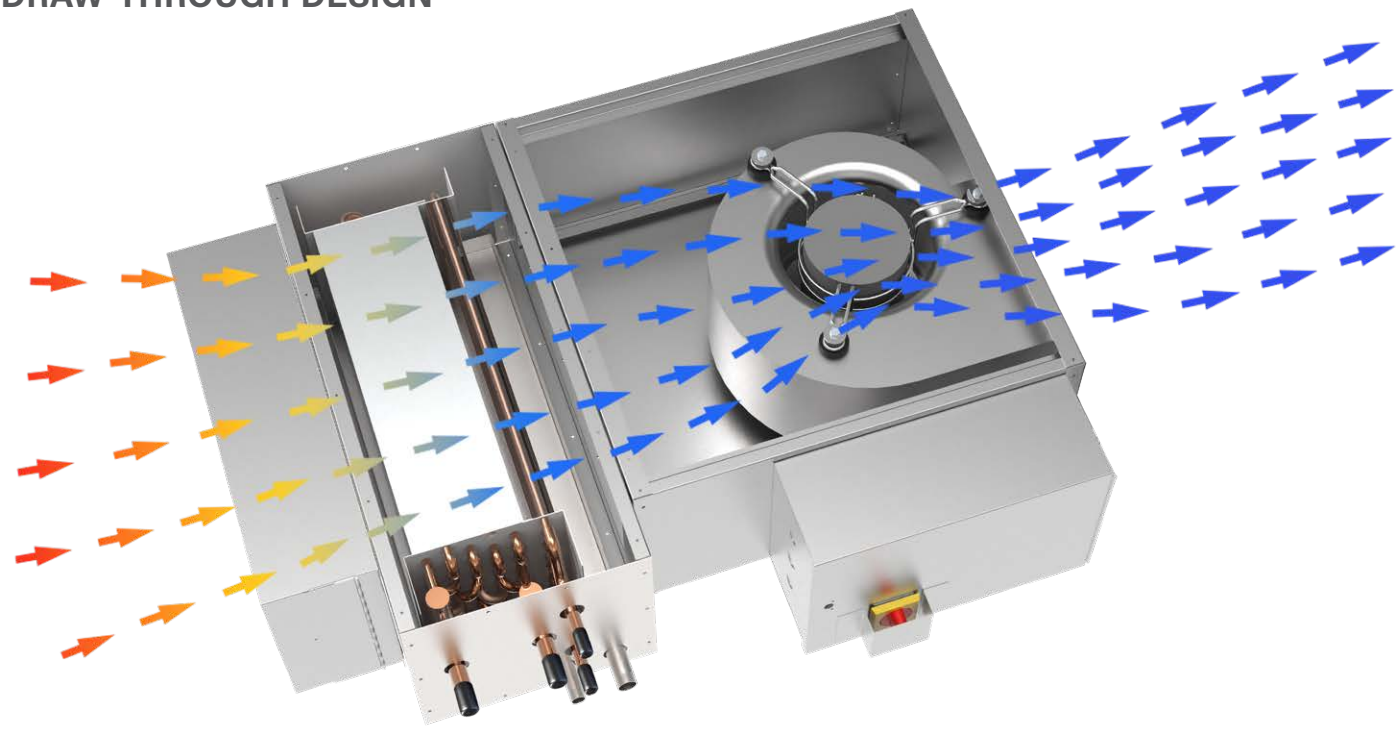
SSI Listed

Seismic Certification:
- Seismic Source International (Standard)
- HCAI (formerly OSHPD, California)

Engineered Comfort

capacity and dehumidification performance. This enables longer duct runs, the use of higher efficiency filters (**such as 2" MERV 13**) and less duct design constraints without compromising performance. This is in large part due to Nailor's modulating ECM Motor with EPIC Fan Technology that allows the fan to actively sense airflow, and increase – or decrease – motor torque and speed as static pressure changes. Many low-profile fan coil units utilize a 3-speed motor (Low, Medium, High), which do not have the ability to adjust from airflow feedback and modulate accordingly. This can drastically decrease the effectiveness of dehumidification and reduces cooling capacity as static pressure increases. Some competitive models have noticeable decreases in performance starting at just 0.25 in w.g. static pressure on their low-profile units. Engineered Comfort's design provides a consistent airflow profile across a wide operating range, ensuring stable comfort and capacity under real world conditions.

DRAW-THROUGH DESIGN

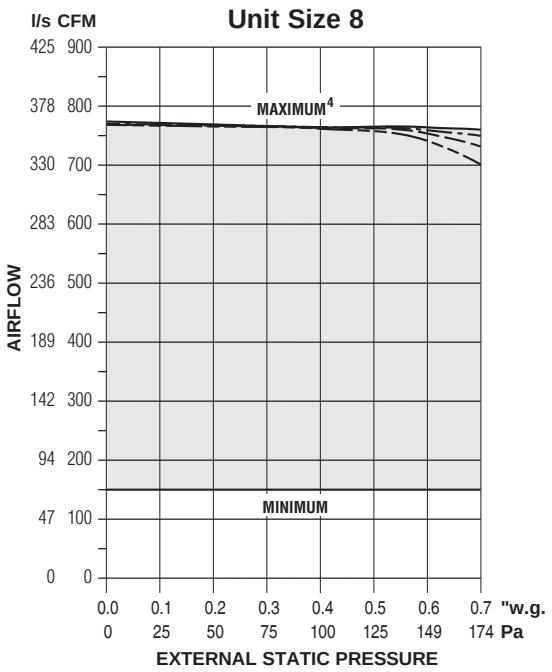


The 37FH is a Draw-Through design. This configuration improves heat transfer and reduces pressure drop by drawing air evenly across the full face of the coil. The Draw-Through design also allows for a more even air velocity and less turbulence (less sound). Ultimately, this design is more energy efficient than the alternative, more common Blow-Through design. Blow-through configurations often create localized 'blast areas', where a disproportionate volume of air passes through a limited portion of the coil face. The blast area can also cause high air velocities across the coils, which has potential to carry condensation into the downstream ductwork.

EPIC FAN TECHNOLOGY®

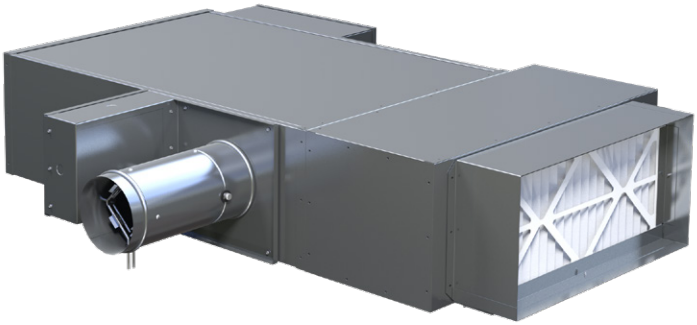
The 37FH Fan Coil Units also feature Nailor's industry-leading ECM motor with EPIC Fan Technology® which provides superior acoustic performance and energy efficiency compared to a traditional motor such as a basic 3-speed ECM. Nailor's ECM Motor with EPIC Fan Technology® is a modulating motor that allows for pressure independent fan operation and can more precisely adjust to varying pressures, velocities or needs of the system and space.

SCAN HERE TO LEARN MORE ABOUT ECM /EPIC FAN TECHNOLOGY®



SYSTEM FLEXIBILITY

The 37FH can also be utilized with a Dedicated Outdoor Air System (DOAS) with the "OAI" Outdoor Air Inlet option chosen. This is a unique feature to Engineered Comfort's Ducted Low-Profile solution. Many Low-Profile Fan Coil Units are not suited for this type of application as they will struggle to move air with the varying static pressure once DOAS duct losses are added.



37FHZW W/OPTIONAL OUTDOOR AIR INLET (OAI) & CONTROL ENCLOSURE

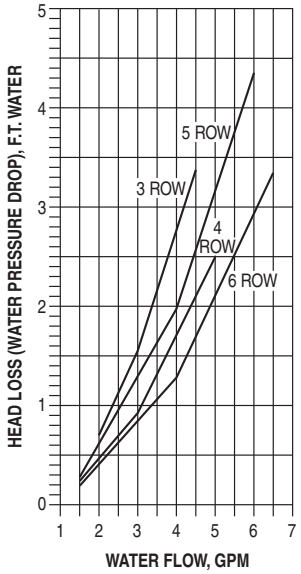
DOAS are becoming more popular in large commercial applications as it decouples the outdoor air delivery from sensible cooling and heating, allowing for more downstream flexibility. With the OAI and DOAS integration, the 37FH becomes more than a simple fan coil, rather a ventilation-ready terminal capable of directly accepting pre-conditioned outdoor air. Overall, the 37FH allows for many of the advantages of a DOAS such as zone-level thermal control, improved indoor air quality, reduced fan energy and ventilation need satisfaction in an extremely compact design without compromising its own efficiencies and performance.

HYDRONIC EFFICIENCY

The 37FH not only delivers direct advantages, but it also provides major indirect system advantages as well. This line has unmatched hydronic efficiency, with lower gallon per minute (gpm) requirements to achieve cooling outputs, and some of the lowest water pressure drop in its class. A big reason for this, is the 37FH's coils are housed - and protected - in a fully-insulated casing with no exposed copper hairpins or manifolds. This means a leaner, more efficient hydronic system overall, with the potential to utilize smaller upstream components and/or the ability to reduce load and lower overall system energy consumption.

Unit Size 8

Chilled Water Pressure Drop



ACOUSTIC ADVANTAGE

The 37FH also offers superior Acoustical Comfort. This is due to its Draw-Through design, highly efficient and quiet ECM motor, optimized cabinet geometry, and strategically engineered insulation – including the casing, drain pan and coil enclosure. The Modulating ECM Motor provides high sound performance as it doesn't need to "start fast" to survive static pressure loses. It operates at a lower base RPM and torque increases smoothly instead of abruptly all helping reduce low-frequency blade noise. This results in noticeably quieter operation - often several NC points lower than a typical low profile unit operating under similar conditions.

THE COMPLETE (COMPACT) PACKAGE

As one of the top Fan Coil Units in its class, Engineered Comfort's 37FH is an ideal solution where high performance is essential, but space is limited. It has industry leading performance in efficiency, capacity, hydronics, acoustics and flexibility. This makes it an excellent solution for most commercial uses such as hotels, multi-family residences, office buildings, schools and more.