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# **Unilux RFC Retrofit Fan Coil Solutions**

Unilux RFC was formed to provide a full turnkey solution for owners who have fan coils that are beyond their useful life. We custom design and build fan coil inserts to replace all the components in the fan coil while minimizing the impact to the condition of the suite – often replacing units within 4 hours.

# **About Us**

Unilux VFC Corp. has been manufacturing and selling fan coils for new construction since 1972, specializing in high-rise residential applications such as condos and apartments. Unilux VFC, located in Toronto, Canada, is one of the largest manufacturers of fan coils in North America.

Unilux VFC joined forces with Certified Clean Air Services in 2019 to form Unilux RFC. Certified has over 15 years of experience building and installing retrofit fan coil products. Unilux RFC brings the product expertise to retrofit your fan coil and manage the full installation process using factory-trained technicians.

# **Common Problems with Aged Fan Coils**

Fan coils, like a lot of HVAC equipment, are built to have an expected useful life of 20 years. Since fan coils became very popular in North American high-rise construction during the 1970s, there are many fan coils which are well past their useful life. Common issues include:

- Poor heating and cooling performance
- High noise levels
- Excessive energy use
- Water damage both inside the unit and to the suite walls and floors
- Poor indoor air quality

Fan coils are designed to be built into the walls or above ceilings in suites in order to save space. This makes them very challenging to replace. Various designs from many manufacturers over the past 50 years have made it even more difficult to build a product that meets all customer needs.

Unilux RFC custom builds products to meet exact requirements and provides complete installation.







# A Simple Solution For Replacing In-Suite Fan Coils – Unilux RFC

Unilux RFC provides a full turnkey solution for owners. We will custom engineer a replacement fan coil chassis. Our factory-trained technicians can install the retrofit unit through the original fan coil opening. The replacement fan coil will provide the homeowner with many years of trouble-free operation:

- Reduced noise with use of new motor technology
- Improved air quality as everything inside cabinet will be brand new
- Significant reduction in energy use approximately 85% less electricity (KwH) use
- Greatly improved cooling and heating performance
- Access to latest thermostat technologies including Wi-Fi connectivity



Step 2 Remove panel



Step 3
Remove existing VFC



Clean wall cavity

Step 4



A technician will remove the current access panel and remove the existing VFC components.









Step 8 Clean up area







A technician will install the Unilux Retrofit RFC components into the cavity, make water and electrical connections and then install your access panel and start up your brand new Unilux RFC.

# Unilux Retrofit Fan Coil - Standard Features

Unilux fan coil units meet the requirements of UL 1995 / CSA22.2 #236 – Issue 2011 Standard for safety heating and cooling equipment.

#### 1. Cabinet:

20-gauge stainless steel. Cabinet is fully insulated with closed cell insulation.

# 2. Coil assembly:

Coils corrugated aluminum fins mechanically bonded to 1/2" OD Copper tube. The number of rows and circuiting are selected to suit scheduled capacities. Coils are rated for a minimum working pressure of 450 psig.

# 3. Fan assembly:

A thermally-protected, multi-speed ECM motor is resiliently mounted to a centrifugal fan which has a galvanized steel forward curved DWDI wheel in a painted housing.

# 4. Stainless steel drain pan assembly:

Drain pan assembly is fully TIG welded to ensure the pan never rusts or leaks.

# 5. The piping branches:

Are constructed with ½" type "L" copper, and stainless steel braided flex hoses to provide expansion and contraction of risers; include shut-off ball valves with flare nuts in the supply and return branches for easy removal.

# 6. Control valve package:

Standard factory assembled 2 or 3-way control valve with flare nuts connection to piping branches to facilitate easy removal without using torch or pipe cutters, motorized electrical "on/off" controlling. Maximum entering water temperature on the control valve shall be 200°F, and maximum operating pressure is 300 psig.

#### 7. Basic thermostat included:

Programmable and multiple fan speed control thermostat options available, including Wi-Fi connectivity.

### 8. Drain pan overflow sensor

Installed drain pan overflow sensor detects rising drain pan levels and turns off unit to prevent flooding.

## 9. Cabinet insulation:

Fiberglass or closed-cell 1/2-inch insulation.

# **Optional Equipment**

# 1. Access panel (vertical):

Access panel assembly is constructed of 20 gauge steel complete with a durable baked enamel powder finish, with integral grille for the return air opening. The panel is hinged removable to allow for easy filter exchange. The integral core grille has fixed horizontal louvers.

### 2. Grilles and registers:

Double deflection supply grilles and registers have adjustable vertical or horizontal louvers. Registers constructed with light gauge steel complete with adjustable opposed blade dampers.

# 3. Filters:

Multiple filter options available.

# 4. Electric heating element:

Up to 1.5KW auxiliary electric heater, featuring single stage with an open wire nickel-chrome element carried in floating ceramic bushing.

## 5. Replacement isolation valves:

Replacement isolation valves are available.

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Our ever-improved, state-of-the-art designs are demanded by today's best developers, engineers and owners. Contact us to learn why Unilux RFC is the preferred choice of professionals throughout North America for replacement fan coils.



