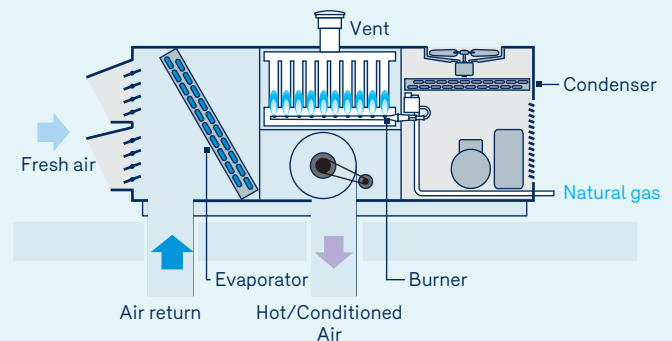


Natural gas rooftop units

Concept

Rooftop units are heating, ventilation and air conditioning appliances installed on building roofs. They are frequently used because of their particular advantage: namely the decentralization of the ventilation system. In heating mode, these units heat the ambient air by recirculation through the appliance's heat exchanger. This includes two dampers, which are mechanically interlocked by a simultaneous air intake and recirculation control. They also include a fan, a gas burner, and a heat exchanger. These appliances are normally sold fully equipped with their own operation controller. The control functions are quantity of fresh air, the recirculation air flow and the supply air temperature.

The combustion efficiency of natural gas appliances ranges between 78% and 82%. However, the new condensing systems offer higher efficiency ratings of between 89% and 97%. Appliances equipped with a heat recuperator between the air exhaust and the air intake are also available. This is called thermal wheel heat recovery.



Advantages

- Decentralization of the ventilation system.
- Efficient heating of the central zones in open areas.
- Heating modulation options such as: temperature reduction, morning warm-up, ventilation reduction during unoccupied periods, etc.
- Can be connected and controlled by a central computerized system.
- Reduction in electricity costs when natural gas is used for heating.
- Use and possible combination with another heating system for the perimeter, such as a natural gas hot water heating system or electric baseboards.
- Rooftop condensing units can be installed for high efficiency and additional energy savings.

Applications

- Recommended for single-storey buildings with open areas: offices, medical clinics, schools, institutions, etc.
- Recommended for meeting additional heating or ventilation needs in a zone that lacks either or both.

Energy Efficiency Financial Assistance*

Rooftop natural gas units are not recognized and eligible for financial assistance under the Énergir Energy Efficiency Grant. However, they are eligible for financial assistance under an applicable Énergir commercial grant.

In addition, rooftop units equipped with a thermal wheel or with a condensing function are eligible for the Feasibility Studies and Implementation of Energy Efficiency Measures Grants, according to defined criteria. See energir.com for more details. The assistance is subject to a calculation of energy savings by the engineer of the customer requesting the assistance.

List of manufacturers

Here is a non-exhaustive list of manufacturers of units available in Québec:

- Aaon
- Bousquet
- Trane
- Carrier
- Lennox
- McQuay
- Airex
- York
- Engineered Air – appareils à condensation

Installation standards

1. CAN/CSA-B149.1 gas code in force.
2. Manufacturer's Installation Manual.
3. ASHRAE 62 and CSST ventilation standards.

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* Certain conditions apply. The financial assistance is subject to change without prior notice.

These data are provided for guidance only. This Information Sheet is for general use and must not be considered advice. Please ask for assistance on the questions that concern you and do not rely only on the text in this Information Sheet.

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