Tankless water heater

Concept
The production of domestic hot water is a significant energy expense for homes and businesses in Québec. Thanks to their compact design and modern operation, tankless water heaters are beginning to carve out an enviable place in the domestic hot water production and heating market (combo mode). These appliances are characterized by the absence of a tank. They therefore have to be chosen to ensure a continuous or instantaneous production of hot water. On detecting a water outflow (above 2.3 L/min-0.01 GPM), the high power burner automatically turns on at the speed required to bring the temperature of the outflow water to a predetermined value. The burners self-adjust to variations in outflow demand. With a water intake temperature of 20°C and outflow of 60°C, this type of water heater can produce up to 26 L/min (7 GPM) of domestic hot water. Two types can be found on the market: high efficiency tankless (78-89%) and condensing (90% and over) water heaters. Appliances are available in power levels up to 250,000 Btu/h.

Advantages
• Excellent seasonal efficiency due to the elimination of standby heat to maintain water temperature in the tank.
• Great installation versatility since it requires little floor space and can be attached to a wall.
• Continuous hot water.
• Several venting system options for the combustion products.
• Combined systems (heating/domestic hot water) can be used for heating purposes.
• Capable of high efficiency (95 %) and good modulation (18:1).

Applications
• Single-family homes
• Multi-unit apartment buildings/Condos
• Commercial sector: restaurants, laundries, schools, hotels and motels, sports complexes, spas, and health care establishments

List of manufacturers
Here is a non-exhaustive list of manufacturers.
• A.O. Smith
• Bradford-White
• Coaire
• GE
• Navien
• Noritz
• Paloma
• Quietside
• Rheem/Pronto
• Richmond
• Rinnai
• Takagi
• Waivela

Energy Efficiency Financial Assistance*
Financial assistance of $400 on condition that the appliance is on EEP Grant’s list of approved appliances for the residential market.

This assistance is reserved exclusively for residential customers.
Selection criteria

- Maximum and minimum hot water flow (L/min or GPM).
- Space available for installation and for venting of combustion gases.
- Venting of combustion products, depending on the type of appliance.

Installation standards

Must comply with the CAN/CSA-B149.1 gas code in force and the manufacturer’s recommendations.