

Backgrounder

Canadian company invents 'clean-air' artisan coffee Roaster – allowing precision-controlled micro roasting in places never before possible.

The presence of toxins in the smoke given off by traditional coffee drum roasters is a significant barrier for coffee roasters operating in populated areas. Even with the use of an afterburner, significant airborne particulates (allergens) and greenhouse gases such as carbon, methane and nitrous oxide are released into the atmosphere – sometimes resulting in complaints from neighbours, and even bylaw enforcement.

Roastaire's 'closed loop' technology uses a fluidized bed (air roaster) which suspends the roasting beans in a jacket of hot air, ensuring they don't burn. The Roastaire's internal air scrubber then captures approx 80% of airborne particulates & emissions through a patented internal emission process, preventing escape into the air.

- Roastaire's almost zero-emissions technology and tremendous energy savings make it the most environmentally sustainable coffee roaster in Canada.
- It also allows the user to roast coffee in places never before possible, because of emissions advancements and the space saving compact design.

"Roastaire allows café owners to roast in a building with 20 stories of condo's above, without upsetting the neighbors with the emissions. It also takes up much less floor space than traditional gas-fired roasters." Jim Townley – Co-Founder, Roastaire

The Roastaire is currently being used at Townley's café and is attracting attention from B.C.-based businesses looking to increase their volume of bean sales in an environmentally sustainable manner.

What is different about Roastaire's technology (as opposed to drum roasting)

Like a drum roaster, the Roastaire is designed for artisan small-batch coffee roasting. The main difference is the 'closed-loop' method of roasting, which means we reclaim the heat, and are closed to the environment 85% of the time. This method of roasting also brings together the best attributes of drum and air roasting methods...a hybrid method that nobody else has ever sought to build.

Better roastmaster control ensures ultimate flavour & freshness

The Roastaire captures the same aromatic nuances as a drum roaster, but with the controlled, even heating that only an air roaster can provide. The patented Roastaire roasting method makes for a clean, full flavored taste profile, with no burnt or bitter after tastes.

The Roastaire's precision-controlled roasting process can be customized to capture specific flavours of different varieties of coffee beans, therefore developing the richest tastes. It also allows for exact duplication of processes – ensuring consistency from batch to batch.

How is it more energy efficient?

The Roastaire™ is 20 times more energy efficient' than the same size gas roaster & afterburner.

It takes 800 BTU's to generate one pound of coffee using the Roastaire™ in comparison to the 16,533 BTU's used to generate one pound of coffee using equivalent drum roasting technology with an afterburner.

Over the course of one year's roasting of 30,000 lbs. of coffee, this translates in to the energy savings equivalent to that consumed by 8 single family homes.

In terms of the difference in CO2 emissions on the coffee volume noted, the Roastaire™ produces less emission than one vehicle would per year in stark contrast to the traditional gas-fired method which emits the equivalent of 19 vehicles worth of emissions.

Examples/case studies where emissions have caused problems?

Roasting emissions is a big issue in a growing number of places. A quick Google search will turn up many instances of odour complaints and enforcement measures involving coffee roasters.

- Salt Spring Coffee Co. roasting company is a local example. In their bid to expand on Salt Spring, they faced so much opposition by local environmental groups over the smell & pollution of the expanded roasting operations that they were forced to relocate in an industrial park in Richmond.
- The Roastery Coffee Co. in Toronto has faced similar problems, as has Cha Cha Java Coffee Shop in Parksville, B.C

Café-based micro-roasting is on the rise.

In-house micro-roasting has become a gastronomic art, much like micro-brewing or wine making. More and more cafes are opting to make specialty micro-roasted coffee and the 'theatre of roasting' the cornerstone of their operation, as more and more consumers are demanding nuance and variety in their coffee experience. Victoria BC has more coffee micro-roasters per capita than any other city in Canada.

About the company

Co-invented & co-founded by small team of Canadian business people and inventors.

Jim Townley, (Co-Founder of the Fresh Cup Roastery Café Concept) is also co-inventor of the Roastaire and co-founder of Vancouver Island's 'Fresh Cup' café & roastery chain. With a broad background in project management, sale & marketing and strategy, Mr. Townley manages the business operations for Roastaire. Mr Townley lives and works in Saanichton BC, the site of Roastaire's demonstration café & tasting room. A passionate Saanichtonian, Mr Townley is also a champion for clean-air coffee roasting and sustainable café practices.

Raymond Lemaire – V.P. of Roaster Development (Co-inventor – Roaster, Co-Founder of the Fresh Cup Roastery Café concept) Mr. Lemaire has over 30 years of business and technical experience. He co-developed the roaster, including the patented control systems and other processes. He is also one of the co-founders of the Roastery Café concept. With applied experience in Canada's oils gas industry, Mr. Lemaire has extensive knowledge mechanical design and high-tech industries such as data acquisition and sonic based technologies.

For more information visit www.freshcup.ca/roastaire
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