

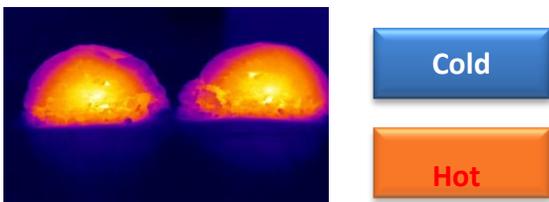
Volumetric Cooking is a new way of preparing food that delivers revolutionary levels of consistency, quality, speed, and adaptability. The hallmark of this methodology is the use of data analytic, radio frequency, and signal processing technology to precisely target energy and analyze food changes during the cooking process. This method of preparing and interacting with food in commercial, industrial, and residential kitchens senses and adapts to the variability of food ingredients to consistently and automatically deliver astonishing results.

All kinds of meat, fish, vegetables, starches, and baked goods take advantage of this new technology today. Ovens prepare food in a fraction of the time of conventional methods, while greatly increasing yields and improve quality. Goji-based volumetric ovens are used to cook, bake and roast various foods simultaneously – salmon, beef, bread and varied vegetables all cooked to perfection at the same time. Food of astonishing quality and freshness is produced each and every time – even by operators without culinary training.

The safety and high quality of food cooked in the Goji enabled ovens has been tested in independent laboratories and universities, and published in multiple peer reviewed journals.

Goji enabled ovens are multitasking and multifaceted as they can cook, bake, braise, roast, re-thermalize and thaw foods. This capability enables them to replace multiple food equipment technologies – conventional, convection, steam, accelerated impingement, microwaves, etc.

The technology behind volumetric cooking is the precise control and analysis of radio frequencies, and their interaction with the proteins, carbohydrates, and lipids that are the basis of all food. The ability to precisely and selectively target cooking energy in a three-dimensional volume, and adapt this process to changes in the underlying food is the basis of volumetric cooking technology. Until the advent of this methodology, the use of radio frequencies in cooking had associated with limited quality and versatility.



Thermal Imaging of a cross section of Meat Balls heated with Goji **“Volumetric Cooking”** Technology

Goji’s unique self-adjusting control process for utilizing radio frequencies is called Adaptive Volumetric Energy Delivery or AVED. AVED is based on a cutting edge energy delivery and sensing module known as the Vectors™, that uses state-of-the-art radio frequency and signal processing technology for unprecedented levels of precision and control.

Value of Volumetric Cooking:

One of most visible values of volumetric technology is the ability to perform multiple forms of cooking automatically in fraction of the time of conventional methods. AVED technology delivers energy to accelerate the cooking process, and stops the delivery of energy as even portion of the targeted food reaches optimal levels of aroma, flavor, temperature, and texture.



Method	Roasted Whole Chicken	Bread	Sweet potatoes	Salmon	Cake
Goji Technology	26	15-25	15	4.5	8
Conventional	75	38-65	30	9	35
Time Saving	x 2.9	x 2.5	x 2	x 2	x 4

Fast, consistent and high quality volumetric cooking uniquely enables the perfect preparation of mixed, multi component dishes. For the first time, frozen and raw mixed plates of protein, carbohydrate, vegetables and even baked goods can be prepared together, producing chef quality meals, within minutes.



Goji Food Services - A frozen meal (left) is scanned and cooked within minutes in a Goji enabled oven to perfection (center), which can be eaten as is. Note the baked goods cooked along with the meat, vegetables and carbohydrate – a combination not supported by any other technology. In a hotel, in a bar, at a banquet or other site, this meal can be plated to create a fully fledged restaurant quality dish (right).

Wherever prepared, this dish will reach the same excellent quality regardless of whoever prepares it or how they are trained.

Another unique implementation of volumetric technology is in the oft-overlooked area of frozen foods. As popular and prevalent as they are, there is no good solution today for **thawing foods** quickly while retaining their high quality. Existing “quick” thawing solutions include microwave thawing and bath immersion, each of which suffer from severe limitations in quality in convenience and are still time intensive.

By selectively delivering energy to the ice crystals and not to the water within the food, volumetric techniques can thaw foods within an incredibly short time safely and uniformly, without damaging the food quality.



Volumetric Cooking with Goji Technology



Even extremely complex food systems such as layer cakes with different layers of cream and fillings can be completely defrosted within minutes to a completely even temperature through the entire cake without melting any of the layers.

Large pieces of meat can be tempered” (brought to just below freezing – the optimal temperature for processing and cooking) within a fraction of the time normally required for thawing while meeting applicable food safety guidelines.

Volumetric cooking technology can be used to thaw a 7.8 kg turkey within 50 minutes. By USDA guidelines, a 7 kg frozen turkey must be defrosted in the refrigerator for a period of 3-4 days or wrapped in a leak proof bag and immersed in cold water (refreshed every 30 mins) for 6-8 hours or put in a microwave for an unspecified period of time and immediately cooked as “some areas of the food may become warm and begin to cook during microwaving” and because “any bacteria present wouldn't have been destroyed.”



Nutritious, Tasty and Safe Foods:

Most cooking processes include the destruction of vitamins, nutrients and the production of unhealthy and unwanted byproducts. One of the reasons many products are overcooked is the need to kill off bacteria, requiring high levels of heat to reach the very center of foodstuffs.

Research in leading scientific journals has shown that cooking with volumetric technology results in dramatically better retention of vitamins and nutrients than conventional cooking methods. Volumetric cooking was found to kill bacteria better or as well as traditional methods – simply much quicker, ensuring both food safety and quality at the same time.

Benefits of Volumetric Cooking:

