



Pressure Frying FAQs

Frequently Asked Questions About Pressure Frying

Q. What is pressure frying?

A. Pressure frying is a cooking process used by quality restaurants, convenience stores, delis, supermarkets, schools, hospitals, and other institutional and commercial foodservice operations to cook delicious fried foods. It is similar to conventional open frying in which foods are heated to cooking temperature in a well filled with cooking oil, except that in a pressure fryer the food is cooked under controlled pressure in a sealed vessel.

Q. How do pressure-fried foods compare to foods cooked in a conventional open fryer?

A. Foods cooked in a Broaster[®] Pressure Fryer are much more tender, juicy, and flavorful – you can see, feel, and taste a distinct difference in comparison to open-fried foods, which are often greasy on the outside and dry on the inside. And, because moisture and natural juices are retained, foods shrink less when pressure-fried.

Q. Why is that?

A. Cooking under pressure in a sealed environment prevents food from losing its moisture. When moisture evaporates from food during frying, it is replaced by the oil it is fried in. Oil absorption during open frying has been found to be as much as 20%. Pressure frying seals the food's moisture and natural juices within the product, preventing the penetration of cooking oil. A study conducted in the test kitchen of the Southern California Gas Company's Commercial Equipment Center concluded that cooking oil absorption per pound in fried chicken is reduced 60 to 90% when pressure fried rather than open-fried.

Q. How do you explain that result?

A. Cooking oil can be heated to a much higher temperature than water. Water, of course, boils at 212°F in an open atmosphere, such as that of an open fryer. As moisture in foods is heated beyond 212°F in an open fryer, it is converted to steam, which in turn is released into the air. The moisture is then replaced in the heated food by cooking oil. However, when steam is trapped and pressure is created, the boiling point of water is changed (to 241°F at 12-15 lbs. of pressure). This means that as heat penetrates the product, the outer area loses enough moisture to crisp, while moisture and natural juices deeper in are retained, preventing the absorption of cooking oil while fully cooking the product.

Q. In addition to its effect on product appearance and taste, what are some other issues related to oil absorption that pressure frying improves?

A. As less oil is absorbed into pressure-fried foods – and because cooking occurs in a sealed environment which reduces cooking oil evaporation – pressure frying significantly reduces overall oil usage in comparison to open frying. Decreasing the amount of oil absorption also results in extending the oil's useful life. Over time this can result in substantial savings in cooking oil usage, which is often one of the most expensive aspects of preparing fried food. Additionally, because very little oil is transferred into foods, there is virtually no flavor transfer among products. This means that products like fish can be cooked in a pressure fryer without a “fishy” taste being left in the oil or transferred to other foods.

Q. Besides better tasting foods that absorb significantly less oil – are there other advantages to the pressure frying process?

A. Most definitely. Pressure frying produces a gentle product turbulence and tumbling action that results in even cooking. Additionally, by sealing the cooking vessel and building just the right amount of pressure, foods can be cooked significantly faster and at higher temperatures, which in turn results in dramatically less energy consumption. In the above referenced Southern California Gas Company study, energy consumption per pound of chicken cooked was found to be reduced up to 48% with pressure frying while the maximum production rate of cooked chicken per hour was found to be 2 to 3 times greater than that of open frying. (the Broaster Company offers both gas and electric models – the results are similar for electric versions.) That means greater food production per machine for a more efficient investment. Pressure frying is cleaner too. Because the fryer is closed and sealed during the cooking process, the opportunity for grease transmission to surrounding areas is significantly less. While a pressure fryer is cooking, vapors are exhausted directly to the hood system above the unit, reducing greasy film and odors common with open fryers. The sealed cover and smaller opening of our round cooking well also results in reduced heat loss while providing a consistent, no guesswork cooking cycle, so operators can tend to other appliances at the same time for additional labor savings. Oil filtration is simplified too with a built-in system that makes the process fast, simple, and trouble-free. Various products are also available to aid oil filtration and extend useful oil life by extracting soluble liquid impurities that contribute to the bad taste and smell of used cooking oil.



Q. Does pressure-frying improve the nutritional values of fried chicken?

Q. I want to cook more than just chicken in my operation. Do these advantages extend to other foods as well?

Q. Why should I trust Broaster for my frying equipment needs?

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A. It can. The Broaster[®] Company offers a unique process for preparing chicken. It begins with a proprietary marinade which provides an uncommonly delicious flavor which is driven right down to the bone through the pressure frying process. Because this delicious flavor profile results from the marinade rather than the outside breading, a much lighter coating of breading can be used. That in turn results in chicken with fewer calories, less fat, and a fraction of the carbs of the leading national brands.

An innovative marinade and seasoning combination available from the Broaster Company called “Broasterie[®]” takes full advantage of this fact, producing juicier, more flavorful rotisserie-style chicken via pressure frying while retaining the favorable lower levels of calorie, fat, and carbohydrate content of rotisserie oven cooked chicken, all in a fraction of the cooking time!

Broaster also offers four specially blended high-quality cooking oils – Bro-Oil[®] Rice Bran Oil, Canola Oil, Soybean Oil and Canola/Soybean Oil – all of which have no trans fats, no cholesterol, and are low in saturated fat, for an even healthier end product.

A. Absolutely. Broaster operators have discovered that the benefits of pressure frying can be extended to a wide range of products including potatoes, seafood, ribs, pork, vegetables, whole turkeys, corn-on-the-cob, and even desserts like cheesecake! The list is limited only by one’s imagination. And, you can work from either fresh or frozen product. In addition to our Chickite[®] Plus marinated fresh chicken, the Broaster Company also offers a wide range of delicious frozen foods under the Broaster Foods[®] brand name all of which can be cooked to perfection quickly and simply in a Broaster Pressure Fryer. Current offerings include cod, shrimp, corn dogs, mozzarella sticks, hot wings, and 8-piece-cut bone-in chicken, in addition to an assortment of boneless chicken products such as fillets, tenders, and popcorn chicken, the latter two of which are available in both traditional and spicy flavor profiles.

A. The Broaster Company has been an expert in pressure frying since 1954, when our founder, L.A.M. Phalen, invented “broasting,” as he originally called the process. In the more than 50 years since, the Broaster Company has developed as a leading manufacturer and supplier of pressure fryers along with other specialty foodservice equipment, accessories, and food product ingredients. Today’s Broaster Pressure Fryers build upon this proud history of innovation with the inclusion of advanced solid-state controls featuring 10 time and temperature presets, a round cooking well design with a specially engineered cold zone for superior heat distribution and improved oil filtration, and a reputation for durability beyond compare. Over 10,000 foodservice operators across North America and thousands more worldwide depend on their Broaster Pressure Fryers to produce the world’s finest chicken and other pressure-fried fresh and frozen foods.

See the difference for yourself!

Contact your authorized Broaster distributor for a free demonstration.

broaster.com



8-Piece-Cut Genuine Broaster Chicken[®]