

Diana Shekhovtsova

Dmytro Motornyi Tavria State

Agrotechnological University

shekhovtsovadiana1709@ukr.net

Language adviser: Kryvonos I.A.,

Senior Teacher, Foreign Languages Department

FEATURES OF MODERN DEVICES FOR FRYING

Deep-fried dishes have already become an integral part of the menu of fast food restaurants and cafes. Deep fryers can be used to cook not only the usual French fries, but also poultry, vegetables, meat, fish, pastries and some fruits.

The analysis showed that the market of deep fryers for modern restaurants uses a large number of deep fryers from different countries.

These devices provide high quality products. In modern restaurants, periodic fryers, table or floor, with electric or gas heating are very often used [1]. A wide range of deep fryers from brands such as Inoksan, MODULAR, Sybo, Altezoro, Bartscher, Fagor, Beckers, Fimar, DeLonghi and Berto'sSpa is available. Such deep fryers differ in that they have the entire mass of the product simultaneously immersed in oil or fat.

It should be noted the design features of the main elements of modern deep fryers. The shape and dimensions of the fryer are determined by the type of product being fried. For example, donuts are cooked in wide and shallow baths, because they need to be fried in one layer; such baths have shelves where the finished product can dry out a bit; it is better to fry fish in a rectangular bath, and for French fries the shape of the bath is not important.

Most deep fryers have a cube shape, although there are models of Y-shaped baths, where heating is carried out in the upper, wider part. Many modern bathtub models have rounded edges; they are easier to wash and they do not have burnt pieces

of food and fat. Some manufacturers equip their equipment with removable baths, which are easier to clean [3].

Modern models of professional deep fryers are equipped with two oil temperature regulators. The cycle temperature controller sets and maintains a certain temperature level in the range from 160°C to 205°C. The upper limit regulator protects the appliance from overheating: as soon as the oil temperature reaches 225°C, it automatically switches it off [2].

Modern deep fryers create a normal microclimate in the kitchen; they are equipped with filters that capture odors. Cleaning devices can be stationary, which are periodically washed, or replaceable (carbon cartridges), which must be replaced if necessary. Separately purchased paper filters are used to clean the oil before reuse. Thanks to them, the same oil can be used to prepare different products (donuts, fish, potatoes, etc.). Induction and pressure fryers are innovative technical solutions for deep fryers.

Induction electric fryers (Hendy, Netherlands; CE-5ZL, China) work more efficiently than conventional electric ones, lose less heat and increase oil life by 35%. In a number of parameters, induction devices also benefit compared to gas ones: during their operation, oil is sprayed less, and the duration of hot recovery is reduced. One of the progressive solutions of modern deep fryers is hermetic deep fryers that fry products under pressure (Henny Penny, USA; PFE 450, PFE 600, Korea) [2]. They reduce the processing time of the product. Finished products differ favorably from traditional deep-fried food in taste, as excess pressure prevents oil from entering the product, retaining most of the moisture and natural juices, while reducing oil consumption and increasing the yield of the finished product. Modern deep fryers with infrared heaters also deserve attention. Energy efficiency in such models is 20-70% higher than in gas and electric fryers of modern devices for deep frying.

References

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