PRESSING TECHNOLOGY

Pressing is a process used in the food industry to extract liquids, oils, or juices from various food materials such as fruits, vegetables, seeds, and nuts. The pressing process involves applying pressure to the food material to extract the desired liquid or oil, which can be used for various purposes such as cooking, baking, and food preservation.

There are different types of pressing methods used in the food industry, including:

1. Hydraulic pressing: In this method, the food material is placed between two plates and hydraulic pressure is applied to extract the liquid or oil.
2. Screw pressing: In this method, the food material is fed into a chamber where a screw or auger rotates and applies pressure to the food material to extract the liquid or oil.
3. Centrifugal pressing: In this method, the food material is placed in a centrifuge where it is spun at high speed to separate the liquid or oil from the solids.

- Pressing is commonly used to extract oils from various types of seeds and nuts, such as sunflower seeds, soybeans, peanuts, and sesame seeds. It is also used to extract juices from fruits and vegetables, such as apples, grapes, carrots, and spinach.
- The extracted oils or juices can be used in a variety of food products, such as salad dressings, sauces, baked goods, and beverages. The pressing process is preferred over chemical extraction methods as it is a more natural and environmentally friendly process that does not involve the use of harsh chemicals or solvents.

USED IN

- Vegetable oils
- Fruit and vegetable juices
- Olive oil
- Coconut oil
- Nut butter

WORKING PRINCIPLE

- The working principle of pressing involves applying pressure to food materials to extract liquids, oils, or juices. The specific process depends on the type of pressing method used.
- In hydraulic pressing, for example, the food material is placed between two plates, and hydraulic pressure is applied to extract the liquid or oil. The plates are then separated, and the extracted liquid or oil is collected.
- In screw pressing, the food material is fed into a chamber where a screw or auger rotates and applies pressure to the food material. The pressure forces the liquid or oil out of the food material through a filter, which separates the liquid or oil from the solid matter.
- In centrifugal pressing, the food material is placed in a centrifuge where it is spun at high speed. The centrifugal force separates the liquid or oil from the solids, which are then collected separately.
- In each case, the goal of pressing is to extract the desired liquid or oil from the food material, which can then be used in a variety of food products. The pressing process is often preferred over chemical extraction methods as it is a more natural and environmentally friendly process that does not involve the use of harsh chemicals or solvents.

MARKET SCOPE

- The pressing industry is a significant part of the global food processing sector. It involves the extraction of oils, juices, and liquids from a variety of food materials such as fruits, vegetables, nuts, and seeds.

- The demand for pressed food products is growing as consumers are increasingly interested in healthy and natural foods, and the market is expected to continue to grow in the coming years.

- The global vegetable oil market, for example, is expected to grow at a CAGR of 4.4% between 2020 and 2025, driven by rising demand for healthy cooking oils.

- Many consumers are looking for minimally processed foods with no additives and pressed oils and juices fit this trend. Organic food products are expected to see strong growth in the coming years, with the global organic food market expected to grow at a CAGR of 9.4% between 2020 and 2025.

- Pressing equipment ranges from small manual presses for home use to large industrial presses used in commercial food processing. The market for pressing equipment is expected to see strong growth in the coming years, particularly in developing regions where there is a growing demand for locally sourced and processed food products.