

DECANTERS

FOR EDIBLE OIL SEPARATION



Decaners for edible oil separation are specialized machines used in the oil and gas industry to separate solid particles and liquids from crude oil. They are also used in the food industry to separate solid impurities from edible oils, such as vegetable oils, animal fats, and fish oils. Decaners use centrifugal force to separate the components of a mixture based on their density differences.

- The decaners for edible oil separation are typically large, high-speed machines that can process large volumes of oil in a short amount of time. They consist of a rotating drum or bowl that spins at high speed, separating the oil from the solid impurities. The separated oil is then discharged through an outlet, while the solid particles are discharged through a separate outlet.
- Decaners for edible oil separation are commonly used in producing vegetable oils, animal fats and fish oils. The decaners help to remove solid impurities such as fibres, proteins, and other contaminants that can affect the quality and shelf life of the final product.
- They are also used to improve the efficiency of the production process, reducing the time and energy required to produce large volumes of oil. Leading manufacturers of decaners for edible oil separation include Alfa Laval, GEA, ANDRITZ, and Flottweg.

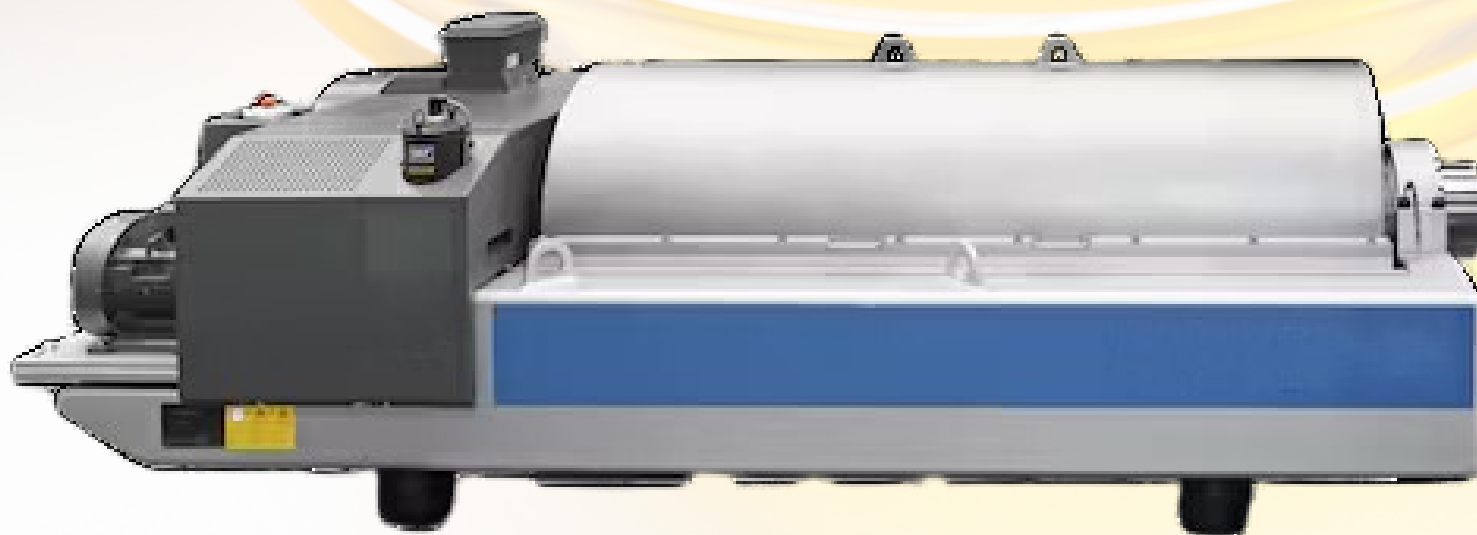
Uses

1. **Soybean oil:** Decaners are used to separate the oil from the solid impurities in soybean oil.
2. **Palm oil:** Decaners are used in the palm oil production process to remove impurities and separate the oil from the water and solids.
3. **Canola oil:** Decaners are used in the canola oil production process to remove impurities and separate the oil from the solid materials.
4. **Fish oils:** Decaners are used in the production of fish oils to separate the oil from the solid materials, such as bones and skin.
5. **Animal fats:** Decaners are used in the production of animal fats to separate the fat from the solid materials, such as bones and tissue.



Working principle

- So, the decanters for edible oil separation are essential equipment in the production of a wide range of food products, helping to ensure that the final product is pure and of high quality.
- The working principle of decanters for edible oil separation is based on the difference in density between the various components of the oil mixture.
- In the production of edible oils, the crude oil mixture typically contains a combination of oil, water, and solid impurities. The decanter is used to separate these components into their parts so that the oil can be purified and prepared for consumption.
- The decanter operates using a centrifugal force that separates the components of the crude oil mixture based on their density. The oil mixture is fed into the decanter, where it is accelerated to a high speed, typically ranging from 2000 to 4000 rotations per minute.
- As the mixture spins, the solid impurities are forced outward by centrifugal force, and the oil and water are forced to the centre of the decanter.
- The separated oil and water are then removed through separate outlets, with the oil being further processed and purified through additional steps such as refining, bleaching, and deodorization. The solid impurities, which are removed through the decanter's outlet, can be processed, and used for other purposes.



Market scope

- The global market for decanters for edible oil separation is driven by the increasing demand for high-quality edible oils, particularly in emerging economies where population growth, urbanization, and changing dietary habits fuel demand.
- Decanter technology offers an efficient, cost-effective, and reliable way to separate the various components of crude oil mixtures, enabling producers to extract more oil from their raw materials and reduce waste. Furthermore, decanters are energy-efficient, reducing the carbon footprint of oil production.
- A few key players, including GEA Group AG, Alfa Laval AB, Flottweg SE, Andritz AG, and Hiller GmbH dominate the market for decanters for edible oil separation. These companies offer various decanter models and configurations, including two-phase and three-phase designs, horizontal and vertical orientations, and varying bowl sizes and capacities.
- The Asia-Pacific region is expected to be the fastest-growing market for decanters for edible oil separation, driven by the rising demand for edible oils in countries such as China and India.
- The market is also growing in Europe and North America, where producers are investing in new technology to meet consumer demand for high-quality, sustainable, and healthy food products. The decanter market for edible oil separation is expected to continue growing in the coming years, driven by increasing demand for high-quality edible oils and a growing focus on sustainability and environmental protection in the food industry.