SUNDEX

Sundex Process Engineers Pvt. Ltd.

40 YEARS OF TRUST

Where science gets down to business.

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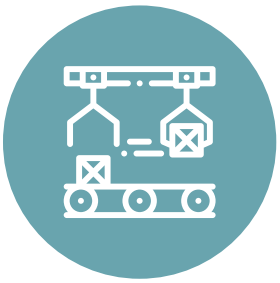
Introduction to Sundex & Features

Sundex Process Engineers Pvt. Ltd. takes pride in being:

Producer of superior quality products

Enabler of cost effective solutions

Environment friendly



Provide of low maintenance systems resulting to minimum break-downs.

Clients are kept up to date about latest global technology

Solvent Extraction Plant Process

The Solvent Extraction process involves oil extraction from oil seeds such as soybean, cottonseed, peanut and more; oil cakes such as rapeseed, mustard, canola, groundnut, sunflower and more, and other sources such as corn germ and ricebran etc.

FEATURES

- Energy efficient
- Robust design
- Experienced engineers
- Customised design
- Equipped with PLC-SCADA automation system
- Unique Zero Discharge Effluent Evaporation System
- Frequency controller system in extractors
- Energy efficient Desolventising toaster
- Flash steam recovery system for effective steam utilisation and heat recovery

Plant Capacity:
100TPD - 3000TPD

The Solvent Extraction Plants process comprises of the following steps:

- Preparatory Section
- n-Hexane Extraction Section
- Desolventising Section
- Miscella Distillation Section
- Absorption Section with vent chilling system
- Meal Finishing sectionn

Vegetable Oil Refinery Plant Process

Vegetable Oil is obtained from a variety of seeds, grains and nuts through refining to make them ready for consumption.

Crude oils and fats may contain unwanted constituents such as phosphatides, free fatty acids and pro-oxidants which must be removed before consumption.

Through a Physical or Chemical refinery, these impurities are removed. The refining process is followed by filtration from various impurities, odour and sticky pigments giving it a uniform colour.

Sundex Process Engineers Pvt. Ltd. provides technology ranging from batch to fully continuous units involving Continuous Degumming, Neutralising, Bleaching and Deodorising, Dewaxing and Dry Fractionation

Plant Capacity:
30TPD - 3000 TPD

The Vegetable Oil Refining process comprises of the following steps:

- Neutralising/Degumming
- Bleaching
- Dewaxing
- Deodorising
- Winterisation
- Dry Fractionation

FEATURES

- Energy efficient processes
- Consumption of Process Water along with Waste Heat Recovery Systems
- Equipped with Zero Discharge Effluent Evaporation System
- High flow rate process
- Robust design
- Experienced engineers
- Customised design
- Efficient plant performance
- Optimum consumption of chemicals
- Continuous operations and automated loading process
- Energy efficient Desolventising toaster
- Advanced process control system
- Consistent product quality and output

Lecithin and Powdered Lecithin Plant Process

Lecithin is derived from soybean, ricebran, sunflower, mustard, rapeseed etc. However the maximum derivation is commonly seen from soybean. We have recently derived Lecithin i.e. dried phospholipid from other sources such ricebran and sunflower. Lecithin and Powdered Lecithin are mainly used in the confectionary and bakery industry as emulsifiers, stabilisers and release agents, cattlefeed, poultry feed, aqua feed, paints, lubricants, textiles, fertilisers etc.

FEATURES

- Continuous operations
- Lower energy consumption
- Indigenous process
- Highly automated process
- Unique supercritical extraction technology
- User-friendly interface

Plant Capacity:
3TPD - 40TPD

Filters & Spare Parts

Sundex Process Engineer Pvt. Ltd. is a leading manufacturer and supplier of Pressure Leaf and Miscella filters. We handle the entire manufacturing, construction and installation management along with the supply of equipment, site supervision and management of construction and installation activities, monitoring and expediting as per Global Standards.

Plant Capacity:
1m² - 200m²

FEATURES

- Lower maintenance cost
- Negligible oil loss in filter cloth
- Ease of operation
- Robust yet simple construction
- Closed system set up
- Minimal utility loss in cake drying process
- Recovery of catalysts like Platinum, Nickel, Palladium
- Removal of bleaching earth in vegetable oil plants
- Filtration polishing of all types
- Permanent candle with replaceable filter medium
- Minimal turn around time
- Safe and hygienic operation

Derivative/Oleo Chemical Plants

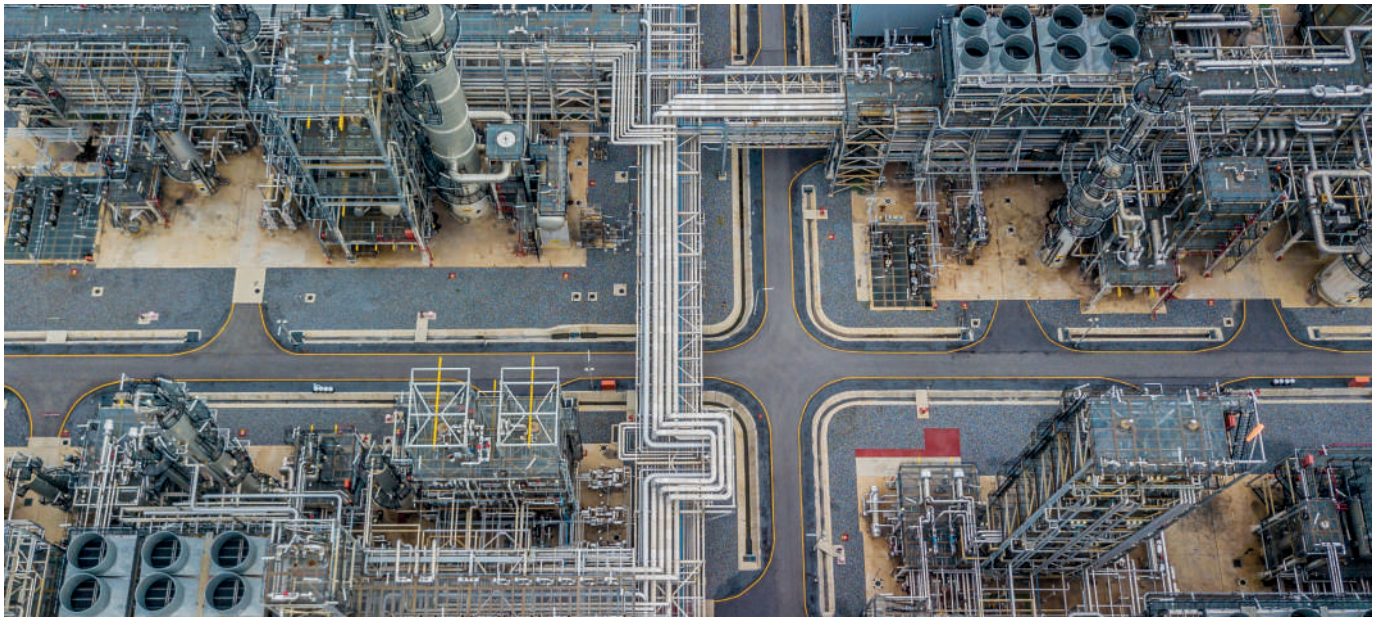
The raw material used for Derivatives are generally natural oils and fats both of vegetable and animal origin. Sundex Process Engineers Pvt. Ltd. has an expertise in designing both batch and Continuous, Low and High Pressure Fat Splitting Units that ensure higher splitting efficiency coupled with a very effective heat recovery system to provide total fat splitting, fatty acid distillation, sweet water concentration and glycerine distillation to get pharmaceutical grade glycerine.

The plant, constructed put of stainless steel is mostly automated with international technology, minimising energy consumption. These plants are built with simplified operations and maintenance.

Plant Capacity:
20TPD - 200TPD

The Oleochemical Splitting plant comprises of the following steps:

- Raw material Drying and Degassing
- Pre-heating
- Splitting
- Fat separation
- Sweet water concentration
- Glycerin distillation and bleaching
- Pre Treatment



FEATURES

- Energy efficient process
- Continuous process operations
- Oil residue reduction
- Based on Solvent Extraction
- Consumption of process water along with Waste Heat Recovery Systems
- Robust design
- High quality stainless steel
- Equipped with Zero Discharge Effluent
- Evaporation System
- Fool-proof solvent recovery system from Vent gases that help protect the environment
- Automated operations
- Customised designs
- Efficient plant performance
- High pressure systems
- Advanced process control system
- Consistent product quality and output
- High flow rate process
- Experienced engineers

Feed Plant

Sundex Engineers Pvt. Ltd. has been the trusted partner to the producers of cattle, livestock and aqua feeds, pet food, premixes and concentrates. We provide an end-to-end solution right from the equipment technology to the technical support for the entire project duration.

Sundex Engineers Pvt. Ltd. partners your feed plant in process design packages, machinery, plant control and after sales services. Right from raw material intake to finished feed product we ensure highest quality feed products being produced.

Plant Capacity:
1TPH - 40TPH

FEATURES

- Helps lower operating cost
- Increase in plant capacity utilisation
- Durable output
- High quality products
- Higher feed processing performance
- Low operating Cost
- Skid mounted

Fat Modifications

Based on their end use, oils and fats have unique melting characteristics which can be attained by three main processes namely, Fractionation, Hydrogenation and Interesterification.
These modifications are either chemical and/or physical that customise their textural properties.
These characteristics change by three processes for improving the application of fats and oils.

Hydrogenation is the treatment of Fats and Oils with Hydrogen, saturating the double bonds in the fat, leading to a much harder fat.
Dry Fractionation separates Fats and Oils into Fractions with different melting point, making it available in a more solid and a more liquid fraction. It is the gradual and uniform cooling of oil without solvent.
Interesterification is the formation of new fats with unique melting characteristics. This helps in chemically blending properties of different oils.

Plant Capacity:
30TPD - 800TPD

FEATURES

- Creation of highest quality product
- Minimal operation costs
- Minimal effects on the environment
- Ease of use on a daily basis
- Availability to integrate technologies within one processing plant
- High-end membrane separation (Dry Fractionation)
- No use of additives or polluting affluents (Dry Fractionation)
- Increase in efficiency through lower utility consumption (Interesterification)
- Minimal oil loss (Interesterification)
- Ease in creation of lower melting point, soft products (Interesterification)
- Trans fatty acid free products (Interesterification)

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Sundex Process Engineers Pvt. Ltd.

2nd Floor, Omex Chambers, Rajarshree Shahu Maharaj Marg,
Mumbai - 400069, Maharashtra, India.
Call: +91 22 2682 0336 / 2682 2415 | Fax: +91 22 2682 4830

Website : www.sundexindia.com | **Email :** info@sundexindia.com