

OUR VISION INDUSTRIALISING AFRICA



EDIBLE OIL EXPELLING MILLS & PLANTS



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TURNKEY PROJECTS

■ Edible Oil Expelling Mills & Plants

- Peanut , Cottonseed, Cocoa, Sesame, Moringa oil expelling plant.
- Palm & Palm Kernel oil expelling plant.
- Edible oil Refinery plant.
- Edible oil Solvent extraction plant
- Edible oil Filling Plant.
- Cattle feed Manufacturing Plant.
- Bio-diesel Extraction

INTRODUCTION

“TRB GROUP” is in the business for more than 50 years and growing its presence globally. **TRBEX IMPEX PVT. LTD.** is a flagship company of the TRB group which was established under the dynamic leadership of our Late Chairman Sh. Ved Prakash Aggarwal and his legacy is being carried forward by our current Chairman Sh. Rajesh Aggarwal.

PIONEER AND VISION

Sh. Rajesh Aggarwal, a modest man who made a humble beginning with a grand vision, has come a long way in 25 years, but if something has not changed along the way. It is his modesty and his vision “To provide products rich in quality and goodness across an ever growing network of consumers, with a motto of **‘Everyday Everywhere’** making our products an essential part of the life for every individual”.



Rajesh Aggarwal
Managing Director

“From Humble Past to Glorious Present”

“The journey of a thousand miles is made up of a million steps, but the most important one is always the first step”.

QUALITY POLICY

Quality is about trust. Each and every one of us has the power to influence this trust through our dedication towards our passion and leadership. “We are committed to manufacture and supply quality products which exceed customer satisfaction and market requirements”. TRB has served Africa with wide variety of product and services. It has been in the business of accomplishing Turnkey Projects from past 10 years in different countries of African continent. Our Quality Policy summarizes the essential elements of our commitment for excellence.

TRB is a responsible group with a vision of understanding the consumer’s need, quality, distribution, business acumen and above all, a constant drive to keep bettering ourselves.

We believe that with our continued commitment to excellence in every aspect of whole some production and distribution. We are going to keep discovering newer, bigger and brighter horizons for ourselves, our partners, and above all, the most valued – our consumers.

TURNKEY PROJECTS

■ Plastic & Steel Recycling Plants

- PVC/HDPE/PET/Bottle Manufacturing Plants
- TMT Bar, Hot Rolling, Cold Rolling, Metal Scrap Plants
- Tube Mill, CRS, CTL Plants



■ Solar Power Plants

- ON/OFF Grid Plants (1-20MW)
- Solar Panels, Modules & Arrays
- Batteries & Invertors
- Solar Street Light, Lanterns
- Solar Pumping System



■ Customized Plants

- Corrugated Sheet Forming Plants
- Waste Tyre Recycling and Retreading Plants
- Paper Bag, Cup Making Plants
- Fish, Poultry Feed & Farming Plants
- TSR Natural Rubber Plants
- Laundry and Toilet Soap Plants



■ Food & Beverages Plants

- Mineral Water Plants
- Beer & Carbonated Beverages Plants
- Tomato Processing Plants
- Biscuits, Bread Plants
- Ice Cube Making Plants
- Food Packaging & Processing Plants
- Fruit Pulp Juice Plants



■ Edible Oil Expelling & Refining Plants

- Peanut, Palm & Palm Kernel oil Plants
- Cottonseed, Cocoa, Sesame, Moringa oil Plants
- Oil Refinery Plants
- Solvent Extraction Plants
- Oil Filling Plants
- Cattle Feed Plants



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OIL MILL EXPELLERS

Peanut, Cottonseed,
Sesame, Coconut, Moringa



Edible Oil Expellers

Development of small scale edible oil extracting units using improved mechanical oil expellers is yet to take a proper shape in growing countries of African continent. In the absence of village level edible oil processing unit, the farmers have to travel great distances for selling the cleaned and graded oil seeds. This leads to increased transportation and handling losses. Thus there is a need to develop suitable edible oil processing facility for bringing about noticeable development of the sector.

We provide all such oil expellers plants which are commonly used for extraction of oil from various oil seeds like palm, Cottonseed, Peanut, Sesame, Soyabean, Canola, Sunflower, Moringa, Baobab etc.

Our services are highly demanded in market due to their perfect finishing and reliable nature. For the diverse requirements of our clients we are involved in offering.



Edible Oil Expeller

Small Scale Expeller:

Production of these Expellers varies from 5-10 MTD.

Medium Scale Expeller:

Production capacity of these Expellers varies from 10-50 MTD.

Large Scale Expeller:

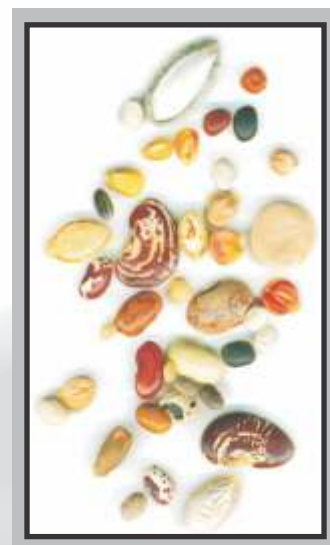
Production capacity of these Expellers is more than 50 MTD and Upto 100 MTD.



Palm Kernel Oil Expeller

Ratio composition

PALM KERNAL	36/100 kg
SOYABEAN	14/100 kg
SESAME	50/100 kg
PALM FRUIT	20/100 kg
RAPESEED	37/100 kg
GROUNDNUT KERNEL	42/100 kg
MUSTARD	35/100 kg
CASTOR SEED	36/100 kg
LIN SEED	42/100 kg
SUNFLOWER	32/100 kg
COTTON SEED	13/100 kg
COPRA	62/100 kg



Plant Layout



Cleaning : Cleaning is a series of operation to remove impurities in oil seeds.

crushing: Because the seed is hard and big size, it is require It is used for removing the iron impurities, stone, fiber and others. These impurities are bad for machines, especial for the palm kernel expeller. to crash to smaller and even pieces.

Nuts shell separation: Both dry and wet separations are available. Wet separation is mostly used in palm kernel separation, on basis of difference of relative density of palm kernel and shell.

Drying: As Fresh Palm Kernel seed contains 20% moisture. Palm kernel has no mildew during transportation and storage while moisture drops below 7%.

Cooking section: It is used for heating and cooking the crashing materials, to make is suitable for pressing, doing like this can help final user get the maximum oil and good quality cakes.

Oil pressing: Palm kernel oil pressing production line is simple with usual oilseeds. The pre-pressing by oil pressing machine can obtain 1/4 palm kernel oil, and residual oil need twice pressing.

Filtering section: After pressing, there are some oil dregs in the crude oil, after clarifying, we need to filter the crude oil to avoid to jam the oil pipes during refining processes.



Machinery & Equipments



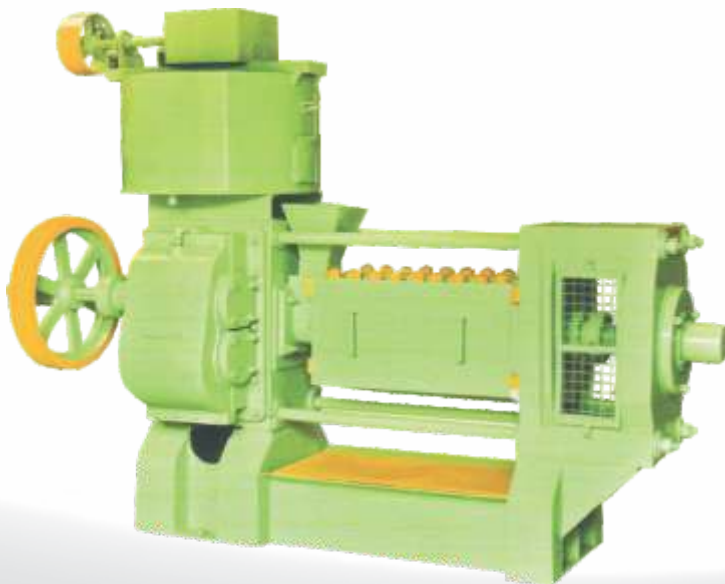
TRB 50 & 100

Common Features

Cast Iron Bodies and Base
Single Reduction Gear Box with Spur Gear
Fabrication Chamber with Three Section
Case hardened Worm Assembly
Superior Quality of Oil & Cake
Low maintenance
Feeding Drum : Single Stage with &
Without Heating Arrangement (as require)

Specification

Features	TRB 50	TRB 100
Power	3 Phase	3 Phase
Consumption	5 H.P.-1440RPM	7.5 H.P.-1440RPM
High Capacity	1 Ton per 24 Hours	3 Ton per 24 Hours
Chamber Size	3.1/2" x 20" Long	4" x 24" Long
Length	1300 mm (51")	2185 mm (86")
Breadth	475 mm (19")	685 mm (27")
Heigth	1075 (42")	1422 (56")



TRB 250

Features

Cast Iron Bodies
Steel Fabricated Chamber
Double Reduction Gearbox
Mild Steel Helical Gerars
MOTOR : 20 H.P. For expeller
Case hardened worm Assembly
Chambers are Horizontally fitted
Single Stage Cooker
CAPACITY : 5 - 6 Tons per 24 Hours

Specification

Item	Length	Breadth	Height
Screw Press	2900 MM	960 MM	2150 MM

TRB 390

Common Features



- ★ Double Reduction Gear Box of Cast Iron Body and Mild Steel Fabrication Gears.
- ★ The Machine has to be Stopped for Adjusting the Cake Thickness. Case Hardened Worm Assembly and Cone Point.
- ★ Main Worm Shaft can be Withdrawn Without Disturbing the Gear Box.
- ★ Low Maintenance
- ★ Steel Fabrication Base.
- ★ Chamber is made from Mild Steel Plates.
- ★ Chamber Size : 7" x 44" Long, Capacity : 15 Ton (TRB 450)
- ★ Chamber Size 6" x 33" Long, Capacity : 10 Ton (TRB 390)
- ★ Low Power Consumption : 3-Ph. 40 H.P. Motor 1440 R.P.M : 3 Stage with Steam jackets of Ø 48 for efficient Cooking of Seed.
- ★ High Capacity : 15 Ton (In 24 Hours)

★

Specification

Item	Length	Breadth	Height
TRB 390	2640 MM (8'8")	1930 MM (6'4")	2743 MM (9')

TRB 450

Features



- ★ Double/Single Reduction Gear Box of cast Iron Body and Mild Steel Fabricated Gear.
- ★ Case Hardened Worm Assembly and Cone Point.
- ★ Main Wirm Shaft can be withdrawn without disturbing the Gear Box.
- ★ Superior quality of oil & Cake.
- ★ Low Maintenance, Steel Fabricated Base.
- ★ Chamber is made from Mild Steel Plates.
- ★ Chamber Size : Ø8" x Ø7" x 44" Long (Cap.20TPD) & Ø6" x 33" Long (Cap. 10 TPD)
- ★ Kittle : Long Steam Kettle and Round Steam Kettle will be on request with Pipe Fitting with all the Required accessories.

TRB Filter Press



Features

- ★ Plates of the filter press are tested For casting defects before machining.
- ★ Grinding process is done on the faces of filter plates to avoid leakages at high pressure.
- ★ Flat bar provided at the sides are designed to stand extra pressure
- ★ Accessories provided with filter press are petcocks , Oil through, on rod and a spanner (for filter cloth nuts)
- ★ Plunger pumps is supplied along with safety valve, air vessel, pressure gauge, pulley, belt and motor (optional)

Specification

Item	Weight Filter Press (Kgs)	Filtration Area (Sq. Mtr)	Cap. Liters/ Day	H.P.	No. Of Pistons	Size of Plunger Pump
36"x36"x36 Plates	8000	30	40000	7.5	Double	80 MM
30"x30"x30 Plates29 Frames	5500	18	25000	7.5	Double	80 MM
30"x30"x30 Plates	4400	18	25000	5	Single	80 MM
24"x24"x24 Plates23 Frames	3000	10	10000	5	Double	60 MM
24"x24"x30 Plates	2750	15	12500	5	Double	60 MM
24"x24"x24 Plates	2350	10	10000	3	Single	60 MM
18"x18"x18 Plates	1100	4	5000	2	Single	40 MM
14"x14"x14 Plates	650	4	3500	2	Single	40 MM
12"x12"x12 Plates	380	1.5	2500	1	Single	30 MM



PALM & PALM KERNEL OIL

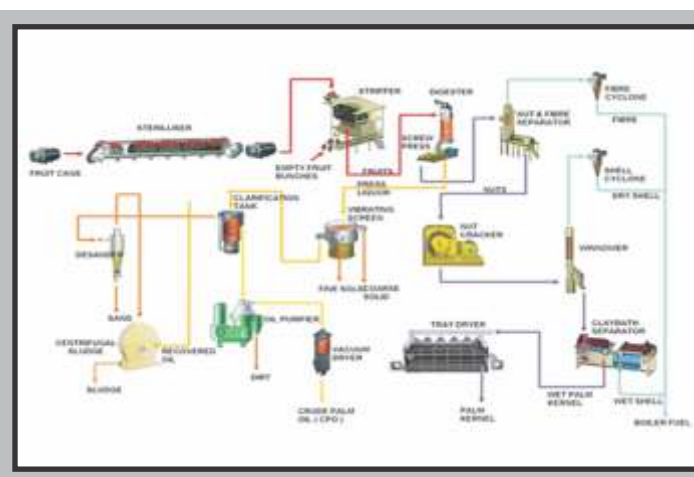
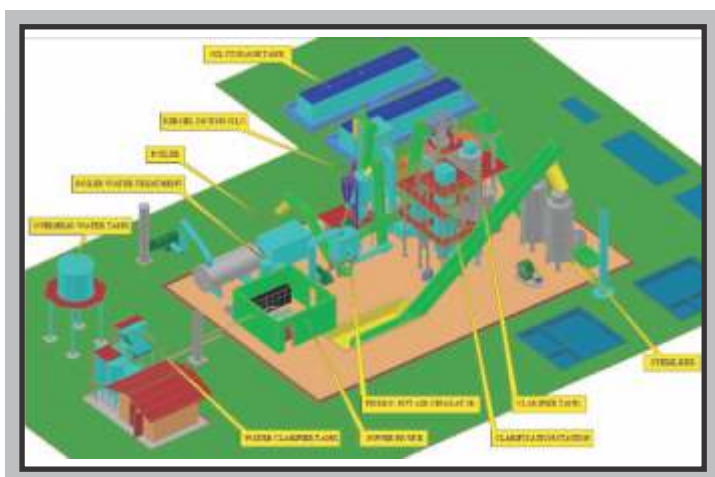
PLANT & MACHINERIES

Palm Oil Mill Plant

With the growth of equatorial Africa's palm oil industry, We exports a quality range of palm oil mills of processing capacity of 5-120 TPH to build up capabilities especially for niche markets. Due to the planting structure influence, many Africa customer requires small capacity palm oil production process machine. Doing this company also supply small capacity palm oil production process machine below capacities: 0.5T/Hr, 1T/Hr and 2T/Hr.



Plant Layout



Raw materials : reception and storage Workers pick fresh fruit bunches (FFB), transport them to factory with cars, get the weight by Loadometer and discharge them to material platform which is specially designed for crude palm oil processing, laying up for latter process.

Sterilizing section : The function of sterilizing, known as stewing in high temperature, is to avoid the deterioration of fruit. This section can avoid the increase of palm oil AV by stewing the fruit about 60min with 300kPa steam in a specialized sterilizer.

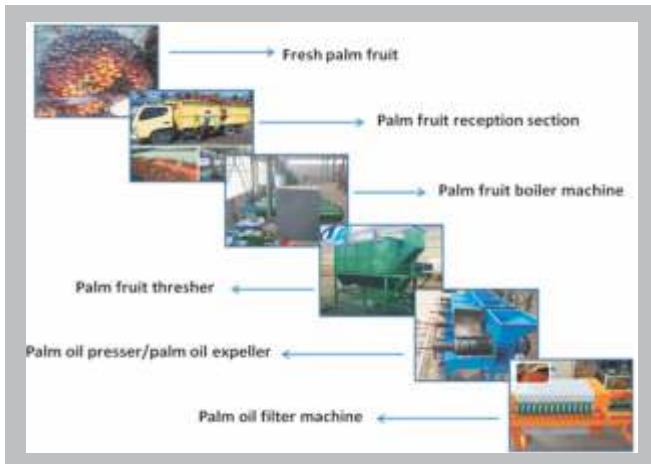
Threshing section : The palm fruit proportion is about 60% of the FFB. In this section, we always use rotating drum thresher to separate palm fruit from the bunches.

Crashing : The purpose of crushing is to destroy palm skin, separate the palm pulp and nuts, pound palm pulp and to damage the cell structure of palm pulp by heating at the same time, which avail the latter pressing section.

Pressing : by screw oil press is common equipment for the outcome. which is a mixture of water, oil, residue and presscake (fiber cake).

Crude palm oil : Separate the fiber from the mixture derived from pressing by subsidence and filtration, after continuous subsidence we can separate oil and precipitate.

Plant Layout



General Description



Small Scale Palm Oil Plant



Large Scale Palm Oil Plant

Process Description

Mill Process

Fresh Fruit Bunches (FFBs) are sterilized and stripped. The fruit is pressed to separate the oil from the 'cake' (a mixture of kernal and fiber). The oil is then purified and clarified.

Refining (RBD: Refined, Bleached & Deodorised)

Oil is refined to remove colour, odour and flavour.

Interesterification (IE)

Oils are reformulated to produce different properties. Carbon chains are separated from the glycerine anchor and reattached in a different formation to create oils with improved properties for specific uses in the food industry

Glycerolysis

The process of creating emulsifiers by adding glycerine. Emulsifiers facilitate the mixture of oil and water.

Crushing

The kernal is cracked to remove the palm kernal shell (palm kernal Expeller or PKE) and kernal is crushed and pressed to produce palm kernal oil or PKO.

Fractionation

Liquid palm Olein and solid palm stearin are separated. This is achieved by using crystallisation techniques followed by a membrane filter process.

Hydrogenation

A means of increasing the melting point of oils using Hydrogen gas.

Distillation

A method of separating mixtures based on differences in volatility of components in a liquid mixture.

Products Manufactured

RBD Palm oil

Melting point : 35° c

Properties : balanced fatty acid composition

Uses : bakery fats, biscuits fat, foodservice frying oil

RBD Palm Stearin

Melting point : 48° C

Properties : Solid at room temperature

Uses : pastry fats, margarines, soap manufacture

Palm Mid Fraction

Melting point : 25-30° C

Properties : Solid at low temperature but melts quickly

Uses : ganache type confectionery fillings, biscuits fillings, frying oil

Mid Stearin

Melting point : 30° C

Properties : mid range melting point

Uses : hard Stock for margarine

RBD Palm olein

Melting point : 20° c

Properties : liquid at room temperature

Uses : snack food manufacture, cooking oils

Double olein (or Super olein)

Melting point : 10° C

Properties : liquid frying oil, a good replacement for hydrogenated fat, good resistance to oxidation

Uses : foodservice frying oils

Double Stearin

Melting point : 60-62° C

Properties : very hard, easy to flake or powder

Uses : soup dry mixed, cake dry mixed

Palm Kernel Expeller (PKE)

Properties : good source of fibre and minerals including phosphorous, copper, zinc and manganese

Uses : animal feed

Machinery & Equipments

Our palm oil expellers based on new technology with capacity of pressing 100-700 kg/h FFB. This machine has reasonable structure, which is easy to operate and maintain. The small palm oil press machine can be fitted with motor or diesel engine.



TRB-80A



TRB-80A Twin Screw



TRB-100A



TRB-120A



TRB-130A



TRB-160A

Specifications

Model		TRB-80A	TRB-100A	TRB-120A	TRB-130A	TRB-160A
POWER	Screw diameter	80mm	100mm	120mm	130mm	160mm
	Main Motor	5.5kw	7.5kw	11KW	18.5KW	22KW
	Vacuum pump	0.55kw	0.5kw	1.1	1.1	1.1
	Heater	3KW	3.5kw	6KW	6kw	6kw
Quantity		100-150kg/h	200-250kg/h	300-400kg/h	400-500kg/h	600-700kg/h
Machine Weight		800kg	900kg	1300	1320kg	2000kg
Dimensions (L*W*H)		148*63*157	220*81*185	220*165*175	236*110*192	280*130*230

Features:-

- The multi-function of automatic oil mill machine can save labor power and simplify the processing step.
- Only one screw oil mill machine, you can get better edible oil.



Plant Highlights



PROCESS - I



PROCESS - II



PROCESS - III



PROCESS - IV



PROCESS - V



PROCESS - VI



Edible Oil Refineries

Edible Oil Refineries

Edible Oil Refining have been the areas of excellence for TRB. We are the exporters of complete Edible Oil Refinery Plants to refine the crude oil and make it pure edible.

TRB manufactures unique edible oil refinery with complete unique construction. Our refinery plants are specifically designed to give the minimum operation costs and maximum output results.



Plant Capacity



1 Ton



2 Tons



5 Tons



10 Tons

Advantages of 1-20 TPD Batch Oil Refinery Production Line:

Wide application: Our 1-20 TPD batch oil refinery production line is suitable for various crude vegetable oil, even animal oil, fish oil, etc.

Low investment: 1-20 TPD batch oil refinery production line needs less investment, and cost recovering time is also short.

Less land request: Sometimes land is one of the problems for you to start oil milling business, but for our batch oil refinery production line, you don't need to consider this matter, even 50m² workshop will be ok.

Easy operation: For small capacity batch oil refinery, it is very easy to operate. After our short time professional training, your workers can operate the machines well.

Plant Description

Capacity :

10 Tons Per Day

Machinery and Equipments :

Neutralizer, Bleacher, Deodorizer, Cooler, Thermic Fluid Boiler, Filter Press, Filter Press, Raw Oil Tank, Bleach Oil Tank, Soap Pan, Soap Pan .



Oil Mill Refinery

Edible Oil Refining Process Description

Degumming Section: Some impurity, such as Phospholipid, gum, and protein, can be dissolved into oil when there is no water, but once there is water in oil, these impurities can be dissolved into water. So, in degumming section, we use the hot water to wash crude palm oil for two-three times to remove these impurities.

Neutralizing Section: Crude palm oil contains much free fatty acid, which is harmful for health. Free fatty acid can have reaction with caustic soda. During the reaction, it can be saponified and becomes soap stock, then small soap stock pellets will sink and become sediment and be pumped out. After neutralizing, most of the free fatty acid will be removed out.

Decolorization Section: Most of the crude palm oil has deep color because of the pigments, such as carotene, xanthophyll, etc. We use bleaching earth to remove pigments, because bleaching earth has strong adsorption capacity. Then pump palm oil into plate filter to remove bleaching earth, then pigment also will be removed out along with bleaching earth, and oil will be clean and transparent.

Deodorizing Section: Pure oil has no smell, but different crude palm oil has their special smell because of some volatile matters, for example the oxide for ketones, aldehydes, hydrocarbons. In deodorizing section, we deliver steam into oil continuously, and make sure steam and oil can fully contacted under high temperature and pressure, then volatile matters can be removed out along with the steam.

Plant Highlights



10 Tons Refinery



10 Tons Refinery Filling Line



Specifications

Type: complete refining equipment

Use: oil refining

Certification: ISO9001

Brand Name: TRB

Capacity : 1-10 T/D

Condition: New

Description: batch refining

Steam consumption: 450kg/T oil

Phosphoric acid: 2~3kg/T oil

Electric consumption: 28kwh/T oil

Bleaching earth consumption: 5~50Kg/Toil

Waste bleaching earth oil content: <35%

Deodorization loss consumption: $\leq 0.5\%$

After-sale Services : Engineers available to service Machinery overseas



Five Tons Oil Refinery

Packaging Delivery : International Export Standards, usually wooden cases

Delivery Detail: within 45 days

1-5T/D Small Scale Edible Oil Refinery Characteristics:

Safety:

- We use auto welding machine to make the reactor, which can provide the quality of welding seam, avoid cracking and has a long life for about years.
- Professional heating treatment & x-ray detection chamber for welding .
- Vaccum system to prevent oil gas be back to reactor causing accident.
- With professional thermometer, pressure gauge and safety valve.

Environment friendly:

- Dedusting system to prevent gas and dust from coal burning
- The exhaust gas will be recycled for heating reactor ,no gas pollution
- Well sealing on every junction parts to prevent gas leak, with no smell.

Longer service life :

Using a special steel plate ,welding seam with auto welding will get heating treatment and x-ray detection to extend the life of reactor to 8 years.

Energy saving:

- Well sealing for heating system ,no gas leak and saving fuel.
- The exhaust gas will be recycled for reactor heating.



Solvent Extraction Plants



Solvent Extraction Plant

Solvent Extraction Plant is the most modern way of recovery of oil from oil bearing materials at very low temperature under vacuum to produce excellent quality of oil, compared to mechanical pressing which works under high temperatures and high pressure and causes oxidation of oil.

The plant is designed to extract oil directly from oil seed containing less than 20% oil like soyabean after flaking or it extracts oils from prepressed or fully pressed cake of seeds containing more than 20% oil like sunflower, peanuts, cotton seed, palm kernel, canola, copra, castor and variety of other materials.



Plant Highlights



Palm Oil Solvent Extraction Plant



Peanut Solvent Extraction Plant



Cotton Seed Solvent Extraction Plant



Soyabean Solvent Extraction Plant

Process Layout

Solvent extraction plant comprises of the following:

Seed Preparation: Roller mill / Flaking mill / Cooker-Conditioner / Expander-Extruder.

Roller Mill: Used in the preparation of oilseeds prior to direct solvent extraction.

Cookers-Conditioner: Designed to condition the seed for better extraction by heating and adjusting moisture content to optimum level.

Flaking Mill: Fitted with smooth rolls particularly suitable for flaking oilseeds or cake prior to solvent extraction.

Solvent Extraction: Belt type horizontal extractor, desolventising toaster, distillation system and heat recovery system are so efficiently designed as to give the best of performance in terms of quality of oil, quality of DOC, consumption of utilities and hexa loss.

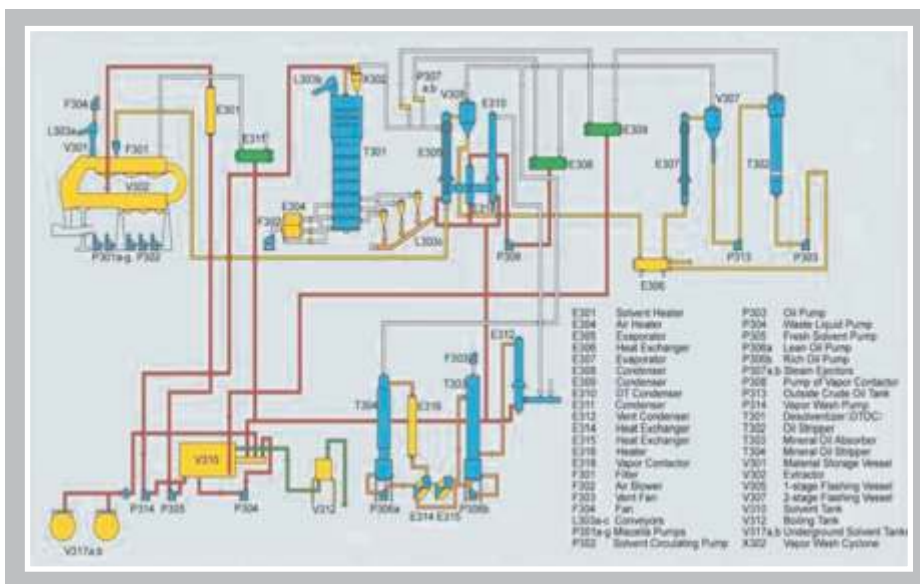


Edible Oil Solvent Extraction Plant Layout

Specifications

Technical Parameters (500T/D extraction plant as an example)

Steam consumption	< 280kg/t (soybean)
Power consumption installed capacity	320 KW
Residual oil in meal	<1.0%
Moisture in meal	12-13% (adjustable)
Solvent in meal	< 500PPM
Urase activity	0.05-0.25 (soybean meal)
Total volatile matter	< 0.3%
Residual solvent	< 300PPM
Mechanical impurities	< 0.2%



Plant Drawing



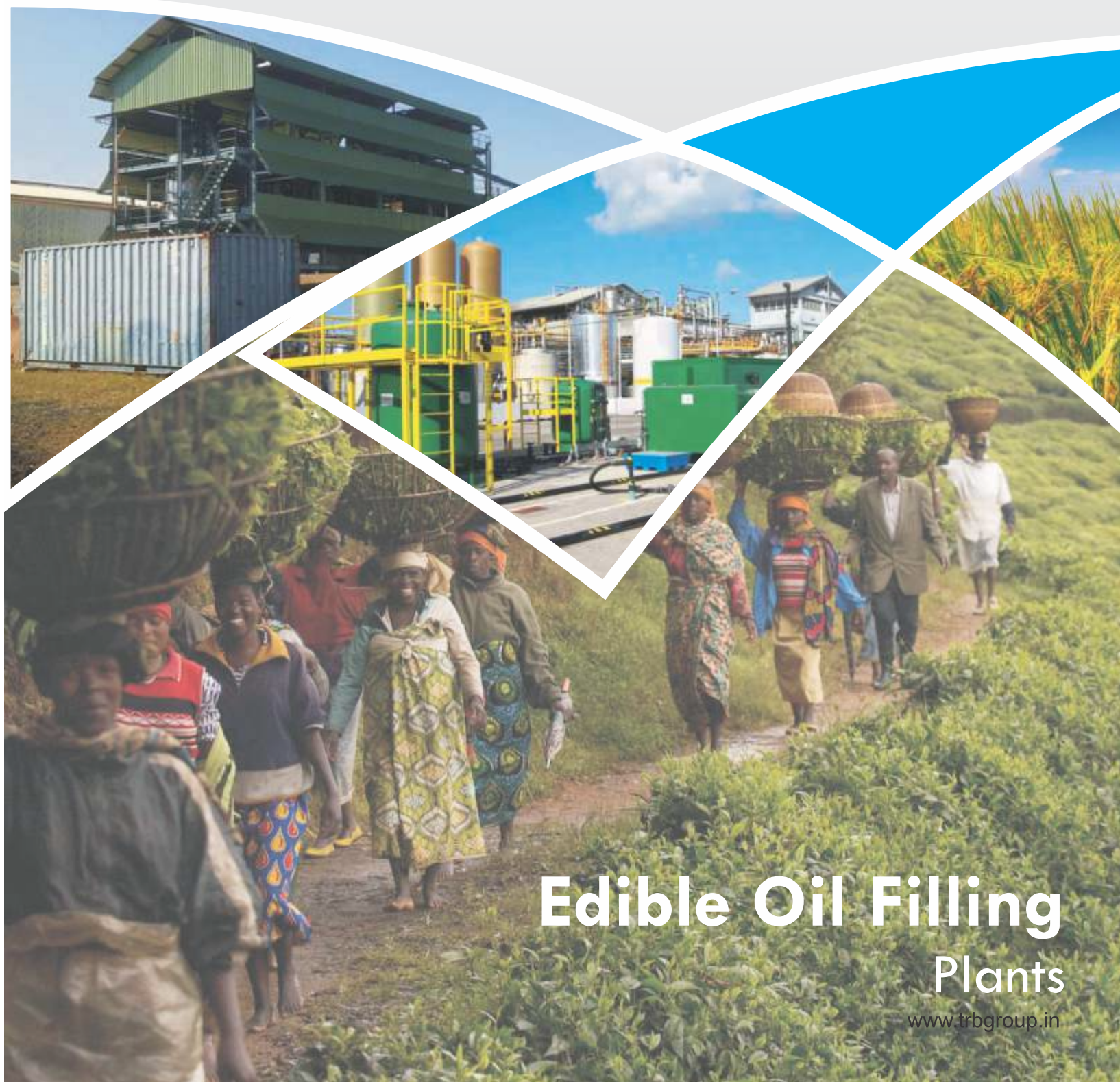
Large Scale



Medium Scale



Large Scale



Edible Oil Filling Plants

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Edible Oil Filling Plants

We offer the range made up of the finest Edible Oil Filling Machines, Capping Machines and Labeling Machines, having a high demand in the market. Making of this range is done as per the set industry norms and guidelines, utilizing the finest raw materials and modern machines. This ensures the product's performance, service life, strength, capacity and precision. In addition to this, the offered range is known to be marked at the most reasonable rate possible.



Product Highlights

Filling Line Machine offered comprise automatic operation based production lines that provide complete support for handling of filling, capping and foil cap sealing operations. The support of advanced PLC controls also make these systems provide for accurate work performance.

Features:

- Suitable for use in cosmetics, food, oil and other sectors.
- Offering support for stable and reliable running.
- Steeples speed conversion support.
- High production efficiency.
- Allows sealing of various size glass bottle, plastic bottles.
- Allows arranging of production layout in a compact and precise manner.
- Allows adding/decreasing of work positions according to special requirements.



Filling Line Machine

Piston Filling Machine offered comes backed by advanced technology support and perfectly meets the demands of automatic piston filling requirements. Further, the piston support used as well as precise mechanical and electrical component integration also assure of reliable and accurate performance of the systems.

Features:

- Advanced PLC control support.
- Compact structure finish & allows for easy maintenance.
- Allowing stable and reliable operations.
- High filling accuracy and quick adaptability to different



Piston Filling Machine

Weighmetric Filling Machine offered comes designed and developed using latest technology support and find suitability for filling of granules, rice, pulses, free flowing powders and other products. Involving filing on weight basis, the machine weighing support features load cell with microprocessor programmable system so as to provide for high level of working accuracy.

Features:

- Facility for course/fine-feed.
- Allows for filling range from 5 gms to 1 kg.
- Electromagnetic vibrator based feeding support.
- High accuracy within range of 2-5 grams.
- Heavy duty and robust vibrator for feeding material.
- Digital display for showing weight of each pack.



Weighmetric Filling Machine

Other Machines



Automatic Filling Machine



Paint Filling Machine



Automatic Pesticides Filling Machine



Automatic Cosmetic Filling Machine



Vial Filling Machine



5 Liter Jar Filling Machin



Liquid Filling Machines

TRB Provides the best range of Liquid Filling Machines such as Automatic Volumetric Liquid Filling Machine, Liquid Filling Machine, Automatic Liquid Filling Machine, Automatic Edible Oil Filling Machine, Automatic Lubricating Oil Filling Machine, Automatic Shampoo Filling Machine and many more items with effective & timely delivery.

Automatic Volumetric Auto Filling Machine. Sturdy in design, this machine is widely used in various packaging industries, filling various types of free flow materials such as Pulses, Rice and many more. In order to provide flawless machine at clients' premises, our quality controllers stringently check this machine against numerous parameters.

Other Details:

- + 0.5 to 1% Filling accuracy on single dose.
- Rigid vibration free construction for trouble free performance.
- S.S. elegantly matt finished body.
- Elegant and easy control panel for total control on operation
- Minimum changeover time, from one size to another container or fill size.
- Automatic washing of conveyor belt (Optional).
- Reciprocating filling nozzle with self centering device to avoid foaming.
- The unit is made compact & versatile-as per GMP norms.
- No container no filling system-to avoid spillage.



Liquid Filling Line



Automatic Volumetric Liquid Filling Machine

Specifications:

Model No.	GTFL-4x	GTFL-6x	GTFL-8x
Output/Hour	1400 to 3200	3200 to 6000	6000 to 8000
Electric Motor	Main Machine	1 HP/440 Volts/3 Phase/50 (Four Wire)	
	Coveyor	0.5 HP/440 Volts/3 Phase/50 (Four Wire)	
Container Size	Ø 30 mm to Ø 100 mm, Maximum height 280 mm		
Fill Size	10 ml to 1000 ml (with the help of required change part)		
Overall Dimension	1800 (L) x 840 (W) x 1400 (H)		1850 (L) x 1050 (W) x 1400 (H)

Automatic Edible Oil Filling Machine offered comes designed and developed using latest technology support and find suitability for filling of viscous liquids. These are suitable to be used in oil plants and come with linear type filling. Further, its electromechanical as well as instrumental integration control support also assure of reliable performance.

Features:

- High capacity designs
- Advanced PLC and touch screen controls for accurate operations
- Vacuum anti-dropping device for no leakage performance
- Frequency control and photoelectric detecting system among others.



Automatic Edible Oil Filling Machine

Matching to the huge market demands, we are involved in offering best quality of Liquid Packaging Machinery. This Liquid Packaging Machinery is known for its various specifications and high efficiency. Liquid Packaging Machinery is extensively used to pack free flow liquids, package drinking water, milk, etc.

Features:

- Unique design
- Economical
- Good quality



Liquid Packaging Machinery

Oil Filling Machine offered find suitability for meeting the filling demands of different oil filling like lube oil, edible oil and others. Further, for precise filling support, the machine comes equipped with weighing module as well as conveyor belt having frequency conversion for adjusting working speeds.

Features:

- Advanced PLC system support for reliable functioning
- Have high filling accuracy
- Provide support for multi-head filling
- Meet demands of viscous or non-viscous liquid filling
- Auto-sensing-based sealer
- High filling precision
- Easier man-machine interface.



Oil Filling Machine



Juice Filling Machine offered come with automatic operation support and is ideally suited for meeting the filling demands of juice, beverage, water and other liquids. Based on rotary filling method, these machines find suitability for handling of various kinds of water-thick and low viscosity products.

Features:

- High speed operation support.
- Suitable for use in food sector.
- Stainless steel parts for hygienic performance.
- Simple operation and less maintenance requirements.
- Single machine can be used on different bottles having different shape/height.



Juice Filling Machine

Honey Filling Machine offered allows for automatic filling operations and come with plunger type working to allow accurate measurement of filling quantity and linear type to feed bottles, integrated with the electric and pneumatic components which are world- renowned brands of low failure rate, stable performance and long service life.

Features:

- PLC based operations with touch screen support.
- High quality photo sensor support; no filling no bottle operations.
- Allows automatic control of filling levels.
- Filling head equipped with leakage-proof device to ensure no drip working when filling.
- PTEF based plunger and sealing elements for corrosion and damage-resistant operations.



Honey Filling Machine

Vegetable Oil Filling Machine offered comprise latest technology based filling equipment that features advanced PLC microcomputer programmable control so as to allow precise working performance. Finding extensive use in food industry sector, these machines provide for accurate filling measurement with no bubble filling.

Features:

- Suits filling of all kinds of bottles from 25 to 1000 ml.
- Short filling circle.
- High production capacity.
- Touch operation based color screen for controlling operation procedures.



Vegetable Oil Filling Machine

Lubricant Filling Machine offered comes precisely designed and developed so as to effectively handle the filling needs of lubricants in oil industry. The machine comes with stainless steel contact parts as well as high performance piston pump support for accurately meeting the filling requirements.

Features:

- Allows for quick speed and high precision working
- Automatic volumetric piston pump filling support
- Provide filling with high precision
- Advanced PLC control system and frequency control for precise working
- No bottle no filling support
- Allows convenient setting of filling capacity.



Lubricant Filling Machine

Other Machines



Bottle Packing Machine



Oil Packaging Machine



15 Ltr. Tin Filling Machine



Mustard Oil Filling Machine



Automatic Sealing Machine



Automatic Self Adhesive Bottle Labeling Machine



Shrink Wrap Packaging

Shrink Wrap Packaging offered comprise automatic heat shrink packaging machine that comes with advanced PLC control and find suitability for meeting the packaging demands using PE, POF plastic shrink packaging material. Further, the latest technology based machine design also allows for precise operation handling.

Features:

- Allows for simple operations and easy maintenance.
- Superior energy conservation and efficient working.
- Comes with automatic protection function.
- Allows for simple adjustment of size.
- Automatic length adjustment by electric eye control.
- Suitable for shrink packing of food, medicines, hardware and other products.



Shrink Wrap Packaging

Shrink Packaging Machine

Shrink Packaging Machine offered find application in handling the packaging needs of paper boxes, toys, glass bottles, electrical appliances, hardware tools, medicine, cosmetics, beverage and other items. The quality performance of the machine allows for superior heat wrapped products that provide for attractive looks as well as enhance its display value.

Features:

- Provide for moisture proof and dust free safety to products
- Protect fragile goods
- Decrease the possibility of tampering
- Uniform temperature maintained inside furnace for suitable shrink wrapping of PE, PVC, POF films
- Allows adjustment of speed of conveyor belt to achieve optimal contraction effect
- Quality motor and speed control system for long time continuous packing.



Shrink Packaging Machine



Cattle Feed Plant



Cattle Feed Plant

We supply advanced cattle feed plants, in all standard capacities with robust construction. The plant is fully automatic in its operation, ensuring uniform and same proportion of the ingredients in the final mixture. In the plant, there is a grinder, elevator, mixer, hopper, palletiser, winch and a screw conveyor for efficient functioning. The elevator is used for automatically feeding the cattle feed into the grinder. We also hold expertise for customizing the cattle feed plant as to meet the specific production targets of the clients.



Cattle Feed Plant

Specifications

Condition: New

Type: Animal feed making plant

Dimension(L*W*H): 45'ft, 45'ft, 70Ft

Certification: ISO9001:2008/CE

Warranty: 6 MONTH WARRANTY

After-sales Service Provided: Engineers available to service machinery overseas

Capacity: 20TPD to 500TPD

Pellet size: 2-12mm



50 Ton Cattle Feed Plant

Plant Layout





Biodiesel Extraction Plant

Biodiesel Plant

We supply Bio-Diesel Plant Machinery for every Edible /Non Edible Oil .We have Bio-Diesel Plant starting from 500 litre/day to any Capacity , Transesterification Plant consists of Catalyst Mixture, Reaction Tank, Settling Tanks and Methanol Recovery and Washing System. The product obtained by trans-esterification of any vegetable oil is said to be bio diesel. Biodiesel is typically produced through the reaction of a vegetable oil or animal fat with methanol in the presence of a catalyst to yield glycerin and biodiesel (chemically called methyl esters).

Biodiesel is an alternative fuel, which can be used in neat form, or blended with petroleum diesel for use in compression ignition (diesel) engines. Its physical and chemical properties as it relates to operation of diesel engines are similar to petroleum based diesel fuel.



Plant Description

We possess an unmatched expertise in offering highly advanced and innovative trans-esterification unit to our clients. These units find diverse applications in the agro industries related to the processing and extraction of bio-diesel. These units efficiently produce high outputs of bio-diesel used in the commercial market as an automobile fuel. All the processes of these machines are highly sophisticated and PLC BASED control. The by-products left over by this unit after the extraction of pure diesel like glycerol is also marketable.



Medium Scale Biodiesel Plant



Large Scale Biodiesel Plant

Leveraging on our advanced functional facilities, we are immersed into offering a vast spectrum of Biodiesel Plant. We can supply bio-diesel plants from 1 KL to 100 KL from a Wide variety of oils, fatty acids, and molasses. All edible oils and fats (vegetable & animal) can be esterified. The biodiesel can be manufactured from Crude Palm Oil. The other oil sources are all the non edible oils, a few of them are Jatropha oil, Neem Oil, Karanja Oil, Mahua Oil, etc. Also used frying (cooking) oils can be used for bio diesel production.

Specifications:

- FFA Content < 0.1%
- Phosphatide Content as phosphorus < 10 ppm
- Sulphur Content < 5 ppm
- Water Content < 0.10%
- Impurities < 0.10%
- Temperature 122°F (50° C)

Features:

- Capacity – 50 Kg / hr. Onwards
- Fuel - Electricity
- Power Req – 10 hp onwards

Plant Highlights



10 KL. Biodiesel Plant



20 KL. Biodiesel Plant



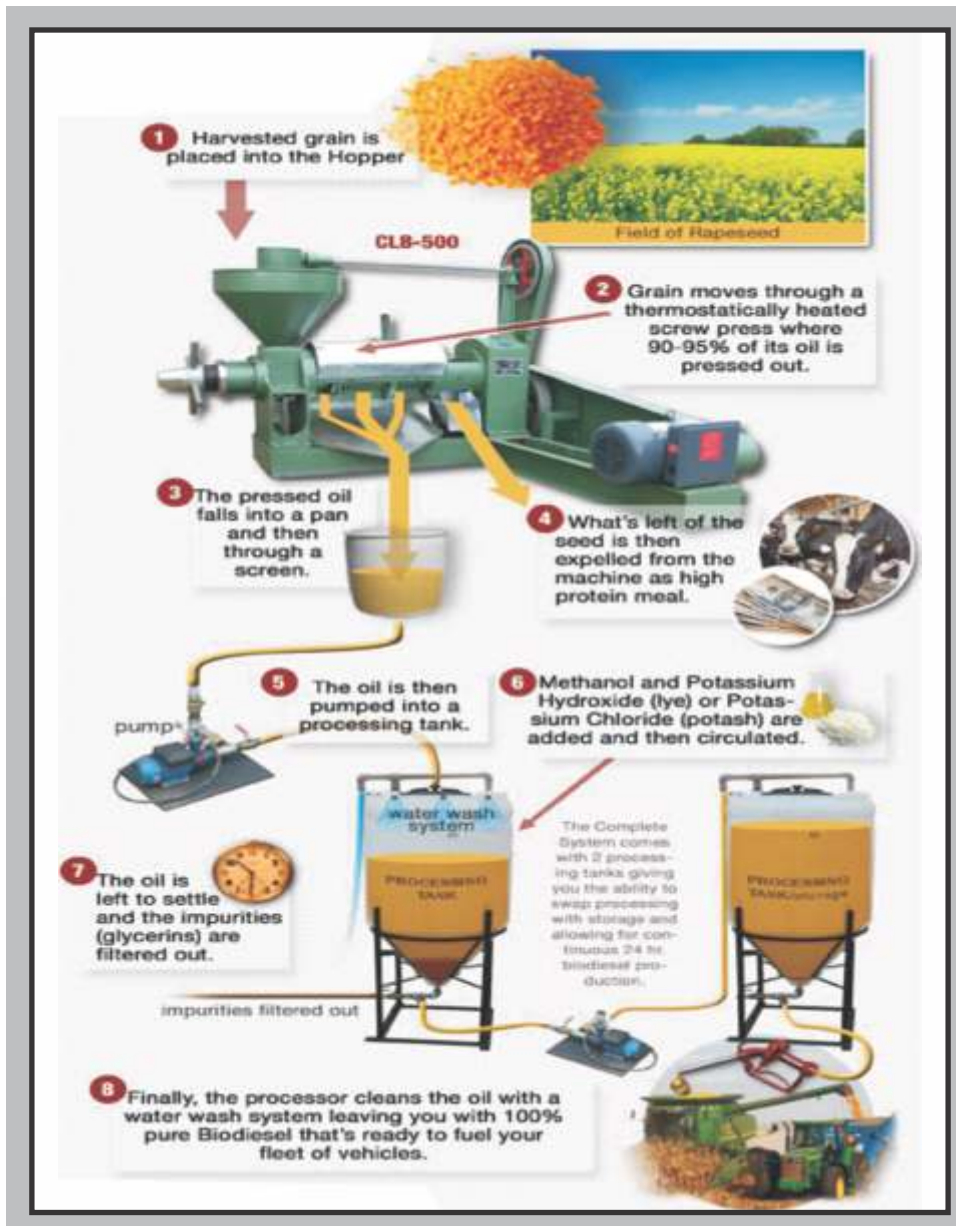
500 Ltr. Biodiesel Plant



50 KL. Biodiesel Plant



The Biodiesel Process Layout



Bio Diesel Benefits:

- Greatest reduction in emission.
- Higher lubricity, Non-toxicity, Eco friendly fuel, Less sulphur content.
- Biodegradable- 95% degradation in 28 days, where as diesel fuel degrades 40% in 28 days.
- Decreased Global warming.
- Positive impact on agriculture.
- Diesel substitute from renewable sources.
- Bio diesel almost similar in properties to diesel fuel.
- Used in diesel engine without major engine modifications.



*Installing projects was never so easy,
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