

HI-TECH PROJECTS

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MODERN RICE MILL [CODE NO. 3286]

Rice sheller is the process that helps in removal of hulls and bran from Paddy grains to produce polished rice. The objective of rice milling is to get whole grain rice and preserve most of the rice kernel, in their approximate original shape. In order to improve nutritional and cooking quality of rice, a pre-treatment is given to paddy and the rice so obtained by milling the pretreated paddy is known as parboiled rice. The rice obtained from milling untreated rice is known as raw rice or white rice. Primary milling of rice is an important activity in food grains. Rice is used in almost all parts of India. Few decades ago, rice grains were processed at family level before cooking. Today, due to Industrialization and global competitive market trend, it has emerged as one of the major industrial activity in tiny, small, medium and large scale sector to cater to the needs of increasing population. Large number of mills engaged in processing/ milling of rice are spread over in almost all states across the country. Due to increasing demand the number of rice mills will continue to increase throughout the country. The input to the Rice mill is paddy whereas the output is parboiled rice and raw /white rice depending upon whether the pretreatment is given to paddy or not. The objective of milling is to get whole grain rice and preserve most of the rice kernels in their original shape. The technologies used for rice milling in tiny and small mills are mostly conventional in nature and are not oriented towards minimizing pollution by incorporation of in plant pollution prevention cum control measures. These units generate substantial amount of pollution, especially air pollution as a result of fugitive emissions from various operations. The pollution is particularly high in cleaning of paddy, parboiling of paddy and milling of rice. Primary and secondary cleaning of paddy gives rise to solid waste and fugitive emission in the work environment. The coal or husk fired boiler generates fly ash, suspended particulate matter, smoke, and oxides of carbon. Residents of nearby towns suffer due to pollution generated by rice mills. Though some of changes are being brought in production processes to improve the efficiency and lowering the cost of production etc., as regards to pollution abatement & control it remains mostly unsatisfactory. A Civil Writ came up for hearing before the Punjab and Haryana High Court recently and during hearing, the Hon'ble Court had passed an interim order-"It be made known as to why rice husk etc. cannot mandatory be required to be stored, after expulsion by the machine, directly into an enclosed area, so that it does not in any way get out of the factory premises on to the crops/ passing vehicles/any residence made in

open fields/on farm workers, at all." In compliance of the orders passed by the court, Punjab Pollution Control Board carried out a study so that some immediate action could be taken to prevent air pollution in the surrounding areas by following enclosed storage practices. The study included inspection of shellers of different capacities, measures taken by these shellers to store the Rice Husk in an environmentally sound manner, adequacy of the enclosure provided around the rice husk storage area, etc. After going through recommendations of the study, court expressed that problem of spillage of Rice Husk could not be solved without providing air tight enclosures. The court also expressed that loading/handling of Rice Husk should be inside the air tight enclosure, so as to rule out any possibility of rice husk particles becoming air borne. The handling and proper disposal of Rice Husk Ash is also a big problem. The ash deposited in the nearby areas is causing health impacts to humans as well as plants. Keeping in view the orders passed by the court and the gravity of air pollution caused by this sector, Central Pollution Control Board entrusted a project on 'framing the guidelines for sitting of rice shellers/mills; handling and storage of rice husk and handling; storage and disposal of ash generated in boiler using rice husk as fuel' to Federation of Indian Chambers for Commerce and Industry, so as to improve the environmental performance of the rice mills.

COST ESTIMATION

Plant Capacity	40 TON/Day
Land & Building (6000Sq.Mt)	Rs. 3.35Cr.
Plant & Machinery	Rs. 2.23 Cr.
W.C. for 3 Months	Rs. 5.6 Cr.
Total Capital Investment	Rs. 10.96 Cr.
Rate of Return	41%
Break Even Point	39%

GINGER OIL EXTRACTION (GINGER ESSENTIAL OIL COMBINED WITH GINGER POWDER) [CODE NO. 3287]

Ginger, one the most important and oldest of spices consist of the prepared and sun dried rhizomes of Zengeber officinale race. The rhizomes know in the trade as hand or races reach the spice trade either, with the outer cortical layers intact (Coated a unscrapped ginger) or with the outer coating partially or completely removed. To improve their appearance some grades of ginger are bleached by various means by liming. Ginger possesses a warm pungent taste and a pleasant odor, hence its wide use as a flavourant in numerous food preparation and beverages, ginger bread, soups, pickles and many popular soft drinks. Like most/pungent spices, ginger is consumed all over the world, particularly in tropical or warm countries It dilates the superficial vescells of the spin, resulting first in a feeling of warmth, then in

increased activity of the sweet glands and perspiration and finally in a marked cooling effect on the skin. The odor of rhizomes is caused by the presence of volatile oil (1 to 3%) which can be isolated by steam distillation of the comminuated spice. The pungent principles on the other hand, are non-volatile and must be extracted by percolation with suitable solvent which procedure yields the so called oleoresin of ginger. Since the essential oil is contained chiefly in the epidermal tissue, great care should be exercised in the peeling of rhizomes and excessive scraping must be avoided. Indeed, unpeeled ginger constitutes a most more suitable raw material for distillation purpose than peeled ginger. According to the historical researches of Hoff mann ginger was continually known to and highly esteemed by ancient Greeks and Romans who obtained the spices from Arabian traders via Red sea. It was introduced to Germany and France in the ninth Century and to England in the 10th Century. The spaniards brought ginger to the west Indies and to Mexico soon after the conquest and as early as 1547 the spices was exported from Jamaica to Spain. Since the rhizomes can easily be transported in a living state for Considerable distance, the plant has been introduced to many tropical and sub tropical countries and is now Cultivated in several part of the world. The most important producing region being Jamaica. Cochin and Calicut (Malabar Coast, South India), Sierra Leone and Nigeria (W. Africa) Southern China and Japan, of these Jamaica produces what most connoisseurs consider the finest grade, possessing the most delicate aroma and flavour. The Cochin quality ranks perhaps second. It Exhibits a Characteristics lemon like by note, for which reason some experts prefer the Cochin ginger to that from Jamaica. As a matter of facts, Cochin ginger often brings a somewhat higher price on the world market than the Jamaican quality. West African ginger is usually considered third in the ranks of all ginger grades, it possess the greatest pungency and gives the highest yield of essential oil hence its present wide use for the extraction of oleoresin and for the distillation of oil. Moreover, the African ginger is usually lower priced than the other two grades. There are two general types of ginger viz. fresh green ginger used for the preparation of candied ginger (in Sugar Syrup) and dried or cured ginger applied in the spiced trade, for the preparation of extracts and oleoresins and for the distillation of its volatile oil. Commercial grades are known as scrapped and coated ginger. Great care has to be exercised in the peeling operation because the essential oil and resin bearing cells are located chiefly in the epidermal tissue. Excessive scraping depreciates the quality of the

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spice substantially. Scraped ginger is a grade from which the cortex has been removed partly or entirely. In coated ginger on the other hand a good portion or all of the outer layer remain attached to the dried rhizome. In addition, there are bleached and unbleached ginger, the bleaching being accomplished by covering the rhizome with a coat of lime of chalk.

COST ESTIMATION

Plant Capacity	100 MT/Annum
Land & Building (4000Sq.Mt)	Rs. 2.15Cr.
Plant & Machinery	Rs. 1.39 Cr.
W.C. for 2 Months	Rs. 16.82 Cr.
Total Capital Investment	Rs. 20.54 Cr.
Rate of Return	48%
Break Even Point	28%

AIR CONDITIONERS, LED TV, WASHING MACHINES AND REFRIGERATORS (INTEGRATED PLANT) [CODE NO 3288]

The Integrated Unit of Air Conditioners, LED TV, Refrigerators and Washing Machines is being setup at Neemrana. There is tremendous demand in India as well as export demand. The said project will generate huge number of employment in this region. An air conditioner is a machine which keeps the air in a building cool and dry. The purpose of an air conditioner is to maintain a comfortable indoor environment. The comfort we are used to is determined by a combination of 3 factors. • Temperature, • Humidity, • Air Distribution. For this reason, the main purposes of air conditioners are to: • Control room temperatures (cooling/heating). • Control room humidity levels (drying, humidifying). • Optimise air flow (circulation, distribution). • Clean the air (filtration). • An air conditioner collects hot air from a given space, processes it within itself with the help of a refrigerant and a bunch of coils and then releases cool air into the same space where the hot air had originally been collected. This is essentially how all air conditioners work. • Many folks believe that an air conditioner produces chilled air with the help of machines installed inside it, allowing it to cool a room so quickly. That might also explain why it consumes so much electricity. In reality, however, that's a misconception. • An air conditioner is not a magical device; it just uses some physical and chemical phenomena very effectively to cool a given space. • When you switch an AC on and set your desired temperature (say, 20 degrees Celsius), the thermostat installed in it senses that there is a difference in the temperature of the room's air and the temperature that you've chosen. • A thermostat constantly monitors the temperature of the system so that it's maintained near a user's desired point. • This warm air is drawn in through a grille at the base of the indoor unit, which then flows over some pipes through which

the refrigerant (i.e., a coolant fluid) is flowing. The refrigerant liquid absorbs the heat and becomes a hot gas itself. This is how heat is removed from the air that falls on the evaporator coils. Note that the evaporator coil not only absorbs heat, but also wrings out moisture from the incoming air, which helps to dehumidify the room. • This hot refrigerant gas is then passed on to the compressor (located on the outside unit). Being true to its name, the compressor compresses the gas so that it becomes hot, since compressing a gas increases its temperature.

COST ESTIMATION

(ALL FIGURE IN THOUSAND)

Plant Capacity	4666 Units/Day
Land (202350 Sq.Mtr)	Rs. 20.91 Lacs
Plant & Machinery	Rs. 2.28 Lacs
W.C. for 2 Months	Rs. 31.04 Lacs
Total Capital Investment	Rs. 54.42 Lacs
Rate of Return	124%
Break Even Point	12%

DISPOSABLE PLASTIC SYRINGES (2 ML. AND 5 ML. SIZE) [CODE NO.3290]

Disposable Plastic Syringes are being used by doctors to inject medicines through intravenous or intramuscular ways for the treatment of diseases & also by research & development personnel. Disposable syringes are made of plastic material and are used in the field of medical and veterinary science. Due to their availability in sterilized condition, ready to use, and cost effectiveness, disposable syringes are fast replacing the age old glass syringes. Moreover, the horror of AIDS worldwide has almost dispensed with the reuse of syringes and the demand of disposable syringes has increased phenomenally. Disposable syringes are mostly injection moulded from polypropylene. Syringes are available in sizes of 1 ml, 2 ml, 5ml and 10ml, 50ml in a variety of designs and consist of either two or three components construction. The number and size of injection moulding machines required depend upon syringe construction, number of mould cavities, annual production. These are made of plastic material have been successfully used in the medical and Pharmaceutical Practice for many years. The constantly increasing use of this type syringe indicates its importance which is based mainly on the advantages it offers regarding cost and hygienic applications.

COST ESTIMATION

Plant Capacity	40000 Nos/Day
land & Building (10000Sq.Ft)	Rs. 70Lacs
Plant & Machinery	Rs. 90.00 Lacs
W.C. for 2 Months	Rs. 24.20 Lacs
Total Capital Investment	Rs. 1.94 Cr.
Rate of Return	29%
Break Even Point	58%

DISTRIBUTION TRANSFORMER MANUFACTURING AND REPAIRING UNIT [CODE NO. 3291]

A transformer is a device that transfers electrical energy from one circuit to another through inductively coupled conductors—the transformer's coils. A varying current in the first or primary winding creates a varying magnetic flux in the transformer's core and thus a varying magnetic field through the secondary winding. This varying magnetic field induces a varying electromotive force (EMF), or "voltage", in the secondary winding. This effect is called inductive. If a load is connected to the secondary, current will flow in the secondary winding, and electrical energy will be transferred from the primary circuit through the transformer to the load. In an ideal transformer, the induced voltage in the secondary winding (Vs) is in proportion to the primary voltage (Vp) and is given by the ratio of the number of turns in the secondary (Ns) to the number of turns in the primary (Np) as follows: By appropriate selection of the ratio of turns, a transformer thus enables an alternating current (AC) voltage to be "stepped up" by making Ns greater than Np, or "stepped down" by making Ns less than Np. The windings are coils wound around a ferromagnetic core, air-core transformers being a notable exception. Transformers range in size from a thumbnail-sized coupling transformer hidden inside a stage microphone to huge units weighing hundreds of tons used to interconnect portions of power grids. All operate on the same basic principles, although the range of designs is wide. While new technologies have eliminated the need for transformers in some electronic circuits, transformers are still found in nearly all electronic devices designed for household ("mains") voltage. Transformers are essential for high-voltage electric power transmission, which makes long-distance transmission economically practical. A transformer is a device for transferring energy in a system from one circuit to another. It consists of two independent electric circuits linked with a common magnetic circuit. This energy at low voltage may be transformed to energy at high voltage, or vice versa. In the like manner, current of a given value in one circuit may be transformed into current of another value in a different circuit. the winding of the transformer connected to the supply circuit is termed as primary winding.

COST ESTIMATION

Plant Capacity	1.30 Nos./Day
land & Building (2000 Sq.mt)	Rs. 51 Lacs
Plant & Machinery	Rs. 71.87 Lacs
W.C. for 1 Month	Rs. 56.47 Lacs
Total Capital Investment	Rs. 1.94 Cr.
Rate of Return	34%
Break Even Point	61%

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MINERAL WATER PROCESSING UNIT OF 3000 LIT CAP WITH ADDED MINERALS [CODE NO. 3292]

All living things need water. The Earth is full of water. Water is the most essential element, next to air, to our survival. Water makes up more than two thirds of the weight of the human body, and without it, we would die in a few days. Water is important to complete daily life and to maintain our body health. Thirty years ago „packaged drinking water? barely existed. Nowadays the product forms an essential business by its stable and still growing market – locally and globally. Packaged drinking water can be described as any product, including natural spring or well water, taken from municipal or private utility systems or other water, distilled water or any of the foregoing to which chemicals may be added and which are put into sealed bottles, packages or other containers, to be sold for domestic consumption or culinary use. In 2013 the global packaged drinking water market is forecast to have a value of \$94.2 billion, an increase of 41% since 2007. This increasing trend reveals that the product meets the demand of countless consumers. Water is our lifeline that cleans and feeds us. In ancient cultures, water represented the very essence of life. The Romans were the first to pipe water into their growing cities, especially with their aqueducts. They also realized that sewage water could cause damage to people and needed to be removed from the living environment. Water has played a role not only in the history of countries, but also in religion, mythology, and art. Water in many religions is symbolised as a soul cleanser and known as holy water. For example, water at St.Lourdes, France is thought by many religions to be sacred with healing powers. It brought life to their people, but in drought, produced chaos. Water has always been perceived as a gift from the gods, as it rained from the heavens. Mineral Water originally meant water from various natural springs which are thought to be having medicinal and curative value. These spring waters, although contain dissolved chemicals of medicinal properties, also contain harmful micro-organisms. Besides this the underground and surface water is also not potable due to hardness as well as due to presence of toxic substances and Bacteria. This re-quires suitable treatment and purification to make it safe and potable drinking water with long shelf life. The water is packed in suitable food grade packing generally in PVC or PET Bottles of differ-ent capacities. Mineral water is water from a mineral spring that contains various minerals, such as salts and sulfur compounds. Mineral water may be

effervescent or "sparkling" due to contained gases. Traditionally, mineral waters were used or consumed at their spring sources, often referred to as "taking the waters" or "taking the cure," at places such as spas, baths, or wells. The term spa was used for a place where the water was consumed and bathed in; bath where the water was used primarily for bathing, therapeutics, or recreation; and well where the water was to be consumed. Today, it is far more common for mineral water to be bottled at the source for distributed consumption. Travelling to the mineral water site for direct access to the water is now uncommon, and in many cases not possible because of exclusive commercial ownership rights. There are more than 4,000 brands of mineral water commercially available worldwide. The more calcium and magnesium ions that are dissolved in water, the harder it is said to be; water with few dissolved calcium and magnesium ions is described as being soft. The U.S. Food and Drug Administration classifies mineral water as water containing at least 250 parts per million total dissolved solids (TDS), originating from a geologically and physically protected underground water source. No minerals may e added to this water. In many places, however, the term "mineral water" is colloquially used to mean any bottled carbonated water or soda water, as opposed to tap water.

COST ESTIMATION

Plant Capacity	15000 LTRS/Day
land & Building (1500 Sq.mt)	Rs. 1.72Cr.
Plant & Machinery	Rs. 56 Lacs
W.C. for 2 Months	Rs. 60.70 Lacs
Total Capital Investment	Rs. 3.06 Cr.
Rate of Return	37%
Break Even Point	48%

PECTIN FROM CITRUS FRUITS [CODE NO. 3293]

Pectin (derived from Greek meaning - "congealed, and curdled") is a structural heteropolysaccharide contained in the primary cell walls of terrestrial plants. It was first isolated and described in 1825 by Heneri Bracannot. Pectin, a multifunctional constituent of cell wall is a high value functional food ingredient widely used as gelling agent and as stabilizer. It is produced commercially in form of white to light brown powder, mainly extracted from citrus fruits, and is used in food as a gelling agent particularly in jams and jellies. It is also used in fillings, sweets, as a stabilizer in fruit juices and milk drinks and as a source of dietary fiber. In plant cells, pectin consists of a complex set of polysaccharides that are present in most primary cell walls and particularly abundant in the non-woody parts of nearly all terrestrial plants. Pectin is present not only in the primary cell walls but also in the

middle lamella between plant cells where it helps to bind the cells together. The amount, structure and chemical composition of the pectin differs between plants, within a plant over time and in different parts of a single plant. During ripening, pectin is broken down by the enzymes pectinase and pectin esterase, resulting in the process where the fruit becomes softer. This is because the middle lamella which primarily consists of pectin breaks down and cells become separated from each other. A similar process of cell separation caused by pectin breakdown occurs in the abscission zone of the petioles of deciduous plants at the time of leaf fall. Pectin is thus also a natural part of human diet, but does not contribute significantly to nutrition. As the literature reports, the daily intake of pectin from fruit and vegetables can be estimated to be around 5 g (where the consumption of approximately 500 g fruit and vegetable per day is estimated)³. In human digestion, pectin goes through the small intestine more or less intact but is acted upon by microbial growth of large intestine. Pectin thus acts as a soluble dietary fibre. Consumption of pectin has been shown to reduce blood cholesterol levels. The mechanism appears to be an increase of viscosity in the intestinal tract, leading to a reduced absorption of cholesterol from bile or food³. In the large intestine and colon, microorganisms degrade pectin and liberate shortchain fatty acids that have favorable influence on health (also known as prebiotic effect). In terms of structure, pectin is an essentially linear polysaccharide. Like most other plant polysaccharides, it is both polydisperse and polymolecular and its composition varies with the source and the conditions applied during isolation. In any sample of pectin, parameters such as the molecular weight or the contents of particular subunits differ even from molecule to molecule. The composition and structure of pectin are still not completely understood although pectin was discovered over 200 years ago. Through various studies it has been brought in notice that the structure of pectin is difficult to determine because pectin subunit composition can change during isolation from plants, storage, and processing of plant material. At present, pectin is thought to consist mainly of Dgalacturonic acid (GalA) units, joined in chains by means of α-(1-4) glycosidic linkage. These uronic acids have carboxyl groups, which are naturally present as methyl esters and others which are commercially treated with ammonia to produce carboxamide groups. Units range in number from a few hundred to about thousand saccharides in a chain-like configuration which corresponds to average molecular weights from about fifty thousand to one lack fifty thousand

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Dalton. As the literature reports, into pectin backbone (made up of glycosides), galacturonic acid is replaced by (1-2)-linked L-rhamnose, at some distinguishing areas. From the rhamnose residues, side chains of various neutral sugars have been discovered to branch off. This type of pectin is termed as rhamnogalacturonan. Here, up to every twenty fifth galacturonic acid in the main chain is replaced with rhamnose. The neutral sugars found in a pectin molecule are mainly D-galactose, L-arabinose and D-xylose, whose types and proportions vary with the origin of pectin. The X-ray fibre diffraction studies have reported that the galacturonan segments in the molecule of sodium pectate form helixes with three subunits per turn. The conformation of Galacturonic acid units as determined by NMR spectroscopy and referred from literatures is 4C19. Calculations indicate that the helix is probably right-handed. It was indicated that X-ray fibre diffraction patterns of sodium and calcium pectates, pectic acids, and pectinic acids show the same helix structure, but the ways in which these helixes were arranged relative to each other in the crystals differ to various degrees. It has been suggested that helical pectinic acid molecules pack in a parallel arrangement, whereas the pectates pack as corrugated sheets of antiparallel helixes.

COST ESTIMATION

Plant Capacity	1 MT/Day
land & Building (1500 Sq.mt)	Rs. 1.34Cr.
Plant & Machinery	Rs. 91.75 Lacs
W.C. for 2 Months	Rs. 54.46 Lacs
Total Capital Investment	Rs. 2.92 Cr.
Rate of Return	56%
Break Even Point	37%

SANDING SEALER, LACQUER, PU WOOD COATING & VARNISH MANUFACTURING WITH FORMULAE [CODE NO. 3294]

Sanding sealer is a liquid coat that seals wood and prevents the surface from absorbing varnish. It is a hard first coat that seals without obscuring the grain of the wood. It helps woodworkers achieve a smooth, even finish on a wood furniture. By design, sanding sealer serves as a "sandable" sealer, which means it can easily be sanded after application without impacting its effectiveness on the wood. Sanding sealer is typically very thin, and dries very quickly to condition the wood in order to allow for less lean time. By applying sanding sealer during the finishing process, woodworkers minimize rough textures and create a smooth finish. Sanding sealers are used to eliminate stains. It can be applied over wood stain or bare wood, depending on the desired appearance, but before any protective coating or finish. This stains include those

from water and fire damage. The sealer is then applied over the entire surface using a brush or foam pad after the stain is dried. The sealer must then be allowed to dry completely before proceeding to sanding. The surface is then sanded using a sanding paper before subsequent coats are applied. Sealers may be transparent and sometimes act as primers. Some sealers are designed to be left uncoated and thus can also be used as a varnish, however this is not recommended. Sealers are absorbed quickly by spongy woods, and this can prevent the formation of a film on the wood, leading to an effective seal. Sanding sealers contains zinc stearate, which helps it seal soft woods quickly and makes the wood easier to sand. However, if a lacquer finish is intended to be used above the sanding sealer, more than one or two coats should not be applied as a buildup of sealer can cause the lacquer to chip. In the current market, most sanding sealers which have good drying capability have not been able to meet users' requirements, prompting the present research study to attempt to calibrate the different qualities of the various available products, to produce sanding sealer of low drying time and also identify the raw materials that could be combined to obtain optimal sanding sealer formulation that would compete with already existing ones. The modern wax based polishes were first introduced as wax solvent paster in the late nineteenth century up till then floors, furniture and other surfaces were treated by a variety of methods such as scrubbing oiling sanding, varnishing and wood polishing. Waxes such as bees wax had been used long before this for treating wooden surfaces but these had to be labourising applied by rubbering with a block of the material concerned later paster of bees wax is turpentine or emulsions of wax in soda solutions were used but these again required the expenditure or vast amounts of time and energy to achieve a rates factory surfaces gloss. From today new manufacturing techniques and the inclusion of additives such as silicone are continually being experimented with to improve the finished product. Although a number of special wax polished have developed for application to specific surfaces such as footwear motor cars, furniture and floors, two principal types of polish can be distinguished. There are other process in which the wax base is dissolved in a non-aqueous solvent (Paste polished) and those in which the wax is in the form of an aqueous emulsion (liquid polish). In both cases the waxes to be used are broken up i.e. crushes in crushing machine and then melted in steam or electrically heated pans.

COST ESTIMATION

Plant Capacity	2 TON/Day
land & Building (1500 Sq.mt)	Rs. 1.73 Cr.
Plant & Machinery	Rs. 54 Lacs

W.C. for 2 Months	Rs. 1.52 Cr.
Total Capital Investment	Rs. 3.86 Cr.
Rate of Return	28%
Break Even Point	51%

SOFT DRINKS MANUFACTURING [CODE NO. 3295]

Cold drinks are defined as any non-alcohol beverages containing syrup essences or fruit concentrates that are mixed with water or carbonated water. Cold drink is a most popular product extensively used during summer, in winter and other seasons also. Cold drink is liked by most of the people especially liked by kids and younger generation. At is a thirst quench, a hygienic but found drink. It is a ironical that the Cold drink industry represent the largest segment of the food industry in the country though concerned products has any questionable food value. Cold drinks are today being promoted as refreshing drinks. The ingredients those go into production of a Cold drink are mainly required concentrates, like sugar, phosphoric acid and carbon dioxide. Cold drink concentrates manufacturing unit is very simple and involve only mixing of various ingredients. Some manufacturers produce juice powder as well as Cold drink concentrates but this involves huge investment. Although, the integrated unit is covered under small scale still it depends upon the individual investment capacity.

COST ESTIMATION

Plant Capacity	57600 Bottles/Day
land & Building (30000 Sq.mt)	Rs. 3 Cr.
Plant & Machinery	Rs. 2.50 Cr.
W.C. for 1 Month	Rs. 1.57 Cr.
Total Capital Investment	Rs. 7.32 Cr.
Rate of Return	16%
Break Even Point	63%

LEMON GRASS OIL PRODUCTION [CODE NO. 3296]

Oil of lemongrass is one of the most important essential oils. Large quantities are used for the extraction of citral the chief constituent of the oil. Citral is the starting material for the preparation of the important ionone's (a series of aramatics with a powerful violet odor). Natural essential oils are volatile, fragrant and pleasant tasting oils obtained from leaves, roots, flowers and fruits. They have wide applications in pharmaceutical, foods, perfumery and cosmetics. A variety of Philippine plants have a high content of essential oils that are feasible for commercial production. These plants mature fast, requiring little maintenance and grow in almost all parts of the archipelago. The extraction of oil from these varieties poses no special problems and the end product is marketable both locally and abroad. Lemongrass, commonly referred to as "tanglad", is an excellent source of essential oil. It grows abundantly

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in the Philippines and can be cultivated commercially. The characteristic aroma of lemongrass is ascribed to citral, which is the chief constituent of lemongrass oil. Citral is the starting material for the manufacture of ionones and is also used in the preparation of food flavors, cosmetics and perfumes. The fresh lemon-like odor of citronella oil is rich in alcohols and aldehydes (predominantly geraniol, citronellal and hydroxycitronellal).

COST ESTIMATION

Plant Capacity	1000 Kgs./Day
land & Building (3000 Sq.mt)	Rs. 1.09Cr.
Plant & Machinery	Rs. 2.58 Cr.
W.C. for 1 Month	Rs. 9.07 Cr.
Total Capital Investment	Rs. 12.88 Cr.
Rate of Return	36%
Break Even Point	42%

LEMONGRASS CULTIVATION

[CODE NO. 3297]

Lemongrass is a tropical perennial plant which yields aromatic oil. The name lemongrass is derived from the typical lemon-like odour of the essential oil present in the shoot. The herb originated in Asia and Australia. Lemongrass was one of the herbs to travel along the spice route from Asia to Europe. Lemongrass oil of commerce is popularly known as Cochin oil in the world trade, since 90% of it is shipped from Cochin port. The state of Kerala in India had the monopoly in the production and export of lemongrass oil. The annual world production of lemongrass oil is around 1000 t from an area of 16000 ha. In India, it is cultivated in an area of 4000 ha and the annual production is around 250 t. The crop is extensively cultivated in the poor, marginal and waste lands and also along the bunds as live mulch. The well ramified root system of the plant helps in soil and water conservation. East Indian LEMONGRASS / Cochin grass / Malabar grass Lemongrass is a tropical perennial plant which yields aromatic oil on steam distillation of the herbage. The oil has a typical lemon-like odour. The crop is suitable for marginal and waste lands and also along the bunds as live mulch. India contributes to about 85% of total world production.

COST ESTIMATION

Land & Building (50 Acres)	Rs. 54 Lacs
Plant & Machinery	Rs. 50 Lacs
W.C. for 3 Months	Rs. 22.10 Lacs
Total Capital Investment	Rs. 1.41 Cr.
Rate of Return	16%
Break Even Point	67%

BIODEGRADABLE CUPS AND PLATES FROM SUGARCANE BAGASSE, WOOD PULP OR BAMBOO PULP [CODE NO. 3299]

Today consumption of Disposable products is breaking records. Disposable products are easy to handle, economical and can be disposed easily. With the changing lifestyle

of Mankind, the use of disposable products is raising like anything. Plastic Disposable products are very popular because it can be carried easily and very low in prices too. This is 100% BIODEGRADABLE & COMPOSTABLE tableware, which is widely used in various functions, restaurants, festivals as ECO FRIENDLY single time (Use & throw) crockery, it's produce by Plant extract or residue like Sugarcane Bagasse (SCB) etc., which is Proven Environment friendly 100% Biodegradable and Compostable and not harmful for food, human, soil and Nature. This is becoming more popular due to environment awareness, climate change & NGT/State govt. bans on recyclable plastics. This can be use in microwave and refrigerator also.

COST ESTIMATION

Plant Capacity	850 Kgs/Day
land & Building (2000 Sq.Mt)	Rs. 1.12 Cr.
Plant & Machinery	Rs. 2 Cr.
W.C. for 2 Months	Rs. 37.95 Lacs
Total Capital Investment	Rs. 3.58 Cr.
Rate of Return	44%
Break Even Point	44%

DRY MORTAR MIX

[CODE NO. 3300]

Dry Mortar Mix is gaining eminence in modern times owing to its versatile superiority in regard to characteristics over the conventional in-situ mortars viz. better performance easy to uses easy to set and the quality of leaving no cracks and voids. Besides it has preferably better and wider field of application as patching & repairing materials for plastering purposes and other construction works viz. internal/external plastering masonry work etc. It is a very good substitute for conventional in-situ mortars. Various types of Ready mix dry mortar comprise internal plaster mortar, external plaster mortar masonry mortar, quick setting mortar high strength mortar repair mortar self leaving flooring mortar pre-mix RCC mortar etc. One specific advantage regarding manufacture of these ready mix dry mortar is that they can be manufactured in a single unit by variation in composition proportions as per different formulations. Ready mix dry mortar is particularly useful on congested sites or in road construction where little space for the mixing plant and for extensive aggregate stockpile is available but the greatest single advantage of ready mix dry mortar is that it may be made under better conditions of control than are normally possible on any large construction sites. These consist of finely ground refractory grain and plasticizers that can be thinly spread on brick during construction. For air - setting mortars sodium silicates or phosphates provide strength at room temperature. Heat setting mortars contain no additives and develop strength only when a ceramic bond is formed at high temperatures. A refractory

composition containing chemical agents that sure hardening at temperatures below that of ceramic bonding but above room temperature sometimes called "air hardening". A refractory mortar material which requires relatively high temperature for the development of a bond. Masonry cements are cements for use in mortars for masonry construction. They are formulated to yield easily workable mortars and contain special additives that reduce the loss of water from the mortar to the pours masonry units.

COST ESTIMATION

Plant Capacity	50 Ton/Day
land & Building (4000 Sq.Mt)	Rs. 2.65 Cr.
Plant & Machinery	Rs. 72 Lacs
W.C. for 2 Months	Rs. 1.56 Cr.
Total Capital Investment	Rs. 6 Cr.
Rate of Return	79%
Break Even Point	28%

ASAFOETIDA (COMPOUNDED)-HING [CODE NO.3301]

Asafoetida is the dried aromatic gum-resin exuded from the living rhizome, rootstock or taproot of varied plant species of genus Ferula. Local names: Hing, Asafetida, Ingo, Inguva. Plant Sources: Ferula asafoetida and allied species (Ferula foetida and Ferula narthex). Family: Umbelliferae Distribution: The perennial asafoetida plants has several varieties and are native to the region between the Mediterranean region to Central Asia, especially Iran and Afghanistan. The other species, known botanically as Ferula northex, grow abundantly in Kashmir, Western Tibet and Afghanistan. Major producing countries: Afghanistan, Iran, Turkistan. Ferula gum-resins are imported to India, mainly from Iran and Afghanistan. A part of the imported gum resin is re-exported to various countries after some processing and value addition. Method of harvesting/tapping: The gum resin is obtained from incisions in the roots and rhizomes of the plants. Usually plants of four to five years old develop very thick and fleshy, carrot shaped roots. The upper part of the root is laid bare and the stem is cut close to the crown. The exposed surface is covered by a dome shaped structure made of twigs and earth. A milky juice exudes from the cut surface which soon coagulates when exposed to air. After some days, the exudate gum-resin is scraped off and a fresh slice of the root is cut. Period of harvesting/collection: Tapping is usually done in March and April, just before the plants flower. The milk juice obtained from the root becomes a brown, resin-like mass after drying. Asafoetida is processed and marketed either as lumps or in powdered form. The lump asafoetida is the most common form of pure asafoetida. The trading form is either the pure resin or so-called "compounded asafoetida" which is a fine powder consisting to more than 50% of rice flour

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and gum arabic to prevent lumping. The advantage of the compounded sorin is that it is easier to dose. The gum-resin is also steam distilled to obtain the essential oil known as Oil of Asafoetida. Asafoetida of commerce is available in three forms, viz. 'tears', 'mass' and 'paste'. The tears constituting the purest form of the resin, are rounded or flattened, 5-30 mm in diameter and greyish or dull yellow in colour. The two types are recognised according to whether the tears retain the original pale colour for years or gradually become dark or reddish brown. Mass asafoetida is the common commercial form. It consists of tears agglutinated into a more or less uniform mass usually mixed with fragments of root, earth etc. The paste form also contains extraneous matter.

COST ESTIMATION

Plant Capacity	200 KGS/Day
Land & Building (2000 Sq.Mt)	Rented
W.C. for 1 Month	Rs. 1.31 Cr
Total Capital Investment	Rs. 1.39 Cr
Rate of Return	70%
Break Even Point	26%

BRUSHLESS D.C. MOTOR

[CODE NO. 3302]

The motor or an electrical motor is a device that has brought about one of the biggest advancements in the fields of engineering and technology ever since the invention of electricity. A motor is nothing but an electro-mechanical device that converts electrical energy to mechanical energy. Its because of motors, life is what it is today in the 21st century. Without motor we had still been living in Sir Thomas Edison's Era where the only purpose of electricity would have been to glow bulbs. There are different types of motor have been developed for different specific purposes. In simple words we can say a device that produces rotational force is a motor. The very basic principal of functioning of an electrical motor lies on the fact that force is experienced in the direction perpendicular to magnetic field and the current, when field and current are made to interact with each other. Ever since the invention of motors, a lot of advancements has taken place in this field of engineering and it has become a subject of extreme importance for modern engineers. This particular webpage takes into consideration, the above mentioned fact and provides a detailed description on all major electrical motors and motoring parts being used in the present era.

COST ESTIMATION

Plant Capacity	666 NOS/Day
Land & Building (4000 Sq.Mt)	Rs. 5.58 Cr
Plant & Machinery	Rs. 3.94 Cr
W.C. for 2 Months	Rs. 10.88 Cr
Total Capital Investment	Rs. 20.87 Cr
Rate of Return	87%
Break Even Point	22%

FOOD GRADE PHOSPHORIC ACID BY THERMAL PROCESS

[CODE NO. 3303]

Phosphoric acid is an important intermediate chemical product. It is used mainly by the fertilizer industry. In 1980 the worldwide production capacity for phosphoric acid yielded about 33 million tons of P₂O₅ equivalents. Pure 100% phosphoric acid is a white crystalline solid (monoclinic) that melts at 38.85°C to a syrupy liquid which has a strong tendency to super cool. In dilute solutions, phosphoric acid has a pleasingly sour taste which is similar to but distinguishable from that citric, tartaric, lactic and acetic acids. Rock phosphate is the major and essential raw material required for production as phosphoric acid by any route. Usually, when considering a phosphate rock as a potential raw material, the first approach is to analyze its chemical composition, i.e. the P₂O₅ content and its impurities. Phosphoric acid (H₃PO₄) is produced by 2 commercial methods: wet process and thermal process. Wet process phosphoric acid is used in fertilizer production. Thermal process phosphoric acid is of a much higher purity and is used in the manufacture of high grade chemicals, pharmaceuticals, detergents, food products, beverages, and other nonfertilizer products. There are two basic methods in commercial use for the production of phosphoric acid - the wet process and the furnace process. In the electric furnace process elemental phosphorus is produced by the electrothermic reduction of phosphate rock with carbon (coke). The silica added to the furnace charge behaves as a strong acid at the high temperatures (about 1500°C) employed in furnace operations and combines with the calcium constituent of the phosphate rock to form calcium silicate. The overall reaction, neglecting carbonates, fluorides and other non-phosphatic constituents, may be expressed as follows: In the manufacture of furnace phosphoric acid, the condensed elemental phosphorus is burned in air. The phosphorus oxide vapor (P₂O₃) formed reacts with water to produce phosphoric acid. The phosphoric acid thus produced has very small amounts of impurities and the major industrial markets for this acid are in the manufacture of sodium phosphates and tetra potassium pyrophosphate for use in detergents and calcium phosphates for use as an animal feed supplement.

COST ESTIMATION

Plant Capacity	5 Ton/Day
Land & Building (3000 Sq.Mt)	Rs. 3.97 Cr
Plant & Machinery	Rs. 3.00 Cr
W.C. for 2 Months	Rs. 1.16 Cr
Total Capital Investment	Rs. 8.33 Cr
Rate of Return	17%
Break Even Point	68%

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JAGGERY AUTOMATIC PLANT [CODE NO.3304]

Jaggery or gur is a specific type of sugar popular in India. It is normally manufactured from either sugar cane or date palms, but recent trends in its manufacture have resulted in jaggery made from the sap of coconut and sago palms. While jaggery is useful in cooking, it is also an ancient part of Ayurvedic medicine and has spiritual significance in India too. This type of sugar is considered unrefined and is produced by boiling raw sugar cane or palm juice in iron pans. It is then formed into blocks. Because it does not go through additional processing, it does retain some of the natural vitamins and minerals of the ingredients used, though boiling the juice does deplete some of these. Many people do consider jaggery healthier than more refined sugar since it is less stripped of natural nutrients. In traditional Indian medicine, called Ayurveda, this sugar has several purposes. It may be prescribed for use for people with sore throats. It has some use in the treatment of bronchial or lung infections, and in fact in research has shown to possibly offset some of the lung damage caused by silicosis, a disease of the lungs that occurs when people are exposed for a long time to silica powder. When sugar from sugarcane was introduced cannot be definitely stated, but brown sugar or gur (Jaggery) was the first known form of sugar manufactured from sugarcane as well as from wild date palm (phoenix sylvesteris), palmyra palm (Borassus flappellifera), toddy palm (Caryota urens) and other palms that contain 12-14% sugar in their sap tapped for the purpose. Fermented toddy sap yields a beverage commonly used in India. An about one lakh tonne of brown sugar or gur is still produced from palm sap in India. Gur has always been and is still being recommended in Ayurvedic Medicinal system for nutritive quality and as a much safer form of sugar than pure white (centrifugal) sugar for regular consumption. In the Indian sub-continent the gur is commonly used in preference to molasses free white sugar for many sweet preparations because of its specific taste. In fact, the findings of a British scientist, John Yarkin, have shown that heavy consumption of highly clarified white sugar or pure sucrose obtained from the modern sugar mills is largely responsible for hyperinsulinism and coronary heart diseases in human beings. Gur is safe from this aspect. Gur (Jaggery) production in India is more than 1.5 times of that of white sugar production (a decade back it was double). Nearly half of the total cane production is utilised for gur produced by open pan method; its production by vacuum process has not been yet successful. Gur production is 10-12% from cane in open pan and about 15% in vacuum process. Even at higher

price than white sugar the gur (that contains 70-75% sucrose, 14-16% invert sugars, 5% moisture, and 5% other ash creating material) is still preferred for many special dishes and also in daily use. Besides Indian many countries of Central America (Costa Rica, Mexico), South America (Brazil, Columbia) and Asia (including Pakistan, Indonesia, Japan) use this kind of non-crystalline sugar called variously (Repodura, Chancaca, Pancoa, Mascasvado, Popiton, Jaggery, etc.) Asian countries are the largest consumers (80%) of these forms of sugar. Gur (Gul, gud, vellum, bella), is the product obtained on concentrating sugarcane juice with or without prior purification, into a solid or semi-solid state. It is produced almost throughout India and forms an important item of the Indian diet. The manufacture of gur holds a very important place in the rural economy of the country. Uttar Pradesh accounts for c. 45 percent of the total production of gur while Punjab and Haryana account for some 10 percent. The States of Maharashtra, Andhra Pradesh, Mysore and Tamil Nadu together account for some 30 percent of the total production of gur in the country.

COST ESTIMATION

Plant Capacity	(300 TCD)
Land & Building (12000Sq.Mt)	Rs. 6.02Cr
Plant & Machinery	Rs. 8.85 Cr
W.C. for 2 Months	Rs. 2.45 Cr
Total Capital Investment	Rs. 17.60 Cr
Rate of Return	18%
Break Even Point	61%

ELECTRIC BUS BUILDING PLANT [CODE NO.3305]

Over the past decade, India's cities have been witnessing an increasing trend in motorization with deteriorating air quality, and there have been calls to promote public transport as a way out of this gridlock. It is in this context that electric buses can play a positive role, as there are several benefits associated with the shift from conventional diesel buses to electric buses in terms of reduction in local pollution, noise, and fuel consumption. In spite of the many positive benefits related to the electric bus technology, certain challenges remain. Primary among these are costs and safety concerns. Currently, the Electric Vehicle (EV) technology is associated with significant capital costs, with the battery component constituting about half of the total manufacturing costs. Safety is yet another important parameter, and the biggest concern is that of a fire hazard. However, with a good Battery Management System (BMS), rigorous implementation of standard operating procedures, and customization of bus fleet, both safety and cost aspects can be effectively addressed. Electric buses have already been deployed on a large scale globally, and the technology is mature

and evolving continuously.

COST ESTIMATION

Plant Capacity	24 Nos/Day
Land (20000 Sq.Mt)	Rs. 10.48 Cr
Plant & Machinery	Rs. 5.10 Cr
W.C. for 2 Months	Rs. 67.66 Cr
Total Capital Investment	Rs. 83.93 Cr
Rate of Return	56%
Break Even Point	35%

HDPE DRUMS MANUFACTURING PLANT [CODE NO. 3306]

HDPE Drums & Barrels are the important Packaging Material for packaging of Chemicals, solvents Pharmaceuticals Pesticide etc. The use of barrels as storage containers is not a new concept. Originally, barrels were created from wooden planks and metal bands. These containers were excellent because they didn't leak when filled with liquid and required no glue or nails to build. The iconic wooden barrel is still used to this day in wine and whiskey making. In the early 1900s, wooden barrels gave way to a new more durable and easily machined material: Steel. Steel barrels were stronger, safer for use in transport and able to be manufactured on an assembly line with much less labor than wooden barrels. The steel drum is still widely used for liquid storage and transportation to this day. More advanced technology and manufacturing practices in the late 1960s allowed for another iteration of the barrel to come about: the plastic barrel. Plastic barrels are made from high density, high molecular weight polyethylene (HDPE). Polyethylene is an excellent material because it is inert and resistant to high or low pH contents. As foodies know, the acidity of food products can be high or low. Some materials, including food products, are caustic and can even break down steel. Have you ever left tinfoil over tomato sauce for an extended period of time? The undesirable result is a case in point: the sauce eats right through metal. The use of high density polyethylene (HDPE) as opposed to low density (LDPE) allowed for barrels to be created completely from polyethylene, as opposed to using a plastic liner in a steel drum. Plastic drums are manufactured through a process called blow molding. This process allows for various shapes to be created with no seams on the inside. Barrels are still molded in a cylindrical shape to allow for rolling and handling using the same tools as a steel drum. The round shape lacks weak corners (corners are vulnerable to cracking with impact and exposure). The added benefit of a seamless design is that it prevents buildup of bacteria in crevices. Polyethylene barrels are made in various colors. Some barrels are created in a natural semi-transparent color to allow for a filler to see the levels of material in the barrels. However these are not UV resistant and are not suitable for outdoor storage. Black

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drums can be problematic as black pigment is often created from mixing various colors in a recycling process and there is no certainty as to what the previous plastic material was used for. Black barrels are generally not considered food-grade. Most polyethylene drums are created using a blue pigment, and this has become the industry standard for food storage. The blue pigment in polyethylene drums has a higher UV light resistance than natural and does not show dirt or residue as readily. Blue is the standard food-grade drum. One of the often forgotten and perhaps most important aspects of polyethylene is how easy it is to recycle and reuse the containers. The inertness and impermeability make them a perfect candidate for reuse or "up cycling."

COST ESTIMATION

Plant Capacity	20 MT/Day
Land & Building (4000 Sq.Mt)	Rs. 2.21 Cr
Plant & Machinery	Rs. 5.38 Cr
W.C. for 1 Month	Rs. 4.24 Cr
Total Capital Investment	Rs. 11.94 Cr
Rate of Return	27%
Break Even Point	50%

PRECIPITATED SILICA FROM RICE HUSK ASH [CODE NO.3307]

Rice husk or paddy husk - an agricultural residue is available abundantly in rice producing countries. India alone produces approximately 12 million tons of rice husk annually. Rice husk is generally not advocated as cattle feed because of low cellulose and other sugar contents in it. Furfural and rice bran oil are extracted from rice husk. Rice husk is used by industries as fuel in boilers and for power generation. Rice husk has a high ash content varying from 18-20%. Silica is the major constituent of rice husk ash. High silica (SiO₂) content in rice husk ash is economically feasible to extract silica, which has wide market. Rice is the seed of the monocot plants *Oryza sativa* (Asian rice) or *Oryza glaberrima* (African rice). It is normally grown as an annual plant, although in tropical areas it can survive as a perennial and can produce aratoon crop for up to 30 years. Since a large portion of maize crops are grown for purposes other than human consumption, rice is the most important grain with regard to human nutrition and caloric intake, providing more than one fifth of the calories consumed worldwide by the human species. The rice plant can grow to 1-1.8 m (3.3-5.9 ft) tall, occasionally more depending on the variety and soil fertility. It has long, slender leaves 50-100 cm (20-39 in) long and 2-2.5 cm (0.79-0.98 in) broad. The small wind-pollinated flowers are produced in a branched arching to pendulous inflorescence 30-50 cm (12-20 in) long. The edible seed is a grain (caryopsis) 5-12 mm (0.20-0.47 in) long and 2-3 mm (0.079-0.12 in) thick. Rice is the staple

food of over half the world's population. It is the predominant dietary energy source for 17 countries in Asia and the Pacific, 9 countries in North and South America and 8 countries in Africa. Rice provides 20% of the world's dietary energy supply, while wheat supplies 19% and maize 5%. Rice husks are the hard protecting covering of grains of rice. Rice hulls are the coating for the seeds, or grains, of the rice plant. To protect the seed during the growing season, the hull forms from hard materials, including opaline silica and lignin. One practice, started in the seventeenth century, to separate the rice from hulls, it to put the whole rice into a pan and throw it into the air while the wind blows. The hulls are blown away while the rice fell back into the pan. This happens because the hull isn't nearly as dense as the rice. These steps are known as winnowing. Later pestles and a simple machine called a rice pounder were developed to remove hulls. In 1885 the modern rice hulling machine was invented in Brazil. During the milling processes, the hulls are removed from the raw grain to reveal whole brown rice, which may then sometimes be milled further to remove the bran layer, resulting in white rice. Rice husk is a by-product of the rice milling industry. It is a unique crop residue with uniform size and high content of ash (14-25%). The silica content of the rice husk ash (RHA) can be as high as 90-98%. This husk can be used as a fertilizer in agriculture or as an additive for cement and concrete fabrication. Due to its high silicon content, rice husk has become a source for preparation of elementary silicon and a number of silicon compounds especially silica silicon carbide and silicon nitride. India is a major producer of rice and finding ways to put the husk to use is imminent. The high silica content in the rice husk ash has attracted interest in discovering ways to use it commercially. Although silica occurs as a component of cells or cell walls in virtually all arial parts of the rice plant, it is most abundant in the husk. Owing to their small diameter, many technological applications, such as thermal insulators, composite fillers etc., use ultrafine silica powders. We have investigated the possibility of producing high purity silicon from rice husk by purifying the rice husk silica followed by pelletizing and reduction in a modified electric arc furnace. The pelletizing was carried using carbon black as a reductant and sucrose as a binder.

COST ESTIMATION

Plant Capacity	200 MT/Day
Land & Building (10 Acres)	Rs. 19.91 Cr
Plant & Machinery	Rs. 75.10 Cr
W.C. for 1 Month	Rs. 27.99 Cr
Total Capital Investment	Rs. 123.57 Cr
Rate of Return	20%
Break Even Point	60%

RAMMING MASS [CODE NO.3308]

Sand is a modification of hand-moulding techniques. The shape is built up gradually by placing successive layers of material in a mould and tamping each layer with pneumatic tools as it is added. Remaining is used to form intricate shapes and ware that it for large to be formed by other methods. Silica ramming mass is the product of silica, Quartz, aluminium oxide, calcium oxide, but there is no iron in the mass. Ramming mass is used for to give the force into any body or other material etc. Silicon oxide (SiO₂), or silica, is an oxide of silicon commonly found in natural waters. Silica, although quite insoluble in natural water, may be fairly readily dissolved or occur as finely divided colloidal matter originating from silicate rocks. Waters passing through volcanic deposits may have silica concentrations on the order of 100 ppm or higher, although most natural waters have concentrations less than 40 ppm. From the stand point of portability and general water quality for domestic and municipal uses. Silica is not a significant constituent. It is however, undesirable in many industrial supplier, especially in boiler feed water. It forms very hard deposits on boiler tubes and at high concentrations, tends to carry over with the steam and deposit on the turbine blading. As the operating pressure of the boiler increase the allowable silica concentration in the food water decreases. Silica is generally reported as the oxide (SiO₂) in concentration units. Since it is not in ionic form, it should not be reported in equivalent weight unit.

COST ESTIMATION

Plant Capacity	300 TON/Day
Land & Building (4 Acres)	Rs. 2 Cr
Plant & Machinery	Rs. 1.89 Cr
W.C. for 1 Month	Rs. 1.39 Cr
Total Capital Investment	Rs. 5.62 Cr
Rate of Return	32%
Break Even Point	42%

ABC CABLE FACTORY [CODE NO. 2022]

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COST ESTIMATION (US\$ DOLLAR)

Plant Capacity	205.36 KM/Day
Land & Building (18,000)	US\$ 19.75 Lac
Plant & Machinery	US\$ 9.78 Lacs
W.C. for 2 Months	US\$ 2.11 Cr
Total Capital Investment	US\$ 2.42 Cr
Rate of Return	35%
Break Even Point	35%

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<ul style="list-style-type: none"> * STEEL FABRICATION * STEEL ROLLING MILL (REINFORCEMENT BAR) * ACRYLIC BATH TUB BY ACRYLIC SHEET * FABRICATION OF HEAT EXCHANGER * KITCHEN PRODUCTS MADE OF STAINLESS STEEL * ALUMINIUM BEVERAGE CAN * STEEL ROLLING MILL (BY INDUCTION FURNACE FROM STEEL SCRAP & SPONGE IRON * M.S. BILLET CASTING WITH INDUCTION FURNACE FROM STEEL SCRAP & SPONGE IRON * PROCESSING OF LOW GRADE TUNGSTEN ORE FULL BODY & CHASSISS BUS PLANT * ASSEMBLY OF AIR – CONDITIONER/CHEST FREEZER/REFRIGERATOR * G.I.LADDER & PERFORATED TRAYS * ALUMINIUM DOORS & WINDOWS (ALUMINIUM FABRICATION) * LEAF SPRINGS FOR TRACTOR DRAWN TROLLEYS & FOUR WHEELER TEMPOS * STEEL BRIGHT BARS * AUTOMOTIVE ENGINE VALVE * AUTOMOTIVE BRAKING SYSTEM * DISPLAY COOLER * ERW STEEL PIPES & TUBES * STEEL INGOTS * TMT STEEL BARS (SARIYA) * AUTOMOBILE TRACTORS * ACTIVATED ALUMINA BALLS * ALUMINIUM FOIL * STONWARE PIPE (S.W.PIPE)/ CLAY PIPE * IRON ORE PELLETIZATION * ELECTRIC CONTROL PANEL * SOLAR PV POWER PLANT * MACHINE SHOP (FOR OIL AND GAS ENGINEERING INDUSTRY, AEROSCAPE ENGINEERING INDUSTRY) * STEEL BRIGHT BARS * CEILING FAN * COPPER STRIP COILS FROM SCRAPS * PRODUCTION OF PV PANELS (SOLAR PV PANELS) * ROTARY AIR LOCKS, SCREW CONVEYOR, MOTORIZED/ PNEUMATIC DAMPER, FLAP VALVES, AIR SLIDES REQUIRED IN CEMENT PLANTS AND THERMAL POWER PLANT * ALUMINIUM EXTRUSION 	<ul style="list-style-type: none"> * ALUMINIUM COIL COATING FOR ACP AND ROOFING IND. * PAVING BLOCK * WIRE NAILS * TMT STEEL BARS * FASTENERS/NUT & BOLTS (INDUSTRIAL &AUTOMOBILE) * HYDRAULIC CYLINDERS * DISPOSABLE SYRINGES WITH NEEDLE PLANT * FABRICATION UNIT (PRESSURE VESSEL, REACTOR VESSEL & AGITATORS, HEAT EXCHANGERS) & SEAMLESS PIPES AND TUBES * COPPER POWDER FROM COPPER SCRAP * STONE CRUSHER * PRODUCTION OF ALL TYPES OF FANS SUCH AS AXIAL FANS,CENTRIFUGAL FANS (SMOKE EXTRACT FANS & FRESH AIR SUPPLY FANS), BATHROOM FANSETC. * STONE MINING * MAHINDRA CAR DEALERSHIP WITH AUTOMOBILE SERVICE STATION/GARAGE * AUTO FILTERS (AIR FILTERS, OIL FILTERS & FUEL FILTERS) * AAC & ACSR ALUMINIUM CONDUCTORS * MANGANESE ORE JIGGING * STEEL TRANSMISSION LINE TOWERS AND ROLLING MILL TO PRODUCE STEEL SECTIONS * FERRO SILICON (FROM MINERAL INGREDIENTS) STAINLESS STEEL TUBES * M.S.FASTENERS AND S.S. FASTENERS * PREFABRICATED STEEL FRAMED BUILDING MANUFACTURING PLANT * LEAD ACID BATTERY * GALVANISED WIRE * POWER TRANSFORMER (50 KVA TO 2000 KVA) * M.S. PIPE * GALVANISED IRON SHEETS * M.S.BILLETS * STEEL GRATING (GALVANISING ELECTRO FORGED STEEL GRATING) * ALLOY WHEELS PLANT * ESTABLISHMENT OF MANUFACTURING OF REFRIGERATING APPLIANCE * WELDED WIRE MESH * ALUMINIUM COLD ROLLING MILL FOR SHEETS & CIRCLES * ALUMINIUM ROLLING MILL FOR MANUFACTURING ALUMINIUM CIRCLES 	<ul style="list-style-type: none"> REQUIRED FOR PRESSURE COOKERS, NON STICK COOKWARES & CIRCLES * LPG CYLINDER * ALUMINIUM COMPOSITE PANNELS * DEEP FREEZER ENVIRONMENTAL CLEARANCE FOR EXPANSION OF INGOTS/ BILLETS PLANT * FERRO SILICON BY SMELTING PROCESS * ALUMINIUM CONDUCTOR * PRESTRESSED CONCRETE POLES * FASTENERS (NUT & BOLT) USED IN OIL AND GAS * ALUMINIUM ALLOY PLANT * STAINLESS STEEL SINKS * ALUMINIUM ALLOY PLANT * P.V.C BATTERYSEPARATOR * AUTOMOTIVE TYRE AND TUBE VALVES (VALVES MANUFACTURING) * PRESSURE COOKWARE ALUMINIUM, STAINLESS STEEL & HARD ANODIZED * ELECTRIC WATER HEATER * SOLAR WATER HEATER DOMESTIC & INDUSTRIAL * CORRUGATED COLOURED ROOFING GALVANISED IRON SHEET * PRESSURE DIE CASTING * G.I.WIRE AND BARBED WIRE * G.I.WIRE & M.S. BINDING WIRE * HOT DIP GALVANIZING PLANT FOR STRUCTURAL STEEL AND PIPES * COLD ROLLING MILL * DOOR HINGES (MILD STEEL AND STAINLESS STEEL) * PRESSURIZED AEROSOLS (LIKE BODY SPRAYS, PERFUMES, SHAVING FOAM AND SHAVING LOTIONS ETC.) * ANHYDROUS SODIUM DITHIONITE PRODUCTION (SODIUM FORMATE PROCESS) * SODA ASH PLANT (FROM SOLUTION BRINE) * SISAL FIBRE REINFORCED * CEMENT ROOFING SHEET * HIGH ALUMINA REFRACTORY BRICK PLANT * CATHETERS MANUFACTURING * SURGICAL RUBBER DISPOSABLE GOODS 	<ul style="list-style-type: none"> * POULTRY AND HATHERY FARMING * MILK PROCESSING PLANT * ROASTED, SALTED ALMONDS, PEANUTS FOR PACKING IN 25g, 50g,250g & 500g SACHET-S * BEER FROM POTATOES * GUAR GUM POWDER * AUTOMATIC WHITE BREAD MAKING PLANT * AUTOMATIC BISCUIT MAKING PLANT * FROZEN FOOD BY IOF TECHNOLOGY * WALNUT PROCESSING PLANT * WHIPPING CREAM FRUITS & VEGETABLES POWDER UNIT (EXPORTS ORIENTED UNIT) * NATURAL MEDICINE & RESEARCH INSTITUTE WITH 150 BEDS HOSPITAL * PACKAGED DRINKING WATER (PACKED IN 330 ml CUP, 500ML BOTTLE, 1500 ML BOTTLE AND 20 LTR. JAR) * COLD STORAGE (CONTROLLED ATMOSPHERE OR CA) FOR POTATO CAP: 1,00,000 BAGS (50 Kg/Bag), STORING CAP: 5000 Mt, SOLVENT EXTRACTION & REFINING (SOYABEAN) (Cap- 250mt/day & 50mt/Day oil Refining) * BOTTLING PLANT (WHISKY, BRANDY, RUM, VODKS, GIN) FROM RECTIFIED SPIRIT/ENA LUBE OIL BLENDING AND GREASES PLANT * COLD STORAGE FOR POTATO 1,00,000 BAGS (50 KG/BAG) * MAIZE FLOUR & BY PRODUCT MANUFACTURING PLANT * CUT FLOWER (GLADIOLI, MARGIGOLD, STATICE, CHRYSANTHEMUM ROSE WITH GREEN HOUSE) * CATTLE FARMING AND DAIRY PRODUCTS * COLD STORAGE FORPOTATO AND OTHER HORTICULTURE PRODUCTS Cap:- 5000 Mt or 100000 Bags (50 Kg/Bag) * DEXTROSE PLANT * SBR RUBBER SHEETS AND SHOE MANUFACTURING * CASHEW NUT PROCESSING * PLYWOOD AND PLYBOARD PARTICLE BOARD AND LAMINATED PARTICLE BOARD * VENEER MAKING, PLYWOOD & PLYBOARD MAKING * WALNUT & PINUS(CHILGOZA) OIL, SHELL POWDER PROCESSING PLANT * COUNTRY LIQUOR BOTTLING PLANT (1,00,000 BOTTLES/ DAY)
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<ul style="list-style-type: none"> * PLASTIC GRANULES FROM PLASTIC WASTE * ROPE AND SUTLI MAKING PLANT * BOTTLING PLANT (COUNTRY LIQUOR) 10,000 LTRS./DAY) * I.V. FLUID (FFS OR BFS TECHNOLOGY) * TOXIN PAN MASALA, TOBACCO LESS GUTKHA AND ZARDA * RUBBER & FLAT TRANSMISSION BELT CONVEYOR BELT * UPVC DOORS & WINDOWS FABRICATING PLANT (Fixing and Installation of Door and Windows of uPVC profiles) * RUBBER & FLAT TRANSMISSION BELT CONVEYOR BELT * MUSTARD OIL PROCESSING PLANT (EXPPELLER PROCESS) * MEDICAL COLLEGE WITH 750 BEDS HOSPITAL FACILITY * MICRO IRRIGATION PRODUCT MANUFACTURING PLANT * HOT DIP GALVANIZING MUSTARD OIL PROCESSING PLANT (EXPPELLER PROCESS) * CEMENT TILES, CANAL LINE SLAB, KERV STONE, PAYER RCC PIPE, MANOHOLE COVER, ENTERLOCKING ETC. MANUFACTURING PLANT * MEDICAL COLLEGE (100 STUDENT INTAKE CAP. MEDICAL COLLEGE WITH 500 BED HOSPITAL) * ESTABLISHMENT OF A PRIVATE UNIVERSITY * DIGITAL INKS * GALVANIZING PROCESS PLANT FOR ELECTRICAL POLES * MAIZE PROCESSING PLANT * STARCHES / MODIFIED STARCHES/ LIQUID GLUCOSE / DEXTROSE MONOHYDRATE /GLUCOSE SYRUPS / CORN SYRUP SOLIDS / HIGH MALTOSE CORN SYRUPS / MALTO DEXTRINE POWDER / CORN GLUTEN MEAL (60%) MAIZE OIL / SORBITOL. * BABY CARE PRODUCTS * FAT LIQUOR (CHLORINATED PARAFFIN WAX) * BOTTLING OF WHISKY * UPVC DOORS & WINDOWS PROFILES * EPDM RUBBER PROFILES * FAT LIQUOR (CHLORINATED PARAFFIN WAX) * FAST FOOD RESTAURANT WITH CENTRALISED KITCHEN 	<ul style="list-style-type: none"> * READY MADE GARMENT (T-SHIRT/POLO GOLFER/ WOVEN SHIRTING & SUITING FOR UNIFORMS/SWEATERS) MANUFACTURING * BIO-DIESEL EXTRACTION FROM JATROPHA, SOYABEAN, SUNFLOWER, RICE BRAN, ALGE & CULTIVATION OF JATROPHA * FAST FOOD RESTAURANT CHAIN WITH CENTRALISED KITCHEN * GUAR SPLIT POWDER AND OTHER BY PRODUCTS * SOLVENT EXTRACTION PLANT (COTTON SEED) * RASGULLA MANUFACTURING AND CANNING * CULTIVATION OF RICE & WHEAT COMMERCIAL & MECHANISED DEVELOPMNT * MAIZE & BY PRODUCTS PROCESSING -STARCH MODIFIED STARCHES/LIQUID GLUCOSE/DEXTROSE MONOHYDRATE/GLUCOSE SYRUPS/CORN SYRUP SOLIDS/HIGH MALTOSE CORN SYRUPS/ MAITO DEXTRINE POWDER/CORN GLUTEN MEAL (60%) MAIZE OIL/SORBITOL * TEAK FARMING * ARTIFICIAL MARBLE (SYNTHETIC) * POTATO STARCH CARDANOL FROM C.N.S.L. (CASHEWNUT SHELL LIQVID * INTEGRATED SCRAP YARD * POTATO STARCH * MANGO PULP (5 TON/HOUR 200 KG ASEPTIC PACKAGING) * BOTTLING PLANT (WHISKY, BRANDY, RUM, VODKA, GIN) FROM RECTIFIED SPIRIT/ENA * COW DAIRY FARMING (AYRSHIRE/HOLSTEIN) AND MILK PROCESSING MILK/DAY CAP-50,000 LTR/DAY * WHEAT FLOUR MILL * CHAKKI FLOUR MILL * I.V. FLUID (FFSTECHNOLOGY) * LIQUID GLUCOSE FROM POTATOES * SORBITOL FROM MAIZE STARCH * WALNUT PROCESSINGPLANT * SOLVENT EXTRACTION AND OIL REFINERY CUM PACKING OF RICE BRAN OIL * COTTON SEED OIL SOLVENT EXTRACTION PLANT * MARINE TRAINING INSTITUTE & PLACEMENT SERVICE PROVIDING AGENCY * I.V.FLUID (FFS TECHNOLOGY) * CERAMIC FIBERS, CERAMIC 	<ul style="list-style-type: none"> FIBRE BLANKET, CERAMIC FIBRE BOARD AND CERAMIC FIBRE ROPE * COLD SUPPLY CHAIN * LAMI TUBE MANUFACTURING * EYE DROP 3 PIECES (PLASTIC VIALS) * PET BOTTLES (CAMBER/ CLEAR IN COLOUR) CAP: 15ML,60ML 100ML,135ML, 200ML & 500ML * BENZYL ALKONIUM CHLORIDE (BKC) * NATURAL SUGAR WAX * MARGARINE BUTTERFROM VEGETABLE OIL * GREEN HOUSE FOR CROP PRODUCTION * ORGANIC DAIRY FARMING * E-WASTE * BIO-DIESEL FROM ALGAE * VANADIUM PENT OXIDE GRAPHITE MINING AND BENEFICIATION PLANT * VITAMIN WATER * PET PREFORM CUM PET BOTTLES * ORGANIC DAIRY FARMING AND PRODUCING WHOLE MILK POWDER (WMP) * HDPE BOTTLES * CAUSTIC SODA FROM SODIUM CHLORIDE * COAL TAR PITCH * MOSQUITO REPELLANT * WRIST BAND * CASTOR OIL AND ITS DERIVATIVES OLEO RESIN, TURKEY RED OIL, DCO, HCO, SEBACIC ACID, 12-HYDROXY STEARIC ACID * PAPAIN FROM PAPAYA * PROCESSED CHEESE * MONOCHLOROBENZENE * EUGENOL FROM CINNAMON OIL * SULPHUR 80% WDG * CERAMIC FIBERS, CERAMIC FIBRE BLANKET, CERAMIC FIBRE BOARD AND CERAMIC FIBRE ROPE * SCREEN PRINTING * DI CALCIUM PHOSPHATE FROM ROCK PHOSPHATE & HAIFA PROCESS * PVC FLEXIBLE PIPE * FLEX BANNER USED IN DIGITAL PRINTING * PIGMENTS BINDERS FOR TEXTILE PRINTING * POULTRY & HATCHERY FARM * ALOEVERA JUICE AND GEL * LIME PUTTY * AUTOMOBILE WORKSHOP/ GARAGE * EGG TRAY FROM PULP * CARDANOL FROM C.N.S.L. * OXYGEN GAS 	<ul style="list-style-type: none"> * POLYALUMINIUM CHLORIDE * NAMKEEN INDUSTRY (BHUIJA, CHANACHUR ETC.) * POLYOL USED FOR POLYURETHANES * POLYSTYRENE POLY PROPYLENE OXIDE * DIETHYL PHTHALATE * UREA FORMALDEHYDE AND MELAMINE * FORMALDEHYDE MOULDING POWDER * INSTANT COFFEE * ANNATTO SEED COLOUR EXTRACTION * FRUITS AND VEGETABLES DRYING BY (FREEZE DRYING METHOD) * BIO GAS PRODUCTION AND BOTTLING PLANT * JAM, JELLIES, FRUIT JUICE AND ALLIED PRODUCTS * MATERNITY NURSING HOME * CANNING & PRESERVATION OF VEGETABLES * CURCUMIN & TURMERIC OIL FROM TURMERIC * DETERGENT WASHING POWDER (ARIEL TYPE) * GRANITE SLAB AND TILES * TEA PACKAGING * PAN MASALA & GUTKHA * PRESTRESSED CONCRETE ELECTRIC POLES * LEATHER SHOES * ROTOGRAVURE PRINTING (FOR FLEXIBLE PACKAGING) * AUTOCLAVED AERATED CONCRETE BLOCKS * OXYGEN AND NITROGEN GAS PLANT * MANGANESE ORE BENEFICATION * MINERAL WOOL * CALCIUM SILICATE * TOUGHENED GLASS * HUMIC ACID * OFFSET PRINTING UNIT (5 COLOUR) * CASTOR OIL AND ITS DERIVATIVES OLEORESIN * TISSUE PAPER PULPING FROM SAW DUST * KNITTED GLOVES * RADIATOR COOLANT * LATEX FOAM RUBBER (SPONG RUBBER) * GARLIC OIL AND POWDER * ACTIVATED CARBON & SODIUM SILICATE FROM PADDY/ RICE HUSK * TRIETHYLENE GLYCOL * RAMMING MASS * WOOD PEELING & VENEER MAKING * PETROLEUM JELLY * DAIRY FARM (COW & BUFFALO) TO PRODUCE
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<ul style="list-style-type: none"> MILK & PACKAGING IN POUCHES * CUTTING OIL LIQUID GOLD (IN PASTE FORM) * P.V.C. LEATHER CLOTH (REXINE) * COAL TAR DISTILLATION * ALUMINIUM LABEL PRINTING * FOLDING CARTNS/MONO CARTONS * SURGICAL DISPOSABLE GLOVES (DIPPED RUBBER GOODS) * AGRICULTURAL CHEMICAL (PLANT GROWTH PROMOTER AND PLANT GROWTH REGULATOR) * MENTHOL BOLD CRYSTALS FROM MENTHOL FLAKES * ORGANIC FARMING * CORRUGATED POLYCARBONATE SHEET * COLD STORAGE * FLAT PVC LAMINATED * SAFTY GLASS/TOUGHENED GLASS * PLASTIC GRANULES FROM WASTE * DRY WALL PUTTY (WHITE CEMENT BASED) * CHARCOAL BRIQUETTE * OXALIC ACID FROM MOLASSES * POTATO GRANULES * SANITARY NAPKINS & BABY DIAPERS * CORRUGATED BOXES * PLASTER OF PARIS * RUBBER ROLLER FOR PRINTING MACHINE * LACTIC ACID * EMERY PAPER (SAND PAPER) * RUBBER RECLAIM SHEET FROM USED BUTYL TYRE AND TUBE * MANGO PULP * PARTICLE BOARD FROM BAGASSE AND RICE HUSK * TOILET PAPER & NAPKINS * TENDER COCONUT WATER * CALCIUM CARBONATE * LIME CALCINATION PLANT * INJECTION MOULDED PLASTIC COMPONENTS * HYDRATED LIME * BLACK PEPPER * MULTIAXIAL GLASS FABRIC * LIQUID TOILET CLEANER (HARPIC TYPE) * LIME & PRECIPITATED * CALCIUM CARBONATE * LIQUID GLUCOSE FROM BROKEN RICE 	<ul style="list-style-type: none"> * MEDICAL DISPOSABLE PLASTIC SYRINGES * METAL POLISHING BAR * SANITARY NAPKINS & BABY DIAPERS * PERFUMES/ATTAR * GEMS AND JEWELLERY * MULTIAXIAL GLASS FABRIC * ACTIVE ZINC OXIDE * COPPER PHTHALOCYANINE * TURMERIC OIL EXTRACTION FROM DRY TURMERIC * CNSL BASED RESIN IN LIQUID & POWDER FORM BOPP FILM * BETA IONONE * BIO-FERTILIZER * ZINC & COPPER SULPHATE * PAPER BASED PHENOLIC SHEET (FOR ELECTRICAL APPLIANCE) * THINNERS (WHITE SPIRIT BASED) * SINGLE SUPER PHOSPHATE & SULPHURIC ACID * MONO CALCIUM PHOSPHATE & DI-CALCIUM PHOSPHATE * FLEXIBLE P.U. FOAM * ASPIRIN * SORBITOL FROM MAIZE STARCH * SPICE OIL & OLEORESIN * ANTI-FOAMING AGENT (SILICONE BASED) FOR DISTILLERY, SUGAR, PAPER PLANT ETC. * LAUNDRY & DRY CLEANER * BRICKS FROM STONE DUST * CARBOXY METHYL STARCH * TITANIUM DIOXIDE * UNDECYENIC ACID * PSA BASED NITROGEN GENERATOR * SYNTHETIC IRON OXIDE * PVC INSULATION TAPE * TAMARIND KERNEL POWDER * ORGANIC CHEMICAL & SOLVENTS * PLASTICIZERS * ICE PACK (SOLUTIONS TYPE, VIOLET-SEMI SOLID POLYMER TYPE) * GUM FROM TAMARIND * PEARL SUGAR CANDY (MISHRI) * GOAT & SHEEP FARMING * GYPSUM PLASTIC BOARD (AUTOMATIC PLANT) * NON-WOVEN INDUSTRY (CARRY BAGS, SURGICAL GOWN, FACE MASK, ROUND CAPS, SHOE COVER, GLOVE) * COTTON SPINNING, SIZING, 	<ul style="list-style-type: none"> YARN, DYEING & WEAVING * CALCIUM CHLORIDE * AMINES & ALLIED PRODUCT * SPINNING COTTON * SILICONE FROM RICE HUSK * ADHESIVE (FEVICOL TYPE) * CAUSTIC SODA FROM ELECTROLYSIS * CAMPHOR TABLETS * CERAMIC GLAZED WALL AND FLOOR TILES * ZINC SULPHATE MONO * ETHANOL (BIO FUEL) FROM RICE STRAW * GYPSUM MOULDING AND GYPSUM BOARD * SMOKELESS COAL * ACID (SILICA) AND BASIC RAMMING MASS * UNSATURATED POLYESTER RESINS * DAIRY (BUFFALO) FARMING * SILICONE FROM RICE HUSK * N-ACETYL THIOZOLIDINE-4-CARBOXYLIC ACID (NATCA) * PE BASED CARBON BLACK COMPOUND * ONION DEHYDRATION * PVC PIPES & FITTING * GLASS REINFORCED * GYPSUM MOULDINGS ABSORBENT COTTON & SURGICAL BANDAGES * CALCIUM STEARATE BY FUSION PROCESS * MANGO POWDER & OTHER FREEZE DRIED PRODUCTS * MENTHOL OIL FROM LEAVES AND MENTHOL * CRYSTALS (PEPPERMINT) MANUFACTURE OF CELLULOSE ACETATE * ANTIFOAMING / DEFOAMING AGENT * ALOEVEA CULTIVATION & PROCESSING * SYNTHETIC MAGNESIUM SILICATES * EPHEDRINE HYDROCHLORIDE * ACTIVATED BLEACHNG EARTH * TECHNICAL TEXTILES * FORMALIN FROM METHANOL * CATIONIC SOFTNER (STEARIC ACID BASED) * PRECIPITATED SILICA * PU BASED FOOT WEARS * FORMALDEHYDE RESIN (UREA, PHENOL, MELAMINE) * HDPE MONO FILAMEN NET 	<ul style="list-style-type: none"> * POTATO & ONION FLAKES * DUSTLESS CHALK (SCHOOL CHALK) * TOMATO POWDER * BIODEGRADABLE / COMPOSTABLE PLASTICS * ACRYLIC CO POLYMER EMULSION * ESTER GUM (FOOD GRADE) * PROTEIN BASED FOAMING AGENT * LECITHIN (SOYA BASED) * SOYA OIL AND CATTLE FEED FROM SOYA BEAN * COMPARISON BETWEEN FLY ASH AND CELLULAR LIGHTWEIGHT CONCRETE (CLC) BRICKS * CELL CAST ACRYLIC SHEET * ACRYLIC BATH TUB AND SHOWER TRAY * THERMOCOLE BASED DISPOSABLE PLATES * SODIUM SILICATE FROM RICE HUSK * ETHYL METHACRYLATE * SODIUM LAURYL ETHER SULPHATE * LATEX GLOVES, CONDOMS & CATHETER * CALCIUM NITRATE GRAIN BASED ALCOHOL DISTILLERY * BULK DRUGS * MARBLE QUARRYING * CULTIVATION OF CAPSICUM IN GREEN HOUSE * SULPHUR 90% WDG * EGG POWDER * WOOD PLASTIC * COMPOSITE BOARD LINE * SODIUM LAURYL SULPHATE AND SODIUM LAURYL ETHER SULPHATE * FISH PROCESSING * BABY CEREAL FOOD & MILK POWDERS (BABY FOOD) * GUR (JAGGERY) * DAIRY PRODUCTS * CHLORINATED PARAFFIN WAX (CPW) * HAND WASHING DETERGENT POWDER USING THE DRY MIX PROCESS INCLUDING FORMULA OF DIFFERENT TYPES QUALITIES (LOW/ MEDIUM/HIGH COST) * HANDWASHING DETERGENT POWDER USING THE DRY MIX PROCESS INCLUDING
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<p>FORMULA OF DIFFERENT TYPES QUALITIES (LOW/ MEDIUM/HIGH COST)</p> <ul style="list-style-type: none"> * DIGITAL PHOTOPAPER/ INKJET PHOTOPAPER * KAOLIN FOR ROAD MAKING * PEPPERMINT CULTIVATION & PROCESSING * PEPPERMINT CULTIVATION & PROCESSING * HDPE PIPE * ACTIVATED CARBON FROM RICE HUSK * HT & LT INSULATOR, HT AIR BRAKE SWITCH D.O. FUSE, LIGHTENING ARRESTOR * PET BOTTLES IN CAP: 500ML, 1 LTR, 2 LTRS, 5 LTRS, USED FOR PACKAGED DRINKING WATER, EDIBLE OILS * ALCOHOLIC BEVERAGES (COUNTRY LIQUOR & IMFL) * QUARTZ BASED INDUSTRIES (QUARTZ POWDER SILICA SAND SILICA RAMMING MASS FUSED SILICA) * BEEDI (BIDI) BY MACHINE * RICE SHELLER * FRUIT RIPENING CHAMBER * MINERAL WATER AND PET BOTTLING PLANT * DIAGNOSTIC LAB AND * ONLINE TRADING BUSINESS * CEREAL MILLING * MINI OIL PLANT SUITABLE FOR GROUNDNUT OIL AND COTTON SEED OIL * CHANACHUR, BHUJIA, GANTHIA (AUTOMATIC PLANT) * KHADYA SURAKSHA (FOOD SECURITY) * PLASTIC WATER STORAGE TANKS * ZINC SULPHATE, MONOHYDRATE & HEPTA HYDRATE * CIGARETTE MANUFACTURING UNIT * CATTLE FEED PELLETS PLANT FOR COW & BUFFALOE FOR BOOSTING MILK AND GROWTH * TYRE RECYCLING UNIT * PAPAIN EXTRACTION INDUSTRY * CAKE SHOP * BUSINESS PROCESS 	<p>OUTSOURCE (B.P.O.)</p> <ul style="list-style-type: none"> * EMPTY HARD GELATINE CAPSULES * BIOFERTILIZER * PLASTIC MOULDING UNIT (CHAIR, TABLES & VEGETABLE TRAYS) * GOLD POTASSIUM CYANIDE (G.P.C.) * HDPE, PVC & CPVC PIPES AND FITTINGS * NO CARB PASTE (ANTICARBURIZING PASTE-WATER SOLUBLE) FOR HEAT TREATMENT * CONVERSION WASTE PLASTIC WITH TYRE INTO ACTIVATED CARBON AND INDUSTRIAL FUEL * PYROLYSIS PLANT FROM PLASTIC & RUBBER * COMPARISON BETWEEN FLY ASH AND CELLULAR LIGHTWEIGHT CONCRETE (CLC) BRICKS * AGAR AGAR * NAIL POLISH * PLASTIC GRANULES FROM WASTE * AGARBATTI SYNTHETIC PERFUMERY COMPOUNDS & AGARBATTI COMPOUNDS LIKE (CHAMPA, MOGRA, SANDAL WOOD & LOBAN) * PET PREFORM AND PET JARS (20 LTRS CAPACITY) * KRAFT PAPER FROM 100% WASTE PAPER * PRIVATE UNIVERSITY * LIQUID GLUCOSE AND MALTODEXTRIN FROM BROKEN RICE * DRY WALL PUTTY (WHITE CEMENT BASED) * CONSTRUCTION CHEMICALS OT PASTE * FUSED SILICA FROM SILICA SAND * BANANA CHIPS, BANANA PULP & BANANA POWDER (BANANA PRODUCTS) * CONFECTIONERY UNIT (TOFFEE, CANDY /LOLLIPOP CHEWING GUM, BUBBLE GUM CHOCOLATE) * FORMALDEHYDE RESIN (UREA, PHENOL, MELAMINE & THEIR MODIFIED RESINS) 	<ul style="list-style-type: none"> * EPDM RUBBER PROFILES (WEATHER STRIPS, INDUSTRIAL MONOSTRIPS ETC) * GRANITE CUTTING AND POLISHING UNIT (100% EOU) * SURGICAL COTTON, ROLLER BANDAGE, CREPE BANDAGE & PLASTER CART (READY MADE) E.G. GYPSONA 3M CART * ENTERTAINMENT CLUB, HOLIDAY RESORT, 4 STAR HOTEL, AMUSEMENT PARK CUM WATER PARK, MUSHROOM & ITS PRODUCTS, FISH FARMING, LAKE FOR BOATING, DEER PARK ETC. * HDPE, PVC, LLDPE PIPES/ TUBES AND FITTING * EPOXIDIZED SOYABEAN OIL (SECONDARY PLASTICIZER) USED IN PVC COMPOUND * POULTRY PROCESSING PLANT * B.O.P.P. SELF ADHESIVE TAPES * I.V.SET * MANGANESE OXIDE AND MANGANESE SULPHATE * ODOURLESS NYLON GRANULES FROM FIBER OF WASTE TYRE WITHOUT CHANGING PROPERTIES OF NYLON * PARTICLE BOARD FROM RICE HUSK OR WOOD WASTE OR SUGAR CANE BAGASSE OR MIXED OF ALL ABOVE * POULTRY LAYER AND BROILER FARMING * TOMATO, GUAVA AND MANGO PULP * GREEN HOUSE * HYDROXY PROPYL GUAR (HPG) AND CARBOXY METHYL HYDROXY PROPYL GUAR * BATHSOAP MANUFACTURE * PLASTIC MOULDED CHAIRS * FROZEN POTATO PATTY * CALCIUM ALUMINATE * ACTIVATED CARBON FROM COCONUT SHELL * RIGID PVC FILM MANUFACTURE FOR PHARMACEUTICALS BLISTER 	<p>PACKAGING</p> <ul style="list-style-type: none"> * NYLONE 66 CURING TAPE USED IN RUBBER HOSE PIPE WRAPPING * ANTIFOAMING/DEFOAMING AGENT LIKE ANTAROL T-709 * SOY AND GLUTEN BASED MOCK MEAT * KRAFT PAPER USING WASTE PAPER AND OLD CORRUGATED CARTONS * GLASS BOTTLE FOR BEER AND BEER MUG (TUMBLER) * DISPOSABLE SYRINGES AND NEEDLE PLANT (Single Use Syringes, Single Use Needles & As Syringes) * DIRECT FILLED BALL PEN (USE AND THROW) * BENZALKONIUM CHLORIDE * SPINNING COTTON (COTTON SPINNING PLANT) * CALCIUM CHLORIDE USING LIME STONE AND HYDROCHLORIC ACID * RUBBER POWDER FROM WASTE TYRES * CALCINATION PLANT FOR PYROPHYLLITE AND DIASPORE MINERALS BY VERTICAL SHAFT KILN PROCESS * ONION, GARLIC & GINGER DEHYDRATION PLANT * POTASSIUM NITRATE * POTASSIUM SULPHATE * N.P.K. FERTILIZER * CHICORY EXTRACT (ROASTED CHICORY GRANULES/CUBES, LIQUID EXTRACT ETC.) * SOLID WASTE SEGREGATION * LAMITUBE MANUFACTURE * BOARDING SCHOOL * CERAMIC FUSE TUBE/ BARRELS USED IN HRC FUSE * SODIUM POLYACRYLATE DISPERSANT FOR USE IN WATER BASED PAINT WITH DISPERSANT FOR PIGMENT * NAIL POLISH, LIPSTICKS, NAIL POLISH REMOVER * SOYA PRODUCTS (MILK, PANEER, TOFU, BUTTER, CHEESE CURD/YOGURT, ICE CREAM) WITH PACKAGING UNIT * GREASE MANUFACTURING
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TERMS AND CONDITIONS

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