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## About Us

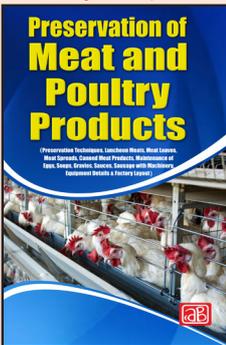
NPCS is a well-known technical consultancy that focuses on Project Reports Compilation, and we have been following a tight system and procedure to assure only top quality in accordance with our clients' expectations in this rapidly increasing and changing market. We've created the list of the top projects to start your own business startups.

## Preservation of Meat and Poultry Products

(Preservation Techniques, Luncheon Meats, Meat Loaves, Meat Spreads, Canned Meat Products, Maintenance of Eggs, Soups, Gravies, Sauces, Sausage with Machinery, Equipment Details & Factory Layout)

Food preservation is a method of maintaining foods at a desired level of properties or nature for their maximum benefits. Preservation usually involves preventing the growth of bacteria, yeasts, fungi, and other micro-organisms (although some methods work by introducing bacteria, or fungi to the food), as well as retarding the oxidation of fats which cause rancidity. There are various methods of preservation chilling, freezing, curing, smoking, dehydration, canning, radiation preservation etc. Chilling is most widely used method for preservation for short term storage of meat because chilling or refrigeration slows down the microbial growth and enzymatic as well as chemical reactions. Freezing is the method of choice for the long term preservation of meat. It has advantage of retaining most of the nutritive value of meat during storage. Meat smoking was known to man as an aid in preservation for a long time. Smoke contains a large number of wood degradation products such as aldehydes, ketones, organic acids, and phenols etc. which exert bacteriostatic affect besides imparting characteristic smoky flavour. Canning is a process of preservation achieved by thermal sterilization of product held in hermetically sealed containers. Canning preserves the sensory attributes such as appearance, flavour and texture of the meat products to a large extent. Freeze drying of meat is a satisfactory process of dehydration preservation due to better reconstitution properties, nutritive quality and acceptability. It involves the removal of water from the frozen state to vapour state by keeping it under vacuum and giving a low heat treatment. Maintaining or creating nutritional value, texture and flavour is an important aspect of food preservation, although, historically, some

₹ 1575/- US\$ 150-



methods drastically altered the character of the food being preserved. Meat and poultry products are chilled immediately after slaughter to acceptable internal temperatures which insure the prompt removal of the animal heat and preserve the wholesomeness of the products. As such, due to the recent up gradation of preservation techniques, the preservation industry is also growing almost at the same rate as the food industry which is about 10 to 12% per year.

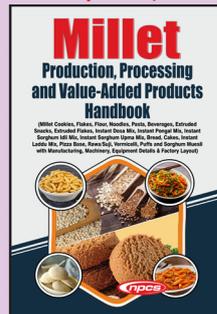
Some of the major aspects of the book are principles of various preservation techniques, standards and quality control measures for meat, meat food products order, eating quality and sensory evaluation of meat, preservation of poultry meat, utilisation of poultry industry by products, mixed poultry by products meal, structure, composition and nutritive value of eggs, luncheon meats, meat loaves, and meat spreads, barbecue style pork loaf using non fat dry milk, canned corned beef products, salisbury steak with textured vegetable protein, general instruction to be observed for processing canned items under stern or under the combination of stream and water pressure, spaghetti and meat balls in tomato sauce with cheese, etc.

Different preservation techniques are being developed to satisfy current demands of economic preservation and consumer satisfaction in nutritional and sensory aspects, convenience, absence of preservatives, low demand of energy and environmental safety. The present book contains various processes of meat and poultry preservation. All the entrepreneurs, technocrats, persons evolved in meat and poultry processing will be benefited from this book.

## Millet Production, Processing and Value-Added Products Handbook

(Millet Production, Processing and Value-Added Products Handbook (Millet Cookies, Flakes, Flour, Noodles, Pasta, Beverages, Extruded Snacks, Extruded Flakes, Instant Dosa Mix, Instant Pongal Mix, Instant Sorghum Idli Mix, Instant Sorghum Upma Mix, Bread, Cakes, Instant Laddu Mix, Pizza Base, Rawa/Suji, Vermicelli, Puffs and Sorghum Muesli with Manufacturing, Machinery, Equipment Details & Factory Layout)

₹ 2495/- US\$ 225-



Millet is a type of cereal that is a part of the grass family Poaceae. This small round whole grain is grown in India and Nigeria, especially in Asia and Africa. There are multiple types of millets. However, most common varieties include Finger Millet, Foxtail Millet, Pearl Millet, Proso Millet, Little Millet and Sorghum Millet. Millet is loaded with nutritional value and that is why many dieticians and doctors recommend it as one of the breakfast cereal that must include in diet.

Additionally, millet muesli is also recommended by diet consultant experts because it is a more nutrient dense type of millets.

Key features of the handbook include: Cultivation Techniques: The book provides detailed information on millet cultivation techniques, including land preparation, planting, irrigation, pest and disease management, and harvesting. It offers guidance on optimizing millet yields while minimizing environmental impact.

Millet Varieties: Readers will find descriptions of different millet varieties, their adaptability to various climates and regions, and their nutritional profiles. This knowledge can help farmers select the most suitable millet varieties for their specific conditions.

Processing Techniques: The handbook delves into post-harvest processes, from threshing and cleaning to milling and storage. It highlights best practices for preserving millet quality and reducing post-harvest losses.

Value Addition Product Innovation: This handbook is a treasure trove of information

on creating a range of millet-based products like flour, flakes, pasta, beverages, and snacks. Manufacturing process and recipes are provided, empowering entrepreneurs to innovate in product development.

The Millet Market size is estimated at USD 11.53 billion, and is expected to reach USD 14.43 billion, growing at a CAGR of 4.60%. Millets are small grass seeds that are widely grown. They are treated as Cereal Crops for Human Food. Generally, a huge percentage of the Millets Produced is consumed and the remaining percentage is used for producing Beer, and Instant ready eat Foods. Breakfast Foods like Cornflakes are made from Millet. The growing awareness regarding health and fitness among the consumers are resulting in a higher uptake of organic, natural, and gluten-free products, which, in turn, is fueling the millet market.

This book offers comprehensive reference that covers various aspects of millet production and its value-added Products Production Process, Machinery, Equipment Details, Factory layout and Photographs with Suppliers Contact Details are also given.

The Millet Production, Processing, and Value-Added Products Handbook is a comprehensive guide that offers a wealth of knowledge and practical insights into the world of millet agriculture and its various applications. This handbook serves as an invaluable resource for farmers, agricultural researchers, startups, entrepreneurs, food processors, and anyone interested in the cultivation, processing, and utilization of millet grains.

## Setup Plant of Extraction from Tobacco Waste

**N**icotine is a chemical compound that is naturally present in the leaves of the tobacco plant. It is a powerful stimulant and is primarily known for its addictive properties, as it is the main addictive component of tobacco products. When tobacco is burned or consumed, nicotine is released and quickly absorbed into the bloodstream. Nicotine is a colorless liquid that turns brown when exposed to air. It has a distinctive odor and taste, which is often described as bitter. It acts as a stimulant, increasing heart rate and blood pressure, while also promoting the release of dopamine in the brain, resulting in pleasurable sensations.

### Uses and Applications of Nicotine

- Neurological Research
- Cognitive Disorders
- Pest Control
- Nicotine Replacement Products
- Research and Medicine

### Why Should Start Extraction from Tobacco Waste Business?

- **Diversification of Income Streams:** The extraction industry allows entrepreneurs to diversify their income sources. By utilizing tobacco waste, you can create additional revenue streams alongside existing businesses or investments.
- **Resource Utilization:** Tobacco waste is a byproduct of the tobacco industry. By extracting valuable compounds from this waste, you contribute to resource efficiency and reduce environmental impact.
- **Market Demand:** There is a growing demand for tobacco-derived compounds such as nicotine, which is used in various industries, including pharmaceuticals, e-cigarettes, and the agriculture sector. Meeting this demand can be a profitable venture.

• **Pharmaceutical Applications:** Nicotine extracted from tobacco waste has applications in the pharmaceutical industry, particularly in smoking cessation products and nicotine replacement therapies.

- **E-Cigarette Industry:** The e-cigarette industry relies on nicotine, and by providing a sustainable and cost-effective source of nicotine, you can tap into this rapidly

### PROJECT COST ESTIMATE

#### CAPACITY:

Nicotine 10ml bottle each	: 5,000 Bottles Per Day
Nicotine 50ml bottle each	: 1,300 Bottles Per Day
Nicotine 100ml bottle each	: 650 Bottles Per Day
Nicotine 250ml bottle each	: 260 Bottles Per Day
Nicotine 500ml bottle each	: 170 Bottles Per Day
Nicotine 1000ml bottle each	: 85 Bottles Per Day
Plant & Machinery	: ₹ 289 Lakhs
Rate of Return	: 35%
Break Even Point	: 32%

growing market.

### Global Market Outlook

The global nicotine market size is expected to be USD 375.22 million in 2022, as per our research, the market is expected to reach USD 1,244.06 million by 2031, exhibiting a CAGR of 12.72% during the forecast period. The global nicotine market is a dynamic and rapidly growing industry that revolves around the production and distribution of nicotine, a highly addictive chemical compound derived from tobacco plants. Nicotine is primarily used in the manufacturing of various tobacco products, including cigarettes, e-cigarettes, and smokeless tobacco. The nicotine market encompasses the production, extraction, and supply of nicotine in various forms, such as liquid nicotine, nicotine gums, nicotine patches, and nicotine inhalers. The growing preference for oral tobacco-free products as compared to flammable cigarettes is driving the regional nicotine market growth.

### Conclusion

Starting a nicotine extraction business from tobacco waste not only promises significant financial gains but also allows entrepreneurs to make a positive impact on the environment and public health. It is a win-win situation for both business success and sustainability.

## Setup Unit of Paint Rollers

**P**aint rollers are tools commonly used for applying paint on large, flat surfaces efficiently. This device typically consists of two main parts—the roller frame, which acts as a handle, and the roller cover, which is the part that actually applies the paint. The roller cover is usually a cylindrical piece, made from various materials such as lambswool, synthetic fibers, or foam, which is capable of absorbing paint and then releasing it evenly onto a surface when rolled.

### Advantage of Paint Rollers

The first advantage of paint rollers lies in their inherent design and efficiency. They are the go-to choice when you need to cover a large area quickly and with ease, offering a much more streamlined approach to painting compared to the traditional paintbrush. Their design allows for better absorption and release of paint, leading to fewer refills and interruptions during the painting process. This not only saves time but also results in less wasted paint. Beyond efficiency, paint rollers offer a more even and uniform application of paint. Unlike brushes, which can leave visible strokes and uneven layers of paint, rollers distribute the paint evenly across the surface. This results in a smoother, more professional-looking finish that is often hard to achieve with other painting tools.

Additionally, paint rollers are cost-effective. While the initial cost of a paint roller may be higher than a paintbrush, the longer lifespan and the reduced paint usage make it a more economical choice in the long run. They are also easy to clean and maintain, further extending their usability and value for money.

### Global Market Overview

The global paint rollers market size is valued at USD 2,932.56 million in 2023. It is expected to reach USD 4603.97 million by 2032, growing at a CAGR of 5.8% during the forecast period (2024-2032). The paint roller market is expected to grow due to the rapid growth of cities. The market is also growing because of increased government spending on building homes. Also, government programs that help the paint and painting tools industries offer good chances for the paint roller market to grow. Asia-Pacific holds the leading position in the global paint rollers market and is expected to grow at a

CAGR of 6.9% during the forecast period. Developing economies like China, India, and Indonesia result in high economic growth. Furthermore, the increased demand for residential construction and development in the paint industry in these countries is anticipated to boost the market further.

### Indian Market Overview

The India paint roller market is anticipated to grow at a steady pace in the forecast period, 2023E-2028F. The demand for the paint roller market is increasing due to the growth in the infrastructure sector in India. Increasing socioeconomic developments and housing subsidies by the government will positively influence the market in residential areas. India roller paint market is increasing due to rising population, fast industrialization, and more foreign investment finance across developing nation. Manufacturers in the sector benefit from consumers growing propensity for renovating run-down, underdeveloped homes, public buildings, and private structures.

According to estimations and predictions made by the WHO, the urban population is anticipated to increase rapidly in India due to which, the need for painting and painting supplies such as paint rollers will also likely to rise as more people are moving into cities. Favorable government policies and rise in FDI inflows are key growth drivers for the paint rollers industry in India.

### Conclusion

The rising global demand for paint rollers, combined with the low entry barriers, opportunities for innovation and differentiation, and a wide range of potential markets, make the paint rollers business a promising venture. Whether you're looking to start a small-scale manufacturing business or a retail store specializing in painting tools, the paint rollers sector is certainly worth considering.

### PROJECT COST ESTIMATE

#### CAPACITY

Paint Roller	: 12,000 Pcs. Per Day
Plant & Machinery	: ₹ 73 Lakhs
Cost of Project	: ₹ 396 Lakhs
Rate of Return	: 29%
Break Even Point	: 52%

**Market Survey Cum Detailed Techno Economic Feasibility Report on all above Businesses are Available. Contact :**

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**L**ow Carbon Ferrochrome (LCFC), Ferro Molybdenum (FeMo), Ferro Vanadium (FeV), and Ferro Titanium (FeTi) are specialized alloys used in numerous industries due to their unique properties. Each of these metallurgical components plays a crucial role in manufacturing processes, offering distinct characteristics that contribute to the overall performance and durability of various products.

Low Carbon Ferrochrome (LCFC) is a type of ferroalloy, which is an alloy of iron and chromium but with a lower carbon percentage as compared to traditional ferrochrome. This reduction in carbon is significant, as it enhances the alloy's properties, making it more versatile and useful in various applications.

Ferro Molybdenum (FeMo) is an alloy of iron and molybdenum, which is highly valued in the steel-making industry. It is used to produce a variety of steel products, including stainless steel, tool steel, and high-speed steel. The addition of molybdenum to these materials enhances their hardness, strength, and resistance to corrosion and wear, making FeMo a crucial component in industries such as automotive, aerospace, and energy.

Ferro Vanadium (FeV) is another highly valuable alloy in the metallurgical industry. This alloy, made up of iron and vanadium, is commonly used in the production of high-strength low-alloy steel (HSLA). HSLA is a type of carbon steel that is more robust, lighter, and more resistant to corrosion than conventional carbon steel.

Lastly, Ferro Titanium (FeTi) is an alloy of iron and titanium, with the latter making up to 30% of the alloy. FeTi is highly valued for its strong deoxidizing properties, which are beneficial in the steel-making process.

**Uses and Applications**

Low Carbon Ferrochrome (LCFC), Ferro Molybdenum (FeMo), Ferro Vanadium (FeV), and Ferro Titanium (FeTi) are as diverse as they are critical to various sectors. Their unique properties make these alloys essential components in an array of products and manufacturing processes.

The primary use of Low Carbon Ferrochrome (LCFC) is in the stainless steel industry, where it is used to improve the corrosion resistance and strength of the steel. The decreased carbon content in LCFC ensures that the steel is more ductile, allowing it to be used in various applications, such as kitchenware, surgical instruments, and construction materials. LCFC is also essential in the production of heat-resistant steels, which are crucial in high-temperature applications like aircraft engines, power generation, and industrial furnaces.

Next, we have Ferro Molybdenum (FeMo). Its primary function is to add hardness and strength to steel products. FeMo is critical in the manufacture of stainless steel, where it enhances the steel's resistance to corrosion and heat. The automobile industry greatly benefits from this, using FeMo-enhanced steel in various car components like engine parts, gears, and suspensions.

Ferro Vanadium (FeV) is an essential component in the production of High Strength Low Alloy Steel (HSLA),

**A Business Plan for Ferro Alloys**  
 • Low Carbon Ferrochrome (LCFC) • Ferro Molybdenum (FeMo)  
 • Ferro Vanadium (FeV) • Ferro Titanium (FeTi)

**PROJECT COST ESTIMATE**

**CAPACITY:**

*Low Carbon Ferrochrome (LCFC) : 20 MT Per Day*  
*Ferro Molybdenum (FeMo) : 40 MT Per Day*  
*Ferro Vanadium (FeV) : 20 MT Per Day*  
*Ferro Titanium : 20 MT Per Day*  
**Plant & Machinery : ₹ 17.83 Crores**  
**Cost of Project : ₹ 97.75 Crores**  
**Rate of Return : 30%**  
**Break Even Point : 71%**

widely used in car parts, structural applications, pipelines, and heavy-duty equipment. In the construction sector, FeV-enhanced steel is commonly used in building bridges, skyscrapers, and other infrastructure due to its excellent strength-to-weight ratio.

Finally, we have Ferro Titanium (FeTi). Owing to its robust deoxidizing properties, FeTi is an invaluable asset in the steel-making process. Deoxidation is a crucial step in steel production that prevents the steel from becoming brittle. In addition, FeTi-enhanced steel is known for its superior strength, corrosion resistance, and heat stability. Thus, it is widely used in industries that demand high-performance materials. The aerospace industry, for instance, uses FeTi-enhanced steel in aircraft engines due to its high-temperature resistance.

**Why This Business Is Booming?**

The booming success of the LCFC, FeMo, FeV, and FeTi business is primarily fueled by their vital role in a plethora of industries and applications. The unique properties of these specialized alloys make them indispensable in our modern world, driving up demand and consequently, the growth of this sector.

The first major contributor to the flourishing business around these alloys is the continuous development and growth of the stainless steel industry. As discussed earlier, LCFC plays a crucial role in the production of stainless steel, making it more durable, corrosion-resistant, and strong. With the increased demand for stainless steel in various sectors like construction, automotive, and household appliances, the need for LCFC is also on the rise. Additionally, the escalating demand for more robust, corrosion-resistant, and heat-resistant steels in sectors like automotive, aerospace, and energy is driving the FeMo business's growth. As FeMo significantly enhances the hardness, strength, and resistance to wear and corrosion of steel products, its importance in these sectors is undeniable.

Similarly, FeV's indispensable role in producing High-Strength Low-Alloy Steel (HSLA) has significantly contributed to this alloy's business growth. HSLA is widely used in the automotive and construction sectors, both of which are thriving industries. As the demand for lightweight, strong, and corrosion-resistant steel continues to rise, so does the demand for FeV.

FeTi, with its strong deoxidizing properties and the

ability to enhance steel's strength, resistance to corrosion, and heat stability, has found its niche in high-performance sectors like aerospace, military, and

construction. The growing demand for advanced materials in these sectors has amplified the demand for FeTi, contributing to the alloy's business success.

**Global Market Outlook**

The global ferrochrome market size was valued at USD 17.8 billion in 2022 and is anticipated to grow at a compound annual growth rate (CAGR) of 6.5% from 2023 to 2030. Increasing stainless steel production around the globe is a significant factor driving the market growth. Ferrochrome (FeCr) is added to stainless steel to enhance its appearance and impart corrosion resistance. The minimum FeCr content in stainless steel is 10%, while the average content is 18%. The dynamics of the stainless steel industry play a crucial role in influencing FeCr supply and demand, as it accounts for the majority of ferrochrome consumption.

Ferrovanadium Market was valued US\$ 5.58 Bn in 2022 and is expected to reach 8.51 Bn by 2029, at a CAGR of 6.2% during a forecast period. Growing demand of this FeV during steel and metallic construction will generate huge opportunity for market growth. Ferrovanadium is defined as an alloy used as an additive to intensify the superiority of ferroalloys. FeV is also accepted in the engineering of steel product due to its high tensile strength and lightweight. Ferrovanadium have anticorrosive property towards hydrochloric, sulfuric acids and alkali solutions. It is a combination of vanadium and iron, and as per grade it varies from 35% to 80%. Moreover, ferrovanadium material has vast application in numerous end use industries such as transportation, oil and gas, and construction.

The global ferrotitanium market size was USD 228.1 million in 2021 and is projected to touch USD 356.84 million by 2031, exhibiting a CAGR of 4.6% during the forecast period. Ferrotitanium is an alloying additive made of iron and titanium, formed by reduction or melting, with a minimum weight of titanium of 20% and maximum weight content of 75%. Compared to silicon or manganese, ferrotitanium has a substantially higher deoxidizing capacity. Steel's mechanical qualities are further enhanced by ferrotitanium thanks to the metal's increased strength and corrosion resistance. In the steel sector, tool steel and stainless steel are where ferrotitanium is most frequently employed. Additionally improving alloy characteristics is ferrotitanium. It enhances their machining capabilities and increases their wear resistance. It is also added to profile cables with a fraction of 0 to 2 mm at the same time.

**Conclusion**

The booming success of the LCFC, FeMo, FeV, and FeTi business is a direct result of the indispensable role these alloys play in various thriving industries coupled with the advancements in production technology. As long as the demand for stronger, lighter, and more durable materials persists in our modern world, this business is set to continue its upward trajectory.

**Market Survey Cum Detailed Techno Economic Feasibility Report on all above Businesses are Available. Contact :**

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# Invest in Steel Containers (Cargo Containers)

- Emergency and Disaster Relief Housing
- Portable Offices and Workspaces
- Retail Spaces
- Art Studios and Workshops
- Farming and Gardening
- Recreational Spaces
- Military and Government Use
- Medical Facilities
- Cold Storage

**Global Market Outlook**

Steel Containers Market Size was valued at USD 114.8 Billion in 2022. The steel containers market industry is projected to grow from USD 118.82 Billion in 2023 to USD 156.46 Billion by 2032, exhibiting a compound annual growth rate (CAGR) of 3.50% during the forecast period (2023–2032). A significant market driver that could fuel the expansion of steel containers is the rising need for steel containers in the food industry for use in the handling, storage, and transportation of various food items.

The steel container market expanded as a result of a rise in the demand for ship-borne cargo transportation. Due to advantages over other modes of transportation, including cost effectiveness and a more secure method of carrying products, there is an increasing demand for the movement of cargo by waterways.

The Asia-Pacific Steel Containers Market is expected to grow at the fastest CAGR from 2023 to 2032 because of the existence of expanding economies, rising disposable income, and brisk growth in the food, beverage, and chemical industries. China is anticipated to have a lead in terms of steel containers market share over the projection period, while ASEAN and India, which are expected to dominate the market, are also expected to develop significantly. Moreover, China's steel containers market held the largest market share, and the Indian steel containers market was the fastest growing market in the Asia-Pacific region.

**Conclusion**

Starting a business centered on steel cargo containers offers an exciting opportunity to tap into a market ripe with potential. Not only will you be capitalizing on a growing trend, but you'll also be contributing to a more sustainable and innovative future. So why wait? Dive into the world of steel cargo containers and see what amazing opportunities await.

**PROJECT COST ESTIMATE  
CAPACITY**

<b>Cargo Containers (Size 20 Feet)</b>	<b>: 34 Nos Per Day</b>
<b>Plant &amp; Machinery</b>	<b>: ₹ 272 Lakhs</b>
<b>Cost of Project</b>	<b>: ₹ 1992 Lakhs</b>
<b>Rate of Return</b>	<b>: 29%</b>
<b>Break Even Point</b>	<b>: 51%</b>

**S**teel cargo containers, also known as intermodal containers, are robust, rectangular storage units made primarily from high-strength corrugated steel. These industrial-grade boxes, typically 8 feet wide, 8.5 feet tall, and either 20 or 40 feet long, are designed to be easily transported between different modes of transport – from ship to rail to truck – without needing to unload and reload their cargo. These containers are built to withstand the harsh realities of international shipping. Subjected to rough handling, varying weather conditions, and constant motion, they must be strong enough to protect valuable merchandise throughout its journey across the globe.

**Production of Steel Containers**

The production of steel containers, such as cargo containers, involves a complex and multi-stage process. Here's a breakdown of each step in the production process:

- 1. Unrolling & Cutting:** The process begins with the unrolling of large steel coils. These steel sheets are then cut into the required sizes for the sides, roof, and floor of the container.
- 2. Surface Treatment:** The cut steel sheets undergo surface treatment to remove any impurities and to prepare them for further processing. This can include processes like sandblasting, which cleans and etches the surface.
- 3. Corrugation:** The steel sheets for the sides and sometimes the roof are corrugated. This corrugation process involves shaping the steel sheets into a wave-like pattern, which adds strength and rigidity to the container.
- 4. Fabrication of Roof Panels:** Separate roof panels are fabricated, often using a different process or material to optimize for strength and durability.
- 5. Fabrication of Floor Braces:** Floor braces are fabricated separately. These braces will support the container's floor and provide additional structural integrity.
- 6. Different Stages of Welding:** Various components of the container are welded together. This includes welding the sides to the frame, attaching the roof, and securing the floor braces.
- 7. Door Frame Assembly:** The door frame is assembled separately. It includes the frame,

the locking mechanisms, and other components necessary for a functional door.

- 8. Installation of Doors & Walls onto Floor Frame:** The doors and corrugated walls are installed onto the floor frame. This step starts to bring the shape of the container together.
- 9. Installation of Roof:** The roof panel is installed onto the top of the container, completing the basic structure.
- 10. Priming:** The assembled container is primed to protect the steel and prepare it for painting. Priming helps in preventing corrosion.
- 11. Painting:** The container is painted, which adds another layer of corrosion protection and gives the container its final appearance.
- 12. Installing Floor Panels & Door Hardware:** The interior floor panels are installed, and the door hardware, such as locking mechanisms, is attached.
- 13. Water Proofing & Corrosion Resistance:** Additional waterproofing and corrosion resistance measures are applied. This may involve sealants and specialized coatings.
- 14. Waterproof Testing & Final Inspection:** The container undergoes waterproof testing to ensure it's airtight and watertight. A final inspection is conducted to ensure quality standards are met.
- 15. Material Handling Systems Involved:** Throughout this process, various material handling systems are used to move components and the container itself. This can include cranes, forklifts, and conveyor systems.

Each of these steps is crucial for ensuring the durability, strength, and longevity of the steel containers, making them suitable for transporting goods across long distances and various environmental conditions.

**Uses and Applications**

Steel containers, commonly known as cargo containers, are widely used in various industries due to their durability, versatility, and security. Here are some of the key uses and applications of steel containers:

- Shipping and Transportation
- Storage
- Modular Construction

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**Start  
Manufacturing of  
Particle  
Board  
(Wood Base)**

**P**article board, also known as chipboard or low-density fiberboard, is a type of engineered wood product made by compressing small particles of wood, such as sawdust, wood chips, and shavings, with a synthetic resin or binder under heat and pressure. This creates a flat, dense panel that can be used for a variety of purposes, such as furniture, cabinetry, and flooring.

**Uses and Applications**

Particle board, also known as chipboard or particleboard, is a versatile material made from wood chips, sawmill shavings, or even sawdust, and a synthetic resin or other suitable binder, which is pressed and extruded. It has a variety of uses and applications in different fields:

- **Furniture Manufacturing:** Particle board is widely used in the furniture industry. It's often used for inexpensive furniture and as a base to be covered with veneers in more expensive items.
- **Insulation:** Particle board has some insulating properties and can be used in construction to provide insulation.
- **Acoustic Panels:** Due to its density, particle board can be effective for acoustic panels in soundproofing applications.
- **Packaging:** For heavy items, particle board is sometimes used in packaging. It provides more protection than cardboard but is cheaper than solid wood.
- **Wall and Ceiling Panels:** In interior decoration, particle board is used as wall and ceiling panels. It can be designed to mimic various textures and styles.
- **Doors:** Some types of interior doors are made from particle board, either as the core material or as part of a veneered construction.
- **Home Decor Items:** Particle board is used in various home decor items such as picture frames, decorative shelves, and other small furnishings.

Despite its many uses, particle board does have limitations. It's not as strong as plywood or solid wood, can be damaged by moisture and water, and doesn't hold screws as well as other types of wood. However, its low cost and versatility make it a popular choice for many applications.

**Global Market Outlook**

Particle Board Market was valued at USD 19.3 Billion by 2030 and is expected to witness a 6.1% CAGR during the forecast period. The global market for particle board has been witnessing moderate growth in the past couple of years. The demand for laminated particle board and pre-laminated particleboard is expected to be driven by increasing demand for the cheaper wood-based products for various end-use applications in construction,

furniture, and infrastructure. In the construction industry, plain particle board is commonly used for manufacturing

PROJECT COST ESTIMATE	
CAPACITY	
Particle Board (Wood Based)	: 3,600 Nos Per Day
Plant & Machinery	: ₹ 16.30 Crores
Cost of Project	: ₹ 31.37 Crores
Rate of Return	: 30%
Break Even Point	: 50%

wooden panel products, such as particleboard cabinets, particle board kitchen cabinets, particleboard doors, and subfloors. This has minimized the overall cost of construction. Such factors have led to the increased use of particle board materials, driving the growth of the global particle board market across the globe.

**Manufacturing Process of Particle Board**

The manufacturing process of particle board, which is a type of engineered wood product, involves several stages. This process starts with wood as the primary raw material and ends with the final product being packed and sent for sale. Here's a detailed look at each step in the process:

- **Wood Preparation:** The first step involves gathering wood, which can be in the form of logs, branches, or wood waste from other processes. This raw material serves as the base for creating the particle board.
- **Cutting:** The wood is then cut into smaller pieces to make it easier to process. This step ensures that the wood can be handled more efficiently in the subsequent stages.
- **Chipping:** After cutting, the wood pieces are chipped into even smaller fragments. These wood chips are essential for creating a uniform particle board.

- **Grinding:** The chipped wood is then ground into finer particles. The size of these particles is crucial for the quality of the final product, affecting its density and strength.
- **Drying:** The ground wood particles are dried to reduce their moisture content. Proper drying is vital to prevent the final product from warping or developing mold.
  - **Mixing with Resin:** Once dried, the wood particles are mixed with a resin binder. This resin helps to bind the particles together under pressure and heat, giving the particle board its strength and durability.
  - **Cold Pressing:** The mixture of wood particles and resin is first subjected to cold pressing. This step compacts the mixture into a dense mat and begins the process of binding the particles together.
- **Hot Pressing:** After cold pressing, the mat undergoes hot pressing, which activates the resin binder and solidifies the bond between the wood particles. This step also determines the thickness of the final particle board.
- **Cutting:** The large sheets of particle board produced from the hot press are then cut into manageable sizes according to market demand or specific customer requirements.
- **Sizing:** The cut sheets are sized more precisely, ensuring that each board meets the exact specifications for thickness and dimensions.
- **Sanding:** The surfaces and edges of the boards are sanded to create a smooth finish. This step is crucial for preparing the boards for painting, laminating, or other finishes.
- **Packing:** Once the particle boards have been sized and sanded, they are packed for protection during storage and transportation.
- **Sent to Sale:** The final step involves distributing the packed particle boards to retailers or directly to customers for use in furniture, construction, and various other applications.

This manufacturing process allows for the efficient use of wood resources, including waste wood, to create a versatile and cost-effective material. Particle board is widely used in the furniture industry, construction, and for DIY projects due to its affordability and ease of use.

**Conclusion**

Starting a particle board manufacturing business can be a powerful move towards promoting sustainability. By transforming wood waste materials into a valuable product, manufacturers can actively contribute to waste reduction and resource efficiency in the woodworking industry. This not only makes good business sense but also positions the company as a responsible and environmentally-conscious entity.

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**S**olid rubber tyres, as their name suggests, are tyres that are constructed entirely out of solid rubber, unlike traditional tyres that are filled with air. This innovative technology deviates from the usual pneumatic tyre design, which contains an inflatable inner tube. Instead, solid rubber tyres provide a consistent, solid performance, quite literally, under pressure. They have been revolutionizing the market due to their unique and practical features. Unlike regular tyres, these do not need air to function, thereby eliminating the possibility of punctures or air leaks. Designed to be robust and sturdy, they can withstand harsh conditions and heavy loads, making them a favorite amongst industries such as construction, agriculture, and mining.

**Advantage of Solid Rubber Tyres**

Here are some of the key advantages:

- **Puncture and Flat Proof:** One of the most significant benefits of solid rubber tires is their resistance to punctures, which virtually eliminates the risk of flats. This is especially useful in industrial settings or construction sites where sharp objects like nails or shards of metal are common.
- **Durability:** Solid rubber tires are generally more durable than pneumatic tires. They are less susceptible to wear and tear, especially in harsh working environments. This can lead to longer tire life and reduced replacement costs.
- **Maintenance-Free:** Unlike pneumatic tires, solid rubber tires do not require air pressure checks or

**Setup  
Solid Rubber Tyres  
Business**

**PROJECT COST ESTIMATE**

**CAPACITY:**

Truck Tyre	: 200 Pcs. Per Day
Lorry Tyre	: 200 Pcs. Per Day
Bike Tyre	: 200 Pcs. Per Day
Car Tyre	: 200 Pcs. Per Day
Plant & Machinery	: ₹ 12.34 Crores
Cost of Project	: ₹ 44.28 Crores
Rate of Return	: 35%
Break Even Point	: 52%

inflation, making them virtually maintenance-free. This saves time and resources in industrial applications.

- **Resistance to Harsh Conditions:** Solid tires are often more resistant to extreme temperatures and corrosive substances. This

makes them ideal for use in environments where exposure to such conditions is common, like chemical plants or extreme weather conditions.

**Why to Start this Business?**

Starting a solid rubber tyre business is a smart move for entrepreneurs looking for a profitable opportunity in a growing industry. With the increasing demand for solid rubber tyres, there is a huge potential for growth and success in this field. They versatile and can be used in various industries, from construction to agriculture. This means that your business can cater to a wide range of customers and industries, increasing your potential for revenue. Moreover, solid rubber tyres have a longer lifespan than air-filled tyres, which means your customers will come back less frequently for replacements, resulting in increased customer loyalty and trust. The durability and

puncture-proof design of these tyres make them ideal for industries that require tough and reliable equipment.

**Global Market Outlook**

Global Solid Tire Market was valued USD 7.47 BN (by revenue) in 2022 and is anticipated to reach USD 11.55 BN by 2030 with a CAGR of 5.6%. Solid tires are the airless tires that are extremely durable, stable, puncture resistant, and maintenance free. Solid tires are also known as airless tires or non-pneumatic tires. These tires are either made up of solid rubber or molded with plastic compounds. They possess high load bearing capacity and thus used in lawn mowers, forklift trucks, tractors, motorized golf carts, platform vehicles and other heavy load bearing capacity vehicles. Rapid urbanization and industrialization in these regions have led to an increased demand for automobiles and heavy-duty equipment, thus fueling the market growth. Moreover, the increase in middle-class disposable income in these countries has led to a rise in automobile ownership, further boosting the demand for solid rubber tires.

The rise of electric vehicles (EVs) is another significant factor contributing to the solid rubber tires market growth. With their increased load and different handling characteristics, EVs benefit immensely from the stability and resilience that solid rubber tires offer. As the demand for EVs continues to grow, so does the need for solid rubber tires, creating a promising outlook for the market.

**Conclusion**

For entrepreneurs looking for a smart investment, starting a solid rubber tyre business offers a wide range of benefits, from versatility to customer loyalty and trust. And with the Indian market booming, there is no better time to tap into this growing industry.

**G**lass fiber reinforced polymer (GFRP) rebar is a type of composite rebar made from high-strength glass fibers embedded in a resin matrix. It is a relatively new product that has been developed for use in the construction industry as a substitute for steel rebar. GFRP rebar has several advantages over traditional steel rebar, including greater corrosion resistance and a lower cost.

**Scope of Start-up in Glass fiber reinforced polymer rebar Manufacturing Industry**

The scope for start-up in Glass Fiber Reinforced Polymer (GFRP) rebar manufacturing industry is immense, as the global construction industry is projected to expand at a rapid pace in the years to come. GFRP rebar is gaining popularity as a replacement for traditional steel reinforcement due to its superior corrosion resistance, lightweight, and lower cost. The advantages of using GFRP rebar can help in cutting down

**A Business Plan for  
Glass Fiber Reinforced  
Polymer (GFRP) Rebar**

the costs of construction, making it attractive for contractors to switch to GFRP rebar over steel.

**Uses and Application**

Glass fiber reinforced polymer rebar (GFRP) is a type of reinforcing bar used in the construction

**PROJECT COST ESTIMATE**

**CAPACITY**

Glass Fibre Reinforced Polymer (GFRP) Bar (Size 8mm to 36 mm)	: 360,000 MT Per Annum
Plant & Machinery	: ₹ 6 Crore
Cost of Project	: ₹ 61 Crores
Rate of Return	: 34 %
Break Even Point	: 51 %

industry. This material is composed of glass fibers, epoxy resin, and other additives.

**Global Market Outlook**

Glass fiber reinforced polymer (GFRP) is widely used in the construction industry for non-structural elements, such as facade, panels, piping, and channels. The Asia-Pacific region

has become an attractive market for the investors, owing to the presence of a number of emerging economies, such as India, China, Indonesia, Vietnam, and others in the region.

**Conclusion**

The scope of starting a GFRP rebar manufacturing business is excellent and provides a great opportunity for entrepreneurs to capitalize on the increasing demand of green building materials. With the right knowledge and resources, one can reap the benefits of this growing market in no time.

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**A**lloy wheels for two-wheelers are a type of wheel made from an alloy of aluminum or magnesium, and sometimes even both. These alloys are lightweight and offer superior performance over traditional steel wheels. The term 'alloy' refers to a mix of metals or a metal combined with other elements. The aluminum or magnesium alloys used in these wheels are known for their strength and lightweight characteristics, making them ideal for two-wheelers. These wheels are usually cast or forged into design, making them more appealing than regular steel wheels. With their aesthetic appeal and performance-enhancing attributes, they are popular in the modern two-wheeler market.

## Start Alloy Wheel Manufacturing Business for Two Wheelers

the cost-effectiveness of these materials. These metals are widely available and reasonably priced, contributing to profitable production costs. In addition to serving the two-wheeler market, diversification is also possible. The same manufacturing process can

be adapted to produce alloy wheels for other types of vehicles like cars and ATVs, further broadening the market scope.

### Global Market Outlook

The Alloy Wheel Market size was valued at USD 17.6 Billion in 2022 and the total Alloy Wheel Market revenue is expected to grow at a CAGR of 6.2% from 2023 to 2029, reaching nearly USD 28.48 Billion. An alloy wheel is a wheel made from an alloy of aluminum or magnesium. These wheels are popular among car enthusiasts due to their lightweight, strength, and aesthetic appeal. The demand for alloy wheels has been steadily increasing over the years due to several reasons. One major reason is that alloy wheels are lighter than steel wheels, which can improve a vehicle's handling, acceleration, and fuel economy. Additionally, alloy wheels are available in a wide range of styles and designs, allowing car owners to customize their vehicle's appearance. Moreover, alloy wheels are more resistant to corrosion and rust than steel wheels, which can make them a more durable and longer-lasting option. As a result, many car manufacturers are now offering alloy wheels as standard or optional equipment on their vehicles.

The North American region is a dominant player in the global alloy wheels market. It is expected to maintain its position as the market leader in terms of revenue and market share during the forecast period. In 2020, North America accounted for the largest share of the global alloy wheels market, and this trend is expected to continue through 2025. The North American market's dominance is attributed to various factors such as high disposable income, a well-established automotive industry, and a growing demand for premium and high-performance vehicles. The passenger cars segment is expected to hold the largest share of the North American alloy wheels market due to the increasing trend towards customization and personalization of vehicles.

### Conclusion

It's clear to see why the alloy wheels manufacturing business is a prospective area to venture into. Not only is the demand for two-wheelers on an upward trend, but the preference for alloy wheels amongst two-wheeler owners is also growing. This offers an excellent opportunity for those considering a business in this industry.

### The Benefit of Using Alloy Wheels for Two Wheelers

Alloy wheels undoubtedly elevate the riding experience by providing numerous perks. One of the key advantages lies in their lightweight nature, which enhances maneuverability and control. With alloy wheels, taking sharp turns or cruising at high speeds feels more effortless and precise. This weight difference also impacts the overall strain on the suspension components, leading to less wear and tear, and ultimately extending the longevity of your two-wheeler. In addition, alloy wheels have a reputation for their strength and durability. They are less prone to cracks or bends when compared to their steel counterparts. This quality makes them a reliable choice for rough terrains and less-than-ideal road conditions, ensuring the rider's safety. Alloy wheels are also acknowledged for their superior heat conduction. They disperse the heat generated from the braking system more efficiently, reducing the chances of brake failure due to overheating. This improved heat dissipation not only enhances the performance of the braking system but also ensures a smoother and safer ride.

### Why to Start Manufacturing Business of Alloy Wheel for Two Wheelers?

With the burgeoning popularity and demand for alloy wheels among two-wheeler owners, venturing into the alloy wheel manufacturing business can be a promising opportunity. Given their numerous benefits and increasing appeal, producing alloy wheels can be a lucrative business proposition. The primary reason to consider this manufacturing business is the rising preference for alloy wheels among bike enthusiasts. Alloy wheels offer enhanced performance, durability, and a distinctive aesthetic that has led to their growing popularity. This surge in demand translates into a potentially sizeable market for alloy wheel manufacturers. Moreover, since the production of alloy wheels involves the use of aluminum, magnesium, or a combination of both, manufacturers can tap into

PROJECT COST ESTIMATE CAPACITY	
Alloy Wheel for 2 Wheeler	: 400 Pcs Per Day
Plant & Machinery	: ₹ 157 Lakhs
Cost of Project	: ₹ 802 Lakhs
Rate of Return	: 28%
Break Even Point	: 46%

## Setup Plant of Wood Plastic Composite (WPC)

**W**ood Plastic Composite (WPC) is a material made of a combination of wood fiber and thermoplastic resin. WPC has become a popular building material due to its durability and sustainability, as it is made from recycled plastic and wood fibers.

### WPC Is an Ideal Material for a Variety of Applications

WPC is also a great choice for interior applications such as furniture and wall panels, due to its high resistance to moisture and wear. The material is extremely stable and can withstand changes in temperature and humidity, making it an ideal choice for use in areas such as bathrooms, kitchens, and even basements.

### Indian Market Outlook

The India wood plastic composites market reached a value of US\$ 196.7 Million in 2021. Looking forward, IMARC Group expects the market to reach US\$ 393.5 Million by 2027, exhibiting a growth rate (CAGR) of 12% during 2022-2027.

### Global Market Outlook

The global wood plastic composites market size was estimated at USD 5.76 billion in 2021 and is expected to grow at a compound annual growth rate (CAGR) of 11.5% from 2022 to 2030. Increasing demand for wood plastic composite in manufacturing noise barriers for street construction, sheet pilings for landscaping, and garden furniture is expected to surge the product demand during the forecast period.

### Conclusion

WPC has become increasingly popular in recent years due to its versatile nature and the fact that it offers a sustainable solution to traditional materials like wood. It is an ideal material for entrepreneurs looking to launch a business that involves outdoor products or structures. WPC provides a wide range of benefits, making it a smart choice for those looking for a reliable material that can withstand the elements.

PROJECT COST ESTIMATE CAPACITY	
Wood Plastic Composite (WPC)	: 10 Million Sq.Ft. Per Annum
Plant & Machinery	: ₹ 406 Lakhs
Cost of Project	: ₹ 790 Lakhs
Rate of Return	: 27 %
Break Even Point	: 61 %

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# Start a Production of Compressed Biogas

Compressed bio gas (CBG) is a renewable energy source produced from organic material such as agricultural waste, municipal waste, and other organic sources. It is made through anaerobic digestion (AD), a process which breaks down organic material in the absence of oxygen to create biogas and other useful products. Biogas is made up mostly of methane and carbon dioxide, both of which can be used for energy production.

### Uses and Applications

Compressed bio gas is a renewable energy source that has a wide range of uses and applications. It is a clean fuel that can be used to power vehicles, generate electricity, and provide heating and cooling. It can also be used in industrial processes, such as the production of fertilizer, plastics, and chemicals. As demand for renewable energy grows, compressed bio gas is likely to become an even more important part of the energy mix in the future.

### Future prospects for the compressed biogas sector

The future of the compressed bio gas industry is looking very promising. With the world's energy needs constantly increasing, renewable energy sources such

as compressed bio gas are becoming increasingly popular. With more businesses and governments recognizing the potential of this renewable energy source, the industry is likely to experience an even larger boom.

### Indian Market Outlook

India is the world's second-largest biogas consumer in the world. According to the Oil and Natural Resources Minister, India will receive Rs 2 lakh in investment to develop 5000 biogas plants by 2023-24. The installation of renewable energy sources is expected to increase significantly over the next decade, resulting in India biogas market growth.

### Global Market Outlook

The global biogas market size was valued at USD 60.06 billion in 2021 and is expected to expand at a compound annual growth rate (CAGR) of 4.3% from 2022 to 2030. The growing interest in finding effective means to obtain bio-products and biofuel from industrial food waste coupled with an increasing need for wastewater treatment in the industrial sector is expected to fuel the demand for biogas over the forecast period.

### Conclusion

In conclusion, the compressed bio gas industry is booming and the future looks bright. With advancements in technology and more people and businesses recognizing the benefits of using this renewable energy source, this industry is set to become one of the biggest players in the energy sector. With its low emissions, economic efficiency, and environmental friendliness, it is clear why this fuel is becoming increasingly popular with businesses and governments around the world.

### PROJECT COST ESTIMATE

#### CAPACITY:

Compressed Bio Gas	: 6 MT Per Day
Spent Slurry as Manure	: 60 MT Per Day
Plant & Machinery	: ₹ 172 Lakhs
Cost of Project	: ₹ 522 Lakhs
Rate of Return	: 27 %
Break Even Point	: 46 %

Market Survey Cum Detailed Techno Economic Feasibility Report on all above Businesses are Available. Contact :

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# SELECTED BUSINESS IDEAS FOR RIGHT INVESTMENT

## EACH DETAILED PROJECT REPORT (BUSINESS PLAN) CONTAINS



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**Market Survey Cum Detailed Techno Economic Feasibility Reports**

**BEGINNING :** Project Introduction, Brief History of the Product, Properties, BIS (Bureau of Indian Standard) Specifications & Requirements, Uses & Applications.

**MARKET SURVEY :** Present Market Position, Expected Future Demand, Statistics of Imports & Exports, Export Prospect, Names and Addresses of Existing Units (Present Manufactures).

**PLANT & MACHINERY :** List of Plant & Machineries, Miscellaneous Items and Accessories, Laboratory Equipments and Accessories, Plant Location, Electrification, Electric Load and Water, Maintenance, Suppliers/Manufacturers of Plant and Machineries.

**RAW MATERIAL :** List of Raw Materials, Properties of Raw Materials, Availability of Raw Materials, Required Quality of Raw Materials, Cost/Rates of Raw Materials.

**MANUFACTURING TECHNIQUES :** Formulae Detailed Process of Manufacture, Flow Sheet Diagram.

**PERSONNEL REQUIREMENTS :** Requirement of Staff & Labour, Personnel Management, Skilled & Unskilled Labour.

**LAND & BUILDING :** Requirement of Land Area, Rates of the Land, Built up Area, Construction Schedule, Plant Layout.

**FINANCIAL ASPECTS :** Cost of Raw Materials, Cost of Land & Building, Cost of Plant & Machineries, Fixed Capital Investment, Working Capital, Project Cost, Capital Formation, Cost of Production, Profitability Analysis, Break Even Point, Cash Flow Statement for 5 to 10 Years, Depreciation Chart, Conclusion, Projected Balance Sheet, Land Man Ratio.

- Prepared by highly qualified and experienced consultants and Market Research and Analyst Supported by a panel of experts and computerised data bank.
- Data provided are reliable and upto date collected from suppliers/manufacturers, plants already commissioned in India.
- NPCS Reports are very economical and immediately available on demand where as commissioned Feasibility Studies are time consuming and costly.

**FOR ASSESSING MARKET POTENTIAL, INVESTMENT DECISION MAKING CORPORATE DIVERSIFICATION PLANNING ETC.**

**NPCS Engineers and Consultants have prepared Market Survey Cum Detailed Techno Economic Feasibility Report on the following products which are most viable and profitable.**

## Business Ideas: 3.5 – 4 Crore (Plant and Machinery) : Selected Project Profiles for Entrepreneurs, Startups



- |   |  |  |
|---|--|--|
| <ul style="list-style-type: none"> <li>» Titanium Dioxide from Rutile Ilmenite Ore</li> <li>» Absorbent Surgical Cotton (Cotton Rolls)</li> <li>» Aluminium Cables and Conductors from Molten Aluminium Metal/Aluminium Ingots</li> <li>» Aluminium Extrusion</li> <li>» Aluminium Fluoride</li> <li>» Beer Plant</li> <li>» Bentonite Processing &amp; Pulverising</li> <li>» Craft Beer</li> <li>» Dairy Farming &amp; Dairy Products (Milk, Butter, Ghee, Paneer &amp; Curd)</li> <li>» Disposable Baby Diaper</li> <li>» Disposable Nitrile Gloves (Nitrile Examination Hand Gloves)</li> </ul> |  <ul style="list-style-type: none"> <li>» Disposable Surgical Face Mask &amp; N95 Masks</li> <li>» Paracetamol Tablets</li> <li>» Ginger Oil &amp; Ginger Powder Production Business</li> <li>» HDPE and UPVC Pipes</li> <li>» Herbal/Ayurvedic Hand Sanitizer</li> <li>» High Tensile Nuts &amp; Bolts (for Automobile Industry)</li> <li>» Hospital</li> <li>» Hospital 30 Bedded</li> <li>» Surgical Cotton Manufacturing Business</li> <li>» Integrated Unit Textile Mill and Readymade Garments</li> <li>» Invert Sugar Syrup</li> </ul> | <ul style="list-style-type: none"> <li>» IV Fluids (BFS Technology)</li> <li>» Jute Yarn, Jute Sutli &amp; Hessian Cloth Weaving Integrated Unit</li> <li>» Linear Alkyl Benzene Sulphonic Acid</li> <li>» Low Carbon Ferromanganese</li> <li>» LPG Cylinders</li> <li>» Hdpe Jumbo Bags (Flexible Intermediate Bulk Containers)</li> <li>» Paprika Oleoresin</li> <li>» Truck Trailer (Sidewall, Flatbed, Bulker, Tip Trailer &amp; Container Trailer)</li> <li>» Disposable Safety Razors</li> <li>» Solar Inverter (100 Kva – 1000 Kva)</li> <li>» Organic Yeast from Organic Molasses</li> </ul> |
|---|--|--|

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# SELECTED BUSINESS IDEAS FOR RIGHT INVESTMENT

- » Particle Board from Wheat/Rice Straw
- » PVC Edge Banding Tape Manufacturing Business
- » Epoxy Hardener Plant
- » Potato Starch
- » Chlorinated Polyvinyl Chloride



- » Copper Flats & Copper Tubes
- » Malic Acid (Powder)
- » Disposable Plate and Cups from Waste Rice Husk Powder
- » Surgical & N95 Masks



- » Synthetic Camphor
- » TMT Bars, Angles & Pipes
- » Tomato Products Tomato Ketchup, Sauce and Soup
- » Truck Body Building
- » Zinc Oxide from Zinc Dross



## Most Growing Industries to Start a New Business

# Start Business of Freon Gases for Refrigeration

Freon gases, often referred to simply as "Freon," are a type of chlorofluorocarbon (CFC) that have been extensively used in various cooling and refrigeration applications, and it's used to identify a range of CFCs and hydrochlorofluorocarbons (HCFCs). These gases are non-toxic, non-flammable, and have been extensively favored due to their superior cooling properties. Freon gases are often recognized by a series of numbers such as R-22, R-12, or R-134a, each number representing a different chemical composition and application.

### Uses and Applications

The versatility and superior cooling properties of Freon gases have found a wide range of applications in numerous sectors. Freon gases have a significant role in the automotive industry. They were formerly used in the air conditioning systems

of vehicles to provide a cooler cabin environment. Another crucial application of Freon is in industrial cooling systems. Large-scale manufacturing processes often produce immense heat that needs to be controlled to ensure the smooth operation of machinery and equipment. Industrial chillers that utilize Freon gases effectively manage this excess heat, thereby preventing overheating and ensuring optimal performance of the industrial processes.

In the medical field, Freon gases are used in various cooling applications such as in the refrigeration of blood, medicines, and other biological materials. They help maintain the precise low temperatures needed to preserve these materials' quality and integrity. Freon gases are also used in medical equipment like MRI machines, where they serve to cool the superconducting magnets. Moreover, Freon gases have applications in the IT industry. They are used in data centers to cool servers and prevent overheating, which could lead to data loss or equipment failure. With the increasing demand for data storage and the subsequent rise in data centers, the use of Freon gases in this industry has become increasingly vital.

### Benefit of Start Freon Gases Business?

Starting a business that deals with Freon gases has several benefits, both immediate and long-term, making it a potentially profitable venture. The demand for refrigeration and cooling services is continually growing. This increase is due to several factors, such as the rise in global temperatures, population growth, urbanization, and improved living standards. These factors lead to an increased reliance on air conditioning units, refrigerators, and other cooling appliances that utilize Freon gases. Hence, starting a business in this field can take advantage of this ever-increasing demand, providing ample opportunities for growth and expansion.

Furthermore, the versatility of Freon gases and their wide range of applications present numerous business opportunities. These gases are not only used in residential and commercial settings for air conditioning and refrigeration but also find application in automotive, industrial, medical, and IT industries. A business in this field could therefore cater to a diverse client base, improving its potential for profitability. For instance, a business could choose to specialize in providing Freon gases for a specific sector like the automotive industry or offer a range of services catering to various industries.

### Global Market Outlook

The global refrigerants market size was valued at USD 22.47 billion in 2022 and is projected to grow from USD 24.20 billion in 2023 to USD 41.21 billion by 2030, exhibiting a CAGR of 7.9% during the forecast period. A refrigerant is a mixture of liquid substances used in a refrigeration cycle and heat pump. Its transition from liquid to gaseous form takes place during the refrigeration cycle. They are preferred due to their properties such as high heat of vaporization, non-corrosive, high density in gaseous form, and moderate density in liquid form. Additionally, various available chemicals are used as refrigerants such as hydrofluorocarbons (HFCs), chlorofluorocarbons (HCFCs), hydrofluoroolefins (HFO), and other inorganic chemicals. Their main application is air conditioning systems for buildings, chemical, pharmaceutical, and food industries. The increasing demand from numerous end-use industries, mainly the automotive sector, is driving industry growth. Besides, rapid urbanization in emerging economies, the growing number of cold stores, and the increasing demand for green refrigerants are other factors expected to drive the global market growth during the forecast period.

Asia Pacific is expected to witness significant growth over the forecast period. This is due to rapid economic growth, mainly in the automobile and consumer goods industries. The region's rapid urbanization and improved living standards are further boosting the market growth.

### Conclusion

Starting a business that deals with Freon gases offers various benefits. From tapping into a growing market demand and catering to a diverse range of applications, to creating job opportunities and contributing positively to society, this business venture holds promising potential. With the right planning, innovation, and market strategies, entrepreneurs in this field can build a profitable and sustainable business.

### PROJECT COST ESTIMATE

CAPACITY:	
13.6 Kgs Cylinder	: 224,196 Nos Per Annum
1 Kg Cans	: 1,500,000 Nos Per Annum
500gm Cans	: 3,000,000 Nos Per Annum
by Product HCL Acid 30%	: 21,000 Nos Per Annum
Plant & Machinery	: ₹ 10.64 Crores
Cost of Project	: ₹ 32.29 Crores
Rate of Return	: 30%
Break Even Point	: 45%

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# Start Manufacturing of Cutting and Grinding Disc

**C**utting and grinding discs, also known as abrasive discs, are specialized tools used in various industries to cut, grind, or finish metal and other materials. They come in various forms, depending on their intended use. Some discs are designed to make quick, clean cuts, while others are crafted for precision grinding or polishing.

These discs consist of abrasive grains—hard particles that can grind or cut—embedded in a bonding material. The abrasive grains act like tiny cutting blades, each one removing a small piece of material as the disc spins. The type of abrasive grain can vary, with common types being aluminum oxide or silicon carbide, each suited for different materials and applications.

### Uses and Application of Cutting and Grinding Disc

They are available in various sizes and thicknesses, depending on the material you need to cut and the depth of cut you require. Common cutting disc types include:

**Abrasive cutting discs:** These are the most common type of cutting disc and are made with abrasive grains bonded together with resin. They are suitable for cutting a wide range of materials, but they can create rough cuts.

**Diamond cutting discs:** These discs are made with diamond segments bonded to a steel core. They are more expensive than abrasive discs, but they offer cleaner cuts and can last longer. They are ideal for cutting hard materials like concrete, stone, and tile.

**Metal cutting discs:** These discs are specifically designed for cutting metal. They are typically made with a combination of abrasive

grains and metal shreds. They can create fast and clean cuts, but they can also generate sparks and heat.

Grinding discs are used for shaping, smoothing, and sharpening materials. They are available in various shapes and sizes, depending on the application. Common grinding disc types include:

**Snagging discs:** These discs are used for removing large amounts of material quickly. They are typically made with coarse abrasive grains and can create rough finishes.

**Grinding discs:** These discs are used for shaping and smoothing materials. They are available in a variety of grits, from coarse to fine.

**Polishing discs:** These discs are used for creating a smooth, polished finish on materials. They are typically made with very fine abrasive grains.

**Flap discs:** These discs are made with abrasive cloth flaps attached to a backing plate. They are flexible and can be used for contour grinding and deburring.

### Why to Start This Business?

The case for venturing into the cutting and grinding disc business is compelling for several reasons. The sheer diversity and extensive use of these tools across a multitude of industries present a robust demand. The industries ranging from metal fabrication, automotive, construction, stone work, woodworking, pipe and pipeline, aerospace and defense, shipbuilding to oil and gas, all rely heavily on these discs. This constant demand signifies a steady market, thus making this business a promising one. Additionally, a business in cutting and grinding discs can be highly profitable. The production cost of these discs can be relatively low, especially when produced in large volumes. And considering their indispensable role in various

industries, businesses can price these products competitively and still make a good profit margin.

### Global Market Outlook

The global abrasives market size was estimated at USD 37.71 billion in 2023 and is projected to grow at a compound annual growth rate (CAGR) of 5.0% from 2024 to 2030. One of the key growth drivers is the growing metal fabrication industry, due to the increasing demand for pre-engineered buildings & components and developments in manufacturing sector. Growth of the metal fabrication industry is also driven by the rising demand from various end-use industries, including automotive, aerospace, agriculture, and medical. The market for abrasives is in a constant state of evolution due to technological advancements and a shortage of skilled laborers.

Asia Pacific dominated the market with a revenue share of over 55.0% in 2023. Infrastructural developments, rising investments in manufacturing sector, and growth in EV production in developing economies, are some of the factors expected to augment this growth. Southeast Asian countries are potential markets for abrasives. For instance, as per the General Statistics Office of Vietnam, industrial production index increased by 5.8% in 2023 compared to 2022. Growth in manufacturing and processing industries were key drivers behind the boost of industrial sector. Developments in manufacturing sector of the country have augmented need for machinery and product demand.

### Conclusion

The future of the cutting and grinding disc business is promising, albeit demanding. It requires constant innovation, stringent quality control, adept cost management, and a keen understanding of customer needs. However, those who can successfully navigate these challenges stand to reap substantial rewards in this burgeoning industry.

### PROJECT COST ESTIMATE

<b>CAPACITY:</b>	
<b>Cutting Disc Size (115 mm x 1 mm)</b>	<b>: 2,000 Pcs Per Day</b>
<b>Grinding Disc (115 mm x 6 mm)</b>	<b>: 2,000 Pcs Per Day</b>
<b>Plant &amp; Machinery</b>	<b>: ₹ 141 Lakhs</b>
<b>Cost of Project</b>	<b>: ₹ 423 Lakhs</b>
<b>Rate of Return</b>	<b>: 28%</b>
<b>Break Even Point</b>	<b>: 48%</b>

# Sugarcane Juice Preservation and Bottling Plant

**S**ugarcane juice is quite nutritious as it contains natural sugars, minerals like iron, magnesium, phosphorous, calcium and organic acids e.g. malic acid, succinic acid, acotinic acid etc. Preservation is done when Juice or food is kept for longer period without any deteriorated or spoils the juice by the direct contact with atmosphere. Sugarcane juice is excellent in treating urinary related diseases. It keeps the urine flow clear and aids the kidneys to perform better. Sugarcane juice relieves the burning sensation which arises due to infections of the urinary tract. The sugar cane juice provides the glucose, which is stored, as glycogen to be 'burned' by muscles when required. Sugar Industry contributes about 2500 crore rupees as tax to both central and state governments. The industry size in terms of capital is more than Rs. 40,000 crore. Almost 50 million people depend on sugar industry for their livelihood. We actively encourage a culture of innovation, which facilitates the development of new technologies and ensure a high quality product.

### PROJECT COST ESTIMATE

<b>CAPACITY</b>	
<b>Capacity</b>	<b>: 48, 00,000 Ltrs. /Annum</b>
<b>Plant &amp; Machinery</b>	<b>: ₹ 106 Lakhs</b>
<b>Cost of Project</b>	<b>: ₹ 467 Lakhs</b>
<b>Rate of Return</b>	<b>: 28%</b>
<b>Break Even Point</b>	<b>: 54%</b>

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# Start Industry of Egg Powder

**E**gg powder is essentially a dried or dehydrated form of eggs. This transformation from the familiar form of eggs that we know to a powdered substance happens through a process known as spray drying. In this procedure, fresh eggs are broken and the yolks and whites are separated. They are then pasteurized to eliminate any bacteria. The pasteurized eggs are sprayed into a heated chamber, where the water evaporates, resulting in a fine, dry powder. This powder can either be a blend of both the egg white and yolk, or it can be exclusively one or the other, depending on its intended use. The resulting product is easy to store, long-lasting, and retains much of the nutritional value of fresh eggs. It can be rehydrated by adding water and used in place of fresh eggs in a variety of recipes and dishes.

### The Nutritional Benefits of Egg Powder

The appeal of any food product usually hinges on its nutritional value, and egg powder stands out in this regard. This condensed, dehydrated form of eggs is a powerhouse of vital nutrients, including proteins, vitamins A, D, E, B12, and essential minerals like selenium. Moreover, it serves as a reliable source of riboflavin and pantothenic acid. These nutrients are critical for the body's energy production and overall well-being. One remarkable aspect of egg powder is its high protein content. A single serving of egg powder is equivalent to the protein value of two large eggs, making it an attractive option for individuals aiming to amplify their protein intake. Whether you're an athlete looking to enhance muscle recovery, a vegetarian seeking a valuable protein source, or someone simply trying to maintain a balanced diet, egg powder can meet your protein needs in a convenient, easy-to-use form.

### Why to Start Egg Powder Industry?

It's clear that there's a great potential for growth in the egg powder industry. But what makes it a particularly attractive venture for new and existing businesses. There are several compelling reasons. The rising consumer awareness and focus on health and nutrition make egg powder a timely product. Its high protein content, coupled with an array of essential vitamins and minerals, meets the consumer demand for nutrient-dense food options. The increasing popularity of fitness regimes and protein-rich diets also play a pivotal role in the surge in demand for egg powder. The convenience and versatility of egg powder make it a valuable addition to a wide array

of food products. From baked goods and sauces to protein shakes and emergency food kits, the potential applications of egg powder are vast and varied. This offers businesses a broad market and numerous opportunities for innovation and product development.

### Global Market Outlook

Global Egg Powder Market size is estimated to touch USD 3.92 billion by 2030 and anticipated to grow at a CAGR of around 4.5% during the forecast period, i.e., 2024-30. The Egg Powder market has experienced steady growth in recent years and is expected to continue expanding in the forthcoming years as well. The market growth can be attributed to the rising demand for convenient and shelf-stable egg-based products, driven by busy lifestyles and a focus on convenience foods across the globe.

Egg powder helps in the production of oil-based emulsions which are essential for medicine preparation. This preparation is mainly driven by the unique properties of egg yolk and its ability to serve as an emulsifying agent in vaccine formulations. Pharmaceutical firms such as Sanofi, MannKind, etc. use egg powder to manufacture various flu vaccines, yellow fever vaccines, rubella vaccines, etc. which are further anticipated to enhance the market size during 2024-2030.

The North American region is expected to hold a major share of the market owing to the increasing emphasis of consumers on healthy & active lifestyles, eating well, and exercising regularly. The rapid acceptance of egg protein in dietary supplements in North America is poised to stimulate product demand owing to its low cost, ease of processing, and high nutrient profile.

### Conclusion

The egg powder industry represents a lucrative opportunity given the rising consumer demand for nutrient-rich, convenient food options. The reduced logistics costs, combined with a growing global market, offer a promising landscape for businesses looking to enter or expand within this industry. Therefore, whether you're a startup looking for an innovative product idea or an existing business seeking to diversify, the egg powder industry warrants serious consideration.

### PROJECT COST ESTIMATE CAPACITY

Egg Powder	: 2,400 Kgs Per Day
Plant & Machinery	: ₹ 489 Lakhs
Cost of Project	: ₹ 930 Lakhs
Rate of Return	: 29%
Break Even Point	: 52%

# Eggshell Powder

**E**gg shell is a solid waste, with production of several tons per day. Eggshell is mostly sent to the landfill with a high management cost. It is economical to transform the egg shell waste to create new values from these waste materials. The eggshell wastes could convert to a) biodiesel production as solid base catalyst to use for biodiesel production, pollutants minimization, reducing the production costs of biodiesel and making the process to produce biodiesel fully, ecologically and friendly, b) absorbent of heavy metals from wastewater as serious environmental problem in the ecosystem, c) biomaterial in order to bone tissue replacements due to the rise in the number of patients, d) fertilizer and calcium supplement as nutrition for human, animals, plants, etc. Numbers of research articles have been included in this review, which describe a methodical growth in this subject matter.

The egg is the most nutritious natural product. Eggs are rich in protein, vitamins and minerals. The poultry industry in India has made remarkable progress and grown into an organized and highly productive industry. Dried egg powder can be stored and transported at room temperatures. It is quite stable and has a long shelf life. There is enough scope of an egg powder manufacturing plant, with a suitable capacity. Whole egg powder is consumed in hotels, hospitals, restaurants, and military establishment etc.

The eggshell membrane powder market is expected to grow at a CAGR of ~13% during the forecast period 2019-2029. The pet food supplement industry is an emerging industry, as consumers are becoming fonder of their pets and take proper care of their nutrition. In order to ensure that their pets get adequate nutrients, consumers prefer pet food supplements that are organic and natural, to avoid any adverse effects on pets. Egg membrane protein powder is mainly used in pet supplements to reduce bone disorders and comfort them in case of seasonal allergies. Hence, this evolving demand for pet supplements is driving the global egg membrane protein powder market.

The global eggshell membrane market is going through certain developments that are shaping its competitive landscape. These are also paving the road to growth over the forecast period. One such development is outlined below. Entrepreneurs who invest in this project will be successful.

### PROJECT COST ESTIMATE CAPACITY

Eggshell Powder	: 2 MT / Day
Plant & Machinery	: ₹ 11 Lakhs
Cost of Project	: ₹ 42 Lakhs
Rate of Return	: 30%
Break Even Point	: 79%

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