

ALUMINIUM UTENSILS

1. INTRODUCTION

The Aluminium Utensils project signifies a venture into the production of a diverse range of kitchenware and cookware made from high-quality aluminum. Aluminium utensils have gained widespread popularity due to their lightweight, excellent heat conductivity, and durability. This project aims to establish a state-of-the-art manufacturing facility specializing in the production of aluminium utensils. Located in Uttarakhand India, it endeavors to meet the growing demand for functional and aesthetically appealing cookware and kitchenware that caters to both domestic and commercial markets. The project's commitment to quality, innovation, and sustainability positions it to thrive in the dynamic and evolving utensils industry.

2. PRODUCT & ITS APPLICATION

The core product of the Aluminium Utensils project comprises an extensive range of kitchenware and cookware fashioned from premium-grade aluminum. These products include but are not limited to saucepans, frying pans, pressure cookers, casseroles, ladles, and cooking utensils. Aluminium utensils are prized for their exceptional heat distribution, which ensures even cooking and energy efficiency. Moreover, their non-reactive nature makes them suitable for preparing a wide array of dishes, including acidic or alkaline foods. With a focus on innovation, the project will introduce products featuring ergonomic designs, non-stick coatings, and eco-friendly materials, catering to the evolving needs of modern kitchens. These versatile utensils are destined for use in households, restaurants, hotels, and catering services, meeting the diverse culinary requirements of both professional chefs and home cooks.

3. DESIRED QUALIFICATION FOR PROMOTER

The promoter of the Aluminium Utensils project should possess essential qualifications, including technical knowledge in aluminium manufacturing, a strong business acumen, and expertise in quality control. Additionally, familiarity with environmental compliance, effective marketing and sales skills, access to reliable suppliers, and operational experience will be key factors in ensuring the project's success. A combination of these qualifications, along with a commitment to innovation and customer satisfaction, will play a vital role in driving the project forward in the competitive utensils industry.

4. INDUSTRY OUTLOOK AND TRENDS

The aluminium utensils industry is undergoing significant transformation driven by evolving consumer preferences and industry trends. A notable trend is the increasing demand for sustainable and eco-friendly kitchenware, pushing manufacturers to adopt environmentally responsible materials and production processes. Additionally, there is growing interest in non-stick and ceramic-coated aluminium utensils, which offer health benefits and ease of cooking.

The industry is also witnessing a surge in online sales channels, with consumers increasingly opting for the convenience of e-commerce platforms to purchase kitchenware. As such, the Aluminium Utensils project should consider a robust online presence and digital marketing strategies to tap into this expanding market.

Furthermore, the global focus on healthy cooking and home food preparation, especially in light of health-conscious lifestyles, presents opportunities for innovation in the design and functionality of aluminium utensils. Adhering to these industry trends and consumer preferences is pivotal for the project's competitiveness and growth in the aluminium utensils market.

5. MARKET POTENTIAL AND MARKETING ISSUES, IF ANY

The aluminium utensils manufacturing industry in India, including potential ventures in Uttarakhand, offers considerable market potential, buoyed by the nation's growing demand for durable and affordable kitchenware. As per the India Brand Equity Foundation, the Indian kitchenware market is on an upward trajectory, propelled by rising urbanization, increasing middle-class incomes, and a shift towards efficient kitchen solutions. Aluminium utensils, known for their durability and cost-effectiveness, align well with these market trends. Additionally, the global shift towards sustainable materials further positions aluminium utensils favorably in the market.

However, establishing an aluminium utensils manufacturing unit in Uttarakhand will involve navigating challenges such as stiff competition from alternative materials like stainless steel and non-stick cookware. There's also a growing consumer concern regarding the health implications of using aluminium utensils. Overcoming these perceptions through product innovation and effective marketing will be crucial. To succeed in this competitive landscape, a new venture in Uttarakhand would need to focus on quality enhancement, strategic marketing, and leveraging the region's industrial growth potential. Establishing a distinct brand presence and tapping into the evolving consumer preferences for sustainable and efficient kitchenware will be key to capturing market share.

India is the world's fifth largest producer of aluminum, accounting for about 5% of the world's total production. The country's population is also steadily increasing, which is expected to increase the market for aluminum utensils.

The aluminum extrusion market in India reached 982,980.4 tons in 2022. IMARC Group expects the market to reach 1,288,202.3 tons by 2028, representing a growth rate of 4.49% from 2023–2028.

The aluminum cookware market was valued at USD 23.2 billion in 2021 and is projected to reach USD 38.60 billion by 2030. This represents a compound annual growth rate (CAGR) of 5.90% from 2022–2030.

6. RAW MATERIAL REQUIREMENTS

The primary raw material for manufacturing aluminium utensils is high-quality aluminium sheets and coils. These raw materials are readily available from reputable suppliers within India. To ensure the production of durable and safe utensils, it is imperative to source aluminium materials that meet industry standards. Additionally, other materials such as handles, knobs, and non-stick coatings may be required for specific product variants. These supplementary materials should also adhere to quality and safety standards. Establishing reliable partnerships with aluminium and material suppliers within Uttarakhand or nearby regions is essential to maintain a consistent and cost-effective supply chain.

- Siddhi Aluminium Trading Co: Address: 541, Ground Floor Shivalik, Ring Rd, Jogiwala, Dehradun, Uttarakhand 248005
- Sai Aluminium Trading Company: 4/B PLS Plaza Raja Road, Gandhi Road, Dehradun City, Dehradun - 248001

7. MANUFACTURING PROCESS

The manufacturing process for aluminum utensils begins with the procurement of high-quality aluminum sheets and coils from reputable suppliers, ensuring they meet the necessary specifications for thickness, purity, and finish. Specialized machinery is then employed to cut these sheets into the appropriate sizes and shapes required for various utensil designs, which are subsequently shaped into the desired forms. This is followed by the pressing and forming

stage, where hydraulic presses and molds are utilized to shape the aluminum pieces into utensils such as saucepans, frying pans, and casseroles.

Handles, knobs, or additional components are joined to the utensils through welding or other effective methods to ensure secure and durable connections. The utensils are then subject to surface treatments, which may include polishing, anodizing, or the application of non-stick coatings, depending on the product requirements. Rigorous quality control measures are in place throughout the manufacturing process to inspect the finished utensils for any defects or imperfections, ensuring they adhere to safety and quality standards.

The utensils come in various sizes, including aluminum serving pans that range from sizes 19 to 48, featuring bottom diameters of 16 to 38 inches and top diameters of 19.50 to 42.50 inches. Full-size aluminum pans are also available, measuring 20 3/4" by 12 3/4" and available in shallow, medium, and deep depths, catering to a wide array of cooking and serving needs.

The Bureau of Indian Standards (BIS) is India's national standards body. The BIS standard IS 1660:2009 specifies the requirements for wrought aluminum and aluminum alloy utensils used for cooking. These requirements include manufacturing, chemical and physical requirements, and testing.

8. MANPOWER REQUIREMENT

Sr. No	Particulars	No. of Person	Months	Monthly Wages Amount/Person (Rs in Lakhs)	Monthly Wages - Total (Rs in Lakhs)	Annual Expenses (Rs in Lakhs)
1	Skilled	2	12	0.18	0.36	4.32
2	Semi-skilled	3	12	0.13	0.39	4.68
3	Unskilled	3	12	0.10	0.30	3.60
	Total					12.60

9. IMPLEMENTATION SCHEDULE

Sr. No.	Activity	Time Required (in months)
1	Acquisition of premises	1
2	Construction or Set-up	2
3	Procurement & installation of Plant & Machinery	2
4	Arrangement of Finance	2
5	Recruitment of required manpower	1
	Total time required (some activities shall run concurrently)	8

10. COST OF PROJECT

Sr. No.	Particulars	Amount (Rs in Lakhs)
1	Pre-operative Expenses	1.00
2	Land and Building	8.00
3	Machinery	27.43

4	Equipment and Furniture	1.05
5	Working Capital	5.00
	Total Project Cost	42.48

11. MEANS OF FINANCE

Bank-term loans are assumed @ 75 % of fixed assets.

Sr. No.	Particulars	Percentage Share	Amount (Rs in Lakhs)
1	Promoter's Contribution	25%	10.62
2	Bank Finance	75%	31.86
	Total		42.48

12. LIST OF MACHINERY REQUIRED

A. Machinery

Sr. No.	Particulars	Unit	Unit Cost (Rs in Lakhs)	Total Amount (Rs in Lakhs)
1	Hydraulic Press	1	5.50	5.50
2	Hydraulic Deep Drawing Press	1	8.00	8.00
3	Utensil spinning Lathes	1	0.60	0.60
4	Power Press	1	2.00	2.00
5	Profile cutting Machine	1	1.70	1.70
6	Edge trim/ beading/ curling m/c	1	0.50	0.50
7	Spot welding machine	1	0.60	0.60
8	Surface treatment tank	1	1.20	1.20
9	Riveting Machine	1	0.15	0.15
10	Polishing machines	2	0.25	0.50
11	Swaging /Embossing machine	1	0.15	0.15
12	Pillar drilling machine	1	0.20	0.20
	Total Amount in Rs.			21.10
	Tax, Transportation, Insurance, etc. in Rs.			4.22
	Electrification Expenses (Wiring) in Rs.			2.11
	Grand Total Amount in Rs.			27.43

B. Furniture & Equipment

Sr. No.	Particulars	Unit	Unit Cost (Rs in Lakhs)	Total Amount (Rs in Lakhs)
1	Office Furniture and Shelves	Set	0.65	0.65
2	Computers and printers	1	0.40	0.40
	Total Amount			1.05

13. SALES REALIZATION CALCULATION

Sr. No	Product	Quantity (in Units)	Sales in Percentage	Total Sales (Rs in Lakhs)
1	Aluminium Utensils - Various	6000	100%	60.00
		Total	100%	60.00

14. PROFITABILITY CALCULATIONS

Sr. No	Particulars - Amount (Rs.)	Year-I (Rs in Lakhs)
A.	Sales Realization	
	Sales (Assuming 15% growth per year)	60.00
	Other Income (Assuming constant)	
	Total Sales Realization	60.00
B.	Cost of Production	
	i) Raw Materials	28.80
	ii) Utilities (Assuming constant)	0.48
	iii) Manpower (Salaries/wages)	12.60
	iv) Administrative Expenses (Assuming constant)	0.56
	v) Selling & Distribution Expenses (Assuming constant)	0.42
	viii) Interest (Assuming constant)	4.25
	Total Cost of Production	47.11
	No of Units Produced	5,889
	Cost of Goods Sold	0.008
	Gross Profit/Loss (A - B)	12.90
	Less: Depreciation	3.40
C.	PBIT (Profit Before Interest and Tax)	9.50
D.	Income-tax (Assuming 28% tax rate)	2.66
E.	Net Profit/Loss (C - D)	6.84
F.	Repayment	4.25
	Retained Surplus (E - F)	2.59

15. BREAKEVEN ANALYSIS

Fixed cost	Year-I (Rs in Lakhs)
Depreciation	3.4
Interest	4.25
Manpower	3.78
Total Fixed cost	11.43
Variable cost	
Raw materials	28.8
Utilities	0.48
Man Power	8.82
Administrative expenses	0.56

Selling & distribution expenses	0.42
Total Variable cost	39.08
Contribution margin	20%
Break-Even Point in Value	57.15

16. STATUTORY/GOVERNMENT APPROVALS

To establish and operate the Aluminium Coil Rewinding project smoothly and in compliance with legal regulations, several statutory and government approvals are necessary. Key approvals and permits to be obtained include:

- **Business Registration:** Register the business entity as per the legal requirements of the region or country where the project is located. This may include choosing a suitable business structure, such as a sole proprietorship, partnership, limited liability company (LLC), or corporation.
- **Factory License:** Depending on the size and scale of operations, obtain a factory license or permit from the local authorities or state government. Compliance with safety and environmental standards is often a prerequisite for this license.
- **Environmental Clearances:** Ensure compliance with environmental regulations by obtaining clearances from the relevant environmental authorities. This is particularly important as the project may involve machinery and processes that could impact the environment.
- **Quality Certifications:** Seek industry-specific quality certifications, such as ISO (International Organization for Standardization) certification, to demonstrate the quality and standards adherence of the rewound aluminum coils.
- **Tax Registrations:** Obtain necessary tax registrations, including Goods and Services Tax (GST) registration, as applicable in the region or country.
- **Labor and Employment Compliance:** Comply with labor laws and regulations by obtaining any required permits for hiring and managing employees.
- **Fire Safety Approvals:** Ensure adherence to fire safety regulations and obtain necessary fire safety approvals for the premises, especially if flammable materials are used or stored.
- **Local Permits:** Depending on the location and specific regulations of the area, additional permits may be necessary, including zoning permits, signage permits, and health department permits.

17. BACKWARD AND FORWARD INTEGRATIONS

A. Backward Integration

- **Raw Material Sourcing:** Backward integration for the Aluminium Utensils project involves optimizing the sourcing of high-quality aluminium sheets and coils, which are the primary raw materials. This includes establishing strategic partnerships with aluminium suppliers and manufacturers within India. Ensuring a consistent supply of top-grade aluminium materials is crucial to maintain product quality and cost-efficiency. Exploring the possibility of recycling aluminium scrap or waste within the manufacturing process can further enhance backward integration and sustainability.

- **Component Production:** Consider in-house production of essential components or parts used in utensil manufacturing, such as handles, knobs, and non-stick coatings. This in-house component production can enhance control over product quality, reduce dependence on external suppliers, and streamline production processes. It may involve investing in machinery and skilled personnel to produce these components efficiently.
- **Quality Control:** Backward integration can extend to enhancing in-house quality control capabilities. By developing a well-equipped quality control laboratory and implementing rigorous testing procedures, the project can ensure that the manufactured aluminium utensils consistently meet industry standards. This not only improves product quality but also reduces the risk of defects and returns.

B. Forward Integration

- **Distribution and Sales:** Forward integration entails expanding the project's reach into downstream activities, including distribution and sales. Establishing a robust distribution network and effective sales channels is essential to directly reach consumers and commercial clients in Uttarakhand and neighboring regions. This involves setting up distribution centers, partnering with retailers, or leveraging e-commerce platforms to ensure efficient product delivery and availability.
- **Repair and Maintenance Services:** Consider offering repair and maintenance services for the aluminium utensils, including handles, knobs, or non-stick coatings. Providing repair and maintenance services not only adds value to the products but also creates an additional revenue stream. It can also foster customer loyalty and strengthen the project's brand as a reliable and customer-centric provider.
- **Diversification:** Explore opportunities for diversification by expanding the product line or entering related markets. Diversification can involve introducing innovative utensil variants, such as eco-friendly or specialty cookware. Additionally, branching out into related kitchenware or household products can help mitigate business risks and explore new avenues for growth within the consumer goods sector.

Strategic implementation of backward and forward integrations can enhance the Aluminium Utensils project's efficiency, control over the supply chain, market reach, and overall competitiveness. By carefully assessing opportunities in both directions, the project can achieve long-term sustainability and success in the utensils market in Uttarakhand, India.

18. TRAINING CENTERS AND COURSES

To enhance the production quality and efficiency of aluminum utensils, collaboration with technical institutes or experts is essential for training production technicians in advanced manufacturing techniques, including precision shaping, welding, and finishing processes. Additionally, developing in-house quality control training programs is crucial for educating inspectors on comprehensive inspection methodologies and adherence to industry standards, alongside effective defect identification. Furthermore, providing training for machine operators and maintenance personnel on the safe operation, troubleshooting, and regular maintenance of machinery ensures uninterrupted production and extends the lifespan of equipment. Swayam portal (link: <https://swayam.gov.in/>) can also be accessed for enhanced learning on business commerce, accounting, production, marketing, and areas of entrepreneurship.

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