

# **UTENSILS STAINLESS STEEL**

## **1. INTRODUCTION:**

Food preparation in kitchen involves tasks like cutting food items to size, heating food on an open fire or on a stove, baking, grinding, mixing, blending, and measuring, boiling, stirring, frying; etc. and utensils are made for each task. Also different containers are also required for storing the processed and cooked food. Besides the utensils are also required for meal serving and eating.

Utensils may be classified as cooking utensils that are put on fire i.e. cooking containers, or Kitchen processing utensil and Dining utensils consisting of containers and cutlery items and finally the food item storage containers. Liquids like water and beverages require a separate design class of utensils.

## **2. PRODUCT & ITS APPLICATION:**

Several size and shape of utensils and containers like pans, boiling cooker, frying pans, baking pans, etc. are used in cooking. Serving utensils consist of containers, trays, etc. Dining utensils include various sizes of plates, bowls and cutlery items like spoons, fork, spatula, knives etc.

These products are made from materials depending on the place of use Viz. Clay, glass, ceramics, wood, and metals like cast iron, brass, bronze, copper, mild steel, stainless steel, and aluminum. Modern materials like plastics are also popular for non-cooking utensils.

Most of the cooking utensils and many of the dining utensils and cutlery items for kitchen require strength for food processing ability, like cutting/ slicing as also resistance to heat and corrosion, etc. Stainless steel is probably the best suited material due to these properties and preferred for majority of cooking, dining and other utensil items. Also stainless steel provides bright finish, cleanability, and durability.

### **3. DESIRED QUALIFICATIONS FOR PROMOTER:**

Any person, preferably with manufacturing or marketing experience and ITI, Diploma or graduation in technical field.

### **4. INDUSTRY OUTLOOK/TREND**

Till the early eighties, kitchenware in the average Indian home would constitute primarily brass, bronze, copper and aluminum. Introduction of stainless steel utensils led to easy to clean, non corrosive, safe and brightly polished durable kitchen wares. Gradual changes were seen with stainless steel utensils replacing copper and aluminum. Stainless steel is probably the best suited material for utensils due to safe, non-corrosive bright finish, etc. advantages and is a preferred material for majority of cooking, dining and other utensil items.

Utensils are mainly manufactured by small and medium enterprises spread across various clusters in India and provide employment to sizable workforce. More than 4500 SME units are active in utensils sector with most in unbranded segment. The manufacturing clusters of Firozabad, Mumbai, Chennai and Kolkata are the major hubs of the unorganized players in cookware. The market is dominated by unorganized sector as organized players are accounting for only 25 ~ 30 per cent of the market share. Some of these units are offering branded utensils with good designs, copper/ aluminum cladding and decorative finish.

These products are of immense daily use in the household and hence there is a large market base in India with more than 250 million households. Utensils are of many varieties and the most important of them being Kitchen Utensils used for the preparation of meals. They are used for mixing, cutting, etc and many other activities in the kitchen. There are utensils for the preparation as well as serving and dining of every type of meal. Utensils should have good functional design in terms of the shape, size and thickness.

### **5. MARKET POTENTIAL AND MARKETING ISSUES. IF ANY:**

The utensils industry is witnessing tremendous technological changes, creating better and innovative products and new finishing and processing technology, etc leads to enormous

diversity of articles offered and has been one of the key drivers of the sector.

The market demand rises specially on the auspicious season of 'Diwali and other Festival' and demand is also fueled by 'Marriage Season' where category of Gifting packs are in huge demand. The category is becoming popular. According to one report, the kitchenware products market will grow at a considerable CAGR rate to reach over Rs. 55 billion by 2020 due to the increasing number of nuclear families and exposure of online distribution channels.

Cookware industry in India has received a major boom in the scenario and is fast growing. Some of the key drivers are as under.

- There are new set of products making entry in the market viz ceramic/ enameled Non-stick cookware, Copper clad cookware etc.
- Modern designs are becoming popular with awareness created by reality programs / cooking shows on TV and Cooking utensils, Serving utensils and diner wares are now segregated as different categories in house hold and buyers are aspiring to have each one.
- Mass manufacturing has empowered cookware to be delivered at lower costs, which in turn has extended the range of customer choice.
- For safety purposes, consumers have also started avoiding the use of plastic to avoid exposure to chemicals The best solution that emerges is stainless steel cookware which is affordable, convenient and really safe.

With growing population there will always be new demand generation of demand. Utensils have a specific life cycle requiring replacement as well. Besides there is very good export demand in developed as well as developing markets that can be met by good quality manufacturers. An entrepreneur needs to decide on the type of kitchen utensils he wants to manufacture. There are over 135 kitchen utensils design varieties available in the market. Success and profitability is ensured mostly on the selection and design selection.

## **6. RAW MATERIAL REQUIREMENTS:**

Various grades and thickness stainless steel sheets are required in coil or cut to length sheets. Other materials are consumables for process like forming lubes, polishing etc.

## **7. MANUFACTURING PROCESS:**

SS Utensil manufacturing involves metal shaping process often involving complex geometries with straight sides and as well as curvatures of different radii.

The process steps may include:

- The process starts with Blank preparation by Punching from coil or flat sheet.
- Deep drawing to shape and size metal sheet as per required design.
- Large stainless steel hollow wares are produced by roll forming of different sheets to cylindrical shells and edges are then welded together, by TIG welding. After welding the weld beads are rolled hammered, buffed and polished until the seam is no longer visible.
- Other operations like Bulging, Beading and Curling, Necking and Rib Forming may be carried out to create specific shapes and an inward or outward protrusion on surface.
- Special steps are necessary for knives, spoons, forks, etc. The Cutlery items may be formed in power or hydraulic press where the blanks from sheets in coil or flat sheet are prepared. These blanks are graded or rolled to the correct thickness required for cutlery items. Between operations, the blanks may be annealed to soften the metal for further operations.
- The items after processing are trimmed in press or trimming/ edge beading/ curling machines as per need.
- For high end design of wares and cutlery items, an additional step of electroplating process is carried out to give silver and gold-plated finish.
- The finished products are inspected for chafes, scratches, rough spots, discoloration, or any other flaws that might have occurred in processing and polished to rectify the defects before packing and dispatch.

## **8. MANPOWER REQUIREMENT:**

The unit shall require highly skilled service persons. The unit can start from 17 employees initially and increase to 34 or more depending on business volume.

Sr No	Type of Employees	Monthly Salary	No of Employees				
			Year 1	Year 2	Year 3	Year 4	Year 5
1	Skilled Operators	18000	6	8	12	12	12
2	Semi-Skilled/ Helpers	7000	8	8	16	16	16
1	Supervisor/ Manager	30000	1	1	1	1	1
2	Accounts/ Marketing	16000	1	2	3	3	3
3	Other Staff	7000	1	3	5	5	5
	TOTAL		17	19	34	34	34

## 9. IMPLEMENTATION SCHEDULE:

The unit can be implemented within 6 months from the serious initiation of project work.

Sr No	Activities	Time Required in Months
1	Acquisition of Premises	2
2	Construction (if Applicable)	2
3	Procurement and Installation of Plant and Machinery	2
4	Arrangement of Finance	2
5	Manpower Recruitment and start up	2
	Total Time Required (Activities run concurrently)	6

## 10. COST OF PROJECT:

The unit will require total project cost of Rs 105.77 lakhs as shown below:

Sr No	Particulars	In Lakhs
1	Land	0.00
2	Building	30.00
3	Plant and Machinery	42.40
4	Fixtures and Electrical Installation	3.00
5	Other Assets/ Preliminary and Preoperative Expenses	2.00
6	Margin for working Capital	28.37
	TOTAL PROJECT COST	105.77

## 11. MEANS OF FINANCE:

The project will require promoter to invest about Rs 47.72 lakhs and seek bank loans of Rs 58.05 lakhs based on 70% loan on fixed assets.

Sr No	Particulars	In Lakhs
1	Promoters Contribution	47.72
2	Loan Finance	58.05
	TOTAL:	105.77

## 12. WORKING CAPITAL REQUIREMENTS:

Working capital requirements are calculated as below:

Sr No	Particulars	Gross Amount	Margin %	Margin Amount	Bank Finance
1	Inventories	25.25	40	10.10	15.15
2	Receivables	19.62	40	7.85	11.77
3	Overheads	3.69	100	3.69	0.00
4	Creditors	16.83	40	6.73	10.10
	TOTAL	65.38		28.37	37.02

## 13. LIST OF MACHINERY REQUIRED:

Sr No	Particulars	UOM	Quantity	Rate	Total Value
	Main Machines/ Equipment				
1	Hydraulic Press	Nos	2	500000	1000000
2	Hydraulic Deep Drawing Press	Nos	1	900000	900000
3	Utensil spinning Lathes	Nos	2	60000	120000
4	Power Press	Nos	3	180000	540000
5	Profile cutting Machine	Nos	1	180000	180000
6	Edge trim/ beading/ curling m/c	Nos	2	40000	80000
7	Spot welding machine	Nos	1	65000	65000
8	Annealing Furnace	Nos	1	200000	200000

9	Surface treatment tank	Nos	1	100000	100000
10	Plating Plant for Decorative ware	Nos	1	350000	350000
10	TIG welding machines	Nos	3	60000	180000
11	Buffing and Polishing machines	Nos	6	20000	120000
12	Embossing machine	Nos	1	20000	20000
13	Pillar drilling machine	Nos	1	25000	25000
	Subtotal:				3880000
	Tools and Ancillaries				
1	Misc. equipment Dies tools etc.	LS	1	300000	300000
2	Hand Tools and gauges	LS	1	60000	60000
	Subtotal:				360000
	Fixtures and Elect Installation				
	Storage and transport bins and trolleys	LS	1	100000	100000
	Office Furniture	LS	1	20000	20000
	Telephones/ Computer	LS	1	30000	30000
	Electrical Installation	LS	1	150000	150000
	Subtotal:				300000
	Other Assets/ Preliminary and Preoperative Expenses	LS	1	200000	200000
	TOTAL PLANT MACHINERY COST				4740000

All the machines and equipments are available from local manufacturers. The entrepreneur needs to ensure proper selection of product mix and proper type of dies and tooling to have modern and flexible utensil designs. It may be worthwhile to look at reconditioned imported machines, dies and toolings. Some of the machinery and dies and toolings suppliers are listed here below:

1. Amritsar Machine Tools  
Plot No. 542, Part - A, M. I. E.,  
Bahadurgarh-124507, Haryana, India
2. Arpan Machine Tools  
No. 12/3, Atika Industrial Area, Near Jaydev Foundry  
Atika Industrial Area, Rajkot- 360002 Gujarat, India

3. RAJESH MACHINE TOOLS PVT. LTD.  
New Nehrunagar Main Road, 2 - Kailashpati Society, Plot No. 7, Dhebar Road  
(South), "ATIKA" Industrial Area, Rajkot, Gujarat, India  
<http://www.rajeshpowerpressindia.com>
4. ATLAS MACHINES (INDIA)  
20, AMBALAL DOHI MARG, (HAMMAM ST.),  
FORT, MUMBAI, Maharashtra, India  
<http://www.atlasmachinesindia.com>
5. Pacific Engineering Corporation  
A-297, MIDC-Mahape, Near Mahape Bus Depot,  
Anthony Garage, Thane-Belapur Road, MahapeMidc,  
Navi Mumbai-400710, Maharashtra, India
6. Other well-known machine manufacturers who can be searched from internet are:  
Batliboi Ltd., Bharat Fritz Werner, HMT Machine Tools, Praga Tools, Toolcraft Systems

#### 14. PROFITABILITY CALCULATIONS:

Sr No	Particulars	UOM	Year Wise estimates				
			Year 1	Year 2	Year 3	Year 4	Year 5
1	Capacity Utilization	%	30	40	55	70	80
2	Sales	Ra Lakhs	235.42	313.89	431.60	549.30	627.78
3	Raw Materials & Other Direct Inputs	Ra Lakhs	201.97	269.29	370.27	471.26	538.58
4	Gross Margin	Rs. Lakhs	33.45	44.60	61.32	78.05	89.20
5	Overheads Except Interest	Rs. Lakhs	14.01	14.01	14.01	14.01	14.01
6	Interest	Rs. Lakhs	8.13	8.13	8.13	8.13	8.13
7	Depreciation	Rs. Lakhs	7.74	7.74	7.74	7.74	7.74
8	Net Profit Before Tax	Rs. Lakhs	3.57	14.72	31.44	48.17	59.32

The basis of profitability calculation:



The Unit will have capacity of 300 MT of utensils with product mix consisting small and simple to deep drawn bigger utensils of modern designs viz pans, casseroles and skillets with Bakelite handles per year. The running sizes /types/ designs will be selected. The bulk /Distributor sales prices of Aluminum utensils range from Rs 150 to Rs350 per kg. depending on type/design/volume. The Stainless-steel sheets / circles used for utensils cost range from Rs 140 to Rs 250 per Kg. The material requirements are considered with wastage/ scrap of 15 % of finished products and scrap to be sold at @ Rs 90 ~ 110 per Kg. and the income of same is added. Energy Costs are considered at Rs 7 per Kwh. The depreciation of plant is taken at 10 % and Interest costs are taken at 14 -15 % depending on type of industry.

#### **14. BREAK EVEN ANALYSIS**

The project can reach break-even capacity at 26.80 % of the installed capacity as depicted here below:

<b>Sr No</b>	<b>Particulars</b>	<b>UOM</b>	<b>Value</b>
1	Sales at Full Capacity	Rs. Lakhs	784.72
2	Variable Costs	Rs. Lakhs	673.22
3	Fixed Cost incl. Interest	Rs. Lakhs	29.88
4	Break Even Capacity	% of Inst Capacity	26.80

#### **16. STATUTORY/ GOVERNMENT APPROVALS**

The unit shall need industrial unit registration of state. The industry registration and approval for factory plan, safety for Fire requirement, registration as per Labour laws ESI, PF etc shall be required as per rules and applicability. Before starting the unit will also need GST registration for procurement of materials as also for sale of goods. There are no pollution control requirements, while unit will have to ensure solid waste/ scrap disposal in proper manner. Entrepreneur may contact State Pollution Control Board where ever it is applicable.

#### **17. BACKWARD AND FORWARD INTEGRATION**

The machines and equipments offer scope for diversification in to producing other types of utensils, consumer durable and industrial parts/ components by using the spare capacities and

machine capabilities which may be attempted. As such there is not much scope for organic backward or forward integration.

## **18. TRAINING CENTERS/COURSES**

There are no specific training centers for design or production technology. However the dies and Tools development courses run by several centers of excellence viz CIPET centers, Indo German Tool Room at Ahmedabad, Rajkot, Chennai, and CTTC Bhubaneshwaretc shall be helpful.

The most important scope of learning is in new product design and development by associating with institutes like NID etc. Entrepreneur may also study the new product designs, product range, features and specifications of leading Brands / competitors across the world by scanning the Internet and downloading data. Viz. North American, Europe, China etc markets.

Udyamimitraportal (link :[www.udyamimitra.in](http://www.udyamimitra.in) ) can be accessed for hand-holding services viz. application filling / project report, Training, Skill Development, mentoring etc.

Entrepreneurship program that helps to run business successfully is available from Institutes like Entrepreneurship Development Institute of India (EDII) and its affiliates all over India.

### **Disclaimer:**

Only few machine manufacturers are mentioned in the profile, although many machine manufacturers are available in the market. The addresses given for machinery manufacturers have been taken from reliable sources, to the best of knowledge and contacts. However, no responsibility is admitted, in case any inadvertent error or incorrectness is noticed therein. Further the same have been given by way of information only and do not carry any recommendation.