

# 33 MARBLE STONE CUTTING AND POLISHING



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## 1. INTRODUCTION

The project, "Marble Stone Cutting and Polishing," is an endeavor that holds immense potential for micro and small-scale entrepreneurs in the Uttarakhand region of India. Uttarakhand, known for its rich reserves of marble and other natural stones, offers a favorable environment for the establishment of marble cutting and polishing units. Marble, being a high-value natural resource, offers various opportunities for value addition through cutting, polishing, and finishing processes. This project aims to provide valuable insights and guidance to prospective entrepreneurs who are eager to tap into the vast opportunities presented by this sector.

## 2. PRODUCT & ITS APPLICATION

The primary objective of the Marble Stone Cutting and Polishing project is to engage in the processing of raw marble into finished products with high aesthetic and commercial value. The end products may include:

- **Marble slabs and tiles:** These are widely used in construction and interior decoration.
- **Sculptures and artifacts:** Marble's versatility allows for the creation of intricate sculptures and decorative items.
- **Countertops and tabletops:** Polished marble surfaces are popular choices for kitchens, bathrooms, and furniture.
- **Decorative mosaics:** Marble can be cut into smaller pieces and assembled into stunning mosaic patterns.

These products find extensive applications in the construction and interior design industries, as well as in the export market, contributing to the economic growth of Uttarakhand and the nation as a whole.

## 3. DESIRED QUALIFICATION FOR PROMOTER

Prospective promoters entering Uttarakhand's Marble Stone Cutting and Polishing industry require technical expertise, business acumen, market awareness, regulatory compliance knowledge, and financial stability. Technical understanding of cutting and polishing processes is essential, along with skills in business management for efficient operations. Understanding market demand and compliance with regulations are crucial, alongside financial stability for sustained operations. Coupled with an entrepreneurial spirit, these attributes ensure success in this sector.

## 4. INDUSTRY OUTLOOK AND TRENDS

Uttarakhand's Marble Stone Cutting and Polishing industry is poised for growth due to rising demand in construction, real estate, and exports. Technological advancements enhance productivity, while sustainability practices gain traction. Customization trends cater to consumer preferences for personalized marble products.

The global marble market is expected to grow at a compound annual growth rate (CAGR) of 4.6% from 2023 to 2030. This growth is due to the increasing construction of residential and commercial buildings.

Here are some other statistics about the marble market:

- In 2020, the global marble market was valued at USD 13 billion.
- In 2022, the global marble market was estimated at USD 64.67 billion.
- In 2024, the marble market is estimated at USD 20.81 billion.
- By 2029, the marble market is expected to reach USD 26.07 billion.
- The COVID-19 pandemic negatively impacted the marble market in 2020.

## 5. MARKET POTENTIAL AND MARKETING ISSUES; IF ANY

The Marble Stone Cutting and Polishing market in Uttarakhand holds substantial potential driven by construction, tourism, and export opportunities. Marble is in demand for various applications in construction and hospitality sectors. Exporting to international markets offers growth prospects. However, businesses may face challenges such as competition, price fluctuations, and export compliance. Adapting to market trends, ensuring product quality, and managing pricing strategies are essential for success in this competitive industry. Some of existing players in this business are:

- **Nautiyal Marbles:** Address: 26, General Mahadev Singh Rd, Near PCF Godown, Chaman Vihar, Sewla Kalan, Niranjanpur, Dehradun, Uttarakhand 248001. Phone: 098376 35269
- **Sys Facility Provider Pvt. Ltd.:** 1, Select Square, Inder Road, Dalanwala, Dehradun - 248001 (Opp. Dwarka Store)
- **Doon Building Decoration:** Office - 40/4 Bhandari Bagh Block 3, Bhandari Bagh, Dehradun - 248001 (Near By Kalika Mandir)
- **Nextech Concrete Technologies:** G 54 Gali No 7, Gulshan Park, Nangloi, Delhi - 110041 (Near By Ujala Cygnus Sonia Hospital)

## 6. RAW MATERIAL REQUIREMENTS

The Marble Stone Cutting and Polishing industry primarily relies on the following raw materials:

- **Marble Blocks:** The primary raw material is marble blocks extracted from quarries. Uttarakhand has abundant reserves of marble, including varieties like Makrana, Ambaji, and Banswara, which are suitable for various applications.
- **Water:** Water is essential for the cutting and polishing processes, as it cools and lubricates the cutting tools and machinery.
- **Abrasive Materials:** Abrasives such as diamond-tipped tools and abrasive compounds are used for cutting and polishing marble surfaces.
- **Chemicals:** Some processes may require chemicals for cleaning, sealing, or enhancing the appearance of marble products.
- **Electricity:** Power supply is essential to operate cutting, polishing, and shaping machinery.

Some of raw materials' suppliers are:

- **Shivalik Marbles:** No. 74 Bypass Road, Pragati Vihar, Dehradun-249201, Uttarakhand, India
- **Taneja Traders:** Tulsi Vihar Colony, Haridwar Road, Shyampur, Dehradun, Dehradun-249202, Uttarakhand, India
- **Bharat Marbles And Granites:** GMS Road, Near Olympus High School, Niranjan Pur, Dehradun-248001, Uttarakhand, India

## 7. MANUFACTURING PROCESS

The Marble Stone Cutting and Polishing process involves quarrying, block preparation, cutting, shaping, and polishing. Marble blocks are extracted, prepared, and cut into slabs or tiles using specialized machinery. Further shaping and profiling may occur, followed by polishing for a

polished finish. Quality control checks ensure product specifications are met before packaging and distribution to wholesalers, retailers, or export markets. Each step is crucial, from quarrying to packaging, to ensure the quality and visual appeal of the marble products.

The ISO 9001:2015 standard is a management system that applies to the design, manufacturing, and marketing of agglomerated stone products.

The ISO quality standards for marble polishing include:

- **Polishing:** 85–95 GU for a premium polish, 75–85 GU for a standard polish, and 65–75 GU for a sub-standard polish
- **Thickness tolerance:** (-1, +1 mm)
- **Diagonal tolerance:** (-1, +1 mm)

The Indian standard for marbles is IS: 1130-1969 (R2008).

## 8. MANUFACTURING PROCESS

Sr. No	Particulars	No.	No of month in year	Wages/Salaries per month (Rs. In Lakhs)	Annual Expense (Rs. In Lakhs)
1	Self-employed	1	-	-	-
2	Skilled Person	2	12	0.2	4.8
3	Semi-skilled Person	2	12	0.15	3.6
4	Unskilled	3	12	0.12	4.32
	<b>Total</b>				<b>12.72</b>

## 9. IMPLEMENTATION SCHEDULE

Sr. No.	Activity	Time Required (in months)
1	Acquisition of premises	1.5
2	Construction (if applicable)	2
3	Procurement & installation of Plant & Machinery	1.5
4	Arrangement of Finance	2
5	Recruitment of required manpower	1
	Total time required (some activities shall run concurrently)	<b>6</b>

## 10. COST OF PROJECT

Sr. No	Particulars	Annual Expenses (Rs. in lakhs)
1	Land	-
2	Building (Rented)	-
3	Plant & Machinery	44.60
4	Equipment and Furniture Exp.	2.45
5	Misc. Fixed Asset	0.02
6	Preoperative & Preliminary Exp.	0.35
7	Working Capital	6.66
	<b>Total Project Cost</b>	<b>54.08</b>

## 11. MEANS OF FINANCE

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

Sr. No.	Particulars	Annual Expenses (Rs. in lakhs)
1	Promoter's contribution	21.63
2	Bank Finance	32.45
	<b>Total</b>	<b>54.08</b>

## 12. LIST OF MACHINERY REQUIRED

### A. Machinery

Sr. No	Particulars	Unit	Price per Unit (Rs. in lakhs)	Total Amount (Rs. in lakhs)
1	Quarrying Machinery	set	12.00	12.00
2	Marble Cutting Saw	set	6.00	6.00
3	Marble Polishing Machine	set	3.50	3.50
4	Diamond-Tipped Tools	set	1.50	1.50
5	Water Recycling System	set	2.50	2.50
6	Forklift or Crane	set	5.00	5.00
7	Electrical Control Panels	set	1.00	1.00
8	Dust Collection System	set	2.50	2.50
9	Compressor and Air Tools	set	1.80	1.80
10	Generator for Power Backup	set	4.50	4.50
11	Inspection and Quality Control Tools	set	0.80	0.80
12	Material Handling Equipment	set	2.00	2.00
<b>Total Amount</b>				<b>43.10</b>
Tax, Transportation, Insurance etc.				1.00
Electrification Exp.				0.50
<b>Grand Total Amount</b>				<b>44.60</b>

### B. Furniture & Equipment

Sr. No	Particulars	Unit	Price per Unit (Rs. in lakhs)	Total Amount (Rs. in lakhs)
1	Computer & Printer	2	0.85	1.70
2	Weighing Scales	set	0.60	0.60
3	Office Furniture (Desks, Chairs, etc.)	10	0.15	0.15
	<b>Total Rs.</b>			<b>2.45</b>

1. Ronak Sales Corporation  
Shop No. 104, Shyam Joyti Complex,  
Building No. 283, Nataniyo Ka Rasta,  
Tripolia Bazar, Kanwar Nagar,  
Jaipur-302003, Rajasthan, India
2. Sana Industries India  
House No. 85-86, Extn Shahzada Bagh Shahzada Bagh,  
Uttam Nagar, Delhi - 110035, India
3. BrushMac India  
B-778, Ground Floor,  
G D Colony, Mayur Vihar,  
Phase-III, New Ashok Nagar,  
Delhi - 110096, India
4. Surie Porex Industries Private Limited  
4, Local Shopping Complex, Ring Road,  
Naraina,, Near Kali Mata Mandir,  
New Delhi-110028, Delhi, India

### 13. SALES REALISATION

Sr. No	Product	Sales Realisation in lakhs
1	Countertops, Tabletops, Slabs and Titles, Sculptors and Artifacts, Decorative Mosaics	123.00

### 14. PROFITABILITY CALCULATIONS

Sr. No	Particulars	Annual Expenses (Rs. in lakhs)
A.	Sales realisation	123.00
B.	Cost of production	
i)	Raw materials	73.80
ii)	Utilities	1.50
iii)	Manpower Cost (Salaries/wages)	12.72
iv)	Administrative expenses	0.70
v)	Packaging Cost	0.37
vi)	Material Lost Cost	0.37
vii)	Selling & distribution expenses	1.44
viii)	Repairs & maintenance	0.00
ix)	Rent	0.40
x)	Interest	3.70
xi)	Misc. expenses	0.00
	Total (B)	95.00
	Gross profit/loss (A – B)	28.00
	Less: Depreciation	4.68

C.	PBIT	23.32
D.	Income-tax	3.50
E.	Net profit/loss	19.83
F.	Repayment (Annual)	3.13
G.	Retained surplus (E-F)	16.70

## 15. BREAKEVEN ANALYSIS

Fixed cost	
Land & Building Rent	0.40
Depreciation	4.68
Interest	3.70
Manpower	3.82
<b>Total Fixed cost</b>	<b>12.59</b>
Variable cost	
Raw materials	73.80
Utilities	1.50
ManPower	8.90
Administrative expenses	0.70
Selling & distribution expenses	1.44
<b>Total Variable cost</b>	<b>86.34</b>
<b>Contribution margin</b>	<b>20%</b>
Break-Even Point in Value	62.97

## 16. STATUTORY/GOVERNMENT APPROVALS

In Uttarakhand, India, setting up a Marble Stone Cutting and Polishing unit requires various statutory and government approvals to ensure compliance with local regulations. Entrepreneurs must navigate through the following approvals and permits:

- A. Business Registration:** Register the business entity with the appropriate government authorities, such as the Registrar of Companies (ROC) for private limited or LLP registration.
- B. Pollution Control Clearances:** Acquire necessary clearances from the State Pollution Control Board (SPCB) to ensure compliance with environmental regulations.
- C. Land and Building Approvals:** Secure land and building approvals from the local development authority and municipal authorities.
- D. Water and Electricity Connections:** Arrange for water and electricity connections from the respective government utilities or agencies.
- E. Goods and Services Tax (GST) Registration:** Register for GST with the Goods and Services Tax Network (GSTN) to comply with India's indirect tax system.

## 17. BACKWARD AND FORWARD INTEGRATIONS

### A. Backward Integration

Backward integration in the Marble Stone Cutting and Polishing project in Uttarakhand involves activities that bring the business closer to the source of raw materials (marble blocks) or enhance control over the supply chain. Potential strategies for backward integration include:

- 1. Marble Quarry Ownership:** Consider owning or leasing marble quarries to secure a consistent supply of high-quality raw materials.

- 2. Export Market Expansion:** Explore opportunities for exporting finished marble products to international markets, establishing distribution channels or partnerships as needed.
- 3. Online Sales Platforms:** Utilize e-commerce platforms to sell marble products directly to customers and provide customization options.
- 4. Interior Design Services:** Offer interior design and consulting services to customers, guiding them on the use of marble products in their projects.
- 5. Value-Added Services:** Provide value-added services such as installation, maintenance, and repair of marble products to enhance customer satisfaction and loyalty.

## 18. TRAINING CENTERS AND COURSES

For entrepreneurs and individuals interested in venturing into the Marble Stone Cutting and Polishing industry in Uttarakhand, there are training centers and courses available to acquire the necessary skills and knowledge. These training centers offer a range of programs related to stone cutting, polishing, and related skills. While the availability of such courses may vary, here is a general overview:

### 1. National Skill Development Corporation (NSDC):

- The NSDC is a government initiative that collaborates with various training providers to offer skill development programs in a wide range of sectors, including the construction and marble industry. They may offer courses in stone cutting and polishing.

### 2. Industrial Training Institutes (ITIs):

- ITIs are vocational training institutes that offer courses related to various trades and skills. Some ITIs in Uttarakhand may provide courses in stone cutting and polishing.

### 3. Local Skill Development Centers:

- Local skill development centers and vocational training institutes may offer short-term courses in stone cutting and polishing techniques. These centers are often established in partnership with government agencies or NGOs.

### 4. Apprenticeships:

- Some marble cutting and polishing businesses in Uttarakhand may offer apprenticeship programs where individuals can learn on the job while gaining practical experience.

It's advisable for aspiring entrepreneurs and workers to research specific training centers, institutions, and courses in Uttarakhand based on their location and the specific skills they wish to acquire. Additionally, government initiatives and skill development schemes may provide financial support or scholarships for individuals pursuing skill development programs in the marble industry.

### Disclaimer

Only few machine manufacturers/institutes are mentioned in the profile, although many machine manufacturers/institutes are available in the market. The addresses given for machinery manufacturers/institutes 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.