# Pre-Feasibility Study Dates Paste Manufacturing Unit.



## **Small and Medium Enterprises Development Authority**

# Ministry of Industries & Production Government of Pakistan

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## 1 DISCLAIMER

This information memorandum is to introduce the subject matter and provide a general idea and information on the said matter. Although, the material included in this document is based on data/information gathered from various reliable



sources; however, it is based upon certain assumptions, which may differ from case to case. The information has been provided on as is where is basis without any warranties or assertions as to the correctness or soundness thereof. Although, due care and diligence has been taken to compile this document, the contained information may vary due to any change in any of the concerned factors, and the actual results may differ substantially from the presented information. SMEDA, its employees or agents do not assume any liability for any financial or other loss resulting from this memorandum in consequence of undertaking this activity. The contained information does not preclude any further professional advice. The prospective user of this memorandum is encouraged to carry out additional diligence and gather any information which is necessary for making an informed decision, including taking professional advice from a qualified consultant/technical expert before taking any decision to act upon the information.

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#### **Document Control**

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#### **2 EXECUTIVE SUMMARY**

Dates Paste Manufacturing unit is proposed to be located in adjoining areas and major towns of any of the major cities of Pakistan.

The project is aiming at to add value to the raw dates locally available as well as dates coming from various parts of the world especially, from Balochistan and Iran to produce Quality Products etc.

The Dates Paste Manufacturing unit has the capacity of Producing **168000 Kilo gram** annually and will be operational for 312 days a year and 8 hours a day in 1 shift. Initial utilization **70%** and will increase it by **5%** annually. The Maximum capacity utilization will be **95%**.

The total project investment is **Rs.2912,388/-** with an Internal Rate of Return (IRR) of **32%** and Net Present Value (NPV) of **1,851,484/-**. The total project investment would be paid back in **2.90** years.

#### 3 INTRODUCTION TO SMEDA

The Small and Medium Enterprises Development Authority (SMEDA) was established in October 1998 with an objective to provide fresh impetus to the economy through development of Small and Medium Enterprises (SMEs).

With a mission "to assist in employment generation and value addition to the national income, through development of the SME sector, by helping increase the number, scale and competitiveness of SMEs", SMEDA has carried out 'sectoral research' to identify policy, access to finance, business development services, strategic initiatives and institutional collaboration and networking initiatives.

Preparation and dissemination of prefeasibility studies in key areas of investment has been a successful hallmark of SME facilitation by SMEDA.

Concurrent to the prefeasibility studies, a broad spectrum of business development services is also offered to the SMEs by SMEDA. These services include identification of experts and consultants and delivery of need-based capacity building programs of different types in addition to business guidance through help desk services.

#### 4 PURPOSE OF THE DOCUMENT

The objective of the pre-feasibility study is primarily to facilitate potential entrepreneurs in project identification for investment. The project pre-feasibility

may form the basis of an important investment decision and in order to serve this objective, the document/study covers various aspects of project concept development, start-up, and production, marketing, finance and business management.

The purpose of this document is to facilitate potential investors in **Dates Paste Manufacturing unit** by providing them with a general understanding of the business with the intention of supporting potential investors in crucial investment decisions.

The need to come up with pre-feasibility reports for undocumented or minimally documented sectors attains greater imminence as the research that precedes such reports reveal certain thumb rules; best practices developed by existing enterprises by trial and error, and certain industrial norms that become a guiding source regarding various aspects of business set-up and its successful management.

Apart from carefully studying the whole document one must consider critical aspects provided later on, which form basis of any Investment Decision.

#### 5 BRIEF DESCRIPTION OF PROJECT & PRODUCT

The project aims to develop a production facility for manufacturing value added products made from locally available Dates. The value-added products will include Paste, Syrup, Dates Crash. Major market demand is for Paste & followed by Syrup products. Pakistan has wide verities of Dates. Most of these Dates are presently sold in raw or minimally processed form, with very little added value. This project will have a demonstration effect & encourage other entrepreneurs to follow suit in seeking to obtain greater revenues from their dates resources by adding value within Pakistan prior to sales. Moreover, Dates acquired from the nearby Irani markets are also expected to be processing here. Thus, the facility has the potential to become economically viable for the production of value-added Dates Products products.

Pakistan contains Wide range of dates verities which being supplied to the local markets in Pakistan & are exported to the international market without value addition & worth-while economic benefits. The Farm owners as well as local Dates dealers are unaware of the true worth of their product & most often, as they are compelled to sell their products on a very nominal price. They are discouraged to run their Farms on appropriate lines as such abandon their harvesting activity while running into ultimate losses.

Establishment of this facility will provide these mine owners an opportunity to sell their products at their doorsteps & will get educated on how the raw material is

value added & the economic benefits are taken. The facility will contribute allot towards generation of economic activities in the far-flung Dates cultivating areas of Balochistan. This activity will give a much-needed boost to the Sector at large. The project is aiming at to add value to the raw material locally available as well Dates coming from various parts of the world especially, Dates coming from Iran.

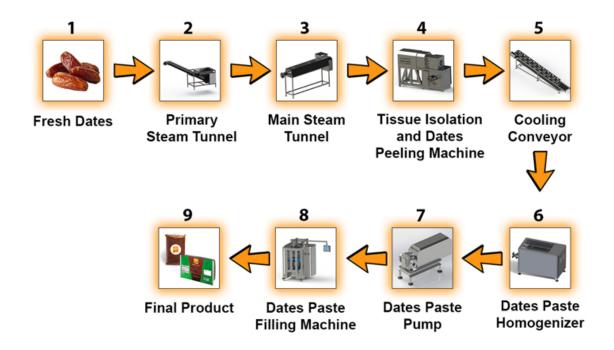
Following key parameters must be addressed as per pre-feasibility study under preparation

- Technology: This proposed unit with local processing machines including Washing Machines, Pitting Machine, Grinding Machine, pasteurizing Machine, Filling Machine.
- Location: The unit will be located at or near cities clusters including Peshawar, Rawalpindi, Turbat, Quetta, Karchi, or in areas where the raw material and skilled labour will be accessible
- Product: Keeping in view the market demand and characteristics "only properly establish and well protected systems" is recommended to be the final product of the proposed prefeasibility.
- Target Market: In addition to local markets in Karachi, Lahore and Islamabad an enormous export market for the Pakistani Dates exists in Europe, USA, Middle East, Hong Kong, Taiwan, etc.
- **Employment Generation:** The proposed project will provide direct employment to 8 people. Financial analysis shows the unit shall be profitable from the very first year of operation

#### 5.1 PRODUCTION PROCESS

The Production process is stated below...

**Figure 1: Production Process** 



#### 6. CRITICAL FACTORS

Before making the decision to invest in manufacturing unit for perfume, one should carefully analyze the associated risk factors. The important considerations in this regard include:

- · Appointment of skilled staff
- Use of good quality raw materials
- Factory location must take into account the availability of electric power and water supply, proximity to supply sources and markets, and optimum visibility and ease of access by customers.
- Sufficient inventory of cutting blades and proper maintenance of machinery.
- Machinery should be calibrated and good quality
- Good cutting & faceting skills are required to produce quality stones.
- Use of modern technology and machines for maintaining quality and boosting appearances
- Maintenance of manufacturing machinery
- Continuous inspection of production process

#### 7. GEOGRAPHICAL POTENTIAL FOR INVESTMENT



The proposed manufacturing unit has potential to provide good entrepreneurship opportunity if the business is established in large to medium cities of Pakistan like Karachi, Lahore, Islamabad, Peshawar, Quetta, Turbat, Faisalabad, etc. The proposed locations are suitable where the raw material is accessible and Skilled Labour is available.

#### 8. POTENTIAL TARGET CUSTOMERS / MARKETS

The market of the proposed unit is primarily segmented between FMCG market. The house hold usage of Dates Paste is Increasing day by day in general. Furthermore, there is huge potential to target the international market for processed Dates Paste include, UAE, Thailand, Japan, UK, USA, Europe et.

#### 9 PROJECT COST SUMMARY

#### 9.1 Project Economics

All the figures in this financial model have been calculated for estimated sales of Rs. 7,043,750/- in the year one. The capacity utilization during year one is worked out at 70% with 5% increase in subsequent years up to the maximum capacity utilization of 95%.

The following table shows internal rate of return, payback period and net present value of the proposed venture.

**Table 1: Project Economics** 

| Description                   | Details   |
|-------------------------------|-----------|
| Internal Rate of Return (IRR) | 32%       |
| Payback Period (yrs.)         | 2.9       |
| Net Present Value (Rs.)       | 1,851,484 |

## 9.2 Project Financing

Following table provides details of the equity required and variables related to bank loan;

**Table 2: Project Financing** 

| Description                           | Details |
|---------------------------------------|---------|
| · · · · · · · · · · · · · · · · · · · |         |

| Total Equity (50%)                    | 1,456,194 |
|---------------------------------------|-----------|
| Bank Loan (50%)                       | 1,456,194 |
| Markup to the Borrower (%age / annum) | 20%       |
| Tenure of the Loan (Years)            | 8         |

## 9.3 Project Cost

Following fixed and working capital requirements have been identified for operations of the proposed business.

**Table 3: Project Cost** 

| Description                    | Amount Rs. |
|--------------------------------|------------|
| Capital Cost                   |            |
| Plant and Machinery            | 1700,000   |
| Furniture & Fixture            | 160,000    |
| Office Equipment               | 55,000     |
| Pre-operating cost             | 443,000    |
| Total Capital Cost             | 2,358,000  |
| Working Capital                |            |
| Equipment spare part inventory | 2          |
| Raw Material Inventory         | 94,386     |
| Up-front Building Rent         | 360,000    |
| Cash                           | 100,000    |
| Total Working Capital          | 554,000    |
| Total Project Cost             | 2,912,388  |

#### 9.4 Space Requirement

The space requirement for the proposed **Gemstones Cutting and Faceting** project are on rental basis and monthly rent is given in the following table;

**Table 4: Space Requirement** 

| Description               | Estimated Area (Sq.ft) | Unit Cost<br>(Rs.) | Total Cost<br>(Rs.) |
|---------------------------|------------------------|--------------------|---------------------|
| Management and Production | 500                    | 60                 | 30,000              |



| Factory area | 500 | 70 | 35000  |
|--------------|-----|----|--------|
| Total        |     |    | 65,000 |

#### 9.5 Machinery & Equipment Requirement

Plant, machinery and equipment for the proposed project are stated below;

**Table 5: Machinery & Equipment** 

| Description         | Quantity | Unit Cost<br>(Rs.) | Total Cost<br>(Rs.) |
|---------------------|----------|--------------------|---------------------|
| Washing Machine     | 1        | 350,000            | 350,000             |
| Pitting Machine     | 1        | 250,000            | 250,000             |
| Grinding Machine    | 1        | 500,000            | 500,000             |
| Posturizing Machine | 1        | 300,000            | 300,000             |
| Filling Machine     | 1        | 300,000            | 300,000             |
| Total               |          |                    | 1700,000            |

## 9.6 Furniture & Fixtures Requirement

Details of the furniture and fixture required for the project are given below;

**Table 6: Furniture & Fixture** 

| Description                | Quantity | Unit Cost<br>(Rs.) | Total Cost<br>(Rs.) |
|----------------------------|----------|--------------------|---------------------|
| Furniture Lump sum         | 1        | 100,000            | 100,000             |
| Air Conditioners (1.5 ton) | 1        | 60,000             | 60,000              |
| Total                      |          |                    | 160,000             |

#### 9.7 Office Equipment Requirement

Following office equipment will be required for **Gemstones Cutting and Faceting** project;

**Table 7: Office Equipment** 

| Description       | Quantity | Unit Cost<br>(Rs.) | Total Cost<br>(Rs.) |
|-------------------|----------|--------------------|---------------------|
| Desktop Computers | 1        | 30,000             | 55,000              |
| Printer           | 1        | 22,000             | 22,000              |



| Telephone Sets | 1 | 3,000 | 8,000  |
|----------------|---|-------|--------|
| Total          |   |       | 55,000 |

#### 9.8 Human Resource Requirement

Human Resource required for Smoothly running the unit is stated below.

**Table 8: Human Resource Requirement** 

| Description        | No. of Employees | Monthly Salary per person (Rs.) |
|--------------------|------------------|---------------------------------|
| CEO                | 1                | 50,000                          |
| Manager            | 1                | 25,000                          |
| Planning In-Charge | 1                | 25000                           |
| Labor              | 2                | 18000                           |
| Accountant         | 1                | 18000                           |
| Plant Operator     | 2                | 18000                           |
| Total              | 8                |                                 |

#### 9.9 Utilities and other costs

An essential cost to be borne by the project is the cost of utilities cash in hand for running expenses are Rs. 100,000 per month which includes the utilities. Furthermore, promotional expense being essential for the marketing of Project unit is estimated as 1% of Revenue that for year 1.

#### 9.10 Revenue Generation

Based on the capacity utilization of **70%**, sales revenue during the first year of operations is estimated as under;

Table 9: Revenue Generation – Year 1

| Description | Kgs<br>Produced<br>(No.) | Finished<br>Goods<br>Inventory<br>(No.) | Kgs<br>available<br>for Sale<br>(No.) | Sale<br>Price /<br>unit<br>(Rs.) | Sales<br>Revenue<br>(Rs.) |
|-------------|--------------------------|---|---------------------------------------|----------------------------------|---------------------------|
| All Purpose | 4695                     | 4695                                    | 4695                                  | 1500                             | 7,043,750                 |
| Total       |                          |   |                                       |                                  | 7,043,750                 |





## **10 CONTACT DETAILS**

In order to facilitate potential investors, contact details of private sector Service Providers relevant to the proposed project be given.

## 10.1 Machinery Suppliers

| Name of<br>Supplier                                   | Address  | Phone                 | Fax | E-mail                  | Website                     |
|---|--|-----------------------|-----|-------------------------|-----------------------------|
| Jujube<br>processing<br>line                          | No.5899 Tingwei Rd.Jinshan<br>Industrial<br>District,Shanghai,China  | 0086-021-<br>37901188 |     | EMail: Info@Triowin.Com | http://en.triowin.com/      |
| Shenzhen Oln<br>Electronic<br>Technology<br>Co., Ltd. | Floor 8, Xixixiang Chamber<br>Of Commerce Building, Jinhai<br>Road, Xixiang Street,<br>Shenzhen, Guangdong,<br>China |                       |     | tasanol.en.alibaba.com  | http://www.tasanoltools.com |

# 11 USEFUL WEB LINKS

| Small & Medium Enterprises Development Authority (SMEDA)                 | www.smeda.org.pk             |
|--|------------------------------|
| Government of Pakistan   | www.pakistan.gov.pk          |
| Ministry of Industries & Production                                      | www.moip.gov.pk              |
| Ministry of Education, Training & Standards in Higher Education          | http://moptt.gov.pk          |
| Government of Punjab   | www.punjab.gov.pk            |
| 1  |                              |
| Government of Sindh  | www.sindh.gov.pk             |
| Government of Khyber Pakhtunkhwa   | www.khyberpakhtunkhwa.gov.pk |
| Government of Balochistan  | www.balochistan.gov.pk       |
| Government of Gilgit Baltistan   | www.gilgitbaltistan.gov.pk   |
| Government of Azad Jamu Kashmir  | www.ajk.gov.pk               |
| Trade Development Authority of Pakistan (TDAP)                           | www.tdap.gov.pk              |
| Security Commission of Pakistan (SECP)                                   | www.secp.gov.pk              |
| Federation of Pakistan Chambers of Commerce and                          | www.fpcci.com.pk             |
| Industry (FPCCI) State Bank of Pakistan (SBP)                            | ununu ohn org ple            |
| , , ,  | www.sbp.org.pk               |
| Punjab Small Industries Corporation                                      | www.psic.gop.pk              |
| Sindh Small Industries Corporation                                       | www.ssic.gos.pk              |
| Pakistan Horticulture Development and Export Company (PHDEC)             | www.phdec.org.pk             |
| Punjab Vocational Training Council (PVTC)                                | www. <b>pvtc</b> .gop.pk     |
| Technical Education and Vocational Training Authority                    | www.tevta.org                |
| (TEVTA)  |                              |
| Pakistan Readymade Garment Technical Training Institute                  | www.prgmea.org/prgtti/       |
| Livestock & Dairy Development Department, Government                     | www.livestockpunjab.gov.pk   |
| of Punjab.   |                              |
| Punjab Industrial Estates (PIE)  | www.pie.com.pk               |
| Faisalabad Industrial Estate Development and Management Company (FIEDMC) | www.fiedmc.com.pk            |
|  |                              |



## **12 ANNEXURES**

## 12.1 Income Statement

| Statement Summaries Income Statement          |           |           |           |            |            |            |   |            |            | SMEDA        |
|---|-----------|-----------|-----------|------------|------------|------------|---|------------|------------|--------------|
| income Statement                              |           |           |           |            |            |            |   |            |            | Rs. in actua |
|   | Year 1    | Year 2    | Year 3    | Year 4     | Year 5     | Year 6     | Year 7                                  | Year 8     | Year 9     | Year 1       |
| Revenue                                       | 7,043,750 | 8,245,781 | 9,236,883 | 10,306,480 | 11,459,945 | 12,702,990 | 13,367,454                              | 14,035,827 | 14,737,618 | 15,474,49    |
| Cost of goods sold                            | 3,534,496 | 4,212,275 | 4,809,644 | 5,475,866  | 6,218,160  | 7,044,461  | 7,645,020                               | 8,278,878  | 8,965,612  | 9,709,66     |
| Gross Profit                                  | 3,509,254 | 4,033,506 | 4,427,239 | 4,830,614  | 5,241,785  | 5,658,529  | 5,722,434                               | 5,756,949  | 5,772,006  | 5,764,83     |
| General administration & selling expenses     |           |           |           |            |            |            |   |            |            |              |
| Administration expense                        | 1,548,000 | 1,698,715 | 1,864,105 | 2,045,597  | 2,244,759  | 2,463,312  | 2,703,143                               | 2,966,325  | 3,255,131  | 3,572,05     |
| Travelling & Comm. expense (phone, fax, etc.) | 154,800   | 169,872   | 186,410   | 204,560    | 224,476    | 246,331    | 270,314                                 | 296,633    | 325,513    | 357,20       |
| Office expenses (stationary, etc.)            | 77,400    | 84,936    | 93,205    | 102,280    | 112,238    | 123,166    | 135,157                                 | 148,316    | 162,757    | 178,6        |
| Professional fees (legal, audit, etc.)        | 17,609    | 20,614    | 23,092    | 25,766     | 28,650     | 31,757     | 33,419                                  | 35,090     | 36,844     | 38,6         |
| Depreciation expense                          | 191,500   | 191,500   | 191,500   | 191,500    | 191,500    | 191,500    | 191,500                                 | 191,500    | 191,500    | 191,5        |
| Amortization expense                          | 88,600    | 88,600    | 88,600    | 88,600     | 88,600     | -          | -                                       | -          | -          | -            |
| Subtotal                                      | 2,790,097 | 3,062,526 | 3,344,357 | 3,652,786  | 3,990,296  | 4,270,999  | 4,639,668                               | 5,041,193  | 5,480,317  | 5,960,63     |
| Operating Income                              | 719,157   | 970,980   | 1,082,882 | 1,177,827  | 1,251,489  | 1,387,530  | 1,082,766                               | 715,756    | 291,689    | (195,79      |
| Other income                                  | -         | -         | -         | -          | _          | -          | _                                       | -          | _          | _            |
| Gain / (loss) on sale of assets               | -         | -         | -         | -          | -          | -          | -                                       | -          | -          | -            |
| Earnings Before Interest & Taxes              | 719,157   | 970,980   | 1,082,882 | 1,177,827  | 1,251,489  | 1,387,530  | 1,082,766                               | 715,756    | 291,689    | (195,79      |
| Interest expense                              | 319,476   | 281,854   | 258,558   | 230,151    | 195,511    | 153,273    | 101,767                                 | 38,962     | _          | _            |
| Earnings Before Tax                           | 399,681   | 689,126   | 824,324   | 947,677    | 1,055,978  | 1,234,257  | 980,999                                 | 676,794    | 291,689    | (195,79      |
| Tax   | 79,936    | 137,825   | 164,865   | 189,535    | 211,196    | 246,851    | 196,200                                 | 135,359    | 58,338     | _            |
| NET PROFIT/(LOSS) AFTER TAX                   | 319,745   | 551,301   | 659,459   | 758,141    | 844,782    | 987,406    | 784,799                                 | 541,435    | 233,351    | (195,79      |
| Balance brought forward                       |           | 319,745   | 871,046   | 1,530,505  | 2,288,646  | 3,133,429  | 4,120,835                               | 4,905,633  | 5,447,068  | 5,680,42     |
| Total profit available for appropriation      | 319,745   | 871,046   | 1,530,505 | 2,288,646  | 3,133,429  | 4,120,835  | 4,905,633                               | 5,447,068  | 5,680,420  | 5,484,6      |
| Owner's Withdrawals                           | -         | -         | -         | -,200,040  | -          | -,120,033  | -,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | -          | -          |              |
| Balance carried forward                       | 319,745   | 871,046   | 1,530,505 | 2,288,646  | 3,133,429  | 4,120,835  | 4,905,633                               | 5,447,068  | 5,680,420  | 5,484,6      |
|   | 515,115   | 0.1,0.0   | 1,000,000 | 2,200,070  | 5,155,127  | .,.20,033  | .,, 00,000                              | 5,,000     | 2,000,.20  | 2,.01,0      |
|   |           |           |           |            |            |            |   |            |            |              |



## 12.2 Balance Sheet

| Statement Summaries Balance Sheet  |           |           |           |           |           |           |           |           |           |           | SMEDA         |
|------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
|                                    |           |           |           |           |           |           |           |           |           |           | Rs. in actual |
|                                    | Year 0    | Year 1    | Year 2    | Year 3    | Year 4    | Year 5    | Year 6    | Year 7    | Year 8    | Year 9    | Year 10       |
| Assets                             |           |           |           |           |           |           |           |           |           |           |               |
| Current assets                     |           |           |           |           |           |           |           |           |           |           |               |
| Cash & Bank                        | 430,000   | 973,569   | 1,765,166 | 2,523,465 | 3,347,434 | 4,213,167 | 5,060,818 | 5,642,975 | 5,916,056 | 6,218,111 | 6,815,28      |
| Accounts receivable                | -         | 192,979   | 209,446   | 239,489   | 267,717   | 298,170   | 330,999   | 357,129   | 375,387   | 394,157   | 413,86        |
| Finished goods inventory           | _         | 153,674   | 176,000   | 200,925   | 228,722   | 259,691   | 294,164   | 318,543   | 344,953   | 373,567   | 404,56        |
| Raw material inventory             | 94,386    | 123,879   | 155,579   | 194,625   | 242,623   | 301,520   | 355,729   | 418,764   | 492,969   | 580,323   |               |
| Total Current Assets               | 554,388   | 1,477,104 | 2,342,494 | 3,198,437 | 4,130,423 | 5,120,869 | 6,094,863 | 6,795,879 | 7,193,682 | 7,636,906 | 7,633,71      |
|                                    |           |           |           |           |           |           |           |           |           |           |               |
| Fixed assets                       |           |           |           |           |           |           |           |           |           |           |               |
| Land                               | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -             |
| Building/Infrastructure            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -             |
| Machinery & equipment              | 1,700,000 | 1,530,000 | 1,360,000 | 1,190,000 | 1,020,000 | 850,000   | 680,000   | 510,000   | 340,000   | 170,000   | -             |
| Furniture & fixtures               | 160,000   | 144,000   | 128,000   | 112,000   | 96,000    | 80,000    | 64,000    | 48,000    | 32,000    | 16,000    | -             |
| Office equipment                   | 55,000    | 49,500    | 44,000    | 38,500    | 33,000    | 27,500    | 22,000    | 16,500    | 11,000    | 5,500     | -             |
| Total Fixed Assets                 | 1,915,000 | 1,723,500 | 1,532,000 | 1,340,500 | 1,149,000 | 957,500   | 766,000   | 574,500   | 383,000   | 191,500   | -             |
| Intangible assets                  |           |           |           |           |           |           |           |           |           |           |               |
| Pre-operation costs                | 443,000   | 354,400   | 265,800   | 177,200   | 88,600    | _         | _         | _         | _         | _         | _             |
| Total Intangible Assets            | 443,000   | 354,400   | 265,800   | 177,200   | 88,600    |           | _         | _         | _         |           | _             |
| TOTAL ASSETS                       | 2,912,388 | 3,555,004 | 4,140,294 | 4,716,137 | 5,368,023 | 6,078,369 | 6,860,863 | 7,370,379 | 7,576,682 | 7,828,406 | 7,633,71      |
|                                    | , ,       | <u> </u>  |           |           | , ,       | , ,       |           | , ,       |           |           |               |
| Liabilities & Shareholders' Equity |           |           |           |           |           |           |           |           |           |           |               |
| Current liabilities                |           |           |           |           |           |           |           |           |           |           |               |
| Accounts payable                   | -         | 242,935   | 293,045   | 338,910   | 390,542   | 448,633   | 512,487   | 557,475   | 605,419   | 657,792   | 658,90        |
| Total Current Liabilities          | -         | 242,935   | 293,045   | 338,910   | 390,542   | 448,633   | 512,487   | 557,475   | 605,419   | 657,792   | 658,90        |
| Od at Later                        |           |           |           |           |           |           |           |           |           |           |               |
| Other liabilities Deferred tax     |           | 70.026    | 170.000   | 170.000   | 170,000   | 170.000   | 126,000   | 102 000   | 69,000    | 34,000    | 34,00         |
|                                    | 1 456 104 | 79,936    | 170,000   | 170,000   |           | 170,000   | 136,000   | 102,000   | 68,000    |           | 34,00         |
| Long term debt                     | 1,456,194 | 1,456,194 | 1,350,009 | 1,220,528 | 1,062,641 | 870,114   | 635,348   | 349,077   | -         | -         |               |
| Total Long Term Liabilities        | 1,456,194 | 1,536,130 | 1,520,009 | 1,390,528 | 1,232,641 | 1,040,114 | 771,348   | 451,077   | 68,000    | 34,000    | 34,00         |
| Shareholders' equity               |           |           |           |           |           |           |           |           |           |           |               |
| Paid-up capital                    | 1,456,194 | 1,456,194 | 1,456,194 | 1,456,194 | 1,456,194 | 1,456,194 | 1,456,194 | 1,456,194 | 1,456,194 | 1,456,194 | 1,456,19      |
| Retained earnings                  | -         | 319,745   | 871,046   | 1,530,505 | 2,288,646 | 3,133,429 | 4,120,835 | 4,905,633 | 5,447,068 | 5,680,420 | 5,484,62      |
| Total Equity                       | 1,456,194 | 1,775,939 | 2,327,240 | 2,986,699 | 3,744,841 | 4,589,623 | 5,577,029 | 6,361,828 | 6,903,263 | 7,136,614 | 6,940,81      |
|                                    | 2,912,388 | 3,555,004 | 4,140,294 | 4,716,137 | 5,368,023 | 6,078,369 | 6,860,863 | 7,370,379 | 7,576,682 | 7,828,406 | 7,633,71      |



## 12.3 Cash Flow Statement

| Vear 0           Operating activities           Net profit         -           Add: depreciation expense         -           amortization expense         -           Deferred income tax         -           Accounts receivable         -           Finished good inventory         -           Equipment inventory         (2)           Raw material inventory         (94,386)           Accounts payable         -           Other liabilities         -           Cash provided by operations         (124,388)           Financing activities         (124,388)           Change in long term debt         1,456,194           Issuance of shares         1,456,194           Cash provided by / (used for) financing act         2,912,388           Investing activities         Capital expenditure           Capital expenditure         (2,358,000) | 319,745<br>191,500<br>88,600<br>79,936<br>(192,979)<br>(153,674)<br>(1)<br>(29,493)<br>242,935 | 7551,301 191,500 88,600 90,064 (16,466) (22,327) (1) (31,700) 50,110 - 897,781              | Year 3  659,459 191,500 88,600 - (30,043) (24,925) (1) (39,045) 45,865      | 758,141 191,500 88,600 - (28,229) (27,797) (1) (47,998) 51,632                         | Year 5  844,782 191,500 88,600 - (30,453) (30,969) (1) (58,897) 58,091                 | Year 6  987,406 191,500 - (34,000) (32,829) (34,473) (1) (54,209) 63,854       | 784,799<br>191,500<br>-<br>(34,000)<br>(26,130)<br>(24,378)<br>(1)<br>(63,035) | Year 8  541,435 191,500 - (34,000) (18,258) (26,411) (1) (74,205)  | Year 9  233,351 191,500 - (34,000) (18,769) (28,614) (1) (87,354)  | 191,500<br>-<br>(19,708<br>(31,002                  |
|--|--|---|---|--|--|--|--|--|--|---|
| Operating activities  Net profit   | 319,745<br>191,500<br>88,600<br>79,936<br>(192,979)<br>(153,674)<br>(1)<br>(29,493)<br>242,935 | 551,301<br>191,500<br>88,600<br>90,064<br>(16,466)<br>(22,327)<br>(1)<br>(31,700)<br>50,110 | 659,459 191,500 88,600 - (30,043) (24,925) (1) (39,045) 45,865              | 758,141<br>191,500<br>88,600<br>-<br>(28,229)<br>(27,797)<br>(1)<br>(47,998)<br>51,632 | 844,782<br>191,500<br>88,600<br>-<br>(30,453)<br>(30,969)<br>(1)<br>(58,897)<br>58,091 | 987,406<br>191,500<br>-<br>(34,000)<br>(32,829)<br>(34,473)<br>(1)<br>(54,209) | 784,799<br>191,500<br>-<br>(34,000)<br>(26,130)<br>(24,378)<br>(1)<br>(63,035) | 541,435<br>191,500<br>-<br>(34,000)<br>(18,258)<br>(26,411)<br>(1) | 233,351<br>191,500<br>-<br>(34,000)<br>(18,769)<br>(28,614)<br>(1) | (195,799<br>191,500<br>-<br>-<br>(19,708<br>(31,002 |
| Net profit         -           Add: depreciation expense amortization expense         -           Deferred income tax         -           Accounts receivable         -           Finished good inventory         -           Equipment inventory         (2)           Raw material inventory         (94,386)           Accounts payable         -           Other liabilities         -           Cash provided by operations         (124,388)           Financing activities         -           Change in long term debt         1,456,194           Issuance of shares         1,456,194           Cash provided by / (used for) financing act         2,912,388   Investing activities   | 191,500<br>88,600<br>79,936<br>(192,979)<br>(153,674)<br>(1)<br>(29,493)<br>242,935            | 191,500<br>88,600<br>90,064<br>(16,466)<br>(22,327)<br>(1)<br>(31,700)<br>50,110            | 191,500<br>88,600<br>-<br>(30,043)<br>(24,925)<br>(1)<br>(39,045)<br>45,865 | 191,500<br>88,600<br>-<br>(28,229)<br>(27,797)<br>(1)<br>(47,998)<br>51,632            | 191,500<br>88,600<br>-<br>(30,453)<br>(30,969)<br>(1)<br>(58,897)<br>58,091            | 191,500<br>-<br>(34,000)<br>(32,829)<br>(34,473)<br>(1)<br>(54,209)            | 191,500<br>-<br>(34,000)<br>(26,130)<br>(24,378)<br>(1)<br>(63,035)            | 191,500<br>-<br>(34,000)<br>(18,258)<br>(26,411)<br>(1)            | 191,500<br>-<br>(34,000)<br>(18,769)<br>(28,614)<br>(1)            | 191,500<br>-<br>(19,708<br>(31,002                  |
| Add: depreciation expense amortization expense -   | 191,500<br>88,600<br>79,936<br>(192,979)<br>(153,674)<br>(1)<br>(29,493)<br>242,935            | 191,500<br>88,600<br>90,064<br>(16,466)<br>(22,327)<br>(1)<br>(31,700)<br>50,110            | 191,500<br>88,600<br>-<br>(30,043)<br>(24,925)<br>(1)<br>(39,045)<br>45,865 | 191,500<br>88,600<br>-<br>(28,229)<br>(27,797)<br>(1)<br>(47,998)<br>51,632            | 191,500<br>88,600<br>-<br>(30,453)<br>(30,969)<br>(1)<br>(58,897)<br>58,091            | 191,500<br>-<br>(34,000)<br>(32,829)<br>(34,473)<br>(1)<br>(54,209)            | 191,500<br>-<br>(34,000)<br>(26,130)<br>(24,378)<br>(1)<br>(63,035)            | 191,500<br>-<br>(34,000)<br>(18,258)<br>(26,411)<br>(1)            | 191,500<br>-<br>(34,000)<br>(18,769)<br>(28,614)<br>(1)            | (19,708<br>(31,002                                  |
| amortization expense - Deferred income tax Accounts receivable Finished good inventory Equipment inventory (2) Raw material inventory (94,386) Accounts payable Other liabilities Cash provided by operations (124,388)  Financing activities Change in long term debt 1,456,194 Issuance of shares 1,456,194 Cash provided by / (used for) financing act Investing activities   | 88,600<br>79,936<br>(192,979)<br>(153,674)<br>(1)<br>(29,493)<br>242,935                       | 88,600<br>90,064<br>(16,466)<br>(22,327)<br>(1)<br>(31,700)<br>50,110                       | 88,600<br>-<br>(30,043)<br>(24,925)<br>(1)<br>(39,045)<br>45,865            | 88,600<br>-<br>(28,229)<br>(27,797)<br>(1)<br>(47,998)<br>51,632                       | 88,600<br>-<br>(30,453)<br>(30,969)<br>(1)<br>(58,897)<br>58,091                       | (34,000)<br>(32,829)<br>(34,473)<br>(1)<br>(54,209)                            | (34,000)<br>(26,130)<br>(24,378)<br>(1)<br>(63,035)                            | (34,000)<br>(18,258)<br>(26,411)<br>(1)                            | (34,000)<br>(18,769)<br>(28,614)<br>(1)                            | (19,708<br>(31,002                                  |
| Deferred income tax  | 79,936<br>(192,979)<br>(153,674)<br>(1)<br>(29,493)<br>242,935                                 | 90,064<br>(16,466)<br>(22,327)<br>(1)<br>(31,700)<br>50,110                                 | (30,043)<br>(24,925)<br>(1)<br>(39,045)<br>45,865                           | (28,229)<br>(27,797)<br>(1)<br>(47,998)<br>51,632                                      | (30,453)<br>(30,969)<br>(1)<br>(58,897)<br>58,091                                      | (34,000)<br>(32,829)<br>(34,473)<br>(1)<br>(54,209)                            | (34,000)<br>(26,130)<br>(24,378)<br>(1)<br>(63,035)                            | (34,000)<br>(18,258)<br>(26,411)<br>(1)                            | (34,000)<br>(18,769)<br>(28,614)<br>(1)                            | (19,708<br>(31,002                                  |
| Accounts receivable - Finished good inventory - C2)  Raw material inventory (94,386)  Accounts payable - C0ther liabilities - Cash provided by operations (124,388)  Financing activities  Change in long term debt 1,456,194  Issuance of shares 1,456,194  Cash provided by / (used for) financing act 2,912,388  Investing activities   | (192,979)<br>(153,674)<br>(1)<br>(29,493)<br>242,935   | (16,466)<br>(22,327)<br>(1)<br>(31,700)<br>50,110   | (30,043)<br>(24,925)<br>(1)<br>(39,045)<br>45,865                           | (28,229)<br>(27,797)<br>(1)<br>(47,998)<br>51,632                                      | (30,453)<br>(30,969)<br>(1)<br>(58,897)<br>58,091                                      | (32,829)<br>(34,473)<br>(1)<br>(54,209)  | (26,130)<br>(24,378)<br>(1)<br>(63,035)  | (18,258)<br>(26,411)<br>(1)  | (18,769)<br>(28,614)<br>(1)  | (19,708<br>(31,002                                  |
| Finished good inventory - (2) Equipment inventory (94,386) Accounts payable - (1) Other liabilities - (124,388)  Financing activities Change in long term debt 1,456,194 Issuance of shares 1,456,194 Cash provided by / (used for) financing act  Investing activities  | (153,674)<br>(1)<br>(29,493)<br>242,935  | (22,327)<br>(1)<br>(31,700)<br>50,110   | (24,925)<br>(1)<br>(39,045)<br>45,865                                       | (27,797)<br>(1)<br>(47,998)<br>51,632  | (30,969)<br>(1)<br>(58,897)<br>58,091  | (34,473)<br>(1)<br>(54,209)  | (24,378)<br>(1)<br>(63,035)  | (26,411)   | (28,614)   | (31,002   |
| Equipment inventory         (2)           Raw material inventory         (94,386)           Accounts payable         -           Other liabilities         -           Cash provided by operations         (124,388)           Financing activities         -           Change in long term debt         1,456,194           Issuance of shares         1,456,194           Cash provided by / (used for) financing act         2,912,388   Investing activities   | (1)<br>(29,493)<br>242,935   | (1)<br>(31,700)<br>50,110   | (1)<br>(39,045)<br>45,865   | (1)<br>(47,998)<br>51,632  | (1)<br>(58,897)<br>58,091  | (1)<br>(54,209)  | (1)<br>(63,035)  | (1)  | (1)  | ç   |
| Raw material inventory         (94,386)           Accounts payable         -           Other liabilities         -           Cash provided by operations         (124,388)           Financing activities           Change in long term debt         1,456,194           Issuance of shares         1,456,194           Cash provided by / (used for) financing act         2,912,388   Investing activities   | (29,493)<br>242,935  | (31,700)<br>50,110  | (39,045)<br>45,865  | (47,998)<br>51,632   | (58,897)<br>58,091   | (54,209)   | (63,035)   | ` '  | ` '  |   |
| Accounts payable - Other liabilities - Cash provided by operations (124,388)  Financing activities Change in long term debt 1,456,194 Lisuance of shares 1,456,194 Cash provided by / (used for) financing act 2,912,388  Investing activities   | 242,935  | 50,110  | 45,865  | 51,632   | 58,091   | . , ,  |  | (74,205)   | (87,354)   | 500.222   |
| Other liabilities - Cash provided by operations (124,388)  Financing activities Change in long term debt 1,456,194 Issuance of shares 1,456,194 Cash provided by / (used for) financing act 2,912,388  Investing activities  | -  | -   | -   |  |  | 63,854   | 44.000   |  |  | 580,323   |
| Other liabilities - Cash provided by operations (124,388)  Financing activities Change in long term debt 1,456,194 Issuance of shares 1,456,194 Cash provided by / (used for) financing act 2,912,388  Investing activities  | -  | -   | -   |  |  |  | 44,988   | 47,944   | 52,372   | 1,109   |
| Financing activities Change in long term debt 1,456,194 Issuance of shares 1,456,194 Cash provided by / (used for) financing act 2,912,388 Investing activities  | 543,569  | 907 791   |   |  | -  | -  | -  | -  | -  | · -   |
| Change in long term debt 1,456,194 Issuance of shares 1,456,194 Cash provided by / (used for) financing act 2,912,388  Investing activities  |  | 897,781   | 887,780   | 981,856  | 1,058,261  | 1,082,416  | 868,428  | 622,158  | 302,054  | 597,172   |
| Change in long term debt Issuance of shares Cash provided by / (used for) financing act Investing activities   |  |   |   |  |  |  |  |  |  |   |
| Issuance of shares 1,456,194 Cash provided by / (used for) financing act 2,912,388  Investing activities   | _  | (106,185)   | (129,481)   | (157,888)  | (192,527)  | (234,766)  | (286,271)  | (349,077)  | _  | _   |
| Cash provided by / (used for) financing act 2,912,388  Investing activities  | -  | -   | -   | -  | -  | -  | -  | -  | _  | _   |
| 0  | -  | (106,185)   | (129,481)   | (157,888)  | (192,527)  | (234,766)  | (286,271)  | (349,077)  | -  |   |
| Capital expenditure (2.358.000)  |  |   |   |  |  |  |  |  |  |   |
|  | -  | -   | -   | -  | -  | -  | -  | -  | -  | -   |
| Cash (used for) / provided by investing acti (2,358,000)   | -  | -   | -   | -  | -  | -  | -  | -  | -  | -   |
| NET CASH 430,000   | 543,569  | 791,597   | 758,300   | 823,969  | 865,734  | 847,650  | 582,157  | 273,082  | 302,054  | 597,172   |
| Cook belongs brought formand   | 420,000  | 072.560   | 1.765.166   | 2 522 465  | 2 247 424  | 4 212 167  | 5 060 919  | 5 642 075  | 5.016.050  | 6,218,111   |
| Cash balance brought forward Cash available for appropriation 430,000  | 430,000<br>973,569   | 973,569   | 1,765,166   | 2,523,465<br>3,347,434   | 3,347,434<br>4,213,167   | 4,213,167  | 5,060,818<br>5,642,975   | 5,642,975  | 5,916,056  | 6,815,283   |
| Cash carried forward 430,000   | 973,569<br>973,569   | 1,765,166<br>1,765,166  | 2,523,465<br>2,523,465  | 3,347,434  | 4,213,167  | 5,060,818  | 5,642,975  | 5,916,056<br>5,916,056   | 6,218,111<br>6,218,111   |   |
| Cash carried forward 430,000   | 973,369  | 1,/05,100   | 2,323,463   | 5,347,434  | 4,213,10/  | 5,060,818  | 3,042,973  | 3,910,036  | 0,218,111  | 6,815,283   |



## **13 KEY ASSUMPTIONS**

## **13.1 Operating Cost Assumptions**

| Description             | Details |
|-------------------------|---------|
| Operational Days/ year  | 324     |
| Hours operational/ days | 8       |
| Shift Length (Hours)    | 8       |

## **13.2 Production Cost Assumptions**

| Description                       | Details |
|-----------------------------------|---------|
| Initial Capital utilization       | 70%     |
| Annual Capital Utilization Growth | 5%      |
| Maximum Capital Utilization       | 95%     |

## 13.3 Financial Assumptions

| Description        | Details |
|--------------------|---------|
| Interest Rate      | 20%     |
| Debt: Equity Ratio | 50:50   |
| Debt Tenure        | 8 Years |

## 13.4 Economy Related Assumptions

| Description                   | Details |
|-------------------------------|---------|
| Electricity price growth rate | 10%     |
| Wage growth rate              | 10%     |
| Sales growth rate             | 5%      |

#### 13.5 Cash Flow Assumptions

| Description                         | Details |
|-------------------------------------|---------|
| Accounts Receivable cycle (in days) | 10      |
| Accounts payable cycle (in days)    | 30      |

