



AN ISO 9001 : 2015 CERTIFIED COMPANY

Detailed project report

Sample edition

Projections from FY 2027-28

Project report

# Vitamin C

Installed capacity 7,30,000 tablets per day

Sector Pharmaceuticals

Total project cost ₹1,202.08 lakh

**Illustrative sample**  
Figures are representative

## Project at a glance

Vitamin C  
7,30,000 tablets per day

| Product                | Vitamin C                | Sector                  | Pharmaceuticals               |
|------------------------|--------------------------|-------------------------|-------------------------------|
| Installed capacity     | 7,30,000 tablets per day | Annual capacity         | 21,90,00,000 tablets per year |
| Selling price (ex-GST) | ₹1.35 per tablet         | Working days            | 300 a year                    |
| Manpower               | 78 people                | Plant and machinery     | ₹483.53 lakh                  |
| Total project cost     | <b>₹1,202.08 lakh</b>    | Promoter's contribution | ₹300.52 lakh (25%)            |
| Term loan              | ₹901.56 lakh (75%)       | Cash credit limit       | ₹302.12 lakh                  |
| Revenue, Year 3        | ₹2,069.55 lakh at 70%    | Net profit, Year 3      | ₹295.91 lakh                  |
| Return on investment   | <b>24.6% a year</b>      | Break-even, Year 3      | <b>40.2% of capacity</b>      |
| Average DSCR           | <b>1.94</b>              | Payback period          | 3.4 years                     |

This is an illustrative sample. Its figures are generated from industry-typical ratios to show the format and depth of an NPCS project report. They are not taken from any NPCS report or any real project, and should not be used for investment or lending decisions.

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## 1 Introduction

The product covered in this sample is vitamin c, made in a plant sized at 7,30,000 tablets per day (21,90,00,000 tablets per year at full capacity). The unit is costed as a complete project, from land and building through to working capital, and its applications range from vitamin C supplementation and deficiency treatment to government and hospital tender supply.

The sections that follow show how such a unit would be costed and financed, and how its profit, cash flow and loan repayment would look over the first five years. At 70% capacity utilisation in Year 3, the model unit earns revenue of ₹2,069.55 lakh and a net profit of ₹295.91 lakh.

## 2 Uses and applications

Demand for the product comes mainly from the following uses:

- Vitamin C supplementation and deficiency treatment
- Immunity and wellness supplements sold in pharmacies
- Chewable vitamin C for children and adults
- Vitamin C with zinc combination packs
- Government and hospital tender supply

## 3 Market potential

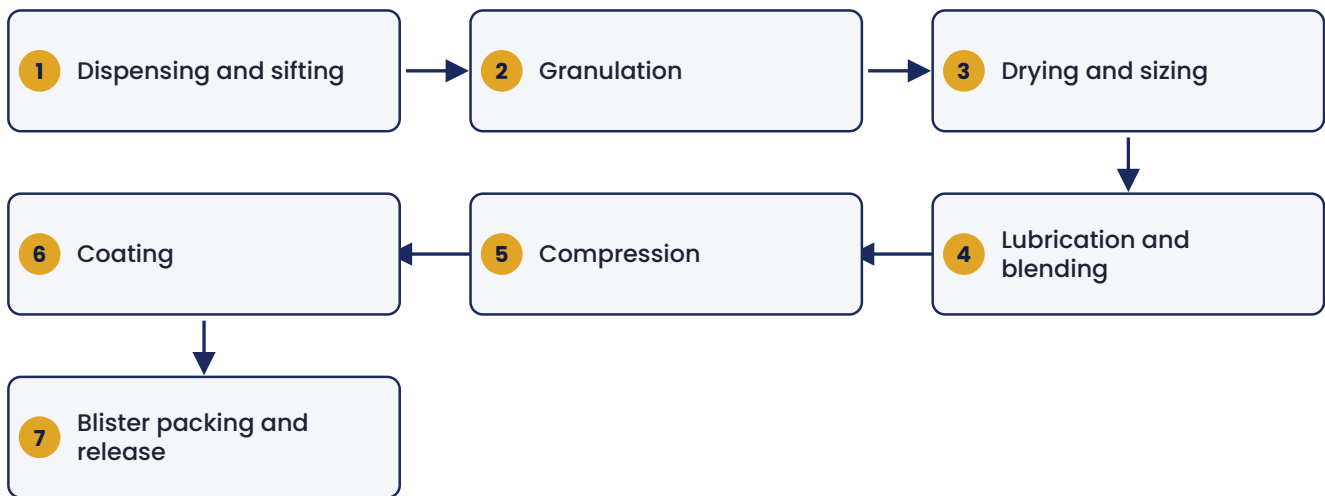
Vitamin C tablets sell through chemists, general practitioners, hospital pharmacies and online wellness channels, with demand rising each winter and during infection seasons. Most small units do contract or loan licence manufacturing for marketing companies and also build a small brand of their own. They compete on consistent assay through shelf life, low tablet cost and the ability to make chewable, coated and zinc combination variants on one line.

Typical buyers include pharmaceutical marketing companies taking third party supply, nutraceutical and wellness brands, chemists and pharma distributors, hospitals and government medical store tenders, and export buyers in Africa and Southeast Asia.

A full NPCS report adds a market survey with present demand, expected growth and the names and addresses of existing manufacturers, worked out for the location you choose.

## 4 Manufacturing process

The manufacturing process runs in seven stages. Each stage is described below, and the flow chart shows the sequence.



Process flow for vitamin c

- 1 Dispensing and sifting.** Ascorbic acid and excipients are weighed against the batch formula and sifted to break lumps.
- 2 Granulation.** The blend is granulated in a rapid mixer granulator with a low-moisture binder so the vitamin does not degrade.
- 3 Drying and sizing.** Wet granules are dried in a fluid bed dryer at a controlled temperature and sized through a multi mill.
- 4 Lubrication and blending.** Dried granules are blended with lubricant, and with sweetener and flavour for chewable tablets.
- 5 Compression.** A rotary tablet press compresses the blend into tablets of set weight, hardness and thickness.
- 6 Coating.** Swallow tablets are film coated to protect the vitamin from moisture and light.
- 7 Blister packing and release.** Tablets are blister packed in low humidity rooms and released after assay and dissolution tests.

## 5 Raw materials

The plant uses ascorbic acid IP (with overage), sodium ascorbate and other actives, fillers and binders, sweeteners and flavours for chewables, and film coating material and lubricants. Raw material purchases in Year 3 are estimated at ₹745.99 lakh, which is 36% of sales. The split by material is shown below.

| Raw material                          | Share of cost | Year 3 cost (₹ lakh) |
|---------------------------------------|---------------|----------------------|
| Ascorbic acid IP (with overage)       | 62.0%         | 462.51               |
| Sodium ascorbate and other actives    | 10.0%         | 74.60                |
| Fillers and binders                   | 12.0%         | 89.52                |
| Sweeteners and flavours for chewables | 8.0%          | 59.68                |
| Film coating material and lubricants  | 8.0%          | 59.68                |
| <b>Total raw materials</b>            | <b>100.0%</b> | <b>745.99</b>        |

## 6 Plant and machinery

The machinery list below covers the main production equipment, costed at ₹483.53 lakh in total. Prices are indicative. A full report gives specifications and supplier names, and a bank-format DPR uses the quotations you obtain.

| Machinery and equipment                       | Indicative cost (₹ lakh) |
|-----------------------------------------------|--------------------------|
| Multi mill and vibro sifter                   | 38.68                    |
| Rapid mixer granulator                        | 58.02                    |
| Fluid bed dryer                               | 58.02                    |
| Octagonal blender                             | 33.85                    |
| Double rotary tablet compression machine      | 116.05                   |
| Auto coating machine                          | 48.35                    |
| Blister packing machine                       | 72.53                    |
| Dehumidifiers and HVAC for low humidity rooms | 33.85                    |
| Quality control laboratory instruments        | 24.18                    |
| <b>Total plant and machinery</b>              | <b>483.53</b>            |

## 7 Land, building and utilities

Land and site development is taken at ₹80.07 lakh and building and civil works at ₹368.93 lakh. Other fixed assets, including electrification, furniture, testing equipment and power backup, add ₹99.37 lakh. Land rates vary widely by location, so these are the figures most likely to change in a real project.

Power and fuel cost ₹44.47 lakh in Year 3, about 2.1% of sales. Water is needed for cleaning, domestic use and, where the process calls for it, production.

## 8 Manpower

Staffing for the model unit is 78 people, at a Year 1 cost of ₹196.56 lakh. Wages are escalated by 5% each year in the projections.

| Category                                   | Number    | Monthly wage (₹) | Annual cost (₹ lakh) |
|--------------------------------------------|-----------|------------------|----------------------|
| Management, supervision and administration | 12        | 36,000           | 51.84                |
| Skilled workers and operators              | 27        | 23,000           | 74.52                |
| Semi-skilled and unskilled workers         | 39        | 15,000           | 70.20                |
| <b>Total (Year 1)</b>                      | <b>78</b> |                  | <b>196.56</b>        |

## 9 Licences and approvals

A unit of this kind typically needs the following registrations and approvals. Requirements vary by state and by the exact product, so confirm them with the local authorities before applying.

- Udyam (MSME) registration
- GST registration
- Consent to establish and consent to operate from the State Pollution Control Board
- Factory licence or registration under the applicable labour law, where the workforce threshold applies
- Fire safety NOC, where required
- Trade licence from the local body
- Drug manufacturing licence from the State Drugs Control Department for tablets above the FSSAI nutrient limits
- Compliance with revised Schedule M good manufacturing practices
- FSSAI licence for products sold as health supplements within the RDA limit
- Testing of ascorbic acid and tablets to Indian Pharmacopoeia standards

## 10 Project cost and means of finance

Project cost is estimated at ₹1,202.08 lakh, including fixed assets of ₹1,074.52 lakh and margin money for working capital of ₹100.70 lakh.

| Cost of project                                                        | ₹ lakh          |
|------------------------------------------------------------------------|-----------------|
| Land and site development                                              | 80.07           |
| Building and civil works                                               | 368.93          |
| Plant and machinery                                                    | 483.53          |
| Other fixed assets (electrification, furniture, lab equipment, DG set) | 99.37           |
| Contingencies                                                          | 42.62           |
| Preliminary and pre-operative expenses                                 | 26.86           |
| Margin money for working capital                                       | 100.70          |
| <b>Total cost of project</b>                                           | <b>1,202.08</b> |

### Means of finance

Funding follows a 75:25 split between bank loan and promoter's contribution, with a term loan of ₹901.56 lakh and promoter funds of ₹300.52 lakh. The bank also provides a cash credit limit of ₹302.12 lakh for working capital.

| Source of funds                                         | ₹ lakh          |
|---------------------------------------------------------|-----------------|
| Promoter's contribution (25%)                           | 300.52          |
| Term loan from bank (75%)                               | 901.56          |
| <b>Total means of finance</b>                           | <b>1,202.08</b> |
| <i>Cash credit limit for working capital (separate)</i> | <i>302.12</i>   |

## 11 Working capital

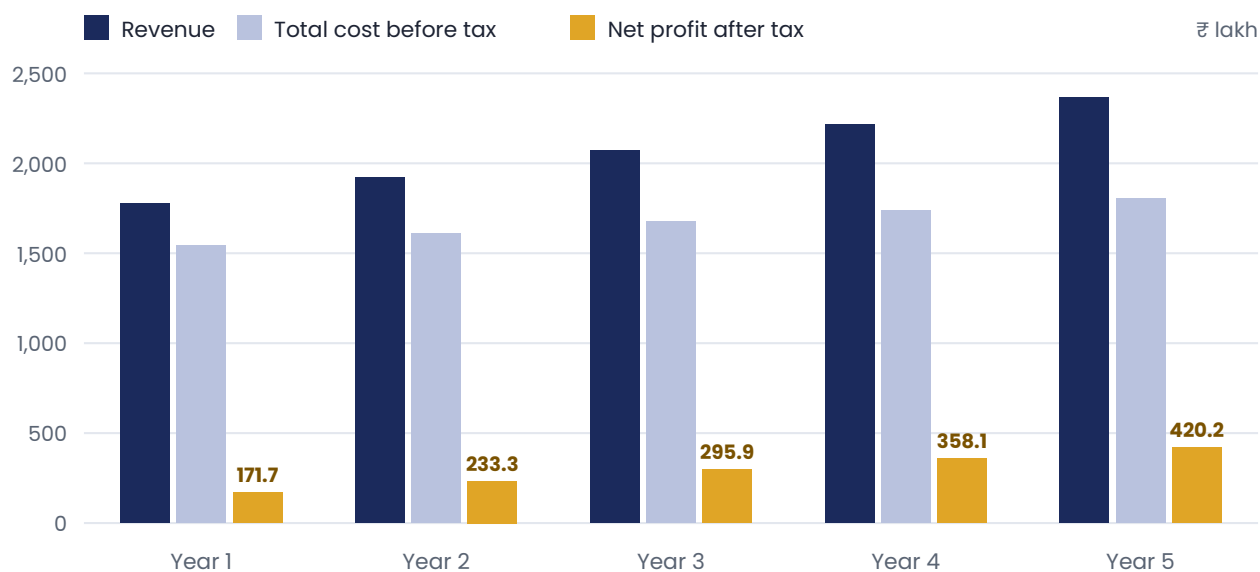
The unit needs ₹402.82 lakh of working capital in Year 1, based on 45 days of raw material stock, 30 days of finished goods and 60 days of customer credit, net of 30 days of supplier credit. Of this, ₹302.12 lakh comes from the bank and ₹100.70 lakh from the promoter.

| Particulars (₹ lakh)               | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Raw material stock (45 days)       | 78.83                | 85.40                | 91.97                | 98.54                | 105.11               |
| Work in progress (5 days)          | 11.97                | 12.88                | 13.80                | 14.72                | 15.65                |
| Finished goods (30 days)           | 85.80                | 92.35                | 98.95                | 105.60               | 112.29               |
| Trade receivables (60 days)        | 291.60               | 315.90               | 340.20               | 364.50               | 388.80               |
| <b>Total current assets</b>        | <b>468.20</b>        | <b>506.53</b>        | <b>544.92</b>        | <b>583.36</b>        | <b>621.85</b>        |
| Less: trade creditors (30 days)    | 65.38                | 70.83                | 76.28                | 81.73                | 87.18                |
| <b>Working capital requirement</b> | <b>402.82</b>        | <b>435.70</b>        | <b>468.64</b>        | <b>501.63</b>        | <b>534.67</b>        |

## 12 Projected profitability

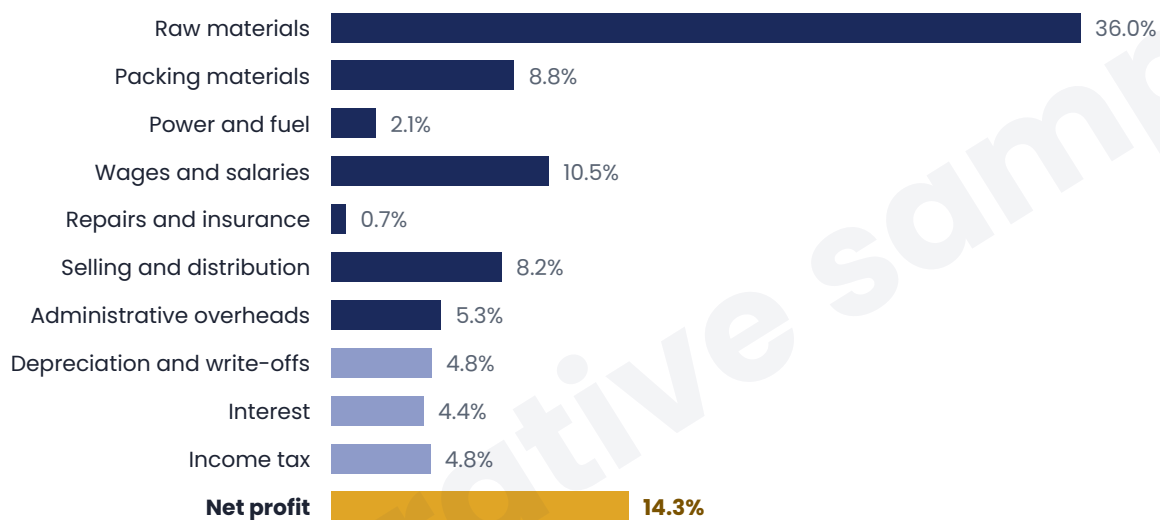
The unit is profitable from the first year, with a net profit of ₹171.65 lakh on sales of ₹1,773.90 lakh. By Year 5 sales reach ₹2,365.20 lakh and net profit ₹420.18 lakh, giving an average net margin of 14% across the projection.

| Particulars (₹ lakh)              | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|-----------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Capacity utilisation (%)          | 60%                  | 65%                  | 70%                  | 75%                  | 80%                  |
| Revenue from operations           | 1,773.90             | 1,921.72             | 2,069.55             | 2,217.38             | 2,365.20             |
| Raw materials consumed            | 639.42               | 692.70               | 745.99               | 799.28               | 852.56               |
| Packing materials                 | 156.09               | 169.09               | 182.10               | 195.11               | 208.11               |
| Power and fuel                    | 38.12                | 41.30                | 44.47                | 47.65                | 50.83                |
| Wages and salaries                | 196.56               | 206.39               | 216.71               | 227.54               | 238.92               |
| Repairs and maintenance           | 9.67                 | 10.15                | 10.66                | 11.19                | 11.75                |
| Insurance                         | 3.98                 | 3.98                 | 3.98                 | 3.98                 | 3.98                 |
| Cost of production                | 1,043.84             | 1,123.61             | 1,203.91             | 1,284.75             | 1,366.15             |
| <b>Gross profit</b>               | <b>730.06</b>        | <b>798.11</b>        | <b>865.64</b>        | <b>932.63</b>        | <b>999.05</b>        |
| Selling and distribution expenses | 145.55               | 157.68               | 169.81               | 181.94               | 194.06               |
| Administrative overheads          | 99.28                | 104.24               | 109.46               | 114.93               | 120.67               |
| <b>Operating profit (EBITDA)</b>  | <b>485.23</b>        | <b>536.19</b>        | <b>586.37</b>        | <b>635.76</b>        | <b>684.32</b>        |
| Depreciation                      | 124.84               | 108.53               | 94.45                | 82.25                | 71.69                |
| Preliminary expenses written off  | 5.37                 | 5.37                 | 5.37                 | 5.37                 | 5.38                 |
| Interest on term loan             | 92.92                | 77.98                | 58.77                | 37.45                | 13.78                |
| Interest on cash credit           | 33.23                | 33.23                | 33.23                | 33.23                | 33.23                |
| <b>Profit before tax</b>          | <b>228.87</b>        | <b>311.08</b>        | <b>394.55</b>        | <b>477.46</b>        | <b>560.24</b>        |
| Income tax                        | 57.22                | 77.77                | 98.64                | 119.36               | 140.06               |
| <b>Profit after tax</b>           | <b>171.65</b>        | <b>233.31</b>        | <b>295.91</b>        | <b>358.10</b>        | <b>420.18</b>        |



Revenue, total cost before tax and net profit after tax, ₹ lakh

### Where each rupee of sales goes in Year 3



Each cost head as a percentage of Year 3 sales

## 13 Cash flow statement

Cash generated from profit and depreciation covers the term loan repayments in every year. The closing cash balance builds up to ₹954.36 lakh by the end of Year 5.

| Particulars (₹ lakh)                    | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|-----------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Sources of funds</b>                 |                      |                      |                      |                      |                      |
| Promoter's contribution                 | 300.52               | –                    | –                    | –                    | –                    |
| Term loan from bank                     | 901.56               | –                    | –                    | –                    | –                    |
| Cash credit (working capital) from bank | 302.12               | –                    | –                    | –                    | –                    |
| Net profit after tax                    | 171.65               | 233.31               | 295.91               | 358.10               | 420.18               |
| Depreciation                            | 124.84               | 108.53               | 94.45                | 82.25                | 71.69                |
| Preliminary expenses written off        | 5.37                 | 5.37                 | 5.37                 | 5.37                 | 5.38                 |
| Increase in trade creditors             | 65.38                | 5.45                 | 5.45                 | 5.45                 | 5.45                 |
| <b>Total sources</b>                    | <b>1,871.44</b>      | <b>352.66</b>        | <b>401.18</b>        | <b>451.17</b>        | <b>502.70</b>        |
| <b>Application of funds</b>             |                      |                      |                      |                      |                      |
| Fixed assets                            | 1,074.52             | –                    | –                    | –                    | –                    |
| Preliminary and pre-operative expenses  | 26.86                | –                    | –                    | –                    | –                    |
| Increase in inventories                 | 176.60               | 14.03                | 14.09                | 14.14                | 14.19                |
| Increase in trade receivables           | 291.60               | 24.30                | 24.30                | 24.30                | 24.30                |
| Repayment of term loan                  | 80.54                | 174.27               | 193.48               | 214.80               | 238.47               |
| Drawings                                | –                    | –                    | –                    | –                    | –                    |
| <b>Total application</b>                | <b>1,650.12</b>      | <b>212.60</b>        | <b>231.87</b>        | <b>253.24</b>        | <b>276.96</b>        |
| <b>Net cash flow</b>                    | <b>221.32</b>        | <b>140.06</b>        | <b>169.31</b>        | <b>197.93</b>        | <b>225.74</b>        |
| Opening cash balance                    | –                    | 221.32               | 361.38               | 530.69               | 728.62               |
| <b>Closing cash balance</b>             | <b>221.32</b>        | <b>361.38</b>        | <b>530.69</b>        | <b>728.62</b>        | <b>954.36</b>        |

## 14 Projected balance sheet

Over the projection, retained profits build the promoter's net worth from ₹450.68 lakh to ₹1,779.67 lakh, and the term loan reduces from ₹821.02 lakh to nil as it is repaid.

| As at year end (₹ lakh)              | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|--------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Liabilities</b>                   |                      |                      |                      |                      |                      |
| Promoter's capital                   | 300.52               | 300.52               | 300.52               | 300.52               | 300.52               |
| Reserves and surplus                 | 171.65               | 404.96               | 700.87               | 1,058.97             | 1,479.15             |
| Term loan                            | 821.02               | 646.75               | 453.27               | 238.47               | –                    |
| Cash credit from bank                | 302.12               | 302.12               | 302.12               | 302.12               | 302.12               |
| Trade creditors                      | 65.38                | 70.83                | 76.28                | 81.73                | 87.18                |
| <b>Total liabilities</b>             | <b>1,660.69</b>      | <b>1,725.18</b>      | <b>1,833.06</b>      | <b>1,981.81</b>      | <b>2,168.97</b>      |
| <b>Assets</b>                        |                      |                      |                      |                      |                      |
| Gross fixed assets                   | 1,074.52             | 1,074.52             | 1,074.52             | 1,074.52             | 1,074.52             |
| Less: accumulated depreciation       | (124.84)             | (233.37)             | (327.82)             | (410.07)             | (481.76)             |
| <b>Net fixed assets</b>              | <b>949.68</b>        | <b>841.15</b>        | <b>746.70</b>        | <b>664.45</b>        | <b>592.76</b>        |
| Preliminary expenses not written off | 21.49                | 16.12                | 10.75                | 5.38                 | –                    |
| Inventories                          | 176.60               | 190.63               | 204.72               | 218.86               | 233.05               |
| Trade receivables                    | 291.60               | 315.90               | 340.20               | 364.50               | 388.80               |
| Cash and bank balance                | 221.32               | 361.38               | 530.69               | 728.62               | 954.36               |
| <b>Total assets</b>                  | <b>1,660.69</b>      | <b>1,725.18</b>      | <b>1,833.06</b>      | <b>1,981.81</b>      | <b>2,168.97</b>      |

## 15 Depreciation

Depreciation is charged on the written-down value method at Income Tax Act rates: 10% on building, 15% on plant and machinery and 10% on other fixed assets. Land is not depreciated, and preliminary expenses are written off over five years.

| Particulars (₹ lakh)                                         | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|--------------------------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Building and civil works (cost ₹387.38 lakh, 10% WDV)</b> |                      |                      |                      |                      |                      |
| Opening written-down value                                   | 387.38               | 348.64               | 313.78               | 282.40               | 254.16               |
| Depreciation                                                 | 38.74                | 34.86                | 31.38                | 28.24                | 25.42                |
| Closing written-down value                                   | 348.64               | 313.78               | 282.40               | 254.16               | 228.74               |
| <b>Plant and machinery (cost ₹507.70 lakh, 15% WDV)</b>      |                      |                      |                      |                      |                      |
| Opening written-down value                                   | 507.70               | 431.54               | 366.81               | 311.79               | 265.02               |
| Depreciation                                                 | 76.16                | 64.73                | 55.02                | 46.77                | 39.75                |
| Closing written-down value                                   | 431.54               | 366.81               | 311.79               | 265.02               | 225.27               |
| <b>Other fixed assets (cost ₹99.37 lakh, 10% WDV)</b>        |                      |                      |                      |                      |                      |
| Opening written-down value                                   | 99.37                | 89.43                | 80.49                | 72.44                | 65.20                |
| Depreciation                                                 | 9.94                 | 8.94                 | 8.05                 | 7.24                 | 6.52                 |
| Closing written-down value                                   | 89.43                | 80.49                | 72.44                | 65.20                | 58.68                |
| <b>Total depreciation</b>                                    | <b>124.84</b>        | <b>108.53</b>        | <b>94.45</b>         | <b>82.25</b>         | <b>71.69</b>         |
| Preliminary expenses written off                             | 5.37                 | 5.37                 | 5.37                 | 5.37                 | 5.38                 |

## 16 Term loan repayment

Repayment of the ₹901.56 lakh term loan starts after a moratorium of 6 months, during which interest at 10.5% is serviced. The loan is then cleared in 54 EMIs of ₹21,02,095 each, and the annexure gives the monthly schedule.

| Particulars (₹ lakh)   | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Opening balance        | 901.56               | 821.02               | 646.75               | 453.27               | 238.47               |
| Interest               | 92.92                | 77.98                | 58.77                | 37.45                | 13.78                |
| Principal repaid       | 80.54                | 174.27               | 193.48               | 214.80               | 238.47               |
| <b>Closing balance</b> | <b>821.02</b>        | <b>646.75</b>        | <b>453.27</b>        | <b>238.47</b>        | <b>—</b>             |

## 17 Debt service coverage

The debt service coverage ratio averages 1.94 over the repayment years, with a low of 1.69 in Year 2. A DSCR above 1 means the unit earns enough to meet its loan instalments, and the model keeps a margin above that in every year.

| Particulars (₹ lakh)                        | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|---------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Net profit after tax                        | 171.65               | 233.31               | 295.91               | 358.10               | 420.18               |
| Depreciation and write-offs                 | 130.21               | 113.90               | 99.82                | 87.62                | 77.07                |
| Interest on term loan                       | 92.92                | 77.98                | 58.77                | 37.45                | 13.78                |
| <b>Total available for debt service (A)</b> | <b>394.78</b>        | <b>425.19</b>        | <b>454.50</b>        | <b>483.17</b>        | <b>511.03</b>        |
| Principal repayment                         | 80.54                | 174.27               | 193.48               | 214.80               | 238.47               |
| Interest on term loan                       | 92.92                | 77.98                | 58.77                | 37.45                | 13.78                |
| <b>Total debt service (B)</b>               | <b>173.46</b>        | <b>252.25</b>        | <b>252.25</b>        | <b>252.25</b>        | <b>252.25</b>        |
| <b>DSCR (A / B)</b>                         | <b>2.28</b>          | <b>1.69</b>          | <b>1.80</b>          | <b>1.92</b>          | <b>2.03</b>          |

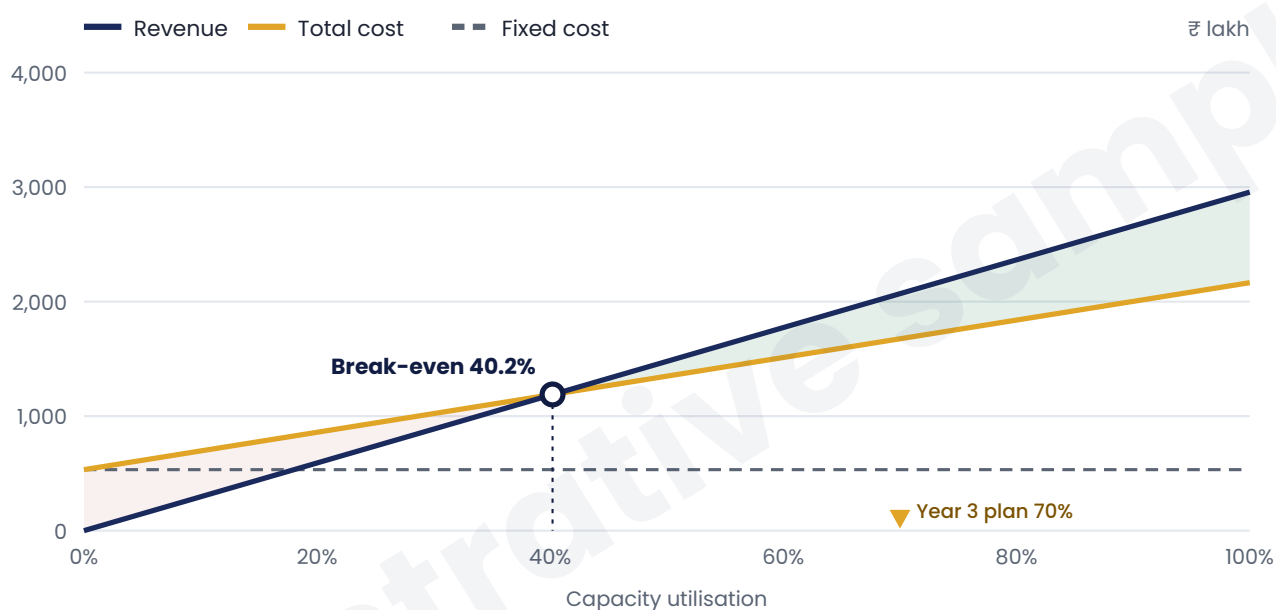


DSCR by year. A ratio above 1.00 means cash accruals cover the term loan instalments.

## 18 Break-even analysis

The unit needs to run at 40.2% of capacity to break even in Year 3, well below the 70% assumed for that year. Cash break-even, which excludes depreciation and write-offs, is 32.7%.

| Particulars (₹ lakh)                          | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|-----------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Revenue from operations                       | 1,773.90             | 1,921.72             | 2,069.55             | 2,217.38             | 2,365.20             |
| Variable costs                                | 979.18               | 1,060.77             | 1,142.37             | 1,223.98             | 1,305.56             |
| <b>Contribution</b>                           | <b>794.72</b>        | <b>860.95</b>        | <b>927.18</b>        | <b>993.40</b>        | <b>1,059.64</b>      |
| Fixed costs (incl. depreciation and interest) | 565.85               | 549.87               | 532.63               | 515.94               | 499.40               |
| Break-even as % of installed capacity         | 42.7                 | 41.5                 | 40.2                 | 39.0                 | 37.7                 |
| Cash break-even as % of installed capacity    | 32.9                 | 32.9                 | 32.7                 | 32.3                 | 31.9                 |
| Break-even sales                              | 1,263.04             | 1,227.36             | 1,188.88             | 1,151.64             | 1,114.70             |



Break-even chart at Year 3 prices and costs, scaled to full capacity. Shaded areas show the loss zone (left) and profit zone (right).

## 19 Financial ratios

The table summarises the main ratios a lender reviews. The current ratio is 1.88 or better in every year, and the debt-equity ratio falls from 1.82 at the end of Year 1 to zero by Year 5.

| Ratio                                     | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|-------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Current ratio                             | 1.88                 | 2.33                 | 2.84                 | 3.42                 | 4.05                 |
| Quick ratio                               | 1.40                 | 1.82                 | 2.30                 | 2.85                 | 3.45                 |
| Debt-equity ratio (term loan / net worth) | 1.82                 | 0.94                 | 0.46                 | 0.18                 | 0.00                 |
| Total outside liabilities / net worth     | 2.64                 | 1.48                 | 0.84                 | 0.46                 | 0.22                 |
| Interest coverage ratio                   | 2.81                 | 3.80                 | 5.29                 | 7.76                 | 12.92                |
| DSCR                                      | 2.28                 | 1.69                 | 1.80                 | 1.92                 | 2.03                 |
| Gross profit margin (%)                   | 41.2                 | 41.5                 | 41.8                 | 42.1                 | 42.2                 |
| Operating profit (EBITDA) margin (%)      | 27.4                 | 27.9                 | 28.3                 | 28.7                 | 28.9                 |
| Net profit margin (%)                     | 9.7                  | 12.1                 | 14.3                 | 16.1                 | 17.8                 |
| Return on capital employed (%)            | 22.6                 | 25.8                 | 27.9                 | 28.9                 | 29.2                 |
| Break-even (% of installed capacity)      | 42.7                 | 41.5                 | 40.2                 | 39.0                 | 37.7                 |

## 20 Key assumptions

- Commercial production starts in April 2027, and all assets are in use from the first year.
- Capacity utilisation of 60% in Year 1, rising to 80% by Year 5, over 300 working days a year.
- Selling price of ₹1.35 per tablet, excluding GST, held constant through the projection.
- Raw materials at 36% of sales, packing materials at 8.8%, power and fuel at 2.1%, and selling and distribution at 8.2%.
- Wages and salaries rise by 5% a year; repairs and administrative overheads rise by 5% a year.
- Working capital based on 45 days of raw material, 5 days of work in progress, 30 days of finished goods and 60 days of receivables, less 30 days of creditors.
- Term loan at 10.5% interest with a 6-month moratorium and 54 monthly instalments; cash credit at 11% on 75% of the working capital requirement.
- Depreciation on the written-down value method at Income Tax Act rates; income tax at a flat 25% of profit for simplicity.
- Contingency of 5% on building and machinery; preliminary and pre-operative expenses written off over five years.
- All amounts in ₹ lakh unless stated otherwise, excluding GST.

## 21 Conclusion

On these illustrative assumptions, a vitamin c unit of 7,30,000 tablets per day costs ₹1,202.08 lakh to set up, earns an average return of 24.6% on that investment and pays back in about 3.4 years. An average DSCR of 1.94 and break-even at 40.2% of capacity point to a project that can carry its bank debt. Actual figures depend on the location, the machinery chosen, input prices and the promoter's plans, which is why a full report is prepared for each project.

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This document is a computer-generated illustrative sample. The capacity, prices, costs and projections are representative assumptions for a typical small-scale unit and are not based on any specific project, location or quotation. Statutory requirements change and vary by state. Niir Project Consultancy Services accepts no liability for decisions taken on the basis of this sample.

## A Annexure: monthly loan repayment schedule

Term loan of ₹901.56 lakh at 10.5% a year. Amounts in ₹ lakh.

| No. | Month    | Opening balance | Interest | Principal | Instalment | Closing balance |
|-----|----------|-----------------|----------|-----------|------------|-----------------|
| 1   | Apr 2027 | 901.56          | 7.89     | –         | 7.89       | 901.56          |
| 2   | May 2027 | 901.56          | 7.89     | –         | 7.89       | 901.56          |
| 3   | Jun 2027 | 901.56          | 7.89     | –         | 7.89       | 901.56          |
| 4   | Jul 2027 | 901.56          | 7.89     | –         | 7.89       | 901.56          |
| 5   | Aug 2027 | 901.56          | 7.89     | –         | 7.89       | 901.56          |
| 6   | Sep 2027 | 901.56          | 7.89     | –         | 7.89       | 901.56          |
| 7   | Oct 2027 | 901.56          | 7.89     | 13.13     | 21.02      | 888.43          |
| 8   | Nov 2027 | 888.43          | 7.77     | 13.25     | 21.02      | 875.18          |
| 9   | Dec 2027 | 875.18          | 7.66     | 13.36     | 21.02      | 861.82          |
| 10  | Jan 2028 | 861.82          | 7.54     | 13.48     | 21.02      | 848.34          |
| 11  | Feb 2028 | 848.34          | 7.42     | 13.60     | 21.02      | 834.74          |
| 12  | Mar 2028 | 834.74          | 7.30     | 13.72     | 21.02      | 821.02          |
| 13  | Apr 2028 | 821.02          | 7.18     | 13.84     | 21.02      | 807.19          |
| 14  | May 2028 | 807.19          | 7.06     | 13.96     | 21.02      | 793.23          |
| 15  | Jun 2028 | 793.23          | 6.94     | 14.08     | 21.02      | 779.15          |
| 16  | Jul 2028 | 779.15          | 6.82     | 14.20     | 21.02      | 764.94          |
| 17  | Aug 2028 | 764.94          | 6.69     | 14.33     | 21.02      | 750.62          |
| 18  | Sep 2028 | 750.62          | 6.57     | 14.45     | 21.02      | 736.16          |
| 19  | Oct 2028 | 736.16          | 6.44     | 14.58     | 21.02      | 721.58          |
| 20  | Nov 2028 | 721.58          | 6.31     | 14.71     | 21.02      | 706.88          |
| 21  | Dec 2028 | 706.88          | 6.19     | 14.84     | 21.02      | 692.04          |
| 22  | Jan 2029 | 692.04          | 6.06     | 14.97     | 21.02      | 677.07          |
| 23  | Feb 2029 | 677.07          | 5.92     | 15.10     | 21.02      | 661.98          |
| 24  | Mar 2029 | 661.98          | 5.79     | 15.23     | 21.02      | 646.75          |
| 25  | Apr 2029 | 646.75          | 5.66     | 15.36     | 21.02      | 631.39          |
| 26  | May 2029 | 631.39          | 5.52     | 15.50     | 21.02      | 615.89          |
| 27  | Jun 2029 | 615.89          | 5.39     | 15.63     | 21.02      | 600.26          |
| 28  | Jul 2029 | 600.26          | 5.25     | 15.77     | 21.02      | 584.49          |
| 29  | Aug 2029 | 584.49          | 5.11     | 15.91     | 21.02      | 568.58          |
| 30  | Sep 2029 | 568.58          | 4.98     | 16.05     | 21.02      | 552.54          |
| 31  | Oct 2029 | 552.54          | 4.83     | 16.19     | 21.02      | 536.35          |
| 32  | Nov 2029 | 536.35          | 4.69     | 16.33     | 21.02      | 520.02          |
| 33  | Dec 2029 | 520.02          | 4.55     | 16.47     | 21.02      | 503.55          |
| 34  | Jan 2030 | 503.55          | 4.41     | 16.61     | 21.02      | 486.94          |
| 35  | Feb 2030 | 486.94          | 4.26     | 16.76     | 21.02      | 470.18          |
| 36  | Mar 2030 | 470.18          | 4.11     | 16.91     | 21.02      | 453.27          |
| 37  | Apr 2030 | 453.27          | 3.97     | 17.05     | 21.02      | 436.22          |
| 38  | May 2030 | 436.22          | 3.82     | 17.20     | 21.02      | 419.01          |
| 39  | Jun 2030 | 419.01          | 3.67     | 17.35     | 21.02      | 401.66          |

| No. | Month    | Opening balance | Interest | Principal | Instalment | Closing balance |
|-----|----------|-----------------|----------|-----------|------------|-----------------|
| 40  | Jul 2030 | 401.66          | 3.51     | 17.51     | 21.02      | 384.15          |
| 41  | Aug 2030 | 384.15          | 3.36     | 17.66     | 21.02      | 366.49          |
| 42  | Sep 2030 | 366.49          | 3.21     | 17.81     | 21.02      | 348.68          |
| 43  | Oct 2030 | 348.68          | 3.05     | 17.97     | 21.02      | 330.71          |
| 44  | Nov 2030 | 330.71          | 2.89     | 18.13     | 21.02      | 312.58          |
| 45  | Dec 2030 | 312.58          | 2.74     | 18.29     | 21.02      | 294.29          |
| 46  | Jan 2031 | 294.29          | 2.58     | 18.45     | 21.02      | 275.85          |
| 47  | Feb 2031 | 275.85          | 2.41     | 18.61     | 21.02      | 257.24          |
| 48  | Mar 2031 | 257.24          | 2.25     | 18.77     | 21.02      | 238.47          |
| 49  | Apr 2031 | 238.47          | 2.09     | 18.93     | 21.02      | 219.54          |
| 50  | May 2031 | 219.54          | 1.92     | 19.10     | 21.02      | 200.44          |
| 51  | Jun 2031 | 200.44          | 1.75     | 19.27     | 21.02      | 181.17          |
| 52  | Jul 2031 | 181.17          | 1.59     | 19.44     | 21.02      | 161.73          |
| 53  | Aug 2031 | 161.73          | 1.42     | 19.61     | 21.02      | 142.13          |
| 54  | Sep 2031 | 142.13          | 1.24     | 19.78     | 21.02      | 122.35          |
| 55  | Oct 2031 | 122.35          | 1.07     | 19.95     | 21.02      | 102.40          |
| 56  | Nov 2031 | 102.40          | 0.90     | 20.12     | 21.02      | 82.28           |
| 57  | Dec 2031 | 82.28           | 0.72     | 20.30     | 21.02      | 61.98           |
| 58  | Jan 2032 | 61.98           | 0.54     | 20.48     | 21.02      | 41.50           |
| 59  | Feb 2032 | 41.50           | 0.36     | 20.66     | 21.02      | 20.84           |
| 60  | Mar 2032 | 20.84           | 0.18     | 20.84     | 21.02      | –               |