

## A starter's guide to Hollow Block manufacturing



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The document is part of a series of information products providing snapshots to young aspiring entrepreneurs regarding viable business opportunities in the state.

## Introduction

Hollow concrete blocks are substitutes for conventional bricks and stones in building construction. They are lighter than bricks, easier to place and also confer economics in foundation cost and consumption of cement. In comparison to conventional bricks, they offer the advantages of uniform quality, faster speed of construction, lower labour involvement and longer durability. In view of these advantages, hollow concrete blocks are being increasingly used in construction activities.

## Market Snapshot

Hollow concrete blocks can be used for (a) exterior load bearing walls, (b) interior walls, (c) Panel walls, (d) columns, (e) retaining walls and (f) compound walls. In view of their versatile uses and properties, hollow concrete blocks are in demand not only for household constructions but departments/agencies engaged in construction including PWD, Housing Boards and Urban Development Corporations, RoadTransport Corporation and Forest Departments use hollow blocks because of cost effectiveness.

## Plant Capacity:

A small unit with a production of 800 blocks per day

The standard size of hollow concrete blocks is –

- (a) 4X8X16 inches
- (b) 6X8X16 inches
- (c) 8X8X16 inches

Production: 100 blocks /Hr

Duration of shift: 8 hours/day.

Daily production:  $100 \times 8 = 800$  blocks

Working days/year: 260

Annual production: 20.08 lakh blocks

## Raw Materials:

The required raw material for such unit is:

- 1. Cement
- 2. Crusher Bajre and
- 3. Crusher dust

The annual requirement of raw materials for the production of 2.08 lakh hollow concrete blocks per year is as follows:

- 1. **Cement:** 270 tons
- 2. **Bajre:** 6 lakh sq feet
- 3. **Crusher Dust:** 4.8 lakh sq feet

## Opportunities

1. The product demand is high
2. Units are eco friendly as compared to brick kilns
3. Future belongs to hollow blocks and can replace bricks because of low cost and high strength
4. ?????

## Challenges

1. To keep up with the fast changing technology and machinery
2. Stiff competition in the market as more and more hollow block units are being established in the market
3. Product designs are highly dependent upon machinery
4. Lack of skilled labourers

## Relevant Govt. departments to approach for

- Industries and Commerce Department
- Pollution Control Board
- Power Development Department (PDD)
- Public Health Engineering (PHE)
- State Industrial Development Corporation (SIDCO)

## Financials of a unit with a production capacity of 800 blocks per day.

### Total capital cost

(in Rs)

a) Land	Owned/leased
b) Building	Rs. 2.80 lakh
c) Machinery/equipments	Rs.7.72 lakh

### Operational cost per month Costs for

Production of 2,4000 blocks	1.11 lakh
Grand Total	<b>11.63 lakh</b>

### Sales/Earning

<b>Total Returns/Earnings</b>	<b>7.2 lakh</b>
Sale of Blocks (24000 blocks) @ Rs 30	7.2 lakh

## Checklist:

### 1. Land

Area: 1 kanal land for production purpose with concrete bed for laying hollow Blocks.

Nature: Industrial area

Lease deed, No Objection Certificate from Pollution Control Board.

### 2. Building

#### Size of different sheds

Shed	2000 sqt feet
Open Storage area	400 sqt feet

### 3. Equipment

Concrete Block Making Machine	1 No
Cement Mixer with motor	1 No.
Ramming moulds of following sizes	
(a) Cavity 100 x 200 x 400mm	
(b) Cavity 150 x 200 x 400mm	
(c) Solid 200 x 200 x 400mm	
Tipping Borrows	
Generator	
Water motor	

### 4. Money

Check various schemes at JKEDI.

### 5. Buyers

Locals: - Local population consists of major portion of the sales. construction companies

Exports: - till date we are not exporting anything from it but we import the heavy items of concrete nature like Cement Pole, Cement Tiles (Finished and Un Finished), Cement Bricks

### 6. Suppliers

Locals: - Main Suppliers are cement Manufacturers like SAIFCO, TCI MAX, KHYBER, CEMTAC, JK CEMENT, STAR Cement etc and Crusher machines are supplying the BAJRE and DUST.

Imports: - cements like ACC, AMBUJA

**Others:** - 100 % Machines are imported but are available at local with their distributors.