

# Machines Developed and Promoted for Production of Cost-Effective Building Components

# bmtpc

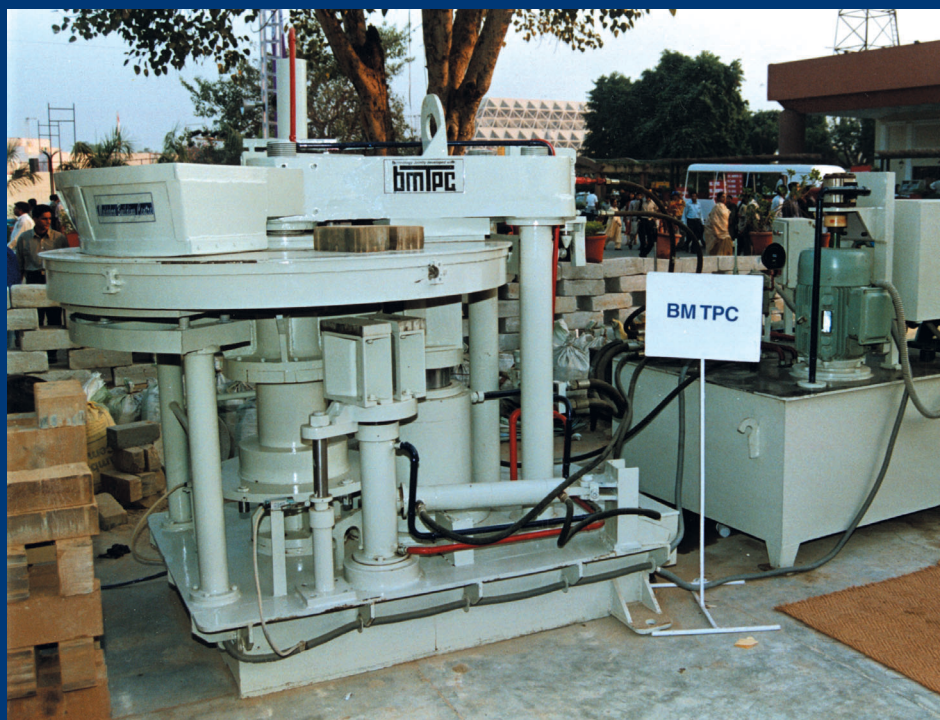
**bmtpc**

**Building Materials and Technology Promotion Council**  
Ministry of Urban Development & Poverty Alleviation  
Government of India  
New Delhi

## Machines Developed/Promoted by BMTPC

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## Alternate Station Hydraulic Brick Press



### Use:

For production of clay/clay flyash/flyash sand lime/clay cement bricks

### Specifications

- **Production capacity**  
Per day in 8 hours shift : 10000 bricks per day
- Size of machine : 3900x1570x2100 mm
- Weight of machine : 7000 kgs
- Size of brick : 230x108x75 mm
- No. of bricks per cycle : 2 nos
- Type : Heavy duty machine
- Manpower : Skilled – 1, Unskilled – 3
- Energy Transmission : Hydraulic compression
- Energy source : Electrical, 3 phase, 440 volts
- Power requirement : 20 HP
- Compaction by : Develops 100 tons of force during compaction
- Options : a) Auto Indexing  
: b) Hydraulic toggle indexing
- Compressive strength : 60-200 kg/cm<sup>2</sup> or more
- Others : Bricks produced are of accurate dimensions and have excellent surface finish.

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## Bi-Directional Vibro Press



### Use:

For production of concrete bricks/solid or hollow blocks, flyash concrete bricks/solid or hollow blocks and paving blocks/tiles of different shapes.

### Specifications

- **Production capacity**  
Per day in 8 hours shift : 3000 bricks or 400 solid/hollow concrete blocks or 800 paving tiles/blocks
- Size of machine : 1470x1370x2300 mm
- Weight of machine : 2000 kgs
- **Size of brick/block/paver**
  - Brick : 230 x 115 x 75 mm
  - Solid block : 300x200x150 mm
  - Hollow block : 400x200x150 mm
  - Paver : Any standard size & shape
- **No. of bricks/blocks/pavers per cycle**
  - Bricks : 4 nos.
  - Solid/Hollow blocks : 1 no
  - Paving blocks : 2 nos.
- Manpower : Skilled – 1, Unskilled – 3
- Type : Light duty machine
- Energy Transmission : 10 tons of vibro hydraulic pressure
- Energy source : Electrical, 3 phase, 440 volts
- Power requirement : 3 HP
- Compressive strength : 80 - 150 kg/cm<sup>2</sup>

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## Bi-Directional Vibro Press



### Use:

For production of concrete bricks/solid or hollow blocks, flyash concrete bricks/solid or hollow blocks and paving blocks/tiles of different shapes.

### Specifications

- **Production capacity**  
Per day in 8 hours shift : 5000 bricks or 1000 solid/hollow concrete blocks or 2500 paving blocks/tiles
- Size of machine : 2500x2000x2300 mm
- Weight of machine : 3500 kgs
- **Size of brick/block/paver**
  - Brick : 230x115x75mm
  - Solid block : 300x200x150 mm
  - Hollow block : 400x200x150 mm
  - Paver : Any standard size & shape
- **No. of bricks/blocks/pavers per cycle**
  - Bricks : 6 nos.
  - Solid/hollow blocks : 2 nos.
  - Paving blocks : 4 nos.
- Manpower : Skilled – 1, Unskilled – 4
- Energy Transmission : 15 tons of vibro-hydraulic pressure
- Energy source : Electrical, 3 phase ,440 volts
- Power requirement : 7 HP
- Compressive strength : 80 - 150 kg/cm<sup>2</sup>

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## Bi-Directional Vibro Press



### Use:

For production of concrete bricks/solid or hollow blocks, flyash concrete bricks/solid or hollow blocks and paving blocks/tiles of different shapes.

### Specifications

- **Production capacity**  
Per day in 8 hours shift : 7000 bricks or 2000 solid/hollow blocks or 5000 paving blocks/tiles
- Size of machine : 7000x3000x3000 mm
- Weight of machine : 5500 kgs
- **Size of brick/block/paver**
  - Brick : 230x115x75 mm
  - Solid block : 300x200x150 mm
  - Hollow block : 400x200x150 mm
  - Paver : Any standard size & shape
- **No. of bricks/blocks/pavers per cycle**
  - Bricks : 10 nos.
  - Solid/hollow blocks : 4 nos
  - Paving blocks : 8 nos.
- Manpower : Skilled – 1, Unskilled – 5
- Type : Heavy duty, automatic machine
- Energy Transmission : 20 tons of vibro-hydraulic pressure
- Energy source : Electrical, 3 phase, 440 volts
- Power requirement : 12 HP
- Compressive strength : 80 - 150 kg/cm<sup>2</sup>

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# Solid/Hollow Concrete Block Machine (Egg laying Type)



## Use:

For production of all types of Concrete Blocks including Solid and Hollow blocks of different shapes and sizes.

## Specifications

- **Production Capacity**  
Per day in 8 hours shift : 1000 blocks
- Size of machine : 1500x1500x1500mm
- Weight of Machine : 1000 kgs.
- **Size of Blocks**  
Solid Block : 300x200x150mm  
Hollow Block : 400x200x200 mm
- **No. of Blocks per cycle**  
Solid block : 6 Nos.  
Hollow block : 4 nos.
- Manpower : Skilled – 1, Unskilled – 4
- Type : Portable, Egg laying type
- Energy Source : Electrical, 3 Phase, 440 volts
- Power Requirement : 6 HP
- Compaction by : Pressure-vibration technique
- Strength of blocks : 70-100 kg/cm<sup>2</sup>
- Options : Replacement of Moulds are available for Stone masonry blocks, and large size aggregate blocks.

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## Solid/Hollow Concrete Block Machine (Standing Type)



### Use:

For production of solid and hollow concrete blocks, concrete bricks for walling where space constraints are there.

### Specifications

- **Production Capacity**  
Per day in 8 hours shift : 500 solid/hollow concrete blocks or 1500 bricks
- Size of machine : 900x900x1800 mm
- Weight of machine : 500 kgs
- **Size of block/brick**
  - Solid block : 300x200x150mm
  - Hollow block : 400x200x200mm
  - Brick : 190x90x90mm
- **No. of block/bricks per cycle**
  - Blocks : 2 nos.
  - Bricks : 6 nos.
- Type : Portable, standing type
- Manpower : Skilled – 1, Unskilled – 4
- Energy source : Electrical, 3 phase, 440 volts
- Power requirement : 3 HP
- Compaction by : Pressure vibration
- Strength of bricks/blocks : 70-100 kg/cm<sup>2</sup>

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# Concrete Block Machine (Sakar)



## Use:

For production of all types of Concrete Blocks including Solid and Hollow blocks of different shapes and sizes.

## Specifications

- **Production Capacity**  
Per day in 8 hours shift : 1000 blocks
- Size of machine : 1270x915x1650 mm
- Weight of Machine : 500 kgs.
- **Size of block**  
Block : 300x200x150mm or any other sizes.
- No. of Block Per cycle : 1 No.
- Type : Portable machine
- Manpower : Skilled – 2, Unskilled – 6
- Energy Source : Electrical, 3 phase, 440 volts
- Power Requirement : 1 HP
- Compaction by : Pressure-vibration technique
- Strength of blocks : 60-70 kg/cm<sup>2</sup>
- Options : Replacement of Moulds are available for Stone masonry blocks, Flooring tiles, Sand lime bricks, Pavement blocks etc.

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## Stationary Block Machine



### Use:

For production of solid/hollow concrete blocks for walling.

### Specifications

- **Production capacity**  
Per day in 8 hours shift : 200 blocks
- Size of machine : 900 x 800 x 1200 mm
- Weight of machine : 300 kgs
- **Size of Blocks**
  - Solid block : 300 x 200 x 150 mm with side block
  - Hollow block : 400 x 200 x 150 mm
- No. of Blocks per cycle : 1 No.
- Type : Light duty machine, most suitable for site works
- Manpower : Skilled – 1, Unskilled – 3
- Energy transmission : High amplitude vibrations
- Energy source : Electrical, 3 phase, 440 volts or Diesel
- Power requirement : 1HP
- Compaction by : Vibration technique
- Compressive strength : 40-60 kg / cm<sup>2</sup>
- Others : Can be designed/fabricated for different sizes of final products.

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# Solid/Hollow Concrete Block Machine (Handheld Type)



## Use:

For production of solid/hollow concrete blocks which are used as an alternative to bricks

## Specifications

- **Production capacity**  
Per day in 8 hours shift : 250-300 concrete blocks
- Size of Machine : 600x750x600mm
- Weight of Machine : 100 kgs.
- **Size of Block**  
Solid : 300x200x150 mm  
Hollow : 400x200x200mm
- **No. of blocks per cycle**  
Solid block : 6 Nos.  
Hollow block : 4 Nos.
- Type : Portable
- Manpower : Skilled – 1, Unskilled – 1
- Energy transmission : High amplitude vibration
- Energy Source : Petrol / Diesel
- Power requirement : 2 HP, Petrol/Diesel Engine
- Compaction by : Vibration technique
- Compressive strength : 60-80 Kg /cm<sup>2</sup>
- Others : Produces concrete blocks of any size depending on the size of mould.  
: Does not require electricity as it is petrol/ diesel driven

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## C-Brick Machine



### Use:

For production of bricks/blocks/tiles from sand-lime, flyash-sand-lime, flyash-sand-cement and cement-sand-aggregates.

### Specifications

- **Production Capacity**  
Per day in 8 hours shift : 3000 bricks
- Size of machine : 900x600x1600mm
- Weight of machine : 500 kgs.
- **Size of brick/block/tile**
  - Brick : 225x107x70mm
  - Tile : 225x107x40mm
  - Block : 225x107x 150mm
- No. of bricks Per cycle : 4 Nos.
- Manpower : Skilled – 1, Unskilled – 4
- Type : Portable
- Energy Transmission : High amplitude vibrations
- Energy source : Electrical, 3 phase, 440 volts
- Power requirement : 2 HP
- Compaction by : Vibro Compaction
- Compressive strength : 50-120 kg/cm<sup>2</sup>

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## Compressed Earth Block Machine (Balram)



### Use:

For production of compressed soil blocks for walls to make strong and durable buildings

### Specifications

- **Production capacity**  
Per day in 8 hours shift : 1000-1500 blocks of Type-A or 500-750 blocks per day of Type-B
- Size of machine : 1500x600x1200 mm
- Weight of machine : 180 kgs.
- **Size of block**  
Type-A : 230 x 109 x 76 mm  
Type-B : 230 x 230 x 76 mm
- **No. of blocks per cycle**  
Type-A : 2 Nos.  
Type-B : 1 No.
- Energy Transmission : Lever with cam & toggle mechanism  
: Develops 10 tons of force during compaction.
- Manpower : Skilled – 1, Unskilled – 5
- Type : Portable
- Energy Source : Manual
- Compaction by : By pressure
- Compressive strength : 20-30 kg/cm<sup>2</sup>
- Stabilisation of soil by : 5-10% cement by weight of mix

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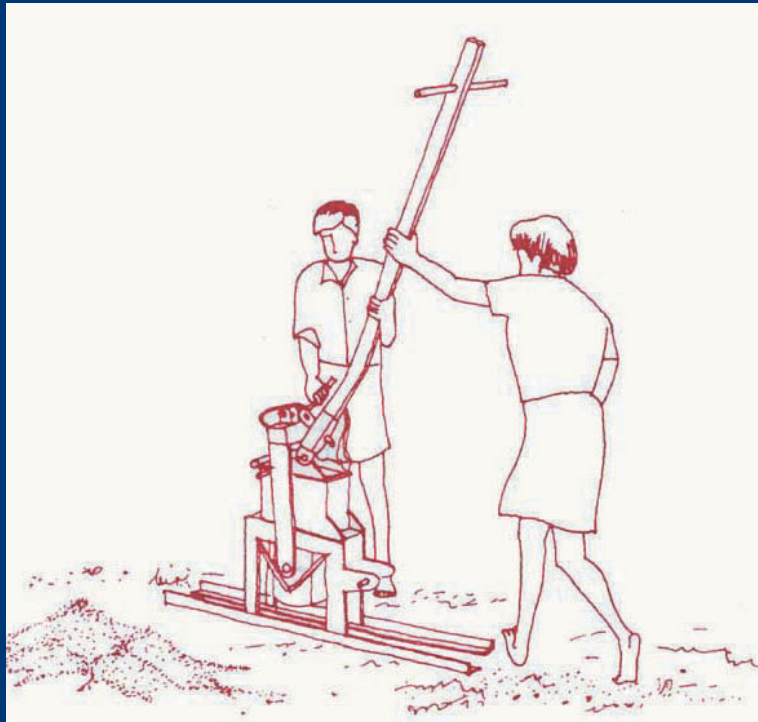
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## Compressed Earth Block Machine (Mardini)



### Use:

For production of stabilised mud blocks, fine concrete blocks and steam cured blocks for walls.

### Specifications

- **Production capacity**
  - Per day in 8 hours shift : 500-600 blocks
- Size of machine : 1300x500x500 mm
- Weight of machine : 140 kgs.
- **Size of block**
  - Block : 230x190x100 mm or 305x143x100 mm
- No. of block per cycle : 1 No.
- Energy Transmission : Lever with cam and toggle mechanism  
: Develops 12 tons of force during compaction.
- Manpower : Skilled – 1, Unskilled – 5
- Type : Portable
- Energy Source : Manual
- Compaction by : Pressure
- Compressive strength : 30-40 kg/cm<sup>2</sup>
- Stabilisation of soil by : 5-7% cement

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Promoted by BMTPC  
Developed by M/s Maheemaya

# Compressed Earth Block Machine (Hydraform)



Promoted by BMTPC  
Developed by M/s Hydraform

## Use:

For production of Interlocking type compressed earth blocks and flyash-lime-gypsum blocks

## Specifications

- **Production capacity**
  - Per day in 8 hours shift : 1200 blocks
- Size of machine : 2300 x 1600 x 1700 mm
- Weight of machine : 1000 kgs.
- **Size of blocks**
  - Interlocking block : 50-240 x 220 x 115mm
  - Conduit block : 50-240 x 220 x 115mm
  - Pavement block : 220 x 115mm x 75 mm
  - Plain block : 50-240 x 220 x 115mm
- No. of blocks Per cycle : 1 No.
- Energy Transmission : Hydraulic Pressure
- Energy source : Diesel or Electrical, 3 phase, 440v
- Power requirement : 13.3 hp diesel engine
- Manpower : Skilled – 1, Unskilled – 7
- Type : Road worthy tow frame
- **Compressive strength of Blocks**
  - Compressed Earth blocks : 50 - 100 kg/cm<sup>2</sup>
  - Flyash-lime-gypsum : 100 - 250 kg/cm<sup>2</sup>

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## Ferrocement Wall Panel Machine



### Use:

For production of ferrocement panels which are used as an alternative to brick infill walls.

### Specifications

- **Production Capacity**  
Per day in 8 hours shift : 4 walling units by replacing mould
- Size of machine : Depend upon the size of walling units to be manufactured
- Weight of machine : 600 - 800 kgs.
- Size of wall panel : 1200 x 900 x 150 mm or 1200 x 1200 x 150 mm or any other standard sizes
- Cross section size : 25 mm thickness
- Manpower : Skilled – 1, Unskilled – 3
- Type : Portable
- Energy source : Electrical, 3 phase, 440 volts.
- Power requirement : 2HP
- Compaction by : Vibration technique
- Compressive strength : 150 kg/sq.cm
- Others : Capacity can be increased by replacing the moulds.  
: Can be designed/fabricated for different sizes of final products

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## TNG Rural Housing Kit



### Use:

For production of building components for a complete house using local materials

### Specifications

- **Production capacity** : Building components for single storey house of 220 sq.ft. can be constructed with in 6 days (excluding curing time)
- **Size of Building Components**
  - Hollow blocks : 400 x 200 x 150 mm
  - Solid blocks : 400 x 200 x 150 mm
  - Corner blocks : L-shape, (600+400)x 225 x 150 mm
  - Arch bricks : 175-200 x 200 x 300 mm
  - Rafter for roof : 75 x 150 x 2100-4200 mm
  - Roofing slab : 600 x 600 x 45 mm thickness
  - Flooring tile : 200 x 200 x 45 mm thickness
  - Roofing tile : 200 x 200 x 25 mm thickness
  - Staircase treads : 230 x 800 x 45 mm thickness
  - Staircase risers : 200 x 800 x 50 mm thickness
  - Concrete window : 300 x 375 mm
  - Concrete door frame : 900 x 2000 mm
  - Water tank : 300 litres capacity
- **Manpower** : Skilled – 1, Unskilled – 5
- **Energy transmission** : Manually operated needle vibrator
- **Others** : Building components are manufactured using steel moulds.

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## Ferrocement Roofing Channel Machine



### Use:

For production of Ferrocement Roofing Channels upto 6.1 mtr. span for roof and intermediate floors construction.

### Specifications

- **Production Capacity**  
Per day in 8 hours shift : 5 Channels by replacing moulds.
- Size of Machine : 1150 x 1500 x 6600 mm
- Weight of machine : 1000 kgs.
- Shape of channels : Segment of a circle
- Section Size : 845x340x25 mm
- Length : Span Up to 6.1 mts. can be casted.
- Manpower : Skilled – 2, Unskilled – 4
- Type : Heavy duty
- Compaction by : Vibration technique
- Energy Source : Electric, 3 phase, 440 volts
- Power requirement : 4 HP
- Compressive Strength : 150 kg/cm<sup>2</sup>
- Others : Chicken mesh and welded mesh are used as reinforcement of channels  
: Can be designed/fabricated for spans upto 6.1 mt.  
: Production capacity can be increased by replacing the moulds

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## Precast RCC Plank Machine



### Use:

For production of Precast RCC roofing planks which are used as an alternative to RCC slabs.

### Specifications

- **Production capacity**  
Per day in 8 hours shift : 5 roofing planks
- Size of machine : 1600x1600x750 mm
- Weight of machine : 500 kgs
- **Size of Plank**  
Plank : 1500 x 300 x 30-60mm or any other size
- No. of planks per cycle : 5 Nos.
- Manpower : Skilled – 1, Unskilled – 3
- Type : Portable
- Energy transmission : High amplitude vibrations
- Energy source : Electric, 3 phase, 440 volts
- Power requirement : 2 HP
- Compaction by : Vibration technique
- Compressive strength : 150 kg/cm<sup>2</sup>
- Others : Production capacity can be increased by replacing the moulds  
: Less maintenance  
: Can be designed/fabricated for different sizes of final products.

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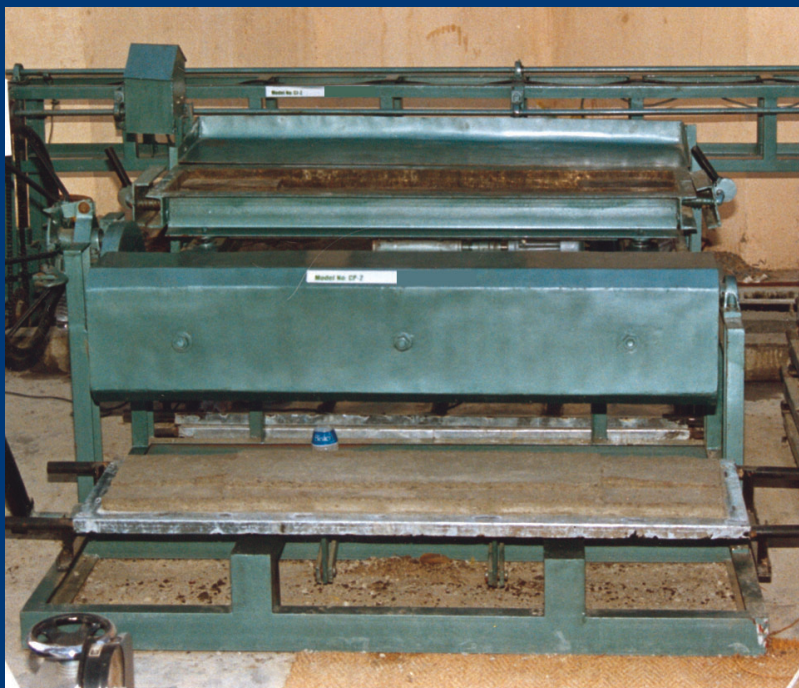
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## RCC Plank Casting Machine (Rotating Type)



### Use:

For production of Precast RCC Planks for roofing which are used as alternative to RCC Slabs

### Specifications

- **Production capacity**  
Per day in 8 hours shift : 80 - 100 RCC Planks
- Size of Machine : 1800x1850x1000 mm
- Weight of Machine : 1250 kgs.
- Size of Plank : 1500 x 300 x 30-60mm thickness
- No. of Plank Per cycle : 1 No.
- Type : Rotating type Medium duty machine
- Manpower : Skilled – 1, Unskilled – 5
- Energy Transmission : High amplitude vibrations
- Energy source : Electrical, 3 phase, 440 volts
- Power requirement : 2 HP
- Compaction by : Vibration technique
- Compression strength : 150 kg/cm<sup>2</sup>
- Others : No casting platform is required  
: Can be designed/fabricated for different sizes of final products.

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## Precast RCC Plank Machine (Egg Laying Type)



### Use:

For production of Precast RCC roofing planks which are used as an alternative to RCC slabs.

### Specifications

- **Production capacity**  
Per day in 8 hours shift : 80-100 roofing planks
- Size of machine : 1500x1200x1200 mm
- Weight of machine : 600 kgs
- **Size of Plank**  
Plank : 1500 x 300 x 30-60mm or any other size
- No. of planks per cycle : 2 Nos.
- Manpower : Skilled – 1, Unskilled – 3
- Type : Egg laying type
- Energy transmission : High amplitude vibrations
- Energy source : Electric, 3 phase, 440 volts
- Power requirement : 2 HP
- Compaction by : Vibration technique
- Compressive strength : 150 kg/cm<sup>2</sup>
- Others : Less maintenance  
: Can be designed/fabricated for different sizes of final products.

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## Precast RCC Joist Machine



### Use:

For production of Precast R.C.C joists which are used as an alternative to timber and steel joists

### Specifications

- **Production capacity**  
Per day in 8 hours shift : 4 RCC joists
- Size of machine : 4550x1600x750 mm
- Weight of machine : 550 kgs
- **Size of joist**  
Joist : 4166 x 100 x 125 mm or  
4166 x 150 x 150 mm or any other sizes
- Cross section size : 100 x 125 mm or  
150 x 150 mm
- No. of Joists per cycle : 4 Nos.
- Type : Portable
- Manpower : Skilled – 1, Unskilled – 3
- Energy transmission : High amplitude vibrations
- Energy source : Electrical, 3 phase, 440 volts
- Power requirement : 2 HP
- Compressive strength : 150 kg/cm<sup>2</sup>
- Others : Production capacity can be increased by replacing the moulds  
: Can be designed/fabricated for different sizes of final products.

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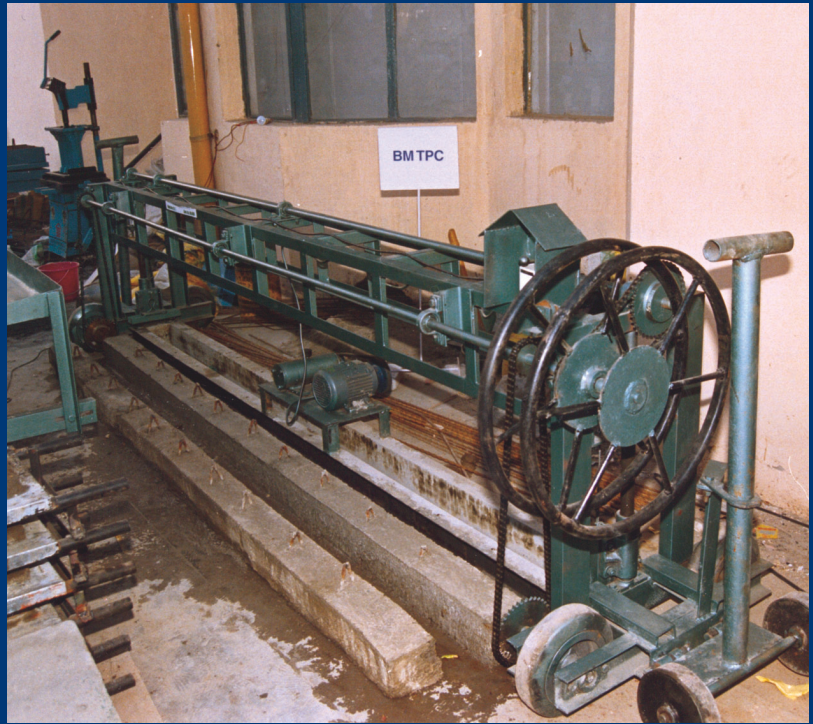
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## Rcc Joist Casting Machine (Egg laying Type)



### Use:

For production of Precast R.C.C joists which are used as an alternative to timber and steel joists

### Specifications

- **Production capacity**
  - Per day in 8 hours shift : 80 - 100 RCC joists
- Size of machine : 1200 x 1500 x 4600 mm
- Weight of machine : 700 kgs
- Size of RCC joist : 150 x 150 x 3600 mm
- No. of joist Per cycle : 1 No.
- Type : Egg laying type
- Manpower : Skilled – 1, Unskilled – 3
- Energy Transmission : High amplitude vibrations
- Energy source : Electrical, 3 phase, 440 volts
- Power requirement : 2 HP
- Compaction by : Vibration technique
- Compressive strength : 150 kg/cm<sup>2</sup>
- Others : Joists of different sizes can be casted by changing the mould

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## Ferrocement C-Beam Machine



### Use:

For production of C-section beams (Rafter) of all sizes up to a span of 3600 mm

### Specifications

- **Production capacity**  
Per day in 8 hours shift : 3 - 4 C-beams dependig upon the size
- Size of machine : 750 x 1200 x 3800 mm
- Weight of machine : 650 kgs
- Size of C-Beam : 150 x 100 x 3650 mm or 300 x 150 x 3650 mm
- Cross section size : 25 mm thickness
- **No. of C-Beam per cycle**  
150 x 100 mm : 4 Nos.  
300 x 150 mm : 3 Nos
- Type : Portable
- Manpower : Skilled – 1, Unskilled – 3
- Energy transmission : High amplitude vibrations
- Energy source : Electrical, 3 phase, 440 volts
- Power requirement : 2HP
- Compaction by : Vibration technique
- Compressive strength : 250 kg / cm<sup>2</sup>
- Others : Can be designed/fabricated for different sizes of final products.  
: Production capacity can be increased by replacing the moulds

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## Micro Concrete Roofing Tile Machine



### Use:

For production of Micro Concrete Roofing tiles for any type of Roof construction.

### Specifications

- **Production capacity**
  - Per day in 8 hours shift : 200 Tiles
- Size of Machine : 1000x540x500 mm.
- Weight of Machine : 35 kgs.
- Weight of Mould : 525 gms.
- Moulds : High impact polystyrene plastic vacuum formed moulds.
- **Size of tile**
  - Tile : 488x240x8 mm
- Weight of Tile : 2.25 kg.
- Manpower : Skilled – 1, Unskilled – 2
- Compaction by : Vibration
- Energy Source : Electric, 1 phase, 220 volts
- Power requirement : 0.25 HP
- Load bearing capacity : 80 Kgs.
- Others : Ridge tiles can also be manufactured.  
: Pan type and Roman type of MCR tiles can be manufactured

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Developed by Development Alternatives



## Precast L-Panel Machine



### Use:

For production of L-panels which are used as an alternative to R.C.C slabs.

### Specifications

- **Production capacity**  
Per day in 8 hours shift : 2 L panels per mould
- Size of machine : 4200x800x750 mm
- Weight of machine : 750 kgs.
- Type : Portable
- **Size of L-panels**  
L - Panel : 4000x380x120x30 mm thickness
- Cross-section size : 30 mm
- No. of L-Panels per cycle : 2 Nos.
- Manpower : Skilled – 1, Unskilled – 3
- Energy source : Electrical, 3 phase, 440 volts
- Energy Transmission : High amplitude vibrations
- Power requirement : 2 HP
- Compaction by : Vibration technique
- Compressive strength : 150 kg/cm<sup>2</sup>
- Others : Production capacity can be increased by replacing moulds  
: Can be designed/fabricated for different sizes of final products.

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## Terrazo/ Chequered Tile Machine



### Use:

For production of Terrazo and Chequered tiles for flooring and walling.

### Specifications

- **Production capacity**  
Per day in 8 hours shift : 400 - 500 tiles
- Size of machine : 900 x 800 x 1200 mm
- Weight of machine : 300 kgs
- **Size of Tiles**
  - Terrazo tile : 225 x 225 x 25 mm thickness
  - Chequered tile : 250 x 250 x 25 mm thickness
- No. of Tiles per cycle : 1 No.
- Type : Light duty machine, most suitable for site works
- Manpower : Skilled – 2, Unskilled – 2
- Energy transmission : Hand operated hydraulic compression
- Energy source : Manual
- Compaction by : Hydraulic pressure
- Compressive strength : 200 kg / cm<sup>2</sup>
- Others : Can be designed/fabricated for different sizes of final products.  
: Can also be used for production of kerb stones, interlocking pavement by changing the moulds.

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## Precast concrete Door/ Window Frame Machine



### Use:

For production of concrete door/window frames as a substitute to timber.

### Specifications

- **Production Capacity**
  - Per day in 8 hours shift : 4 Door or 5 window frames
- Size of machine : 2400x1200x750mm
- Weight of Machine : 500 kgs.
- **Size of Door/Window Frame**
  - Door : 2100x1035mm or
  - Window : 1130x1035 mm or any other pre-determined size.
- Cross-section size : 100mmx60mm
- Type : Portable
- Manpower : Skilled – 1, Unskilled – 3
- Energy Source : Electrical, 3 phase, 440 volts
- Power requirement : 2 HP
- Compaction by : High amplitude vibrations
- Compressive Strength : 250 Kg /cm<sup>2</sup>
- Others : Both Single Rebate and double rebate frames can be manufactured.
- In built provision for hinges, locks, tower bolts etc.
- Can be designed/fabricated for different sizes of final products.
- Production capacity can be increased by replacing the moulds

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## Combination Machine



### Use:

For production of Ferrocement C-section, lintels and shelves which replaces similar elements made of steel and timber.

### Specifications

- **Production capacity**  
Per day in 8 hours shift : Depends on type and combination of moulds used
- Size of Machine : 1600x1400x750 mm
- Weight of Machine : 650 kgs.
- **Size**
  - C-Section : 2750 x 150 x 100 mm
  - Lintel : 1200 x 200 x 200 mm
  - Shelf : 900 x 355 x 38 mm or any other size
- **Cross Section Size**
  - C-Section : 150 x 100 mm
  - Lintel : 200 x 200 mm
  - Shelf : 355 x 38 mm or any other size
- Type : Portable
- Manpower : Skilled – 1, Unskilled – 3
- Energy transmission : High amplitude vibrations
- Energy source : Electrical, 3 phase, 440 volts
- Power requirement : 2 HP
- Compaction by : Vibration technique
- Compression strength : 150 kg/cm<sup>2</sup>
- Others : Can be designed/fabricated for different sizes of final products.

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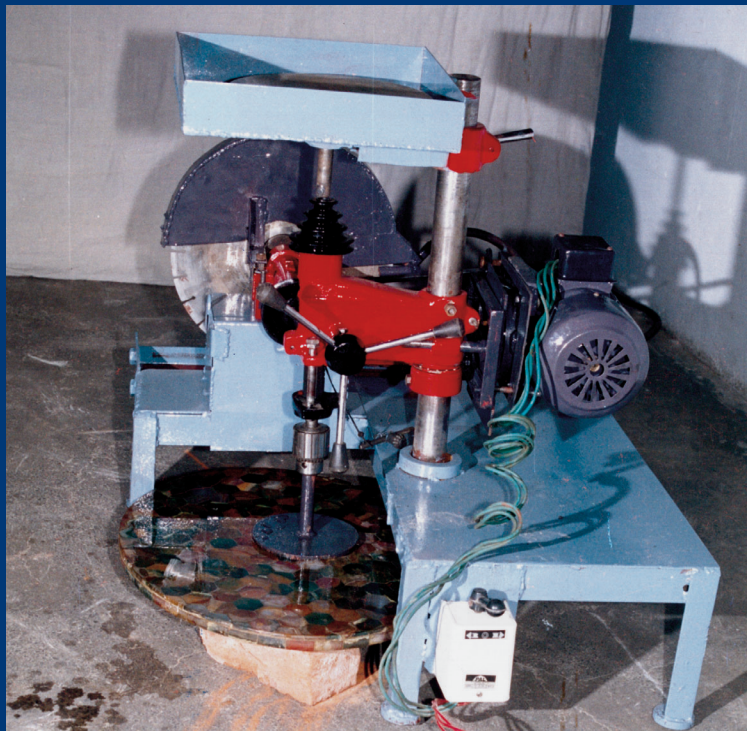
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## Multipurpose Stone Processing Machine



### Use:

Versatile stone drilling, cutting and polishing machine for semi-precious stone furniture and decorative items for rural and cottage industries.

### Specifications

- |   |   |
|---|---|
| • <b>Production capacity</b><br>Per day in 8 hours shift  | : Depend upon the type of stone to be processed                 |
| • Size of machine   | : 900 x 600 x 900 mm  |
| • Weight of machine   | : 100 kgs   |
| • Energy source   | : Electrical, single or 3 phase, 220 volts or 440 volts         |
| • Power requirement   | : 2 HP for single phase<br>1 HP for three phase                 |
| • The motor of the machine is provided with variable RPM which can be used for different purposes as follows: |   |
| <b>RPM</b>  | <b>Purpose</b>  |
| 450   | : Leather polish and grinding                                   |
| 1000  | : Drilling of hole 1.5" to 3" $\phi$                            |
| 2000  | : Cutting blade of 14" and drilling upto 0.5" to 0.5 $\phi$     |
| 4000  | : Cutting blade of 8" & 6" $\phi$ and drilling upto 0.5" $\phi$ |
| • Manpower  | : Skilled – 2   |
| • Others  | : Both ends of the machine can be used for various operations   |

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## Stone/Coal Disintegrator



### Use:

For crushing of stone/boulders/coal at site.

### Specifications

- **Production capacity**  
Per day in 8 hours shift : (a) Coal - 400 cft  
(b) Stone 200 - 320 cft
- Size of machine : 1650 x 1040 x 1600 mm
- Weight of machine : 100 kgs. approx
- Type : Portable, mobile
- Crushing Size : 6 mm to 25 mm
- Energy Transmission : Through jaw plates made of water quenched maganese steel (toggle clapping)
- Manpower : Skilled – 1, Unskilled – 1
- Type of coal/stone : Medium hardness stone or all types of coal
- Energy source : Electric, 3 phase, 440 volts
- Power requirement : 7.5HP
- Others : Suitable for manufacturers of concrete bricks & blocks, road contractors and brick field operators.

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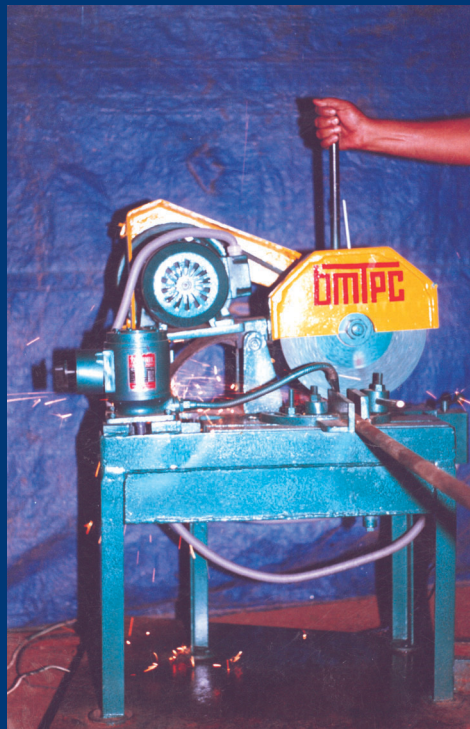
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## Bar and Pipe Cutting Machine



### Use:

For cutting of bars and pipes to suit the requirement.

### Specifications

- **Production capacity** : 1 mm to 25 mm bar. Steel pipe upto 80 mm dia  
Per day in 8 hours shift
- 8 mm cut : 30 pcs/minute
- 12 mm cut : 25 pcs/minute
- 25 mm cut : 2 pcs/minute
- 1" cut : 10 pcs/minute
- 2" cut : 5 pcs/minute
- 3" cut : 1 pcs/minute  
(depending upon feeding speed)
- Size of machine : 910x580x1000mm
- Weight of machine : Approx. 90 kgs
- Manpower : Skilled – 1, Unskilled – 1
- Energy Transmission : Hand stick operated cutting with auto coolant circulation
- Energy source : Electrical, 3 phase, 440 volts
- Power requirement : 2.5 HP
- Drives : 2 HP 4 pole Induction Motor, 1500 RPM to provide pulley ratio 1:3.5 for final RPM of cutter 4500
- Cutting tool : Parting wheel of 8" to 12". 2 to 4 mm thick, 1" holding hole
- Water pump : 1/4 HP, 4 pole, 4 LPM

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The **Building Materials and Technology Promotion Council (BMTPC)** was setup in 1990 as an inter-ministerial apex organisation to bridge the gap between laboratory development and large scale field application of innovative materials and technologies and to facilitate production of materials on commercial scale.

## Objectives

1. To promote development, production, standardisation and large-scale application of cost-effective innovative building materials and construction technologies in housing and building sector.
2. To promote manufacturing of new waste-based building materials and components through technical support, facilitating fiscal concessions and encouraging entrepreneurs to set up production units in different urban and rural regions.
3. To develop and promote methodologies and technologies for natural disaster mitigation, vulnerability & risk reduction and retrofitting/reconstruction of buildings and disaster resistant planning of human settlements.
4. To provide support to professionals, construction agencies and entrepreneurs in selection, evaluation, upscaling, design engineering, skill-upgradation, and marketing for technology transfer from lab to land in the area of building materials and construction.

