

## Auto Bricks Manufacturing Plant

**POWERVISION LTD. (PVL)** is the leader in supply and installation of **brick making machine** in Bangladesh. We supply clay brick machine from China, India, Italy, etc. Our **brick making machines** are best in quality for this industry.

If you are looking for the best consultant and company to supply **clay brick making machine, AAC Block making machine & cement brick machine**; then, you have already found them.

**Auto bricks making plant** is popular industry all over the world. The government of Bangladesh has forbidden the zigzag brick fields. The automation of **bricks making plants** in Bangladesh is mandatory.

**PVL** Provides turnkey solution of **automatic bricks manufacturing plants**. The standard capacity of **auto brick making plant** in Bangladesh may be **50000pcs/day, 100000pcs/day, 150000pcs/day, and 200000pcs/day**.

**We have mini auto bricks plant with green technology and low-cost machinery too.**



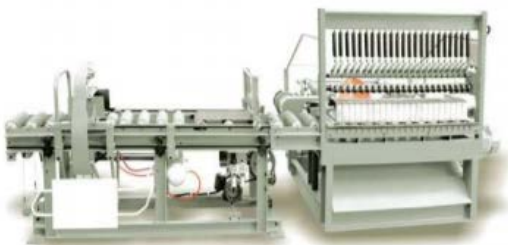
Box Feeder



Rolling Crusher



Double Shaft Mixer



Bricks cutter



Double Stage Vacuum extruder



Extruding Type Mixer



Kiln Car



Finished Bricks



Belt Conveyor





## Clay bricks samples



We provide consultancy services to design plants, selection of machinery, project profile preparation and availing *loan from banks for your **auto bricks manufacturing project***.

Get loan for auto bricks project:

We work for loan from banks to set up **auto bricks manufacturing plant**, prepare **project profile of auto bricks making plant**, supply **complete machinery of auto bricks plant**, install machinery and provide after sale services. Contact us for detail information.

Guarantee of Lowest Cost for auto bricks plant:

We provide turnkey solution of auto brick production plant at lowest rate. Our expert engineers from China & Bangladesh will set up your plant with proper care and vast experience.

## **Clay Bricks Production Line of 200,000. Pcs/day (254mm\*127mm\*76mm, Tunnel kiln of 160\*3.9 meters\*2)**

### **A. Clay brick plant data:**

#### **1. Plant/Land area:**

32000 m<sup>2</sup> (24 Bigha) or more (about 200 meters length), and we can make design based on your plant / Land size.

#### **2. Construction area:** 6800 m<sup>2</sup>(Including)

- Raw materials storage shad, 800 m<sup>2</sup>;
- Wet bricks storage shad, 18\*120=2160m<sup>2</sup>;
- Producing equipment's workshop (15\*40=600 m<sup>2</sup>);
- Tunnel kiln and bricks unloading shad, 15\*170=2550 m<sup>2</sup>;
- Office building area, 600 m<sup>2</sup>;

#### **3. Raw materials area:** 1200 m<sup>2</sup>;

#### **4. Finished bricks area:** 7000 m<sup>2</sup>;

#### **5. Raw materials needed per day:** 530-550 m<sup>3</sup>;

- 6. Workers needed:** 30 workers per shift;
- 7. Producing capacity:** 16000-20000 pcs/hour.
- 8. Raw materials plastic index:** 7-17;
- 9. Moisture content of green brick:** 16-18%.

**B. Tunnel kiln technical data:**

- 1. Tunnel kiln length:** 160 meters×2 tunnel kiln;
- 2. Tunnel kiln inner width:** 3.9 meters;
- 3. Tunnel kiln Inside Height:** 1.56 meters;
- 4. Kiln car size:** 3.6×4.0×0.87 meter;
- 5. Bricks setting layers in the kiln car:** 13 layers
- 6. Brick setting quantity in the kiln car:** 5600 standard bricks;
- 7. Kiln car quantity in the tunnel kiln:** 40;
- 8. Bricks drying time:** 24 hours;
- 9. Bricks firing time:** 42 hours;
- 10. Firing temperature:** 950-1100 °C;
- 11. Moisture of green brick:** 16-18%;
- 12. Moisture of bricks after drying:** ≤6%;
- 13. Finished firing bricks ratio:** ≥95%;
- 14. Working time per year:** 300 days;

**Clay Bricks Production Line of 100,000. Pcs/day**  
**(Tunnel kiln and dryer of 108\*3.7 meters)**

Size of solid brick: 10x5x3 inches (254x127x76 mm)

**A. Clay brick plant data:**

- 1. Plant/Land area:** More than 13200 m<sup>2</sup> (the length is more than 130 meters, and the width is more than 100 meters. We can made design based on your actual area);
- 2. Office area:** 240 m<sup>2</sup>.
- 3. Construction area:** 4300 m<sup>2</sup>;
- 4. Raw materials area:** 1200 m<sup>2</sup>;
- 5. Finished bricks area:** 4000 m<sup>2</sup>;
- 6. Raw materials consumption:** 300 m<sup>3</sup>/day;
- 7. Workers needed:** 20 workers per shift;

**B. Tunnel kiln technical data:**

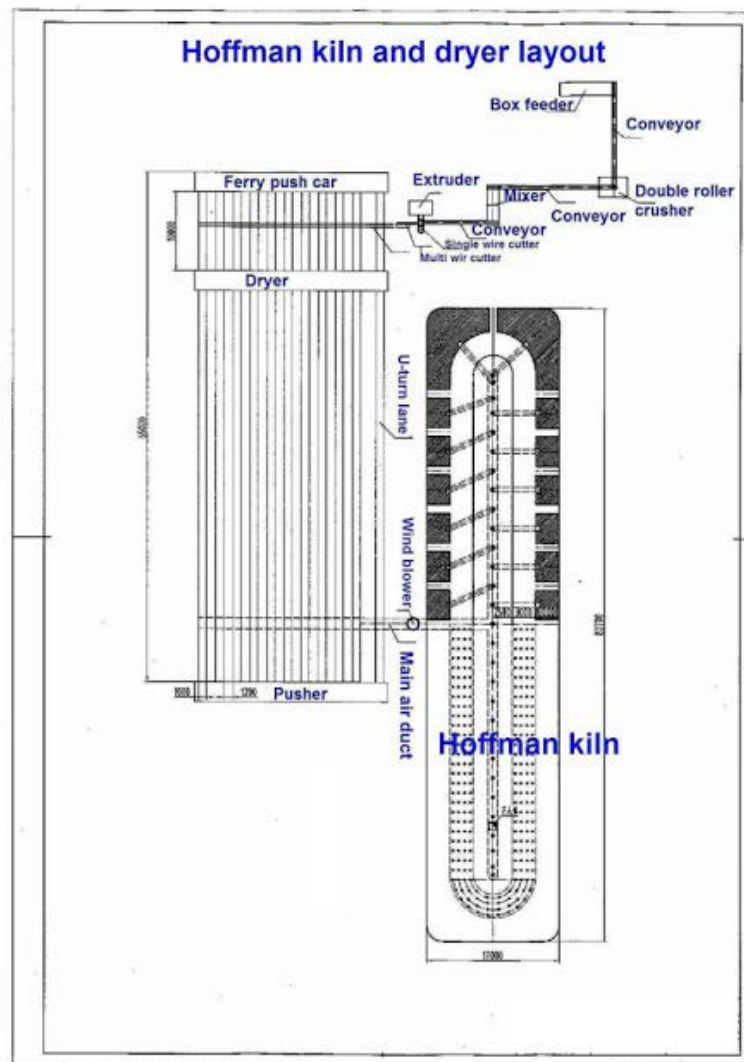
- 1. Tunnel kiln length:** 108 meters;
- 2. Tunnel kiln width:** 3.7 meters;
- 3. Inside Height:** 1.56 meters;
- 4. Kiln car size:** 3.6×3.8×0.87 meter;
- 5. Bricks setting layers in the kiln car:** 13 layers
- 6. Brick setting quantity in the kiln car:** 5208 standard bricks (230\*115\*53 mm);
- 7. Kiln car quantity in the tunnel kiln:** 30;
- 8. Bricks drying time:** 20 hours;

9. Bricks firing time: 42 hours;
10. Firing temperature: 950-1100 °C;
11. Moisture of green brick: 16-18%;
12. Moisture of bricks after drying: ≤6%;
13. Finished firing bricks ratio: ≥95%;
14. Working time per year: 300 days;

### How much coal is needed for firing bricks?

For **Bangladesh brick size** of 10X5X3 inches, the total **coal needed for firing** per pcs **brick** is about 200-250 g (including adding coal inside of the green brick). That is, you will need 20-25 Tons **coal for firing** 100000 bricks, 40-45 tons for firing 200000 bricks and 10-12tons for firing 50000bricks.

We can also take biomass briquette (sawdust, rice husk, straw, etc.) as the **fuel of Hoffman kiln**.



clay brick production Line Layout

### **Turnkey Project of Auto Clay Bricks Production Line of 50000 pcs/day**

*Approximate cost of project: 18,50,000 USD, excluding the cost of land, considering the market of Bangladesh.*

*The cost of **mini auto bricks plant** of capacity 40000 pcs per day will be 10,50,00,000 taka to 15,50,00,000 taka for complete machinery, dryer, shed and kiln construction.*

No.	Name	Quantity
01	<b>Clay brick making machines</b> , Hoffman kiln and dryer	
02	Customs clearance in Chittagong	
03	Transportation cost from Chittagong to the brick plant	
04	Transformer and control box	
05	Diesel generator (250 KW, Cummins, can be deleted if no need generator)	
06	Clay brick for construction of Hoffman kiln and dryer	500,000 pcs
07	Cement construction of Hoffman kiln and dryer	40 MT
08	Quicklime construction of <b>Hoffman kiln</b> and dryer	10 MT
09	Wood for construction of Hoffman kiln and dryer	3 cubic meters
10	Filling clay in the Hoffman kiln	2500 cubic meter
11	Unearth and smooth project with wheel loader and excavator	
12	Construction workers' cost of hoffman kiln (30 chamber)	1250 USD one chamber based on China's construction cost (May be lower cost and longer construction time in Bangladesh). You can also calculate the cost based on 30 construction workers for 5 months.
13	Construction workers' cost of dryer (10 lines)	
14	Installation cost of <b>clay brick making machines</b> (Foundation and installation)	
15	Shad for <b>brick making machines</b> and dryer (Clay brick machines workshop (15*40=600 m <sup>2</sup> ); Dryer shad, 15*20=300 m <sup>2</sup> .)	900 square meter, 30 USD/square meter
16	Light steel house (For commissioning workers housing and office, 3.5*6 meters one house, 10 house)	210 square meters (can be adjusted), 60 USD/square meter)
17	Non-expected cost	Based on the 5-8% of the total value.