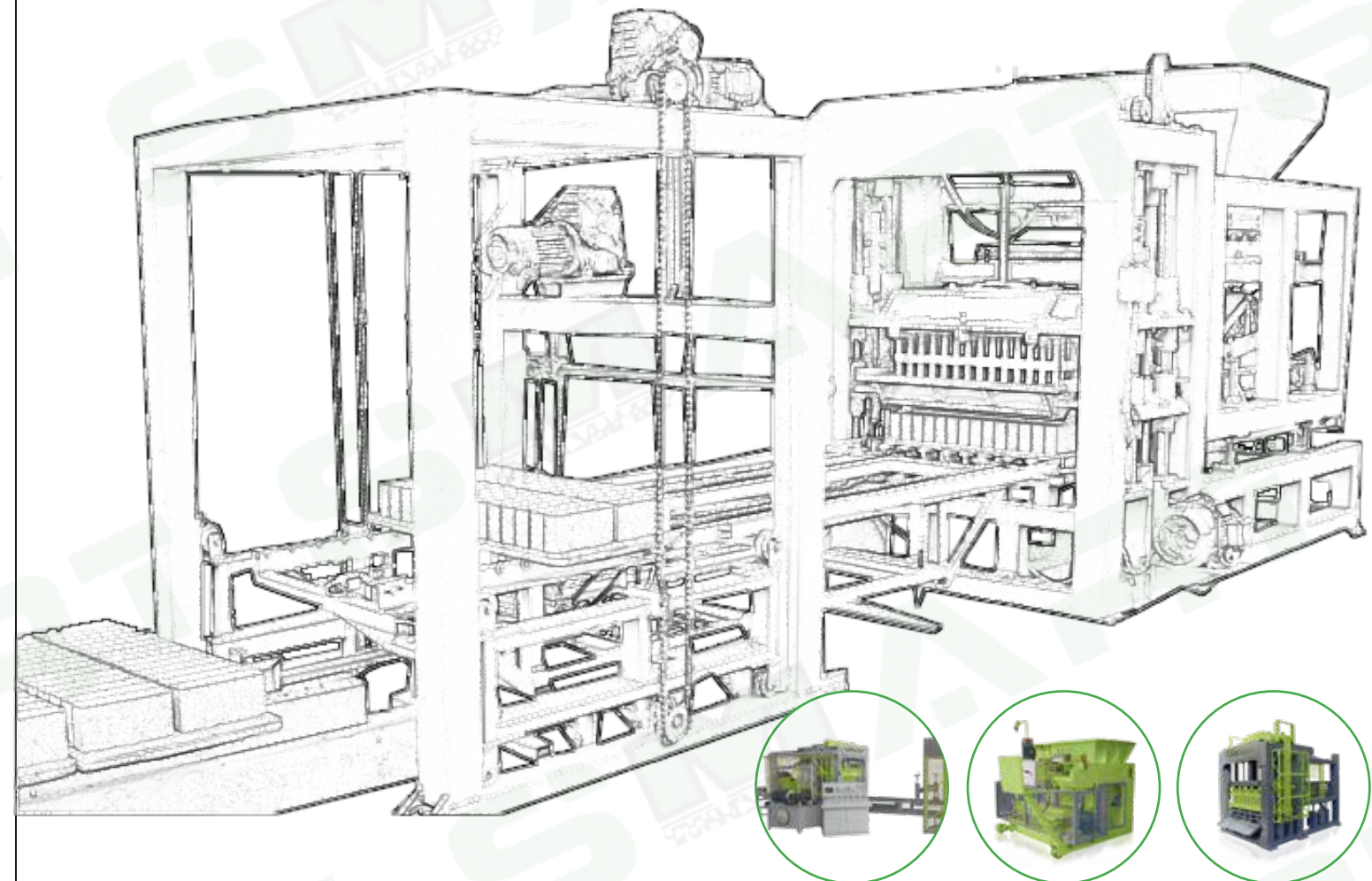


AUTOMATIC CONCRETE  
BRICK MACHINE

# PRODUCT MANUAL



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# COMPANY INTRODUCTION

## BUSINESS BACKGROUND

Zhengzhou Smart Machinery Manufacture Co., Ltd was established in 1990. It is an enterprise mainly specializing in the research and development, manufacturing and sales of construction machinery including concrete batching plants, concrete block production lines, etc.

## CORPORATE BUSINESS

The factory is located in Henan Province, China, covering an area of 126,000 square meters, with 20 professional engineers and 500 workers. After more than 30 years of continuous innovation and hard work, products have been sold all over the world and are well received by domestic and abroad users, including more than 100 countries and regions: Philippines, Cambodia, Malaysia, Kazakhstan, Uzbekistan, Mongolia, Russia, Colombia, Ecuador, South Africa and so on, and set up an office in Cambodia, with a sound, complete, and huge sales network system.

## QUALITY SALES SYSTEM

We can provide customers with the highest quality solutions and production to meet customers' needs for different products, at the same time, we can provide a full range of turnkey projects: equipment installation, commissioning, maintenance and training. High-quality service, advanced technology, sophisticated equipment, and strict management are the foundation reason for company's continuous development and products that can win the support of users. We have won foreign customers' trust and praise with perfect and professional pre-sales, in-sales, and after-sales services.

Welcome new and old customers to negotiate and purchase. SMART Machinery sincerely looks forward to cooperating with you!



## COMPANY MISSION STATEMENT

First-class quality and excellent service are the consistent purpose of the company.



## Business Introduction >>

1: Fully automatic concrete brick machine adopts platform vibration and hydraulic forming methods, widely used in roads, parks, urban construction, etc.

2: The production line is mainly composed of batching mixing system, block forming, lifting plate system, palletizing and feeding system and fully automatic centralized control system.

3: Raw materials: sand, stones, cement, fly ash, slag industrial wastes, construction waste, etc. It can realize diversified environmental protection.

4: Molds can be customized to produce hollow bricks, solid bricks, pavement bricks, etc. With the addition of a secondary adding color device, can produce various colorful grass-planting bricks and slope protection bricks.

## OUR ADVANTAGE >>



1. Compact and reasonable layout: saving floor space.



2. Simple operation, stable and reliable performance.



3. High flexibility, molds can be customized to meet individual needs.



4. High economic applicability: small investment and large return.



5. Unique storage and distribution design, accurate dosage and good consistency of product density.



# QT12-15

## LARGE SCALE MACHINERY



### PRODUCT PARAMETERS

Maximum machine size	9350*2520*2950mm	Vibration frequency	2800-4500 times/min
Weight	22800kg	The greatest pressure	80 KN
Molding cycle	15-25 seconds/time	Molding pressure	13t
Total power	56.2kw	Transfer method	Hydraulic vibration

### FULLY AUTOMATIC PRODUCTION LINE



The fully automatic non-burning brick machine is controlled by a voltage proportional valve, which realizes low-frequency feeding and high-frequency vibration molding. The distributing system with multiple rows of stirring forks is installed to evenly discharge the materials into the mold box. It has the characteristics of multi-purpose. It can produce a variety of brick types by changing the mold. It can produce all kinds of cement bricks, wall block bricks, flower wall blocks, floor blocks, embankment blocks, and chain pavement blocks and curb stones and son on. With a secondary distributing machine, colorful pavement bricks can be produced.

### PRODUCT ADVANTAGES

1. Excellent performance  
Fast forming, large output, PLC automatic control, fast production speed, high yield, and convenient operation
2. Durable  
The product structure is stable, with many varieties, high density, high strength and accurate size, which can meet the needs of various buildings
3. One machine with multiple uses  
Equipment investment is small, various products can be produced by changing molds, and the market prospect is good
4. Widely used  
Widely used in the construction industry, building materials industry, brick and tile industry and other industries

### PRODUCTIVITY

Item	Specification size(mm)	Quantity per mold	Per hour	Per day	Per year
Hollow brick	390*190*190	12	2,160	17,280	6,307,200
Porous brick	240*115*90	42	6,300	50400	18,396,000
Standard brick	240*115*53	63	11,700	93600	34,164,000



# QT10-15

LARGE SCALE MACHINERY



PRODUCT PARAMETERS

Overall Dimension	9350*2320*2950mm	Vibration Frequency	0-60HZ
Total Mass	12T	Pallet size	1050*900*30mm
Rated pressure	21MPa	Moulding Mode	Load automatically, vibration moulding
Molding cycle	10-15s	Factory Area	1200m <sup>2</sup>
Overall power	44KW	Raw Material	Crushed stone, sand, cement, dust, and fly ash, gravel, slag, ect
Vibration force	90KN	Demolding Method	Hydraulic

FULLY AUTOMATIC PRODUCTION LINE



- Multifunction
- Hardened and freshly made
- Easy to use

PRODUCT ADVANTAGES

1. The control can be manual, semi-automatic or fully automatic.
2. Use vibration and hydraulic pressure to form blocks or bricks.
3. The mold can be replaced, and different blocks and bricks can be formed.
4. It is usually made of hardened steel or cast to withstand the strains of the construction site.
5. The manufacturing and installation of the machine provides a user-friendly design, which is also very efficient for unskilled workers, so it can be used by small and medium enterprises as well as large enterprises.
6. The multifunctional machine can produce various products, from new wall materials to municipal, garden, road paving, water conservancy, airport, dock and other products.

PRODUCTIVITY

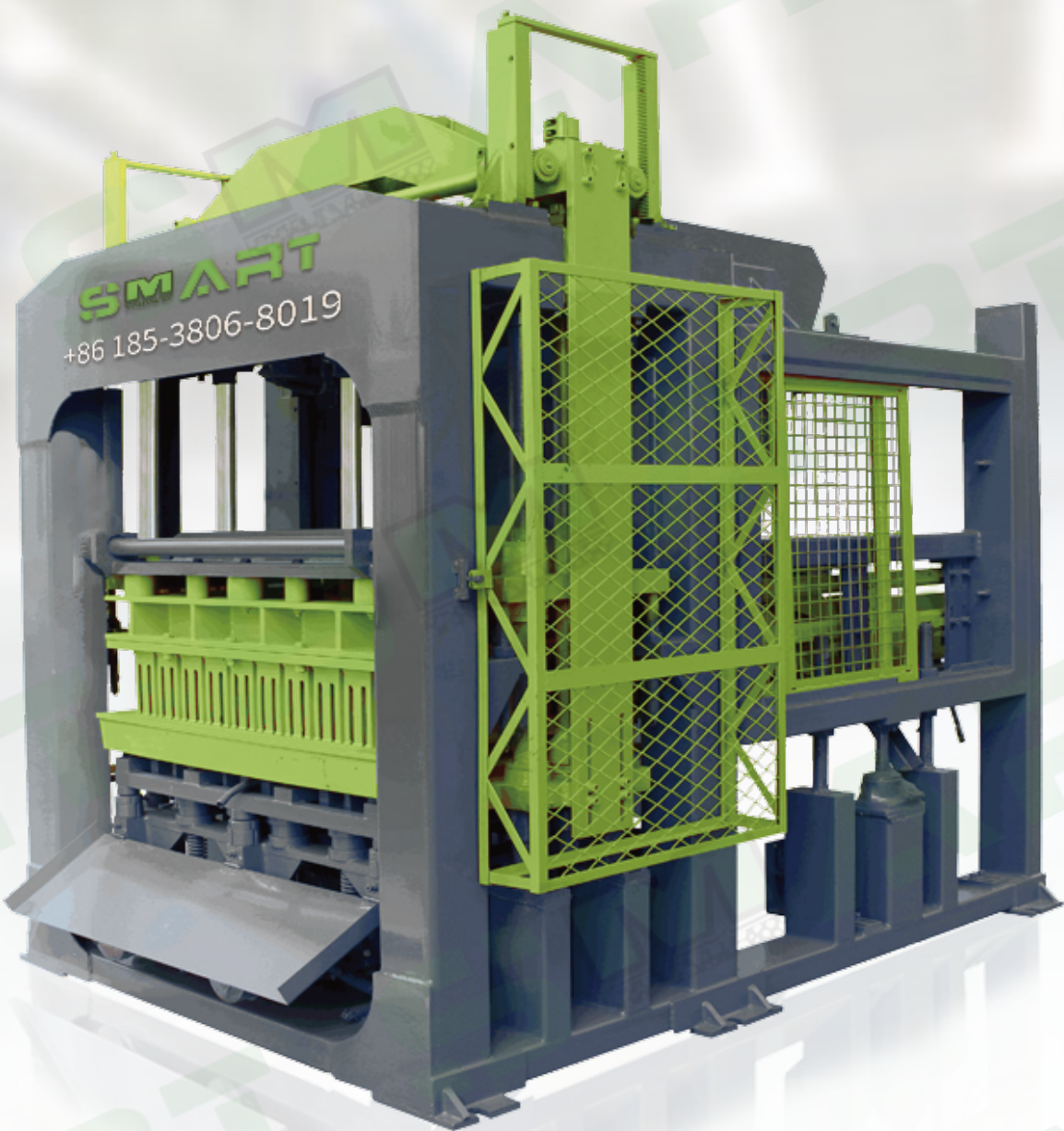
Item	Size(LxWxh)	Pcs/Mould	Pcs/Hr	Pcs/8Hr
Hollow brick	390*190*190	10pcs/mold	2400-1800	19200-14400
Porous brick	240*115*90	27pcs/mold	5760-4320	46086-34560
Standard brick	240*115*53	54pcs/mold	12240-9180	97920-73440





# QT8-15

## LARGE SCALE MACHINERY

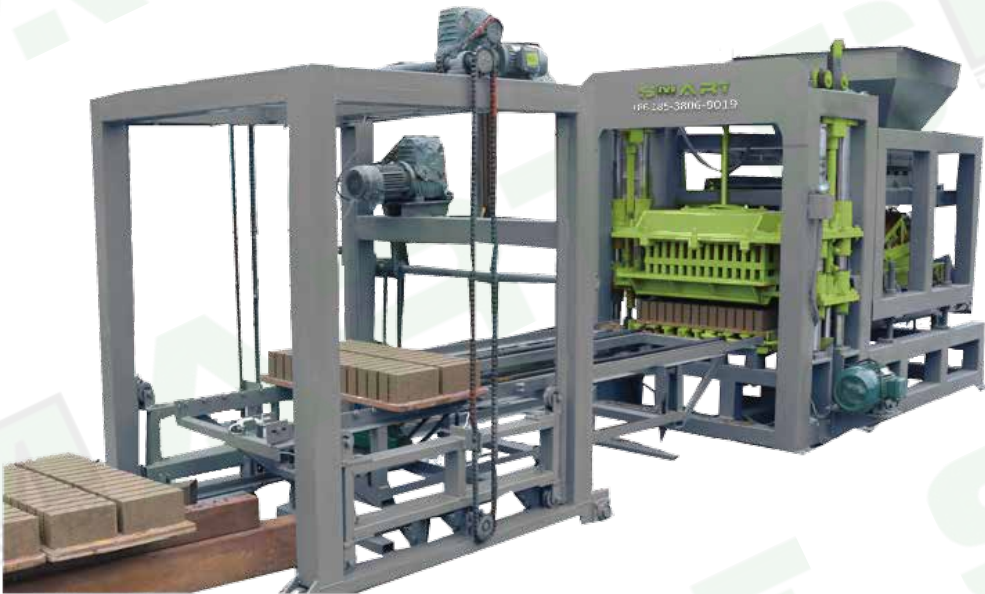


PRODUCT PARAMETERS

Overall Dimension	8300*1860*3000mm	Vibration frequency	2800~4500r/min
Total Mass	8.5T	Pallet size	950*900mm
Rated pressure	21MP	Production Capacity (Pieces/8 hours)	15000pcs/day
Molding cycle	15~20s	method	hydraulic pressure
Overall power	55.5KW	Brick Raw Material	Cement, sand, stone, concrete
Vibration force	60KN		

FULLY AUTOMATIC PRODUCTION LINE

- Good performance
- Easy maintenance
- More advanced



PRODUCT ADVANTAGES

1. This equipment QT8-15 concrete block forming machine is a comprehensive process equipment controlled by mechanical hydraulic PLC.  
It is characterized by high efficiency, easy operation and easy maintenance.
2. Block forming is mainly completed by hydraulic press, mechanical assistance, vibration and press. It has excellent sound insulation, heat insulation and heat preservation properties. Accurate external dimensions, good block consistency
3. The control system also includes an advanced safety logic system and a fault diagnosis system, as well as a remote control function.
4. It is mainly composed of tray feeder, host, block conveyor, hydraulic station and PLC controller.

PRODUCTIVITY

Size(LxWxh)	Pcs/Mould	Pcs/Hr	Pcs/8Hr
400*100*200	14	2520-2940	20160-23520
400*150*200	10	1800-2100	14400-16800
400*200*200	8	1440-1680	11520-13440
400*250*200	6	1080-1260	8640-10080
Paver 200*100*60	28	5040-5880	40320-47040
Paver 200*163*60	12	2160-2520	14400-20160



# QT6-15

## LARGE SCALE MACHINERY



### PRODUCT PARAMETERS

Overall Dimension	6350×1680×2850 (mm)	Overall Power	29KW
Rated Pressur	25Mpa	Voltage	380/415/440V
Vibration Form	Platform Vibration	Vibration Force	75kN
Vibration Frequency	4500-5100(r/min)	Total Mass	8t
Pallet Size	970*680*30(mm)	concrete	Hydraulic pressure
Molding cycle	15-20 (S)	Brick Raw Material	concrete

USING JAPANESE OMRON AND FRENCH SCHNEIDER BRAND SWITCH



Precision cutting

Stable and efficient

High Quality

### DEVICE SURROUND



### PRODUCTIVITY

The automatic block machine can produce various solid blocks, hollow blocks, and curbs by changing the mold. Use Japanese Omron and French Schneider brand switches, Siemens and ABB brand motors to manufacture high-quality machinery.

Precision wire cutting technology extends the life of the mold and improves the accuracy of the block. Reasonable raw material ratio can produce high-strength standard bricks, which can be stacked immediately after forming.

PLC control system to ensure stable and efficient working conditions.





# QT4-18

## LARGE SCALE MACHINERY



### PRODUCT PARAMETERS

Overall Dimension	7100*1600*2610mm	Molding cycle	18-25s
Rated Pressur	16MPa	Overall Power	18.5KW
Main Vibration Form	Platform Vibration	Vibration Force	40KN
Vibration Frequency	2800-4200r/minute	Total Mass	4.2T
Pallet Size	850*550*20mm	Demolding method	Hydraulic press+vibration

### FULLY AUTOMATIC PRODUCTION LINE



The QT4-18 fully automatic hydraulic solid, paving, and hollow block machine adopts the most the working noise is very low.

### PRODUCT ADVANTAGES

- 1.Sturdy structure, easy to install and maintain.
- 2.Pneumatic components, electrical components, and operating components all adopt world-leading brand-name components.
- 3.The high-pressure double crank controls the mold opening and closing.
- 4.High degree of automation and high degree of intelligence.
- 5.High-capacity block machine with PLC controlled hydraulic system.
6. Hollow blocks, solid bricks, paving stones and curbs can be produced by changing molds.

### PRODUCTIVITY

Item	Specification size (mm)	Quantity per mold	Cycle molding	Per hour
Hollow brick	390*190*190	4pcs/mold	15~20s	720~960pcs/h
Porous brick	240*115*90	14pcs/mold	15~20s	2520~3360pcs/h
Standard brick	240*115*53	28pcs/mold	15~17s	5930~6720pcs/h





# QT4-25

MEDIUM-SIZED MACHINERY



PRODUCT PARAMETERS

Overall Dimension	4100*1600*2600mm	Molding cycle	25-30 (s)
Rated Pressur	16-21MPa	Overall Power	18.45W
Main Vibration Form	Platform Vibration	Vibration Force	4T
Vibration Frequency	4200 ( r/min)	Demolding method	hydraulic
Pallet Size	880*550mm		

FULLY AUTOMATIC PRODUCTION LINE



20% energy savings

Well-designed&Excellent performance

Unique power drive

PRODUCT ADVANTAGES

- 1.This model is a newly developed semi-automatic brick machine.
- 2.This model adopts the vibration of the whole machine, the vibration of the mold, and the vibration of the indenter. The product density is uniform and the strength is high.
- 3.Reasonable design and excellent performance. Equipped with strong vibration motor
- 4.The unique power-driven feeding device ensure the excellent quality and high productivity of various block products, which can reduce labor intensity.
- 5.This machine adopts the upper mold to push and pull, and it is directly and quickly scraped, which is convenient to operate.
- 7. Compared with traditional products, it can save more than 20% of electric energy.

PRODUCTIVITY

Item	Specification size (mm)	Quantity per mold	Cycle molding	Per hour
Hollow brick	390*190*190	4pcs/mold	15~20s	720~960pcs/h
Porous brick	240*115*90	14pcs/mold	15~20s	2520~3360pcs/h
Standard brick	240*115*53	28pcs/mold	15~17s	5930~6720pcs/h



# QT4-15

## LARGE SCALE MACHINERY



### PRODUCT PARAMETERS

Overall Dimension	7100*1600*2610mm	Overall Power	27.5KW
Rated Pressur	16MPa	Host machine power	19.2kw
Main Vibration Form	Platform Vibration	Vibration Force	40KN
Vibration Frequency	4600 ( r/min)	Total Mass	5T
Pallet Size	1020*570*20/25mm	Demolding method	Hydraulic
Molding cycle	15-25 (s)	Automatic	YES

### FULLY AUTOMATIC PRODUCTION LINE

- Fully automatic
- Multi-purpose machine
- Imported original



### PRODUCT ADVANTAGES

- 1.Each part of the main machine adopts thickened plates to make the machine strong and wear-resistant.
- 2.Fully automatic, very convenient for workers to operate, reducing labor costs.
- 3.The electrical system is controlled by PLC and equipped with data input device to ensure the machine runs extremely smoothly and has a long service life.
- 4.It adopts imported part of touch screen and imported components, with high precision, high quality castings and special welding technology and materials, so that it has good rigidity. The support vibration has a long life.
- 5.Four guides and four rods are used to ensure the accuracy of the lower mold, and the clear material is guided to the feeding device. The molding cycle is equally fast, the material and production efficiency and the quality of the block are firm, and the size is accurate.
- 6.The use of electromechanical integration technology makes the working cycle of the equipment consistent, resulting in stable products and low rejects rates.
- 7.One machine with multiple functions, can accommodate different sizes of hollow cement and colored paver blocks (the mold can be designed according to your requirements)

### PRODUCTIVITY

Item	Specification size (mm)	Quantity per mold	Cycle molding	Per hour
Hollow brick	390*190*190	4pcs/mold	15~20s	720~960pcs/h
Porous brick	240*115*90	14pcs/mold	15~20s	2520~3360pcs/h
Standard brick	240*115*53	28pcs/mold	15~17s	5930~6720pcs/h



# QMY6-25

## MEDIUM-SIZED MACHINERY

### PRODUCT ADVANTAGES

Raw materials: crushed stone, sand, cement, dust and fly ash, coal cinder, slag, gangue, gravel, perlite and other industrial wastes.

Block types: concrete blocks, solid/hollow/honeycomb block products, mixed paving stones with or without surfaces, garden and landscape products, slabs, curbs, grass blocks, slope blocks, interlocking blocks, etc.

Application: Widely used in construction, paving, squares, gardens, landscaping, urban construction, etc.

- ◆ No installation required
- ◆ Easy to operate
- ◆ High-quality steel production



# QT40-3A

## MEDIUM-SIZED MACHINERY

### PRODUCT ADVANTAGES

QT40-3A mobile block forming machine is a medium-sized block forming equipment developed by refining and compressing the advantages of a variety of block forming machines. The machine uses electric box humanized control. Save a lot of manpower. Reduce machine wear, fast product forming, high compactness, high pressure, easy to stand on when demolding, low consumables, it is an ideal equipment for users.

- ◆ Excellent performance
- ◆ Durable
- ◆ One machine with multiple uses
- ◆ Widely used



### PRODUCT CHARACTERISTICS

1. No pallet is needed, and it can walk freely on the concrete floor.
2. No need to install, it can be used when power is connected;
3. Convenient operation: one person for operation, one person for mixing;
4. The whole block machine is made of high-quality steel;
5. Use different molds to produce various blocks

### PRODUCT PARAMETERS

Dimension	2000*2100*1650	Vibration frequency	2800-4500r/min
Rating pressure	16MPa	power	9.6Kw
Vibration method	Mold vibration	Demolding method	hydraulic
weight	25000kg	Forming method	Load vibration molding
Molding cycle	20-25s	Raw materials	Crushed stone, sand, cement, dust and fly ash, gravel, slag and other materials.
vibration type	Hydraulic vibration	Method	Hydraulic pressure, Hydraulic & Vibration

### PRODUCT PARAMETERS

Dimensions	1900*1420*1200mm	productivity	2560pcs/8h
Weight	1100kg	Vibration frequency	4200r/m
Molding cycle	40s	Hydraulic power	16mpa
Power	6.7kw		

### PRODUCTIVITY

Item	Specification size(mm)	Quantity per mold	Per hour	Per day	Per year
Hollow brick	400*200*200	4	320	2560	934.400
Porous brick	400*100*200	6	480	3840	1,401,600
Standard brick	240*115*51	21	1680	13440	4,905,600



# QT4-26

## MEDIUM-SIZED MACHINERY

### PRODUCT ADVANTAGES

- 1.Manual machines are inexpensive and cost-saving.
- 2.Vibration molding is adopted, with large vibration, high density of finished products, and reasonable design.
- 3.The machine is equipped with a larger reducer, the key rotating parts are changed to bearings, the thickened square steel frame is adopted. the inner sleeve is made of wear-resistant materials, and the four guide posts are oriented and positioned, which greatly extends the service life of the machine.
- 4.Durable, stable operation, simple operation.

- ◆ It's cheap
- ◆ Vibration molding
- ◆ The service life is greatly extended
- ◆ Easy to operate



### PRODUCT PARAMETERS

Overall Dimension	3600*1700*2560mm	Molding cycle	25-30 (s)
Rated Pressur	16Mpa	Overall Power	14.25kw
Power	13.45KW	Total Mass	4T
Vibration Frequency	4200 ( r/min)	Demolding method	hydraulic
Pallet Size	900×550×40mm		

### PRODUCTIVITY

Item	Specification size (mm)	Quantity per mold	Cycle molding	Per hour
Hollow brick	400*200*200	4pcs/mold	15~20s	300pcs/h
Porous brick	240*115*90	9pcs/mold	15~20s	700pcs/h
Standard brick	240*115*53	21pcs/mold	15~17s	1500pcs/h

# QTJ4-40

## MEDIUM-SIZED MACHINERY

### PRODUCT ADVANTAGES

In order to meet the requirements of small investors, our company has developed a small block forming machine, which has a simple, compact structure, simple operation and easy maintenance. Less labor, high output, small investment and quick return. In particular, the QTJ4-40 block forming machine is very suitable for the production of standard bricks. Its strength is higher than that of clay bricks. It can also produce various blocks and porous bricks by changing different molds. This series of block machines have good performance, high efficiency and low energy consumption. It has achieved good economic and social benefits since it was put on the market. It is the recommended equipment for the production of high-quality blocks (the product can be stacked 3-5 layers high after it is formed).

- ◆ The structure is simple and compact
- ◆ Easy maintenance
- ◆ Little labor, high output
- ◆ Good performance, high efficiency



### PRODUCT PARAMETERS

Dimensions	1580×1100×2100mm	Total power	9.6KW
Machine Mass	about 1500kg	Molded bottom plate size	850×470×40mm
Power Three-phase	380V 50Hz		

### PRODUCTIVITY

Item	Specification size (mm)	Quantity per mold	Molding cycle
Hollow brick	390×190×190	4pcs/mold	40 seconds
Porous brick	390×90×190	8pcs/mold	40 seconds
Standard brick	240×115×53	21pcs/mold	40 seconds



QT40C-1

MEDIUM-SIZED MACHINERY



PRODUCT ADVANTAGES

QT40C-1 type double-column, double-pressure block forming machine is a semi-automatic research and development based on the country's promotion and application of new wall materials.

This machine adopts the combination of low-mold directional vertical vibration and upper mold pressurizing vibration, which makes the product forming fast, with high density and uniform strength.

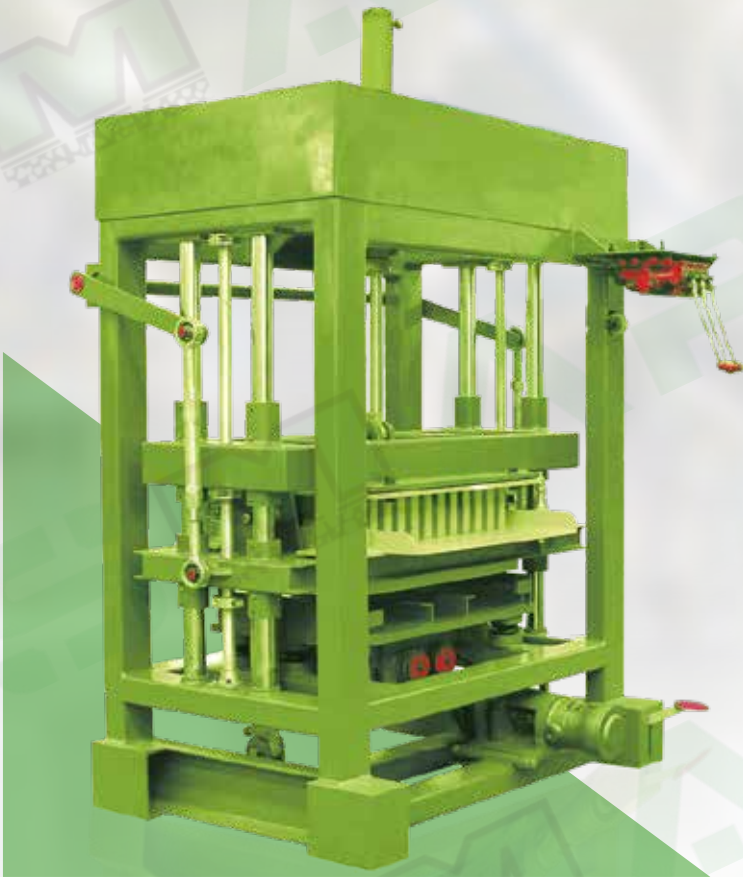
This machine has reasonable design, electric push-pull mold, manual blanking, simple operation, labor-saving, and high brick output speed.

PRODUCT PARAMETERS

Maximum machine size	2750*1700*1750mm	Total power	9.55kw
Weight	1450kg	Vibration frequency	4200 times/mi
Molding cycle	40 seconds/every time	Transfer method	Hydraulic vibration

QT4-30

MEDIUM-SIZED MACHINERY



PRODUCT ADVANTAGES

QT4-30 Fly ash hollow building block making machine can produce different hollow blocks, solid blocks and paving blocks by change molds.

Hydraulic molding technology is adopted by this manual cement and sand hollow block brick making machine, the bricks produced in this way are durable and wear resistant.

The company adopts the most advanced cutting technology and heat treatment technology to ensure product quality and ensure customers' ease.

- ◆ It's durable
- ◆ Heat treatment technology
- ◆ The product is of good quality
- ◆ Using hydraulic molding technology

PRODUCT PARAMETERS

Overall dimension	4500*1600*2200(mm)	motor frequency	50HZ
Total Mass	2t	pallet size	850*550*20(mm)
Rated pressure	5.5 (Mpa)	worker	2 persons
Molding cycle	30-35(S)	Production Capacity (Pieces/8 hours)	3840 pcs/8 hours
Overall power	19.9(kw)	Brick Raw Material	Cement, Cement, Concrete, Sand, Construction Waste...
vibration type	Hydraulic vibration	Method	Hydraulic pressure, Hydraulic & Vibration

PRODUCTIVITY

NO	Block Specification	Brick Size	Quantity per mold
1	Muti-holes Block	240*115*90mm	12pcs/mold
2	Standard Block	240*115*51mm	26pcs/mold
3	Hollow Block	390*190*190mm	4pcs/mold



# QMR4-45

## SAMLL SCALE MACHINERY

### PRODUCT ADVANTAGES

- 1. No pallet is required, blocks are produced on the ground.
- 2. Diesel power, no electricity required
- 3. Simple operation and few failures
- 4. The structure is sturdy, durable, and can be used for at least 5 years
- 5. Good production capacity, 2400-3600 hollow blocks per day
- 6. Different hollow blocks, solid bricks and crushed stone blocks can be made



# QMR2-45

## SAMLL SCALE MACHINERY

### PRODUCT ADVANTAGES

- 1. QMR2-45 is a small block forming machine, which is developed by combining the advantages of many other block forming machines.
- 2. The machine adopts a spring buffer compression device to reduce the wear on the machine, so the product is formed quickly, the product density is high, and the pressing force is strong.
- 3. With this machine, material consumption can be reduced. It is an ideal choice for small and medium investors.

# QMY4-45

## SAMLL SCALE MACHINERY

### PRODUCT ADVANTAGES

The block machine is manufactured on the basis of the technical transformation of the original block forming machine. The original one vibration is changed to two vibrations of the mold core, so that the block density is higher, the molding speed is faster, and the labor is saved. The block strength is more uniform, and can reduce energy consumption.



# QMR4-45

### PRODUCT PARAMETERS

Overall Dimension	2400*1320*1600mm	power	8hp
Weight	800kg	color	customize
Molding cycle	45s	worker	1-2
Power source	Diesel engine		

### PRODUCTIVITY

size	Pcs/mold	Pcs/h	Pcs/8h
400*200*200	4	240	1920
400*150*200	5	300	2400
400*100*200	7	420	3360
400*250*200	3	180	1440

# QMR2-45

### PRODUCT PARAMETERS

Dimensions	920*800*1250mm	Weight	165kg
Automation	Semi-auto	Power	1.5kw
Molding cycle	40-45s	Voltage	220/380V

### PRODUCTIVITY

size	Pcs/mold	Pcs/8h
400*200*200	2	1280
400*150*200	2	1280
400*120*200	3	1920
400*100*200	3	1920



# QMY4-45

### PRODUCT PARAMETERS

Dimensions	3150*1800*1500mm	Produce	2560pcs/8h
Molding cycle	45s	Worker	2-3
Vibration method	Platform vibration	Power	16hp
Weight	1100kg	Vibration frequency	3600r/min

### PRODUCTIVITY

Specification	400*200*200	Quantity per mold	Per hour	Per day
Pcs/mold	4	5	6	21
Pcs/8h	2560	3200	3840	13440





## ACCESSORIES









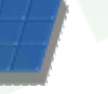














Machining centers, CNC boring and milling machines, CNC wire-electrode cutting machines, and automatic heat treatment center are equipped for mould manufacturing. Different kinds of moulds can be made such as hollow blocks, solid bricks, interlocking pavers, kerbstone, and slope protection blocks.

Mould characteristic: toughness inside and unyielding outside. wearable, impact resistance and long using time.

## BRICK MOULDS

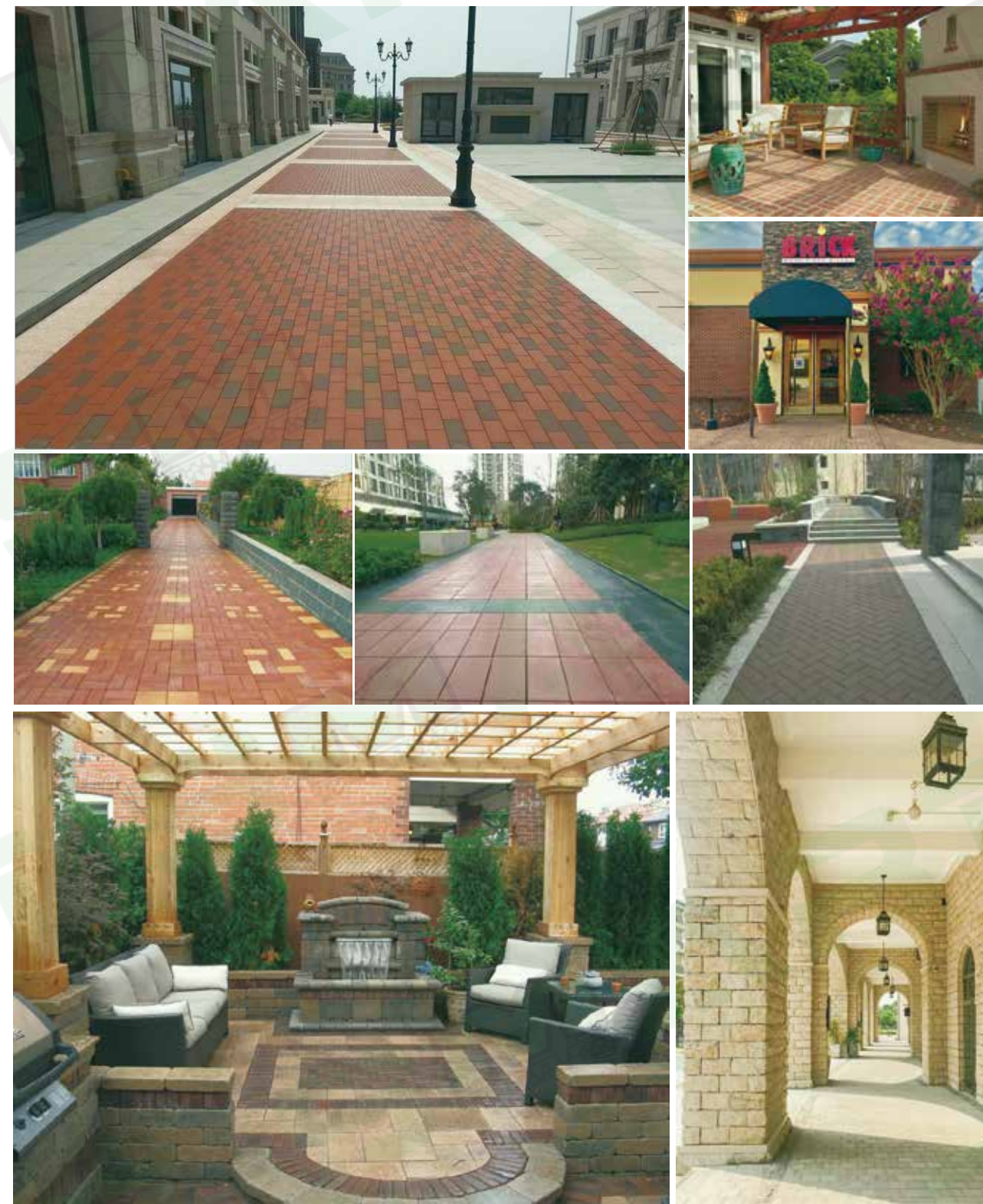
					
240×115×53mm	240×115×90mm	240×115×90mm	390×240×190mm	390×240×190mm	390×190×190mm
					
390×190×190mm	390×190×190mm	390×190×190mm	390×120×190mm	390×120×190mm	390×90×190mm
					
240×240×90mm	240×240×90mm	240×180×90mm	240×180×90mm	240×180×90mm	240×115×90mm
					
190×190×190mm	190×190×190mm	190×190×190mm	190×90×190mm	190×115×90mm	390×190×190mm

## PAVING STONE SERIES

						
250×250×60mm	250×250×60mm	250×250×60mm	250×250×60mm	250×250×60mm	250×250×60mm	250×250×60mm
						
250×250×60mm	250×250×60mm	250×250×60mm	250×250×60mm	250×250×60mm	250×250×60mm	200×60mm
						
199×60mm	200×100×60mm	230×140×60mm	400×200×60mm	400×400×60mm	200×160×60mm	200×100×50mm



## ▶ PRODUCT SAMPLE & APPLICATION CASE







CLIENT SITE



## EXHIBITION



## CLIENT VISIT



## DELIVERY PICTURES



## FACTORIES



## OUR TEAM



*Quality building the future!*