

*Thinking to sell blocks,
pavers, curbstones...*



The things you have to know.....

hawk

block machine expert

Finding the machine to produce blocks...



- The mass production of various kinds of concrete masonry blocks ,i.e, pavers, hollow blocks, solid bricks, curbstones, slabs, retaining walls etc.is done by a **multi-functional block making machine**.
- This machine is versatile, because different blocks can be produced only by changing the mould on it.
- According to the block making automation, the block production line can be divided into” Simple Production line” “Semi-auto Production Line” “Fully-auto Production line”. The difference between all these 3 is the final products handling system after the fresh blocks are produced, i.e, curing method and cubing system. If “Simple Production line” is upgraded with cubing system, lowerator, finger car, curing chamber, then it forms a “fully-auto production line”. However, the machine operation of all these 3 lines is fully-automatic. It is operated by a Touch-screen Control Panel.

Finding the machine to produce blocks...



- ◆ Note: The choice of automation level mainly is affected by labor costs, climate, and investment budget. The fully-auto production line, we tend to suggest to customers who already have experiences in block making and planning to expand and upgrade the production scale.



If you are a beginner in block business, we suggest.....



To start with a simple production line:



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How to making blocks with machine...



1. Batching Station--

-Sands, aggregates such as gravel, crushed Stones etc will be stored in aggregate bin .After automatically weighing, they will be discharged and moved by a belt conveyor to the skip elevator of the mixer.



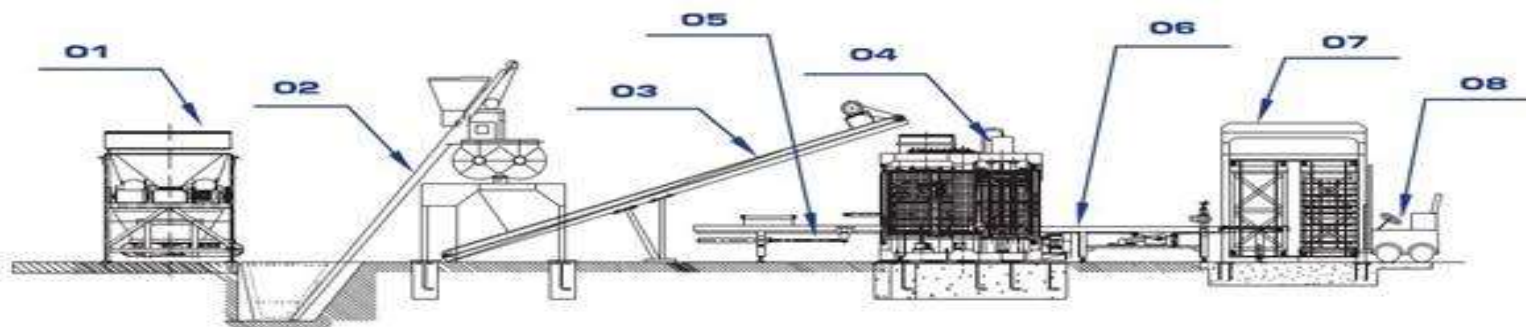
2. Mixer--- the dosed materials will be lifted by the skip elevator to the mixer for mixing.



3. Block Machine--The mixed materials will be transferred to the block machine, After vibration and compaction of the mould, The fresh blocks will be produced.

Note: Cement will either be weighed manually and put manually into the skip elevator of the mixer. Or they will be stored in a cement silo and then be transferred by a cement screw conveyor to cement scale for weighing, then be discharged into the mixer for mixing.

How to making blocks with machine...



- 01---Batching Station
- 02---Mixer
- 03---Belt Conveyor
- 04---Main Block machine
- 05---Pallets conveyor
- 06---Block
- 07---Automatic stacker
- 08---Fork lift

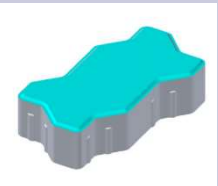
	BATCHING SYSTEM	MIXING SYSTEM	MAIN BLOCK MAKING MACHINE	AUTOMATI C STACKER	FINGE R CAR	CUBING SYSTEM	CURING ROOM
SIMPLE LINE	O	●	●	●	X	X	O
SEMI- AUTOMATIC LINE	●	●	●	●	X	●	O
FULLY- AUTOMATIC LINE	●	●	●	X	●	●	●

NOTE: "O" means Optional, "●" means needed, "x" means no.

What is the capacity?











Here are just some popular sample blocks, by changing the mould, different blocks can be made.

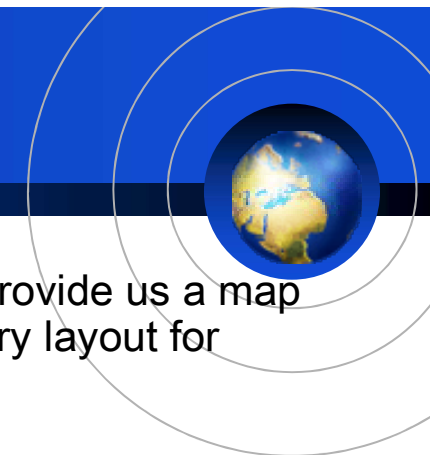
Products	Dimension	Capacity per mould (pcs)	Production per hour (pcs)	Production per 8 hours (pcs)
	200*100*60mm	12 pcs	2160	17280
	400*200*200mm	3 pcs	540	4320
	225*112.5*60mm	10 pcs	1800	14400

What are the raw materials used?



The base materials		
Sands 	Crushed fine aggregates 	Coarse aggregates (~10mm) 
Cement 	Water 	
Surface materials(for producing colored blocks)		
Sands 	Cement 	Pigment 

Before investment.....



How much land area is needed for block factory?

-- The workshop shaded area at least needs 300-500m², suggest you provide us a map of your land dimension, then our engineer will design a customized factory layout for reference and make best use of your land even if your land is smaller.

How to cure the blocks?

-- **Natural Curing is the most popular way. (Save space and money)** In countries where the climate is favorable, green blocks are moistly cured at normal temperature of 20°C to 37°C. After the green blocks are produced, they have to be placed in the workshop (shaded area) for about 8-12 hours depending on relative weather conditions temperature, humidity etc) .After that, the blocks can be transported to an assembly yard for further curing to reach the desired strength. Generally, cured for 4 days, 40% of its ultimate strength can be gained. For the optimal final products, In the second stage of curing, the fresh blocks need to be sprinkled daily(3times per day) for the first 7 days to maintain the moisture content for the best hydration of cement and water in order to reach the satisfied strength.



Before investment.....



How many days the blocks can be sold?

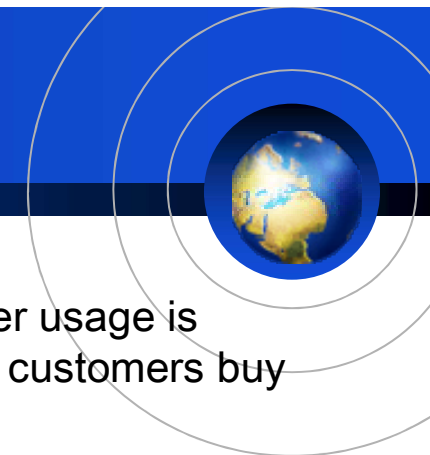
-- In theory, 28 days curing period is suggested for the blocks to gain the full strength. However, there are some factors which will affect the blocks strength such as mixing proportions, raw materials property. As the blocks will gain 80% of the full strength in 7 days' curing, so we suggest that by designing the mixing proportion 20% higher than the original required strength, or by adding high quality fly ash with the cement, the blocks will be qualified to be delivered to the clients in 7 days. For example, if 10 MPA strength is needed, we can design the mixing proportion to reach 12MPA strength(20% higher), then in 7 days, the blocks can reach 9.6 MPA, nearly 10MPA, so it almost reach the desired strength.

How many workers are needed for machine operation?

-- Approximately, 12-15 labors and 2 supervisors are needed. But for the machine operation, only 5-6 employees .Please refer to the “layout”(Page 6).

1. 1 operator for batching station & Mixer
2. 1 operator for block making machine
3. 2 operators for feeding pallets into the pallets conveying system
4. 1-2 operators for forklift to transfer the fresh blocks to drying area for curing.

Before investment.....



How much electricity is needed ?

-- For QT3-15 production line, approximately 50KW, and per hour power usage is around 30KW/ per hour. In places where is power shortage, we suggest customers buy diesel generator.

How long is the lifetime of the mould?

-- The mould needs careful maintenance in order to produce blocks with precise dimension.

A mould can last approximately 80,000-10,000 cycles. However, this totally depends on

Raw materials(Hardness and shape)

If raw materials used are gentle to the mould(i.e, round rive sand and pebbles such as round stones), mould lifespan will last longer. Crush granite/stones with hard edges will cause abrasion to the mould, thereby decreasing the lifespan.

Vibration time& Pressure

Some products require a higher vibration time(to achieve higher strength of products). An increase of vibration time increases the abrasion to the mould, so the lifespan may decrease.

Precision

Some products required high precision(1.e. pavers). If the mould is worn-out too much, then the mould can not continue to be used. But for the blocks whose precision is not so important(Hollow Blocks), a deviation of 2mm on the mould will still can be used for some time.

Before investment.....



About the mixing proportion?

-- The mixing recipe varies according to aggregate locally available. What we give is just for a guidance. But please don't worry, when our technician goes for installation, he will also suggest proportion according to the local raw materials and strength considerations.

	200x100x60	200x100x80	100x150x300
Type	Pedestrian	Vehicle	Partition
Strength	>40MPa	>50MPa	>10MPa
10mm	320kg	450kg	300kg
Crushed fine aggregate	200kg	200kg	500kg
Sand	580kg	450kg	300kg
Cement	260kg	310kg	100kg

★Above proportion is based on pavers only.

Why US?



Several years ago, when we were all employees for the big companies, when comes to the problems, no matter it's about sales strategic or machine quality, we feel depressed for what they did.

“MADE IN CHINA” it somehow equal to the low quality and cheap price, however, we don't want this label been put on our own products.

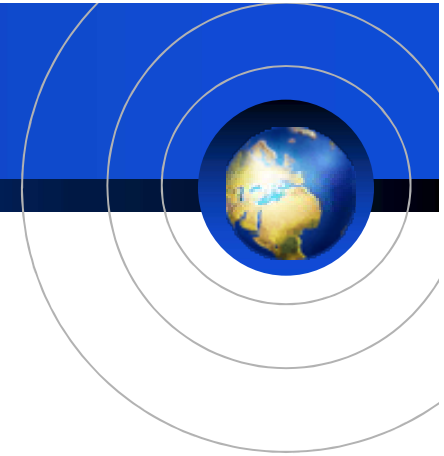
We know how to make good machine and we will put the quality as our first principle. Only your success can improve what we are doing is right and worthwhile.

Hawk is a young team with highly educated. 90% of our workers are university graduated with master or bachelor degrees of mechanical automation.

Hawk is an experience team with customer compassions. All of us have at least 7 years' experience with machine manufacturing or international sales of construction machinery or even run a block factory before.

Hawk is a passionate team with rational ambition. We are not a Chinese company but we are THE Chinese company.

Why US?



Before Sales Service

Accept customers' consultation
Confirm management scale and level
Tailor Made Factory Design and Planning
Professional Auto CAD Factory Plan Drawing for clients
Act as Consultant while building factory

Sales – in Service

Supervise the construction of foundation which includes electricity
Our Professional School will help to train the managers and technicians. The course includes Factory Management, Equipment Maintenance, Quality Control, Stocking, Marketing etc.
On- site service Engineers for machines installation
On-site training service for production personnel

After- sales Service

Set up individual clients' archives with all their needs and detailed to be attended.
24 hours technical advices
Frequent and scheduled engineer visiting
Prompt spare parts support from our major cities distribution network

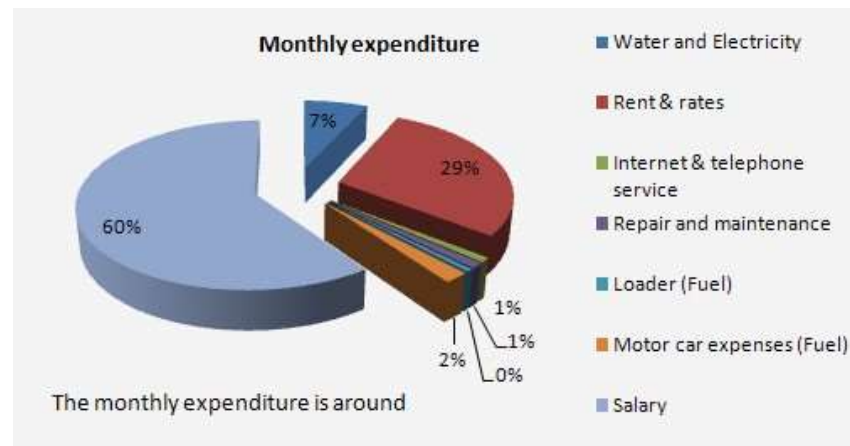
Extended Service

Free Control System Upgrade
Constant equipment and moulds improvement
Newsletter: on alert to the latest industry trends and application
Always advise new technology and craftsmanship application

Suggested Business considerations



- The demand of the local market
- The types of your products (Pavers/Partition blocks)
- The standard of your products
- The local source and the cost of the raw materials
- The local source and the wages of the labors
- The location of the factory → transportation
- The scale of the factory
- High salary → Fully automatic production line
- The amount of the investment
- The break-even period



Thanks for your enquiry!



Chose Hawk to inspire your passion for
your new block making business!

hawk

block machine expert

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