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Quangong Machinery Co.,Ltd

We Provide Integrated Solutions For Block Making

We are the specialist in:
Concrete Blocks and Pavers Making Plant
AAC Blocks and Bricks Making Plant





CRCU of Wall Materials Innovation work committee, Vice Chairman

China Building Block Assolciation, Vice Chairman

China Aggregate Association, Vice Chairman

Fujian Machinery and Equipment Export Bases Associatiom, Vice Chairman

China Building Materials Industry Assolciation, Executive Director

China Concrete & Cement-based Products Association, Executive Director

董事长: Chairman: FU BingHuang







Innovation















Company Profile

Founded in 1979, QGM is the leading block machine manufacturer and has the longest history for block making machine in China. Starting from 2012, QGM set up branch offices around the world, including Saudi Arabia, Oman, Algeria, Indonesia, Nigeria, Vietnam, South Africa & Uganda etc., to better serve our client all over the world.

In 2013, with the application of the most advanced frequency conversion technology from QGM R & D Center, new model ZN900C, ZN1000C and ZN1500C were launched. ZN Series machine are well-known for its high production & stable performance.

In 2014, QGM fully acquired Zenith Maschinenfabrik GmbH. Benefiting from the close collaboration between Germany Zenith technology and China QGM manufacturing center, QGM Group is able to provide a wide range products to global clients, from single automatic production line to fully-automatic production line, from stationary machine to mobile machine;

In 2016, QGM fully acquired Zenith Formen Productions GmbH in Frestriz, Austria, to provide high-class mould to clients.

In 2017, QGM-Zenith established a joint venture, APOLLOZENITH Concrete Technologies Pvt. Ltd, with Apollo Group in Gujarat.

In 2018, QGM set up a joint venture, Zhongjing Quangong Building Materials Co., Ltd, with Jiangsu Xingzhongtai in Jingjiang, Jiangsu Province.

In 2019, QGM Mould Co., Ltd was established, concentrating on the design, production, sales for different brand of moulds.

Benefiting from the close collaboration of Zenith Maschinenfabrik GmbH, Zenith Formen Produktions GmbH, Germany Sommer pre-cast technology and QGM China manufacturing center, QGM group is an internationally well-known manufacturer of high-end system and machines for concrete industry, turning into a wider range product supplier.



Business History

1979

 QGM was established whose name was Quanzhou Kaiyuan Municipal Engineering Machinery. Co.,Ltd

2002 ₽agm

 QGM was renamed Fujian Quangong Machinery Co., Ltd

2014 ZENITH

2002

■ QGM was awarded ISO9001 Quality System Certification. The 1st Fully Automatic Block Making Production Line started delivery. Launched Frequency Control Technology - QT Series Block Machine

■ QGM acquired ZENITH Maschinenfabrik GmbH. becoming the first China company acquired Germany company in block making machine industry.

2016

 QGM acquired Austrian Zenith Formen Produktions GmbH.

2017

 QGM set up a joint venture, APOLLOZENITH Concrete Technologies Pvt. Ltd, in India,

2017

 QGM & Jiangsu Xingzhongtai started joint venture in China and named Zhongjing Quangong Building Materials Co., LTD.

2019

QGM Mould Co.,Ltd was established. Signed cooperative contract with German Rinn Group.

4 Global Factories

Across the Eurasia Continent, Four Global Factories

- China: Quanzhou Headquarter & Taiwanese Investment manufacturing center/
- Germany: Neunkirchen
- Austria: Feistritz
- India: Ahmedabad



More than 7500 Clients

Clients Covering Four Continents

- German ZENITH More than 7,500 Clients
- · China QGM More than 7,000 Clients
- Austria ZENITH More than 3,000 Clients



Honor

State-Level Honors

- · Provider of Integrated Solutions for Block Making
- · Awarded Demonstration Enterprise of Single Champion in China Manufacturing Industry
- · Awarded Demonstration Enterprise of Service-Oriented Manufacturing
- Enterprise with Intelligent Cloud System
- China Leading Enterprise for New Wall Materials Equipment
- · China Industry Demonstration Enterprise
- · New High-Tech Enterprise
- · Army Equipment Quality Management System



Pallet-Free Tech Leading Brand

Global Leading Brand

- Germany ZENITH Global Pallet-Free Concrete Block Machinery Leading Brand
- China QGM China Leading Enterprise for New Wall Materials Equipment
- · Austria ZENITH Design & Manufacturing Leading Brand



Most-advanced Vibration System

Adopt the most-advanced vibration system from Germany. The vibration table consists of dynamic table & static tables, which greatly improve the vibration efficiency and guarantee the high quality of concrete products.



2 High-efficient Hydraulic System

The hydraulic motor is SIEMENS & pipes are Italy-made ALFAGOMMA. brand. Adopt high-dynamic proportional valve and constant output pump to adjust the oil speed & pressure, with the features of high-stability, high-efficiency and energy-saving.



3 SIEMENS Control System

Use SIEMENS PLC, Touch Screen & contactors etc. which perfercly combine the automatic technology and system from Germany.. The control system is of easy operation, low failure ratios, automatic-trouble-shooting & high reliability.





SIEMENS Frequency Conversional Control Technology

SIEMENS Frequency conversional technology was re-innovated and improved by Germany R&D center. It can save 20%-40% power by adjusting the frequency converter, compared to traditional motor. At the same time, it can greatly improve the quality of concrete products and prolong the motor lifetime.



5 Intelligent Cloud System

Use the most-advanced industrial internet - technology, with the advantages of remote control - & operation, automatic trouble-shooting & maintenance.









Start with Precision, End with Perfection

QGM firmly believes that: high quality starts with precision and ends with perfection.

Original from German design & technology, also need international advanced manufacturing technology. QGM has advanced CNC & testing equipment, detecting instrument and excellent management. Also, the manufacturing and processing capacity is always top in the industry. The combination between cutting-edge technology from German ZENITH and QGM international advanced manufacturing technology makes ZN Series machine internationally-advanced standard in technology and techniques level.





>>> Production Workshop









ZN1200S Automatic Block Making Machine











SIEMENS Vibration Motors

Heat Treatment Mould

Hydraulic System

Feeding System







	Forming Area	1300x1050mm	Bottom Vibration	4x7.5KW
	Height of Finished Products	40-500mm	Top Vibration	2X1.1KW
Technical Parameters	Cycle Time	15-25s (as per mould)	Electrial Control	SIEMENS
	Hopper Volume	900L for Base Concrete 750L for Face Concrete	Power	111.3KW
	Pallet Size	1400v1100\1200v(14-50)mm	Total Weight	18.3T (Without Facemix)

ZN1500C Automatic Block Making Machine

Product	Size	PCS/Mould	PCS/ 8hrs	
Hollow Block	400x200x200mm	15	21,000-28,500	
Rectangular Paver (with facemix)	200x100x60mm	54	75,600-102,600	
Interlocks	225x112.5x60mm	40	56,000-76,000	-

^{*} The capacity data are theoretical and depend on machine settings, mix design, aggregates used and other environmental conditions

SIEMENS Control System

SIEMENS Hydraulic Motor & Italy Pipes

Intelligent Cloud System

	Forming Area	1,100×1,080mm	Bottom Vibration	2×15KW(SIEMENS)
	Height of Finished Products	50-300mm	Top Vibration	2×0.55KW
Technical Parameters	Cycle Time	18-25s (as per mould)	Electrical Control	SIEMENS
	Vibration Force	120KN	Power	67KW
	Pallet Size	1,200×1,150mm	Total Weight	14T(Without Face mix) 19.5T(With Facemix)

Product	Size	PCS/Mould	PCS/8hrs		
Hollow Block	390×390×190mm	12	14,400-18,000		
Rectangular Paver (with facemix)	200×100×60mm	50	55,000-60,000		
Interlocks	225×112.5×60mm	32	35,200-38,400		

^{*} The capacity data are theoretical and depend on machine settings, mix design, aggregates used and other environmental conditions



ZN1000C Automatic Block Making Machine



ZN900CG Automatic Block Making Machine









SIEMENS Control System

SIEMENS Hydraulic Motor & Italy Pipes

Intelligent Cloud System

	Forming Area	1,100 x 820mm	Bottom Vibration	2 x 7.5kW
	Height of Finished Products	40-300mm	Top Vibration	2 x 0.55kW
Technical Parameters	Cycle Time	15-25s (as per mould)	Electrical Control	SIEMENS
	Hopper Volume	900L for Base Concrete 750L for Face Concrete	Power	39.85 kW
	Pallet Size	1200x870x(12-45)mm	Total Weight	9.0 T (Without Facemix) 12.0 T (With Facemix)

Product	Size	PCS/Mould	PCS/8h	
Hollow Block	400x200x200mm	10	12,000-15,000	
Rectangular Paver (with facemix)	200x100x60mm	35	38,500-42,000	
Interlocks	225x112.5x60mm	24	26,400-28,800	

^{*} The capacity data are theoretical and depend on machine settings, mix design, aggregates used and other environmental conditions







Servo Control System



Automatic Mould Clamping System

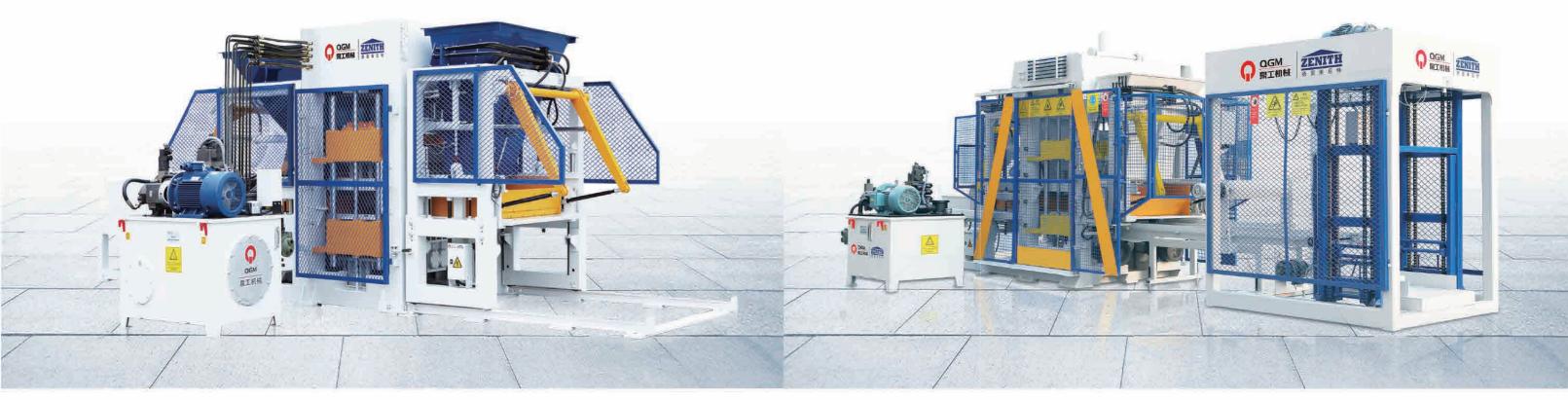
Technical Parameters	Forming Area	1300x650mm	Bottom Vibration	2 x 12KW
	Height of Finished Products	40-300mm	Top Vibration	2 x 1.1kw
	Cycle Time	14-24s	Electrial Control	SIEMENS
	Vibration Force	100KN	Power	52.6KW
	Pallet Size	1350x700x(14-45)mm	Total Weight	17 Ton

Product	Size	PCS/Mould	PCS/ 8hrs	
Hollow Block	400x200x200mm	9	10,800-13,500	
Rectangular Paver (with facemix)	200x100x60mm	36	43,200–50,400	-
Interlocks	225x112.5x60mm	25	30,000-37,500	-

^{*} The capacity data are theoretical and depend on machine settings, mix design, aggregates used and other environmental conditions



QT10 Automatic Block Making Machine









SIEMENS Frequency Control



SIEMENS Vibration Motors



SIEMENS Control System



QT6 Automatic Block Making Machine

Double High-dynamic Proporsional Valve



Heat Treatment Mould

Five Big Advantages

- 1. Germany Siemens PLC control system, Siemens touch screen, Germany Siemens electrical components.
- 2. Germany Frequency Conversional Control Technology.
- 3. Double High-dynamic Proportional/Directional Valves to automatically adjust the oil flow and pressure.
- 4. 360° Multi-Shaft Rotating and Compulsory Feeding.
- Heat Treatment on moulds and main parts of the machine.

Technical Specification(QT10)

Cycle Time	15-30S	Vibration Force	100KN	Block Specification	Production per Mould(pcs)	Production per Shift (pcs)
Total Power	52KW	Machine Size	8,100x4,450x3,000mm 9,600x4,450x3,000mm	390x190x190mm	10	11,000-14,000
Motor Frequency	50-60HZ	Total Weight	15T	390x140x190mm	14	15,000-19,000
Woter Frequency	00 00112	Total Proight	1101	200x100x60mm	35	38,500-42,000
Pallet Size	allet Size 1,250x850x(8-35)mm Forming Area	1,150x800mm	225x112.5x60mm	27	29,700-32,400	

Five Big Advantages

- Germany Siemens PLC control system, Siemens touch screen, Germany Siemens electrical components.
- 2. Germany Frequency Conversional Control Technology.
- Double High-dynamic Proportional/Directional Valves to automatically adjust the oil flow and pressure.
- 4. 360° Multi-Shaft Rotating and Compulsory Feeding.
- Heat Treatment on moulds and main parts of the machine.

Technical Specification(QT6)

Cycle Time	15-30S	Vibration Force	60KN	Block Specification	Production per Mould(pcs)	Production per Shift (pcs)
Total Power	31KW	Machine Size	5,210x3,530x2,780mm	400x200x200mm	6	6,600-8,400
Motor Frequency	50~60HZ	Total Weight	7.5T	390x140x190mm	8	8,800-11,000
	.2.4	1.00.000 (1.00.000 3 1.00	0.4731	200x100x60mm	21	23,000-25,200
Pallet Size 850x680x(8-35)mm Forming Area		Forming Area	800x630mm	225x112.5x60mm	15	16,500-18,000





1. Fully Automatic Production Line

6 Cement Weighing System

13 Triangle Belt Conveyor 19 Shipping Pallet Magazine 1 Cement Silo 7 Mixer for Main Material 2 Batcher for Main Material 8 Mixer for Facemix 14 Elevator 20 Pallet Brush 9 Belt Conveyor for Main Material 3 Batcher for Facemix 15 Finger Car 21 Transverse Latch Conveyor 4 Screw Conveyor 16 Lowerator 22 Pallet Turning Device 10 Belt Conveyor for Facemix 17 Lengthways Latch Conveyor 5 Water Weighing System 23 Chain Conveyor 11 Pallet Conveyor

18 Cuber

Automatic Block Making Machine



2. Fully Automation Production Line with Steel Curing Rack

1 Cement Silo	7 Mixer for Main Material	13 Triangle Belt Conveyor	19 Shipping Pallet Magazine
2 Batcher for Main Material	8 Mixer for Facemix	14 Elevator	20 Pallet Brush
3 Batcher for Facemix	9 Belt Conveyor for Main Material	15 Curing Racks	21 Transverse Latch Conveyor
4 Screw Conveyor	10 Belt Conveyor for Facemix	16 Lowerator	22 Pallet Turning Device
5 Water Weighing System	11 Pallet Conveyor	Lengthways Latch Conveyor	23 Chain Conveyor
6 Cement Weighing System	12 Automatic Block	18 Cuber	24 Central Control System

15

24 Central Control System







1 Cement Silo

2 Screw Conveyor

- Batcher for Main Material
- 8 Batcher for Facemix
- 3 Cement weighing system
- 4 water weighing system
- 5 Mixer for main material
- 6 Mixer for Facemix

- 9 Belt Conveyor for Main Material
- 10 Belt Conveyor for Facemix
- 11 Block Making Machine
- 12 Hydraulic Station

- 13 Triangle Belt Conveyor
- 14 Stacker
- 15 Pallet Separator
- 16 Lengthways Latch Conveyor
- 17 Pre-cuber device
- 18 Cuber

- 19 Stacker
- 20 Pallet Conveyor
- 21 Chain Conveyor
- 22 Shipping Pallet Magazine
- 23 Central Control System

4.Automatic Production Line with Central Control System

- 1 Cement Silo
- 5 Batcher of Main Material
- 9 Automatic Block Making Machine
- 12 Stacker

2 Screw Conveyor

3 Mixer for Main Material

6 Mixer for Facemix

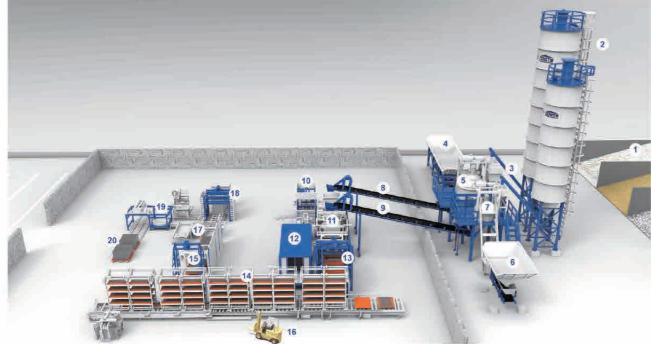
7 Batcher for Facemix

- Automatic Pallet Feeder
- 11 Triangle Belt Conveyor
- 14 Hydraulic Station

13 Control Room

4 Cement / Water Weighing System







5. Automatic Production Line with Curing Racks

1 Raw Materials Storage

2 Cement Silo

19

- 7 Mixer for Color Pigment
- 8 Belt Conveyor for Main Material
- 3 Screw Conveyor
- 9 Belt Conveyor for Color Pigment
- 4 Batcher for Main Material 10 Automatic Pallet Feeder
- 4 Automatic Concrete Block Machine 5 Mixer for Main Material

- Central Control Room
- 17 Blocks Pusher
- 13 Elevator

15 Lowerator

- 18 Pallet Collector
- Curing and Transportation Racks 19 Rotating Table
 - 20 Finished Block Cube
- 16 Forklift
- 21 Wet Blocks Curing Area

6 Batcher for Color Pigment



6. Automatic Production Line with Central Control System(Two Lines)

- 1 Cement Silo
- 4 Mixers for Main Material

Batcher with Twin
Direction Motor

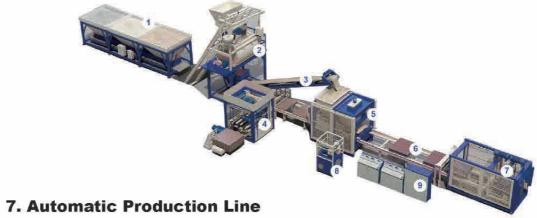
- 7 Automatic Block Making Machine 8 Hydraulic Station
- Belt Conveyor for Facemix

10 Stacker

2 Screw Conveyor

3 Control Panel for Mixer

- Belt Conveyor for 6 Main Material
- 9 Control Room
- 12 Mixer for Facemix



6

- Batcher for Main Material

2 Mixer for Main Material

3 Belt Conveyor

Feeder

4

Automatic Pallet

- Automatic Block Making Machine
- Stacker
- Control System

- Conveyor for wet Blocks
- 8 Hydraulic Station



AAC Blocks & Bricks Making Plant

QGM designs and manufactures AAC block making plant, to meet the specific requirements of the market and customers. As new building material, AAC block fulfills the demand of concrete industry, which requires to save the natural resources and protect the environment. With Germany technology and QGM R&D, we provide our customers state-of-the-art AAC block making plant.

AAC is produced out of a mixture of cement, lime, fly ash, gangue, river sand and aluminium powder etc., through batching, mixing, casting, cutting and autoclaving. AAC has the advantages of extremely light weight, high compressive strength, excellent thermal insulation, great acoustic insulation and high fire resistance. AAC can be produced in a large variety of sizes, from standard blocks to large reinforced panels, and it can be cut, sawn, drilled, nailed and milled like wood, making it an extremely workable product. AAC is environment-friendly and new building material.

Annual Capacity (300 days)	Power	Daily Capacity	Cycle Time	No. of Autoclaves
50,000 m ³ /year	400 KW	166 m ³ /day	10 hours	2 (Ø2 x 31)
100,000 m ³ /year	500 KW	333 m³ /day	10 hours	4 (Φ2 x 31)
150,000 m ³ /year	630 KW	500 m ³ /day	10 hours	6 (Ø2 x 31)
200,000 m ³ /year	720 KW	666 m ³ /day	10 hours	8 (Ø2 x 31)
300,000 m ³ /year	1186 KW	1000 m ³ /day	10 hours	6 (\$\phi 2.68 x 38)





Advantages of AAC

Large variety of sizes:

AAC can be produced in a large variety of sizes, from standard blocks to large reinforced panels;

Excellent thermal insulation:

AAC has a very low thermal conductivity and therefore a very high thermal energy efficiency is achieved. This results in savings on heating and cooling costs;

Extreme lightweight:

AAC weighs approximately 50% less than other comparable building products;

High compressive strength:

AAC is a solid product, therefore making it highly load bearing. The entire surface area is used in structural calculations;

High dimensional accuracy:

As a result of its dimensional accuracy, AAC is extremely easy to install, as no thick set mortar is required;

Great acoustic insulation:

The porous structure of AAC provides a high acoustic insulation;

High fire resistance:

AAC has an extremely high fire rating of at least 4 hours and more;

Termite resistance:

AAC can not be damaged by termites or insects;

High workability:

As a result of the excellent size/weight ratio, constructing with AAC is very rapid. Even though AAC is a solid building material, it can be cut, sawn, drilled, nailed and milled like wood, making it an extremely workable product.



AUTOMATIC BLOCK MAKING MACHINE

Designed in Germany, Produced in China

Planetary Mixer



Core technology







& Italy PIZZATO Limited Switches



Italy-design Hydraulic Coupling

Main technical parameters U.M. Yield vibrated concrete Lt. Dry material Lt. Tank capacity Lt. Mixing motor power kW 7.5 18.5 Hydraulic motor power kW 2.2 2.2 2.2 Mixing star Nr. Weight Kg Skip motor power kW 5.5 18.5 18+18 22+22 mm Height Width

Batcher for Main Material

Item Model	PL800	PL1200	PL1600	Item Model	PL800	PL1200	PL1600
CBM of Weighing Bin	0.8m ³	1.2m³	1.6m³	Loading Height	2,300mm	2,400mm	3,000mm
CBM of Aggregate Bin	2x4m³	3x4m³	3x6m³	Weighing System	Electronic	Electronic	Electronic
Productivity	48m³/h	60m³/h	80m³/h	Power	4.5kw	10.6kw	11.7kw
Weighing Accuracy	± 2%	± 2%	± 2%	Total Weight	2,250kg	3,760kg	4,820kg
Maximum Weighing	1,500kg	2,000kg	3,000kg	Machine Size	5,600x1,560x2,760mm	8,390x2,000x2,800mm	9,500x2,300x3,300mm
Type of Aggregate	2	3	3	(LxWxH)			





Parameter Model Item	JN-350	JS-500	JS-750	JS-1000
Discharging capacity	350L	500L	750L	1000L
Feeding capacity	560L	800L	1200L	1600L
Theoretic productivity(m³/h)	≥15	≥25	≥35	≥60
Maximum Diameter of Aggregate (cobble/crushed stone)	≤20/30	≤40/50	≤40/60	≤60/80
Cycle Time	100	72	72	60
Total Weight	3,500	4,000	5,500	8,700



Off-Line Pushing & Cubing System (Reserved-hole for forklift)



- 1. Suitable for rectangular and square cubing, depending on customer's
- 2. Save 5-6 workers and reduce labor cost;
- 3. SIEMENS PLC control system;
- 4. Adopting the pallet recycle device, which is convenient for forklift transportation to increase automation.
- 5. Guarantee for the safety operation of the plant.
- 6. With servo positioning and laser detection, two forklift-reserved holes could be set on any layer to increase automation.
- Cross-shift cubing is firmer, which is to scatter, and not easy to damage blocks during overload transportation.
- 8. It is suitable for various bricks such as holow blocks of different sizes, solid bricks, pavers, water conservation blocks, etc.

- 9. The remote control operation is convenient and fast, Block addition and equipment operation are at the same time.
- 10. Fast switching between cubing without wooden pallets or cubing on wooden pallets has a wider application range.
- 11. Frequency control guarantees stable push, not easy to make deflection.
- 12. Numerical control counting, accessing formulas of various specifications, and data modification on the touch screen can switch cubing of products of different specifications, with simple operation and high efficiency.
- 13. Real-time remote control, monitoring, diagnosis, real-time query of cubing capacity to realize the Internet of Things.
- 14. Low energy consumption and small occupied area.

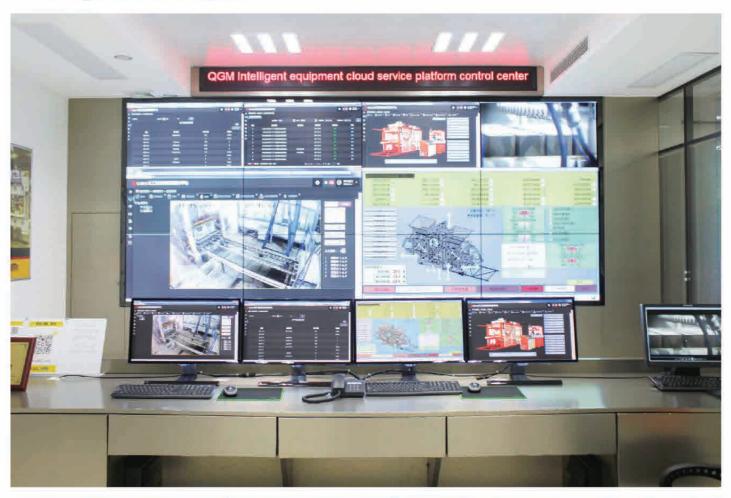








Intelligent Cloud System







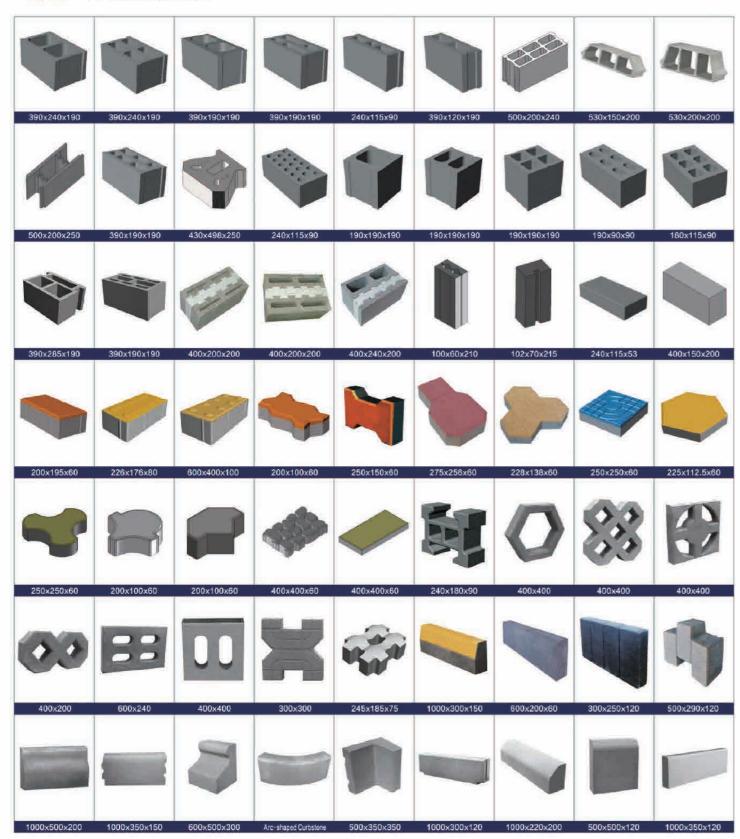
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QGM intelligent equipment cloud service platform uses cloud technology, data communication protocols technology, mobile internet technology, equipment modeling, artificial intelligence, fuzzy neuron, big data technology etc, for enterprise intelligent equipment operating data collection and user customized data collection. This intelligent service platform can realize functions including on-line monitoring, remote upgrade, remote fault prediction and diagnosis, machine normal state evaluation, report on the operation and status of the equipment application etc.

With the support of most advanced industrial Internet technology, QGM Intelligent Cloud Service Platform could achieve the functions of remote control & operation, trouble shooting and maintenance.



Block Samples All Dimensions: mm



The technical specifications in this catalogue are subject to change without prior notice

Block Making is An Art

