



陕西铂锐柯科技有限公司

SHAANXI IBRICK TECHNOLOGY CO.,LTD

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*ibrick*



### 砖上乾坤大、瓦中日月长，砖瓦，乃普天下最平凡之物。

砖瓦在人类文明史上占有与面包和布匹同等重要的地位。现代社会中的每一个人都有烧结砖瓦产品的体验，而且许多人都有着与烧结砖瓦接触的个人经历。这些都使得烧结砖瓦产品有着高度的文化属性，是一类令人喜爱的建筑材料，正因为烧结砖瓦产品这种高度的文化属性和大众性，令从古道今世界各地多少文人雅士为之动容，为之吟诵，为之咏唱！烧结砖瓦是唯一的最佳综合物理、生态、建筑 and 美学性能的可持续发展建筑材料。

Brick contain universe, tile contain history. Brick and tile are the most mundane goods in the whole world. Brick & tile is equivalent of bread and cloth in human civilization history.

Each of us in the modern society has own feeling for sintering brick and tile, and many of us have own personal contact experience with them. These make the brick & tile with rich culture attribute, and with good popularity. Modern and ancients' refined scholars are all interested in and show their passion on the sintering brick & tile. Sintering brick & tile is the only one kind and best sustainable building materials with combination property of physics, ecology, construction and aesthetics.

从古到今人类的生产生活跟小小的砖块密不可分，砖也是人类历史发展的见证者之一。

我们努力坚持将更科学的制砖文化传播到他们需要改善制砖工艺，他们需要改善工作环境，他们需要降低劳动强度的国家和地区。更好更快的改善人们的居住环境。

Since ancient times, the human's production and living are closely bound up with these small bricks, brick is one of the witnesses of the development for the human history. We always try to insist on more scientific and advanced brick making culture, and spread it to the place where brick making process need to be improved, where the work environment and productivity need to be improved, where the labor intensity need to be lowered, thus to improve the people's living condition better and faster.



陕西铂锐柯科技有限公司位于与雅典、罗马、开罗并称为世界四大文明古都的陕西省西安市。

Shannxi ibrick technology Co.,Ltd is located in Xi'an , capital of Shaanxi province of China. Xi'an is well known as the world's four major ancient civilization capitals with Athens, Rome and Cairo.

西安是璀璨的华夏文明的发源地,也是世界上第一个人口突破一百万的城市(1400多年前),并且曾经在长达500多年的历史中成为世界第一大都市和世界的中心。

Xi'an had been the world first city which population had achieved one million (about 1400 years ago) and had been the world biggest city and world center for over 500 years in human history.

西安同样是世界砖瓦技术和砖瓦文化的重要发源地之一,早在秦汉时期(公元前221年到公元220年),就以秦砖汉瓦闻名于世界史册中。

Xi'an is also the important origin place of world brick tech and culture in history. During the Qin and Han dynasty (from BC 221 to AD 220), It is well known as "Qin brick and Han tile" in world history.

在西安,你随处可以看到砖制古代建筑,它们中包括大雁塔、西安古城墙、西安钟楼等世界闻名的古代建筑,且不提秦砖汉瓦博物馆,西安本身便是一座活着的砖瓦博物馆。

In our city, you can find ancient constructions built by brick everywhere, Big Wild Goose Pagoda, Xi'an City Wall and Xi'an Bell Tower are all world famous buildings of them. Besides the Chinese brick museum "Qin Brick and Han Tile Museum" in this city, Xi'an itself is the alive brick museum of the world.

陕西铂锐柯科技有限公司秉承艰苦创业、以人为本,坚持以创新精神之理念发展企业。

Shannxi ibrick technology Co.,Ltd develops its business by inheriting the idea of starting business with hardship, people-oriented and always innovation.

IBRICK秉持务实合作、携手共赢的宗旨专业为世界各地生产烧结空心砖、保温砌块、隔墙板、清水墙砖、铺路砖、透水砖、西式瓦、陶粒等客户提供整套技术解决方案、工程、设备采购方案、贸易、国际技术交流等服务的企业机构。

IBRICK follow the principle of practical cooperation and joint-hands win-win cooperation, professionally provide complete technology solution, engineering, equipment procurement plan, trade,international technology communication etc for world-wide clients,regard the production of sintering hollow brick, insulation block, wall panel, facing brick, paver brick,permeable brick, roofing tile, ceramicite etc.

作为一家志存高远的企业,我们不断致力于技术创新、管理创新,稳步扩大企业的团队.我们始终贯彻严密、稳固、完整的产业链体系管理,为世界各地的客户生产烧结空心砖、清水砖、保温砌块、铺路砖、西式瓦、劈离砖和陶粒等提供整体解决方案。

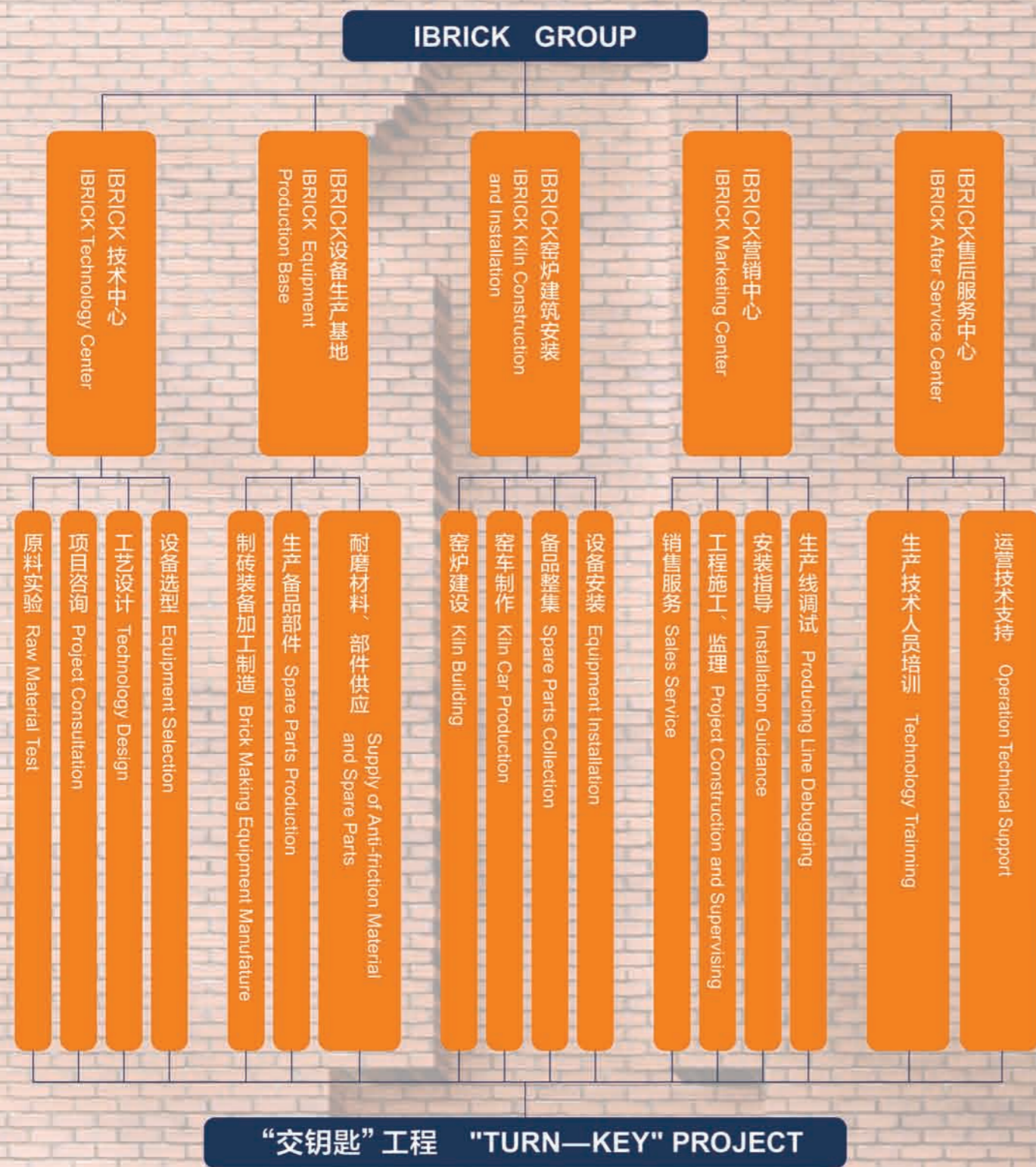
As an ambitious and vigorous enterprise, we are committed to technology innovation, management innovation and gradual enlargement of our team. We always implement the rigorous, steady and complete industry chain management system.Now we provide solutions for world-wide clients in producing the following items: Facing Bricks, Paving Bricks; Insulating Block; Hollow Bricks; Western-style Tiles; Split Bricks; Sand-lime Bricks or Blocks; Autoclaved Fly Ash Blocks or Blocks and Cement Sticking Bricks, etc.

IBRICK不断努力实现准确及时的本地化服务,为每一位与我们合作的用户创建一间可以创造更多价值的工厂。

IBRICK is willing to make our progress with all of you hand in hand, make efforts continually and become a promoter of world-wide brick-making cultural by our constant innovation and non-stop efforts.

IBRICK愿与您携手共进、坚持努力,通过我们的不断创新,不懈奋斗,一起成为全球制砖文化推进者...

IBRICK willing to make our progress with all of you hand in hand, make efforts continually and become a promoter of world-wide brick-making cultural by our constant innovation and non-stop efforts.



公司拥有国际化的人才队伍和超过10年的国际项目运营经验。

we have a group of international talent and international projects management experience over decade.

陕西铂锐柯科技有限公司(IBRICK)

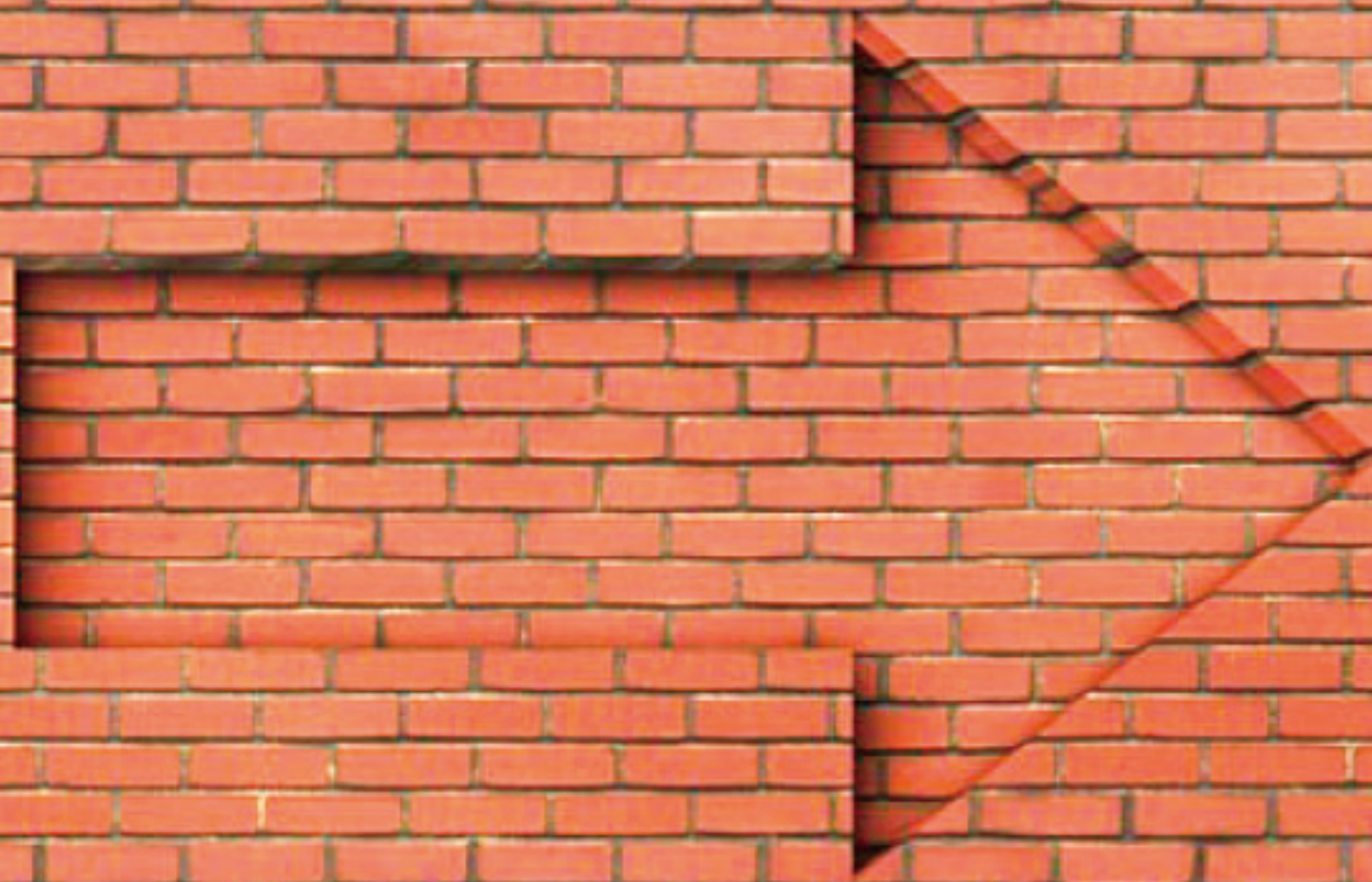
核心技术 Core Technology

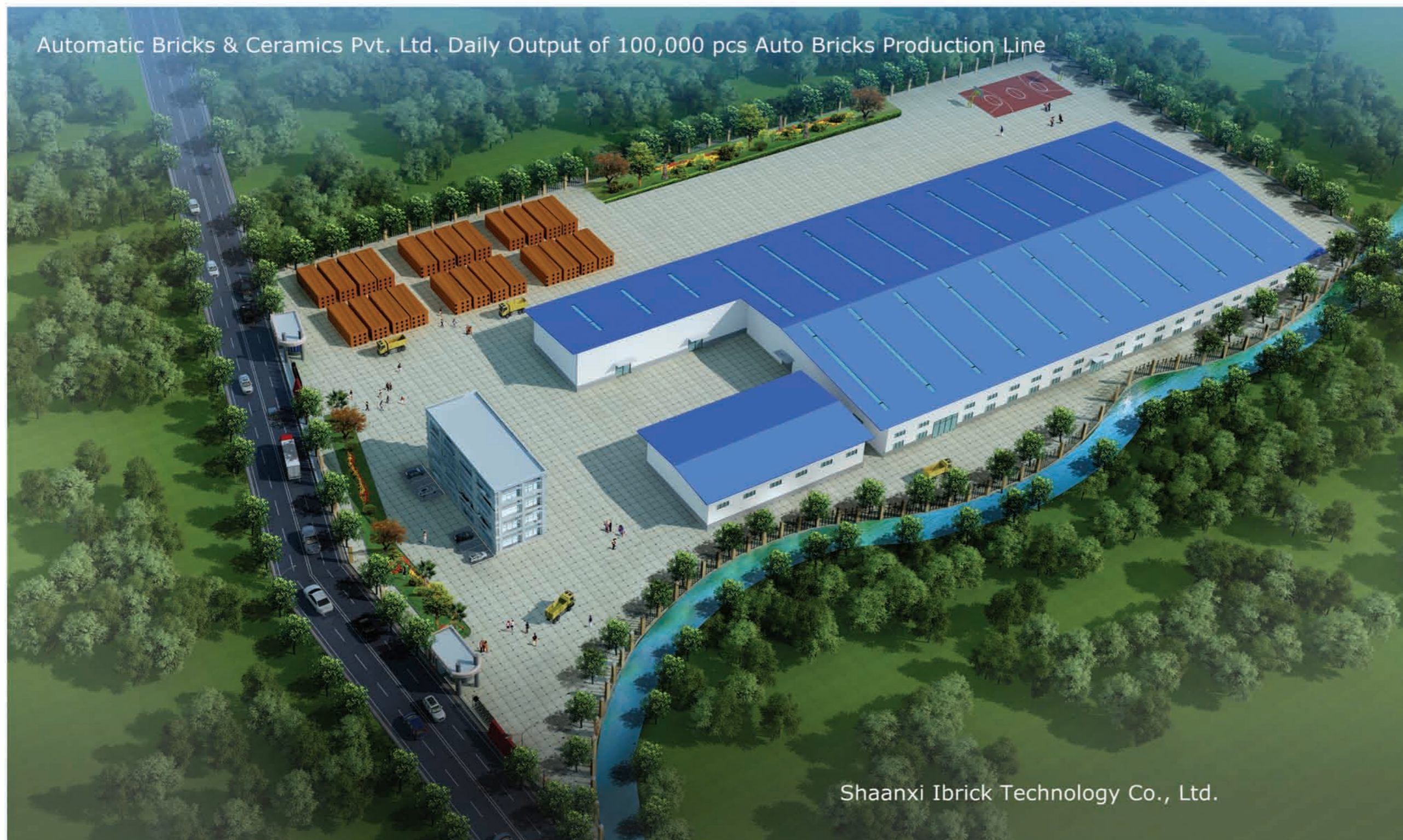
- ★1.粘土、页岩、污泥、淤泥、尾矿、粉煤灰、煤矸石等原料生产烧结砖的一次码烧、二次码烧生产线技术  
Sintering brick production technology for raw material of clay, shale, sludge, mining tails, coal gangue etc with direct-setting or two-time setting and firing tech.
- ★2.日产400立方米、500立方米、600立方米...1200立方米等产量烧结空心砌块、保温砌块二次码烧生产线技术  
Two-time setting and firing production technology for hollow block and insulation block with daily capacity of 400cbm,500cbm,600cbm till 1200cbm etc.
- ★3.日产50000块、100000块、150000块等产量烧结清水墙砖、铺路砖、透水砖等装饰砖生产线技术  
Sintering decorative brick production technology for facing brick, paver brick, permeable brick etc with daily capacity of 50000pc, 100000pcs,150000pcs etc.
- ★4.大断面燃气隧道窑烧结西式瓦生产线技术  
Roof tile production technology with big section tunnel kiln gas fuel.
- ★5.砖瓦生产线原料供给设备、物料破碎设备、物料搅拌设备、物料陈化设备、成型设备、自动切码运设备、电气自动化设备、脱硫除尘等环保设备

- Raw material feeding, crushing, mixing, aging and molding equipment, automatic cutting and setting equipment, electrical automation, desulfurization and dust removal etc. environmental protection equipment.
- ★6. 年产10~20立方米加气混凝土技术  
Autoclaved aerated concrete blocks process with 100~200 thousand cubic meters annual production capacity.
- ★7. 年产10~20立方米蒸压砖技术;  
Autoclaved brick process with 100~200 thousand cubic meters annual production capacity.
- ★8. 日产1200吨烧解脱碳技术(国际领先)  
The sintering vanadium decarbonization tech with 1.2 thousand tons daily production capacity. (Industry leading tech)
- ★9.大型墙材生产线运转设备、电气设备、通风设备、环保设备。  
Operation equipments, electrical equipments, ventilation equipments, environmental protection equipments for big capacity wall and roof material production line

布局 研发

Distribution  
R&D







基本属性		比例要求(%)	普通砖
类型	项目		
化学成分	SiO <sub>2</sub>	合理 允许	55~65 50~70
	Fe <sub>2</sub> O <sub>3</sub>	合理 允许	3~7 2~10
	Al <sub>2</sub> O <sub>3</sub>	合理 允许	12~18 10~30
	CaO(%)	允许	0~5
	MgO(%)		0~2
	SO <sub>3</sub> (%)		0~2
	烧矢量(%)		3~15
可塑性	塑性指数	合理	7~12
		允许	5~17
收缩率	烧成收缩	合理	2~4
		允许	3~6
干燥敏感性	敏感性系数	合理	0.6~1
		允许	<1.8
烧结性	烧成温度(0C)	适宜	950~1150

Basic parameters		Proportion(%)	Common brick
Type	Item		
Chemical composition	SiO <sub>2</sub>	Reasonable Allow	55~65 50~70
	Fe <sub>2</sub> O <sub>3</sub>	Reasonable Allow	3~7 2~10
	Al <sub>2</sub> O <sub>3</sub>	Reasonable Allow	12~18 10~30
	CaO	Allow	0~5
	MgO		0~2
	SO <sub>3</sub>		0~2
	Loss on ignition		3~15
Plasticity	Plasticity index	Reasonable	7~12
		Allow	5~17
Shrinkage percentage	Firing shrinkage	Reasonable	2~4
		Allow	3~6
Drying sensitivity	Sensitive coefficient	Reasonable	0.6~1
		Allow	<1.8
Sinter property	Firing temperature(°C)	Proper	950~1150





主要生产工艺

MAIN  
PRODUCING  
TECHNOLOGY

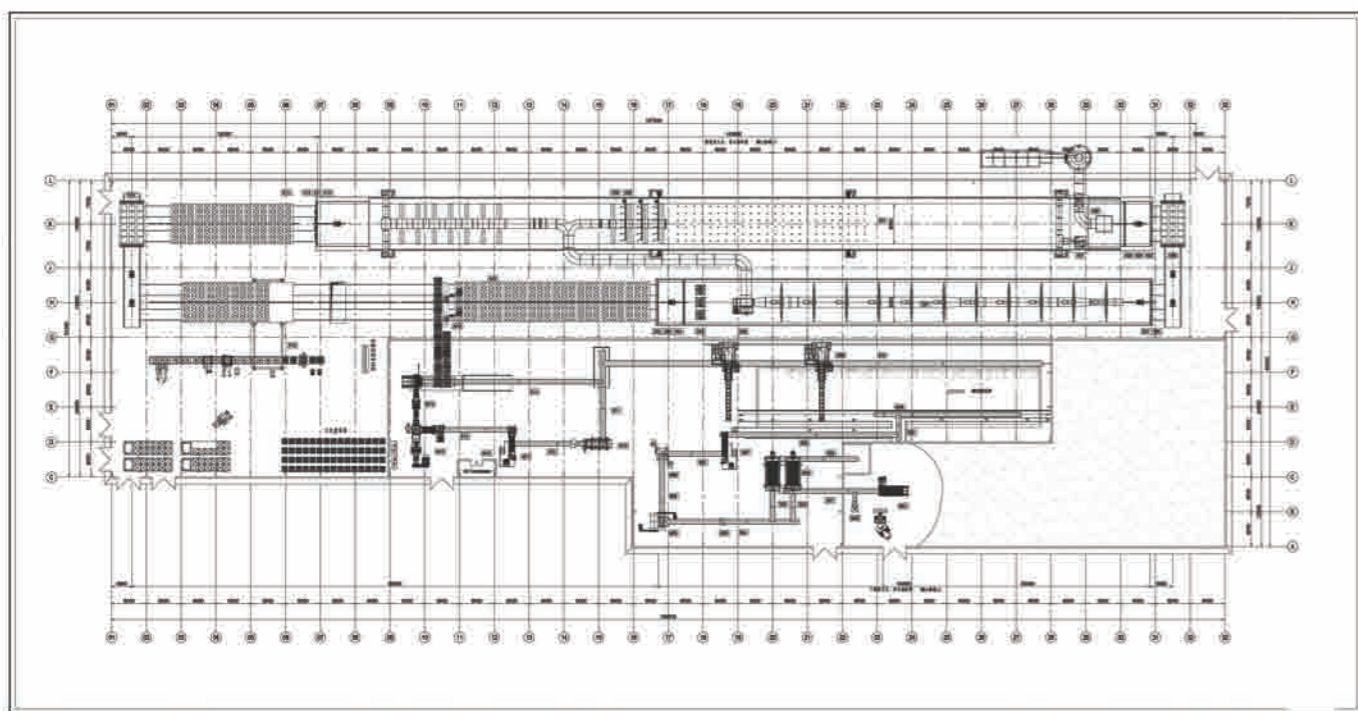


### 隧道窑一次码烧工艺

#### Tunnel kiln one step stacking-firing technology

隧道窑一次码烧工艺适用于页岩、煤矸石、尾矿等硬质原料，不适合高掺量粉煤灰、淤泥、污泥等原料，.....

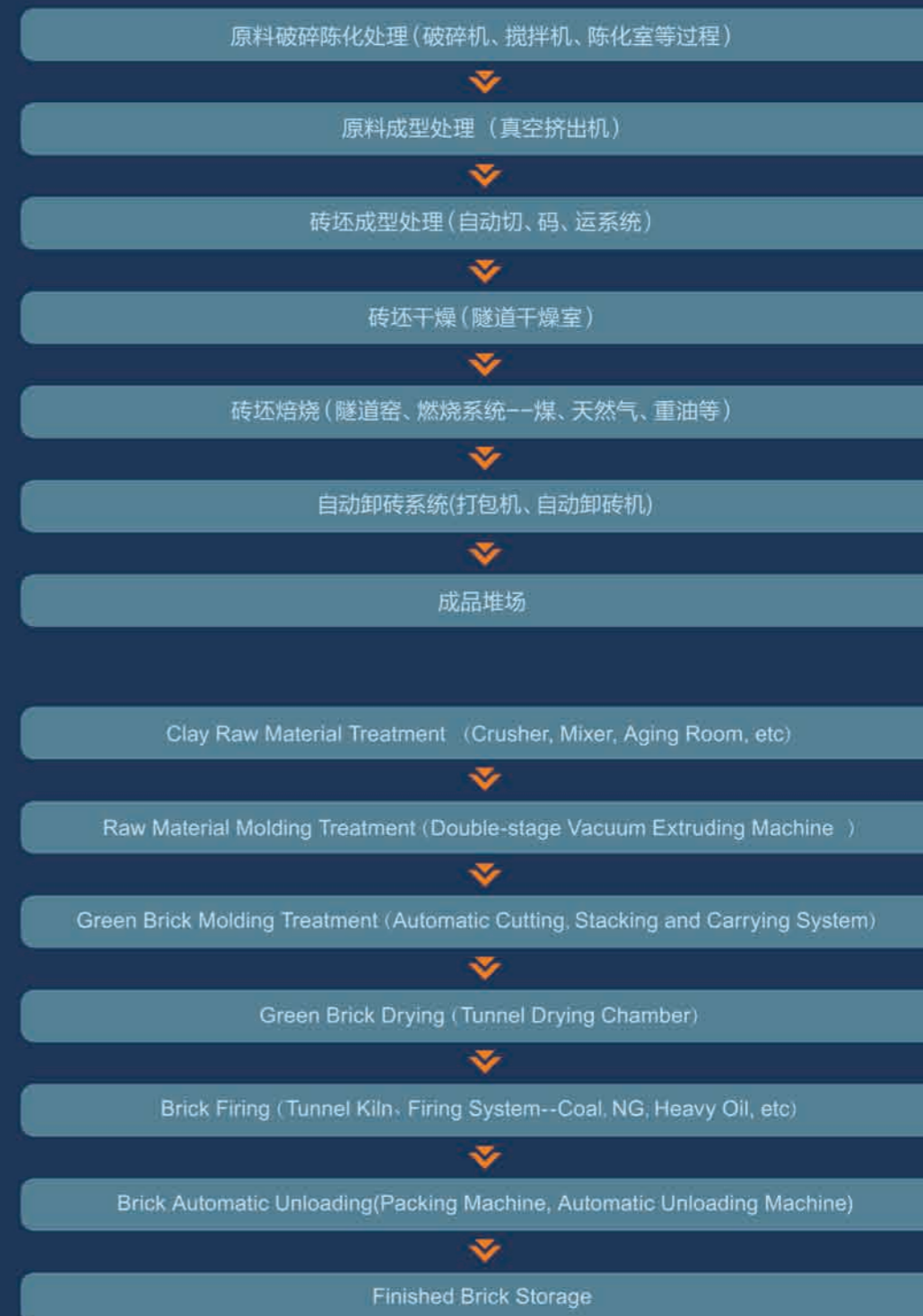
Tunnel kiln direct setting technology suitable for hard raw material such as shale, coal gangue etc, not suitable for raw material like high content fly ash, mire and sludge etc.



仅供参考 Just for Reference

### 生产工艺流程

### Producing Technological Procedure

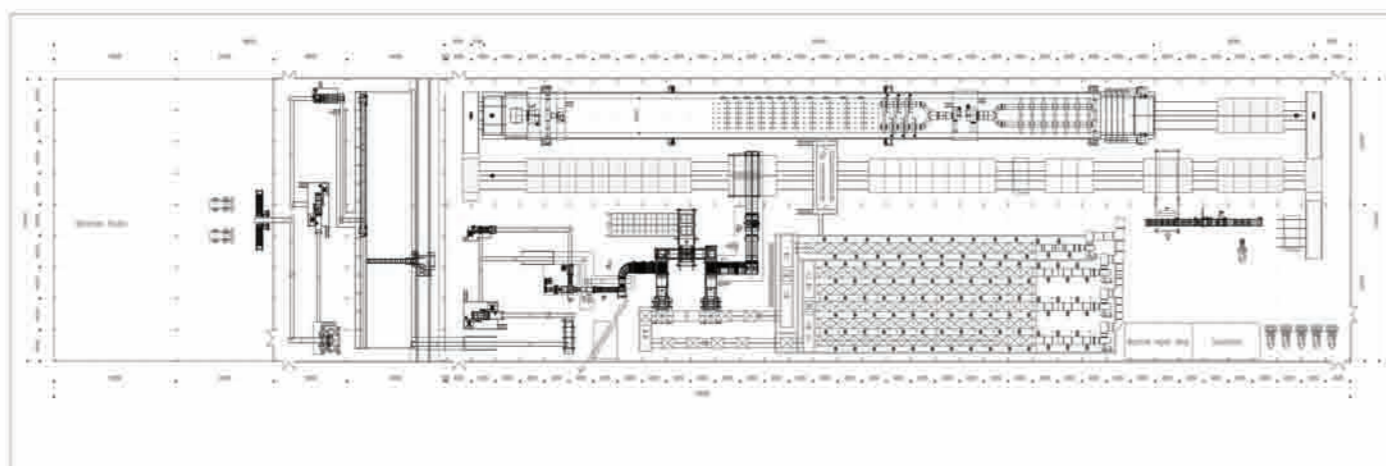


## 隧道窑二次码烧工艺

### Tunnel kiln two step stacking-firing technology

隧道窑二次码烧工艺适用范围广泛, 产量高, 产品合格率高。适合于多种原料和砖型结构, 高敏感原料、寒冷地区、多品种生产线, 生产过程灵活。根据客户的需求可以适当调整自动化程度及投资预算。

The tunnel kiln two step stacking-firing technology has been widely scope used with high capacity and high quality. It is suitable for various raw material and brick models, high sensitive raw material, cold area, various kinds of producing line, and the producing process is very flexible. It is also can adjust the automatic level and investment budget depend on the customer's requirement.



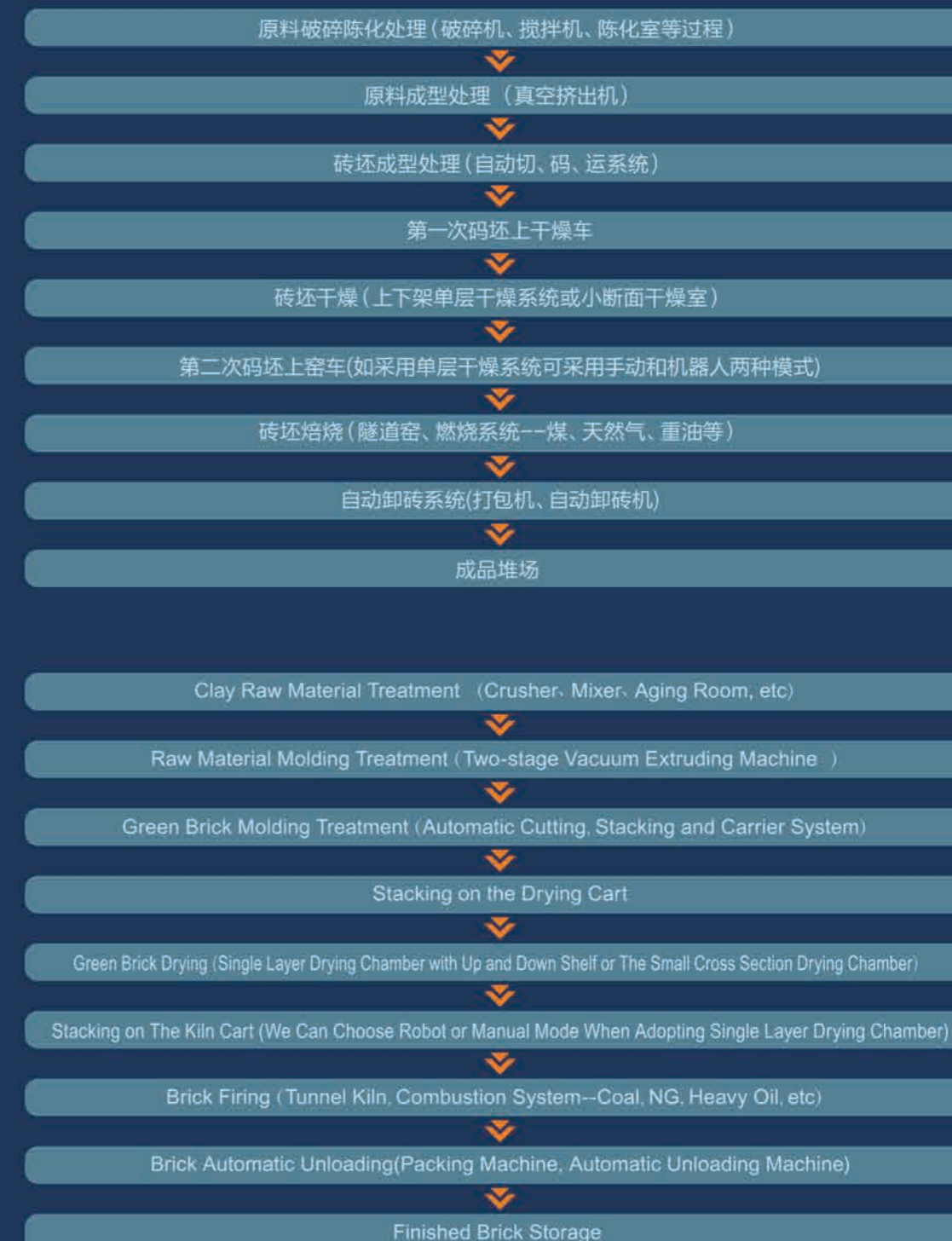
此工艺技术适合大产量的烧结普通砖、隔墙板、空心砌块、保温砌块等。

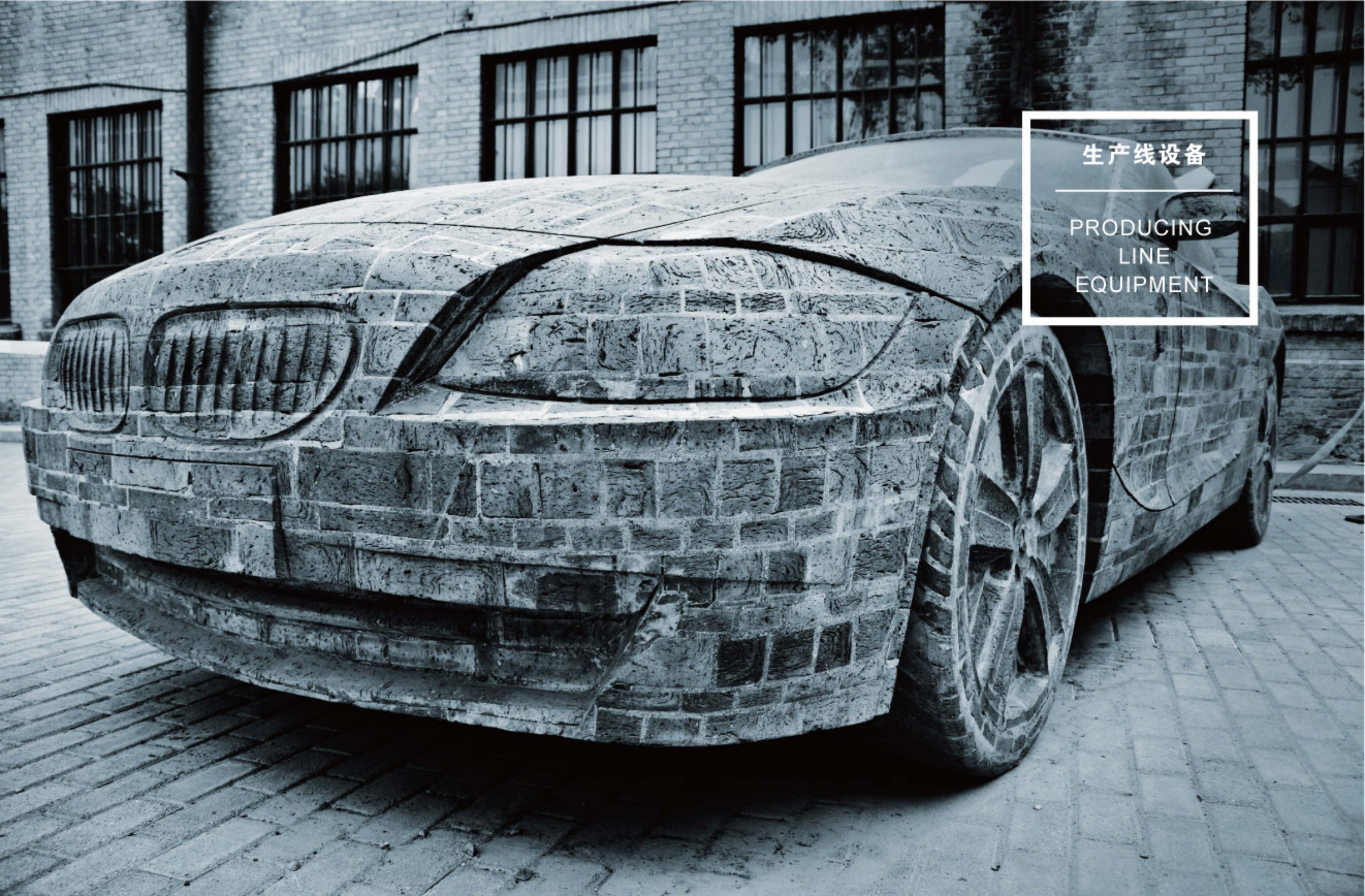
This technology suitable for big capacity production of sintering normal brick, wall panel, hollow block and insulation block etc.

仅供参考 Just for Reference

## 生产工艺流程

## Producing Technological Procedure





生产线设备

PRODUCING  
LINE  
EQUIPMENT

隧道窑设有完善的排烟系统、冷却系统、余热系统、压力平衡系统、运转系统和监测系统，通过对系统的调整，使窑内的焙烧曲线更趋合理，生产秩序更加协调。

The tunnel kiln has complete system of smoke discharging, cooling, waste heat releasing, pressure balancing, running and detecting system. Baking curve inside of the kiln can be more reasonable and production system can be with more coordination through the adjustment of those systems.

隧道窑在进车端设置了预备室，在预备室与窑预热带连接处设置了截止门，还在两头设置了端门，这样可以有效地避免冷空气进入窑内，保证窑的运行及焙烧不受外界影响。

At the entrance side, there is a preparatory room, and a cut-off door between the preparatory room and the kiln pre-heating zone. There are entrance and exit doors at both ends of the tunnel kiln. Thus it effectively avoid entering the cold air and ensure the baking system inside not be influenced by the outside.

顶结构：在窑两端低温带各留有一车位采用现浇混凝土顶板；其他部位，耐火砖通过耐火吊挂砖在顶部H型钢梁之下，钢梁的重量由两侧的耐火砖墙承载。耐火砖上铺设耐火纤维毡及岩棉毡、板，组成复合保温层。在材料层间及保温层最上部涂刷高温粘结剂以保证材料的绝热性和结构的耐久性。

Kiln roof structure: One kiln car space remained in low temperature zone on both sides, which adopt cast-in concrete top slab. For other position, the refractory bricks are hanged through davit hang under H type steel beam. Both sides firebrick wall support the main beam's weight. Refractory fibrofelt, rock wool felt, rock wool boards are put on the refractory hander plate, which compose complex insulation layer. High temperature binder is being filled up to the gap between the boards, and is being painted on the upside of the insulating layer, thus to ensure the material's insulativity and structure's durability.



## 小断面干燥室

### Small Cross-section Drying Chamber

干燥室采用双通道隧道干燥室。干燥热源利用隧道窑焙烧的制品冷却热和高温烟热，通过调节系统控制送风温度及风量大小，确保砖坯干燥质量。

Our drying chamber adopts two-channel tunnel dryer. The heating source is cooling heat of the sintered-products and high temperature smoke heat from the tunnel kiln. The smoking air feeding temperature and air volume will be adjusted through the air-adjustment-system, so as to ensure the drying quality of green bricks.

干燥室热源为隧道窑余热和高温烟热，热介质通过外部管路系统供给干燥室。干燥室设有送风系统、排潮系统、运转系统及检测系统。干燥室操作简单，调试方便，检修便利。

The heat sources of drying chamber are the afterheat from tunnel kiln and high temperature smoke heat, which will be supplied to drying chamber through external pipe system. The drying chamber set up air-feeding system, moist-releasing system, operating system and testing system.

The dryer chamber is easy to operate, adjust and maintain.

配套规模:

Supporting scale:

适合于5000万以下各种年产量

Variety annual production under 50 million pcs.(All the bricks are subject to Chinese standard brick.)



## 单层干燥+上下架系统

### Single Layer Dryer+Loading and unloading system

配套自动化上下架系统的单层干燥适合于干燥敏感性较高（如果高掺量粉煤灰、粘土、污泥、淤泥等）、产量规模大、产品规格较大的薄壁多孔产品等，干燥后砖坯残余含水率0.6%-6%，干燥效率高。这种干燥室可以有效避免码坯造成的裂纹、干燥不充分等缺陷

Single-layer drying with automatic loading and unloading system which suitable for thin-wall& high-hollow rate products with high-drying sensitivity material( such as high-content fly ash, clay, sludge etc.), with high production capacity, big size characteristics. After drying process, the remain moisture content is 0.6-6%, high drying efficiency. This dryer can effectively avoid the defects such as cracks during setting process and drying insufficiency etc.

## 单层干燥+字母叉车系统

### Single Layer Dryer+Chamber drying system

配套机械手码坯，湿砖坯码放与钢拖条或托盘上，由字母叉车送入干燥室，适合于干燥敏感性较高（如果高掺量粉煤灰、粘土、污泥、淤泥等）、中等产量规模、普通砖、空心砖、装饰砖等，干燥后砖坯残余含水率0.6%-6%，干燥效率高。这种干燥室可以有效避免码坯造成的裂纹、干燥不充分等缺陷。

With grippers, the green brick adobe being put on the pallets or supporting bars, sending into the drying chamber by composite forklift. This technology suitable for raw material with high drying sensitivity( such as high-content fly ash, clay , sludge etc.), medium production capacity, products such as facing brick, hollow block , normal brick etc. After drying process, the remain moisture content is 0.6-6%, high drying efficiency. This dryer can effectively avoid the defects such as cracks during setting process and drying insufficiency etc.



## 单层干燥 + 快速干燥系统

### Single Layer Dryer + Fast dryer system

配套自动化上下架系统，适合于干燥敏感性较低、干燥收缩小、产量规模大、产品规格较大、空心砌块、隔墙板等，干燥后砖坯残余含水率0.6%-6%，干燥效率高。这种干燥室可以有效避免码坯造成的裂纹、干燥不充分等缺陷。

With automatic loading and unloading system, this technology suitable for low drying-sensitive material with small drying shrinkage rate, for big capacity wall panel or hollow block etc production. After drying process, the remain moisture content is 0.6-6%, high drying efficiency. This dryer can effectively avoid the defects such as cracks during setting process and drying insufficiency etc.

此工艺技术适合大产量的烧结普通砖、隔墙板、空心砌块、保温砌块等。此工艺对原料的干燥性能及工厂拟建地的气候条件有适当要求。

This technology suitable for big capacity production of sintering normal brick, wall panel, hollow block and insulation block etc. And it has proper requirement for the raw material' drying property and climate conditions in the factory-establish area.



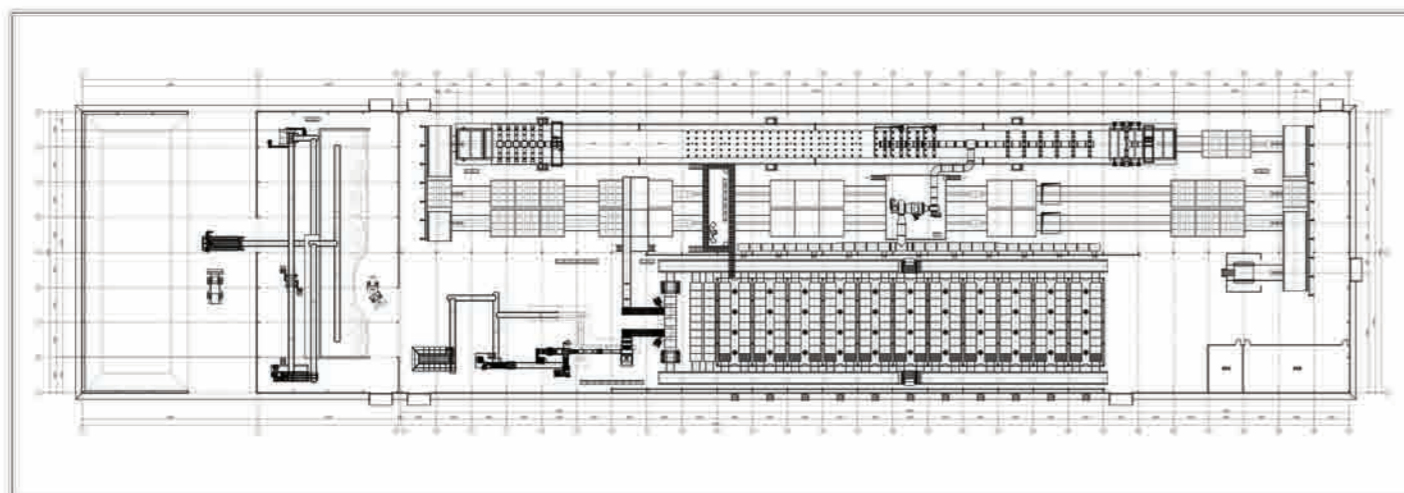


### 室式干燥室+隧道窑焙烧

### Big Section Drying Chamber + Tunnel Kiln

此工艺适用于生产清水墙砖、地面砖、墙板、保温砌块、空心砌块、空心砖；按空心砌块计算每天产量约为500立方米。

This technology is suitable for the production of clean water wall tiles, floor tiles, wall panels, insulation block, hollow block, hollow brick; calculated according to the hollow block daily output, it is about 500 cubic meters.



此工艺适合：日产50000块、100000块、150000块等产量烧结清水墙砖、铺路砖、透水砖等装饰砖的生产，日产500方空心砌块的生产。

this technology suitable for sintering facing brick, paver brick, permeable brick etc decorative brick production line with daily capacity of 50000pcs, 100000pcs and 150000pcs.

仅供参考 Just for Reference

该工艺配有自动码坯机或机械手码坯，自动上下架，子母叉车（也称指状叉车），湿砖坯体码放于钢托条或钢托盘上由子母叉车的子车送入干燥室干燥；干燥室热源为隧道窑余热，热介质通过外部管路系统供给干燥室，干燥室设有送风系统，排潮系统，运转系统及检测系统。工艺自动化程度高，干燥后残余含水率0.6%—6%，干燥效率高。

It's equipped with automatic setting machine or robot hand, automatic loading and unloading system, finger forklift, etc. Carry ways adopt steel column or steel pallet carry into big section drying chamber by finger forklift. The heat of drying chamber is from the waste heat of tunnel kiln, the heat medium is supplied to the drying room via an external piping system. The drying room be with air supply system, exhaust system, operation system and testing system. This technology has high degree of automation, after drying, the residual moisture content is about 0.6% to 6%, and with high drying efficiency.





破碎机

Crusher



高细碎对辊机

Fine Pulverizing Double-roll Grinder



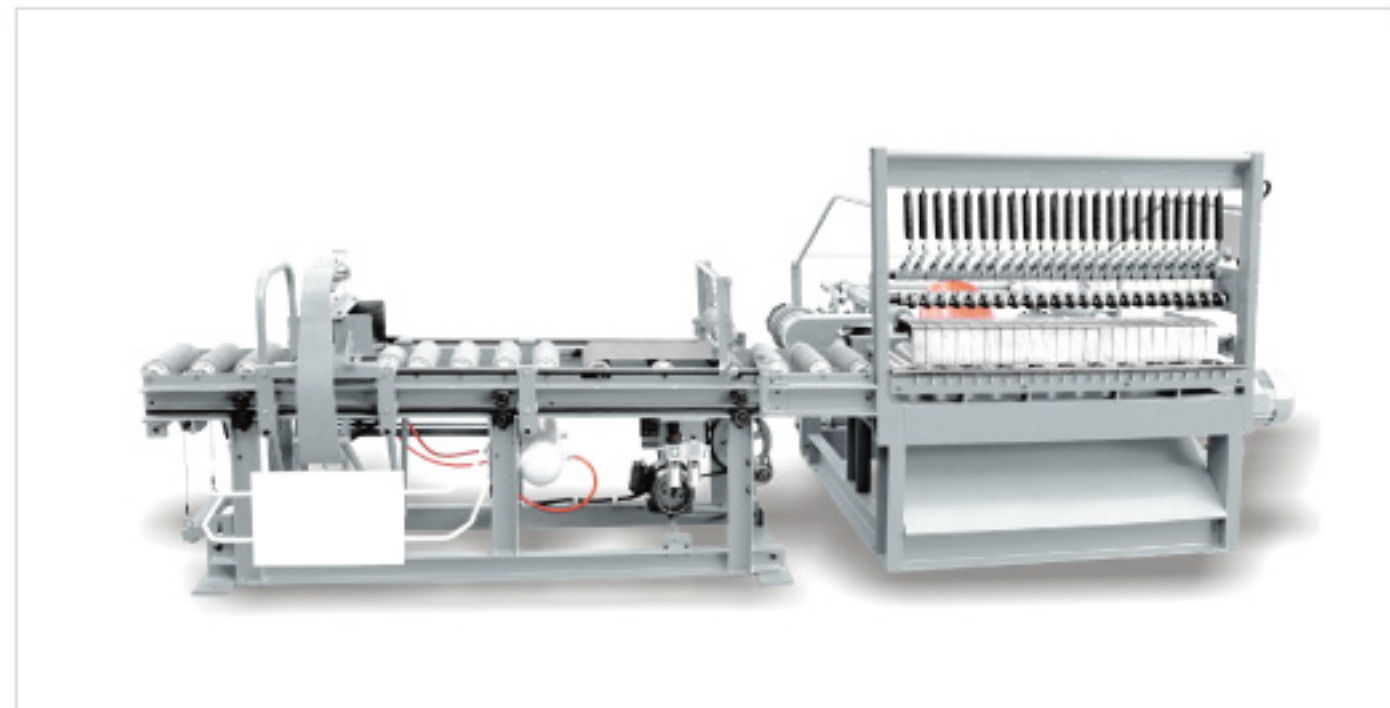
陈化仓多斗取料机

Multi-bucket Excavator



挤出机

Extruding Machine



切坯切条机

Brick Cutting Machine

## 自动码坯系统

### Automatic Stacking System


全自动码坯系统由分坯、翻坯、编组、码坯等部分组成。该设备设计先进，加工精良，自动化程度高。

The automatic stacking system consists of green brick separating, overturning, marshalling and stacking parts. This machine is of advanced design, excellent processing and high automatic degree.



自动卸坯系统  
Automatic Unloading System





合作共赢

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COOPERATION  
WIN-WIN











许多客户习惯于专注成型系统，尤其是该系统上的砖机，切运设备等机械设备，其实这是一个误区。ibrick建议您，确定好原料、产品规格及产量规模，根据原料与产品选择合适的生产工艺，从而确定出适合的干燥方式，隧道窑的配置参数也就随之而定，接下来将按照砖坯成型的技术要求确定适合的原料处理与成型工艺，那么设备的选择将会很容易。

Many of our clients are accustomed to focus on forming system, especially the forming equipment and the cutting transportation equipment. In fact, this is a misunderstanding. Ibrick kindly suggest you, confirm the raw material type, products specification and the capacity first, according to the raw material and products types then choose the suitable production process, then its dryer and firing kiln specification all need to be matched accordingly. Then according to technology requirement for the green brick to fix the raw material preparing & molding process, so the equipment choice will be easy.

多数工厂出现的技术问题，往往都不是成型系统而是热工系统尤其干燥系统的设计或是干燥方式的选择无法匹配每一个工厂特有原料的相应要求造成的。而一些大产量的工厂，根据其原料的特点，工艺路线选择、干燥方式选择与设计至关重要。

The most problems arise in the brick making factories not from the green brick molding process, but from the thermal process especially in the drying system, which drying system design or drying technology type can not match this factory's specific raw material or products specifications. For brick factories with big manufacturing capacity, according to its raw materials' characteristics, the suitable processing technology choice and its drying technology choice & design becomes more important.

亲爱的工厂主们，根据多年的行业经验，我们可以断言，如果你拥有了一套符合你自己的原料并且设计合理且严格按照设计施工的干燥室，您就拥有了一条制砖生产线上最关键的部分。

Dear factory owners, according to lots of year's experience in this field, we can say, if you have one drying chamber be suitable to your own materials and designed reasonably and be build in strictly according to the design, you already have the most critical section of a brick production

-----Jerry lee, IBRICK General Manager

