

加气混凝土生产工艺流程

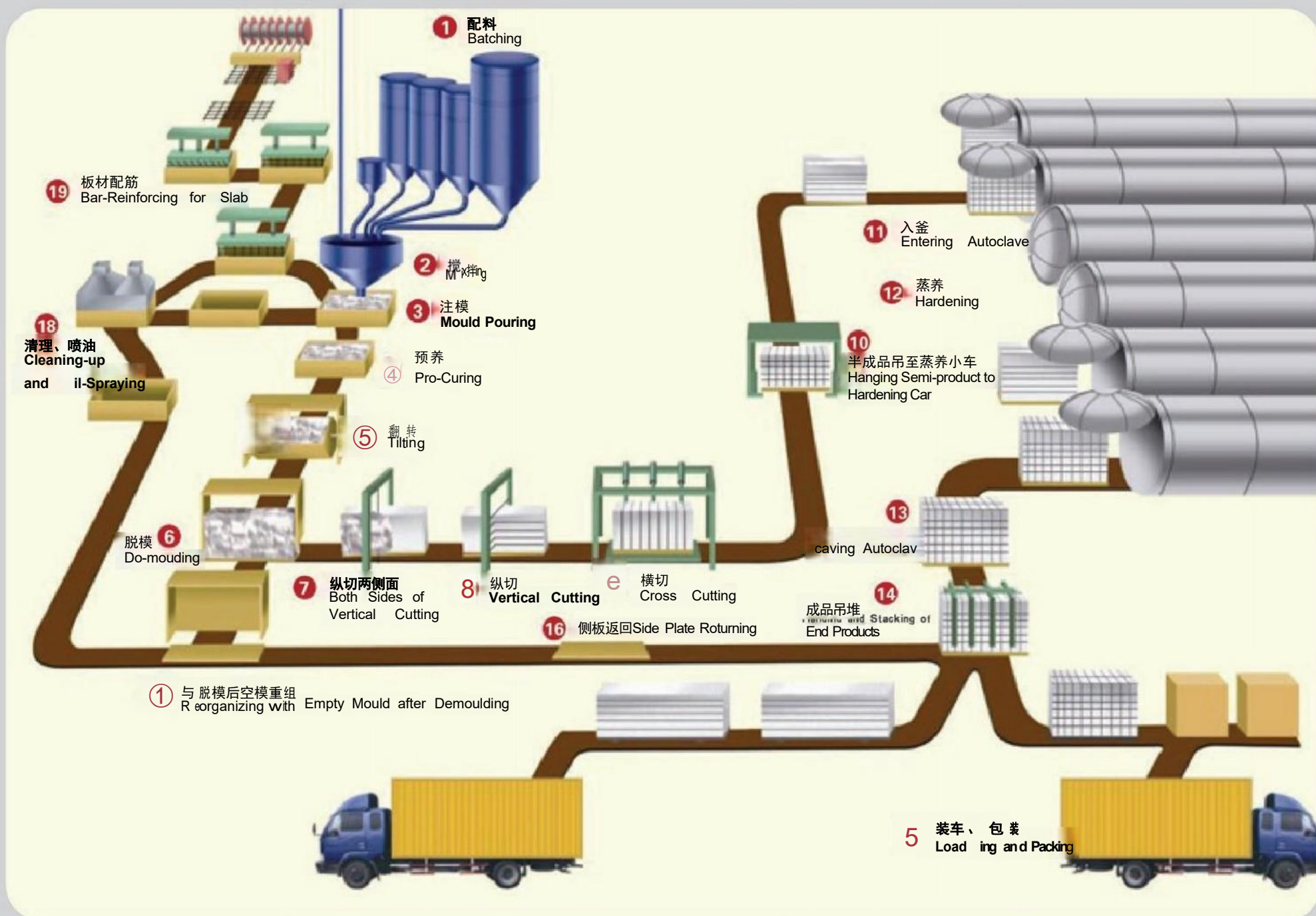
Technical Process of Aerated Concrete Production

加气混凝土生产工艺流程

Technical Process of Aerated Concrete Production

首先将储存的原材料计算配料(1)后进入浇筑搅拌机内,经搅拌(2)均匀后浇注(3)在模具内,(板材配筋(19)),经过一定温度个时间的预养(4)坯体达到一定厚度后,由翻转吊具下列功能:A把模具在空中做90度翻转(5)模具的一侧板成为支撑坯体的底板直至蒸养出成品,B吊至小车或切割支撑架上完成开模、脱模(6),C脱下的模框和返回的蒸养侧板(16)再重新组合成模具(17)等待清理后喷油(18)重新浇注。坯体在切割机上分布做六面切割:A首先进行坯体两侧面垂直切割(7),B然后进行纵向水平式切割(8),C最后进行横向垂直铡刀式切割(9)。切割好的坯体由半成品吊具连同底板吊至蒸养小车(10),然后编组入蒸压釜(11)进行高温蒸养(12),蒸养出釜(13),由成品吊具将成品堆垛(14)或装车、打包(15),蒸养侧板则返回(16)。

First of all,dosrang match stored raw materials(1)and feed them into pouring mixer,after evenly mixing(2)ther are poured (3)in the mould(to be reinforced by steel bars for slabs(19)).After procuring(4)under a certain temperature for a period of time,the blank shall havd a certain of hardness.The mould and the blank shall be then hanged to fulfil following actions;a.Tilting hanger to fulfil following machinery by the Tilting the mould 90 in the air(5)(one side plate of the mould become the bottom to support the blank until end product is hardened);b.hanged to the cart or demoulding(6).and shall be ready for next pouring after cleaning and oil spraying(17) (18).The blank then be cut on the cutting machinery in six sides:a.First.two vertical sides of the blank are cut(7);b.then the horizontal cutting longitudinally(8);c.And the horizontal cross cutting or chopper-like cutting at last(9).The cut blank and the bottom are hanged by the semiproduct hanged to the hardening car(10).and are fed into the autoclave in group to be handened under high temperature(11)(12).After that,end productleaves the autoclave(13)abd is hanged by the end product hanger to be stacked or losded(14)and packed (15).The hardening plates are returned(16).



产品

Product

产品

Product

切割机

Cutting machine

蒸养加气混凝土切割机是由纵向(水平)切割机、横向切割机、液压顶升装置、切割小车及导轨五大件组成。

Autoclaved aerated concrete cutting machine is composed of longitudinal (horizontal) cutter, across cutter, hydraulic lifting device, cutting trolley and guide rail.



工作原理

Working principle

当浇注预养好的模坯在空中翻转90°吊至切割小车,脱去模框后,由第一部切割小车载运至纵切机、横切机工位对坯体进行六面切割。首由纵切机对坯体进行纵向、水平四面切割,完成后由切割车运坯体停留在横切机工位,完成后经液压顶升装置上升抬起胚体,第一部切割小车退回初始位置准备运载下一模胚体,以备切割。第二部切割小车行至横切机位置,液压顶升装置下降将坯体放至第二部切割小车上,然后由横切机对坯体进行垂直切割,切割完成后仍由第二部切割车运载坯体运行至半成品吊具下方,由半成品吊具将坯体吊到蒸养车上做预编组。切割周期约4.5min。

After pouring and procuring, the mould with the cake is turned 90° and lifted to the cutting trolley. After demoulding, the cake is transported by the first cutting trolley to the longitudinal cutter and cross cutter for six faces cutting. The longitudinal cutter cuts the cake on four faces in longitudinal direction and horizontal direction. Then the cake is moved by the cutting trolley to the cross cutting station for vertical cutting. The hydraulic lifting device lifts the cake and the first cutting trolley returns back to the initial position to carry the next cake. At the same time, the second trolley moves to the position under the across cutter, the hydraulic lifting device puts the cake on the second trolley and the across cutter cuts the cake in vertical direction. After cutting, the cake is transported by the second trolley to the position under the loading frame which transports the cake onto the hardening trolley for grouping. The cutting period is about 4.5min.

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产品
Product

掰板机

Separating machine

掰板机是代替人力将蒸养完成的砌块层层分离开的设备

Separating machine, replacing human effort, is used to separate the blocks layer by layer after autoclaving



液压成品夹具

Hydraulic finished products clamp

液压成品夹具是一种将蒸养完成的砌块吊至成品堆放区的专用夹具

Hydraulic finished products clamp is one kind of special fixture for lifting the blocks to the stacking area.



切割输送装置



码垛输送装置

Grouping transporter



自动配料计量系统

Automatic batching and metering system

自动电子料浆计量系统

Automatic electronic slurry metering system

自动电子料浆计量系统是料浆进行浇注搅拌前称重用的专用计量容器

Automatic electronic slurry metering system is a special weighing vessel for slurry before mixing.

自动电子粉料计量系统

Automatic electronic powder metering system

自动电子料浆计量系统是粉料(如石灰粉料, 水泥粉料等)进行浇注搅拌前称重用的专用计量容器

Automatic electronic powder metering system is a special weighing vessel for powder (such as lime powder, cement powder, etc.) before mixing.

自动电子铝粉计量系统

Automatic electronic aluminum powder metering system

自动电子铝粉计量系统是铝粉液进行浇注搅拌前称重用的专用计量容器

Automatic electronic aluminum powder metering system is a special weighing vessel for aluminum liquid before mixing.



PLC

加气混凝土配料系统是由名杰专为加气混凝土生产线设计研制的自动控制系统, 其操作简单、智能化程度高且性能稳定可靠。

Autoclaved aerated concrete batching system is the automatic control system designed by Mingjie for autoclaved aerated concrete production line with simple operation, high intelligence degree and reliable performance.



模具和侧板

Mould and Sideplate

模具是承载浇注坯体的专用器具。料浆自浇注搅拌机内注入到模具中，经发酵护养，脱去模框，即成待切割的坯体

The mould is a special tool for carying the cake.The slurry fills into the mould from the pouring mixer, after fermenting,curing and removing the mould frame,the cake is ready for cutting.



蒸养小车

Hardeningtrolley

蒸养小车是生产过程中的专用运输车辆，其装载着切割后的坯体，进入蒸压釜蒸养。蒸养后，将成品运送至成品场地。成品被吊卸后，蒸养车再次载坯体入釜蒸养。

Hardening trolley is a special transport vehicle in production,to carry the cake after cutting into the autoclave for curing.After autoclaving,the trolley carries the block to the finished product yard.After finished product unloading,the trolley carries the cake into the autoclave again.



蒸压釜

Autoclave

蒸压釜主要性能参数表

Performance and dimension of autoclaves

序号No	名称Name	单位Unit	型号规格与参数Type and Specifications				
			Φ2.0×L	Φ2.05×L	Φ2.5×L	Φ2.68×L	Φ2.85×L
1	釜体内径 innerm diameter	M	2	2.05	2.5	2.68	2.85
2	有效长度 effective length	L:根据用户要求According to client's requirements					
3	设计压力 designed pressure	Mpa	1.6	1.6	1.6	1.6	1.6
4	设计温度 designed temperature	℃	204	204	204	204	204
5	工作压力 working pressure	Mpa	1.5	1.5	1.5	1.5	1.5
6	工作温度 working temperature	℃	201	201	201	201	201
7	介质 medium	/	饱和蒸汽及冷凝水Saturated Steam and Condensed water				
8	釜内轨距 rail distance	Mm	L:根据用户要求According to client's requirements				
9	开门方式 mode of opening	手动侧开门或上开门，电动侧开门或上开门，气动液压侧开门或上开门 Manual opening,Electric opening,Pneumatic hydraulic opening					
10	外形尺寸 overall openings (L×w×h)	m. m. m	L+1.3×2.8 ×3.34	L+1.3×2.8 ×3.34	L+1.5×3.4 ×4.0	L+1.6×385 ×4.3	L+1.7×3.5 ×4.5



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料浆搅拌机
Slurry mixer

翻转台
Tilting table

摆渡车
Ferry trolley

自动堆垛机
Automatic stacking machine

诚信立业服务至上
以为人本合作共赢

