

$\text{CaCO}_3 \xrightarrow{\text{high temperature}} \text{CaO} + \text{CO}_2 \uparrow$



NEW

type active lime production line
recover all the investment in 8-10 months

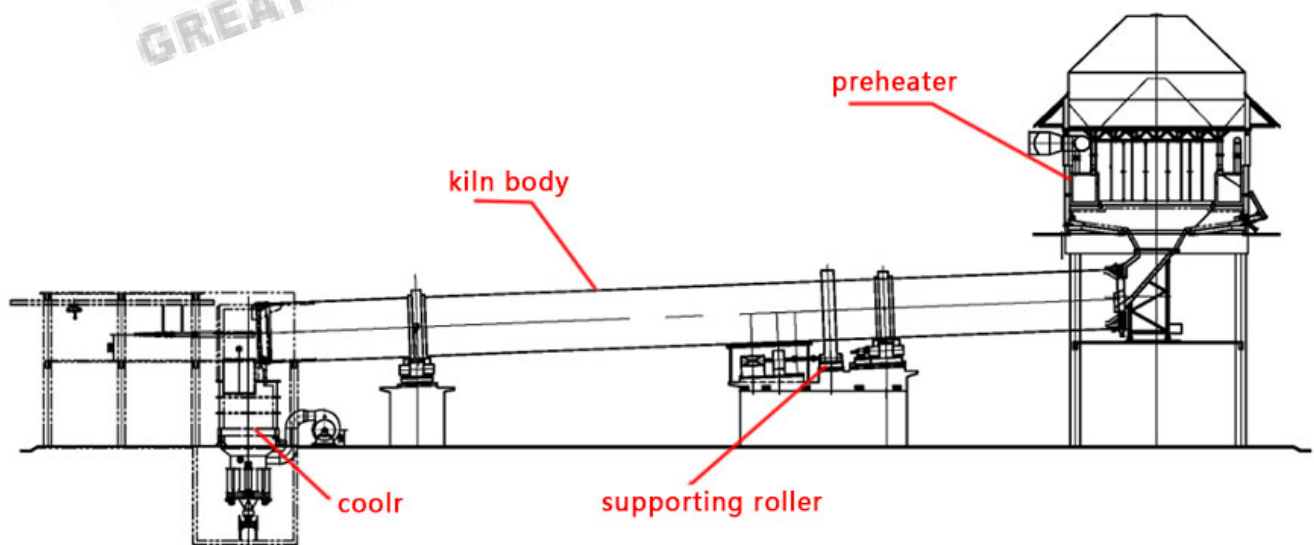
Xinxiang Great Wall
—China association of lime recommended brand

- ★ Activity is as high as 400ml
- ★ The largest production line with capacity of 1500 tons
- ★ Auto-control by using DCS remote control system, only need 2-3 operating personnel in the whole line
- ★ Areas of application: steel, calcium carbide, coking, and alumina

01/ New Type of Lime Kiln Tendency

Due to the temptation of 20% growth of lime demand for calcium carbide, steel industry, a lot of kilns are put into use in the market. But the production technology and product quality can't meet the need of modern production; the activity degree of product is low, mild and excessive calcination cannot be controlled give rise to fuel consumption and serious environmental pollution.

As a result, **the new environmental protection lime kiln** is sure to replace the original old lime kiln.



Xinxiang Great Wall New Type Lime Kiln

Xinxiang Great Wall lime kiln advantage

Rotary kiln mainly consist of feeding system preheating calcination system, cooling system, finished product storage systems, exhaust gas treatment system, pulverized coal preparation system and air compressor system.

01 activity is higher than the traditional shaft kiln 30ml

The material heated evenly in the revolving lime kiln, the probability of mild and excessive calcination is low. The lime activity degrees produce by lime rotary kiln is higher than the shaft kiln.

02 Production capacity reach up to 1500 t/d

The lime kilns produced by Great Wall Machinery have large capacity, the output can reach to 1500t/d, operating well to guarantee enterprise up-scaling and reduce the production cost.

03 Gas fuel, energy saving and environmental protection

Great Wall lime kiln belongs to open type calcine equipment, advanced manufacturing technique, lower energy consumption than the old lime kiln calcine system, more environmental protection for adopts the exhaust blast furnace gas.

04 Auto-control reduce the labor cost

Auto-control by using DCS remote control system, only need 2-3 operating personnel in the whole line.

05 Good quality of finished products, low probability of mild and excessive calcination

Product quality is uniform, the probability of mild and excessive calcination less than 8%.

Comparison of Lime Kilns on The Market

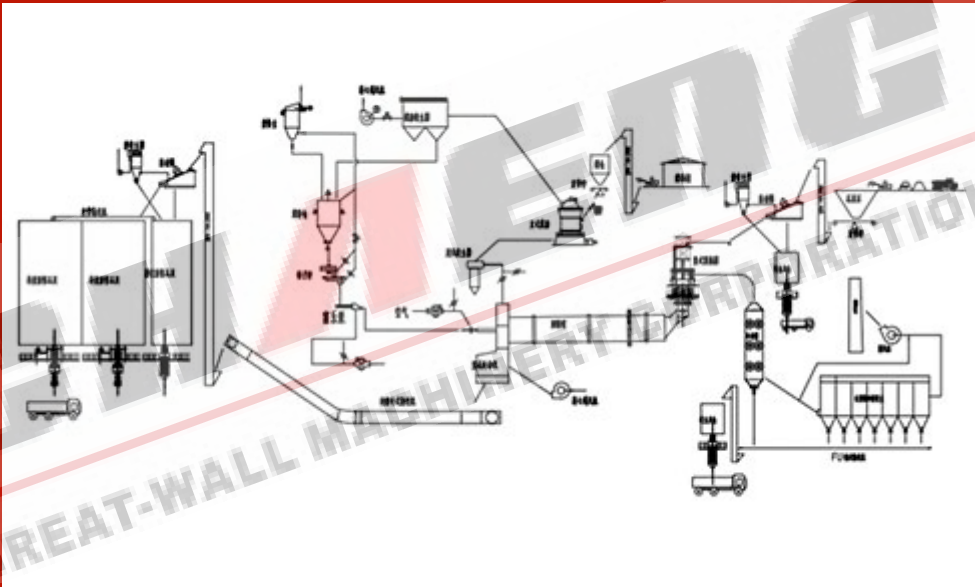
Kiln type Parameter	Great Wall kilns	shaft kilns	earth kilns
Capacity (t/d)	200-1200	50-300	10-70
Raw material granularity	15-50mm	40-80mm	70-250mm
Standard coal consumption	≥180kg/t	120-145kg/t	200-300kg/t
Lime activity	330-400ml(he	260-300ml(he	200-240ml(he

	influence of fuel ash and sulfur content increase on lime activity is not obvious)	increase of fuel ash and sulfur content significantly reduce lime activity)	increase of fuel ash and sulfur content significantly reduce lime activity)
Ignition loss	less than 5%	about 10%	20%

02 / Active Lime Production Line System

Solemn commitment

Great Wall Machinery can supply 200-1500t/d active lime production line EPC, the one stop "turnkey" service that provide from scientific reports, design, equipment, construction, installation, commissioning, reach production targets. Welcome customers to call us:+86-371-55019608.



working principle

Qualified limestone particles(20-50mm) be ascended by the hoist and transported into stock bin at the top of the preheater. Stock bin feeding amount be controlled by the up and down two material level meters. Material distributed by tremie pipe to all indoor in preheater. The limestone was heated to about 900℃ by kiln flue gas with temperature in 1150℃ in preheater, about 30% was decomposed and pushed by the hydraulic rod into the rotary kiln. The limestone was decomposed into CaO and CO2 and discharged out of the cooler after cooled to below 100℃ by blowing cold air. The hot air with temperature in 600℃ after the heat exchange enter into the kiln and mixed firing with coal gas.

Related equipment

03 / Customer Site

04 / Technical Parameters



Capacity: 1000t/d

Project Address: Guangxi

Host Model: $\phi 4.0 \times 60\text{m}$ lime kiln

Customer Feedback: Customer is satisfied with us that Great Wall rotary kiln has a significant contribution for the whole line of lime production.

CAPACITY(t/d)		200	300	400	600	800
PRODUCTS(t/d)		active lime	active lime	active lime	active lime	active lime
PREHEATER	specification	RS-6.5×3.4	RS-6.5×3.4	RS-6.5×3.4	RS-6.5×3.4	RS-6.5×3.4
	pushrod number	6	8	10	12	14
ROTARY KILN	specification	$\Phi 2.8 \times 42\text{M}$	$\Phi 3.3 \times 50\text{M}$	$\Phi 3.6 \times 56\text{M}$	$\Phi 4 \times 60\text{M}$	$\Phi 4.5 \times 70\text{M}$
	effective volume(m^3)	190	292	430	575	720
	rotate speed(r/min)	0.45-2.22	0.2-1.9	0.22-1.57	0.48-1.57	0.2-1.57
COOLER	specification	LS-3×3	LS-3.6×3.6	LS-3.8×3.8	LS-4.1×4.1	LS-4.5×4.5
	feed temperature	$1100 \pm 50^\circ\text{C}$	$1100 \pm 50^\circ\text{C}$	$1100 \pm 50^\circ\text{C}$	$1100 \pm 50^\circ\text{C}$	$1100 \pm 50^\circ\text{C}$
	discharge temperature	$< 100^\circ\text{C}$	$< 100^\circ\text{C}$	$< 100^\circ\text{C}$	$< 100^\circ\text{C}$	$< 100^\circ\text{C}$
SYSTEM THERMAL CONSUMPTION(kj/kg lime)		5200	5200	5100	5000	5000
ACTIVITY DEGREE (50g, 4NHCL, 10MIN)		$\geq 360\text{ML}$	$\geq 360\text{ML}$	$\geq 360\text{ML}$	$\geq 360\text{ML}$	$\geq 360\text{ML}$

Relevant Recommendation



lime solution



Coal mill

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manufacturer of ...

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CHAENG
GREAT-WALL MACHINERY CORPORATION

Address	Mengzhuang Town, Huixian City, Henan Province, China
Zip Code	453600
Telephone	86-371-55019878
WhatsApp	+8613071023171
Fax	86-371-55019608
E-mail	vip@chaeng.co
Skype	GreatWall1958