



武汉建筑材料工业设计研究院有限公司

Wuhan Building Material Industry Design & Research Institute Co.,Ltd.

SINOMA WUHAN

**BEST CHOICE OF
FCB MACHINE AND SERVICES**



中国建材

01

Company Introduction

Part I: Company Profile——CNBM

China National Building Material Group Co., Ltd.
(CNBM) was listed on *Fortune Global 500* for
13 consecutive years

Ranked 247th



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The World's largest building material manufacturer

CNBM

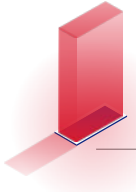
SINOMA WUHAN——Company Profile



Wuhan Building Materials Industry Design and Research Institute Co., Ltd.

Established in 1965, It is an engineering technology company specialized in engineering technology consulting, engineering design, equipment manufacturing and EPC of new building materials, energy conservation and environmental protection business.





Company Profile——Company Scale



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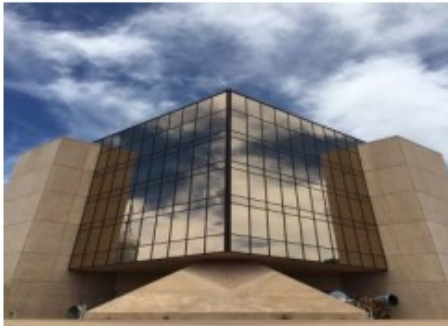
The company operates a machinery and electrical equipment manufacturing facility encompassing an area of 75,000m².

The factory covers an area of 20,000 m².

An expansive outdoor operational area exceeding 10,000 m², equipped with vehicular mobility infrastructure.



Core Strength



Over 200
Engineers



high-tech
laboratory



Technology
Partnership with
top universities



Fully Capacity
Test Line

Highest R&D Capabilities &
Technical Support





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02

Introduction of FCB production line

Main Business - New Materials Division

Fiber Cement Board/Calcium Silicate Board
Production Line





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04

Core Strength

Core Strength

Flow-on sheet forming machine

Flow-on process is one of the techniques to form the fiber cement sheet. Flow-on process is suitable for producing high quality boards.



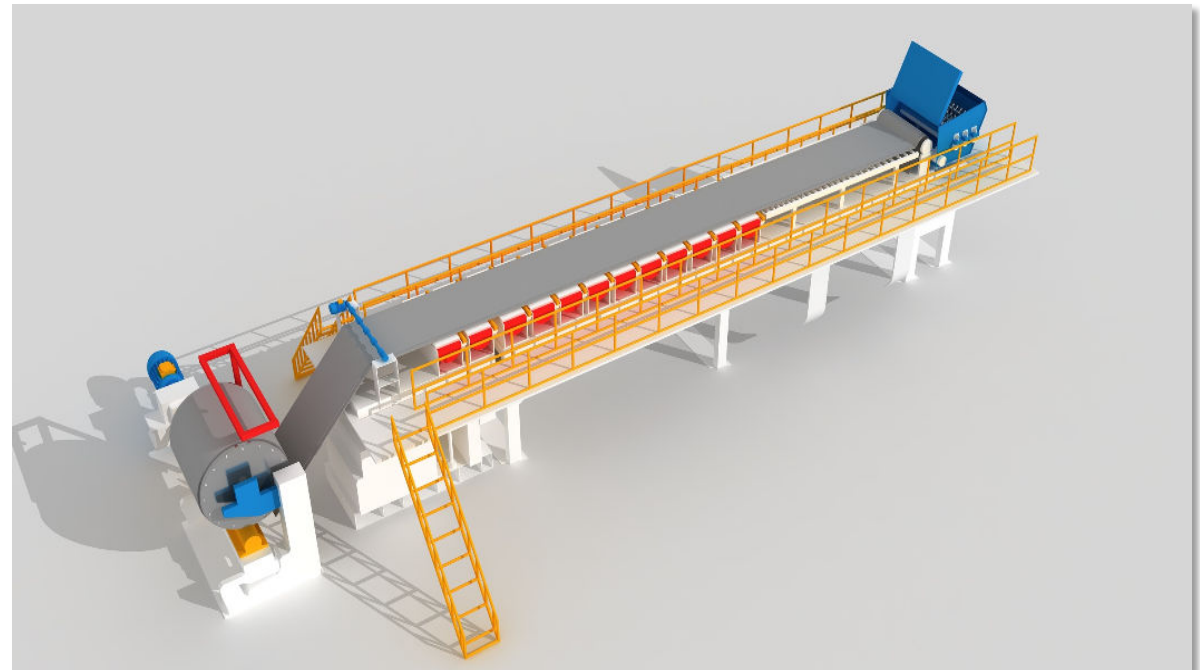
Ensures the smoothness of surface and homogeneity of thickness.



New type vacuum cage without dead corner, which avoid scaling problem.



Parallelism adjustment is adopted for the rollers. Felt tensioning and alignment devices are automatic.



Core Strength

Hatschek sheet forming machine

Hatschek process is a method of forming fiber cement board, characterized by its high single line output and low slurry concentration.



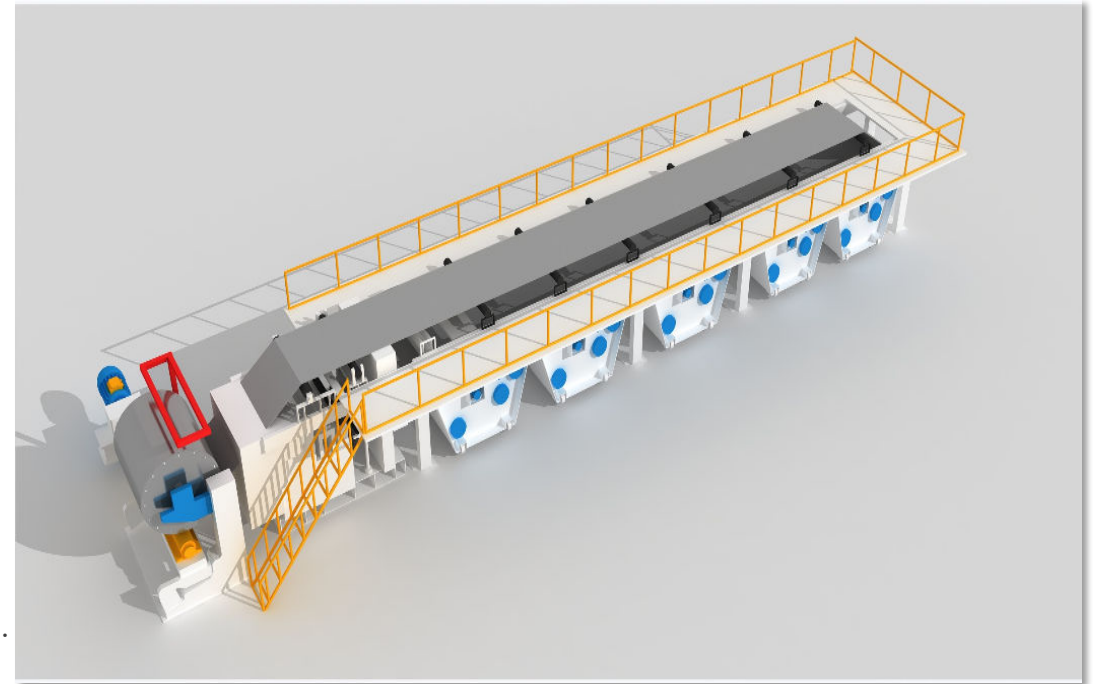
Advanced material level and concentration control system ensure required less recycled water and provide higher efficiency.



Comprehensive machining processes, precision mixing operations, and sophisticated dynamic equilibrium testing of the vat ensure dimensional accuracy across all critical production parameters.



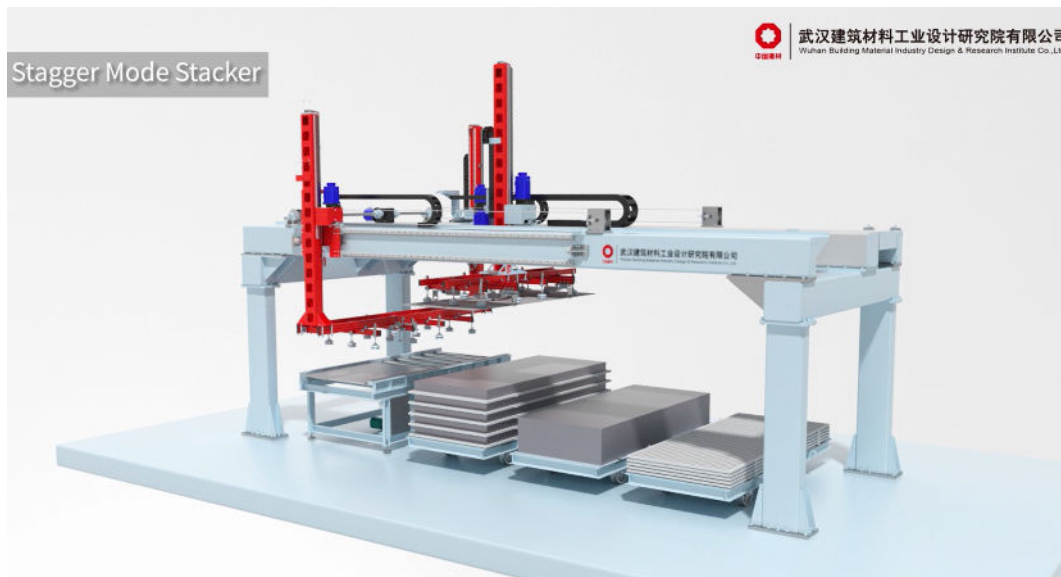
Parallelism adjustment is applied for the mesh cylinder and rollers. Felt tensioning and alignment devices are automatic.



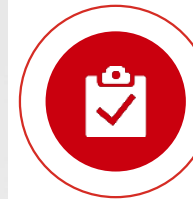
Core Strength

Stagger Mode Stacker

The main function is to transfer the green sheet (or template) of the previous section from one position to another, by the negative /normal pressure of the inner suction cup.



**Strong suitability &
Fast transmission speed**

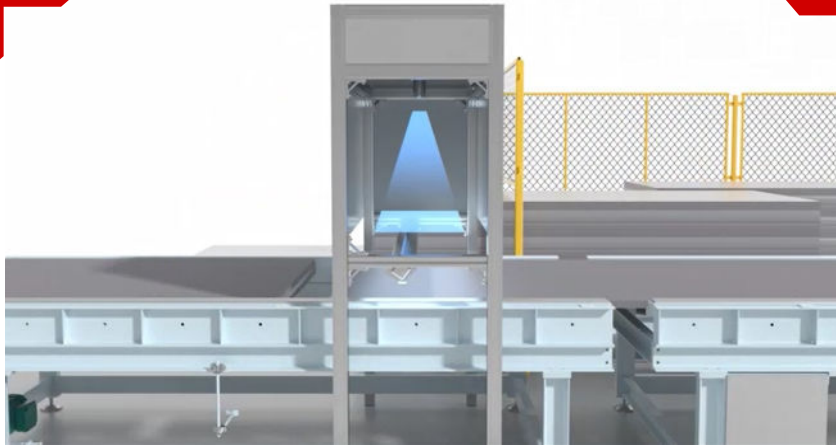


**Stable operation &
Accurate positioning**



Automatic & Easy to maintain

Intelligent Applications



Accurate thickness measurement, along with a strong ability to identify chipped corners, deteriorated edges, color variations and dark cracks on the surface of the plate



Intelligence

High production efficiency and safety, easy management and significant economic benefits



Optimized User Experience

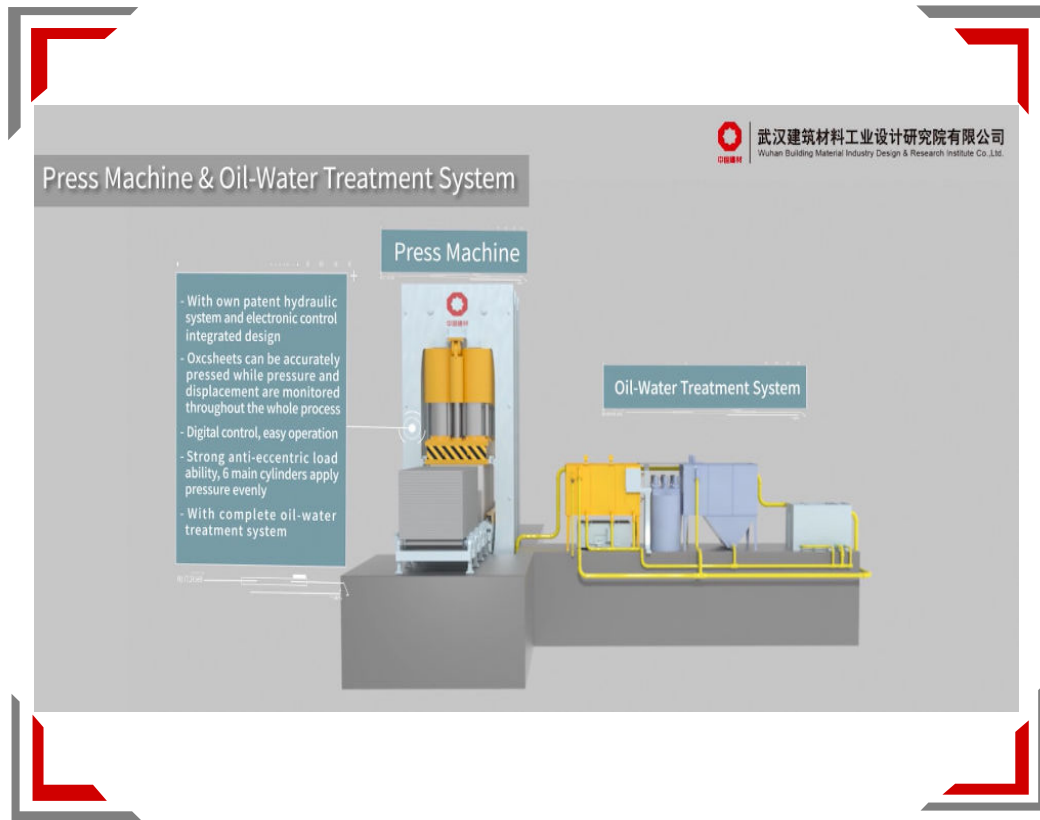
A compact design for less area occupation and easier operation

Sticky Boards Loosen Machine



- ◆ A complete solution for addressing the issue of stuck boards during destacking after autoclaving.
- ◆ After autoclaving, each cart is transported to the push-type transfer machine. The curing pads are stacked separately. Each small stack of boards from each layer is transferred as a whole onto the subsequent roller conveyor through a pushing mechanism. The roller conveyor then transports each small stack of boards to the board separator. The board separator performs a series of separation actions to solve the sticking problem between each board within the stack. Subsequently, during the destacking process, no manual intervention is required, enabling automation.

The Press Machine



- ◆ Our institute offers advanced and mature press systems with capacities of 5000t, 7000t, 10,000t, and 14,000t.
- ◆ The hydraulic pump is driven by a variable frequency drive, allowing adjustment of pressing speed according to product process requirements, which is more energy-efficient. The main cylinder has a double-support guide structure, with 6 main cylinders applying pressure evenly, providing strong resistance to eccentric loads. It features our proprietary patented integrated hydraulic system and electrical control design, monitoring pressure and displacement throughout the process for precise slab pressing. Digital control makes operation simple.
- ◆ Multiple pressing modes are available, such as single-stack pressing and double-stack pressing. In the double-stack pressing mode, the press integrates a crane function, enabling stacking and splitting of board stacks within the press itself.

Recycling of residual steam from autoclave



- ◆ The recoverable residual steam heat from the autoclave accounts for 25-30% of the input steam heat, saving steam consumption costs
- ◆ After passing through this system, the residual steam liquefies into water, which can reduce odor emissions
- ◆ This system has a high level of integration, is easy to install, and occupies approximately 80 square meters

Intelligent Applications



■ Leveraging a digital platform, integrate all production and operations-related system data from the production line into a centralized data hub, enabling advanced data analytics and real-time management of production and operational processes.

Equipment Management & Operations

①

Operation Status, Health Status
Billing management

③

Integrated database management,
Dynamic control of the production line

⑤

Order information, shipment schedule
production planning, production traceability

Energy Consumption Analysis

②

Energy Consumption Overview,
Comparative Analysis of Sub-analysis,
Energy Saving Analysis

Inventory Management

④

Inventory management
redeployment management

Wordwide Achievement——Partner



Worldwide Achievement



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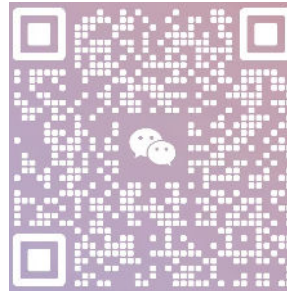
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Line



WeChat



Appreciate your time and attention