Welcome to Wehrhahn

IIBCC 2024 – Colombo

19 November 2024

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About us

Wehrhahn – the leading supplier for machines and technology.

High-performance production plants for the building material industry.

More than 250 plants supplied globally!

History

1892
Establishment by Heinrich Wehrhahn in Delmenhorst

1936
First production line for **fibre cement sheets**

1970
Wehrhahn produces the first **AAC block** plant

Raw material preparation / Storage / Dosing and mixing plants

Self-adjusting and accurate

- Sand grinding
- Cellulose refining
- Microsilica handling
- WECOMIX recipe calculation

Sheet production

3 – 6 vat machines

- Innovative internal overflow system
- Flow optimized vat design
- Smart thickness control

Waterjet cutting and stacking

Customised cutting systems

- Combined longitudinal and cross cutting for utmost flexible sheet length variation

Stacking / Destacking: Dynamic and energy-efficient

- Electro-mechanical – no hydraulics -
- Energy recovery for vertical and longitudinal movements

Sheet compressing

Single sheet and stack presses

Quality boost for

- Corrugated roofing sheets
- HD and MD flat sheets

Automatic trolley transport and autoclaving

Automatic transport systems

- Transfer cars, loading machines and trolley changing devices

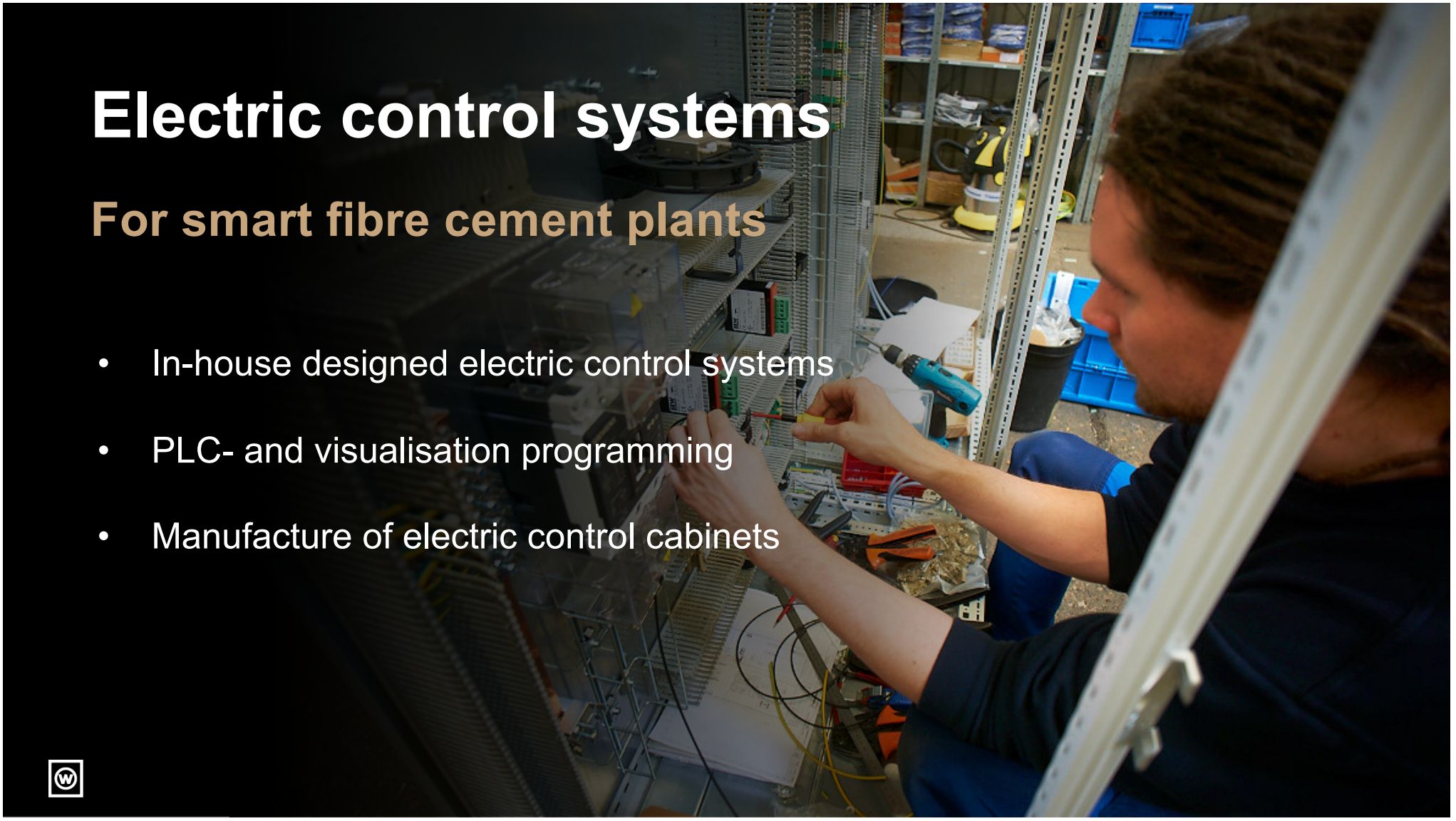
Wehrhahn Autoclave Control

- Hardware
- Smart control: WACO
- Energy saving and recovery system

Electric control systems

For smart fibre cement plants

- In-house designed electric control systems
- PLC- and visualisation programming
- Manufacture of electric control cabinets



MCS Master Control Server

The process data acquisition system

- Collects and stores all relevant process data
- Provides all relevant process Information on dashboards
- Individual automation modules (WECOMIX, WACO, EnMS, SIA, TIS)


A frequently asked question…
How to reduce carbon emissions
in the production process
of fibre cement sheets?

Fibre cement carbon emissions

Some figures to think about…

	unit	GWP / m^{2*}	GWP / t
CCA (autoclaved)	Kg CO_2e	11	900
CC (air-cured)	Kg CO_2e	16	1.170

*: Swisspearl EPD declaration for 8mm sheet thickness
(from cradle to finished product in the factory)

Main sources for process emissions

Cement and Fibres	75%
Electric power	5%

Carbon footprint of the equipment

Some figures to think about…

Carbon footprint of equipment for one plant

Steel, manufacturing, transport	CO_2e	**2.000 t**

Carbon emissions during plant operation @ 200 t / day

Production day

1….	CO_2e	200 t
….4….	CO_2e	800 t
….10	CO_2e	**2.000 t**

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Fibre cement carbon emissions

Action list to reduce CO_2e…

- **Alternative raw materials**
  CO_2 reduced cement
- **Green steel**
- **PLC: Plant Life Cycle**
- **Reduction in electricity consumption (- (20-25%))**
- **Intelligent autoclaving solutions (- (30%))**
  WACO control system and heat recovery system

Fibre cement carbon emissions

Action list to reduce CO_2e

- **Process optimization**
  Accurate sheet thickness control system

Please do not miss the presentation:

Rainer Becker:
„Sheet thickness control system optimization through mathematical modelling and self-learning pump maps“

Thursday at 14:00 right after the lunch break!

Visit us in our new office

≅ 3.500 m² building including laboratory and technical center


Why just talking about the best plant in the world?
WE
build it!
www.wehrhahn.de