

Factory filling

Plant technology for the prefabrication of frame elements

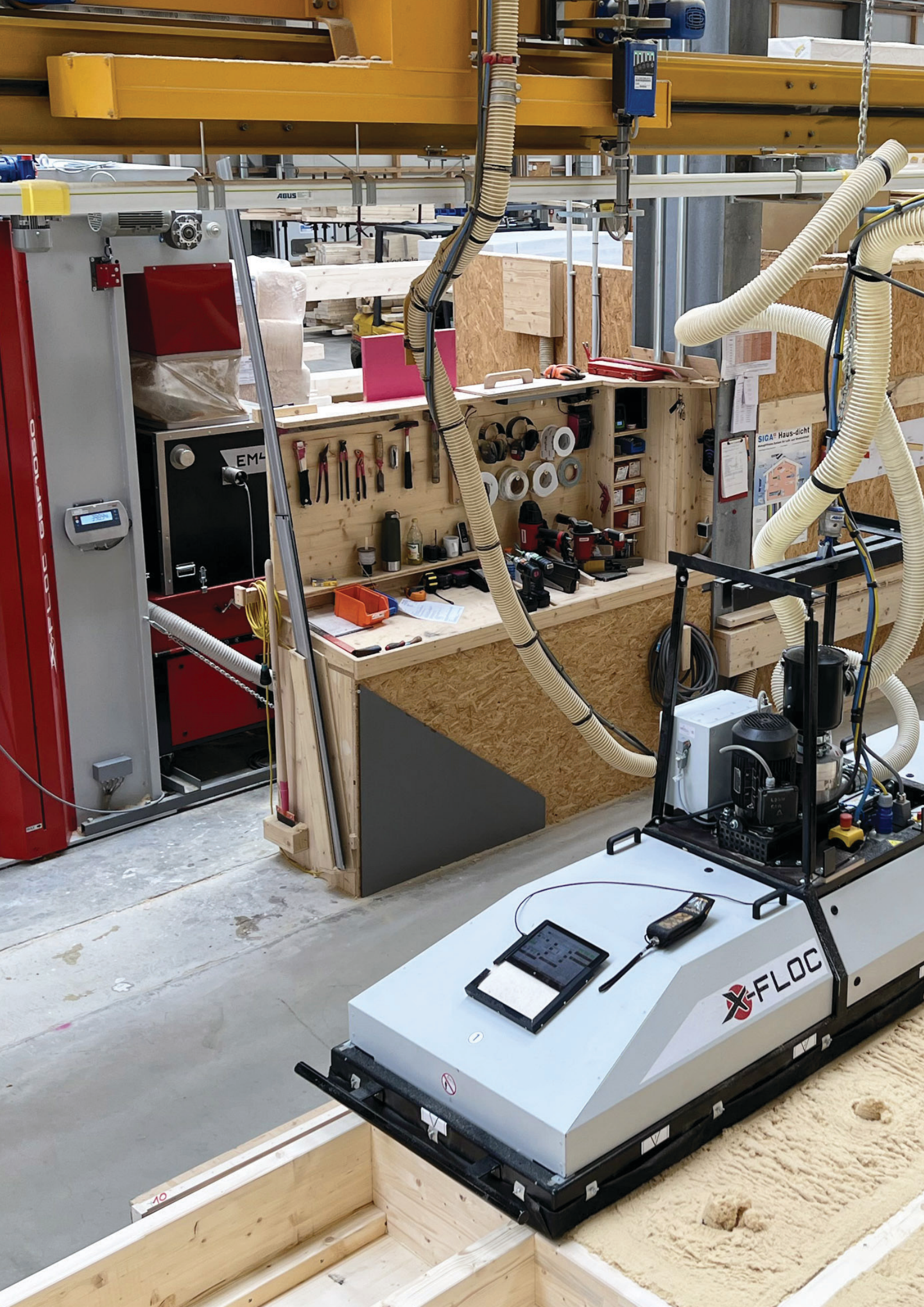


Factory filling

Modular plant technology based on

- ▶ the injection panel EP800
- ▶ the bale conditioning machine GBF1050
- ▶ and an insulation blow-in machine of the EM400 series





Factory filling

Factory element production not only offers great advantages for timber construction companies as well as prefabricated and eco house manufacturers in terms of economic efficiency with consistently high quality.

For reasons of cost and value, manufacturers of timber frame elements, (prefabricated) houses and carpentry companies are increasingly opting for the use of loose insulation materials and industrial filling technology.

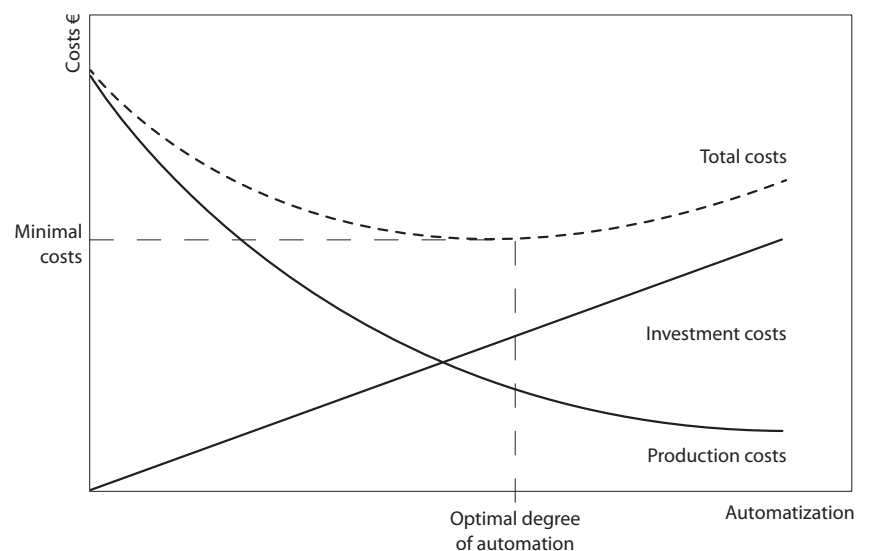
With the modular X-Floc factory filling system - consisting of the GBR1050 bale conditioning machine, an EM400 series insulation blow-in machine (e.g. EM430) and the EP800 injection panel - the best insulation results can be achieved at minimal cost.

The high degree of automation and the consistently high processing quality enable an optimal use of resources and give the products industrial quality.

The X-Floc factory filling systems can be adapted to individual customer requirements and can therefore be integrated both in small-scale operations and in a fully automated production line.

The most important advantages at a glance:

- ▶ Industrial and homogeneous manufacturing processes
- ▶ Efficient installation due to automation
- ▶ Modular and scalable technology
- ▶ Compatibility with different loose insulation materials
- ▶ High quality and very good price-performance ratio
- ▶ Better management of material stocks
- ▶ Possibility to control the blown quantities



Factory filling

Injection panel EP800

In the basic version, the EP800 injection plate has five large injection nozzles and four pneumatically driven material diverter valves (ø 3 inches). Depending on the material used and the desired density, the system enables throughput rates of well over 1 tonne per hour.

The height of the injection nozzles can be adjusted by several centimetres to achieve an optimal injection pattern for each insulation material used. The material diverter valves can be supplied with compressed air either at the factory or from an air compressor integrated into the injection panel.



Bale conditioning machine GBF1050

The almost uninterrupted filling of the blow-in machine with insulation material is ensured by the GBF1050 bale conditioning machine.

So-called big bales are used for this purpose, which can be fed to the GBF1050 by means of a lift truck, forklift or conveyor belt. Depending on the manufacturer, such delivery bales consist of compressed insulation blocks of corresponding size or loosely stacked, unpacked standard bales.

The milling unit, consisting of 18 milling knives, breaks up the big bale layer by layer and feeds the pre-loosened material to the blowing machine. The logical control system and the numerous sensors used on the GBF1050 and the blowing machine ensure almost uninterrupted material transport.



Insulation blow-in machine f. ex. EM430

Consistently high material throughput is achieved by using proven material shredding units and powerful turbine technology. This makes the EM430 the first choice in factory filling. Its two-stage agitator, consisting of four rotating shredding shafts and two chaff spindles, optimally prepares each loose insulation material for pneumatic conveying and professional installation.

The large rotary airlock conveys the loosened material into the air flow of the five-stage high-performance turbine, which provides the necessary material acceleration and conveyance.

All functions and parameters of the injection machine required for a successful injection process can, of course, be taken over by the control system of the factory filling system. Manual intervention is no longer necessary.



Injection panel EP800

Die Einblasplatte EP800 sowie die übrigen Maschinen in einem Werksbefüllungssystem werden von einer hochwertigen Industriesteuerung mit entsprechender Software „Made in Germany“ gesteuert.

After placing the panel on the unplanked element on one side, only the dimensions (length, width, height) and the type of material used need to be entered to start the blow-in process. The programme used and the signal evaluation of the connected measuring sensors ensure that the injection panel or the system is switched off at the right time. For archiving purposes and for proof of quality, all settings and results used during the blow-in process (e.g. the mass of insulation material placed in the element) are recorded in detail.

Due to its own weight and a replaceable filter foam cover, the injection plate seals the element, which is open on one side, during the blow-in process. The solid steel construction with steel sheed cladding gives the blowing plate the necessary robustness to ensure the reliability required in daily use.

The EP800 injection panel is operated via a touch screen. The injection nozzles can be activated or deactivated individually, enabling professional filling of any element geometry.

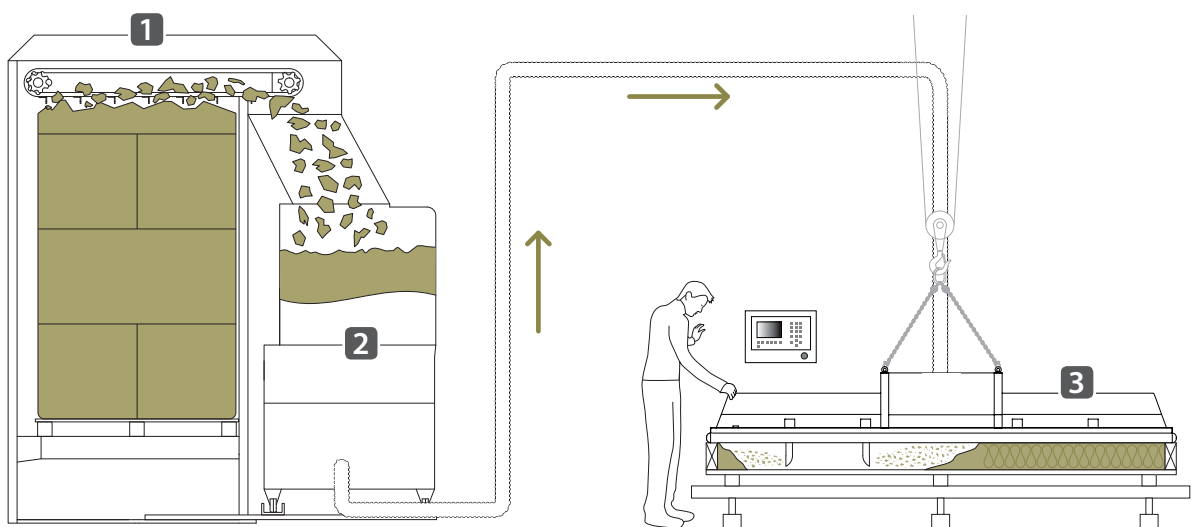
Injection panel EP800	
Dimensions	approx. 3000x900x490mm*
Weight	approx. 300kg
Electrical connection cable	230V/50Hz/10A
Number of injection nozzles	standard: 5 injection nozzles
Filling procedure	by means of 5 vertical filling nozzles, height adjustable 0-6mm
Handling	practical handle for manual guidance
Control	industrial control with matching software, touch screen
Communication	via radio, alternatively wired
Pneumatic supply	via integrated compact air compressor (alternatively external)
Material compatibility	insulation material based on cellulose, wood fibre, mineral fibre, rock wool and similar
Options	quality assurance with load cells handling system LAN-to-LAN industry router line laser module
Processing capacity	300-1000kg/h depending on insulation material and application

* Different dimensions on request.

Modular design

Factory filling systems are modular in design. The insulation blow-in machine is always required as the central element. This means that manual filling processes can already be carried out, e.g. with an injection lance, hoses or nozzles.

A modular extension with the GBF bale conditioning machine also allows the use of big bales. Alternatively or at the same time, the factory filling procedure can be automated with a modular extension to include an injection plate.



1 Bale conditioning machine

2 Insulation blow-in machine

3 Injection plate

Factory filling

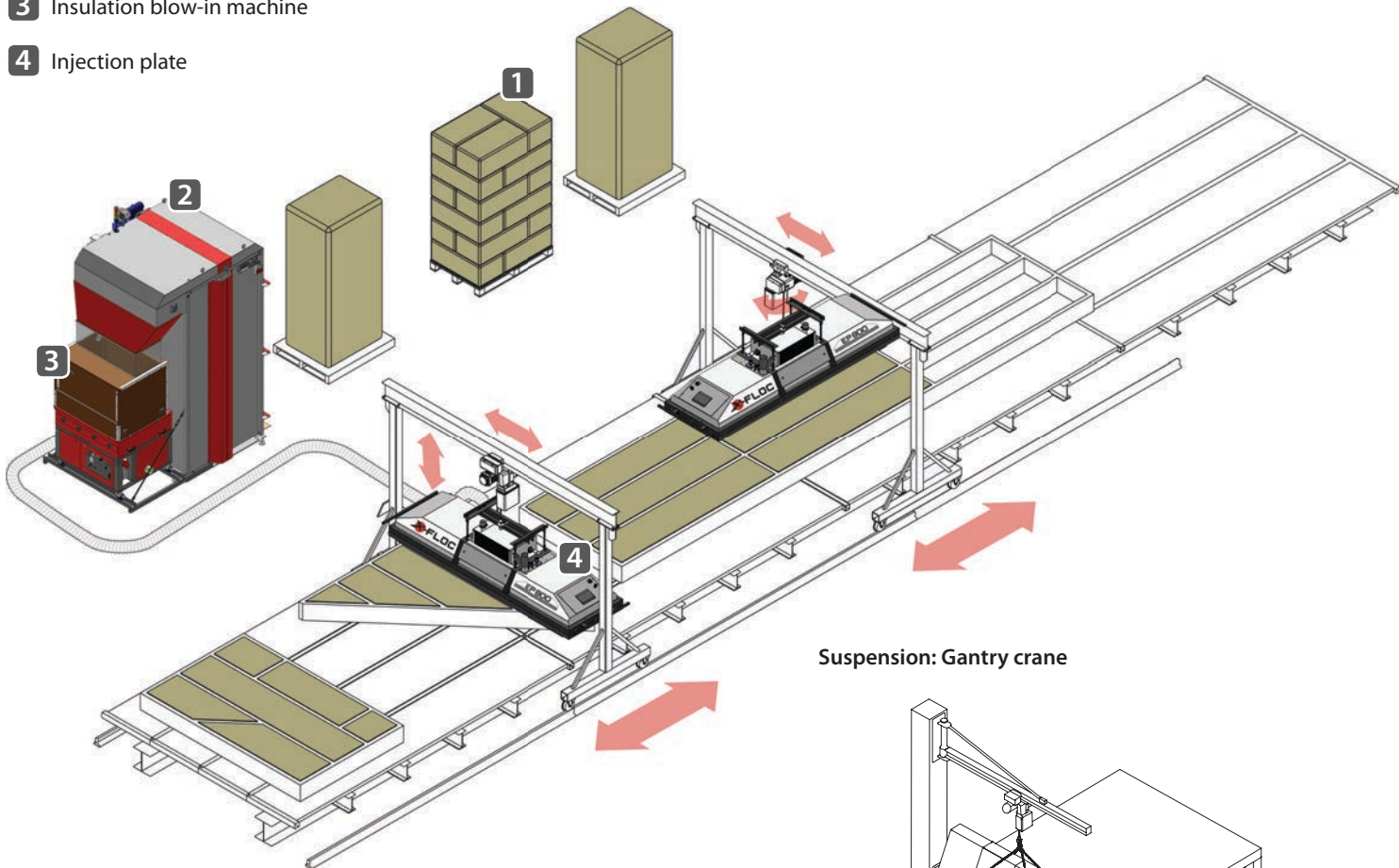
Quality with a system

The X-Floc industrial filling system is designed for new equipment as well as for integration into existing production processes, thus ensuring an optimal production flow without interruptions. The system is modular and grows with the requirements of the timber construction company.

- 1 Insulation blow-in material
- 2 Bale conditioning machine
- 3 Insulation blow-in machine
- 4 Injection plate

Open system

The factory filling systems are designed so that different blow-in insulation materials can be used. Typical product classes such as wood fibre, cellulose, glass wool and rock wool have already been tested extensively.



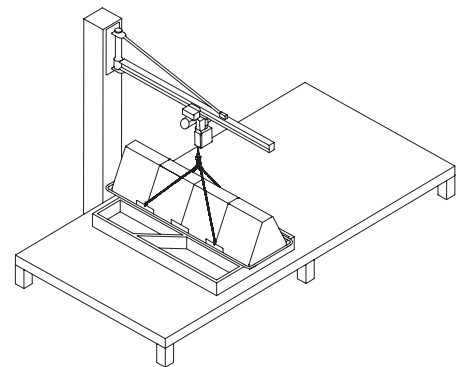
Simple operation

The entire factory filling system and also individual components are controlled centrally via a touch screen. After selecting the element geometry, insulation material and individual parameters, an automatic filling process takes place. The installation densities achieved are logged together with the parameters used.

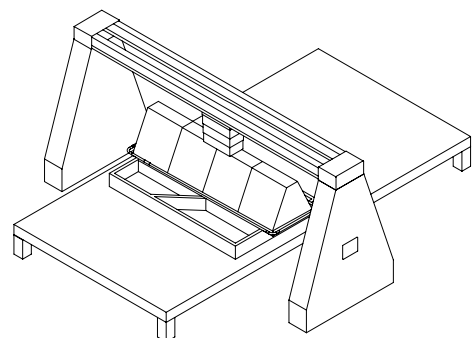
Handling technology

For further automation, it is possible to expand the handling technology. Variants with manual control of horizontal, lifting and lowering movements as well as with fully automatic positioning are possible. Talk to us about these and other equipment options, we will be happy to advise you.

Suspension: Gantry crane

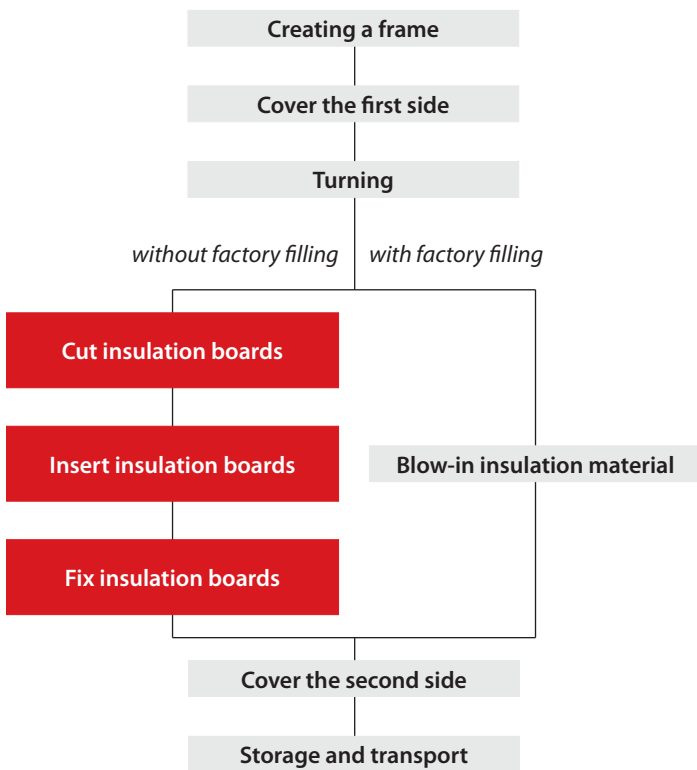


Suspension: Slewing crane



Suspension: Multifunctional bridge

Rational prefabrication of timber frame elements



Factory filling

Quality advantage through technology

Optimising individual work processes and maintaining a competitive position are major challenges for every company. With our flexible factory filling system, we put you in a position to realise high industrial quality in any size of operation. We offer you exactly the customised solution that is tailored to your requirements.

Fastest production for shorter cycle times

The X-Floc factory filling system enables an unbeatable filling performance throughout the industry. The system is easy to operate, achieves strong insulation results and allows for short cycle times with minimal manpower.

Factory filling from a single source

In every company, the work processes, the product range, the degree of automation and the cost structures are different. That's why we offer you competent and individual advice so that you can exploit the maximum benefits of the system.

Feel free to contact us for information on which modular installation technology is best for you and which of the numerous options are available to you. We will be glad to advise you.



The customer has the floor:

„The prefabrication filling plant was purchased for economic reasons. The system enables us to blow out roof and wall and floor elements quickly and without joints. In the process, all corners are completely filled. This saves time and costs, as no reworking is necessary. We are convinced of the high quality of the insulation and the great blow-in pattern. This is a quality advantage. We can no longer imagine to work without an element filling system.“

Visit one of our reference customers (address near you on request) and convince yourself of the manifold advantages of the X-Floc factory filling system.

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