

**b\_solution**  
just plan it ■

member of **binderholz** ■



**TIMBER RESIDENTIAL BUILDING FOR ALL**







# AFFORDABLE LIVING SPACE TO FEEL AT HOME IN

A renewable and, as a result, infinitely available raw material, wood is one of the oldest building materials known to mankind. And for good reason, because wood naturally fulfils many requirements of a construction material: high load-bearing capacity, predictable fire behaviour, good thermal insulation behaviour at a high heat storage capacity, sufficient solidity for good sound insulation as well as excellent diffusion properties. Wood is familiar to us. We all know the positive, natural properties of wood as a building material. The comfortable indoor climate a

wood construction provides is widely appreciated. But now more than ever, trees - entities that produce oxygen and sequester carbon - play an enormously important role in connection with one of mankind's greatest challenges: limiting global warming. Our forests are not only the 'lungs of the earth' but also the global carbon sink of our atmosphere. More use of wood in construction is active climate protection and at the same time leads to living spaces with a high feel-good factor and a comfortable indoor climate.



[www.b-solution.com](http://www.b-solution.com)

# What is **b\_solution**?

**A system building solution made of prefabricated solid wood components for multi-storey residential construction that can be individually configured.**

- ☐ **b\_solution** makes residential timber buildings accessible to all, to investors, project developers, planners and architects, construction companies and residents.
- ☐ **b\_solution** solves all wood construction-related issues in a well thought-out, technically mature, certified and fully integrated way. No specialist wood construction knowledge is required to design, plan and build with **b\_solution**, because we have solved all the details with our experts.
- ☐ **b\_solution** stands for commitment in quality, time and price due to the continuous digitisation of all processes.
- ☐ **b\_solution** can be completely dismantled. The solid wood components are reusable. At the end of its life cycle, the wood used can be ecologically recycled and thus returned to the natural CO<sub>2</sub> cycle.
- ☐ **b\_solution** is a company of the binderholz Group. 'From the tree to the mass timber solution, following the zero-waste principle' is the credo of the family-owned company **binderholz**.
- ☐ **b\_solution** is certified with the Ü or ÜA label and is a member of the DGNB.





Member of

**DGNB**

Deutsche Gesellschaft für Nachhaltiges Bauen  
German Sustainable Building Council



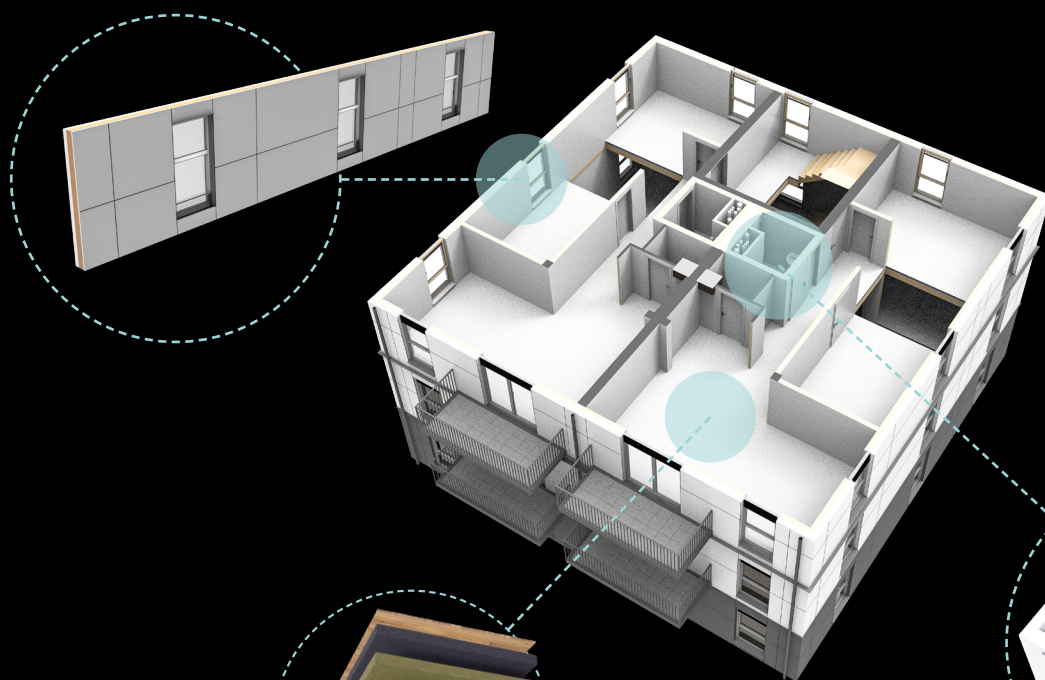


# Standard components instead of standard buildings

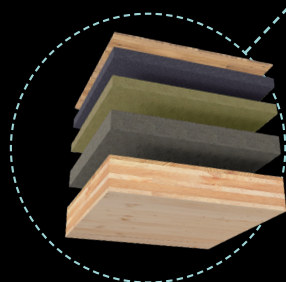
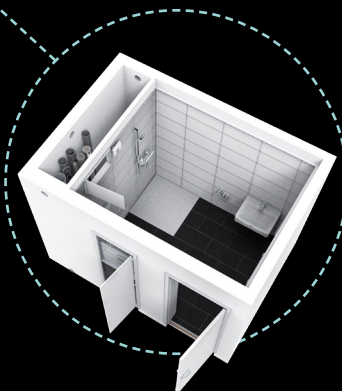
Investors, clients, project developers and architects know exactly what is important when designing a residential building. They know the needs of their customers, the regional political and legal framework, but above all their own ideas and requirements for a successful building project.

b\_solution relies on configurable standard components made of solid wood for walls, ceilings and roofs, which reliably meet the normative as well as legal requirements in Germany and Austria for a multi-storey residential building in timber construction. Design structures, execution details, fire protection, sound insulation, statics and building physics as well as clearly defined interfaces in planning and construction are integral components of this individual construction kit solution.

**Wall**

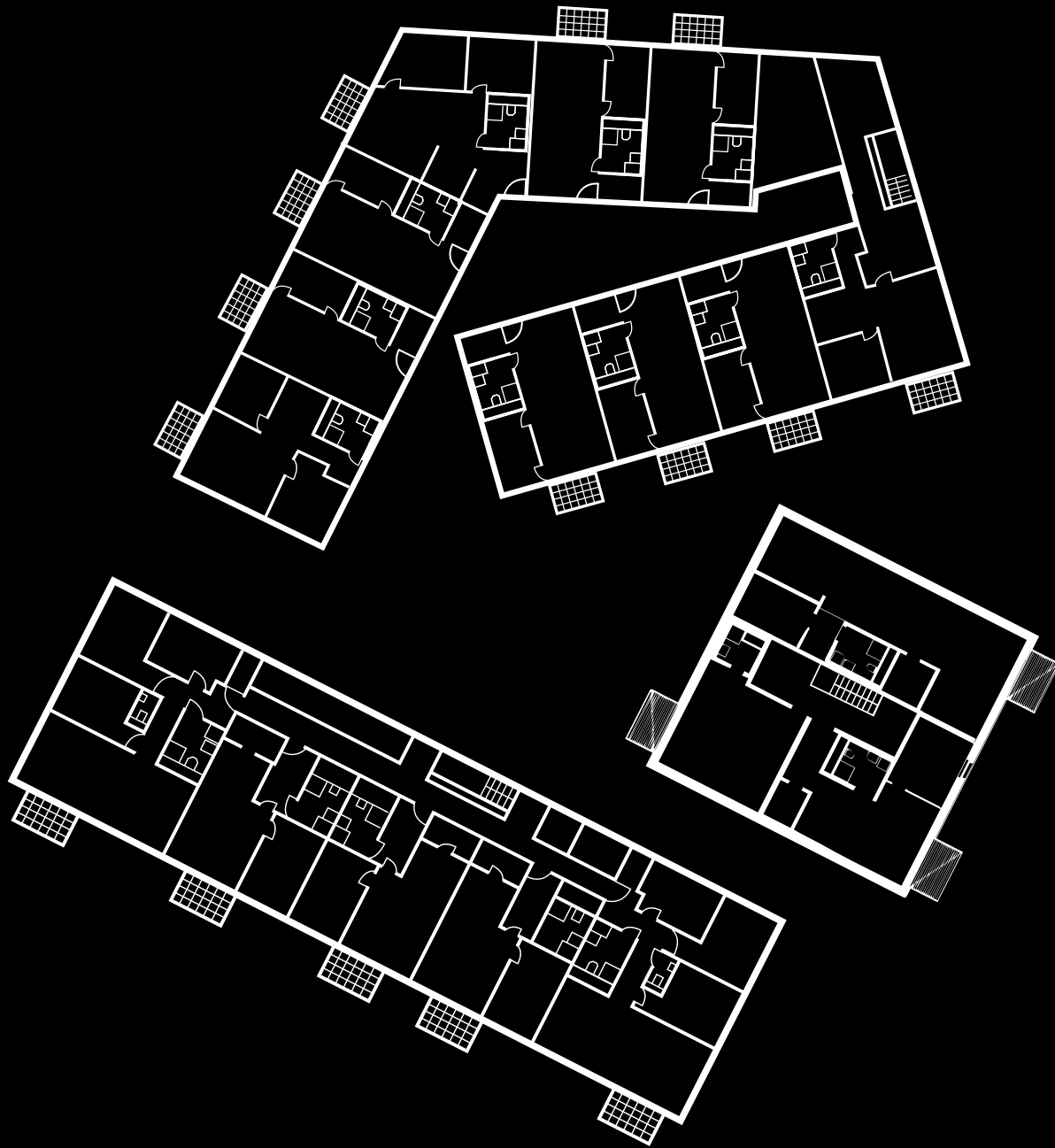


**b\_box**



**Ceiling**





## Ground plan design freedom

Modern design, high energy standards, smart technical building equipment as well as sustainable and ecological building concepts can be economically implemented with b\_solution at high quality and with efficient planning, short construction time and at fixed

costs. Every client, project developer, architect and contractor can design, plan and build with b\_solution. Our competent employees advise and support in the simple handling of b\_solution. We keep it simple for your smile.

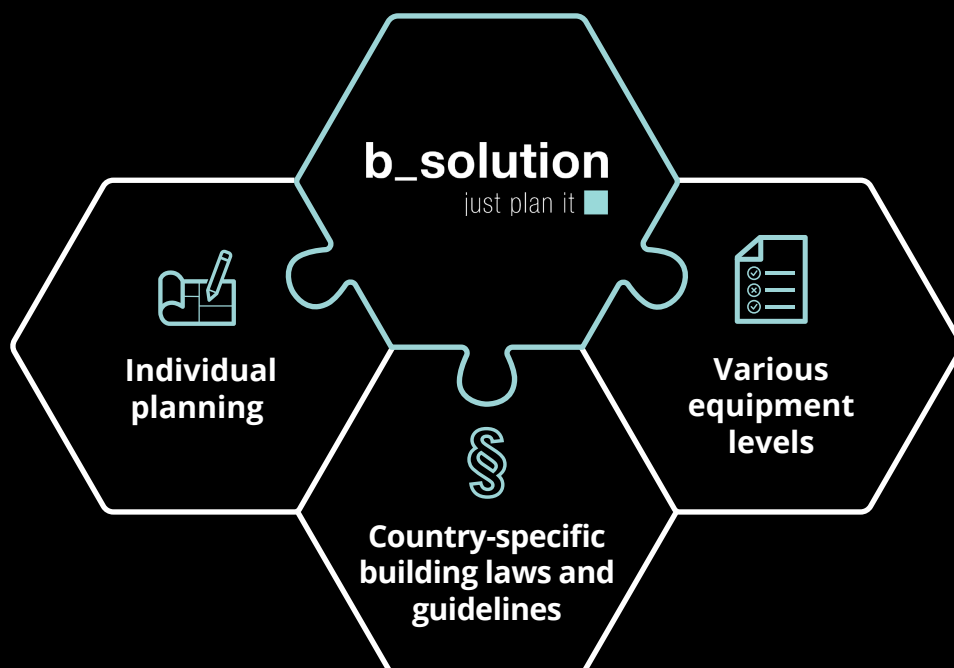


# Individual puzzle pieces for a finished solution

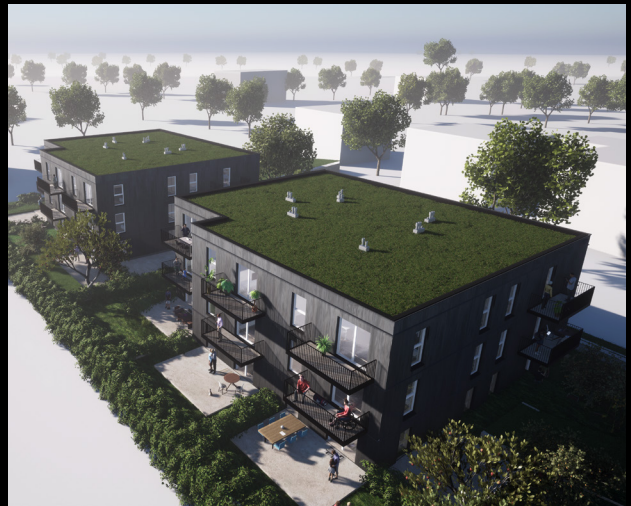
For each project request, the b\_solution system software independently generates the design structures of the individual building components, in each case adapted to the corresponding building class, country-specific building laws and guidelines. Statics, fire, sound and heat protection are thus reliably solved. Based on this, the customer can individually plan their desired construction project using any CAD software.

Various choices regarding façade solutions, window sizes and designs, shading, roof terrace solutions and concept balconies are available for the

design of the building envelope. 'Pure' is what we call the basic equipment for each b\_solution apartment, which can be customised as an option. It is comprised of high-quality and durable materials. The so-called b\_box, a room module prefabricated down to the last detail, contains not only the building services installations but also the finished bathroom in different equipment variants and thus rounds off the well thought-out b\_solution overall concept.





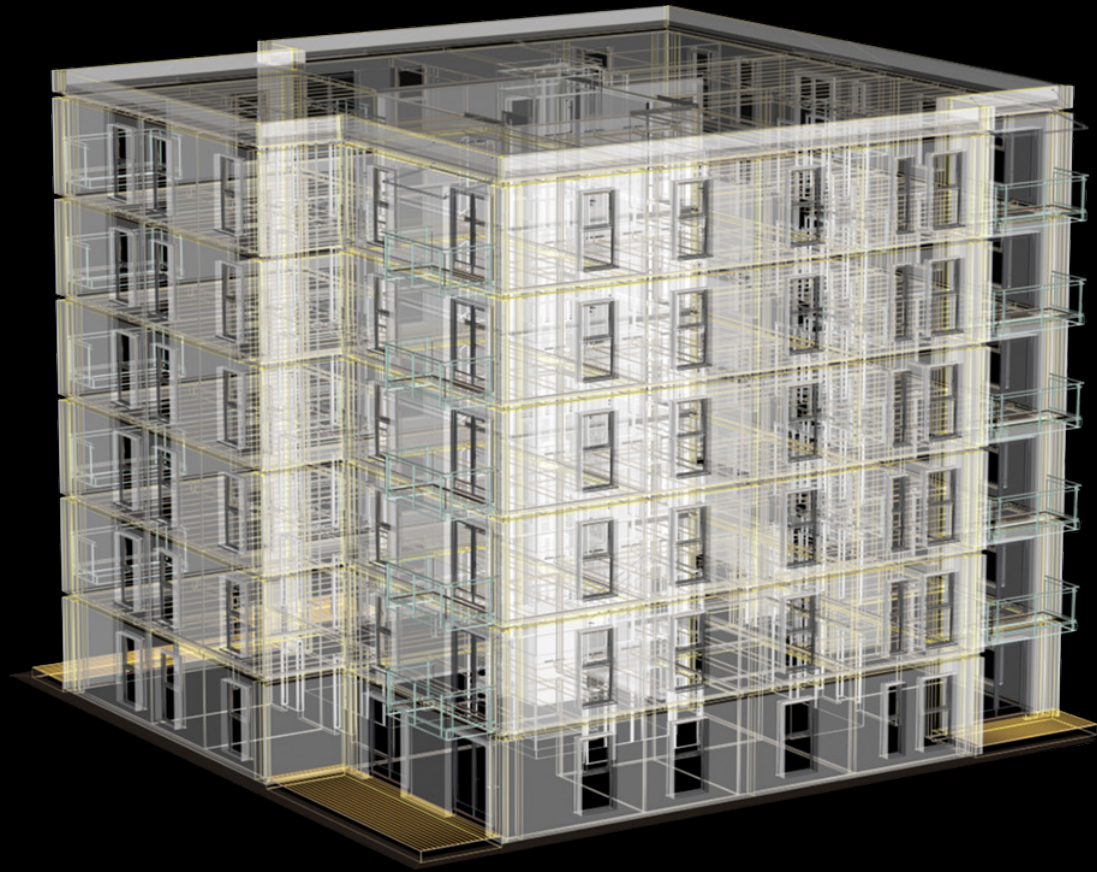


**b\_solution**  
**is full of**  
**solutions.**

**Not each one**  
**is visible**  
**at first glance.**

**All technical**  
**details are solved.**



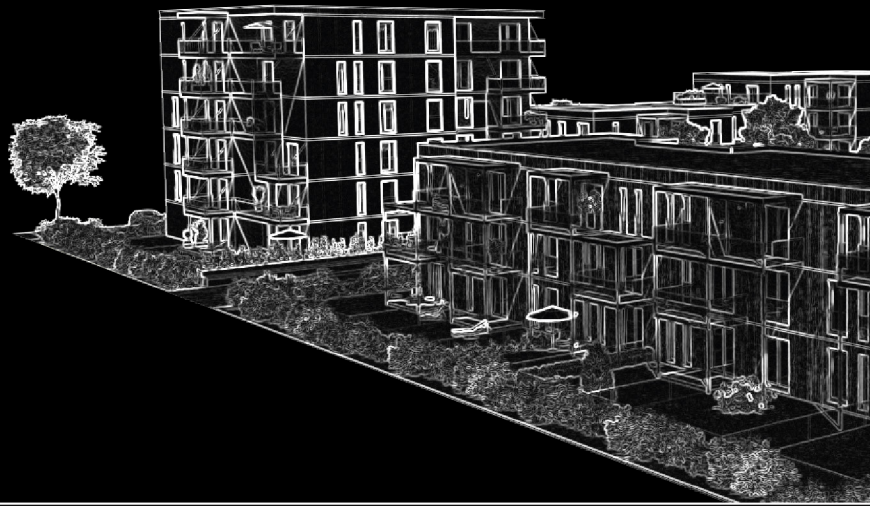


## Simply plan and configure

Once the customer has completed the planning and configuration of the desired building project and sent it to us, the b\_solution system software automatically generates a three-dimensional digital twin of the designed building in a very short time, meaning that the building is ready for production and construction down to the last detail, and is also available with a complete cost calculation. This is made possible by digital cataloguing of all construction and equipment variants coupled with the definition of b\_solution industry standards. Configuration

and equipment options can be altered at any time on the digital twin, and the cost calculation will be adapted accordingly. Once the final configuration has been determined, the digital twin is 'frozen', i.e. finalised.

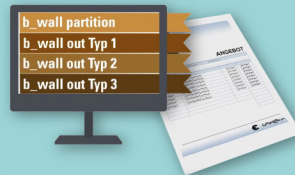
From this point on, several standardised processes run simultaneously in order to industrially and automatically produce the b\_solution kit and to ensure that the building is assembled and completed on schedule and with quality assurance.



# 1

## PLANNING AND OFFER

It has never been easier to design a multi-story residential building, plan it ready for construction, and determine exact fixed costs and binding construction times.

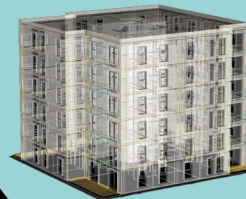


**We don't leave anything to chance**

# 2

## DIGITAL TWIN

Your building project has just been planned and has already been converted into a three-dimensional model with all details and equipment information. This so-called digital twin is the basis for all calculations, production and processes.



# 3

## INDUSTRIAL PREFABRICATION

With the information based on the digital twin, it is sent directly to the b\_solution production department. Industrial production of all system components takes place on the automated prefabrication line.



# 3a

## WALLS

High degree of prefabrication including scope for planning. Our b\_solution prefabricated walls, whose core is made from solid wood, combine this contrast.





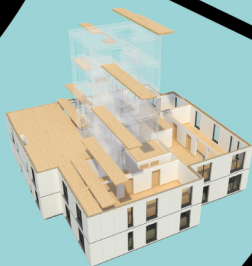
**Time is money  
but quality  
comes first**



**4**

#### **DELIVERY AND ASSEMBLY**

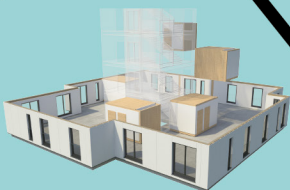
We deliver all system components directly from our production plants to the construction site, protected from the weather and in accordance with the construction process. Quietly, cleanly and dryly, 1 to 2 apartments are then erected daily in the form of shell lease.



**3c**

#### **CEILING AND ROOFS**

All ceilings and roofs are made of prefabricated solid wood elements. The wood surfaces visible from the rooms can be left natural, glazed in colour or clad with gypsum boards.



**3b**

#### **B\_BOX**

Prefabricated down to the last detail, the room modules include the complete building services installations as well as the well-equipped bathroom.

# Sustainable and solid wood

The central element of all b\_solution wall, ceiling and roof components is binderholz CLT BBS, a construction product made entirely of solid wood. CLT BBS can carry high loads, is fire-proof, insulates and stores heat well, and has a sound-absorbing effect. We use all these inherent properties cleverly, in a material-friendly and system-oriented way with our b\_solution building components.

For example, all b\_solution exterior and apartment partition walls are fully load-bearing and, in combination with the b\_solution ceilings, simultaneously stiffen the entire building. And the installed wood creates a comfortable and balanced indoor climate, in summer as well as in winter.

## Ü label / ÜA label

All b\_solution building products are externally monitored by Holzforschung Austria and comply with the technical building regulations. The building products can therefore be awarded the 'Ü label' as well as the 'ÜA label'.









# Components Walls

The highly industrially prefabricated precast walls, so-called flatpacks, offer sufficient scope for individual planning. The width and height of the walls and also the position of the window and door openings can be individually selected. The construction of the individual wall structures, on the other hand, is unalterably defined as a system. This results in the decisive advantage of the standardised and thus industrially producible flatpacks.

b\_solution is suitable for different building site requirements. b\_solution's system corners offer high planning and concept flexibility. Flexible corners ranging from 70 to 110 degrees offer great freedom when designing the ground plan.





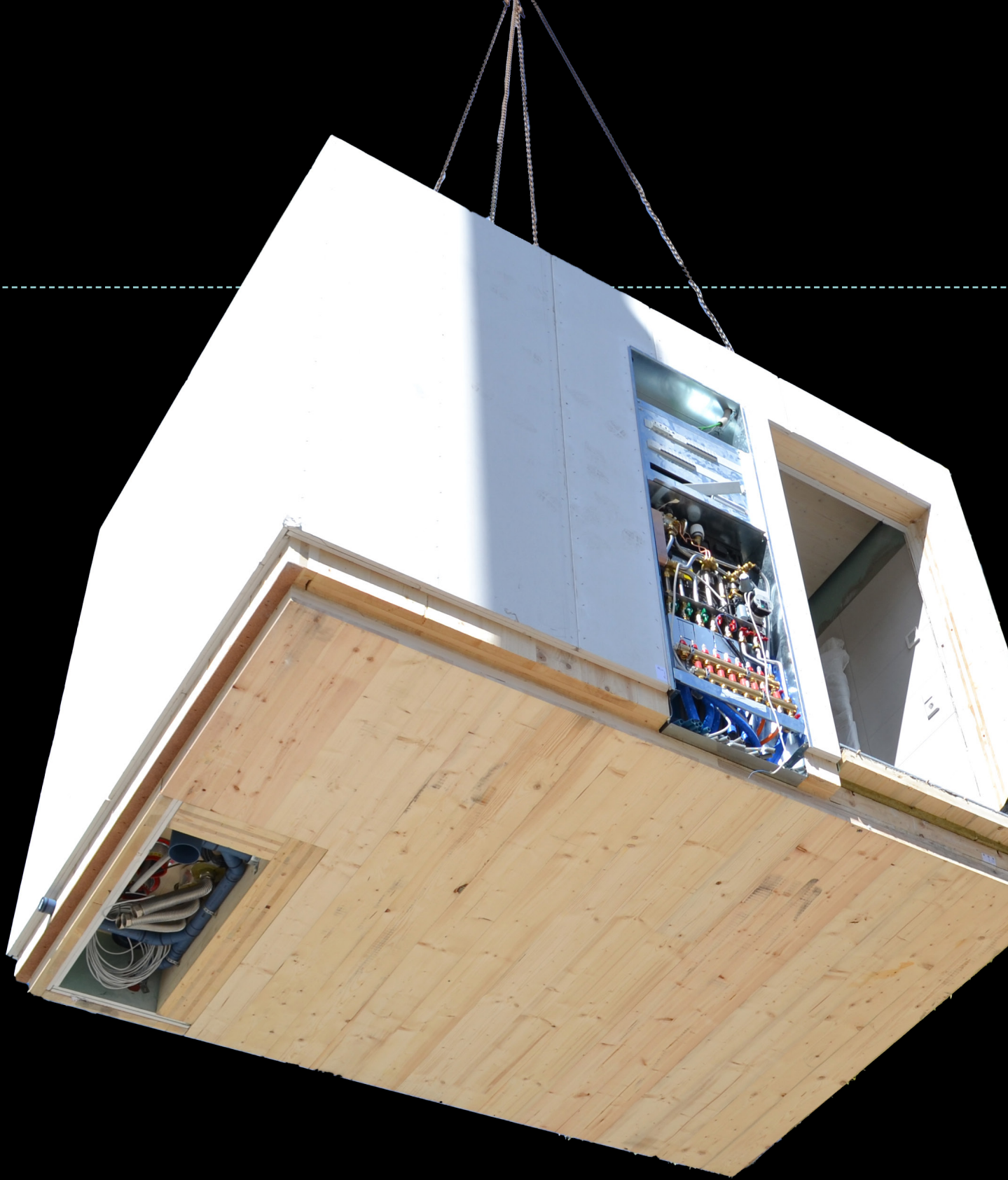
# Components

## Ceilings

All BBS ceiling and roof elements are delivered directly from the binderholz plants to the construction site - ready to be cut to size and installed quickly, dryly and quietly. The remaining structural components, such as floor heating systems or floor coverings, are then carried out on site.

The finely sanded, smooth wooden surfaces of the ceiling and roof elements give every room a warm and comfortable ambience. No matter whether they're left natural or colourfully designed.





3 in 1



# Components

## b\_box

The b\_box combines 3 functions in 1 room module. Standardised building services, well-equipped premium bathroom and static load-bearing effect. Furthermore, we manufacture each b\_box in our serial production plant - with quality assurance.

### Combination hybrid distributor

All flat distributors and connections are easily accessible in the so-called combined hybrid distributor directly next to the b\_box entrance door.

Electrical, cold and hot water, heating, pumps, ducts, fire bulkheads, ventilation, moisture sensors and many other mechanical, electrical and plumbing equipment (MEP) are system-based, certified and pre-installed in the b\_box. A b\_box can be produced in 4 to 8 hours and installed on site in just 20 minutes. The entire MEP planning

of the b\_solution building structure comes from us. MEP - tidy, compact and carefree.

### Equipment levels

Shower or bathtub, single or double washbasin, barrier-free and with washing machine connection - the b\_box is also a fully tiled and equipped bathroom with toilet. Optionally, the equipment levels 'pure' or 'high' are available. The bathroom ceiling is a modern design in white glazed wood, making every occupant feel at home.

Made entirely of solid wood elements (CLT BBS), the b\_box systematically fits into the entire b\_solution construction as a load-bearing and stable modular unit.

## No-compromise quality

b\_solution's quality management is based on clearly defined and mostly digitised processes. Independent bodies monitor and certify our detailed solutions, products, manufacturing processes and quality. Various certificates prove that our quality-tested components meet all legal guidelines and standards.



**Fully digitised  
production.  
Generating quality  
while reducing costs.**





b\_solution stands for affordable residential construction. However, we don't save on the quality of our suppliers or materials and neither on the quality of our products and mass timber solutions. We save on time. In planning, production and installation on site.

Low warehouse stock and optimised material cuts, digitised logistics and short journeys, a streamlined organisation and quality-assured processes, innovative and automated production lines as well as technically competent and trained employees are the success factors in our industrial production.

The individual production stations in our b\_solution plant are centrally controlled from a so-called host computer which is supplied with all data necessary for production and procurement in the form of the digital twin created in the planning phase.

Independent of the weather, we produce system components for up to 2,000 residential units at consistent quality in series and under optimal conditions in our b\_solution plant in Hallein, Austria. Why don't you visit us?











# binderholz

## Intelligent and varied solid wood solutions

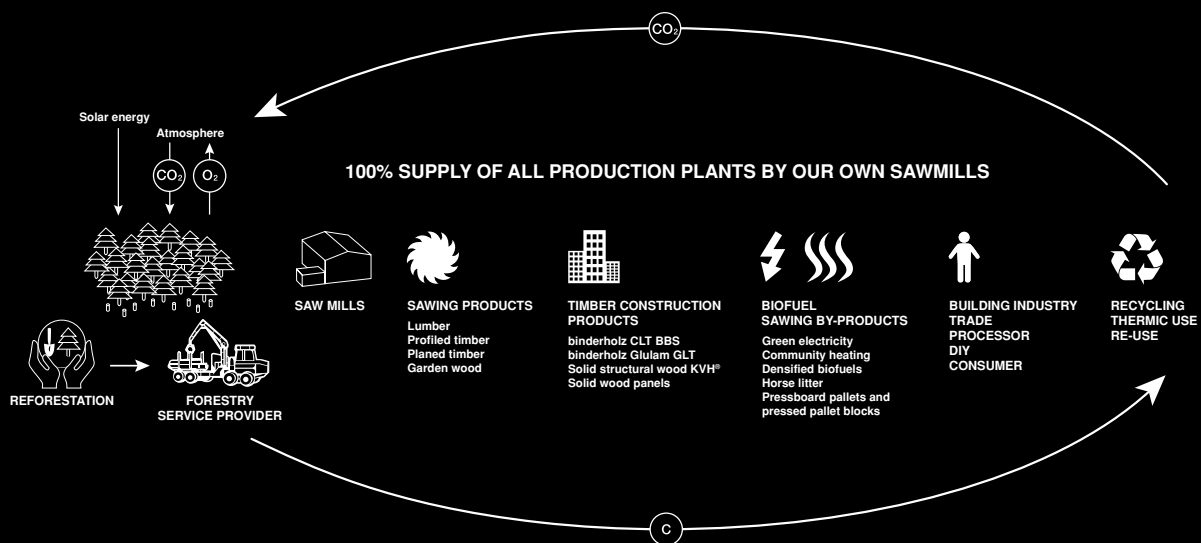
At binderholz, 100 % of the renewable raw material wood are utilised.

From the cultivation of seedlings and forest management to timber harvesting, processing in the sawmills, products for the do-it-yourself sector, customised packaging solutions, the manufacture of solid wood products, innovative mass timber solutions and affordable housing, the entire value chain is consistently implemented. Waste wood from production is processed into densified biofuels, green electricity, press-board pallets and pressed pallet blocks.

In the timber industry, the name Binder is associated with a sense of tradition and integrity, combined with modern technology and innovation. From humble beginnings as

a small sawmill more than 70 years ago, the family-run binderholz has grown into a fully integrated group of companies that utilises state-of-the-art technology and manufacturing methods.

Besides its original headquarters in Fügen, Austria, the binderholz Group operates 60 other sites. More than 6,300 employees in Europe and the US share a passion for wood.



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