KÖNIG

BUILDING THE HOMES OF THE FUTURE, TODAY.

SIP • HYBRID • PREFABRICATED • MODULAR CONSTRUCTION

European Engineering. Precision Manufacturing.

THE WAY WE BUILD IS CHANGING.

For generations, construction has largely followed the same principles.

Materials arrive separately.
Different trades work one after another.
Weather influences schedules.
Complexity is managed directly on site.

We believe there is a better way.

At König Group, we combine modern engineering, European manufacturing and advanced construction technologies to create buildings that can be delivered faster, more precisely and with exceptional energy performance.

Our approach is not based on one material or one construction method.
We combine the right technologies for the right project.

SIP | STEEL | REINFORCED CONCRETE | TIMBER

CLT | PREFABRICATED CONSTRUCTION | MODULAR CONSTRUCTION

The result is a new generation of buildings engineered around performance, architecture and efficiency.

CHANGING THE WAY BELGIUM BUILDS HOMES.

PERFORMANCE
Energy-efficient buildings for a more sustainable future.

EFFICIENCY
Faster, more predictable construction processes.

ARCHITECTURE
Freedom to create without compromise.

EUROPEAN ENGINEERING.
PRECISION MANUFACTURING.

MORE THAN A PANEL.

A COMPLETE ENGINEERED CONSTRUCTION SYSTEM.

A high-performance building is never created by one panel alone.

Every König Group project is considered as a complete structural system.

Depending on the architecture, structural requirements and location, the system may incorporate:

SIP STRUCTURAL PANELS

KVH STRUCTURAL TIMBER

BSH / GLULAM ELEMENTS

CLT COMPONENTS

ENGINEERED TIMBER BEAMS

STRUCTURAL STEEL

REINFORCED CONCRETE

ENGINEERED CONNECTORS AND FIXINGS

The structural solution is selected according to the individual requirements of each project.

This allows us to move beyond the limitations of a single construction method.

WE DON'T SELL PANELS. WE ENGINEER BETTER WAYS TO BUILD.

EUROPEAN ENGINEERING

DESIGNED BEFORE IT REACHES THE CONSTRUCTION SITE.

Precision starts long before the first wall is assembled.

- Architectural drawings are transformed into an engineered structural system.
- Connections are calculated.
- Loads are analysed.
- Panels are dimensioned.
- Openings are prepared.
- Structural elements are coordinated.

Modern digital design and BIM-compatible workflows allow the structure to be developed before manufacturing begins.

THE OBJECTIVE IS SIMPLE:

SOLVE COMPLEXITY DURING ENGINEERING — NOT DURING CONSTRUCTION.

This reduces improvisation on site and creates a more predictable building process.

From architectural concept to structural design, manufacturing and installation, every stage becomes part of one coordinated process.

01 ARCHITECTURAL CONCEPT

Ideas and requirements are turned into architectural drawings.

02 STRUCTURAL DESIGN

The building is engineered in detail, with all connections, loads and elements defined.

03 MANUFACTURING

Panels are produced with high precision according to the engineered design.

04 INSTALLATION

All elements fit together as planned, minimising on-site adjustments.

PRECISION MANUFACTURING.

FROM CONSTRUCTION SITE TO CONTROLLED PRODUCTION.

Traditional construction creates much of the building directly on site. Our approach moves a significant part of that process into a controlled manufacturing environment.

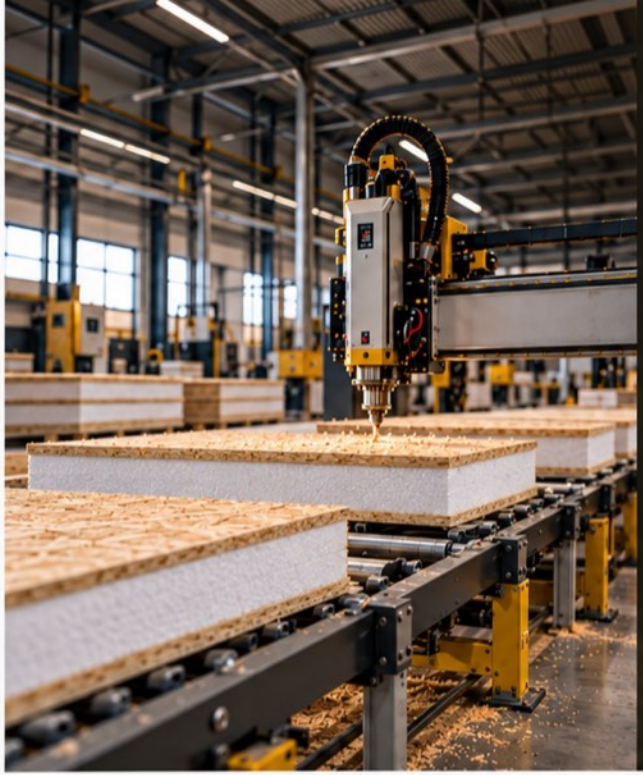
SIP structural components are produced under regulated factory conditions and manufactured according to project-specific requirements.

PANELS CAN ARRIVE ON SITE:

- CUT TO DIMENSION
- NUMBERED
- PREPARED FOR ASSEMBLY
- COORDINATED WITH INSTALLATION DRAWINGS

This approach can significantly reduce site cutting, material waste and unnecessary adjustments.

Instead of transforming raw materials into a building on site, the site increasingly becomes an assembly environment.



CONTROLLED PRODUCTION ENVIRONMENT
Consistent quality and high precision.

LESS MATERIAL WASTE
Optimised use of materials.

FASTER CONSTRUCTION
Panels arrive ready for assembly.

HIGHER BUILDING QUALITY
Precision manufactured components for a more durable result.

01 RAW MATERIALS

High-quality materials for long-lasting buildings.

02 CNC PRODUCTION

Panels are precisely cut according to project data.

03 NUMBERING & PREPARATION

Each panel is numbered and prepared for assembly.

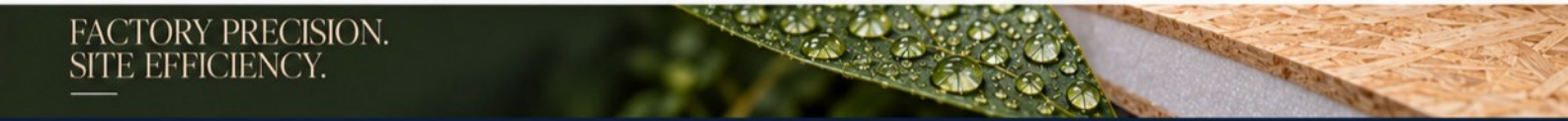
04 QUALITY CONTROL

Every component is checked before delivery.

05 READY FOR DELIVERY

Panels are packed and ready for transport to site.

FACTORY PRECISION. SITE EFFICIENCY.



BUILT IN DAYS, NOT MONTHS.

TIME BECOMES AN ENGINEERING DECISION.

One of the most visible advantages of prefabricated construction is speed. SIP structures use a predominantly dry construction process and can therefore eliminate many of the waiting periods associated with conventional structural construction.

Once foundations are prepared, the structural envelope can progress extremely quickly. A trained installation team can assemble individual SIP panels without the large workforce normally associated with traditional structural work. Larger prefabricated wall sections can accelerate this process even further.

FASTER CONSTRUCTION
Structural envelope in days, not months.

DRY CONSTRUCTION
Eliminates many weather-related delays.

SMALLER WORKFORCE REQUIREMENTS
Efficient installation with trained teams.

GREATER PROJECT PREDICTABILITY
A more controlled and reliable timeline.

INDICATIVE STRUCTURAL PROGRAMME

01 FACTORY MANUFACTURING

Approximately **4 days**

02 ON-SITE ASSEMBLY FROM INDIVIDUAL PANELS

Approximately **10 days**

03 POTENTIAL ASSEMBLY USING LARGER PREFABRICATED SECTIONS

Approximately **4 days**

OUR FIRST BELGIAN SIP PROJECT

2 homes

Approx. 380 m² total structure

This does not mean a finished home in four days. Foundations, façade, installations, finishes and interiors remain. What changes dramatically is the time required to create the structural envelope on which everything else depends.

TIME SAVED AT STRUCTURE LEVEL AFFECTS THE ENTIRE PROJECT.

ENERGY BY DESIGN.

PERFORMANCE BEGINS WITH THE BUILDING ENVELOPE.

Energy efficiency should not be something added to a building later. It should be designed into its structure.

The continuous insulating core of SIP panels creates a highly efficient building envelope with significantly fewer interruptions than many conventional framing methods.

Depending on the selected construction and insulation thickness, SIP walls and roofs can achieve very high levels of thermal performance.

THE SYSTEM IS THEREFORE HIGHLY SUITABLE FOR:

- Energy-efficient homes
- Low-energy buildings
- Near-zero-energy buildings
- Passive-building concepts

HIGH THERMAL PERFORMANCE

A continuous insulating envelope minimises thermal bridges and heat loss.

LOWER ENERGY DEMAND

A high-performance envelope can substantially reduce demand for both heating and cooling.

YEAR-ROUND COMFORT

A more stable indoor environment keeps buildings comfortable in every season.

A high-performance envelope can substantially reduce demand for both heating and cooling.

That means greater comfort throughout the year and a building designed to consume less energy throughout its lifetime.

EFFICIENCY IS NOT AN ACCESSORY. IT IS PART OF THE STRUCTURE.

FEWER THERMAL BRIDGES.

CONTINUOUS INSULATION MATTERS.

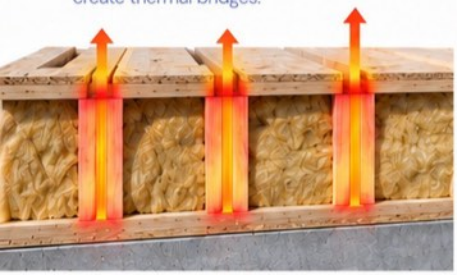
Every interruption in insulation can become a potential thermal bridge. Traditional framed structures can require significant amounts of structural material inside the insulation layer.

SIP construction reduces this requirement. The combination of continuous insulating cores, engineered panel connections and reduced structural interruptions can significantly minimise thermal bridging within the building envelope.

The result is a more consistent thermal layer around the building.

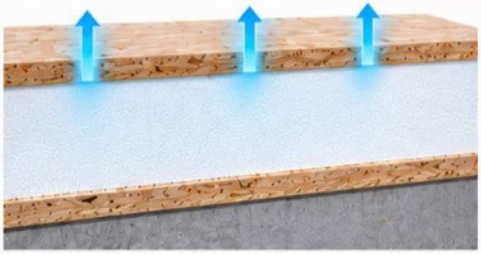
TRADITIONAL FRAMING

Multiple structural elements create thermal bridges.



SIP CONSTRUCTION

Continuous insulation with significantly fewer interruptions.



BETTER CONTINUITY.

BETTER PERFORMANCE.

BETTER CONTROL.

AIRTIGHT BY DESIGN.

CONTROL THE AIR. CONTROL THE BUILDING.

A highly insulated building performs best when uncontrolled air leakage is reduced.

SIP construction can create an exceptionally airtight building envelope when correctly engineered and installed.

It is therefore highly compatible with modern ventilation systems, including heat-recovery ventilation.

Controlled ventilation allows fresh air to enter the building without relying on uncontrolled leakage through walls and connections.

The result can provide improved energy performance, greater thermal comfort, controlled indoor ventilation and more predictable building behaviour.

Modern homes should not depend on accidental air leakage. The building envelope should be engineered.

AIRTIGHT BY DESIGN. COMFORT BY ENGINEERING.

TRADITIONAL FRAMING

Uncontrolled air leakage can reduce energy performance and thermal comfort.

SIP CONSTRUCTION

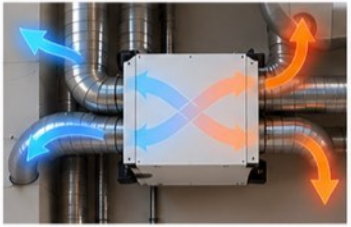
Airtight envelope with controlled ventilation and heat-recovery.

UNINTERRUPTIOUS SIP AIR LEAKAGE

Continuous insulation and sealed panel joints create an airtight building envelope.

CONTROLLED VENTILATION

Fresh air in. Stale air out. With heat-recovery.



THE RESULT CAN PROVIDE:

- IMPROVED ENERGY PERFORMANCE
- GREATER THERMAL COMFORT
- CONTROLLED INDOOR VENTILATION
- MORE PREDICTABLE BUILDING BEHAVIOUR

MORE SPACE INSIDE.

PERFORMANCE WITHOUT UNNECESSARILY THICK WALLS.

High insulation performance does not automatically require extremely thick construction.

Because structure and insulation are integrated into one panel, SIP walls can achieve excellent thermal performance with comparatively compact wall assemblies.

Depending on the wall build-up and the conventional system used for comparison, this can create additional usable internal floor area within the same external building dimensions.

For a private home, that means more living space.

For a developer, every additional usable square metre can have measurable value.

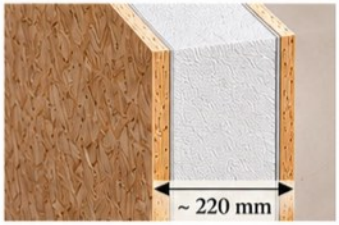
Same footprint. More usable building.

TRADITIONAL FRAMING WALL

Separate structure and insulation usually requires a thicker wall.

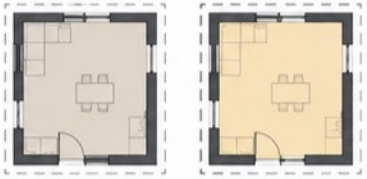
SIP WALL

Structure and insulation integrated in one panel.



MORE USABLE FLOOR AREA

Same external dimensions.
More space inside.



TRADITIONAL FRAMING | SIP CONSTRUCTION

THE RESULT CAN PROVIDE:

- More living space
- Greater development value
- Compact wall assemblies
- Same footprint. More usable building.

LIGHTWEIGHT. STRUCTURALLY SERIOUS.

LOW MASS DOES NOT MEAN LOW STRENGTH.

A SIP building works differently from conventional framed construction.

Once assembled, the connected panel structure forms a rigid structural shell in which individual components work together.

This gives SIP construction an excellent strength-to-weight ratio.

At the same time, the relatively low weight of the structure can reduce demands on:

+ Foundations
+ Transportation
+ Heavy lifting equipment
+ Existing buildings during extensions

The lightweight nature of the system also creates opportunities on sites where access, crane availability or structural loading can become significant constraints.

Lightweight engineering. Serious structural performance.

RIGID STRUCTURAL SHELL

Connected panels work together to form a strong, integrated structure.

HIGH STRENGTH-TO-WEIGHT RATIO

Strong structural performance with significantly less mass.

EASIER LOGISTICS AND INSTALLATION

Lower weight can reduce demands on transport, lifting equipment and site access.

THE RESULT CAN PROVIDE:

- REDUCED FOUNDATION DEMANDS
- LIGHTER AND MORE EFFICIENT TRANSPORTATION
- LESS DEMANDING LIFTING EQUIPMENT
- POSSIBLE FOR EXTENSIONS ON EXISTING BUILDINGS
- GREATER FLEXIBILITY ON CHALLENGING SITES

ARCHITECTURE FIRST.

TECHNOLOGY SHOULD ENABLE DESIGN — NOT DICTATE IT.

Modern prefabrication does not mean standardised boxes.
Every building can begin with architecture.

SIP panels are manufactured specifically for each project, allowing the construction system to accommodate individual designs and complex geometries.

- Large openings.
- Contemporary villas.
- Traditional architecture.
- Flat roofs.
- Pitched roofs.
- Extensions.
- Complex combinations of materials.

The structural system adapts to the architectural concept.

ARCHITECTURE FIRST. TECHNOLOGY FOLLOWS.

FLAT ROOFS | PITCHED ROOFS | CONTEMPORARY VILLAS | EXTENSIONS | COMPLEX GEOMETRIES | MIXED MATERIALS

HYBRID CONSTRUCTION.

THE FUTURE IS NOT ONE MATERIAL.

There is no reason every building should be forced into a single structural technology.

At König Group, we believe the strongest solution is often a combination.

SIP + STEEL

Steel provides exceptional structural freedom for large spans, wide openings and demanding architectural geometry.

SIP panels can then create a highly insulated external envelope around the primary steel structure.

SIP + REINFORCED CONCRETE

For apartment buildings, larger developments and complex structures, reinforced concrete can provide the primary structural frame while prefabricated SIP elements form the high-performance building envelope.

SIP + CLT

Cross-laminated timber can provide major structural elements while SIP delivers efficient external envelope solutions.

SIP + TIMBER

Engineered timber and SIP naturally complement each other in highly efficient lightweight structures.

FLEXIBLE SOLUTIONS

LARGE SPANS AND OPENINGS

HIGH-PERFORMANCE BUILDING ENVELOPE

COMPLEX GEOMETRIES

THE RIGHT MATERIAL IN THE RIGHT PLACE.

THAT IS HYBRID CONSTRUCTION.

PREFABRICATED CONSTRUCTION

BUILD MORE BEFORE ARRIVING ON SITE.

SIP construction does not have to arrive as individual panels.

Walls and larger structural sections can be prefabricated in controlled factory conditions before transportation to the project.

Prefabrication creates several potential advantages:

- Greater manufacturing precision
- Less work on site
- Reduced construction waste
- Fewer weather-related disruptions
- Shorter structural programmes
- More predictable quality

Doors and window openings can already be integrated into manufactured wall sections.

Depending on the project, additional layers and components may also be incorporated before delivery.

The construction site becomes increasingly focused on installation rather than fabrication.

BUILD MORE IN THE FACTORY. ASSEMBLE MORE EFFICIENTLY ON SITE.

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MODULAR CONSTRUCTION

When the building itself becomes a manufactured product.

Prefabrication can go beyond individual structural components.

In modular construction, substantial sections of a building — or complete three-dimensional modules — are manufactured under controlled production conditions before being transported to site for final assembly.

Walls, floors, ceilings, installations and even interior finishes can be integrated before the module leaves the production facility.

The result is a construction process with significantly less work taking place on site and a much higher degree of control over quality, sequencing and programme.

IDEAL FOR A WIDE RANGE OF APPLICATIONS

- Residential developments
- Offices
- Hotels and hospitality projects
- Care facilities
- Student accommodation
- Temporary and permanent buildings
- Holiday residences
- Large-scale repetitive developments

At König Group, we are developing solutions that combine SIP engineering, modular construction and advanced prefabrication.

Depending on the project, buildings can be delivered as individual structural panels, larger prefabricated sections or complete volumetric modules.

The objective is not simply to build faster.
It is to move construction toward a more industrialised model — where more of the building is engineered and manufactured under controlled conditions, and less is left to uncertainty on the construction site.

**MORE MANUFACTURING.
LESS UNCERTAINTY.
A MORE PREDICTABLE WAY TO BUILD.**

EXTENSIONS & ROOFTOP ADDITIONS

Create new space without adding unnecessary weight.

Belgium has an enormous existing building stock.

Not every solution requires demolition and rebuilding.

The relatively low weight of SIP construction can make it particularly attractive for:

- Home extensions
- Additional floors
- Rooftop additions
- Renovation projects
- Commercial building extensions

Where conventional construction can add substantial structural loads to an existing building, lightweight engineered systems can open new possibilities.

The speed of dry construction can also reduce disruption to people already living or working in the existing property.

SOMETIMES THE MOST VALUABLE BUILDING PLOT IS ALREADY ABOVE THE BUILDING.

FROM HOMES TO LARGE-SCALE DEVELOPMENT

One technology. Many applications.

SIP technology is not limited to detached houses.
It can form part of solutions for:

- Private homes
- Holiday properties
- Luxury villas
- Extensions
- Apartment buildings
- Rooftop additions
- Commercial buildings
- Prefabricated buildings
- Schools and educational buildings
- Modular structures

For larger and more complex developments, SIP can be combined with primary structures such as reinforced concrete or structural steel to form a highly efficient building envelope.

This is where hybrid construction becomes particularly powerful.

From one home to an entire development.
The principles remain the same:

PRECISION.
SPEED.
PERFORMANCE.
PREDICTABILITY.

ENGINEERED. TESTED. DOCUMENTED.

Innovation must be supported by engineering.

The systems selected by König Group are based on European engineering principles and supported by the relevant technical documentation for the specified project and system.

Depending on the selected construction solution, this can include:

- European Technical Assessments
- Declarations of Performance
- Structural calculations
- Thermal performance documentation
- Material certification
- Manufacturing quality documentation

Every project remains subject to project-specific engineering, applicable building regulations and local approval requirements.

For us, innovation does not mean experimenting with a client's home.

It means applying advanced construction methods within a properly engineered framework.

50 YEARS
SYSTEM WARRANTY

A long-term system guarantee supporting confidence in modern engineered construction.

MODERN CONSTRUCTION SHOULD BE INNOVATIVE. BUT NEVER IMPROVISED.

EUROPEAN KNOW-HOW

European materials. European engineering. International ambition.

Our approach is built around carefully selected European materials, engineering expertise and manufacturing capabilities.

SIP technology has already been applied successfully across a wide range of European climates and building types — from Northern Europe to Mediterranean and island environments.

That experience gives us the ability to approach every new market with a proven technological foundation while adapting each project to its individual:

- Climate
- Architecture
- Structural requirements
- Local regulations
- Environmental conditions

At König Group, we combine this European know-how with our own construction experience, project management and local market knowledge.

GLOBAL AMBITION.
EUROPEAN STANDARDS.

KÖNIG GROUP

We are not changing architecture. We are changing how architecture gets built.

König Group Belgium combines years of construction experience with a new generation of building technologies.

We work with architects, engineers, developers, investors and private clients from the earliest project stages through engineering, manufacturing and construction.

OUR CONSTRUCTION PALETTE INCLUDES:

- Traditional Construction
- Structural Insulated Panels — SIP
- Steel Structures
- Reinforced Concrete
- Engineered Timber
- CLT
- Prefabricated Construction
- Modular Construction
- Hybrid Structural Systems

We do not believe every project needs the same solution.
We believe every project deserves the right solution.

From concept.
To engineering.
To manufacturing.
To construction.

KÖNIG GROUP

Building the Homes of the Future, Today.

Belgium • Europe • International
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