

Simple, economical and secure
Ingenious renovation or installation of timber ceilings
with the **VB timber-concrete composite system**



Composite timber-concrete ceilings: the attractive solution for renovating old structures and for new construction projects

The field-proven VB timber-concrete composite system

System for ingenious combination

Timber-concrete composite is a field-proven construction system in which a thin concrete slab is rigidly attached to a timber purlin. This effective combination of the two construction materials results in convincing properties. The VB system is the ideal solution in this context.

The ideal solution for renovating old structures

When buildings are being renovated, existing ceilings can be ideally preserved by using the VB timber-concrete composite system. Load-bearing capacity is increased, sound insulation and fire safety requirements are optimally met and skilfully resolved.

Cost economies of up to 40%

The existing body of the structure continues to be utilised. Complicated, expensive demolition is unnecessary. Economies of up to 40% can be achieved compared to conventional solutions.

Also suitable for new structures

The timber-concrete composite system also proves its worth outstandingly well in new structures and offers a genuine alternative. The aesthetic aspects of a timber ceiling are complemented by the advantages of concrete in terms of structural engineering and physics to create a reliable and innovative ceiling support structure.

Now even more effective: well-conceived system for all-round security

Field-proven, integrated system

Planning software, VB fasteners and setting tool have been optimised with regard to productivity and installation convenience. The system components are perfectly coordinated and have already proved their qualities millions of times in practical use.

SFS intec – a reliable partner

With its own development, manufacturing and distribution facilities and more than 4 000 employees worldwide, the SFS Group is a strong, reliable partner.

The innovative VB timber-concrete composite system: individual, cost-effective and secure – it pays off!



Convincing advantages

Economy

- + utilisation of the existing body of the structure
- + minimum intervention
- + small increase in dead weight
- + high load-bearing capacity with low attachment height
- + short construction time

Security

- + comprehensive advice
- + improved fire safety
- + higher load-bearing capacity and rigidity
- + fast, reliable planning using proprietary software
- + tested and field-proven system

Comfort

- + improved sound insulation
- + comprehensive, integrated system from a single source
- + simple, easy-to-perform installation
- + enhanced home comfort in existing structural body
- + rooms underneath can be used during construction

Personal advice

Our specialists have many years of experience and are pleased to assist you with their extensive expertise in system applications.

Intelligently designed system software

The design program is an integral component of SFS intec's VB timber-concrete composite system. All the necessary calculations are performed on the basis of your individual parameters and you can then comfortably print out the precise installation plan and verifiable structural engineering calculations.

VB fasteners and setting tool

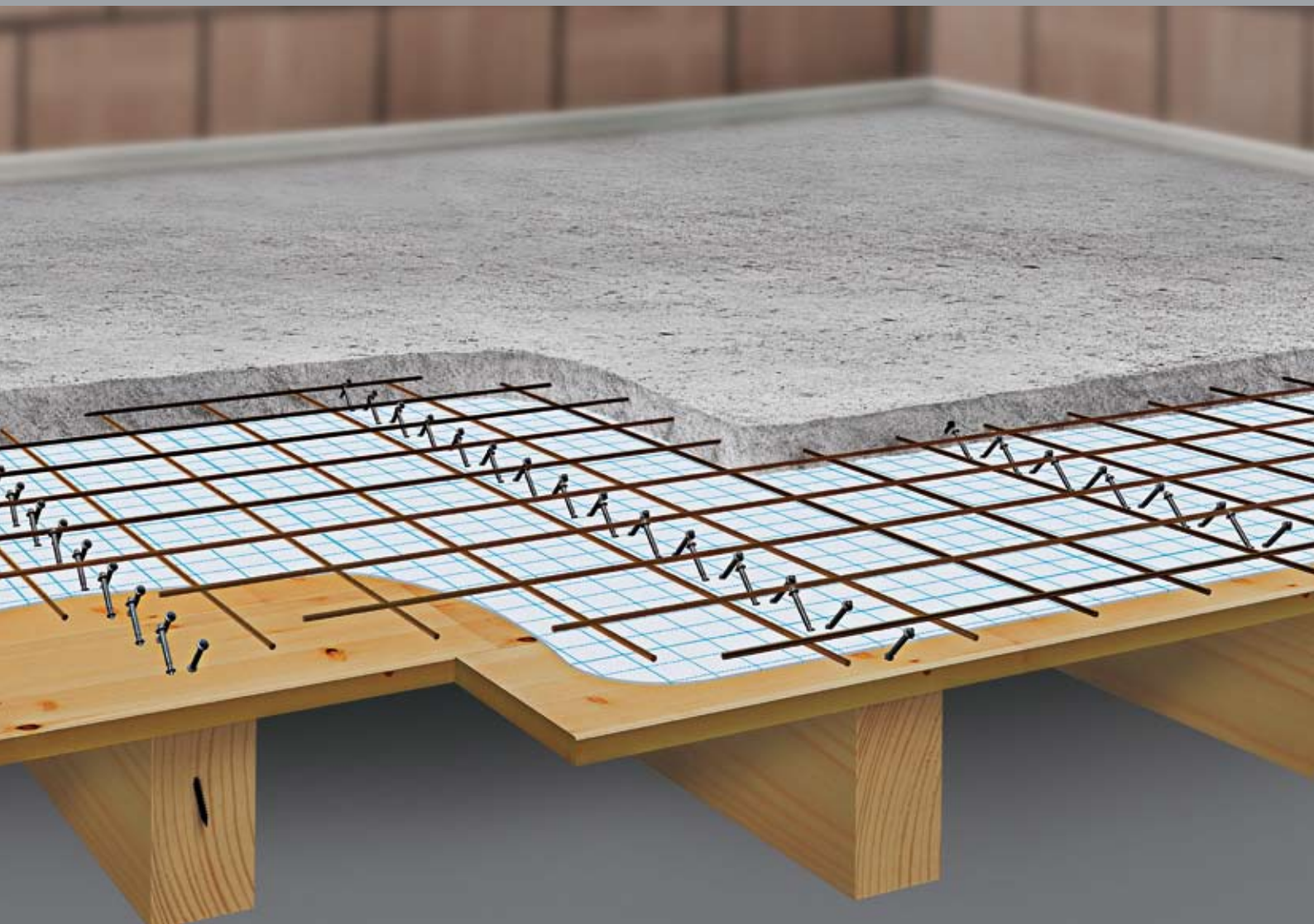
Patented VB fasteners are available in two sizes. Without pilot drilling, they are inserted directly into the timber beam via a Torx power drive using the system-specific setting tool in a fatigue-free position. The setting tool is equipped with a special depth stop to ensure correct insertion.

Informative documentary material

We will be pleased to forward comprehensive technical documentary material to you and advise you of reference premises in your vicinity. Just telephone us.



The VB timber-concrete composite system
The leading, field-proven method for the reinforcement of existing timber ceilings and the cost-effective construction of new timber-concrete composite ceilings



The VB timber-concrete composite system

Economical renovation or new construction of ceilings

A convincing system

In renovation work it is often appropriate or even necessary to reinforce existing ceilings. With the VB timber-concrete composite system the demolition of existing timber ceilings and the erection of new concrete structures can be avoided. The valuable body of the structure can thus be preserved and the interesting combination of timber and concrete opens up new design potential.

The leading system on the market

Utilise the advantages of the VB timber-concrete composite system in new buildings and renovation projects:

as owner

- + preserve the existing body of the structure
- + improved sound insulation and fire safety
- + higher working loads are possible
- + cost economies of up to 40%
- + uninterrupted use of the building
- + ecologically appropriate: more timber, less concrete

as planner

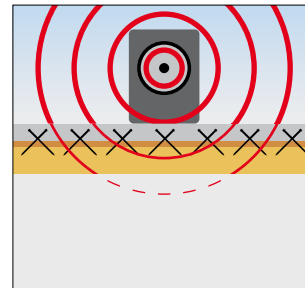
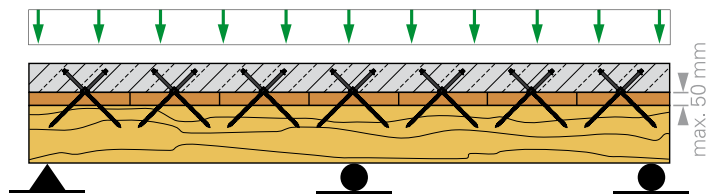
- + comprehensive documentation
- + system software for efficient planning
- + general building regulatory approval
- + experience gained from more than 1000 projects completed
- + quality assurance and control by SFS intec
- + simple solution to meeting stricter requirements for load-bearing capacity, sound insulation and fire safety

as contractor

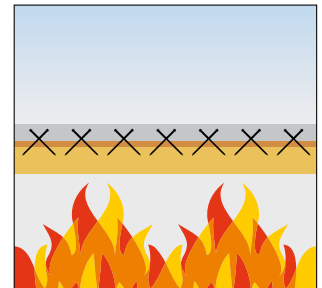
- + self-drilling
- + easy, convenient and fast installation
- + powerful setting tool
- + setting speed of 150 to 250 VB fasteners per hour
- + shuttering/wood strip flooring can be left in place
- + little support required
- + easy monitoring
- + assistance during the introductory phase

This is how the VB timber-concrete composite system works

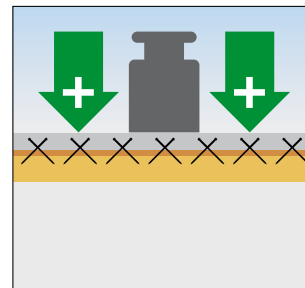
The timber beam absorbs the tensile forces, while the concrete acts as a pressure plate. The shear-resistant composite is created by means of VB fasteners arranged crosswise. This reduces the deflection of the ceiling structure and massively increases load-bearing capacity. The VB composite system can now also be used with multi-span purlins. At the same time fire safety and sound insulation properties can be improved considerably.



Optimum sound insulation



Improved fire safety



Higher load-bearing capacity



The system components for easy planning and efficient building

- personal advice
- intelligently designed system software
- special fasteners in 2 sizes
- convenient installation using new setting tool
- detailed technical documentation





The VB timber-concrete composite system
Easy planning, efficient building, relaxed enjoyment



The VB timber-concrete composite system

Just a few steps to reach your goal



Checking the body of the structure

Examine foundations, supports and existing timber ceiling; replace damaged parts.



Calculation

Calculate and plan rapidly and securely using the system software.



Preparation and setting process

Spread PE film over the shuttering and insert the VB fasteners crosswise in conformity with the structural engineering calculations.



Reinforcing and concrete pouring

Lay the necessary reinforcement, pour and compact concrete, screed surface.



Interior finishing

The further floor structure can be applied to the dry concrete ceiling.



Relax and enjoy

Short planning and construction period, low costs, first-class construction work: a win-win situation for everyone concerned.



Change of use/renovation

Premises
old hand-weaving mill
Location
Oftringen Switzerland

Planning
Rolf Mühletaler, Architect
BSA SIA, Berne
Design calculations
Emch + Berger AG, Zofingen
Construction
Gebr. Hallwyler AG, Rothrist



Change of use/renovation

Premises
Alpina Areal apartmentbuild.
Location
Burgdorf, Switzerland

Planning
Flückiger Architektur GmbH,
Langnau
Design calculations
Beat Noser, Ing.-Büro BPU,
Kirchberg
Construction Marti, Berne



New development
 Premises
 Senior citizens' residence
 Location
 Waidhofen/Thaya, Austria
 Planning
 Lindner Architektur
 ZT GmbH, Baden/Vienna
 Design calculations
 Rettner & Partner ZT GmbH, Krems
 Construction
 Mokesch, Gmünd



Change of use/renovation
 Premises
 Barn conversion
 Location
 Paluzza (UD), Italy
 Planning
 Architecne Andrea Boz
 Design calculations
 Architecne Andrea Boz
 Construction
 L.E.I.F.



The VB timber-concrete composite system
Field-proven technology from the specialist with many years of know-how



Change of use/renovation
 Premises
 Nordbahnstrasse
 apartment building
 Location
 Vienna Austria
 Planning
 BEHF, Vienna
 Design calculations
 Fritsch, Chiari & Partner
 ZT GmbH, Vienna



Change of use/renovation
 Premises
 «Casa Lovaria» (Bank)
 Location
 Udine (UD) Italy
 Planning
 Ingegnere Alessandro Nutta
 Construction
 Impresa di Costruzioni
 Del Bianco S.r.l

The VB timber-concrete composite system

Field-proven and successful



Kurt Funk
Structural engineer
Funk + Partner Bauingenieure
CH-8902 Urdorf

«Why did we opt for the VB composite system? Because SFS offers a complete, tested system with composite elements, powerful setting tool and simple design program. This enables us to plan quickly and reliably, and the tradesmen can work efficiently with simple construction processes.»



Christoph Abt
Structural timberwork engineer
Hess Holzbau AG
CH-4417 Ziefen

«We used some 35 000 VB system fasteners in the «Liestal Barracks» project. Thanks to professional advisory services and thorough operations planning and scheduling, installation took less time than estimated; our final analysis is correspondingly positive.»



Diego Chinellato
Engineer
Via Roma 140/B
IT-30038 Spinea (VE)

«The market offers various fastening solutions for timber-concrete composite. However, these often require performing a series of processes, which increases the risk of errors and entails additional costs. I opt for SFS intec's VB system both for renovation work and for constructing new ceilings, since the simple installation results in a reliable outcome with time and cost savings for the client and my practice! SFS intec supplies an efficient design program and provides customer service appropriate to every situation.»



Andrea Boz
Architect
Via nazionale n° 44
IT-33026 Paluzza (UD)

«The VB system with the pairs of fasteners in a crosswise configuration simplifies and speeds up the construction of timber-concrete ceilings. It convinces through its diverse and flexible applications in new structures and conversion work. Despite the lighter-weight structure, you have the pleasant feeling of standing on a solid floor which is just as stable as a traditionally poured concrete floor.»

More innovative products for structural timberwork



WS system
for steel/timber connections



WT system
for timber/timber connections



WB system
for reinforcements in glulam timber construction

If you have any questions about fastening technology and structural timberwork or our efficient systems, just get in contact with us. We'll be pleased to advise you!

SFS intec AG / FasteningSystems / CH-9435 Heerbrugg / fs.heerbrugg@sfsintec.biz / www.sfsintec.biz

Beratung und Verkauf



Daimlerstraße 9 Telefon +49 451 880 564 04
D 23617 Stockelsdorf Telefax +49 451 880 595 50
vertrieb@spillner-ssb.de www.spillner-ssb.de

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