

# TAKE THE BEST

Decades of quality from Austria! [www.sihga.com](http://www.sihga.com)



## SYSTEM CATALOGUE 2022

# From specialists for specialists.

The SIHGA® system catalogue

Personal catalogue copy for:



## Pioneer of fastening technologies

<b>S</b>	SICHERHEIT	SECURITY
<b>I</b>	IM	IN
<b>H</b>	HOLZBAU	WOOD CONSTRUCTION
<b>G</b>	GARANTIERT	GUARANTEES
<b>A</b>	AUSSERGEWÖHNLICHES	EXTRAORDINARY RESULTS

# You need to let go to hold firm.

In our hectic day and age, we find inspiration in our collaboration with the SIHGA family to reflect on conventional methods – even if these have been proven for centuries. An important step towards the era of pioneering innovations.

It is precisely this positive energy that our Austrian engineers at SIHGA draw on.

While striving for perfection – though with our feet firmly on the ground – we take professional pride in developing reliable and innovative fastening solutions that make timber construction affordable.

These guarantee our customers maximum satisfaction, save time and allow totally new structures.

**SIHGA®** - Security in Wood Construction Guarantees Extraordinary Results.

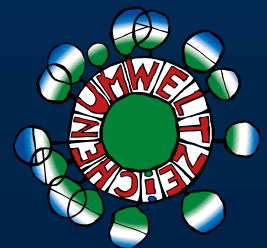


Jane-Beryl Simmer, MBA  
Owner, General Management

A handwritten signature in white ink, appearing to read 'JBS', positioned below the name and title.

## Committed to the Environment

In order to optimally protect the environment and the health of our employees, when producing our packaging and all printed materials we are careful to use environmentally friendly and recyclable materials, and ensure environmentally friendly production.



# SSSS - SIHGA® SYSTEM SAFETY STANDARD

## SIHGA® Feature

exclusively for all SIHGA® products

this means

and stands for

## YOUR Benefit

security for YOUR future

SIHGA® SYSTEM SAFETY STANDARD

tested, regularly externally monitored, certified,  
guaranteed, long-lasting



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# The heart of our passion...



# www.sihga.com

## The strong website for partners and construction clients.

Welcome to the world of SIHGA® fastening technology! On our website you will find all the information you need, as well as convenient inquiry and order options and numerous downloads.

**SIHGA® online shop**

**SIHGA® APP**

**SIHGA Jointplan®**

**SIHGA Terrassenplaner®**

**Online calculation**

**Product information**

**Approvals**

**News**

**Tender texts**

**Product and installation videos**

**Everything on your mobile phone or tablet**

**Anchor dimensioning software**

**Terrace planning software**

**Recommendations**

**Technical details**

**Design recommendations**

**Installation instructions**

**SIHGA® reference projects**





# SIHGA®

Culture and Value

## Strong products – made in Austria

SIHGA® is a family company based in Gmunden, Upper Austria. Fastenings from SIHGA® are the preferred choice today of many commercial and increasingly also private users in the German-speaking world.

## Strong for our customers

SIHGA® sees every customer as a partner. We supply trade, retail and industry. SIHGA® wood construction engineers create design suggestions, advise on realisation, train users on site, and organise technical seminars for specialist areas in wood construction. Our innovations are packed exclusively in tailored system packaging and always include the installation instructions and high quality accessories.

## Strong innovations

Our products are developed, carefully packaged and tested many times over in Austria. SIHGA® is the inventor of Alu-TeFix®, Betsi®, BeziFee®, BeziFix®, BohrFix®, DielenFix®, EDSTAHL®, FassadenClip®, FugiFix®, GleitFix®, GoFix®, Herakulix®, HobaFix®, Hobet®, Hozibo®, IdeFix®, JustiFix®, Klebsan®, KompeFix®, L-GoFix®, Pfalu®, Pfalu Aquastop®, Pick, Pick PSA, Pick Engel®, ProziFix®, Rest-X®, RomboFix®, SenoFix®, SIHGAFIX®, Stabilix, Stegsan®, SymbioFix®, SystemFix®, TefaBind®, TefaFix®, TefaFlex®, TeFix®, TerrassenFix®, WabaFix® and ZaFix®.

# TAKE THE BEST

# TAKE SIHGA®



**KLIMANEUTRALES  
UNTERNEHMEN**  
certified by Fokus Zukunft



# SIHGA®

Strong and safe together

## We focus on service - use the all-inclusive services to your advantage



### SIHGA® Academy

- Your advantage through knowledge: take advantage of the free seminars and workshops for qualified further training.

**New!** Also to watch on **YouTube!**



### Become a development partner

- Use bundled knowledge from theory and practice
- Test new products even in the beta phase



### Technology on tour

- Book our **SIHGA® Applications Engineer** completely free of charge - we are happy to support your team with advice and action directly on the construction site.



## Technical support

- The **"Technical Support"** department is always available to help you with questions and for tips on tricky applications.

Simply e-mail [support@sihga.com](mailto:support@sihga.com) or call **+43 7612 74370 0**.

We're happy to help!

## Dimensioning service

- We work with you to find the safest and simplest solution.  
Simply e-mail [bemessung@sihga.com](mailto:bemessung@sihga.com)!



## Pick check

- We think of security in completely new dimensions: have your SIHGA® Pick tested by an official institution with ultrasound.



## BIM data

- Use 3D data from all SIHGA® products for your straightforward planning.

# Secure is secure! With SIHGA®

Our all-inclusive services for your security

SIHGA® **product developments.** From practice for practice.

SIHGA® **innovations.** We secure YOUR Benefit.

SIHGA® **specialist competence.** Due to our specialisation in wood construction.

SIHGA® **quality.** Permanently tested and externally monitored.

SIHGA® **ecology.** We take care of the environment.

SIHGA® **system packaging.** Tailored for wood construction.

SIHGA® **system catalogue.** Technical information at a glance.

SIHGA® **online.** Calculations at the click of a mouse.

SIHGA® **APP.** Everything on your mobile phone or tablet.

SIHGA **Jointplan**®. Anchor dimensioning software.

SIHGA **Terrassenplaner**®. Terrace planning software.

SIHGA **ProziFix**®. Dimensioning sheet.

SIHGA® **delivery service.** We deliver to our partners within 24 hours, without surcharges for smaller quantities, and carriage paid in Austria and Germany.



# We keep our promises.

# Surface



galvanic zinc-coating, chrome 6 free, good corrosion protection under "normal" environmental conditions without direct weather exposure and with covered installation



galvanic zinc-coating, chrome 6 free, additional layers for greatly enhanced corrosion protection, surface is paintable, no contact corrosion in case of metals with aluminium or magnesium content



zinc dip-coating, paintable and has improved slip properties



galvanic zinc-coating, chrome 6 free, additional layers for greatly enhanced corrosion protection, surface is paintable, „self-healing effect“ in the event of damage to the protective layer



galvanic zinc-nickel coating, similar to SC 1, although significantly greater corrosion protection



aluminium zinc dip-coating, similar to hot-dip galvanisation, with sheets and wires (for punched parts may mean bright cut edges, therefore only suitable for use with direct weather exposure)



high quality black-coating, abrasion-resistant and additional increase in corrosion protection



colour-coating made from stainless steel



galvanic zinc-coating, chrome 6 free, good corrosion resistance with indirect weather exposure and covered installation, very good slip properties, abrasion-resistant passivated layer prevents particles detaching and therefore no adhesion between thread and wood (reduces the screw-in torque)

All information about corrosion protection refers to tested products directly after production!

# Material



SIHGA-MID® =  
fiberglass-reinforced plastic

# SIHGAFIX®

## SIHGA® Feature

the original from SIHGA®

length 60 mm, 77 mm

also made from hardened stainless steel

vacuum ice-chill hardened

precisely milled drive zone

made in Germany

colour-coding system

## YOUR Benefit

the first Quadro attachment for use in cordless screwdrivers, hammer screwdrivers, chucks and bit holders

also screws easily in deep grooves

prevents rust from external sources occurring at the screw

for extreme high strength and long lifespan

resulting in a very accurate fit

German tested workmanship for reliable quality

each bit size is clear at first glance

Optional in:



SIHGAFIX® TX 10, 60 mm length



SIHGAFIX® TX 15, 60 mm length



SIHGAFIX® TX 20, 60 mm length



SIHGAFIX® TX 20, 77 mm length for SenoFix® FT and TerrassenFix® depth limiter TTB



SIHGAFIX® TX 25, 60 mm length



SIHGAFIX® TX 30, 60 mm length



SIHGAFIX® TX 40, 60 mm length



SIHGAFIX® TX 50, 60 mm length

# DUO Bit

## SIHGA® Feature

lengths 150, 200 and 350 mm

double Torx drive

made in Europe

colour-coding system

## YOUR Benefit

tailored to the requirements in wood construction

for double lifetime

European tested workmanship for reliable quality

each bit size is clear at first glance



**DUO-Bit** TX 30, 150 mm length



**DUO-Bit** TX 40, 150, 200 and 350 mm length



**DUO-Bit** TX 50, 150 mm length

# SIHGA® System Packaging

## SIHGA® Feature

## YOUR Benefit

height and width always the same

so the space needed is also always the same

always firmly closable

in combination with the closing flap particularly practical against unintended emptying

patented, externally visible holders for accessories

the accessories are always to hand and visible in the unopened pack

water-repellent surface

a great help in wet building weather

system size on the left underside

the practical scale is always available

montagepack specially developed for installation; patent-protected

the accessories required for installation and the installation instructions are always enclosed

Systemstift® enclosed in the installation pack

the carpenter's pencil that can also measure

minimontagepack specially developed for installation and resale

contents externally visible thanks to viewing panel



SIHGA® minimontagepack



SIHGA® montagepack



SIHGA® Systemstift®



# SIHGA® System Packaging

## SIHGA® Feature

## YOUR Benefit

mehrwertpack	consists of four montagepacks
specially developed for installation; patent-protected	the accessories required for installation and the installation instructions are always enclosed
specially patented holders inside for accessories	so the accessories are always to hand
always firmly closable	in combination with the closing flap, particularly practical
objektpack®	package content for larger properties
Reduced painting of cardboard boxes to protect the environment	



SIHGA® mehrwertpack



SIHGA® objektpack®

# SIHGA<sup>®</sup> SystemFix<sup>®</sup>

## SIHGA<sup>®</sup> Feature

display equipment for up to 160 montagepacks

clear storage for up to 160 montagepacks

expandable and changeable as desired

content is checked automatically

forward-sloping compartment floors

over 1200 companies confirm that SystemFix<sup>®</sup> brings profits

## YOUR Benefit

less than half m<sup>2</sup> of space needed

automatic moving-up of packages

shelf heights can be changed at any time and several SystemFix<sup>®</sup> can be connected to each other in a row

your personal SIHGA<sup>®</sup> application specialist will be happy to do this by arrangement

so that the packages slide forward automatically

the fact that 80 % of the time is needed for 20 % of the purchasing volume is optimised by SystemFix<sup>®</sup>



# SIHGA® Index/ Photo Credits

Limited edition

Published by: SIHGA® GmbH, Gewerbepark Kleinreith 4, 4694 Ohlsdorf near Gmunden | Austria

Editorial team: SIHGA® GmbH, Gewerbepark Kleinreith 4, 4694 Ohlsdorf near Gmunden | Austria

Layout/Graphics/Text: SIHGA® GmbH, Gewerbepark Kleinreith 4, 4694 Ohlsdorf near Gmunden | Austria

Legal notes: SIHGA® products are subject to continuous development, technical modifications and changes in the product range.

The technical data in this catalogue is provided to assist the authorised user to choose the appropriate fastener. It does not release the user from his responsibility to choose the right product and to check the actual conditions.

Please take note of the state of the art technology, building regulations and relevant safety regulations in force in planning and application of our products.

DelipUries are exclusively based on our General Terms and Conditions in the valid version (page 20-21 of this catalogue).

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Any liability for printing and typesetting errors is excluded.

We cordially thank our customers for providing the reference photos of their building projects!

# SIHGA<sup>®</sup> General Terms and Conditions of Business

(10.10.2021)

- 1.) Our deliveries, and all subsequent transactions, are performed exclusively on the basis of these terms and conditions of business. The ordering party's purchasing conditions are not binding on us. We enter into contracts exclusively with businesses, but not with consumers. With their order, the ordering party declares they are concluding the contract exclusively for entrepreneurial purposes. They shall provide proof of their commercial status upon request.  
Unless a written objection is received within three days, the conditions of an order confirmation sent by us shall be deemed to be accepted by the ordering party.
- 2.) Our offers, price lists and cost estimates are non-binding. All orders and agreements, as well as commitments made by representatives, require our written confirmation in each case in order to be valid.  
Our technical details and descriptions of the objects of the delivery are non-binding and are only approximations.
- 3.) Our prices are ex works from our site in 4694 Ohlsdorf near Gmunden.  
The prices offered as standard are quoted excluding VAT and are subject to the standard rate of VAT.  
Packaging is not collected.
- 4.) All delivery (performance) dates and delivery (performance) deadlines are approximate.  
Claims for compensation by the ordering party due to late delivery / performance or non-performance are excluded. Partial services already provided must be accepted and paid for by the ordering party.  
Partial deliveries (performance) and interim invoices are permitted, whereby payments must be made by the ordering party according to the specified payment conditions.  
If an extension set for us by the ordering party is not observed without our being at fault, the ordering party's right of withdrawal is excluded. They can withdraw from the contract no earlier than two months after the original delivery date is missed.
- 5.) Our goods are shipped from our factory in 4694 Ohlsdorf near Gmunden at the ordering party's risk, even if the freight and other costs are charged to us. The risk shall transfer to the ordering party with the transfer of the goods to the forwarder, etc. In the absence of any other agreement in individual cases, we shall be free to choose the carrier. The goods are only insured by us against transport damage upon written instruction from the ordering party and at their cost. Unless otherwise agreed in individual cases, within Austria, Germany and the Southern Tyrol our deliveries are free of charge.  
If the ordering party does not accept the goods, after setting a 14-day period we can withdraw from the contract and/or demand compensation due to non-fulfilment. We reserve the right either to demand 25 per cent of the agreed order total without proof of damages or reimbursement of the actual damages incurred.  
The return of goods by the ordering party requires our written consent and is at the ordering party's costs and risk. The delivery note number and/or invoice number must be cited with each return.
- 6.) For all claims by the ordering party against us, they are entitled to default interest only to a maximum of 3% above the ECB base rate.
- 7.) Our invoices are payable within 10 days of the date of invoice without deduction. Other terms and discount agreements are noted separately. Only prompt payment in full in cash justifies the deduction of a discount.  
If payment by instalment is agreed, default shall occur if the payment of just one instalment is late. All our outstanding receivables shall then fall due in full.  
The ordering party is not entitled to withhold payments for any reason or to declare offsetting against our receivables. Insofar as the ordering party, in the case of a delivery or performance, reserves the right of retention in respect of our fee, this is limited in any case to the amount of the capital required to cover reasonable costs of improvement.
- 8.) To the exclusion of all claims, the ordering party shall immediately inspect the delivered goods or work and services performed after receipt of the delivery or notification of completion by us and shall immediately report identified defects in detail to us by registered letter. Defects identified subsequently must also be reported to us in writing immediately after their discovery.  
The warranty period for moveable objects is six months. The burden of proof that a defect for which we are responsible was present on delivery shall lie with the ordering party.  
At our discretion we can fulfil warranty claims such that the defect is repaired or replaced with defect-free goods, or we can grant a reasonable price reduction, in particular if we believe a repair would be possible only with unreasonably high costs for us. We shall not be liable for consequential damage occurring in connection with a warranty claim, for example after processing has already taken place.

With regard to the suitability of the delivered goods, we only guarantee that they can be used as defined in our conditions and provisions. We are not obliged to check whether the ordered goods are suitable for a specific purpose, not even as a secondary contractual obligation. Such properties shall only be deemed to be warranted where this is expressly stated by us in writing. Customary and/or production-related deviations in terms of dimensions, equipment, material and similar shall not be grounds for complaint.

Changes to our goods by the ordering party or their people shall lead to the full exclusion of our liability.

Our liability for damage caused as a result of material used by the ordering party is excluded.

- 9.) The delivered goods shall remain our property until full payment of the purchase price and all our receivables deriving from the business relationship with the ordering party, including secondary claims. A resale is only permissible if we have been informed of this in good time beforehand and have given our consent to the sale. In the event of our consent, the purchase price claim shall thereupon be deemed to have been assigned to us and we shall be entitled to notify the buyer of this assignment at any time.

If the ordering party defaults on their payment obligations toward us or if they breach one of the duties based on the agreed retention of title, the entire receivable shall become immediately payable. We also reserve the right to demand the return of the objects belonging to us, also without withdrawing from the contract, and to collect them from the ordering party, whereby the ordering party shall waive the assertion of a right of retention.

- 10.) In the case of a resale of SIHGA® products by the ordering party, this is only permitted with the original name. Moreover, the ordering party is not permitted to use our brands and/or product designations without our written consent.

- 11.) All claims for compensation against us are excluded, irrespective of the legal reason on which they are based, in particular also due to breach of contract and when concluding the contract, but also according to the conditions of the Product Liability Act for personal, material and pecuniary damages which are suffered as a result of a fault in the goods, whereby above all claims for compensation due to consequential damages, such as loss of production or lost profits and the like are excluded in full, unless we are guilty of malice or gross negligence. The burden of proof for such a degree of fault shall lie with the ordering party. Claims for compensation in any case shall exclusively include the basic costs for correcting the damages, but not consequential damages, lost profits or the like. They shall become statute-barred - unless a limitation period occurs earlier - at the latest two years after delivery has taken place.

All claims for compensation and any redress against us must be asserted in the courts within six months or other wise shall expire. The return or exchange of ordered and supplied goods is not possible. If goods from the current delivery range are returned to us in undamaged original packaging, we shall be at liberty to take back the goods against payment of a processing fee of at least 20% of the value of the goods or to store the goods at the risk and expense of the ordering party or to return them to the ordering party.

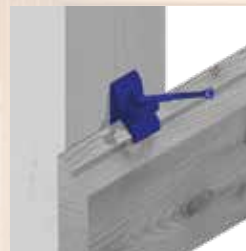
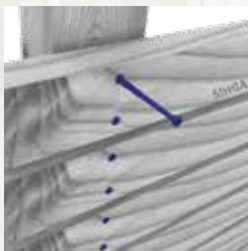
- 12.) Any drafts, plans and other documents prepared by us are our sole property and may not be used by the ordering party or made accessible to third parties.

- 13.) The place of jurisdiction for all disputes arising directly or indirectly from the contract between the ordering party and us, in particular also regarding its validity, shall be exclusively the materially competent court in 4600 Wels.

The place of performance is 4694 Ohlsdorf near Gmunden.

The contractual relationship shall be governed exclusively by Austrian law to the exclusion of its conflict of law provisions and the UN Convention on Contracts for the International Sale of Goods.

In the absence of any other express written agreement, the contractual language shall be exclusively German. This shall not be affected if, in individual cases, we correspond or exchange information in other languages before or after the conclusion of the contract.

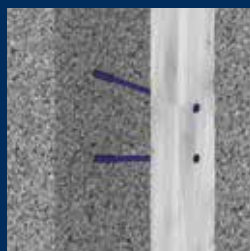
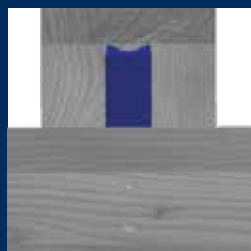
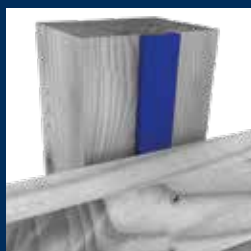


### Fastening Visible

Alu-TeFix®	24
F-BohrFix® ES/SC	32
FugiFix® FF	36
L-GoFix® MS	38

### Fastening Invisible

F-BohrFix® ES/SC	32
FassadenClip® FCS	34
RomboFix® RF	42
SenoFix® FT	44



### Constructive Wood Protection

KompeFix® II KF 37

### Substructure

BeziFix® SR 26

BeziFix® Therm BT 28

TefaFix® F 46

TefaFlex® F 48

TefaBind® 50

# Alu-TeFix®



Alu-TeFix® made of hardened stainless steel or in A2

INNOVATION  
2021





## SIHGA® Feature

## YOUR Benefit

Alu-TeFix® in A2 fastens wood on aluminium (except SymbioFix®) 2-3 mm without predrilling

prevents the formation of cracks or splitting in almost all hardwood and thermo-wood; saves working time

Alu-TeFix® made of hardened steel fastens wood on TefaFix® T/F without predrilling and countersinking

as TefaFix® absorbs the axial movement from swelling and shrinking of the wood, there is no danger of breakage

SIHGA® drill wings with special shape

pre-drills the boards at 6 mm and prevents lifting of the board while screwing; drilling wings break off when penetrating into the aluminium

SIHGA® further-developed multi-stage head

no displacement or chipping of the wood due to an extra thin head and saw tooth corrugation

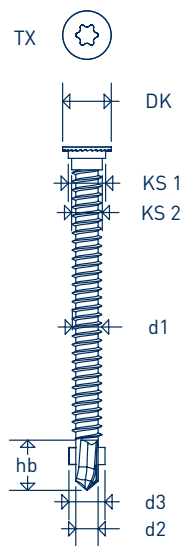
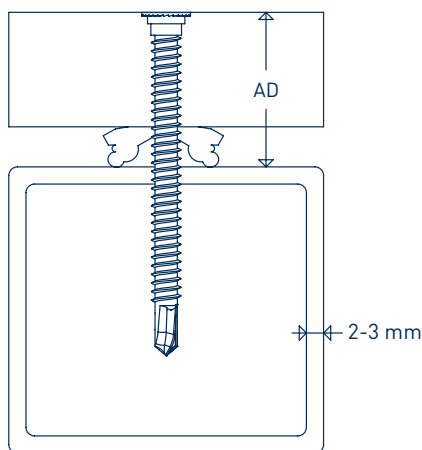
in combination with KompeFix® II KF on conventional aluminium and in combination with TefaFlex® T/F on TefaFix® T/F the perfect solution

increases the lifetime of the wood and the screw

including SIHGAFIX® stainless steel, Systemstift® and installation instructions quantity determination

time-saving, practical, precise; all accessories are included

[www.sihga.com/Online Calculation](http://www.sihga.com/Online Calculation)






Dimensions [mm] Alu-TeFix®



d1	TX	DK	KS 1	KS 2	d2	d3	hb
5,0	20	8,5	6,5	5,4	3,9	6,4	10

SIHGA® montagepack	Dimension Alu-TeFix®	Add-on Part up to AD	Substructure TefaFix®T/F
Art. No.	PU	d1 x L [mm]	
54016	200	<b>5,0 x 51</b>	yes
54026	200	<b>5,0 x 61</b>	yes

SIHGA® montagepack	Dimension Alu-TeFix® A2	Add-on Part up to AD	Substructure TefaFix®T/F	Substructure Aluminium 2-3 mm
Art. No.	PU	d1 x L [mm]		
54066	200	<b>5,0 x 51</b>	yes	yes
54076	200	<b>5,0 x 61</b>	yes	yes

SIHGA® APP



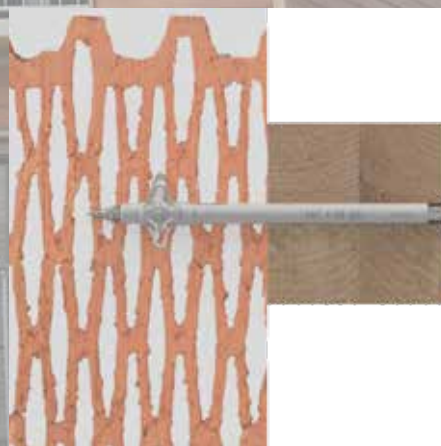
### SIHGA® TIP:

When used in combination with woods that contain a lot of tannins (e. g. cumaru, oak, robinia, garapa, ...) we recommend Alu-TeFix® in A2.

# BeziFix® SR



**BeziFix® SR**  
the original



## SIHGA® Feature

works in vertical coring bricks, light, normal and cellular concrete, solid brick, and solid sand-lime bricks

integrated anti-rotation lock

fastens 20 - 200 mm thick materials

no protruding collar at the end of the anchor

screw packaged already inserted into anchor

includes SIHGAFIX®, Hozibo® or Stabebo SDS drill and installation instructions

design values

## YOUR Benefit

particularly good bearing capacity, even in hollow brick

for easy installation

universally usable with low storage costs

can be screwed flush-mounted

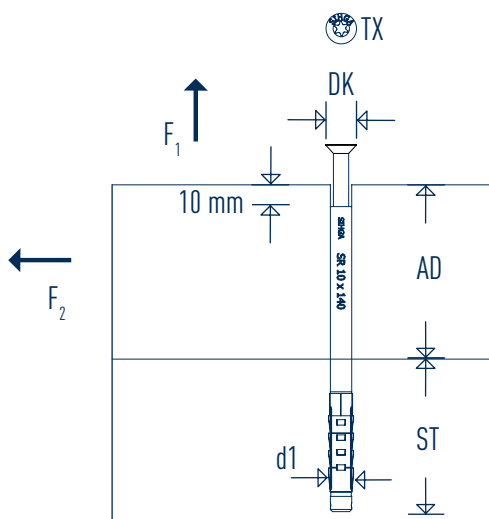
fast, saves installation work on-site

time-saving, practical, precise, complete accessories included; Hozibo® when drilling in brick or Stabebo SDS, the concrete drill

SIHGA® performs the calculation for you

SIHGA®		Dimension	Installation Part	Characteristic Values		
montagepack Hozibo®	montagepack Stabebo			Tension $F_1$ / Transverse $F_2$	Tension $F_1$ / Transverse $F_2$	
Art. No.	Art. No.	PU	BeziFix® SR	AD	HLZ [kN]	Beton [kN]
33016	53016	50	<b>10 x 80</b>	20	1,00	4,50
33026	53026	50	<b>10 x 100</b>	40	1,00	4,50
33036	53036	50	<b>10 x 120</b>	60	1,00	4,50
33046	53046	50	<b>10 x 140</b>	80	1,00	4,50
33056	53056	50	<b>10 x 160</b>	100	1,00	4,50
33066	53066	50	<b>10 x 180</b>	120	1,00	4,50
33076	53076	50	<b>10 x 200</b>	140	1,00	4,50
33086	53086	50	<b>10 x 230</b>	170	1,00	4,50
33096	53096	50	<b>10 x 260</b>	200	1,00	4,50

Min. setting depth of 70 mm in load-bearing wall  
HLZ = hollow brick



### Dimension [mm]

BeziFix® SR			
d1	TX	DK	ST
10	40	14	70



# BeziFix<sup>®</sup> Therm BT



BeziFix<sup>®</sup> Therm BT



## SIHGA® Feature

## YOUR Benefit

fastens the entire load of the horizontal and vertical facade covering

takes the entire load of the facade covering

fastens on wood or brickwork with the BeziFix®Therm TR dowel

can be installed on any foundation, with the BeziFix® Therm TR anchor the right drill is always enclosed for precise drilling through all materials. Hozibo® SDS even leaves hollow bricks undamaged

also protects the substructure of the facade

SC 3-corrosion protection and insulation protect against rust and thermal bridges

aligns the facade

saves underlay work for levelling as well as counter-battens

for full-surface thermal insulation

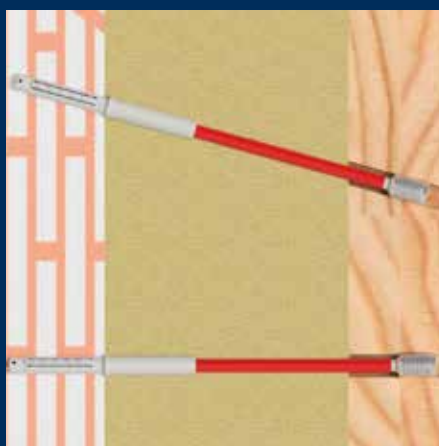
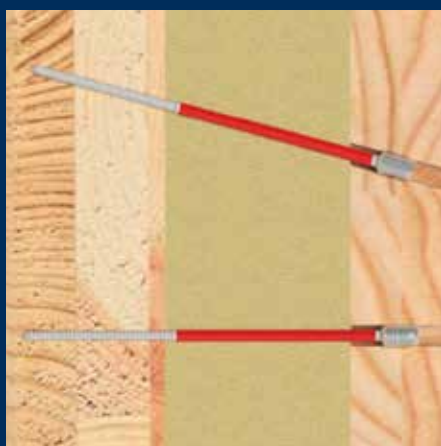
prevents thermal bridges

easy installation for soft, hard, blown-in and full surface insulation up to 300 mm; can be used horizontally and vertically

fast, thereby saving time and wage costs

including Systemstift® and installation instructions online calculation

enclosed accessories - practical and time-saving at [www.sihga.com](http://www.sihga.com) (facade)



SIHGA® APP



SIHGA®		Dimension	Insulation	Example Calculation	
montagepack		BeziFix® Therm BT	max.	Total weight of facade	Fastening Distance
Art. No.	PU	d1 x L	[mm]	[kg/m²]	EV [cm]
29096	50	<b>7,2 x 220</b>	100	25	160
29106	50	<b>7,2 x 240</b>	120	25	147
29116	50	<b>7,2 x 260</b>	140	25	129
29126	50	<b>7,2 x 280</b>	160	25	115
29136	50	<b>7,2 x 300</b>	180	25	104
29146	50	<b>7,2 x 320</b>	200	25	95
29156	50	<b>7,2 x 340</b>	220	25	87
29166	50	<b>7,2 x 360</b>	240	25	81
29176	50	<b>7,2 x 380</b>	260	25	75
29186	50	<b>7,2 x 400</b>	280	25	70
29196	50	<b>7,2 x 420</b>	300	25	66

Calculation with wind suction 0.8 kN / m<sup>2</sup> - counter battens 50 x 80 mm C 24 - horizontal distance 600 mm  
Quantity determination = m<sup>2</sup>: substructure distance [m]: EV distance [m] x 2

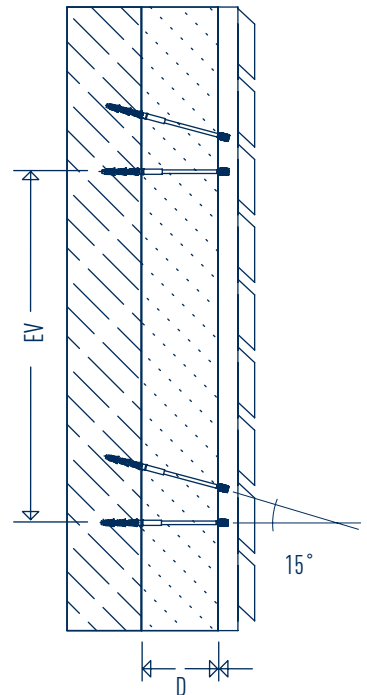
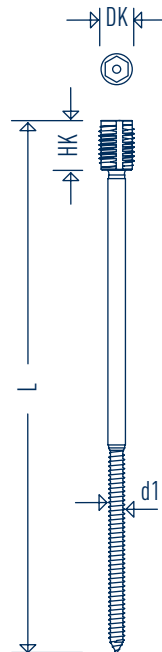
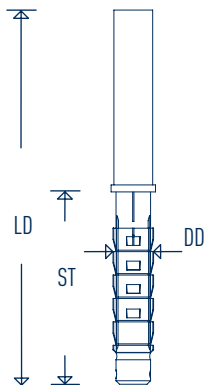
SIHGA®	Dimension	Seat Depth	Drill Length	Drill Length	Drill Length	Correct Screw Length	Base	
montagepack	BeziFix® Anchor TR	ST	Hozibo®	Stabebo	SDS-Hammer drill	BeziFix® Therm BT		
Art. No.	PU	Type	DD x LD	[mm]	[mm]	[mm]	[mm]	
29216	50	TRH 450	10 x 100	60	450	-	220 - 360	Brick*
29276	50	TRS 450	10 x 100	60	-	450	220 - 360	Concrete
29226	50	TR 600	10 x 100	60	-	600	380 - 420	Brick*, Concrete

\*these include: solid brick, perforated brick, lightweight concrete, Pore drilling, foam concrete, Sand-lime brick; only rotating drill in bricks

**Dimension [mm]**  
BeziFix® Therm BT

d1	DK	HK	BK
7,2	16	20	13

BK= drilling diameter for head DK



# BeziFix<sup>®</sup> Therm BT Accessories



## SIHGA<sup>®</sup> Feature BeziFix<sup>®</sup> Fastening Tool

two functions in one tool

for 13 mm drill chucks

## YOUR Benefit

one side is designed for mounting the BeziFix<sup>®</sup> on wood or brickwork, the opposite side is used for the adjustment of the battens

fits all conventional chucks



## BeziFix<sup>®</sup> Drilling guide

for accurate guiding of the hammer drill in brickwork, even angular

the fixed disks accurately indicate 90° or 15° and ensure easy, precise drilling



## BeziFix<sup>®</sup> Lewis Drill

Ø 13 mm, length 230 mm

for drilling in wood, in battens



## Hozibo<sup>®</sup> SDS Drill

drill for precise drilling with SDS-slot  
automatic impact stop

drills wood and bricks in one process  
even leaves hollow bricks undamaged



## Stabebo SDS Drill

drill for precise drilling with SDS-slot  
and 4-edged drill geometry

specially for applications in reinforced concrete



## BeziFix<sup>®</sup> Therm TR Dowel

works in vertical coring bricks, light, normal and cellular concrete, solid brick, and solid sand-lime bricks, pore drilling

high loading capacity, even in hollow bricks

integrated anti-rotation lock and plugs

for easy installation

# F-BohrFix<sup>®</sup> ES/SC



**F-BohrFix<sup>®</sup> ES/SC**  
made from hardened stainless  
steel or SC 1



**F-BohrFix<sup>®</sup> ES**  
made from stainless steel  
with SC 9 coating



## SIHGA® Feature

fastens wood to wood with small decorative head  $\varnothing$  5.2 mm

fastens without pre-drilling

fastens without splitting the wood

made from hardened stainless steel

including SIHGAFIX® stainless steel, Systemstift® and installation instructions

also available with black surface (SC 9 coating)

## YOUR Benefit

facade formwork is fastened directly in the spring

fast, saves installation work

also clean fastening close to the edge

rust-free fastening, extremely break-proof

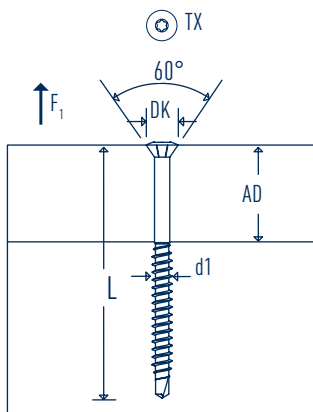
time-saving, practical, all accessories enclosed; SIHGAFIX® stainless steel prevents rust from external sources and also screws into deep grooves

also fastens dark materials, visually appealing

### Dimension [mm]

F-BohrFix® ES/SC

d1	TX	DK	Decorative Head
3,2	10	5,2	60°



SIHGA® montagepack	Dimension F-BohrFix® ES/SC	Installation Part AD	Recommended Values Tensile Force $F_1$ [kN]	
Art. No.	PU	d1 x L [mm]	Head	Thread
27956	500	<b>3,2 x 35*</b>	0,12	0,30
27966	500	<b>3,2 x 40*</b>	0,12	0,34
27976	500	<b>3,2 x 50*</b>	0,12	0,42
27986	500	<b>3,2 x 60*</b>	0,12	0,51

\* available with SC 9 coating



SIHGA® APP



### SIHGA® TIP:

Timber outdoors should only be fastened with stainless steel products.

# FassadenClip® FCS



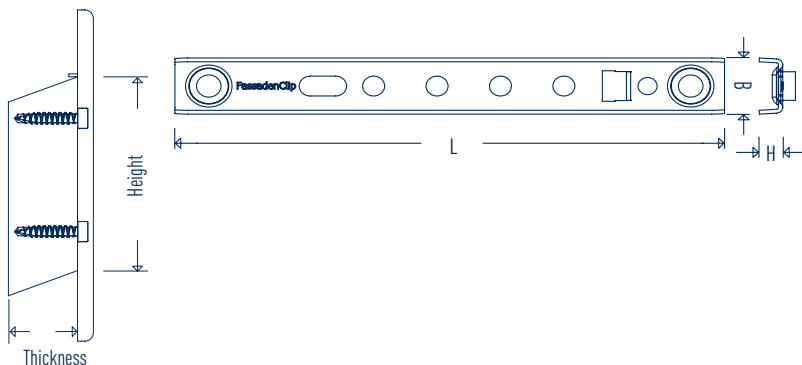
FassadenClip® FCS



## SIHGA® Feature

## YOUR Benefit

patented facade fastening, invisibly screwed, made and developed in Austria	the optically elegant surface is created simply, flexibly and without auxiliary tools
suitable for almost all wood types with profile height 57-95 mm	both rhombus and square-shaped profiles can be professionally fastened
automatic distance to the substructure is 5.5 mm	the facade remains optimally ventilated, timber can dry well
freely selectable reveal width, we recommend 10 mm	the recommended joint width can be installed automatically without further aids
timber remains undamaged on all visible surfaces	timber is screwed from behind, this prevents direct weathering and ensures a durable facade
includes SIHGAFIX®, all fastening screws, Systemstift® and installation instructions	time-saving, practical, precise, complete accessories enclosed
two screw points per FassadenClip® in the facade panel	creates the same stability as when visibly screwed, prevents warping of the timber
quantity calculation per m <sup>2</sup>	1: substructure distance [m] : (height of facade profile [m] + join [m])



### Dimension [mm]

FassadenClip® FCS		
L	B	H
115	15	5,5
130	15	5,5
145	15	5,5

SIHGA® montagepack		Dimension FassadenClip® FCS	Dimension of facade profile		
Art. No.	PU	Type	min.	max.	min.
32355	300	<b>115 x 17</b>	57	68	19
32365	300	<b>115 x 22</b>	57	68	24
32375	300	<b>115 x 28</b>	57	68	30
32385	300	<b>130 x 17</b>	69	80	19
32395	300	<b>130 x 22</b>	69	80	24
32405	300	<b>130 x 28</b>	69	80	30
32415	300	<b>145 x 17</b>	81	95	19
32425	300	<b>145 x 22</b>	81	95	24
32435	300	<b>145 x 28</b>	81	95	30

L-BohrFix® FB  
Ø 4,5 x 29



BohrFix® FB  
Ø 4,2 x 17 / 22 / 28



SIHGA® APP



# FugiFix<sup>®</sup> FF

## SIHGA<sup>®</sup> Feature

universal joint spacer for facades

due to the special geometry

made from SIHGAMID<sup>®</sup>, the fibre-glass reinforced plastic originating from space research

## YOUR Benefit

joint widths of 8 mm can be set quickly

the FugiFix<sup>®</sup> FF cannot fall into the joint and can easily be removed again

extremely heat-, frost- and UV-resistant

SIHGA <sup>®</sup> montagepack		Dimension FugiFix <sup>®</sup>	Joint Widths
Art. No.	PU	Type	[mm]
34966	5	<b>FF</b>	5, 6, 7, 8







SIHGA<sup>®</sup> APP







FugiFix<sup>®</sup> FF made from  
SIHGAMID<sup>®</sup>





### SIHGA<sup>®</sup> TIP:

To extend the life of timber constructions, we recommend using KompeFix<sup>®</sup> II KF.



# KompeFix® II KF

## SIHGA® Feature

universal, constructive wood protection for facades with height 8 mm and width 21 mm

developed, patented and made in Austria

the roll with 4.5 metres length is only fastened structurally

patented, helps to seal the screw

the pre-load effect integrated through the specific shape compensates for the swelling and shrinkage of the timber

monitored production from polyvinyl chloride, with a special recipe

quantity calculation per m<sup>2</sup>

includes installation instructions

## YOUR Benefit

creates distance between the woods; thereby allowing them to breathe and increasing their lifespan

local quality, experience from more than 14 years of facade construction included

fast and easy, can be fixed as desired (screwable) and cut to length

increases the service life of the construction

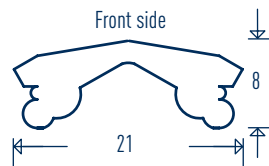
improves the appearance of the facade

remains permanently dimensionally stable, is heat-, frost- and UV-resistant

1: substructure distance [m] : 4.5

is time-saving and enclosed for practicality

SIHGA® montagepack		Dimension KompeFix®	Dimension [mm]		
Art. No.	PU	Type	Width	Height	Length
41006	8 x 4,5 m	II KF	21	8	4500



SIHGA® APP



# L-GoFix<sup>®</sup> MS



L-GoFix<sup>®</sup> MS made from hardened stainless steel



L-GoFix<sup>®</sup> MS with additional SC 9 / SC 11 coating

## SIHGA® Feature

## YOUR Benefit

fastens wood to wood without pre-drilling and without countersinking

reduces crack formation or splitting of the timbers, even board materials, saves work time, additional pre-drilling extends the life of the wood

also attaches coverings made out of hard and thermo-wood

creates a perfect look, with these woods additional pre-drilling is recommended

multi-stage head with small head diameter

high constructive wood protection and refined surface as a result of the plane head

special thread angle with sharp thread edges

high pull-out value

SIHGA® point with special shape

guarantees fast setting of screws without splitting

SIHGA® ribs on shaft and slip coating

light, fast rotation and optimum fit in the wood are guaranteed

made from hardened stainless steel

rust-free fastening, extremely break-proof

also available with black (SC 9 coating) and antique look (SC 11 coating)

optimum on dark materials, or can be used for larch, Douglas fir and Bangkirai

including SIHGAFIX® stainless steel, Systemstift® and installation instructions

time-saving, practical, precise, all accessories enclosed; SIHGAFIX® stainless steel prevents rust from external sources and also screws into deep grooves

When using coatings such as oils, glazes and pre-graying, it is essential to consult the coating manufacturer. As a rule, the manufacturer specifies the minimum material quality of the binding agent. If the manufacturer is not known, we recommend material quality A4 (L-BohrFix® MB A4).



SIHGA® APP



### SIHGA® TIP:

In case of applications in the pool area with timbers and with a high tannin content, we recommend using L-BohrFix® MB A4 (page 64).

## SIHGA® Feature

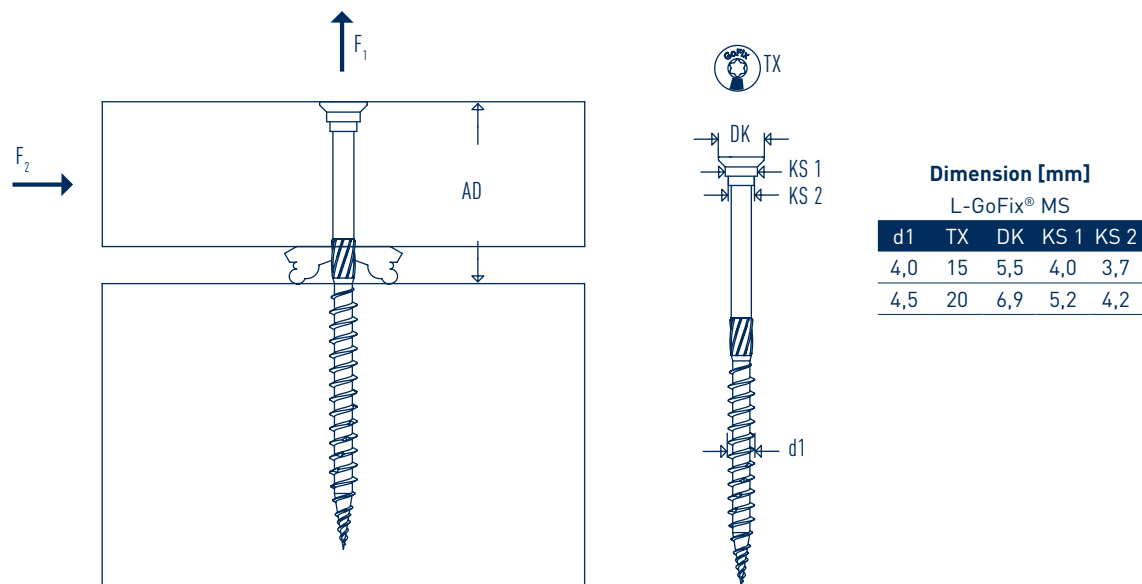
quantity calculation

including SIHGAFIX® stainless steel, Systemstift® and installation instructions

## YOUR Benefit

SIHGA® performs the calculation for you

time-saving, practical, precise, all accessories enclosed, SIHGAFIX® stainless steel prevents rust from external sources and also screws into deep grooves



Dimension [mm]

L-GoFix® MS

d1	TX	DK	KS 1	KS 2
4,0	15	5,5	4,0	3,7
4,5	20	6,9	5,2	4,2

SIHGA® montagepack		Dimension L-GoFix® MS	Installation Part AD [mm]	Characteristic Values**			
Art. No.	PU	d1 x L		Tensile Force F <sub>1</sub> [kN]		Shear Force F <sub>2</sub> [kN]	
				Head	Thread	Wood-Wood	Steel-Wood
24106	500	<b>4,0 x 30</b>	12	0,46	1,05	0,97	1,23
24116	500	<b>4,0 x 35</b>	14	0,46	1,23	0,97	1,23
24126	500	<b>4,0 x 40*</b>	16	0,46	1,41	0,97	1,23
24136	500	<b>4,0 x 45</b>	18	0,46	1,58	0,97	1,23
24146	500	<b>4,0 x 50*</b>	20	0,46	1,76	0,97	1,23
24156	500	<b>4,0 x 60*</b>	24	0,46	2,05	0,97	1,23
24226	400	<b>4,5 x 40*</b>	16	0,77	1,30	1,30	1,51
24236	400	<b>4,5 x 45*</b>	18	0,77	1,48	1,30	1,51
24246	400	<b>4,5 x 50*</b>	20	0,77	1,67	1,30	1,51
24266	400	<b>4,5 x 60*</b>	24	0,77	1,85	1,30	1,51
24276	300	<b>4,5 x 70*</b>	28	0,77	2,16	1,30	1,51

\* also available with SC 9 coating

\*\* characteristic values for dimensioning according to EC 5 and strength class pk 410 kg/m<sup>3</sup>



### SIHGA® TIP:

Requirement in items per m<sup>2</sup> is determined:

1: substructure distance [m] : (height of facade profile [m] + join [m]) x 2



## SIHGA® Feature

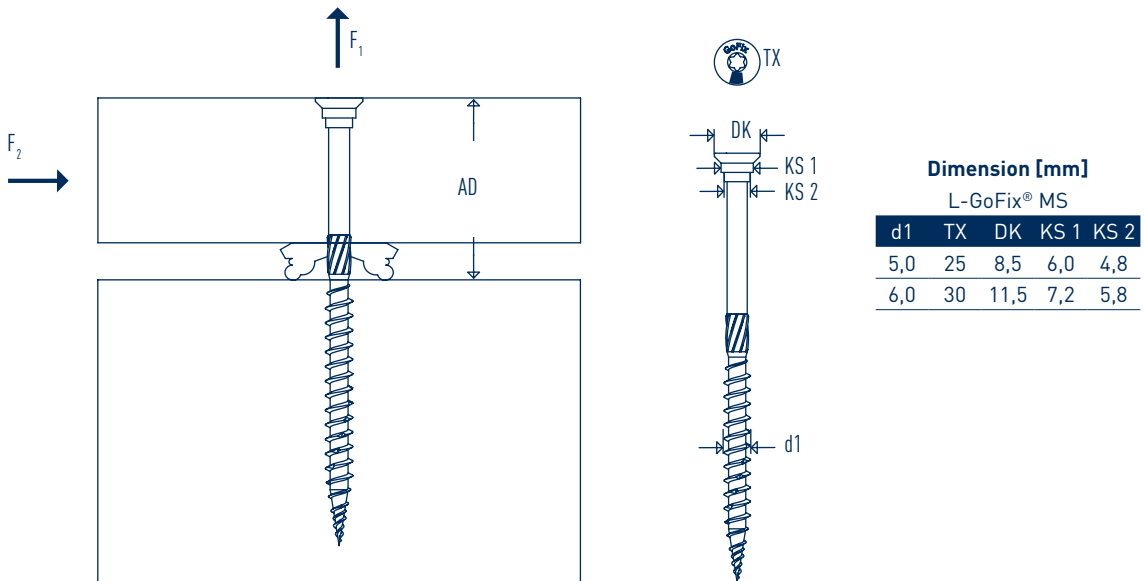
calculation of quantity

including SIHGAFIX® stainless steel, Systemstift® and installation instructions

## YOUR Benefit

SIHGA® performs the calculation for you, just read the installation part thickness

time-saving, practical, precise, all accessories enclosed; SIHGAFIX® stainless steel prevents rust from external sources and also screws into deep grooves



### Dimension [mm]

L-GoFix® MS

d1	TX	DK	KS 1	KS 2
5,0	25	8,5	6,0	4,8
6,0	30	11,5	7,2	5,8

SIHGA® montagepack		Dimension L-GoFix® MS	Installation Part AD	Characteristic Values**			
Art. No.	PU	d1 x L	[mm]	Tensile Force F <sub>t</sub> [kN]		Shear Force F <sub>v</sub> [kN]	
				Head	Thread	Wood-Wood	Steel-Wood
24316	200	5,0 x 45*	18	1,10	1,79	1,45	1,71
24326	200	5,0 x 50*°	20	1,10	2,06	1,45	1,71
24336	200	5,0 x 60*°	24	1,10	2,40	1,45	1,71
24346	200	5,0 x 70*	28	1,10	2,75	1,45	1,71
24356	200	5,0 x 80*	32	1,10	3,43	1,45	1,71
24366	200	5,0 x 90*	36	1,10	3,78	1,45	1,71
24376	200	5,0 x 100*	40	1,10	4,12	1,45	1,71
24406	100	6,0 x 70	28	1,96	3,11	2,07	2,61
24416	100	6,0 x 80	32	1,96	3,88	2,07	2,61
24426	100	6,0 x 90	36	1,96	4,27	2,07	2,61
24436	100	6,0 x 100	40	1,96	4,66	2,07	2,61
24446	100	6,0 x 120	50	1,96	5,43	2,07	2,61
24456	100	6,0 x 140	70	1,96	5,43	2,07	2,61
24466	100	6,0 x 160	90	1,96	5,43	2,07	2,61

\* only available with SC 9 coating

° only available with SC 11 coating

\*\* characteristic values for dimensioning according to EC 5 and for strength class pk 410 kg/m<sup>3</sup>

# RomboFix® RF



RomboFix® RF  
made from SIHGAMID®



## SIHGA® Feature

## YOUR Benefit

developed, patented and made in Austria

local quality, experience from more than 150,000 m<sup>2</sup> invisibly screwed facades included

facade fastening, invisibly screwed

the optically elegant facade is created extremely quickly, without damaging the surface

for rhombus beams from wood, modified wood or WPC, which are approved by SIHGA®

saves extensive time, even beams that are not completely straight are fastened professionally

compensation clip integrated

compensates irregularities in the profile width

made from SIHGAMID®, the reinforced plastic originating from space research

fastens more permanently than stainless steel, is extremely break-proof, heat-, frost- and UV-resistant

automatic distance to the substructure is 6 mm

the facade remains well-ventilated, timber can dry well

even joint spacing

joint width specified by profile

includes SIHGAFIX® stainless steel, all fastening and fixing screws and installation instructions

time-saving, practical, all accessories enclosed, SIHGAFIX® stainless steel prevents rust from external sources and also screws into deep grooves




with technical fire-protection assessment

usable for building classes 1, 2, 3, 4, 5



calculation of quantity

calculated per m<sup>2</sup>: 1: Substructure distance in m: (high rhombus beam + joint in m)

SIHGA®		Dimension				System Screws		Substructure
montagepack	RomboFix®	Type	L	B	H	GoFix® HKE	BohrFix® FB	Height
Art. No.	PU					d1 x L	d1 x L	[mm]
40416	100	<b>RF 40</b>	42	20	21	5,0 x 40	4,2 x 22	30 - 45
40406	100	<b>RF 60</b>	42	20	21	L-GoFix® MS	BohrFix® FB	> 45
						4,5 x 60	4,2 x 22	

SIHGA® APP



### SIHGA® TIP:

RomboFix® RF also fastens privacy shields, fences, balconies, blinds, easily and precisely.

# SenoFix<sup>®</sup> FT



INNOVATION  
2021



SenoFix<sup>®</sup> FT  
for facade application



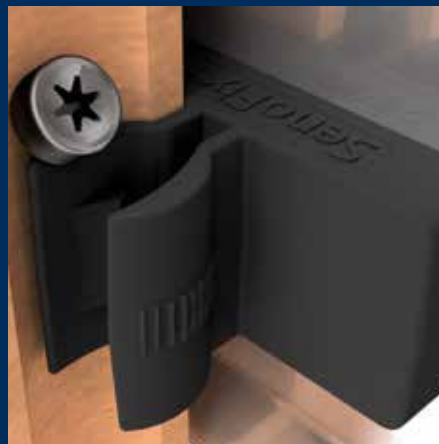
Plank Thickness 20 - 30 mm

Optional accessories: SIHGAFIX<sup>®</sup>  
TX 20, 77 mm; p. 14 & TTB p. 117

## SIHGA® Feature

## YOUR Benefit

use with additional locking screw for vertical facade claddings	safeguarding facade profiles from slippage
developed, patented and manufactured in Austria	highest European quality and value creation
screw fastening only in the joint with SenoFix®, cover- and lateral surfaces of the boards remain unharmed	creating a visually appealing surface is quick, simple and precise
ONLY for timbers tested by SIHGA®	greatest security through long-term testing
expansion mechanism with joint width of 7 mm in final state	no spacers needed for assembly
assembly possible without additional tools	no additional costs for clamps or belts, etc.
connector height per the latest state of the art	automatic spacing from substructure of 8 mm
stabilises and compensates for any swelling and shrinkage in the wood	increases the life of the facade substantially
only 1 screw per attachment point	requires 50% less installation time and provides perfect grip
available with two different screw lengths	use on wood and alu substructure
produced of reinforced SIHGAMID®	is therefore permanently heat-, frost- and UV-resistant
attachment screw made of hardened stainless steel	permanent and break-proof
including SIHGAFIX® stainless steel, all attachment screws and installation instructions	time-saving, practical, precise, all accessories are included, SIHGAFIX® stainless steel prevents extraneous rust
quantity calculation per m <sup>2</sup>	1: Substructure spacing [m] : (boardwidth [m] + joint [m])



SIHGA® APP



### SIHGA® TIP:

Secure each facade board once with BohrFix® FB 4.2 x 43.

# TefaFix® F



**INNOVATION  
2021**



**TefaFix® F  
aluminium bright**

**INNOVATION  
2021**



**TefaFix® F  
aluminium SC 9 coated**

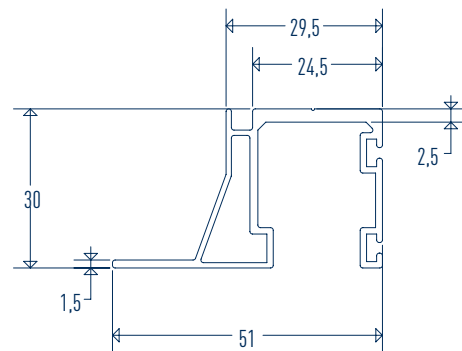


## SIHGA® Feature

## YOUR Benefit

1-piece system	can be combined with the counterpart for terrace application
also available in SC 9 coated	continuous black joint optic
profile open at the back	prefabrication of the parts possible by screwing on the rear
lateral flange	easy mounting on the existing facade substructure
special inner geometry	many connections possible with TefaBind® connector
trapezoidal shape	perfect water drainage guaranteed
TefaBind® connector	endlessly extendable in length
aluminium	durable, machinable with conventional tools and machines
universally combinable	for use also optimally with SenoFix® FT
combinable	in case of storage with the counterpart can be used also for the terrace

SIHGA® objektpack®		Type	TefaFix® F Surface	Length [mm]
Art. No.	PU			
52102	10	4400	bright	4400
52012	10	4400	SC 9	4400



SIHGA® APP



### SIHGA® TIP:

To attach the TefaFix® F, we recommend BohrFix® FB 4.2 x 28/43 in stainless steel. Due to the linear expansion of the TefaFix® F, we recommend pre-drilling the hole for the fixing screw at least 2 mm larger.

# TefaFlex<sup>®</sup> F





## SIHGA® Feature

special geometry

act as punctual supports for the facade profiles

jams when inserted into the TefaFix® F

40 mm length

8.5 mm height

## YOUR Benefit

minimum contact area of the profiles in case of visible screwing, allows bowling up of the profiles stress-free

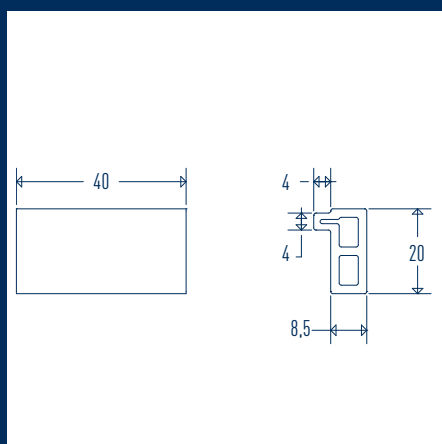
ventilation and drainage of the water is guaranteed, especially with vertical installation of the facade profiles

can be inserted into the intended shaft of the TefaFix® F and holds, no complex and costly fixing necessary

suitable for all profile widths

finished distance of the profile to the substructure according to the state of the art, optimal ventilation and drainage

SIHGA® montagepack		Length	TefaFlex® F Width	Height
Art. No.	PU			[mm]
52126	300	40	20	8,5



SIHGA® APP

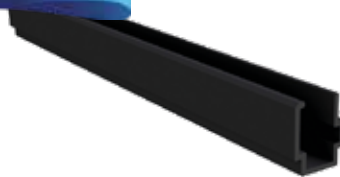


### SIHGA® TIP:

One piece of TefaFlex® F is required per joint.



**INNOVATION  
2021**



**TefaBind<sup>®</sup>  
aluminium SC 9 coated**



**For butt joint  
of TefaFix<sup>®</sup> F**

© Bonauer Bölling Architekten Berlin

## SIHGA® Feature

TefaBind® connector

SC 9 coated

profile open at the front

aluminium

all-purpose

including assembly instructions and 2 pcs.  
BohrFix® FB 4.2 x 17 mm per TefaBind®

## YOUR Benefit

for endless joining of TefaFix® F

continuous black joint optic

with the supplied BohrFix® FB 4.2 x 17 mm in  
stainless steel the TefaBind® can be easily fixed

durable, with conventional tools and machines  
workable

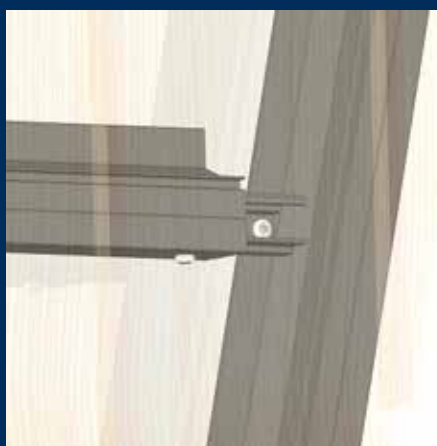
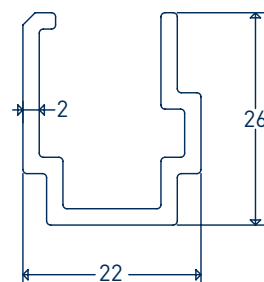
all longitudinal and transverse connections can be  
made with the TefaBind®

time-saving, practical, precise, all accessories are  
included

SIHGA® montagepack		Length	TefaBind®	
Art. No.	PU	[mm]	Width [mm]	Height [mm]
52056	25	250	22,0	26,0

BohrFix® FB

Ø 4,2 x 17

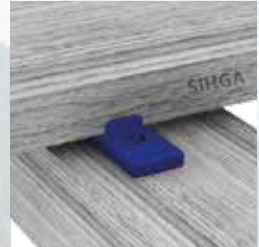
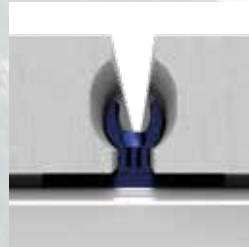
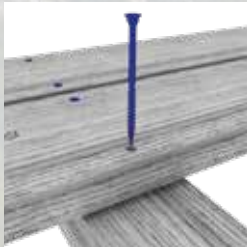


SIHGA® APP



### SIHGA® TIP:

To ensure longitudinal expansion TefaFix® F must have a distance of 10 mm at the longitudinal joint and the TefaBind® may only be screwed on one side.

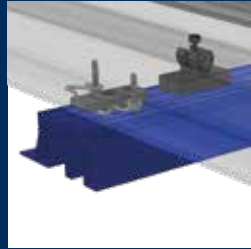
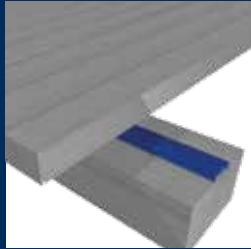


## Fastening Visible

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# TERRACE GUARANTEE



## Guarantee Up to 23 Years

In the event of correct processing and standard use according to the SIHGA® installation instructions and SIHGA® design recommendations, SIHGA® guarantees the functionality of the SIHGA® fastenings for a period of 23 years for the original buyer, first buyer, according to the following conditions.

## Guarantee for Our Customers

If a defect occurs within 23 years of the date of purchase, which led or leads to the functioning of the fastenings supplied by SIHGA® failing, SIHGA® shall replace the defective product. Following a check by an appropriate expert, the corresponding replacement product shall be provided to the first buyer by SIHGA® free of charge. The first buyer or other beneficiary of the guarantee themselves is responsible for the costs for the replacement itself, notably also for the removal and installation. In the event of a replacement, irrespective of the period of use of the failed fastening, unless specified otherwise in the individual case, the provision of an equivalent component for the fastening purpose is also possible. The guarantee is not extended by possible guarantee cases.



## Conditions and Requirements

- The resistance against weathering, ozone and UV radiation applies for a period of 23 years under Central European weather conditions to fastening materials made of metal, and for a period of 15 years to fastening materials made of plastic; discolouration of the surface cannot be ruled out and does not justify a guarantee claim here.
- Use of surface treatments, which do not contain organic solvents or solvents with aromatic hydrocarbons (note processing instructions, product and safety datasheets from the manufacturer).
- Processing according to SIHGA® installation instructions and design recommendations in the most recent respective version.
- Compliance with design recommendations for terrace construction, applicable standards in wood and facade construction and with processing recommendations of the wood supplier(s).
- Use in temperatures between -30 °C and +70 °C with static loading.

Even if only one of these requirements is not met, a claim under guarantee is excluded. Colour differences are not grounds for a claim. Furthermore, a claim under guarantee is excluded in the event of the following types of use of the respective SIHGA® product:

- In chemically contaminated atmospheres (industry, ...) particularly with sulphur or chlorine compounds such as  $H_2SO_4$ , HCl, ...
- Use partly or fully in water;
- If the stated temperature range is exceeded.

## Making Claims

After discovering a product defect, a claim must be made immediately to SIHGA® in writing to the exclusion of other claims, providing the proof of purchase, in all cases within 14 days of discovery.

The claiming person must grant the expert from SIHGA® unrestricted access to the site, building or property where the fastening was installed in order to inspect the installation condition, photograph the installed product, and take samples of the fastening subject to the guarantee.

Third parties are not authorised to make statements or assurances on behalf of SIHGA® regarding the quality or usage properties of SIHGA® products, which go beyond the details provided in this guarantee. SIHGA® is not bound by such statements. Austrian law shall apply exclusively to this guarantee.

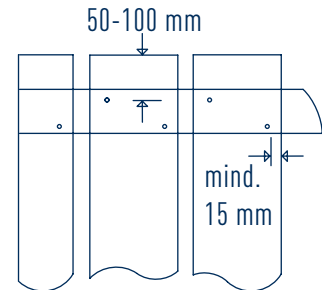
The exclusive place of jurisdiction for any claims arising from this is the materially competent court for 4600 Wels | Austria. The General Terms and Conditions of SIHGA® GmbH shall apply.

# Design Recommendations - for Terrace Construction

Wood moisture-content must not be more than 16 %  $\pm$  2 % when laying. Ideally, rift or half-rift goods (planks with standing annual rings) should be used.

The fastening distance to the end-grain must be at least 50 mm and not more than 100 mm!

For woods high in tannin content, screws may become coated, because of chemical reactions this may lead to corrosion and dark discolouration. In principle, only stainless steel should be used for fastening terraces!

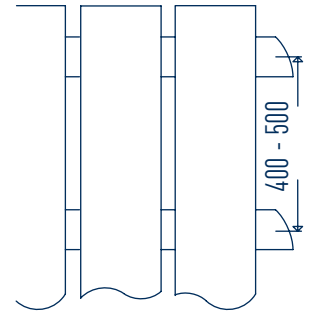


**For the centre distance from the substructure, we recommend, for:**

Thermo-wood and hardwood: 400 - 450 mm

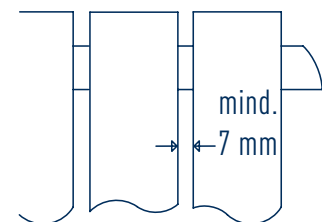
Larch: 400 - 500 mm

Short axial distances ensure that the swell and shrinkage-related warping or distortion of individual terrace planks is limited and that the terrace remains even and obstacle-free. The substructure should be made from TefaFix® T or the same wood type as the planks.

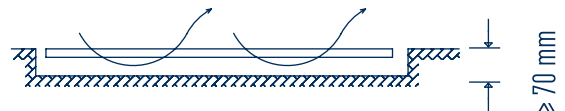


The joint distance for plank widths 90 - 120 mm should be at least 7 mm or 6 % of the plank width!

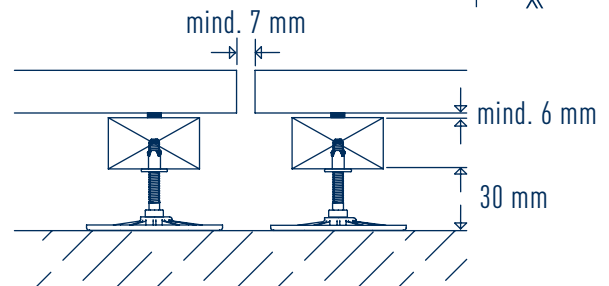
The planks must not be blocked in the joint!



For countersunk terrace constructions with low heights, a distance from the ground to the upper edge of the plank of  $\geq 70$  mm is required in order to facilitate the ventilation of the terrace construction.



The distance between terrace planks and substructure should be at least 6 mm, in order to guarantee the ventilation of the terrace and to prevent a capillary effect, this is also the case for objects on the terrace.



## SIHGA® TIP:

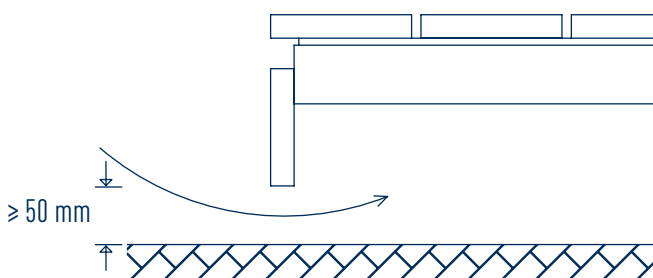
With applications close to the pool surround, we recommend L-BohrFix® MB A4 (page 64) for visible or GleitFix® GF (page 72) for invisible fastening!



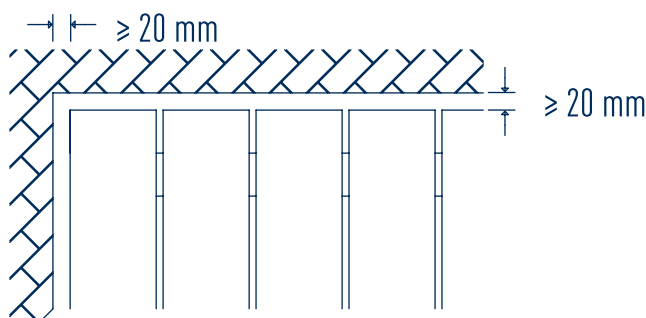
The longitudinal joint of decking planks should not be completed directly on the substructure, but between two substructures. Even with the longitudinal joint, a gap of at least 7 mm must be maintained.

Plank joints on the substructure would lead to increased damp and subsequently to early damage.

There must be a distance of at least 30 mm between the substructure and ground in order to prevent damage due to dampness! This distance should be bridged with adjustable feet or EPDM materials, but never with granulate material or wood. Rising damp in the soil should be prevented.



If the side of the terrace is closed with a cover board, a ventilation opening of  $\geq 50$  mm (continuous) must be maintained for ventilation of the terrace construction. The cover board should not touch the ground.



When connecting the terrace to the adjacent building parts, a distance of  $\geq 20$  mm must be observed so that the joints cannot close either through dirt or changes to the planks. The unhindered drainage on and beneath the terrace must be permanently guaranteed.

The terrace should be cleaned regularly.

**Recommendation Predrill Diameter and Type of Wood**

Roof Cladding	Substructure	Predrilling	Predrill - $\emptyset$	Recommended Screw
Softwood	Softwood	Recommended	$\emptyset$ of screw	L-GoFix® MS
Hardwood	Hardwood	Required	$\emptyset$ of screw +0.5 - 1 mm	L-GoFix® MS or L-BohrFix® MB A4
All	TefaFix®, Symbio-Fix® and Aluminium	Required	$\emptyset$ of screw +0.5 - 1 mm	Alu-BohrFix® MB
All	TefaFix®, Symbio-Fix® and Aluminium	Not Required*	-	Alu-TeFix®
All	All Woods	Not Required*	-	TeFix®

For wood with high tannin content we recommend L-BohrFix® MB A4 for wood substructure and Alu-TeFix® in A2 for aluminium substructure.

\* except for extremely hard wood (e.g. Ipé) with  $\emptyset$  screw

# HFA inspected



SIHGA® Terrace Fastening

© Guggemos

# HFA inspected



SIHGA® is the first and only company that has succeeded in offering all the fasteners required for the construction of a terrace HFA inspected (Holzforschung Austria).

Holzforschung Austria is considered one of the most important institutions for the certification of wood products in the German speaking countries.

Quality, safety and reliability - voluntarily externally monitored.

**The following products have been awarded HFA inspected:**

## GleitFix®

HFA inspected in combination with larch, thermo ash and Accoya

Larch 24 - 28 x ≤140 mm (VEH AB), substructure-larch 50 x 80 mm  
Thermo ash 20 - 28 x ≤140 mm (VEH AB), substructure-larch 50 x 80 mm  
Accoya 21 - 28 x ≤200 mm, substructure-larch 50 x 80 mm

In order to avoid longitudinal displacement of the planks, each plank must be fastened with at least 3 fastening points (over 3 substructures) when using GleitFix®. If this is not possible, e.g. with short planks, each plank must be fastened with an additional screw from the side or from above.

## SenoFix® FT

HFA inspected in combination with thermo ash

Thermo ash 20 - 28 x ≤140 mm (VEH AB), substructure-thermo ash 40 x 70 mm

When using SenoFix® FT, each plank must be fastened laterally or from above with an additional screw to prevent longitudinal displacement of the planks.

## TeFix®

HFA inspected in combination with KompeFix®, larch, thermo ash and Accoya

TeFix®:  
Larch 24 - 28 x ≤140 mm (VEH AB), substructure-larch 50 x 80 mm  
Thermo ash 20 - 28 x ≤140 mm (VEH AB), substructure-larch 50 x 80 mm  
Accoya 21 - 28 x ≤140 mm, substructure-larch 50 x 80 mm

TeFix® in combination with KompeFix®:  
Larch 24 - 28 x ≤140 mm (VEH AB), substructure-larch 50 x 80 mm  
Thermo ash 20 - 28 x ≤140 mm (VEH AB), substructure-larch 50 x 80 mm  
Accoya 21 - 28 x ≤200 mm, substructure-larch 50 x 80 mm

## KompeFix® II KF

HFA inspected in combination with TeFix®

## Alu-TeFix®

HFA inspected in combination with TefaFix® and larch

Larch 24 - 28 x ≤140 mm (VEH AB), substructure-larch 50 x 80 mm

## TefaFix®

HFA inspected in combination with Alu-TeFix®, TefaFlex® and TefaBind®

## TefaFlex®

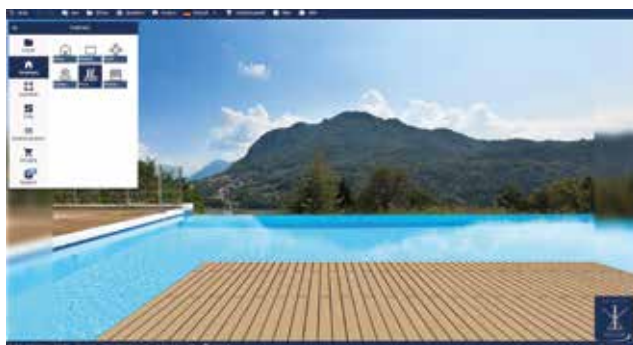
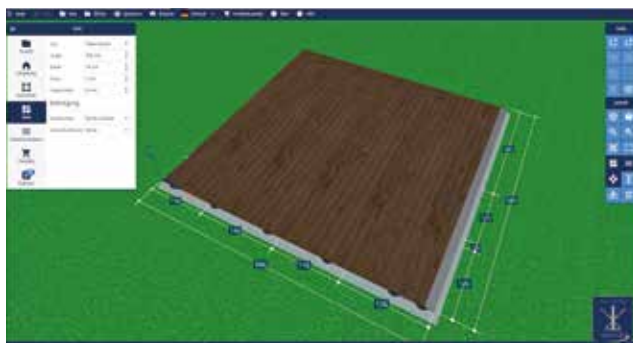
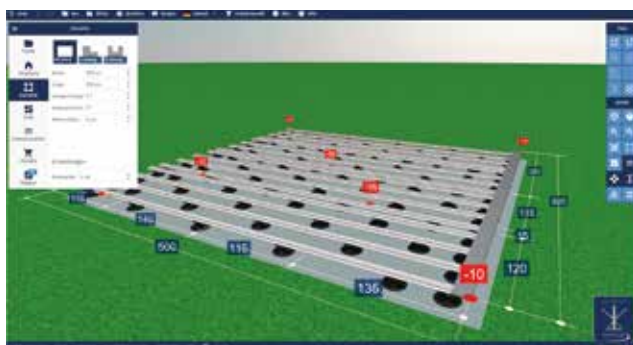
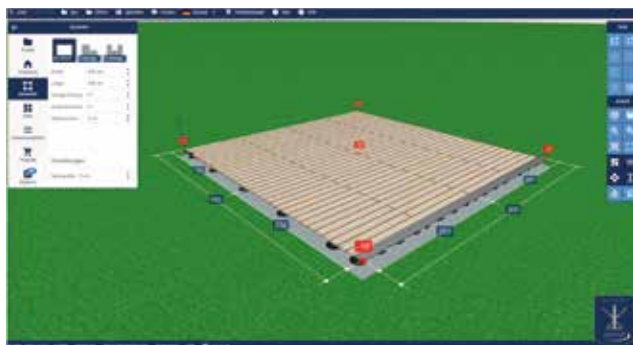
HFA inspected in combination with Alu-TeFix® and TefaFix®

## TefaBind®

HFA inspected in combination with TefaFix®

# Terrassenplaner<sup>®</sup>





## New features of Terrace Planner 2.0

- Freely selectable laying pattern
- Position management - several projects can be created
- Fixing recommendation

## 3D Planning Software

- new terrace planning software, which interacts with the SIHGA® webshop
- 3 basic forms, but also free forms constructible
- angular and round recesses possible

## Unique Possibilities

- individual height input of the substrate possible
- the adjustable feet and adapter are automatically calculated
- terrace surface inclinable
- edge definition: drainage grating, cover plate or open edge

## Data Base

- 29 types of terrace covering can be chosen (free choice of dimension)
- 6 different substructure types (free choice of dimension)
- all products including accessories
- continuous adaption to customer requirements

## Visualisation

- Upload your photo and place the terrace in front of it or use an existing photo in the software.

## Output

- quantities of wood, substructure, fasteners, incl. schematic laying plans



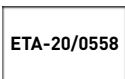
### SIHGA® TIP:

Log in at [www.sihga.com](http://www.sihga.com) - immediately plan your project and order the necessary components in the webshop.

# Alu-TeFix®



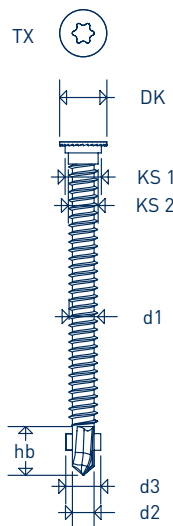
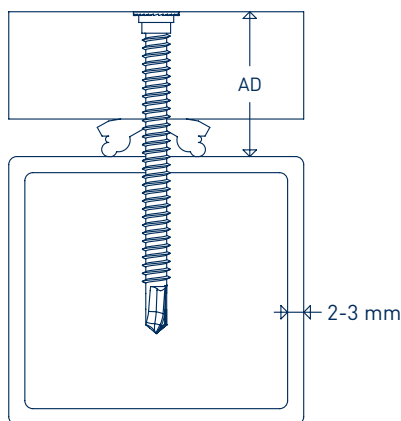
**Alu-TeFix® made of hardened stainless steel or in A2**



## SIHGA® Feature

## YOUR Benefit

Alu-TeFix® in A2 fastens wood on aluminium (except SymbioFix®) 2-3 mm without predrilling	prevents the formation of cracks or splitting in almost all hardwood and thermo-wood; saves working time
Alu-TeFix® made of hardened steel fastens wood on TefaFix® T/F without predrilling and countersinking	as TefaFix® absorbs the axial movement caused by swelling and shrinking of the wood, there is no danger of breakage
SIHGA® drill wings with special shape	pre-drills the boards at 6 mm and prevents lifting of the board while screwing; drilling wings break off when penetrating into the aluminium
SIHGA® further-developed multi-stage head	no displacement or chipping of the wood due to an extra thin head and saw tooth corrugation
in combination with KompeFix® II KF on conventional aluminium and in combination with TefaFlex® T/F on TefaFix® T/F the perfect solution	increases the lifetime of the wood and the screw
including SIHGAFIX® stainless steel, Systemstift® and installation instructions	time-saving, practical, precise; all accessories are included
quantity calculation	<a href="http://www.sihga.com/Online Calculation">www.sihga.com/Online Calculation</a>
HFA inspected in combination with TefaFix® and larch	for details please see page 59








Dimensions [mm] Alu-TeFix®

d1	TX	DK	KS 1	KS 2	d2	d3	hb
5,0	20	8,5	6,5	5,4	3,9	6,4	10

SIHGA® montagepack	Dimension Alu-TeFix®	Add-on Part up to AD	Substructure TefaFix®T/F
Art. No.	PU	d1 x L [mm]	
54016	200	<b>5,0 x 51</b>	yes
54026	200	<b>5,0 x 61</b>	yes

SIHGA® montagepack	Dimension Alu-TeFix® A2	Add-on Part up to AD	Substructure TefaFix®T/F	Substructure Aluminium 2-3 mm
Art. No.	PU	d1 x L [mm]		
54066	200	<b>5,0 x 51</b>	yes	yes
54076	200	<b>5,0 x 61</b>	yes	yes


  

  

  
**SIHGA® APP**
  

  




### SIHGA® TIP:

When used in combination with woods that contain a lot of tannins (e. g. cumaru, oak, robinia, garapa, ...) we recommend Alu-TeFix® in A2.



# L-BohrFix<sup>®</sup> MB A4



L-BohrFix<sup>®</sup> MB A4  
made of stainless steel A4





## SIHGA® Feature

fastens all types of wood, even when exposed to salt and chlorine

drill bit with special shape

made from stainless steel A4

material highly resistant to corrosion

multi-stage head with small head diameter of 8.5 mm

including SIHGAFIX® stainless steel, Systemstift® and installation instructions

calculation of quantity

## YOUR Benefit

special drill bit prevents the substructure from splitting

prevents cracks in the wood

fastens without rusting, also in acidic woods and when exposed to salt and chlorine

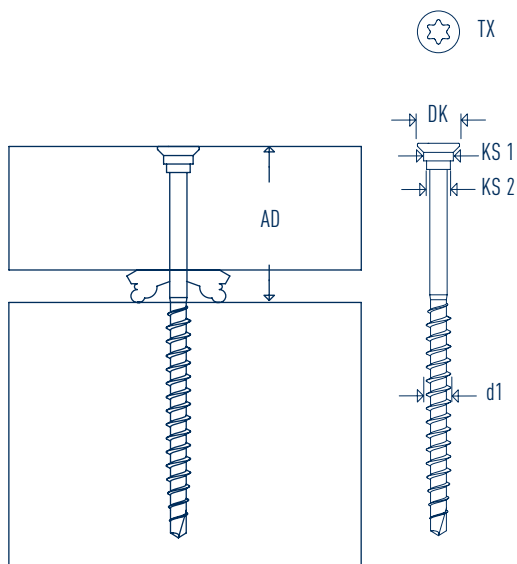
optimally suited for use close to the pool surround

elegant look, non-cutting screwing

time-saving, practical, precise, all accessories enclosed; SIHGAFIX® stainless steel prevents rust from external sources and also enables screwing into deep grooves

[www.sihga.com/Online Calculation Terrace](http://www.sihga.com/Online Calculation Terrace)

SIHGA® montagepack		Dimension L-BohrFix® MB A4	Installation Part AD
Art. No.	PU	d1 x L	[mm]
37766	200	<b>5,5 x 60</b>	24
37776	200	<b>5,5 x 70</b>	28
37786	200	<b>5,5 x 80</b>	32



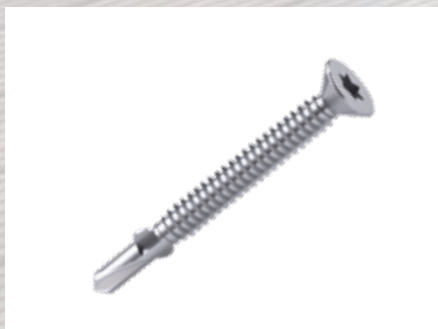
Dimension [mm] L-BohrFix® MB A4				
d1	TX	DK	KS 1	KS 2
5,5	25	8,5	5,8	4,7



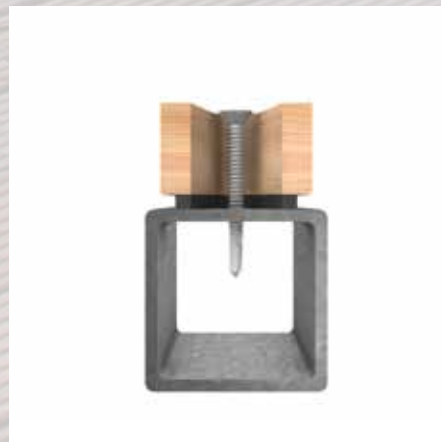
### SIHGA® TIP:

To extend the life of timber constructions, we recommend using KompeFix® II KF (page 90) and noting the design recommendations (page 56 - 57).

# S-BohrFix<sup>®</sup> SBF



**S-BohrFix<sup>®</sup> SBF made from  
hardened stainless steel**



## SIHGA® Feature

fastens wood to steel without pre-drilling

drill bit with special shape and thread lock flanks

made from hardened stainless steel

including SIHGAFIX® stainless steel, Systemstift® and installation instructions

design values

## YOUR Benefit

simply screw through up to 5 mm thick steel, up to quality S355, in one working step

fastens woods up to 90 mm to steel in one step

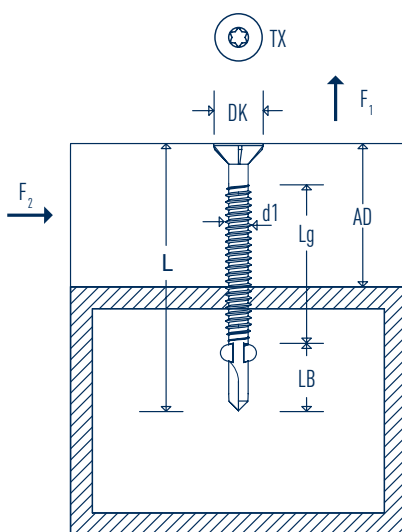
rust-free fastening, is extremely break-proof

time-saving, practical, precise, all accessories enclosed, SIHGAFIX® stainless steel prevents rust from external sources and also screws into deep grooves

[www.sihga.com/Online Calculation Terrace](http://www.sihga.com/Online Calculation Terrace)

SIHGA® montagepack		Dimension S-BohrFix® SBF	Installation Part AD	Thread Lg	Drilling Capacity Steel	Recommended Loads	
Art. No.	PU	d1 x L	[mm]	[mm]	[mm]	Tensile Force F <sub>1</sub> [kN]	Shear Force F <sub>2</sub> [kN]
31236	100	<b>4,8 x 38</b>	20	22	2,2	0,45	0,64
31246	100	<b>5,5 x 45</b>	25	26	4,0	0,61	0,64
31256	100	<b>5,5 x 50</b>	30	32	4,0	0,61	0,84
31266	100	<b>6,3 x 60</b>	35	31	5,0	0,72	0,84
31276	100	<b>6,3 x 70</b>	45	41	5,0	0,72	0,84
31286	100	<b>6,3 x 85</b>	60	46	5,0	0,72	0,84
31296	100	<b>6,3 x 110</b>	85	46	5,0	0,72	0,84

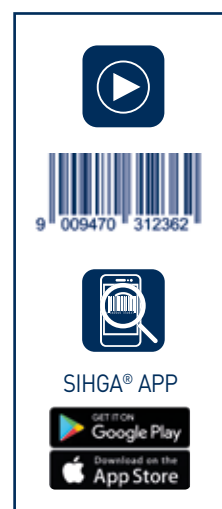
Due to the many different metal qualities, the drilling capacity must be determined on site by trial screwing.



### Dimension [mm]

S-BohrFix® SBF

d1	TX	DK	LB
4,8	25	9,5	13,0
5,5	30	11,0	15,0
6,3	30	12,0	16,0



### SIHGA® TIP:

Due to the swell and shrinkage behaviour of wood, only substructure timber should be fastened to steel, and then the surface timber on top.

# DielenFix<sup>®</sup> DF



DielenFix<sup>®</sup> DF



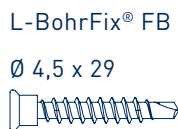
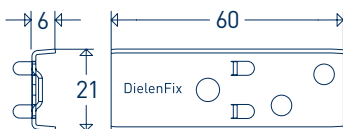
## SIHGA® Feature


## YOUR Benefit

fastens planks invisibly screwed; developed, patented and made in Austria	elegant look and long-lasting fastening
suitable for almost all wood types	reduces fault ratio when delivering the material to the construction site, this saves time and reduces storage costs
made from hardened stainless steel	rust-free fastening, extremely break-proof
planks remain undamaged on all visible surfaces	the timber is screwed from below, this results in a longer lifespan and prevents rot
compensates for the swelling and shrinkage of the wood	reduces the crack and break behaviour of the timber during these natural processes
suitable for all plank widths	only one system for different plank widths
selection of three screw lengths	optimised fastening of the different plank thicknesses from 19 mm
variable adjustment of the visible joint (0 - 15 mm)	suitable for every developer, FugiFix® is the ideal assistant here (page 70)
connector height with 6 mm for optimal ventilation	ensures optimum constructive wood protection; prevents accumulations of water between the plank and substructure
includes SIHGAFIX® stainless steel from hardened stainless steel, BohrFix® with drill bit and installation instructions	SIHGAFIX® enables screwing in deep grooves and prevents rust from external sources; time-saving, practical, precise, all accessories enclosed
two screw points per DielenFix® on the plank	creates the same stability as when visibly screwed from above, and prevents warping of the timber
with joint spacing $\geq 8$ mm	individual planks can be disassembled or replaced

SIHGA® objektpack®		Dimension DielenFix® DF	Plank Thickness mind.	Average Quantity/m <sup>2</sup> *
Art. No.	PU	Type	[mm]	Pieces
34119	300	<b>DF 17</b>	19	33
34129	300	<b>DF 22</b>	24	33
34139	300	<b>DF 28</b>	30	33

\*assuming: Axial distance substructure = 0.5 m and plank width = 12 cm  
 calculation quantity = m<sup>2</sup> : distance substructure [m] : [width terrace plank [m] + joint [m] x 2




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SIHGA® APP






### SIHGA® TIP:

Online calculation at [www.sihga.com](http://www.sihga.com) (terrace); as substructure we recommend the TefaFix® T (page 102).

# FugiFix® FF



FugiFix® FF made of  
SIHGAMID®



## SIHGA® Feature

universal joint spacer for terraces

made from SIHGAMID®, the fibre-glass reinforced plastic originating from space research

because of the special geometry

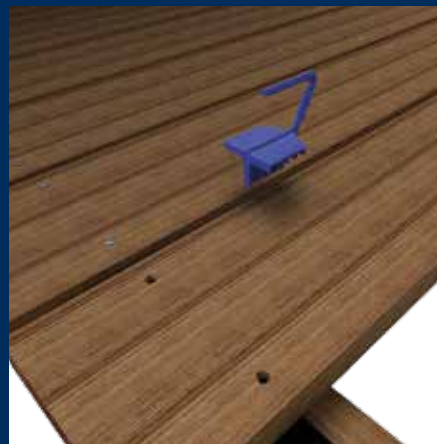
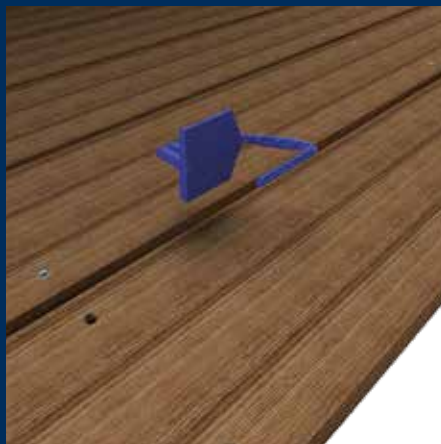
## YOUR Benefit

joint widths of either 5, 6, 7 or 8 mm can be set quickly

extremely heat-, frost- and UV-resistant

the FugiFix® FF cannot fall into the joint and can easily be removed again

SIHGA® montagepack		Dimension FugiFix®	Joint Widths
Art. No.	PU	Type	[mm]
34966	5	FF	5, 6, 7, 8



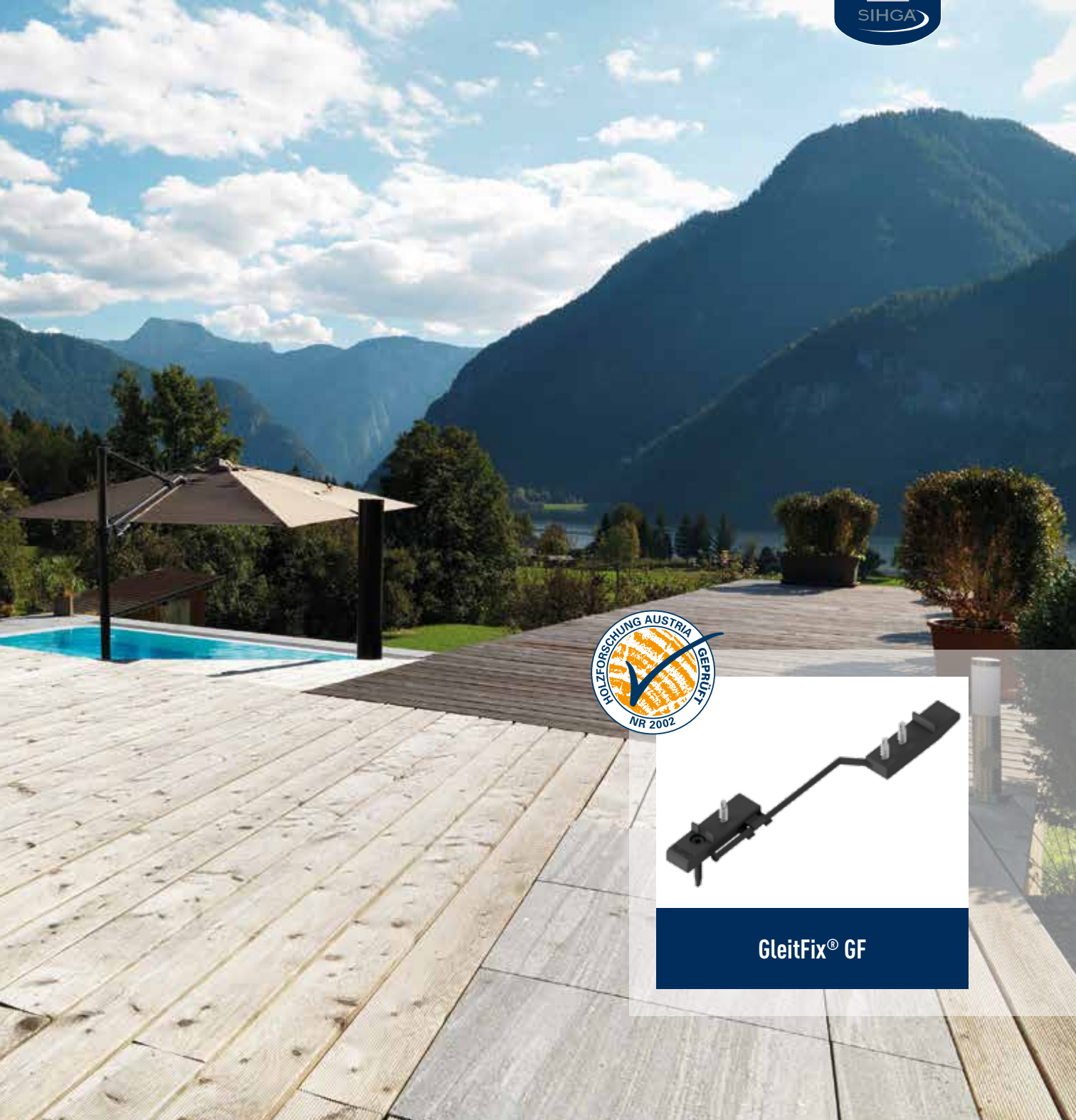
SIHGA® APP



### SIHGA® TIP:

To extend the life of timber constructions, we recommend using KompeFix® II KF (page 90) and noting the design recommendations (page 56 - 57).

# GleitFix® GF



GleitFix® GF





## SIHGA® Feature

## YOUR Benefit

fastens planks invisibly screwed; developed, patented and made in Austria	elegant look and long-lasting fastening
planks remain undamaged on all visible surfaces	timber is screwed from below, this results in a longer lifespan and prevents rot, as well as direct weathering
a product for almost every type of wood, reduces storage costs	very large range of applications
special compensation system compensates for the natural swelling and shrinkage of the planks	reduces the crack and break behaviour of the timber during these natural processes
only one system for plank widths from 90 to 150 mm	suitable for all plank widths
tested stainless steel system screws with drill bit enclosed	only one system for timber and aluminium substructure; avoids hairline cracks on the top side of the plank
made from SIHGAMID®, the fibre-glass reinforced plastic originating from space research	extremely heat-, frost- and UV-resistant
optionally also with tested stainless steel system screws with drill bit in A4 (GleitFix® GF CS)	stainless steel A4 BohrFix® screws for increased risk of corrosion when exposed to salt and chlorine
selection of three screw lengths	optimised fastening of varying plank thicknesses from 19 mm
variable adjustment of the visible joint (0 - 15 mm)	suitable for every developer, FugiFix® is the ideal assistant here (page 70)
HFA inspected in combination with larch, thermo ash and Accoya	for details please see page 59



SIHGA® APP



### SIHGA® TIP:

As substructure we recommend using TefaFix® T (page 102) and noting the design recommendations (page 56 - 57).

## SIHGA® Feature

## YOUR Benefit

connector height with 8 mm for optimal ventilation

ensures optimum constructive wood protection;  
prevents accumulations of water between the plank and substructure

with joint spacing  $\geq 8$  mm

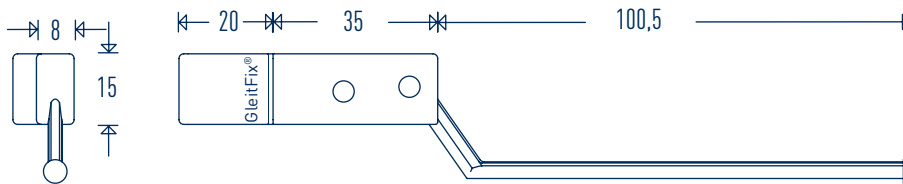
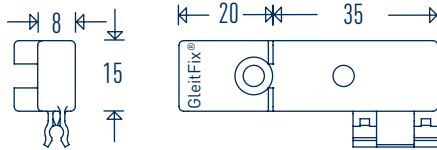
individual planks can be disassembled or replaced

includes SIHGAFIX® stainless steel, from hardened stainless steel BohrFix® FB with drill bit and installation instructions

no rust from external sources, screws do not shear or break; time-saving, practical, precise, all accessories are enclosed

SIHGA® objektpack®		Dimension GleitFix® GF	Plank Thickness mind.	Average Quantity / m <sup>2*</sup>
Art. No.	PU	Type	[mm]	Pieces
34419	150	<b>GF 17</b>	19	16
34449	150	<b>GF 22</b>	24	16
34479	150	<b>GF 28</b>	30	16
34519	150	<b>GF 17 CS</b>	19	16
34549	150	<b>GF 22 CS</b>	24	16
34579	150	<b>GF 28 CS</b>	30	16

\*assuming: Axial distance substructure = 0.5 m and plank width = 12 cm  
calculation of quantity =  $m^2$  : distance substructure [m] : [width terrace plank + joint [m]]



BohrFix® FB

Ø 4,2 x 17/22/28



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SIHGA® APP

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Download on the  
App Store



### SIHGA® TIP:

For fastening start and end planks we recommend GleitFix® AE (page 75).

# GleitFix® AE

## SIHGA® Feature

screw-fastening of start and end planks invisible  
planks remain undamaged on all visible surfaces

special compensation system compensates for the natural swelling and shrinkage of the planks

optionally also with tested stainless steel system screws with drill bit in A4 (GleitFix® AE CS)

includes SIHGAFIX® stainless steel, from hardened stainless steel BohrFix® FB with drill bit and installation instructions

## YOUR Benefit

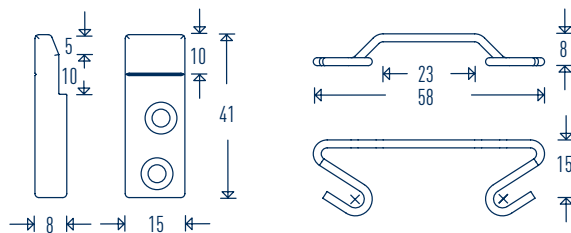
elegant look and long-lasting fastening

timber is screwed from below, this results in a longer lifespan and prevents rot, as well as direct weathering

reduces the crack and break behaviour of the timber during these natural processes

stainless steel A4 BohrFix® FB screws for increased risk of corrosion when exposed to salt and chlorine

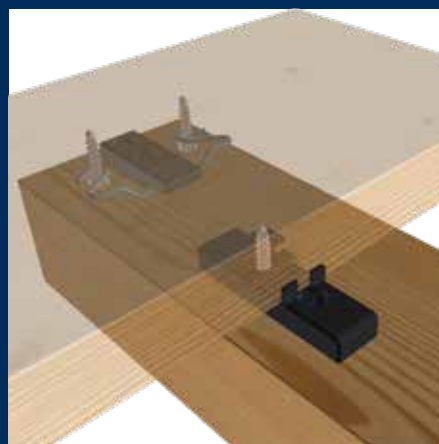
no rust from external sources, screws do not shear or break; time-saving, practical, precise, all accessories are enclosed



BohrFix® FB  
Ø 4,2 x 17/22/28



SIHGA® montagepack		Dimension GleitFix® AE	Plank Thickness min.
Art. No.	PU	Type	[mm]
34626	24	AE 17	19
34656	24	AE 22	24
34686	24	AE 28	30
34726	24	AE 17 CS	19
34756	24	AE 22 CS	24
34786	24	AE 28 CS	30



SIHGA® APP



### SIHGA® TIP:

GleitFix® AE is also compatible with SenoFix® FT.

# JustiFix<sup>®</sup> JV

## SIHGA<sup>®</sup> Feature

the fleece under the terrace

1.6 x 10 metre area

monitored production from polypropylene, with a special recipe

## YOUR Benefit

hinders plant growth and is water-permeable

16 m<sup>2</sup> easy to lay

remains permanently dimensionally stable, is heat-, frost- and UV-resistant

SIHGA <sup>®</sup> montagepack		Dimension JustiFix <sup>®</sup> JV	Grammage	Dimension	
Art. No.	PU	Type	[g/m <sup>2</sup> ]	Width x Length [m]	Area [m <sup>2</sup> ]
34956	1	<b>JV</b>	50	1,6 x 10	16



SIHGA<sup>®</sup> APP



# JustiFix<sup>®</sup> J

## SIHGA<sup>®</sup> Feature

waterproof space between substructure and foundation

manufactured from high quality, black EPDM special rubber

made in Austria

minimises vibrations

is just placed down, three material thicknesses to choose from

including Systemstift<sup>®</sup> and installation instructions

## YOUR Benefit

as a result of this distance, the substructure remains dry and the terrace is ventilated

remains permanently dimensionally stable, is heat-, frost- and UV-resistant

local quality and added-value

increases walking comfort on the terrace

time-saving, no installation work, can be stacked as desired

is time-saving and enclosed for practicality

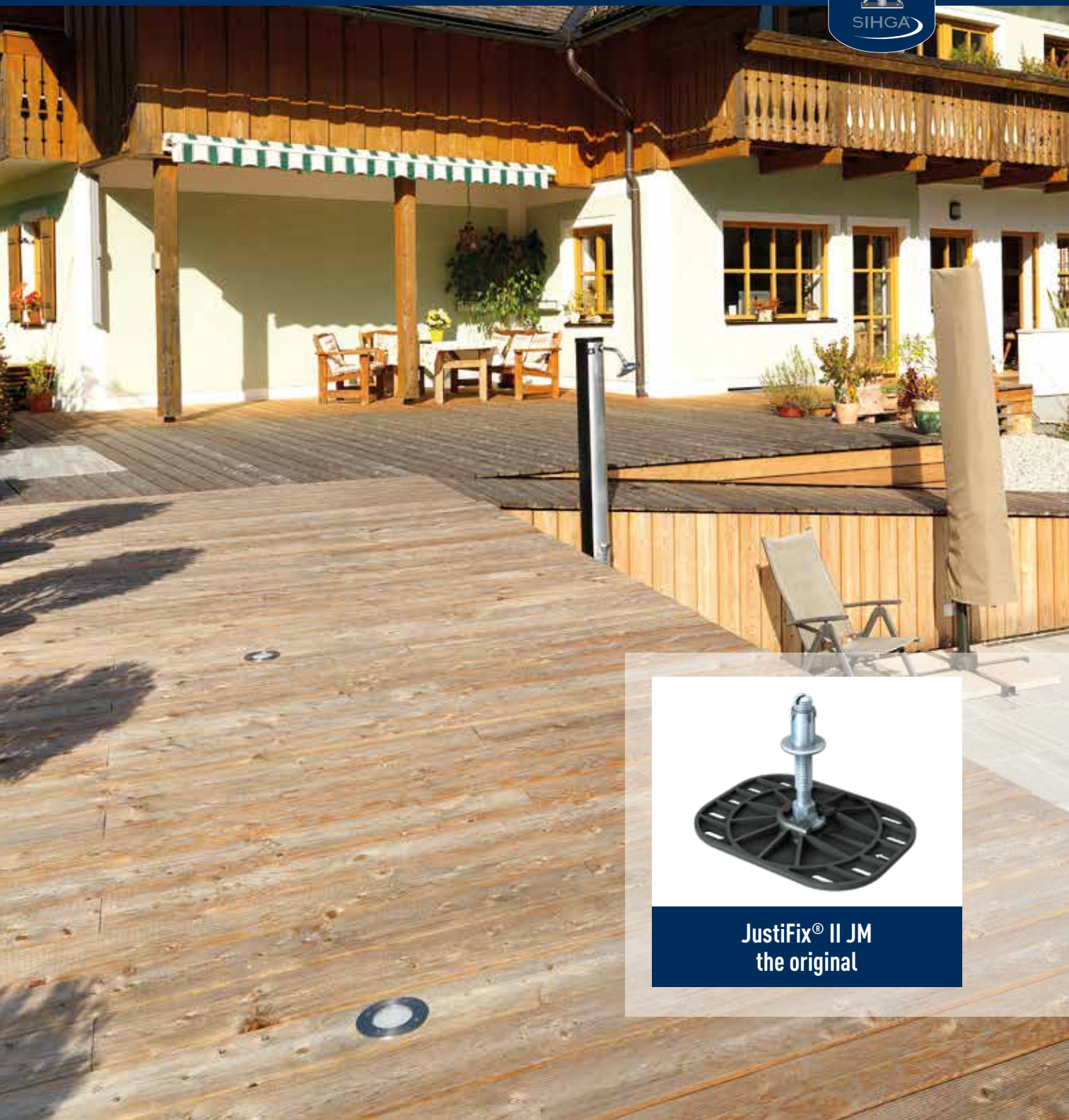
SIHGA <sup>®</sup> montagepack	Dimension JustiFix <sup>®</sup> J	Dimension L x B x H	
Art. No.	PU	Type	[mm]
41206	90	<b>J 3H</b>	80 x 40 x 3
41216	60	<b>J 5H</b>	80 x 40 x 5
41226	30	<b>J 10H</b>	80 x 40 x 10



SIHGA<sup>®</sup> APP



# JustiFix® II JM



JustiFix® II JM  
the original

## SIHGA® Feature

## YOUR Benefit

height-adjustable distance from 25 to 80 mm between substructure (with the exception of TefaFix® T) and foundation

this adjustable foot saves up to 50 % working time compared to individual solutions, the substructure remains dry and the terrace breathes

developed, patented and made in Austria

local quality, experience from more than 14 years of terrace construction included

only for solid foundations, paving, concrete, ... (not on insulating materials or flat roof insulation)

versatile, only three models for the entire range

articulated mounting of the base plate

compensates for floor unevenness

minimises vibrations

increases walking comfort on the terrace

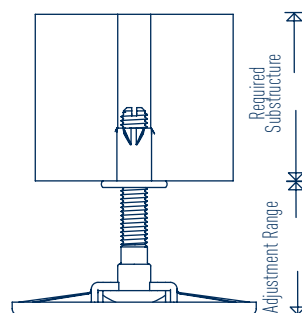
load capacity per piece 1.20 kN

quantity calculation: approx. 4 units/m<sup>2</sup>

slot pattern in the header and nuts in the footer

easy height adjustment from above with screwdriver or with open-end spanner SW 10 from below

SIHGA®		Dimension JustiFix® II JM	Adjustment Range		Dimensions/ Base plate		Required Substructure
montagepack	PU		from	to	Length	Width	[mm]
Art. No.	PU	Type	[mm]	[mm]	[mm]	[mm]	min.
40846	40	<b>JM 40</b>	25	40	100	74	25
40866	40	<b>JM 60</b>	25	60	100	74	45
40886	40	<b>JM 80</b>	25	80	100	74	65



SIHGA® APP



### SIHGA® TIP:

Drill substructure with Ø 10 mm. Note design recommendations (page 56 - 57).

# JustiFix® JK



**JustiFix® JK 50 H**  
made from polypropylene



## SIHGA® Feature

## YOUR Benefit

height-adjustable distance between substructure made from wood and any foundation

this adjustable foot saves up to 50 % working time compared to individual solutions, the substructure remains dry and the terrace breathes

made in Austria

top European quality and added-value

upper section for wood substructure

versatile, the wood substructure is simply fastened to the side of the upper section

30 to 50 mm height adjustment

only ONE model for the entire range

integrated level equaliser

evens out slopes of up to 3 %

monitored production from polypropylene, with a special recipe

remains permanently dimensionally stable, is heat-, frost- and UV-resistant

base plate with diameter 210 mm and rounded edge

large supporting surface, also for unpaved subsoil, rounded standing areas to protect the underlying films

load capacity per piece 6.0 kN

quantity calculation: approx. 4 units/m<sup>2</sup>

includes installation instructions

for professional and practical work without lost time

SIHGA®		Dimension	Adjustment Range		Support Surface
montagepack	Art. No.	JustiFix® JK Type	from [mm]	to [mm]	Diameter [mm]
5	33326	50 H	30	50	210



SIHGA® APP



### SIHGA® TIP:

For higher adjustment ranges we recommend JustiFix® II JK H (page 82).

# JustiFix® II JK H



JustiFix® II JK 125 H  
made from polypropylene

## SIHGA® Feature

height-adjustable distance between substructure and any foundation

upper section for wood substructure; integrated level equaliser

50 to 545 mm height adjustment

made in Austria

monitored production from polypropylene, with a special recipe

base plate with diameter 210 mm and rounded edge

load capacity per piece max. 6.0 kN

includes installation instructions

## YOUR Benefit

this adjustable foot saves up to 70 % working time compared to individual solutions, the substructure remains dry and the terrace breathes

versatile in application, the wood substructure is simply fastened to the side of the upper section, evens out slopes of up to 3 %, simply read off from table

four basic models for the individual application, can be varied with JustiFix® Adapter JA 70 (page 87)

top European quality and added-value

remains permanently dimensionally stable, is heat-, frost- and UV-resistant

large supporting surface, also for unpaved subsoil, rounded standing areas to protect the underlying films

on solid and unpaved subsoil

for professional and practical work without lost time

SIHGA®		Dimension	Adjustment Range		Support Surface
montagepack		JustiFix® II JK	from	to	Diameter
Art. No.	PU	Type	[mm]		[mm]
33366	5	<b>90 H</b>	50	90	210
33106	5	<b>125 H</b>	50	125	210
33136	4	<b>160 H</b>	120	160	210



SIHGA® APP



### SIHGA® TIP:

Note design recommendations (page 56 - 57). On flat roofs in combination with JustiFix® K.

# JustiFix® II JK

## SIHGA® Feature

height-adjustable distance between substructure and any foundation

upper section for TefaFix® T substructure and SymbioFix® SFT; ntegrated level equaliser

30 to 545 mm height adjustment

made in Austria

monitored production from polypropylene, with a special recipe

## YOUR Benefit

this adjustable foot saves up to 70 % working time compared to individual solutions, the substructure remains dry and the terrace breathes

this height-adjustable foot simply latches onto TefaFix® T and SymbioFix® SFT is therefore absolutely installation-stable and evens out slopes of up to 3 %

four basic models for the individual application, can be varied with JustiFix® Adapter JA 70 (page 87)

top European quality and added-value

remains permanently dimensionally stable, is heat-, frost- and UV-resistant

SIHGA® montagepack	Dimension JustiFix® II JK	Adjustment Range		Support Surface Diameter
		from [mm]	to [mm]	
Art. No. PU	Type			
33436 5	<b>50</b>	30	50	210
33446 5	<b>90</b>	50	90	210
33116 5	<b>125</b>	50	125	210
33146 4	<b>160</b>	120	160	210



SIHGA® APP



JustiFix® II JK 90



JustiFix® II JK 125



### SIHGA® TIP:

Note design recommendations (page 56 - 57).

### SIHGA® Feature

base plate with diameter 210 mm and rounded edge

load capacity per piece max. 6.0 kN

includes installation instructions

### YOUR Benefit

large supporting surface, also for soft subsoil, rounded standing areas to protect the underlying films

on solid and unpaved subsoil; 2 per m<sup>2</sup>, for example with 1100 mm distance from the terrace footing, are sufficient

for professional and practical work without lost time



  
  
  
 SIHGA® APP  
  


**SIHGA® TIP:** Note design recommendations (page 56 - 57).

# JustiFix® II JK S

## SIHGA® Feature

## YOUR Benefit

height-adjustable distance between substructure and any foundation	this adjustable foot saves up to 70 % working time compared to individual solutions
upper section for slabs with joint distance 4 mm and spacer ribs with integrated predetermined breaking point	for all panel formats, even cornering profiles and edge connectors are resolved easily and time-efficiently
30 to 545 mm height adjustment	four basic models for the individual application, can be varied with JustiFix® Adapter JA 70 (page 87)
made in Austria	top European quality and added-value
monitored production from polypropylene, with a special recipe	remains permanently dimensionally stable, is heat-, frost- and UV-resistant
base plate with diameter 210 mm and rounded edge	large supporting surface, also for soft subsoil, rounded standing areas to protect the underlying films
load capacity per piece max. 6.0 kN	on solid and unpaved subsoil; 4 per m <sup>2</sup> , sufficient for 50 cm plate size, for example
includes installation instructions	for professional and practical work without lost time

SIHGA® montagepack	Dimension JustiFix® II JK	Adjustment Range		Support Surface Diameter	
		from	to		
Art. No.	PU	Type	[mm]		[mm]
33346	5	<b>50 S</b>	30	50	210
33426	5	<b>90 S</b>	50	90	210
33126	5	<b>125 S</b>	50	125	210
33156	4	<b>160 S</b>	120	160	210



SIHGA® APP



# JustiFix<sup>®</sup> Adapter JA

## SIHGA<sup>®</sup> Feature

height expansion for JustiFix<sup>®</sup> II JK by 70 mm respectively

made in Austria

one model, can be stacked as desired

monitored production from polypropylene, with a special recipe

## YOUR Benefit

the optimal addition to the adjustable foot, JustiFix<sup>®</sup> Adapter JA is simply inserted; this increases the height adjustment between substructure and foundation by up to 545 mm

top European quality and added-value

can be used for all JustiFix<sup>®</sup> II JK

remains permanently dimensionally stable, is heat-, frost- and UV-resistant

SIHGA <sup>®</sup> montagepack		Dimension JustiFix <sup>®</sup> II JK		Adapter JA 70	Adjustment Range [mm]	
Art. Nr.	VE	Type		Quantity	from	to
33396	8	JK 125 H/S	+	<b>1 x JA 70</b>	120	195
33396	8	JK 125 H/S	+	<b>2 x JA 70</b>	190	265
33396	8	JK 125 H/S	+	<b>3 x JA 70</b>	260	335
33396	8	JK 125 H/S	+	<b>4 x JA 70</b>	330	405
33396	8	JK 125 H/S	+	<b>5 x JA 70</b>	380	475
33396	8	JK 125 H/S	+	<b>6 x JA 70</b>	470	545



SIHGA<sup>®</sup> APP



### SIHGA<sup>®</sup> TIP:

Note design recommendations (page 56 - 57)

# JustiFix<sup>®</sup> K



JustiFix<sup>®</sup> K  
made from cork



# JustiFix®<sup>R</sup> K

## SIHGA® Feature

cork interlayer as protection for flat roof foils

does not contain any plasticisers

dimensions 250 x 250 x 2 mm

made of chemically neutral material

cork as a flexible material

quantity calculation per m<sup>2</sup>

## YOUR Benefit

protects against mechanical damage to the sealing level

prevents a plasticizer migration between flat roof foil and adjustable feet

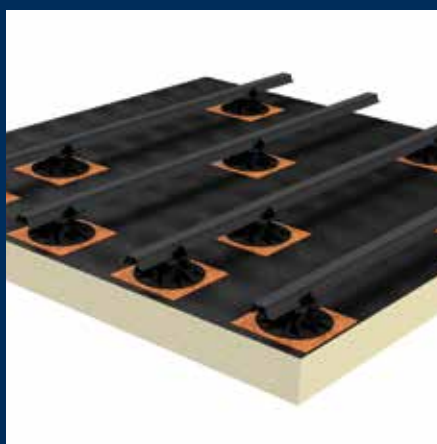
optimal for adjustment feet JustiFix® (II) JK

cork is resistant to moisture, does not rot and is resistant against most acids

inhibits impact sound, noise-insulating is non-slip and pressure-stable

1 : distance substructure in m : distance of the terrace feet

SIHGA® montagepack		Dimension L x B x H [mm]
Art. No.	PU	
41256	20	250 x 250 x 2



SIHGA® APP



### SIHGA® TIP:

Plasticizer migration may occur between EPDM films and JustiFix® JK, so JustiFix® K should be used.

# KompeFix<sup>®</sup> II KF

## SIHGA<sup>®</sup> Feature

## YOUR Benefit

universal, constructive wood protection for terraces with height 8 mm and width 21 mm

creates distance between the woods; thereby allowing them to breathe and increasing their lifespan

developed, patented and made in Austria

local quality, experience from more than 14 years of terrace construction included

the 4.5 metre long roll is simply rolled out

fast and easy, can be fixed as desired (screwable) and cut to length

helps to seal the screw

increases the service life of the construction

the pre-load effect integrated through the specific shape compensates for the swelling and shrinkage of the timber

enhances walking comfort on the terrace

monitored production from polyvinyl chloride, with a special recipe

remains permanently dimensionally stable, is heat-, frost- and UV-resistant

quantity calculation per m<sup>2</sup>

1 : distance substructure [m] : 4.5

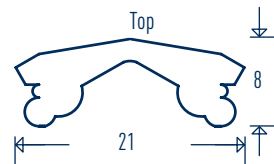
includes installation instructions

is time-saving and enclosed for practicality

HFA inspected in combination with TeFix<sup>®</sup>

for details please see page 59

SIHGA <sup>®</sup> montagepack		Dimension KompeFix <sup>®</sup>		Dimension [mm]	
Art. No.	PU	Type	Width	Height	Length
41006	8 x 4,5 m	<b>II KF</b>	21	8	4500



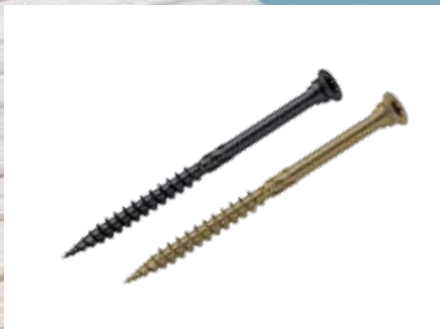
SIHGA<sup>®</sup> APP



# L-GoFix<sup>®</sup> MS



L-GoFix<sup>®</sup> MS made from hardened stainless steel



L-GoFix<sup>®</sup> MS with additional SC 9 / SC 11 coating

## SIHGA® Feature

## YOUR Benefit

fastens wood to wood without pre-drilling and without countersinking

prevents crack formation or splitting of the timbers, even board materials, saves work time, additional pre-drilling extends the life of the wood

also attaches coverings made out of hard and thermo-wood

creates a perfect look, with these woods additional pre-drilling is recommended

multi-stage head with small head diameter

high constructive wood protection and refined surface as a result of the plane head

special thread angle with sharp thread edges

high extraction value

SIHGA® point with special shape

guarantees fast setting of screws without splitting

SIHGA® ribs on shaft and slip coating

light, fast rotation and optimum fit in the wood are guaranteed

made from hardened stainless steel

rust-free fastening, extremely break-proof

also available with black (SC 9 coating) and antique look (SC 11 coating)

optimum on dark materials, or can be used for larch, Douglas fir and Bangkirai

including SIHGAFIX® stainless steel, Systemstift® and installation instructions

time-saving, practical, precise, all accessories enclosed; SIHGAFIX® stainless steel prevents rust from external sources and also screws into deep grooves





SIHGA® APP






**L-GoFix® MS with additional  
SC 11 coating**





### SIHGA® TIP:

In case of applications in the pool area and with timbers with a high tannin content, we recommend L-BohrFix® MB A4 (page 64).

## SIHGA® Feature

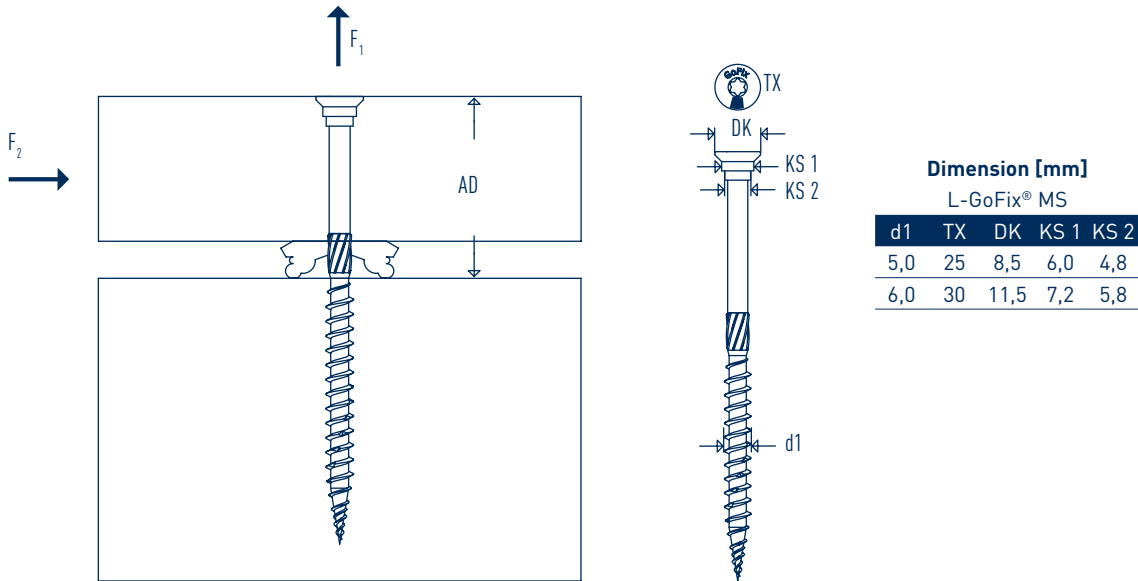
quantity calculation

including SIHGAFIX® stainless steel, Systemstift® and installation instructions

## YOUR Benefit

[www.sihga.com](http://www.sihga.com) / Online Calculation Terrace

time-saving, practical, precise, all accessories enclosed; SIHGAFIX® stainless steel prevents rust from external sources and also screws into deep grooves



### Dimension [mm]

L-GoFix® MS

d1	TX	DK	KS 1	KS 2
5,0	25	8,5	6,0	4,8
6,0	30	11,5	7,2	5,8

SIHGA® montagepack		Dimension L-GoFix® MS	Installation Part AD	Characteristic Values**			
Art. No.	PU	d1 x L	[mm]	Tensile Force F <sub>t</sub> [kN]		Shear Force F <sub>s</sub> [kN]	
				Head	Thread	Wood-Wood	Steel-Wood
24316	200	5,0 x 45*	18	1,10	1,79	1,45	1,71
24326	200	5,0 x 50*°	20	1,10	2,06	1,45	1,71
24336	200	5,0 x 60*°	24	1,10	2,40	1,45	1,71
24346	200	5,0 x 70*	28	1,10	2,75	1,45	1,71
24356	200	5,0 x 80*	32	1,10	3,43	1,45	1,71
24366	200	5,0 x 90*	36	1,10	3,78	1,45	1,71
24376	200	5,0 x 100*	40	1,10	4,12	1,45	1,71
24406	100	6,0 x 70	28	1,96	3,11	2,07	2,61
24416	100	6,0 x 80	32	1,96	3,88	2,07	2,61
24426	100	6,0 x 90	36	1,96	4,27	2,07	2,61
24436	100	6,0 x 100	40	1,96	4,66	2,07	2,61
24446	100	6,0 x 120	50	1,96	5,43	2,07	2,61
24456	100	6,0 x 140	70	1,96	5,43	2,07	2,61
24466	100	6,0 x 160	90	1,96	5,43	2,07	2,61

\* only available with SC 9 coating  
° only available with SC 11 coating

\*\* characteristic values for dimensioning according to EC 5 and for strength class pk 410 kg/m<sup>3</sup>



### SIHGA® TIP:

For surface-flush rotation, fast and secure, we recommend TerrassenFix® TTB depth limiter (page 117).



The elegant way of doing repairs



INNOVATION  
2021

1. Position the hole saw in left-hand rotation and mill off the remaining part of the screw

# Screw breakage in the terrace - what now?

Imagine, you are just installing the second-to-last decking board on a 20 m<sup>2</sup> large teak terrace – the final stretch – the cordless screwdriver is showing no sign of getting tired and a well-deserved relaxing evening awaits... or does it?

Suddenly a screw breaks off – after around 600 have been perfectly inserted and screwed in place. A nightmare!

With the broken screw part in your hands, you note that the thread of the screw is lodged in the aluminium sub-structure – broken off flush at its upper edge – no chance of removing the remainder of the screw with a tool such as pliers or the like.

## You are now spoilt for choice:

Either you break your customer promise of delivering a perfect wooden terrace and add a new screw alongside the old drill hole in the decking board or you insert the new screw at an angle into the old drill hole.

In both cases, you are putting customer satisfaction at stake – risking both customer dissatisfaction and the loss of your own good reputation.

Or, you remove as many of the decking boards necessary in order to replace the damaged aluminium sub-structure rail.

No evening off in sight and a tiring, tedious and above all costly journey before you in your role as a terrace installer.

But now SIHGA® has found a solution:

## Rest-X® – the elegant way of doing repairs

Scenarios like this are a thing of the past thanks to the SIHGA® Rest-X®!

SIHGA® is the first and only company to provide a tool which enables you to repair damage screws QUICKLY, PROFESSIONALLY AND COST-EFFECTIVELY.

The faulty screw is replaced, the decking board remains intact and the surface of the terrace looks just like new.

Based on survey results\*, **investment in a Rest-X® set will pay for itself in less than 2 years!**



**2. Unscrew the remaining part of the screw with the left-bolt extractor in left-hand rotation**



**3. Screw in the new screw**



## YOUR Benefit

with Rest-X®, it is possible to repair individual broken screws WITHOUT having to extensively dismantle the terrace

the new screw can be screwed STRAIGHT into the old drill hole

1 Rest-X® set can repair 100 damaged screws without the need for replacing any parts of the terrace decking

works with both wood and aluminium sub-structures

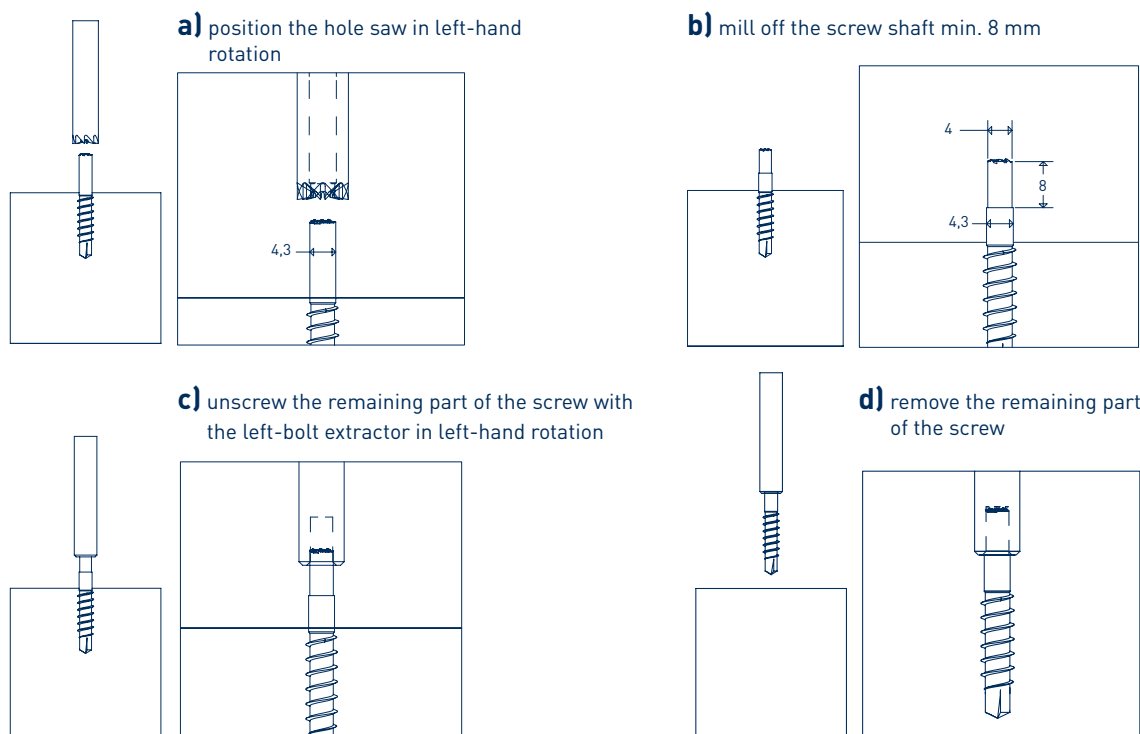
only one replacement screw is required for each defective screw when repairing wooden sub-structures

Rest-X® is suitable for stainless steel screws of  $\varnothing$  5 mm and  $\varnothing$  5.5 mm (by all manufacturers)

incl. SIHGAFIX®, hole saw, screw extractor and HSS drill

one set – countless applications

## Best Practice for Substructure Made of Wood and Aluminium



SIHGA® Rest-X®					
montagepack		Hole Saw	Screw Extractor	HSS Drill	SIHGAFIX®
Art. No.	PU	$\varnothing$ [mm]	$\varnothing$ [mm]	$\varnothing$ [mm]	
34802	1	<b>8,5 / 4,0</b>	7,5 / M 4,5 left	8,5	TX 25 and 30

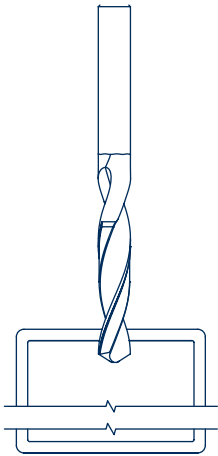


## Further Procedure in Aluminium Substructure

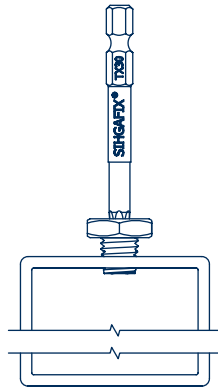
### YOUR Benefit

in the case of repairing aluminium sub-structures, a thread insert plus a replacement screw are required for each faulty screw (20 are included in one montagepack)

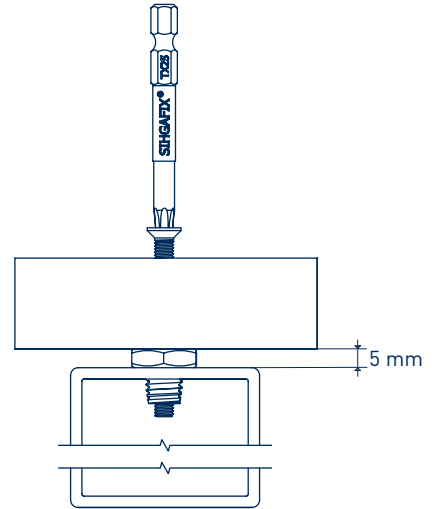
**a)** drill the hole with diameter 8.5 mm



**b)** screw in the thread insert with TX 30



**c)** screw in the screw M 5 x 50 A2 with TX 25



#### SIHGA® Rest-X® San-Set

montagepack		Thread insert	Drill
Art. No.	PU	Ø [mm]	Ø x L [mm]
34812	20	<b>M 5</b>	5 x 50

### Is this even worth it?

**\* Results of a survey of 1059 carpenters, joiners, dealers, gardeners and landscape designers from August 2020:**

**- investment in this tool pays for itself in less than 2 years**

- an average of 2.2 cases of broken screws across terrace areas (during or after installation) per year
- on average 5 to 6 affected screws per case of damage
- every 7<sup>th</sup> case of damage on average involves the terrace being extensively dismantled
- average lifespan of Rest-X® is over 8 years (if Rest-X® is used for all cases of damage)



#### SIHGA® TIP:

Remove the screw in aluminium substructure, drill out the aluminium by using the HSS driller 8.5 mm and refix the board by using the Rest-X®-thread insert together with the screw.

# SenoFix® FT



**SenoFix® FT**  
for terrace applications



Plank thickness 20 - 30 mm

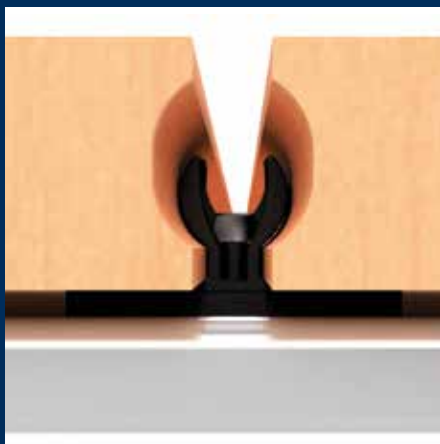
**Optional accessories: SIHGAFIX®**  
TX 20, 77 mm; p. 14 & TTB p. 117



## SIHGA® Feature

## YOUR Benefit

for untreated, profiled wooden planks released by SIHGA®	we recommend using TefaFix® T rail as substructure
manufactured, developed, and patented in Austria	highest European quality and value creation
screwed fastening for floorboards only in the joint with the SenoFix® FT, cover- and lateral surfaces of the boards remain unharmed	creating a visually appealing surface is quick, simple and precise
expansion mechanism with joint width of 7 mm in final state	no spacers needed for assembly
assembly possible without additional tools	no additional costs for clamps or belts, etc.
connector height per the latest state of the art	automatic spacing from substructure of 8 mm
stabilises and compensates for any swelling and shrinkage in the wood	increases the lifespan of the terrace considerably
only 1 screw per attachment point	requires 50 % less installation time and provides perfect grip
available with two different screw lengths	use on wood and alu substructure
produced of reinforced SIHGAMID®	is therefore permanently heat-, frost- and UV-resistant
attachment screw made of hardened stainless steel	is permanent and break-proof
including SIHGAFIX® stainless steel, all attachment screws and installation instructions	time-saving, practical, precise, all accessories are included, SIHGAFIX® stainless steel prevents extraneous rust
quantity calculation per m <sup>2</sup>	1:substructure spacing [m]:(board width [m] + joint [m])
HFA inspected in combination with thermo ash	for details please see page 59



SIHGA® APP



### SIHGA® TIP:

Note design recommendations (page 56 - 57).  
For oiled terraces we recommend the SenoFix® II SX.

# SenoFix® II SX



SenoFix® II SX  
the original

## SIHGA® Feature

for oiled, profiled wooden planks released by SIHGA®

developed, patented and made in Austria

only in the joint through the SenoFix® II SX screwed plank fastening without damaging the top and side surfaces of the planks

automatic distance to the substructure is 5 mm

reveal joint width 6 mm

stabilises and compensates for the wood's swell and shrinkage processes

only 1 screw per fastening point, which extends 25 mm into the substructure

made from thermoplastic elastomer, the permanently elastic material

fastening screw made from hardened stainless steel

includes SIHGAFIX® stainless steel, all fastening screws and installation instructions

quantity calculation per m<sup>2</sup>

## YOUR Benefit

we recommend using TefaFix® T rail as substructure

top European quality and added-value, 1,1 million m<sup>2</sup> of terraces already laid

the optically elegant surface is created simply, quickly and precisely

the terrace remains well-ventilated, timber can dry well, accumulations of water are prevented

never lay without TerrassenFix® Clamp III including Joint Spacer Clamp FAZ (page 118 – 119)

significantly increases the lifespan of the terrace

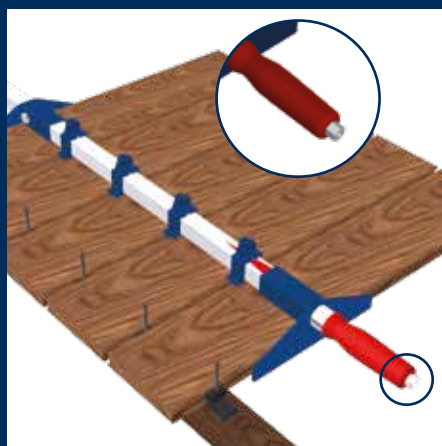
saves 50 % installation time and establishes a perfect hold

is UV, frost and heat resistant, provides product assurance also for the future

rust-free and break-proof fastening, for professional and practical work without lost time

time-saving, practical, precise, all accessories enclosed; SIHGAFIX® stainless steel prevents rust from external sources

1:substructure spacing [m]:(board width [m] + joint [m])



SIHGA® APP



### SIHGA® TIP:

Note design recommendations (page 56 - 57) and never lay without TerrassenFix® Clamp III (page 118).

# TefaFix® T



**INNOVATION  
2021**

**TefaFix® T  
aluminium blank**



**INNOVATION  
2021**

**TefaFix® T  
aluminium SC 9 coated**

© Bonauer Bölling Architekten Berlin



## SIHGA® Feature

## YOUR Benefit

2-part system

with visible screw connection in offset arrangement, sliding effect also in the longitudinal direction of the substructure, screw breakage due to swelling and shrinking of the wood is a thing of the past

also available in SC 9 coated

continuous black joint optic

profile open at the bottom

prefabrication of the parts possible by screwing on the rear

lateral flange

additional fastening options

special inner geometry

many connections possible with TefaBind® connector

trapezoidal shape

perfect water drainage guaranteed

moveable

endlessly extendable in length

aluminium

durable, machinable with conventional tools and machines

TefaBind® connector

all, even angled connections possible

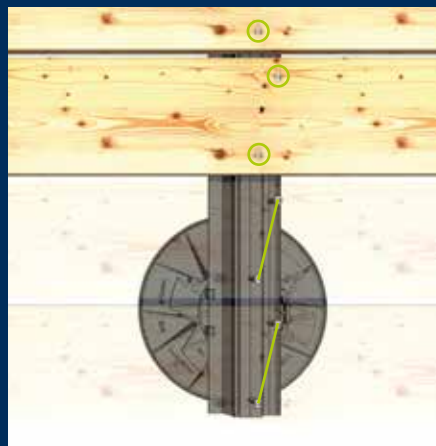
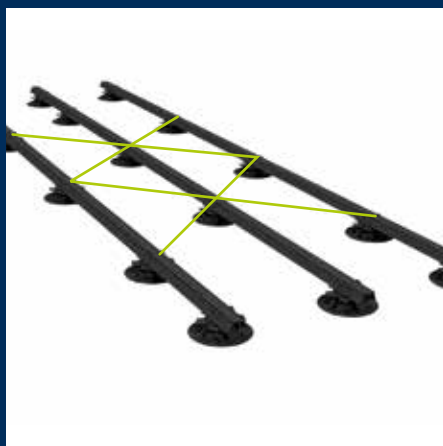
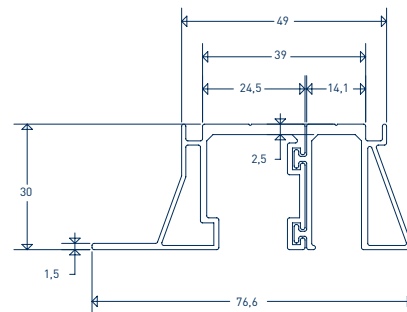
universally combinable

for use also optimally with SenoFix® FT and GleitFix® GF

HFA inspected in combination with Alu-TeFix®, TefaFlex® T and TefaBind®

for details please see page 59

SIHGA® objektpack®		Type	TefaFix® T Surface	Length [mm]
Art. No.	PU			
52112	10	4400	bright	4400
52022	10	4400	SC 9	4400
52023	15	1100	SC 9	1100



SIHGA® APP



### SIHGA® TIP:

For the application in combination with SenoFix® FT the TefaBind® connecting piece incl. screw connection for the longitudinal joint must be used.

# TefaFlex® T



## SIHGA® Feature

## YOUR Benefit

special geometry

minimum contact area of the boards in case of visible screwing, allows bowling up of the planks stress-free

takes up the axial displacement of the TefaFix® T effortlessly

screw breakage due to swelling and shrinkage is thus counteracted

53 mm length

suitable for all plank widths

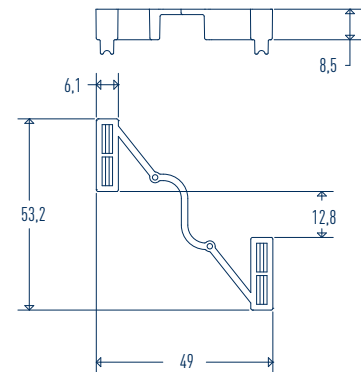
8.5 mm height

final distance of the plank to the substructure according to the state of technology, optimum ventilation and drainage

HFA inspected in combination with Alu-TeFix® and TefaFix® T

for details please see page 59

SIHGA®		TefaFlex® T		
montagepack		Length	Width	Height
Art. No.	PU	[mm]	[mm]	[mm]
52036	300	53,2	49	8,5



SIHGA® APP

**INNOVATION 2021**

**TefaFlex® T**  
made of polypropylene



### SIHGA® TIP:

One piece of TefaFlex® T is required per plank joint.



### TefaFix® T with TefaFlex® T and Alu-TeFix®

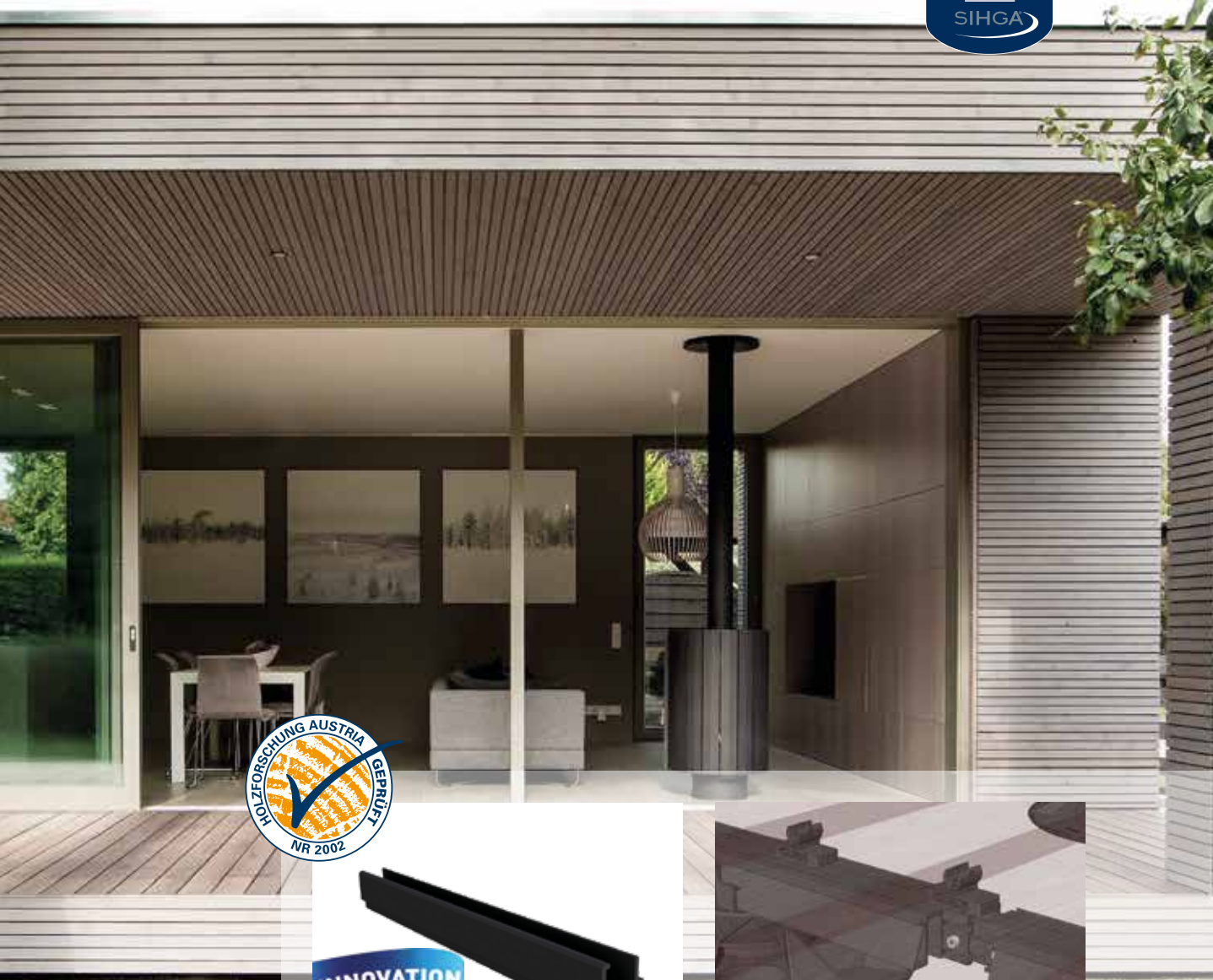


### TefaFix® T with GleitFix® GF

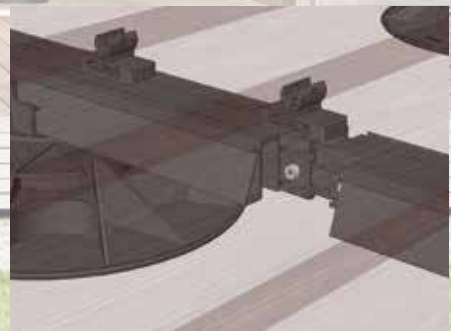


### TefaFix® T with SenoFix® FT Alu





TefaBind®  
aluminium SC 9 coated



For butt joint  
of TefaFix® T

© Bonauer Bölling Architekten Berlin

## SIHGA® Feature

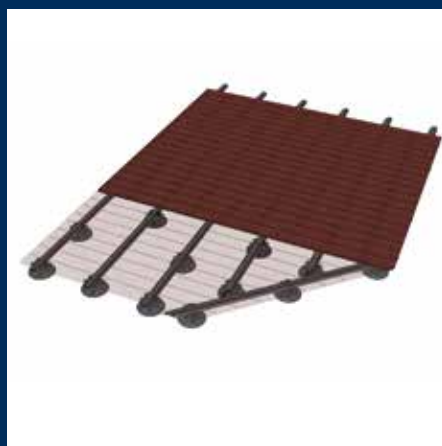
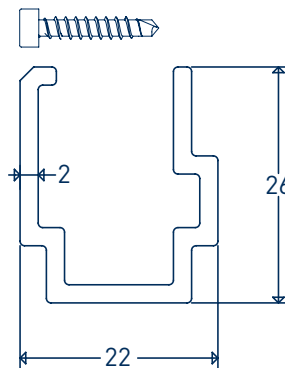
## YOUR Benefit

TefaBind® connector	for endless joining of TefaFix® T
SC 9 coated	continuous black joint optic
profile open at the top	with the supplied BohrFix® FB 4.2 x 17 mm in stainless steel the TefaBind® can be easily fixed
Aluminium	durable, with conventional tools and machines workable
all-purpose	all longitudinal and transverse connections can be made with the TefaBind®
including assembly instructions and 2 pcs. BohrFix® FB 4.2 x 17 mm per TefaBind®	time-saving, practical, precise, all accessories are included
HFA inspected in combination with TefaFix® T	for details please see page 59

SIHGA® montagepack		Length	TefaBind®	
Art. No.	PU	[mm]	Width [mm]	Height [mm]
52056	25	250	22,0	26,0

BohrFix® FB

Ø 4,2 x 17



SIHGA® APP



### SIHGA® TIP:

For the application of TefaFix® T in combination with SenoFix® FT and SenoFix® II SX the TefaBind® connector incl. screw connection for the longitudinal joint is mandatory.

# TerrassenFix<sup>®</sup> Air



TerrassenFix<sup>®</sup> Air aluminium



Terrace Edge Revetment

© Bonauer Bölling Architekten Berlin



## SIHGA® Feature

special geometry

aluminium

pre-drilled

optimum static solution

profile height

profile interruptions

## YOUR Benefit

can be used as a ventilation element or substructure for terrace edge revetment

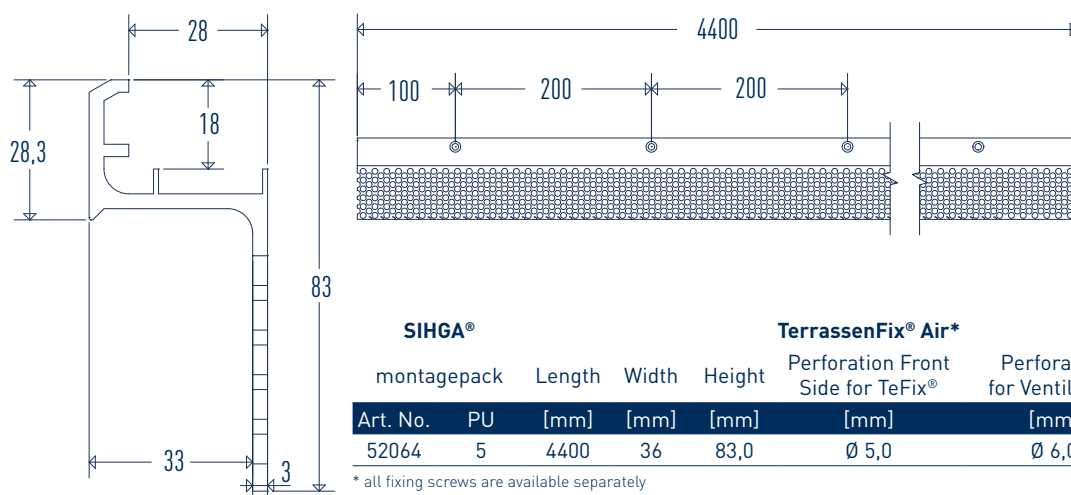
workable with common tools and machines

easy installation using TeFix®

load transfer of the edge cover via the planks

or all plank thicknesses from 20 mm

water drainage and ventilation guaranteed



SIHGA® APP



### SIHGA® TIP:

To fix a wooden panel, we recommend the BohrFix® FB 4.2 x 17/22/28 mm in stainless steel screwed in from the back of the TerrassenFix® Air.

# TeFix®



**TeFix® made of hardened stainless steel**



## SIHGA® Feature

fastens wood to wood without pre-drilling and countersinking

made of hardened stainless steel

SIHGA® friction thread with special form

SIHGA® further-developed multi-stage head

the perfect solution in combination with KompeFix® including SIHGAFIX®, Systemstift® and installation instructions

calculation of required quantity, please visit

HFA inspected in combination with KompeFix® II KF, larch, thermo ash and Accoya

## YOUR Benefit

prevents the formation of cracks or splitting in almost all hardwood and thermo-wood; saves working time

non-corrosive attachment and is extremely break-proof

pre-drills the boards at 5 mm; the wood can thus swell and shrink

no suppression or splitting of the wood due to extra thin head and saw tooth corrugation

increases the life of the wood and the screw

time-saving, practical, precise, all accessories are included

www.sihga.com (average quantity = 33 pieces/m<sup>2</sup>)

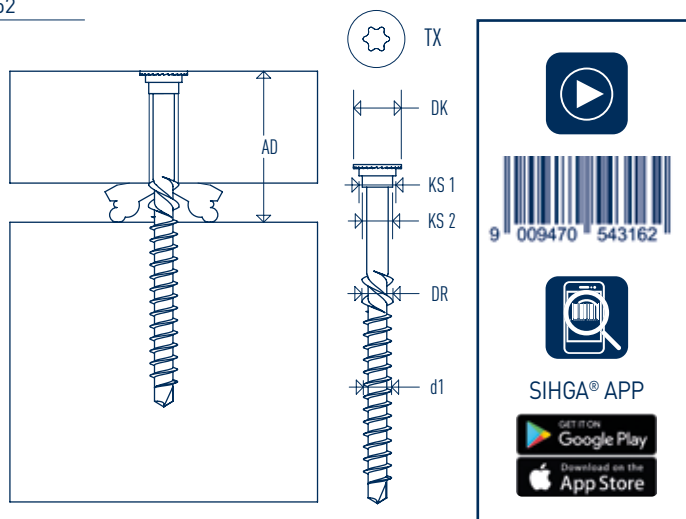
for details please see page 59

SIHGA® montagepack		Dimension TeFix®	Installation Part AD [max]
Art. No.	PU	d1 x L	[mm]
54316	200	<b>5,0 x 45*</b>	18
54326	200	<b>5,0 x 50*</b>	24
54336	200	<b>5,0 x 60*</b>	27
54346	200	<b>5,0 x 70*</b>	30
54356	200	<b>5,0 x 80*</b>	34
54366	200	<b>5,0 x 90*</b>	37
54376	200	<b>5,0 x 100*</b>	40
54406	100	<b>6,0 x 70</b>	30
54416	100	<b>6,0 x 80</b>	34
54426	100	<b>6,0 x 90</b>	37
54436	100	<b>6,0 x 100</b>	40
54446	100	<b>6,0 x 120</b>	52

\* also available with SC 9 coating

### Dimensions [mm]

d1	TX	DK	KS 1	KS 2	DR
5,0	20	8,5	6,5	5,4	5,2
6,0	25	11,5	8,2	6,4	6,3



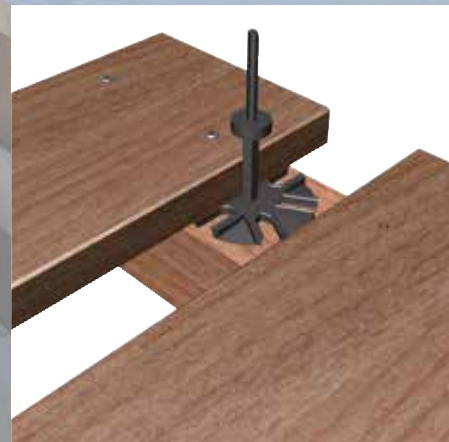
### SIHGA® TIP:

For use in the area of pool surroundings and to fasten wood with high tannin content (such as e.g. cumaru, oak, robinia, garapa) we recommend L-BohrFix® MB A4 (page 64).

# TerrassenFix® II TF



**TerrassenFix® II TF**  
made from polyethylene





## SIHGA® Feature

## YOUR Benefit

universal constructive wood protection for terraces	creates distance between the woods, thereby allowing them to breathe and increasing the lifespan
developed, patented and made in Austria	top European quality, experience from more than 14 years of terrace construction included
TerrassenFix® II TF with Ø 70 mm is only placed on the substructure	saves time, no installation work
joint setting for 4, 5, 6, 7, 8, 9 mm wide joints without residue in the joint	joint widths can be adjusted quickly as a result; time-saving, practical, precise, all accessories enclosed
including TerrassenFix®II rods TFS and installation instructions	the TerrassenFix® II rods TFS cannot fall into the joints
TerrassenFix® II rods TFS are removed entirely using a handle, can be reused after screw-connecting the planks	nothing blocks the planks during their swell and shrinkage behaviour
monitored production from polyethylene	remains permanently dimensionally stable, is heat-, frost- and UV-resistant
calculation of quantity per m <sup>2</sup>	1: substructure distance [m]: width of terrace planks + joint [m]

SIHGA® montagepack		Dimension TerrassenFix®	Average Quantity /m <sup>2</sup>
Art. No.	PU	Type	Stk.
40506	100	II TF	14

\* calculation takes place with the assumption "plank width 140 mm".



SIHGA® APP



### SIHGA® TIP:

The joint space should not be less than 7 mm or 6 % of the plank width.

# TerrassenFix<sup>®</sup> II Set TFL

## SIHGA<sup>®</sup> Feature

patented constructive wood protection as a set with L-GoFix<sup>®</sup> MS screws for terraces

L-GoFix<sup>®</sup> MS made from hardened stainless steel

including SIHGAFIX<sup>®</sup> stainless steel, TerrassenFix<sup>®</sup> II rods TFS, Systemstift<sup>®</sup> and installation instructions

calculation of quantity

## YOUR Benefit

the practical set for visible terrace plank fastening with very long lifespan

rust-free fastening, extremely break-proof

time-saving, practical, precise, all accessories enclosed; SIHGAFIX<sup>®</sup> stainless steel prevents rust from external sources and also screws into deep grooves

SIHGA<sup>®</sup> performs the calculation for you

SIHGA <sup>®</sup> montagepack		Dimension TerrassenFix <sup>®</sup> II	Planks Thickness	Set - Screw L-GoFix <sup>®</sup> MS	Sufficient for approx.
Art. No.	PU	Type	[mm]	Ø x Length	[m <sup>2</sup> ]
40526	100	<b>TFL 60</b>	20	5,0 x 60	7,5
40546	100	<b>TFL 70</b>	24	5,0 x 70	7,5
40566	100	<b>TFL 80</b>	28	5,0 x 80	7,5
40576	100	<b>TFL 90</b>	32	5,0 x 90	7,5



SIHGA<sup>®</sup> APP



**TerrassenFix<sup>®</sup> II TF**



**L-GoFix<sup>®</sup> MS**



### SIHGA<sup>®</sup> TIP:

The joint distance should not be less than 7 mm or 6 % of the plank width, note design recommendations (page 56 - 57).

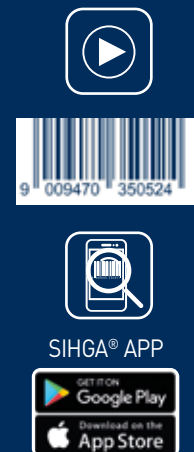
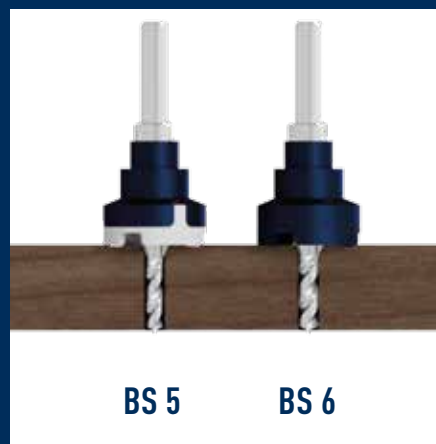
# TerrassenFix® Countersink BS

## SIHGA® Feature

## YOUR Benefit

pre-drilling and counter sinking in one step	saves at least 50 % working time
developed, patented and made in Austria	local quality, experience from more than 14 years of terrace construction included
drill and counter sinker are made from hardened stainless steel	prevents corrosion/rust from external sources on the terrace, also in the case of any abrasion of the drill
integrated depth stop	gives a uniform finish to the sinking, prevents sink holes and thus damp patches
for SIHGA® stainless steel screws L-GoFix® MS, L-BohrFix® MB (A4) and Alu-BohrFix®	the precise match for these screws creates a uniform surface
stop ribs on the end	prevent ugly contact traces on the terrace surface
with a second change ring and re-closable system packaging	extends the life of the counter sinker, protects against damage
drill depth including sinker 25 mm	the geometry optimally transports the drill dust out

SIHGA® minimontagepack	TerrassenFix® Countersink	Drill Hole Diameter	Drill Depth incl. sink [mm]
Art. No. PU	Type		
35052 1	<b>BS 5</b>	5,0	25
35062 1	<b>BS 6</b>	6,0	25



### SIHGA® TIP:

Observe drilling table (page 57), we recommend using the TerrassenFix® Template TFS (page 116).

# TerrassenFix<sup>®</sup> Template TFS

## SIHGA<sup>®</sup> Feature

pre-drilling and counter sinking of the terrace planks without measuring and marking

developed, patented and made in Austria

for terrace planks from 70 - 205 mm wide

made entirely of anodised aluminium

automatically suitable guide for TerrassenFix<sup>®</sup> Countersink BS

side wood distance adjustable via stops

constructive wood protection is considered

inspection opening for previous screw connections

includes installation instructions

## YOUR Benefit

saves 50 % of working time and creates an attractive and uniformly screwed surface

local quality, experience from more than 14 years of terrace construction included

universally usable in terrace construction

for a long life of the template in everyday construction use

drilling is performed in a precise and consistent position each time

15, 20, 25 mm side wood distances can be optionally selected with ease

a distance of 50 mm is automatically added to the wood end-grain

for rational, fast working

is time-saving and enclosed for practicality

SIHGA <sup>®</sup> montagepack	Dimension TerrassenFix <sup>®</sup> Template	Plank Width min - max [mm]
Art. No. PU	Type	
34946 1	TFS	70 - 205



SIHGA<sup>®</sup> APP



**TerrassenFix<sup>®</sup> Template TFS  
for rapid precision**



### SIHGA<sup>®</sup> TIP:

Note design recommendations (page 56 - 57).

# TerrassenFix® Depth Limiter TTB

## SIHGA® Feature

specific slip-coupling

rotatable contact slide ring on the end

extends the lifespan of the terrace

suitable for all SIHGAFIX® sizes

Accessories: SIHGAFIX® TX 20, 77 mm

## YOUR Benefit

prevents screws penetrating too deeply into the terrace planks, they are all automatically screwed flush; saves lots of time and results in an attractive and uniform surface

prevents ugly contact traces on the terrace surface

no sink holes arise above the screw heads in the terrace planks here, in which water and dirt accumulate

can be used with every SIHGAFIX®

especially for use with SenoFix® FT

SIHGA®		Type
minimontagepack		Depth Limiter
Art. No.	PU	Type
34992	1	<b>TTB</b>



SIHGA® APP



### SIHGA® TIP:

Note design recommendations (page 56 - 57). TerrassenFix® depth limiter TTB with SIHGAFIX® TX 20, 77 mm perfect for laying with SenoFix® FT.

# TerrassenFix® Clamp III

## SIHGA® Feature

clamping width 260 - 780 mm

material thickness of the front section only 4 mm

wide clamp jaws

close and open the clamp with one handle or ...

... with additional universal drive, the further development by professionals for professionals

easy, quick adjustment and fine adjustment of the clamping width

## YOUR Benefit

time-saving, practical, precise for terrace construction, from plank widths of 90 mm or can also be used universally;

easy to use with all terrace joints and when working close to walls




no pressure points on the plank edge

the clamping together of the planks and the opening of the clamps are performed by turning the handle or...



... with drive TX 40, external hex SW 13, hexagon socket 6 mm for even faster handling

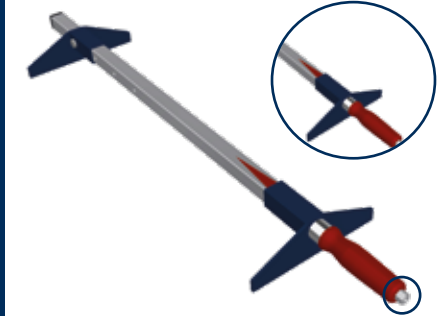
quick adjustment from the front with a magnetic rod, fine adjustment using a rotating handle

SIHGA® montagepack		Type TerrassenFix®	Clamping Distance [mm]	
Art. No.	PU	Type	from	to
35036	1	<b>Clamp III</b>	<b>260</b>	<b>780</b>

SIHGA® APP



**TerrassenFix®  
Clamp III**





### SIHGA® TIP:

The TerrassenFix® Clamp III is the ideal laying tool for floorboard coverings and the precondition for the assembly of SenoFix® II SX.

# Joint Spacer Clamp FAZ for TerrassenFix® Clamp III

## SIHGA® Feature

accessories for TerrassenFix® Clamp III

joint distance either 6, 8, 10 mm

wide supporting surface

is placed directly on TerrassenFix® Clamp III

## YOUR Benefit

saves lots of working time and results in uniform joints

just set desired width on the TerrassenFix® Clamp III, the conical shape ensures easy removal after use

prevents pressing into the timber

cannot fall into the joint

SIHGA® montagepack		Joint Spacer Clamp		for SenoFix® II SX	
Art. No.	PU	Type FAZ	Joint Widths [mm]		
40646	5	6	6,0	yes	
40666	5	8	8,0	no	
40686	5	10	10,0	no	



Joint Spacer Clamp FAZ



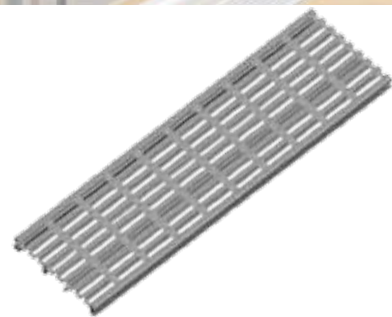
SIHGA® APP



### SIHGA® TIP:

TerrassenFix® Joint Spacer Clamp FAZ 6 optimum for laying of SenoFix® II SX.

# TerrassenFix Aqua<sup>®</sup>



**TerrassenFix Aqua<sup>®</sup>**  
**made of aluminium**



# TerrassenFix Aqua®

## SIHGA® Feature

## YOUR Benefit

drainage grating for protecting seals for use in passages

professional design in accordance with ÖNORM B 3691 and DIN 68800 standards

aluminium profile with special geometry

easy to work with conventional tools

perforation for rapid water drainage

protection of vertical bonding and seals

grooved surface

prevents spray water

developed for universal use

suitable for terrace projects

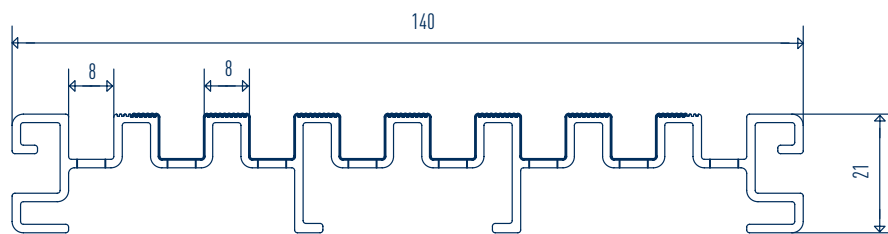
supplied in 1000 mm or 4000 mm length

simply put the necessary parts together

incl. BohrFix® ES 3.2 x 50 mm

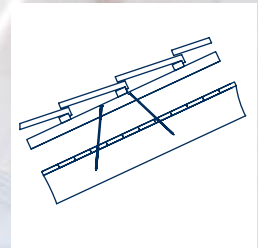
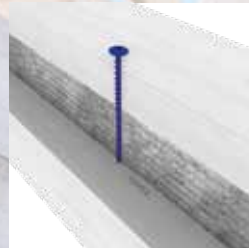
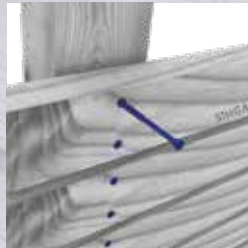
for securing on wood or aluminium substructure

SIHGA® objektpack®		Type Dimensionen
Art. No.	PU	Aqua
40459	10	<b>140 x 1000 x 21</b>
40472	10	<b>140 x 4000 x 21</b>



### SIHGA® TIP:

Can be easily attached to substructure with F-BohrFix® ES 3.2 x 50 mm.



## System Screws

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Shear Dowel	129
GoFix® JK	142
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GoFix® SS	174
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## Roof Insulation

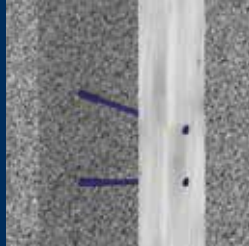
Jointplan®	124
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## Load Handling Device

Pick	210
System Kit Pick HMB	213
Pick PSA	214
System Pick Engel®	216

## Installation Tool

GoFix® Element Tensioner	159
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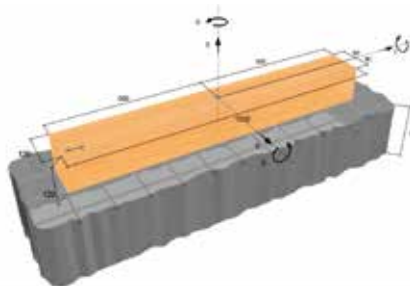
## Wood with Concrete / Metal / Brick

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## System Connectors

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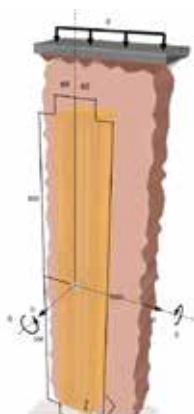


## SIHGA® Feature

innovative software for dimensioning of wood and steel add-on parts in the most common dimensions, profile types and sizes according to current standards

## YOUR Benefit

time saving; security for you and your customers



both concrete and brick substrates selectable; even with individual reinforcement and bricks with preload by ceilings possible

for almost all building project applicable



optimised dowel arrangement; due to the possibility to enter line loads the fasteners arrangement is immediately optimised

automatic saving on material and working time



extensive database of SIHGA® wood/concrete/brick anchoring technology

one software for all applications



## SIHGA® TIP:

Download the desktop version at [www.sihga.com](http://www.sihga.com).

# Technical Information - Timber Construction

Bulk Density Wood	Needle Wood	Glued Laminated Timber
290	C 14	
330	C 20	
350	C 24	
365		Gl24c
380	C 30	
385		Gl24h
390		Gl28c
400	C 35	Gl32c
425		Gl28h
440		Gl32h

$\rho_k$  = Mass (kg) : Volume m<sup>3</sup>

C = Coniferous tree

GL = Glue lam timber

The aim of the innovative SIHGA® developments is to increase the efficiency of building with wood through modern mechanical fastenings. The load-bearing capacity and deformation behaviour of the fastenings have a critical impact on building designs.

The unique quality of wood as a building material requires the greatest attention to connections and fastenings. For a simple overview of the strength classes of the various woods, please see the above table for the raw density  $\rho_k$  with the allocated designations.

Category of exposure time	Order of magnitude	Examples	Use category 1 + 2 $k_{mod}$
Permanent	Longer than 10 years	Tare weight	0.6
Long	6 months to 10 years	Stored material in factories	0.7
Mean	1 week to 6 months	Payloads in residential buildings, snow > 1,000 masl	0.8
Short	Shorter than 1 week	Snow ≤ 1,000 masl	0.9
Very short	Shorter than 1 minute	Impact and earthquakes	1.1

As a result of the new standard Eurocode 5 and the introduced evidence concept with help from partial safety factors, wood construction is confronted with various values and calculation formulas. On one hand, the effects are increased with certain partial safety factors, and on the other hand the load-bearing capacity (or resistance) of the material and fastenings are reduced with other partial safety factors.

For this, SIHGA® offers pre-calculation for the respective load in various raw densities and wood qualities.

The characteristic values shown in the SIHGA® tables must be further calculated using the following equation:

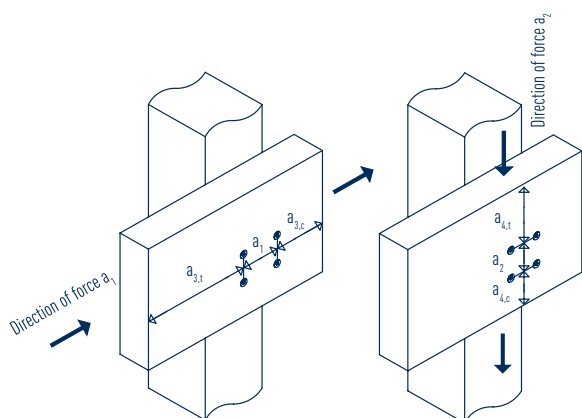
$R_d$  Calculation or design value

$k_{mod}$  Modification factor, influence of the load exposure period and usage class

$\gamma_M$  Partial safety factors for construction material properties (EC 5 recommends  $\gamma_M = 1.3$  for connections)

$$R_d = \frac{k_{mod} \cdot R_k}{\gamma_M}$$

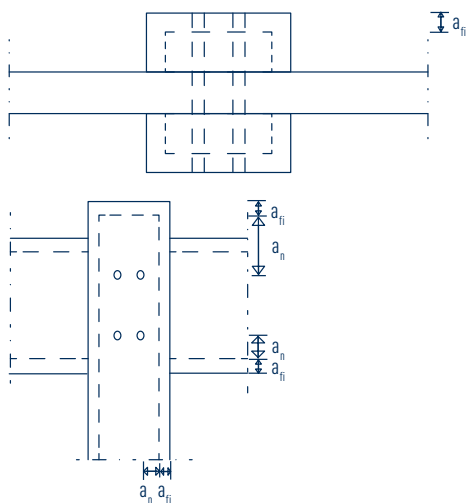
# Edge and Axial Distances



Edge and Axial Distances		Not Pre-Drilled	Pre-Drilled/ Drill Bit
Distance a		[mm]	[mm]
a <sub>1</sub>	parallel to the grain	12 d	5 d
a <sub>3,t</sub>	stressed end-cut timber	15 d	12 d
a <sub>3,c</sub>	unstressed end-cut timber	10 d	7 d
a <sub>2</sub>	perpendicular to the grain	5 d	4 d
a <sub>4,t</sub>	stressed edge	10 d	7 d
a <sub>4,c</sub>	unstressed edge	5 d	3 d

d... Screw diameter

# Fire Protection



## Fire protection for constructive screw connections

In the Event of a Fire	Screws on Shearing		Screws on Pull Out <sup>2)</sup>		
	BSH	Solid Wood			
	a <sub>fi</sub> [mm]	a <sub>n</sub> [mm]	a <sub>1,f</sub> [mm]	a <sub>2,f</sub> [mm]	a <sub>3,f</sub> [mm]
R 30	16	18	29	69	49
R 60	48 <sup>1)</sup>	54 <sup>1)</sup>	53	93	73

<sup>1)</sup> protected with a glued wooden dowel

<sup>2)</sup> protected against direct fire stress

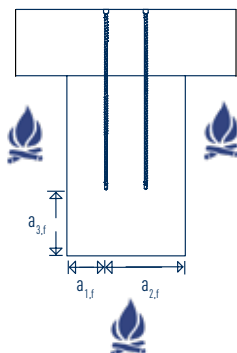
Minimum distances at normal temperature do not lose their validity

Calculation according to EN 1995-1-2

a<sub>n</sub>...edge and centre distances at normal temperature

— Burnout cross section

## Fire safety when using HobaFix® HF



HobaFix® HF	Secondary Beam		Main Beam			
	R 30	R 60	R 30	R 60	R 30	R 60
	Width [mm]	Height [mm] <sup>1)</sup>	Width [mm]	Height [mm] <sup>1)</sup>	Height [mm] <sup>1)</sup>	Height [mm] <sup>1)</sup>
70	88	126,5	136	150,5	98	124
100	108	159	156	183	128	154
135	108	192	156	216	163	189
170	108	228	156	252	198	224
200	128	261	176	285	228	254
240	128	301	176	325	268	294

<sup>1)</sup> flush installation on the upper edge and three-sided strip

Calculation according to EN 1995-1-2

Shear load is to be validated separately

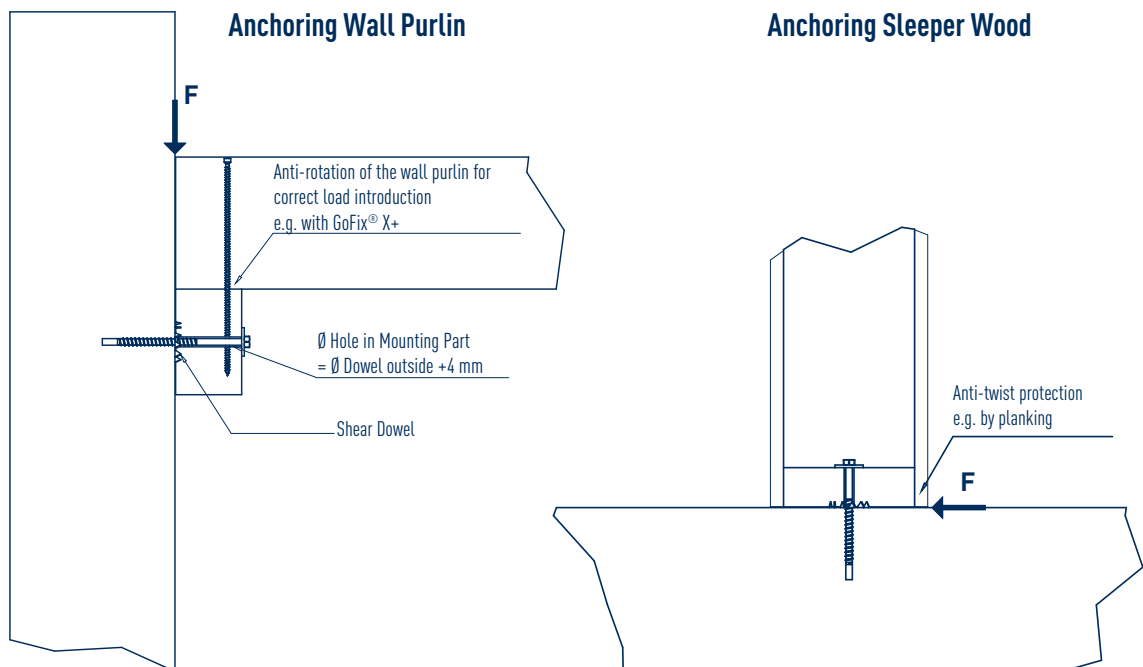
# Stressing of Anchors on Shear Force

For anchorages of timber beams in concrete or masonry subjected to shear force, EN 1992-4:2018 stipulates that a lever arm must be considered. This means that the anchor is not only stressed by shearing but also by bending. This component is usually decisive and results in the anchor having only a fraction of its actual shear resistance.

In order to utilise the full shear force bearing capacity of the anchor, it is possible to insert a single-sided shear dowel type C, whose nominal diameter is equal to the nominal diameter of the anchor, between the fixture and the concrete, so that the entire shear force is introduced into the anchor via the shear dowel. This applies to anchors of all types and manufacturers, whether glued, screwed or driven in.

For the correct load introduction in the shear joint, sufficient stiffness or anti-twist protection is necessary.

Furthermore, the attachment part must have a sufficiently large hole to ensure that the hole soffit of the disc anchor lies securely on the anchor.



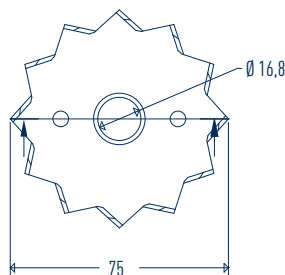
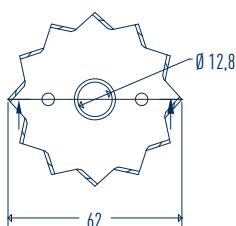
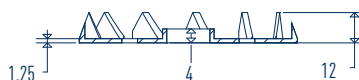


# Shear Dowel

SIHGA® montagepack		Dimension		
Art. No.	PU	Outer Ø [mm]	Ø Hole [mm]	Ø Anchor [mm]
35116	20	62	12,8	12 / 12,5
35126	20	75	16,8	16,0

Dimension	Distance stressed edge dowel axis 90° to fibre [mm]	Distance unstressed edge dowel axis 90° to fibre [mm]	Characteristic Values [kN]* $R_{yk}$
62 x 12	50	38	8,7
75 x 16	60	45	11,6

\* characteristic values for dimensioning according to EC 5 and strength class C 24 (pk 350 kg/m<sup>2</sup>)



Shear Dowel 62/12



Shear Dowel 75/16



SIHGA® APP



## SIHGA® TIP:

Serves for the perfect introduction of shear forces with BeziFix® Anchor ZSS 12.5 and Betsi® M 12 / M 16 as well as BeziFee® with M 12 / M 16. See page 128 for explanation.

# Betsi®



**Betsi® Expansion Anchor**

## SIHGA® Feature

## YOUR Benefit

fastenings for wall beams, sills, steel brackets, support feet, etc. on non-cracked concrete from concrete quality C 20/25

one expansion anchor for numerous application areas

developed for very high tensile and shear loads

saves time, costs and establishes long-lasting and highly durable connections

extra long lengths of up to 400 mm

enables the fastening of large wood cross-sections

easy to install

the full load-bearing capacity is attained through simply knocking in and tightening

simply read the load table incl. edge distances

provides assurance of the right anchor selection

enables even smaller edge and axial distances than those specified in the table values

for special applications, SIHGA® performs the calculation for you

includes installation instructions and Stabebo SDS drill with four-edged geometry specially for reinforced concrete

time-saving, practical, precise, complete accessories enclosed

stainless steel expansion clip

safety per ETA

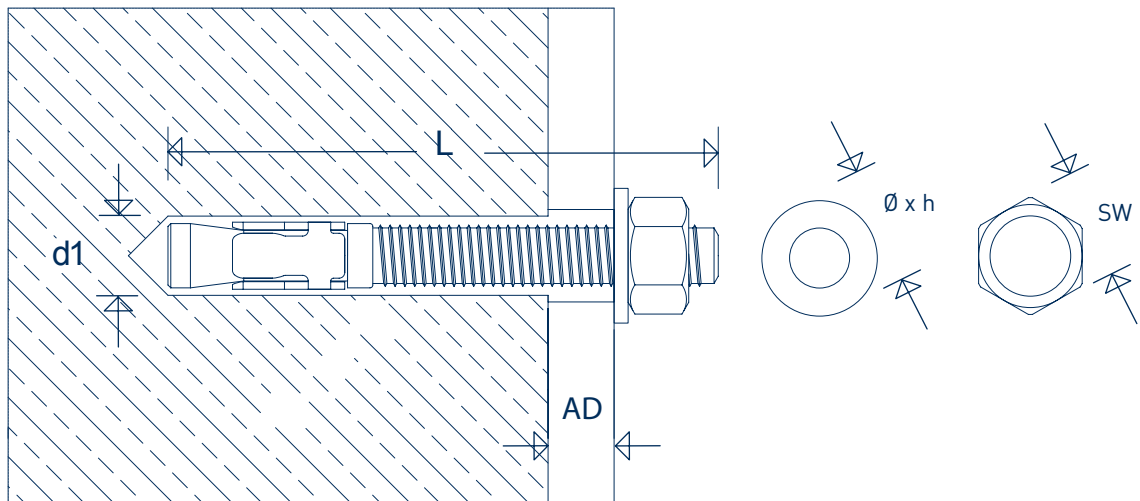


SIHGA® APP

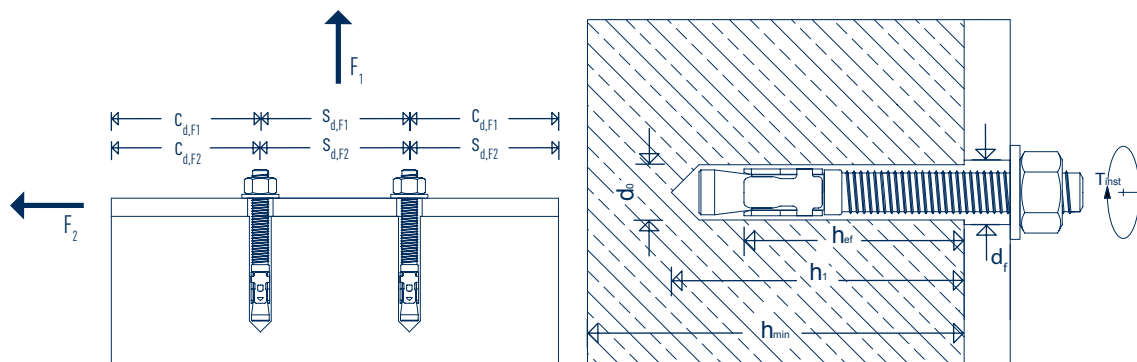


### SIHGA® TIP:

Ensure the correct drill diameter and drill quality, the Stabebo SDS Drill is therefore enclosed.



SIHGA® montagepack		Dimension Betsi®	Add-on Part AD = t <sub>fix</sub>	Width Across Flats SW	Washer Ø x h
Art. No.	PU	d1 x L	[mm]	[mm]	[mm]
25856	100	8,0 x 75	17	13	16 x 1,6
25416	50	10,0 x 90	25	17	20 x 2,0
25426	50	10,0 x 100	35	17	20 x 2,0
25436	50	10,0 x 120	55	17	20 x 2,0
25446	50	10,0 x 150	85	17	20 x 2,0
25456	50	10,0 x 170	105	17	20 x 2,0
25516	50	12,0 x 110	28	19	24 x 2,0
25526	50	12,0 x 120	38	19	24 x 2,0
25536	50	12,0 x 140	58	19	24 x 2,0
25546	50	12,0 x 160	78	19	24 x 2,0
25556	50	12,0 x 180	98	19	24 x 2,0
25606	50	12,0 x 200	118	19	36 x 2,5
25616	50	12,0 x 220	138	19	36 x 2,5
25626	50	12,0 x 240	158	19	36 x 2,5
25636	30	12,0 x 280	198	19	36 x 2,5
25646	30	12,0 x 300	218	19	36 x 2,5
25656	30	12,0 x 360	278	19	36 x 2,5
25706	20	16,0 x 240	125	24	48 x 3,0
25716	20	16,0 x 280	165	24	48 x 3,0
25726	15	16,0 x 300	185	24	48 x 3,0
25736	15	16,0 x 400	285	24	48 x 3,0



	SIHGA®	Betsi®	M 8	M 10	M 12	M 16
effective anchoring depth		$h_{ef}$ [mm]	45	50	60	85
concrete drilling diameter		$d_o$ [mm]	8	10	12	16
attachment drilling diameter		$d_f$ [mm]	10	12	14	18
borehole depth		$h_1$ [mm]	60	65	80	110
min. concrete thickness		$h_{min}$ [mm]	100	100	120	170
max. tightening torque		$T_{inst}$ [Nm]	20	35	55	100
minimum edge spacing without load influence		$C_{min}$ [mm]	61	68	81	115
maximum axial distance without load influence		$S_{min}$ [mm]	61	68	81	115
<b>recommended tensile strength per anchor without edge influence, at edge spacing <math>c \geq 1.2 \times c_{cr,sp}</math> (lt. ETA) recommended centre distance <math>s \geq 3 \times h_{ef}</math>*</b>						
in non-cracked concrete min C 20/25		$F_1$ [kN]	5.0*	6.7*	8.9*	8.9*
recommended edge distance		$C_{d,F1}$ [mm]	136	150	180	256
recommended centre distance		$S_{d,F1}$ [mm]	135	150	180	255
<b>recommended shear resistance per anchor without edge influence, with edge spacing <math>c \geq 60 \times d</math> and centre distance <math>s \geq 3 \times h_{ef}</math></b>						
in non-cracked concrete min C 20/25		$F_2$ [kN]	7.4*	11.6*	16.9*	31.4*
recommended edge distance		$C_{d,F2}$ [mm]	480	600	720	960
recommended centre distance		$S_{d,F2}$ [mm]	135	150	180	255

\* for systems with high installation safety  $\gamma_2 = 1.0$

ETAG 0001 2010 Annex C - Design method for Anchoring in concrete / safety concept 3.2.3.1 and 3.2.3.2

recommended loads of a single anchor in concrete C 20/25, normal reinforced in compliance with the specified AD and edge distances

# BeziFee®



**BeziFee® Bonded Anchor**

## SIHGA® Feature

2 component injection adhesive system  
for secure attachment of threaded and anchor rods

certified for extensive use

useable under water and waterproof when installed

does not contain any harmful styrene and is free  
from VOC (volatile organic compounds)

fire resistance F120

static mixer for mixing the two components and  
extension pipe for thermal insulation contain

high rated values, also near the edge

case with static mixer, hand pump, wire brush,  
extension tube and sieve sleeve

## YOUR Benefit

approved product for cracked and non-cracked  
concrete, brick and stone, also useable with wood

low storage costs, only one product

no restrictions on applicability, even with  
seismic loading (performance category C1)

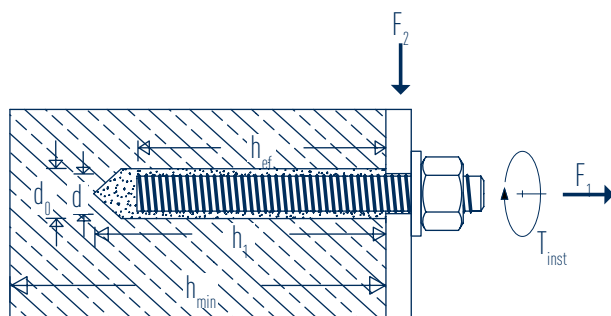
even useable in the drinking water sector and no  
biting odour during processing

incombustible (class A1)

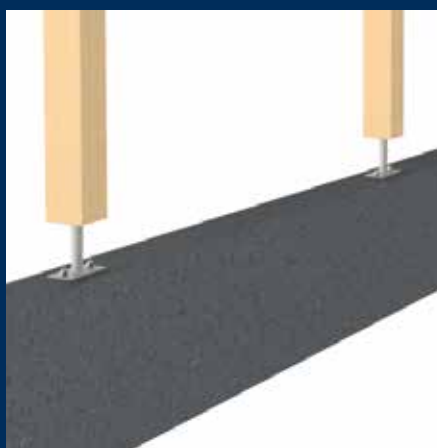
practical accessories directly on the construction  
site, commercial cartridge gun can be used

easy to read carrying capacity - for special  
applications SIHGA® can perform the sizing for you

use accessories directly on the construction site  
using a practical case



montagepack		SIHGA®	Dimension
Art. No.	PU		ml
41706	2	BeziFee®	300



SIHGA® APP



### SIHGA® TIP:

Observe processing temperature of +5 °C to +30 °C.

SIHGA®	BeziFee®	Threaded Rod in Concrete								
threaded rod	d [-]	M 8	M 10	M 12	M 16	M 20	M 24	M 27	M 30	
concrete drilling diameter	d <sub>o</sub> [mm]	10	12	14	18	22	26	30	35	
min. edge distance without load influence	c <sub>min</sub> [mm]	$h_{ef} / 2$								
min. centre distance without load influence	s <sub>min</sub> [mm]									
min. concrete thickness	h <sub>min</sub> [mm]	$h_{ef} + 30 \geq 100$				$h_{ef} + 2d_0$				
max. tightening torque	T <sub>inst</sub> [Nm]	10	20	40	80	150	200	240	275	
effective anchoring depth	h <sub>ef,min</sub> [mm]	64	80	96	128	160	192	216	240	
	h <sub>ef,max</sub> [mm]	160	200	240	320	400	480	540	600	
standard anchoring depth	h <sub>ef,s</sub> [mm]	80	90	110	128	170	210	240	270	
<b>non-cracked concrete</b>										
recommended tensile strength with h <sub>ef,s</sub>	F <sub>1</sub> [kN]	8,5	14,9	21,9	32,2	50,4	70,4	63,0	66,6	
recommended shear resistance with h <sub>ef,s</sub>	F <sub>2</sub> [kN]	6,5	10,4	15,1	28,7	44,8	64,5	85,1	103,4	
<b>cracked concrete</b>										
recommended tensile strength with h <sub>ef,s</sub>	F <sub>1</sub> [kN]	-	-	10,4	16,1	26,7	39,6	-	-	
recommended shear resistance with h <sub>ef,s</sub>	F <sub>2</sub> [kN]	-	-	15,1	28,7	44,8	64,5	-	-	

ETAG 0012010 C - Design method for anchorages in concrete / Safety concept 3.2  
Recommended loads of a single anchor in dry and damp concrete C 20/25, normal reinforced, without edge influence:  
Temperature range [-40 °C to + 40 °C]; Cross bearing capability with steel 5.8  
For other applications see ETA 17/0182 and 17/0181

Brick		M 8	M 10	M 12
perforated casing	[-]	16 x 85	16 x 85	20 x 85
brick drilling diameter	d <sub>o</sub> [mm]	16		20
borehole depth	h <sub>1</sub> [mm]	90		
effective anchoring depth	h <sub>ef</sub> [mm]	85		
max. tightening torque	T <sub>inst</sub> [Nm]	2		
recommended load capacity stone 1*	F <sub>1</sub> = F <sub>2</sub> [kN]	0,80	0,80	1,00
recommended load capacity stone 2*	F <sub>1</sub> = F <sub>2</sub> [kN]	0,36	0,48	0,60

\* recommended loads of a single anchor without edge influence  
The load-bearing capacity of other stones may be determined by on-site tests in accordance with ETAG 029 appendix B

Type of Bricks	Min. Thickness	Min. Compressive Strength	Min. Horizontal Centre Distance	Min. Vertical Centre Distance	Min. Edge Distance
	ρ [kg/dm <sup>3</sup> ]	fb [N/mm <sup>2</sup> ]	s <sub>min,l</sub> [mm]	s <sub>min,n</sub> [mm]	c <sub>min</sub> [mm]
stone no. 1: Porotherm P+W	0,9	12	373	238	120
stone no. 2: Hueco Doble	0,74	2,5	245	110	120



# BeziFee® Equipment

	SIHGA® Feature	YOUR Benefit
	<b>BeziFee® Wire Brush</b> Ø 18 mm	for dust-free boreholes
	<b>BeziFee® Sieve Sleeve long</b> sieve sleeve for perforated bricks Ø 22, length 1000 mm	cut to length according to individual requirements for M 12 - M 16
	<b>BeziFee® Sieve Sleeve short</b> Ø 20, length 85 mm, for M 12	sieve sleeve with stop for perforated bricks
	<b>BeziFee® Hand Pump</b> hand pump 750 ml for dust-free boreholes	secure hold in bore-hole
	<b>BeziFee® Statik Mixer</b> suitable mixer	for mixing the components
	<b>BeziFee® Extension Tube</b> Ø 10, length 285 mm for deeper boreholes	for use with thermal insulation
	<b>BeziFee® Systemkit</b> case with static mixer, hand pump, wire brush, extension tube and sieve sleeve	use accessories directly on the construction site using a practical case

# BeziFix<sup>®</sup> Anchor ZF/ZS/ZSS



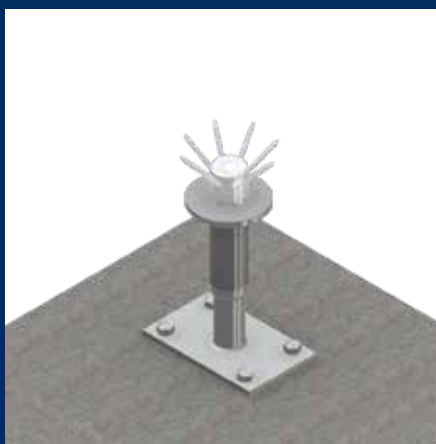
**BeziFix<sup>®</sup> Anchor ZF**



## SIHGA® Feature

## YOUR Benefit

fastens in concrete without dowels	optimal for fastening close to edges, no splitting effect
easy push-through installation	saves a great deal of time because the BeziFix® Anchor ZF/ZS/ZSS is only pushed through the part to be anchored
drill hole diameter smaller than with expansion anchors	also saves lots of installation time
sawtooth thread in the front area	makes it easy to screw into the pre-drilled concrete
just tighten by hand to achieve the full load-bearing capacity	does not need a torque wrench
approved with grades C 20/25 to C 50/60 in cracked and non-cracked concrete	there are few restrictions on the application, gives security
includes installation instructions and Stabebo® SDS drill with four-edged geometry specially for reinforced concrete	time-saving, practical, precise, complete accessories enclosed
design values	SIHGA® performs the calculation for you

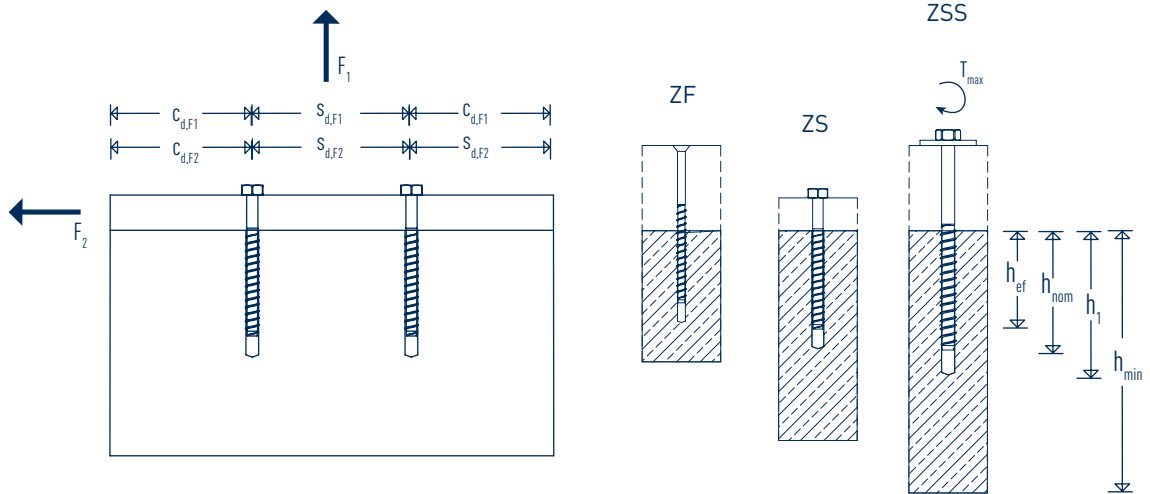


SIHGA® APP



### SIHGA® TIP:

Ensure correct drill diameter and drill quality, the drill is therefore enclosed.



SIHGA®	BeziFix® Anchor	ZF	ZS	ZSS	
coating		SC 12	SC 12	SC 4	
diameter	∅	[mm]	7.5	10.5	12.5
screw-in depth	$h_{nom}$	[mm]	55	75	95
effective anchoring depth	$h_{ef}$	[mm]	41	55	71
drill diameter - concrete	$d_o$	[mm]	6.0	9.0	10.0
drilled hole depth	$h_1$	[mm]	70	90	110
min. concrete thickness	$h_{min}$	[mm]	100	160	200
max. tightening torque <sup>4)</sup>	$T_{max}$	[Nm]	250	450	450
min. edge and axial distances without load influence		[mm]	40	55	65
<b>recommended tensile capacity <math>F_1</math> per anchor without edge influence, with edge distance <math>c \geq 1.2 \times C_{Cr.sp.}</math> (per ETA) and axial distance <math>s \geq 3 \times h_{ef}</math></b>					
uncracked concrete min. C20/25	$F_1$	[kN]	2.9 <sup>1)</sup>	3.3 <sup>2)</sup>	13.9 <sup>2)</sup>
cracked concrete min. C20/25	$F_1$	[kN]	1.4 <sup>1)</sup>	1.7 <sup>2)</sup>	6.7 <sup>2)</sup>
recommended edge distance	$C_{d,F1}$	[mm]	90	120	168
recommended axial distance	$S_{d,F1}$	[mm]	123	165	213
<b>recommended lateral capacity <math>F_2</math> per anchor without edge influence, with edge distance <math>c \geq 10 \times h_{ef}</math> and axial distance <math>s \geq 3 \times h_{ef}</math></b>					
concrete min. C 20/25	$F_2$	[kN]	7.6 <sup>3)</sup>	14.9 <sup>3)</sup>	23.1 <sup>3)</sup>
recommended edge distance	$C_{d,F2}$	[mm]	410	550	710
recommended axial distance	$S_{d,F2}$	[mm]	123	165	213

<sup>1)</sup> low installation safety  $\gamma_2 = 1.4$ ; ETAG 001 2010 annex C

<sup>2)</sup> normal installation safety  $\gamma_2 = 1.2$ ; ETAG 001 2010 annex C

<sup>3)</sup> high installation safety  $\gamma_2 = 1.0$ ; ETAG 001 2010 annex C

<sup>4)</sup> setting tool: Tangential impact wrench, max. power rating  $T_{max}$  per manufacturer's instructions

ETAG 001 2010 Annex C – dimensioning of metal anchors for use in concrete / safety concept 3.2.3.1 and 3.2.3.2

Recommended loads for single anchor in concrete C 20/25, standard reinforcement - in compliance with AD (thickness add-on part) and edge distances as indicated



### SIHGA® TIP:

Tangential impact wrench recommended for processing.

## SIHGA® Feature

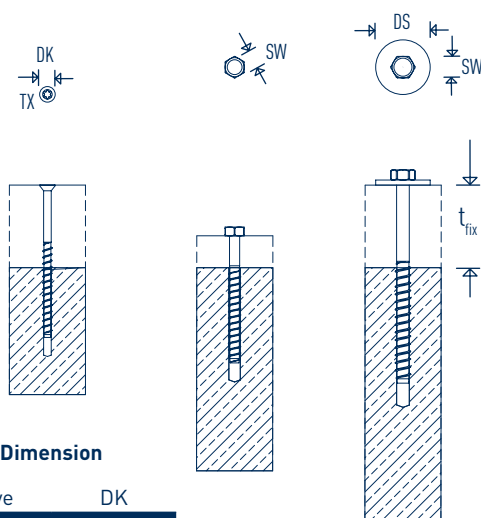
## YOUR Benefit

design values

SIHGA® performs the calculation for you

BeziFix® Anchor ZF with counter-sunk head and Torx drive, BeziFix® Anchor ZS with hex head, BeziFix® Anchor ZSS with hex head and washer DIN 440

ensures optimum force transfer when screwed in



SIHGA®		Dimension	Installation Part Thickness	Dimension	
montagepack	BeziFix® Anchor ZF		$t_{fix}$	Drive	DK
Art. No.	PU	d1 x L	[mm]	TX	[mm]
41306	100	<b>7.5 x 40</b>	5	40	13
41316	100	<b>7.5 x 60</b>	5	40	13
41326	100	<b>7.5 x 80</b>	25	40	13
41336	100	<b>7.5 x 100</b>	45	40	13
41346	100	<b>7.5 x 120</b>	65	40	13
41356	100	<b>7.5 x 140</b>	85	40	13
41366	100	<b>7.5 x 160</b>	105	40	13

SIHGA®		Dimension	Installation Part Thickness	Dimension	
montagepack	BeziFix® Anchor ZS		$t_{fix}$	Drive	SW
Art. No.	PU	d1 x L	[mm]		[mm]
41506	50	<b>10.5 x 60</b>	5		15
41516	50	<b>10.5 x 80</b>	5		15
41526	50	<b>10.5 x 100</b>	25		15
41536	50	<b>10.5 x 120</b>	45		15
41546	50	<b>10.5 x 140</b>	65		15
41556	50	<b>10.5 x 160</b>	85		15

SIHGA®		Dimension	Installation Part Thickness	Dimension	
montagepack	BeziFix® Anchor ZSS		$t_{fix}$	Drive	DS
Art. No.	PU	d1 x L	[mm]	SW	[mm]
41816	30	<b>12.5 x 100</b>	5	17	44
41826	30	<b>12.5 x 120</b>	25	17	44
41836	30	<b>12.5 x 140</b>	45	17	44
41846	30	<b>12.5 x 160</b>	65	17	44
41856	30	<b>12.5 x 180</b>	85	17	44
41866	30	<b>12.5 x 200</b>	105	17	44
41876	30	<b>12.5 x 240</b>	145	17	44
41886	30	<b>12.5 x 280</b>	185	17	44
41896	30	<b>12.5 x 320</b>	225	17	44

# GoFix<sup>®</sup> JK



**GoFix<sup>®</sup> JK**  
**made of hardened carbon**



## SIHGA® Feature

for professional installation from wood on wood

ribs pull without pre-drilling into the wood

including SIHGAFIX, system pin and installation instructions

rated value

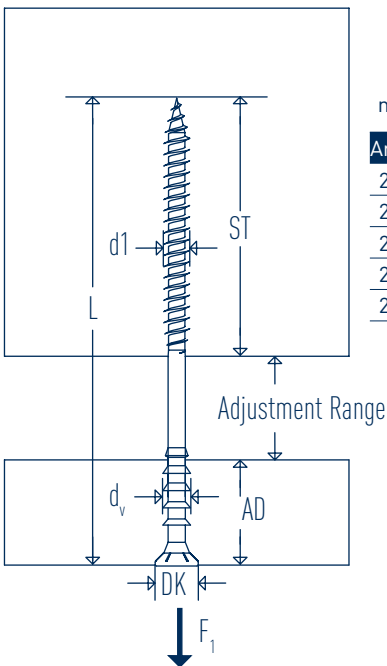
## YOUR Benefit

including distance of the two woods

adjustment in horizontal and vertical direction possible

time-saving, practical, precise, all accessories are included

SIHGA® will do the calculation for you

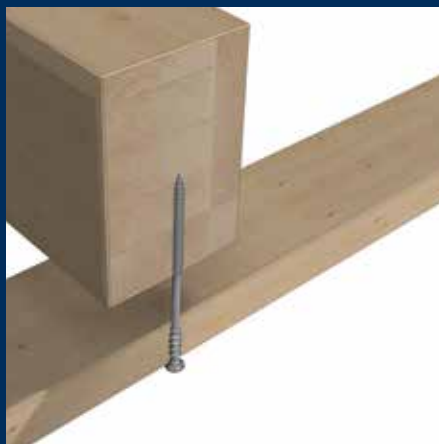


SIHGA®	Dimension	Attachment Part	Setting Depth	Adjustment Range	Recommended Loads		
montagepack	GoFix® JK	AD	ST	to	Tensile Force $F_1$ [kN]		
Art. No.	PU	d1 x L	[mm]	[mm]	[mm]	Head	Thread
29326	100	<b>6,0 x 80</b>	20	50	10	0,51	1,03
29336	100	<b>6,0 x 100</b>	20	50	30	0,51	1,03
29346	100	<b>6,0 x 120</b>	20	50	50	0,51	1,03
29356	100	<b>6,0 x 145</b>	20	50	75	0,51	1,03
29366	100	<b>6,0 x 160</b>	20	50	90	0,51	1,03

### Dimension [mm]

GoFix® JK

d1	d <sub>v</sub>	TX	DK
6,0	6,5	25	10,0



SIHGA® APP



# GoFix<sup>®</sup> MS II



**GoFix<sup>®</sup> MS II**  
the wood construction screw

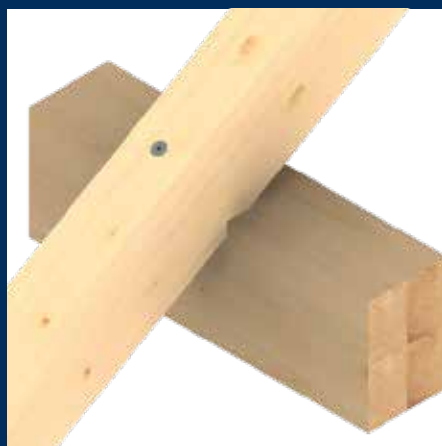




## SIHGA® Feature

## YOUR Benefit

made in Austria	top European quality and added-value
special thread geometry	optimal traction in the end grain
fastens wood to wood, even OSB panels	screw without pre-drilling and pre-sinking
fastens pressure-resistant insulation materials for on-rafter insulation	for insulation with a compressive stress above 50 kPa
screwing permissible from 0° up to 90° to the grain	fastens with all screw-in angles
the splitting effect in the wood is reduced through the special multi-stage head	saves 50 % of storage, combines countersunk head and flat-head; transfers high forces, but can still be countersunk and facilitates screw connections close to the edge
special ribs on the shaft and slip coating	pre-drilling effect, easy rotation, battery-saving
SIHGA® tip	fast setting of the screw, user-friendly and time-saving
including SIHGAFIX®, Systemstift® and installation instructions	time-saving, practical, precise, all accessories enclosed; SIHGAFIX® also enables screwing into deep grooves
SIHGA® Ornamental Washer MSZ for diameter 8 mm	this Ornamental Washer MSZ increases the tensile force of the head to 9.1 kN; very attractive solution



SIHGA® APP



### SIHGA® TIP:

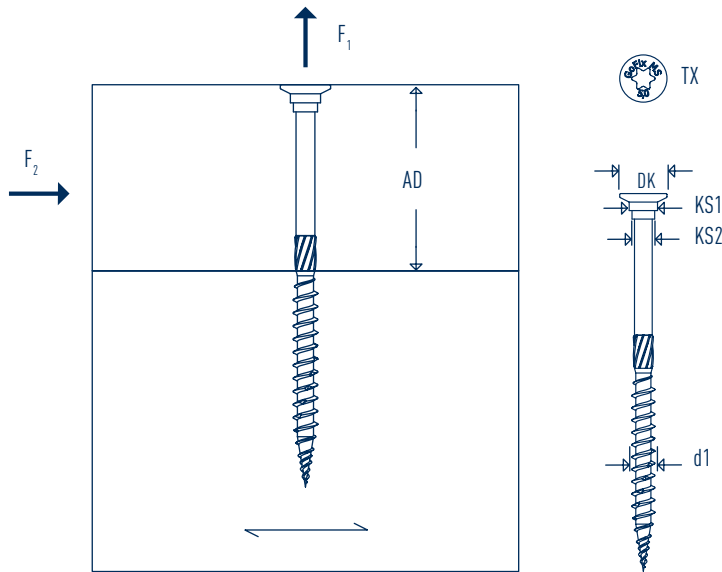
For perfect screw pattern, screw head in flush.

## SIHGA® Feature

fastens wood to wood, even OSB panels  
 screwing permissible from 0° up to 90° to the grain  
 design values

## YOUR Benefit

screw without pre-drilling and pre-sinking  
 fastens with all screw-in angles  
 SIHGA® performs the calculation for you



### Dimension [mm]

#### GoFix® MS II

d1	TX	DK	KS 1	KS 2
4,0	15	8,0	5,2	4,0
4,5	20	9,0	5,9	4,5
5,0	25	10,0	6,6	5,0

SIHGA®		Dimension	Installation Part	Characteristic Values*			
montagepack		GoFix® MS II	AD	Tensile Force $F_1$ [kN]		Shear Force $F_2$ [kN]	
Art. No.	PU	d1 x L	[mm]	Head	Thread	Wood-Wood	Steel-Wood
44056	500	<b>4,0 x 30</b>	12	1,04	1,04	0,76	1,15
44066	500	<b>4,0 x 35</b>	14	1,13	1,22	0,84	1,27
44076	500	<b>4,0 x 40</b>	16	1,13	1,39	0,86	1,38
44086	500	<b>4,0 x 45</b>	18	1,13	1,57	0,88	1,43
44096	500	<b>4,0 x 50</b>	20	1,13	1,74	0,91	1,43
44106	500	<b>4,0 x 60</b>	24	1,13	2,09	0,97	1,43
44226	400	<b>4,5 x 50</b>	20	1,39	1,89	1,06	1,68
44236	400	<b>4,5 x 60</b>	24	1,39	2,27	1,13	1,68
44246	300	<b>4,5 x 70</b>	28	1,39	2,65	1,20	1,68
44316	200	<b>5,0 x 50</b>	20	1,67	2,07	1,27	2,01
44326	200	<b>5,0 x 60</b>	24	1,67	2,48	1,33	2,12
44336	200	<b>5,0 x 70</b>	28	1,67	2,90	1,39	2,12
44346	200	<b>5,0 x 80</b>	32	1,67	3,31	1,47	2,12
44356	200	<b>5,0 x 90</b>	36	1,67	3,73	1,55	2,12
44366	200	<b>5,0 x 100</b>	40	1,67	4,14	1,62	2,12
44376	200	<b>5,0 x 120</b>	50	1,67	4,83	1,62	2,12

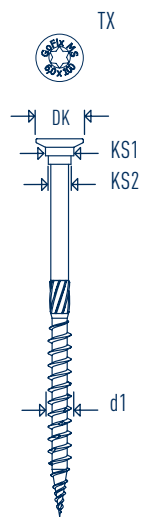
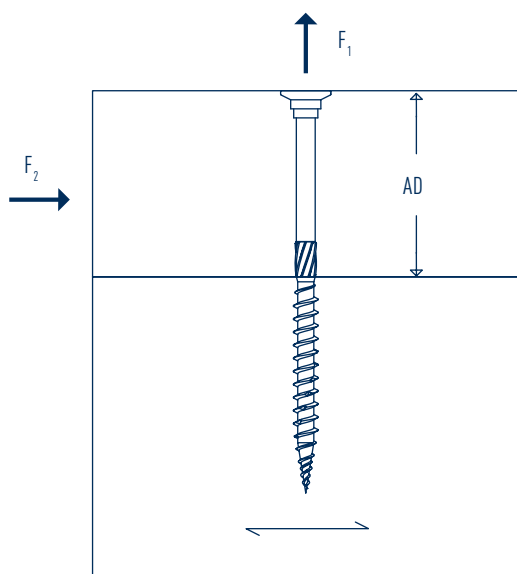
\* characteristic values for measurement according to EC 5, bulk density  $\rho_k = 350 \text{ kg/m}^3$  [C24]

## SIHGA® Feature

fastens wood to wood, even OSB panels  
 screwing permissible from 0° up to 90° to the grain  
 design values

## YOUR Benefit

screw without pre-drilling and pre-sinking  
 fastens with all screw-in angles  
 SIHGA® performs the calculation for you



### Dimension [mm]

GoFix® MS II

d1	TX	DK	KS 1	KS 2
6,0	30	13,5	8,6	6,0

SIHGA®		Dimension	Installation Part	Characteristic Values*			
montagepack		GoFix® MS II	AD	Tensile Force $F_1$ [kN]		Shear Force $F_2$ [kN]	
Art. No.	PU	d1 x L	[mm]	Head	Thread	Wood-Wood	Steel-Wood
44406	100	<b>6,0 x 70</b>	28	2,97	3,38	1,99	3,16
44416	100	<b>6,0 x 80</b>	32	2,97	3,86	2,06	3,16
44426	100	<b>6,0 x 90</b>	36	2,97	4,34	2,14	3,16
44436	100	<b>6,0 x 100</b>	40	2,97	4,82	2,22	3,16
44446	100	<b>6,0 x 120</b>	50	2,97	5,63	2,45	3,16
44456	100	<b>6,0 x 140</b>	70	2,97	5,63	2,45	3,16
44466	100	<b>6,0 x 160</b>	90	2,97	5,63	2,45	3,16
44476	100	<b>6,0 x 180</b>	110	2,97	5,63	2,45	3,16
44486	100	<b>6,0 x 200</b>	130	2,97	5,63	2,45	3,16

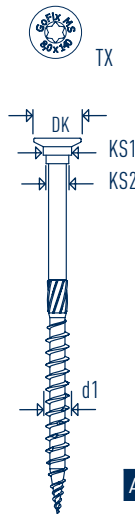
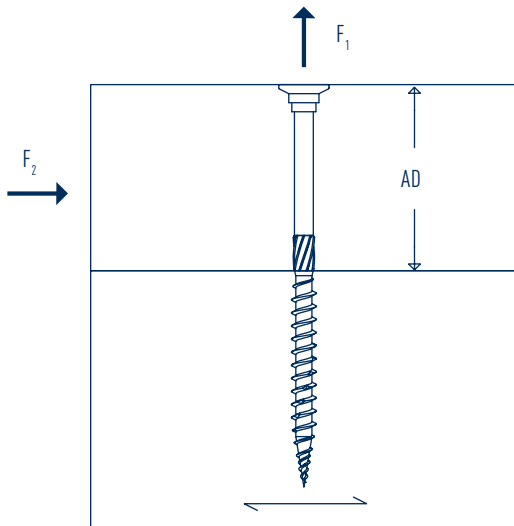
\* characteristic values for measurement according to EC 5, bulk density  $\rho_k = 350 \text{ kg/m}^3$  [C24]

## SIHGA® Feature

fastens wood to wood, even OSB panels  
 screwing permissible from 0° up to 90° to the grain  
 design values  
 online calculation

## YOUR Benefit

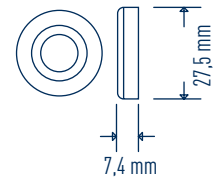
screw without pre-drilling and pre-sinking  
 fastens with all screw-in angles  
 SIHGA® performs the calculation for you  
 at [www.sihga.com](http://www.sihga.com) (on-rafter insulation)



### Dimension [mm]

GoFix® MS II

d1	TX	DK	KS 1	KS 2
8,0	40	18,3	11,6	8,0



SIHGA®	Dimension	Characteristic Values*
montagepack	Washer MSZ	Tensile Force $F_1$ [kN]
Art. No.	PU	Washer MSZ
44696	75	9,1

SIHGA®		Dimension	Installation Part	Characteristic Values*			
montagepack		GoFix® MS II	AD	Tensile Force $F_1$ [kN]		Shear Force $F_2$ [kN]	
Art. No.	PU	d1 x L	[mm]	Head	Thread	Wood-Wood	Steel-Wood
44506	75	8,0 x 80	30	4,96	4,96	2,96	4,78
44516	75	8,0 x 100	40	5,05	5,95	3,33	5,18
44526	75	8,0 x 120	50	5,05	6,94	3,56	5,18
44536	75	8,0 x 140	60	5,05	7,94	3,82	5,18
44546	75	8,0 x 160	70	5,05	8,93	4,04	5,18
44556	75	8,0 x 180	80	5,05	9,92	4,04	5,18
44566	75	8,0 x 200	100	5,05	9,92	4,04	5,18
44576	75	8,0 x 220	120	5,05	9,92	4,04	5,18
44586	75	8,0 x 240	140	5,05	9,92	4,04	5,18
44596	75	8,0 x 260	160	5,05	9,92	4,04	5,18
44606	75	8,0 x 280	180	5,05	9,92	4,04	5,18
44616	75	8,0 x 300	200	5,05	9,92	4,04	5,18
44626	75	8,0 x 320	220	5,05	9,92	4,04	5,18
44636	75	8,0 x 340	240	5,05	9,92	4,04	5,18
44646	75	8,0 x 360	260	5,05	9,92	4,04	5,18
44656	75	8,0 x 380	280	5,05	9,92	4,04	5,18
44666	75	8,0 x 400	300	5,05	9,92	4,04	5,18
44676	75	8,0 x 450	350	5,05	9,92	4,04	5,18
44686	75	8,0 x 500	400	5,05	9,92	4,04	5,18

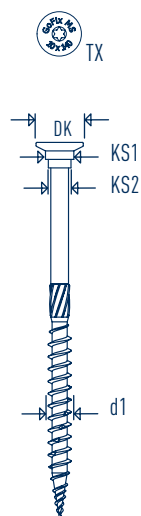
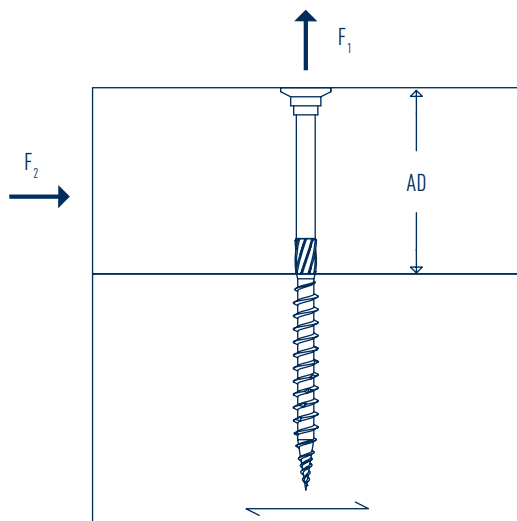
\* characteristic values for measurement according to EC 5, bulk density  $\rho_k = 350 \text{ kg/m}^3$  [C24]

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 design values  
 online calculation

## YOUR Benefit

screw without pre-drilling and pre-sinking  
 fastens with all screw-in angles  
 SIHGA® performs the calculation for you  
 at [www.sihga.com](http://www.sihga.com) (on-rafter insulation)



### Dimension [mm]

GoFix® MS II

d1	TX	DK	KS 1	KS 2
10,0	50	22,5	14,4	10,0

SIHGA® montagepack		Dimension GoFix® MS II	Installation Part AD	Characteristic Values*			
Art. No.	PU	d1 x L	[mm]	Tensile Force F <sub>t</sub> [kN]		Shear Force F <sub>v</sub> [kN]	
				Head	Thread	Wood-Wood	Steel-Wood
44706	50	<b>10,0 x 80</b>	30	5,75	5,75	3,49	5,76
44716	50	<b>10,0 x 100</b>	40	6,90	6,90	4,37	6,83
44726	50	<b>10,0 x 120</b>	50	7,09	8,05	4,66	7,01
44736	50	<b>10,0 x 140</b>	60	7,09	9,20	4,94	7,01
44746	50	<b>10,0 x 160</b>	70	7,09	10,35	5,26	7,01
44756	50	<b>10,0 x 180</b>	80	7,09	11,50	5,48	7,01
44766	50	<b>10,0 x 200</b>	100	7,09	11,50	5,48	7,01
44776	50	<b>10,0 x 220</b>	120	7,09	11,50	5,48	7,01
44786	50	<b>10,0 x 240</b>	140	7,09	11,50	5,48	7,01
44796	50	<b>10,0 x 260</b>	160	7,09	11,50	5,48	7,01
44806	50	<b>10,0 x 280</b>	180	7,09	11,50	5,48	7,01
44816	50	<b>10,0 x 300</b>	200	7,09	11,50	5,48	7,01
44826	50	<b>10,0 x 320</b>	220	7,09	11,50	5,48	7,01
44836	50	<b>10,0 x 340</b>	240	7,09	11,50	5,48	7,01
44846	50	<b>10,0 x 360</b>	260	7,09	11,50	5,48	7,01
44856	50	<b>10,0 x 400</b>	300	7,09	11,50	5,48	7,01
44866	50	<b>10,0 x 450</b>	350	7,09	11,50	5,48	7,01
44876	50	<b>10,0 x 500</b>	400	7,09	11,50	5,48	7,01
44886	50	<b>10,0 x 550</b>	450	7,09	11,50	5,48	7,01
44896	50	<b>10,0 x 600</b>	500	7,09	11,50	5,48	7,01

\* characteristic values for measurement according to EC 5, bulk density  $\rho_k = 350 \text{ kg/m}^3$  [C24]

Greatest earthquake protection

# GoFix<sup>®</sup> MS II

## SIHGA<sup>®</sup> Feature

SIHGA<sup>®</sup> is ahead of its time

latest tests confirm excellent properties

best ductility class S3 for earthquake resistance

simulated earthquake load through cyclic bending of the bolts

## YOUR Benefit

tests already under way for the latest revision of Eurocode 5

ductility ensures safety

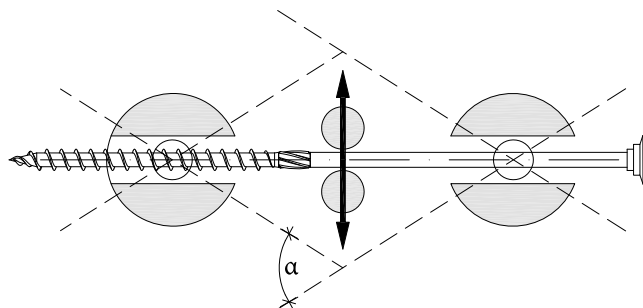
safety according to prEN 14592

reliable residual load capacity of at least 90 %

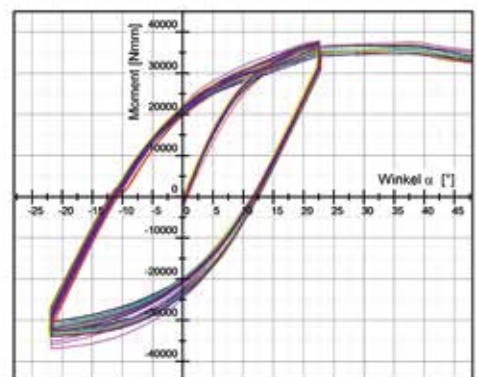
GoFix <sup>®</sup> MS II	Residual Load Capacity
Ø [mm]	$M_{final} / M_{int}$
6	90 %
8	93 %
10	100 %



bending of the bolt during the test



torque load of the bolt as a function of the bending angle



# GoFix<sup>®</sup> MS II application by means of impact screwdriver

Tested by the University of Innsbruck

## SIHGA<sup>®</sup> Feature

positive report for processing with impact screwdrivers

graph below shows comparison of screw-in methods

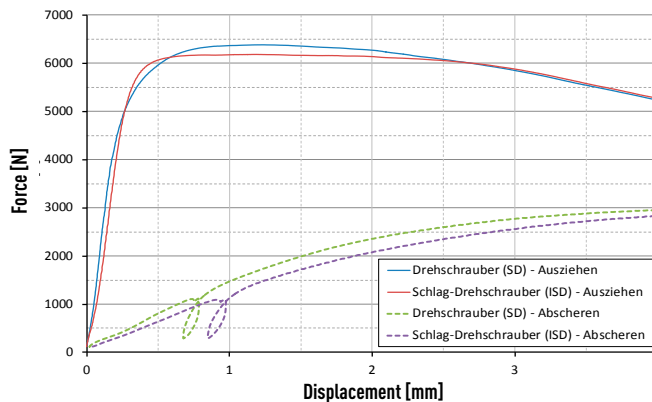
impact screwdriver brings benefits

## YOUR Benefit

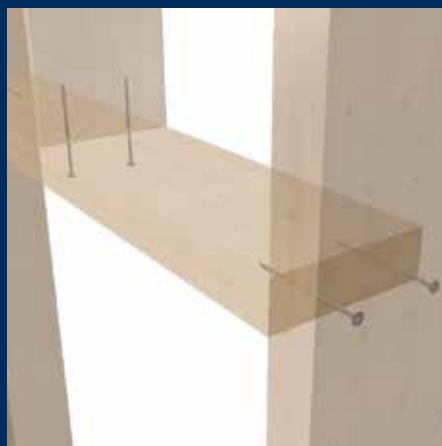
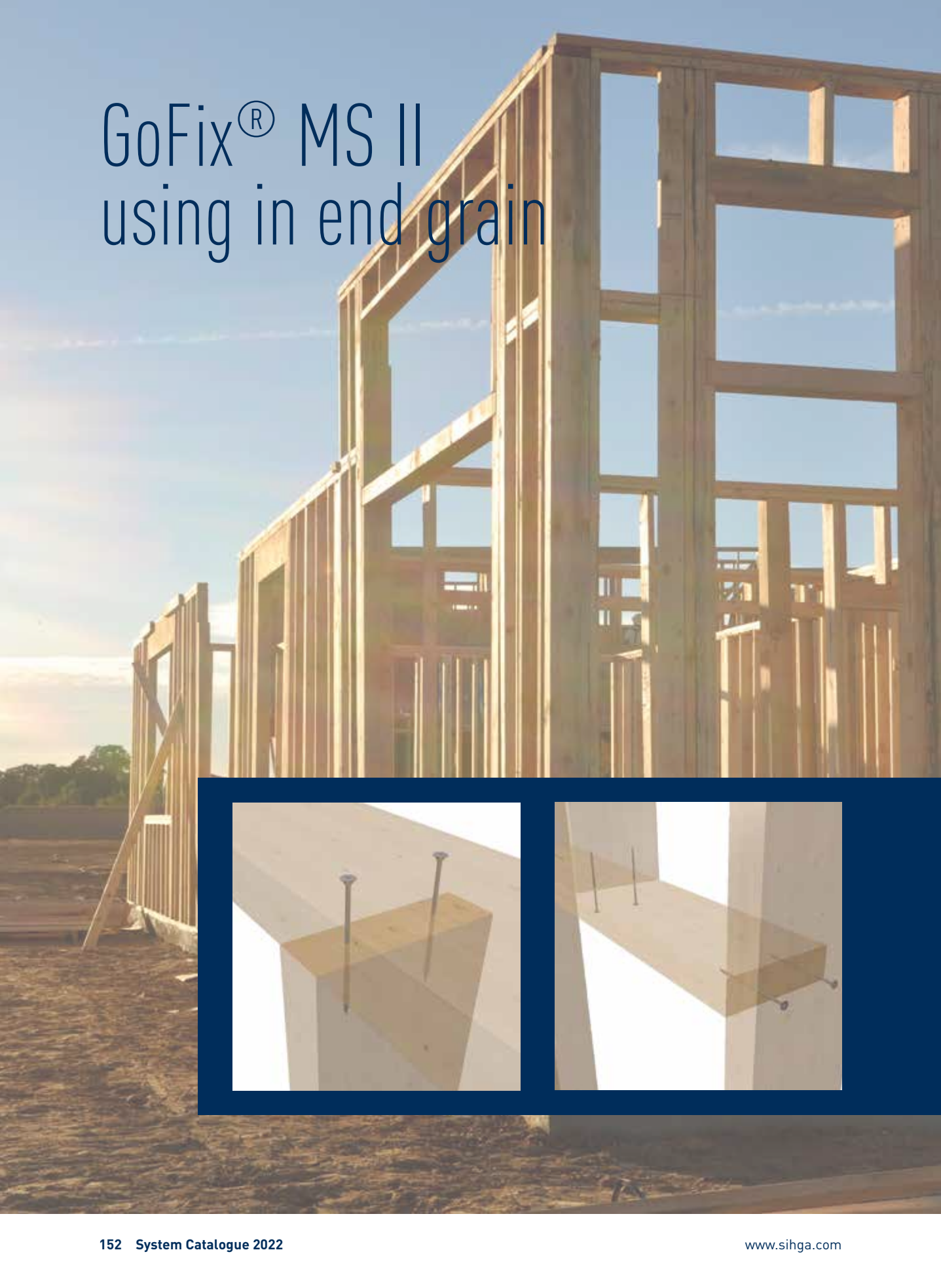
provides security

only slightly affects the initial stiffness of a connection

less strain on the wrist, even when working overhead



# GoFix<sup>®</sup> MS II using in end grain





# GoFix<sup>®</sup> MS II using in hardwood

## SIHGA<sup>®</sup> Feature

use in hardwood allowed

extensive application possible by means of pre-drilling

head pull-through force and thread extension may be increased by the factor k; observe maximum tensile strength according to ETA

## YOUR Benefit

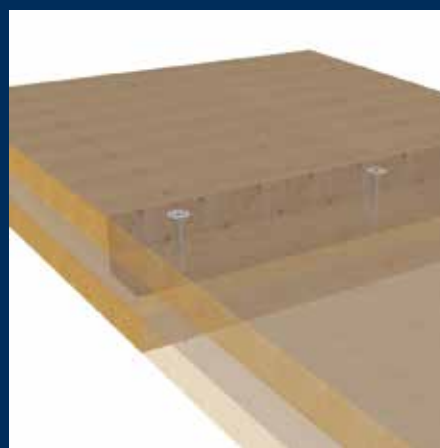
safety according to ETA -13/0842

in solid wood, glued plywood board and laminated veneer wood

high load capacity for efficient connections

GoFix <sup>®</sup> MS II	Core Diameter = max. Predrilling Diameter
Diameter [mm]	[mm]
5,0	3,3
6,0	4,0
8,0	5,3
10,0	6,2

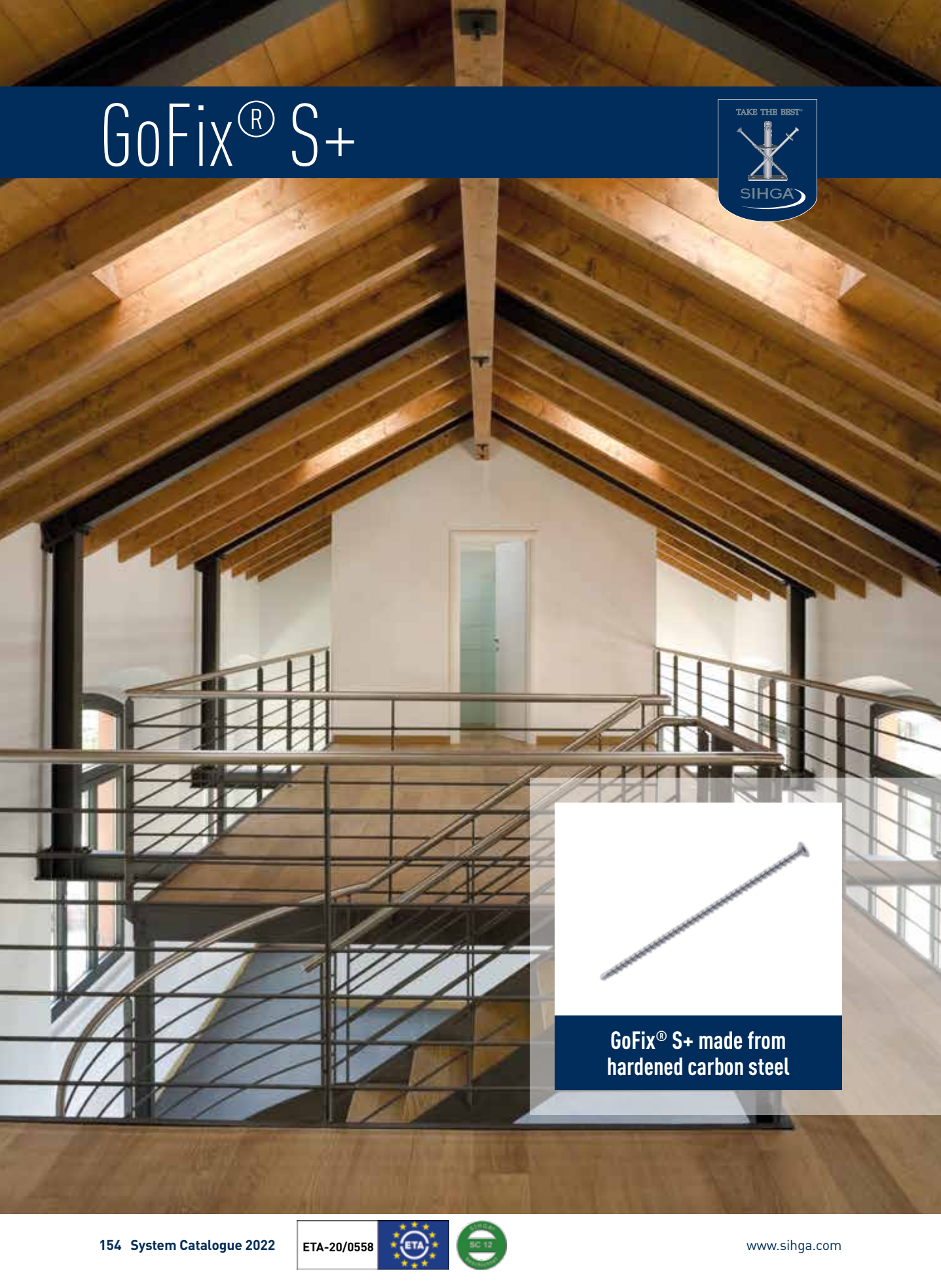
$$k_{\text{dens}} = \left( \frac{\rho_k}{350} \right)^{0,8}$$



### SIHGA<sup>®</sup> TIP:

For screw connections in hardwood WITHOUT drilling, we recommend GoFix<sup>®</sup> SH (page 180).

# GoFix<sup>®</sup> S+



**GoFix<sup>®</sup> S+ made from hardened carbon steel**



## SIHGA® Feature

fastens steel parts to wood

made from hardened carbon steel

SIHGA® threads and countersunk head

SIHGA® drill bit

screwing permissible from 0° up to 90° to the grain

optimised thread

screw head with deep, recessed drive

including SIHGAFIX®, Systemstift® and installation instructions

## YOUR Benefit

ideal for mounting wooden covers to steel beams, attaching steel brackets to wooden beams, mounting with steel struts

the permanent, secure and powerful fastening

the load forces are optimally transferred from the wood to the steel part

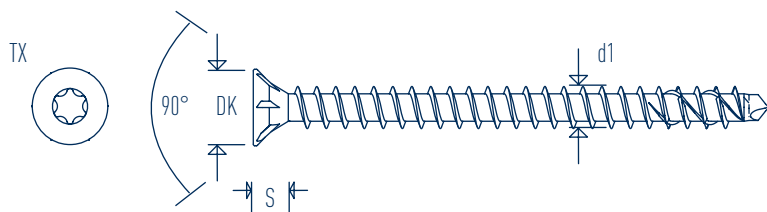
for stress-free, easy rotation, enables small edge and axial distances

fastens with all screw-in angles

for lightweight screw connections with low screw-in torque

for optimum force transfer; avoids undesired skipping of the drive out of the screw head

time-saving, practical, precise, complete accessories enclosed



### Dimension [mm]

GoFix® S+

d1	TX	DK	S
8,0	40	15,0	5,5
10,0	50	18,3	6,5



SIHGA® APP



### SIHGA® TIP:

Note edge and axial distances (page 127).

For easier screw-in, use screw-in assistance GoFix® ESH 8 (page 170).

## SIHGA® Feature

including SIHGAFIX®, Systemstift® and installation instructions

design values

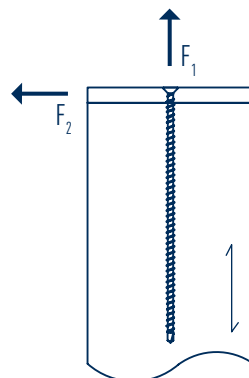
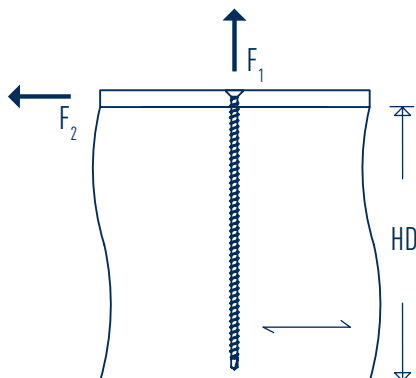
online calculation

## YOUR Benefit

time-saving, practical, precise, complete accessories enclosed

SIHGA® performs the calculation for you

at [www.sihga.com](http://www.sihga.com) (support reinforcement, notches, anchor beam, breakout)



SIHGA®		Dimension	Wood Component	Characteristic Values 90° *		Characteristic Values 0° *	
montagepack		GoFix® S+	HD	Tensile Force $F_1$	Shear Force $F_2$	Tensile Force $F_1$	Shear Force $F_2$
Art. No.	PU	d1 x L	[mm]	[kN]	[kN]	[kN]	[kN]
42406	75	8,0 x 95	100	7,20	6,07	2,16	3,77
42416	75	8,0 x 125	130	10,08	7,32	3,02	3,99
42426	75	8,0 x 155	160	12,86	8,01	3,86	4,20
42436	75	8,0 x 195	200	16,70	8,97	5,01	4,49
42446	75	8,0 x 220	230	19,10	9,57	5,73	4,67
42456	75	8,0 x 245	250	21,50	10,17	6,45	4,85
42466	75	8,0 x 270	280	23,90	10,77	7,17	5,03
42476	75	8,0 x 295	300	25,90	11,27	7,89	5,21
42486	75	8,0 x 330	340	25,90	11,27	8,90	5,46
42496	75	8,0 x 375	380	25,90	11,27	10,20	5,78
42506	75	8,0 x 400	410	25,90	11,27	10,92	5,96
42516	75	8,0 x 430	440	25,90	11,27	11,78	6,18
42526	75	8,0 x 480	490	25,90	11,27	13,22	6,54
42806	50	10,0 x 125	130	11,96	9,63	3,59	5,24
42816	50	10,0 x 155	160	15,41	10,49	4,62	5,50
42826	50	10,0 x 195	200	20,01	11,64	6,00	5,85
42836	50	10,0 x 220	230	22,89	12,36	6,87	6,06
42846	50	10,0 x 245	250	25,76	13,08	7,73	6,28
42856	50	10,0 x 270	280	28,64	13,80	8,59	6,49
42866	50	10,0 x 300	310	32,09	14,66	9,63	6,75
42876	50	10,0 x 330	340	35,00	15,39	10,66	7,01
42886	50	10,0 x 360	370	35,00	15,39	11,70	7,27
42896	50	10,0 x 400	410	35,00	15,39	13,08	7,62
42906	50	10,0 x 450	460	35,00	15,39	14,80	8,05
42916	50	10,0 x 500	510	35,00	15,39	16,53	8,48
42926	50	10,0 x 550	560	35,00	15,39	18,25	8,91
42936	50	10,0 x 600	610	35,00	15,39	19,98	9,34

\* characteristic values for measurement according to EC 5, bulk density  $\rho_k = 350 \text{ kg/m}^3$  [C24]  
selected steel thickness 15 mm

## SIHGA® Feature

including SIHGAFIX®, Systemstift® and installation instructions

design values

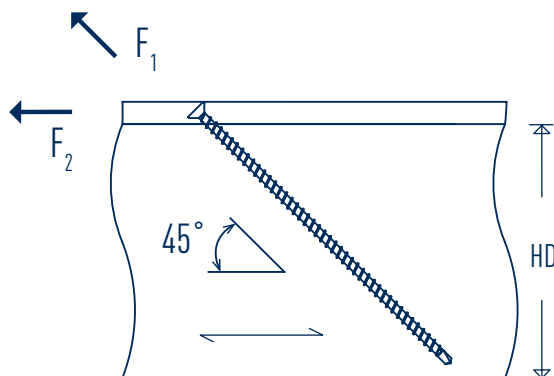
online calculation

## YOUR Benefit

time-saving, practical, precise, complete accessories enclosed

SIHGA® performs the calculation for you

at [www.sihga.com](http://www.sihga.com) (support reinforcement, notches, anchor beam, breakout)



SIHGA® montagepack		Dimension GoFix® S+	Wood Component HD	Characteristic Values*	
Art. No.	PU	d1 x L	[mm]	Tensile Force $F_1$ [kN]	Shear Force $F_2$ [kN]
42406	75	8,0 x 95	70	6,60	4,67
42416	75	8,0 x 125	95	9,48	6,71
42426	75	8,0 x 155	115	12,36	8,74
42436	75	8,0 x 195	145	16,20	11,46
42446	75	8,0 x 220	165	18,60	13,15
42456	75	8,0 x 245	180	21,00	14,85
42466	75	8,0 x 270	200	23,40	16,55
42476	75	8,0 x 295	215	25,80	18,25
42486	75	8,0 x 330	240	25,90	18,31
42496	75	8,0 x 375	270	25,90	18,31
42506	75	8,0 x 400	290	25,90	18,31
42516	75	8,0 x 430	310	25,90	18,31
42526	75	8,0 x 480	345	25,90	18,31
42806	50	10,0 x 125	95	11,36	8,03
42816	50	10,0 x 155	115	14,81	10,47
42826	50	10,0 x 195	145	19,41	13,73
42836	50	10,0 x 220	165	22,29	15,76
42846	50	10,0 x 245	180	25,16	17,79
42856	50	10,0 x 270	200	28,04	19,82
42866	50	10,0 x 300	220	31,49	22,26
42876	50	10,0 x 330	240	34,94	24,70
42886	50	10,0 x 360	260	35,00	24,75
42896	50	10,0 x 400	290	35,00	24,75
42906	50	10,0 x 450	325	35,00	24,75
42916	50	10,0 x 500	360	35,00	24,75
42926	50	10,0 x 550	395	35,00	24,75
42936	50	10,0 x 600	430	35,00	24,75

\* characteristic values for measurement according to EC 5, bulk density  $\rho_k = 350 \text{ kg/m}^3$  [C24]  
selected steel thickness 15 mm

# GoFix<sup>®</sup> S+ application by means of impact screwdriver

Tested by the University of Innsbruck

## SIHGA<sup>®</sup> Feature

positive report for processing with impact screwdrivers

graph below shows comparison of screw-in methods

impact screwdriver brings benefits

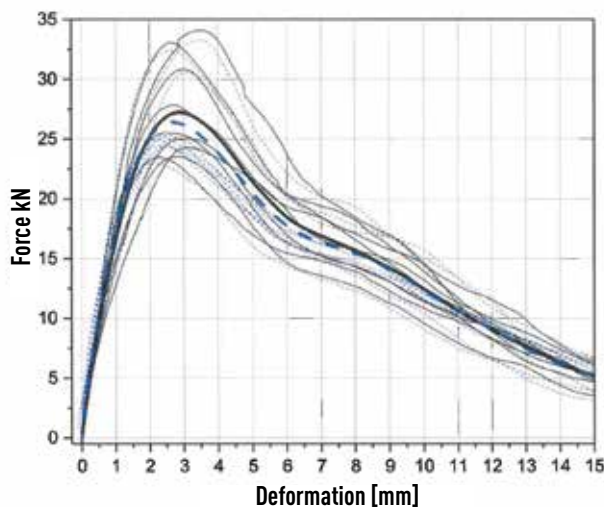
## YOUR Benefit

provides security

comparing the different screw-in methods

less strain on the wrist, even when working overhead

## Extension of the screw in relation to applied force



# GoFix® Element Tensioner

## SIHGA® Feature

## YOUR Benefit

robust, high quality finishing	for a longer service life
shift lever to tension or release	easy handling during use
screw boards	thus only slight damage to the wood and high power transfer possible ideal for wall and ceiling elements
boards can be swivelled 360°	fixing in every position
joist hook with 4-sided interlock available as an accessory	for pulling, tensioning rafters, purlins etc.
innovative long narrow hook	for high power transfer and minimal damage to the wood
joist hook for trapezoidal thread 16 x 4 mm	easy replacement of the hooks with the element pull boards

### SIHGA®

montagepack		GoFix®
Art. No.	PU	Type
31432	1	<b>Element Tensioner</b>
31436	1	<b>Joist Hook</b>



SIHGA® APP



### SIHGA® TIP:

GoFix S + 8.0 mm full thread screws are suitable for screwing the GoFix® Element Tensioner.

# GoFix<sup>®</sup> X+





## SIHGA® Feature

fastens blunt wood connections extremely quickly

made from hardened carbon steel

screwing permissible from 0° up to 90° to the grain

SIHGA® drill bit

pre-drilling also permitted, for GoFix® X+ Ø 6.5 mm with 4 mm, with Ø 8.0 mm with 5 mm, with Ø 10.0 mm with 6 mm

stepless counter sinking screw head with deep, recessed drive

strengthens constructive wood construction

optimised thread

including SIHGAFIX®, Systemstift® and installation instructions

## YOUR Benefit

transfers high tensile, compressive and shearing forces

the permanent, secure and powerful fastening

fastens with all screw-in angles

for stress-free, easy rotation, enables small edge and axial distances

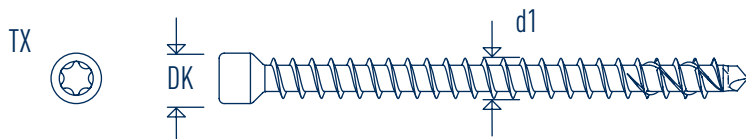
for renovating old timber or hard timber

can be countersunk, without splitting effect in the wood and without the drive skipping out of the head

support reinforcements, anchor beams (combined bending girder), notches, transverse force reinforcements can therefore be produced quickly and individually

for lightweight screw connections with low screw-in torque

time-saving, practical, precise, complete accessories enclosed



### Dimension [mm]

GoFix® X+

d1	TX	DK
6,5	30	8,0
8,0	40	10,0
10,0	50	13,0



SIHGA® APP



### SIHGA® TIP:

For precise and fast series production of cross screw connections we recommend the professional installation aid (page 167). For easier screw-in, use screw-in assistance GoFix® ESH 8 (page 170).

## SIHGA® Feature

design values

including SIHGAFIX®, Systemstift® and installation instructions

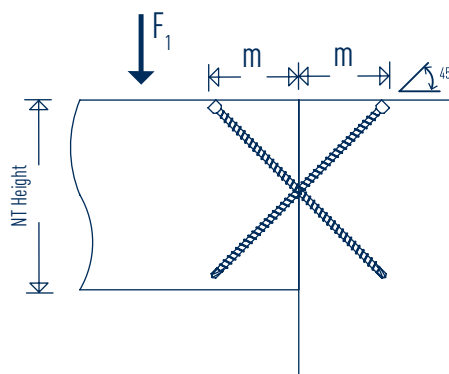
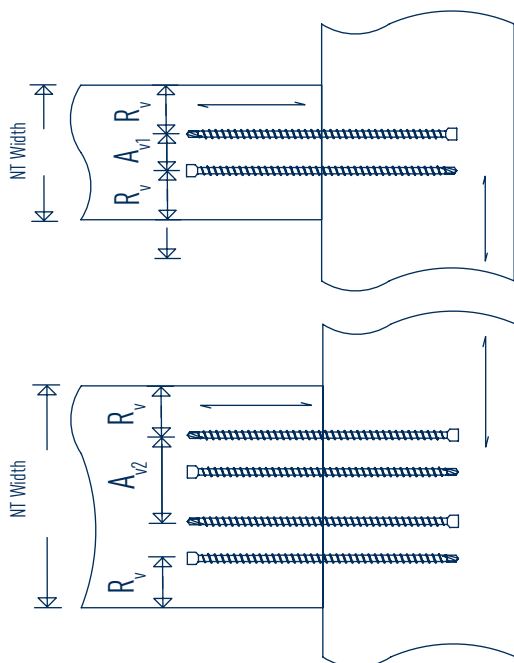
online calculation

## YOUR Benefit

SIHGA® performs the calculation for you

time-saving, practical, precise, complete accessories enclosed

at [www.sihga.com](http://www.sihga.com) (main beam - secondary beam connection)



Dimension [mm]

GoFix® X+					
d1	TX	DK	R <sub>v</sub>	A <sub>v1</sub>	A <sub>v2</sub>
6,5	30	8,0	20	10	33
8,0	40	10,0	24	12	40
10,0	50	13,0	30	15	50

SIHGA®		Dimension	Secondary Beam	Assembly Dimensions	Shear Force F <sub>1</sub> - 1 pair			Shear Force F <sub>1</sub> - 2 pair		
montagepack	GoFix® X+	d1 x L	NT Height	m	NT Width min.	Char. Values*	Design Values**	NT Width min.	Char. Values*	Design Values**
Art. No.	PU	d1 x L	min. [mm]	[mm]	[mm]	[kN]	[kN]	[mm]	[kN]	[kN]
42066	150	<b>6,5 x 195</b>	140	70	50	10,88		85	21,77	
42246	75	<b>8,0 x 220</b>	160	80	60	14,26		100	28,51	
42256	75	<b>8,0 x 245</b>	180	90	60	15,95		100	31,90	
42276	75	<b>8,0 x 295</b>	220	110	60	19,35		100	38,69	
42286	75	<b>8,0 x 330</b>	240	120	60		15,99	100		31,99
42296	75	<b>8,0 x 375</b>	270	135	60		15,99	100		31,99
42306	75	<b>8,0 x 400</b>	290	145	60		15,99	100		31,99
42316	75	<b>8,0 x 430</b>	310	155	60		15,99	100		31,99
42326	75	<b>8,0 x 480</b>	350	170	60		15,99	100		31,99
42666	50	<b>10,0 x 300</b>	220	110	75	23,58		125	47,16	
42676	50	<b>10,0 x 330</b>	240	120	75	26,02		125	52,04	
42686	50	<b>10,0 x 360</b>	260	130	75	28,46		125	56,92	
42696	50	<b>10,0 x 400</b>	290	145	75		22,58	125		45,15
42706	50	<b>10,0 x 450</b>	320	160	75		22,58	125		45,15
42716	50	<b>10,0 x 500</b>	360	180	75		22,58	125		45,15
42726	50	<b>10,0 x 550</b>	400	200	75		22,58	125		45,15
42736	50	<b>10,0 x 600</b>	430	215	75		22,58	125		45,15

\* characteristic values for measurement according to EC 5, bulk density  $\rho_k = 350 \text{ kg/m}^3$  [C24]

\*\* design values according to EC 3 due to buckling ( $\gamma_m = 1.1$  already considered)

## SIHGA® Feature

design values

including SIHGAFIX®, Systemstift® and installation instructions

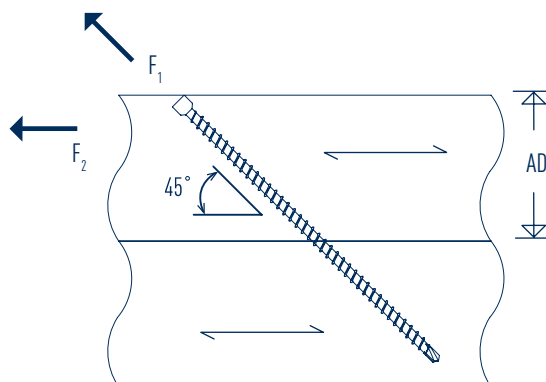
online calculation

## YOUR Benefit

SIHGA® performs the calculation for you

time-saving, practical, precise, complete accessories enclosed

at [www.sihga.com](http://www.sihga.com) (support reinforcement, notches, anchor beam, breakout, main beam - secondary beam connection)



SIHGA® montagepack		Dimension GoFix® X+	Installation Part Thickness Wood AD [mm]	Characteristic Values*	
Art. No.	PU	d1 x L		Tensile Force $F_1$ [kN]	Shear Force $F_2$ [kN]
42026	150	<b>6,5 x 120</b>	45	4,58	3,24
42036	150	<b>6,5 x 140</b>	50	5,41	3,82
42046	150	<b>6,5 x 160</b>	60	6,24	4,41
42066	150	<b>6,5 x 195</b>	70	7,70	5,44
42226	75	<b>8,0 x 155</b>	60	6,96	4,92
42236	75	<b>8,0 x 195</b>	70	8,88	6,28
42246	75	<b>8,0 x 220</b>	80	10,08	7,13
42256	75	<b>8,0 x 245</b>	90	11,28	7,98
42276	75	<b>8,0 x 295</b>	105	13,68	9,67
42286	75	<b>8,0 x 330</b>	120	15,36	10,86
42296	75	<b>8,0 x 375</b>	135	17,52	12,39
42306	75	<b>8,0 x 400</b>	145	18,72	13,24
42316	75	<b>8,0 x 430</b>	155	20,16	14,26
42326	75	<b>8,0 x 480</b>	170	22,56	15,95
42666	50	<b>10,0 x 300</b>	110	16,68	11,79
42676	50	<b>10,0 x 330</b>	120	18,40	13,01
42686	50	<b>10,0 x 360</b>	130	20,13	14,23
42696	50	<b>10,0 x 400</b>	145	22,43	15,86
42706	50	<b>10,0 x 450</b>	160	25,30	17,89
42716	50	<b>10,0 x 500</b>	180	28,18	19,92
42726	50	<b>10,0 x 550</b>	195	31,05	21,96
42736	50	<b>10,0 x 600</b>	215	33,93	23,99

\* characteristic values for measurement according to EC 5, bulk density  $\rho_k = 350 \text{ kg/m}^3$  [C24]

## SIHGA® Feature

design values

including SIHGAFIX®, Systemstift® and installation instructions

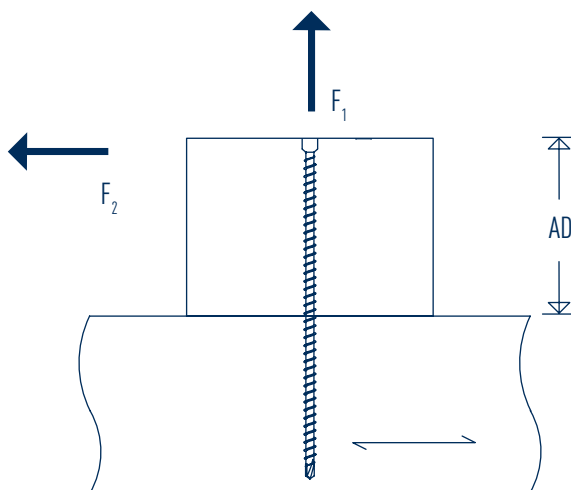
online calculation

## YOUR Benefit

SIHGA® performs the calculation for you

time-saving, practical, precise, complete accessories enclosed

at [www.sihga.com](http://www.sihga.com) (support reinforcement, notches, anchor beam, breakout, main beam - secondary beam connection)



SIHGA® montagepack		Dimension GoFix® X+	Installation Part Thickness Wood	Characteristic Values 90°*	
Art. No.	PU	d1 x L	AD [mm]	Tensile Force $F_1$ [kN]	Shear Force $F_2$ [kN]
42026	150	<b>6,5 x 120</b>	60	4,58	3,66
42036	150	<b>6,5 x 140</b>	70	5,41	3,87
42046	150	<b>6,5 x 160</b>	80	6,24	4,07
42066	150	<b>6,5 x 195</b>	100	7,70	4,44
42226	75	<b>8,0 x 155</b>	80	6,91	5,12
42236	75	<b>8,0 x 195</b>	100	8,83	5,60
42246	75	<b>8,0 x 220</b>	110	10,03	5,90
42256	75	<b>8,0 x 245</b>	125	11,23	6,20
42276	75	<b>8,0 x 295</b>	150	13,63	6,80
42286	75	<b>8,0 x 330</b>	170	15,31	7,22
42296	75	<b>8,0 x 375</b>	190	17,47	7,76
42306	75	<b>8,0 x 400</b>	200	18,67	8,06
42316	75	<b>8,0 x 430</b>	215	20,11	8,42
42326	75	<b>8,0 x 480</b>	240	22,51	9,02
42666	50	<b>10,0 x 300</b>	150	16,56	8,83
42676	50	<b>10,0 x 330</b>	170	18,29	9,27
42686	50	<b>10,0 x 360</b>	180	20,01	9,70
42696	50	<b>10,0 x 400</b>	200	22,31	10,27
42706	50	<b>10,0 x 450</b>	225	25,19	10,99
42716	50	<b>10,0 x 500</b>	250	28,06	11,71
42726	50	<b>10,0 x 550</b>	275	30,94	12,43
42736	50	<b>10,0 x 600</b>	300	33,81	13,15

\* characteristic values for measurement according to EC 5, bulk density  $\rho_k = 350 \text{ kg/m}^3$  [C24]

## SIHGA® Feature

design values

including SIHGAFIX®, Systemstift® and installation instructions

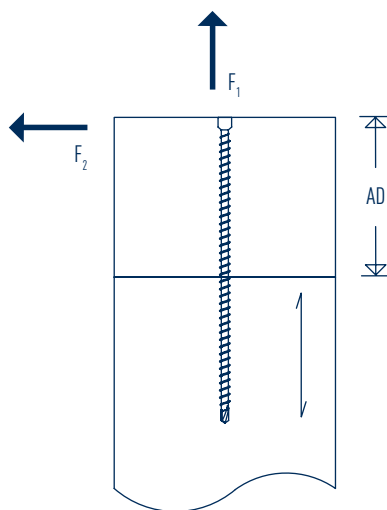
online calculation

## YOUR Benefit

SIHGA® performs the calculation for you

time-saving, practical, precise, complete accessories enclosed

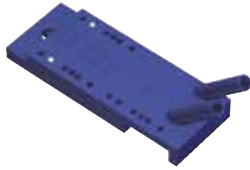
at [www.sihga.com](http://www.sihga.com) (support reinforcement, notches, anchor beam, breakout, main beam - secondary beam connection)



SIHGA® montagepack		Dimension GoFix® X+	Installation Part Thickness Wood	Characteristic Values 0**	
Art. No.	PU	d1 x L	AD [mm]	Tensile Force $F_1$ [kN]	Shear Force $F_2$ [kN]
42026	150	6,5 x 120	60	1,37	1,50
42036	150	6,5 x 140	70	1,62	2,15
42046	150	6,5 x 160	80	1,87	2,21
42066	150	6,5 x 195	100	2,31	2,32
42226	75	8,0 x 155	80	2,07	2,80
42236	75	8,0 x 195	100	2,65	2,95
42246	75	8,0 x 220	110	3,01	3,04
42256	75	8,0 x 245	125	3,37	3,13
42276	75	8,0 x 295	150	4,09	3,31
42286	75	8,0 x 330	170	4,59	3,43
42296	75	8,0 x 375	190	5,24	3,60
42306	75	8,0 x 400	200	5,60	3,69
42316	75	8,0 x 430	215	6,03	3,79
42326	75	8,0 x 480	240	6,75	3,97
42666	50	10,0 x 300	150	4,97	4,32
42676	50	10,0 x 330	170	5,49	4,45
42686	50	10,0 x 360	180	6,00	4,57
42696	50	10,0 x 400	200	6,69	4,75
42706	50	10,0 x 450	225	7,56	4,96
42716	50	10,0 x 500	250	8,42	5,18
42726	50	10,0 x 550	275	9,28	5,39
42736	50	10,0 x 600	300	10,14	5,61

\* characteristic values for measurement according to EC 5, bulk density  $\rho_k = 350 \text{ kg/m}^3$  [C24]

# Equipment GoFix<sup>®</sup> X+



## SIHGA<sup>®</sup> Feature

### GoFix<sup>®</sup> X+ Setting Jig

with GoFix<sup>®</sup> X+ 6.5 and 8.0 mm

## YOUR Benefit

the professional installation aid, simplifies construction processes and saves time



### GoFix<sup>®</sup> X+ Mounting Bracket

with GoFix<sup>®</sup> X+ 6.5 and 8.0 mm

the professional installation aid, simplifies construction processes and saves time



## SIHGA<sup>®</sup> TIP:

GoFix<sup>®</sup> X+ can also be pre-drilled X+ 6.5 with  $\varnothing$  4 mm, X+ 8.0 with  $\varnothing$  5 mm.



## System Kit GoFix<sup>®</sup> X+

with GoFix<sup>®</sup> X+ 6.5 and 8.0 mm with varying lengths

the professional installation aid, simplifies construction processes and saves time

developed, patented and made in Austria

top European quality and added-value

contains 1 setting jig X+ with 4 beam holders X+ and GoFix<sup>®</sup> fastening screws

for the rational and precise installation of main/secondary beams

contains 4 mounting brackets X+

for the rational and precise installation of secondary beams on struts

includes SIHGA<sup>®</sup> DUO-Bit and Systemstift<sup>®</sup>

time-saving, practical, precise, complete accessories enclosed

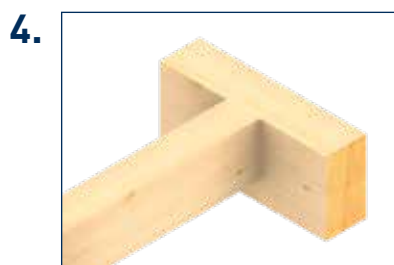
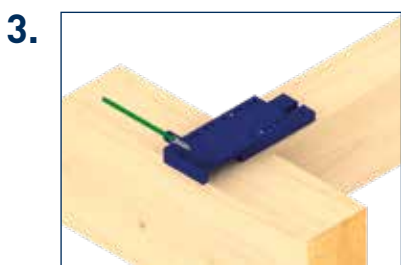
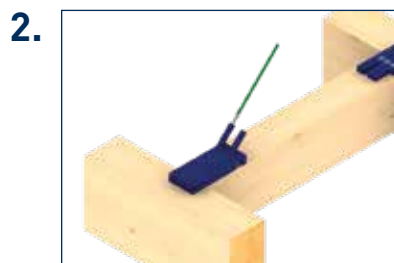


## SIHGA<sup>®</sup> TIP:

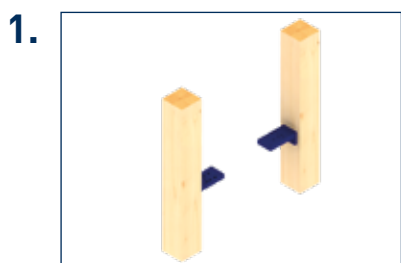
The System Kit GoFix<sup>®</sup> X+ contains a setting jig and mounting bracket, completely and portably combined with all accessories for practicality.

# Application GoFix<sup>®</sup> X+

## GoFix<sup>®</sup> X+ Setting Jig



## GoFix<sup>®</sup> X+ Mounting Bracket



# Application GoFix<sup>®</sup> X+ in Plywood Board

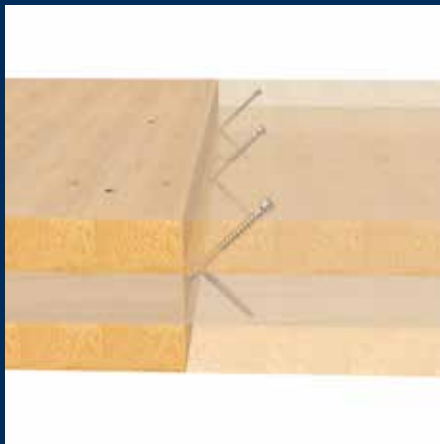
## SIHGA<sup>®</sup> Feature

optimised geometry of the drill bit  
screwing below 0 ° to the fibre allowed

special cylinder head  
deep bit punching

## YOUR Benefit

rapid attachment and simultaneous predrilling  
can be installed in all layers and angles in plywood board  
infinitely countersinking without splitting effect  
prevents the SIHGAFIX<sup>®</sup> from slipping out





# GoFix<sup>®</sup> X+ application by means of impact screwdriver

Tested by the University of Innsbruck

## SIHGA<sup>®</sup> Feature

positive report for processing with impact screwdrivers

graph below shows comparison of screw-in methods

impact screwdriver brings benefits

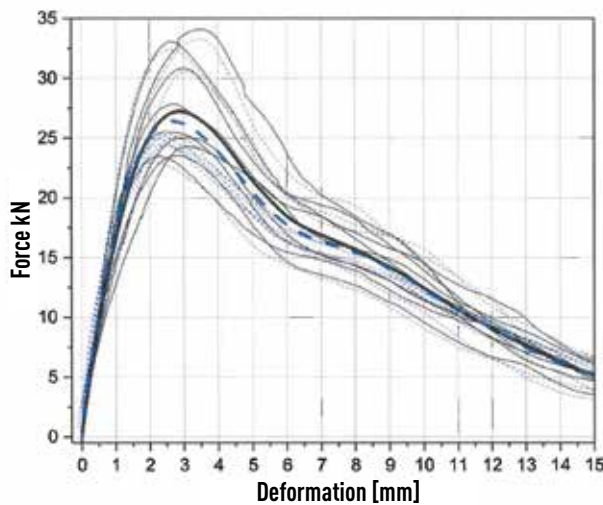
## YOUR Benefit

provides security

comparing the different screw-in methods

less strain on the wrist, even when working overhead

## Extraction of the screw in relation to applied force



# GoFix<sup>®</sup> ESH 8



**GoFix<sup>®</sup> ESH 8 Screw-in  
Assistance for screws  $\varnothing$  8 mm**

## SIHGA® Feature

holds the screw head securely in the SIHGAFIX®  
 various adjustment options  
 enhanced tool standard design  
 reduces effort  
 automatic reset upon contact with wood

## YOUR Benefit

no more slippage with large screw sizes  
 fits cylindrical head- and countersunk head screws  
 long life  
 pressure on screw-in device no longer needed  
 makes numerous screw-in variations such as oblique screw-in possible in all situations, for example overhead installation

SIHGA® montagepack		Dimension GoFix® ESH 8	for GoFix® Type X+ / S+ / SH
Art. No.	PU	d x L	d [mm]
31446	1	40 x 120	8



SIHGA® APP



### SIHGA® TIP:

For simplified screw-in of GoFix® X+, S+ and SH, use screw-in assistance GoFix® ESH 8.

# GoFix<sup>®</sup> 45



GoFix<sup>®</sup> 45  
8,0 mm



GoFix<sup>®</sup> 45  
10,0 mm

## SIHGA® Feature

## YOUR Benefit

rapid, problem-free installation of the GoFix® 45

fixed 45° inclination for optimal tensile force uptake

ideal in combination with the SIHGA® GoFix® S+ 8.0 and 10.0 mm fully threaded screw or GoFix® SH

pull-through prevented by the large countersunk head seating area

no special production needed with inclined counterbore

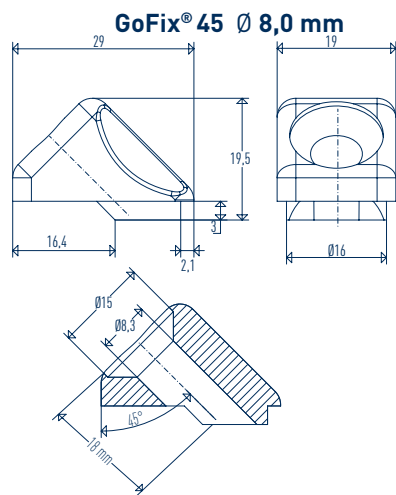
saves time and money

provides maximum flexibility

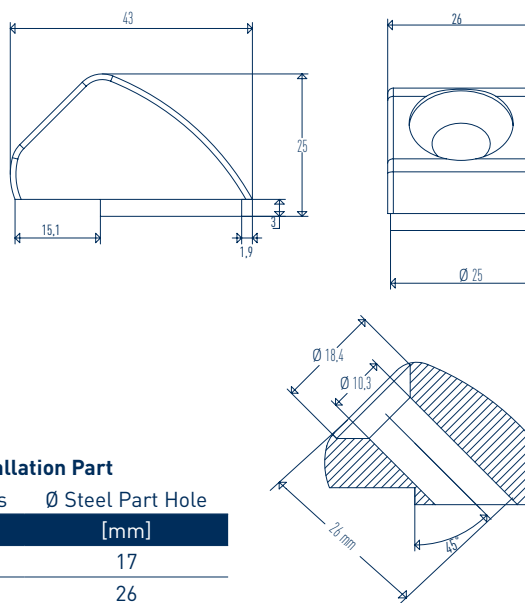
the most varied metal tabs can be used

including Systemstift® and installation instructions

enclosed accessories - practical and time-saving



GoFix® 45 Ø 10,0 mm



SIHGA®		Dimension		Installation Part	
montagepack	Ø Drill	GoFix® 45	Steel Thickness	Ø Steel Part Hole	
Art. No.	PU	[mm]	[mm]	[mm]	[mm]
31582	10	8,0	29 x 19 x 19,5	≤ 5	17
31592	10	10,0	43 x 26 x 25	6 - 10	26



SIHGA® APP



### SIHGA® TIP:

For effortless screw-in of GoFix® S+, a tangential-impact screwdriver to spare your wrist joint.

# GoFix<sup>®</sup> SS



GoFix<sup>®</sup> SS made from  
hardened carbon steel



## SIHGA® Feature

extremely high thread load-bearing capacity of up to 50 kN and length up to 1000 mm

made from hardened carbon steel

additional pre-drilling, with GoFix® SS Ø 11.3 mm with 8.0 mm

including SIHGAFIX® and installation instructions

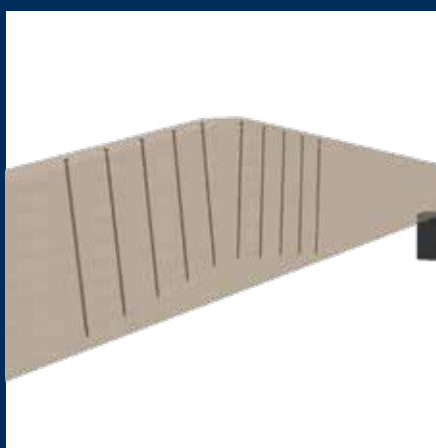
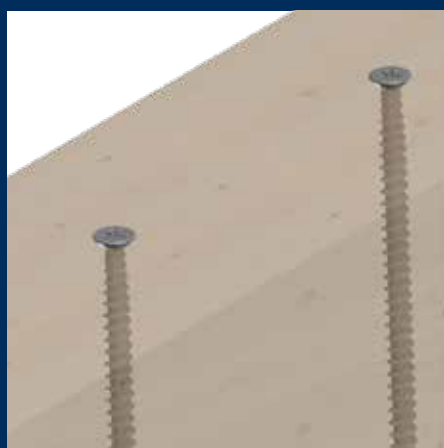
## YOUR Benefit

ideal for reinforcements in timber engineering and for large glued laminated timber beams or for fastening steel parts onto wooden beams, replaces threaded rods

the permanent, secure and powerful fastening

for lightweight screw connections with low screw-in torque

time-saving, practical, precise, complete accessories enclosed



SIHGA® APP



## SIHGA® Feature

design values

including SIHGAFIX® and installation instructions

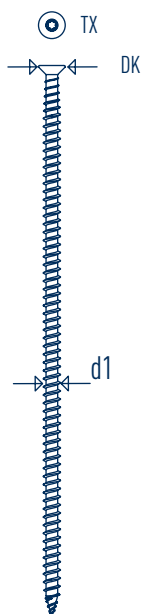
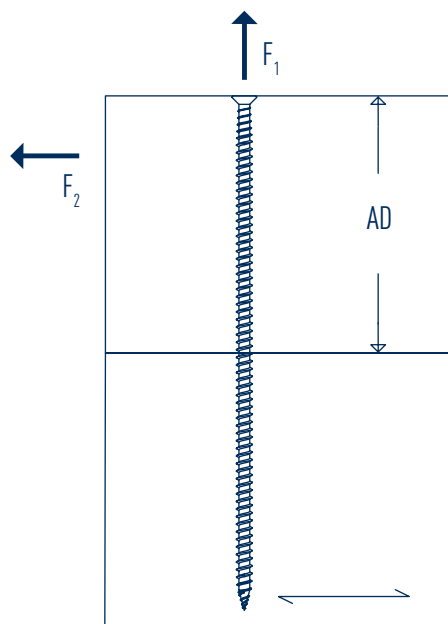
online calculation

## YOUR Benefit

SIHGA® performs the calculation for you

time-saving, practical, precise, all accessories enclosed; SIHGAFIX® also screws into deep grooves

at [www.sihga.com](http://www.sihga.com) (support reinforcement, notches, anchor beam, breakout)



### Dimension [mm]

GoFix® SS

d1	TX	DK
11,3	50	18

SIHGA® montagepack		Dimension GoFix® SS	Installation Part Thickness Wood	Characteristic Values*	
Art. No.	PU	d1 x L	AD [mm]	Tensile Force $F_1$ [kN]	Shear Force $F_2$ [kN]
25336	50	<b>11,3 x 300</b>	150	18,90	12,33
25346	50	<b>11,3 x 340</b>	170	21,51	12,98
25206	50	<b>11,3 x 380</b>	190	24,11	13,63
25216	50	<b>11,3 x 420</b>	210	26,72	14,28
25226	50	<b>11,3 x 460</b>	230	29,33	14,94
25236	50	<b>11,3 x 500</b>	250	31,93	15,21
25246	50	<b>11,3 x 540</b>	270	34,54	15,21
25256	50	<b>11,3 x 580</b>	290	37,15	15,21
25266	50	<b>11,3 x 620</b>	310	39,75	15,21
25276	50	<b>11,3 x 660</b>	330	42,36	15,21
25286	50	<b>11,3 x 700</b>	350	44,97	15,21
25296	50	<b>11,3 x 750</b>	375	48,23	15,21
25306	50	<b>11,3 x 800</b>	400	50,00	15,21
25316	50	<b>11,3 x 900</b>	450	50,00	15,21
25326	50	<b>11,3 x 1000</b>	500	50,00	15,21

\* characteristic values for dimensioning according to EC 5 and strength class C 30 ( $\rho_k$  380 kg/m<sup>3</sup>)



## SIHGA® Feature

design values

including SIHGAFIX® and installation instructions

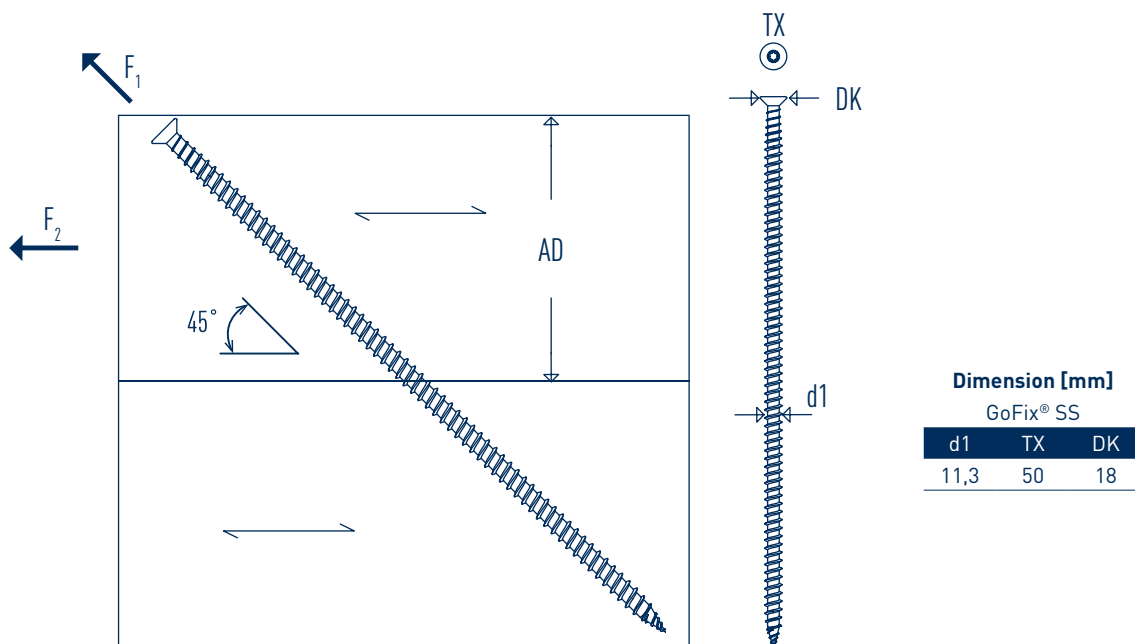
online calculation

## YOUR Benefit

SIHGA® performs the calculation for you

time-saving, practical, precise, all accessories enclosed; SIHGAFIX® also screws into deep grooves

at [www.sihga.com](http://www.sihga.com) (support reinforcement, notches, anchor beam, breakout)



SIHGA® montagepack		Dimension GoFix® SS	Installation Part Thickness	Characteristic Values*	
Art. No.	PU	d1 x L	Wood AD [mm]	Tensile Force $F_1$ [kN]	Shear Force $F_2$ [kN]
25336	50	11,3 x 300	110	18,90	13,36
25346	50	11,3 x 340	120	21,51	15,21
25206	50	11,3 x 380	140	24,11	17,05
25216	50	11,3 x 420	150	26,72	18,89
25226	50	11,3 x 460	170	29,33	20,74
25236	50	11,3 x 500	180	31,93	22,58
25246	50	11,3 x 540	200	34,54	24,42
25256	50	11,3 x 580	210	37,15	26,27
25266	50	11,3 x 620	220	39,75	28,11
25276	50	11,3 x 660	240	42,36	29,95
25286	50	11,3 x 700	250	44,97	31,80
25296	50	11,3 x 750	270	48,23	34,10
25306	50	11,3 x 800	290	50,00	35,36
25316	50	11,3 x 900	320	50,00	35,36
25326	50	11,3 x 1000	360	50,00	35,36

\* characteristic values for dimensioning according to EC 5 and strength class C 30 ( $\rho_k$  380 kg/m<sup>3</sup>)

# GoFix<sup>®</sup> ZS



GoFix<sup>®</sup> ZS with special  
SC 3 coating



## SIHGA® Feature

fastens soft insulation materials for on-rafter insulation

including SIHGAFIX®, Systemstift® and installation instructions

design values

online calculation

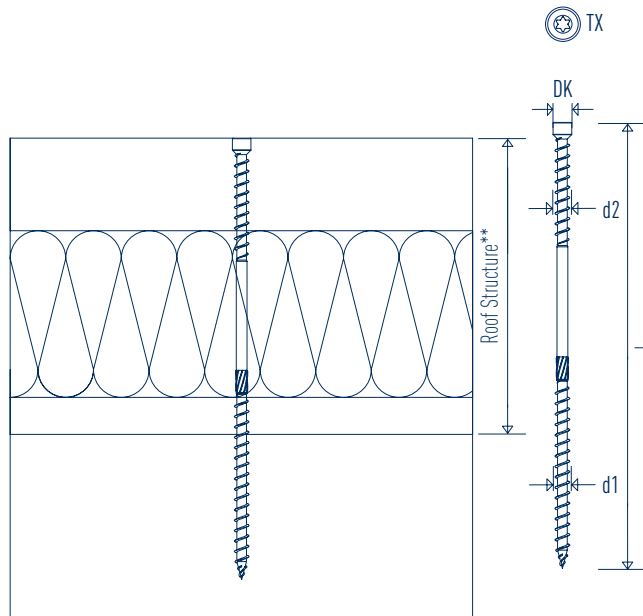
## YOUR Benefit

also for insulation material with a compressive stress below 50 kPa; no pressure on the insulation

time-saving, practical, precise, complete accessories enclosed

SIHGA® performs the calculation for you

at [www.sihga.com](http://www.sihga.com) (on-rafter insulation)



### Dimension [mm]

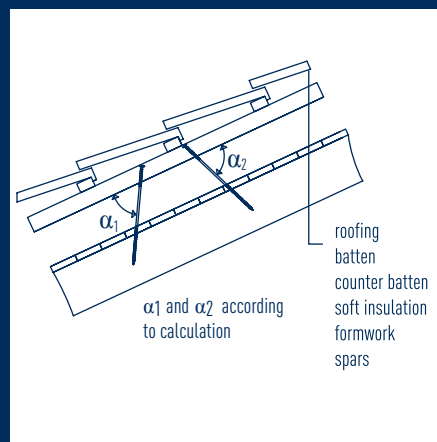
GoFix® ZS

d1	d2	TX	DK
8,0	8,0	40,0	10,0

SIHGA® montagepack	PU	Dimension GoFix® ZS d1 x L	Roof Structure**
			Thickness [mm]
Art. No.	PU	d1 x L	from
26996*	75	<b>8,0 x 165</b>	75
27006*	75	<b>8,0 x 195</b>	100
27116	75	<b>8,0 x 225</b>	130
27126	75	<b>8,0 x 235</b>	140
27136	75	<b>8,0 x 255</b>	155
27146	75	<b>8,0 x 275</b>	175
27156	75	<b>8,0 x 302</b>	200
27166	75	<b>8,0 x 335</b>	230
27176	75	<b>8,0 x 365</b>	255
27186	75	<b>8,0 x 397</b>	285
27196	75	<b>8,0 x 435</b>	320

\* design with plate head, DK = 16 mm

\*\* at thread anchoring depth in rafters of 80 mm



SIHGA® APP



# GoFix<sup>®</sup> SH



GoFix<sup>®</sup> SH for uses  
in hardwood applications



## SIHGA® Feature

## YOUR Benefit

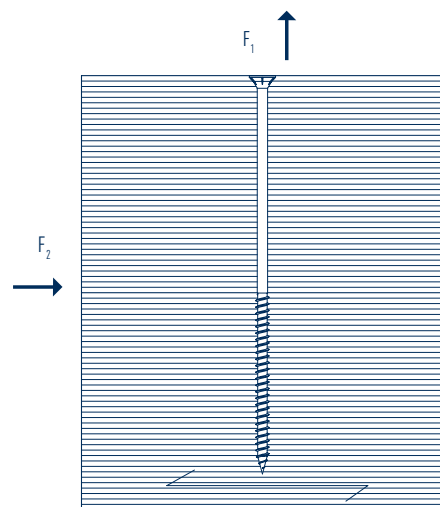
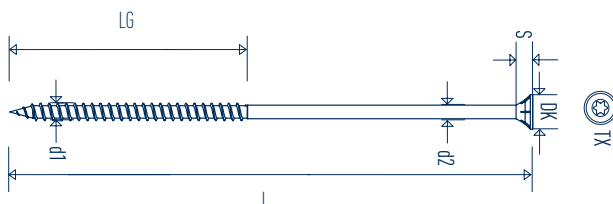
new screw geometry	no pre-drilling, quick installation
shortened thread length	high extraction values using shorter screw
special screw tip	assembly in construction beech without pre-drilling
special head geometry and milling ribs	a perfect, clean screw pattern
design values	SIHGA® performs the calculation for you
wide use possible without pre-drilling	in solid wood and construction beech
special geometry	high load-bearing capacity for efficient connections

SIHGA® montagepack		Dimension GoFix® SH	Thread Length LG	Construction Beech Characteristic Values*		
Art. No.	PU	d1 x L	[mm]	Head	Thread	Wood-Wood
29426	75	<b>8,0 x 100</b>	80	9,8	25,9	5,7
29436	75	<b>8,0 x 120</b>	80	9,8	25,9	7,04
29446	75	<b>8,0 x 140</b>	80	9,8	25,9	7,78
29456	75	<b>8,0 x 160</b>	80	9,8	25,9	7,78
29466	75	<b>8,0 x 180</b>	80	9,8	25,9	7,78
29476	75	<b>8,0 x 200</b>	80	9,8	25,9	7,78
29486	75	<b>8,0 x 220</b>	80	9,8	25,9	7,78
29496	75	<b>8,0 x 240</b>	80	9,8	25,9	7,78

In addition to the cases of failure according to Johansen, other cases of failure are possible and are to be taken into consideration.  
\*characteristic values for design in accordance with EC 5 in construction beech ( $\rho_k$  740 kg/m<sup>3</sup>).

### Dimension [mm]

GoFix® SH				
d1	d2	DK	S	TX
8	6,4	15	6,7	40



### SIHGA® TIP:

Use electric screwdriver device for assembly without pre-drilling. For easier screw-in, use GoFix® ESH 8 (page 170). Use a washer for higher head pull-through values.

# L-GoFix<sup>®</sup> MS



L-GoFix<sup>®</sup> MS of hardened stainless steel



L-GoFix<sup>®</sup> MS with additional SC 9 / SC 11 coating

## SIHGA® Feature

fastens wood to wood without pre-drilling and without countersinking

also attaches coverings made of hard and thermo-wood

Multi-stage head with a small head diameter

special thread pitch with sharp thread flanks

SIHGA® tip with special form

SIHGA® milling ribs on the shaft

made of hardened stainless steel

also available in black (SC 9 coating) and antique (SC 11 coating) appearance

including SIHGAFIX® stainless steel, Systemstift® and installation instructions

## YOUR Benefit

prevents crack formation or splitting of timbers, even for panel materials, saves work time, additional pre-drilling extends the life of the wood

results in a perfect appearance, these coverings should additionally be pre-drilled

high constructional wood protection and exquisite surface through flat head ending

high extraction value

guarantees fast screw attachment without developing cracks

easy, rapid screw-in and optimal seating in wood are guaranteed

non-corrosive attachment and is extremely break-proof

optimally useable on dark materials or for larch, Douglas fir and Bangkirai

time-saving, practical, precise, all accessories included, SIHGAFIX® stainless steel prevents extraneous rust and also enables screw connections in deep grooves



SIHGA® APP



## SIHGA® Feature

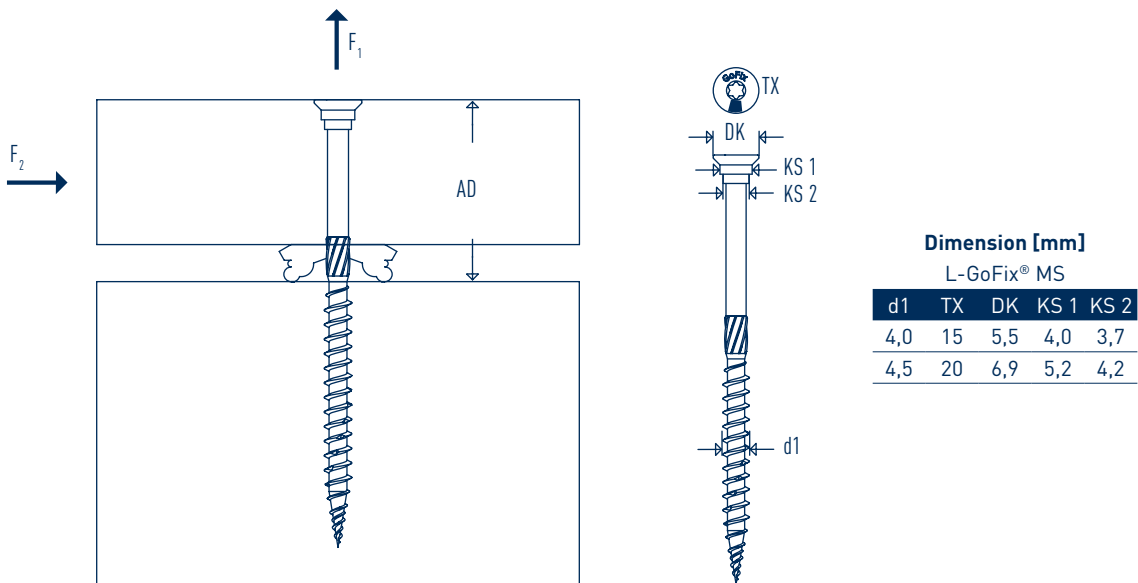
design values

including SIHGAFIX® stainless steel, Systemstift® and installation instructions

## YOUR Benefit

SIHGA® performs the calculation for you

time-saving, practical, precise, all accessories included, SIHGAFIX® stainless steel prevents extraneous rust and also enables screw connections in deep grooves



Dimension [mm]

L-GoFix® MS

d1	TX	DK	KS 1	KS 2
4,0	15	5,5	4,0	3,7
4,5	20	6,9	5,2	4,2

SIHGA® montagepack		Dimension L-GoFix® MS	Installation Part AD [mm]	Characteristic Values**			
Art. No.	PU	d1 x L		Tensile Force F <sub>1</sub> [kN]		Shear Force F <sub>2</sub> [kN]	
				Head	Thread	Wood-Wood	Steel-Wood
24106	500	4,0 x 30	12	0,46	1,05	0,97	1,23
24116	500	4,0 x 35	14	0,46	1,23	0,97	1,23
24126	500	4,0 x 40*	16	0,46	1,41	0,97	1,23
24136	500	4,0 x 45	18	0,46	1,58	0,97	1,23
24146	500	4,0 x 50*	20	0,46	1,76	0,97	1,23
24156	500	4,0 x 60*	24	0,46	2,05	0,97	1,23
24226	400	4,5 x 40*	16	0,77	1,30	1,30	1,51
24236	400	4,5 x 45*	18	0,77	1,48	1,30	1,51
24246	400	4,5 x 50*	20	0,77	1,67	1,30	1,51
24266	400	4,5 x 60*	24	0,77	1,85	1,30	1,51
24276	300	4,5 x 70*	28	0,77	2,16	1,30	1,51

\* also available with SC 9 coating

\*\* characteristic values for design according to EC 5 and strength class pk 410 kg/m<sup>3</sup>



## SIHGA® Feature

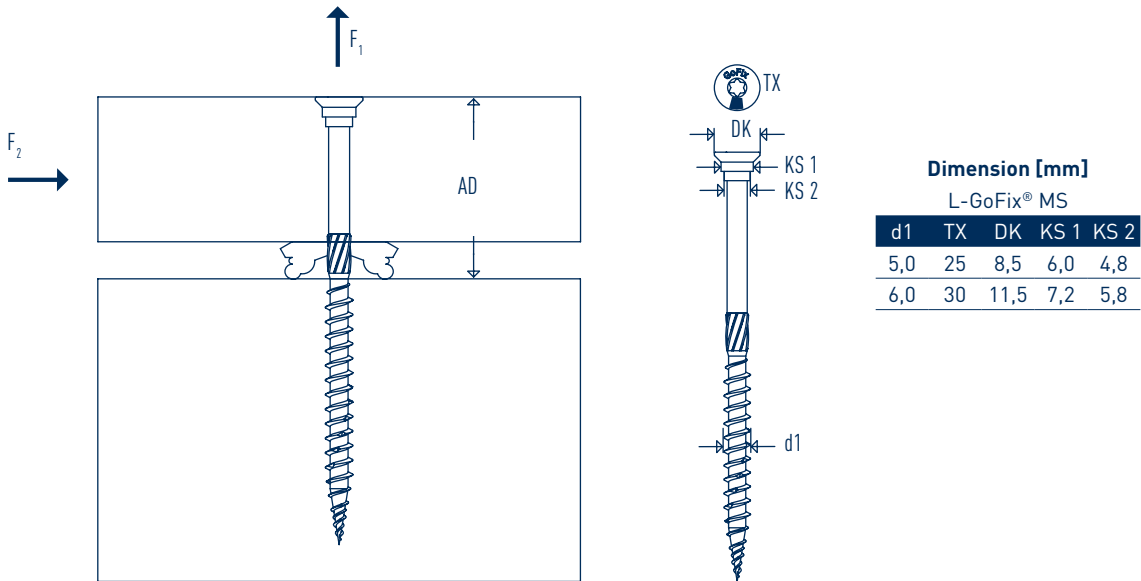
design values

including SIHGAFIX® stainless steel, Systemstift® and installation instructions

## YOUR Benefit

SIHGA® performs the calculation for you

time-saving, practical, precise, all accessories included, SIHGAFIX® stainless steel prevents extraneous rust and also enables screw connections in deep grooves



Dimension [mm]

L-GoFix® MS

d1	TX	DK	KS 1	KS 2
5,0	25	8,5	6,0	4,8
6,0	30	11,5	7,2	5,8

SIHGA® montagepack		Dimension L-GoFix® MS	Installation Part AD	Characteristic Values**			
Art. No.	PU	d1 x L	[mm]	Tensile Force F <sub>t</sub> [kN]		Shear Force F <sub>s</sub> [kN]	
				Head	Thread	Wood-Wood	Steel-Wood
24316	200	5,0 x 45*	18	1,10	1,79	1,45	1,71
24326	200	5,0 x 50*°	20	1,10	2,06	1,45	1,71
24336	200	5,0 x 60*°	24	1,10	2,40	1,45	1,71
24346	200	5,0 x 70*	28	1,10	2,75	1,45	1,71
24356	200	5,0 x 80*	32	1,10	3,43	1,45	1,71
24366	200	5,0 x 90*	36	1,10	3,78	1,45	1,71
24376	200	5,0 x 100*	40	1,10	4,12	1,45	1,71
24406	100	6,0 x 70	28	1,96	3,11	2,07	2,61
24416	100	6,0 x 80	32	1,96	3,88	2,07	2,61
24426	100	6,0 x 90	36	1,96	4,27	2,07	2,61
24436	100	6,0 x 100	40	1,96	4,66	2,07	2,61
24446	100	6,0 x 120	50	1,96	5,43	2,07	2,61
24456	100	6,0 x 140	70	1,96	5,43	2,07	2,61
24466	100	6,0 x 160	90	1,96	5,43	2,07	2,61

\* also available with SC 9 coating

° also available with SC 11 coating

\*\* characteristic values for dimensioning according to EC 5 and for strength class pk 410 kg/m³



### SIHGA® TIP:

For surface-flush rotation, fast and secure, we recommend TerrassenFix® Depth Limiter TTB (page 117).

# Hobet®



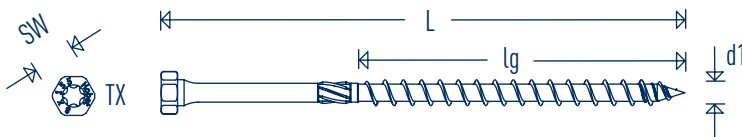
**Hobet® the wood-concrete connection screw**



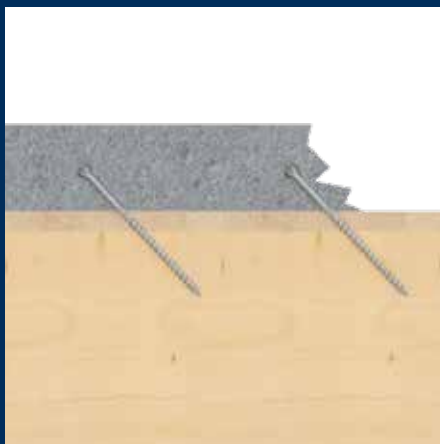
## SIHGA® Feature

## YOUR Benefit

made in Austria	top European quality and added-value
high load bearing wood-concrete connection screw	connects wooden beam ceilings, dowel beam ceilings or panel ceilings and the top concrete layer to optimise the strength with limited structural height
diverse areas of application, economical and cost-effective	old building renovation (strengthening wooden beam ceilings), building height extensions (load-distributing ceilings for attics), new buildings (high load bearing wood-concrete compound structures)
optimises properties of simple wooden ceilings	greater strength and rigidity, fire protection, better vibration behaviour, noise protection, thermal insulation
optimised compared to purely concrete ceilings	better eco-balance, low inherent weight, degradable
Hobet® thread	fast screw connection, low tightening torque, minimises splitting effect
Hobet® bit	time savings due to rapid attachment, especially at 45° screw angle, easy to work with
comprehensive calculation of load capacities, fire protection, serviceability and vibration	complicated calculations are superfluous - SIHGA® performs the calculation for you



SIHGA® objektpack®		Dimension		Drive		Screwing Angle
Art. No.	PU	Hobet® d1 x L	lg [mm]	SW	TX	in the Wood [°]
30879	400	<b>8,0 x 155</b>	100	12	40	90
30889	400	<b>8,0 x 205</b>	130	12	40	45 / 90



SIHGA® APP



# IdeFix<sup>®</sup> DWD



IdeFix<sup>®</sup> DWD shear connection for wall and ceiling elements



## SIHGA® Feature

## YOUR Benefit

proven three-dimensional load uptake through geometry and 45° screw connection

connects solid wood elements in parallel and across corners

tested in plywood boards - as well as solid wood elements

shear connections for wood elements of all sizes and types

simple assembly, only one hole  $d = 40$  mm per connector

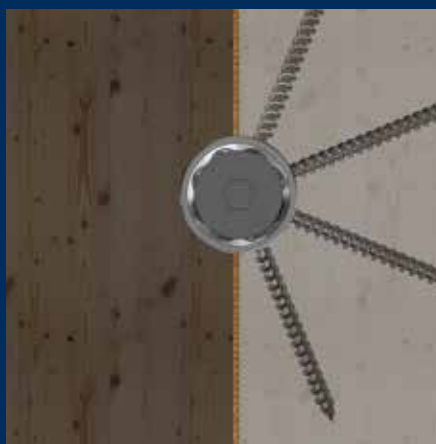
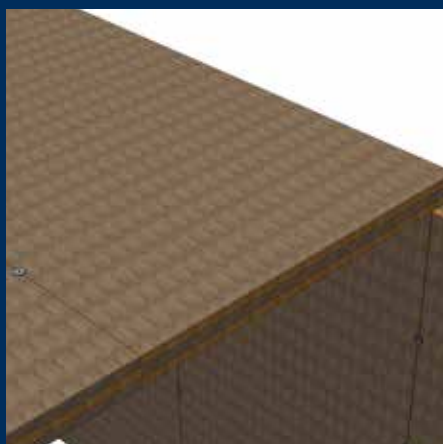
this hole can be factory-made or made on-site

flush-mounted in construction

no processing of further wall layers needed

design values

SIHGA® performs the calculation for you

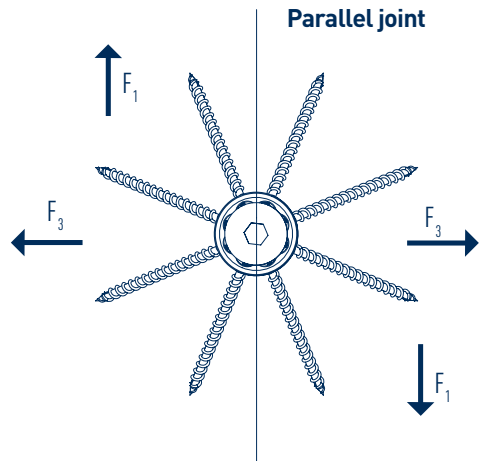
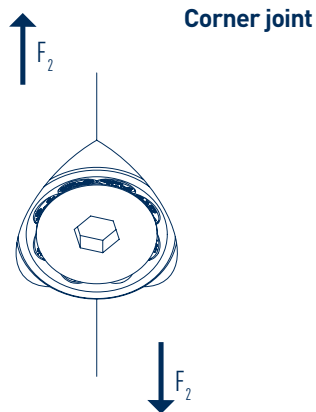
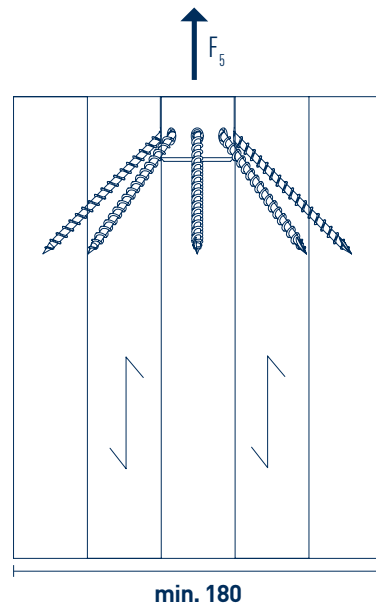
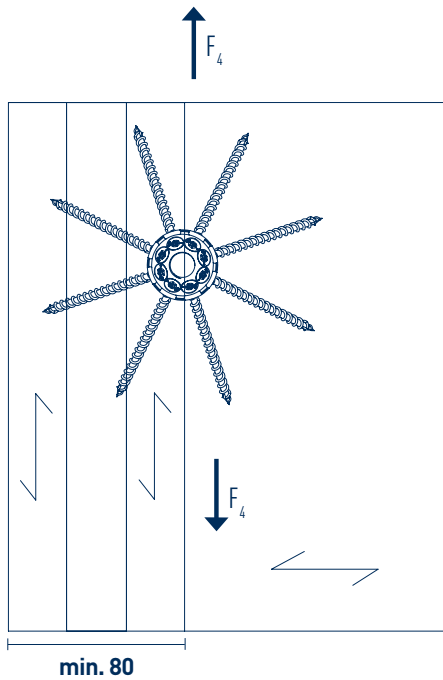


SIHGA® APP



### SIHGA® TIP:

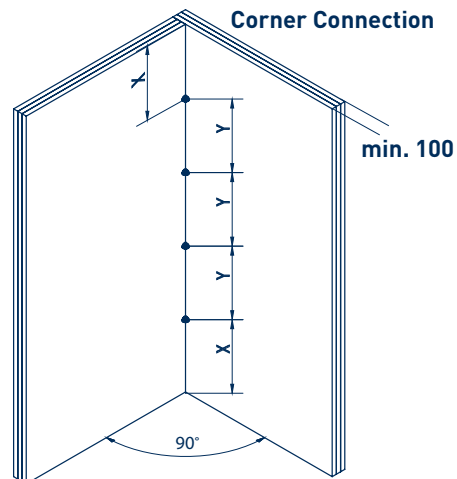
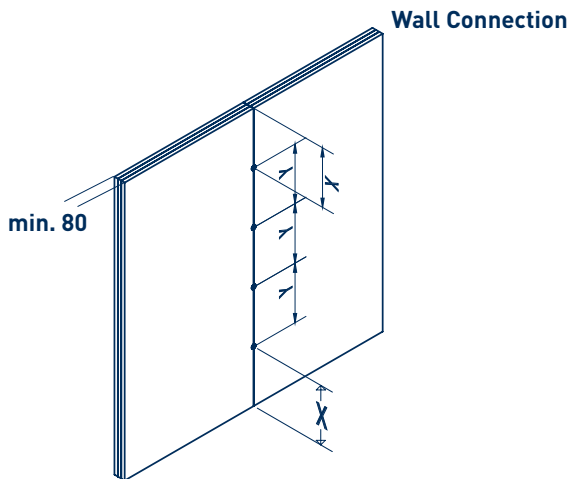
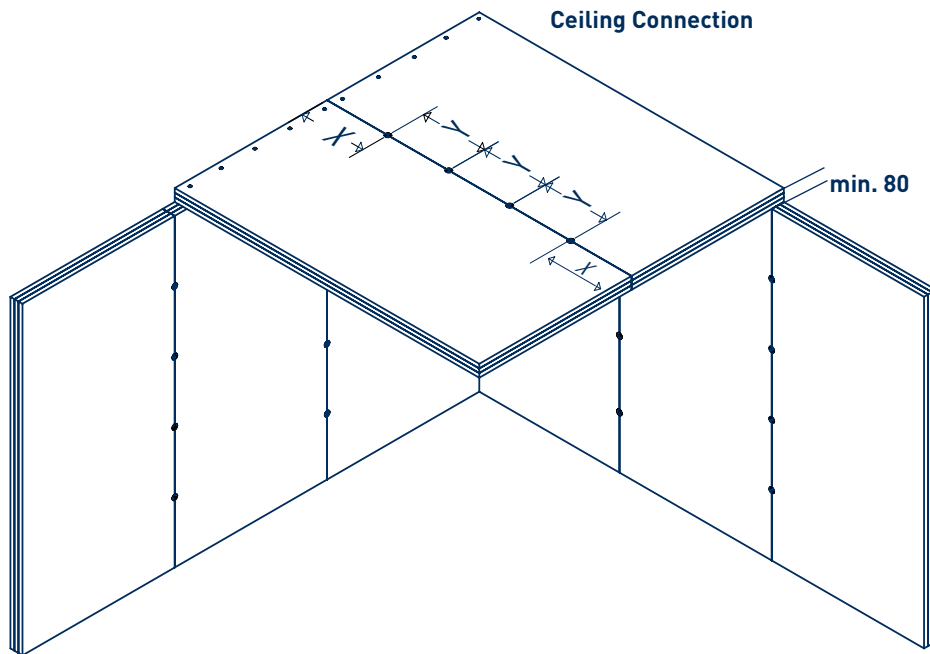
For parallel joints, drill with IdeFix® Drill IB HMB together with IBG Drilling Template. For corner joints drill only with IdeFix® Drill IB HMB.



SIHGA®	Dimension	Dimension	Dimension	Parallel Characteristic Value	Corner Connection Characteristic Value
IdeFix® DWD	IFK	GoFix® HK	Pressure Bulkhead	F <sub>1</sub>	F <sub>2</sub>
Art. No.	PU	d x h	d x L	[kN]	[kN]
28906	5	40 x 25	6,0 x 100	20,36	8,99

SIHGA®	Dimension	Dimension	Dimension	Corner Connection Characteristic Value	Corner Connection Characteristic Value	Extraction Characteristic Value
IdeFix® DWD	IFK	GoFix® HK	Pressure Bulkhead	F <sub>3</sub>	F <sub>4</sub>	F <sub>5</sub>
Art. No.	PU	d x h	d x L	[kN]	[kN]	[kN]
28906	5	40 x 25	6,0 x 100	11,75	20,36	44,98

# Application



**Minimum Axis Spacings**

Typ	X	Y
IdeFix® DWD	[mm]	[mm]
IFK 410	100	100

# IdeFix® IF/IFD



IdeFix® IFD





## SIHGA® Feature

even in end-grain wood, IdeFix® IF transfers extremely high tensile and shearing (transverse) forces, up to 101.6 kN per fastening point

three-dimensional load attachment through geometry and 45° screw connection for normal and angled connections

for horizontal connections, vertical connections, angled connections, multiple connections in single and multiple rows

integrated anti-rotation lock

can be re-tightened at any time through metric internal thread M 12, M 16, M 20

installed invisibly

enables small edge and axial distances

modular construction, also for multiple use possible

can also be installed as pin attachment, including anti-rotation lock

easy installation, only insert in hole with 30, 40 or 50 mm diameter and depth

tensile force may be statically combined with transverse force

## YOUR Benefit

the heavy load connection with small space requirement and small axial and edge distances

the range of applications for wood construction is almost unlimited

IdeFix® IF is the ideal problem solver - even for grain-cut connections

thanks to the geometry, rotation of the timber, for example columns, is prevented; during installation it automatically presses into the wood being connected

IdeFix® IF can be re-tightened when installed

perfect look and high fire protection advantage

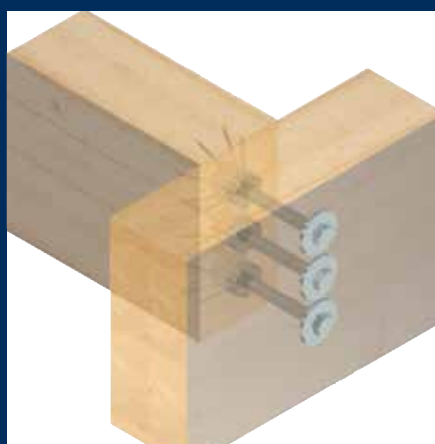
allows the simple installation of multiple IdeFix® IF

connection can be loosened and fixed as often as required, ideal for seasonal (temporary) buildings

the wood being connected also has to be drilled; minimises the weakening of timber despite the pin attachment

this drilling can be performed in the factory or on-site

a major and simple security advantage, also with angled connections



SIHGA® APP



### SIHGA® TIP:

IdeFix® IFD for even higher tensile loads with double the number of screws.

## SIHGA® Feature

includes SIHGAFIX®, GoFix® HK screws and installation instructions

design values

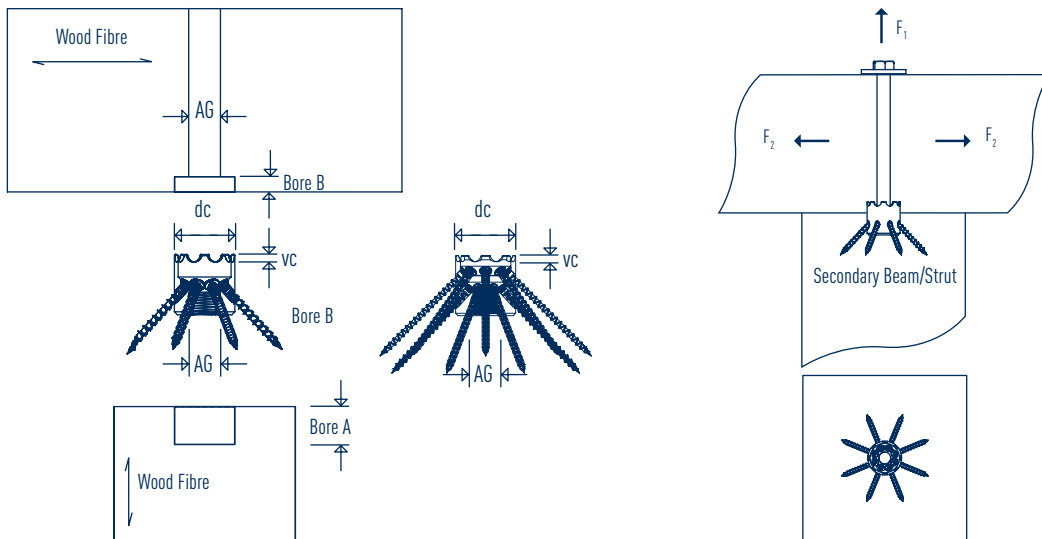
## YOUR Benefit

time-saving, practical, precise, complete accessories enclosed

SIHGA® performs the calculation for you

Dimension	Dimension	Connection	Tensile Force Connection		Transverse Force Connection*		Locking Device
IdeFix® IF/IFD	dc	Thread	Bore [mm]		Bore [mm]		vc
Type	[mm]	AG	A	B	A	B	[mm]
<b>304/306 /308</b>	30	M 12	27	0	20	7	3
<b>406/408/410</b>	40	M 16	35	0	25	10	5
<b>509</b>	50	M 20	45	0	30	15	5
<b>508/510</b>	50	M 20	45	0	35	10	5

\* for multiple joints, the drill hole B is increased by the anti-twist protection vc



SIHGA® montagepack	Dimension IdeFix® IF/IFD	System Screw		Secondary Beam / Strut		Characteristic Values*		
		GoFix® HK	Pieces	Edge / axis distance	Height/Width	Tensile $F_1$	Shear $F_2$	
Art. No.	PU	Type	[mm]	Stk.	[mm]	[mm]	[kN]	[kN]
28806	24	IF 304	5,0 x 40	8	50	100	17,0	10,1
28866	24	IF 306	5,0 x 60	8	60	120	25,6	12,3
28816	24	IF 308	5,0 x 80	8	70	140	32,4	13,8
28826	12	IF 406	6,0 x 60	8	60	120	29,0	13,0
28886	12	IF 408	6,0 x 80	8	80	160	37,9	18,8
28836	12	IF 410	6,0 x 100	8	90	180	45,6	20,5
28846	6	IF 509	8,0 x 90	8	80	160	56,0	20,5
28856	6	IFD 508	6,0 x 80	16	80 / 160	160	71,9	20,5
28876	6	IFD 510	6,0 x 100	16	100 / 200	200	87,3	30,7

\* characteristic values for dimensioning according to EC 5 and strength class C 24 (pk 350 kg/m³)



### SIHGA® TIP:

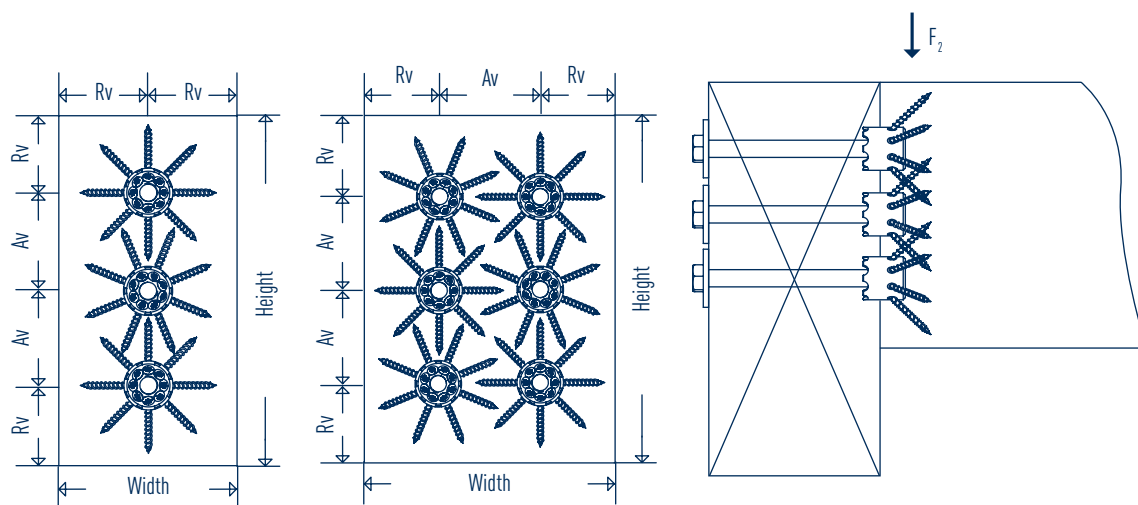
For drilling by hand, we recommend the IdeFix® Drill Gauge IBL with drill (page 196 – 197).

## SIHGA® Feature

## YOUR Benefit

design values

SIHGA® performs the calculation for you



## Edge and Axial Distances

IdeFix® IF

Type	Rv	Av
304	50	50
406	60	60
509	80	80

SIHGA® Art. No.	Type PU	Type IF	Secondary Beam		Number Connector Pieces	Characteristic Values* Transverse Force $F_2$ [kN]	Secondary Beam		Number Connector Pieces	Characteristic Values* Transverse Force $F_2$ [kN]
			Width [mm]	Height [mm]			Width [mm]	Height [mm]		
28806	24	304	100	150	2	20,20	150	150	4	40,40
28826	12	406	120	180	2	26,00	180	180	4	52,00
28846	6	509	160	240	2	41,00	240	240	4	82,00
28806	24	304	100	200	3	30,30	150	200	6	60,60
28826	12	406	120	240	3	39,00	180	240	6	78,00
28846	6	509	160	320	3	61,50	240	320	6	123,00
28806	24	304	100	250	4	40,40	150	250	8	80,80
28826	12	406	120	300	4	52,00	180	300	8	104,00
28846	6	509	160	400	4	82,00	240	400	8	164,00
28806	24	304	100	300	5	50,50	150	300	10	101,00
28826	12	406	120	360	5	65,00	180	360	10	130,00
28846	6	509	160	480	5	102,50	240	480	10	205,00

\* characteristic values for dimensioning according to EC 5 and strength class C 24 (pk 350 kg/m<sup>3</sup>)

## SIHGA® TIP:

For multiple drilling by hand, we recommend the IdeFix® Drill Template IBS with drill [page 196 – 197]. Always drill through holes for the threaded screws from the IdeFix® side.

# System Kit IdeFix<sup>®</sup> IF HMB

## SIHGA<sup>®</sup> Feature

for all IdeFix<sup>®</sup> IF and IFD (excluding IFD 510)

contains 1 IdeFix<sup>®</sup> Drill Gauge IBG, 1 IdeFix<sup>®</sup> Drill IB HMB, 1 IdeFix<sup>®</sup> Drill Template IBS, all GoFix<sup>®</sup> fastening screws, Allen key

including Systemstift<sup>®</sup> and installation instructions

## YOUR Benefit

the professional installation aid, simplifies construction processes and saves time

everything is professionally and rationally protected and packed in a case

time-saving, practical, precise, complete accessories enclosed



SIHGA<sup>®</sup> APP



# IdeFix<sup>®</sup> Drill IB HMB

## SIHGA<sup>®</sup> Feature

IdeFix<sup>®</sup> Drills IB HMB made of high-quality steel with exchangeable hard metal cutting inserts

IdeFix<sup>®</sup> Drills IB HMB with optimised geometry and thread tip

## YOUR Benefit

for permanent use of the drill without downtime for re-sharpening

independent feeding and centring of the drill without effort at different fibre directions



SIHGA<sup>®</sup> APP



# IdeFix<sup>®</sup> IFS



IdeFix<sup>®</sup> IFS with special SC 6 coating



## SIHGA® Feature

for heavy-load connections perpendicular to the grain

three-dimensional load attachment through geometry and 45° screw connection with integrated transverse strengthening

for fastening wind bracing, anchors against high wind loads and mountings of various kinds

includes SIHGAFIX®, GoFix® HK screws and installation instructions

calculation

## YOUR Benefit

the usual complicated drilling, grooving or special production of steel parts can be omitted

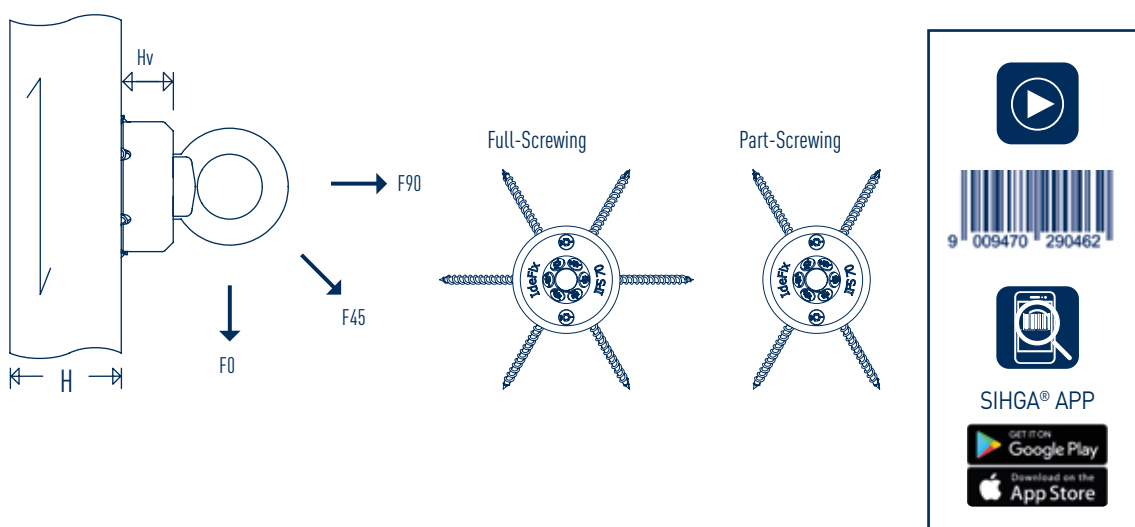
the range of applications in wood construction is almost unlimited, even for applications where conventional wood screws are not sufficient

IdeFix® IFS is the simple, secure solution

time-saving, practical, precise, complete accessories enclosed

SIHGA® performs the calculation for you

SIHGA® montagepack		IdeFix® IFS		Wood Dimension		Angle	Characteristic Values [kN]		System Screw
Art. No.	PU	Type	Hv	Height [H] [mm]	Width [mm]	To the Grain [Grad]	Screw Pattern		GoFix® HK d1 x L
29046	6	<b>710</b>	28	80	110	F 0°	-	5,66	6,0 x 100
29046	6	<b>710</b>	28	80	180	F 0°	8,50	-	6,0 x 100
29046	6	<b>710</b>	28	80	110	F 45°	-	7,90	6,0 x 100
29046	6	<b>710</b>	28	80	180	F 45°	11,40	-	6,0 x 100
29046	6	<b>710</b>	28	80	110	F 90°	-	17,00	6,0 x 100
29046	6	<b>710</b>	28	80	180	F 90°	25,50	-	6,0 x 100



### SIHGA® TIP:

If required, order the high-strength, tested ring screw at once.

# Klebsan®



**Klebsan® Q polyethylene**



**Klebsan® Z polyethylene**



## SIHGA® Feature

## YOUR Benefit

developed, patented and manufactured in Austria	highest European quality and value creation
a wood-concrete connector for precast elements	fastens wood frame walls and plywood board walls on concrete
innovative fastening technology with a view to the future	the first system that permits reliable casting with synthetic resin
the level is constructed simply and steplessly with the adjusting disc	no cumbersome underlaying of small, compensating plates or assembling an indicative threshold
the Klebsan® sits right in the force axis of the walls	force is taken up where it impacts and the anchor is protected from fire
the holes are prefinished in the factory at 30 mm	at the construction site, only the threaded rods need to be installed in the concrete
drill a 14 mm hole in the concrete, insert a glass cartridge and the threaded rod can then seat	the adhesion guarantees high load transfer in the concrete area
Klebsan® is filled with a two-component PUR-high performance synthetic resin	the system guarantees bubble-free, homogenous connection at the construction site
the intrinsic weight of the wall presses the resin into the drilled hole through the tube extension	simply position the wall and the anchoring is complete
the geometries ensure an assembly tolerance of $\pm 5$ mm in all directions	measurement with a chalk line and tape measure is easily possible
no recesses needed in the panelling for the angle of traction or the like	saves time and money



**Klebsan® wood frame construction application**



**Klebsan® board plywood application**



SIHGA® APP



### SIHGA® TIP:

Use the 30 mm ZaFix® Lewis drill for drilling by hand.

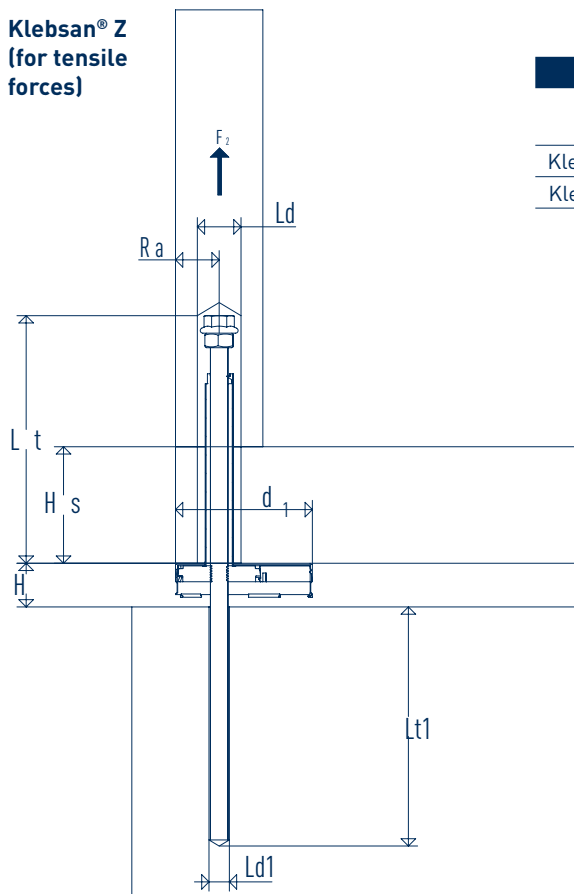
SIHGA®		Dimension			Characteristic Values*		
montagepack	Type	d1	Thread		F <sub>1</sub>	F <sub>2</sub>	
Art.Nr.	PU	[mm]	[mm]		Shear Force [kN]	Tensile Force [kN]	
55006	20	Klebsan® Q	60	M 12	C 24	17,45	-
					CLT	15,35	-
55016	10	Klebsan® Z	94	M 12	C 24	-	15,72
					CLT	-	33,32

\* characteristic values for design according to EC 5 and bulk density pk 350 kg/m<sup>3</sup>

Content montagepack Klebsan® Q	
20 pcs.	2K-glass cartridge for concrete
20 pcs.	anchor rods M 12 x 220 5.8
20 pcs.	adjusting discs
20 pcs.	injection housing
20 pcs.	nuts M 12
3 pcs.	2K-PUR dual cartridge high performance synthetic resin
20 pcs.	rain protection bags

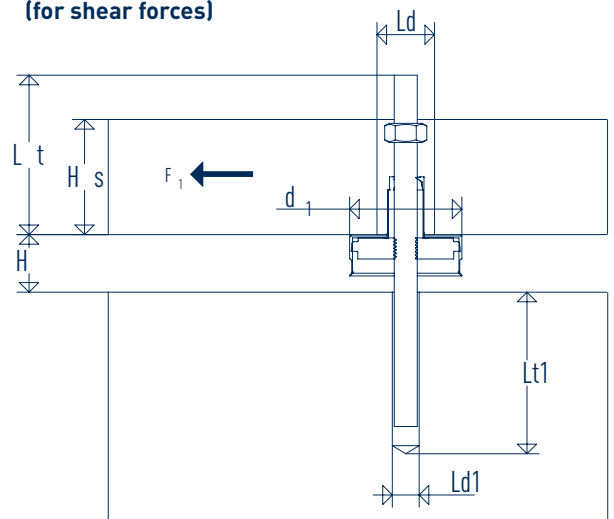
Content montagepack Klebsan® Z	
20 pcs.	2K-glass cartridge for concrete
10 pcs.	anchor rods M 12 x 380 5.8
10 pcs.	adjusting discs
10 pcs.	adapter discs
10 pcs.	injection housing
10 pcs.	nuts M 12
10 pcs.	collar nut M 12
3 pcs.	2K-PUR dual cartridge high performance synthetic resin
10 pcs.	rain protection bags

**Klebsan® Z**  
(for tensile forces)



Type	Lt1	Ld1	H	Hs	Lt	Ld	Ra
	[mm]	[mm]	[mm] from - to	[mm]	[mm]	[mm]	[mm]
Klebsan® Q	100	14	12 30	≥ 60	120	30	-
Klebsan® Z	160	14	12 30	≤ 80	220	30	≥ 30

**Klebsan® Q**  
(for shear forces)

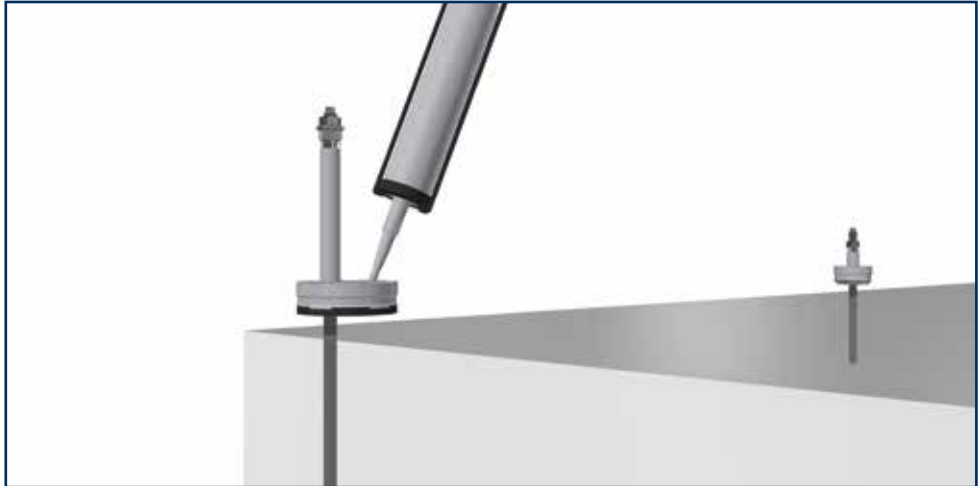


**SIHGA® TIP:**

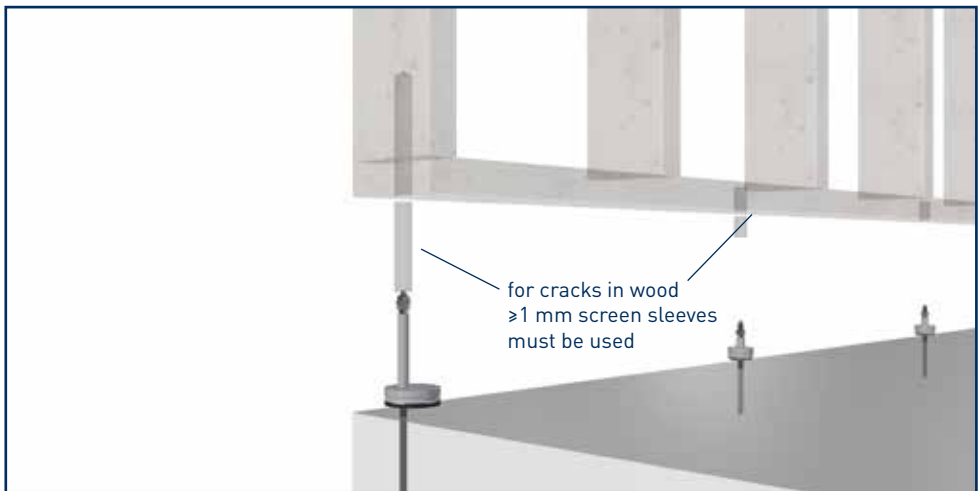
For reliable adhesion in bad weather, protect the Klebsan® with the included rain protection bag.

# Klebsan<sup>®</sup> Application

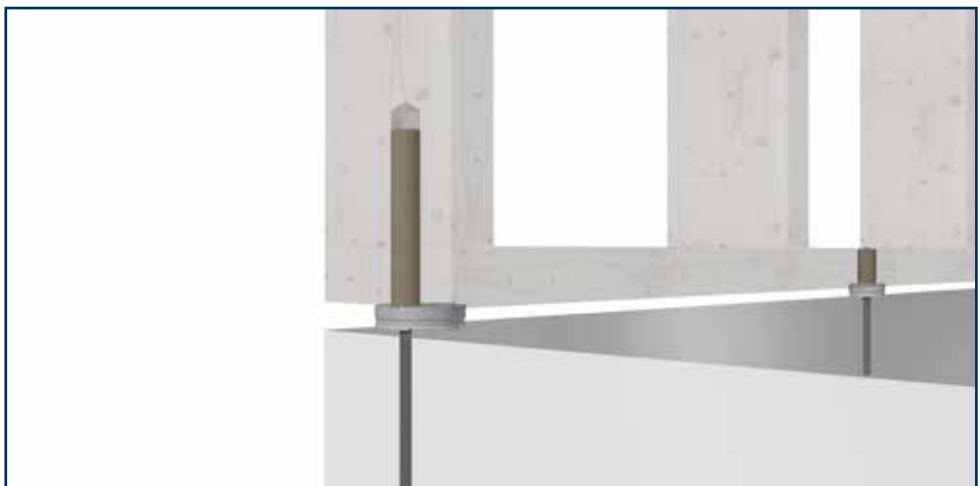
1.



2.



3.



# System Kit Klebsan<sup>®</sup> consisting of



## SIHGA<sup>®</sup> Feature

### Stabebo SDS drill

drill for custom fit holes with SDS-uptake and 4-blade hole geometry

### Setting tool

setting device for approval-conforming assembly of anchor rods. SDS-plus uptake for hammer drill, internal thread for uptake of the included Allen screw. Fits on the hex drive for the anchor rods

### Cartridge gun

high quality cartridge gun with a force transfer of 25 : 1, mixing ratio 2 : 1

### Static mixer

static mixer as reserve

## YOUR Benefit

especially for use in reinforced concrete

ensures error-free mixing of resin and hardener cartridge components in the drilled hole.

for inserting the resin without great application of force

practical, the entire accessory is compact in one case

## Alternative Accessories

### Perforated casing

must be used for cracks  $\geq 1$  mm

ensures a reliable connection even for fissured wood



for Klebsan<sup>®</sup> Q



for Klebsan<sup>®</sup> Z



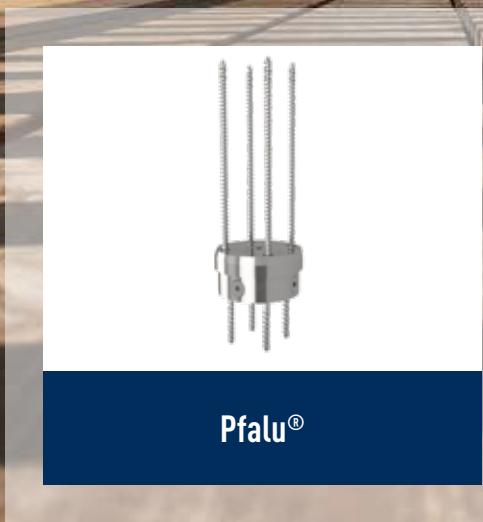
### SIHGA<sup>®</sup> TIP:

If it rains during the assembly, the rain protection bags may be removed only immediately before filling with resin.

# From experience



# Pfalu®



Pfalu®



## SIHGA® Feature

fastenings for fence and railing posts

ideally suited for fences and privacy walls

stepless and easily accessible incline adjustment up to 4 degrees in all directions

no slotting or milling necessary in the factory

no protruding steel plates, which need to be milled out with fence or balcony elements

fastening into the posts only from below

includes SIHGAFIX®, BeziFix® Anker ZF for timber on concrete or GoFix® S+ for timber on timber

## YOUR Benefit

quick, simple and safe installation of posts

offers extensive stability and bending stiffness

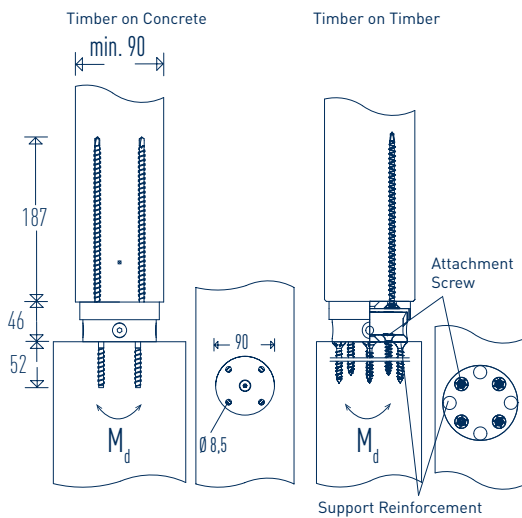
straight-lined, flush appearance of the posts without complex compensation panels, applicable to 15 cm concrete width

simply fit the accessories supplied

plain and simple, aesthetically pleasing, can be (re-)adjusted at any time, no drill holes, pre-assembling possible

no side insertion of screws necessary, which become an entry point for water

time-saving (up to 70 %), practical, precise, complete accessories enclosed



SIHGA®	Dimension	GoFix® S+ Post Attachment	BeziFix® Anchor ZF Concrete Attachment	Max. Moment	
montagepack	Pfalu®	d1 x L	d1 x L	M <sub>d</sub>	
Art. No.	PU	Ø x h	[mm]	[kNm]	
43526	5	90 x 46	8,0 x 195	7,5 x 60	1,50

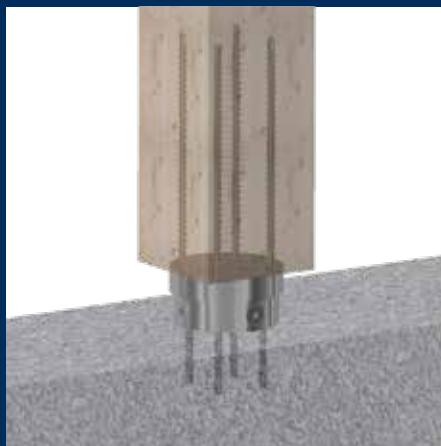
\* tested concrete quality C 35/45 unreinforced

SIHGA®	Dimension	GoFix® S+ Post Attachment	GoFix® S+ Attachment to Wood incl. Support Reinforcement	Max. Moment	
montagepack	Pfalu® S+	d1 x L	d1 x L	M <sub>d</sub>	
Art. No.	PU	Ø x h	[mm]	[kNm]	
43536	5	90 x 46	8,0 x 125	8,0 x 125	1,25

Example: 100 km / h wind speed closed area max. 80 %

Fence Height	Field Width*
[m]	[m]
1,8	1,7
1,5	2,4
1,2	3,8
1,0	5,4

\* these distances apply only to the specified boundary conditions in residential areas



SIHGA® APP



### SIHGA® TIP:

With BeziFix® SR on natural stone and GoFix® S + screws also for fixing on wooden background. To prevent pressing in the wood we recommend an additional support reinforcement.

# Pfalu Aquastop<sup>®</sup>



**Pfalu Aquastop<sup>®</sup>**  
for integration with foil roofs





## SIHGA® Feature

## YOUR Benefit

fastening system for railing uprights on flat roof waterproofing

quick, simple and safe installation

ideally suited for railings and screening walls

offers extensive stability and bending stiffness

stepless and easily accessible inclination adjustment up to 4° in all directions

straight-lined, flush appearance of posts without complex compensation

pressing surface reinforcement using GoFix® S+

use on wood beams and solid wood ceilings and BSP systems

valve for leak testing

reliable connection and sealing, system can be serviced

combinable with various sealants

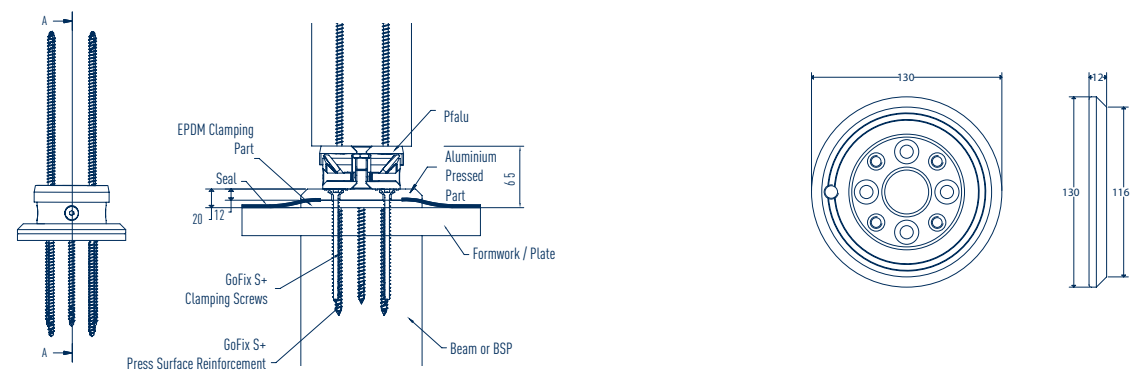
fastened to PVC, EPDM and even sheet metal

sealants are clamped-in

later installation in existing waterproofing also possible

including Pfalu®, SIHGAFIX®, GoFix® S+ and all seals

time-saving, practical, precise, all accessories included



SIHGA®	Dimension	Dimension	GoFix® S+ Underground	GoFix® S+ Pressed Piece	GoFix® S+ Pfalu®	Max.
montagepack	Pfalu®	Aquastop	d x L	d x L	d x L	Torque
Art. No.	PU	d x h	[mm]	[mm]	[mm]	[kNm]
43546	5	90 x 46	8,0 x 125	8,0 x 155	8 x 195	1,25



SIHGA® APP



### SIHGA® TIP:

For waterproofing testing use leak spray and an air pump.



# Pick



Pick



## SIHGA® Feature

## YOUR Benefit

load attachment for lifting glued laminated timber, glued cross laminate timber and solid timber	capacity up to 1250 kg per fastening point
made, developed and patented in Austria from high-quality steel	local quality and reliability, Q&T steel for permanent, robust long life
lift by drilling a blind hole (Ø 50 mm, depth 70 mm)	visible quality of the surfaces is not impaired, no fastening screws needed
Pick Drill HMB can be combined with the IdeFix® Drill Gauge IBG	easy, safe compliance with the drill depth, precise drilling at 90°
safe and simple attachment	attached with a few actions, the attachment does not have to be aligned
versatile in application	on the back (from panel thickness of 90 mm), side and transom-side for all kinds of support
low-maintenance	annual test together with personal protective equipment according to Occupational Health and Safety Directive possible
long service life	20,000 load cycles
safety tested – accompanied by TÜV	avoidance of safety risks, diverse application areas and ambient conditions tested
<b>Now NEW:</b> Ultrasonic inspection for your SIHGA PICK	annual safety assessment according to the operating instructions, including ultrasonic testing
<b>Now NEW:</b> SIHGA Pick calculation in hsbcad	to make planning and use even easier and safer, the SIHGA Pick lifting system was fully implemented in hsbcad for HRW and BSP <a href="http://www.hsbcad.com">www.hsbcad.com</a>

### SIHGA®

System Kit Pick HMB

Art. No.

49223

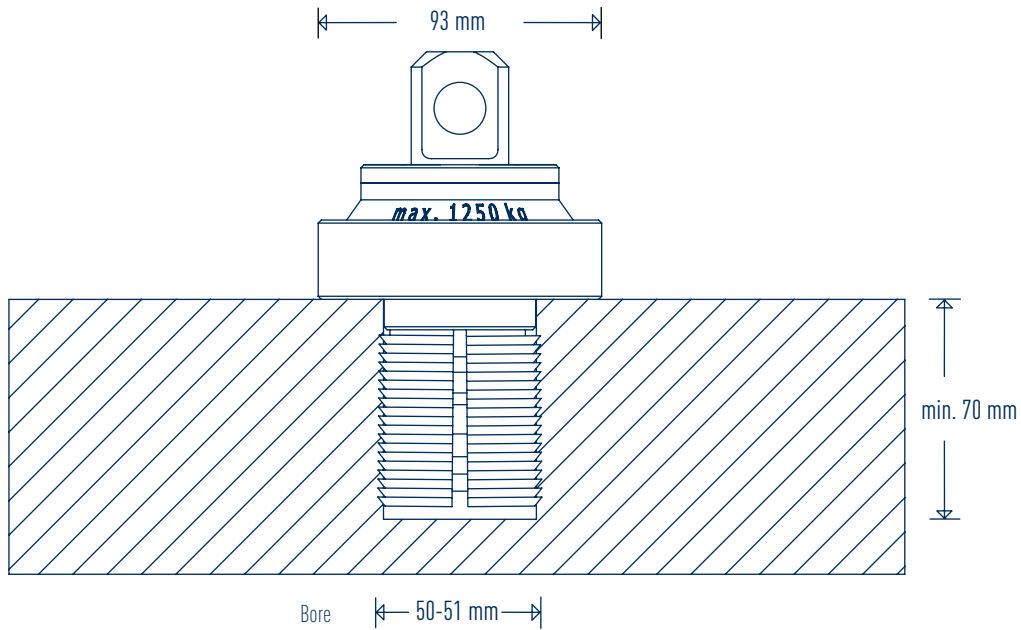


SIHGA® APP



### SIHGA® TIP:

Pick Deck closes the borehole, e.g. for sound insulation and fire protection requirements.



Pick Load Table				
Beam	Beam Dimension			
	min. Height	min. Width	2 Attachment Points 0°*	2 Attachment Points 45°
	[mm]	[mm]	[kg]	[kg]
BSH	200	140	2.500	1.370
KVH e.g. framed wall	60	140	1.800	1.370
Glued ceiling panels BSP/CLT (glue laminate timber)	Panel Dimension			
	min. Thickness	min. Length and Width	3 Attachment Points 45°	4 Attachment Points 45° (only with rocker)
	[mm]	[mm]	[kg]	[kg]
90	1.000	2.430	3.240	
Glued wall panels BSP (glue laminate timber)	Panel Dimension			
	min. Thickness	min. Length and Width	2 Attachment Points 45°	2 Attachment Points 90°
	[mm]	[mm]	[kg]	[kg]
90	1.000	1.160	520 = [Panel Weight / 2]	

\* Highly resinous timber like pine and larch, or BSP walls mounted at the front side, may only be lifted at an angle of >5° to the borehole axis and with multiple attachment points.

the minimum distance to the surface layer while fastening plates to the front of the BSP panel is 2 cm

the minimum distance between each attachment point is 50 cm

the minimum distance between attachment points and beam or panel edge must not be less than 25 cm

Attention: The axial distance between the posts in framed walls must not exceed 62.5 cm.

The operator is responsible for the sufficient transfer of force from the head threshold (plate) to the posts, SIHGA® accepts no liability for this.



### SIHGA® TIP:

Detailed load tables for different wood dimensions and load cases can be found in the Pick operating.

# System Kit Pick HMB

## SIHGA® Feature

two Pick and shackle, Pick Drill HMB, IdeFix® Drill Gauge IBG, 1 set HMB spare indexable inserts with screws and Allen keys and operating instructions are supplied in the System Kit

operating instructions stored in the lid

Pick Drill HMB with optimised geometry for clean drilling in the glue laminate timber, glued cross laminate timber and solid timber

Pick Drill HMB made from high quality steel with exchangeable tungsten carbide indexable inserts

Pick Drill HMB with threaded bit

including IdeFix® Drill Gauge IBG

## YOUR Benefit

reliable and clean storage including all accessories; including place holder for third Pick

load values and safety conditions always to hand

for seamless use of the Pick in the drilled hole, the best precondition for safe lifting

for continuous use of the drill with uniform quality of the drilled hole standing times (costly crane hours!) for sharpening the drill are superfluous

independent retraction of the drill without the application of force, guaranteed centring with different grain directions

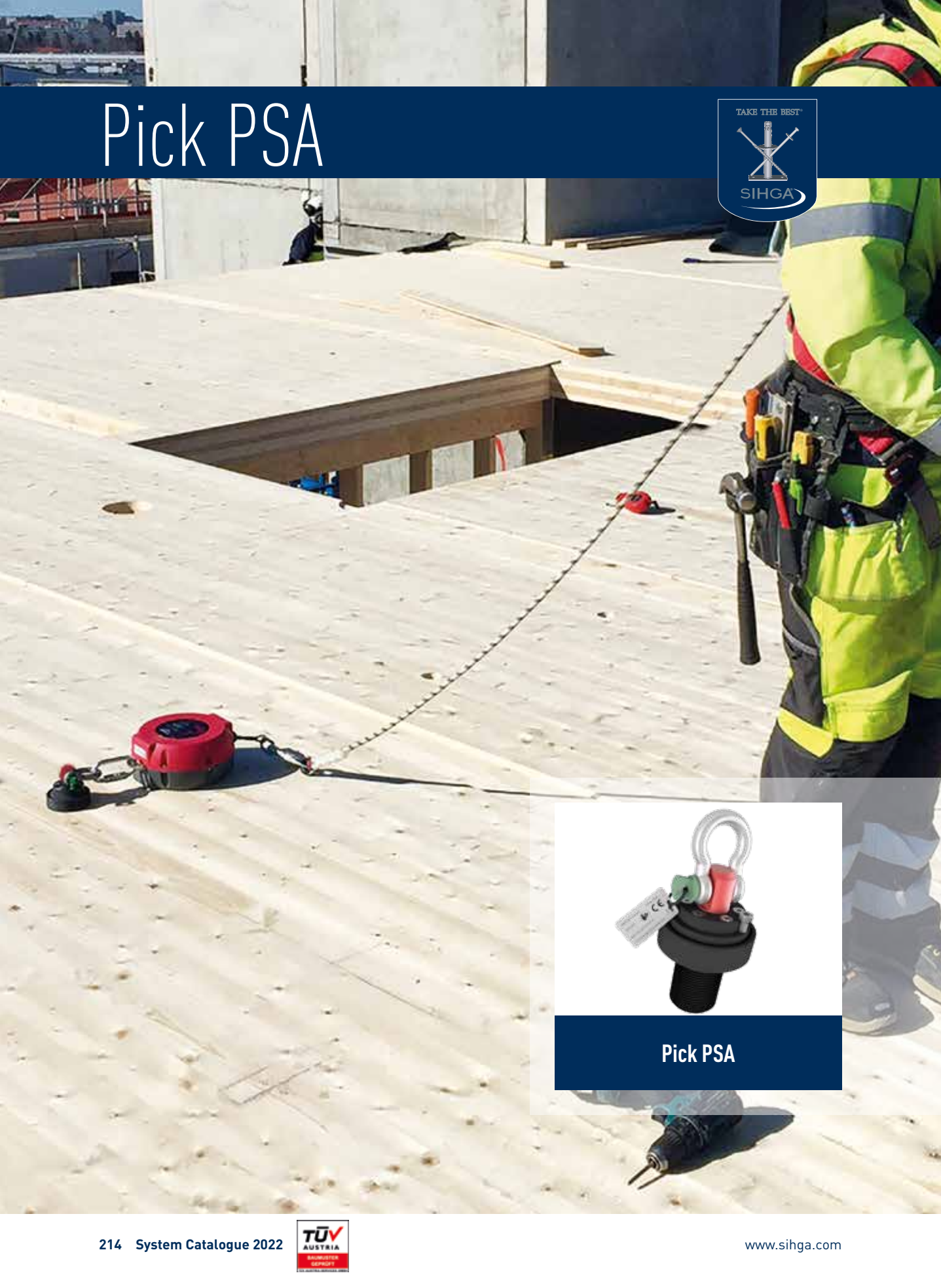
easy, safe compliance with the drill depth against unintended drilling through, chippings collection, protection of the drill and against injuries



SIHGA® APP



# Pick PSA



Pick PSA

## SIHGA® Feature

protecting yourself and your employees from injury does not get any simpler than this

if the wooden elements have already been lifted with the Sihga Pick, there are already sufficient holes available

optimal cable lengths possible

no time-consuming installation and deinstallation necessary

no cumbersome scaffolding needed

versatile in use

made, developed and patented in Austria

almost maintenance free

tested by TÜV Austria

## YOUR Benefit

choose Pick-PSA when selecting your type-B attachment point

there are no time-consuming issues with tangled cables as the next attachment point is always within reach

enables secure movement without restricting freedom of movement

for maximum security, the Pick-PSA is simply inserted into the borehole and the safety screw is tightened to 3 Nm

saves time and money

applicable for beam ceilings and board locking slabs

Austrian build quality and reliability, robust heat-treatable steel for long durability

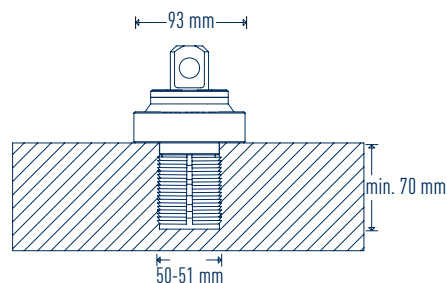
regular cleaning and visual inspections, as well as annual testing in accordance with operating material regulations (Arbeitsmittelverordnung) are sufficient

ensures the highest level of safety



SIHGA®  
System Kit Pick PSA

Art. No.	PU
49231	1



**Application  
with beam ceilings**



**How to use with BSP**



SIHGA® APP



### SIHGA® TIP:

Use the SIHGA® Pick to lift your wooden elements in order to achieve the best conditions for the Pick PSA.

# System Pick Engel®



**INNOVATION  
2021**



**Pick PSA**

**INNOVATION  
2021**



**Helixon-S safety equipment  
for heights**



## SIHGA® Feature

tested product combination to protect in case of low height falls

applicable as a safety team: two Pick PSA and two Helixon-S height protection devices tested as a system

versatile in use

simple and safe installation

Helixon-S safety equipment for heights, with FA 50 203 20 connecting element including fall indicator, a carry handle and an external fall impact absorber

integrated braking system for a collision force of less than 6kN

Swivel hook and connecting element FA 50 101 17 to attach to the Pick PSA

high load-bearing capacity possible

## YOUR Benefit

also safeguard yourself and your employees from an often underestimated low height fall of  $\geq 2.00$  m

reliable and immediately useable fall protection

applicable when erecting construction elements, placing ceiling elements and various loading activities

the worker is protected with fewer handgrips

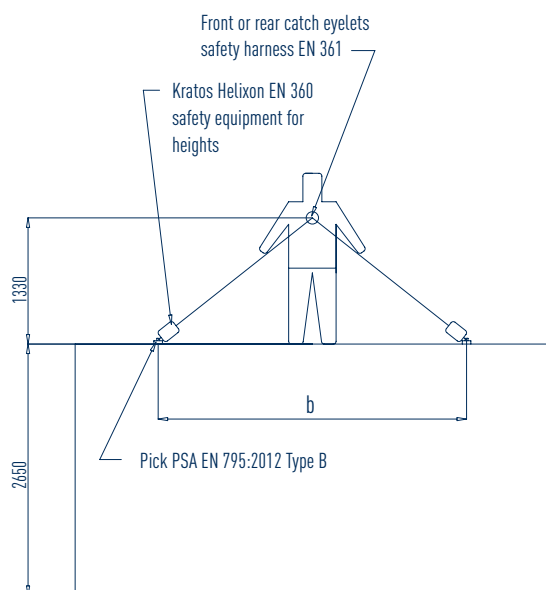
safety equipment for heights ready to use, all important functions are integrated

Helixon-S safety equipment for heights conformity with EN 360:2002

tested for up to 100 kg body weight

SIHGA®	Safety Equipment for Heights	Strap	Max.	Weight
montagepack	Helixon-S	Width	Body Weight	Helixon-S
Art. No.	PU	[mm]	[kg]	[kg]
43596	1	25	100	1,74

Table		
h	h1	b
200	65	<b>155</b>
210	75	<b>179</b>
220	85	<b>203</b>
230	95	<b>226</b>
240	105	<b>250</b>
250	115	<b>274</b>
260	125	<b>298</b>
270	135	<b>322</b>
280	145	<b>346</b>
290	155	<b>369</b>
300	165	<b>393</b>



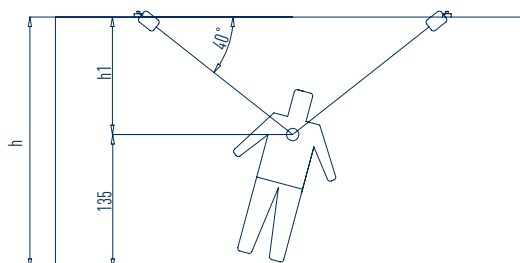
$$h1 = h - 135\text{cm}$$

$$b = \frac{2 \times h1}{\tan(40^\circ)}$$

Example:

$$h1 = 265 - 135 = 130\text{cm}$$

$$b = \frac{2 \times 130}{\tan(40^\circ)} = 310\text{ cm}$$



### SIHGA® TIP:

For your safety, use the combination exclusively with the Pick PSA.



INNOVATION  
2021

\* Threaded rod is not included

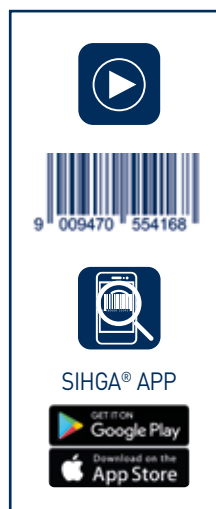
ProziFix®



## SIHGA® Feature

## YOUR Benefit

wall anchors for vertically perforated brick	assembly of canopies, carports and pergolas
bridges up to 20 cm insulation	no cumbersome cutting out of insulation necessary
high load-bearing capacity	cannot be achieved with any other customary system
internal pipe insulation	very low heat loss
including sealing disc	reseals the facade
0-6 mm rear ventilation joint	for pergolas that are not covered and so on, a distance of 6 mm should be selected so that the wood can dry, no spacing for covered construction
disc dowels included	for optimal cross shear force transmission, Reinforcement of the embedment strength
anchor pipe with high corrosion resistance	SC 9 coating means high service life
BeziFee® is included	no additional material required
developed and manufactured in Austria	time-saving, practical, precise, complete accessories included



### SIHGA® TIP:

The special ProziFix® drill PFB 50 was developed to make the 50 mm hole, as it cuts a clean hole in brick without shattering the brick.



# ProziFix<sup>®</sup> load tables

## Senftenbacher 25 VZ Plan

SIHGA <sup>®</sup>		Dimension		Insulation Thickness	Drilling tool	Characteristic Values		Recommended Values*	
montagepack	d1 x L	d2 / Wall Thickness	D	D		F <sub>1c</sub>	F <sub>2c</sub>	F <sub>1d</sub>	F <sub>2d</sub>
Art. No.	PU	[mm]	[mm]	[mm]	ProziFix <sup>®</sup> Drill PFB 50	Shear Force [kN]	Tensile Force [kN]	Shear Force [kN]	Tensile Force [kN]
55416	5	50 x 300	42,4 / 8	110		6,27	6,5	2,51	1,86
55426	5	50 x 320	42,4 / 8	130		5,88	6,5	2,35	1,86
55436	5	50 x 340	42,4 / 8	150		5,53	6,5	2,21	1,86
55446	5	50 x 360	42,4 / 8	170		5,23	6,5	2,09	1,86
55456	5	50 x 380	42,4 / 8	190		4,95	6,5	1,98	1,86
55466	5	50 x 400	42,4 / 8	210		4,70	6,5	1,88	1,86

## Wienerberger Poroton vertically perforated brick Plan-T 24,0-0,9

SIHGA <sup>®</sup>		Dimension		Insulation Thickness	Drilling tool	Characteristic Values		Recommended Values*	
montagepack	d1 x L	d2 / Wall Thickness	D	D		F <sub>1c</sub>	F <sub>2c</sub>	F <sub>1d</sub>	F <sub>2d</sub>
Art. No.	PU	[mm]	[mm]	[mm]	ProziFix <sup>®</sup> Drill PFB 50	Shear Force [kN]	Tensile Force [kN]	Shear Force [kN]	Tensile Force [kN]
55416	5	50 x 300	42,4 / 8	110		14,19	16,34	5,67	4,67
55426	5	50 x 320	42,4 / 8	130		13,30	16,34	5,32	4,67
55436	5	50 x 340	42,4 / 8	150		12,52	16,34	5,01	4,67
55446	5	50 x 360	42,4 / 8	170		11,82	16,34	4,73	4,67
55456	5	50 x 380	42,4 / 8	190		11,20	16,34	4,48	4,67
55466	5	50 x 400	42,4 / 8	210		10,64	16,34	4,26	4,67

## Wienerberger Poroton flat brick T8-50,0

SIHGA <sup>®</sup>		Dimension		Insulation Thickness	Drilling tool	Characteristic Values		Recommended Values*	
montagepack	d1 x L	d2 / Wall Thickness	D	D		F <sub>1c</sub>	F <sub>2c</sub>	F <sub>1d</sub>	F <sub>2d</sub>
Art. No.	PU	[mm]	[mm]	[mm]	ProziFix <sup>®</sup> Drill PFB 50	Shear Force [kN]	Tensile Force [kN]	Shear Force [kN]	Tensile Force [kN]
55406	5	50 x 190	42,4 / 8	0		14,70	6,76	5,88	1,93
55416	5	50 x 300	42,4 / 8	110		9,31	6,76	3,72	1,93

## Wienerberger Porotherm 25-38 Plan

SIHGA <sup>®</sup>		Dimension		Insulation Thickness	Drilling tool	Characteristic Values		Recommended Values*	
montagepack	d1 x L	d2 / Wall Thickness	D	D		F <sub>1c</sub>	F <sub>2c</sub>	F <sub>1d</sub>	F <sub>2d</sub>
Art. No.	PU	[mm]	[mm]	[mm]	ProziFix <sup>®</sup> Drill PFB 50	Shear Force [kN]	Tensile Force [kN]	Shear Force [kN]	Tensile Force [kN]
55416	5	50 x 300	42,4 / 8	110		8,74	13,27	3,50	3,79
55426	5	50 x 320	42,4 / 8	130		8,19	13,27	3,28	3,79
55436	5	50 x 340	42,4 / 8	150		7,71	13,27	3,08	3,79
55446	5	50 x 360	42,4 / 8	170		7,28	13,27	2,91	3,79
55456	5	50 x 380	42,4 / 8	190		6,90	13,27	2,76	3,79
55466	5	50 x 400	42,4 / 8	210		6,56	13,27	2,62	3,79

\*For installation in dry concrete or masonry and a temperature range I according to ETA 17/0181 and ETA 17/0182 (minimum temperature -40° C, maximum short-term temperature +40° C; maximum long-term temperature +24° C). Valid for the minimum edge & axis distances given in the table.

### Reductions of the recommended values are applied as follows:

Reduction by the factor  $\beta_{PT} = 0.7$  is required for damp substrates or a temperature range II according to ETA 17/0181 and ETA 17/0182 (minimum temperature -40° C, maximum short-term temperature +80° C; maximum long-term temperature +50° C) F<sub>1d</sub> and F<sub>2d</sub>. F<sub>2d</sub> must then be reduced by the factor  $\beta_{duration} = 0.6$  if the proportion of the permanently acting tractive load is higher than 50%. Material coefficients of  $\gamma_M$  of 2.5 for brick and 1.5 for concrete are already taken into account for F<sub>1d</sub> and F<sub>2d</sub>. An installation safety factor  $\gamma_{inst}$  of 1.4 is already taken into account for tractive load F<sub>2d</sub>. This does not apply for shear forces F<sub>1d</sub>. For load cases not covered in this table, the underlying expert opinion of MPA Stuttgart is available at [www.sihga.com](http://www.sihga.com).

### Wienerberger Porotherm 50-20 H.i. Plan

SIHGA®		Dimension		Insulation Thickness D	Drilling tool	Characteristic Values		Recommended Values*	
montagepack	d1 x L	d2 / Wall Thickness	[mm]			F <sub>1c</sub>	F <sub>2c</sub>	F <sub>1d</sub>	F <sub>2d</sub>
Art. No.	PU	[mm]	[mm]	[mm]	Shear Force [kN]	Tensile Force [kN]	Shear Force [kN]	Tensile Force [kN]	
55406	5	50 x 190	42,4 / 8	0	ProziFix® Drill PFB 50	8,10	2,32	3,24	0,66
55416	5	50 x 300	42,4 / 8	110		5,13	2,32	2,05	0,66

### Pichler PIAplan 25/38 VZ

SIHGA®		Dimension		Insulation Thickness D	Drilling tool	Characteristic Values		Recommended Values*	
montagepack	d1 x L	d2 / Wall Thickness	[mm]			F <sub>1c</sub>	F <sub>2c</sub>	F <sub>1d</sub>	F <sub>2d</sub>
Art. No.	PU	[mm]	[mm]	[mm]	Shear Force [kN]	Tensile Force [kN]	Shear Force [kN]	Tensile Force [kN]	
55416	5	50 x 300	42,4 / 8	110	ProziFix® Drill PFB 50	8,55	5,86	3,42	1,67
55426	5	50 x 320	42,4 / 8	130		8,02	5,86	3,21	1,67
55436	5	50 x 340	42,4 / 8	150		7,54	5,86	3,02	1,67
55446	5	50 x 360	42,4 / 8	170		7,13	5,86	2,85	1,67
55456	5	50 x 380	42,4 / 8	190		6,75	5,86	2,70	1,67
55466	5	50 x 400	42,4 / 8	210		6,41	5,86	2,57	1,67

### Pichler PIAplan 50/20 VZ

SIHGA®		Dimension		Insulation Thickness D	Drilling tool	Characteristic Values		Recommended Values*	
montagepack	d1 x L	d2 / Wall Thickness	[mm]			F <sub>1c</sub>	F <sub>2c</sub>	F <sub>1d</sub>	F <sub>2d</sub>
Art. No.	PU	[mm]	[mm]	[mm]	Shear Force [kN]	Tensile Force [kN]	Shear Force [kN]	Tensile Force [kN]	
55406	5	50 x 190	42,4 / 8	0	ProziFix® Drill PFB 50	2,40	3,15	0,96	0,90
55416	5	50 x 300	42,4 / 8	110		1,52	3,15	0,61	0,90

### Leitl Vital Plan 25/30/24,9 cm N+F

SIHGA®		Dimension		Insulation Thickness D	Drilling tool	Characteristic Values		Recommended Values*	
montagepack	d1 x L	d2 / Wall Thickness	[mm]			F <sub>1c</sub>	F <sub>2c</sub>	F <sub>1d</sub>	F <sub>2d</sub>
Art. No.	PU	[mm]	[mm]	[mm]	Shear Force [kN]	Tensile Force [kN]	Shear Force [kN]	Tensile Force [kN]	
55416	5	50 x 300	42,4 / 8	110	ProziFix® Drill PFB 50	8,74	5,75	3,50	1,64
55426	5	50 x 320	42,4 / 8	130		8,19	5,75	3,28	1,64
55436	5	50 x 340	42,4 / 8	150		7,71	5,75	3,08	1,64
55446	5	50 x 360	42,4 / 8	170		7,28	5,75	2,91	1,64
55456	5	50 x 380	42,4 / 8	190		6,90	5,75	2,76	1,64
55466	5	50 x 400	42,4 / 8	210		6,56	5,75	2,62	1,64

### Leitl Vital Solex Plan 50/20/24,9 cm N+F

SIHGA®		Dimension		Insulation Thickness D	Drilling tool	Characteristic Values		Recommended Values*	
montagepack	d1 x L	d2 / Wall Thickness	[mm]			F <sub>1c</sub>	F <sub>2c</sub>	F <sub>1d</sub>	F <sub>2d</sub>
Art. No.	PU	[mm]	[mm]	[mm]	Shear Force [kN]	Tensile Force [kN]	Shear Force [kN]	Tensile Force [kN]	
55406	5	50 x 190	42,4 / 8	0	ProziFix® Drill PFB 50	2,40	4,45	0,96	1,27
55416	5	50 x 300	42,4 / 8	110		1,52	4,45	0,61	1,27

\*For installation in dry concrete or masonry and a temperature range I according to ETA 17/0181 and ETA 17/0182 (minimum temperature -40° C, maximum short-term temperature +40° C; maximum long-term temperature +24° C). Valid for the minimum edge & axis distances given in the table.

#### Reductions of the recommended values are applied as follows:

Reduction by the factor  $\beta_{F1}$  = 0.7 is required for damp substrates or a temperature range II according to ETA 17/0181 and ETA 17/0182 (minimum temperature -40° C, maximum short-term temperature +80° C; maximum long-term temperature +50° C) F<sub>1d</sub> and F<sub>2d</sub>. F<sub>2d</sub> must then be reduced by the factor  $\beta_{\text{duration}}$  = 0.6 if the proportion of the permanently acting tractive load is higher than 50%. Material coefficients of  $\gamma_{M1}$  of 2.5 for brick and 1.5 for concrete are already taken into account for F<sub>1d</sub> and F<sub>2d</sub>. An installation safety factor  $\gamma_{\text{inst}}$  of 1.4 is already taken into account for tractive load F<sub>2d</sub>. This does not apply for shear forces F<sub>1d</sub>. For load cases not covered in this table, the underlying expert opinion of MPA Stuttgart is available at [www.sihga.com](http://www.sihga.com).

### EDER Plan XP 50 plus

SIHGA®		Dimension		Insulation Thickness D	Drilling tool	Characteristic Values		Recommended Values*	
montagepack	d1 x L	d2 / Wall Thickness	[mm]			F <sub>1c</sub>	F <sub>2c</sub>	F <sub>1d</sub>	F <sub>2d</sub>
Art. No.	PU	[mm]	[mm]	[mm]	Shear Force [kN]	Tensile Force [kN]	Shear Force [kN]	Tensile Force [kN]	
55406	5	50 x 190	42,4 / 8	0	ProziFix® Drill PFB 50	5,30	5,7	2,12	1,63
55416	5	50 x 300	42,4 / 8	110		3,36	5,7	1,34	1,63

### H+H solid lime sand brick 2 DF

SIHGA®		Dimension		Insulation Thickness D	Drilling tool	Characteristic Values		Recommended Values*	
montagepack	d1 x L	d2 / Wall Thickness	[mm]			F <sub>1c</sub>	F <sub>2c</sub>	F <sub>1d</sub>	F <sub>2d</sub>
Art. No.	PU	[mm]	[mm]	[mm]	Shear Force [kN]	Tensile Force [kN]	Shear Force [kN]	Tensile Force [kN]	
55416	5	50 x 300	42,4 / 8	110	ProziFix® Drill PFB 50 or 50 mm Hammer Drill	22,61	20,56	9,04	5,87
55426	5	50 x 320	42,4 / 8	130		21,20	20,56	8,48	5,87
55436	5	50 x 340	42,4 / 8	150		19,95	20,56	7,98	5,87
55446	5	50 x 360	42,4 / 8	170		18,84	20,56	7,54	5,87
55456	5	50 x 380	42,4 / 8	190		17,85	20,56	7,14	5,87
55466	5	50 x 400	42,4 / 8	210		16,96	20,56	6,78	5,87

### C20/25 cracked and non-cracked slab > 20 cm front side

SIHGA®		Dimension		Insulation Thickness D	Drilling tool	Characteristic Values		Recommended Values*	
montagepack	d1 x L	d2 / Wall Thickness	[mm]			F <sub>1c</sub>	F <sub>2c</sub>	F <sub>1d</sub>	F <sub>2d</sub>
Art. No.	PU	[mm]	[mm]	[mm]	Shear Force [kN]	Tensile Force [kN]	Shear Force [kN]	Tensile Force [kN]	
55416	5	50 x 300	42,4 / 8	110	50 mm Hammer Drill	10,89	10,45	7,26	4,98
55426	5	50 x 320	42,4 / 8	130		10,21	10,45	6,81	4,98
55436	5	50 x 340	42,4 / 8	150		9,61	10,45	6,41	4,98
55446	5	50 x 360	42,4 / 8	170		9,08	10,45	6,05	4,98
55456	5	50 x 380	42,4 / 8	190		8,60	10,45	5,73	4,98
55466	5	50 x 400	42,4 / 8	210		8,17	10,45	5,45	4,98

### C20/25 cracked and non-cracked slab > 25 cm front side or wall surface

SIHGA®		Dimension		Insulation Thickness D	Drilling tool	Characteristic Values		Recommended Values*	
montagepack	d1 x L	d2 / Wall Thickness	[mm]			F <sub>1c</sub>	F <sub>2c</sub>	F <sub>1d</sub>	F <sub>2d</sub>
Art. No.	PU	[mm]	[mm]	[mm]	Shear Force [kN]	Tensile Force [kN]	Shear Force [kN]	Tensile Force [kN]	
55416	5	50 x 300	42,4 / 8	110	50 mm Hammer Drill	12,92	10,45	8,61	4,98
55426	5	50 x 320	42,4 / 8	130		12,11	10,45	8,08	4,98
55436	5	50 x 340	42,4 / 8	150		11,40	10,45	7,60	4,98
55446	5	50 x 360	42,4 / 8	170		10,77	10,45	7,18	4,98
55456	5	50 x 380	42,4 / 8	190		10,20	10,45	6,80	4,98
55466	5	50 x 400	42,4 / 8	210		9,69	10,45	6,46	4,98

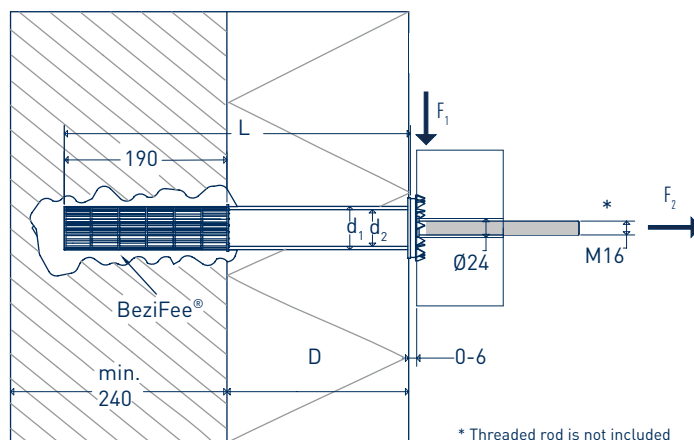
\*For installation in dry concrete or masonry and a temperature range I according to ETA 17/0181 and ETA 17/0182 (minimum temperature -40° C, maximum short-term temperature +40° C; maximum long-term temperature +24° C). Valid for the minimum edge & axis distances given in the table.

#### Reductions of the recommended values are applied as follows:

Reduction by the factor  $\beta_{pr} = 0.7$  is required for damp substrates or a temperature range II according to ETA 17/0181 and ETA 17/0182 (minimum temperature -40° C, maximum short-term temperature +80° C; maximum long-term temperature +50° C) F<sub>1d</sub> and F<sub>2d</sub>. F<sub>2d</sub> must then be reduced by the factor  $\beta_{duration} = 0.6$  if the proportion of the permanently acting tractive load is higher than 50%. Material coefficients of  $\gamma_M$  of 2.5 for brick and 1.5 for concrete are already taken into account for F<sub>1d</sub> and F<sub>2d</sub>. An installation safety factor  $\gamma_{inst}$  of 1.4 is already taken into account for tractive load F<sub>2d</sub>. This does not apply for shear forces F<sub>1d</sub>. For load cases not covered in this table, the underlying expert opinion of MPA Stuttgart is available at [www.sihga.com](http://www.sihga.com).

# ProziFix<sup>®</sup> brick dimensions, axis and edge distances

	Length l [cm]	Height h [cm]	Thickness d [cm]	$f_{b,min}/f_{c,min}$ [N/mm <sup>2</sup> ]	Edge distances C <sub>1</sub> /C <sub>2</sub> [cm]	Axis distances S <sub>1</sub> /S <sub>2</sub>
<b>Senftenbacher</b> 25 VZ Plan	38,0	24,9	25,0	15,0	19,0/12,5	l/h
<b>Wienerberger Poroton</b> Vertical perforated brick Plan-T 24,0-0,9	37,3	24,9	24,0	12,0	18,7/12,5	l/h
<b>Wienerberger Poroton</b> Poroton flat brick T8-50,0	24,8	24,9	50,0	6,0	12,4/12,5	l/h
<b>Wienerberger</b> Porotherm 25-38 Plan	37,5	24,9	25,0	10,0	18,8/12,5	l/h
<b>Wienerberger</b> Porotherm 50-20 H.i. Plan	20,0	24,9	50,0	7,5	10,0/12,5	l/h
<b>Pichler</b> PIAplan 25/38 VZ	38,0	24,9	25,0	15,0	19,0/12,5	l/h
<b>Pichler</b> PIAplan 50/20 VZ	20,0	24,9	50,0	10,0	10,0/12,5	l/h
<b>Leitl</b> Vital Plan 25/30/24,9 cm N+F	30,0	24,9	25,0	15,0	15,0/12,5	l/h
<b>Leitl</b> Vital Sotex Plan 50/20/24,9 cm N+F	20,0	24,9	50,0	7,5	10,0/12,5	l/h
<b>EDER</b> Plan XP 50 plus	20,0	24,9	50,0	5,0	10,0/12,5	l/h
<b>H+H</b> Solid lie sand brick 2 DF	11,5	11,3	24,0	20,0	5,8/5,7	l/h
<b>Concrete slab front side &gt; 20 cm</b>	40,0	20,0	25,0	C20/25	20,0/10,0	l/h
<b>Betondecke stirnseitig &gt; 25 cm</b>	50,0	25,0	25,0	C20/25	25,0/12,5	l/h



# ProziFix<sup>®</sup> Drill PFB 50

## SIHGA<sup>®</sup> Feature

special cutting geometry

all blades are exchangeable

extra long shaft, compatible with IdeFix<sup>®</sup> Drill Gauge IBG

can be used with common cordless screwdrivers

manufactured in Austria

## YOUR Benefit

cuts a 50 mm hole in bricks without destroying them

saves time and money

hole depths are precisely adjustable and the hole can be drilled cleanly at a right angle

no hammer drill device required

highest European quality and value creation

SIHGA <sup>®</sup>		ProziFix <sup>®</sup> Drill PFB 50	
montagepack		Ø x L	Working Length
Art. No.	PU	[mm]	[mm]
55206	1	50 x 620	400

SIHGA <sup>®</sup>		IdeFix <sup>®</sup> Drill Gauge IBG
montagepack		Ø x L
Art. No.	PU	[mm]
33666	1	90 x 130



SIHGA<sup>®</sup> APP



**ProziFix<sup>®</sup>  
Drill PFB 50**



**IdeFix<sup>®</sup> Drill Gauge IBG**



### SIHGA<sup>®</sup> TIP:

When drilling with the ProziFix<sup>®</sup> Drill PFB 50, the IdeFix<sup>®</sup> Drill Gauge IBG is recommended in order to be able to maintain the exact depth.





# Compared with Threaded Rod

System	Wall Thickness	Distance (WDVS)	Threaded Rod	Anchoring Depth (with adhesive mortar)	Wood Spacing Holder (L x W x H)	Failure Load	Failure Type	Max. Load*
	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]		[kN]
Threaded Rod	250	200	M 16	150	200 x 140 x 140	~ 1.20	Brick breakage	~ 0.4
ProziFix® 210	250	200	-	190	-	~ 7.50	Brick breakage	1.80

\* failure value with partial safety factors reduced (Senftenbacher 25 VZ Plan)



# Stegsan® RV/BA



**Stegsan® RV**  
for posts and stakes



**Stegsan® BA**  
for beams



## SIHGA® Feature

## YOUR Benefit

walkway renovation system for wooden posts, stakes (Stegsan® RV)	the defective piece of wood between the water and air is simply replaced; extensive cost-savings
walkway renovation system for beams (Stegsan® BA) to wooden posts, stakes	the beam is permanently, quickly, securely and easily connected to the wooden post, stakes
developed, patented and made in Austria	local quality and added-value
special coupling system for pre-installation in the factory	saves lots of time
angled screw connection in end-grain wood	transfers high forces, especially for loads on the walkway from boats or waves
anti-rotation lock enclosed (Stegsan® VS)	the anti-rotation lock against unintended loosening is easily screwed to the side on-site
includes SIHGAFIX® stainless steel, GoFix® HKE stainless steel screws and installation instructions	time-saving, practical, precise, complete accessories enclosed
made from aluminium	for permanent fastening, even under water
can be removed at any time	can always be reused
calculation values	SIHGA® performs the calculation for you

SIHGA®		Stegsan®				Stake/Post	Screw
montagepack	Dimension	Ø	Height	Thread	min. Ø	GoFix® HKE	
Art. No.	PU	Type	[mm]	[mm]	[mm]	[mm]	d1 x L
30266	8*	RV	160	10	16	160	6,0 x 60
30286	2	BA	100	25	20	-	6,0 x 60

\* equals 4 connections



SIHGA® APP



### SIHGA® TIP:

Stegsan®, the easy, quick and reliable method for renovating lake walkways or jetties; the environment is best protected here, while planning permission is made easier.

# EDSTAHL®



**EDSTAHL®**  
made of 100 % stainless steel

## SIHGA® Feature

## YOUR Benefit

transfers up to 191 kN compressive force per fastening point

the most permanent and reliable connection

unique on the market: made 100% from stainless steel

no risk of corrosion, usage class 3

developed and made in Austria

local quality and added-value

permanent wood connection

the wood remains undamaged due to wood protection

can be combined with IdeFix® IF 304 or 406 for 16.62 kN tensile force and horizontal force of 5.97 kN

for high tensile forces, the globally unique product with three-dimensional, standardised screw connection in grain-cut wood provides security

two-part system

quick and easy installation, upper part can be installed in the factory

two models for all applications

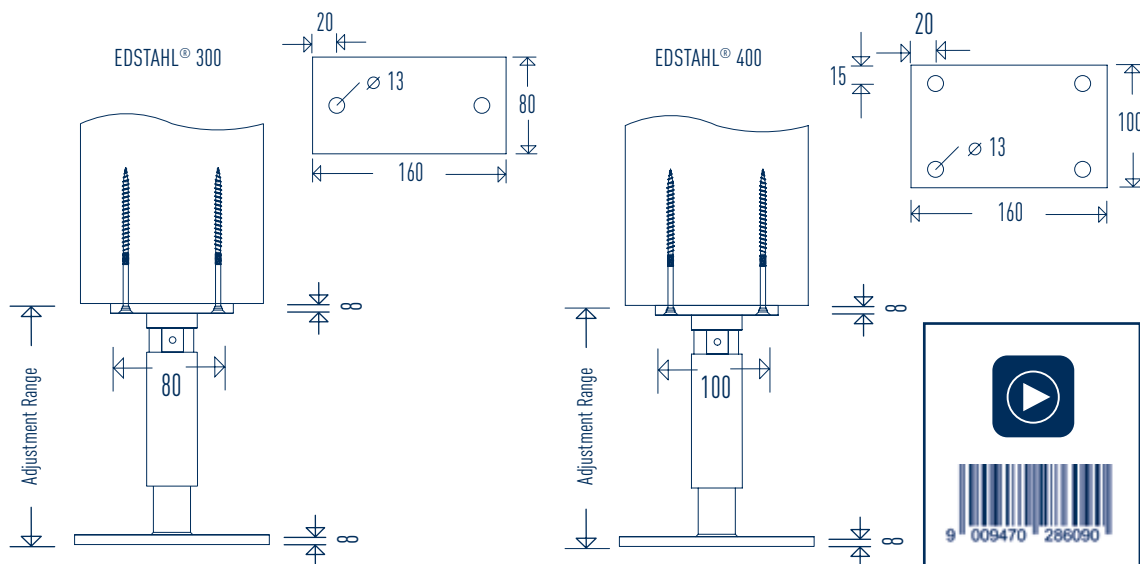
can be used flexibly, height compensation up to 65 mm, also when installed

calculation values

SIHGA® performs the calculation for you

including accessories made from stainless steel, L-GoFix® MS, BeziFix® Anchor ZSE, SIHGAFIX® and installation instructions

rust-free, time-saving, practical, precise, complete accessories enclosed



SIHGA® objektpack®		Dimension EDSTAHL®	Adjustment Range Height [mm]		Characteristic Values* L-GoFix® MS 6,0 x 160		
Art. No.	PU	Type	from	to	Pressure [kN]	Tensile [kN]	Shear [kN]
28609	10	300	125	170	113,70	2,04	1,47
28709	5	400	160	225	191,20	2,04	1,47

\* characteristic values for dimensioning according to EC 5 and strength class C 24 (ρ<sub>k</sub> 350 kg/m<sup>3</sup>)



### SIHGA® TIP:

Connection and lift-off protection of both parts with enclosed screws.

# Herakulix® KI 200



Herakulix® KI 200 with special SC 6 coating



## SIHGA® Feature

takes up to 237.5 kN per attachment point, 29 kN tensile force 10 kN impact load (requirement: anchoring with Betsi A4 12 x 118 or same design values)

high corrosion and splash protection due to coating

permanent wood connection

three-dimensional screwing with IdeFix® in the end grain

IdeFix® Drill Gauge IBG (page 196)

including SIHGAFIX® GoFix® HK screws and installation instructions

## YOUR Benefit

the most durable and reliable connection with impact protection at carpports, according to comments on [www.sihga.com](http://www.sihga.com) (Herakulix® KI 200/Download)

suitable for use in weathered areas

structural wood protection keeps surfaces free of damage

the world's only product with a three-dimensional, standard-compliant fitting provides safety

for efficient, angular drilling also on site

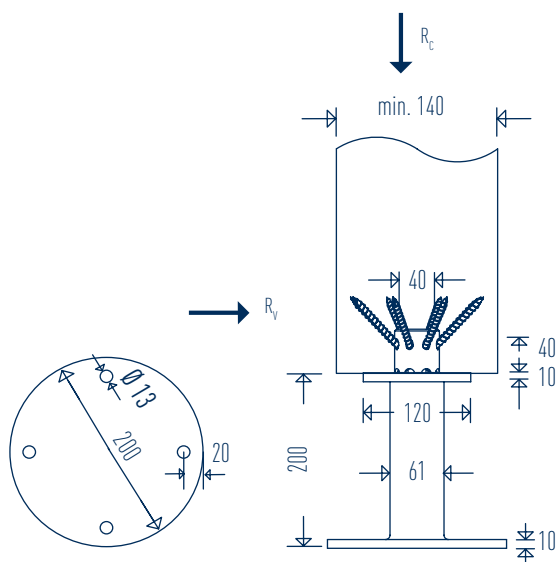
time-saving, practical, precise, including all accessories

SIHGA®		Herakulix®	IdeFix®	Characteristic Values with Normal Force*			Rated Values Impact Recommended for Carpports	
objektpack	PU	KI	IF	Thrust [kN]	Traction [kN]	Transverse Force [kN]	Thrust [kN]	Transverse Force [kN]
Art. No.	PU	Type	Type	$R_{c,k}$	$R_{t,k}$	$R_{v,k}$	$R_{c,d}$	$R_{v,d}$
51547	2	<b>KI 200</b>	406	237,5	29,00	10,00	50,00 <sup>1</sup>	10,00 <sup>2</sup>

\* characteristic values for design according to EC 5 and strength class C24 (pk 350 kg/m<sup>3</sup>)

<sup>1</sup> deformed condition: exceptional load case as per EC: partial safety factors for constant loads (1.35) and variable loads (1.5) may be set to 1.0 and snow below 1000 m may be reduced by 80 %.

<sup>2</sup> impact load car at a bumper height of 337.5 cm and at a speed of 5 km / h (requirement: Betsi A4 12 x 118 or equivalent load values)



### SIHGA® TIP:

For manual drilling, we recommend the IdeFix® Drill Gauge IBG and drill (page 196 - 197).

# Herakulix<sup>®</sup> XS/M/L



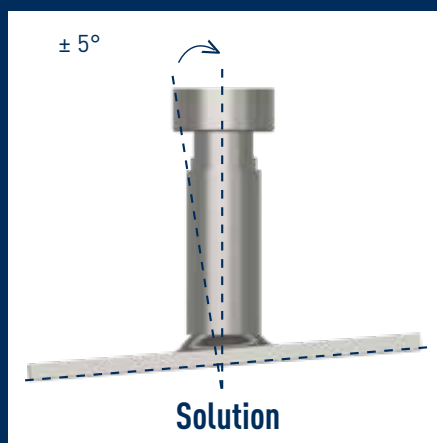
**Herakulix<sup>®</sup> XS/M/L two-part system with SC 6 coating**





**SIHGA® Feature****YOUR Benefit**

integrated inclination compensation of up to $\pm 5^\circ$ in all directions	surface unevenness and slopes can be compensated for in an aesthetically pleasing and structurally correct manner
two-part system with a short retraction path	very simple assembly, height adjustable when assembled
a range of variants and additional drill bores in the base plate	allows individual anchoring and unimpeded $90^\circ$ drilling
high corrosion and spray water protection	permissible for use in areas exposed to weather (Usage Class (NKL) 3)
durable wood connection	structural wood protection keeps surfaces free of damage
takes up to 89.09 kN compressive force, 29 kN tensile force, and 3.25 kN transverse force per attachment point	the durable, reliable connection with great load capacity
individual connection to wood with IdeFix® or GoFix®	the world's only product with a three-dimensional, standard-compliant screw connection and the approved end grain screw ensure safety
punching pin for end grain screws	for one-man installation
IdeFix® Drill Gauge IBG	for efficient, angular drilling, including on site
including SIHGAFIX®, GoFix® HK or GoFix® S+ screws and installation instructions	time-saving, practical, precise, including all accessories

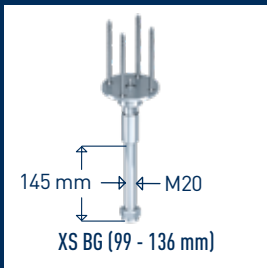
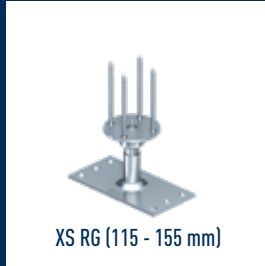
**SIHGA® TIP:**

For manual drilling, we recommend the IdeFix® Drill Gauge IBL with drill.

When used in a salty environment, we recommend using EDSTAHL® in order to prevent corrosion.

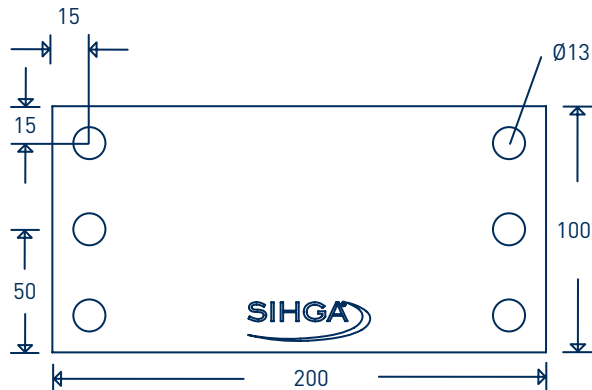
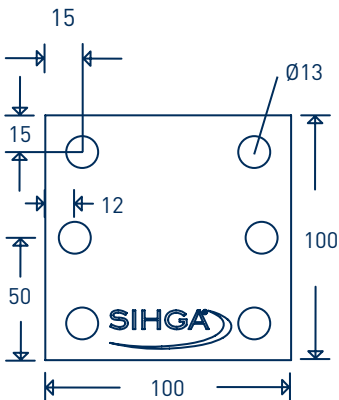
For subsequent application of paving or the like, we recommend applying additional corrosion protection to the support foot in the affected area.

# Herakulix<sup>®</sup> XS

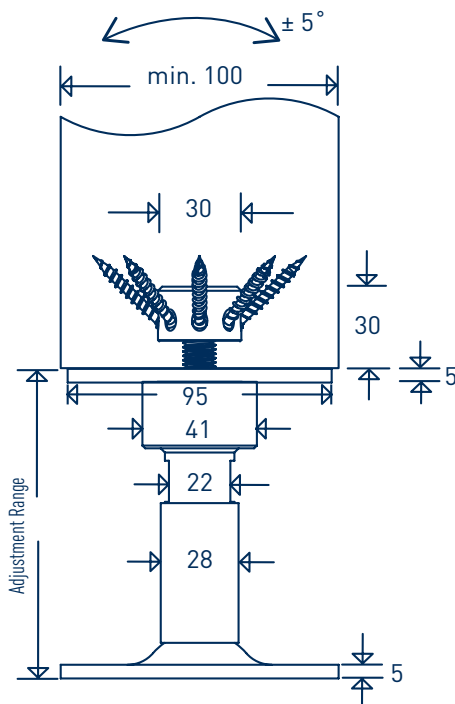
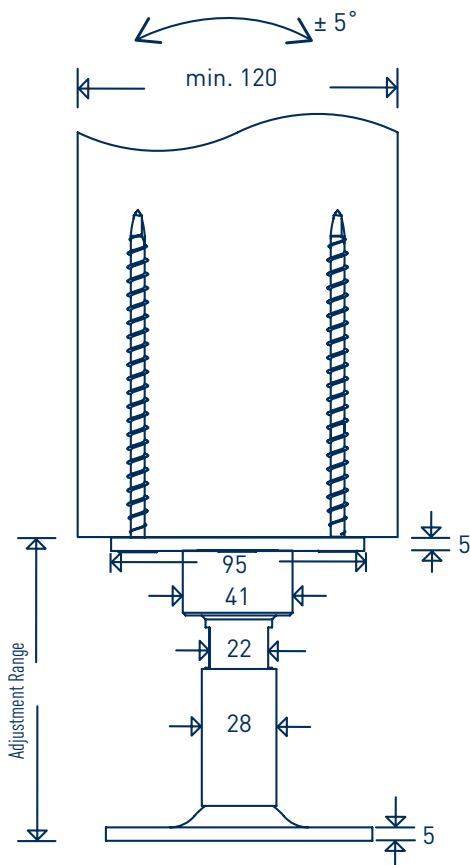


Legend:

XS	X-Small	R	Rectangular Base Plate
M	Medium	Q	Square Base Plate
L	Large	C	Circular Base Plate
		I	IdeFix <sup>®</sup>
		G	GoFix <sup>®</sup>
		B	Concrete (for setting in concrete)
		N	Adjustable Inclination



# Herakulix® XS



SIHGA®		Herakulix® Wood Connection		Adjustment Range		Design Values		Character. Values**
objektpack®				Height [mm]		Compressive Force [kN]	Shear Force [kN]	Tensile Force [kN]
Art. No.	PU	Type	Type	from	to	R <sub>c,d</sub>	R <sub>v,d</sub>	R <sub>t,k</sub>
51107	10	<b>XS RI 30</b>	IdeFix® IFK 304	115	155	45,45	2,40	17,00
51117	10	<b>XS QI 30</b>	IdeFix® IFK 304	115	155	45,45	2,40	17,00
51127	10	<b>XS RG</b>	GoFix® S+ 8,0 x 125	115	155	45,45	-	10,90
51137	10	<b>XS QG</b>	GoFix® S+ 8,0 x 125	115	155	45,45	-	10,90
51147	10	<b>XS BG</b>	GoFix® S+ 8,0 x 125	99	136	45,45	1,90	10,90
51157	10	<b>XS NG</b>	GoFix® S+ 8,0 x 125	139	176	45,45	-	10,90
47706	10	<b>*XSRZ</b>	Ring + disc	M 20	Ø 37/21			

\*\* characteristic values for design according to EC 5 and strength class C 24 (ρ<sub>k</sub> 350 kg/m<sup>3</sup>)

# Herakulix® M



M RI 40 (155 - 220 mm)



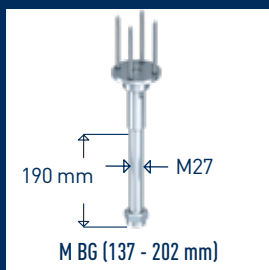
M QI 40 (155 - 220 mm)



M RG (155 - 220 mm)



M QG (155 - 220 mm)



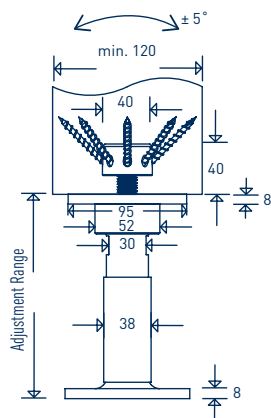
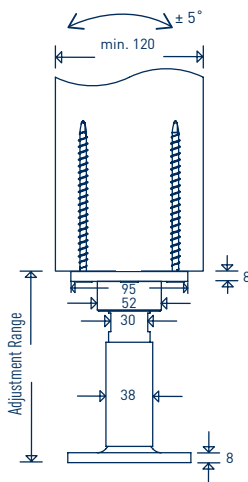
M BG (137 - 202 mm)



M NG (178 - 243 mm)

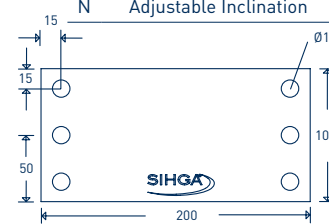
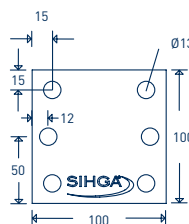


\*optional accessory MLRZ



Legend:

XS	X-Small	R	Rectangular Base Plate
M	Medium	Q	Square Base Plate
L	Large	K	Circular Base Plate
		I	IdeFix®
		G	GoFix®
		B	Concrete (for setting in concrete)
		N	Adjustable Inclination



SIHGA® Herakulix®		Wood Connection	Adjustment Range	Design Values		Character. Values**		
objektpack®	Type	Type	Height [mm]		Compressive Force [kN]	Shear Force [kN]	Tensile Force [kN]	
Art. No.	PU	Type	from	to	R <sub>c,d</sub>	R <sub>v,d</sub>	R <sub>t,k</sub>	
51307	5	<b>M RI 40</b>	IdeFix® IFK 406	155	220	89,09	3,25	29,00
51317	5	<b>M QI 40</b>	IdeFix® IFK 406	155	220	89,09	3,25	29,00
51327	5	<b>M RG</b>	GoFix® S+ 8,0 x 125	155	220	89,09	-	10,90
51337	5	<b>M QG</b>	GoFix® S+ 8,0 x 125	155	220	89,09	-	10,90
51347	5	<b>M BG</b>	GoFix® S+ 8,0 x 125	137	202	89,09	3,20	10,90
51357	5	<b>M NG</b>	GoFix® S+ 8,0 x 125	178	243	89,09	-	10,90
47716	5	<b>*MLRZ</b>	Ring + disc	M 27	Ø 50/28			

\*\* characteristic values for design according to EC 5 and strength class C 24 (p<sub>k</sub> 350 kg/m<sup>3</sup>)

# Herakulix® L



L RI 40 (220 - 350 mm)



L QI 40 (220 - 350 mm)



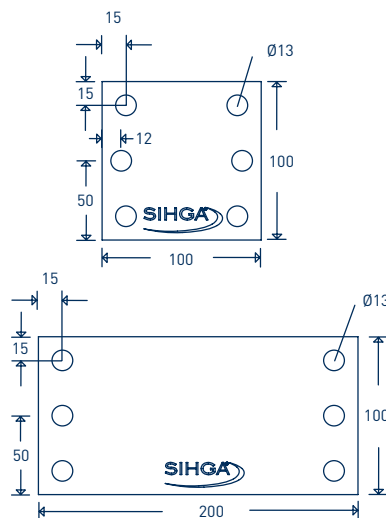
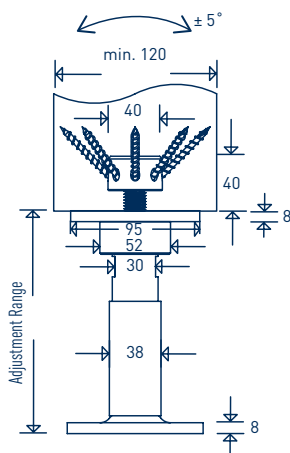
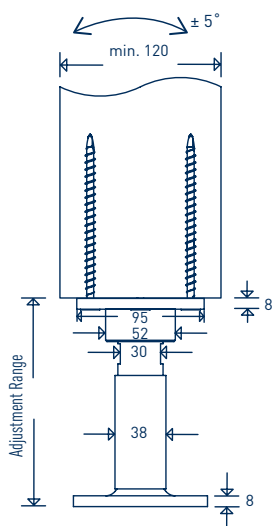
L RG (220 - 350 mm)



L QG (220 - 350 mm)

Legend:

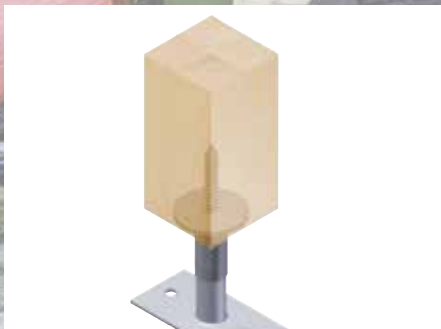
XS	X-Small	R	Rectangular Base plate
M	Medium	Q	Square Base plate
L	Large	C	Circular Base plate
		I	IdeFix®
		G	GoFix®
		B	Concrete (for setting in concrete)
		N	Adjustable Inclination



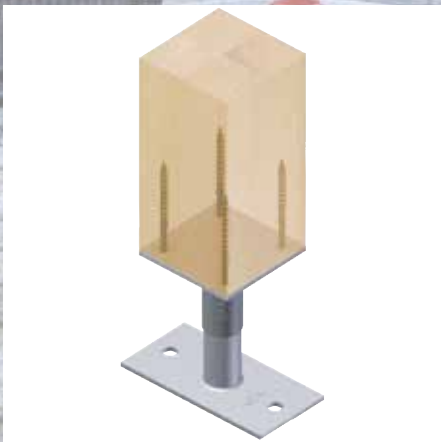
SIHGA®		Herakulix® Wood Connection		Adjustment Range		Design Values		Character. Values*
objektpack®				Height [mm]		Compressive Force [kN]	Shear Force [kN]	Tensile Force [kN]
Art. No.	PU	Type	Type	from	to	R <sub>c,d</sub>	R <sub>v,d</sub>	R <sub>t,k</sub>
51507	5	<b>L RI 40</b>	IdeFix® IFK 406	220	350	89,09	1,9	29,00
51517	5	<b>L QI 40</b>	IdeFix® IFK 406	220	350	89,09	1,9	29,00
51527	5	<b>L RG</b>	GoFix® S+ 8,0 x 125	220	350	89,09	-	10,90
51537	5	<b>L QG</b>	GoFix® S+ 8,0 x 125	220	350	89,09	-	10,90

\* characteristic values for design according to EC 5 and strength class C 24 (ρ<sub>k</sub> 350 kg/m<sup>3</sup>)

# ZaFix<sup>®</sup> STZ



ZaFix<sup>®</sup> STZ with special SC 6 coating



**SIHGA® Feature**

takes over up to 154.5 kN pressure force and 10.57 kN tensile force per fastening point

durable wood connection

thread cover through stainless steel covering sleeve

series 300 are height adjustable in the installed condition

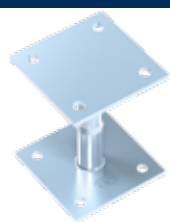
**YOUR Benefit**

the durable, reliable connection with extremely quick assembly time

structural wood protection keeps surfaces free of damage

high corrosion and spray water protection

height adjustable any time afterwards



ZaFix® STZ 211 (120 - 160 mm)



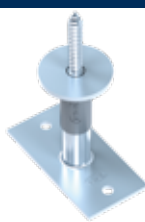
ZaFix® STZ 221 (120 - 160 mm)



ZaFix® STZ 310 (120 - 160 mm)



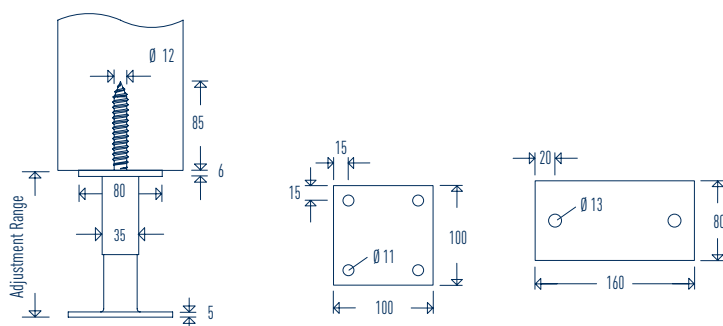
ZaFix® STZ 311 (120 - 160 mm)



ZaFix® STZ 320 (120 - 160 mm)



ZaFix® STZ 321 (120 - 160 mm)



SIHGA® objektpack®		ZaFix® STZ	Adjustment Range		Characteristic Values**	
Art. No.	PU	Type	from	to	Compressive Force [kN] Rc, k	Tensile Force [kN] Rt, k
47957	10	<b>STZ 211*</b>	120	160	44,63	-
47907	10	<b>STZ 221*</b>	120	160	44,63	-
47917	10	<b>STZ 310</b>	120	160	70,42	-
47927	10	<b>STZ 311</b>	120	160	70,42	-
47937	10	<b>STZ 320</b>	120	160	70,42	-
47947	10	<b>STZ 321</b>	120	160	70,42	-

\* not height adjustable in installed condition

\*\* characteristic values for design according to EC 5 and strength class C 24 (pk 350 kg/m³)

# Stabilix C/H



**Stabilix C**  
for carports



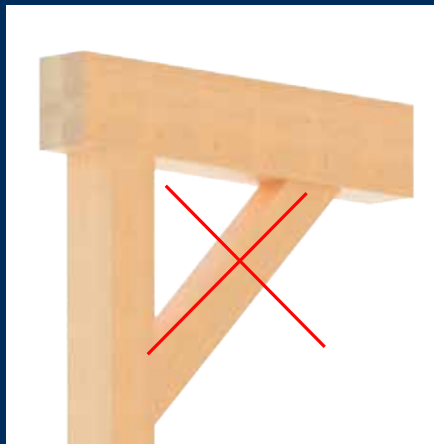
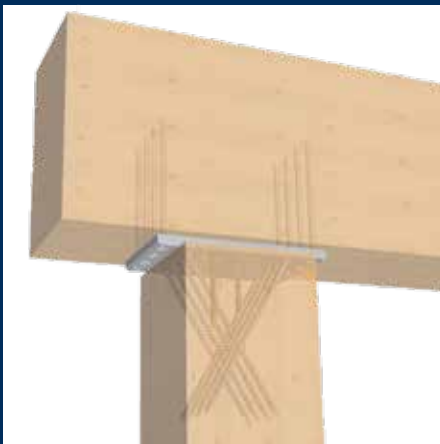
**Stabilix H**  
for timber construction



## SIHGA® Feature

## YOUR Benefit

connectors for rigidity	versatile in application, deformations are minimised: particularly in use for carports (model C) and in wood construction (model H)
developed and made in Austria	local quality and added-value
tested suitability	transfers both horizontal and vertical forces, as well as moment in frame constructions from wind and snow loads
simple installation	can be used without pre-drilling, connector can be pre-fitted in the factory
space-saving connection	no disruptive braces for rigidity, low construction height possible while maintaining the same access height
includes SIHGAFIX®, GoFix® S+ screws and installation instructions	time-saving, practical, precise, complete accessories enclosed
design values	SIHGA® performs the calculation for you, example calculations provided online
calculation template	at <a href="http://www.sihga.com">www.sihga.com</a> (Stabilix C)



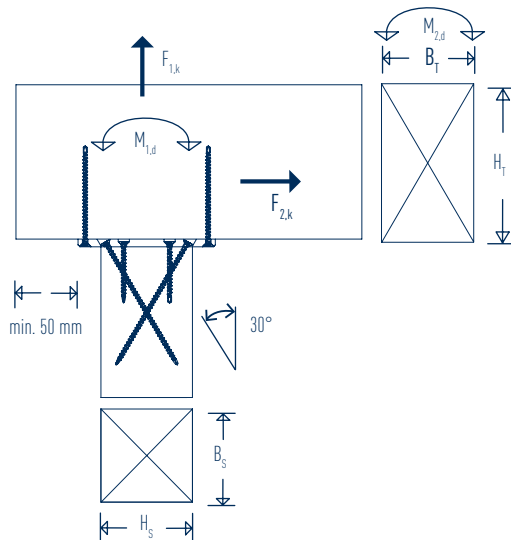
SIHGA® APP



### SIHGA® TIP:

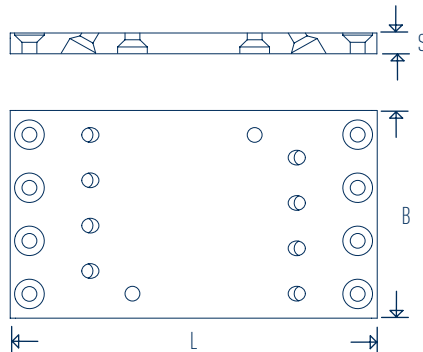
2 connectors can be selected per connection variant and combined with IdeFix®.

# Stabilix C



SIHGA®	Torque		Characteristic Values*	
Stabilix C	$M_{1,d}$	$M_{2,d}$	$F_{1,k}$	$F_{2,k}$
Type	[kNm]	[kNm]	[kN]	[kN]
10	1,56	-	13,1	9,8
12	4,50	-	25,6	15,9
14/16	7,00	2,5	40,0	22,1

\* characteristic values for sizing according to EC 5 and for strength class C 24



SIHGA®		Pillar		Cross Beam		Screws GoFix® S+		Dimensions			
montagepack Stabilix C		min. $H_S / B_S$ * max. $H_S / B_S$		min. $H_T$		Pillar		Cross Beam	L	B	S
Art. No.	PU	Type	[mm]	[mm]	[mm]	[mm]	d1 x L [mm]		[mm]		
43306	2	10	90	100	100	90	8,0 x 155 and 8,0 x 95	8,0 x 95	150	80	12
43326	2	12	110	120	130	110	8,0 x 195 and 8,0 x 95	8,0 x 125	170	100	12
43346	2	14/16	130	160	160	130	8,0 x 220 and 8,0 x 95	8,0 x 155	210	120	15

\* ensure accurate positioning during installation

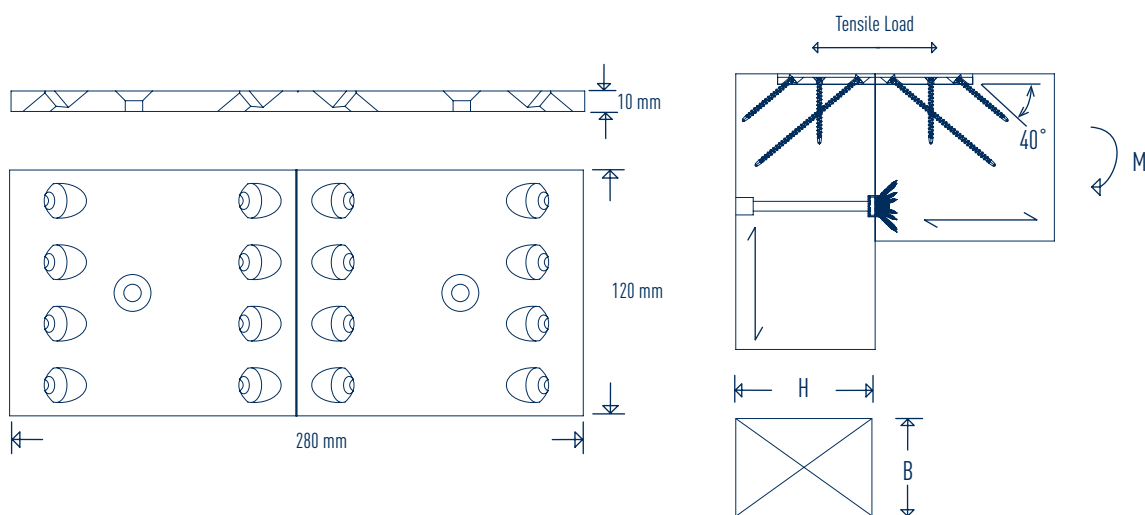
## Torsion spring stiffness for Stabilix C10-C14/16\*

Stabilix C		Node stiffness	
Type	Initially	Medium	
10	127 kNm/Rad	78 kNm/Rad	
12	317 kNm/Rad	186 kNm/Rad	
14/16	435 kNm/Rad	385 kNm/Rad	

\* derived from the test report of the BTI Linz



# Stabilix H



SIHGA®		Column		Beam		Angle	Char. Values*	Screw GoFix® S+	
montagepack	Stabilix	B	H	min. Width	min. Height	Beam	Tensile Load	Dimension	
Art. No.	PU	Type	[mm]	[mm]	[mm]	[mm]	[°]	[kN]	d1 x L [mm]
43436	2	H	140	200	140	240	0	51,34	8,0 x 95 and 8,0 x 195
43436	2	H	140	200	140	240	20	42,68	8,0 x 95 and 8,0 x 195
43446	2	H	140	280	140	240	0	70,36	8,0 x 195
43446	2	H	140	280	140	240	20	58,50	8,0 x 195

\* characteristic values for dimensioning according to EC 5 and strength class C 24 (pk 350 kg/m³)



# Stabilix R



Stabilix R



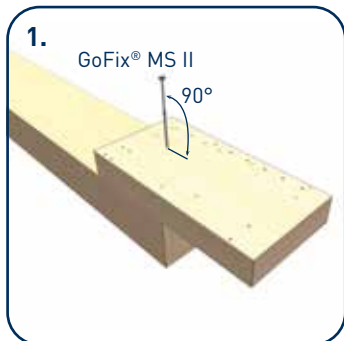
**SIHGA® Feature****YOUR Benefit**

connection system for rigid frame corners	individual application for small wooden frames up to large halls
includes wooden elements (glued laminated timber) depending on requirement, made in Austria	dimensions, drill holes and GoFix® X+ screws as required
tested suitability	transfers both horizontal and vertical forces, depending on individual loading moment
uncomplicated rapid installation of the screws under 45° and suitable distances through pre-drilled timber	no grounds for mistakes or time losses, correct placement and guidance of the screws is given
no steel parts	no fire protection coating or welding required, aesthetically pleasing due to wooden connection
space-saving connection	no connection parts on top or inside
economical system	low costs due to prefabrication, prices on inquiry
system supply incl. pre-drilled wooden elements, GoFix® X+, SIHGAFIX®, Systemstift® and installation instructions	time-saving, practical, precise, all accessories enclosed, the tailored system for rapid installation
statics tested by civil engineer	SIHGA® performs the calculation for you, simply fill in the form, example calculations are provided
individual dimension	SIHGA® will do the calculation for you, simply fill out the checklist
universal dimensioning	application for 2 or 3 articulated frames
verifiable, transparent dimensioning	safety in your projects

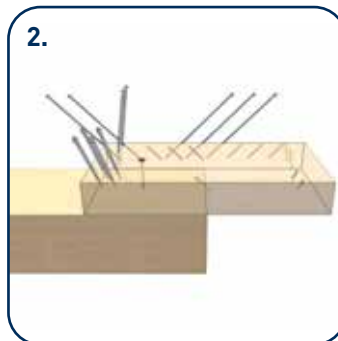
**SIHGA® TIP:**

Use GoFix® MS II (page 144) for simple positioning and location security of the brackets.

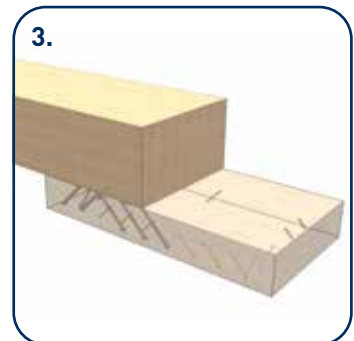
# Stabilix R Application



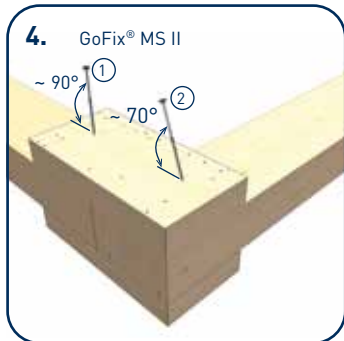
1. GoFix® MS II  
90°  
The strap is fixed in position on the support using GoFix MSII screws.



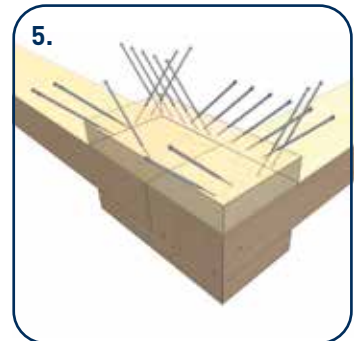
2.  
The support area can now be  
unscrewed.



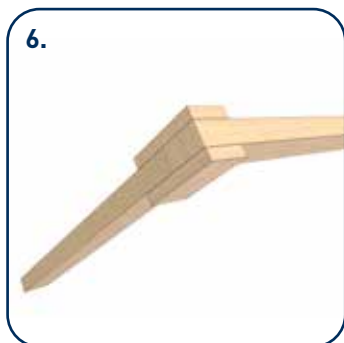
3.  
The support is turned over, thus  
creating a support for the beam.



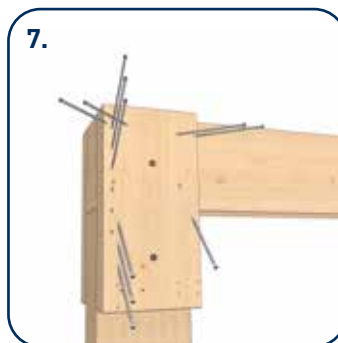
4. GoFix® MS II  
~ 90° ①  
~ 70° ②  
The beam is put on and the second strap is attached to the support. In order to achieve a positive fit between the beam and the support, a GoFix MS II screw is inserted at an angle of 70° to the strap in the direction of the OK beam. This arrangement guarantees a "contraction effect".



5.  
The drill holes on the beam and  
support side of the straps are  
unscrewed.



6.  
After the beam has been erected, the remaining screws are inserted on the  
beam side.



7.



## SIHGA® TIP:

It is also possible to assemble the supports first; then place the beams from above and screw them into place.

# From practice



# HobaFix<sup>®</sup> HF



HobaFix<sup>®</sup> HF





## SIHGA® Feature

## YOUR Benefit

knot connection from two identical parts (one connection consists of two parts)

can be fully pre-fabricated without any risk of a mix-up

developed, patented and made in Austria

top European quality and added-value

statically highly loadable in four directions, per connection up to 48 kN

horizontally and vertically, with high tested static values, can be used irrespective of the grain direction

mounting connection with Hoba coupling

major advantage during installation, allows smooth insertion of the two components

monitored production from aluminium

permanent and dimensionally stable quality, rust-free

including fixing screw for securing

prevents inadvertent loosening of the connector

visible and invisible installation

only one model for the entire range, with shadow groove or invisible installation

includes SIHGAFIX®, all fastening and fixing screws, installation instructions

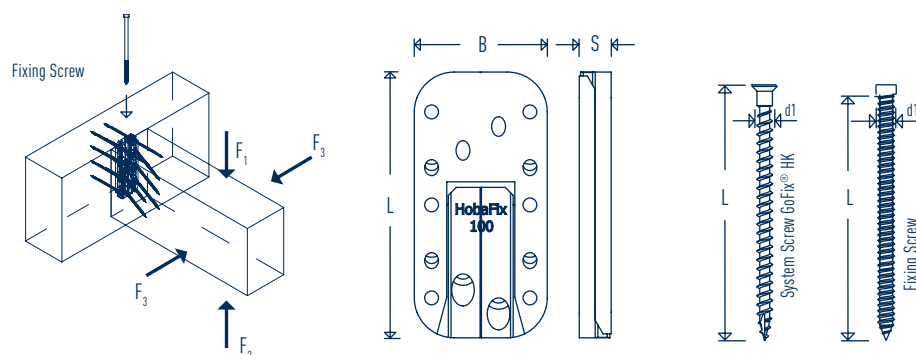
time-saving, practical, precise, complete accessories enclosed

design values

online calculation of main beams-secondary beams (HT/NT)

HFA test seal, externally monitored

Holzforschung Austria also confirms and monitors these high values



SIHGA®		Dimension			Secondary Beam		Characteristic Values**				
montagepack	HobaFix® HF	GoFix® HK	Fixing Screw	Width	Height	Load Direction [kN]					
Art. No.	PU	Type (L)	B	S	d1 x L	d1 x L	[mm]	[mm]	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>
30036	20*	<b>70</b>	30	9	4,0 x 60	4,2 x 50	50	80	6,80	2,04	4,40
30056	20*	<b>100</b>	50	12	5,0 x 80	4,8 x 80	80	115	17,40	8,56	10,60
30076	20*	<b>135</b>	50	12	5,0 x 80	4,8 x 120	80	150	26,70	8,56	15,00
30096	20*	<b>170</b>	50	12	5,0 x 80	4,8 x 120	80	185	33,40	8,56	16,00
30116	12*	<b>200</b>	70	17	6,0 x 100	6,3 x 180	100	220	43,00	17,07	22,70
30126	12*	<b>240</b>	70	17	6,0 x 100	6,3 x 180	100	260	48,30	17,07	23,80

\*equal to 10 or 6 connections

\*\* characteristic values for dimensioning according to EC 5 and strength class C 24 (pk 350 kg/m<sup>3</sup>)



### SIHGA® TIP:

For easier dimensioning use our HT-NT Tool online at [www.sihga.com](http://www.sihga.com).  
Not all bores have to be screwed on. Follow the assembly instructions.

# System Kit HobaFix<sup>®</sup> HF

## SIHGA<sup>®</sup> Feature

for all HobaFix<sup>®</sup> HF models

contains 1 HobaFix<sup>®</sup> milling and assembly template HFFM, 1 HobaFix<sup>®</sup> milling cutter with stop ring HFF and fastening screws, allen key and Systemstift<sup>®</sup>

## YOUR Benefit

the professional installation aid simplifies construction processes and saves time, milling and assembly templates are fully and portably combined with all accessories for practicality

for the rational and precise installation of knot connections



SIHGA<sup>®</sup> APP

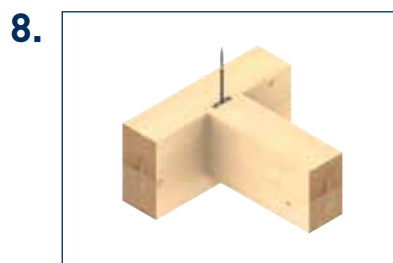
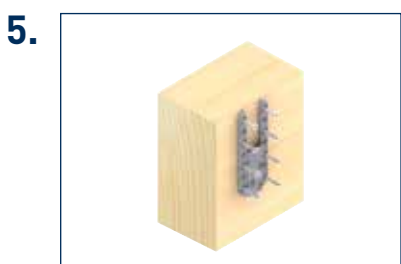
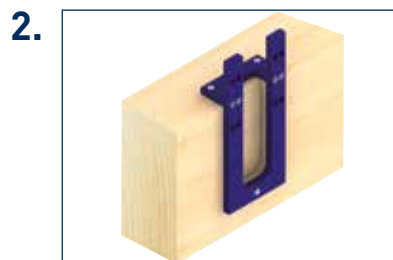


**HobaFix<sup>®</sup> Milling and Assembly Template HFFM**



**HobaFix<sup>®</sup> Milling Cutter with stop ring HFF**

# Application HobaFix® HF



# HobaFix® HFM

## SIHGA® Feature

for wall connections, corner connections, partition walls and privacy fence elements

the installation connector for mounting

installation tolerance of 14 mm

elastic pre-tensioning

fastened in the installation groove to the wall element, 30 mm wide and 17 mm deep

made from polyamide

the static load per pair of connectors is characteristically 8.5 kN

includes SIHGAFIX®, all fastening screws, Systemstift®, installation instructions

## YOUR Benefit

one connector for all applications when installing wall elements, precise and accurate

for rational positioning, saves extensive work time

the major advantage during installation, on site and in the factory: the high tolerance

which is why HobaFix® HFM has a spring effect, a great help during installation

good view of the connector at all times during installation, important for fast and accurate mounting

HobaFix® HFM slides easily into the desired position - without abrasion

tested value of the enclosed system screws in accordance with ETA approval

time-saving, practical, precise, complete accessories enclosed

SIHGA®		Dimension			Chamfer		System Screws
montagepack	PU	L	B	H	Depth [mm]	Width [mm]	GoFix® SK d1 x L
30306	12*	176	28	32	17	30	6,0 x 70

\* corresponds to 6 connections



SIHGA® APP



**HobaFix® HFM**  
made from polyamide



**Example wall connection**

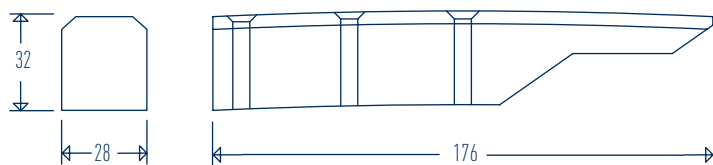
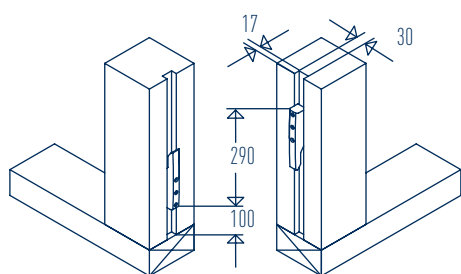
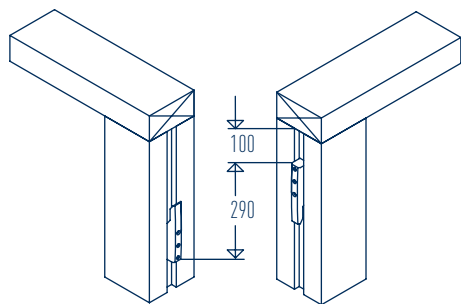


### SIHGA® TIP:

We recommend two pairs of HobaFix® HFM per wall joint.



# Application HobaFix® HFM



# WabaFix<sup>®</sup> WF



**WabaFix<sup>®</sup> WF  
made from aluminium**



## SIHGA® Feature

universal heavy-load connection up to 94.72 kN per fastening point

developed, patented and made in Austria

load attachment without risk of abrasion during installation

for wall/beam connections, corner connections with wooden walls, partition wall fastening, wood cover fastening

fastening on concrete possible with BeziFix® anchors

monitored production from aluminium

includes SIHGAFIX®, GoFix® screws, Systemstift® and installation instructions

calculation values

## YOUR Benefit

beam and wall connections, ceiling beams and various wood constructions are fastened easily

local quality and added-value

through the screw connection with GoFix® S+ screws, transfers static load in four directions

WabaFix® can be loosened again later, particularly important for modular construction

also a great advantage for wall connections

permanent and dimensionally stable quality, rust-free

time-saving, practical, precise, complete accessories enclosed

SIHGA® performs the calculation for you

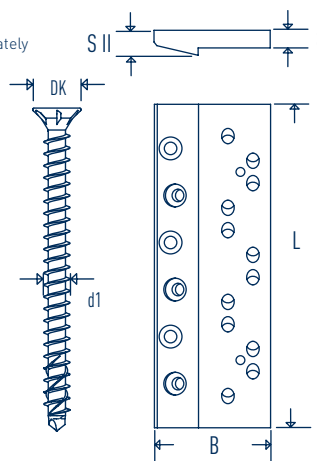
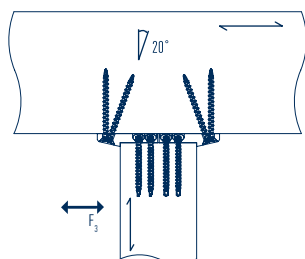
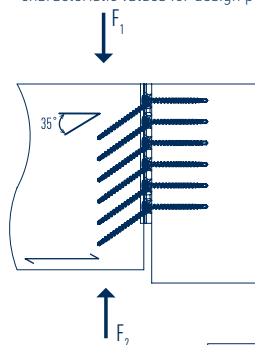
SIHGA® objektpack®	WabaFix® WF	Secondary Beam		Drill GoFix® S+	Characteristic Values*			Recommended Values Wood - Concrete			
		Width [mm]	Height [mm]		Load Direction [kN]			Load Direction [kN]			
Art. No.	PU	Type		d1 x L	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	
43146	6'	<b>210</b>	100	250	8,0 x 95	54,72	32,28	32,28	18,96	18,96	18,96
43156	6'	<b>210</b>	100	270	8,0 x 125	71,04	35,52	35,52	18,96	18,96	18,96
43206	4'	<b>280</b>	100	320	8,0 x 95	72,96	43,04	43,04	25,28	25,28	25,28
43216	4'	<b>280</b>	100	340	8,0 x 125	94,72	47,36	47,36	25,28	25,28	25,28

<sup>1</sup> corresponds to 3 or 2 connections

<sup>2</sup> recommended values for concrete at least C 20/25, without edging influence

attachment by means of BeziFix® anchor ZF 7.5 x 60 mm, screws, available separately

\* characteristic values for design per EC 5, bulk density  $\rho_k = 380 \text{ kg/m}^3$



### Dimension [mm]

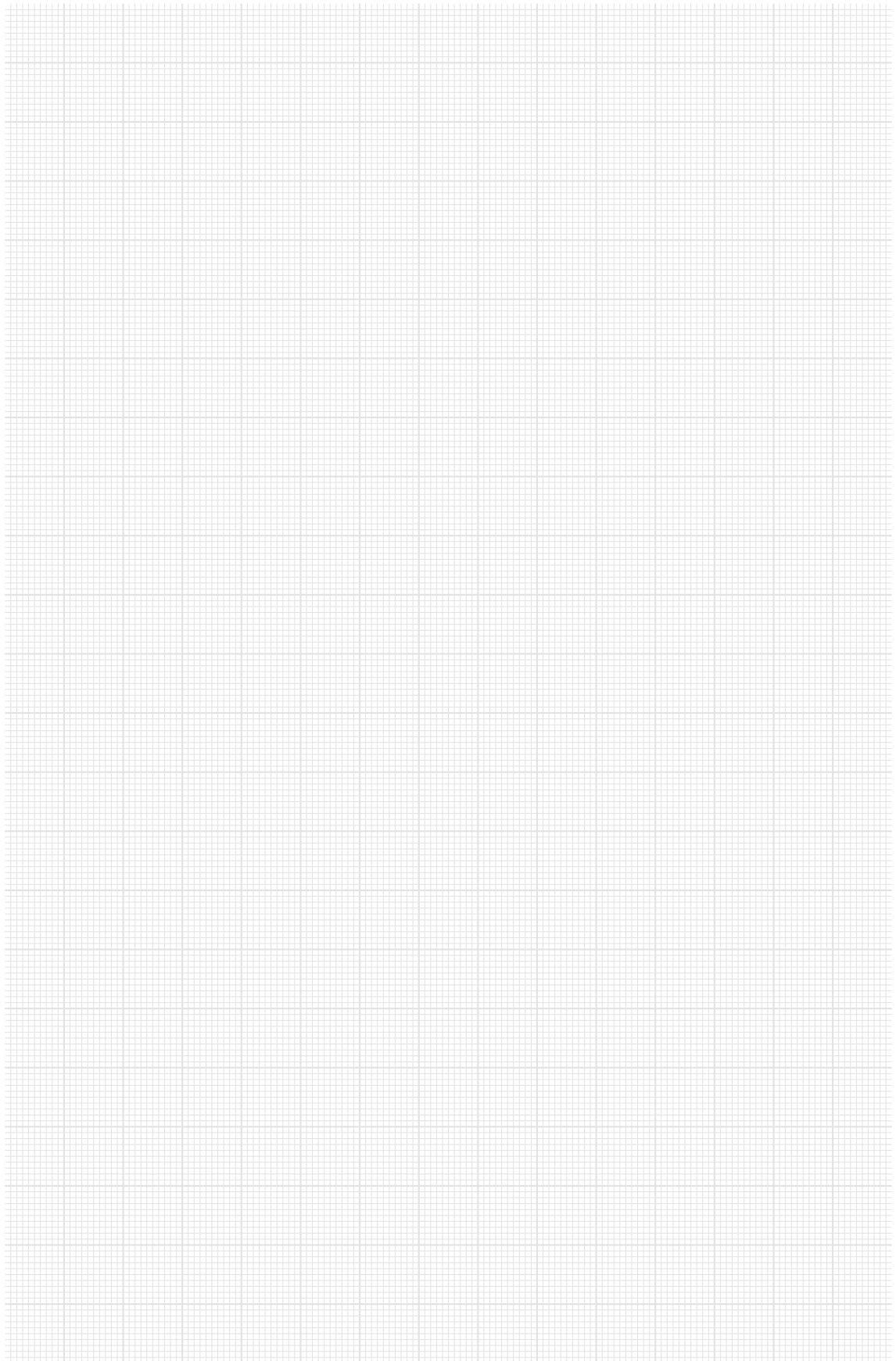
#### WabaFix® WF

Type	L	B	S	S II
WF 210	210	79	12	17
WF 280	280	79	12	17



### SIHGA® TIP:

For installation of WabaFix® on concrete, we recommend BeziFix® Anchor (page 138).







# TAKE THE BEST



Leitbetrieb Österreich



Leitbetrieb Deutschland



**SIHGA® GmbH** | Austria

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