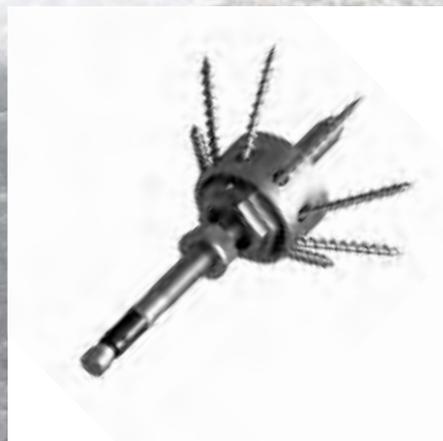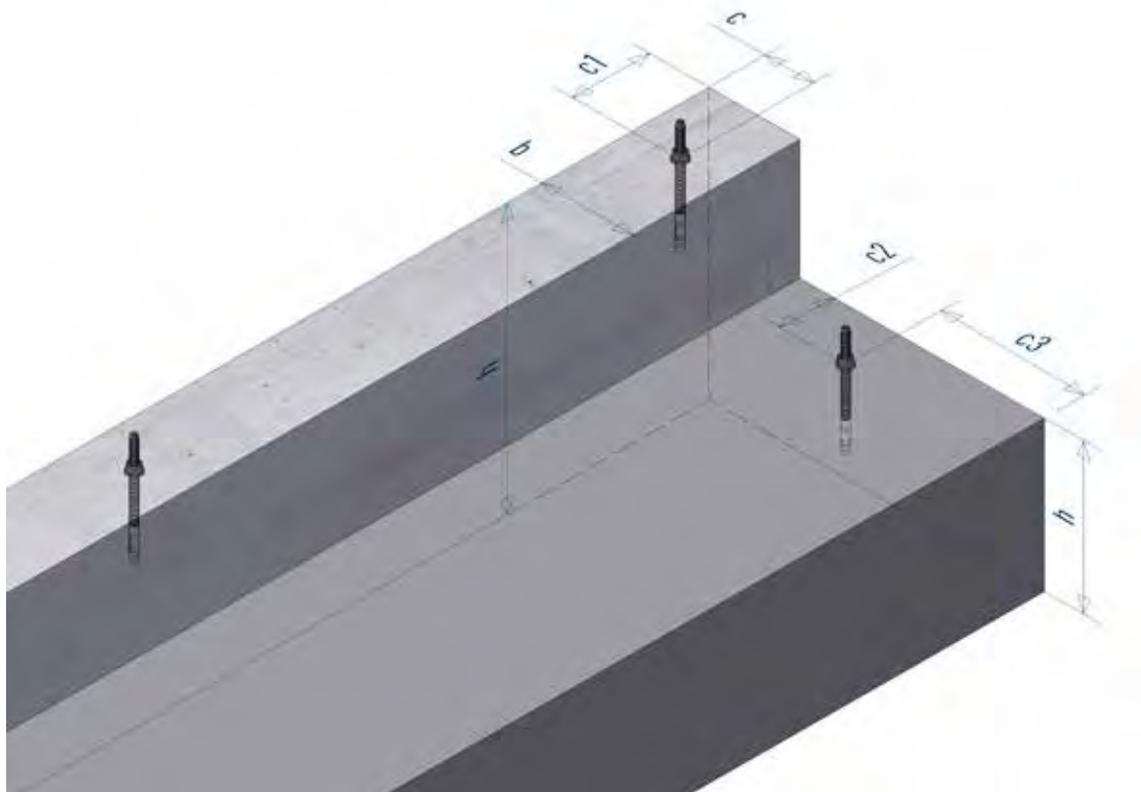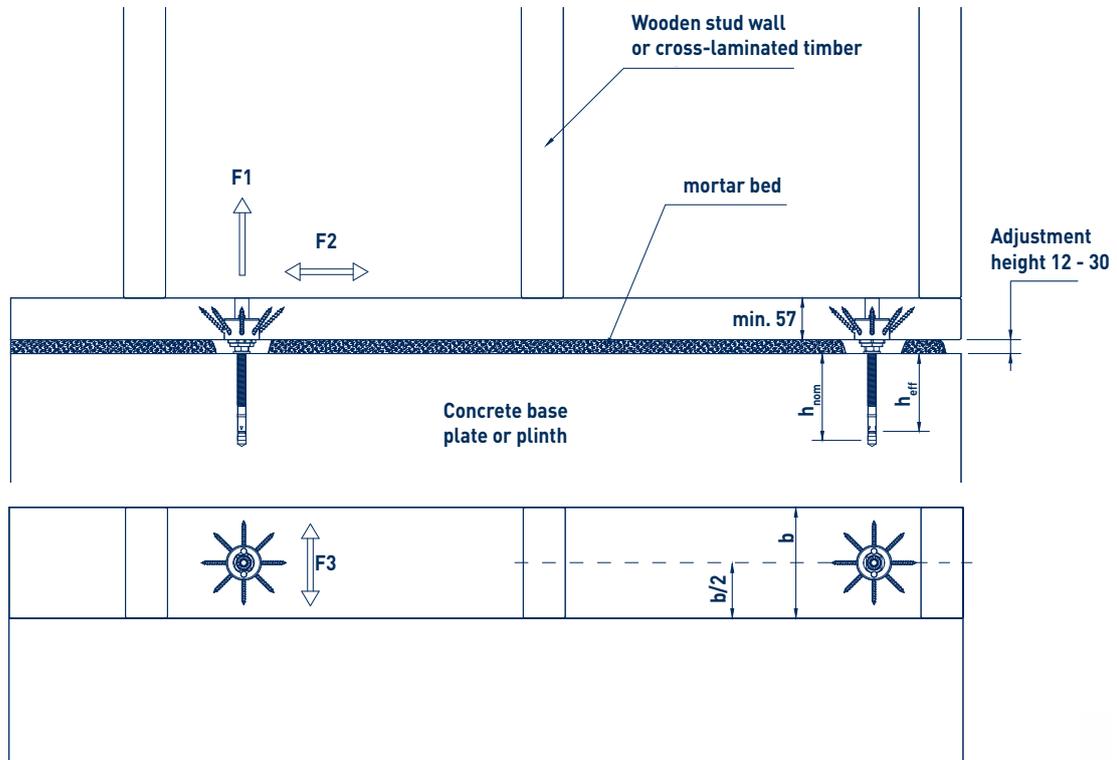# Modulix®

Modulix® HB

SIHGA® Feature	YOUR Benefit
Connection of timber frame or cross-laminated timber wall to concrete floor slab or concrete base	Secure, centric load transfer along the wall axis
Installation also possible with narrow concrete bases	Ideal when classic angle connectors cannot be used
Locking with 90° rotation	fast, backlash-free and mechanically secured connection
Height-adjustable base, 12–30 mm adjustment range	Compensation for construction tolerances and uneven concrete surfaces
Installation with SIHGA® Orakelix® system	Height adjustment accurate to the millimetre using laser levelling
Retrospective height adjustment possible even when wall is already installed	flexible adjustment during assembly
45° three-dimensional screw connection based on the proven IdeFix® principle	Highest tensile and shear forces, additional cross-tensile reinforcement of the wood
No visible angles on the outside or inside	Airtight layer remains unbroken, no taping required
Completely detachable and reusable, future-proof solution for recyclable construction	Ideal for modular, temporary or dismantlable structures (circular building)
Conical guide and marking for locking control	Secure installation and simple visual inspection
Components made of high-quality electro-galvanised steel	long-term stability
Ppre-assembled design	Reduced assembly time, efficient construction site logistics
Compatible with common anchoring systems (M12 bolts or adhesive anchors)	Easy integration into existing planning and execution systems
Developed and manufactured in Austria, patent pending	Highest quality, precision and added value from Austria

Technical specifications

Wooden stud wall
or cross-laminated timber

mortar bed

F1

F2

Adjustment
height 12 - 30

min. 57

h_{nom}

h_{eff}

Concrete base
plate or plinth

F3

b

b/2

c

c1

b

c2

c3

h

SC 1

Load capacities Moduleix® IdeFix®

	GoFix® HK	dimension	b min. [mm]	h min. [mm]	C24	CLT 5S (2cm middle layer)	R_d steel at F1
characteristic load capacities Rk,**F1** ETA 14/0160 Annex A)	**6 pcs.**	6,0 x 60	90	57	25,62	20,75	23,6
	8 pcs.	6,0 x 60	120	57	34,17	27,67	

			b min. [mm]	h min. [mm]	C24	CLT 5S (2cm middle layer)
characteristic load capacities Rk,**F2** ETA 14/0160 Annex E)	**6 pcs.**	6,0 x 60	90	57	19,99	39,88
	8 pcs.	6,0 x 60	120	57	23,39	39,88

			b min. [mm]	h min. [mm]	C24	CLT 5S (2cm middle layer)
characteristic load capacities Rk,**F3** ETA 14/0160 Annex E)	**6 pcs.**	6,0 x 60	90	57	17,45	7,82
	8 pcs.	6,0 x 60	120	57	20,85	13,36

Load-bearing capacities of Fischer FAZ II Plus M12 bolt anchors under the following assumptions:

Design according to DIN EN 1992-4:2019-04
Substrate cracked concrete C25/30
Certification in accordance with ETA-19/0520
≤ 20 mm levelling layer / swelling mortar under timber frame/CLT
clamping degree α = 2,0
For combined tensile/shear stress: interaction verification required
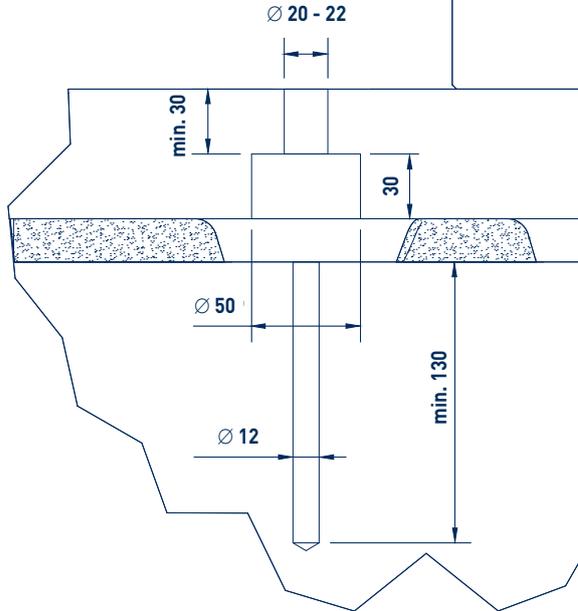https://www.fixperience.online

h_{nom} 124 mm h_{eff} 110mm		plinth h min. 200 mm				concrete slab h min. 200 mm		
	b [mm]	c [mm]	c1 [mm]	[kN]	c2 [mm]	c3 [mm]	[kN]
Rated load capacity Rd, **F1** ETA -19/0520	120	60	150	8,4	55	150	14,2
	150	75	150	10.9	80	150	14,9
	200	100	150	14,9	120	150	14,9

	b [mm]	c [mm]	c1 [mm]	[kN]	c2 [mm]	c3 [mm]	[kN]
Rated load capacity Rd, **F2** ETA -19/0520	120	60	no edge effect	5,41	55	no edge effect	5,41
	150	75	no edge effect	5,41	80	no edge effect	5,41
	200	100	no edge effect	5,41	120	no edge effect	5,41

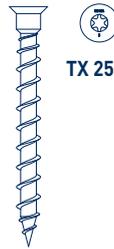|	b [mm]	c [mm]	c1 [mm]	[kN]	c2 [mm]	c3 [mm]	[kN]
Rated load capacity Rd, **F3** ETA -19/0520	120	60	no edge effect	5,18	55	no edge effect	4,64
	150	75	no edge effect	5,41	80	no edge effect	5,41
	200	100	no edge effect	5,41	120	no edge effect	5,41

TECHNICAL NOTE – LOAD-BEARING CAPACITIES

• Wood load-bearing capacities based on test report by Bureau Schmid and ETA-14/0160 (IdeFix®)
• Load-bearing capacities of steel components from FEM analysis according to technical report ZTA-SIH-25-001 ZT Awender GmbH
• Design values for concrete anchors according to DIN EN 1992-4:2019-04 and ETA-19/0520
• Load-bearing capacities may vary due to variations in raw density and application
• The lowest resistance of wood, concrete or steel is always decisive
• Minimum dimensions must be checked on a project-specific basis; tables are for guidance only
• Dimensioning of wood in accordance with EN 1995-1-1: Rd = Rk · k_{mod} / γ_M
• Verification of materials must be carried out separately; interactions must be taken into account in accordance with the standard

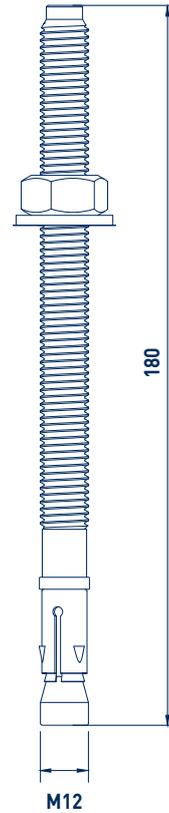**Borehole dimensions
Wood and concrete**

∅ 20 - 22

min. 30
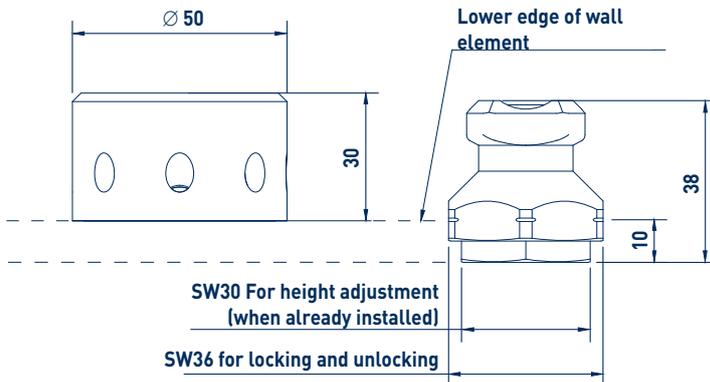
30

∅ 50

min. 130

∅ 12

GoFix® HK 6 x 60

TX 25

**Fischer bolt anchor FAZ II
Plus 12/80 gvz
galvanised**

180

M12

Modulix® IdeFix®

∅ 50

30

Modulix® latch

Lower edge of wall
element

38

10

SW30 For height adjustment
(when already installed)

SW36 for locking and unlocking

23

22

1 pcs. Modulix® consists of:	
1 pcs.	Modulix® IdeFix®
1 pcs.	Modulix® latch
8 pcs.	GoFix® HK 6 x 60
optional 1 pcs.	Fischer bolt anchor FAZ II Plus 12/80 gvz galvanised
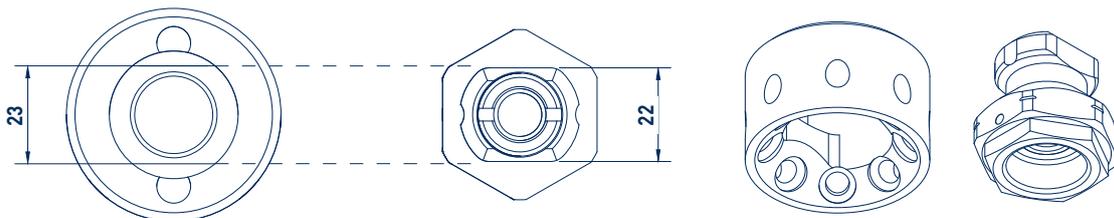
SIHGA® TIP:
For precise drilling into concrete, we recommend using a drilling template. The Modulix® open-end
spanner with integrated drill guide or a homemade makeshift tool is suitable for this purpose.

SC 1

Rotate lock 90°

Control mark locked

anti-rotation device

40
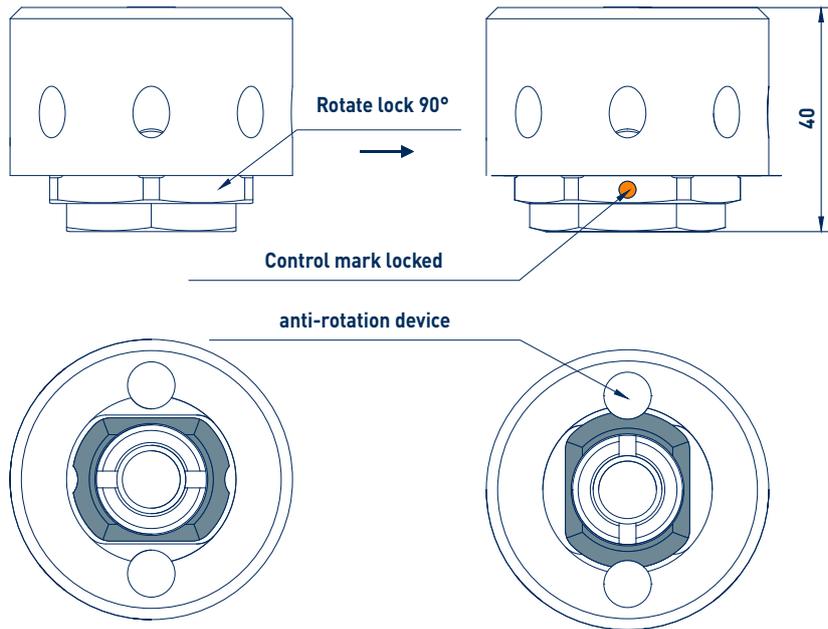
| SIHGA® | | | dimension |
| montagepack | | | ⌀ x l |
Art. No.	PU	Type	[mm]
55806	20	**Modulix®**	50 x 30
55892	20	**Fischer bolt anchor FAZ II Plus**	M12 x 180 (ETA-19/0520)

Modulix® unlatched

Modulix® locked

SIHGA® TIP:
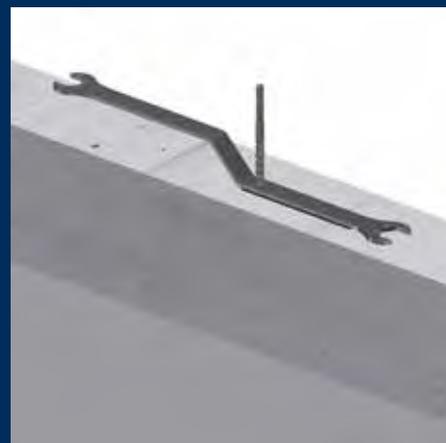For precise drilling in wood by hand, we recommend the Modulix® drilling template with quick-change adapter (page 219).
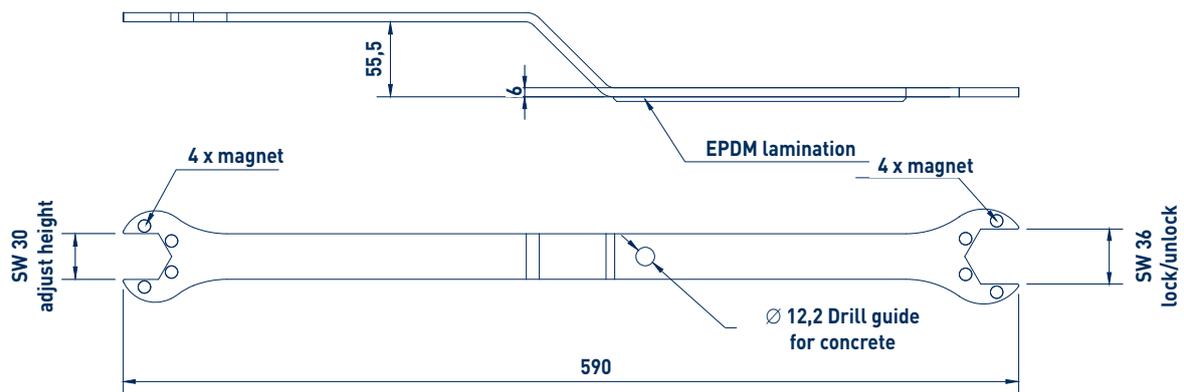
Modulix® accessories

Modulix® Open-ended wrench 30/36

55,5

6

4 x magnet

EPDM lamination

4 x magnet

SW 30 adjust height

∅ **12,2 Drill guide for concrete**

SW 36 lock/unlock

590

Modulix® accessories

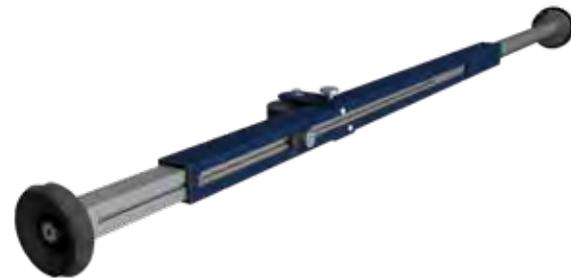**Modulix® drilling jig with quick-change system between drilling and screwing**

Orakelix® (page 90)

SIHGA®

Orakelix®

Art. No.
55536

Orakelix® adapter Modulix®

SIHGA®

Orakelix® adapter Modulix®

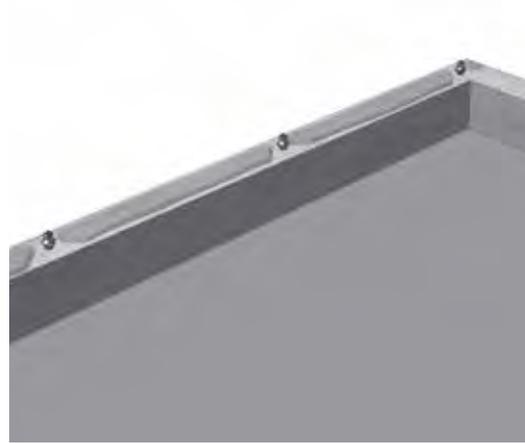| Art. No. |
| --- |
| 55576 |

Modulix® application

Create a level with Orakelix®

Produce mortar tape

Put up a wall

Lock Modulix® with 90° rotation