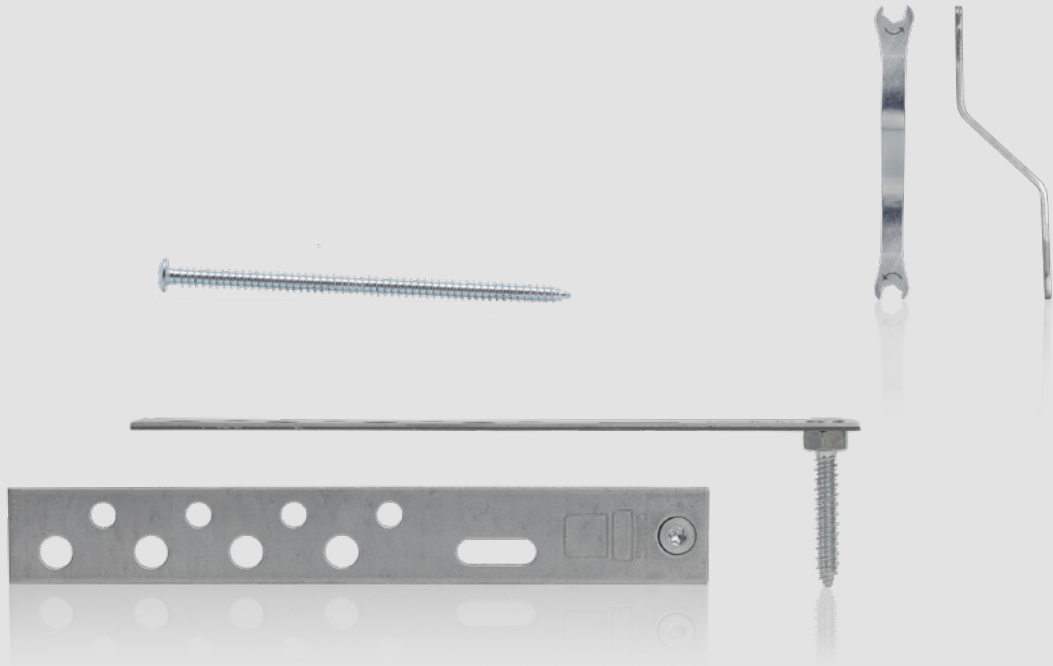




The tested **blaugelb Protect Fastening System** enables building components to be attached adjustably, without the use of wedges and with craftsmanship quality. It also meets safety-relevant requirements.

The blaugelb Protect Fastening System can be combined with all sealing systems.



blaugelb Protect Fastening System

Our fastening solution for ETB-relevant elements.

Product features:

The blaugelb Protect Fastening System is a simple but adjustable fastening for wood, plastic and aluminium windows which can be fitted around the edges at any required attachment point.

The required attachment points of the construction elements and their spacing to one another is guided by the general fitting guidelines (e.g. current RAL "Installation Guidelines, Chapter 5"), taking account of the window weights and, if applicable, the anticipated additional loads.

The blaugelb Protect Fastening System lies flush with the reveal, allowing high horizontal or vertical forces to be transferred to the anchoring base. blaugelb Protect is an invisible fastening with the sash open and can even be pre-mounted in the factory.

- Adjust easily and fasten securely
- For securing RC2 tested elements
- Fastenings suitable for use permanently and in compliance with rules
- Ideally suited for use in combination with multifunctional tape
- Tested for fastening of fall arrester elements
- Static rated resistances to suction/pressure
- Vertical load introduction

Continued on
the next page ►



The variable perforation pattern allows for rule-compliant fastening with the necessary edge spacing to the load-bearing edge of the anchoring base. This screw fastening can optionally be executed using a blaugelb Frame Screw Fix or a building control-approved fastening.

The window position and thus the installation joint width is adapted flexibly to the actual installation situation via the system-integrated, pivotable adjustment screw.

Extensive tests show that blaugelb Protect also satisfies the requirements for safety-relevant attachment points (e.g. for fall arrester building elements, ETB guideline "Components providing fall arrest protection"). There is a safe load transfer to the anchoring base.

After hanging the sash panel, if necessary it is possible to re-adjust it for millimetre accuracy on any blaugelb Protect system. The blaugelb Protect Spanner galv. is required for this. The double-offset spanner made of tempered tool steel is galvanised and has a practical mechanical ratchet function to avoid having to repeatedly remove and reapply it during adjustment.

The sealing to windows or doors is not obstructed, and can be freely-selected in accordance with the respective mounting situation. Combination with multifunctional tape is also possible, because it is possible to dispense with the typical spacing blocks to the sides, without risking any loss of support capacity.

Thanks to the low reveal depth of approx. 30 mm, blaugelb Protect 70 is suitable for the renovation of old buildings or for the installation of reveals made of exposed concrete, for example. This reveal depth can be covered with the use of a chamber profile. The adhesive and sealant blaugelb Hybrid Polymer Power Fix forms an airtight level during installation on the one hand, while also fixing the chamber profile. blaugelb Protect 70 is also used in assembly in timber framework and for Y-assembly in vertically perforated bricks and Poroton, as these versions generally have a small reveal depth.

blaugelb Protect with offset adjusting screw for narrow joints is used with aluminium door and window systems from a joint width of 7 mm without the necessity of milling the aluminium bars. The blaugelb Protect Spanner Narrow Joint (item no. 9365057) is used for adjustment.

Installation recommendation:

STROXX Bits Torx-TX 30, 90 mm-1/4", item no.: 9075835

Tested characteristics:

- Fall arrest tested by engineers in accordance with the ETB guideline "Components providing fall arrest protection"
- Horizontal rated values of the horizontal load resistance, rated value of the load resistance
 $F_{H_{B+}}$ $R_{H_{B+}}$ = (from the outside inwards from wind suction, ralling loads)
 $F_{H_{I+}}$ $R_{H_{I+}}$ = (from the inside outwards from wind suction, ralling loads)
- Verification of suitability for RC2 provided
- Vertical load introduction

Material	Frame Screw Fix FK-T30
Vertically perforated brick (HLZ), SFK 8	7,5 x 182 mm
Vertically perforated brick (HLZ), SFK 12	7,5 x 182 mm
Sand-lime brick, SFK 12	7,5 x 62 mm
Concrete, C25	7,5 x 42 mm
Aerated concrete PP4, SFK 4	7,5 x 182 mm

Aerated concrete PP6, SFK 6	7,5 x 182 mm
Aerated concrete PP2, SFK 2 with blaugelb Protect Y solution	7,5 x 212 mm
Solid structural timber, C24	7,5 x 62 mm

Product benefits:

- With the screw offset, blaugelb Protect can also be inserted turned to the outside
- Adjust easily and fasten securely
- For securing RC2 tested elements
- Adjustable, and therefore variable in joint widths
- Fastenings permanently suitable for use
- Secure fastening, even with high element weights
- Compliant displacement of anchoring plane away from the at-risk edge area of the anchoring base
- Ideally suited for use in combination with multifunctional tape, no side spacing blocks required
- Tested for fastening of fall arrester elements
- Invisible fastening with the sash open
- Ideal fastening for fixed glazed elements (without removing window glass)
- Perforation optionally for frame fixing screw or wall-plug system installation
- Can be pre-mounted in the factory
- Can be used up to a free wall-plug length of 45 mm
- Static rated resistances to suction/pressure
- Vertical load introduction

Technical data:

Material:	White galvanised strip steel
Dimensions:	2.5 x 30 x 70 mm 2.5 x 30 x 100 mm 2.5 x 30 x 150 mm 2.5 x 30 x 220 mm 2.5 x 30 x 280 mm
Hole diameter in Protect:	8.05 mm for fastening using blaugelb Frame Screw Fix FK-T30 10.5 mm for fastening using a wall-plug system dia. 10 mm
Longitudinal perforation length:	25 mm
Adjusting screw:	Integrated, pivotable 7.5 x 35/45/50/60/70/90 mm T30, white galvanised with tightened hexagonal nut
Adjustment:	Using the tightened hexagon nut with blaugelb Spanner galv. (not included in scope of delivery)
Fastening to building structure:	blaugelb Frame Screw Fix FK-T30 x L or wall-plug system dia. 10 mm
Preliminary drilled hole in window frame:	Ø 5/6 mm with PVC frame Ø 6 mm with wood frame Ø 5 mm with aluminium frame Blind hole, facing the installation joint
Reinforcement in window frame (plastic):	At least 1.5 mm, screw-fastening of reinforcement as per profile system specifications

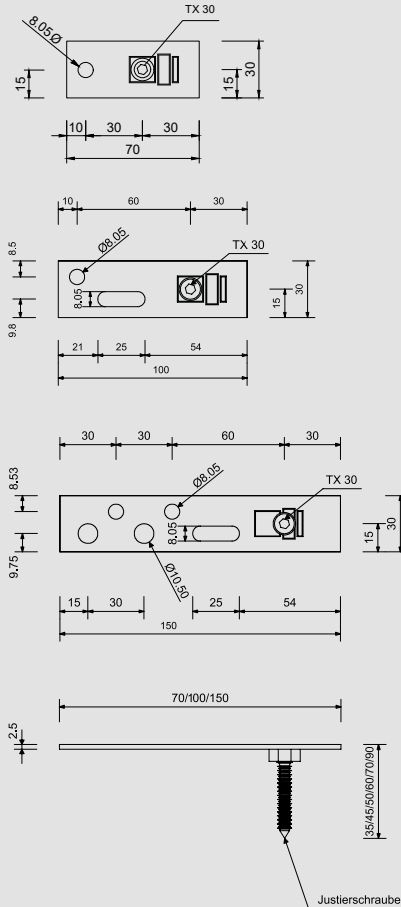


Our screw-in recommendations* in relation to the various substrates:

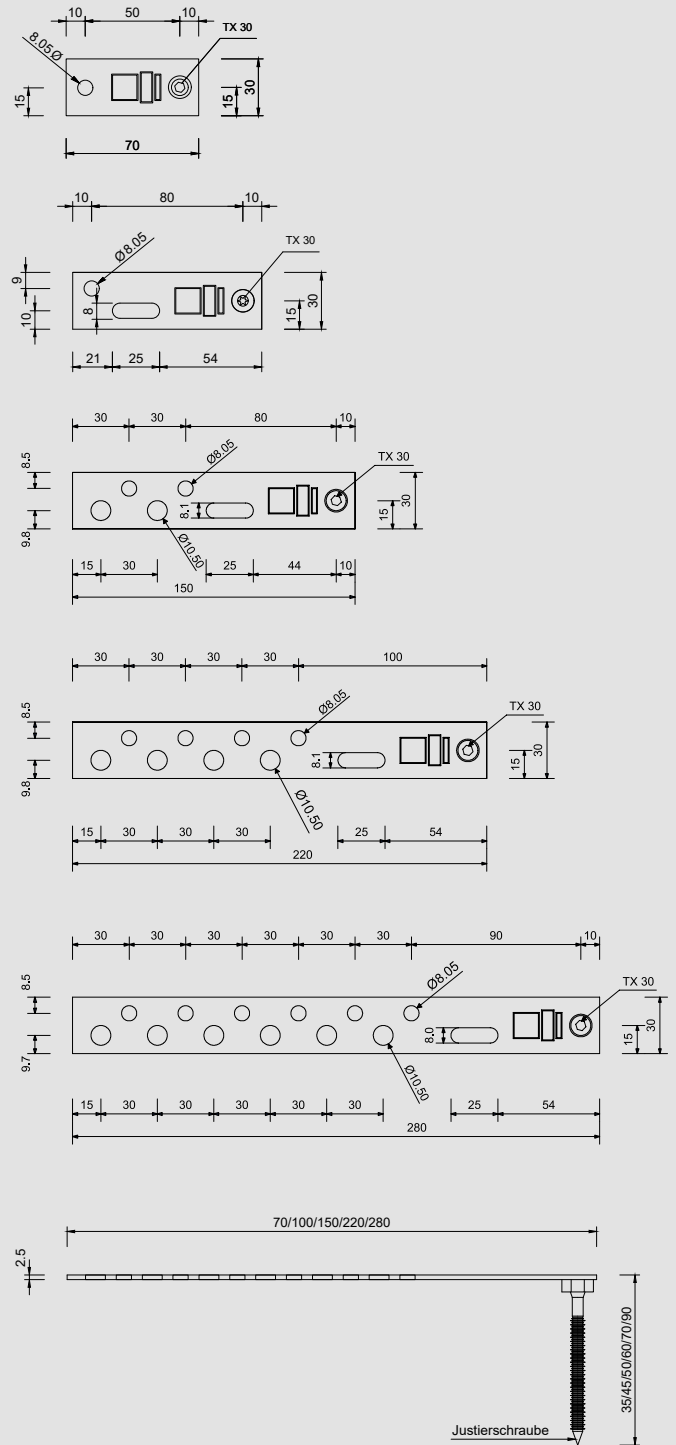
Jamb, substrate	Drill hole Ø	Screw-in depth	Rotary drilling	Impact drilling
Concrete	6.5 mm	40 mm		x
Sand-lime brick	6.5 mm	60 mm		x
Solid brick	6.0 mm	60 mm	x	
Wood	6.0 mm	60 mm	x	
Lightweight concrete LC6	6.0 mm	60 mm	x	
Aerated concrete PP2	w/o pre-drilling	210 mm	-	
Aerated concrete PP4/6	w/o pre-drilling	180 mm	-	
Vertically perforated brick e.g. T14, T18	6.0 mm	min. 180 mm	x	
Highly insulated vertically perforated brick	5.0 mm	min. 180 mm	x	

*Due to the varying microstructures, we also recommend carrying out corresponding pretests.

With offset adjusting screw:

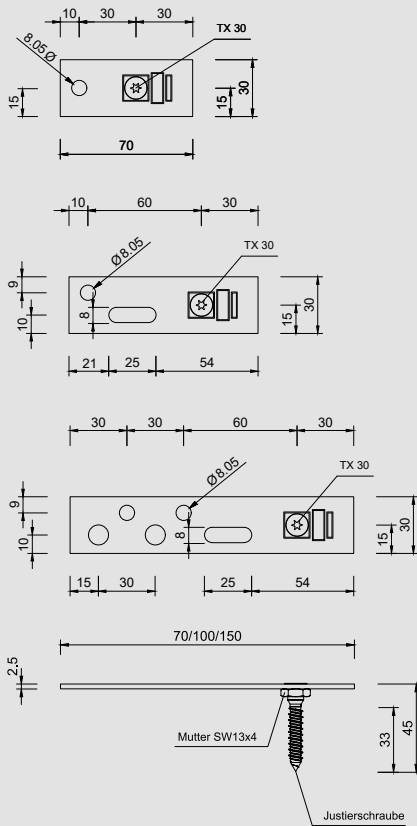


With adjusting screw:





Narrow joint with offset adjusting screw:



Product name	PU	Item no.
blaugelb Protect Offset Adjusting Screw 70/35 mm	50 pieces	9279292
blaugelb Protect Offset Adjusting Screw 70/45 mm	50 pieces	9279314
blaugelb Protect Offset Adjusting Screw 70/50 mm	50 pieces	9279316
blaugelb Protect Offset Adjusting Screw 70/60 mm	50 pieces	9279318
blaugelb Protect Offset Adjusting Screw 70/70 mm	30 pieces	9279320
blaugelb Protect Offset Adjusting Screw 70/90 mm	30 pieces	9279322
blaugelb Protect 70/35 mm	50 pieces	9279291
blaugelb Protect 70/45 mm	50 pieces	9279293
blaugelb Protect 70/50 mm	50 pieces	9279315
blaugelb Protect 70/60 mm	50 pieces	9279317
blaugelb Protect 70/70 mm	50 pieces	9279319
blaugelb Protect 70/90 mm	50 pieces	9279321
blaugelb Protect Offset Adjusting Screw 100/35 mm	50 pieces	9072634
blaugelb Protect Offset Adjusting Screw 100/45 mm	50 pieces	9190694
blaugelb Protect Offset Adjusting Screw 100/50 mm	50 pieces	9072635
blaugelb Protect Offset Adjusting Screw 100/60 mm	50 pieces	9190695
blaugelb Protect Offset Adjusting Screw 100/70 mm	30 pieces	9072636
blaugelb Protect Offset Adjusting Screw 100/90 mm	30 pieces	9072637

Product name	PU	Item no.
blaugelb Protect adjusting screw 100/45 mm	50 pieces	9374804
blaugelb Protect adjusting screw 100/50 mm	50 pieces	9374805
blaugelb Protect adjusting screw 100/60 mm	50 pieces	9374806
blaugelb Protect adjusting screw 100/70 mm	50 pieces	9374807
blaugelb Protect 100/o. adjusting screw	100 pieces	9374808
blaugelb Protect Offset Adjusting Screw 150/35 mm	50 pieces	9066758
blaugelb Protect Offset Adjusting Screw 150/45 mm	50 pieces	9190352
blaugelb Protect Offset Adjusting Screw 150/50 mm	50 pieces	9066759
blaugelb Protect Offset Adjusting Screw 150/60 mm	50 pieces	9190353
blaugelb Protect Offset Adjusting Screw 150/70 mm	30 pieces	9068749
blaugelb Protect 150/35 mm	50 pieces	0428828
blaugelb Protect 150/45 mm	50 pieces	9190350
blaugelb Protect 150/50 mm	50 pieces	0428830
blaugelb Protect 150/60 mm	50 pieces	9190351
blaugelb Protect 150/70 mm	50 pieces	0428831
blaugelb Protect 150/90 mm	50 pieces	0428832
blaugelb Protect 150/without adjusting screw	50 pieces	0428833
blaugelb Protect 220/35 mm	25 pieces	0428834
blaugelb Protect 220/50 mm	25 pieces	0428835
blaugelb Protect 220/70 mm	25 pieces	0428836
blaugelb Protect 220/90 mm	25 pieces	0428837
blaugelb Protect 280/35 mm	25 pieces	0428838
blaugelb Protect 280/50 mm	25 pieces	0428839
blaugelb Protect 280/70 mm	25 pieces	0428840
blaugelb Protect 280/90 mm	25 pieces	0428841
blaugelb Protect Offset Adjusting Screw 70/45 mm narrow joint	50 pieces	9356593
blaugelb Protect Offset Adjusting Screw 100/45 mm narrow joint	50 pieces	9356604
blaugelb Protect Offset Adjusting Screw 150/45 mm narrow joint	50 pieces	9356605
blaugelb Protect Spanner galv.	1 piece	9205757
blaugelb Protect Spanner Narrow Joint	1 piece	9365057
blaugelb Frame Screw Fix FK-T30 7,5x42 mm vz	100 pieces	0422310
blaugelb Frame Screw Fix FK-T30 7,5x62 mm vz	100 pieces	0422314
blaugelb Frame Screw Fix FK-T30 7,5x132 mm vz	100 pieces	0422327
blaugelb Frame Screw Fix FK-T30 7,5x182 mm vz	100 pieces	0422331
blaugelb Frame Screw Fix FK-T30 7,5x212 mm vz	100 pieces	0422333



Mounting instructions:

Full information regarding the individual installation steps can be found in the detailed installation instructions.