

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.



blaugelb Protect fastening system

Tested safety, for a good feeling.

- Adjust easily and fasten securely
- For securing RC 2 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

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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 window soffit, 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.

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 fixing screw 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.

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_{Hail} R_d = (from the outside inwards from wind suction, railing loads)

 $F_{H,a}$, R_{d} = (from the inside outwards from wind suction, railing loads)

- Verification of suitability for RC 2 provided
- Vertical load introduction

Material	Frame screw Fix FK-T30	
Hollow brick (HLZ), SFK 8	7.5 x 182 mm	
Hollow 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 vith 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 RC 2 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 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

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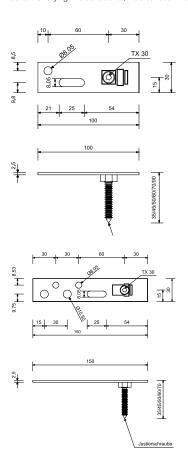


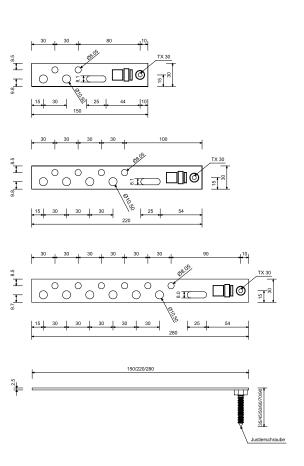
Preliminary drilled hole in window frame:	Ø 5/6 mm with PVC frame Ø 6 mm with wood frame Ø 5 mm with aluminium frame Blind hole, facing the installation joint
Reinforcement in window frame (plastic):	At least 1.5 mm, screw-fastening of reinforcement as per profile system specifications

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	-	
Hollow brick e.g. T14, T18	6.0 mm	min. 180 mm	x	
Highly insulated hollow brick	5.0 mm	min. 180 mm	x	

 $^{^{\}star}$ Due to the varying microstructures, we also recommend carrying out corresponding pretests.





Product name	PU	Item no.
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
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

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Product name	PU	Item no.
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 spanner galv.	1 piece	9205757
blaugelb Frame Screw Fix FK-T30 7.5x42 mm galv.	100 pieces	0422310
blaugelb Frame Screw Fix FK-T30 7.5x62 mm galv.	100 pieces	0422314
blaugelb Frame Screw Fix FK-T30 7.5x132 mm galv.	100 pieces	0422327
blaugelb Frame Screw Fix FK-T30 7.5x182 mm galv.	100 pieces	0422331
blaugelb Frame Screw Fix FK-T30 7.5x212 mm galv.	100 pieces	0422333

Mounting instructions:

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