

BAKA® Protect Serie 2000 / 4000



SIMONSWERK BAKA® Protect

BAKA Protect
Series 2000 / 4000

The adjustable hinge system
for timber entrance doors

BAKA PROTECT

2D

BAKA Protect 2010 2D	two-dimensionally adjustable	up to 120 kg	4
BAKA Protect 2010 2D FD	two-dimensionally adjustable	up to 120 kg	4
BAKA Protect 2020 2D	two-dimensionally adjustable	up to 120 kg	4
BAKA Protect 2030 2D FD	two-dimensionally adjustable	up to 120 kg	4
BAKA Protect 2040 2D FD	two-dimensionally adjustable	up to 120 kg	4

3D

BAKA Protect 4010 3D	three-dimensionally adjustable	up to 160 kg	6
BAKA Protect 4010 3D FD	three-dimensionally adjustable	up to 160 kg	6
BAKA Protect 4020 3D	three-dimensionally adjustable	up to 160 kg	6
BAKA Protect 4020 3D FD	three-dimensionally adjustable	up to 160 kg	6
BAKA Protect 4030 3D FD	three-dimensionally adjustable	up to 160 kg	6
BAKA Protect 4040 3D FD	three-dimensionally adjustable	up to 160 kg	6
BAKA Protect 4048 3D	three-dimensionally adjustable	up to 120 kg	9

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Series BAKA Protect 2000

Hinge system with 2D adjustment for timber entrance doors

entrance door	up to 120 kg	2D adjustment
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Technical Data

Load capacity	120.0 kg
Knuckle length	120.0 mm
Knuckle diameter	20.0 mm
Cutter diameter	20.0 mm

Product features

- Matched to current profile constructions
- Comfortable 2D-adjustment
 - Side ± 3.0 mm
 - Compression ± 3.0 mm
- Minimized routing work

Model version

Hinge system	BAKA Protect 2010 2D
	BAKA Protect 2010 2D FD
	BAKA Protect 2020 2D
	BAKA Protect 2030 2D FD
	BAKA Protect 2040 2D FD

Detailed information on www.simonswerk.com

Installation Tools

Jig	Frame	Plug-in drilling jig BAKA Protect 2000 ball bearing location jig BAKA Protect 2000 frame door
	door	routing jig BAKA Protect 2000 ball bearing location routing jig BAKA Protect 2000 door

See page 12 and following

Finish

stainless steel satin brushed, top zinc, traffic white - RAL 9016, brown - H9

Note

Also available with security pin (MST).

Download routing data from www.simonswerk.com.

Functional range

burglar resistance

Quality marks



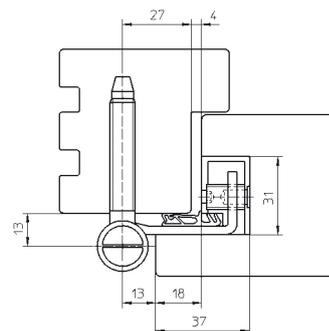
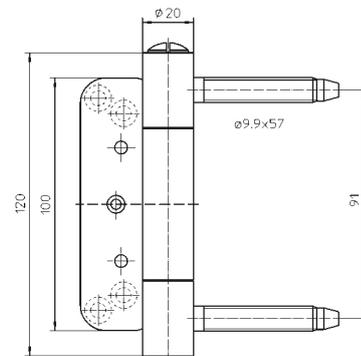
Finial options



Basic

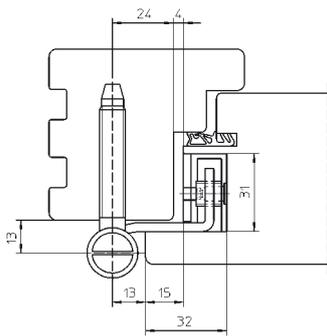
Soft

ZK

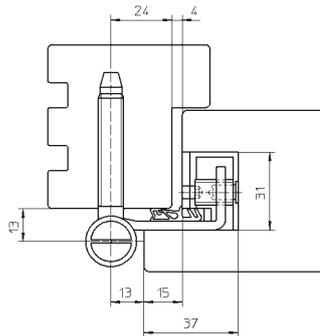


Series BAKA Protect 2000

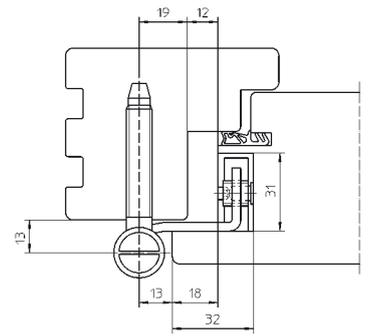
**15 mm overlap
without sash accoustic seal**
Model: BAKA Protect 2010 2D



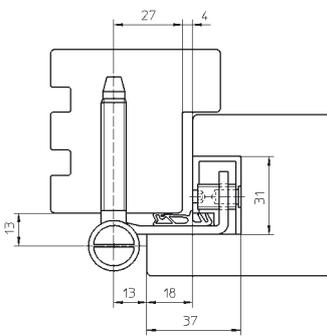
**15 mm overlap
with sash accoustic seal**
Model: BAKA Protect 2010 2D FD



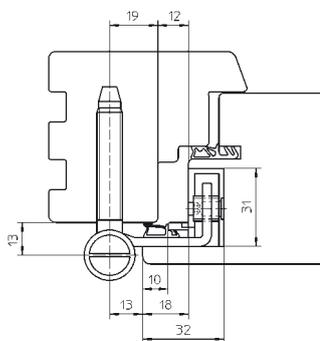
**18 mm overlap
without sash accoustic seal**
Model: BAKA Protect 2010 2D



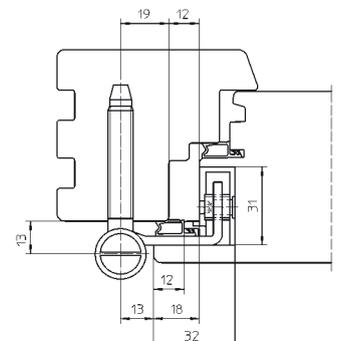
**18 mm overlap
without sash accoustic seal**
Model: BAKA Protect 2010 2D FD



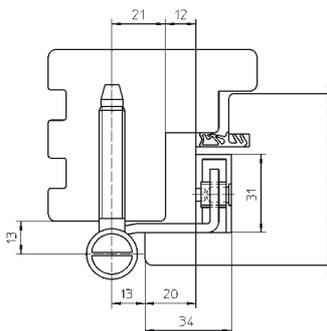
**18 mm overlap
with sash accoustic seal (10 mm)**
Model: BAKA Protect 2030 2D FD



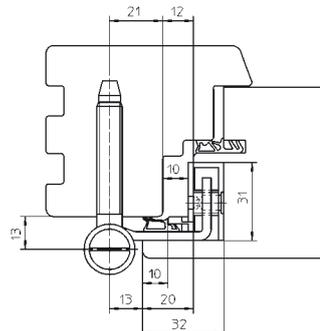
**18 mm overlap
with sash accoustic seal (12 mm)**
Model: BAKA Protect 2040 2D FD



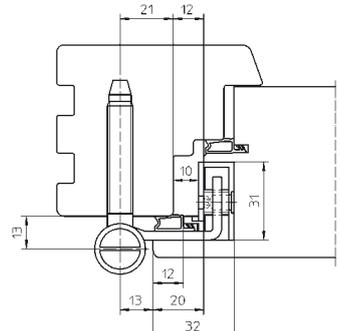
**20 mm overlap
without sash accoustic seal**
Model: BAKA Protect 2020 2D



**20 mm overlap
with sash accoustic seal (10 mm)**
Model: BAKA Protect 2030 2D FD



**20 mm overlap
with sash accoustic seal (12 mm)**
Model: BAKA Protect 2040 2D FD



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Series BAKA Protect 4000

Hinge system with easy adjustment by means of an eccentric for timber entrance doors

entrance door	up to 160 kg	3D adjustable
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Technical Data

Load capacity	160.0 kg
Knuckle length	140.0 mm
Knuckle diameter	20.0 mm
Cutter diameter	20.0 mm

Product features

- Matched to current profile constructions
- Comfortable 3D-adjustment
Side +/-3.0 mm, Height +/-3.0 mm, Compression +/-3.0 mm
- Minimized routing work
- Internal hinge pin

Model version

Hinge system	BAKA Protect 4010 3D	BAKA Protect 4010 3D FD
	BAKA Protect 4020 3D	BAKA Protect 4030 3D FD
	BAKA Protect 4040 3D FD	BAKA Protect 4040 3D FD

Detailed information on www.simonswerk.com

Combination

Accessories	decorative sleeve No.12
see page 10	

Installation Tools

Jig	Frame	Drilling/Routing jig BAKA Protect 4000 frame ball bearing location drilling/routing jig BAKA Protect 4000 frame
	Door	routing jig BAKA Protect 4000 door ball bearing location routing jig BAKA Protect 4000 door

see page 14

Finish

stainless steel satin brushed, top zinc, traffic white - RAL 9016, brown - H9

Note

Set consists of 3 hinges (1 hinge = height adjustment, 2 hinges = compression adjustment).

Also available with security pin (MSTS).

Download routing data from www.simonswerk.com.

Functional range

burglar resistance

Quality marks



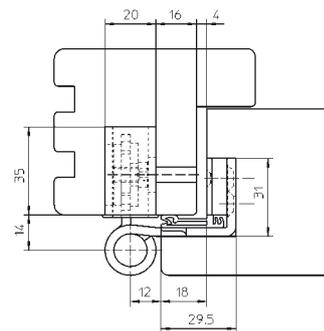
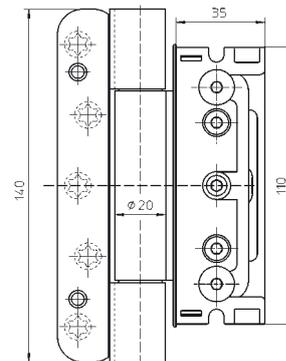
Finial options



Basic

Soft

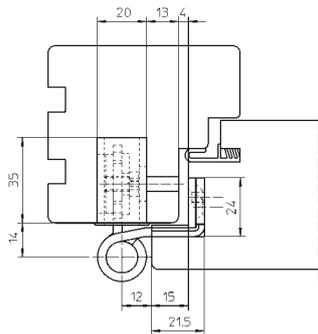
ZK



Series BAKA Protect 4000

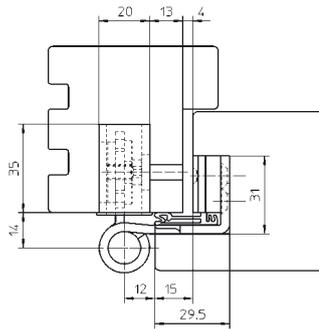
**15 mm overlap
without sash acoustic seal**

Model: BAKA Protect 4010 3D



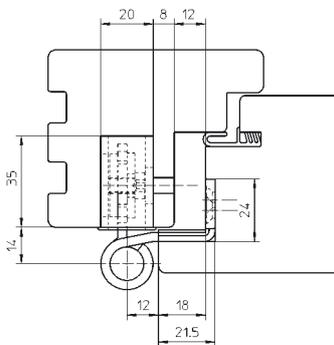
**15 mm overlap
with sash acoustic seal**

Model: BAKA Protect 4010 3D FD



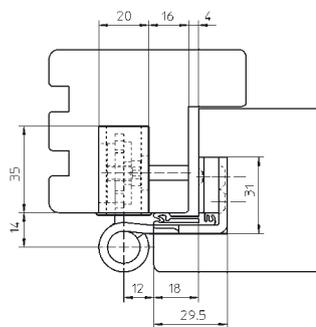
**18 mm overlap
without sash acoustic seal**

Model: BAKA Protect 4010 3D



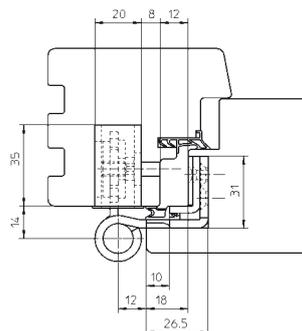
**18 mm overlap
with sash acoustic seal**

Model: BAKA Protect 4010 3D FD



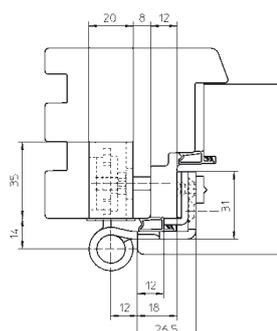
**18 mm overlap
with sash acoustic seal (10 mm)**

Model: BAKA Protect 4030 3D FD



**18 mm overlap
with sash acoustic seal (12 mm)**

Model: BAKA Protect 4040 3D FD



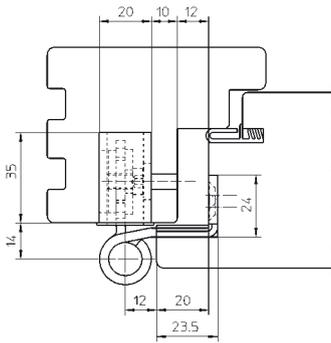
Section drawings for 20 mm overlap versions you will find on page 8

MODEL VERSIONS

Series BAKA Protect 4000

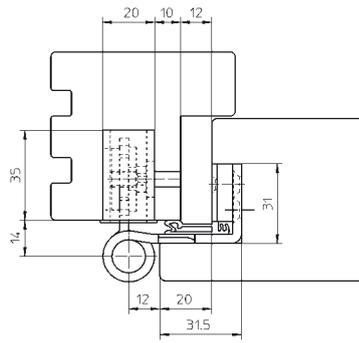
**20 mm overlap
without sash accoustic seal**

Model: BAKA Protect 4020 3D



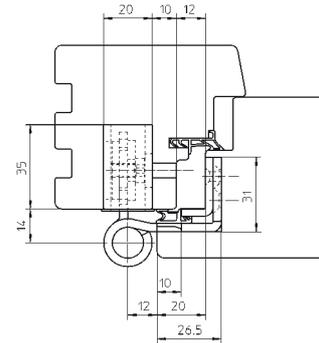
**20 mm overlap
with sash accoustic seal**

Model: BAKA Protect 4020 3D FD



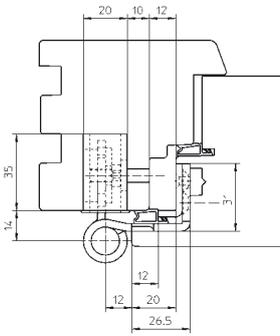
**20 mm overlap
with sash accoustic seal (10 mm)**

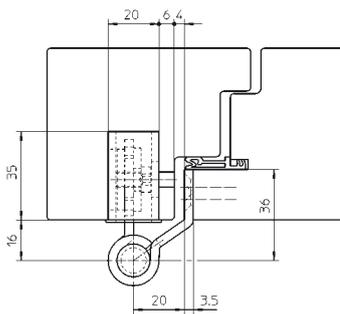
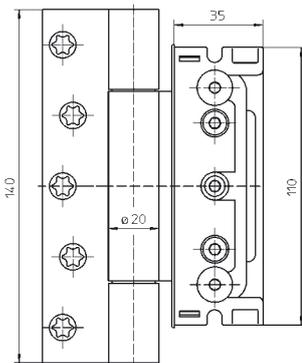
Model: BAKA Protect 4030 3D FD



**20 mm overlap
with sash accoustic seal (12 mm)**

Model: BAKA Protect 4040 3D FD





BAKA Protect 4048 3D

with comfortable 3D adjustment by means of an eccentric for rebated-flush timber entrance doors

entrance door	up to 120 kg	3D adjustable
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Technical Data

Load capacity	120.0 kg
Knuckle length	140.0 mm
Knuckle diameter	20.0 mm
Cutter diameter	20.0 mm

Product features

- Receiver concealed in frame
- Maintenance-free slide bearing technology
- Easy 3D adjustment
Side +/-3.0 mm, Height +/-3.0 mm, Compression +/-3.0 mm
- Comfortable adjustment by means of eccentric
- Internal hinge pin

Combination

Accessories	Cover cap BAKA Protect 4000
see page 10	

Installation Tools

Jig	Frame	Drilling-/Routing jig BAKA Protect 4000 frame Ball bearing location drilling/routing jig BAKA Protect 4000 frame
	Door	on demand

see page 14

Finish

stainless steel satin brushed, top zinc, traffic white - RAL 9016

Note

Set consists of 3 hinges (1 hinge = height adjustment, 2 hinges = compression adjustment).

Also available with security pin (MST).

Download routing data from www.simonswerk.com.

Cover Cap BAKA Protect 4000

Accessories for timber entrance doors with 3D adjustment

Accessories	Cover cap
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Combination

Door hinge	BAKA Protect 4010 3D	BAKA Protect 4010 3D FD
	BAKA Protect 4020 3D	BAKA Protect 4020 3D FD
	BAKA Protect 4030 3D FD	BAKA Protect 4040 3D FD
		BAKA Protect 4048 3D

Finishes

traffic white - RAL 9016, agate grey - RAL 7038, jet black - RAL 9005, brown beige - RAL 1011/light brown, terra brown - RAL 8028/dark brown

Note

To be used for covering the rebate holes in the frame, dimensions 117.0 x 13.0 mm.



Decorative Sleeve No. 11

Combination

Door hinge	BAKA Protect 2010 2D
	BAKA Protect 2010 2D FD
	BAKA Protect 2020 2D
	BAKA Protect 2030 2D FD
	BAKA Protect 2040 2D FD

Finish

satin chromed/F1, satin nickelled/F2, chromed, gilded, browned, traffic white - RAL 9016, brown - H9



Decorative Sleeve No. 12

Combination

Door hinge	BAKA Protect 4010 3D
	BAKA Protect 4010 3D FD
	BAKA Protect 4020 3D
	BAKA Protect 4020 3D FD
	BAKA Protect 4030 3D FD
	BAKA Protect 4040 3D FD

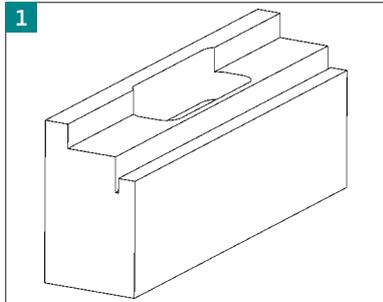
Finish

satin chromed/F1, satin nickelled/F2, chromed, gilded, browned, traffic white - RAL 9016, brown - H9

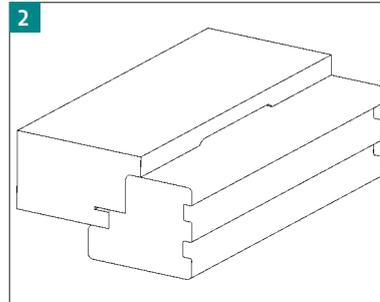


FITTING/ADJUSTMENT

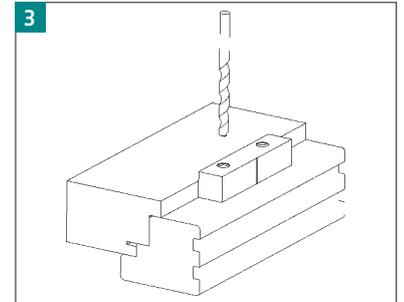
Series BAKA Protect 2000



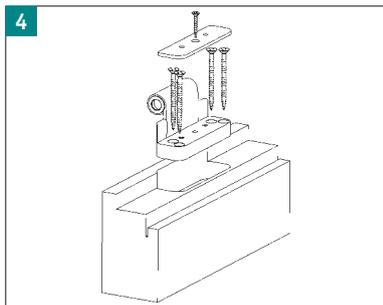
1 Determine the hinge position in the door and conduct the routing. Cutter Ø according to data on the template.



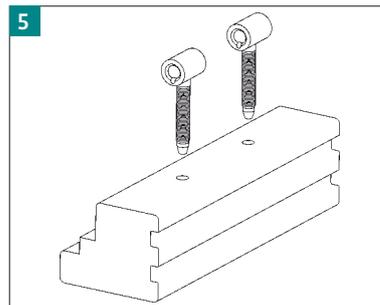
2 Insert the door into the frame and pull to the hinge side.



3 Insert the jig in the mortise (4 mm clearance on the hinge side is taken into account in the jig). Determine upper clearance by means of spacer blocks. Drill the holes using an 8.8 mm Øbit. Remove the door from the frame.



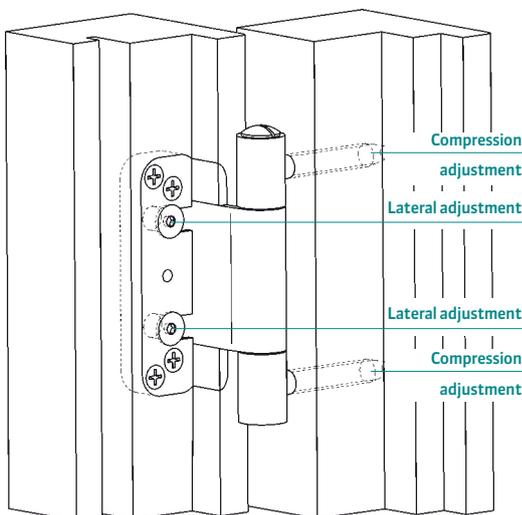
4 Fasten the door part in the mortise with 4 wood screws 5 x 40 mm.



5 Screw the frame parts in, depending on the sealing compression and bring them in an upright position. Insert the door and drive the hinge pin in.

Important Note

Avoid damaging the bearings when fitting the door!



Series BAKA Protect 2000

Two-dimensionally, continuously adjustable

Side	+/- 3.0 mm
Compression	+/- 3.0 mm

Lateral adjustment

- Turn the adjustment screws in the required direction.
- Avoid strain on the axis of all hinges.

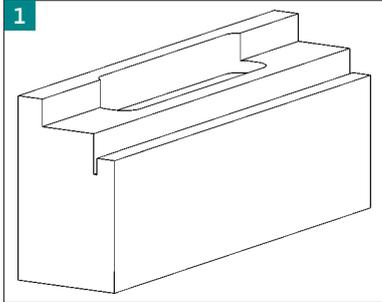
Compression adjustment

- Remove the door
- Adjust by turning the frame pins in or out
- Refit the door

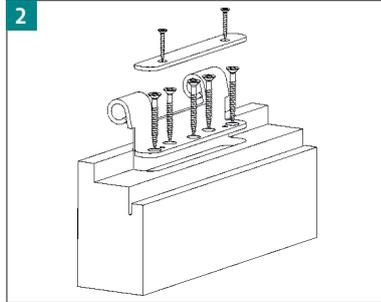
All adjustments can be conducted by a 4 mm Allen key.

FITTING

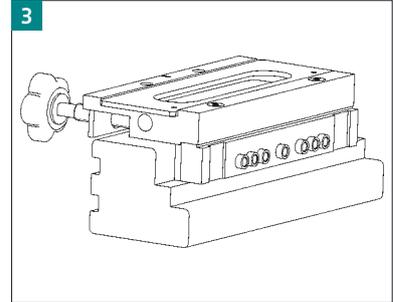
Series BAKA Protect 4000



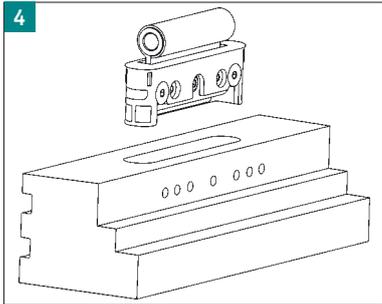
1 Determine the hinge position in the door. Conduct the routing work. Cutter \varnothing according to data on the template.



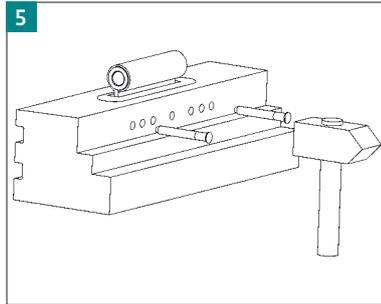
2 Fasten the door part in the mortise with 5 wood screws 5 x 40 mm.



3 Clamp on the drilling/routing jig. Drill the holes using a 6.0 mm \varnothing bit; cutter \varnothing according to data on the template.



4 Insert the receivers and place the side with the adjustment screws to the drill holes. Caution: Hinges „A“ are inserted at the top and bottom, hinge „H“ is inserted in the middle.

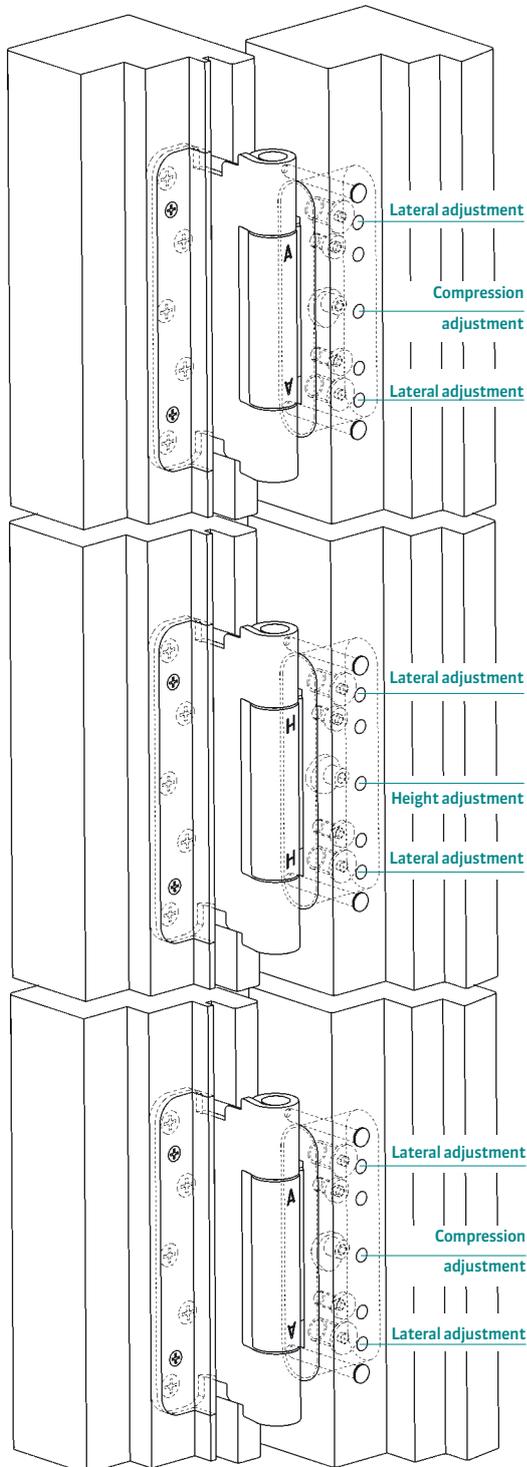


5 Drive fastening pins into the upper and lower drill hole, mount the door, insert the hinge pin.

Important Note

Avoid damaging the bearings when fitting the door!

ADJUSTMENT



Series BAKA Protect 4000

Three-dimensionally, continuously adjustable

Side	+/- 3.0 mm
Height	+/- 3.0 mm
Compression	+/- 3.0 mm

Lateral adjustment

- Turn both adjustment screws equally (max. one turn) in relevant direction.
- Avoid tilt knuckles and tension on the axis. Proper alignment is crucial!

Height adjustment

- Slightly loosen the clamping screws in the frame part of all hinges.
- Adjust the height by turning the eccentric adjustments of the middle hinge in the desired direction.
- Retighten the clamping screws.

Compression adjustment

- Slightly loosen the clamping screws in the frame part of all hinges.
- Adjust the compression by turning the eccentric adjustments of the upper and the lower hinge in the desired direction.
- Retighten the clamping screws.

All adjustments can be conducted by a 4 mm Allen key.

Plug-in drilling jig BAKA Protect 2000

Jig for the frame drillings.

To be used for

BAKA Protect 2010 2D
BAKA Protect 2010 2D FD
BAKA Protect 2020 2D
BAKA Protect 2030 2D FD
BAKA Protect 2040 2D FD

The complete jig consists of

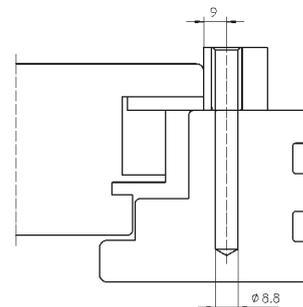
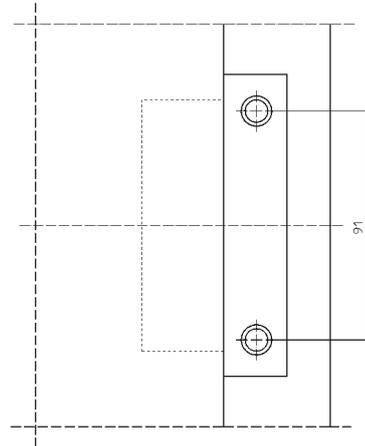
- 1 drilling jig
- 1 drill bit $\varnothing 8.8$ mm
- 1 set ring
- 1 wind-in claw $\varnothing 20$ mm
- 1 fitting instruction

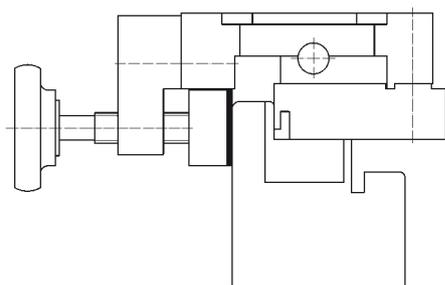
Fitting instructions

1. Determine hinge position on door leaf. Rout the mortise in the door leaf with BAKA Protect 2000 routing jig.
2. Insert door leaf in frame. The 4-mm clearance on the hinge side is considered in the drilling jig.
3. If necessary, screw the compensation plate to the plug-in drilling jig BAKA Protect 2000 (see imprint). Dependent on the door construction!
4. Fix BAKA Protect 2000 plug-in jig in the mortise slot and drill holes. Remove door leaf from frame, screw in frame parts according to seal pressure and align vertically. Screw BAKA Protect 2000 door part into the mortise. Insert door leaf and drive the pin.

Note

Please indicate hinge type when ordering drilling jig.





Routing jig BAKA Protect 2000 door

Jig for the door part routings.

To be used for

BAKA Protect 2010 2D
 BAKA Protect 2010 2D FD
 BAKA Protect 2020 2D
 BAKA Protect 2030 2D FD
 BAKA Protect 2040 2D FD

The complete jig consists of

1 routing jig
 1 routing template BAKA Protect 2000 door 20/3D
 1 fitting instruction

Fitting instructions

1. Clamp routing jig onto workpiece, insert template and conduct the routing.
2. Loosen quick-release clamp and remove routing jig.
 Cutter: $\varnothing 20$ mm
 Collar ring: $\varnothing 30$ mm

Note

Templates for the following combinations (cutter/collar ring) are also available as accessories:

template BAKA Protect 2000 door 16/30
 template BAKA Protect 2000 door 16/27
 template BAKA Protect 2000 door 20/27

Ball bearing location drilling jig 2000 frame

Jig for ,the drillings in the frame separately.

To be used for

BAKA Protect 2010 2D

BAKA Protect 2010 2D FD

BAKA Protect 2020 2D

BAKA Protect 2030 2D FD

BAKA Protect 2040 2D FD

The complete jig consists of

3 drilling jigs

1 square connecting rod with ball-bearing location guide

2 fittings

1 drill bit $\varnothing 8.8$ mm

1 set ring

1 wind-in claw $\varnothing 20$ mm

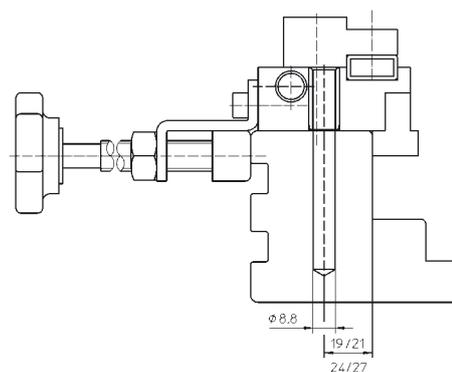
1 fitting instruction

Fitting instructions

1. The end stops need to be individually adjusted for right- or left hand and placed into the frame rebate.
2. Align ball-bearing location drilling jig with the door jig.
3. Adjust the side stops depending on door construction (see imprint)
4. Clamp ball-bearing location drilling jig to the work piece. The 4 mm clearance on the hinge side is considered in the drilling jig.
5. Drill holes ($\varnothing 8.8$ -mm drill bit)
6. Screw in frame parts according to required depth position, and align vertically.
7. Insert door leaf and drive the pin in.

Note

Additional drilling jigs for mounting further hinges are available on request.





Ball bearing location routing jig BAKA Protect 2000 door

With this serial routing jig door leaves and frames can be fitted rationally. Easy setting of jig due to ball bearing location. Applicable for right and left hand.

To be used for

BAKA Protect 2010 2D
 BAKA Protect 2010 2D FD
 BAKA Protect 2020 2D
 BAKA Protect 2030 2D FD
 BAKA Protect 2040 2D FD

The complete jig consists of

3 routing jigs
 3 routing templates BAKA Protect 2000 door 20/30
 1 square connecting rod with ball-bearing location guide
 2 end stops
 1 fitting instruction

Fitting instructions

1. The end stops need to be individually adjusted for right - or left hand and placed into the door rebate.
2. Align BAKA Protect 2000 door ball bearing location routing jig with frame jig.
3. Clamp ball bearing location routing jig to the workpiece, insert template and rout.
4. Conduct the routing, loosen quick-release clamp and remove ball bearing location routing jig.
 Cutter: $\varnothing 20$ mm
 Collar ring: $\varnothing 30$ mm

Note

Templates for the following combinations (cutter/collar ring) are also available as accessories:

routing template BAKA Protect 2000 door 16/30
 routing template BAKA Protect 2000 door 16/27
 routing template BAKA Protect 2000 door 20/27

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Drilling-/routing jig BAKA Protect 4000 frame

For drilling the 7 frame holes and routing for the following hinges.

To be used for

BAKA Protect 4010 3D

BAKA Protect 4010 3D FD

BAKA Protect 4020 3D

BAKA Protect 4030 3D FD

BAKA Protect 4040 3D FD

BAKA Protect 4048 3D

The complete jig consists of

1 drilling-/ routing jig

1 routing template BAKA Protect 4000 frame 20/30

1 drill bit Ø 6 mm

1 set ring

1 fitting instruction

Fitting instructions

1. Determine hinge position.
2. Adjust the side stops depending on door construction (see imprint).
3. Clamp drilling-/routing jig onto the workpiece. The clearance on the hinge side is considered in the jig.
4. Drill frame holes (Ø 6.0 mm drill bit).
5. Rout mortise
Cutter: Ø 20 mm
Collar ring: Ø 30 mm.
6. Insert receiver and lock in place with fastening pins.

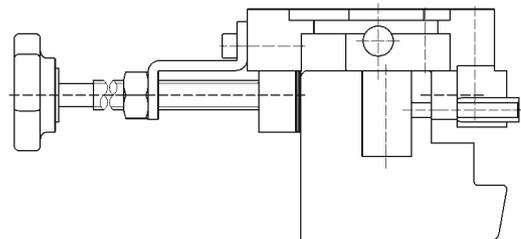
Note

Templates for the following combinations (cutter/collar ring) are also available as accessories:

routing template BAKA Protect 4000 frame 16/30

routing template BAKA Protect 4000 frame 16/27

routing template BAKA Protect 4000 frame 20/27





Retrofit kit BAKA Protect 4000

With this retrofit kit you can continue working with your already existing drilling/routing jigs BAKA protect 3D frame. The only thing to do is to exchange the drilling rail on the used jig.

To be used for

BAKA Protect 4010 3D
BAKA Protect 4010 3D FD
BAKA Protect 4020 3D
BAKA Protect 4020 3D FD
BAKA Protect 4030 3D FD
BAKA Protect 4040 3D FD
BAKA Protect 4048 3D

The complete kit exists of:

- 1 drilling rail
- 3 side stops
- 1 drill bit Ø 6.0 mm
- 1 set ring
- 2 fixing screws

Fitting instructions

1. Exchange drilling rail on existing drilling/routing jig.
2. Adjust the side stops depending on door construction (see imprint).
Standard position is 18 mm overlap and 4 mm clearance.
3. Clamp drilling-/routing jig onto the workpiece. The clearance on the hinge side is considered in the jig.
4. Drill frame holes (Ø 6.0 mm drill bit).
5. Rout mortise
Cutter: Ø 20 mm
Collar ring: Ø 30 mm.
6. Insert receiver and lock in place with fastening pins.

Routing jig BAKA Protect 4000 door

Jig for door routings for the following hinges:

To be used for

BAKA Protect 4010 3D

BAKA Protect 4010 3D FD

BAKA Protect 4020 3D

BAKA Protect 4030 3D FD

BAKA Protect 4040 3D FD

The complete jig consists of

1 routing jig

1 routing template BAKA Protect 4000 door 20/30

1 fitting instruction

Fitting instructions

1. Clamp routing jig onto workpiece, insert template and conduct the routing.
2. After routing, loosen quick-release clamp and remove ball bearing location routing jig.

Cutter: Ø 20 mm

Collar ring: Ø 30 mm

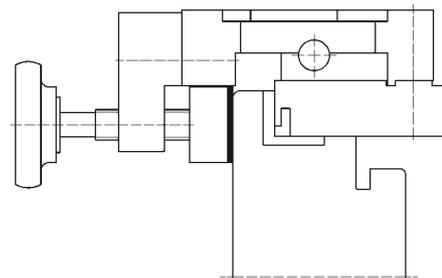
Note

Templates for the following combinations (cutter/collar ring) are also available as accessories:

routing template BAKA Protect 4000 door 16/30

routing template BAKA Protect 4000 door 16/27

routing template BAKA Protect 4000 door 20/27





Ball bearing location drilling/routing jig BAKA Protect 4000 frame

With this serial drilling/routing jig the 7 frame drillings and the routings for the hinges listed below can be done.

Easy settings of jig due to ball bearing location.

To be used for

BAKA Protect 4010 3D

BAKA Protect 4010 3D FD

BAKA Protect 4020 3D

BAKA Protect 4030 3D FD

BAKA Protect 4040 3D FD

The complete jig consists of:

3 drilling-/ routing jigs

3 routing templates BAKA Protect 4000 frame 20/30

1 square connecting rod with ball-bearing location guide

2 end stops

1 drill bit $\varnothing 6$ mm

1 set ring

1 fitting instruction

Fitting instructions

1. The end stops need to be individually adjusted for right- or left hand and placed into the frame rebate.
2. Adjust the side stops depending on door construction (see imprint)
3. Align ball-bearing location drilling/routing jig with door jig.
4. Clamp drilling-/routing jig into workpiece. The clearance on the hinge side is considered in the jig.
5. Drill frame holes ($\varnothing 6.0$ mm drill bit).
6. Rout mortise
Cutter: $\varnothing 20$ mm
Collar ring: $\varnothing 30$ mm
7. Insert receiver and lock in place with fastening pins.

Note

Templates for the following combinations (cutter/collar ring) are also available as accessories:

routing template BAKA Protect 4000 frame 16/30

routing template BAKA Protect 4000 frame 16/27

routing template BAKA Protect 4000 frame 20/27

Ball bearing location routing jig BAKA Protect 4000 door

With this serial routing jig door leaves and frames can be fitted rationally. Easy setting of jig due to ball bearing location. Applicable for right and left hand.

To be used for

BAKA Protect 4010 3D

BAKA Protect 4010 3D FD

BAKA Protect 4020 3D

BAKA Protect 4030 3D FD

BAKA Protect 4040 3D FD

The complete jig consists of:

3 routing jigs

3 routing templates BAKA Protect 4000 door 20/30

1 square connecting rod with ball-bearing location guide

2 end stops

1 fitting instruction

Fitting instructions

1. The end stops need to be individually adjusted for right- or left hand and placed into the door rebate.
2. Align BAKA Protect 4000 door ball bearing location routing jig with frame jig.
3. Clamp ball bearing location routing jig into the workpiece, insert template and conduct the routing.
4. After routing, loosen quick-release clamp and remove ball bearing location routing jig.

Cutter: Ø 20 mm

Collar ring: Ø 30 mm

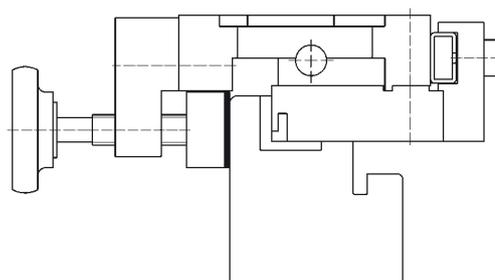
Note

Templates for the following combinations (cutter/collar ring) are also available as accessories:

routing template BAKA Protect 4000 door 16/30

routing template BAKA Protect 4000 door 16/27

routing template BAKA Protect 4000 door 20/27



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SIMONSWERK advise **FESTOOL** routing technology. Please contact us.

Brochure BAKA® Protect
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