

01-MINI-1002-HMV/FENG

# Minimat



**Mini hinge**  
*with maximum effect*



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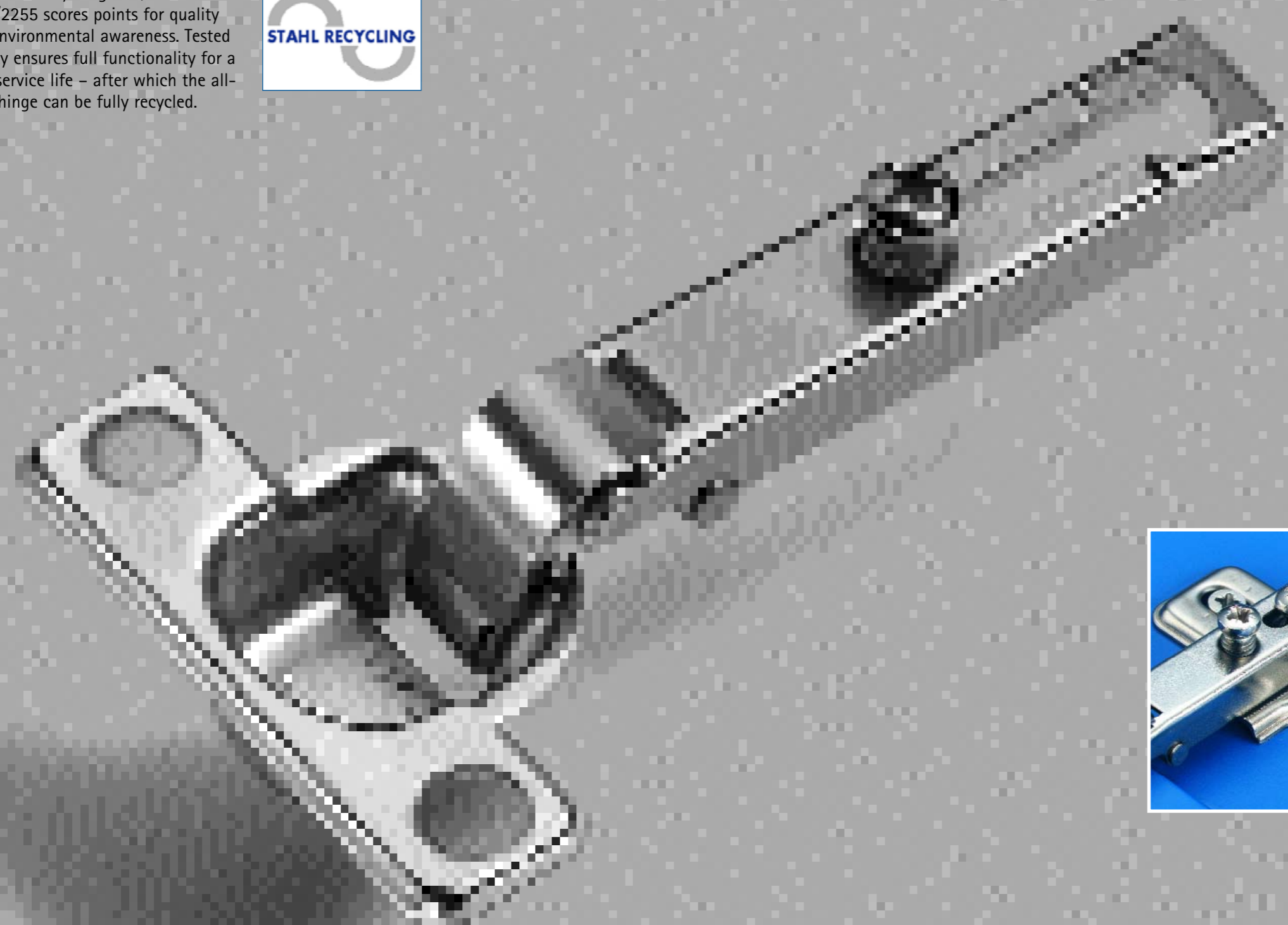
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# Mini hinge with maximum effect

# Minimat

Apart from anything else, Minimat 2225/2255 scores points for quality and environmental awareness. Tested quality ensures full functionality for a long service life – after which the all-steel hinge can be fully recycled.



Minimat hinges are supplied on request with premounted Euro screws in the cup body and mounting plate. This high level of preassembly is ideal for RTA furniture.



Hinge technology from Hettich – regardless of the performance class – can always be recognized by its quality and ease of assembly. And when a hinge is intended primarily for the consumer and RTA market, logistics and safe assembly also play a decisive role.

Minimat 2225/2255 does well by all these criteria. The symmetrical mounting plate virtually rules out incorrect installation. Alternatively – and better still – the mounting plate and hinge can be supplied preassembled. All that is left to do is to fix the premounted captive screws to the cabinet and door panel.



Application areas for Minimat are obvious. This hinge is always a low-cost/high-benefit solution, especially in RTA furniture and frame doors. The high degree of bundling eliminates packaging and assembly errors.

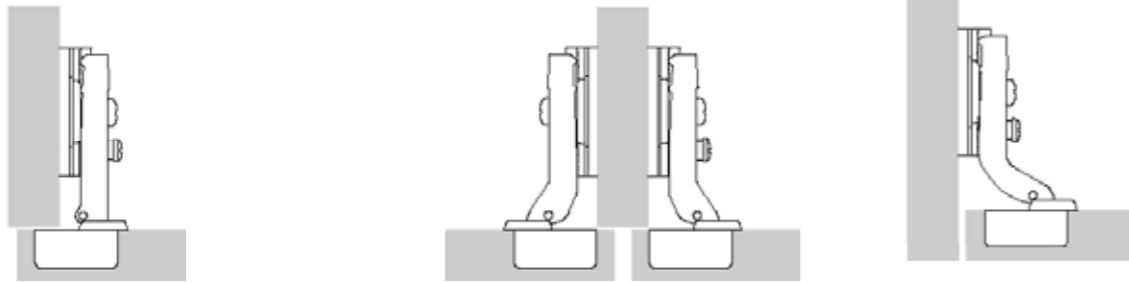
# Minimat mini hinges

## Technical information



### Mounting positions:

There are three basic methods for mounting doors.



#### Full overlay:

In this configuration, the door is positioned in front of a side wall of the cabinet. The reveal at one side is such that the door can be opened safely.

#### Half overlay:

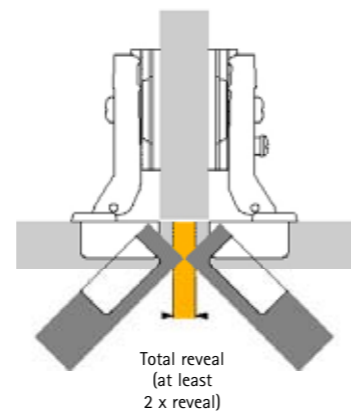
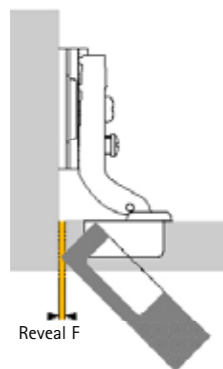
In this configuration, two doors are positioned in front of the middle wall of a cabinet. The distance between the doors is the total required reveal. The reduced door overlay necessitates the use of cranked hinges.

#### Inset:

In this configuration, the door is positioned inside the side wall of the cabinet. A reveal is required for opening the door. This configuration necessitates the use of heavily cranked hinges.

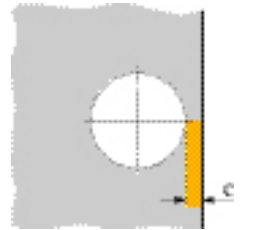
### Minimum door reveal:

The reveal, also called door deflection, is the space required for opening a door. The amount of reveal depends on the cup distance C, the door thickness and the hinge type. Chamfered door edges reduce the reveal. The required minimum reveal can be read from the table given for each hinge type. For half overlay configurations, the total reveal between the doors must be at least twice the door reveal. Both doors can then be opened at the same time.



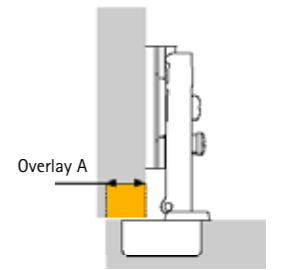
### Cup distance C:

The cup distance C is the distance between the edge of the door and the edge of the cup hole. The maximum cup distance depends on the kinematics of the hinge in question. The larger the cup distance, the smaller the required minimum reveal.



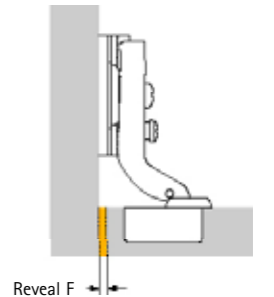
### Door overlay:

The door overlay is the distance that the door extends over the front edge of the side panel.



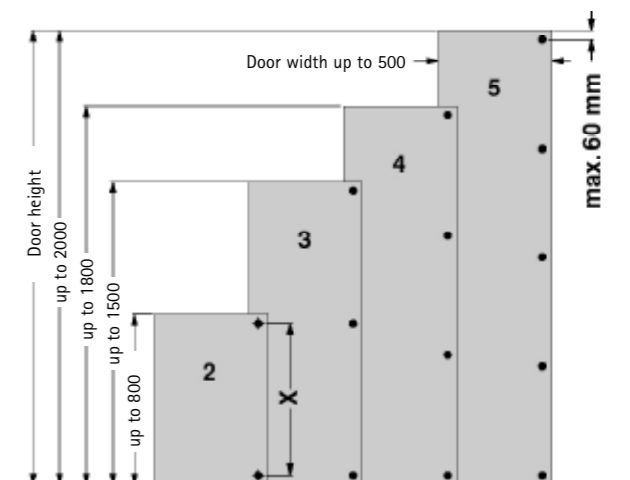
### Reveal F:

The reveal F is the distance between the outer edge of the door and the outer edge of the side panel (full overlay), the distance between two doors (half overlay), the distance between the outer edge of the door and the inner side panel (inset).



### Number of hinges per door:

Door width, door height, door weight and door material are the key factors for determining the required number of hinges. In practice, these factors are very variable. The numbers listed in the diagram are for reference only. A trial mounting is recommended if in doubt. Maximum stability is obtained by choosing the distance between hinges as large as possible. X = distance between two hinges (reference values for 19 mm thick chipboard with a density of 750 kg/m<sup>3</sup>)



# Minimat mini hinges

## Technical information



### Distance D:

Mounting plates are available in various thicknesses with an effective height characterized by the value of the distance D. Starting point for calculating the required distance is the selected hinge with defined door overlay or reveal. For a given cup distance and door thickness, first read the required reveal value from the table. If this value is too large for the desired overlay, it can be reduced, either by increasing the cup distance, or by chamfering the door edge. Then the mounting plate distance is determined using the relevant hinge cranking formula.

### Example:

Centre panel door,  
total reveal between doors 5 mm  
2335 hinge with 8 cranking  
Centre panel thickness 16 mm, door thickness 19 mm,  
nominal cup distance 3 mm

1. Table shows **minimum reveal: 2.9 mm**, ie, the total reveal should be at least 5.8 mm. But you want a total reveal of 5 mm. So increase the cup distance to 4 mm. The table now shows a minimum reveal of 2.5 mm, giving a total reveal of 5 mm.
2. **Door overlay A** =  $(\text{panel thickness} - \text{reveal}) / 2 \text{ doors} = (16.0 \text{ mm} - 5.0 \text{ mm}) / 2 = 5.5 \text{ mm}$
3. The formula for calculating the distance D for a hinge with 8 mm cranking:

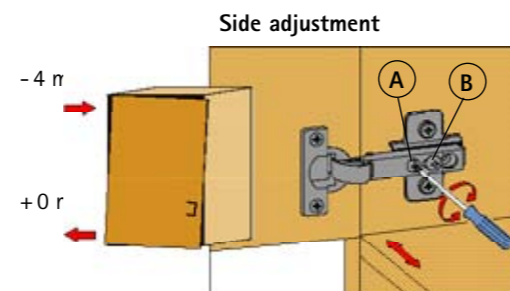
$$\text{Distance D} = \text{cup distance C} + 4.0 \text{ mm} - \text{overlay A} = 4.0 \text{ mm} + 4.0 \text{ mm} - 5.5 \text{ mm} = 2.5 \text{ mm}$$

If the calculated distance value is not listed, select the next smaller distance.

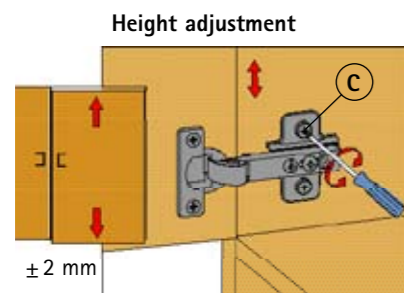
**In this example, a distance of 1.5 mm is selected. The hinge is then set at 1 mm using the side adjustment.**

### Door adjustment:

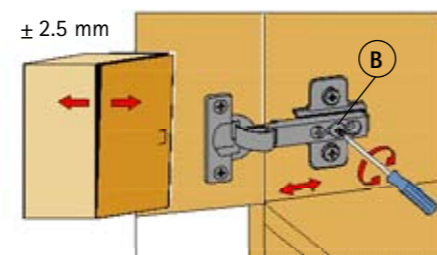
Minimat hinges offer all the benefits of three-dimensional adjustability (vertical, lateral and depth) to get doors perfectly aligned.



Loosen screw (B).  
Turn screw **clockwise**: door overlay **decreases** (-)  
Turn screw **anticlockwise**: door overlay **increases** (+)  
Then retighten screw (B)



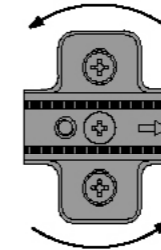
Loosen the mounting plate screws (C) and adjust the door height. Then retighten the screws (C).



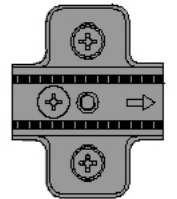
Loosen screw (B). Adjust the gap between door and cabinet side panel. Then retighten screw (B).

### Installation and additional benefits:

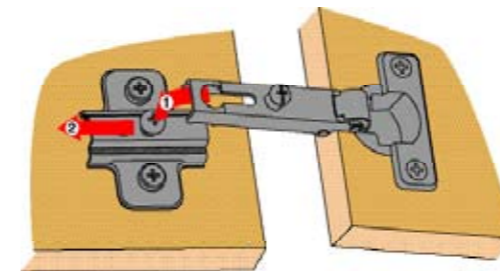
Characteristic of Minimat hinges is the symmetrical mounting plate for 37 mm hole lines. This automatically eliminates assembly errors by the fitter.



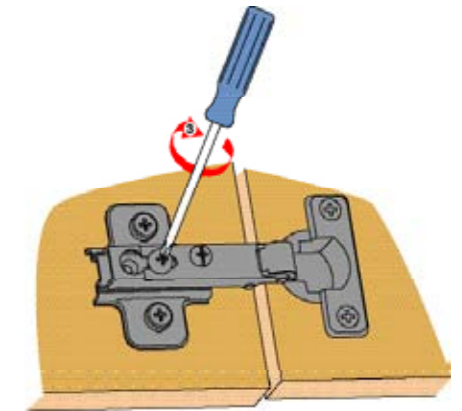
The mounting plate for a 28 mm hole line is not symmetrical. The correct mounting position is shown by an embossed arrow, which must point to the front of the unit.



Place the keyhole of the hinge arm over the premounted screw (1) on the mounting plate and slide the arm towards the back of the unit (2).

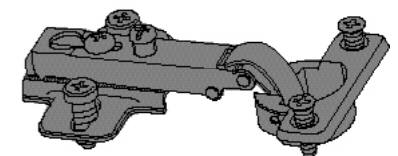


Tighten the screw (3) for correct depth adjustment of the door.



Generally assembly is from top to bottom, zip-style, with the top-most hinge taking part of the door weight as soon as it has been fixed in place. Disassembly is in reverse order.

Minimat hinges are supplied on request with premounted Euro screws in the cup body and mounting plate. This high level of preassembly is ideal for RTA furniture.





## Minimat mini hinges ... ... meeting your quality standards

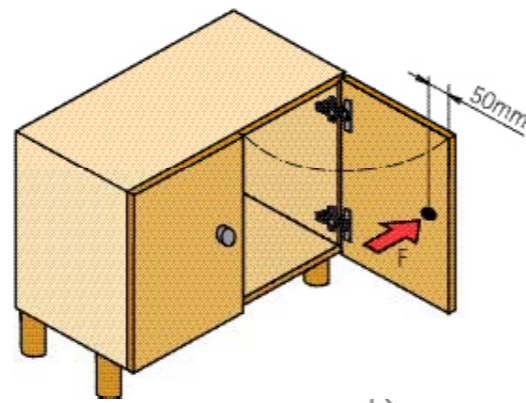
The quality of our hinges is monitored continuously.

Hettich hinges comply with the national and international quality standards of the markets our customers operate in.

The diagrams below show some of the tests to which Hettich hinges are subjected.

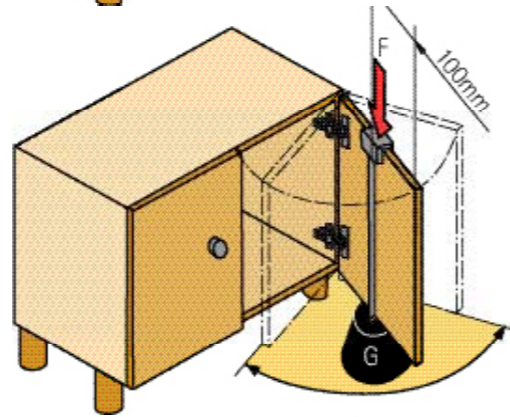
### Horizontal test:

In this test, also known as extension test, the door is opened beyond the opening angle by a defined test force F.



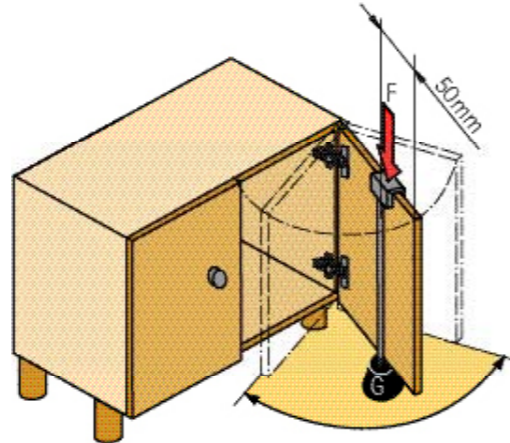
### Vertical load test:

In this test the door is put through a specific number of opening and closing cycles while a large additional force is applied (weight G).



### Wear test:

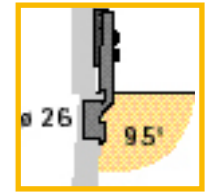
In this test the door is put through a specific number of opening and closing cycles while a defined force is applied (weight G).





## Mini hinge Opening angle 95° Minimat 2225 / 2255

Opening angle: 95°  
 Hole diameter: ø 26 mm  
 Cup distance C: bis 5.5 mm  
 Cup depth: 11.9 mm  
 Self-closing feature: with /without  
 Side adjustment: +0 mm/-4 mm  
 Depth adjustment: +2.5 mm/-2.5 mm  
 Packing unit: 500 pcs



	Full overlay door 0 mm cranking		Half overlay door 8 mm cranking		Inset door 16 mm cranking	
	self-closing 2225	without self-closing 2255	self-closing 2225	without self-closing 2255	self-closing 2225	without self-closing 2255
<b>Cup assembly</b>						

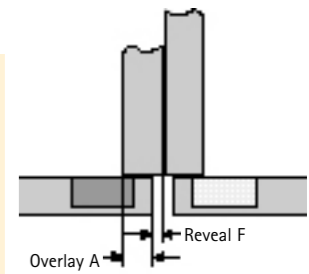
### Cup assembly

	Full overlay door 0 mm cranking	Half overlay door 8 mm cranking	Inset door 16 mm cranking
<b>Screw-on T 42</b>	106 765 0    106 765 2	106 765 1    106 765 3	106 662 5    106 765 4
<b>Screw-on T 42/24</b> (premounted countersunk panel screw)	108 454 2    108 199 2	108 469 2    108 199 5	108 154 2    108 199 6
<b>Screw-on T 42/4</b> (premounted Euro screw)	106 766 1    106 766 3	106 766 2    106 766 4	105 744 0    106 766 5
<b>Press-in T 43</b>	106 765 5    106 765 8	106 765 6    106 765 9	106 765 7    106 766 0

### Minimum door reveal (F) per door:

For calculating the cup distance and mounting plate distance

Cup distance C mm	Door thickness mm											
	15	16	17	18	19	20	21	22	23	24	25	
	3	0.5	0.9	1.3	2.1	2.9	3.7	4.6	5.6	6.5	7.4	8.4
	4	0.5	0.8	1.2	1.8	2.5	3.3	4.2	5.0	5.9	6.8	7.7
	4.5	0.5	0.8	1.2	1.8	2.4	3.1	5.0	4.8	5.6	6.5	7.4
	5	0.5	0.8	1.2	1.7	2.2	2.9	3.7	4.5	5.3	6.1	7.0
	5.5	0.5	0.8	1.1	1.5	2.0	2.7	3.5	4.2	5.0	5.8	6.0

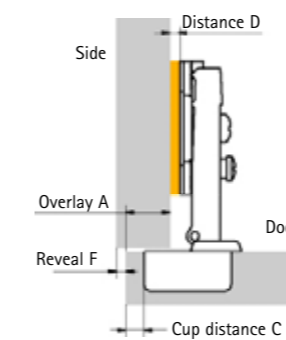


The minimum reveal is reduced for doors with radius:  
 1 mm radius: table entry - 0.4 mm  
 3 mm radius: table entry - 1.2 mm

### Calculating the required mounting plate distance (D):

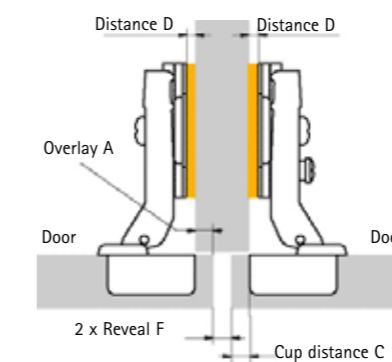
Depends on door overlay (A) and cup distance (C)

#### Full overlay (0 mm cranking)



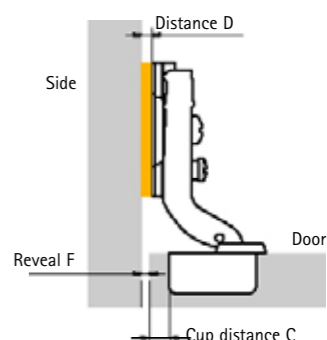
Distance D =  
Cup distance C + 12 mm - overlay A

#### Half overlay (8 mm cranking)



Distance D =  
Cup distance C + 4 mm - overlay A

#### Inset (16 mm cranking)

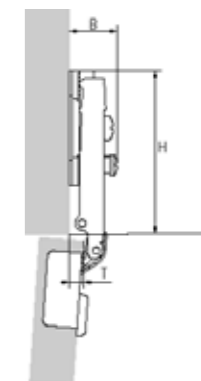


Distance D =  
Cup distance C - 4 mm + reveal F

For mounting plates refer to page 14 - 15

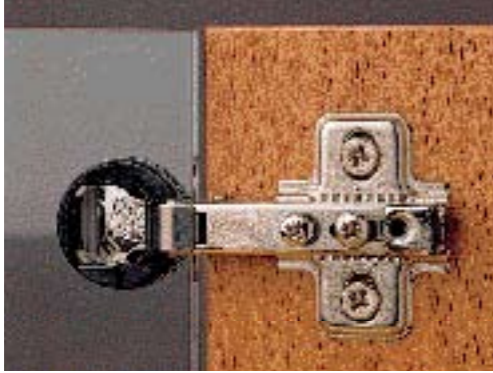
### Door protrusion (T), hinge protrusion (B), hinge installation depth (H):

	Hinge cranking (mm)		
	K 0 mm (full overlay)	K 8 mm (half overlay)	K 16 mm (inset)
T* (mm)	2.7	10.7	18.7
B* (mm)	16.5	19.5	27.5
H** (mm)	57.8	57.8	57.8




\*) Measurements refer to a mounting plate with -0.5 mm distance.  
 If the distance value changes, the values T and B change accordingly.  
 \*\*) The installation depth is measured from the inside door face.

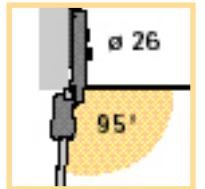
With a hole line distance of 28 mm, the installation depth is reduced by 3 mm.












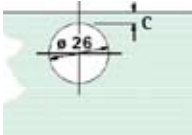
**Mini hinge for glass doors**  
**Opening angle 95°**  
**Minimat 2205**

Opening angle: 95°  
 Glass door thickness\*: 4.0 – 6.5 mm  
 Hole diameter: 26 mm  
 Cup distance C: 5.5 bis 6.0 mm  
 Self-closing feature: with 

Side adjustment: +0 mm/-4 mm  
 Depth adjustment: +2.5 mm/-2.5 mm  
 Packing unit: 500 pcs

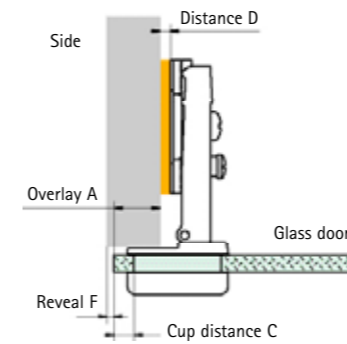


\* for glass door thickness above 5.5 mm, also order longer cup screws: order no. 101 805 9, PU 1000 pcs

			
	<b>Full overlay door</b> 0 mm cranking	<b>Half overlay door</b> 8 mm cranking	<b>Inset door</b> 16 mm cranking
			
	self-closing <b>2205</b>	self-closing <b>2205</b>	self-closing <b>2205</b>
			
<b>Cup assembly</b>			
<b>Screw-on</b>			
<b>T 1</b>	<b>106 967 6</b>	<b>106 967 7</b>	<b>105 748 2</b>

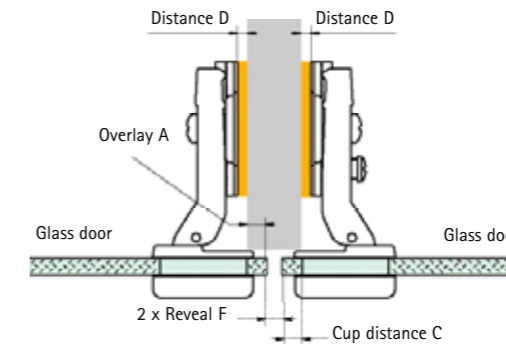
**Determination of required mounting plate distance (D):**  
 Depending on desired door overlay dimensions (A) and cup distance (C)

**Full overlay**  
 (0 mm cranking)



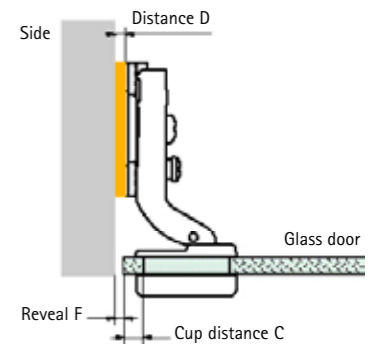
**Distance D =**  
 Cup distance C + 12 mm - overlay A

**Half overlay**  
 (8 mm cranking)



**Distance D =**  
 Cup distance C + 4 mm - overlay A

**Inset**  
 (16 mm cranking)

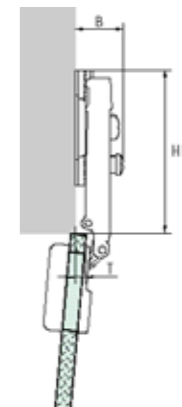


**Distance D = 3 mm**

Montageplatten siehe Seiten 14 - 15

**Door protrusion (T), hinge protrusion (B), hinge installation depth (H):**

	Hinge cranking (mm)		
	K 0 mm (full overlay)	K 8 mm (half overlay)	K 16 mm (inset)
T* (mm)	2.5	10.5	18.5
B* (mm)	16.5	19.5	27.5
H** (mm)	57.8	57.8	57.8



\*) Measurements refer to a mounting plate with -0.5 mm distance.  
 If the distance value changes, the values T and B change accordingly.  
 \*\*) The installation depth is measured from the inside door face.  
 With a hole line distance of 28 mm, the installation depth is reduced by 3 mm.

**Cover cap A**



Finish	Order no.
high gloss gold	100 647 8
matt gold	100 664 0
high gloss nickel	100 647 3
black	100 798 4
matt nickel	100 663 9
metallic brown	100 677 8

Packing unit 1000 pcs

**Cover cap B**



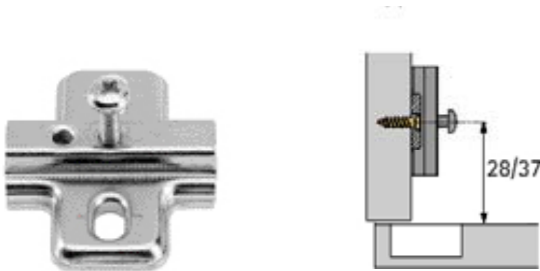
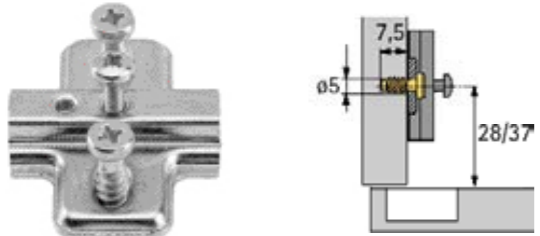
Finish	Order no.
high gloss gold	100 646 6
matt gold	100 663 8
high gloss nickel	100 652 1
black	100 661 5
matt nickel	100 663 7
metallic brown	100 651 9

Packing unit 1000 pcs



## Mounting plate system 2005

Packing: 400 pcs

Item	Hole line	Distance (D)	Total height	Order no.
<b>Screw-on wing mounting plate</b> with oblong holes $\varnothing$ 5.4 mm <b>Mounting:</b> countersunk panel screw $\varnothing$ 4.5 mm x 16 mm <b>Hole:</b> max. $\varnothing$ 3 mm <b>Height adjustment:</b> +2 / -2 mm <b>Material:</b> nickel-plated steel	28 mm	- 0.5 mm	6.0 mm	106 968 0
		1.5 mm	8.0 mm	106 968 1
		3.0 mm	9.5 mm	106 968 2
	37 mm	-0.5 mm	6.0 mm	106 967 8
		1.5 mm	8.0 mm	106 907 4
		3.0 mm	9.5 mm	106 967 9
<b>Screw-on wing mounting plate</b> with oblong holes and premounted Euro screws <b>Mounting:</b> premounted Euro screw <b>Hole:</b> $\varnothing$ 5 mm x 7.5 mm <b>Height adjustment:</b> +2 / -2 mm <b>Material:</b> nickel-plated steel	28 mm	-0.5 mm	6.0 mm	106 642 5
		1.5 mm	8.0 mm	106 642 4
		3.0 mm	9.5 mm	106 642 3
	37 mm	-0.5 mm	6.0 mm	106 642 1
		1.5 mm	8.0 mm	106 642 0
		3.0 mm	9.5 mm	106 641 9

## Mounting plate system 2006 K

Packing: 400 pcs

Item	Hole line	Distance (D)	Total height	Order no.
<b>Hettich-Direkt screw-on wing mounting plate</b> with oblong holes; hole spacing 32 mm <b>Mounting:</b> pilot dowel and asymmetrically premounted wood screw <b>Hole:</b> $\varnothing$ 5 mm x 7.5 mm <b>Height adjustment:</b> +2 / -2 mm <b>Material:</b> nickel-plated steel	37 mm	0 mm	6.5 mm	not available
		1.5 mm	8.0 mm	107-921-0
		3.0 mm	9.5 mm	107-921-1
		5.0 mm	11.5 mm	107-921-2
