



TIOMOS SUPPLEMENT



G* GRASS®


















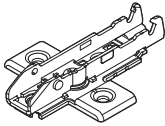
TIOMOS PRODUCT SUPPLEMENT

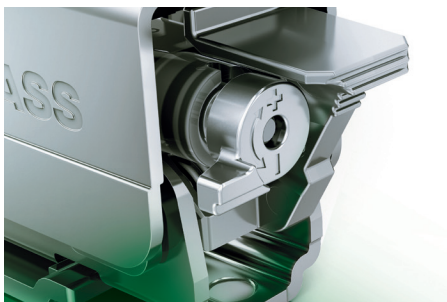
Integrated Soft-close, stylish design, maximum stability.
The best possible hinge solution for cabinet doors.



Tiomos Supplement

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Soft-close technology is concealed within the hinge arm.

Three levels of closing pressure are available with the Tiomos adjustable Soft-close mechanism, which is fully integrated and concealed in the hinge arm. The hinges arrive with the adjustment lever in the horizontal position. A turn to the left or the right will adjust the Soft-close mechanism to your individual requirements.



For stronger damping action, turn the adjustment lever by 90° to the right.



Perfect alignment with a twist of the hand.

For fine adjustment, the Tiomos hinge system offers three dimensional adjustment. Depth adjustment (+3/-2mm) is based on the worm gear principle and is continuous and self-locking. Depending on the type of base plate chosen, height adjustment (± 2mm) can be achieved via a worm gear or through elongated holes (± 2.5mm). Side adjustment (± 2mm) is on the hinge arm.



Tiomos hinges leave the factory with the adjustment lever in the horizontal position.



The new kinematics inside Tiomos.

The complex inner workings of this high-tech hinge are hidden from view, but they are most impressive when working as one. With the new kinematics in place the doors are extremely easy to open. This mechanism makes alignment with the smallest of gaps and reveals possible, opening up new possibilities to cabinet designers.



For a gentler closing action, the adjustment lever of the Soft-close damper is turned to the left by 90°.

Technical Information

For Tiomos

Number of Hinges Per Door

The number of hinges is determined by the door height, door weight, quality of the material and the fixing of the cup and base plate.

The load and height data refer to 24" standard door widths.

The table refers to hinges with and without integrated dampers.

Grass strongly recommends a trial mount for all hinges and base plates.

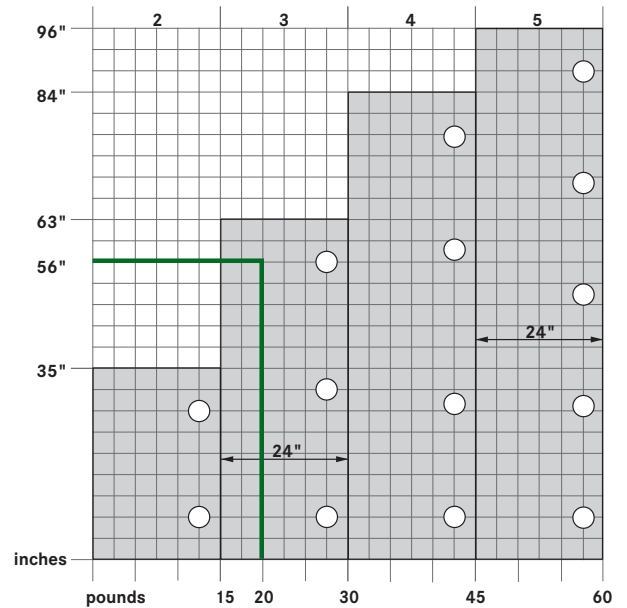
Attach base plates using all available screw holes.

Example:

For doors measuring 56" x 24" and weighing 19 lbs., Grass recommends the installation of 3 hinges.

Note: The distance between the top and bottom hinge must be greater than the width of the door.

The **Tiomos** hinge meets and exceeds the minimum requirements of ANSI/BHMA A156.9 Standard.



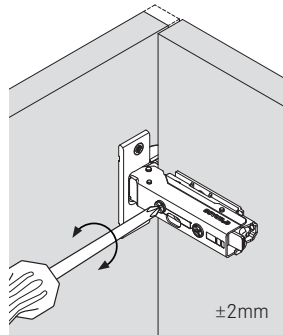
Adjustments

The options for height adjustment depend on the type of base plate. All adjustments can be made independent of one another.

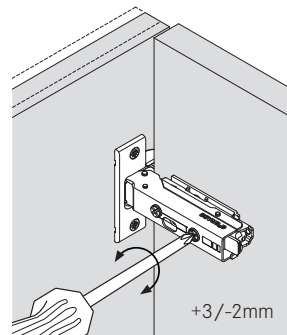
For depth adjustment, select base plates have worm gear adjustment access through the hinge arm.

Use a #2 POZI drive screwdriver for hinge adjustments.

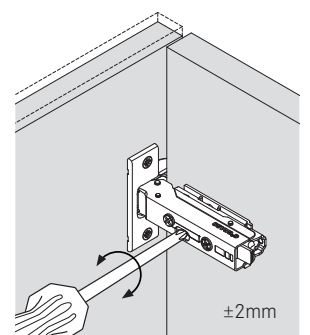
Attach base plates using all available screw holes.



Side adjustment



Depth adjustment via worm gear

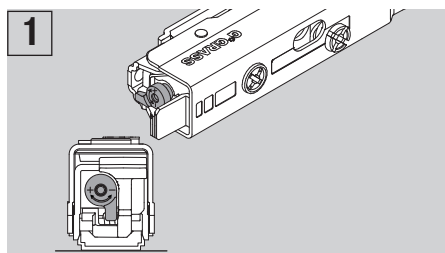


Height adjustment via base plate

Tool-less Soft-close Adjustment

Soft-closing performance can be regulated for any door size and weight with the Tiomos adjustable integrated Soft-close.

Depending upon the requirement, the Soft-closing settings can be adjusted easily and without tools. With 2 hinges there are 6 Soft-close settings.

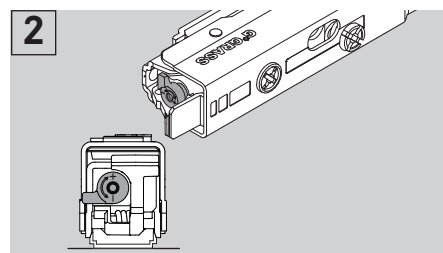


Light setting

Adjustment lever points toward the cabinet wall

Appropriate for:

- Small, light doors

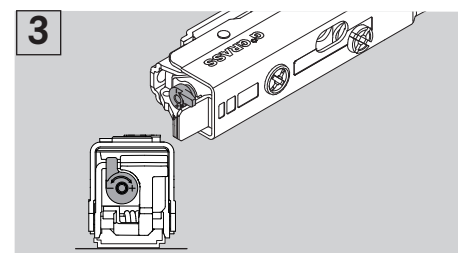


Medium setting (factory setting)

Adjustment lever is parallel to the cabinet wall. This setting covers 80% of door applications.

Appropriate for:

- Standard doors



Strong setting

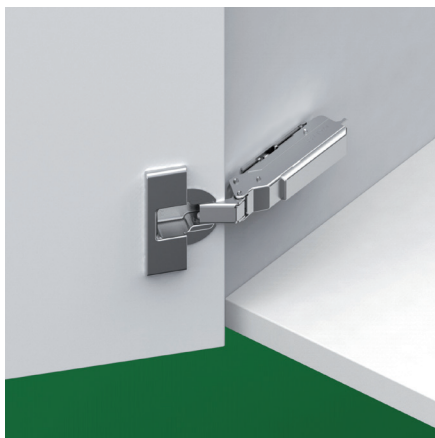
Adjustment lever points toward the cabinet interior

Appropriate for:

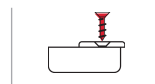
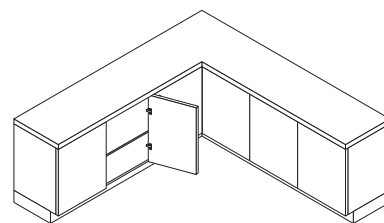
- Large, heavy doors

Tiomos 110 Tipmatic Plus

110° hinge for handle free doors



- Integrated spring in hinge arm assists Tipmatic Pin for handle-free door opening
- Extended opening angle
- Works with Tipmatic Pin system
- 3 dimensional adjustment with suitable base plate
- Compatible with all Tiomos base plates



Tiomos 110 Tipmatic Plus Opening Angle 110° Screw-On

Overlay	Cranking 03	Pattern	Type	Item No.	PU
	Hinge cup: steel, nickel-plated; Hinge arm: steel, nickel-plated	45	TT Plus	F046140360213	25

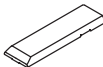

Half Overlay	Cranking 9.5	Pattern	Type	Item No.	PU
	Hinge cup: steel, nickel-plated; Hinge arm: zinc, nickel-plated	45	TT Plus	F046140365213	25

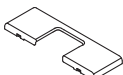

Inset	Cranking 19	Pattern	Type	Item No.	PU
	Hinge cup: steel, nickel-plated; Hinge arm: zinc, nickel-plated	45	TT Plus	F046140366213	25

Opening Angle Reduction Clip to 85°	Item No.	PU
 Steel, nickel	F072135751517	50

Important Note:

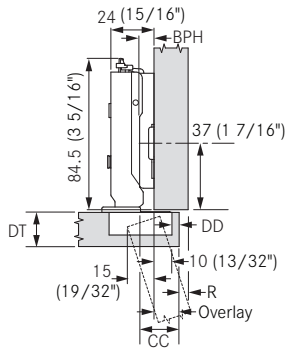
Tiomos Tipmatic Plus works with our recommended Tipmatic Pin. GRASS does not accept any liability if a different system other than the recommended system is used. Before the Tipmatic Pin is inserted for gluing, the surface must be thoroughly cleaned and free from grease.

Cover Caps	Item No.	PU	Tipmatic Pin	Item No.	PU
 Steel, nickel-plated	F072135500247	1000		68873-06	25

Hinge Cup Cover Cap	Item No.	PU	Wood Screw, Nickel-plated	Item No.	PU
 Steel, nickel-plated	F072135503228	150	 #6 x 5/8" FHP, NI	81001-43	500

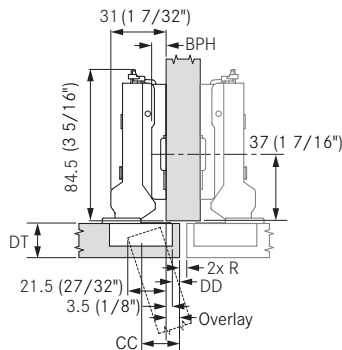
PU - Packaging unit

Overlay Half Overlay Inset



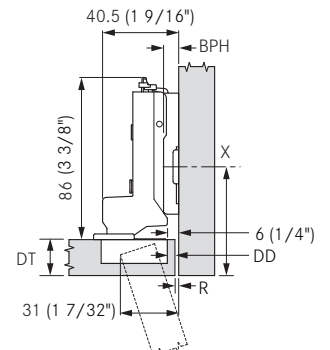
Drawings show Tiomos with a base plate, **(BPH) 02**.

Door Overlay	Drilling Distance (DD)				
	3	4	5	6	7
19.0					0
18.0			0		
17.0			0		2
16.5					
16.0		0		2	3
15.5					3.5
15.0	0		2	3	
14.5				3.5	
14.0		2	3		
13.5			3.5		
13.0	2	3			
12.5		3.5			
12.0	3				
11.5	3.5				
					Base Plate Height (BPH)



Drawings show Tiomos with a base plate, **(BPH) 02**.

Door Overlay	Drilling Distance (DD)				
	3	4	5	6	7
12.5					0
11.5				0	
10.5			0		2
10					
9.5		0		2	3
9.0					3.5
8.5	0		2	3	
8.0				3.5	
7.5		2	3		
7.0			3.5		
6.5	2	3			
6.0		3.5			
5.5	3				
5.0	3.5				
					Base Plate Height (BPH)



Drawings show Tiomos with a base plate, **(BPH) 02**.

X= BPS + 1.5 + DT

Reveal (R)	Drilling Distance (DD)				
	*3	4	5	6	7
0.0		0		2	3
0.5					3.5
1.0	0		2	3.5	
1.5				3.5	
2.0		2	3		
3.0	2	3			
4.0	3				
					Base Plate Height (BPH)

Minimum Gaps Reveal Reveal with 85° Angle Reduction Clip

Door Thickness (DT)	Drilling Distance (DD)				
	*3	4	5	6	7
24	1.0	1.0	1.0	1.2*	2.1*
22	1.0	1.0	1.0	1.0	1.5*
21	1.0	1.0	1.0	1.0	1.2*
20	1.0	1.0	1.0	1.0	1.0
19	1.0	1.0	1.0	1.0	1.0
18	1.0	1.0	1.0	1.0	1.0
17	1.0	1.0	1.0	1.0	1.0
16	1.0	1.0	1.0	1.0	1.0
					Minimum gap

The minimum gap is the gap between the closed door and the front of the cabinet.
*Only achievable with 85° angle reduction clip.

Door Thickness (DT)	Drilling Distance (DD)				
	*3	4	5	6	7
24	2.4	2.1	2.1	2.1	2.0
22	1.6	1.6	1.6	1.5	1.5
21	1.4	1.3	1.3	1.3	1.3
20	1.1	1.1	1.1	1.1	1.1
19	0.9	0.9	0.9	0.9	0.9
18	0.7	0.7	0.7	0.7	0.7
17	0.6	0.6	0.6	0.6	0.6
16	0.6	0.6	0.6	0.6	0.6
					Reveal (R)

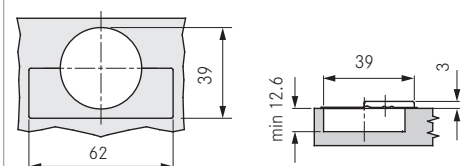
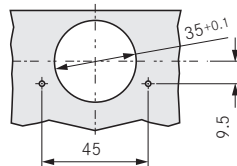
Note: Reveal dimensions were determined with an edge radius (of the door) of 1mm. Hinge dimensions and reveal calculation based on factory setting.

IMPORTANT
To determine the correct application Grass strongly recommends a trial mounting for all hinges and base plates.

Door Thickness (DT)	Drilling Distance (DD)				
	*3	4	5	6	7
36.0	11.1	10.3	9.7	9.1	8.5
30.0	5.4	4.8	4.4	4.3	4.2
28.0	3.7	3.6	3.5	3.4	3.3
26.0	2.9	2.8	2.8	2.7	2.6
24.0	2.4	2.1	2.1	2.1	2.0
22.0	1.6	1.6	1.6	1.5	1.5
21.0	1.4	1.3	1.3	1.3	1.3
20.0	1.1	1.1	1.1	1.1	1.1
19.0	0.9	0.9	0.9	0.9	0.9
18.0	0.7	0.7	0.7	0.7	0.7
16.0	0.6	0.6	0.6	0.6	0.6
					Reveal (R)

Legend Drilling Pattern Cup Dimensions

- BPH = Base Plate Height
- BPS = Base Plate Setback
- CC = Center Cup = DD + 1/2(cup diameter)
- DD = Drilling Distance
- DT = Door Thickness
- R = Reveal



Tipmatic

For handle-free wooden doors

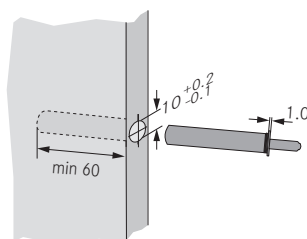


- Gently tapping the front causes the doors to open to a convenient angle
- Use with Tiomos Tipmatic Plus or with Nexis and Tiomos free-swinging hinges
- Large magnet catch range – holds door closed securely
- Gap adjustment from 2.5 to 5.5mm with integrated, self-locking and tool-free depth adjustment feature
- Mount on the front side of the cabinet or with an adapter plate

Tipmatic Pin For Drilling



- Incl. Tipmatic mechanism:
 - Stick on strike plate
 - Screw on strike plate
- Hole drilled from the front
- Plastic RAL 7036, platinum grey

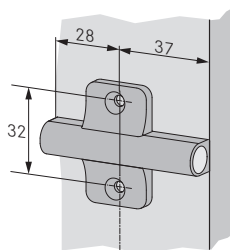


Item No.	PU
68873-06	25

Adapter Plate for Line Boring For Euro Screws



- Suitable for line boring 28 and 37mm
- Attach with Euro screws (6.3 x 13.5)
- Plastic RAL 7035, light grey

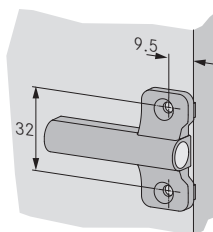


Item No.	PU
63310-40	25

Face Frame or Standard Adapter Plate For Wood Screws



- Quick upgrade installation
- Attach with wood screws (3.5 x 13)
- Plastic RAL 7035, light grey

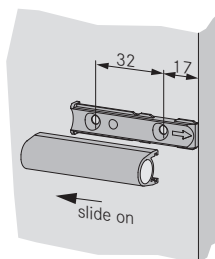


Item No.	PU
63311-40	25

Linear Adapter Plate For Wood Screws



- Design solution – also suitable for inset door applications
- Attach with wood screws (3.5 x 13)
- Plastic RAL 7035, light grey

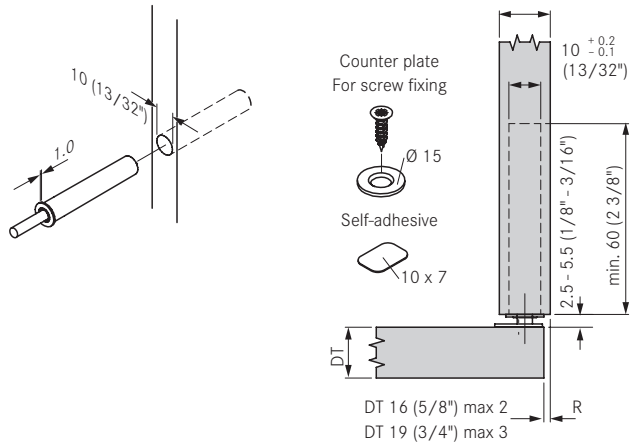


Item No.	PU
63309-40	25

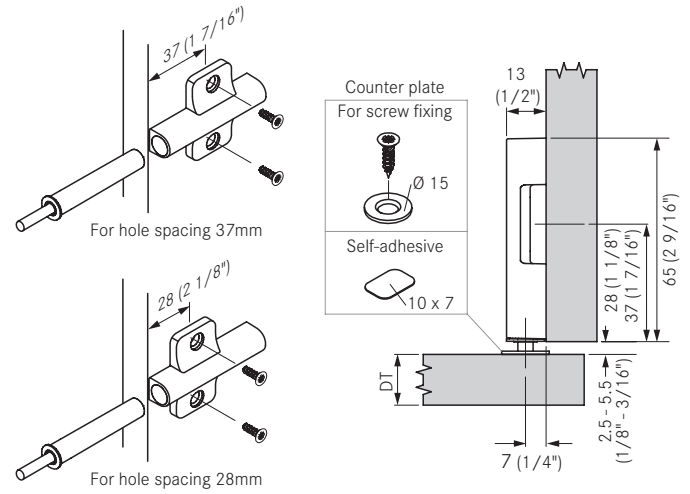
PU - Packaging unit

Mounting Dimensions

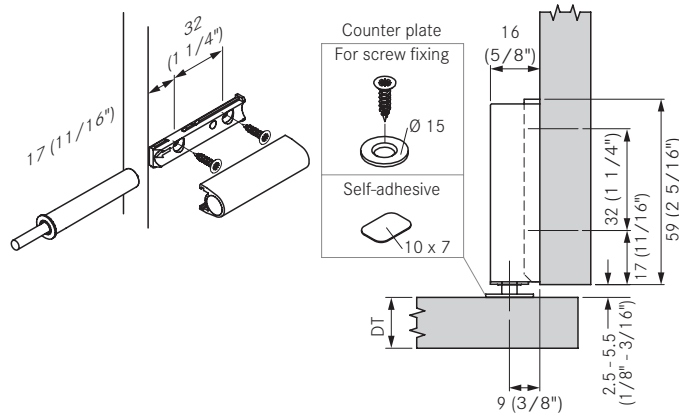
Tipmatic Pin



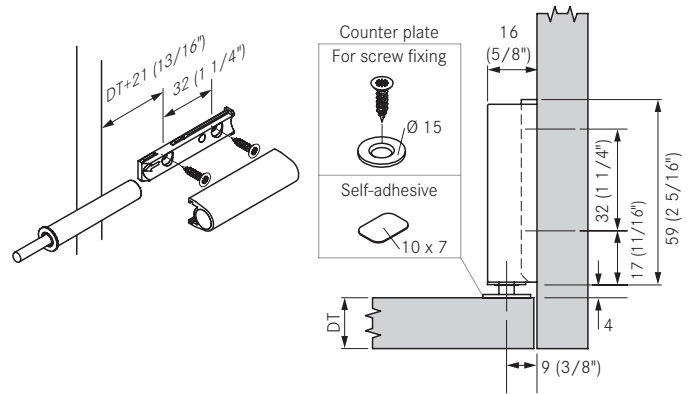
Adapter Plate for Line Boring



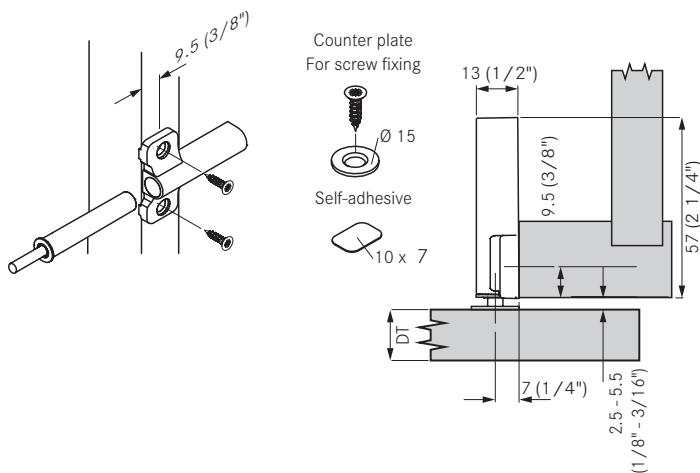
Linear Adapter Plate, Overlay



Linear Adapter Plate, Inset



Face Frame Plate



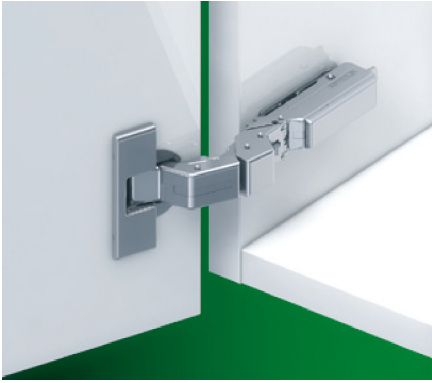
Legend

DT = Door Thickness

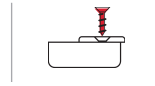
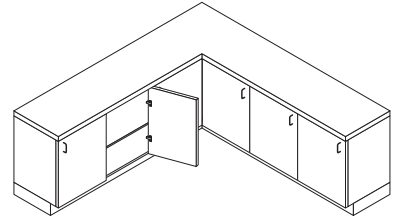
R = Reveal

Tiemos M9

110° hinge for 12mm-28mm door thicknesses



- Accommodates overlays up to 25mm (1")
- For door thicknesses from 12mm (15/32") to 28mm (1 1/8")
- Soft-close, self-close, and free-swinging hinges available
- For face frame or frameless cabinets
- 3-dimensional adjustments with suitable base plate
- Shallow cup depth of 9mm
- Compatible with Tiemos base plates



Tiemos M9 Opening Angle 110°

Screw-On

Overlay	Half Overlay	Inset	Cranking 14	Pattern	Type	Item No.	PU
			Hinge cup: zinc, nickel-plated Hinge arm: zinc, nickel-plated	45	Soft-close	F029140338217	50
				45	Self-close	F047140339217	50
				45	Free-swing	F049140340217	50

Cover Caps

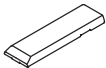
Steel, nickel-plated

Item No.

F072135500247

PU

1000



Opening Angle Reduction Clip to 85°

Item No.

F072135871517

PU

50



Hinge Cup Cover Cap

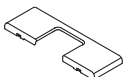
Steel, nickel-plated

Item No.

F072135503228

PU

150



Wood Screw, Nickel-plated

#6 x 5/8" FHP, NI

Item No.

81001-43

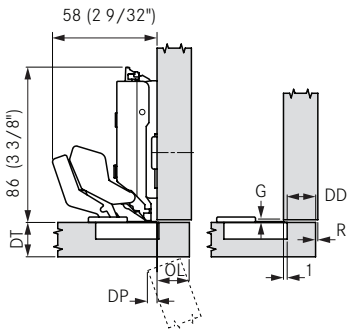
PU

500

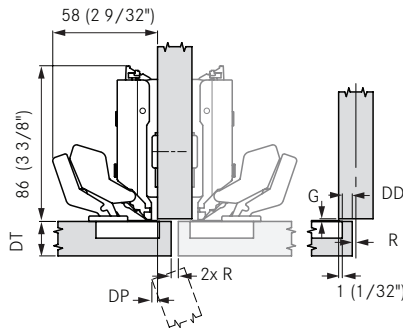


PU - Packaging unit

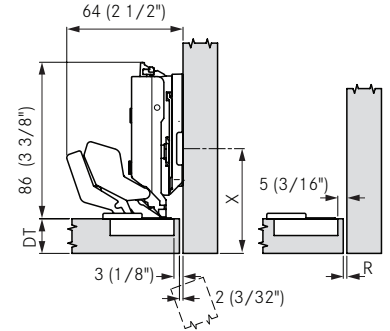
Overlay Half Overlay Inset



Drawings show Tiomos with a base plate, **(BPH) 0**.



Drawings show Tiomos with a base plate, **(BPH) 0**.



Drawings show Tiomos with a base plate, **(BPH) 06**.
X = BPS + 1.5 + DT

Minimum Gap and Minimum Reveal

Application Data	Drilling Distance (DD)		3		4		5		6		7		8		9		10		11		12		13	
	Door Protrusion (DP)		0.8		1.1		1.5		1.8		2.2		2.5		2.9		3.2		3.5		3.9		4.2	
Door Overlay (OL)		4		5		6		7		8		9		10		11		12		13		14		
Door Thickness (DT)	Min Reveal (R)/ Gap (G)		R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G
	12-20	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0
22	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.5	1.5	1.7	1.5	4.0	1.5
24	1.0	1.5	1.2	1.5	1.3	1.5	1.5	1.5	1.7	1.5	2.0	1.5	2.4	1.3	3.3	1.5	8.3	1.5	7.7	1.5	6.9	1.5	1.5	
26	2.2	1.5	2.4	1.5	2.7	1.5	3.1	1.5	3.6	1.5	4.7*	1.5	12*	1.5	11.8	1.5	10.9	1.5	9.9	1.5	8.9	1.5	1.5	
28	3.9	1.5	4.3	1.5	5.1	1.5	6.3*	1.5	16*	1.5	16*	1.5	15*	1.5	14*	1.5	13*	1.5	12*	1.5	11*	1.5	1.5	

Application Data	Drilling Distance (DD)		14		15		16		17		18		19		20		21		22		23		24	
	Door Protrusion (DP)		4.6		4.9		5.3		5.6		5.9		6.3		6.6		7		7.3		7.6		8	
Door Overlay (OL)		15		16		17		18		19		20		21		22		23		24		25		
Door Thickness (DT)	Min Reveal (R)/ Gap (G)		R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G
	12-20	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	2.0	1.0	2.0	1.0	2.0	1.0
22	4.0	1.5	3.5	1.5	3.0	1.5	2.2	1.5	1.7	1.5	1.3	1.5	1.0	1.5	1.0	1.5	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0
24	6.0	1.5	5.2	1.5	4.5	1.5	4.0	1.5	3.3	1.5	3.0	1.5	2.5	1.5	2.1	1.5	1.9	2.0	1.6	2.0	1.5	2.0	1.5	2.0
26	8.0	1.5	7.2	1.5	6.4	1.5	5.8	1.5	5.1	1.5	4.6	1.5	4.1	1.5	3.7	1.5	3.3	2.0	3.0	2.0	2.6	2.0	2.0	2.0
28	10*	1.5	9.2	1.5	8.4	1.5	7.6	1.5	6.9	1.5	6.4	1.5	5.8	1.5	5.3	1.5	4.9	2.0	4.5	2.0	4.2	2.0	2.0	2.0

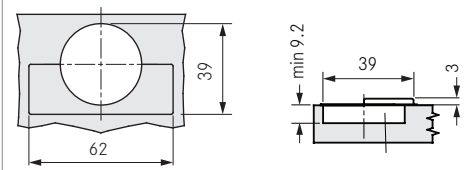
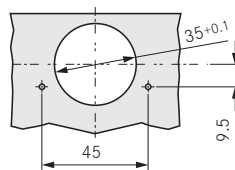
Note:
Reveal dimensions were determined with an edge radius (of the door) of 1 mm.
Hinge dimensions and reveal calculation based on factory setting.

IMPORTANT
To determine the correct application Grass strongly recommends a trial mounting for all hinges and base plates.

*Only achievable with 85° angle reduction clip.

Legend Drilling Pattern Cup Dimensions

BPH = Base Plate Height
BPS = Base Plate Setback
DD = Drilling Distance G = Gap
DP = Door Protrusion OL = Overlay
DT = Door Thickness R = Reveal

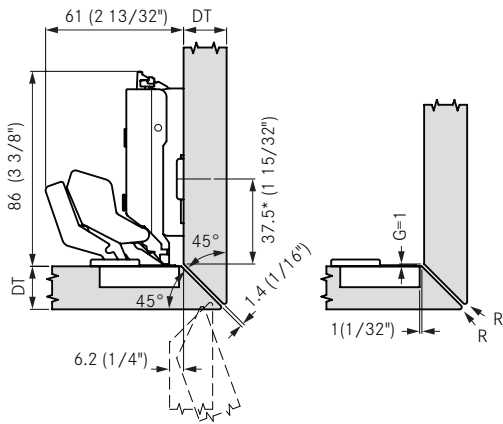


Tiomos M9

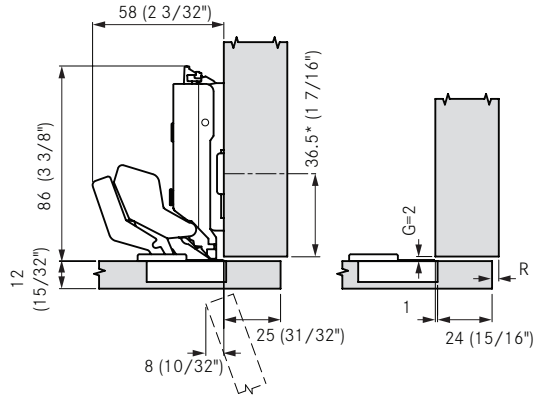
Installation Information

Mitered Application - Circumferential and Lateral

Maximum Overlay



Drawings show Tiomos with a base plate, **(BPH) 3**.



Drawings show Tiomos with a base plate, **(BPH) 0**.

Door Thickness (DT)	Mitered application circumferential	Mitered application lateral
	R (min)	R (min)
12-17	0	0
18	0.2	0
19	1.0	0.4
20	1.5	1.0
21	2.2	1.8
22	3.0	2.5
24	4.3	4.1

*Dimension is calculated using a base plate that requires a 37mm hole setback. This dimension will vary if a base plate requiring a different standard setback is used.

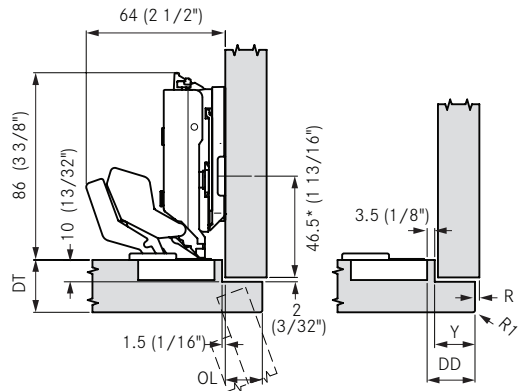
Note:

With circumferential mitered application all sides 1.4mm reveal

Installation Information

Rabbet Applications

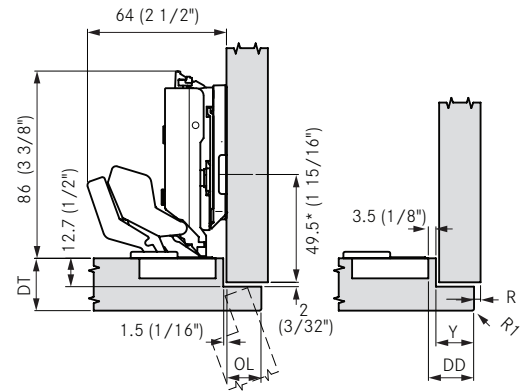
10mm (3/8")



Drawings show Tiomos with a base plate, **(BPH) 6**.

Cabinet Wall Location	DT (max)	OL (max)	Y (max)	DD (max)	R (max)
	20	17	18.5	22	1
	28	17	18.5	22	See reveal table page 9
	38	17	18.5	22	

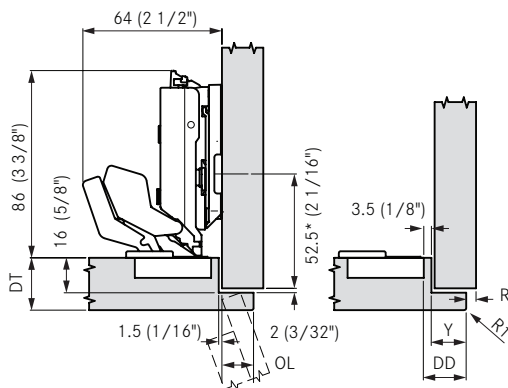
12.7mm (1/2")



Drawings show Tiomos with a base plate, **(BPH) 6**.

Cabinet Wall Location	DT (max)	OL (max)	Y (max)	DD (max)	R (max)
	20	16	17.5	21	1
	28	16	17.5	21	See reveal table page 9
	35	14	15.5	19	

16mm (5/8")



Drawings show Tiomos with a base plate, **(BPH) 6**.

Cabinet wall location	DT (max.)	OL (max.)	Y (max.)	DD (max.)	R (max.)
	20	14.5	16	19.5	1
	26	14.5	16	19.5	See reveal table page 9
	32	12.5	14	17.5	

*Dimension is calculated using a base plate that requires a 37mm hole setback. This dimension will vary if a baseplate requiring a different standard setback is used.

Legend

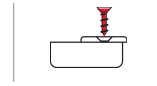
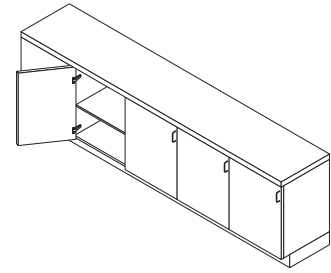
- BPH = Base Plate Height
- DD = Drilling Distance
- DP = Door Protrusion
- DT = Door Thickness
- G = Gap
- OL = Overlay
- R = Reveal
- Y = Rabbet

Tiomos M0

125° hinge for thin doors (6-10mm)



- No cup hole necessary
- Door thickness of 6mm (1/4") to 10mm (3/8")
- Accommodates door overlays up to 25.4mm (1")
- Soft-close hinges
- Works with a variety of door material - wood, aluminum, MDF, mineral composite, HPL (laminate), chipboard, solid surface
- Special fasteners for hinge attachment to door
- Compatible with Tiomos base plates



Tiomos M0 Opening Angle 125°

Screw-On

Overlay	Half Overlay	Inset	Pattern	Type	Item No.	PU
			45	Soft-close	F029140331217	50
Hinge cup: zinc, die-cast Hinge arm: steel, nickel-plated						

Fastening Options

Fasteners	Description	Item No.	PU	Material	Material thickness		
					6mm	8mm	10mm
	Countersunk screw PH2, M5 x 6mm For a minimum door thickness of 6mm For aluminum, HPL, mineral composite	F072135923223	100	Aluminum	F072135923223		
	Countersunk screw M4 x 8mm, sleeve M4 x 5.5mm, internal hex key For a minimum door thickness of 8mm, for chipboard, MDF, mineral composite, HPL	F072135928201	1	HPL (laminate)	F072135928201		
				Mineral Composite	F072135928201		
				Chipboard	-		-
				MDF	-		-

Cover Caps

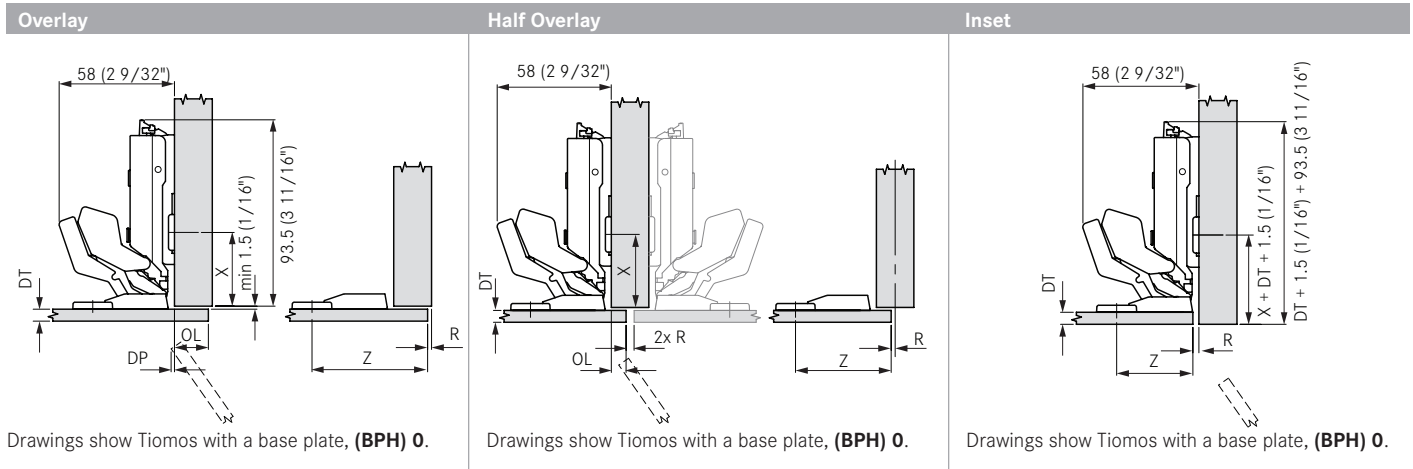
Steel, nickel-plated

Item No.	PU
F072135500247	1000



Opening Angle Reduction Clip to 85°	Item No.	PU
	F072135871517	50

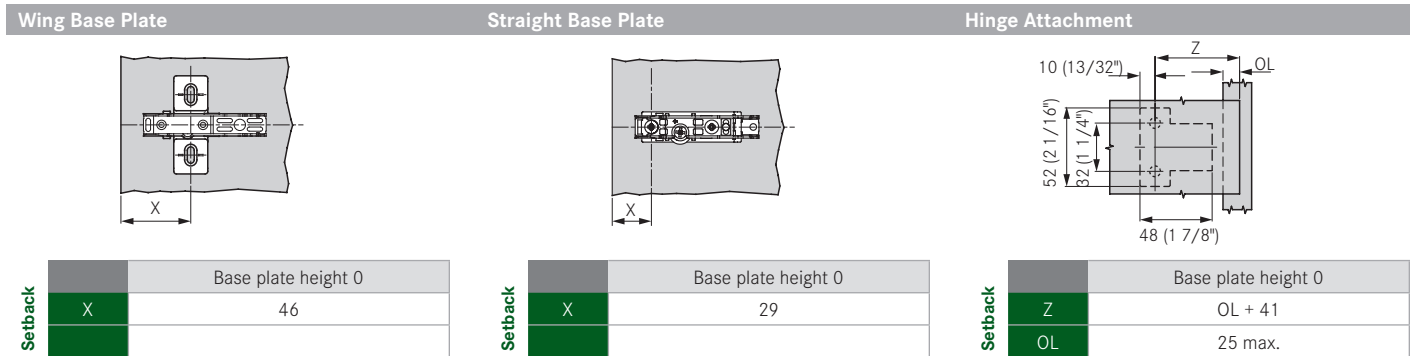
PU - Packaging unit



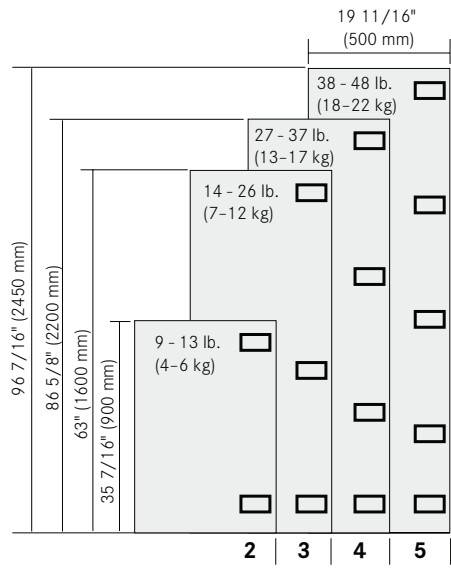
Minimum Gap and Reveal

Hinge Attachment (Z)	38	39	47	49	51	53	55	56	58	60	61	63	64	66														
Door Protrusion (DP)	0	0	0	0	0	0	0	0.5	1.5	3.0	3.4	0	0	0														
Door Overlay (OL)	-3	-2	6	8	10	12	14	15	17	19	20	22*	23*	25*														
Min Reveal (R)/ Gap (G)	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G	R	G		
Door Thickness 6-10 (DT)	2.0	1.5	2.0	1.5	2.0	1.5	2.0	1.5	2.0	1.5	2.0	1.5	2.0	1.5	2.0	1.5	2.0	1.5	2.0	1.5	2.0	1.5	2.0	2.5	2.0	3.0	2.0	4.0

*Only achievable with 85° angle reduction clip.



Number of Hinges Per Door **Installation Information** **Notes**



- Countersunk screw M5 x 6mm**
(except for aluminum):
1. Drill a Ø 4.8mm hole
 2. Cut a Ø 5mm thread
 3. Position the hinge and secure with the screws
- Countersunk screw M4 x 8mm with sleeve**
M4 x 5.5mm:
1. Drill a Ø 5mm hole
 2. Slightly countersink the edge of the hole
 3. Insert the sleeve
 4. Knock in the sleeve with a hammer
 5. Position the hinge and secure with the screws

An inset application is achieved with the base plate (X) and a low housing screwing distance (Z).

Depending on the type and thickness of the base material the pull-out resistances can vary with the same fastening method. For information regarding the selection and processing of the base material please contact the base material supplier.

Liability claims: Please note that GRASS cannot accept any liability for damage resulting from unsuitable fastening materials or methods.

IMPORTANT

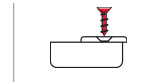
To determine the correct application Grass strongly recommends a trial mounting for all hinges and base plates.

Tiomos Flap Hinge

90° hinge for flap door



- Sleek modern design
- 90° opening angle
- For flap thicknesses of up to 30mm (1 3/16")
- Narrow joint
- Large overlay of up to 19mm (3/4")
- 3-dimensional adjustment
- Compatible with Tipmatic pin system
- Compatible with Kinvaro D-M/D-S flap system



Tiomos Flap Hinge Opening Angle 90°

Screw-On

Overlay	For Flap Thickness 14-21mm	Color	Cup Depth	Item No.	PU
	Hinge: zinc die-cast, nickel-plated	Nickel	12mm	F053139671223	100
	Hinge: zinc die-cast, night	Night	12mm	F053139677223	100

Overlay	For Flap Thickness 22-28mm	Color	Cup Depth	Item No.	PU
	Hinge: zinc die-cast, nickel-plated	Nickel	17mm	F053139672223	100
	Hinge: zinc die-cast, night	Night	17mm	F053139678223	100

Cover Cap for Flap Hinge

Item No.

PU

1.5mm Spacer for Tiomos Flap Hinge

Item No.

PU



Steel, nickel plated

F053139675223

100

Steel, night

F053139683223

100



Steel, nickel plated

F053139676223

100

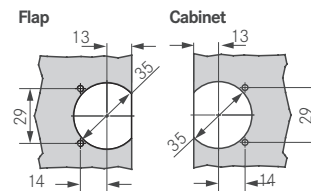
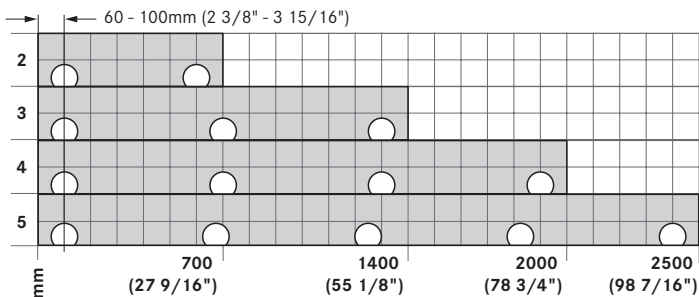
Steel, night

F053139684223

100

Number of Hinges per Door

Drilling Pattern



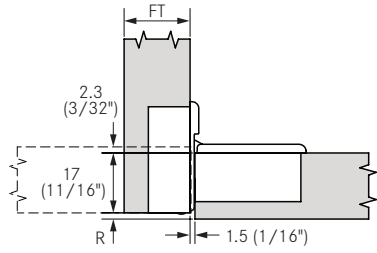
PU - Packaging unit

Tiomos Flap Hinge



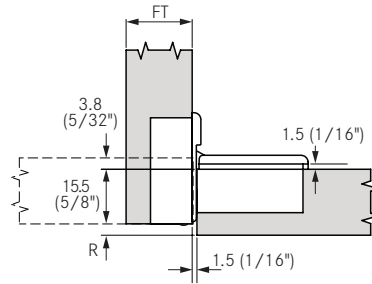
90° hinge for flap door

Overlay, Without Spacer, 12mm Cup Depth



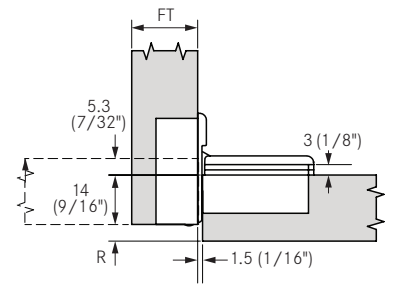
Min Reveal (R)	Flap Thickness (FT)							
	21	20	19	18	17	16	15	14
	2.5	1.5	1	1	1	1	1	1

Overlay, with 1 Spacer, 12mm Cup Depth



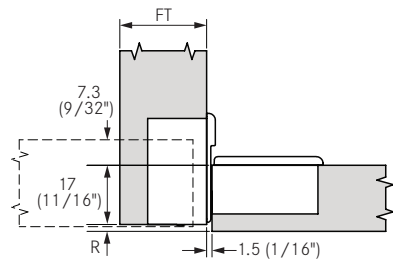
Min Reveal (R)	Flap Thickness (FT)							
	21	20	19	18	17	16	15	14
	2.5	1.5	1	1	1	1	1	1

Overlay, with 2 Spacers, 12mm Cup Depth



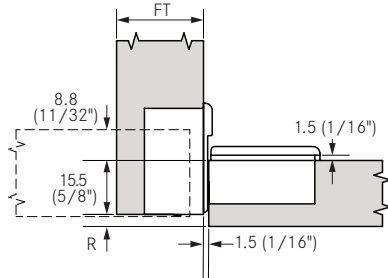
Min Reveal (R)	Flap Thickness (FT)							
	21	20	19	18	17	16	15	14
	2.5	1.5	1	1	1	1	1	1

Overlay, Without Spacer, 17mm Cup Depth



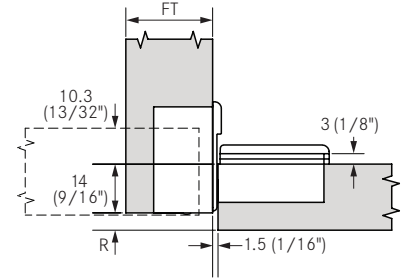
Min Reveal (R)	Flap Thickness (FT)								
	30	29	28	27	26	25	24	23	22
	6.5	5.5	4.5	3.5	2.5	1.5	1	1	1

Overlay, with 1 Spacer, 17mm Cup Depth



Min Reveal (R)	Flap Thickness (FT)								
	30	29	28	27	26	25	24	23	22
	6.5	5.5	4.5	3.5	2.5	1.5	1	1	1

Overlay, with 2 Spacers, 17mm Cup Depth

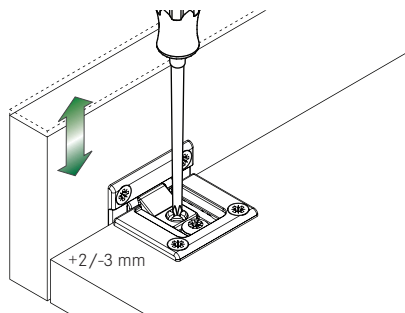


Min Reveal (R)	Flap Thickness (FT)								
	30	29	28	27	26	25	24	23	22
	6.5	5.5	4.5	3.5	2.5	1.5	1	1	1

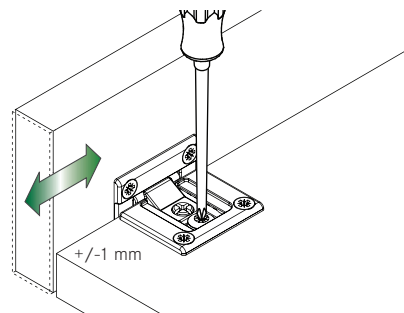
Note: Hinge dimensions and reveal calculation based on factory setting.

IMPORTANT
To determine the correct application Grass strongly recommends a trial mounting for all hinges and base plates.

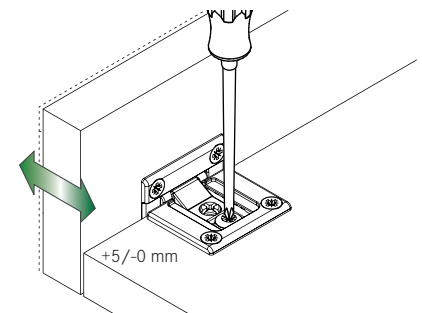
Overlay Adjustment



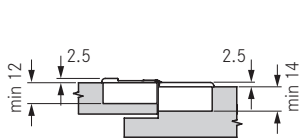
Side Adjustment



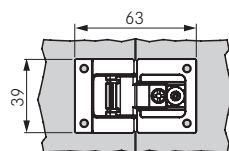
Depth Adjustment



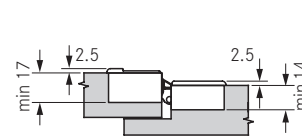
Cup Dimensions, 12mm cup depth



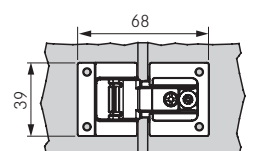
Hinge Dimension, 12mm cup depth



Cup Dimensions, 17mm cup depth



Hinge Dimensions, 17mm cup depth

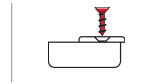


Tiomos H Hinge


105° hidden hinge



- Hidden hinge is fully recessed in cabinet
- 105° opening angle
- Integrated soft-close damper
- 3-dimensional adjustments via cam
- For door thicknesses from 18mm (21/32")
- Door recess depth: 15mm (19/32")
- Cabinet recess depth: 42mm (1 21/32")
- Available in Nickel-plated and Night finishes
- Load-bearing capacity up to 12kg (26.5 lb)



Tiomos H Hinge Opening Angle 105° Screw-On

Overlay	Cranking 03	Color	Item No.	PU
	Hinge: die-cast, nickel-plated	Nickel	F051139126507	10
	Hinge: die-cast, night	Night	F051139125507	10

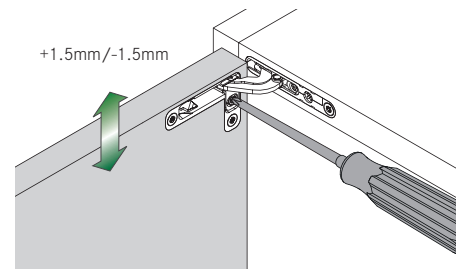
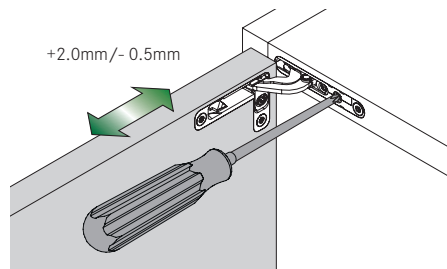
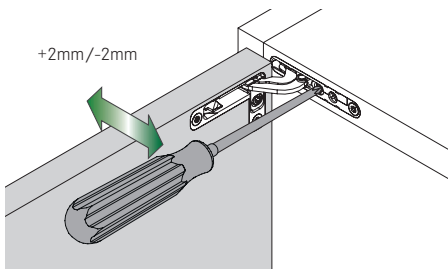
PU = 10 polybag sets in a box

Polybag consists of:

- 1- LU/RD Hinge - Left Side (Above)/Right Side (Below)
- 1 - LD/RU Hinge - Right Side (Above)/Left Side (Below)
- 2 - Cover Caps
- Mounting Hardware

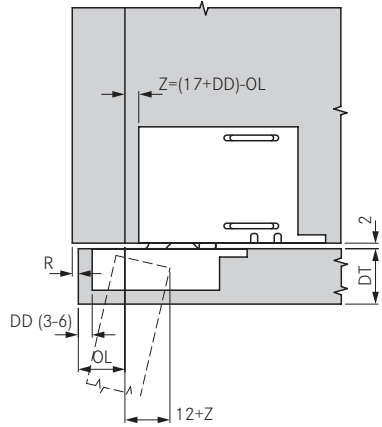
Adjustment Options

Side Adjustment Depth Adjustment Height Adjustment



PU - Packaging unit

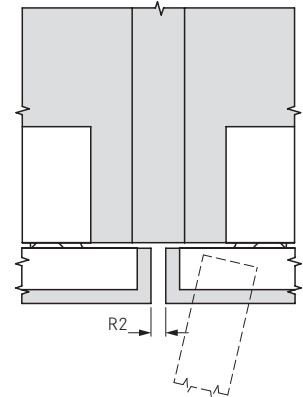
Overlay



Door Thickness (DT)	Drilling Distance (DD)			
	3	4	5	6
18	0	0	0	0
20	0.2	0.2	0.2	0.2
22	0.5	0.5	0.5	0.5
24	0.9	0.9	0.8	0.8
26	1.4	1.4	1.3	1.3
28	2.1	2.0	2.0	1.9
30	3.1	2.9	2.8	2.7
32	4.7	4.2	3.9	3.7
	Minimum reveal (R)			

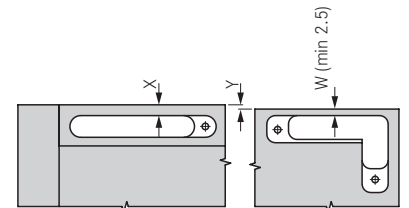
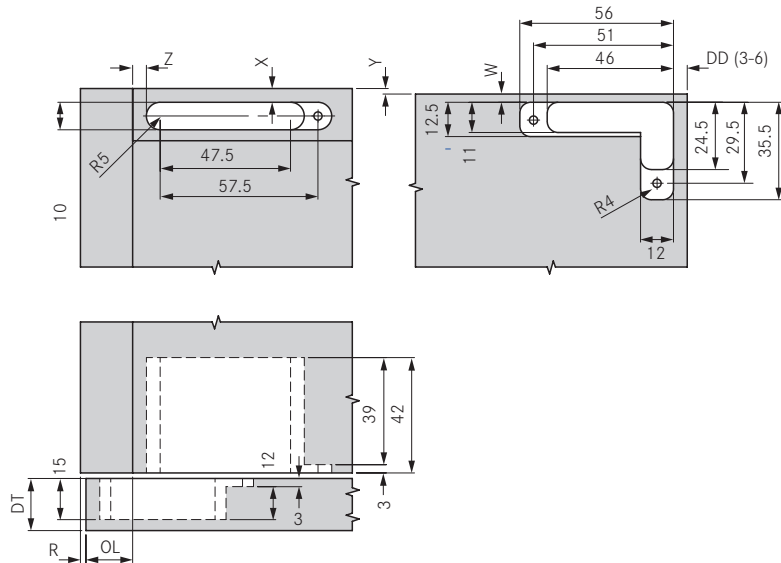
Drilling Distance for Cabinet (Z)	Drilling Distance (DD)			
	3	4	5	6
0	20	21	22	23
1	19	20	21	22
2	18	19	20	21
3	17	18	19	20
4	16	17	18	19
5	15	16	17	18
6	14	15	16	17
	Door Overlay			

Half Overlay



Door Thickness (DT)	Drilling Distance (DD)	
	3	4
18	2.0	
20	2.0	
22	2.2	
24	2.4	
26	2.5	
28	2.6	
30	2.6	
32	2.5	
	Minimum reveal (R2)	

Installation Dimensions



$$X = (W + Y)$$

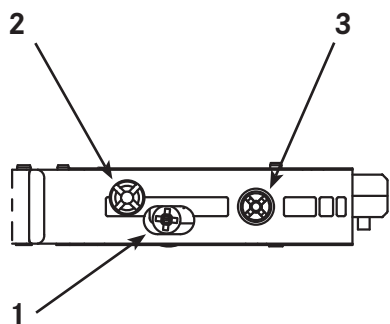
$$Y = (X - W)$$

$$W = (X - Y)$$

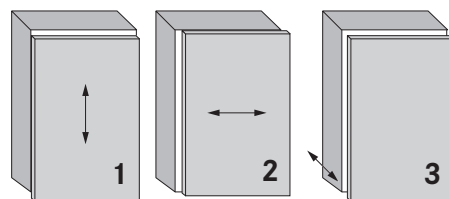
- DD = Drilling Distance
- DT = Door Thickness
- OL = Overlay
- R = Reveal
- Z = Drilling Distance for Cabinet

Tiomos Base Plates

For Tiomos hinges



- Steel, nickel plated
- Depth and height adjustment via worm gear
- Side adjustment via hinge
- Use a #2 Pozzi drive screwdriver for hinge adjustment
- Attach base plates using all available screw holes



Height adjustment via base plate ±2mm
Via worm gear ± 2mm

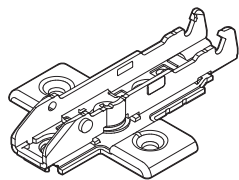
Side Adjustment ±2mm

Depth adjustment +3/-2mm

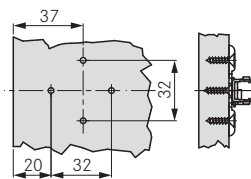
All adjustment options can be made independently of one another

Note: For our full line selection of base plates, please see our Grass Tiomos Catalog, Pages 48-51.

Wing Base Plate, 4 Point Fixing 37/32 For Wood Screws

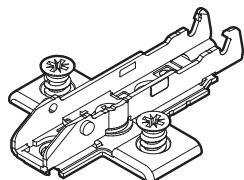


- Height adjustment via worm gear

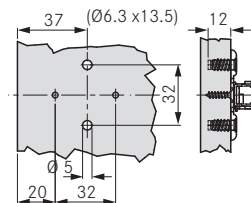


Height	Item No.	PU
0	F058139746 228	150
2	F058139747 228	150
3	F058139748 228	150
3.5	F058139749 228	150
6	F058139892 217	50

Wing base plate, 4 Point Fixing 37/32 Pre-mounted Euro Screws (13.5mm)

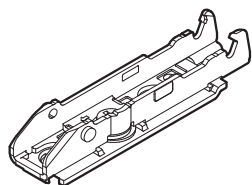


- Height adjustment via worm gear

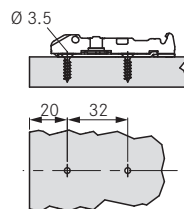


Height	Item No.	PU
0	F058139761 228	150
2	F058139762 228	150
3	F058139763 228	150
3.5	F058139764 228	150
6	F058139873 217	50

Straight base plate, 2 Point Fixing 20/32 For Wood Screws

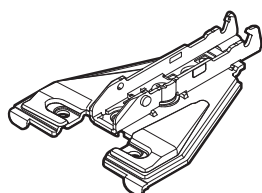


- Height adjustment via worm gear

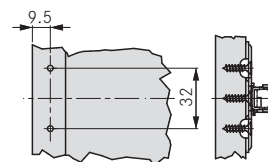


Height	Item No.	PU
0	F059139701 228	150
2	F059139702 228	150
3	F059139703 228	150

FFA base plate, 2 Point Fixing 9.5/32 For Wood Screws



- Height adjustment via worm gear



Height	Item No.	PU
1.5	F058139825 228	150
3.5	F058139826 228	150
4.5	F058139827 228	150
5	F058139828 228	150

PU - Packaging unit

Tiomos Spacer Ring



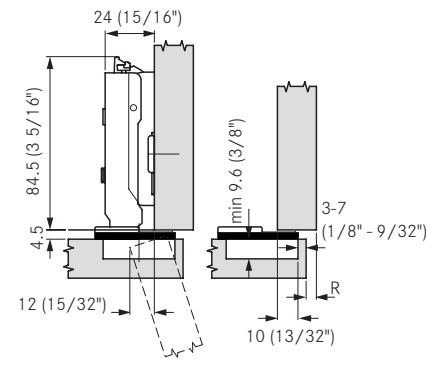
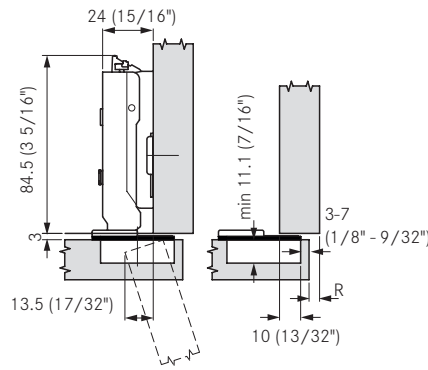
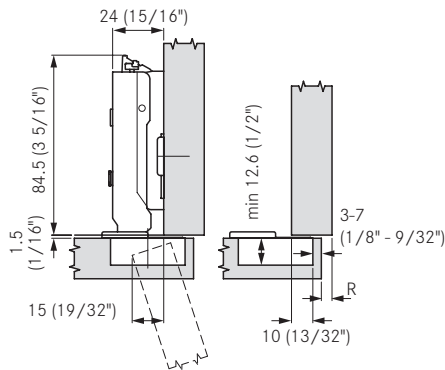
- Permits the use of standard hinges for thinner doors
- Simple installation
- Can be double-stacked
- Suitable for all Tiomos hinges

Description	Item No.	PU
Tiomos spacer ring, 1.5 height	F072135885228	150

Without Spacer Ring

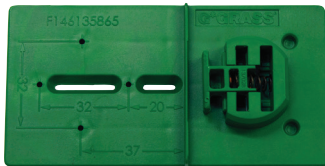
1 Spacer Ring

2 Spacer Rings



Tiomos Marking Aids

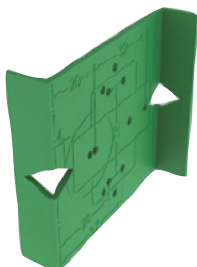
Tiomos Marking Jig



- Easy to use
- Cup distance 3-5mm
- Hinge cup positioning
- Straight base plate positioning
- Wing base plate positioning

Description	Item No.	PU
Tiomos marking jig	F146135865202	1

Tiomos Marking Template



- Easy marking and pre-drilling for:
- 45mm pattern hinges
 - Wing base plates
 - Straight base plates

Description	Item No.	PU
Tiomos marking template	F146135787217	1



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