

G*

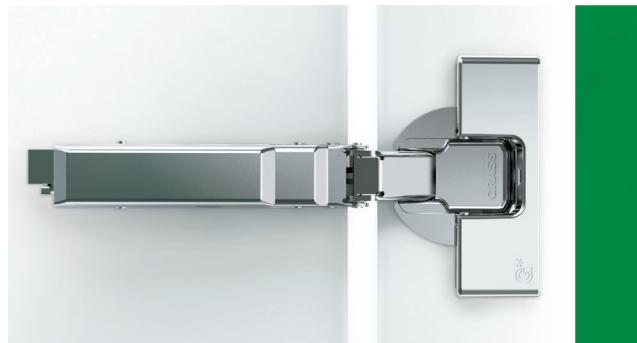
TIOMOS



G*GRASS®

TIOMOS HINGE SYSTEM

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







Tiomos, an elegant hinge system today that meets the technical and functional requirements of tomorrow.



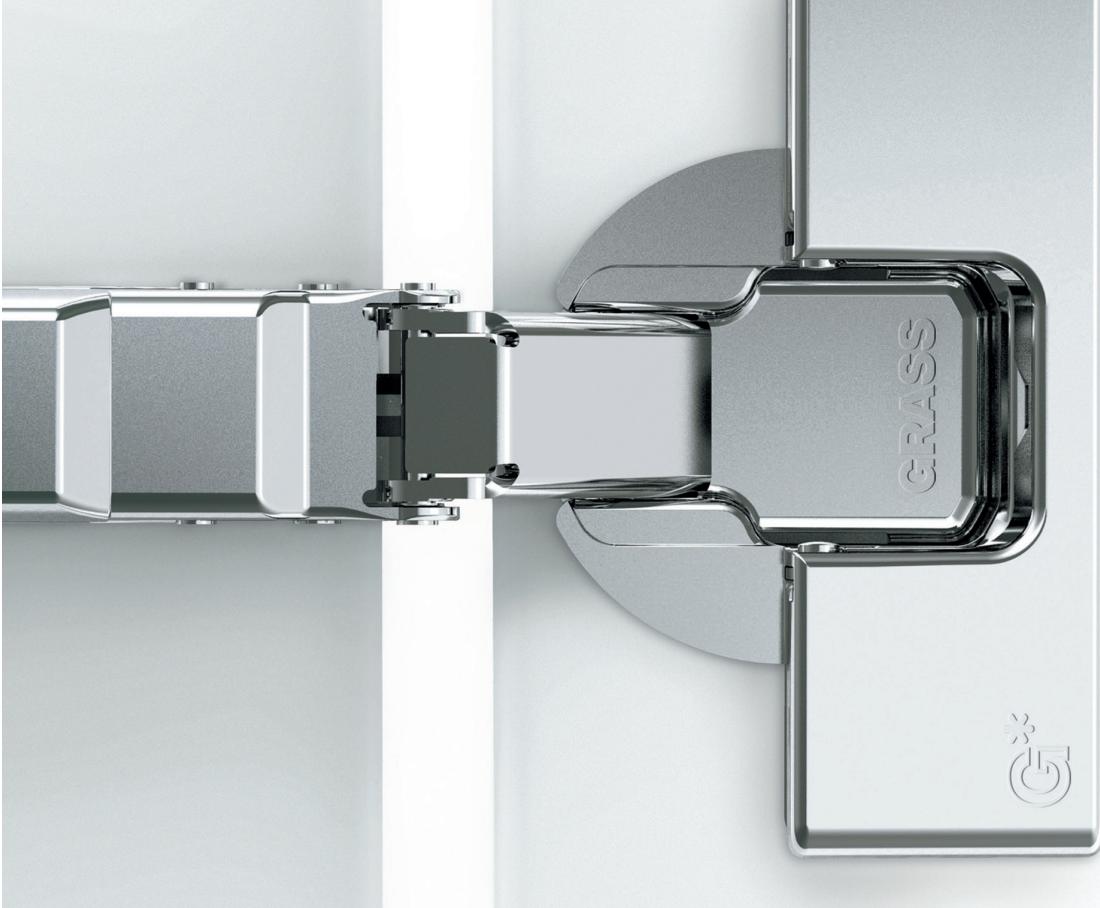
Our developers set out to create a completely new hinge system.

The result is Tiomos. Not only does Tiomos outperform any other hinge in the industry, it offers a timeless design as well as its own individual character.

The product range covers virtually every application, from standard doors to wide angle doors, from frameless applications to face frame applications. The Tiomos offers two closing actions: the standard Self-close and the popular Soft-close. The Soft-close offers a three tier adjustable mechanism, which is fully integrated and concealed in the hinge arm. The closing process

is extremely smooth to the degree that the Soft-close is activated until the door is completely shut. With the superb engineering and design, size and weight of the door will not be a factor. The doors pull open with ease and minimal gaps can be achieved due to the design of the hinge.

Tiomos - the ideal solution to the ever increasing requirements of today's manufacturers.



Tiomos - One hinge system to cover all applications.

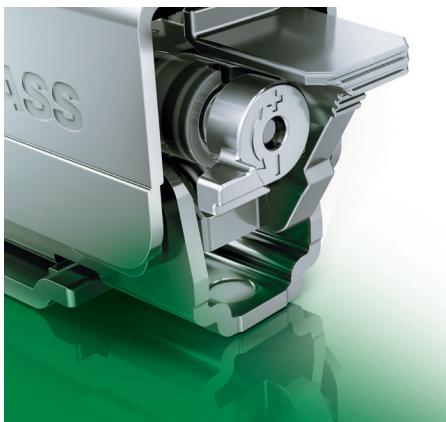
Meet Tiomos, an evolutionary hinge system that offers the best possible movement for cabinet doors.

Tiomos provides perfect movement for essentially every application, from standard doors to wide angle doors, from diagonal corner hinges to pie-cut corner hinges, and from frameless applications to face frame applications. Tiomos is available in a 45mm or 42mm boring pattern for dowelled hinges and 45mm for screw-on hinges. The Tiomos Impresso, the ever popular tool free version, is available in a combined 42/45mm pattern.



TIOMOS HINGE SYSTEM

One hinge system featuring a multitude of innovative aspects.



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 ($\pm 2\text{ mm}$) can be achieved via a worm gear or through elongated holes ($\pm 2.5\text{ mm}$). Side adjustment ($\pm 2\text{ mm}$) is on the hinge arm.



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



The 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 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 90°.

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Features and Benefits

Tiomos

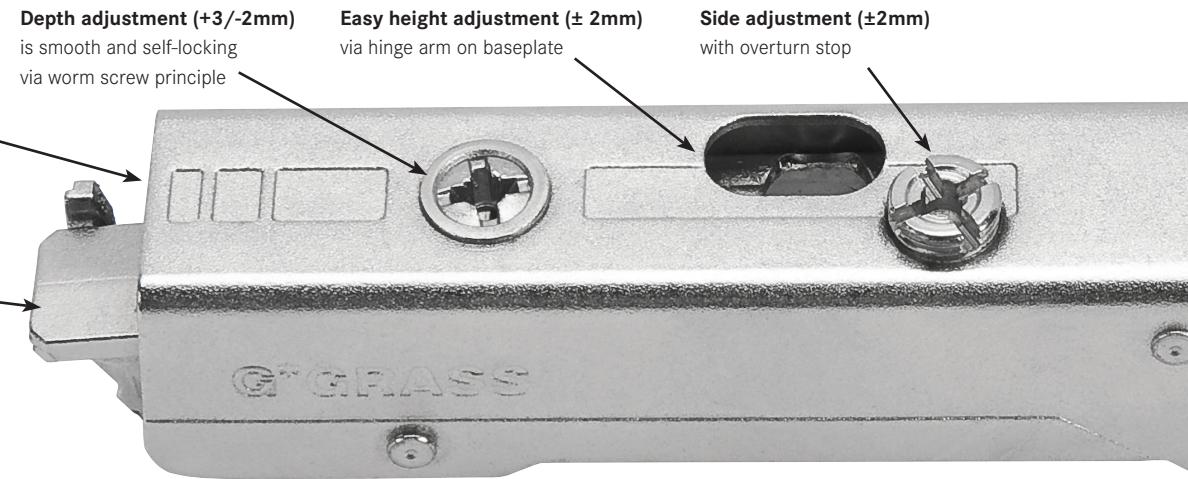
Features



- Adjustable Soft-close mechanism integrated and concealed in the hinge arm
- Continuous, smooth closing action from the degree that the Soft-close is activated until the door is completely closed
- Uniform closing action regardless of the door size, weight, or materials
- Soft-close mechanism can be adjusted easily and without tools, even after doors are installed
- Each Tiomos hinge has 3 settings for closing performance
- Wide selection of hinges and specialty hinges cover all application needs
- Increased applications:
 - Full overlay from 24 - 13.5mm
 - Overlay from 19 - 11.5mm
 - Half Overlay from 12.5 - 5mm
 - Inset

Integrated damper adjustment
with 3 Soft-close settings. Adjustment system is concealed in the hinge arm.

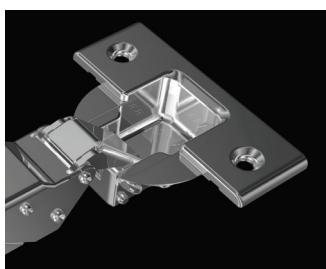
Ergonomic clip
release with audible locking



Impresso Hinges
for tool free application

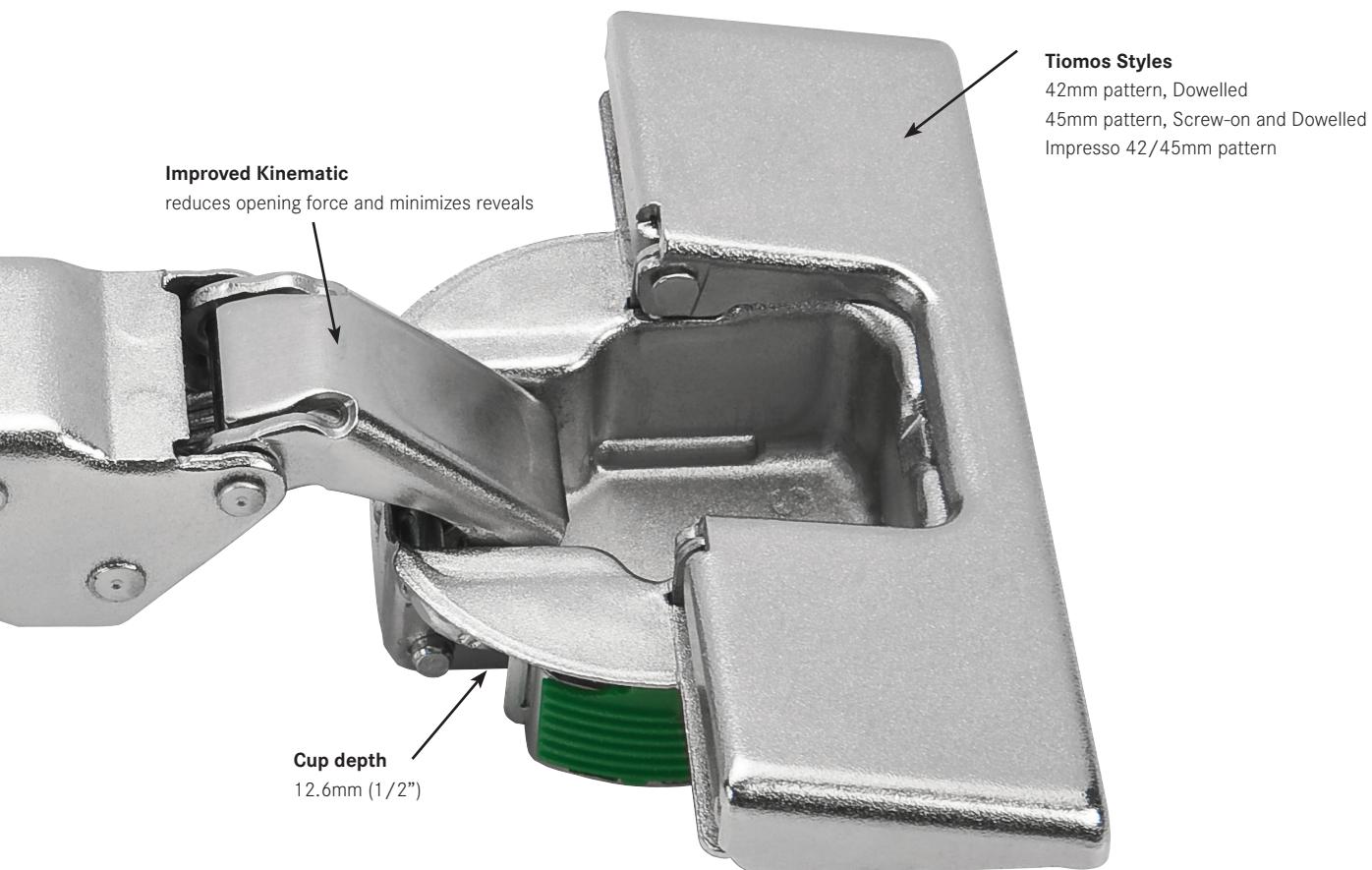


Dowelled and Screw-on
cup attachments. Dowelled available in both 42mm and 45mm patterns.
Screw-on available in 45mm pattern



Features

- One hinge type for all door thicknesses 14 - 24mm
- 3-dimensional adjustment with suitable base plate
 - Depth adjustment +/-2mm via self-locking worm screw
 - Height adjustment +/-2mm on base plate via hinge arm
 - Side adjustment with overturn stop +/-2 via hinge arm
- Soft-close or Self-close hinges are available
- For face frame or frameless applications
- Impresso for tool free application
- 42mm and 45mm boring patterns



Height adjustment

is based on the worm gear principle that is continuous and self-locking.



3 Soft-close settings

adjust to meet your individual Soft-close requirements.

Technical Information

For Tiomos

Number of Hinges Per Door

The number of hinges is determined by the door height, door weight, quality of the door 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.

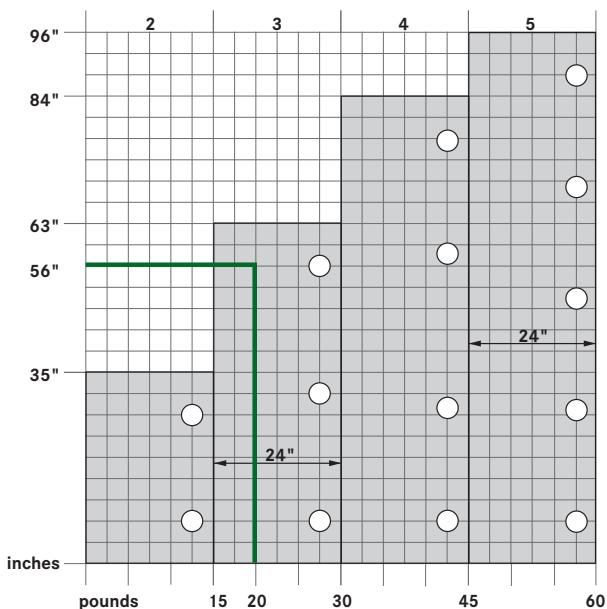
Attach base plates using all available screw holes.

Example:

For doors measuring 56" x 24" and weighing 19 lb, 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.



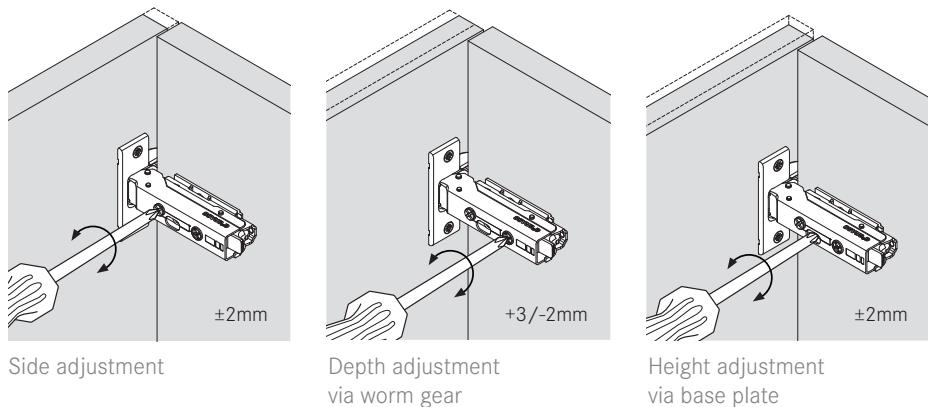
Adjustments

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.

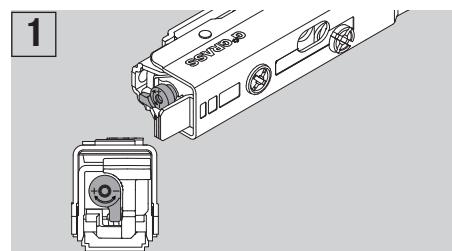
Attach base plates using all available screw holes.



Tool Free Soft-close Adjustment

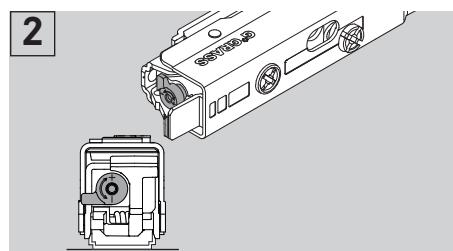
Soft-closing performance can be regulated for any door size and weight with the Tiomos adjustable integrated Soft-close.

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



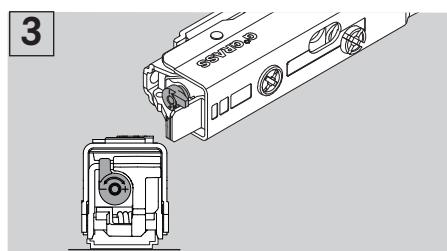
Light setting

Adjustment lever points toward the cabinet wall



Medium setting (factory setting)

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



Strong setting

Adjustment lever points toward the cabinet interior

Appropriate for:

- Small, light doors

Appropriate for:

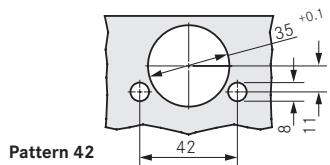
- Standard doors

Appropriate for:

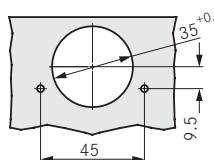
- Large, heavy doors

Tiomos Drilling Patterns

Tiomos Impresso Drilling Patterns

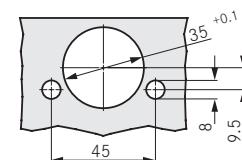
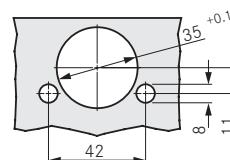
Dowelled

Pattern 42

Screw-on

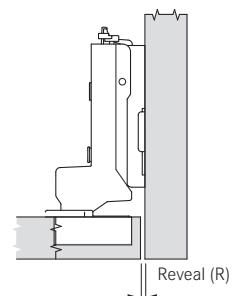
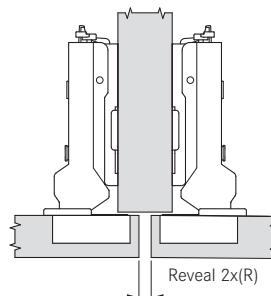
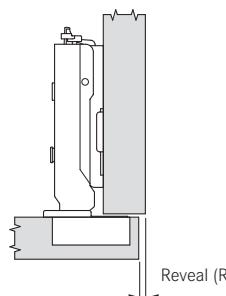
Pattern 45

Impresso 42/45 hinges accommodate cup drilling patterns of both 42mm and 45mm.

Pattern 42 and 45**Reveal****Full Overlay Door****Half Overlay Door****Inset Door**

The reveal (R) is the distance required between two doors or between the door and side wall of the cabinet to allow sufficient space for opening the door. The required reveal width (R) depends on the thickness of the door.

Most cabinet makers prefer a reveal (R) of between 3mm and 6mm.

**Reveal for Full Overlay, Overlay, and Half Overlay Doors**

The table shows the reveal necessary between two doors or between door and side wall to allow enough space for opening the door.

Example:

For a door thickness of 19mm and a drilling distance of 6mm, a reveal of 0.9mm is needed.

Door thickness (DT)	Drilling Distance (DD)					
	3	4	5	6	7	
24	2.4	2.1	2.1	2.1	2.0	
21	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	1.5	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 min. (R)						

Reveal for Inset Door

The table shows the minimum reveal for an inset door, depending on the drilling distance and base plate height.

Example: A drilling distance of 6mm results from using a base plate with height 03 in a reveal of 1mm.

Minimum Reveal (R)	Drilling Distance (DD)					
	3	4	5	6	7	
0				0	2	3
.5						3.5
1	0			2	3	
1.5						3.5
2				2	3	
3	2					
4	3					
Base Plate Height (BPH)						

Note:

Reveal dimensions were determined with a door edge radius of 1mm. Hinge dimensions and calculation of gap with factory setting.

IMPORTANT

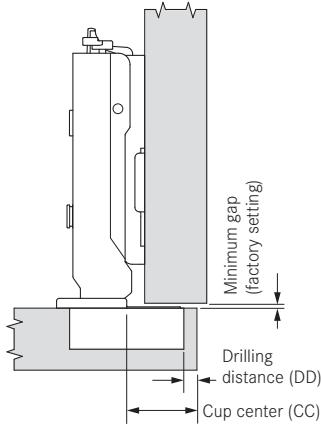
To determine the correct application Grass strongly recommends a trial mounting for all hinges and base plates.

Technical Information

Tiomos

Minimum Gap

The Minimum gap is the gap between the closed door and the front of the cabinet.



Drilling Distance

	Drilling Distance (DD)	Cup Center (CC)		
1/8"	3	13/16"	20.5	
5/32"	4	27/32"	21.5	
3/16"	5	7/8"	22.5	
1/4"	6	15/16"	23.5	
9/32"	7	31/32"	24.5	
5/16"	8	1"	25.5	

Example:

For a door thickness (DT) of 17mm and a drilling distance (DD) of 6mm a minimum gap of 1mm is needed.

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

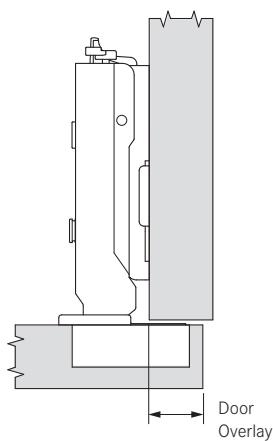
Minimum gap

The drilling distance (DD) is the distance between the edge of the door and the edge of the cup hole.

The cup center (CC) is the distance of the cup drilling distance plus 1/2 of the cup diameter.

Door Overlay

The door overlay is the part of the cabinet side wall or face frame that is covered by the door on the hinge side.



Example:

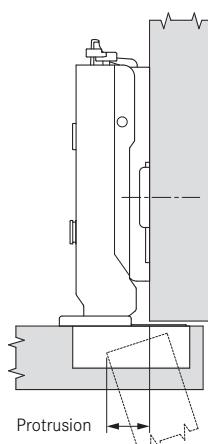
For a hinge with a cranking of 03, a base plate height (BPH) of 2mm, and a drilling distance (DD) of 4mm, the door overlay is 14mm.

Door Overlay	Drilling Distance (DD)				
	3	4	5	6	7
19					0
18				0	
17			0	2	
16.5					
16		0		2	3
15					3.5
14.5					3.5
14		2	3		
13.5				3.5	
13	2	3			
12.5			3.5		
12	3				
11.5	3.5				

Base Plate Height (BPH)

Door Edge Protrusion

The door edge protrusion is the amount by which the edge of the open door protrudes into the opening and varies depending on the type of hinge and method of fixing. It is stated on the respective catalog page and refers to the stated base plate for the factory setting. It can be changed by changing the height of the base plate and adjusting the lateral adjustment.

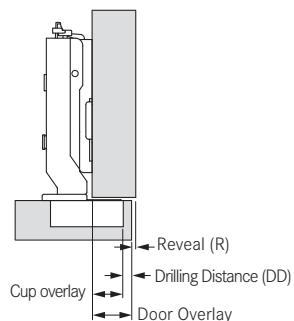


Door Positions

Achieve overlay with hinge cranking

Full Overlay (Cranking 00)

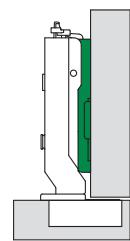
The cup overlay (factory setting) plus drilling distance determine the door overlay. Dimensions can be found in a table on the respective page of the catalog.



Achieve overlay with base plate

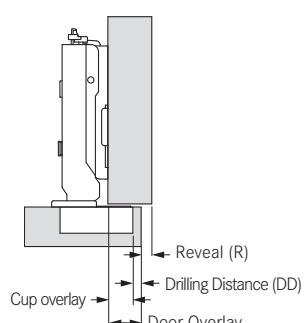
Full Overlay

Using a hinge with a cranking of 00 and a base late height (BPH) 00



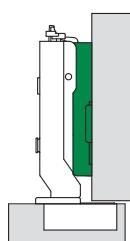
Overlay (Cranking 03)

The cup overlay (factory setting) plus drilling distance determine the door overlay. Dimensions can be found in a table on the respective page of the catalog.



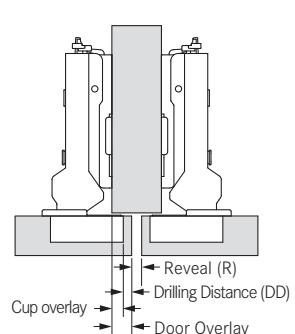
Overlay

Using a hinge with a cranking of 00 and a base plate height (BPH) 03



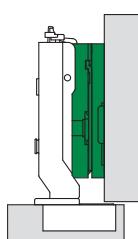
Half Overlay (Cranking 9.5)

The cup overlay (factory setting) plus drilling distance determine the door overlay. Dimensions can be found in a table on the respective page of the catalog.



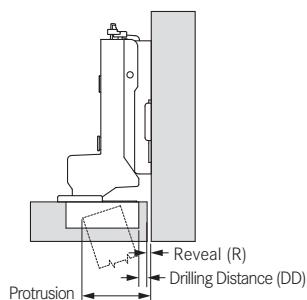
Half Overlay

Using a hinge with a cranking of 00 and a base plate height (BPH) 9.5



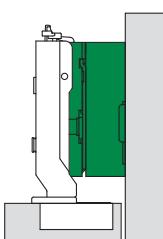
Inset (Cranking 19)

There is no door overlay. The reveal between the side of the cabinet and the door depends on the base plate height (BPH) and the drilling distance (DD). Dimensions can be found in a table on the respective page of the catalog.



Inset

Using a hinge with a cranking of 03 and a base plate height (BPH) 19



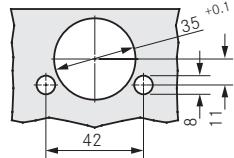
Insertion Instructions

Tiomos Impresso

Tiomos Impresso



The Tiomos Impresso is a high quality performance hinge with superior strength. For the best results for cup insertion into door, please follow the guide shown below.



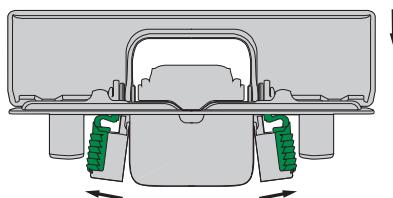
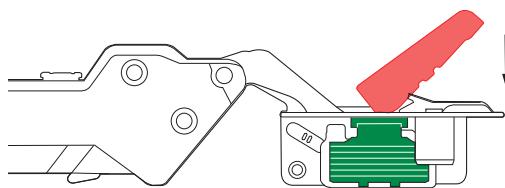
IMPORTANT

Cup bore hole diameter must be within 35mm - 35.1mm range

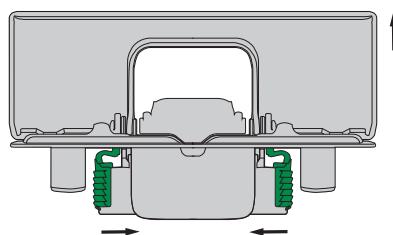
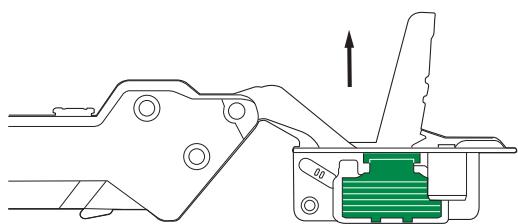
Instructions for Impresso Insertion

Begin with hinge in the open position and not mounted on door.

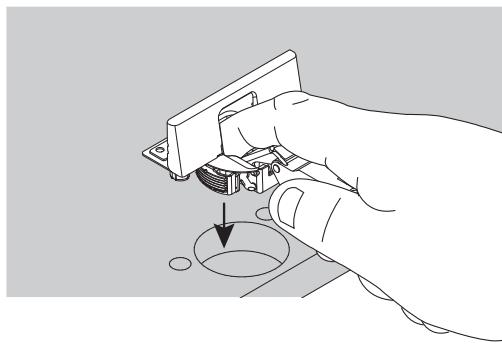
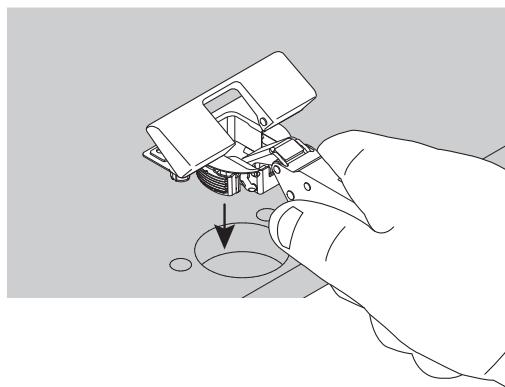
If the hinge cup flap is partially closed due to shipping and handling, lift flap to upright position before inserting into door as illustrated above.



Please ensure that expanding green brackets are in loose/neutral position before inserting into door.



For fast and easy insertion use index finger to push cup into door.



Testing Information

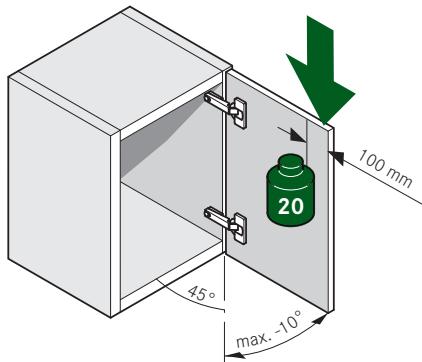
Tiomos

Functional Test

Static load - vertical

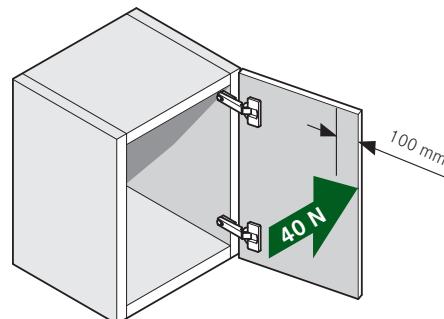
Additional load: 44 pounds (20 kg)

Opening angle: max. -10°



Static load - horizontal

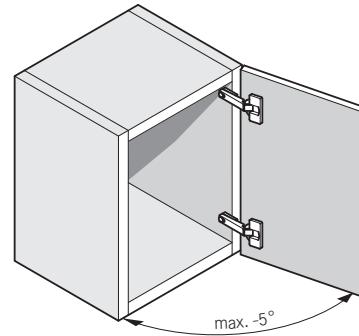
Force: 40 N



Endurance Test

Opening angle: max. -5°

Open and close movements: 100,000

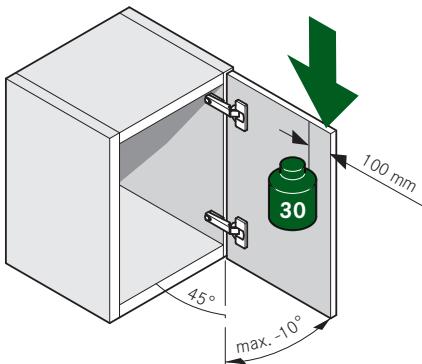


Overload Testing

Vertical

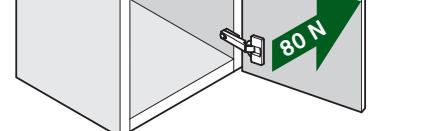
Additional load: 66 pounds (30 kg)

Opening angle: max. -10°



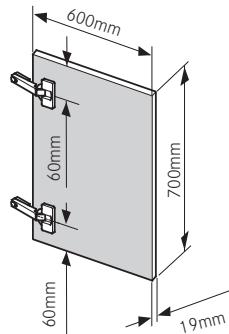
Horizontal

Force: 80 N



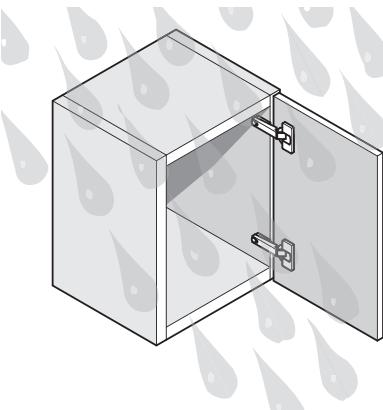
Test door

Weight approx. 11.5 pounds (5.2 kg)



Salt Spray and Humidity Test

Based on DIN ISO 9227 and DIN 6270-2

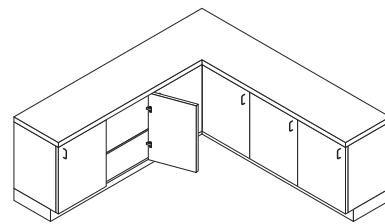


Tiomos 110

110° hinge for standard doors



- 3-dimensional adjustment with suitable base plate
- Accommodates overlays up to 24mm (15/16")
- Optimal reveal up to 24 mm door thickness
- Soft-close or Self-close hinges available
- For face frame or frameless cabinets
- Convenient depth adjustment with worm gear



Tiomos 110 Opening Angle 110°

Impresso

Screw-On

Dowelled

Full Overlay	Cranking 00	Pattern	Type	Item No.	PU	Pattern	Type	Item No.	Item No.	PU
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139414228	150	45	Soft-close	F028138519228	F028138523228	150
	Hinge arm: steel, nickel-plated	42/45	Self-close	F034139385228	150	45	Self-close	F045138457228	F045138461228	150
						42	Soft-close	-	F028138341228	150
						42	Self-close	-	F045138279228	150

Overlay	Cranking 03	Pattern	Type	Item No.	PU	Pattern	Type	Item No.	Item No.	PU
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139415228	150	45	Soft-close	F028138520228	F028138524228	150
	Hinge arm: steel, nickel-plated	42/45	Self-close	F034139386228	150	45	Self-close	F045138458228	F045138462228	150
		42/45	Free-swing	F035139443228	150	42	Soft-close	-	F028138342228	150
						42	Self-close	-	F045138280228	150

Half Overlay	Cranking 9.5	Pattern	Type	Item No.	PU	Pattern	Type	Item No.	Item No.	PU
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139416228	150	45	Soft-close	F028138521228	F028138525228	150
	Hinge arm: zinc, nickel-plated	42/45	Self-close	F034139387228	150	45	Self-close	F045138459228	F045138463228	150
		42/45	Free-swing	F035139444228	150	42	Soft-close	-	F028138343228	150
						42	Self-close	-	F045138281228	150

Inset	Cranking 19	Pattern	Type	Item No.	PU	Pattern	Type	Item No.	Item No.	PU
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139417228	150	45	Soft-close	F028138522228	F028138526228	150
	Hinge arm: zinc, nickel-plated	42/45	Self-close	F034139388228	150	45	Self-close	F045138460228	F045138464228	150
		42/45	Free-swing	F035139444228	150	42	Soft-close	-	F028138344228	150
						42	Self-close	-	F045138282228	150

Hinge Clip Protector	Item No.	PU
Plastic, grey	F072135807540	500

Cover Caps	Item No.	PU	Opening Angle Reduction Clip to 85°	Item No.	PU
Steel, nickel-plated	F072135500247	1000	Steel, nickel	F072135751517	50

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



#6 x 5/8" FHP, NI

PU - Packaging unit

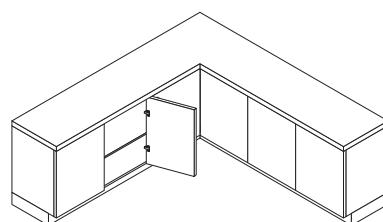
Full Overlay		Overlay		Half Overlay		Inset	
Drawings show Tiomos with a base plate, (BPH) 02.		Drawings show Tiomos with a base plate, (BPH) 02.		Drawings show Tiomos with a base plate, (BPH) 02.		Drawings show Tiomos with a base plate, (BPH) 02. X = 38.5 + DT	
Drilling Distance (DD)		Drilling Distance (DD)		Drilling Distance (DD)		Drilling Distance (DD)	
Door Overlay	Base Plate Height (BPH)	Door Overlay	Base Plate Height (BPH)	Door Overlay	Base Plate Height (BPH)	Reveal (R)	Base Plate Height (BPH)
Minimum Gaps		Reveal		Reveal with 85° Angle Reduction Clip			
Drilling Distance (DD)		Drilling Distance (DD)		Drilling Distance (DD)		Drilling Distance (DD)	
Door Thickness (DT)	Minimum gap	Door Thickness (DT)	Reveal (R)	Door Thickness (DT)	Reveal (R)	Door Thickness (DT)	Reveal (R)
The minimum gap is the gap between the closed door and the front of the cabinet. *Only achievable with 85° angle reduction clip.				The minimum gap is the gap between the closed door and the front of the cabinet. *Only achievable with 85° angle reduction clip.			
Legend		Screw-on		Impresso and Dowelled		Cup Dimensions	
BPH = Base Plate Height CC = Center Cup DD = Drilling Distance DT = Door Thickness R = Reveal X = Base Plate Setback							
							(-) Impresso

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

Hinge Clip Protector	Item No.	PU
	Plastic, grey	F072135807540 500

Opening Angle Reduction Clip to 85°	Item No.	PU	Important Note:
	Steel, nickel	F072135751517 50	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. Complete Tipmatic Pin System is shown on page 60-61.

Cover Caps	Item No.	PU	Tipmatic Pin	Item No.	PU
	Steel, nickel-plated	F072135500247 1000		F069135396513 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

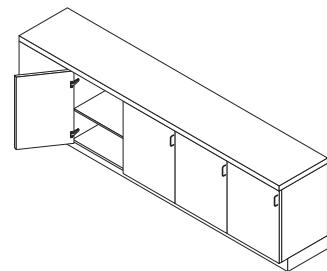
Overlay		Half Overlay		Inset		
Drawings show Tiomos with a base plate, (BPH) 02.		Drawings show Tiomos with a base plate, (BPH) 02.		Drawings show Tiomos with a base plate, (BPH) 02.		
Drilling Distance (DD)		Drilling Distance (DD)		Drilling Distance (DD)		
Door Overlay	3 4 5 6 7	Door Overlay	3 4 5 6 7	Door Overlay	*3 4 5 6 7	
19.0		12.5		0.0	0	
18.0		11.5		0.5	2	
17.0	0	10.5	0	1.0	3.5	
16.5		10		1.5		
16.0	0	9.5	0	2.0		
15.5		9.0		3.0		
15.0	0	8.5	2	4.0		
14.5		8.0		Base Plate Height (BPH)		
14.0	2 3	7.5	3			
13.5		7.0				
13.0	2 3	6.5	2 3			
12.5	3.5	6.0				
12.0	3	5.5				
11.5	3.5	5.0	3.5			
	Base Plate Height (BPH)		Base Plate Height (BPH)			
Minimum Gaps	Reveal		Reveal with 85° Angle Reduction Clip			
Drilling Distance (DD)	Reveal		Drilling Distance (DD)	Reveal with 85° Angle Reduction Clip		
Door Thickness (DT)	*3 4 5 6 7	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)	*3 4 5 6 7	Door Thickness (DT)	
24	1.0 1.0 1.0 1.2* 2.1*		24	2.4 2.1 2.1 2.1 2.0	36.0	11.1 10.3 9.7 9.1 8.5
22	1.0 1.0 1.0 1.0 1.5*		22	1.6 1.6 1.6 1.5 1.5	30.0	5.4 4.8 4.4 4.3 4.2
21	1.0 1.0 1.0 1.0 1.2*		21	1.4 1.3 1.3 1.3 1.3	28.0	3.7 3.6 3.5 3.4 3.3
20	1.0 1.0 1.0 1.0 1.0		20	1.1 1.1 1.1 1.1 1.1	26.0	2.9 2.8 2.8 2.7 2.6
19	1.0 1.0 1.0 1.0 1.0		19	0.9 0.9 0.9 0.9 0.9	24.0	2.4 2.1 2.1 2.1 2.0
18	1.0 1.0 1.0 1.0 1.0		18	0.7 0.7 0.7 0.7 0.7	22.0	1.6 1.6 1.6 1.5 1.5
17	1.0 1.0 1.0 1.0 1.0		17	0.6 0.6 0.6 0.6 0.6	21.0	1.4 1.3 1.3 1.3 1.3
16	1.0 1.0 1.0 1.0 1.0		16	0.6 0.6 0.6 0.6 0.6	20.0	1.1 1.1 1.1 1.1 1.1
	Minimum gap			Reveal (R)	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						
CC = Center Cup = DD + 1/2(cup diameter)						
DD = Drilling Distance						
DT = Door Thickness						
R = Reveal						
X = Base Plate Setback						

Tiomos 120

120° hinge for standard doors



- 3-dimensional adjustment with suitable base plate
- Accommodates overlays up to 24mm (15/16")
- Optimal reveal up to 24mm door thickness
- Soft-close or Self-close hinges available
- For face frame or frameless cabinets
- Convenient depth adjustment with worm gear



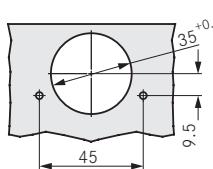
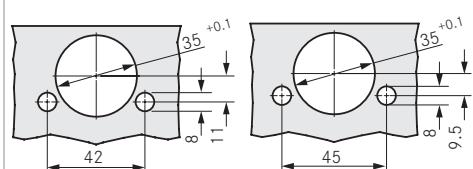
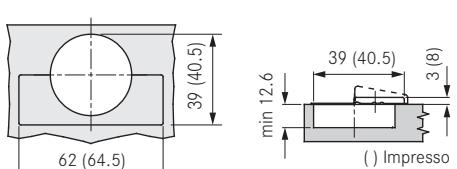
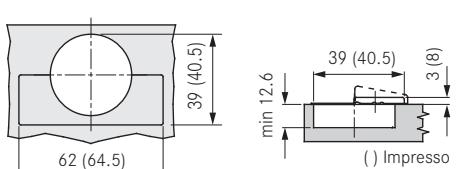
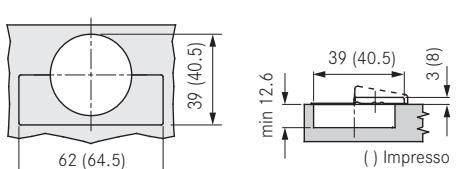
Tiomos 120 Opening Angle 120°				Impresso				Screw-On		Dowelled	
Full Overlay	Cranking 00	Pattern	Type	Item No.	PU	Pattern	Type	Item No.	Item No.	PU	
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139428228	150	45	Soft-close	F028138547228	F028138551228	150	
	Hinge arm: steel, nickel-plated	42/45	Self-close	F034139399228	150	45	Self-close	F045138485228	F045138489228	150	
						42	Soft-close	-	F028138369228	150	
						42	Self-close	-	F045138307228	150	
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139429228	150	45	Soft-close	F028138548228	F028138552228	150	
	Hinge arm: steel, nickel-plated	42/45	Self-close	F034139400228	150	45	Self-close	F045138486228	F045138490228	150	
						42	Soft-close	-	F028138370228	150	
						42	Self-close	-	F045138308228	150	
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139430228	150	45	Soft-close	F028138549228	F028138553228	150	
	Hinge arm: zinc, nickel-plated	42/45	Self-close	F034139401228	150	45	Self-close	F045138487228	F045138491228	150	
						42	Soft-close	-	F028138371228	150	
						42	Self-close	-	F045138309228	150	

Hinge Clip Protector	Item No.	PU
	Plastic, grey	F072135807540

Cover Caps	Item No.	PU	Opening Angle Reduction Clip to 85°	Item No.	PU		
	Steel, nickel-plated	F072135500247	1000		Steel, nickel	F072135751517	50
	Steel, nickel-plated	F072135503228	150		#6 x 5/8" FHP, NI	81001-43	500



PU - Packaging unit

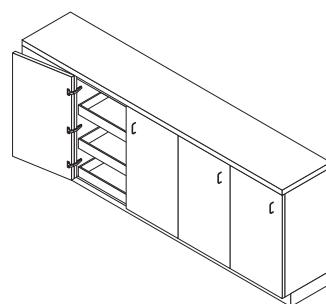
Full Overlay		Overlay		Half Overlay	
Door Overlay	Base Plate Height (BPH)	Door Overlay	Base Plate Height (BPH)	Door Overlay	Base Plate Height (BPH)
22.0	0	19.0	0	12.5	0
21.0	0	18.0	0	11.5	0
20.0	2	17.0	2	10.5	2
19.0	2	16.5		10.0	
18.5		16.0	2	9.5	2
18.0	3	15.5		9.0	3.5
17.5		15.0	2	8.5	3
17.0	3	14.5		8.0	3.5
16.5		14.0	2	7.5	2
16.0	3	13.5		7.0	3.5
15.5	3.5	13.0	2	6.5	2
15.0	3	12.5		6.0	
14.5	3.5	12.0	3	5.5	
	Base Plate Height (BPH)	11.5	3.5	5.0	3.5
Drilling Distance (DD)		Drilling Distance (DD)		Drilling Distance (DD)	
3	4	5	6	7	
22.0					
21.0					
20.0					
19.0					
18.5					
18.0					
17.5					
17.0					
16.5					
16.0					
15.5					
15.0					
14.5					
	Base Plate Height (BPH)	19.0		12.5	
Door Overlay		Door Overlay		Door Overlay	
3	4	5	6	7	
22.0					
21.0					
20.0					
19.0					
18.5					
18.0					
17.5					
17.0					
16.5					
16.0					
15.5					
15.0					
14.5					
	Base Plate Height (BPH)	18.0		11.5	
Minimum Gaps		Reveal		Reveal with 85° Angle Reduction Clip	
Drilling Distance (DD)		Drilling Distance (DD)		Drilling Distance (DD)	
3	4	5	6	7	
24	1.2	2.1	3.0	3.9	4.7
22	1.0	1.1	2.0	2.9	3.8
21	1.0	1.0	1.6	2.4	3.3
20	1.0	1.0	1.1	2.0	2.9
19	1.0	1.0	1.0	1.5	2.4
18	1.0	1.0	1.0	1.0	1.9
17	1.0	1.0	1.0	1.0	1.5
16	1.0	1.0	1.0	1.0	1.0
	Minimum gap				
Door Thickness (DT)		The minimum gap is the gap between the closed door and the front of the cabinet.		Note: Reveal dimensions were determined with an edge radius (of the door) of 1mm. Hinge dimensions and reveal calculation based on factory setting.	
Door Thickness (DT)		Drilling Distance (DD)		Drilling Distance (DD)	
3	4	5	6	7	
24	6.4	5.4	4.4	3.4	2.4
22	3.0	2.0	1.5	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)				
Legend		Screw-on		Impresso and Dowelled	
BPH = Base Plate Height					
CC = Center Cup		+0.1		+0.1	
DD = Drilling Distance		35		35	
DT = Door Thickness		9.5		8	
R = Reveal		45		42	
X = Base Plate Setback				45	
Cup Dimensions		Impresso		Dowelled	
					

Tiomos 155

155° wide angle hinge



- 3-dimensional adjustment with suitable base plate
 - Accommodates overlays up to 23.4 mm (15/16")
 - Soft-close or Self-close hinges available
 - For face frame or frameless cabinets
 - Convenient depth adjustment with worm gear
 - Zero protrusion when door is opened 90°
 - 10mm cup depth
 - For door thicknesses up to 32 mm (1 1/4")
 - Minimal reveal

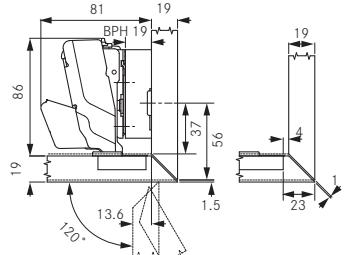


Tiomas 155 Opening Angle 155°				Impresso				Screw-On		Dowelled	
Full Overlay	Cranking 00	Pattern	Type	Item No.	PU	Pattern	Type	Item No.	Item No.	PU	
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139435217	50	45	Soft-close	F028138561217	F028138564217	50	
	Hinge arm: steel, nickel-plated	42/45	Self-close	F034139406217	50	45	Self-close	F045138499217	F045138502217	50	
						42	Soft-close	-	F028138382217	50	
						42	Self-close	-	F045138320217	50	
Overlay	Cranking 03	Pattern	Type	Item No.	PU	Pattern	Type	Item No.	Item No.	PU	
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139436217	50	45	Soft-close	F028138562217	F028138565217	50	
	Hinge arm: steel, nickel-plated	42/45	Self-close	F034139407217	50	45	Self-close	F045138500217	F045138503217	50	
						42	Soft-close	-	F028138383217	50	
						42	Self-close	-	F045138321217	50	
Half Overlay	Cranking 9.5	Pattern	Type	Item No.	PU	Pattern	Type	Item No.	Item No.	PU	
	Hinge cup: steel, nickel-plated	42/45	Self-close	F034139408213	25	45	Soft-close	F028138563217	F028138566217	50	
	Hinge arm: zinc, nickel-plated					45	Self-close	F045138501217	F045138504217	50	
						42	Soft-close	-	F028138384217	50	
						42	Self-close	-	F045138322217	50	

Mitered Corner Application

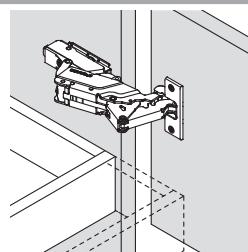
Use Full overlay hinge (00 Cranking) with
19 mm base plate.

Mitered door application is now possible without using the 120° opening angle reduction clip.



Zero Protrusion at 90°

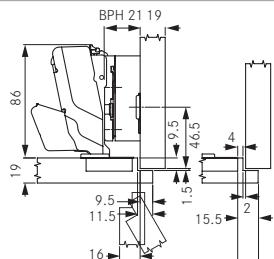
Zero protrusion for application with inset drawers. With 00 cranking and 00 height of base plate the door is flush with the cabinet at 90°.



3/8" Lip Door Application

Use Full overlay hinge (00 Cranking) with
21mm base plate.

Use 120° opening angle reduction clip. Prevents doors from bumping with the cabinet side in inset applications and mitered corner applications.



Hinge Cup Cover Cap	Item No.	PU
Steel, nickel-plated	F072135503 228	150

Angle Reduction Clip to 120°	Item No.	PU
 Plastic, black	F072135753117	50

PU - Packaging unit

Full Overlay	Overlay	Half Overlay	Inset																																																																																																																																																																																																																																																																																																										
Drawings show Tiomos with a base plate, (BPH) 02.	Drawings show Tiomos with a base plate, (BPH) 02.	Drawings show Tiomos with a base plate, (BPH) 02.	Drawings show Tiomos with a cranking 00 hinge & base plate, (BPH) 21.																																																																																																																																																																																																																																																																																																										
Drilling Distance (DD)	Drilling Distance (DD)	Drilling Distance (DD)	Drilling Distance (DD)																																																																																																																																																																																																																																																																																																										
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Drawings show Tiomos with a cranking 00 hinge & base plate, **(BPH) 21.**

$$X = 38.5 + DT$$

Drilling Distance (DD)	3	4	5	6
1.0	19		21	
2.0		21		
3.0	21			

Base Plate Height (BPH)

Note: A door stop is needed to prevent overclose.

Minimum Gaps		Reveal												
Drilling Distance (DD)		3	4	5	6	7	8	Drilling Distance (DD)	3	4	5	6	7	8
Door Thickness (DT)	32	1.0	1.0					32	0.2*	0.2*				
	31	1.0	1.0	1.0				31	0.2*	0.2*	0.2*	0.2*		
	30	1.0	1.0	1.0				30	0.2*	0.2*	0.2*	0.2*	0.2*	
	29	1.0	1.0	1.0	1.0	1.0	1.0	29	0.2*	0.2*	0.2*	0.2*	0.2*	0.2*
	28	1.0	1.0	1.0	1.0	1.0	1.0	28	0.0	0.0	0.0	0.0	0.0	0.0
	26	1.0	1.0	1.0	1.0	1.0	1.0	26	0.0	0.0	0.0	0.0	0.0	0.0
	25	1.0	1.0	1.0	1.0	1.0	1.0	25	0.0	0.0	0.0	0.0	0.0	0.0
	24	1.0	1.0	1.0	1.0	1.0	1.0	24	0.0	0.0	0.0	0.0	0.0	0.0
	22	1.0	1.0	1.0	1.0	1.0	1.0	22	0.0	0.0	0.0	0.0	0.0	0.0
	21	1.0	1.0	1.0	1.0	1.0	1.0	21	0.0	0.0	0.0	0.0	0.0	0.0
	20	1.0	1.0	1.0	1.0	1.0	1.0	20	0.0	0.0	0.0	0.0	0.0	0.0
	18	1.0	1.0	1.0	1.0	1.0	1.0	18	0.0	0.0	0.0	0.0	0.0	0.0
	16	1.0	1.0	1.0	1.0	1.0	1.0	16	0.0	0.0	0.0	0.0	0.0	0.0
	Minimum gap								Reveal (R)					

The minimum gap is the gap between the closed door and the front of the cabinet.

IMPORTANT

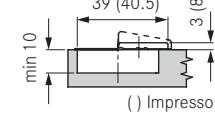
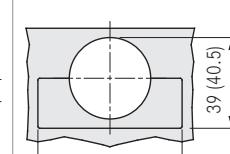
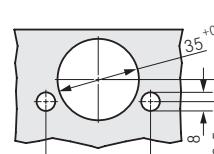
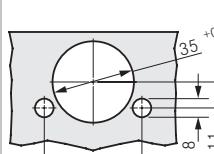
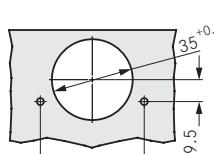
To determine the correct application Grass strongly recommends a trial mounting for all hinges and base plates.

Door Thickness (DT)	3	4	5	6	7	8
32	0.2*	0.2*				
31	0.2*	0.2*	0.2*	0.2*		
30	0.2*	0.2*	0.2*	0.2*	0.2*	
29	0.2*	0.2*	0.2*	0.2*	0.2*	0.2*
28	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0

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

*Only achievable with 120° angle reduction clip.

Legend		Screw-on	Impresso and Dowelled	Cup Dimensions
BPH	= Base Plate Height			
CC	= Center Cup			
DD	= Drilling Distance			
DT	= Door Thickness			
R	= Reveal			
X	= Base Plate Setback			

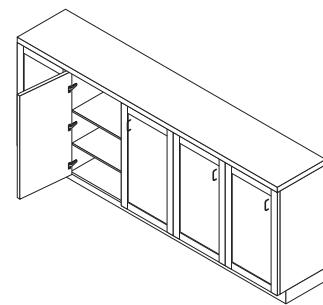


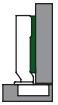
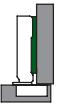
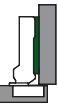
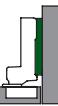
Tiomos 95

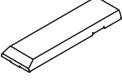
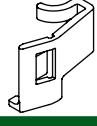
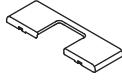
95° hinge for thick doors



- 3-dimensional adjustment with suitable base plate
- Accommodates overlays up to 24mm (15/16")
- For door thicknesses up to 36 mm (1 7/16")
- Soft-close or Self-close hinges available
- For face frame or frameless cabinets
- Convenient depth adjustment with worm gear



Tiomos 95 Opening Angle 95°				Impresso				Screw-On		Dowelled	
Full Overlay	Cranking 00	Pattern	Type	Item No.	PU	Pattern	Type	Item No.	Item No.	PU	
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139438228	150	45	Soft-close	F028138567228	F028138571228	150	
	Hinge arm: steel, nickel-plated	42/45	Self-close	F034139409228	150	45	Self-close	F045138505228	F045138509228	150	
						42	Soft-close	-	F028138389228	150	
						42	Self-close	-	F045138327228	150	
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139439228	150	45	Soft-close	F028138568228	F028138572228	150	
	Hinge arm: steel, nickel-plated					45	Self-close	F045138506228	-	150	
						42	Soft-close	-	F028138390228	150	
						42	Self-close	-	F045138328228	150	
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139440228	150	45	Soft-close	F028138569228	F028138573228	150	
	Hinge arm: zinc, nickel-plated					45	Self-close	F045138507228	F045138511228	150	
						42	Soft-close	-	F028138391228	150	
						42	Self-close	-	F045138329228	150	
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139441228	150	45	Soft-close	F028138570228	F028138574228	150	
	Hinge arm: zinc, nickel-plated	42/45	Self-close	F034139412228	150	45	Self-close	F045138508228	-	150	
						42	Soft-close	-	F028138392228	150	
						42	Self-close	-	F045138330228	150	

Cover Caps		Item No.	PU	Hinge Clip Protector		Item No.	PU
	Steel, nickel-plated	F072135500247	1000		Plastic, grey	F072135807540	500
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

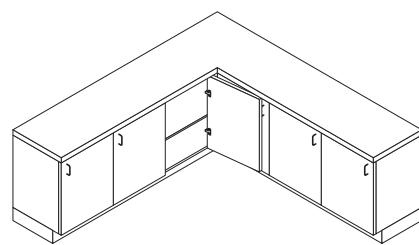
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16	1.0	1.0	1.0	1.0	1.0																																																																																																																																																																																																																																																																																																																																						
Reveal (R)																																																																																																																																																																																																																																																																																																																																											
3	4	5	6	7																																																																																																																																																																																																																																																																																																																																							
36	10.6	9.6	8.6	7.6	6.7																																																																																																																																																																																																																																																																																																																																						
34	8.0	7.0	6.5	5.9	6.4																																																																																																																																																																																																																																																																																																																																						
32	6.0	5.0	4.5	3.9	4.4																																																																																																																																																																																																																																																																																																																																						
30	4.5	3.5	2.5	2.5	1.5																																																																																																																																																																																																																																																																																																																																						
28	2.0	1.5	1.5	1.3	1.3																																																																																																																																																																																																																																																																																																																																						
26	1.0	1.0	1.0	1.0	1.0																																																																																																																																																																																																																																																																																																																																						
24	0.6	0.6	0.6	0.6	0.6																																																																																																																																																																																																																																																																																																																																						
22	0.5	0.5	0.5	0.5	0.5																																																																																																																																																																																																																																																																																																																																						
20	0.3	0.3	0.3	0.3	0.3																																																																																																																																																																																																																																																																																																																																						
18	0.2	0.2	0.2	0.2	0.2																																																																																																																																																																																																																																																																																																																																						
16	0.2	0.2	0.2	0.2	0.2																																																																																																																																																																																																																																																																																																																																						
Legend	Screw-on	Impresso and Dowelled	Cup Dimensions																																																																																																																																																																																																																																																																																																																																								
BPH = Base Plate Height CC = Center Cup DD = Drilling Distance DT = Door Thickness R = Reveal X = Base Plate Setback																																																																																																																																																																																																																																																																																																																																											

Tiomos 110/90A

110° blind corner hinge for overlay doors

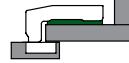


- For blind corner construction
- 110° opening angle
- 3-dimensional adjustment with suitable base plate
- Soft-close or Self-close hinges available
- Convenient depth adjustment with worm gear



Tiomos 110/90A Opening Angle 110°

Impresso				Screw-On			Dowelled		
Overlay	Pattern	Type	Item No.	PU	Pattern	Type	Item No.	Item No.	PU
Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139426223	100	45	Soft-close	F028138535223	F028138545223	100
Hinge arm: zinc, nickel-plated	42/45	Self-close	F034139397223	100	45	Self-close	-	F045138483223	100



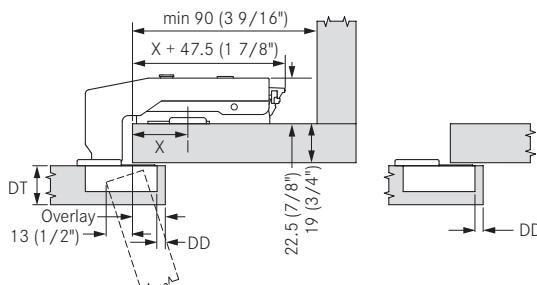
Cover Caps

Steel, nickel-plated	Item No.	PU	Hinge Clip Protector	Item No.	PU
	F072135500247	1000	Plastic, grey	F072135807540	500

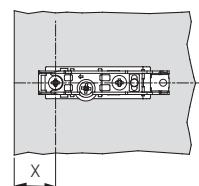
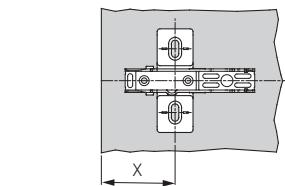
Hinge Cup Cover Cap

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

Overlay



Drawings show Tiomos with a base plate, (**BPH**) 00.



Wing Base Plate Position (X)	Drilling Distance (DD)				
	3	4	5	6	7
30	18	19	20	21	22
29	17	18	19	20	21
28	16	17	18	19	20
27	15	16	17	18	19
26	14	15	16	17	18

Door Overlay

Straight Base Plate Position (X)	Drilling Distance (DD)				
	3	4	5	6	7
13	18	19	20	21	22
12	17	18	19	20	21
11	16	17	18	19	20
10	15	16	17	18	19
9	14	15	16	17	18

Door Overlay

Minimum Gaps

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.

IMPORTANT

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

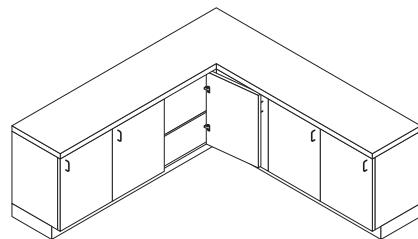
Legend	Screw-on	Impresso and Dowelled	Cup Dimensions
BPH = Base Plate Height			
CC = Center Cup			
DD = Drilling Distance			
DT = Door Thickness			
R = Reveal			
X = Base Plate Setback			

Tiomos 110/90E

110° blind corner hinge for inset doors



- For blind corner construction
- 110° opening angle
- 3-dimensional adjustment with suitable base plate
- Soft-close or Self-close hinges available
- Convenient depth adjustment with worm gear

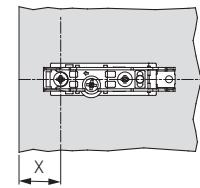
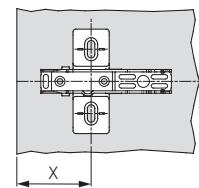
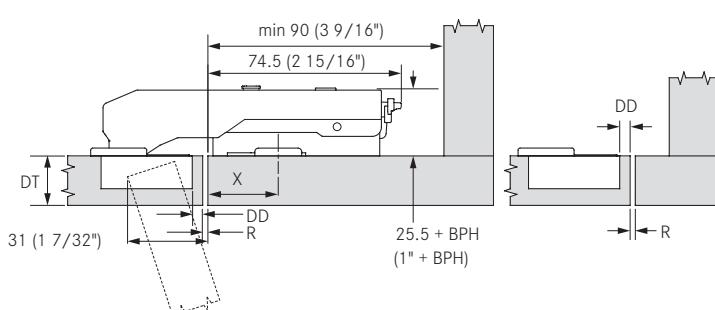


Tiomos 110/90E Opening Angle 110°				Impresso				Screw-On		Dowelled	
Inset		Pattern	Type	Item No.	PU	Pattern	Type	Item No.	Item No.	PU	
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139427223	100	45	Soft-close	F028138536223	F028138546223	100	
	Hinge arm: zinc, nickel-plated	42/45	Self-close	-	-	45	Self-close	-	F045138484223	100	
		42/45	Self-close	F034139398213	25	45	Self-close	F045138474213	-	25	

Cover Caps 	Steel, nickel-plated	Item No. F072135500247	PU 1000	Hinge Clip Protector 	Plastic, grey	Item No. F072135807540	PU 500
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

Inset



Drawings show Tiomos with a base plate, (**BPH**) 03.

Wing Base Plate Position (X)	Drilling Distance (DD)				
	3	4	5	6	7
28	2	1	0		
27	3	2	1	0	
26	4	3	2	1	0

Reveal (R)

Straight Base Plate Position (X)	Drilling Distance (DD)				
	3	4	5	6	7
11	2	1	0		
10	3	2	1	0	
9	4	3	2	1	0

Reveal (R)

Reveal

Drilling Distance (DD)

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

Minimum Reveal (R)

The minimum gap is the gap between the closed door and the front of the cabinet.

IMPORTANT

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

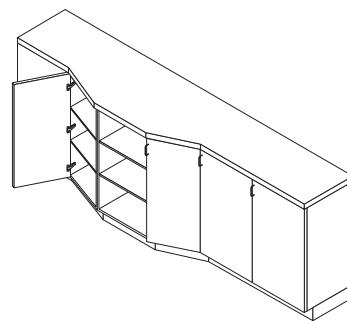
Legend	Screw-on	Impresso and Dowelled	Cup Dimensions
BPH = Base Plate Height			
CC = Center Cup			
DD = Drilling Distance			
DT = Door Thickness			
R = Reveal			
X = Base Plate Setback			
(-) Impresso			

Tiomos 110/30A

+30° angle corner cabinet hinge for overlay doors



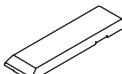
- For 30° angle corner cabinets
- 110° opening angle
- 3-dimensional adjustment with suitable base plate
- Self-close hinges available
- Convenient depth adjustment with worm gear

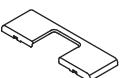


Tiomos 110/30A Opening Angle 110°

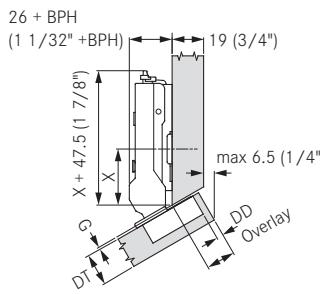
Screw-On

Overlay	Pattern	Type	Item No.	PU
 Overlay Hinge cup: steel, nickel-plated Hinge arm: zinc, nickel-plated	45	Self-close	F045138467223	100

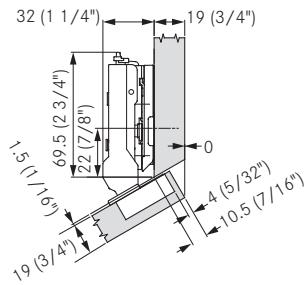
Cover Caps	Item No.	PU	Hinge Clip Protector	Item No.	PU
 Steel, nickel-plated	F072135500247	1000	 Plastic, grey	F072135807540	500

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

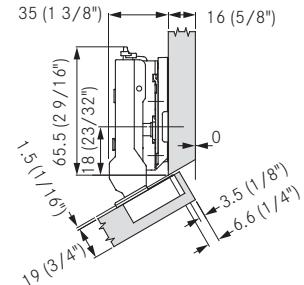
PU - Packaging unit

Overlay

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

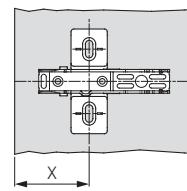


Drawings show Tiomos with a base plate, (BPH) 6.



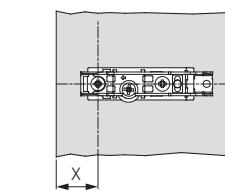
Drawings show Tiomos with a base plate, (BPH) 9.5.

Drilling Distance (DD)						
Door Overlay	3	4	5	6	7	
20.5				0		
19.5			0			
18.5		0		2		
17.5	0		2	3		
16.5	0			3.5		
16.0		2	3			
15.5			3.5			
15.0	2	3				
14.5			3.5			
14.0	2	3				
13.5		3.5				
13.0	3					
12.5	3.5		6			
11.5			6			
10.5		6				
Base Plate Height (BPH)						



Base Plate Height (BPH)					
X	0	2	3	3.5	6
X	34.0	33.0	32.0	32.0	30.5

Wing Base Plate Position (X)



Base Plate Height (BPH)					
X	0	2	3	3.5	6
X	17.0	16.0	15.0	15.0	

Straight Base Plate Position (X)

Minimum Gaps

Drilling Distance (DD)						
Door Thickness (DT)	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 (G)						

Reveal

Drilling Distance (DD)						
Door Thickness (DT)	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.

Legend**Screw-on****Impresso****Cup Dimensions**

BPH = Base Plate Height

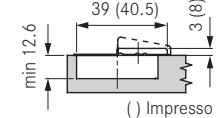
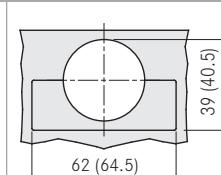
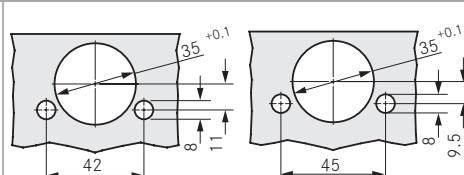
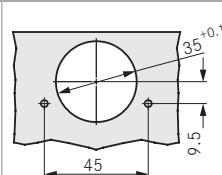
CC = Center Cup

DD = Drilling Distance

DT = Door Thickness

R = Reveal

X = Base Plate Setback

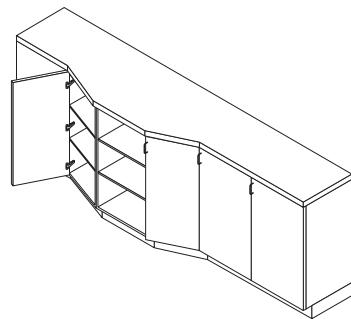


Tiomos 110/30E

+30° angle corner cabinet hinge for inset doors



- For 30° angle corner cabinets
- 110° opening angle
- 3-dimensional adjustment with suitable base plate
- Soft-close or Self-close hinges available
- Convenient depth adjustment with worm gear



Tiomos 110/30E Opening Angle 110°

Screw-On

Inset		Pattern	Type	Item No.	PU
	Hinge cup: steel, nickel-plated Hinge arm: zinc, nickel-plated	45	Soft-close	F028138530223	100
		45	Self-close	F045138468223	100

Cover Caps



Steel, nickel-plated

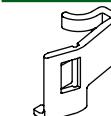
Item No.

F072135500247

PU

1000

Hinge Clip Protector



Plastic, grey

Item No.

F072135807540

PU

500

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

Inset

Drawings show Tiomos with a base plate, (**BPH**) 9.5.

Drilling Distance (DD)						
	3	4	5	6	7	
22.0	9.5			12		
21.0						
20.0				12		
19.0			9.5			
18.0						
17.0				9.5		
16.0					9.5	
15.0	6					
	Base Plate Height (BPH)					

Drilling Distance (DD)						
	3	4	5	6	7	
22.0	63.5			61.5		
21.0						
20.0				60.0		
19.0				60.0		
18.0						
17.0					58.0	
16.0					56.5	
15.0	57.5					
	Wing Base Plate Position (X)					

Reveal

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	
15	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.

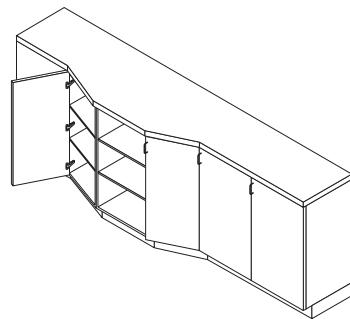
Legend	Screw-on	Impresso	Cup Dimensions
BPH = Base Plate Height			
CC = Center Cup			
DD = Drilling Distance			
DT = Door Thickness			
R = Reveal			
X = Base Plate Setback			

Tiomos 110/37A

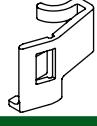
+37° angle corner cabinet hinge for overlay doors

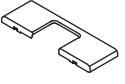


- For 37° angle corner cabinets
- 110° opening angle
- 3-dimensional adjustment with suitable base plate
- Soft-close hinges available
- Convenient depth adjustment with worm gear



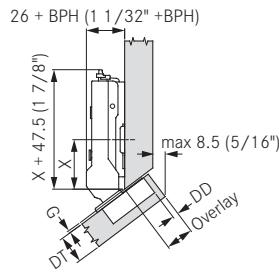
Tiomos 110/37A Opening Angle 110°				Screw-On	
Overlay		Pattern	Type	Item No.	PU
 Overlay Hinge cup: steel, nickel-plated Hinge arm: zinc, nickel-plated		45	Soft-close	F028138531223	100

Cover Caps	Item No.	PU	Hinge Clip Protector	Item No.	PU
 Steel, nickel-plated	F072135500247	1000	 Plastic, grey	F072135807540	500

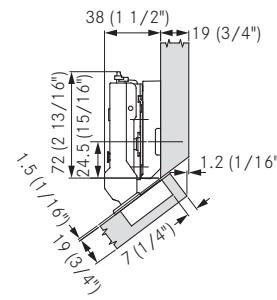
Hinge Cup Cover Cap	Item No.	PU	Wood Screw, Nickel-plated	Item No.	PU
 Steel, nickel-plated	F072135503228	150	 #6 x 5/8" FHP, NI	81001-43	500

PU - Packaging unit

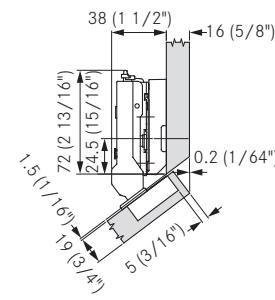
Overlay



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

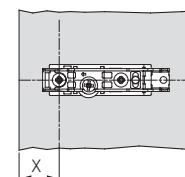
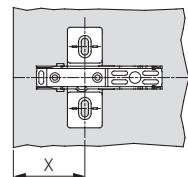


Drawings show Tiomos with a base plate, (BPH) 12.



Drawings show Tiomos with a base plate, (BPH) 12.

Drilling Distance (DD)						
	3	4	5	6	7	
21.5					0	
21.0				0		
20.0			0			
19.0		0				
18.5				2		
18.0	0				3	
17.5			2			
17.0				3		
16.5	2					
16.0			3			
15.5	2					
15.0		3				
14.5				6		
14.0	3					
13.0				6		
12.0				6		
11.0		6				
10.0	6					
Base Plate Height (BPH)						



Base Plate Height (BPH)					
	0	2	3	3.5	6
X	33.5	32.0	31.0	31.0	29.0

Wing Base Plate Position (X)

Base Plate Height (BPH)					
	0	2	3	3.5	
X	16.5	15.0	14.0	14.0	

Straight Base Plate Position (X)

Door Overlay

Minimum Gaps						
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 (G)						

The minimum gap is the gap between the closed door and the front of the cabinet.

Reveal

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.

BPH = Base Plate Height

CC = Center Cup

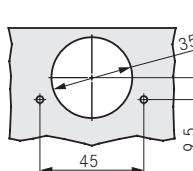
DD = Drilling Distance

DT = Door Thickness

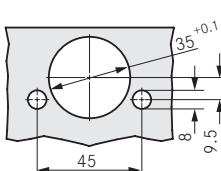
R = Reveal

X = Base Plate Setback

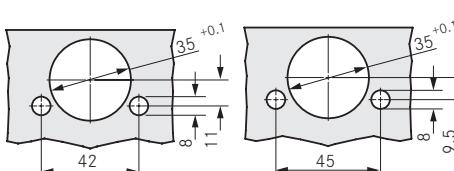
Screw-on



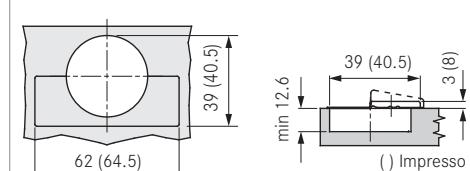
Dowelled



Impresso



Cup Dimensions

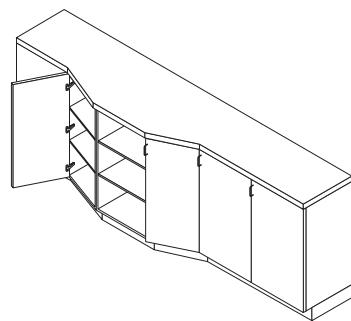


Tiomos 110/37E

+37° angle corner cabinet hinge for inset doors

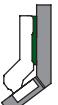


- For 37° angle corner cabinets
- 110° opening angle
- 3-dimensional adjustment with suitable base plate
- Soft-close hinges available
- Convenient depth adjustment with worm gear



Tiomos 110/37E Opening Angle 110°

Impresso

Overlay		Pattern	Type	Item No.	PU
	Hinge cup: steel, nickel-plated Hinge arm: zinc, nickel-plated	42/45	Soft-close	F017139423223	100

Cover Caps



Steel, nickel-plated

Item No.

F072135500247

PU

1000

Hinge Clip Protector



Plastic, grey

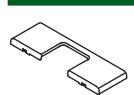
Item No.

F072135807540

PU

500

Hinge Cup Cover Cap



Steel, nickel-plated

Item No.

F072135503228

PU

150

Wood Screw, Nickel-plated



#6 x 5/8" FHP, NI

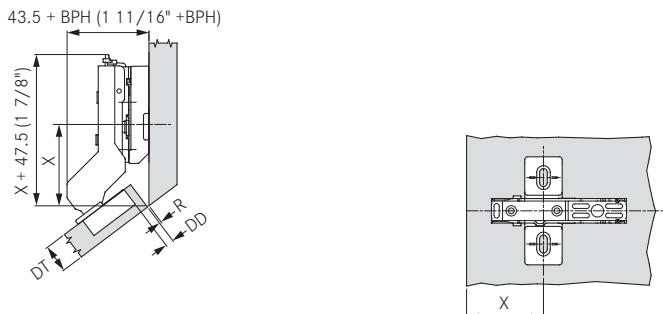
Item No.

81001-43

PU

500

PU - Packaging unit

Inset

Drawings show Tiomos with a base plate, (**BPH**) 12.

		Drilling Distance (DD)				
		3	4	5	6	7
Door Thickness (DT)	22.0	12				
	21.0		12			
	20.0			12		
	19.0				12	
	18.0					
	17.0		9.5			12
	16.0			9.5		
	15.0					
		Base Plate Height (BPH)				

		Drilling Distance (DD)				
		3	4	5	6	7
Door Thickness (DT)	22.0	59.0				
	21.0		57.5			
	20.0			56.5		
	19.0				55.0	
	18.0					
	17.0		54.5			53.0
	16.0			53.0		
	15.0					
		Wing Base Plate Position (X)				

Reveal

		Drilling Distance (DD)				
		3	4	5	6	7
Door Thickness (DT)	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
	15	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.

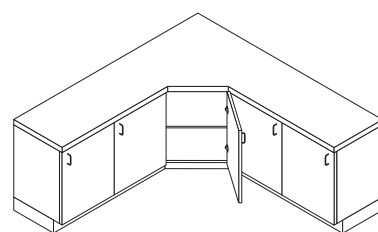
Legend		Screw-on	Impresso	Cup Dimensions
BPH =	Base Plate Height			
CC =	Center Cup			
DD =	Drilling Distance			
DT =	Door Thickness			
R =	Reveal			
X =	Base Plate Setback			

Tiomos 110/45A

+45° angle corner cabinet hinge for overlay doors



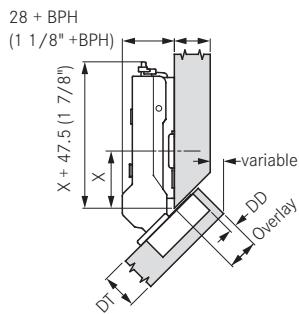
- For 45° angle corner cabinets
- 110° opening angle
- 3-dimensional adjustment with suitable base plate
- Soft-close or Self-close hinges available
- Convenient depth adjustment with worm gear



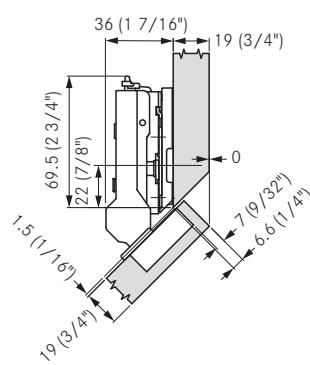
Tiomos 110/45A		Opening Angle 110°		Impresso				Screw-On		Dowelled	
Overlay	Cranking 03	Pattern	Type	Item No.	PU	Pattern	Type	Item No.	Item No.	Item No.	PU
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139424223	100	45	Soft-close	F028138533223	F028138543223	100	
	Hinge arm: zinc, nickel-plated	42/45	Self-close	F034139395223	100	45	Self-close	-	F045138481223	100	

Cover Caps 	Steel, nickel-plated	Item No. F072135500247	PU 1000	Hinge Clip Protector 	Plastic, grey	Item No. F072135807540	PU 500
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

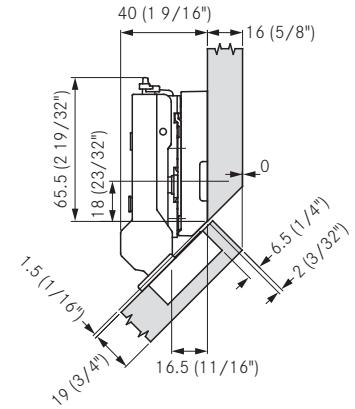
PU - Packaging unit

Overlay

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



Drawings show Tiomos with a base plate, (BPH) 9.5.



Drawings show Tiomos with a base plate, (BPH) 12.

Drilling Distance (DD)

	3	4	5	6	7	
19.5					0	
19.0						
18.5			0			
18.0						
17.5		0				
17.0						
16.5	0			2		
16.0						
15.5	0		2			
15.0				3		
14.5		2		3.5		
14.0			3			
13.5	2		3.5			
13.0		3				
12.5	2		3.5			
12.0		3				
11.0	3			6		
10.0			6			
Base Plate Height (BPH)						

Base Plate Height (BPH)

	0	2	3	3.5	6	9.5	12
X	30.5	28.5	27.5	27.0	24.5	21.0	18.5

Wing Base Plate Position (X)

Base Plate Height (BPH)

	0	2	3	3.5
X	13.5	11.5	10.5	10.0

Straight Base Plate Position (X)

Door Overlay**Minimum Gaps****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 (G)						

The minimum gap is the gap between the closed door and the front of the cabinet.

Reveal**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.

BPH = Base Plate Height

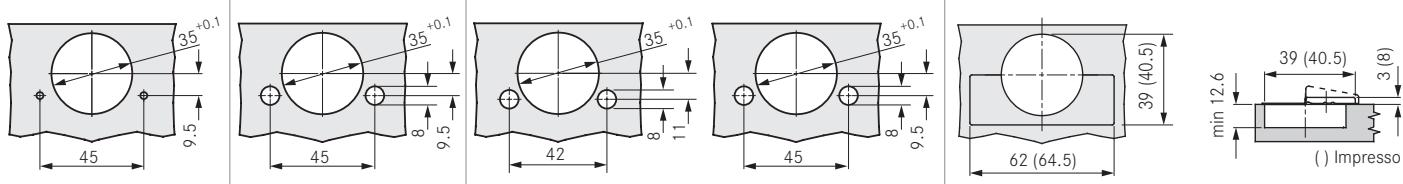
CC = Center Cup

DD = Drilling Distance

DT = Door Thickness

R = Reveal

X = Base Plate Setback

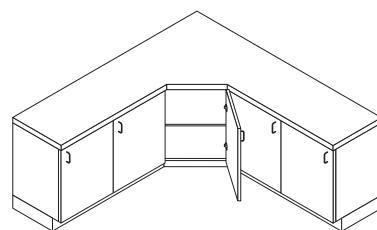
Screw-on**Dowelled****Impresso****Cup Dimensions**

Tiomos 110/45E

+45° angle corner cabinet hinge for inset doors



- For 45° angle corner cabinets
- 110° opening angle
- 3-dimensional adjustment with suitable base plate
- Soft-close or Self-close hinges available
- Convenient depth adjustment with worm gear



Tiomos 110/45E Opening Angle 110°

Inset					Impresso			Screw-On		Dowelled	
	Pattern	Type	Item No.	PU	Pattern	Type	Item No.	Item No.	PU	Item No.	PU
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139425213	25	45	Soft-close	-	F028138544223	100	
	Hinge arm: zinc, nickel-plated					45	Self-close	-	F045138482223	100	
						45	Self-close	F045138472213	-	25	

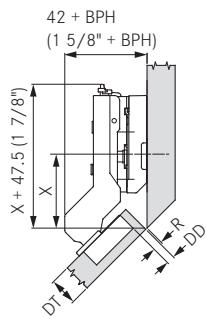
Cover Caps

	Steel, nickel-plated	Item No.	PU		Hinge Clip Protector	Item No.	PU
		F072135500247	1000		Plastic, grey	F072135807540	500

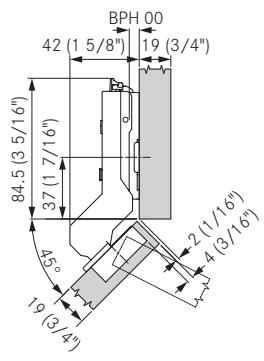
Hinge Cup Cover Cap

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

PU - Packaging unit

Inset

Drawings show Tiomos with a base plate, (**BPH**) 12.

Corner Angle

		Drilling Distance (DD)	3	4	5	6	7	
			22.0					
			21.0					
			20.0					
Door Overlay		19.0	12					
Door Overlay		18.0		12				
Door Overlay		17.0			12			
Door Overlay		16.0				12		
Door Overlay		15.0					12	
								Base Plate Height (BPH)

		Drilling Distance (DD)	3	4	5	6	7	
			22.0					
			21.0					
			20.0					
Door Overlay		19.0	52.0					
Door Overlay		18.0		50.5				
Door Overlay		17.0			49.0			
Door Overlay		16.0				47.5		
Door Overlay		15.0					46.0	
								Wing Base Plate Position (X)

Reveal

		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
Door Thickness (DT)		19	0.9	0.9	0.9	0.9	0.9	
Door Thickness (DT)		18	0.7	0.7	0.7	0.7	0.7	
Door Thickness (DT)		17	0.6	0.6	0.6	0.6	0.6	
Door Thickness (DT)		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.

BPH = Base Plate Height

CC = Center Cup

DD = Drilling Distance

DT = Door Thickness

R = Reveal

X = Base Plate Setback

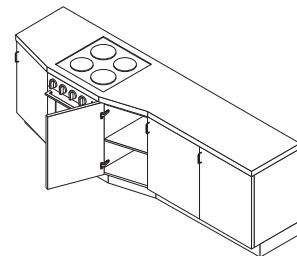
Screw-on	Dowelled	Impresso	Cup Dimensions

Tiomos 120/-15A

-15° angle corner cabinet hinge for overlay doors



- For -15° angle corner cabinets
- 120° opening angle
- 3-dimensional adjustment with suitable base plate
- Soft-close or Self-close hinges available
- Convenient depth adjustment with worm gear



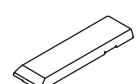
Tiomos 120/-15A Opening Angle 120°

Impresso

Screw-On

Overlay		Pattern	Type	Item No.	PU	Pattern	Type	Item No.	PU
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F01713943223	100	45	Soft-close	-	-
	Hinge arm: zinc, nickel-plated	42/45	Self-close	F034139403223	100	45	Self-close	F045138493223	100

Cover Caps



Steel, nickel-plated

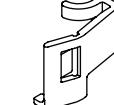
Item No.

F072135500247

PU

1000

Hinge Clip Protector



Plastic, grey

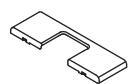
Item No.

F072135807540

PU

500

Hinge Cup Cover Cap



Steel, nickel-plated

Item No.

F072135503228

PU

150

Wood Screw, Nickel-plated



#6 x 5/8" FHP, NI

Item No.

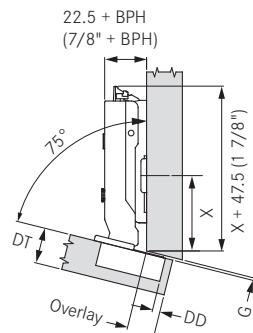
81001-43

PU

500

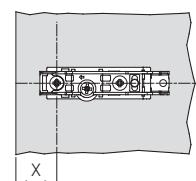
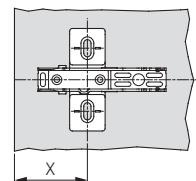
PU - Packaging unit

Overlay



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

		Drilling Distance (DD)				
		3	4	5	6	7
Door Overlay	18.0				0	
	17.0			0		
	16.0		0			
	15.0	0				
	14.5			2	3	
	14.0	0			3.5	
	13.5		2	3		
	13.0			3.5		
	12.5	2	3			
	12.0		3.5			
Door Overlay	11.5	3			6	
	11.0	3.5				
	10.5	3			6	
	10.0	3.5				
	9.5			6		
	8.5		6			
		Base Plate Height (BPH)				



		Base Plate Height (BPH)				
		0	2	3	3.5	6
Door Thickness (DT)	X	40.0	40.5	40.5	41.0	41.5
	Wing Base Plate Position (X)					

		Base Plate Height (BPH)				
		0	2	3	3.5	6
Door Thickness (DT)	X	23	23.5	23.5	24	
	Straight Base Plate Position (X)					

Minimum Gaps

		Drilling Distance (DD)				
		3	4	5	6	7
Door Thickness (DT)	24	6.4	5.4	4.4	3.4	2.4
	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
		Minimum gap (G)				

The minimum gap is the gap between the closed door and the front of the cabinet.

IMPORTANT

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

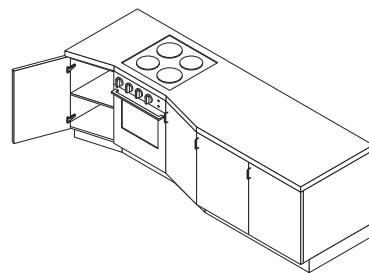
Legend	Screw-on	Impresso	Cup Dimensions
BPH = Base Plate Height			
CC = Center Cup			
DD = Drilling Distance			
DT = Door Thickness			
R = Reveal			
X = Base Plate Setback			

Tiomos 120/-30A

-30° angle corner cabinet hinge for overlay doors



- For -30° angle corner cabinets
- 120° opening angle
- 3-dimensional adjustment with suitable base plate
- Soft-close hinges available
- Convenient depth adjustment with worm gear



Tiomos 120/-30A Opening Angle 120°

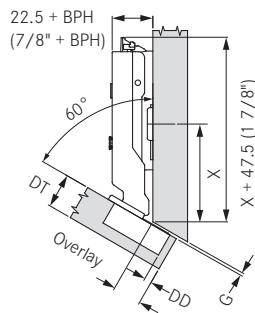
Impresso

Overlay	Pattern	Type	Item No.	PU
 Hinge cup: steel, nickel-plated Hinge arm: zinc, nickel-plated	42/45	Soft-close	F017139433223	100

Cover Caps	Item No.	PU	Hinge Clip Protector	Item No.	PU
 Steel, nickel-plated	F072135500247	1000	 Plastic, grey	F072135807540	500

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

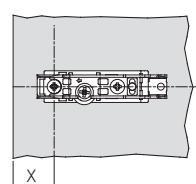
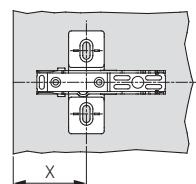
PU - Packaging unit

Overlay

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

Drilling Distance (DD)

Door Overlay	3	4	5	6	7	
19.0				0		
18.0				0		
17.0		0				
16.5				2		
16.0	0					
15.5			2			
15.0	0			3		
14.5		2		3.5		
14.0			3			
13.5	2		3.5			
13.0		3				
12.5	2	3.5				
12.0	3			6		
11.5	3.5					
11.0	3			6		
10.5	3.5					
10.0			6			
9.0		6				
8.0	6					
Base Plate Height (BPH)						

**Base Plate Height (BPH)**

X	0	2	3	3.5	6
	53.5	55	55.5	55.5	57

Wing Base Plate Position (X)

X	0	2	3	3.5	
	36.5	38	38.5	38.5	

Straight Base Plate Position (X)

Minimum Gaps**Drilling Distance (DD)**

Door Thickness (DT)	3	4	5	6	7
24	6.4	5.4	4.4	3.4	2.4
22	3.0	2.0	1.5	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	1.0	1.0	1.0	1.0	1.5
16	1.0	1.0	1.0	1.0	1.0
Minimum Gap (G)					

The minimum gap is the gap between the closed door and the front of the cabinet.

IMPORTANT

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

Legend**Screw-on****Impresso****Cup Dimensions**

BPH = Base Plate Height

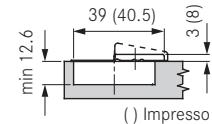
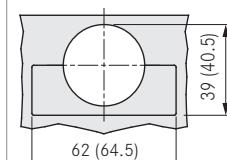
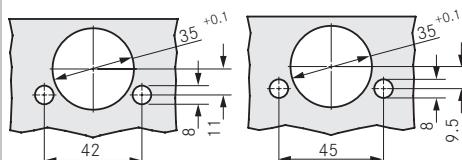
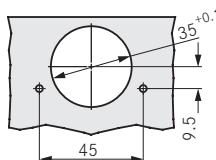
CC = Center Cup

DD = Drilling Distance

DT = Door Thickness

R = Reveal

X = Base Plate Setback

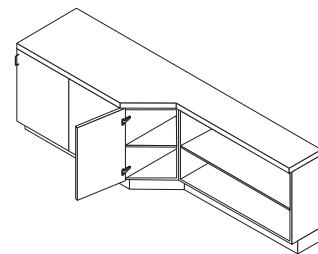


Tiomos 120/-45A

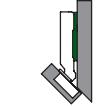
-45° angle corner cabinet hinge for overlay doors



- For -45° angle corner cabinets
- 120° opening angle
- 3-dimensional adjustment with suitable base plate
- Soft-close or Self-close hinges available
- Convenient depth adjustment with worm gear



Tiomos 120/-45A Opening Angle 120°				Impresso				Screw-On			
Overlay		Pattern	Type	Item No.	PU	Pattern	Type	Item No.	PU		
	Hinge cup: steel, nickel-plated	42/45	Soft-close	F017139434223	100	45	Soft-close	F028138557223	100		
	Hinge arm: zinc, nickel-plated	42/45	Self-close	F034139405223	100	45	Self-close	F045138495223	100		

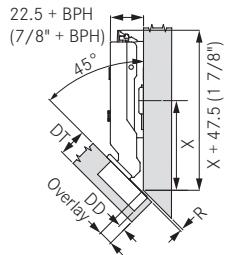


Cover Caps	Item No.	PU	Hinge Clip Protector	Item No.	PU		
	Steel, nickel-plated	F072135500247	1000		Plastic, grey	F072135807540	500

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

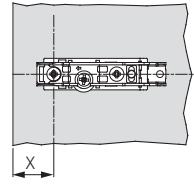
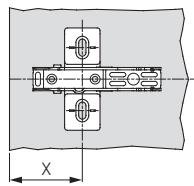


Overlay



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

		Drilling Distance (DD)					
		3	4	5	6	7	
Door Overlay	12.0					0	
	11.5				0		
	10.5		0				
	9.5	0			2		
	8.5	0		2			
	8.0				3		
	7.5		2		3.5		
	7.0			3			
	6.5	2		3.5			
	6.0		3				
	5.5	2		3.5			
	5.0		3				
	4.5		3.5				
	4.0	3			6		
	3.5	3.5					
	3.0			6			
	2.0		6				
	1.0		6				
	0.0	6					
		Base Plate Height (BPH)					
		0	2	3	3.5	6	
		X	60.5	62.5	63.5	64	66.5
		Wing Base Plate Position (X)					
		Base Plate Height (BPH)					
		0	2	3	3.5	6	
		X	43.5	45.5	46.5	47	
		Straight Base Plate Position (X)					



Minimum Gaps

		Drilling Distance (DD)				
		3	4	5	6	7
Door Thickness (DT)	24	6.4	5.4	4.4	3.4	2.4
	22	3.0	2.0	1.5	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	1.0	1.0	1.0	1.0	1.5
	16	1.0	1.0	1.0	1.0	1.0
		Minimum Gap (G)				

The minimum gap is the gap between the closed door and the front of the cabinet.

IMPORTANT

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

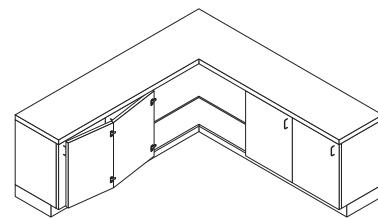
Legend	Screw-on	Impresso	Cup Dimensions
BPH = Base Plate Height			
CC = Center Cup			
DD = Drilling Distance			
DT = Door Thickness			
R = Reveal			
X = Base Plate Setback			

Tiomos PCC

Pie-cut corner cabinet hinge



- 3-dimensional adjustment with suitable base plate
- Designed for folding doors in corner cabinets
- For door thicknesses 16mm to 24mm
- Self-close hinges available
- Used in conjunction with Tiomos 160 hinges
- 35mm full cup drill hole



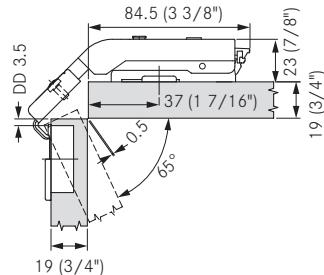
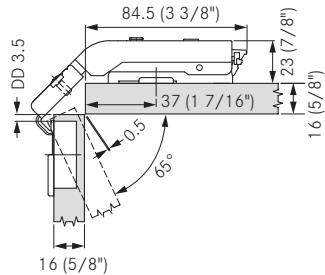
Tiomos Pie-cut Corner Hinge		Screw-On	Dowelled			
		Pattern	Type	Item No.	Item No.	PU
	Hinge cup: steel, nickel-plated; Hinge arm: zinc, nickel-plated	42	Self-close	-	F045138336228	125
		45	Self-close	F045138517228	F045138518228	125

Cover Caps 	Item No.	PU	Hinge Clip Protector 	Item No.	PU
Steel, nickel-plated	F072135500247	1000	Plastic, grey	F072135807540	500

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

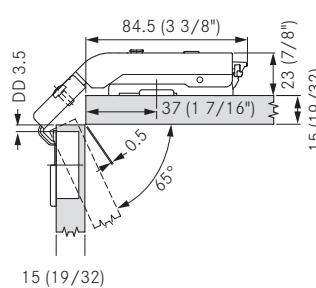
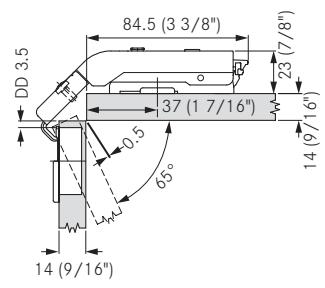
PU - Packaging unit

Hinge Application



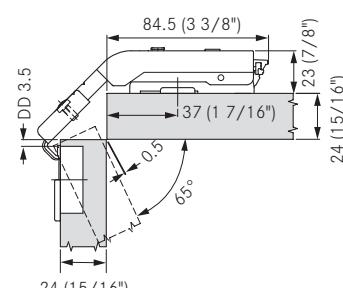
16mm door thickness with base plate height (BPH) 0.

19mm door thickness with base plate height (BPH) 0.

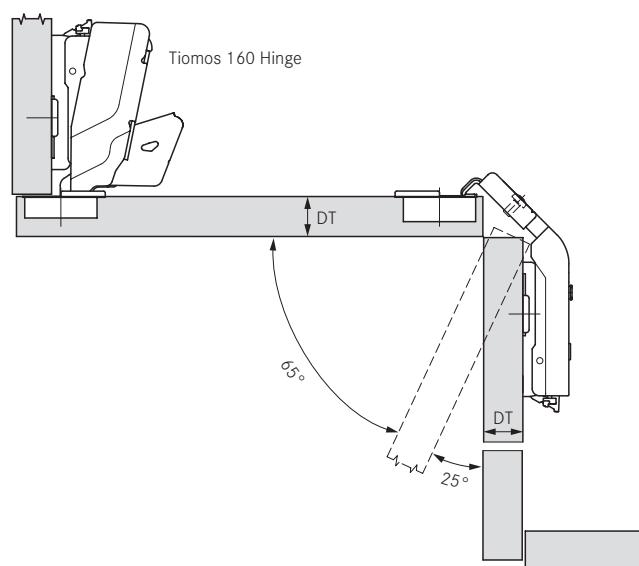
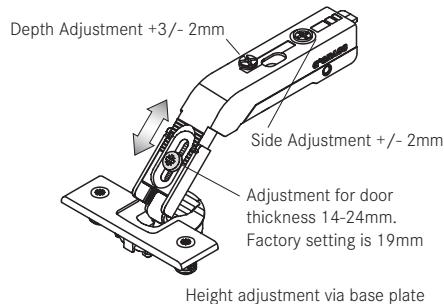


14mm door thickness with base plate height (BPH) 0.

15mm door thickness with base plate height (BPH) 0.



24mm door thickness with base plate height (BPH) 0.



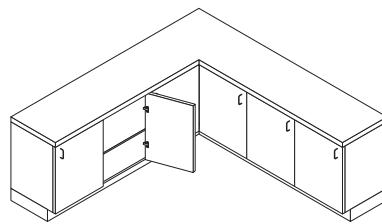
Legend	Screw-on	Dowelled	Cup Dimensions
BPH = Base Plate Height			
CC = Center Cup			
DD = Drilling Distance			
DT = Door Thickness			
R = Reveal			
X = Base Plate Setback			
(-) Impresso			

Tiomos 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



Tiomos M9 Opening Angle 110°

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



Hinge Clip Protector

	Plastic, grey	Item No.	PU
		F072135807540	500

Cover Caps

	Item No.	PU		Item No.	PU
	F072135500247	1000	Opening Angle Reduction Clip to 85°	F072135871517	50

Hinge Cup Cover Cap

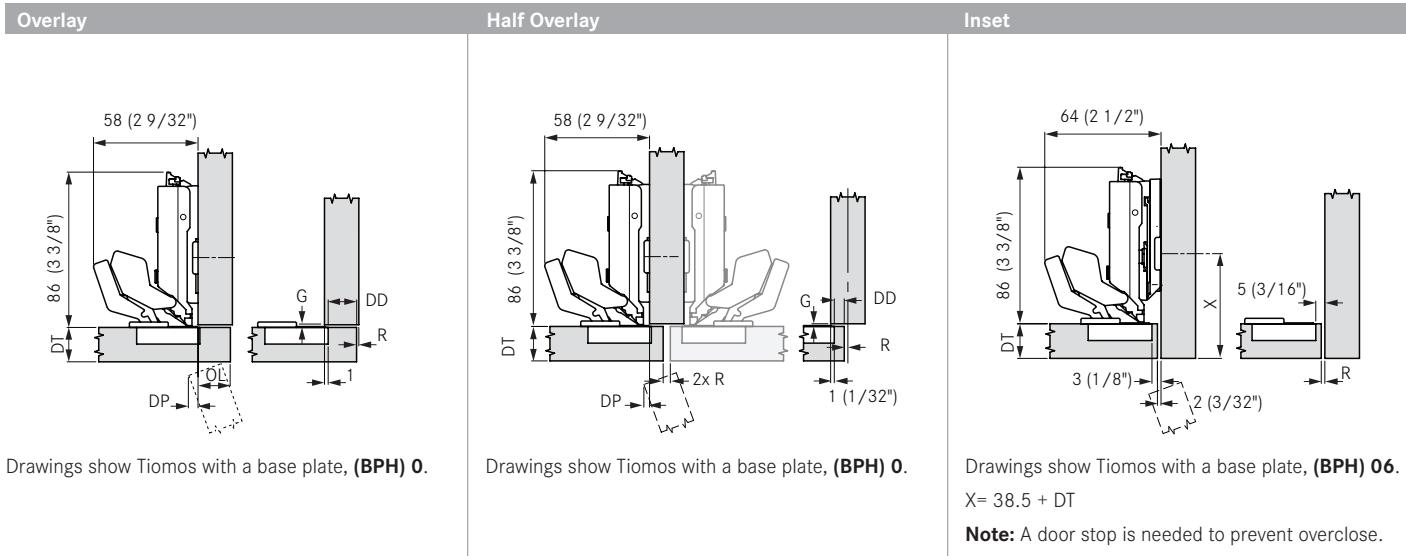
	Item No.	PU		Item No.	PU
	F072135503228	150	Wood Screw, Nickel-plated	#6 x 5/8" FHP, NI	81001-43



Opening Angle Reduction Clip to 85°



PU - Packaging unit



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= 38.5 + DT

Note: A door stop is needed to prevent overclose.

Minimum Gap and Minimum Reveal

Application Data		3	4	5	6	7	8	9	10	11	12	13
Door Thickness (DT)	Drilling Distance (DD)	0.8	1.1	1.5	1.8	2.2	2.5	2.9	3.2	3.5	3.9	4.2
	Door Protrusion (DP)	4	5	6	7	8	9	10	11	12	13	14
	Door Overlay (OL)	R	G	R	G	R	G	R	G	R	G	R
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
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
24	1.0	1.5	1.2	1.5	1.3	1.5	1.5	1.7	1.5	2.0	1.5	2.4
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
28	3.9	1.5	4.3	1.5	5.1	1.5	6.3*	1.5	16*	1.5	15*	1.5

Application Data		14	15	16	17	18	19	20	21	22	23	24
Door Thickness (DT)	Drilling Distance (DD)	4.6	4.9	5.3	5.6	5.9	6.3	6.6	7	7.3	7.6	8
	Door Protrusion (DP)	15	16	17	18	19	20	21	22	23	24	25
	Door Overlay (OL)	R	G	R	G	R	G	R	G	R	G	R
12-20	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	1.5	1.0	2.0
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
24	6.0	1.5	5.2	1.5	4.5	1.5	4.0	1.5	3.3	1.5	3.0	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
28	10*	1.5	9.2	1.5	8.4	1.5	7.6	1.5	6.9	1.5	6.4	1.5

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.

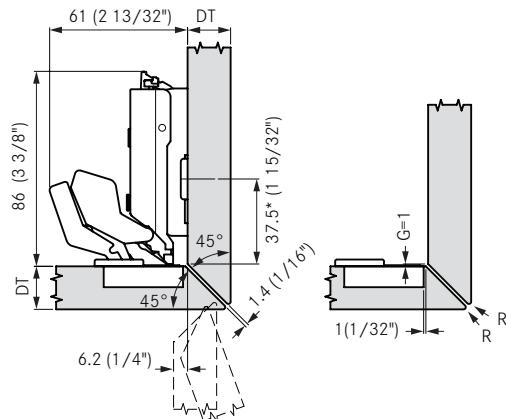
*Only achievable with 85° angle reduction clip.

Legend		Drilling Pattern				Cup Dimensions			
BPH = Base Plate Height									
DD = Drilling Distance									
DP = Door Protrusion		OL = Overlay							
DT = Door Thickness		R = Reveal							
G = Gap		X = Base Plate Setback							

Tiomos M9

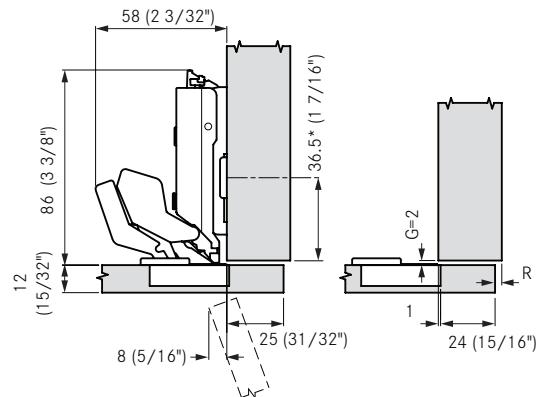
Installation Information

Mitered Application - Circumferential and Lateral



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

Maximum Overlay



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

*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.

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

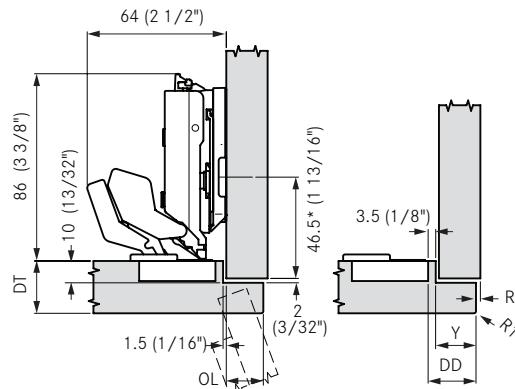
Note:

With circumferential mitered application all sides 1.4mm reveal

Installation Information

Rabbet Applications

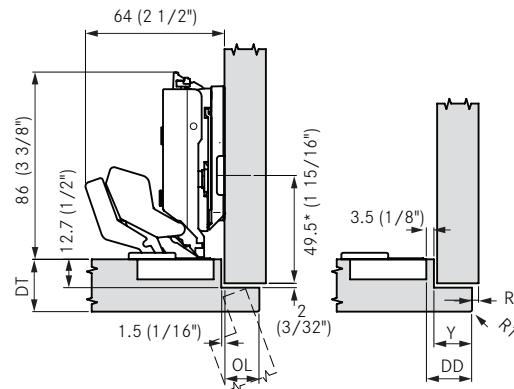
10mm (3/8")



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 51
	38	17	18.5	22	

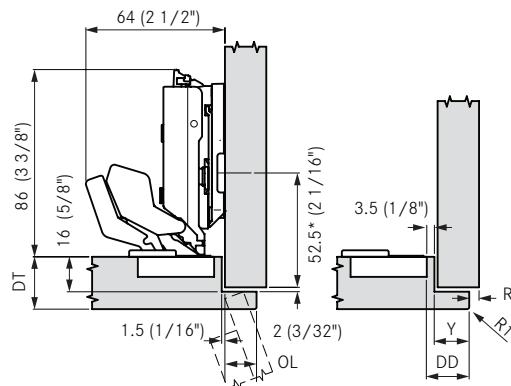
12.7mm (1/2")



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 51
	35	14	15.5	19	

16mm (5/8")



*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.

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	

Legend

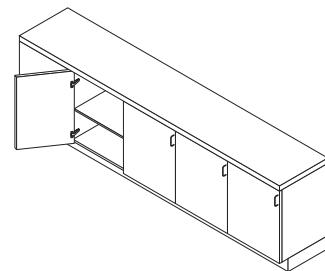
- BPH = Base Plate Height
- DD = Drilling Distance
- DP = Door Protrusion
- DT = Door Thickness
- G = Gap
- OL = Overlay
- R = Reveal
- Y = Rabbet

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
			Hinge cup: zinc, die-cast Hinge arm: steel, nickel-plated	45	Soft-close	F029140331217	50

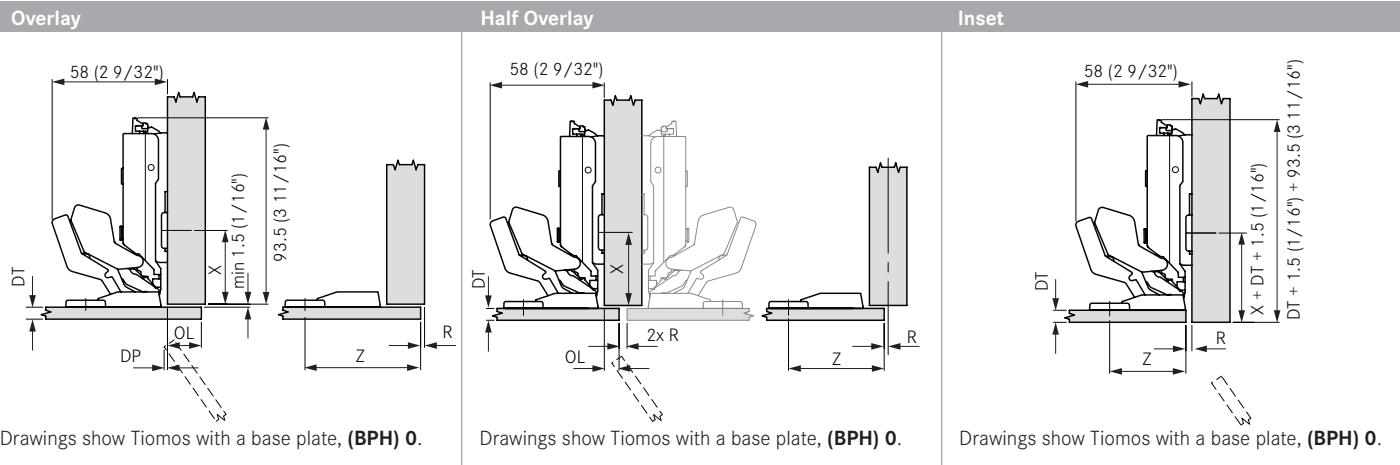
Fastening Options

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			
				Chipboard	—		
				MDF	—		

Hinge Clip Protector	Item No.	PU
	Plastic, grey	F072135807540 500

Cover Caps	Item No.	PU	Opening Angle Reduction Clip to 85°	Item No.	PU
	Steel, nickel-plated	F072135500247 1000		F072135871517 50	

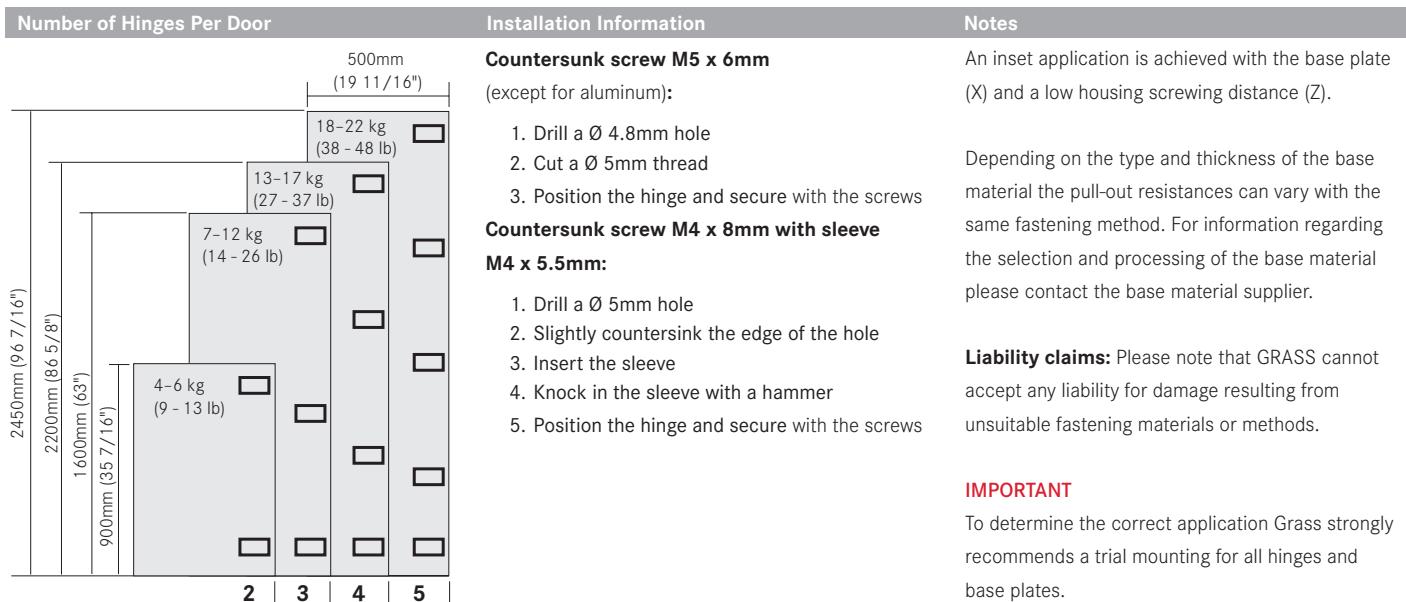
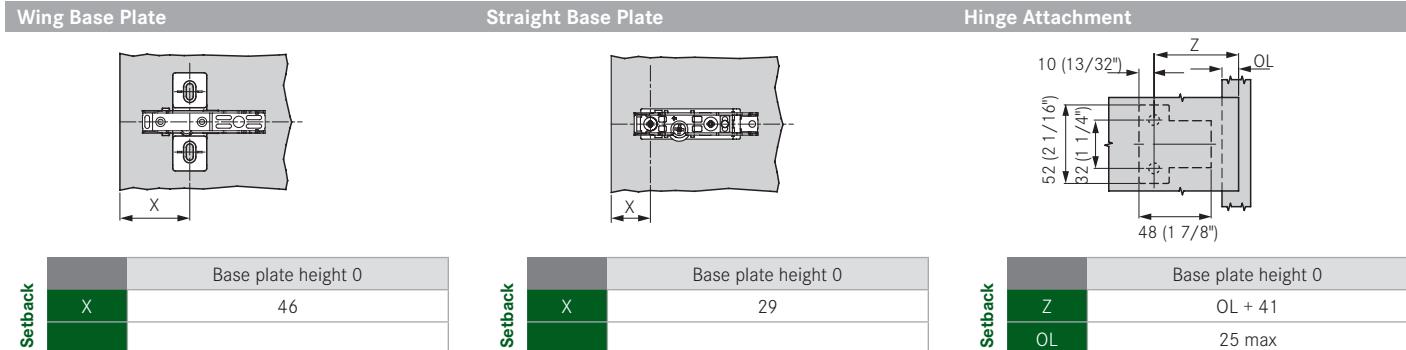
PU - Packaging unit



Minimum Gap and Reveal

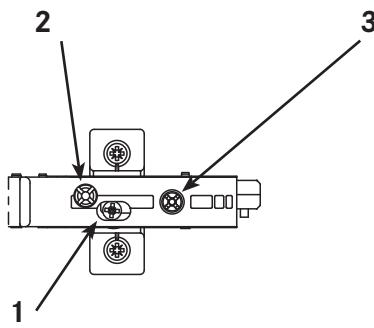
Hinge Attachment (Z)	38	39	47	49	51	53	55	56	58	60	61	63	64	66
Door Protrusion (DP)	0	0	0	0	0	0	0	0.5	1.5	3.0	3.4	0	0	0
Door Overlay (OL)	-3	-2	6	8	10	12	14	15	17	19	20	22*	23*	25*
Min Reveal (R)/ Gap (G)	R	G	R	G	R	G	R	G	R	G	R	G	R	G
Door Thickness 6-10 (DT)	2.0	1.5	2.0	1.5	2.0	1.5	2.0	1.5	2.0	1.5	2.0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

*Only achievable with 85° angle reduction clip.

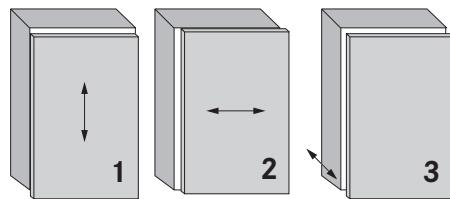


Tiomos Base Plates

For Tiomos hinges



- Steel, nickel plated
- Depth adjustment via worm gear
- Height adjustment via worm gear or elongated hole
- Side adjustment via hinge
- Use a #2 Pozi drive screwdriver for hinge adjustment
- Attach base plates using all available screw holes



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

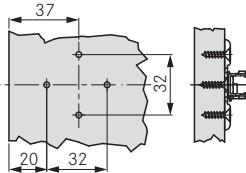
All adjustment options can be made independently of one another

Wing Base Plate, 4 Point Fixing



- Height adjustment via worm gear

37/32



For Wood Screws

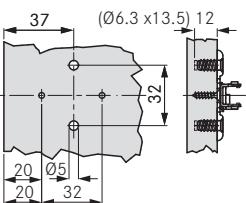
Height	Item No.	PU
0	F058139746228	150
2	F058139747228	150
3	F058139748228	150
3.5	F058139749217	50

Wing Base Plate, 4 Point Fixing



- Height adjustment via worm gear

37/32



For Euro Screws

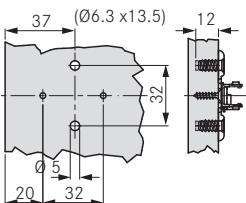
Height	Item No.	PU
0	F058139756228	150
2	F058139757228	150
3	F058139758228	150
3.5	F058139759228	150

Wing base plate, 4 Point Fixing



- Height adjustment via worm gear

37/32



Pre-mounted Euro Screws (13.5mm)

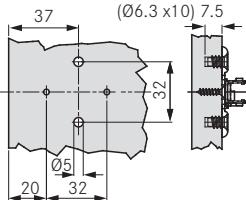
Height	Item No.	PU
0	F058139761228	150
2	F058139762228	150
3	F058139763228	150
3.5	F058139764228	150

Wing base plate, 4 Point Fixing



- Height adjustment via worm gear
- For twin application

37/32



Pre-mounted Euro Screws (10mm)

Height	Item No.	PU
0	F058139863228	150
2	F058139864228	150
3	F058139865228	150
3.5	F058139866228	150

PU - Packaging unit

Tiomos Base Plates

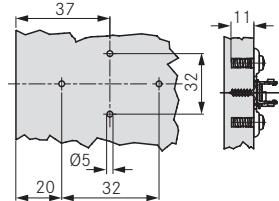
For Tiomos hinges

Wing steel Base Plate, 4 Point Fixing



- Height adjustment via worm gear

37/32



Expanding Dowels (5mm)

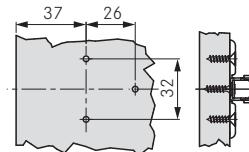
Height	Item No.	PU
0	F058139766228	150
2	F058139767228	150
3	F058139768228	150

Wing steel base plate, 3 Point Fixing



- Height adjustment via elongated screw holes

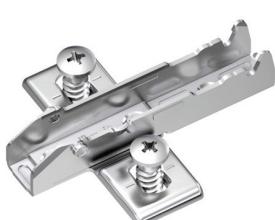
37/32



For Wood Screws

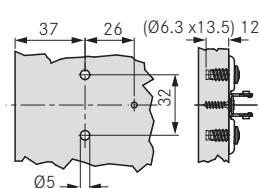
Height	Item No.	PU
0	F058139721228	150
2	F058139722228	150
3	F058139723228	150

Wing steel base plate, 3 Point Fixing



- Height adjustment via elongated screw holes

37/32



Pre-mounted Euro Screws (13.5mm)

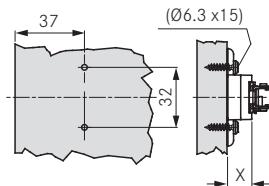
Height	Item No.	PU
0	F058139736228	150
2	F058139737228	150
3	F058139738228	150

Wing base plate, 2 Point Fixing



- Zinc die-cast/Steel, nickel plated
- Height adjustment via worm gear

37/32



For Wood Screws

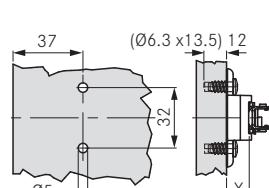
Height	Item No.	PU
6	F058139892217	50
9.5	F058139882217	50
12	F058139893217	50
15	F058139890217	50
19	F058139894217	50
21	F058139895217	50

Wing base plate, 2 Point Fixing



- Zinc die-cast/Steel, nickel plated
- Height adjustment via worm gear

37/32



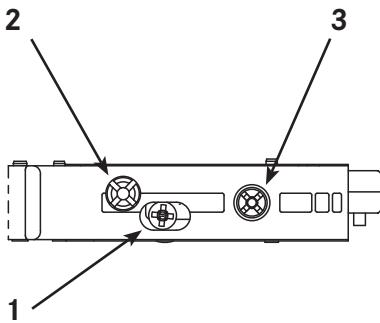
Pre-mounted Euro Screws (13.5mm)

Height	Item No.	PU
6	F058139873217	50
9.5	F058139882217	50
12	F058139874217	50
15	F058139884217	50
19	F058139875217	50
21	F058139896217	50

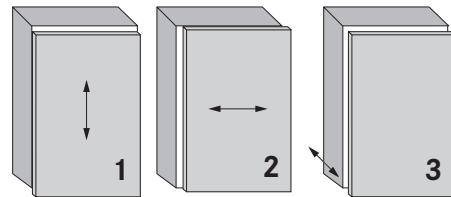
PU - Packaging unit

Tiomos Base Plates

For Tiomos hinges



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



Height adjustment via
base plate Side Adjustment Depth adjustment
±2mm +3/-2mm
Via worm gear ± 2mm

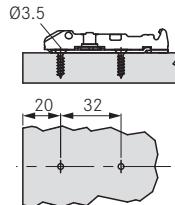
All adjustment options can be made independently of one another

Straight base plate, 2 Point Fixing



- Height adjustment via worm gear

20/32



For Wood Screws

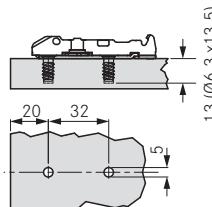
Height	Item No.	PU
0	F059139701228	150
2	F059139702228	150
3	F059139703228	150

Straight base plate, 2 Point Fixing



- Height adjustment via worm gear

20/32



Pre-mounted Euro Screws

Height	Item No.	PU
0	F059139711228	150
3	F059139713228	150

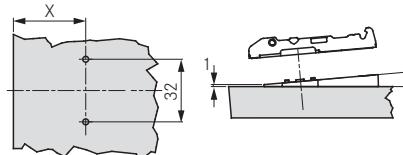
Spacers

+5° Wedge for Screw Fixing



- Zinc, nickel plated
- For placing under wing mounting plates
- Can be stacked (max. 3)

37/32



For Wood Screws

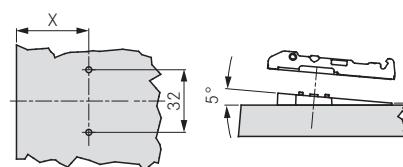
Height	Item No.	PU
3	F058139757217	50

-5° Wedge for Screw Fixing



- Zinc, nickel plated
- For placing under wing mounting plates
- Cannot be stacked

37/32



For Wood Screws

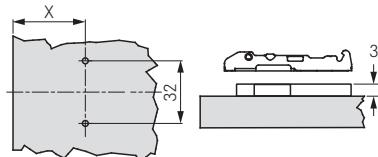
Height	Item No.	PU
3	F058139758217	50

3mm Universal Spacer



- For use with Tiomos or Nexus base plate applications (snap-to-fit breakaway section for Nexus applications)
- For placing under wing mounting plates
- Can be stacked (max. 2)

37/32

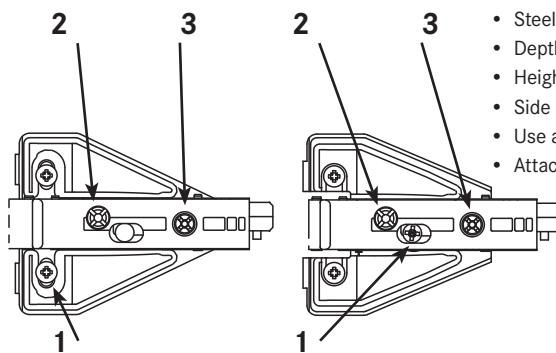


Height	Item No.	PU
3	13461-41	50

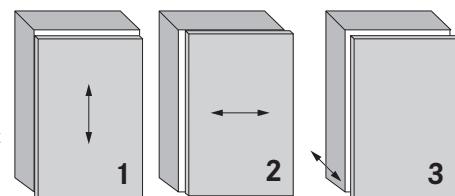
PU - Packaging unit

Tiomos Base Plates

For Tiomos hinges



- Steel, nickel plated
- Depth adjustment via worm gear
- Height adjustment via worm gear or elongated hole
- Side adjustment via hinge
- Use a #2 Pozi drive screwdriver for hinge adjustment
- Attach base plates using all available screw holes



Height adjustment via
base plate ±2mm
Via worm gear ± 2mm
All adjustment options can be made independently of one another

FFA base plate, 2 Point Fixing	9.5/32	For Wood Screws															
	<ul style="list-style-type: none"> • Height adjustment via elongated screw holes 	<table border="1"> <thead> <tr> <th>Height</th><th>Item No.</th><th>PU</th></tr> </thead> <tbody> <tr> <td>1.5</td><td>F058139821228</td><td>150</td></tr> <tr> <td>3.5</td><td>F058139822228</td><td>150</td></tr> <tr> <td>4.5</td><td>F058139823228</td><td>150</td></tr> <tr> <td>5</td><td>F058139824228</td><td>150</td></tr> </tbody> </table>	Height	Item No.	PU	1.5	F058139821228	150	3.5	F058139822228	150	4.5	F058139823228	150	5	F058139824228	150
Height	Item No.	PU															
1.5	F058139821228	150															
3.5	F058139822228	150															
4.5	F058139823228	150															
5	F058139824228	150															

FFA base plate, 2 Point Fixing	9.5/32	For Wood Screws															
	<ul style="list-style-type: none"> • Height adjustment via worm gear 	<table border="1"> <thead> <tr> <th>Height</th><th>Item No.</th><th>PU</th></tr> </thead> <tbody> <tr> <td>1.5</td><td>F058139825228</td><td>150</td></tr> <tr> <td>3.5</td><td>F058139826228</td><td>150</td></tr> <tr> <td>4.5</td><td>F058139827228</td><td>150</td></tr> <tr> <td>5</td><td>F058139828228</td><td>150</td></tr> </tbody> </table>	Height	Item No.	PU	1.5	F058139825228	150	3.5	F058139826228	150	4.5	F058139827228	150	5	F058139828228	150
Height	Item No.	PU															
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3.5	F058139826228	150															
4.5	F058139827228	150															
5	F058139828228	150															

FFAL base plate with flange, 4 Point Fixing	9.5/32	For Wood Screws									
	<ul style="list-style-type: none"> • Height adjustment via elongated screw holes 	<table border="1"> <thead> <tr> <th>Height</th><th>Item No.</th><th>PU</th></tr> </thead> <tbody> <tr> <td>3.5</td><td>F058139829228</td><td>150</td></tr> <tr> <td>5</td><td>F058139830228</td><td>150</td></tr> </tbody> </table>	Height	Item No.	PU	3.5	F058139829228	150	5	F058139830228	150
Height	Item No.	PU									
3.5	F058139829228	150									
5	F058139830228	150									

Inset FFA base plate, 3 Point Fixing	10/32	For Wood Screws																																																			
	<ul style="list-style-type: none"> • Steel, diecast, nickel plated • Height adjustment via worm gear • Note: Requires a 9.5 crank hinge (half-overlay) <p>Drilling Distance (DD)</p> <table border="1"> <thead> <tr> <th>Door Thickness (DT)</th><th>3</th><th>4</th><th>5</th><th>6</th></tr> </thead> <tbody> <tr> <td>28</td><td>4.0</td><td></td><td></td><td></td></tr> <tr> <td>26</td><td>4.0</td><td>3.0</td><td></td><td></td></tr> <tr> <td>24</td><td>4.0</td><td>3.0</td><td>2.0</td><td></td></tr> <tr> <td>22</td><td>4.0</td><td>3.0</td><td>2.0</td><td>1.0</td></tr> <tr> <td>20</td><td>4.0</td><td>3.0</td><td>2.0</td><td>1.0</td></tr> <tr> <td>19</td><td>4.0</td><td>3.0</td><td>2.0</td><td>1.0</td></tr> <tr> <td>18</td><td>4.0</td><td>3.0</td><td>2.0</td><td>1.0</td></tr> <tr> <td>16</td><td>4.0</td><td>3.0</td><td>2.0</td><td>1.0</td></tr> </tbody> </table> <p>Reveal (R)</p>	Door Thickness (DT)	3	4	5	6	28	4.0				26	4.0	3.0			24	4.0	3.0	2.0		22	4.0	3.0	2.0	1.0	20	4.0	3.0	2.0	1.0	19	4.0	3.0	2.0	1.0	18	4.0	3.0	2.0	1.0	16	4.0	3.0	2.0	1.0	<table border="1"> <thead> <tr> <th>Height</th><th>Item No.</th><th>PU</th></tr> </thead> <tbody> <tr> <td>0</td><td>F058139831228</td><td>150</td></tr> </tbody> </table>	Height	Item No.	PU	0	F058139831228	150
Door Thickness (DT)	3	4	5	6																																																	
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22	4.0	3.0	2.0	1.0																																																	
20	4.0	3.0	2.0	1.0																																																	
19	4.0	3.0	2.0	1.0																																																	
18	4.0	3.0	2.0	1.0																																																	
16	4.0	3.0	2.0	1.0																																																	
Height	Item No.	PU																																																			
0	F058139831228	150																																																			

PU - Packaging unit

Tipmatic

For handle-free wooden doors



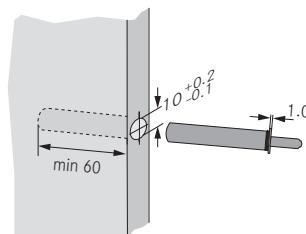
- Gently tapping the front causes the doors to open to a convenient angle
- Use with Tiomos Tipmatic Plus or with Nexas and Tiomos free-swinging hinges
- Large magnet catch range – holds door closed securely
- Gap adjustment from 2.5 to 5.5mm with integrated, self-locking and tool-free depth adjustment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

Tipmatic Pin



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

For Drilling

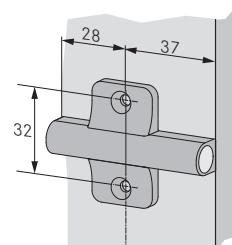


Item No.	PU
F069135396513	25

Adapter Plate for Line Boring



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



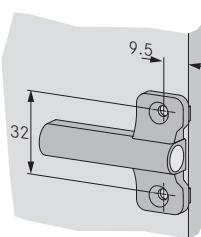
For Euro Screws

Item No.	PU
F069063310113	25

Face Frame or Standard Adapter Plate



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



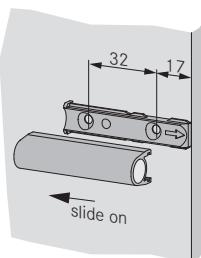
For Wood Screws

Item No.	PU
F069073697213	25

Linear Adapter Plate



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



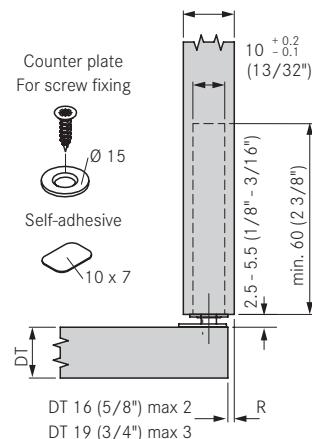
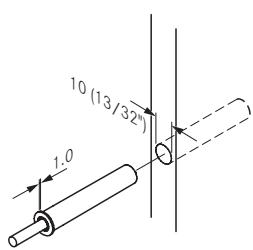
For Wood Screws

Item No.	PU
F069073696213	25

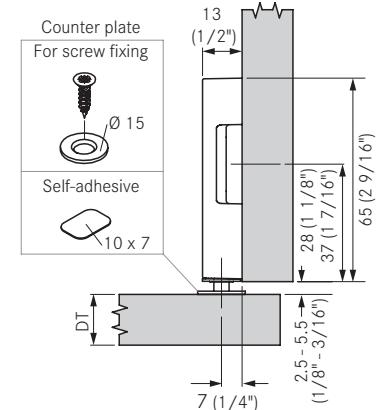
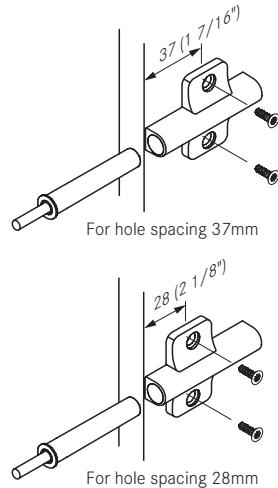
PU – Packaging unit

Mounting Dimensions

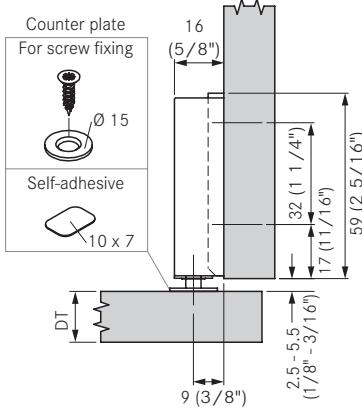
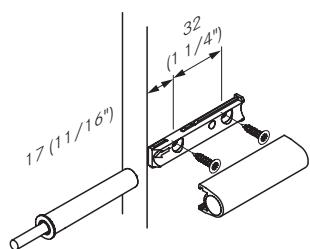
Tipmatic Pin



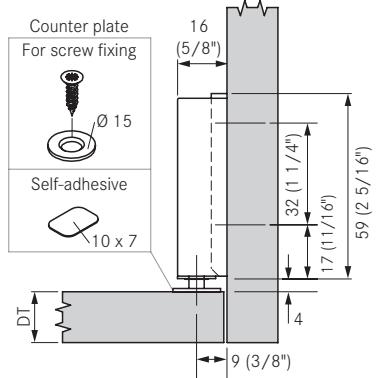
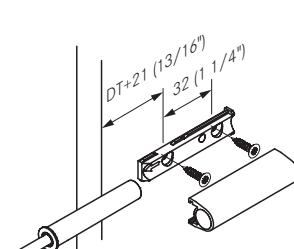
Adapter Plate for Line Boring



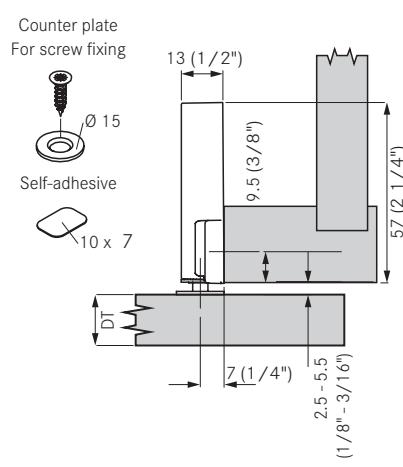
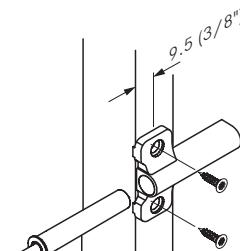
Linear Adapter Plate, Overlay



Linear Adapter Plate, Inset



Face Frame Plate



Legend

DT = Door Thickness

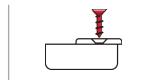
R = Reveal

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

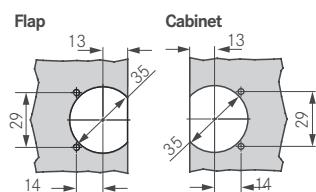
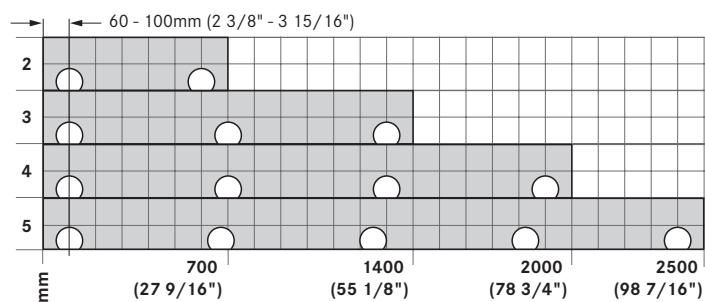
Overlay	For Flap Thickness 14-21mm	Color	Cup Depth	Item No.	PU
	Hinge: zinc die-cast, nickel-plated	Nickel	12mm	F053139671223	100
	Hinge: zinc die-cast, night	Night	12mm	F053139677223	100

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, nickel plated	F053139676223	100
	Steel, night	F053139683223	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	Overlay, with 1 Spacer, 12mm Cup Depth	Overlay, with 2 Spacers, 12mm Cup Depth
Flap Thickness (FT)	Flap Thickness (FT)	Flap Thickness (FT)
21 20 19 18 17 16 15 14	21 20 19 18 17 16 15 14	21 20 19 18 17 16 15 14
Min Reveal (R)	Min Reveal (R)	Min Reveal (R)
2.5 1.5 1 1 1 1 1 1	2.5 1.5 1 1 1 1 1 1	2.5 1.5 1 1 1 1 1 1
Overlay, Without Spacer, 17mm Cup Depth	Overlay, with 1 Spacer, 17mm Cup Depth	Overlay, with 2 Spacers, 17mm Cup Depth
Flap Thickness (FT)	Flap Thickness (FT)	Flap Thickness (FT)
30 29 28 27 26 25 24 23 22	30 29 28 27 26 25 24 23 22	30 29 28 27 26 25 24 23 22
Min Reveal (R)	Min Reveal (R)	Min Reveal (R)
6.5 5.5 4.5 3.5 2.5 1.5 1 1 1	6.5 5.5 4.5 3.5 2.5 1.5 1 1 1	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.

Height Adjustment	Side Adjustment	Depth Adjustment

Cup Dimensions, 12mm cup depth	Hinge Dimensions, 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-dimentional 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)



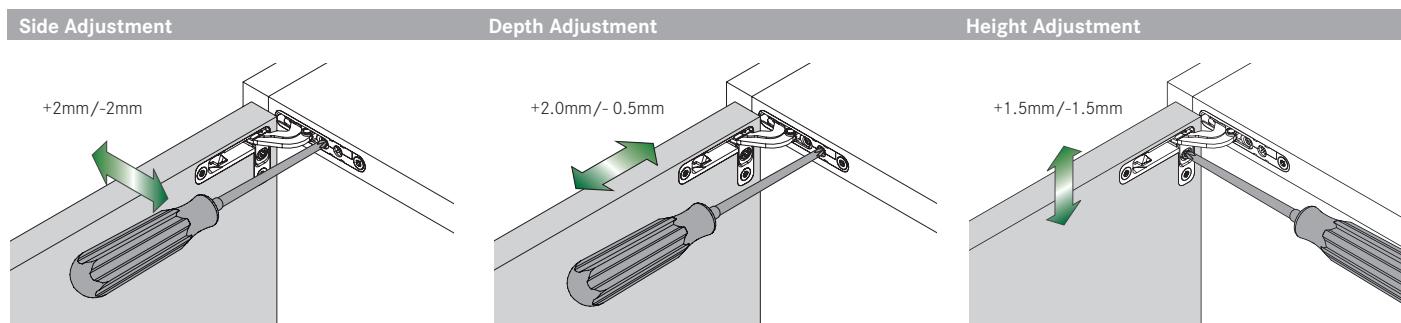
Tiomos H Hinge Opening Angle 105°		Screw-On		
Overlay	Cranking 03	Color	Item No.	PU
	Hinge: die-cast, nickel-plated	Nickel	F051139126507	10
	Hinge: die-cast, night	Night	F051139125507	10

PU = 10 polybag sets in a box

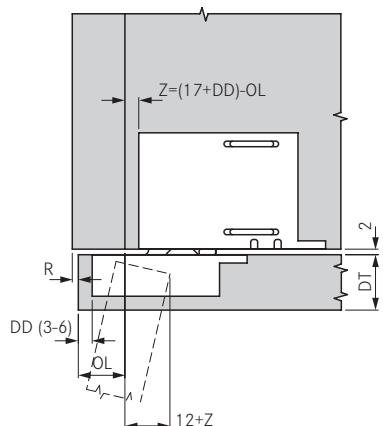
Polybag consists of:

- 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



PU - Packaging unit

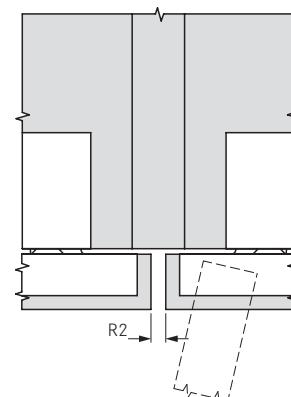
Overlay

Door Thickness (DT)	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)

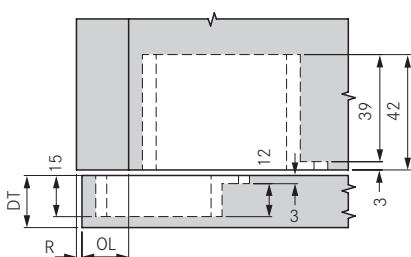
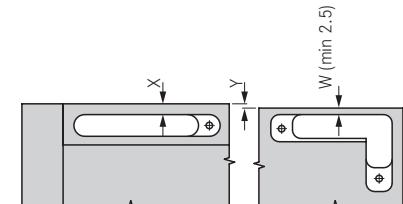
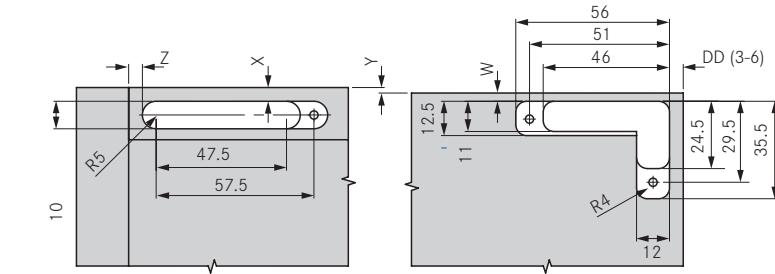
Drilling Distance (DD)

Door Thickness (DT)	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

Drilling Distance for Cabinet (Z)**Door Overlay****Half Overlay****Drilling Distance (DD)**

Door Thickness (DT)	18	20	22	24	26	28	30	32
	2.0							
		2.0						
			2.2					
				2.4				
					2.5			
						2.6		
							2.6	
								2.5

Minimum reveal (R2)

Installation Dimensions

DD = Drilling Distance

DT = Door Thickness

OL = Overlay

R = Reveal

Z = Drilling Distance for Cabinet

Machinery

Grass PRO1 drilling and insertion machine for 45mm boring pattern

Grass PRO1 for Hinge Drilling



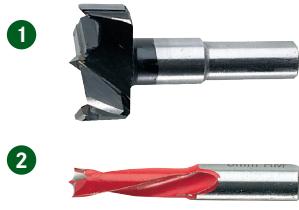
- Depth stop can be adjusted to material thickness
- Functional design
- Easy, fast and efficient operation
- Easy maintenance
- 45mm boring pattern

Description	Item No.	PU
220v single phase pneumatic	94559-01	1
220v three phase pneumatic	94560-01	1
110v single phase pneumatic	94561-01	1



Description	Item No.	PU
Extension fence 300mm to 1250mm	88612-01	1

Drill Bits



Description	Direction	Item No.	PU
① 35mm bit	RH	00077-01	1
② 8mm bit	LH	00160-01	1
American Bit Set for Hinge Drilling		00213-01	1

Set consists of:

- 1 - 35mm bit, RH
2 - 8mm bit, LH

Fence Stops



Description	Item No.	PU
① Additional fence stop	949.200.21.0000	1
② Additional fence stop, large	949.200.21.0100	1

Insertion Dies



Description	Item No.	PU
① Tiomos Universal Insertion Die 110°/120°/160°	80039	1
② TEC Insertion Die	92617	1
③ Nexas Insertion Die 110°/125°	04216-01	1
④ Nexas Insertion Die 170°	04218-01	1

PU - Packaging unit

Accessories and Assembly Aids

Tiomos

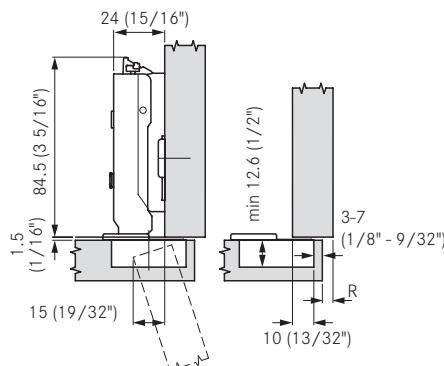
Tiomos Spacer Ring



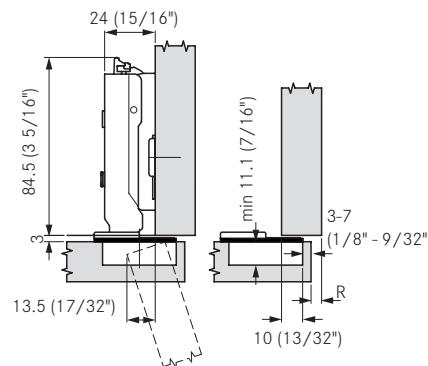
- Permits the use of standard hinges for thinner doors
- Simple installation
- Can be double-stacked
- Suitable for all Tiomos hinges

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

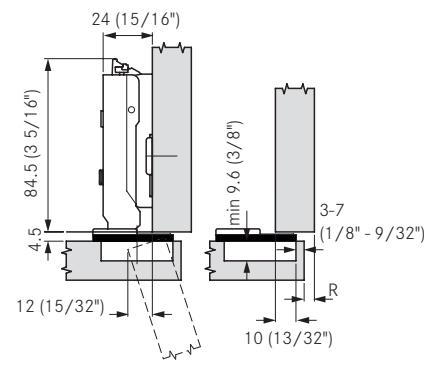
Without Spacer Ring



1 Spacer Ring



2 Spacer Rings



Tiomos Marking Aids

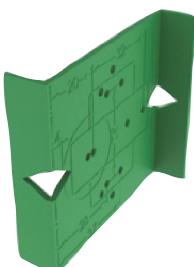
Tiomos Marking Jig



- 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

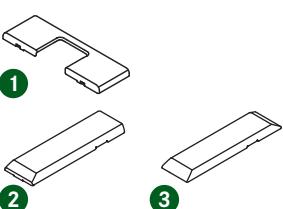
Tiomos Marking Template



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

Description	Item No.	PU
Tiomos marking template	F1461357217	1

Cover Caps



- Steel, nickel plated, without imprint

Hinge Arm Cover Cap Long:

- Steel, nickel plated, without imprint
- Imprinting available upon special request

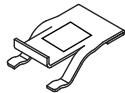
Description	Item No.	PU
① Hinge cup cover cap	F072135503228	150
② Hinge arm cover cap	F072135500247	1000
③ Hinge arm cover cap, long	F072135504247	1000

Accessories and Assembly Aids

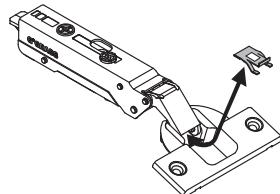
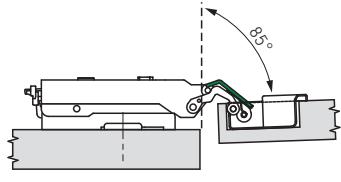
Tiomos

Angle Reduction Clips

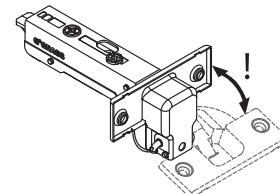
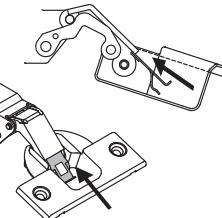
Angle Reduction Clip to 85°



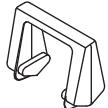
Works for all Tiomos 110° and 120° standard hinges. Reduces the opening angle to 85° to prevent doors from bumping fronts or walls in corner installations.



Description		Item No.	PU
Angle reduction clip, 85°	Steel, nickel	F072135751517	50

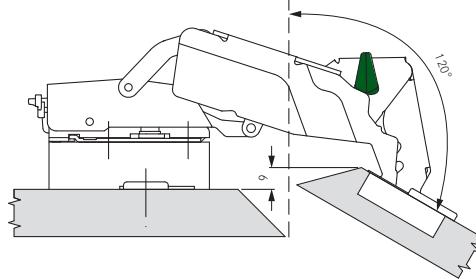


Angle Reduction Clip to 120°

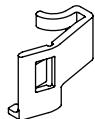


Works for all Tiomos 160° standard hinges. Reduces the opening angle to 120° to prevent doors from bumping the cabinet side in inset and mitered corner applications.

Description		Item No.	PU
Angle reduction clip, 120°	Plastic, black	F072135753117	50

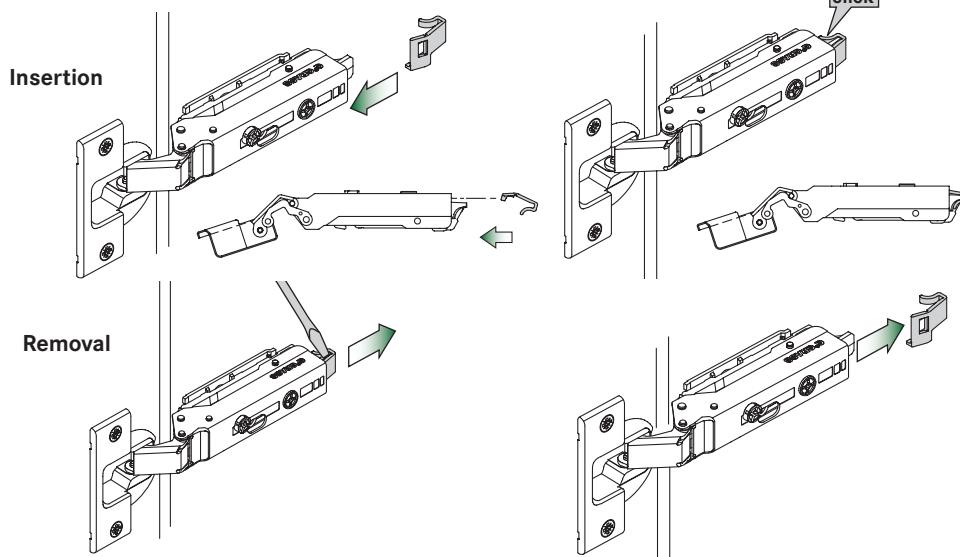


Hinge Clip Protector



Prevents accidental release of the hinge from the base plate. For use in lockers, wardrobes, office furniture or similar applications.

Description		Item No.	PU
Hinge clip protector	Plastic, grey	F072135807540	500



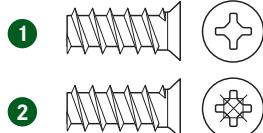
PU - Packaging unit

Accessories and Assembly Aids

Tiomos

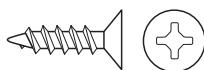
Screws and Dowels

Euro Screw, Nickel-plated



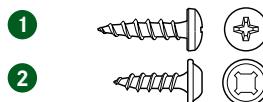
Description	Item No.	PU
1 13mm Euro Screw (1/2")	81015-43	500
18mm Euro Screw (11/16")	83000-43	500
7.5mm Euro Screw (5/16")	83001-43	500
2 Euro Screw 11mm (7/16") Pozi	499.360.61.1015	500
Euro Screw 13mm (1/2") Pozi	499.360.61.3015	500

Wood Screw, Nickel-plated



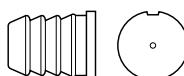
Description	Item No.	PU
#6 x 1 1/2" FHP, NI	81014-43	500
#6 x 5/8" FHP, NI	81001-43	500
#6 x 3 1/4" FHP, NI	81003-43	500
#6 x 1" FHP, NI	81004-43	500

Wood Screw, Nickel-plated



Description	Item No.	PU
1 #10 x 3 1/4" PHP	81007-43	500
2 #8 x 5/8" Quad Round	81017-43	500

Dowels, Plastic



Description		Item No.	PU
Dowel, TEC Hinge	8mm	00102-43	500
Spax screw for TEC Hinge Dowel		02445-43	500
Dowel, Nexus	8mm	F069073390256	500
Dowel, Tiomos	8mm	F072135773247	1000
Dowel, VZ Hinge Cup	8mm	04885-43	500
Dowel, Zargen / ZBox	10mm	05853-42	100
Dowel and screw set Zargen	10mm	12768-37	1
Dowel, base plate	10mm	05404-43	500
Dowel, pilaster dowel	8mm x 16mm	00395-43	500

Pozidrive Screwdriver



#2 Pozidrive screwdriver for hinges

Description	Item No.	PU
Pozidrive screwdriver	98000-01	1
Pozidrive screwdriver	98000-08	50

Accessories and Assembly Aids

Tiomos

Shelf Supports



Description	Item No.	PU
Plastic, clear, with steel pin	499.582.50.0050	5000
Metal spoon, nickel plated	499.582.50.2050	2000
Shelf support 7006/9.5, nickel	F069073460253	2500
Shelf support 7035, nickel	F069073459253	2500
H-802 plastic, square, clear	00036-43	500

Bumper Pads

Bumper Pads, Self-adhesive



Description	Height	Diameter	Item No.	PU
Bumper pad, clear	2.5mm	10mm	63407-99	288
Bumper pad, clear	2.5mm	10mm	63407-47	7200

AirSoft Bumper Pads, Self-adhesive



Description	Height	Diameter	Item No.	PU
AirSoft Bumper pad, clear	5mm	12.7mm	63481-43	500
AirSoft Bumper pad, clear	5mm	12.7mm	63483-30	5000

Bumper Pads, Self-adhesive



Description	Height	Diameter	Item No.	PU
Bumper pad, clear	1.5mm	7mm	630.000.03.0750	1088
Bumper pad, clear	2mm	10mm	630.000.03.1050	1050
Bumper pad, clear	4mm	12mm	630.000.02.1250	5000

Bumper Pads, Self-adhesive



Description	Height	Diameter	Item No.	PU
Bumper pad, clear	3mm	12.7mm	31002-43	500
Bumper pad, clear	1.5mm	12.7mm	31004-43	500

Door Stop



Description	Item No.	PU
H-950 door stop, clear	00068-43	500

PU - Packaging unit

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