



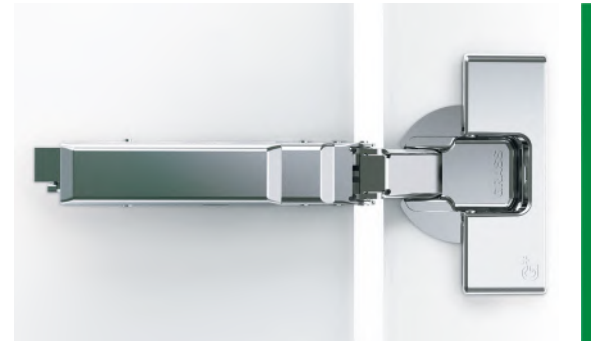
TIOMOS



**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.



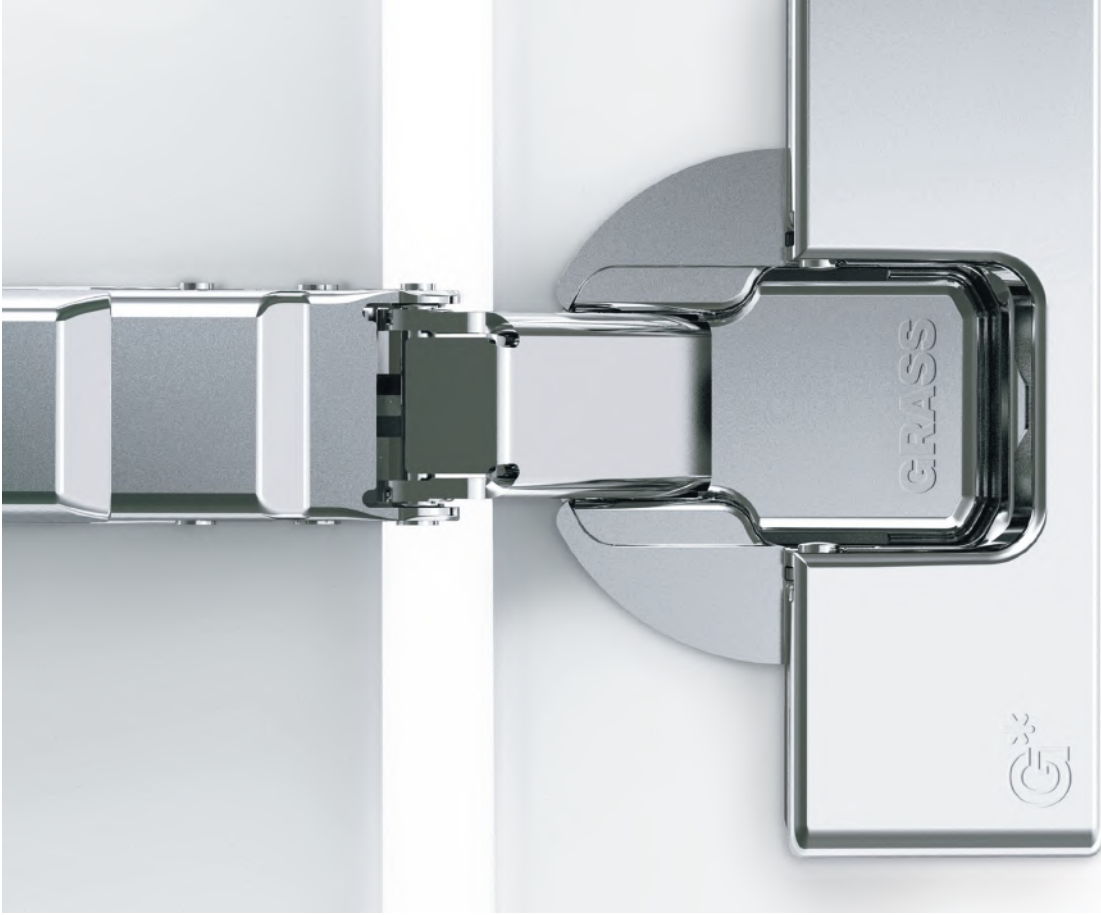
**Our developers set out to create a completely new hinge system.**

**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 by 90°.

| Opening Angle |  | Description  | Full Overlay | Overlay | Half Overlay            | Inset | Page |
|---------------|--|--|--------------|---------|-------------------------|-------|------|
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| 110°          |  | <b>Tiomos 110</b> <ul style="list-style-type: none"> <li>Optimal reveals up to 24 mm door thickness</li> <li>Convenient depth adjustment via worm gear</li> </ul>                                    |              |         |                         |       | 16   |
| 110°          |  | <b>Tiomos 110 Tipmatic Plus</b> <ul style="list-style-type: none"> <li>Push to open for handle-free doors</li> <li>Works with Grass Tipmatic Pin system</li> </ul>                                   |              |         |                         |       | 18   |
| 120°          |  | <b>Tiomos 120</b> <ul style="list-style-type: none"> <li>Optimal reveals up to 24 mm door thickness</li> <li>Convenient depth adjustment via worm gear</li> </ul>                                    |              |         |                         |       | 20   |
| 155°          |  | <b>Tiomos 155</b> <ul style="list-style-type: none"> <li>Optimal reveals up to 32 mm door thickness</li> <li>Zero protrusion</li> <li>For cabinets with inset drawers or pull-out shelves</li> </ul> |              |         |                         |       | 22   |
| 95°           |  | <b>Tiomos 95</b> <ul style="list-style-type: none"> <li>Optimal reveals up to 36 mm door thickness</li> <li>Convenient depth adjustment via worm gear</li> </ul>                                     |              |         |                         |       | 24   |
| 110°          |  | <b>Tiomos 110/90A</b> <ul style="list-style-type: none"> <li>Hinge for blind corner cabinets, overlay</li> <li>Convenient depth adjustment via worm gear</li> </ul>                                  |              |         |                         |       | 26   |
| 110°          |  | <b>Tiomos 110/90E</b> <ul style="list-style-type: none"> <li>Hinge for blind corner cabinets, inset</li> <li>Convenient depth adjustment via worm gear</li> </ul>                                    |              |         |                         |       | 28   |
| 110°          |  | <b>Tiomos 110/30A</b> <ul style="list-style-type: none"> <li>For 30° angled cabinets, overlay</li> <li>Convenient depth adjustment via worm gear</li> </ul>  |              |         |                         |       | 30   |
| 110°          |  | <b>Tiomos 110/30E</b> <ul style="list-style-type: none"> <li>For 30° angled cabinets, inset</li> <li>Convenient depth adjustment via worm gear</li> </ul>  |              |         |                         |       | 32   |
| 110°          |  | <b>Tiomos 110/37A</b> <ul style="list-style-type: none"> <li>For 37° angled cabinets, overlay</li> <li>Convenient depth adjustment via worm gear</li> </ul>  |              |         |                         |       | 34   |
| 110°          |  | <b>Tiomos 110/37E</b> <ul style="list-style-type: none"> <li>For 37° angled cabinets, inset</li> <li>Convenient depth adjustment via worm gear</li> </ul>  |              |         |                         |       | 36   |
| 110°          |  | <b>Tiomos 110/45A</b> <ul style="list-style-type: none"> <li>For 45° angled cabinets, overlay</li> <li>Convenient depth adjustment via worm gear</li> </ul>  |              |         |                         |       | 38   |
| 110°          |  | <b>Tiomos 110/45E</b> <ul style="list-style-type: none"> <li>For 45° angled cabinets, inset</li> <li>Convenient depth adjustment via worm gear</li> </ul>  |              |         | <b>Corner Angle</b><br> |       | 40   |

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| 120°          |  | <b>Tiomos 120/-30A</b> <ul style="list-style-type: none"> <li>For -30° angled cabinets, overlay</li> <li>Convenient depth adjustment via worm gear</li> </ul>                    |              |         |              |       | 44   |
| 120°          |  | <b>Tiomos 120/-45A</b> <ul style="list-style-type: none"> <li>For -45° angled cabinets, overlay</li> <li>Convenient depth adjustment via worm gear</li> </ul>                    |              |         |              |       | 46   |
| 110°          |  | <b>Tiomos PCC</b> <ul style="list-style-type: none"> <li>For pie cut corner application</li> <li>Convenient depth adjustment via worm gear</li> </ul>                            |              |         |              |       | 48   |
| 110°          |  | <b>Tiomos M9</b> <ul style="list-style-type: none"> <li>For door thicknesses from 12mm (15/32") to 28mm (1 1/8")</li> <li>Convenient depth adjustment via worm gear</li> </ul>   |              |         |              |       | 50   |
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|               |  | <b>Tiomos base plates</b> <ul style="list-style-type: none"> <li>Wing base plates</li> <li>Straight base plates</li> <li>Face frame base plates</li> </ul>                       |              |         |              |       | 56   |
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| 90°           |  | <b>Tiomos Flap Hinge</b> <ul style="list-style-type: none"> <li>For fold down flap</li> <li>For Flap thickness up to 21mm (13/16")</li> <li>Overlay up to 19mm (3/4")</li> </ul> |              |         |              |       | 62   |
| 105°          |  | <b>Tiomos H Hinge</b> <ul style="list-style-type: none"> <li>Concealed and recessed hinge</li> <li>For door thicknesses from 18mm (21/32")</li> </ul>                            |              |         |              |       | 64   |
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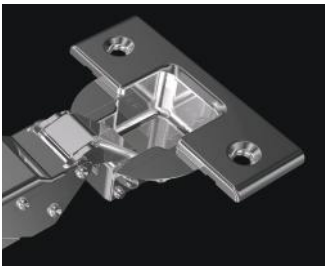
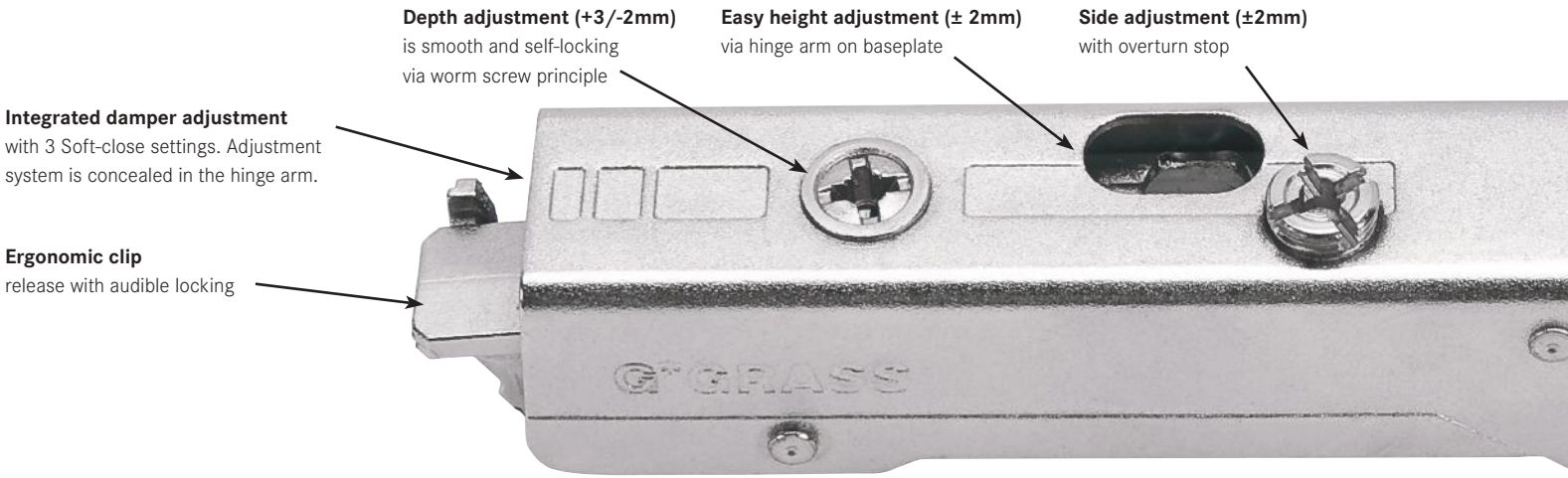
# Features and Benefits

## 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

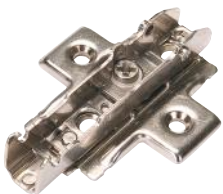
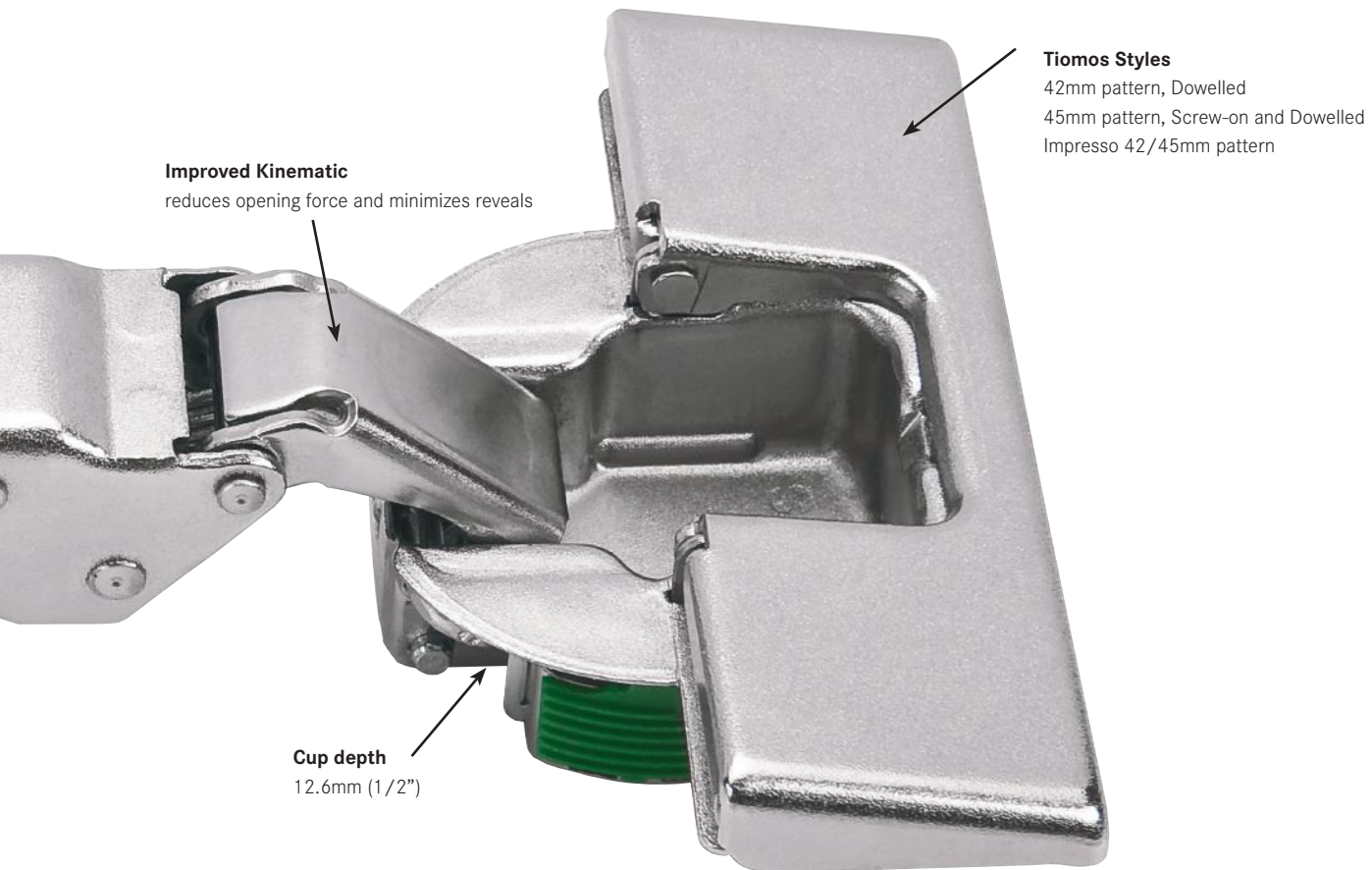


**Dowelled and Screw-on**  
cup attachments. Dowelled available in both 42mm and 45mm patterns. Screw-on available in 45mm pattern



## Features

- One hinge type for all door thicknesses 14 - 24mm
- 3-dimensional adjustment with suitable base plate
  - Depth adjustment  $\pm 3/-2$ mm via self-locking worm screw
  - Height adjustment  $\pm 2$ mm on base plate via hinge arm
  - Side adjustment with overturn stop  $\pm 2$  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.

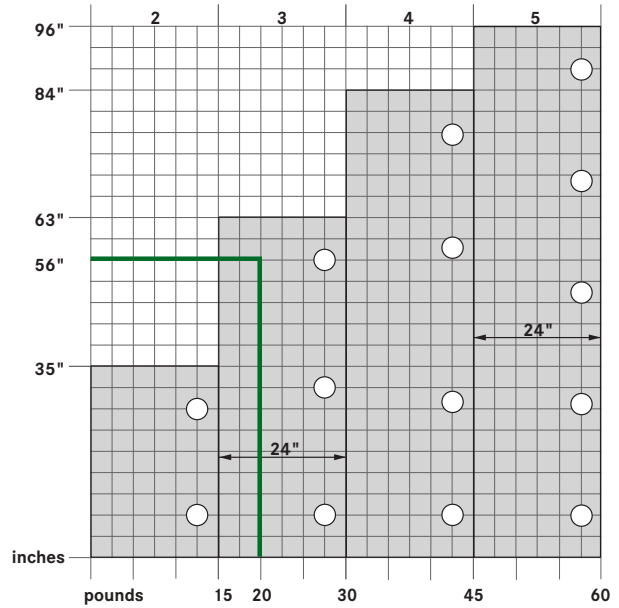
Attach base plates using all available screw holes.

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.



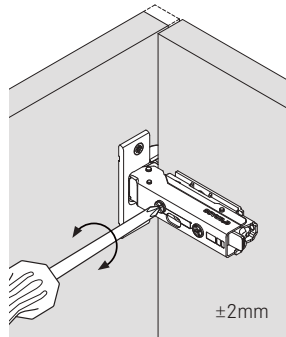
### Adjustments

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

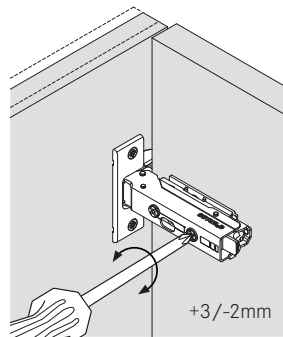
For depth adjustment, select base plates have worm gear adjustment access through the hinge arm.

Use a #2 POZI drive screwdriver for hinge adjustments.

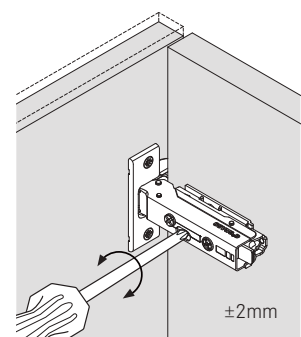
Attach base plates using all available screw holes.



Side adjustment



Depth adjustment via worm gear

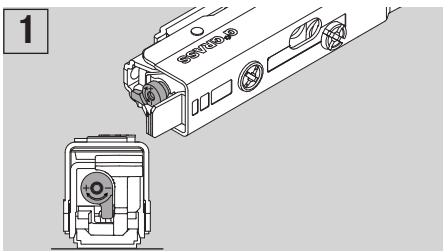


Height adjustment via base plate

### 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.

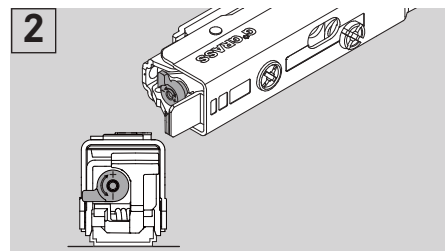


#### Light setting

Adjustment lever points toward the cabinet wall

Appropriate for:

- Small, light doors

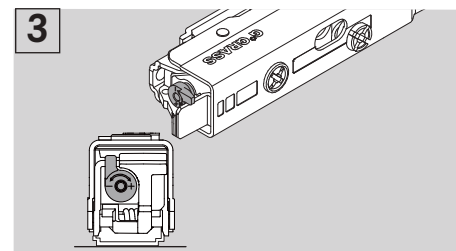


#### Medium setting (factory setting)

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

Appropriate for:

- Standard doors



#### Strong setting

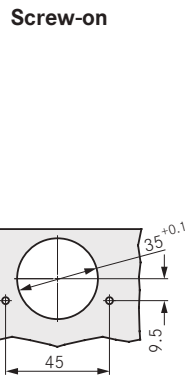
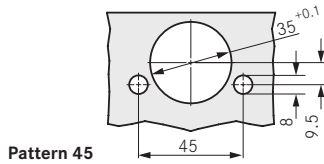
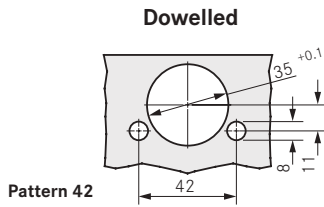
Adjustment lever points toward the cabinet interior

Appropriate for:

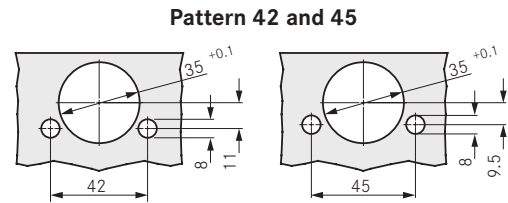
- Large, heavy doors

Tiomos Drilling Patterns

Tiomos Impresso Drilling Patterns



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



Reveal

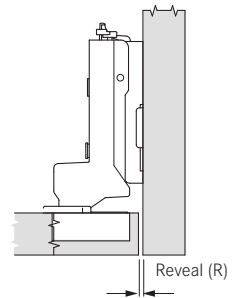
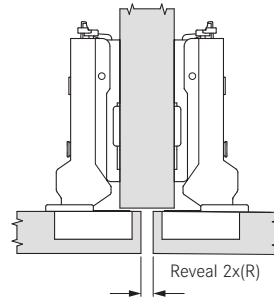
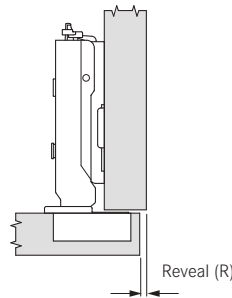
Full Overlay Door

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.

|                 | 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.

|                         | 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                      | 3 |   |     |     |
| 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**

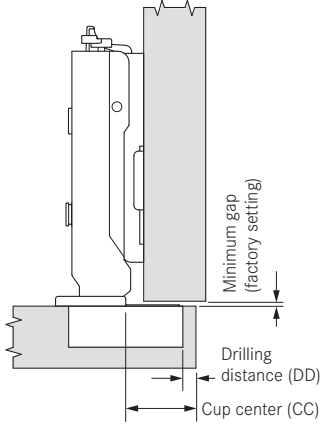
To determine the correct application Grass strongly recommends a trial mounting for all hinges and base plates.

# Technical Information

## Tiomos

### Minimum Gap Drilling Distance

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



| 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 |

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.

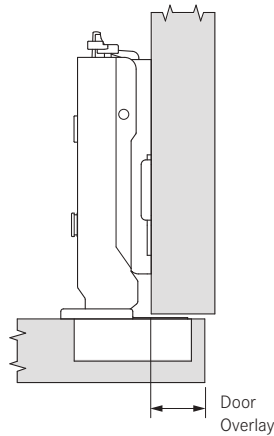
**Example:**

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) |     |     |     |     | Minimum gap |
|---------------------|------------------------|-----|-----|-----|-----|-------------|
|                     | 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 |             |
|                     |                        |     |     |     |     |             |
|                     |                        |     |     |     |     |             |

### 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.



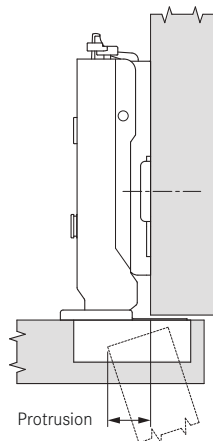
**Example:**

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) |     |     |     |     | Base Plate Height (BPH) |
|--------------|------------------------|-----|-----|-----|-----|-------------------------|
|              | 3                      | 4   | 5   | 6   | 7   |                         |
| 19           |                        |     |     |     | 0   |                         |
| 18           |                        |     |     | 0   |     |                         |
| 17           |                        |     | 0   |     | 2   |                         |
| 16.5         |                        |     |     |     |     |                         |
| 16           |                        | 0   |     | 2   | 3   |                         |
| 15           |                        |     |     |     | 3.5 |                         |
| 15           | 0                      |     | 2   | 3   |     |                         |
| 14.5         |                        |     |     | 3.5 |     |                         |
| 14           |                        | 2   | 3   |     |     |                         |
| 13.5         |                        |     | 3.5 |     |     |                         |
| 13           | 2                      | 3   |     |     |     |                         |
| 12.5         |                        | 3.5 |     |     |     |                         |
| 12           | 3                      |     |     |     |     |                         |
| 11.5         | 3.5                    |     |     |     |     |                         |
|              |                        |     |     |     |     |                         |

### 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.

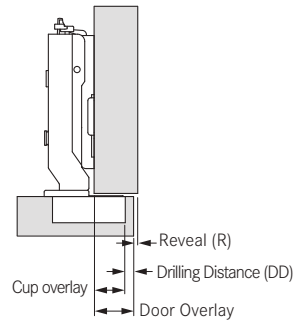


## Door Positions

### Achieve overlay with hinge cranking

#### Full Overlay (Cranking 00)

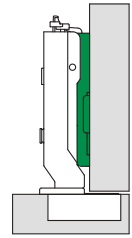
The cup overlay (factory setting) plus drilling distance determine the door overlay. Dimensions can be found in a table on the respective page of the catalog.



### Achieve overlay with base plate

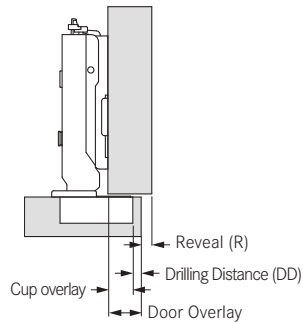
#### Full Overlay

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



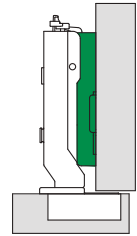
#### Overlay (Cranking 03)

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.



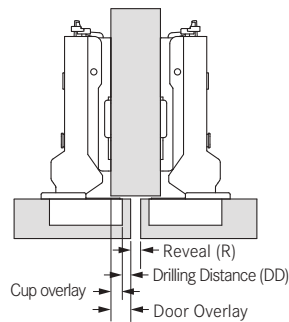
#### Overlay

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



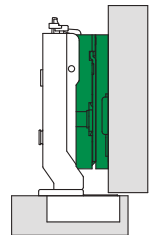
#### Half Overlay (Cranking 9.5)

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.



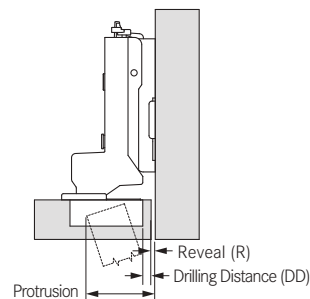
#### Half Overlay

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



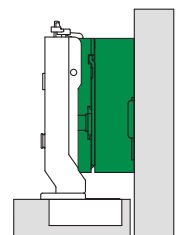
#### Inset (Cranking 19)

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



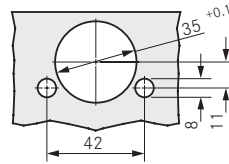
# Insertion Instructions

## 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.



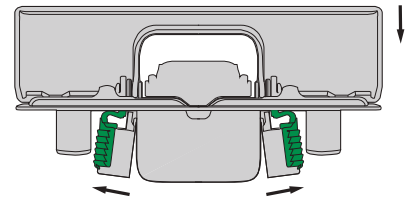
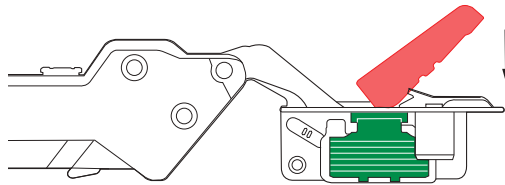
### IMPORTANT

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

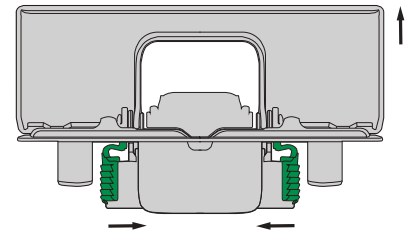
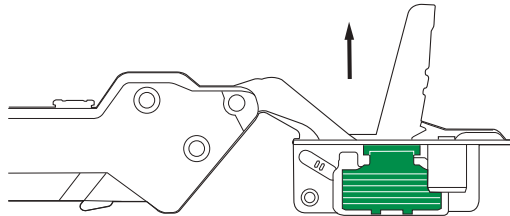
### Instructions for Impresso Insertion

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

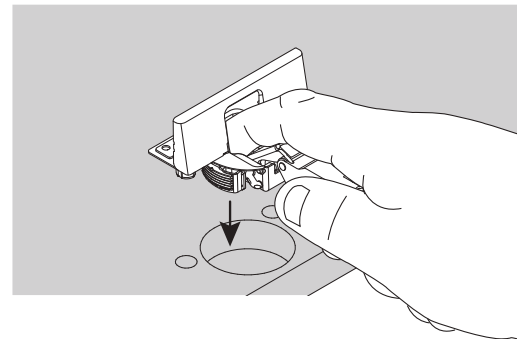
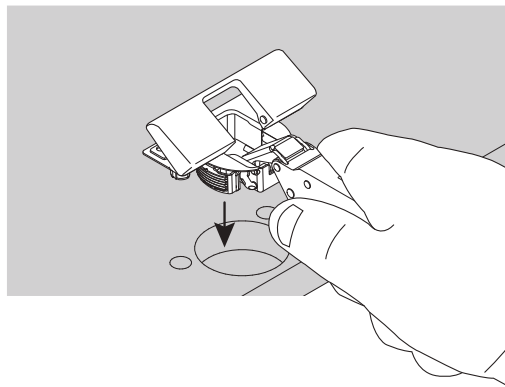
If the hinge cup flap is partially closed due to shipping and handling, lift flap to upright position before inserting into door as illustrated above.



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

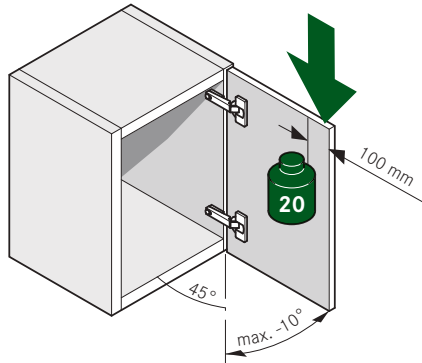
## Tiemos

### Functional Test

#### Static load - vertical

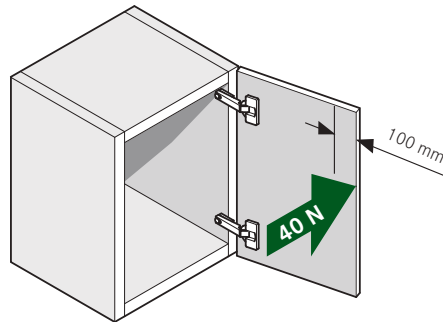
Additional load: 44 pounds (20 kg)

Opening angle: max.  $-10^{\circ}$



#### Static load - horizontal

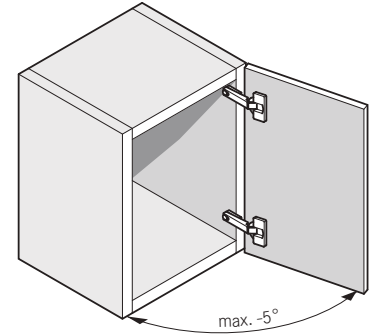
Force: 40 N



#### Endurance Test

Opening angle: max.  $-5^{\circ}$

Open and close movements: 100,000

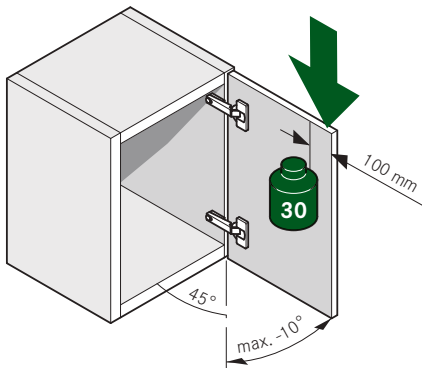


### Overload Testing

#### Vertical

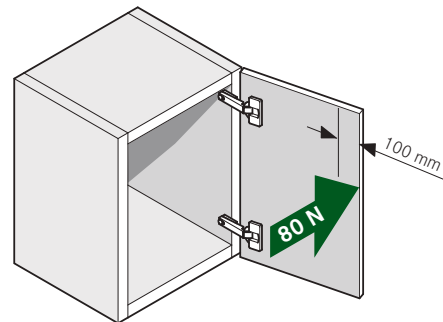
Additional load: 66 pounds (30 kg)

Opening angle: max.  $-10^{\circ}$



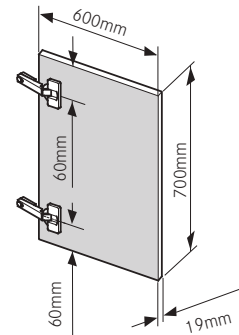
#### Horizontal

Force: 80 N



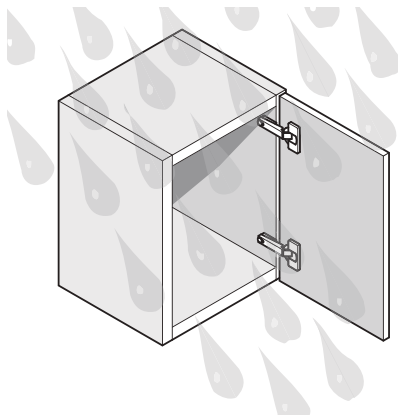
#### Test door

Weight approx. 11.5 pounds (5.2 kg)



### Salt Spray and Humidity Test

Based on DIN ISO 9227 and DIN 6270-2

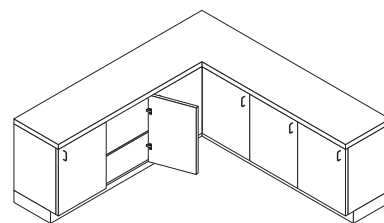


# Tiomos 110

## 110° hinge for standard doors



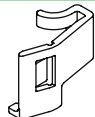
- 3-dimensional adjustment with suitable base plate
- Accommodates overlays up to 24mm (15/16")
- Optimal reveal up to 24 mm door thickness
- Soft-close or Self-close hinges available
- For face frame or frameless cabinets
- Convenient depth adjustment with worm gear



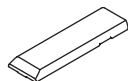
### Tiomos 110 Opening Angle 110°

| 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 | <b>F017139414228</b> | 150 | 45       | Soft-close | <b>F028138519228</b> | <b>F028138523228</b> | 150 |
|              | Hinge arm: steel, nickel-plated | 42/45   | Self-close | <b>F034139385228</b> | 150 | 45       | Self-close | <b>F045138457228</b> | <b>F045138461228</b> | 150 |
|              |                                 |         |            |                      |     | 42       | Soft-close | -                    | <b>F028138341228</b> | 150 |
|              |                                 |         |            |                      |     | 42       | Self-close | -                    | <b>F045138279228</b> | 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 | <b>F017139415228</b> | 150 | 45       | Soft-close | <b>F028138520228</b> | <b>F028138524228</b> | 150 |
|              | Hinge arm: steel, nickel-plated | 42/45   | Self-close | <b>F034139386228</b> | 150 | 45       | Self-close | <b>F045138458228</b> | <b>F045138462228</b> | 150 |
|              |                                 | 42/45   | Free-swing | <b>F035139443228</b> | 150 | 42       | Soft-close | -                    | <b>F028138342228</b> | 150 |
|              |                                 |         |            |                      |     | 42       | Self-close | -                    | <b>F045138280228</b> | 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 | <b>F017139416228</b> | 150 | 45       | Soft-close | <b>F028138521228</b> | <b>F028138525228</b> | 150 |
|              | Hinge arm: zinc, nickel-plated  | 42/45   | Self-close | <b>F034139387228</b> | 150 | 45       | Self-close | <b>F045138459228</b> | <b>F045138463228</b> | 150 |
|              |                                 | 42/45   | Free-swing | <b>F035139444228</b> | 150 | 42       | Soft-close | -                    | <b>F028138343228</b> | 150 |
|              |                                 |         |            |                      |     | 42       | Self-close | -                    | <b>F045138281228</b> | 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 | <b>F017139417228</b> | 150 | 45       | Soft-close | <b>F028138522228</b> | <b>F028138526228</b> | 150 |
|              | Hinge arm: zinc, nickel-plated  | 42/45   | Self-close | <b>F034139388228</b> | 150 | 45       | Self-close | <b>F045138460228</b> | <b>F045138464228</b> | 150 |
|              |                                 |         |            |                      |     | 42       | Soft-close | -                    | <b>F028138344228</b> | 150 |
|              |                                 |         |            |                      |     | 42       | Self-close | -                    | <b>F045138282228</b> | 150 |

| Hinge Clip Protector | Item No.             | PU  |
|----------------------|----------------------|-----|
| Plastic, grey        | <b>F072135807540</b> | 500 |



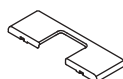
| Cover Caps           | Item No.             | PU   |
|----------------------|----------------------|------|
| Steel, nickel-plated | <b>F072135500247</b> | 1000 |



| Opening Angle Reduction Clip to 85° | Item No.             | PU |
|-------------------------------------|----------------------|----|
| Steel, nickel                       | <b>F072135751517</b> | 50 |



| Hinge Cup Cover Cap  | Item No.             | PU  |
|----------------------|----------------------|-----|
| Steel, nickel-plated | <b>F072135503228</b> | 150 |



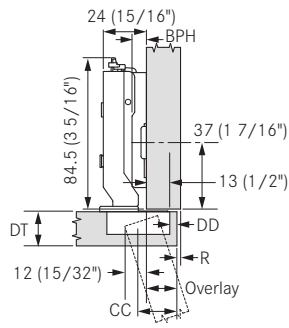
| Wood Screw, Nickel-plated | Item No. | PU  |
|---------------------------|----------|-----|
| #6 x 5/8" FHP, NI         | 81001-43 | 500 |



PU - Packaging unit

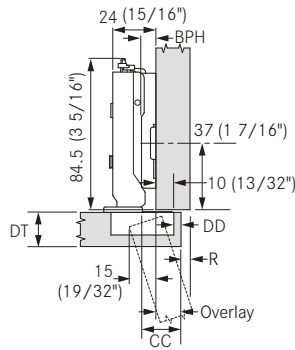


**Full Overlay      Overlay      Half Overlay      Inset**



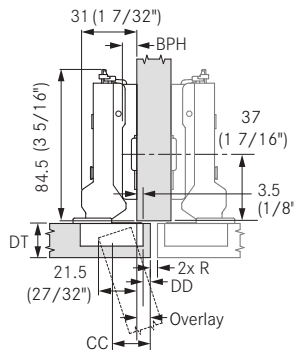
Drawings show Tiomos with a base plate, **(BPH) 02**.

| Door Overlay | Drilling Distance (DD) |     |     |     |                         |
|--------------|------------------------|-----|-----|-----|-------------------------|
|              | 3                      | 4   | 5   | 6   | 7                       |
| 22.0         |                        |     |     |     | 0                       |
| 21.0         |                        |     |     | 0   |                         |
| 20.0         |                        |     | 0   | 2   |                         |
| 19.0         |                        | 0   | 2   | 3   |                         |
| 18.5         |                        |     |     | 3.5 |                         |
| 18.0         | 0                      |     | 2   | 3   |                         |
| 17.5         |                        |     | 3.5 |     |                         |
| 17.0         |                        | 2   | 3   |     |                         |
| 16.5         |                        |     | 3.5 |     |                         |
| 16.0         | 2                      | 3   |     |     |                         |
| 15.5         |                        | 3.5 |     |     |                         |
| 15.0         | 3                      |     |     |     |                         |
| 14.5         | 3.5                    |     |     |     |                         |
|              |                        |     |     |     | Base Plate Height (BPH) |



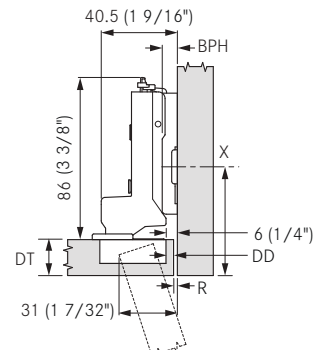
Drawings show Tiomos with a base plate, **(BPH) 02**.

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



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

| Door Overlay | Drilling Distance (DD) |     |     |     |                         |
|--------------|------------------------|-----|-----|-----|-------------------------|
|              | 3                      | 4   | 5   | 6   | 7                       |
| 12.5         |                        |     |     |     | 0                       |
| 11.5         |                        |     |     | 0   |                         |
| 10.5         |                        |     | 0   | 2   |                         |
| 10.0         |                        |     |     |     |                         |
| 9.5          | 0                      |     | 2   | 3   |                         |
| 9.0          |                        |     |     | 3.5 |                         |
| 8.5          | 0                      | 2   | 3   |     |                         |
| 8.0          |                        |     | 3.5 |     |                         |
| 7.5          | 2                      | 3   |     |     |                         |
| 7.0          |                        | 3.5 |     |     |                         |
| 6.5          | 2                      | 3   |     |     |                         |
| 6.0          |                        | 3.5 |     |     |                         |
| 5.5          | 3                      |     |     |     |                         |
| 5.0          | 3.5                    |     |     |     |                         |
|              |                        |     |     |     | Base Plate Height (BPH) |



Drawings show Tiomos with a base plate, **(BPH) 02**. X = 38.5 + DT

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

**Note:** A door stop is needed to prevent overclose.

**Minimum Gaps      Reveal      Reveal with 85° Angle Reduction Clip**

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

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

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

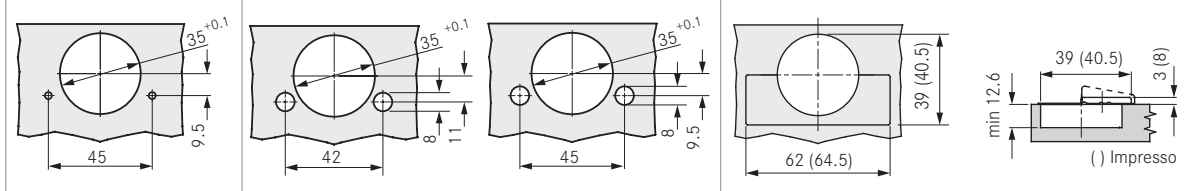
**Note:** Reveal dimensions were determined with an edge radius (of the door) of 1mm. Hinge dimensions and reveal calculation based on factory setting.

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

| Door Thickness (DT) | Drilling Distance (DD) |      |     |     |            |
|---------------------|------------------------|------|-----|-----|------------|
|                     | *3                     | 4    | 5   | 6   | 7          |
| 36.0                | 11.1                   | 10.3 | 9.7 | 9.1 | 8.5        |
| 30.0                | 5.4                    | 4.8  | 4.4 | 4.3 | 4.2        |
| 28.0                | 3.7                    | 3.6  | 3.5 | 3.4 | 3.3        |
| 26.0                | 2.9                    | 2.8  | 2.8 | 2.7 | 2.6        |
| 24.0                | 2.2                    | 2.1  | 2.1 | 2.1 | 2.0        |
| 22.0                | 1.6                    | 1.6  | 1.6 | 1.5 | 1.5        |
| 21.0                | 1.4                    | 1.3  | 1.3 | 1.3 | 1.3        |
| 20.0                | 1.1                    | 1.1  | 1.1 | 1.1 | 1.1        |
| 19.0                | 0.9                    | 0.9  | 0.9 | 0.9 | 0.9        |
| 18.0                | 0.7                    | 0.7  | 0.7 | 0.7 | 0.7        |
| 16.0                | 0.6                    | 0.6  | 0.6 | 0.6 | 0.6        |
|                     |                        |      |     |     | Reveal (R) |

**Legend      Screw-on      Impreso and Dowelled      Cup Dimensions**

- BPH = Base Plate Height
- CC = Center Cup
- DD = Drilling Distance
- DT = Door Thickness
- R = Reveal
- X = Base Plate Setback

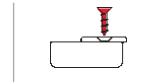
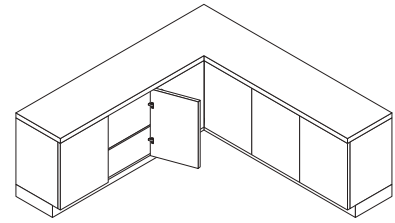


# Tiomos 110 Tipmatic Plus

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 | <b>F046140360213</b> | 25 |

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

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

| Hinge Clip Protector | Item No.             | PU  |
|----------------------|----------------------|-----|
| Plastic, grey        | <b>F072135807540</b> | 500 |

| Opening Angle Reduction Clip to 85° | Item No.             | PU |
|-------------------------------------|----------------------|----|
| Steel, nickel                       | <b>F072135751517</b> | 50 |

### Important Note:

Tiomos Tipmatic Plus works with our recommended Tipmatic Pin. GRASS does not accept any liability if a different system other than the recommended system is used. Before the Tipmatic Pin is inserted for gluing, the surface must be thoroughly cleaned and free from grease. Complete Tipmatic Pin System is shown on page 60-61.

| Cover Caps           | Item No.             | PU   |
|----------------------|----------------------|------|
| Steel, nickel-plated | <b>F072135500247</b> | 1000 |

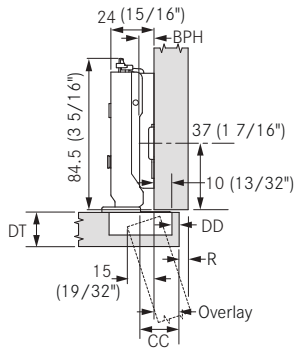
| Tipmatic Pin | Item No.             | PU |
|--------------|----------------------|----|
|              | <b>F069135396513</b> | 25 |

| Hinge Cup Cover Cap  | Item No.             | PU  |
|----------------------|----------------------|-----|
| Steel, nickel-plated | <b>F072135503228</b> | 150 |

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

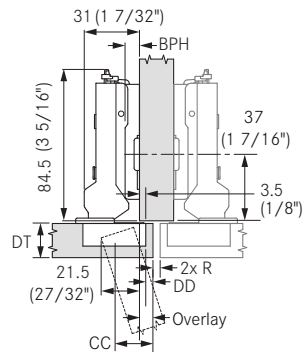
PU - Packaging unit

**Overlay      Half Overlay      Inset**



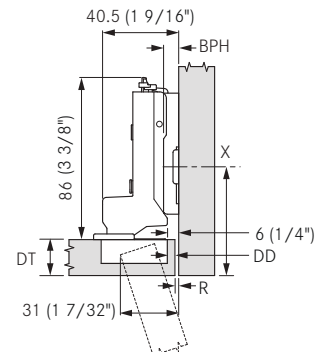
Drawings show Tiomos with a base plate, **(BPH) 02**.

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



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

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



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

$X = 38.5 + DT$

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

**Note:** A door stop is needed to prevent overclose.

**Minimum Gaps      Reveal      Reveal with 85° Angle Reduction Clip**

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

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

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

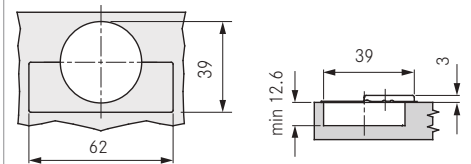
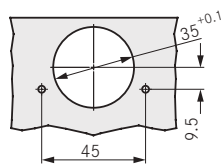
**Note:** Reveal dimensions were determined with an edge radius (of the door) of 1mm. Hinge dimensions and reveal calculation based on factory setting.

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

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

**Legend      Drilling Pattern      Cup Dimensions**

- BPH = Base Plate Height
- CC = Center Cup =  $DD + 1/2(\text{cup diameter})$
- DD = Drilling Distance
- DT = Door Thickness
- R = Reveal
- X = Base Plate Setback

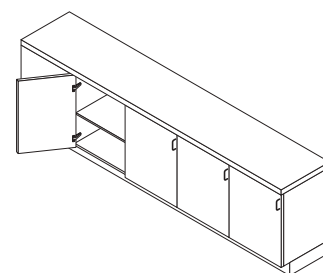


# Tiomos 120

## 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 | <b>F017139428228</b> | 150 | 45       | Soft-close | <b>F028138547228</b> | <b>F028138551228</b> | 150 |
|              | Hinge arm: steel, nickel-plated | 42/45   | Self-close | <b>F034139399228</b> | 150 | 45       | Self-close | <b>F045138485228</b> | <b>F045138489228</b> | 150 |
|              |                                 |         |            |                      |     | 42       | Soft-close | -                    | <b>F028138369228</b> | 150 |
|              |                                 |         |            |                      |     | 42       | Self-close | -                    | <b>F045138307228</b> | 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 | <b>F017139429228</b> | 150 | 45       | Soft-close | <b>F028138548228</b> | <b>F028138552228</b> | 150 |
|              | Hinge arm: steel, nickel-plated | 42/45   | Self-close | <b>F034139400228</b> | 150 | 45       | Self-close | <b>F045138486228</b> | <b>F045138490228</b> | 150 |
|              |                                 |         |            |                      |     | 42       | Soft-close | -                    | <b>F028138370228</b> | 150 |
|              |                                 |         |            |                      |     | 42       | Self-close | -                    | <b>F045138308228</b> | 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 | <b>F017139430228</b> | 150 | 45       | Soft-close | <b>F028138549228</b> | <b>F028138553228</b> | 150 |
|              | Hinge arm: zinc, nickel-plated  | 42/45   | Self-close | <b>F034139401228</b> | 150 | 45       | Self-close | <b>F045138487228</b> | <b>F045138491228</b> | 150 |
|              |                                 |         |            |                      |     | 42       | Soft-close | -                    | <b>F028138371228</b> | 150 |
|              |                                 |         |            |                      |     | 42       | Self-close | -                    | <b>F045138309228</b> | 150 |

| Hinge Clip Protector | Item No.             | PU  |
|----------------------|----------------------|-----|
| Plastic, grey        | <b>F072135807540</b> | 500 |

| Cover Caps           | Item No.             | PU   |
|----------------------|----------------------|------|
| Steel, nickel-plated | <b>F072135500247</b> | 1000 |

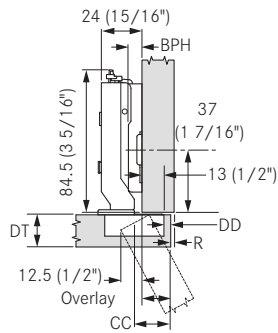
| Opening Angle Reduction Clip to 85° | Item No.             | PU |
|-------------------------------------|----------------------|----|
| Steel, nickel                       | <b>F072135751517</b> | 50 |

| Hinge Cup Cover Cap  | Item No.             | PU  |
|----------------------|----------------------|-----|
| Steel, nickel-plated | <b>F072135503228</b> | 150 |

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

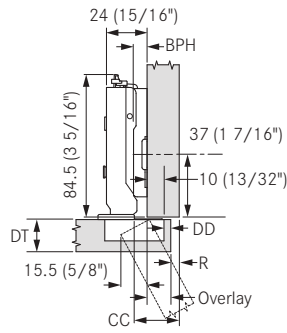
PU - Packaging unit

**Full Overlay      Overlay      Half Overlay**



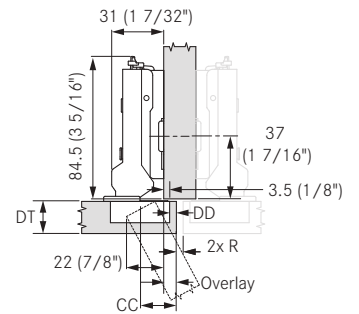
Drawings show Tiomos with a base plate, **(BPH) 02**.

| Door Overlay | Drilling Distance (DD) |     |     |     |                         |
|--------------|------------------------|-----|-----|-----|-------------------------|
|              | 3                      | 4   | 5   | 6   | 7                       |
| 22.0         |                        |     |     |     | 0                       |
| 21.0         |                        |     |     | 0   |                         |
| 20.0         |                        |     | 0   |     | 2                       |
| 19.0         |                        | 0   |     | 2   | 3                       |
| 18.5         |                        |     |     |     |                         |
| 18.0         | 0                      |     | 2   | 3   |                         |
| 17.5         |                        |     |     | 3.5 |                         |
| 17.0         |                        | 2   | 3   |     |                         |
| 16.5         |                        |     | 3.5 |     |                         |
| 16.0         | 2                      | 3   |     |     |                         |
| 15.5         |                        | 3.5 |     |     |                         |
| 15.0         | 3                      |     |     |     |                         |
| 14.5         | 3.5                    |     |     |     |                         |
|              |                        |     |     |     | Base Plate Height (BPH) |



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

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



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

| Door Overlay | Drilling Distance (DD) |     |     |     |                         |
|--------------|------------------------|-----|-----|-----|-------------------------|
|              | 3                      | 4   | 5   | 6   | 7                       |
| 12.5         |                        |     |     |     | 0                       |
| 11.5         |                        |     |     | 0   |                         |
| 10.5         |                        |     | 0   |     | 2                       |
| 10.0         |                        |     |     |     |                         |
| 9.5          |                        | 0   |     | 2   | 3                       |
| 9.0          |                        |     |     |     | 3.5                     |
| 8.5          | 0                      |     | 2   | 3   |                         |
| 8.0          |                        |     |     | 3.5 |                         |
| 7.5          |                        | 2   | 3   |     |                         |
| 7.0          |                        |     | 3.5 |     |                         |
| 6.5          | 2                      | 3   |     |     |                         |
| 6.0          |                        | 3.5 |     |     |                         |
| 5.5          | 3                      |     |     |     |                         |
| 5.0          | 3.5                    |     |     |     |                         |
|              |                        |     |     |     | Base Plate Height (BPH) |

**Minimum Gaps      Reveal      Reveal with 85° Angle Reduction Clip**

| Door Thickness (DT) | 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 |

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

| Door Thickness (DT) | 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) |

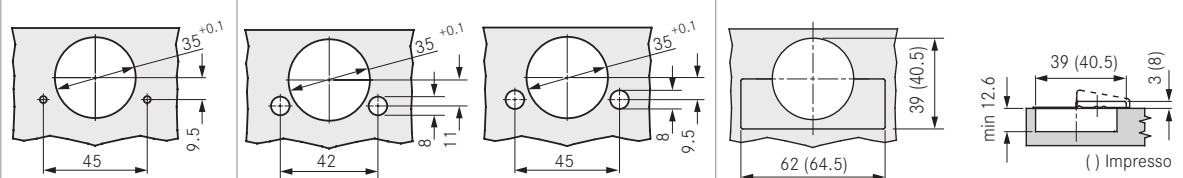
**Note:** Reveal dimensions were determined with an edge radius (of the door) of 1mm. Hinge dimensions and reveal calculation based on factory setting.

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

| Door Thickness (DT) | Drilling Distance (DD) |      |     |     |            |
|---------------------|------------------------|------|-----|-----|------------|
|                     | 3                      | 4    | 5   | 6   | 7          |
| 36.0                | 11.1                   | 10.3 | 9.7 | 9.1 | 8.5        |
| 30.0                | 5.4                    | 4.8  | 4.4 | 4.3 | 4.2        |
| 28.0                | 3.7                    | 3.6  | 3.5 | 3.4 | 3.3        |
| 26.0                | 2.9                    | 2.8  | 2.8 | 2.7 | 2.6        |
| 24.0                | 2.2                    | 2.1  | 2.1 | 2.1 | 2.0        |
| 22.0                | 1.6                    | 1.6  | 1.6 | 1.5 | 1.5        |
| 21.0                | 1.4                    | 1.3  | 1.3 | 1.3 | 1.3        |
| 20.0                | 1.1                    | 1.1  | 1.1 | 1.1 | 1.1        |
| 19.0                | 0.9                    | 0.9  | 0.9 | 0.9 | 0.9        |
| 18.0                | 0.7                    | 0.7  | 0.7 | 0.7 | 0.7        |
| 16.0                | 0.6                    | 0.6  | 0.6 | 0.6 | 0.6        |
|                     |                        |      |     |     | Reveal (R) |

**Legend      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

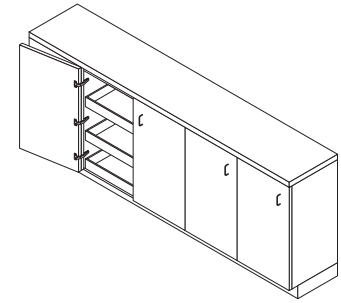


# Tiomos 155

## 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



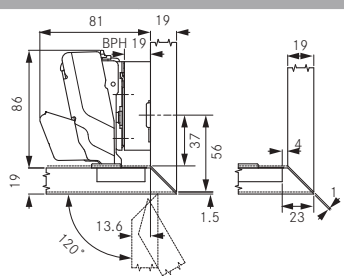
### Tiomos 155 Opening Angle 155°

| 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 | <b>F017139435217</b> | 50 | 45       | Soft-close | <b>F028138561217</b> | <b>F028138564217</b> | 50 |
|              | Hinge arm: steel, nickel-plated | 42/45   | Self-close | <b>F034139406217</b> | 50 | 45       | Self-close | <b>F045138499217</b> | <b>F045138502217</b> | 50 |
|              |                                 |         |            |                      |    | 42       | Soft-close | -                    | <b>F028138382217</b> | 50 |
|              |                                 |         |            |                      |    | 42       | Self-close | -                    | <b>F045138320217</b> | 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 | <b>F017139436217</b> | 50 | 45       | Soft-close | <b>F028138562217</b> | <b>F028138565217</b> | 50 |
|              | Hinge arm: steel, nickel-plated | 42/45   | Self-close | <b>F034139407217</b> | 50 | 45       | Self-close | <b>F045138500217</b> | <b>F045138503217</b> | 50 |
|              |                                 |         |            |                      |    | 42       | Soft-close | -                    | <b>F028138383217</b> | 50 |
|              |                                 |         |            |                      |    | 42       | Self-close | -                    | <b>F045138321217</b> | 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 | <b>F034139408213</b> | 25 | 45       | Soft-close | <b>F028138563217</b> | <b>F028138566217</b> | 50 |
|              | Hinge arm: zinc, nickel-plated  |         |            |                      |    | 45       | Self-close | <b>F045138501217</b> | <b>F045138504217</b> | 50 |
|              |                                 |         |            |                      |    | 42       | Soft-close | -                    | <b>F028138384217</b> | 50 |
|              |                                 |         |            |                      |    | 42       | Self-close | -                    | <b>F045138322217</b> | 50 |

### Mitered Corner Application

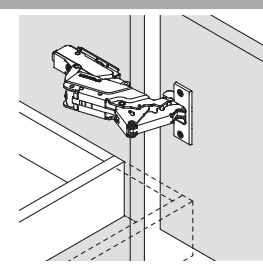
Use Full overlay hinge (00 Cranking) with 19 mm base plate.

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



### Zero Protrusion at 90°

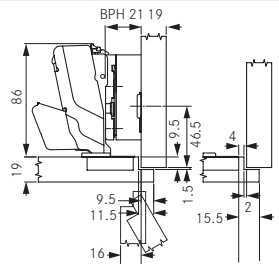
Zero protrusion for application with inset drawers. With 00 cranking and 00 height of base plate the door is flush with the cabinet at 90°.



### 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.

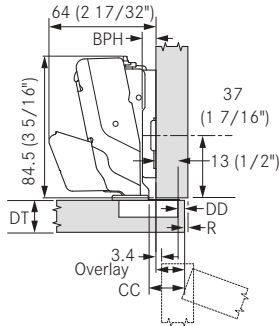


| Hinge Cup Cover Cap  | Item No.             | PU  |
|----------------------|----------------------|-----|
| Steel, nickel-plated | <b>F072135503228</b> | 150 |

| Angle Reduction Clip to 120° | Item No.             | PU |
|------------------------------|----------------------|----|
| Plastic, black               | <b>F072135753117</b> | 50 |

PU - Packaging unit

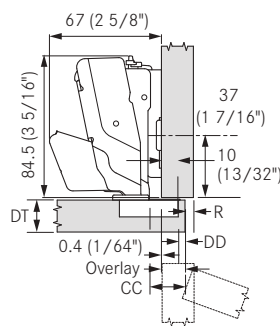
**Full Overlay      Overlay      Half Overlay      Inset**



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

Drilling Distance (DD)

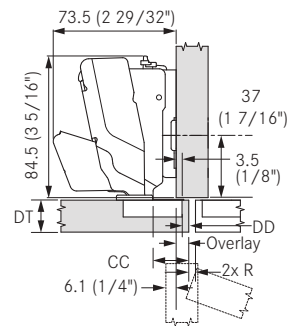
|      | 3                       | 4   | 5   | 6   | 7 | 8 |
|------|-------------------------|-----|-----|-----|---|---|
| 23.0 |                         |     |     |     |   | 0 |
| 22.0 |                         |     |     |     | 0 |   |
| 21.0 |                         |     |     | 0   |   | 2 |
| 20.0 |                         |     | 0   |     | 2 | 3 |
| 19.0 | 0                       |     | 2   | 3   |   |   |
| 18.5 |                         |     |     | 3.5 |   |   |
| 18.0 | 0                       |     | 2   | 3   |   |   |
| 17.5 |                         |     | 3.5 |     |   |   |
| 17.0 |                         | 2   | 3   |     |   |   |
| 16.5 |                         | 3.5 |     |     |   |   |
| 16.0 | 2                       | 3   |     |     |   |   |
| 15.5 |                         | 3.5 |     |     |   |   |
| 15.0 | 3                       |     |     |     |   |   |
| 14.5 | 3.5                     |     |     |     |   |   |
|      | Base Plate Height (BPH) |     |     |     |   |   |



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

Drilling Distance (DD)

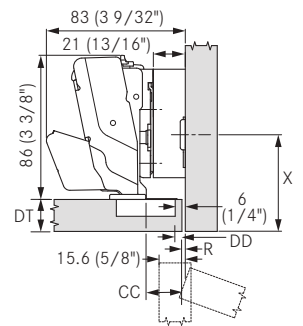
|      | 3                       | 4   | 5   | 6   | 7 | 8   |
|------|-------------------------|-----|-----|-----|---|-----|
| 20.0 |                         |     |     |     |   | 0   |
| 19.0 |                         |     |     |     | 0 |     |
| 18.0 |                         |     |     | 0   |   | 2   |
| 17.0 |                         |     | 0   |     | 2 | 3   |
| 16.5 |                         |     |     |     |   | 3.5 |
| 16.0 | 0                       |     | 2   | 3   |   |     |
| 15.5 |                         |     |     | 2   | 3 |     |
| 15.0 | 0                       |     | 2   | 3   |   |     |
| 14.5 |                         |     |     | 3.5 |   |     |
| 14.0 |                         | 2   | 3   |     |   |     |
| 13.5 |                         |     | 3.5 |     |   |     |
| 13.0 | 2                       | 3   |     |     |   |     |
| 12.5 |                         | 3.5 |     |     |   |     |
| 12.0 | 3                       |     |     |     |   |     |
| 11.5 | 3.5                     |     |     |     |   |     |
|      | Base Plate Height (BPH) |     |     |     |   |     |



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

Drilling Distance (DD)

|      | 3                       | 4   | 5   | 6   | 7   | 8   |
|------|-------------------------|-----|-----|-----|-----|-----|
| 13.5 |                         |     |     |     |     | 0   |
| 12.5 |                         |     |     |     | 0   |     |
| 11.5 |                         |     |     | 0   |     | 2   |
| 10.5 |                         |     | 0   |     | 2   | 3   |
| 10.0 |                         |     |     |     |     | 3.5 |
| 9.5  |                         | 0   |     | 2   | 3   |     |
| 9.0  |                         |     |     |     | 3.5 |     |
| 8.5  | 0                       |     | 2   | 3   |     |     |
| 8.0  |                         |     |     | 3.5 |     |     |
| 7.5  |                         | 2   | 3   |     |     |     |
| 7.0  |                         |     | 3.5 |     |     |     |
| 6.5  | 2                       | 3   |     |     |     |     |
| 6.0  |                         | 3.5 |     |     |     |     |
| 5.5  | 3                       |     |     |     |     |     |
| 5.0  | 3.5                     |     |     |     |     |     |
|      | Base Plate Height (BPH) |     |     |     |     |     |



Drawings show Tiomos with a 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**

| Door Thickness (DT) | Drilling Distance (DD) |     |     |     |     |     |
|---------------------|------------------------|-----|-----|-----|-----|-----|
|                     | 3                      | 4   | 5   | 6   | 7   | 8   |
| 32                  | 1.0                    | 1.0 |     |     |     |     |
| 31                  | 1.0                    | 1.0 | 1.0 |     |     |     |
| 30                  | 1.0                    | 1.0 | 1.0 |     |     |     |
| 29                  | 1.0                    | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 28                  | 1.0                    | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 26                  | 1.0                    | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 25                  | 1.0                    | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 24                  | 1.0                    | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 22                  | 1.0                    | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 21                  | 1.0                    | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 20                  | 1.0                    | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 18                  | 1.0                    | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 16                  | 1.0                    | 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.

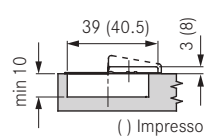
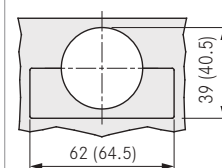
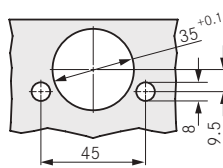
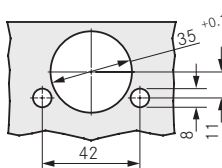
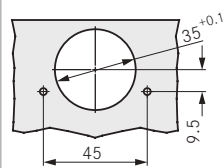
| Door Thickness (DT) | Drilling Distance (DD) |      |      |      |      |      |
|---------------------|------------------------|------|------|------|------|------|
|                     | 3                      | 4    | 5    | 6    | 7    | 8    |
| 32                  | 0.2*                   | 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  |
|                     | 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.

\*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

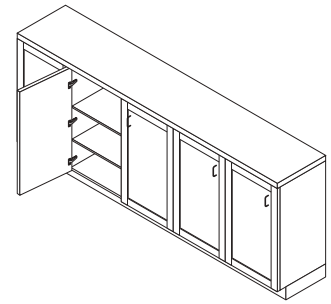


# Tiomos 95

## 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  |  |
|-----------------------------|---------------------------------|----------------|-------------|----------------------|-----------|----------------|-------------|----------------------|----------------------|-----------|--|
| <b>Full Overlay</b>         | <b>Cranking 00</b>              | <b>Pattern</b> | <b>Type</b> | <b>Item No.</b>      | <b>PU</b> | <b>Pattern</b> | <b>Type</b> | <b>Item No.</b>      | <b>Item No.</b>      | <b>PU</b> |  |
|                             | Hinge cup: steel, nickel-plated | 42/45          | Soft-close  | <b>F017139438228</b> | 150       | 45             | Soft-close  | <b>F028138567228</b> | <b>F028138571228</b> | 150       |  |
|                             | Hinge arm: steel, nickel-plated | 42/45          | Self-close  | <b>F034139409228</b> | 150       | 45             | Self-close  | <b>F045138505228</b> | <b>F045138509228</b> | 150       |  |
|                             |                                 |                |             |                      |           | 42             | Soft-close  | -                    | <b>F028138389228</b> | 150       |  |
|                             |                                 |                |             |                      |           | 42             | Self-close  | -                    | <b>F045138327228</b> | 150       |  |
| <b>Overlay</b>              | <b>Cranking 03</b>              | <b>Pattern</b> | <b>Type</b> | <b>Item No.</b>      | <b>PU</b> | <b>Pattern</b> | <b>Type</b> | <b>Item No.</b>      | <b>Item No.</b>      | <b>PU</b> |  |
|                             | Hinge cup: steel, nickel-plated | 42/45          | Soft-close  | <b>F017139439228</b> | 150       | 45             | Soft-close  | <b>F028138568228</b> | <b>F028138572228</b> | 150       |  |
|                             | Hinge arm: steel, nickel-plated |                |             |                      |           | 45             | Self-close  | <b>F045138506228</b> | -                    | 150       |  |
|                             |                                 |                |             |                      |           | 42             | Soft-close  | -                    | <b>F028138390228</b> | 150       |  |
|                             |                                 |                |             |                      |           | 42             | Self-close  | -                    | <b>F045138328228</b> | 150       |  |
| <b>Half Overlay</b>         | <b>Cranking 9.5</b>             | <b>Pattern</b> | <b>Type</b> | <b>Item No.</b>      | <b>PU</b> | <b>Pattern</b> | <b>Type</b> | <b>Item No.</b>      | <b>Item No.</b>      | <b>PU</b> |  |
|                             | Hinge cup: steel, nickel-plated | 42/45          | Soft-close  | <b>F017139440228</b> | 150       | 45             | Soft-close  | <b>F028138569228</b> | <b>F028138573228</b> | 150       |  |
|                             | Hinge arm: zinc, nickel-plated  |                |             |                      |           | 45             | Self-close  | <b>F045138507228</b> | <b>F045138511228</b> | 150       |  |
|                             |                                 |                |             |                      |           | 42             | Soft-close  | -                    | <b>F028138391228</b> | 150       |  |
|                             |                                 |                |             |                      |           | 42             | Self-close  | -                    | <b>F045138329228</b> | 150       |  |
| <b>Inset</b>                | <b>Cranking 19</b>              | <b>Pattern</b> | <b>Type</b> | <b>Item No.</b>      | <b>PU</b> | <b>Pattern</b> | <b>Type</b> | <b>Item No.</b>      | <b>Item No.</b>      | <b>PU</b> |  |
|                             | Hinge cup: steel, nickel-plated | 42/45          | Soft-close  | <b>F017139441228</b> | 150       | 45             | Soft-close  | <b>F028138570228</b> | <b>F028138574228</b> | 150       |  |
|                             | Hinge arm: zinc, nickel-plated  | 42/45          | Self-close  | <b>F034139412228</b> | 150       | 45             | Self-close  | <b>F045138508228</b> | -                    | 150       |  |
|                             |                                 |                |             |                      |           | 42             | Soft-close  | -                    | <b>F028138392228</b> | 150       |  |
|                             |                                 |                |             |                      |           | 42             | Self-close  | -                    | <b>F045138330228</b> | 150       |  |

| Cover Caps           | Item No.             | PU   |
|----------------------|----------------------|------|
| Steel, nickel-plated | <b>F072135500247</b> | 1000 |

| Hinge Clip Protector | Item No.             | PU  |
|----------------------|----------------------|-----|
| Plastic, grey        | <b>F072135807540</b> | 500 |

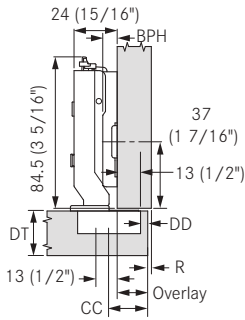
| Hinge Cup Cover Cap  | Item No.             | PU  |
|----------------------|----------------------|-----|
| Steel, nickel-plated | <b>F072135503228</b> | 150 |

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

PU - Packaging unit



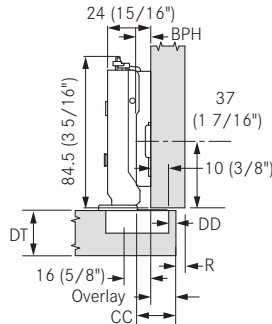
**Full Overlay      Overlay      Half Overlay      Inset**



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

**Drilling Distance (DD)**

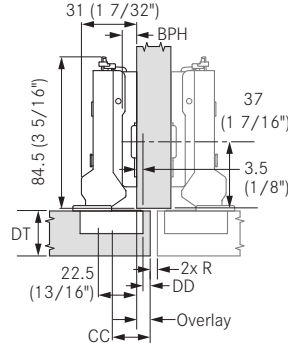
| Door Overlay | Drilling Distance (DD) |     |     |     |                         |
|--------------|------------------------|-----|-----|-----|-------------------------|
|              | 3                      | 4   | 5   | 6   | 7                       |
| 22.0         |                        |     |     |     | 0                       |
| 21.0         |                        |     |     | 0   |                         |
| 20.0         |                        |     | 0   | 2   |                         |
| 19.0         |                        | 0   |     | 2   | 3                       |
| 18.5         |                        |     |     |     | 3.5                     |
| 18.0         | 0                      |     | 2   | 3   |                         |
| 17.5         |                        |     |     | 3.5 |                         |
| 17.0         |                        | 2   | 3   |     |                         |
| 16.5         |                        |     | 3.5 |     |                         |
| 16.0         | 2                      | 3   |     |     |                         |
| 15.5         |                        | 3.5 |     |     |                         |
| 15.0         | 3                      |     |     |     |                         |
| 14.5         | 3.5                    |     |     |     |                         |
|              |                        |     |     |     | Base Plate Height (BPH) |



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

**Drilling Distance (DD)**

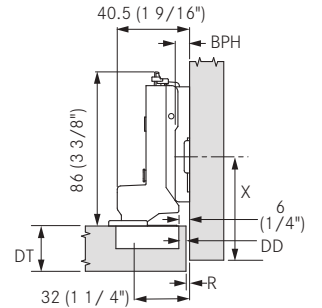
| Door Overlay | Drilling Distance (DD) |     |     |     |                         |
|--------------|------------------------|-----|-----|-----|-------------------------|
|              | 3                      | 4   | 5   | 6   | 7                       |
| 19.0         |                        | 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



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

**Drilling Distance (DD)**

| Door Overlay | Drilling Distance (DD) |     |     |     |                         |
|--------------|------------------------|-----|-----|-----|-------------------------|
|              | 3                      | 4   | 5   | 6   | 7                       |
| 12.5         |                        |     |     |     | 0                       |
| 11.5         |                        |     |     | 0   |                         |
| 10.5         |                        |     | 0   | 2   |                         |
| 10.0         |                        |     |     |     | 2                       |
| 9.5          | 0                      |     | 2   | 3   |                         |
| 9.0          |                        |     |     |     | 3.5                     |
| 8.5          | 0                      |     | 2   | 3   |                         |
| 8.0          |                        |     |     | 3.5 |                         |
| 7.5          |                        | 2   | 3   |     |                         |
| 7.0          |                        |     | 3.5 |     |                         |
| 6.5          | 2                      | 3   |     |     |                         |
| 6.0          |                        | 3.5 |     |     |                         |
| 5.5          | 3                      |     |     |     |                         |
| 5.0          | 3.5                    |     |     |     |                         |
|              |                        |     |     |     | Base Plate Height (BPH) |



Drawings show Tiomos with a base plate, **(BPH) 02**. X= 38.5 + DT

**Drilling Distance (DD)**

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

**Note:** A door stop is needed to prevent overclose.

**Minimum Gaps      Reveal**

| Door Thickness (DT) | Drilling Distance (DD) |     |     |     |             |
|---------------------|------------------------|-----|-----|-----|-------------|
|                     | 3                      | 4   | 5   | 6   | 7           |
| 36                  | 1.0                    | 1.0 | 1.0 | 1.4 | 2.4         |
| 30                  | 1.0                    | 1.0 | 1.0 | 1.0 | 1.9         |
| 28                  | 1.0                    | 1.0 | 1.0 | 1.0 | 1.7         |
| 26                  | 1.0                    | 1.0 | 1.0 | 1.2 | 1.5         |
| 24                  | 1.0                    | 1.0 | 1.0 | 1.0 | 1.4         |
| 22                  | 1.0                    | 1.0 | 1.0 | 1.0 | 1.2         |
| 20                  | 1.0                    | 1.0 | 1.0 | 1.0 | 1.0         |
| 18                  | 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.

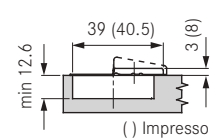
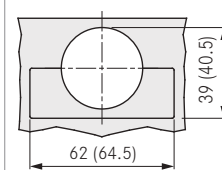
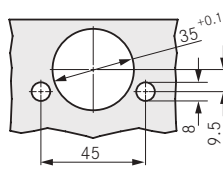
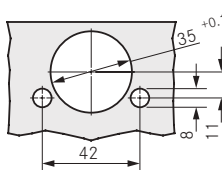
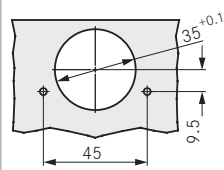
| Door Thickness (DT) | Drilling Distance (DD) |     |     |     |            |
|---------------------|------------------------|-----|-----|-----|------------|
|                     | 3                      | 4   | 5   | 6   | 7          |
| 36                  | 10.6                   | 9.6 | 8.6 | 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        |
|                     |                        |     |     |     | 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 and Dowelled      Cup Dimensions**

- BPH = Base Plate Height
- CC = Center Cup
- DD = Drilling Distance
- DT = Door Thickness
- R = Reveal
- X = Base Plate Setback

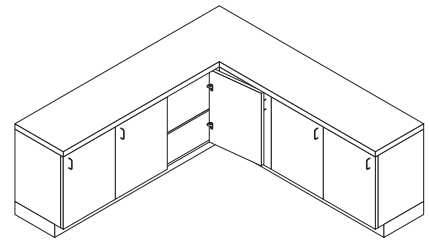



# Tiomos 110/90A

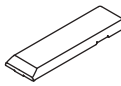
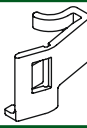
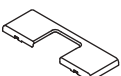

110° blind corner hinge for overlay doors



- 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

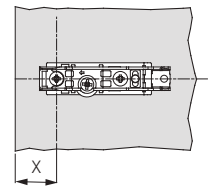
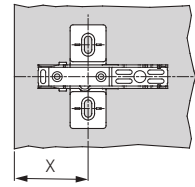
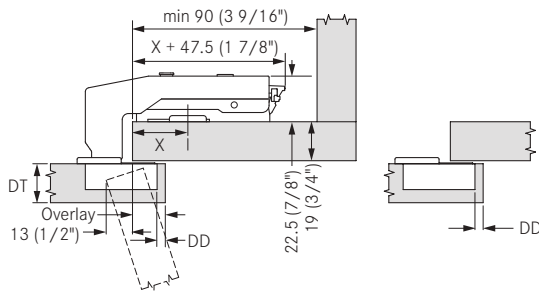


| Tiomos 110/90A Opening Angle 110°  |         |            |                      |     | Impresso |            | Screw-On             |                      | Dowelled |  |
|--|---------|------------|----------------------|-----|----------|------------|----------------------|----------------------|----------|--|
| Overlay  | Pattern | Type       | Item No.             | PU  | Pattern  | Type       | Item No.             | Item No.             | PU       |  |
|  Hinge cup: steel, nickel-plated<br>Hinge arm: zinc, nickel-plated | 42/45   | Soft-close | <b>F017139426223</b> | 100 | 45       | Soft-close | <b>F028138535223</b> | <b>F028138545223</b> | 100      |  |
|  | 42/45   | Self-close | <b>F034139397223</b> | 100 | 45       | Self-close | -                    | <b>F045138483223</b> | 100      |  |

|   |                      |           |  |                      |           |
|---|----------------------|-----------|--|----------------------|-----------|
|  Steel, nickel-plated | <b>Item No.</b>      | <b>PU</b> |  Plastic, grey     | <b>Item No.</b>      | <b>PU</b> |
|   | <b>F072135500247</b> | 1000      |  | <b>F072135807540</b> | 500       |
|  Steel, nickel-plated | <b>Item No.</b>      | <b>PU</b> |  #6 x 5/8" FHP, NI | <b>Item No.</b>      | <b>PU</b> |
|   | <b>F072135503228</b> | 150       |  | 81001-43             | 500       |

PU - Packaging unit

## 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.

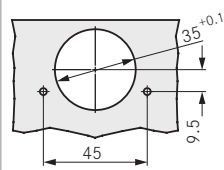
### IMPORTANT

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

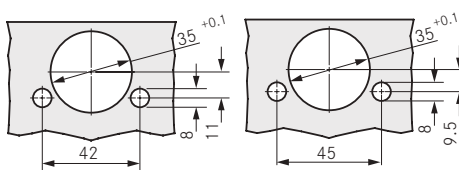
## Legend

BPH = Base Plate Height  
 CC = Center Cup  
 DD = Drilling Distance  
 DT = Door Thickness  
 R = Reveal  
 X = Base Plate Setback

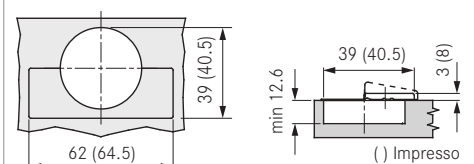
## Screw-on



## Impresso and Dowelled



## Cup Dimensions

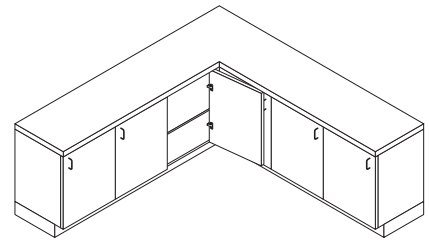


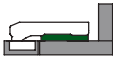
# Tiomos 110/90E

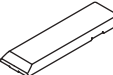
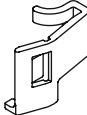


110° blind corner hinge for inset doors



- 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

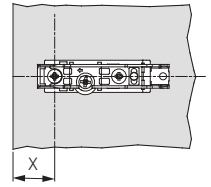
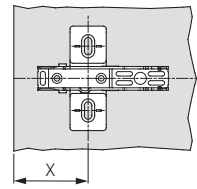
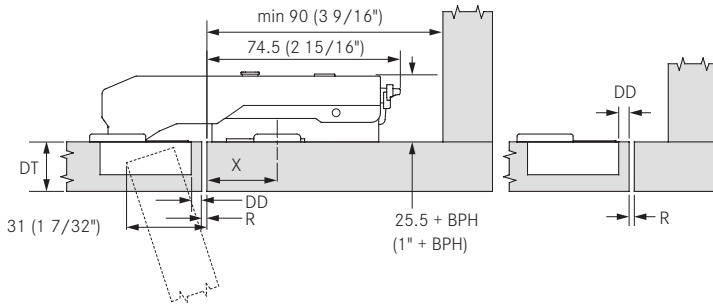


| Tiomos 110/90E Opening Angle 110°  |                                 |         |            |                      |          |         |            |                      |                      |     |
|--|---------------------------------|---------|------------|----------------------|----------|---------|------------|----------------------|----------------------|-----|
| 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 | <b>F017139427223</b> | 100      | 45      | Soft-close | <b>F028138536223</b> | <b>F028138546223</b> | 100 |
|  | Hinge arm: zinc, nickel-plated  | 42/45   | Self-close | -                    | -        | 45      | Self-close | -                    | <b>F045138484223</b> | 100 |
|  |                                 | 42/45   | Self-close | <b>F034139398213</b> | 25       | 45      | Self-close | <b>F045138474213</b> | -                    | 25  |

|  |                      |                      |      |  |                   |                      |     |
|--|----------------------|----------------------|------|--|-------------------|----------------------|-----|
|  | Steel, nickel-plated | <b>F072135500247</b> | 1000 |  | Plastic, grey     | <b>F072135807540</b> | 500 |
|  | Steel, nickel-plated | <b>F072135503228</b> | 150  |  | #6 x 5/8" FHP, NI | 81001-43             | 500 |

PU - Packaging unit

### Inset



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

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

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

### Reveal

|                     |    | Drilling Distance (DD) |     |     |     |     |
|---------------------|----|------------------------|-----|-----|-----|-----|
|                     |    | 3                      | 4   | 5   | 6   | 7   |
| Door Thickness (DT) | 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 |
|                     |    | Minimum Reveal (R)     |     |     |     |     |

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

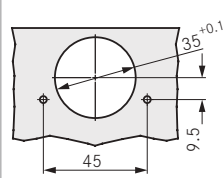
### IMPORTANT

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

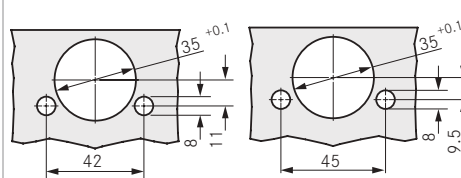
### Legend

- BPH = Base Plate Height
- CC = Center Cup
- DD = Drilling Distance
- DT = Door Thickness
- R = Reveal
- X = Base Plate Setback

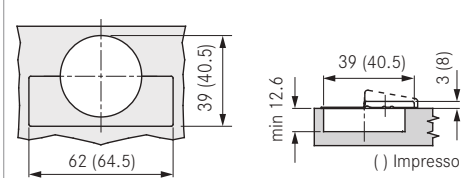
### Screw-on



### Impresso and Dowelled



### Cup Dimensions

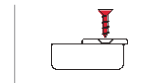
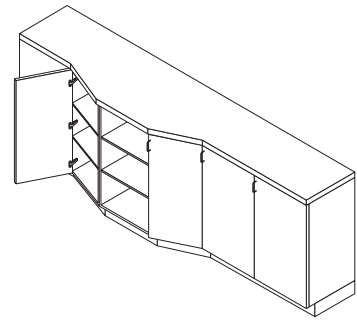


# Tiomos 110/30A

+30° angle corner cabinet hinge for overlay doors

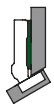


- For 30° angle corner cabinets
- 110° opening angle
- 3-dimensional adjustment with suitable base plate
- Self-close hinges available
- Convenient depth adjustment with worm gear



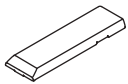
**Tiomos 110/30A    Opening Angle 110°    Screw-On**

| Overlay | Pattern | Type       | Item No.             | PU  |
|---------|---------|------------|----------------------|-----|
|         | 45      | Self-close | <b>F045138467223</b> | 100 |



Hinge cup: steel, nickel-plated  
Hinge arm: zinc, nickel-plated

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

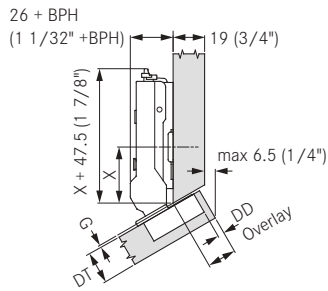


| Hinge Cup Cover Cap  | Item No.             | PU  | Wood Screw, Nickel-plated | Item No. | PU  |
|----------------------|----------------------|-----|---------------------------|----------|-----|
| Steel, nickel-plated | <b>F072135503228</b> | 150 | #6 x 5/8" FHP, NI         | 81001-43 | 500 |

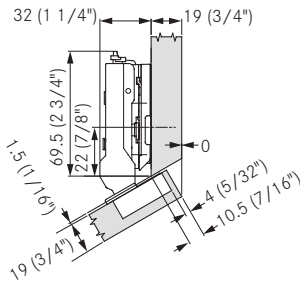


PU - Packaging unit

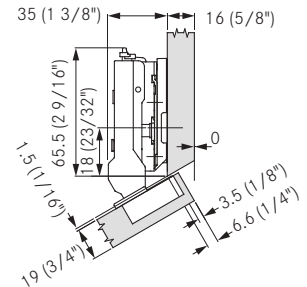
### Overlay



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

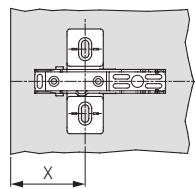


Drawings show Tiomos with a base plate, **(BPH) 6**.

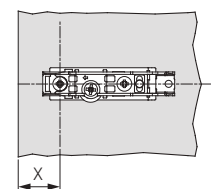


Drawings show Tiomos with a base plate, **(BPH) 9.5**.

| Door Overlay | Drilling Distance (DD)  |     |     |     |   |
|--------------|-------------------------|-----|-----|-----|---|
|              | 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) |     |     |     |   |



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



| X                                | Base Plate Height (BPH) |      |      |      |
|----------------------------------|-------------------------|------|------|------|
|                                  | 0                       | 2    | 3    | 3.5  |
| Straight Base Plate Position (X) | 17.0                    | 16.0 | 15.0 | 15.0 |

### 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 (G)        |     |     |     |     |

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

### Reveal

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

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

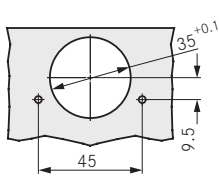
### IMPORTANT

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

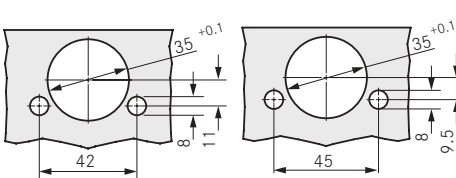
### Legend

- BPH = Base Plate Height
- CC = Center Cup
- DD = Drilling Distance
- DT = Door Thickness
- R = Reveal
- X = Base Plate Setback

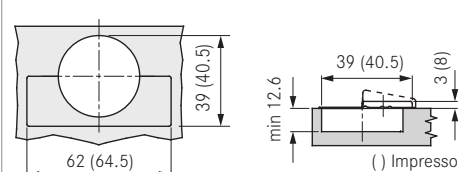
### Screw-on



### Impresso



### Cup Dimensions

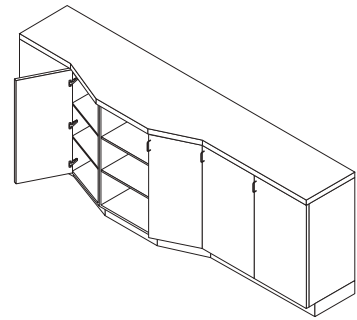


# Tiomos 110/30E

+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  |
|--|---------|------------|----------------------|-----|
|  <p>Hinge cup: steel, nickel-plated<br/>Hinge arm: zinc, nickel-plated</p> | 45      | Soft-close | <b>F028138530223</b> | 100 |
|  | 45      | Self-close | <b>F045138468223</b> | 100 |

| Cover Caps   | Item No.             | PU   | Hinge Clip Protector  | Item No.             | PU  |
|--|----------------------|------|---|----------------------|-----|
|  <p>Steel, nickel-plated</p> | <b>F072135500247</b> | 1000 |  <p>Plastic, grey</p> | <b>F072135807540</b> | 500 |

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

PU - Packaging unit



**Inset**



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

| Door Thickness (DT) | 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) |   |     |     |     |

| Door Thickness (DT) | 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**

| 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 |
| 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.

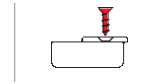
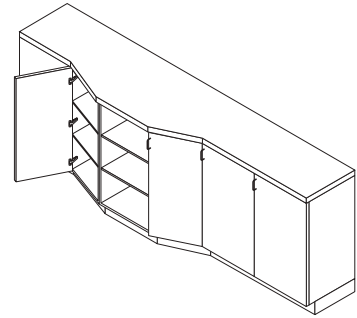
| Legend  | Screw-on | Impresso | Cup Dimensions |
|---|----------|----------|----------------|
| BPH = Base Plate Height<br>CC = Center Cup<br>DD = Drilling Distance<br>DT = Door Thickness<br>R = Reveal<br>X = Base Plate Setback |          |          |                |

# Tiomos 110/37A

+37° angle corner cabinet hinge for overlay doors

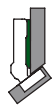


- For 37° angle corner cabinets
- 110° opening angle
- 3-dimensional adjustment with suitable base plate
- Soft-close hinges available
- Convenient depth adjustment with worm gear



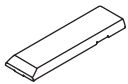
**Tiomos 110/37A Opening Angle 110° Screw-On**

| Overlay | Pattern | Type       | Item No.             | PU  |
|---------|---------|------------|----------------------|-----|
|         | 45      | Soft-close | <b>F028138531223</b> | 100 |



Hinge cup: steel, nickel-plated  
Hinge arm: zinc, nickel-plated

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

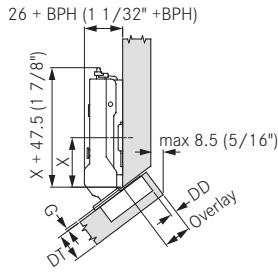


| Hinge Cup Cover Cap  | Item No.             | PU  | Wood Screw, Nickel-plated | Item No. | PU  |
|----------------------|----------------------|-----|---------------------------|----------|-----|
| Steel, nickel-plated | <b>F072135503228</b> | 150 | #6 x 5/8" FHP, NI         | 81001-43 | 500 |

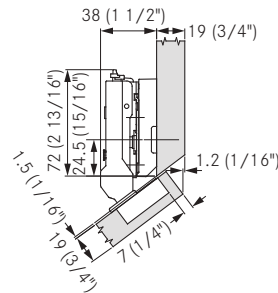


PU - Packaging unit

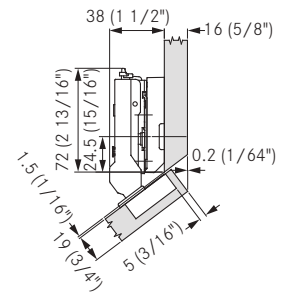
**Overlay**



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

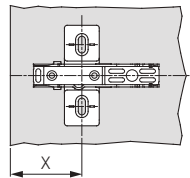


Drawings show Tiomos with a base plate, **(BPH) 12**.

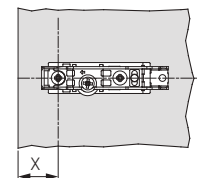


Drawings show Tiomos with a base plate, **(BPH) 12**.

| Door Overlay | 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) |   |   |   |   |



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



| X | Base Plate Height (BPH)          |      |      |      |  |
|---|----------------------------------|------|------|------|--|
|   | 0                                | 2    | 3    | 3.5  |  |
|   | 16.5                             | 15.0 | 14.0 | 14.0 |  |
|   | Straight Base Plate Position (X) |      |      |      |  |

**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 (G)        |     |     |     |     |

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

**Reveal**

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

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

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

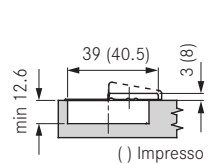
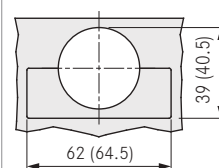
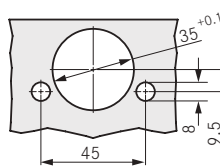
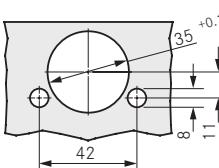
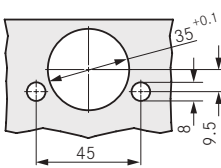
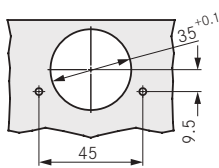
- BPH = Base Plate Height
- CC = Center Cup
- DD = Drilling Distance
- DT = Door Thickness
- R = Reveal
- X = Base Plate Setback

**Screw-on**

**Dowelled**

**Impresso**

**Cup Dimensions**

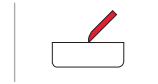
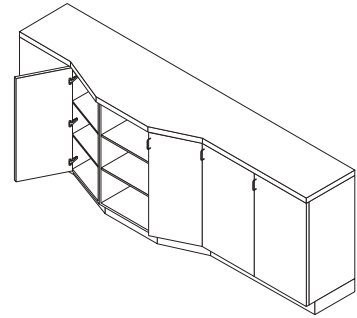


# Tiomos 110/37E

+37° angle corner cabinet hinge for inset doors



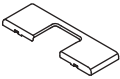
- For 37° angle corner cabinets
- 110° opening angle
- 3-dimensional adjustment with suitable base plate
- Soft-close hinges available
- Convenient depth adjustment with worm gear



**Tiomos 110/37E Opening Angle 110°** **Impresso**

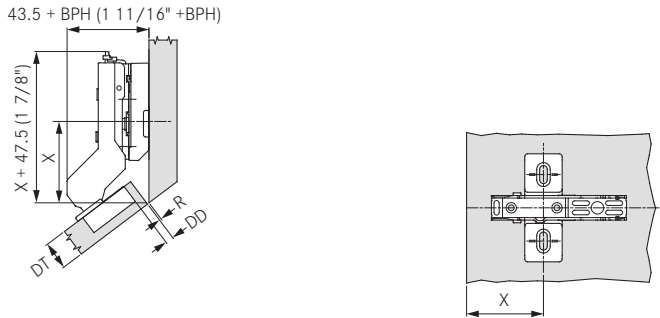
| Overlay  | Pattern | Type       | Item No.             | PU  |
|--|---------|------------|----------------------|-----|
|  <p>Hinge cup: steel, nickel-plated<br/>Hinge arm: zinc, nickel-plated</p> | 42/45   | Soft-close | <b>F017139423223</b> | 100 |

| Cover Caps   | Item No.             | PU   | Hinge Clip Protector  | Item No.             | PU  |
|--|----------------------|------|---|----------------------|-----|
|  <p>Steel, nickel-plated</p> | <b>F072135500247</b> | 1000 |  <p>Plastic, grey</p> | <b>F072135807540</b> | 500 |

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

PU - Packaging unit

### Inset



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

| Door Thickness (DT) | Drilling Distance (DD)  |     |     |    |    |
|---------------------|-------------------------|-----|-----|----|----|
|                     | 3                       | 4   | 5   | 6  | 7  |
| 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) |     |     |    |    |

| Door Thickness (DT) | Drilling Distance (DD)       |      |      |      |      |
|---------------------|------------------------------|------|------|------|------|
|                     | 3                            | 4    | 5    | 6    | 7    |
| 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

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

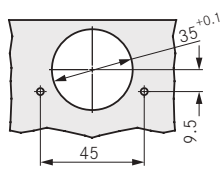
**IMPORTANT**

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

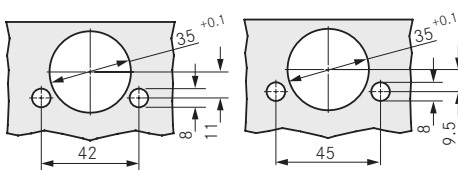
### Legend

- BPH = Base Plate Height
- CC = Center Cup
- DD = Drilling Distance
- DT = Door Thickness
- R = Reveal
- X = Base Plate Setback

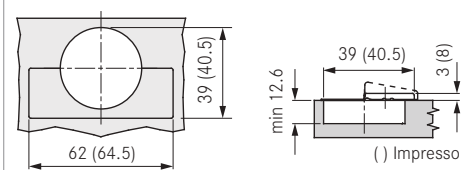
### Screw-on



### Impresso



### Cup Dimensions

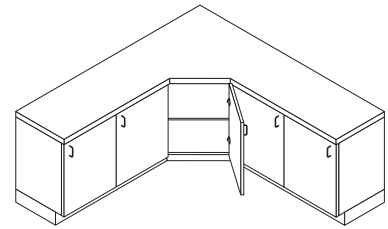



# Tiomos 110/45A

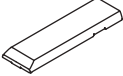
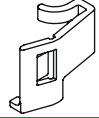
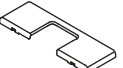

+45° angle corner cabinet hinge for overlay doors



- 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

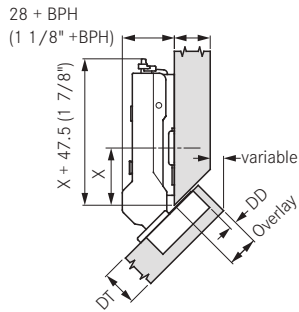


| Tiomos 110/45A   |                                 | Opening Angle 110° |            |                       |     | Impresso |            | Screw-On              |                       | Dowelled |  |
|--|---------------------------------|--------------------|------------|-----------------------|-----|----------|------------|-----------------------|-----------------------|----------|--|
| Overlay  | Cranking 03                     | Pattern            | Type       | Item No.              | PU  | Pattern  | Type       | Item No.              | Item No.              | PU       |  |
|  | Hinge cup: steel, nickel-plated | 42/45              | Soft-close | <b>F017139424</b> 223 | 100 | 45       | Soft-close | <b>F028138533</b> 223 | <b>F028138543</b> 223 | 100      |  |
|  | Hinge arm: zinc, nickel-plated  | 42/45              | Self-close | <b>F034139395</b> 223 | 100 | 45       | Self-close | -                     | <b>F045138481</b> 223 | 100      |  |

|  |                      |                       |      |  |                   |                       |     |
|--|----------------------|-----------------------|------|--|-------------------|-----------------------|-----|
|  | Steel, nickel-plated | <b>F072135500</b> 247 | 1000 |  | Plastic, grey     | <b>F072135807</b> 540 | 500 |
|  | Steel, nickel-plated | <b>F072135503</b> 228 | 150  |  | #6 x 5/8" FHP, NI | 81001-43              | 500 |

PU - Packaging unit

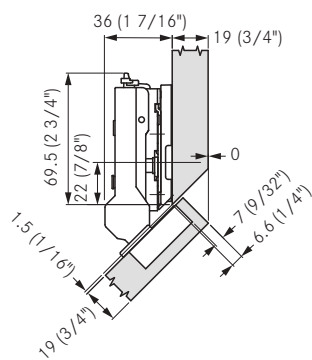
### Overlay



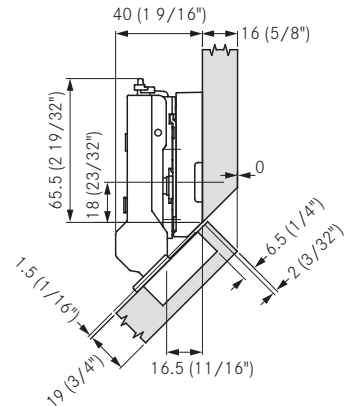
Drawings show Tiomos with a base plate, **(BPH) 0**.

Drilling Distance (DD)

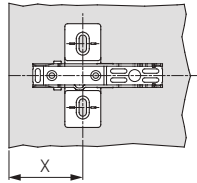
| Door Overlay | Drilling Distance (DD)  |   |   |     |     |
|--------------|-------------------------|---|---|-----|-----|
|              | 3                       | 4 | 5 | 6   | 7   |
| 19.5         |                         |   |   |     | 0   |
| 19.0         |                         |   |   |     |     |
| 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) |   |   |     |     |



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



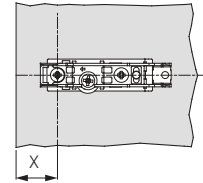
Drawings show Tiomos with a base plate, **(BPH) 12**.



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)

### 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 (G)        |     |     |     |     |

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

### Reveal

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

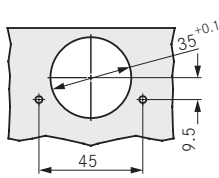
**Note:** Reveal dimensions were determined with an edge radius (of the door) of 1mm. Hinge dimensions and reveal calculation based on factory setting.

### IMPORTANT

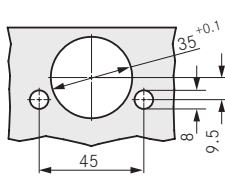
To determine the correct application Grass strongly recommends a trial mounting for all hinges and base plates.

- BPH = Base Plate Height
- CC = Center Cup
- DD = Drilling Distance
- DT = Door Thickness
- R = Reveal
- X = Base Plate Setback

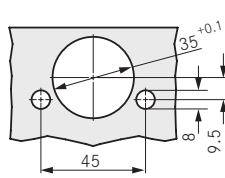
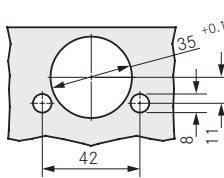
### Screw-on



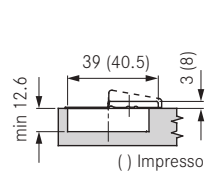
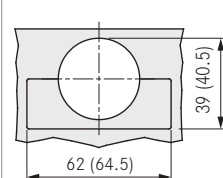
### Dowelled



### Impresso



### Cup Dimensions

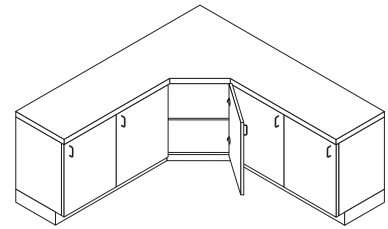


# Tiomos 110/45E


+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

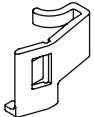


| Tiomos 110/45E Opening Angle 110° |  | Impresso |      |          |    | Screw-On |      | Dowelled |          |    |
|-----------------------------------|--|----------|------|----------|----|----------|------|----------|----------|----|
| Inset                             |  | Pattern  | Type | Item No. | PU | Pattern  | Type | Item No. | Item No. | PU |

|  |                                 |       |            |                      |    |    |            |            |                      |     |
|--|---------------------------------|-------|------------|----------------------|----|----|------------|------------|----------------------|-----|
|  | Hinge cup: steel, nickel-plated | 42/45 | Soft-close | <b>F017139425213</b> | 25 | 45 | Soft-close | -          | <b>F028138544223</b> | 100 |
|  | Hinge arm: zinc, nickel-plated  |       |            |                      |    | 45 | Self-close | -          | <b>F045138482223</b> | 100 |
|  |                                 |       |            |                      |    |    | 45         | Self-close | <b>F045138472213</b> | -   |

| Cover Caps | Item No. | PU | Hinge Clip Protector | Item No. | PU |
|------------|----------|----|----------------------|----------|----|
|------------|----------|----|----------------------|----------|----|

|  |                      |                      |      |
|--|----------------------|----------------------|------|
|  | Steel, nickel-plated | <b>F072135500247</b> | 1000 |
|--|----------------------|----------------------|------|

|  |               |                      |     |
|--|---------------|----------------------|-----|
|  | Plastic, grey | <b>F072135807540</b> | 500 |
|--|---------------|----------------------|-----|

| Hinge Cup Cover Cap | Item No. | PU | Wood Screw, Nickel-plated | Item No. | PU |
|---------------------|----------|----|---------------------------|----------|----|
|---------------------|----------|----|---------------------------|----------|----|

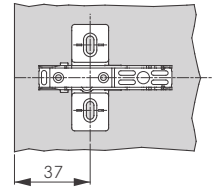
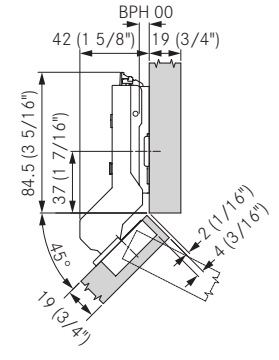
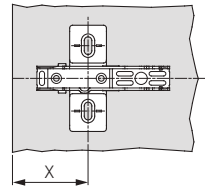
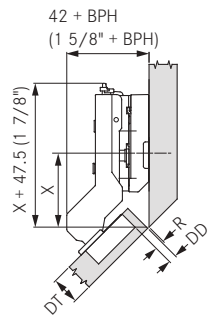
|  |                      |                      |     |
|--|----------------------|----------------------|-----|
|  | Steel, nickel-plated | <b>F072135503228</b> | 150 |
|--|----------------------|----------------------|-----|

|  |                   |          |     |
|--|-------------------|----------|-----|
|  | #6 x 5/8" FHP, NI | 81001-43 | 500 |
|--|-------------------|----------|-----|

PU - Packaging unit



**Inset** **Corner Angle**



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

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

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

**Reveal**

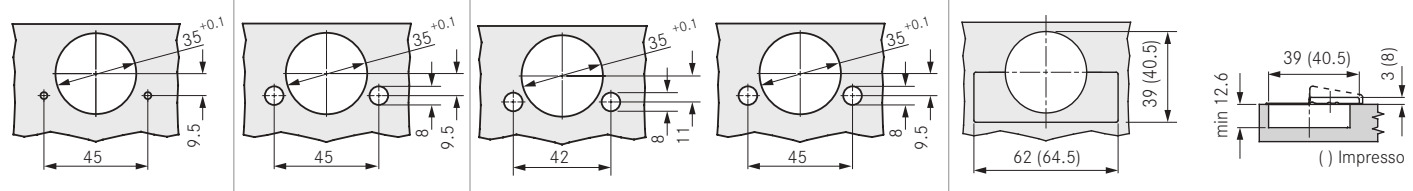
|                     |     | Drilling Distance (DD) |     |     |     |     |
|---------------------|-----|------------------------|-----|-----|-----|-----|
|                     |     | 3                      | 4   | 5   | 6   | 7   |
| Door Thickness (DT) | 24  | 2.4                    | 2.1 | 2.1 | 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**

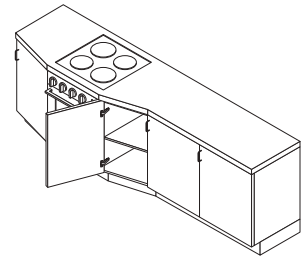



# Tiomos 120/-15A

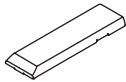
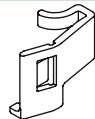


-15° angle corner cabinet hinge for overlay doors



- 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

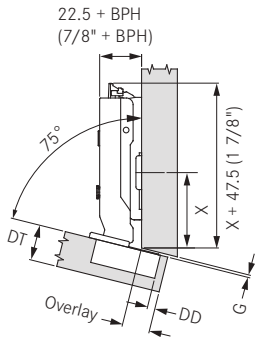


| Tiomos 120/-15A Opening Angle 120°   |  | Impresso |            |                      |     | Screw-On |            |                      |     |
|--|--|----------|------------|----------------------|-----|----------|------------|----------------------|-----|
| Overlay  |  | Pattern  | Type       | Item No.             | PU  | Pattern  | Type       | Item No.             | PU  |
|  Hinge cup: steel, nickel-plated<br>Hinge arm: zinc, nickel-plated |  | 42/45    | Soft-close | <b>F017139432223</b> | 100 | 45       | Soft-close | -                    | -   |
|  |  | 42/45    | Self-close | <b>F034139403223</b> | 100 | 45       | Self-close | <b>F045138493223</b> | 100 |

|  |   |                   |   |   |                  |
|--|---|-------------------|---|---|------------------|
|  Cover Caps<br>Steel, nickel-plated          | <b>Item No.</b><br><b>F072135500247</b> | <b>PU</b><br>1000 |  Hinge Clip Protector<br>Plastic, grey          | <b>Item No.</b><br><b>F072135807540</b> | <b>PU</b><br>500 |
|  Hinge Cup Cover Cap<br>Steel, nickel-plated | <b>Item No.</b><br><b>F072135503228</b> | <b>PU</b><br>150  |  Wood Screw, Nickel-plated<br>#6 x 5/8" FHP, NI | <b>Item No.</b><br>81001-43             | <b>PU</b><br>500 |

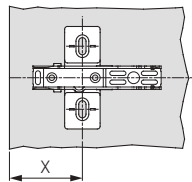
PU - Packaging unit

### Overlay

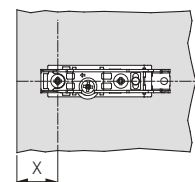


Drawings show Tiomos with a base plate, (BPH) 0.

| Door Overlay | Drilling Distance (DD)  |     |     |     |     |
|--------------|-------------------------|-----|-----|-----|-----|
|              | 3                       | 4   | 5   | 6   | 7   |
| 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 |     |     |
| 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) |     |     |     |     |



| X                            | Base Plate Height (BPH) |      |      |      |      |
|------------------------------|-------------------------|------|------|------|------|
|                              | 0                       | 2    | 3    | 3.5  | 6    |
|                              | 40.0                    | 40.5 | 40.5 | 41.0 | 41.5 |
| Wing Base Plate Position (X) |                         |      |      |      |      |



| X                                | Base Plate Height (BPH) |      |      |     |
|----------------------------------|-------------------------|------|------|-----|
|                                  | 0                       | 2    | 3    | 3.5 |
|                                  | 23                      | 23.5 | 23.5 | 24  |
| Straight Base Plate Position (X) |                         |      |      |     |

### Minimum Gaps

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

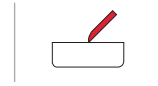
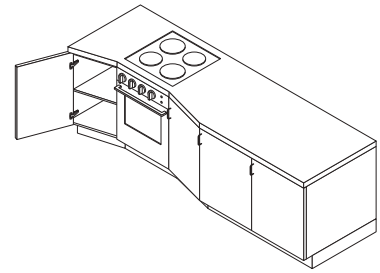
| Legend  | Screw-on | Impresso | Cup Dimensions |
|---|----------|----------|----------------|
| BPH = Base Plate Height<br>CC = Center Cup<br>DD = Drilling Distance<br>DT = Door Thickness<br>R = Reveal<br>X = Base Plate Setback |          |          |                |

# Tiomos 120/-30A

-30° angle corner cabinet hinge for overlay doors

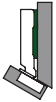


- For -30° angle corner cabinets
- 120° opening angle
- 3-dimensional adjustment with suitable base plate
- Soft-close hinges available
- Convenient depth adjustment with worm gear



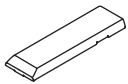
**Tiomos 120/-30A Opening Angle 120°** **Impresso**

| Overlay | Pattern | Type       | Item No.             | PU  |
|---------|---------|------------|----------------------|-----|
|         | 42/45   | Soft-close | <b>F017139433223</b> | 100 |



Hinge cup: steel, nickel-plated  
Hinge arm: zinc, nickel-plated

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

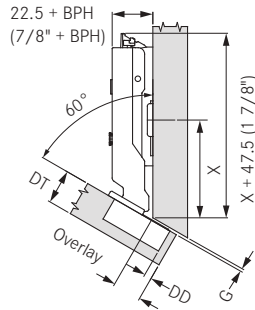


| Hinge Cup Cover Cap  | Item No.             | PU  | Wood Screw, Nickel-plated | Item No. | PU  |
|----------------------|----------------------|-----|---------------------------|----------|-----|
| Steel, nickel-plated | <b>F072135503228</b> | 150 | #6 x 5/8" FHP, NI         | 81001-43 | 500 |



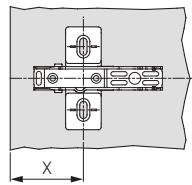
PU - Packaging unit

### Overlay

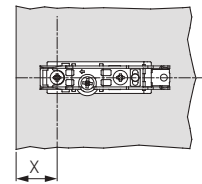


Drawings show Tiomos with a base plate, **(BPH) 02**.

| Door Overlay | Drilling Distance (DD)  |     |     |     |     |
|--------------|-------------------------|-----|-----|-----|-----|
|              | 3                       | 4   | 5   | 6   | 7   |
| 19.0         |                         |     |     |     | 0   |
| 18.0         |                         |     |     | 0   |     |
| 17.0         |                         |     | 0   |     |     |
| 16.5         |                         |     |     |     | 2   |
| 16.0         | 0                       |     |     | 2   |     |
| 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) |     |     |     |     |



| X | Base Plate Height (BPH)      |    |      |      |    |
|---|------------------------------|----|------|------|----|
|   | 0                            | 2  | 3    | 3.5  | 6  |
|   | 53.5                         | 55 | 55.5 | 55.5 | 57 |
|   | Wing Base Plate Position (X) |    |      |      |    |



| X | Base Plate Height (BPH)          |    |      |      |
|---|----------------------------------|----|------|------|
|   | 0                                | 2  | 3    | 3.5  |
|   | 36.5                             | 38 | 38.5 | 38.5 |
|   | Straight Base Plate Position (X) |    |      |      |

### Minimum Gaps

| Door Thickness (DT) | 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                  | 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.

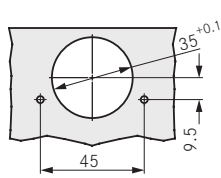
#### IMPORTANT

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

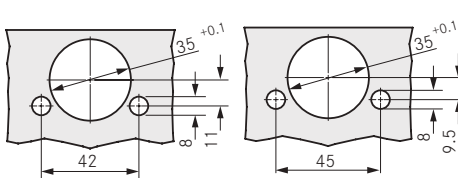
### Legend

- BPH = Base Plate Height
- CC = Center Cup
- DD = Drilling Distance
- DT = Door Thickness
- R = Reveal
- X = Base Plate Setback

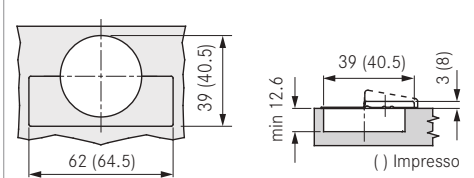
### Screw-on



### Impresso



### Cup Dimensions

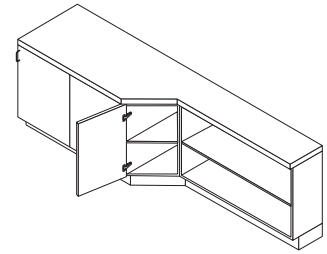


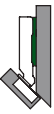
# Tiomos 120/-45A

-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



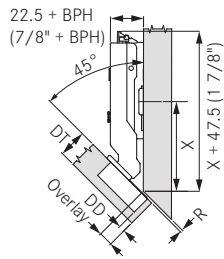
| Tiomos 120/-45A Opening Angle 120°   |  | Impresso |            |                      |     | Screw-On |            |                      |     |
|--|--|----------|------------|----------------------|-----|----------|------------|----------------------|-----|
| Overlay  |  | Pattern  | Type     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

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

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

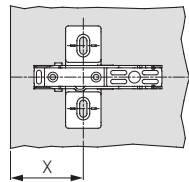
PU - Packaging unit

## Overlay

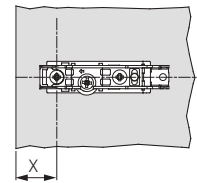


Drawings show Tiomos with a base plate, **(BPH) 02**.

|      | Drilling Distance (DD)  |     |     |     |     |
|------|-------------------------|-----|-----|-----|-----|
|      | 3                       | 4   | 5   | 6   | 7   |
| 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) |     |     |     |     |



|   | 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 |  |
| X | 43.5                             | 45.5 | 46.5 | 47  |  |
|   | Straight Base Plate Position (X) |      |      |     |  |

## Minimum Gaps

|    | 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 | 1.0                    | 1.0 | 1.0 | 1.0 | 1.5 |
| 16 | 1.0                    | 1.0 | 1.0 | 1.0 | 1.0 |
|    | Minimum Gap (G)        |     |     |     |     |

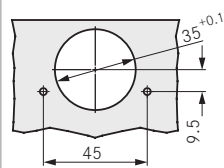
The minimum gap is the gap between the closed door and the front of the cabinet.

### IMPORTANT

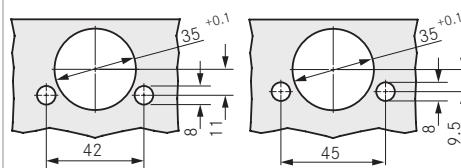
To determine the correct application Grass strongly recommends a trial mounting for all hinges and base plates.

## Legend

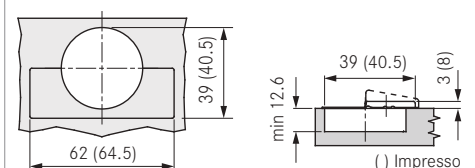
- BPH = Base Plate Height
- CC = Center Cup
- DD = Drilling Distance
- DT = Door Thickness
- R = Reveal
- X = Base Plate Setback



## Impresso



## Cup Dimensions

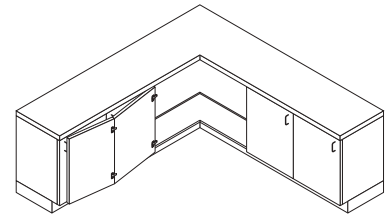


# Tiomos PCC

## 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



Hinge cup: steel, nickel-plated;  
Hinge arm: zinc, nickel-plated

| Pattern | Type       | Item No.             | Item No.             | PU  |
|---------|------------|----------------------|----------------------|-----|
| 42      | Self-close | -                    | <b>F045138336228</b> | 125 |
| 45      | Self-close | <b>F045138517228</b> | <b>F045138518228</b> | 125 |

### Cover Caps

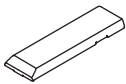
Steel, nickel-plated

Item No.

**F072135500247**

PU

1000



### Hinge Clip Protector

Plastic, grey

Item No.

**F072135807540**

PU

500



### Hinge Cup Cover Cap

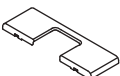
Steel, nickel-plated

Item No.

**F072135503228**

PU

150



### Wood Screw, Nickel-plated

#6 x 5/8" FHP, NI

Item No.

81001-43

PU

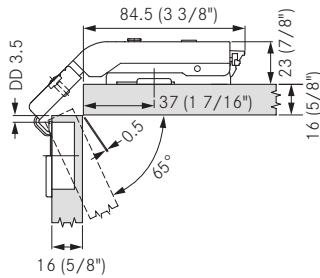
500



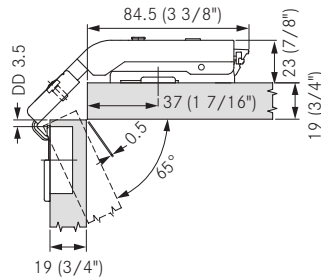
PU - Packaging unit



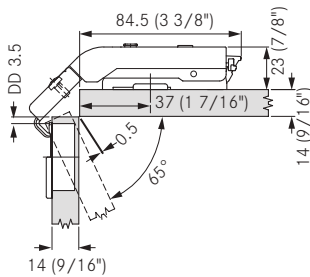
## Hinge Application



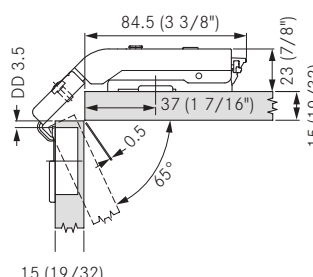
16mm door thickness with base plate height **(BPH) 0**.



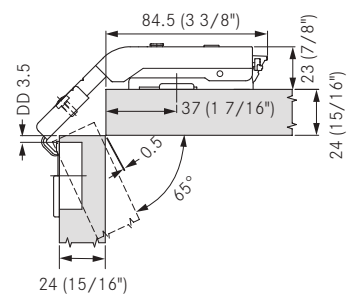
19mm door thickness with base plate height **(BPH) 0**.



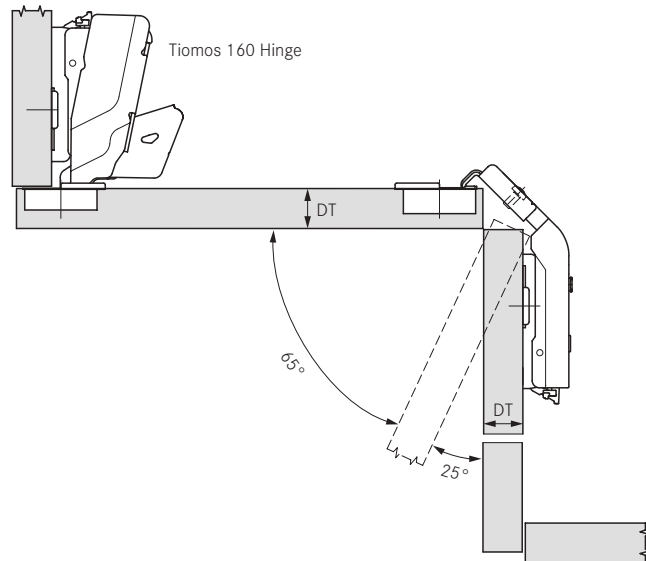
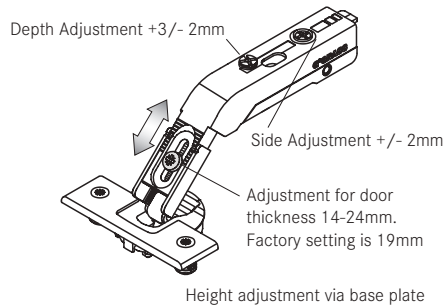
14mm door thickness with base plate height **(BPH) 0**.



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



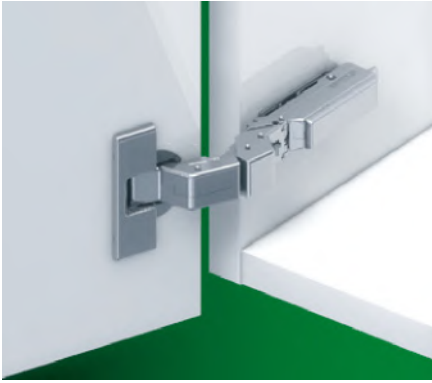
24mm door thickness with base plate height **(BPH) 0**.



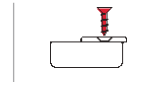
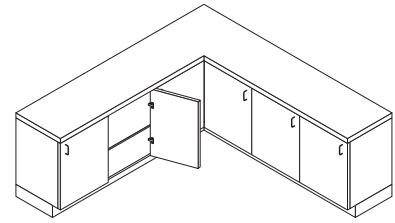
| Legend  | Screw-on | Dowelled | Cup Dimensions |
|---|----------|----------|----------------|
| BPH = Base Plate Height<br>CC = Center Cup<br>DD = Drilling Distance<br>DT = Door Thickness<br>R = Reveal<br>X = Base Plate Setback |          |          |                |

# 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

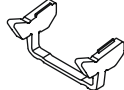


## Tiomos M9 Opening Angle 110° Screw-On


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

| Hinge Clip Protector   | Item No.             | PU  |
|--|----------------------|-----|
|  Plastic, grey | <b>F072135807540</b> | 500 |

| Cover Caps  | Item No.             | PU   |
|---|----------------------|------|
|  Steel, nickel-plated | <b>F072135500247</b> | 1000 |

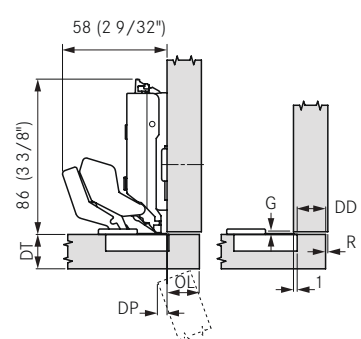
| Opening Angle Reduction Clip to 85°  | Item No.             | PU |
|--|----------------------|----|
|  | <b>F072135871517</b> | 50 |

| Hinge Cup Cover Cap   | Item No.             | PU  |
|---|----------------------|-----|
|  Steel, nickel-plated | <b>F072135503228</b> | 150 |

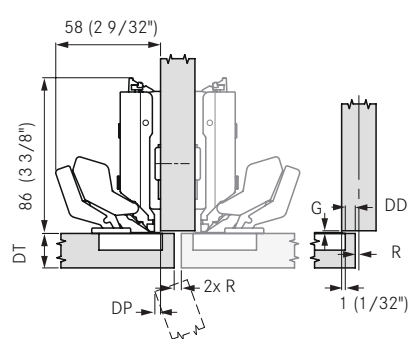
| Wood Screw, Nickel-plated   | Item No. | PU  |
|---|----------|-----|
|  #6 x 5/8" FHP, NI | 81001-43 | 500 |

PU - Packaging unit

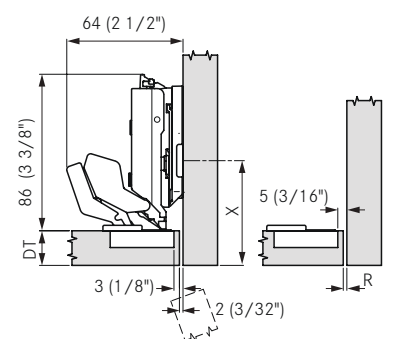
**Overlay    Half Overlay    Inset**



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



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



Drawings show Tiomos with a base plate, **(BPH) 06**.  
 $X = 38.5 + DT$   
**Note:** A door stop is needed to prevent overclose.

**Minimum Gap and Minimum Reveal**

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

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

**Note:**

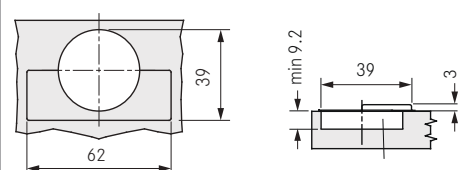
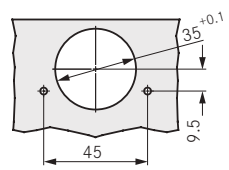
Reveal dimensions were determined with an edge radius (of the door) of 1 mm.  
 Hinge dimensions and reveal calculation based on factory setting.  
 \*Only achievable with 85° angle reduction clip.

**IMPORTANT**

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

**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

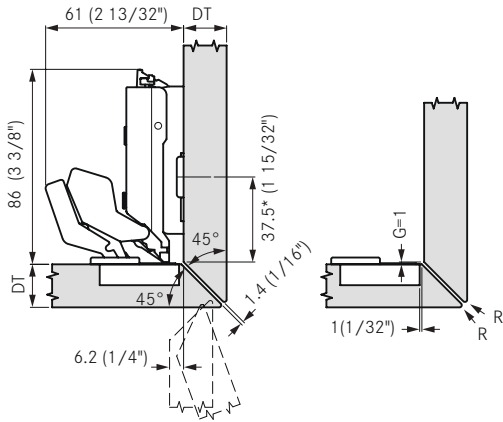


# Tiomos M9

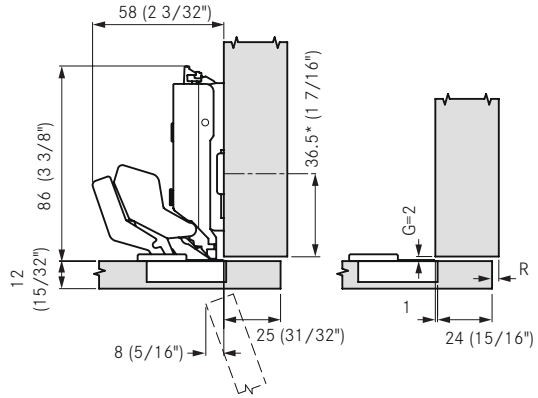
## Installation Information

### Mitered Application - Circumferential and Lateral

### Maximum Overlay



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



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

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

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

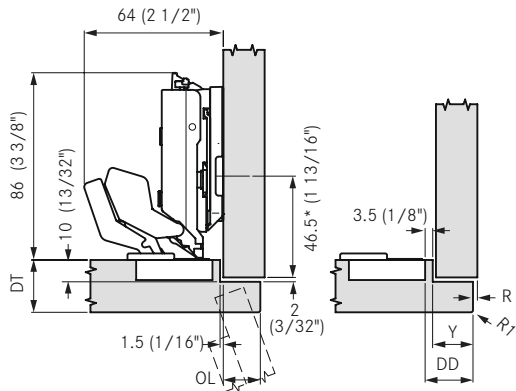
**Note:**

With circumferential mitered application all sides 1.4mm reveal

## Installation Information

### Rabbet Applications

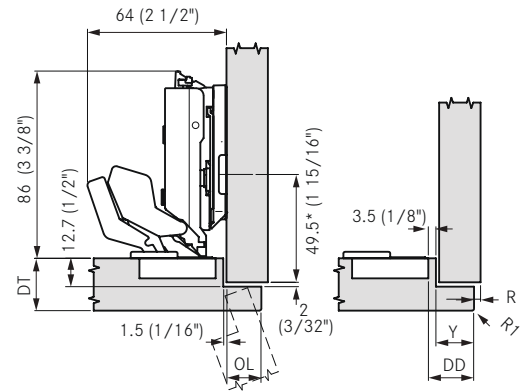
#### 10mm (3/8")



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

| Cabinet Wall Location | DT (max) | OL (max) | Y (max) | DD (max) | R (max)                  |
|-----------------------|----------|----------|---------|----------|--------------------------|
|                       | 20       | 17       | 18.5    | 22       | 1                        |
|                       | 28       | 17       | 18.5    | 22       | See reveal table page 51 |
|                       | 38       | 17       | 18.5    | 22       |                          |

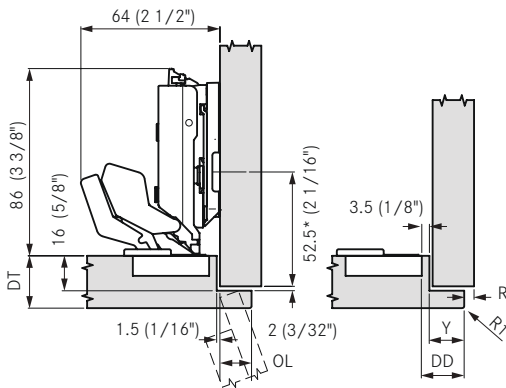
#### 12.7mm (1/2")



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")



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

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

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

#### Legend

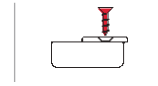
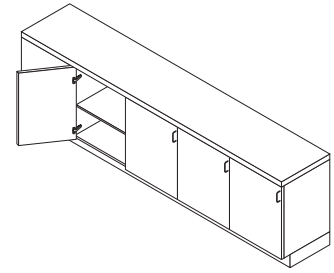
- BPH = Base Plate Height
- DD = Drilling Distance
- DP = Door Protrusion
- DT = Door Thickness
- G = Gap
- OL = Overlay
- R = Reveal
- Y = Rabbet

# Tiomos M0

## 125° hinge for thin doors (6-10mm)



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



### Tiomos M0 Opening Angle 125°

### Screw-On

| Overlay | Half Overlay | Inset | Pattern | Type       | Item No.             | PU |
|---------|--------------|-------|---------|------------|----------------------|----|
|         |              |       | 45      | Soft-close | <b>F029140331217</b> | 50 |

Hinge cup: zinc, die-cast  
Hinge arm: steel, nickel-plated

### Fastening Options

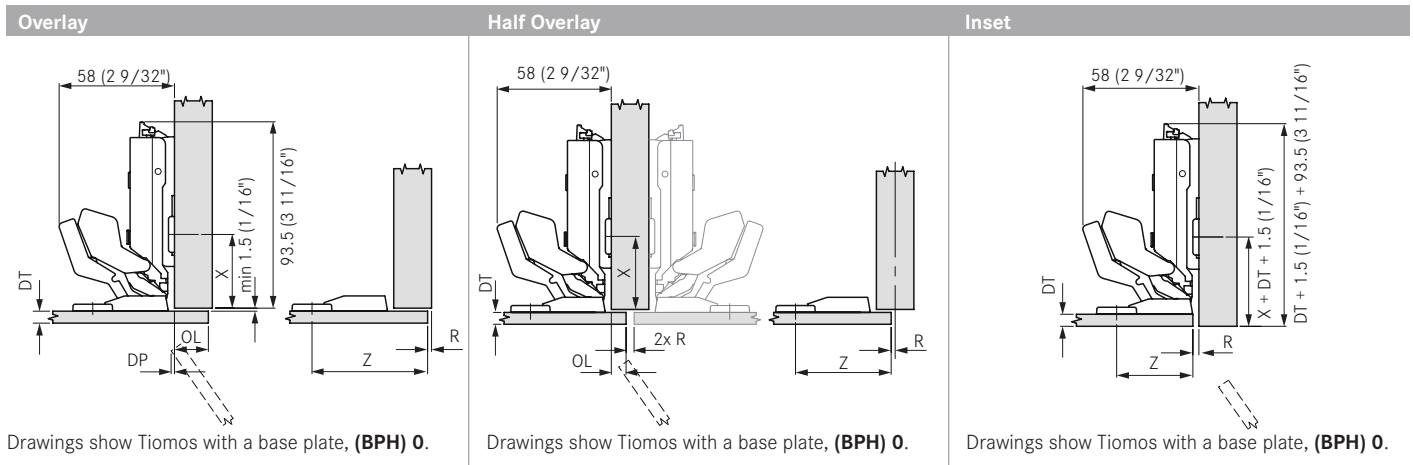
| Fasteners | Description  | Item No.             | PU  | Material          | Material thickness   |     |      |
|-----------|--|----------------------|-----|-------------------|----------------------|-----|------|
|           |  |                      |     |                   | 6mm               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

| Hinge Clip Protector | Item No.             | PU  |
|----------------------|----------------------|-----|
| <br>Plastic, grey    | <b>F072135807540</b> | 500 |

| Cover Caps               | Item No.             | PU   |
|--------------------------|----------------------|------|
| <br>Steel, nickel-plated | <b>F072135500247</b> | 1000 |

| Opening Angle Reduction Clip to 85° | Item No.             | PU |
|-------------------------------------|----------------------|----|
|                                     | <b>F072135871517</b> | 50 |

PU - Packaging unit

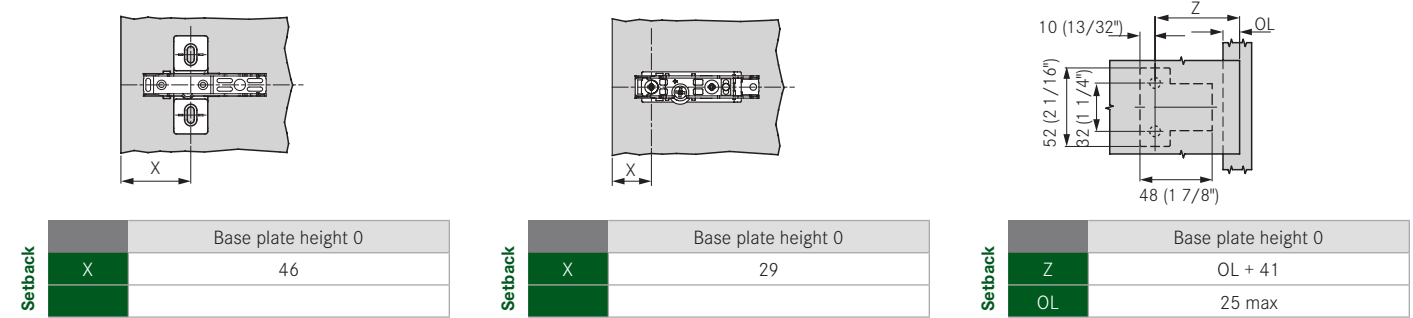


**Minimum Gap and Reveal**

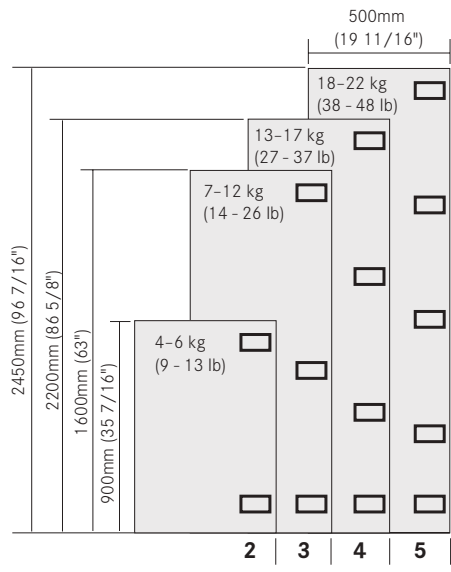
| Hinge Attachment (Z)     | 38  | 39  | 47  | 49  | 51  | 53  | 55  | 56  | 58  | 60  | 61  | 63  | 64  | 66  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-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

\*Only achievable with 85° angle reduction clip.

**Wing Base Plate      Straight Base Plate      Hinge Attachment**



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



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

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

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

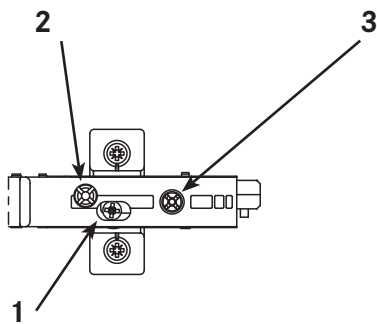
**Liability claims:** Please note that GRASS cannot accept any liability for damage resulting from unsuitable fastening materials or methods.

**IMPORTANT**

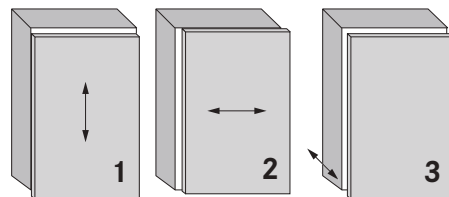
To determine the correct application Grass strongly recommends a trial mounting for all hinges and base plates.

# Timos Base Plates

For Timos hinges



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



Height adjustment via base plate  
Via worm gear  $\pm 2$ mm

Side Adjustment  $\pm 2$ mm

Depth adjustment  $+3/-2$ mm

All adjustment options can be made independently of one another

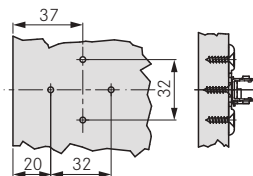
## Wing Base Plate, 4 Point Fixing

37/32

For Wood Screws



- Height adjustment via worm gear



| Height | Item No.              | PU  |
|--------|-----------------------|-----|
| 0      | <b>F058139746</b> 228 | 150 |
| 2      | <b>F058139747</b> 228 | 150 |
| 3      | <b>F058139748</b> 228 | 150 |
| 3.5    | <b>F058139749</b> 217 | 50  |

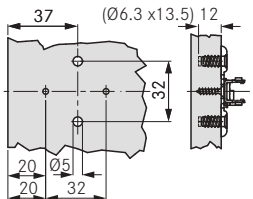
## Wing Base Plate, 4 Point Fixing

37/32

For Euro Screws



- Height adjustment via worm gear



| Height | Item No.              | PU  |
|--------|-----------------------|-----|
| 0      | <b>F058139756</b> 228 | 150 |
| 2      | <b>F058139757</b> 228 | 150 |
| 3      | <b>F058139758</b> 228 | 150 |
| 3.5    | <b>F058139759</b> 228 | 150 |

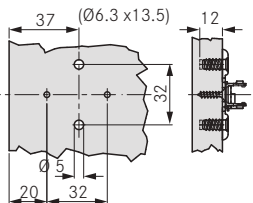
## Wing base plate, 4 Point Fixing

37/32

Pre-mounted Euro Screws (13.5mm)



- Height adjustment via worm gear



| Height | Item No.              | PU  |
|--------|-----------------------|-----|
| 0      | <b>F058139761</b> 228 | 150 |
| 2      | <b>F058139762</b> 228 | 150 |
| 3      | <b>F058139763</b> 228 | 150 |
| 3.5    | <b>F058139764</b> 228 | 150 |

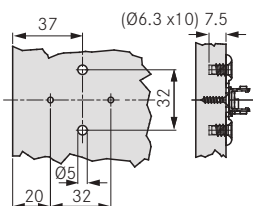
## Wing base plate, 4 Point Fixing

37/32

Pre-mounted Euro Screws (10mm)



- Height adjustment via worm gear
- For twin application



| Height | Item No.              | PU  |
|--------|-----------------------|-----|
| 0      | <b>F058139863</b> 228 | 150 |
| 2      | <b>F058139864</b> 228 | 150 |
| 3      | <b>F058139865</b> 228 | 150 |
| 3.5    | <b>F058139866</b> 228 | 150 |

PU - Packaging unit



# Tiomos Base Plates



For Tiomos hinges

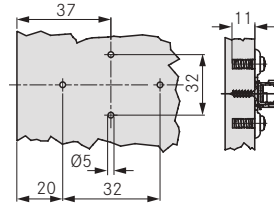
## Wing steel Base Plate, 4 Point Fixing

37/32

Expanding Dowels (5mm)



- Height adjustment via worm gear



| Height | Item No.              | PU  |
|--------|-----------------------|-----|
| 0      | <b>F058139766</b> 228 | 150 |
| 2      | <b>F058139767</b> 228 | 150 |
| 3      | <b>F058139768</b> 228 | 150 |

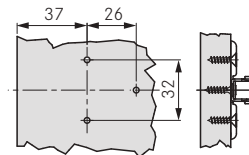
## Wing steel base plate, 3 Point Fixing

37/32

For Wood Screws



- Height adjustment via elongated screw holes



| Height | Item No.              | PU  |
|--------|-----------------------|-----|
| 0      | <b>F058139721</b> 228 | 150 |
| 2      | <b>F058139722</b> 228 | 150 |
| 3      | <b>F058139723</b> 228 | 150 |

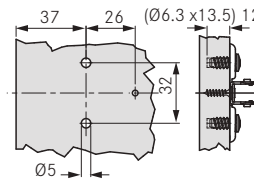
## Wing steel base plate, 3 Point Fixing

37/32

Pre-mounted Euro Screws (13.5mm)



- Height adjustment via elongated screw holes



| Height | Item No.              | PU  |
|--------|-----------------------|-----|
| 0      | <b>F058139736</b> 228 | 150 |
| 2      | <b>F058139737</b> 228 | 150 |
| 3      | <b>F058139738</b> 228 | 150 |

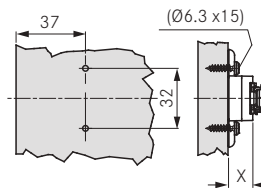
## Wing base plate, 2 Point Fixing

37/32

For Wood Screws



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



| Height | Item No.              | PU |
|--------|-----------------------|----|
| 6      | <b>F058139892</b> 217 | 50 |
| 9.5    | <b>F058139888</b> 217 | 50 |
| 12     | <b>F058139893</b> 217 | 50 |
| 15     | <b>F058139890</b> 217 | 50 |
| 19     | <b>F058139894</b> 217 | 50 |
| 21     | <b>F058139895</b> 217 | 50 |

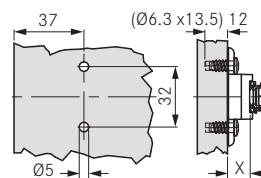
## Wing base plate, 2 Point Fixing

37/32

Pre-mounted Euro Screws (13.5mm)



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

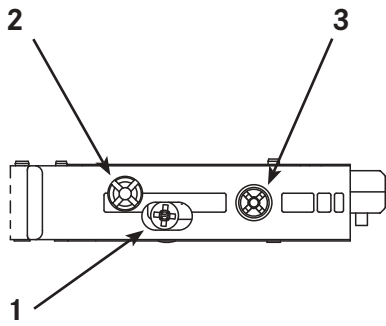


| Height | Item No.              | PU |
|--------|-----------------------|----|
| 6      | <b>F058139873</b> 217 | 50 |
| 9.5    | <b>F058139882</b> 217 | 50 |
| 12     | <b>F058139874</b> 217 | 50 |
| 15     | <b>F058139884</b> 217 | 50 |
| 19     | <b>F058139875</b> 217 | 50 |
| 21     | <b>F058139896</b> 217 | 50 |

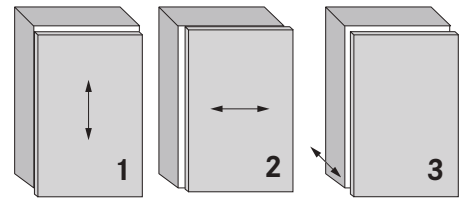
PU - Packaging unit

# Tiomos Base Plates

For Tiomos hinges



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



Height adjustment via base plate  
Via worm gear  $\pm 2\text{mm}$

Side Adjustment  $\pm 2\text{mm}$

Depth adjustment  $+3/-2\text{mm}$

All adjustment options can be made independently of one another

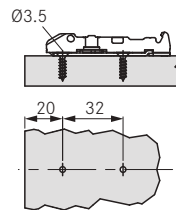
## Straight base plate, 2 Point Fixing

20/32

For Wood Screws



- Height adjustment via worm gear



| Height | Item No.             | PU  |
|--------|----------------------|-----|
| 0      | <b>F059139701228</b> | 150 |
| 2      | <b>F059139702228</b> | 150 |
| 3      | <b>F059139703228</b> | 150 |

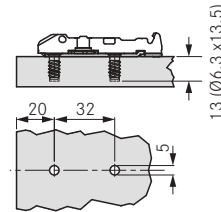
## Straight base plate, 2 Point Fixing

20/32

Pre-mounted Euro Screws



- Height adjustment via worm gear



| Height | Item No.             | PU  |
|--------|----------------------|-----|
| 0      | <b>F059139711228</b> | 150 |
| 3      | <b>F059139713228</b> | 150 |

## Spacers

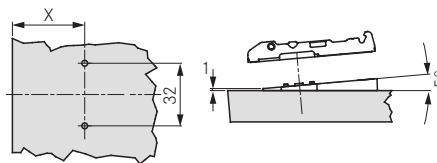
### +5° Wedge for Screw Fixing

37/32

For Wood Screws



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



| Height | Item No.             | PU |
|--------|----------------------|----|
| 3      | <b>F058139757217</b> | 50 |

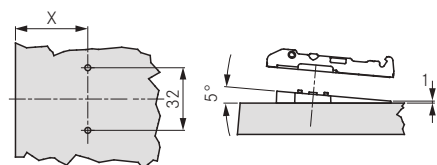
### -5° Wedge for Screw Fixing

37/32

For Wood Screws



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



| Height | Item No.             | PU |
|--------|----------------------|----|
| 3      | <b>F058139758217</b> | 50 |

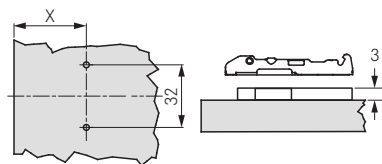
### 3mm Universal Spacer

37/32

For Wood Screws



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

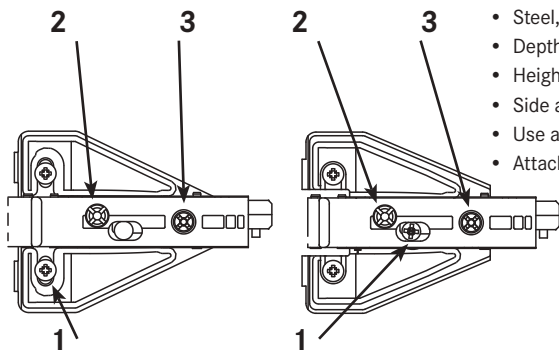


| Height | Item No. | PU |
|--------|----------|----|
| 3      | 13461-41 | 50 |

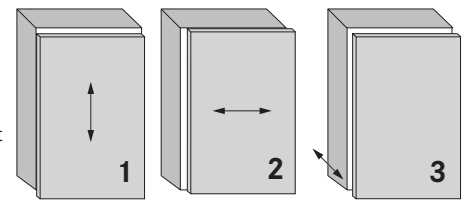
PU - Packaging unit

# Tiemos Base Plates

For Tiemos hinges



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



Height adjustment via base plate  
Via worm gear  $\pm 2\text{mm}$

Side Adjustment  $\pm 2\text{mm}$

Depth adjustment  $+3/-2\text{mm}$

All adjustment options can be made independently of one another

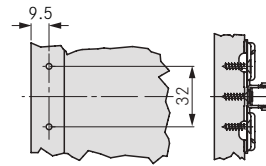
## FFA base plate, 2 Point Fixing

9.5/32

For Wood Screws



- Height adjustment via elongated screw holes



| Height | Item No.             | PU  |
|--------|----------------------|-----|
| 1.5    | <b>F058139821228</b> | 150 |
| 3.5    | <b>F058139822228</b> | 150 |
| 4.5    | <b>F058139823228</b> | 150 |
| 5      | <b>F058139824228</b> | 150 |

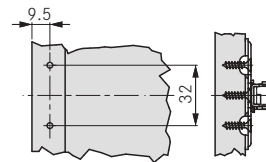
## FFA base plate, 2 Point Fixing

9.5/32

For Wood Screws



- Height adjustment via worm gear



| Height | Item No.             | PU  |
|--------|----------------------|-----|
| 1.5    | <b>F058139825228</b> | 150 |
| 3.5    | <b>F058139826228</b> | 150 |
| 4.5    | <b>F058139827228</b> | 150 |
| 5      | <b>F058139828228</b> | 150 |

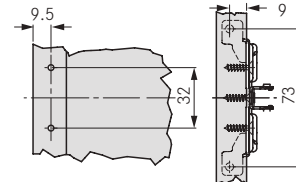
## FFAL base plate with flange, 4 Point Fixing

9.5/32

For Wood Screws



- Height adjustment via elongated screw holes



| Height | Item No.             | PU  |
|--------|----------------------|-----|
| 3.5    | <b>F058139829228</b> | 150 |
| 5      | <b>F058139830228</b> | 150 |

## Inset FFA base plate, 3 Point Fixing

10/32

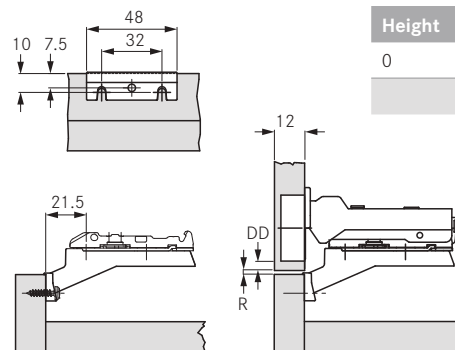
For Wood Screws



- Steel, diecast, nickel plated
- Height adjustment via worm gear
- Note: Requires a 9.5 crank hinge (half-overlay)

| Door Thickness (DT) | Drilling Distance (DD) |     |     |     |
|---------------------|------------------------|-----|-----|-----|
|                     | 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 |

Reveal (R)



| Height | Item No.             | PU  |
|--------|----------------------|-----|
| 0      | <b>F058139831228</b> | 150 |

PU - Packaging unit

# Tipmatic

For handle-free wooden doors

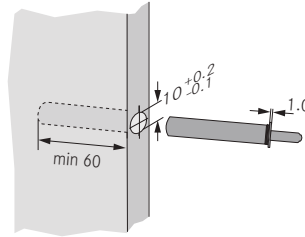


- Gently tapping the front causes the doors to open to a convenient angle
- Use with Tiomos Tipmatic Plus or with Nexis and Tiomos free-swinging hinges
- Large magnet catch range – holds door closed securely
- Gap adjustment from 2.5 to 5.5mm with integrated, self-locking and tool-free depth adjustment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

## Tipmatic Pin For Drilling



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

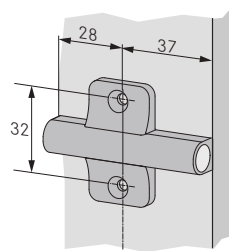


| Item No.             | PU |
|----------------------|----|
| <b>F069135396513</b> | 25 |

## Adapter Plate for Line Boring For Euro Screws



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

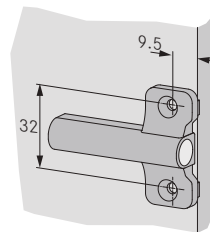


| Item No.             | PU |
|----------------------|----|
| <b>F069063310113</b> | 25 |

## Face Frame or Standard Adapter Plate For Wood Screws



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

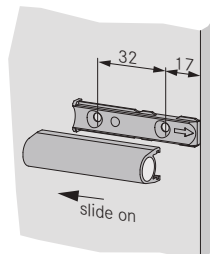


| Item No.             | PU |
|----------------------|----|
| <b>F069073697213</b> | 25 |

## Linear Adapter Plate For Wood Screws



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

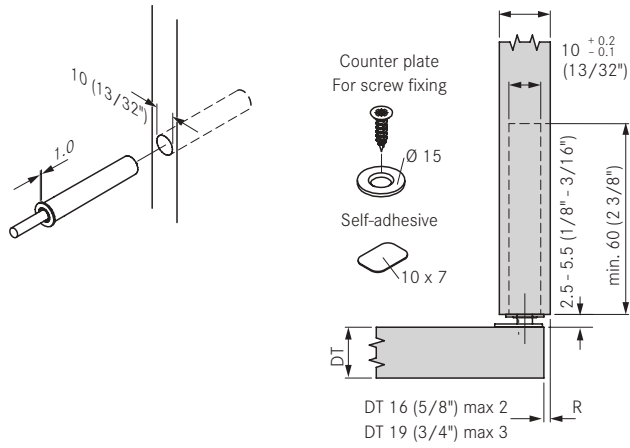


| Item No.             | PU |
|----------------------|----|
| <b>F069073696213</b> | 25 |

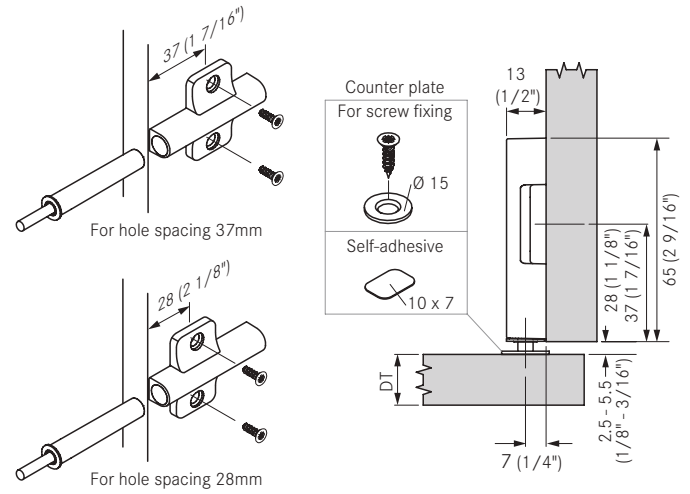
PU - Packaging unit

## Mounting Dimensions

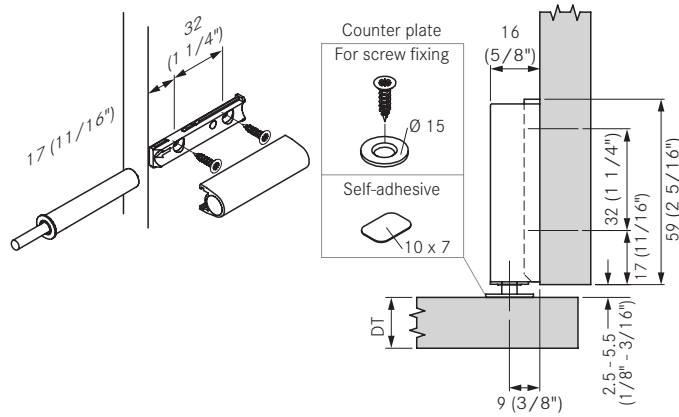
### Tipmatic Pin



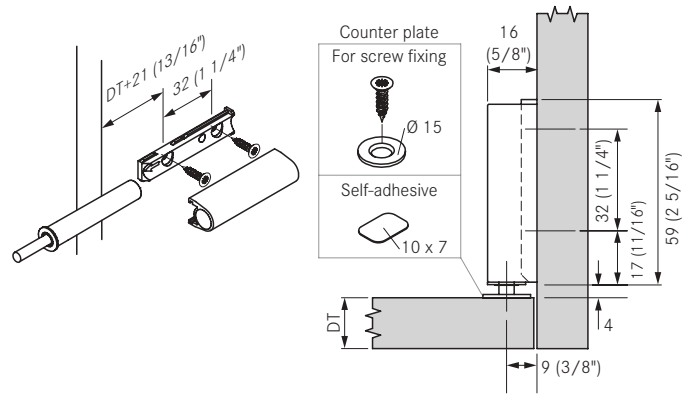
### Adapter Plate for Line Boring



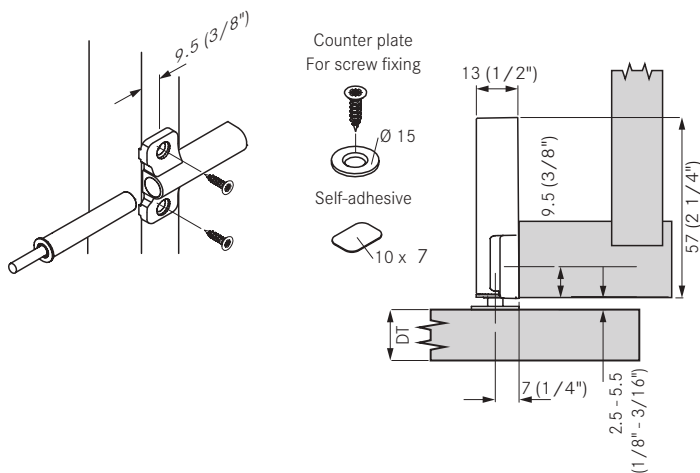
### Linear Adapter Plate, Overlay



### Linear Adapter Plate, Inset



### Face Frame Plate



#### Legend

DT = Door Thickness

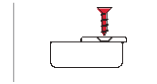
R = Reveal

# 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      | <b>F053139671223</b> | 100 |
|         | Hinge: zinc die-cast, night         | Night  | 12mm      | <b>F053139677223</b> | 100 |

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

## Cover Cap for Flap Hinge

### Item No.

### PU

## 1.5mm Spacer for Tiomos Flap Hinge

### Item No.

### PU



Steel, nickel plated

**F053139675223**

100

Steel, night

**F053139683223**

100



Steel, nickel plated

**F053139676223**

100

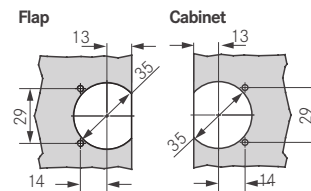
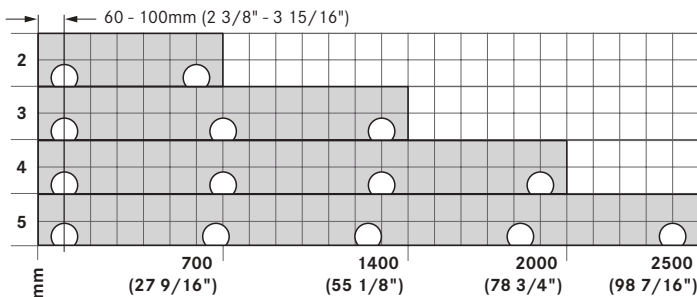
Steel, night

**F053139684223**

100

## Number of Hinges per Door

## Drilling Pattern



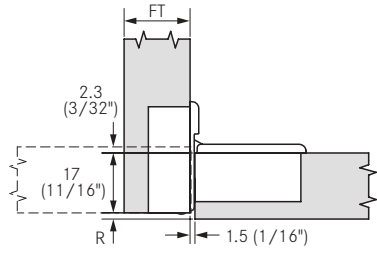
PU - Packaging unit

# Tiomos Flap Hinge



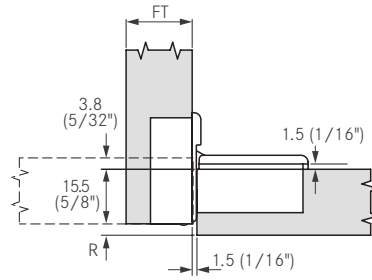
## 90° hinge for flap door

Overlay, Without Spacer, 12mm Cup Depth



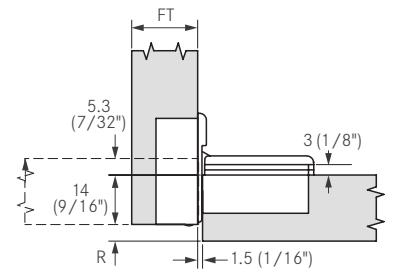
| Min Reveal (R) | Flap Thickness (FT) |     |    |    |    |    |    |    |
|----------------|---------------------|-----|----|----|----|----|----|----|
|                | 21                  | 20  | 19 | 18 | 17 | 16 | 15 | 14 |
|                | 2.5                 | 1.5 | 1  | 1  | 1  | 1  | 1 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

Overlay, with 1 Spacer, 12mm Cup Depth



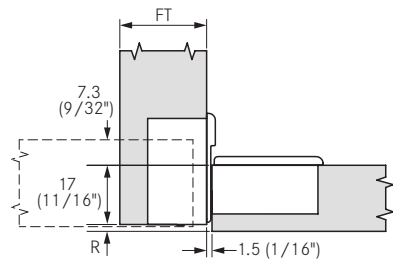
| Min Reveal (R) | Flap Thickness (FT) |     |    |    |    |    |    |    |
|----------------|---------------------|-----|----|----|----|----|----|----|
|                | 21                  | 20  | 19 | 18 | 17 | 16 | 15 | 14 |
|                | 2.5                 | 1.5 | 1  | 1  | 1  | 1  | 1 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

Overlay, with 2 Spacers, 12mm Cup Depth



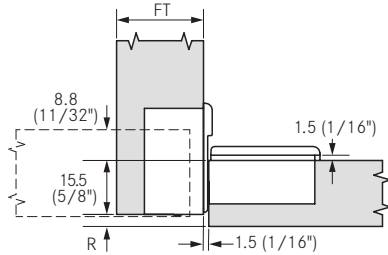
| Min Reveal (R) | Flap Thickness (FT) |     |    |    |    |    |    |    |
|----------------|---------------------|-----|----|----|----|----|----|----|
|                | 21                  | 20  | 19 | 18 | 17 | 16 | 15 | 14 |
|                | 2.5                 | 1.5 | 1  | 1  | 1  | 1  | 1 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

Overlay, Without Spacer, 17mm Cup Depth



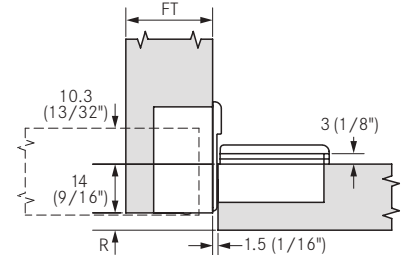
| Min Reveal (R) | Flap Thickness (FT) |     |     |     |     |     |    |    |    |
|----------------|---------------------|-----|-----|-----|-----|-----|----|----|----|
|                | 30                  | 29  | 28  | 27  | 26  | 25  | 24 | 23 | 22 |
|                | 6.5                 | 5.5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

Overlay, with 1 Spacer, 17mm Cup Depth



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

Overlay, with 2 Spacers, 17mm Cup Depth

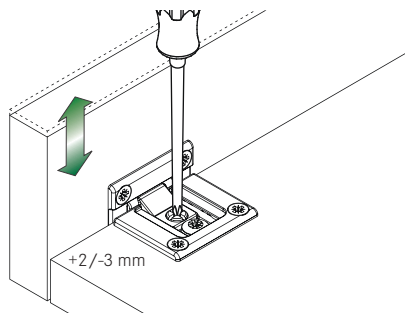


| Min Reveal (R) | Flap Thickness (FT) |     |     |     |     |     |    |    |    |
|----------------|---------------------|-----|-----|-----|-----|-----|----|----|----|
|                | 30                  | 29  | 28  | 27  | 26  | 25  | 24 | 23 | 22 |
|                | 6.5                 | 5.5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

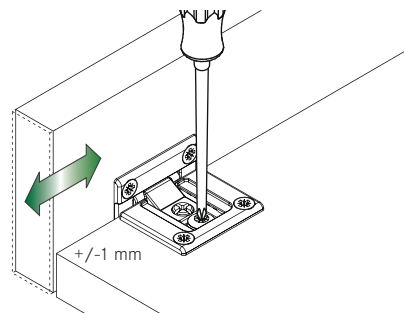
**Note:** Hinge dimensions and reveal calculation based on factory setting.

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

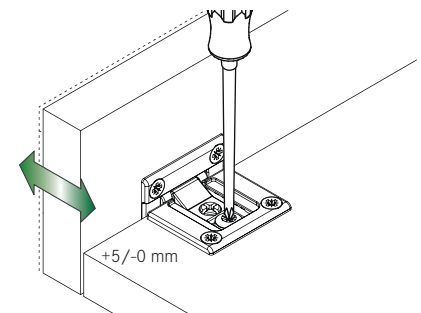
Height Adjustment



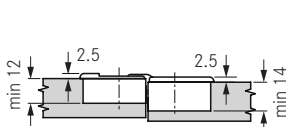
Side Adjustment



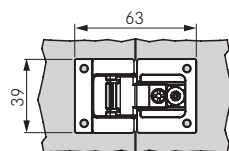
Depth Adjustment



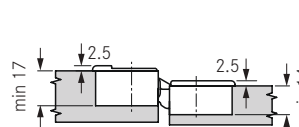
Cup Dimensions, 12mm cup depth



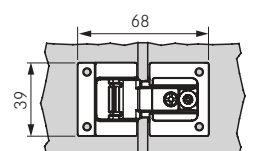
Hinge Dimensions, 12mm cup depth



Cup Dimensions, 17mm cup depth



Hinge Dimensions, 17mm cup depth

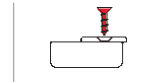


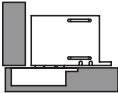
# Tiomos H Hinge

105° hidden hinge



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



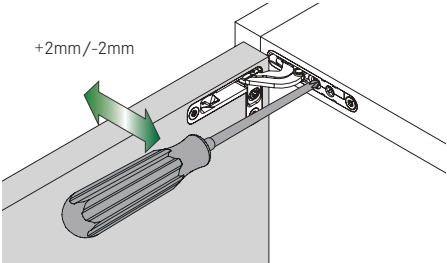
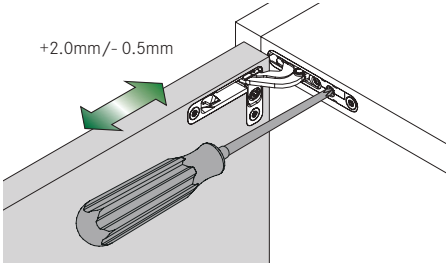
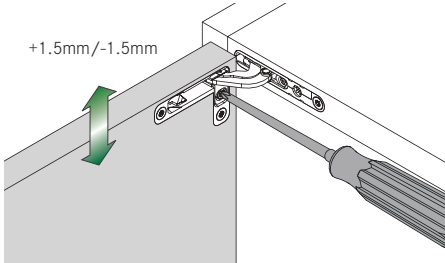
| Tiomos H Hinge Opening Angle 105°  |                                | Screw-On |                      |    |
|--|--------------------------------|----------|----------------------|----|
| Overlay  | Cranking 03                    | Color    | Item No.             | PU |
|  | Hinge: die-cast, nickel-plated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

PU = 10 polybag sets in a box

**Polybag consists of:**

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

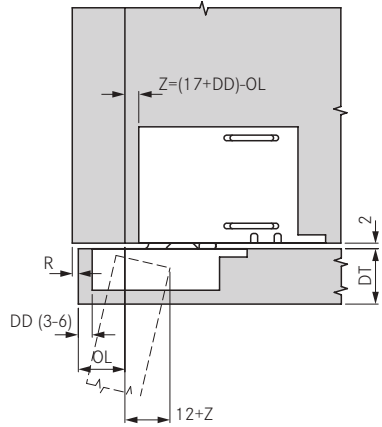
## Adjustment Options

| Side Adjustment   | Depth Adjustment  | Height Adjustment  |
|---|---|--|
|  <p>+2mm/-2mm</p> |  <p>+2.0mm/- 0.5mm</p> |  <p>+1.5mm/-1.5mm</p> |

PU - Packaging unit



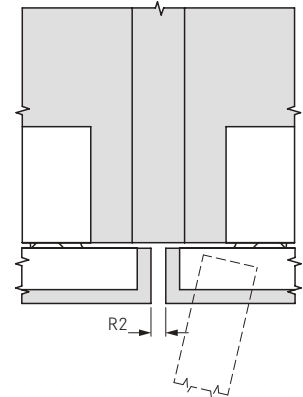
### Overlay



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

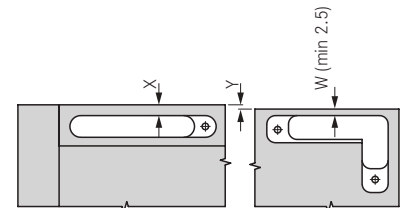
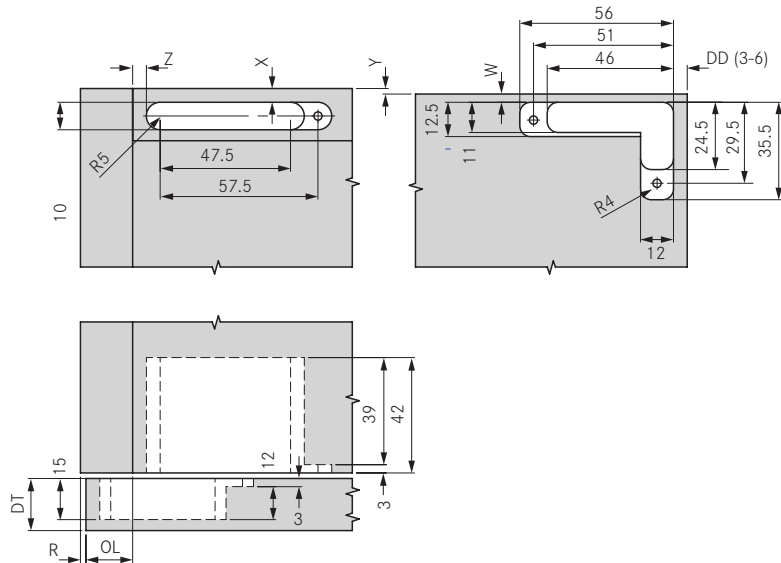
| Drilling Distance for Cabinet (Z) | Drilling Distance (DD) |    |    |    |
|-----------------------------------|------------------------|----|----|----|
|                                   | 3                      | 4  | 5  | 6  |
| 0                                 | 20                     | 21 |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

### Half Overlay



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

### Installation Dimensions



$$X = (W + Y)$$

$$Y = (X - W)$$

$$W = (X - Y)$$

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

# Machinery

## Grass PRO1 drilling and insertion machine for 45mm boring pattern

### Grass PRO1 for Hinge Drilling



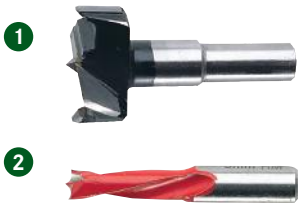
- Depth stop can be adjusted to material thickness
- Functional design
- Easy, fast and efficient operation
- Easy maintenance
- 45mm boring pattern

| 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

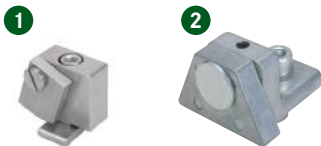


| Description                         | Direction | Item No. | PU |
|-------------------------------------|-----------|----------|----|
| 1 35mm bit                          | RH        | 00077-01 | 1  |
| 2 8mm bit                           | LH        | 00160-01 | 1  |
| American Bit Set for Hinge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

#### Set consists of:

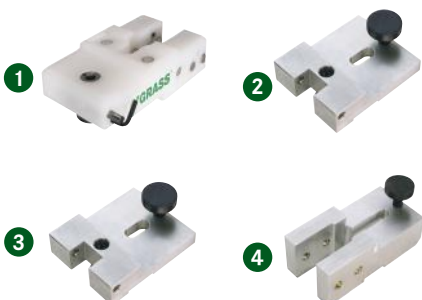
- 1 - 35mm bit, RH
- 2 - 8mm bit, LH

### 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 Nexis Insertion Die 110°/125°                 | 04216-01 | 1  |
| 4 Nexis Insertion Die 170°                      | 04218-01 | 1  |

PU - Packaging unit

## Tiomos

### Tiomos Spacer Ring



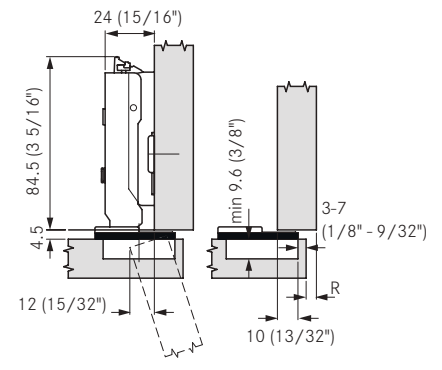
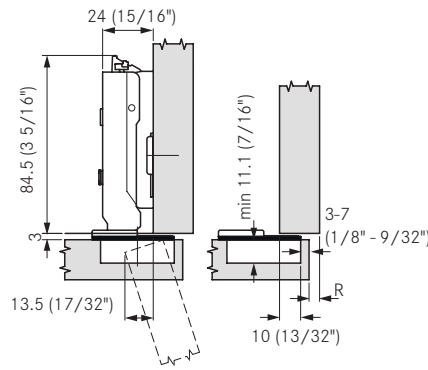
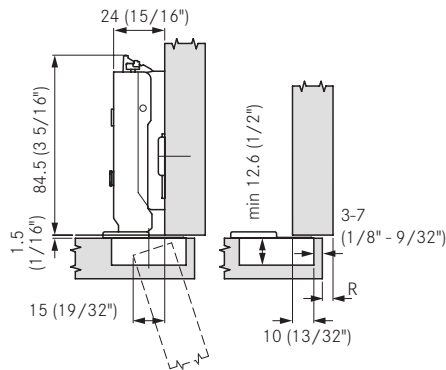
- Permits the use of standard hinges for thinner doors
- Simple installation
- Can be double-stacked
- Suitable for all Tiomos hinges

| Description                    | Item No.             | PU  |
|--------------------------------|----------------------|-----|
| Tiomos spacer ring, 1.5 height | <b>F072135885228</b> | 150 |

### Without Spacer Ring

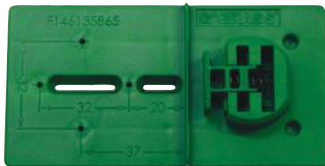
### 1 Spacer Ring

### 2 Spacer Rings



### Tiomos Marking Aids

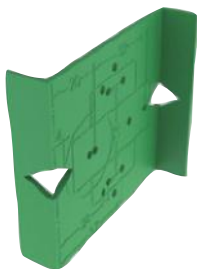
#### Tiomos Marking Jig



- 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 | <b>F146135865202</b> | 1  |

#### Tiomos Marking Template

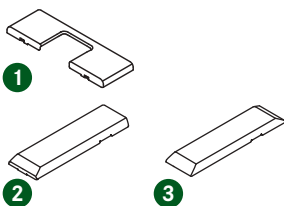


Easy marking and pre-drilling for:

- 45mm pattern hinges
- Wing base plates
- Straight base plates

| Description             | Item No.             | PU |
|-------------------------|----------------------|----|
| Tiomos marking template | <b>F146135787217</b> | 1  |

#### Cover Caps



- Steel, nickel plated, without imprint
- Hinge Arm Cover Cap Long:
- Steel, nickel plated, without imprint
  - Imprinting available upon special request

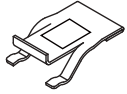
| Description                 | Item No.             | PU   |
|-----------------------------|----------------------|------|
| 1 Hinge cup cover cap       | <b>F072135503228</b> | 150  |
| 2 Hinge arm cover cap       | <b>F072135500247</b> | 1000 |
| 3 Hinge arm cover cap, long | <b>F072135504247</b> | 1000 |

# Accessories and Assembly Aids

## Tiomos

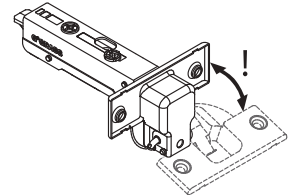
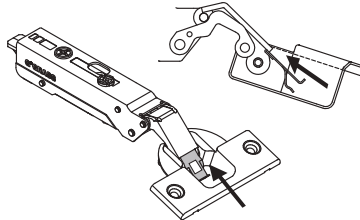
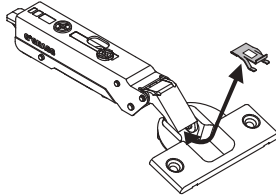
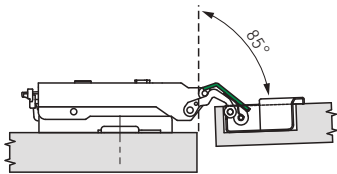
### Angle Reduction Clips

#### Angle Reduction Clip to 85°

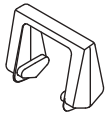


Works for all Tiomos 110° and 120° standard hinges. Reduces the opening angle to 85° to prevent doors from bumping fronts or walls in corner installations.

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

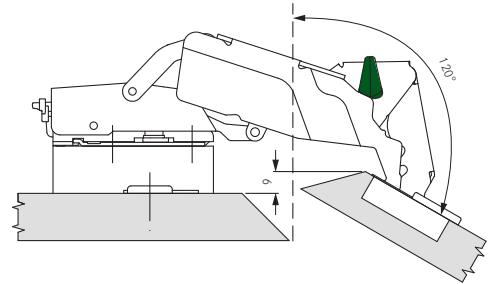


#### Angle Reduction Clip to 120°

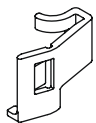


Works for all Tiomos 160° standard hinges. Reduces the opening angle to 120° to prevent doors from bumping the cabinet side in inset and mitered corner applications.

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

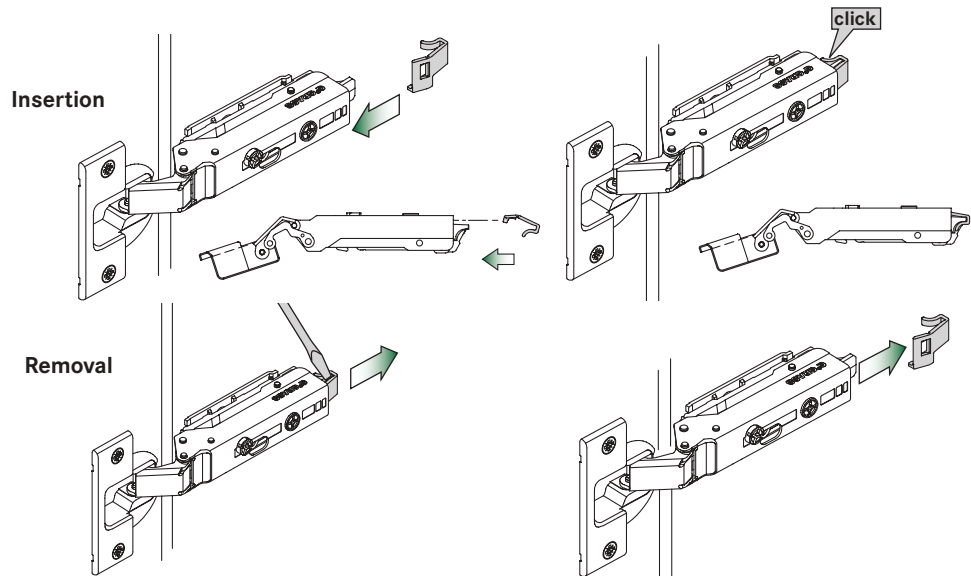


### Hinge Clip Protector



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 |

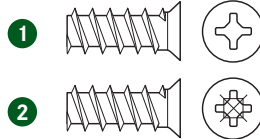


PU - Packaging unit

## Tiomos

### Screws and Dowels

#### Euro Screw, Nickel-plated



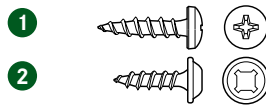
| Description                        | Item No.        | PU  |
|------------------------------------|-----------------|-----|
| 1 13mm Euro Screw (1/2")           | 81015-43        | 500 |
| 18mm Euro Screw (11/16")           | 83000-43        | 500 |
| 7.5mm Euro Screw (5/16")           | 83001-43 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

#### Wood Screw, Nickel-plated



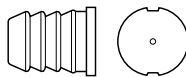
| Description       | Item No. | PU  |
|-------------------|----------|-----|
| #6 x 1/2" FHP, NI | 81014-43 | 500 |
| #6 x 5/8" FHP, NI | 81001-43 | 500 |
| #6 x 3/4" FHP, NI | 81003-43 | 500 |
| #6 x 1" FHP, NI   | 81004-43 | 500 |

#### Wood Screw, Nickel-plated



| Description            | Item No. | PU  |
|------------------------|----------|-----|
| 1 #10 x 3/4" 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, Nexis                   | 8mm        | <b>F069073390256</b> | 500  |
| Dowel, Tiomos                  | 8mm        | <b>F072135773247</b> | 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 | <b>F069073460</b> 253 | 2500 |
| Shelf support 7035, nickel     | <b>F069073459</b> 253 | 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





GRASS America Inc.  
1202 NC Highway 66 South  
Kernersville, NC 27284

Phone: 1-800-334-3512  
Fax: 1-800-525-8406

[www.grassusa.com](http://www.grassusa.com)  
[info@grassusa.com](mailto:info@grassusa.com)

GRASS Canada Inc.  
3135 Markham Road  
Toronto, ON M1X 0B5

Phone: 1-800-461-4975  
Fax: 1-416-335-5907

[www.grasscanada.com](http://www.grasscanada.com)  
[info@grasscanada.com](mailto:info@grasscanada.com)

