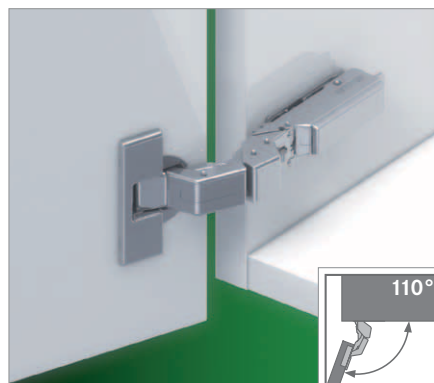


TIOMOS M9: AN ALL-ROUNDER FOR DEMANDING DOOR APPLICATIONS



- For door thicknesses up to max. 28 mm
- 35 mm full cup drilled hole
- Low cup depth of 9 mm
- 3-dimensional adjustment with appropriate mounting plate
- For door overlays up to 25 mm

Planned market introduction

- Industry: April 2014
- Retail: September 2014

Available in 3 versions:

- With integrated damper (3 adjustable damping levels)
- Without integrated damper
- Without self-closing mechanism (no spring)

Application examples:

- Thin furniture doors
- Rebated doors
- Four-sided mitred applications

ORDER INFORMATION FOR DRILLING TEMPLATE 48/9

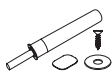
Door overlay	Cranking	Damper			Item No.		
		with	without	without spring	Click-on For screw fixing		
	14	■	-	-	F029140334		
		-	■	-	F047140335		
		-	■	■	F049140336		

Cup material: Zamak, nickel-plated/arm material: Zamak, nickel-plated

COVER CAPS

	Designation	Imprinted/Embossed	Item No.
	Hinge arm cover cap, steel, nickel-plated, not imprinted	On request	F072135500
	Hinge arm cover cap, right, steel, nickel-plated, embossed GRASS logo	GRASS Logo	F072135550
	Hinge arm cover cap, left, steel, nickel-plated, embossed GRASS logo	GRASS Logo	F072135551
	Hinge cup cover cap, steel, nickel-plated, not imprinted	-	F072135503

ACCESSORIES

	Designation	Item No.		Designation	Item No.
	Countersunk wood screw Ø 3.5 x 15 mm	F146073976		90° opening angle reduction clip	On request
	Tipmatic pin for wooden and aluminium frame doors	F069135396			

INSTALLATION INFORMATION

All dimensions in millimetres

Overlay	Half overlay	Inset
Mounting plate height 0	Mounting plate height 0	Mounting plate height 6 * Dimension for mounting plate for 37 mm hole spacing

MINIMUM GAP/MINIMUM REVEAL

values for 0 mounting plate height

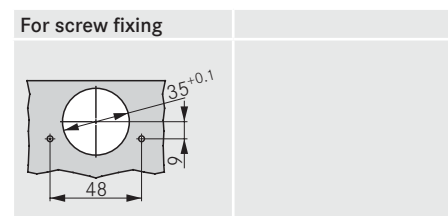
Door thickness (TS)	Cup distance (TA)	3		4		5		6		7		8		9		10		11		12		13		
	Door protrusion (TES)	0.8		1.1		1.5		1.8		2.2		2.5		2.9		3.2		3.5		3.9		4.2		
	Door overlay (A)	4		5		6		7		8		9		10		11		12		13		14		
	min. reveal (F)/gap (S)	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	
	12-20	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	
	22	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1.5	1.5	1.7	1.5	4	1.5	
	24	1	1.5	1.2	1.5	1.3	1.5	1.5	1.5	1.7	1.5	2	1.5	2.4	13	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	
Door thickness (TS)	Cup distance (TA)	14		15		16		17		18		19		20		21		22		23		24		
	Door protrusion (TES)	4.6		4.9		5.3		5.6		5.9		6.3		6.6		7		7.3		7.6		8		
	Door overlay (A)	15		16		17		18		19		20		21		22		23		24		25		
	min. reveal (F)/gap (S)	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	
	12-20	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	2	1	2	1	2	
	22	4	1.5	3.5	1.5	3	1.5	2.2	1.5	1.7	1.5	1.3	1.5	1	1.5	1	1.5	1	2	1	2	1	2	
	24	6	1.5	5.2	1.5	4.5	1.5	4	1.5	3.3	1.5	3	1.5	2.5	1.5	2.1	1.5	1.9	2	1.6	2	1.5	2	
	26	8	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	3	2	2.6	2	
	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	4.5	2	4.2	2	
■ Value achievable by use of a 90° opening angle reduction clip																								

NOTE

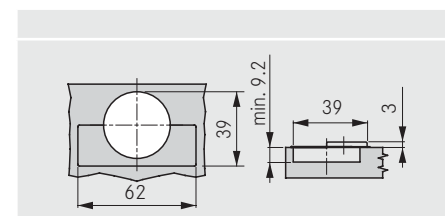
Minimum reveal for doors with chamfered edges (R = 1 mm)
set at factory setting.

Trial fitting is recommended for all door thicknesses.

DRILLING TEMPLATE 48/9

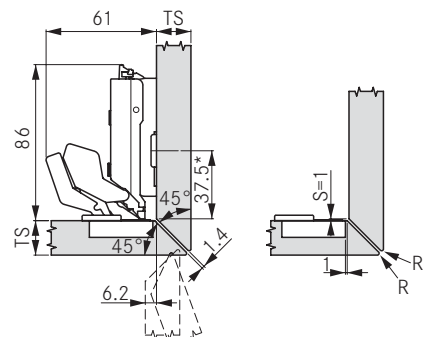
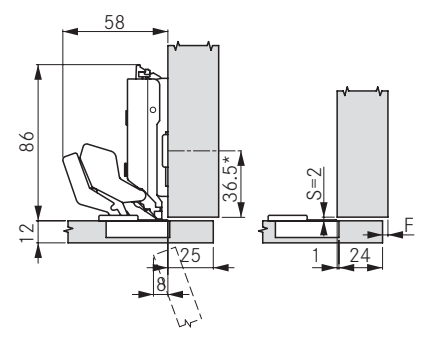


CUP DIMENSIONS



INSTALLATION INFORMATION

All dimensions in millimetres

Mitred application – circumferential and lateral			Max. overlay	
12 - 24 mm				
 Mounting plate height 3 * Dimension for mounting plate for 37 mm hole spacing			 Mounting plate height 0 * Dimension for mounting plate for 37 mm hole spacing	
Door thickness (TS)		Mitred application circumferential	Mitred application lateral	
		R (min.)	R (min.)	
	12-17	0	0	
	18	0.2	0	
	19	1	0.4	
	20	1.5	1	
	21	2.2	1.8	
	22	3	2.5	
	24	4.3	4.1	

NOTE

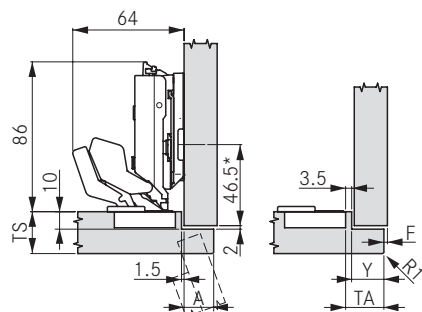
With circumferential mitred application all sides 1.4 mm reveal.

INSTALLATION INFORMATION

All dimensions in millimetres

Rebated applications

10 mm

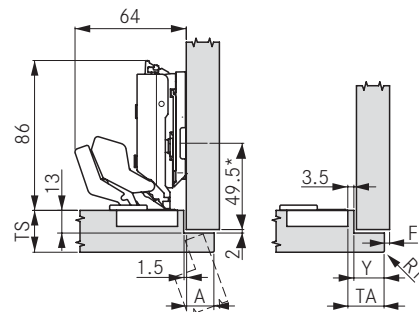


Mounting plate height 6

* Dimension for mounting plate for 37 mm hole spacing

Rack location	TS (max.)	A (max.)	Y (max.)	TA (max.)	F (min.)
	20	17	18.5	22	1
	28	17	18.5	22	See reveal table
	38	17	18.5	22	

13 mm

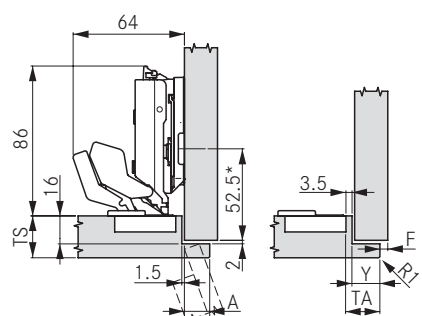


Mounting plate height 6

* Dimension for mounting plate for 37 mm hole spacing

Rack location	TS (max.)	A (max.)	Y (max.)	TA (max.)	F (min.)
	20	16	17.5	21	1
	28	16	17.5	21	See reveal table
	35	14	15.5	19	

16 mm



Mounting plate height 6

* Dimension for mounting plate for 37 mm hole spacing

Rack location	TS (max.)	A (max.)	Y (max.)	TA (max.)	F (min.)
	20	14.5	16	19.5	1
	26	14.5	16	19.5	See reveal table
	32	12.5	14	17.5	

LEGEND

A	Overlay
F	Reveal
TA	Cup distance
TS	Door thickness