

# G\*GRASS®

# **CABINET AND FLAP SYSTEMS**

Functional movement systems for furniture in kitchens, bathrooms, offices and public buildings.





We see it as our mission to create the exact movement solution that helps our customers to achieve their success. No more and no less.



Quaturis – means functional and above all variable corner cabinet solutions for top sophistication. High-quality. Efficient. Individual.







Progress is a question of passion. Our fittings and hinges for furniture in kitchens, bathrooms, offices and public buildings reflect our fascination and enthusiasm for trendsetting product solutions.



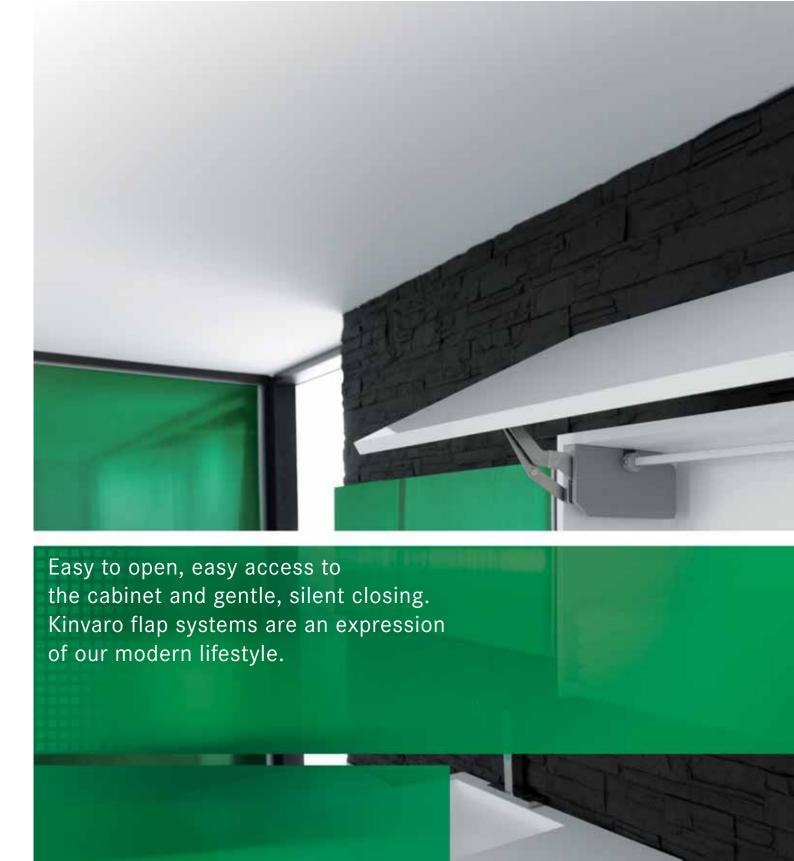
#### **CABINET AND FLAP SYSTEMS**

Continuous improvement of existing products with regard to technical, ergonomic and aesthetic qualities is a prerequisite for sustained success. This applies especially to such complex movement solutions as our cabinet and flap systems. It is these new, intelligent product concepts that are so important because not only do they meet the diverse requirements of end users, but also those of the furniture industry.

Comfort is a question of technology: Soft-close – the integrated damping system sets the standard.

With Soft-close, the comprehensive damping concept by GRASS, each movement becomes an experience. Closing our cabinet and flap systems with Soft-close is something special. Soft-close gently slows down the closing movement of fronts and pulls them softly to. It is no surprise that Soft-close has become the standard.

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# **Grass fittings**

Overview.



KINVARO FLAP SYSTEMS  Exclusive flap fittings - the top solution for design, technology and operating comfort.	Kinvaro flap systems
QUATURIS CORNER CABINET SYSTEMS  Comfortable corner cabinet solutions for more storage space.  Efficient. Adaptable. Functional.	Quaturis corner cabinet systems
CABINET SUSPENSION FITTINGS  Extremely tough all-steel systems for reliable fixing.  Small, versatile components with a big effect.	Cabinet suspension fittings
SINGLE-JOINT HINGES Elegant all-metal hinges for individual or continuous cabinet construction and for concealed applications. Flexible. Functional. Decorative.	Single-joint hinges
PARALLEL LIFT FITTINGS High-quality fittings with maximum stability and excellent operating characteristics. Tough. Comfortable. Reliable.	Parallel lift fittings
SHELF SUPPORTS Universal all-metal supports for kitchen, bathroom and office furniture. Reliable fixing and support in a modern design.	Shelf support
INDEX ITEM NO.	×

Wall cabinets continue to rank among the most favoured storage solutions for kitchens. And they are destined to remain so, thanks to our extremely functional and comfortable flap systems.

With all the space available at the top of cabinets, the only limit is personal choice. Our Kinvaro flap systems redefine the principle of the classic wall cabinet. Stable and reliable movement systems, easy and silent in application, ergonomically well-designed and comfortable to operate – these are the special ingredients for modern storage concepts. Kinvaro flap systems represent the perfect synthesis of innovative design ambition and functional movement in the spirit of modern furniture culture.







# **KINVARO** FLAP SYSTEMS

Exclusive flap fittings - the top solution for design, technology and operating comfort.



# **Kinvaro flap fittings**

Application range.

Flap fronts with bar handles\*
Flap fronts without handles or with small handles

	Flap fronts with	out nandies (	or with Siliai	i nanules						
Flap height	Fitting Type	400	500	600	700	Flap width 800	900	1000	1100	1200
250		400	300	000	700		700	1000	1100	1200
250 mm	Kinvaro T-65									
Flap height	Fitting Type					Flap width				
		400	500	600	700	800	900	1000	1100	1200
	Kinvaro T-65									
300 mm										
	Kinvaro T-70									
	Kinvaro T-57									
	Kinvaro T-105									
	Killvalo 1-103									
Flap height	Fitting Type	400	500	600	700	Flap width 800	000	1000	1100	1200
		400	500	800	700	800	900	1000	1100	1200
	Kinvaro L-80									
350 mm	Kinvaro T-65									
	Kinvaro T-70									
	Kinvaro T-57									
	Kinvaro T-105									
Flap height	Fitting Type	400	500	600	700	Flap width 800	900	1000	1100	1200
		400	300	000	700		700	1000	1100	1200
400 mm	Kinvaro L-80									_
400 mm	Kinvaro T-65									
	Kinvaro T-70									
	Kinvaro T-75									
	Kinvaro T-57									
	Kinvaro T-105									

 $<sup>^{\</sup>star}$  Bar handles must be calculated with 0.1 kg per 100 mm handle width when calculating the flap weight. Data based on 19 mm chipboard (density approx. 0.65 kg/dm³). Additional cabinet measurements on request.

Flap fronts with bar handles\* Flap fronts without handles or with small handles

Flap height	Fitting Type					Flap width				
		400	500	600	700	800	900	1000	1100	1200
	Kinvaro L-80									
450 mm										
	Kinvaro S-35									
	Kinvaro T-65									
	Kinvaro T-70									
	Kinvaro T-75									
	Kinvaro T-57									
	Kinvaro T-105									

Flap height	Fitting Type					Flap width				
		400	500	600	700	800	900	1000	1100	1200
	Kinvaro L-80									
500 mm										
	Kinvaro S-35									
	Kinvaro T-65									
	I/: T 70									
	Kinvaro T-70									
	Kinvaro T-75									
	Kilivaio 1-73									
	Kinvaro T-57									
	Kinvaro T-105									

Flap height	Fitting Type					Klappenbreit	е			
		400	500	600	700	800	900	1000	1100	1200
	Kinvaro L-80									
550 mm										
000	Kinvaro S-35									
	Kinvaro T-65									
	Kinvaro T-70									
	Kinvaro T-75									

# **Kinvaro flap fittings**

Application range.



Flap fronts with bar handles\*
Flap fronts without handles or with small handles

Flap height	Fitting Type	400	500	600	700	Flap width	900	1000	1100	1200
600 mm	Kinvaro F-20 Kinvaro L-80									
	Kinvaro S-35 Kinvaro T-65									
	Kinvaro T-70									
Flap height	Kinvaro T-75  Fitting Type	400	500	600	700	Flap width	900	1000	1100	1200
650 mm	Kinvaro F-20									
Flap height	Fitting Type	400	500	600	700	Flap width	900	1000	1100	1200
700 mm	Kinvaro F-20 Kinvaro S-35									
Flap height	Fitting Type	400	500	600	700	Flap width	900	1000	1100	1200
750 mm	Kinvaro F-20									
Flap height	Kinvaro S-35  Fitting Type	400	500	600	700	Flap width	900	1000	1100	1200
800 mm	Kinvaro F-20									

 $<sup>^{\</sup>star}$  Bar handles must be calculated with 0.1 kg per 100 mm handle width when calculating the flap weight. Data based on 19 mm chipboard (density approx. 0.65 kg/dm³). Additional cabinet measurements on request.

# Product overview.

		Page
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	nap ntting	1.0 - 1.11
5	Particularly smooth movement	
4	<ul><li>Suitable for handle-free kitchens</li><li>Closing with integrated, adjustable dam-</li></ul>	
2	ping	
A		
	Kinvaro L-80 Parallel flap lift fitting	1.12 - 1.17
391	r araner riap int ritting	1.12 1.17
	Opens parallel to the cabinet	
	<ul> <li>Suitable for equipment cabinets as well as cabinets with cornices, pelmets and attached lights</li> </ul>	
The second secon	Extremely smooth movement	
	High stability	
The state of the s		
	Kinvaro S-35 flap fitting	1.18 - 1.23
	nap namg	1.10 1.20
170	<ul> <li>Suitable for kitchens with cornices, pelmets and attached lights</li> </ul>	
	Extremely smooth movement	
	High stability	
-3.07		
	Kinvaro T-65 flap fitting	1.24 - 1.35
	<ul> <li>Adjustable damping integrated into fitting</li> <li>For light to medium-weight flaps</li> </ul>	
	· Tot light to median-weight haps	
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	Kinvaro T-70 Kinvaro T-75	1.24 - 1.35
	flap fittings	1.24 - 1.35
	Adjustable damping integrated into fitting	
STEEL	Wide range of applications	
THE PARTY OF		
* 185	Kinvaro T-5 <i>7</i> flap fitting	1.35 - 1.39
		1.00
	<ul> <li>Opening angle 75° or 90°</li> <li>For wood and aluminium flaps</li> </ul>	
138 1	For wood and administration     Simple installation	
	Kinvaro T-105	1.40 - 1.43
	flap stay	1.40 - 1.43
	Innovative design	
	<ul><li>Wide range of applications</li><li>Spring-assisted opening</li></ul>	
	Spring assisted opening	

#### Kinvaro F-20

# Top performance for flap fittings.







# The Kinvaro F-20 folding flap fitting moves flaps smoothly and safely – and really comes into its own on handle-free cabinet fronts.

When a folding flap is opened, the spring-assisted function guarantees smooth movement and holds both flaps securely in any position. The opening angle can be selected and set individually by the user with a stopper function. Even heavy flaps made of MDF or glass can be closed extremely gently and silently with the Kinvaro F-20, thanks to its integrated, adjustable damping mechanism.

A special connecting hinge with reveal adjustment controls the synchronous movement of the two flaps arranged one above the other.

In addition, an integrated finger protection guarantees safe closing for tall or short kitchen users.

The design of the Kinvaro F-20, including its attractively shaped cover cap available in different colours, is co-ordinated to match all other models in the product family, and blends in elegantly with all modern interiors.

#### Hinges for use in combination with the Kinvaro F-20 can be found in the Grass Hinge Catalogue



Example: Nexis Click-on 29



Example: Nexis Click-on 17AL

Drilling jigs for Kinvaro F-20 on request.

#### All product benefits at a glance

- · Extremely smooth movement
- · Also for use with handle-free furniture fronts
- Even heavy flaps easy to open and close thanks to spring-assisted opening function and integrated, adjustable damping for closing action
- · Holds flap securely in any position
- Opening limiter adjustable to up to 90°
- Designed for different cabinet fronts
- Wide range of applications for extremely diverse cabinet materials and flap weights,

- e.g. wood, glass, MDF with narrow or wide aluminium or wood frames
- Simple flap installation without tools and extremely easy adjustment of entire flap element
- Pre-fitted Euro screws for fastening the fitting to the side wall
- For use with two cabinet shelves with a cabinet height of 65 cm or more and with the shelves evenly spaced

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#### Application range

#### Flap weight from 3.8 kg to 19.2 kg

Flap size: width 400 mm - 1200 mm, height 2 x 260 mm - 2 x 400 mm

#### Fitting installation on one side

For cabinet dimensions of more than 600 mm in width, the fitting has to be used on both sides.

For cabinet dimensions of up to 600 mm in width, the fitting can be used on one side only. In this case, the possible flap weights specified in the following table must be halved.

Cbinet height	Guide level type	Flap weight incl. handle° in kg				
mm		Spring B	Spring C	Spring D		
520 - 559	Type 2	4.6 - 13.8(1)	-	-		
560 - 599	Type 3	4.4 - 12.6	7.0 - 14.7(1)	-		
600 - 649	Type 4	4.1 - 12.1	6.8 - 15.8 <sup>(1)</sup>	-		
650 - 699	Type 5	3.8 - 11.4	6.7 - 16.9(1)	-		
700 – 749	Type 6	-	6.5 - 16.4	10.0 - 18.0		
750 – 800	Type 7	-	6.0 - 15.6	8.6 - 19.2		

#### Calculation of flap weight (all measurements in dm)

Flap width x flap height x flap thickness x density $^{(2)}$  + handle weight $^{(3)}$  = flap weight

Example:  $6 \text{ dm x } 4 \text{ dm x } 0.19 \text{ dm x } 0.85 \text{ kg/dm}^3 + 0.5 \text{ kg} = 4.5 \text{ kg}$ 

#### Calculation of flap width (all measurements in dm)

Flap weight - handle weight<sup>(3)</sup>

Flap height x flap thickness x density<sup>(2)</sup>

= Flap width

Example:  $\frac{4.5 - 0.5}{4 \times 0.19 \times 0.85}$ = 6.0 dm (600 mm)

#### Ordering information for set packaging

#### Kinvaro F-20 is available in industrial or set packaging.

#### Folding flap fitting Kinvaro F-20 set packaging

Guide level type	Spring	Item No.
Type 2	В	D2876007125
Type 3	В	D2876012125
Type 3	С	D2876013125
Type 4	В	D2876017125
Type 4	С	D2876018125
Type 5	В	D2876022125
Type 5	С	D2876023125
Type 6	С	D2876028125
Type 6	D	D2876030125
Type 7	С	D2876033125
Type 7	D	D2876035125
PU/packaging unit		PU 1

PU 1 = 1 set per carton consisting of: 1 fitting right and left, 2 fixing brackets for wood incl. cover caps,

1 cover cap right sided and 1 left sided in grey RAL 7040, 2 connecting hinges, 1 mounting instruction

#### Aluminium frame adapter Kinvaro F-20 set packaging

	Item No.
Aluminium frame adapter for small aluminium frames (19 mm) / overlay 13-17 mm	D2879013000
PU/packaging unit	PU 1

PU 1 = 1 set / 1 set consisting of: 2 aluminium frame adapters, 8 fixing screws, 1 mounting instruction

<sup>(1)</sup> This value corresponds to the maximum flap weight with a 1200 mm cabinet width and bar handle in 22 mm thick MDF material (0.85 kg/dm³).

<sup>(2)</sup> Density: pine/spruce = 0.45 kg/dm³, chipboard = 0.65 kg/dm³, MDF = 0.85 kg/dm³

<sup>(3)</sup> Bar handles must be calculated with 0.1 kg per 100 mm handle width when calculating the flap weight. Other weights are possible. When using higher weights, please consult the manufacturer. We recommend performing a trial mounting before series application.

#### Kinvaro F-20

# Folding flap fitting.

#### Ordering information for industrial packaging

#### The Kinvaro F-20 is available in industrial or set packaging.

#### Folding flap fitting Kinvaro F-20 industrial packaging

	Guide level type	Spring	Item No.
Kinvaro F-20 left	Type 2	В	D2877013125
Kinvaro F-20 right	Type 2	В	D2877014125
Kinvaro F-20 left	Type 3	В	D2877023125
Kinvaro F-20 right	Type 3	В	D2877024125
Kinvaro F-20 left	Type 3	С	D2877025125
Kinvaro F-20 right	Type 3	С	D2877026125
Kinvaro F-20 left	Type 4	В	D2877033125
Kinvaro F-20 right	Type 4	В	D2877034125
Kinvaro F-20 left	Type 4	С	D2877035125
Kinvaro F-20 right	Type 4	С	D2877036125
Kinvaro F-20 left	Type 5	В	D2877043125
Kinvaro F-20 right	Type 5	В	D2877044125
Kinvaro F-20 left	Type 5	С	D2877045125
Kinvaro F-20 right	Type 5	С	D2877046125
Kinvaro F-20 left	Type 6	С	D2877055125
Kinvaro F-20 right	Type 6	С	D2877056125
Kinvaro F-20 left	Type 6	D	D2877059125
Kinvaro F-20 right	Type 6	D	D2877060125
Kinvaro F-20 left	Type 7	С	D2877065125
Kinvaro F-20 right	Type 7	С	D2877066125
Kinvaro F-20 left	Type 7	D	D2877069125
Kinvaro F-20 right	Type 7	D	D2877070125
PU/packaging unit	·	·	PU 10

PU~10 = 1~carton~with~10~fittings~right~or~left,~1~mounting~instruction,~10~adjustment~instructions

#### Connecting hinges Kinvaro F-20 industrial packaging

	Colour	Item No.
Connecting hinges	nickel plated	D2859025125
PU/packaging unit		PU 20

PU 20 = 1 carton with 20 connecting hinges

#### Cover caps Kinvaro F-20 industrial packaging

	Colour	Item No.
Cover cap left	grey RAL 7040	D2879001907
Cover cap right	grey RAL 7040	D2879002907
Cover cap left	white	D2879001962
Cover cap right	white	D2879002962
Cover cap left	alu coloured RAL 9006	D2879001997
Cover cap right	alu coloured RAL 9006	D2879002997
PU/packaging unit		PU 10

PU 10 = 1 carton with 10 cover caps right or left

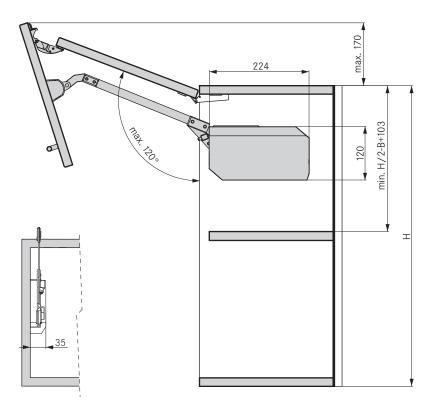
Other colours on request.

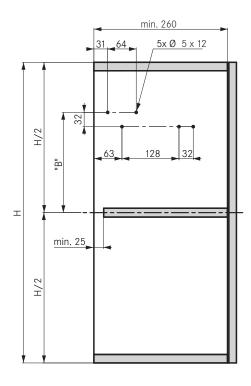
#### Fixing brackets Kinvaro F-20 industrial packaging

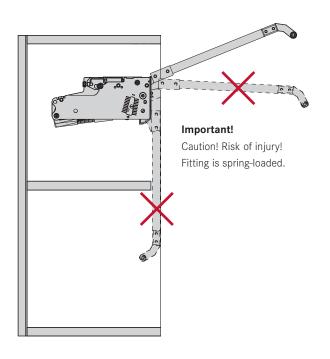
	Item No.
Standard fixing bracket	D2879011000
Fixing bracket with aluminium frame adapter / overlay 13 - 17 mm	D2879014000
PU/packaging unit	PU 10

PU 10 = 1 carton with 10 fixing brackets right or left

#### Left cabinet side (right cabinet side mirror image)







H (height)	Kinvaro F-20	"B"
520 - 529	2	173
530 - 539	2	158
540 - 549	2	143
550 - 559	2	128
560 - 569	3	183
570 - 579	3	168
580 - 589	3	153
590 - 599	3	138
600 - 609	4	208
610 - 619	4	198
620 - 629	4	178
630 - 639	4	168
640 - 649	4	158
650 - 699	5	225
700 – 749	6	235
750 - 800	7	250

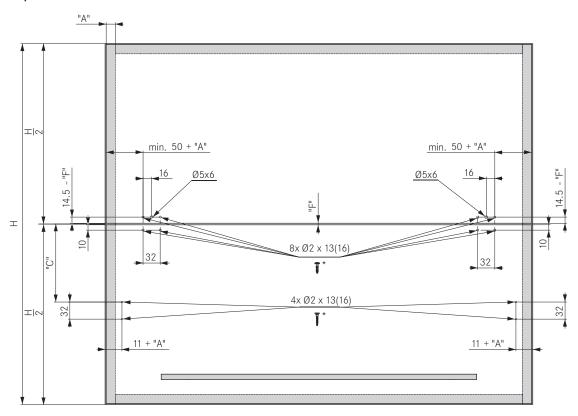
For detailed dimensions and installation instructions, please refer to our mounting and adjusting instructions.

#### Kinvaro F-20

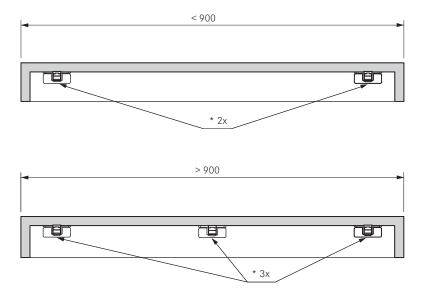
# Folding flap fitting.

#### Mounting positions for wooden flaps and frame flaps (min. 45 mm width)

#### Flap inside



The reveal (F) can be between 2 mm and 5 mm.



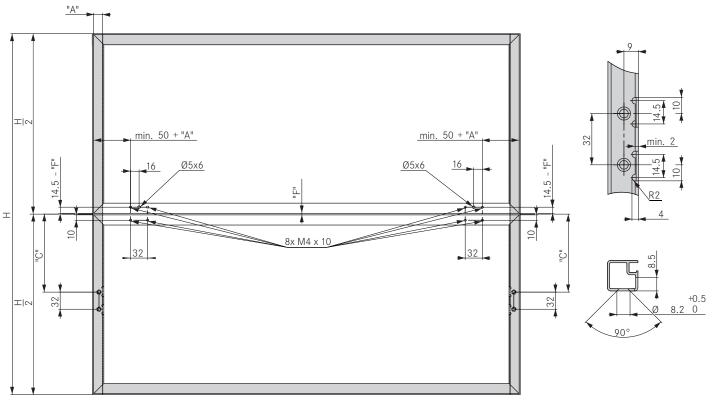
 $^{\star}$  The used hinges need an opening angle of 120  $^{\circ}$  minimum.



\* pre-drilling required, for countersunk chipboard screws Ø 4 x 13 mm min. for 16 mm flap thickness Ø 4 x 16 mm min. for 19 mm flap thickness

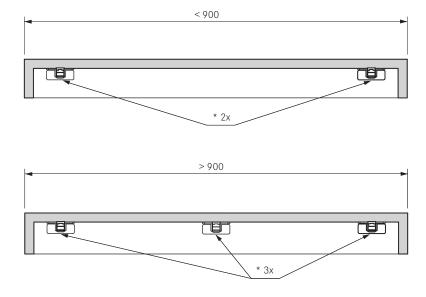
		// <b>~</b> //
H (height)	Kinvaro F-20	"C"
520 - 529	2	133
530 - 539	2	148
540 - 549	2	163
550 - 559	2	178
560 - 569	3	145
570 - 579	3	160
580 - 589	3	175
590 - 599	3	190
600 - 609	4	138
610 - 619	4	148
620 - 629	4	168
630 - 639	4	178
640 - 649	4	188
650 - 699	5	146
700 – 749	6	156
750 - 800	7	166

#### Flap inside



A = 13 - 17

The reveal (F) can be between 2 mm and 5 mm.



( 0 /		
520 - 529	2	133
530 - 539	2	148
540 - 549	2	163
550 - 559	2	178
560 - 569	3	145
570 - 579	3	160
580 - 589	3	175
590 - 599	3	190
600 - 609	4	138
610 - 619	4	148
620 - 629	4	168
630 - 639	4	178
640 - 649	4	188
650 - 699	5	146
700 - 749	6	156
750 - 800	7	166

H (height) Kinvaro F-20

 $<sup>^{\</sup>star}$  The used hinges need an opening angle of 120  $^{\circ}$  minimum.

#### Kinvaro L-80

# Opens flaps parallel to the cabinet.





#### Even heavy fronts open effortlessly and with elegant movement.

The large, handle-free front opens upwards in a smooth, even motion, with absolute precision and in parallel with the wall cabinet. This is made possible by the spring-assisted opening function of the Kinvaro L-80. The closing action is another experience to behold: the integrated closing damper system is fully adjustable and ensures a smooth and uniform closing action for all flap weights. Importantly: the front will remain in any required position - irrespective of flap weight and material. The flap can be made of wood, glass, MDF, with narrow or wide aluminium or wood frames – with Kinvaro L-80 you have the choice.

Despite its impressive functionality the Kinvaro L-80 system is nonetheless easy to install. Fronts can be fitted entirely without tools. Pre-mounted Euro screws are provided for convenient fastening to the cabinet side wall. And the cross member is also very easy to fit.

Both in looks and design, the Kinvaro L-80 represents a logical continuation of the successful and powerful Kinvaro S-35 and F-20 series – a movement system of a very special kind.

#### All product benefits at a glance

- · Particularly smooth movement
- · Also for use with handle-free fronts
- Comfort opening and closing, irrespective of flap weight, thanks to a spring-assisted opening function and integrated adjustable closing damper.
- The flap is held firmly in any position
- · Version for different front types
- A wide range of flap weights and materials, such as wood, glass, MDF, with narrow or wide aluminium and wood frames
- Simple, tool-free installation and extremely easy adjustment
- Pre-mounted Euro screws for fastening the fitting to the cabinet side wall
- High stability
- · Adjustable damper system
- · Easy installation

Drilling jigs for Kinvaro L-80 on request.

#### Application range

Flap weight from 1,9 to 14,6 kg Flap size: width 450 - 1200 mm

Cbinet height	Guide level type	Flap weight incl. handle° in kg		
mm		Spring A	Spring B	Spring C
350 - 369	1	2,5 - 6,5	6,0 - 9,5	-
370 - 389	2	2,3 - 6,0	5,5 - 9,0	8,5 - 9,6
390 - 409	3	2,1 - 5,5	5,0 - 8,5	8,0 - 10,1
410 - 429	4	1,9 - 5,0	4,5 - 8,0	7,5 - 14,6
430 - 600	5	2,0 - 4,5	4,0 - 7,5	7,0 - 14,6

#### Calculation of flap weight (all measurements in dm)

Flap width x flap height x flap thickness x density<sup>(2)</sup> + handle weight<sup>(3)</sup> = flap weight

Example:  $6 \text{ dm x } 4 \text{ dm x } 0.19 \text{ dm x } 0.85 \text{ kg/dm}^3 + 0.5 \text{ kg} = 4.5 \text{ kg}$ 

#### Calculation of flap width (all measurements in dm)

Flap weight - handle weight<sup>(3)</sup> = Flap width Example:  $\frac{4.5 - 0.5}{4 \times 0.19 \times 0.85}$  = 6.0 dm (600 mm)

- (1) This value corresponds to the maximum flap weight with a 1200 mm cabinet width and bar handle in 22 mm thick MDF material (0.85 kg/dm³).
- $^{(2)}$  Density: pine/spruce = 0.45 kg/dm³, chipboard = 0.65 kg/dm³, MDF = 0.85 kg/dm³
- (3) Bar handles must be calculated with 0.1 kg per 100 mm handle width when calculating the flap weight. Other weights are possible. When using higher weights, please consult the manufacturer. We recommend performing a trial mounting before series application.

#### Ordering information for set packaging

#### Kinvaro L-80 is available in industrial or set packaging.

#### Parallel flap lift fitting Kinvaro L-80 set packaging

Guide level type	Spring	Item No.
Typ 1	A	D2806006125
Typ 1	В	D2806011125
Typ 2	A	D2806007125
Typ 2	В	D2806012125
Typ 2	С	D2806017125
Тур 3	A	D2806008125
Тур 3	В	D2806013125
Тур 3	С	D2806018125
Typ 4	A	D2806009125
Typ 4	В	D2806014125
Typ 4	С	D2806019125
Typ 5	A	D2806010125
Typ 5	В	D2806015125
Typ 5	С	D2806020125
PU/packaging unit		PU 1

PU 1 = 1 set per carton consisting of: 1 fitting right and left with pre-mounted screws for fixing to cabinet side, 1 cover cap right and left in grey RAL 7040, 1 cross member 1090 mm for cutting to size, 2 sliding sleeves, 2 mounting plates for wooden front and front with wide aluminium frame or for mounting on aluminium frame adapter for narrow aluminium frame (19 mm), 1 mounting instruction

#### Kinvaro L-80

# Parallel flap lift fitting.

#### Ordering information for set packaging

#### The Kinvaro L-80 is available in industrial or set packaging.

#### Aluminium frame adapter Kinvaro L-80 set packaging

	Item No.
Aluminium frame adapter for narrow aluminium frames (19 mm) / overlay 13 - 17 mm	D2359045000
PU/packaging unit	PU 1

PU 1 = 1 set consisting of: 2 aluminium frame adapters, 16 fixing screws, 1 mounting instruction

#### Ordering information for industrial packaging

#### The Kinvaro L-80 is available in industrial or set packaging.

#### Parallel flap lift fitting Kinvaro L-80 industrial packaging

	Guide level type	Spring	Item No.
Kinvaro L-80 left	1	Spring A	D2807011125
Kinvaro L-80 rechts	1	Spring A	D2807012125
Kinvaro L-80 left	1	Spring B	D2807021125
Kinvaro L-80 right	1	Spring B	D2807022125
Kinvaro L-80 left	2	Spring A	D2807013125
Kinvaro L-80 right	2	Spring A	D2807014125
Kinvaro L-80 left	2	Spring B	D2807023125
Kinvaro L-80 right	2	Spring B	D2807024125
Kinvaro L-80 left	2	Spring C	D2807033125
Kinvaro L-80 right	2	Spring C	D2807034125
Kinvaro L-80 left	3	Spring A	D2807015125
Kinvaro L-80 right	3	Spring A	D2807016125
Kinvaro L-80 left	3	Spring B	D2807025125
Kinvaro L-80 right	3	Spring B	D2807026125
Kinvaro L-80 left	3	Spring C	D2807035125
Kinvaro L-80 right	3	Spring C	D2807036125
Kinvaro L-80 left	4	Spring A	D2807017125
Kinvaro L-80 right	4	Spring A	D2807018125
Kinvaro L-80 left	4	Spring B	D2807027125
Kinvaro L-80 right	4	Spring B	D2807028125
Kinvaro L-80 left	4	Spring C	D2807037125
Kinvaro L-80 right	4	Spring C	D2807038125
Kinvaro L-80 left	5	Spring A	D2807019125
Kinvaro L-80 right	5	Spring A	D2807020125
Kinvaro L-80 left	5	Spring B	D2807029125
Kinvaro L-80 right	5	Spring B	D2807030125
Kinvaro L-80 left	5	Spring C	D2807039125
Kinvaro L-80 right	5	Spring C	D2807040125
PU/packaging unit			PU 10

PU 10 = 1 carton with 10 fittings right or left with pre-mounted screws for fixing to cabinet side, 10 sliding sleeves, 1 mounting instruction, 10 adjusting instructions

#### Ordering information for industrial packaging

#### Cover caps Kinvaro L-80 industrial packaging

	Colour	Item No.
Kinvaro L-80 Cover cap left	grey RAL 7040	D2809002907
Kinvaro L-80 Cover cap right	grey RAL 7040	D2809003907
Kinvaro L-80 Cover cap left	white RAL 9001	D2809002962
Kinvaro L-80 Cover cap right	white RAL 9001	D2809003962
Kinvaro L-80 Cover cap left	aluminium coloured RAL 9006	D2809002997
Kinvaro L-80 Cover cap right	aluminium coloured RAL 9006	D2809003997
PU/packaging unit		PU 10

PU 10 = 1 carton with 10 cover caps right or left

#### Cross member Kinvaro L-80 industrial packaging

	Cabinet width	Item No.
Kinvaro L-80 Cross member	1200	D2359008516
Kinvaro L-80 Cross member	1000	D2359009516
Kinvaro L-80 Cross member	900	D2359010516
Kinvaro L-80 Cross member	800	D2359011516
Kinvaro L-80 Cross member	700	D2359012516
Kinvaro L-80 Cross member	600	D2359013516
Kinvaro L-80 Cross member	500	D2359014516
Kinvaro L-80 Cross member	450	D2359019516
PU/packaging unit		PU 10

PU 10 = 1 bundle of 10 cross members

#### Mounting plate for wooden front and front with wide aluminium frame for Kinvaro L-80 industrial packaging

	Item No.	Item No.
Kinvaro L-80 mounting plate for wood right/left	D2359038000	D2359039000
PU/packaging unit	PU 20	PU 200

PU 20 = 1 carton with 20 mounting plates

PU 200 = 1 carton mit 200 mounting plates

# Mounting plate with aluminium frame adapter for narrow aluminium frames (19 mm), overlay 13 mm - 17 mm for Kinvaro L-80 industrial packaging

	Item No.	Item No.
Kinvaro L-80 mounting plate and adapter for aluminium frames right/left	D2359040000	D2359042000
PU/packaging unit	PU 20	PU 80

PU 20 = 20 mounting plates with aluminium frame adapter incl. 80 fixing screws

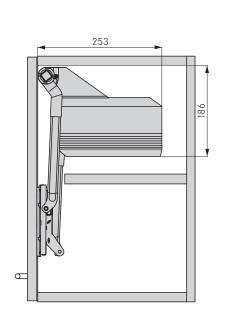
PU 80 = 80 mounting plates with aluminium frame adapter incl. 320 fixing screws

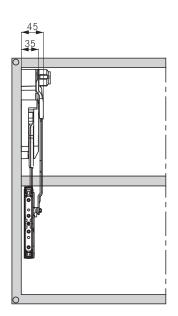
# Kinvaro L-80

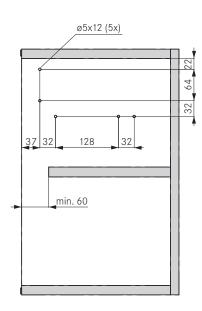
Parallel flap lift fitting.

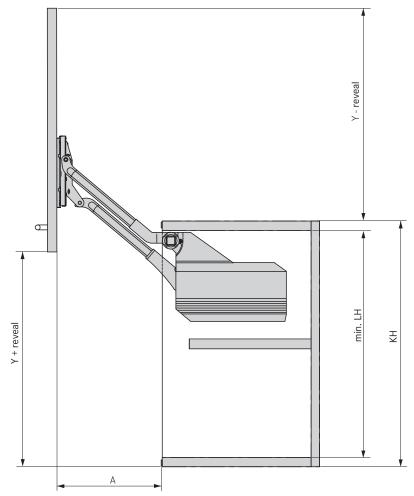
#### Mounting positions

#### Left-hand cabinet side. (Right-hand cabinet side mirror-inverted)





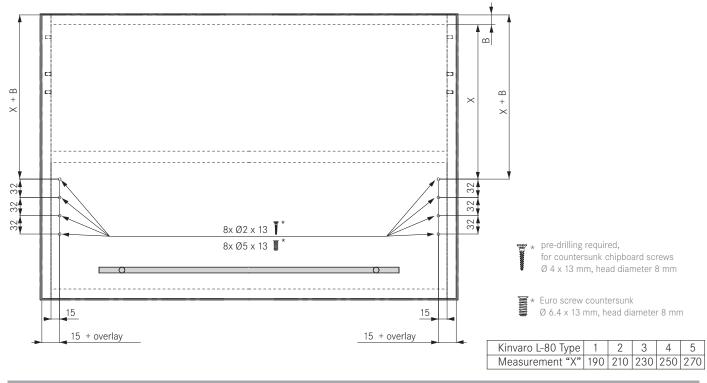




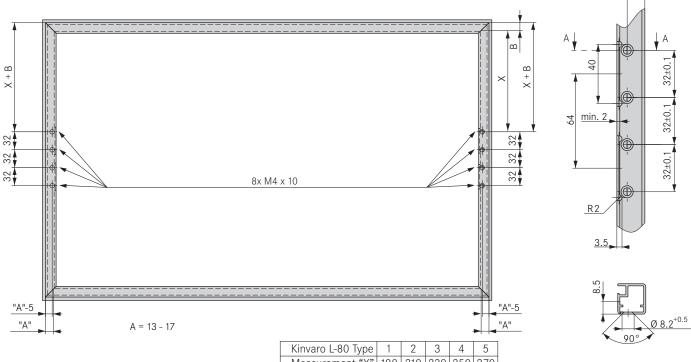
Kinvaro L-80 Type	KH	min. LH	Α	Υ
1	350 - 369	312	161	304
2	370 - 389	332	176	337
3	390 - 409	352	191	370
4	410 -429	372	206	403
5	430 - 600	392	221	436

<u>"A" -5</u>

#### Flap inside



#### Flap inside



Measurement "X" | 190 | 210 | 230 | 250 | 270

#### Kinvaro S-35

The elegant spring pack for lift-up flaps.







#### Modern appearance which swings elegantly into position

Not only does it permit the flaps of wall-mounted kitchen cabinets to open with the ultimative ease and close with gently damped motion: the Kinvaro S-35 also lifts flaps up at an angle above the cabinet and elegantly above cornices, pelmets and attached lights. The spring-assisted opening function also makes for the ideal balance. From an angle of around 45°, the Kinvaro S-35 holds the flap firmly in any position, safely leaving the user with both hands free. The spring force of the fitting can be adjusted with maximum ease both for lightweight natural wood flaps and for heavier versions in MDF

or glass. The Kinvaro S-35 is also available for handle-free kitchens and for all popular fronts with narrow or wide wood or aluminium frames. An integrated, individually adjustable damping mechanism guarantees extremely quiet, gentle closing action. Stability is assured by the special design of the fitting and an easily mountable cross member which also permits width compensation for side walls of 15 mm - 19 mm thickness.

The solid metal fitting is maintenance-free and protected against corrosion by a galvanised finish refinement. The modern look of the series is complemented to perfection by an attractive cover cap.

#### All product benefits at a glance

- Extremely easy-running action
- Permits the use of cornices, pelmets and attached lights
- Suitable for handle-free fronts
- Integrated adjustable damped closing action guarantees gentle closing
- $^{\circ}$  Three-dimensional flap adjustment possible (height, side, tilt). Direct adjustment  $\pm 1.5~\text{mm}$
- · Fast, toolless flap mounting
- · Maintenance-free
- Designed for different fronts and a wide variety of applications

- Variable opening angle guarantees reliable flap retention in any position from 45° upwards
- · Modern cover cap design
- Corrosion -resistant thanks to galvanised finish
- Spring-assisted opening function
- Fitting with premounted screws for fixing to the cabinet side
- Flap spectrum: Width: 450 mm 1200 mm, height: 420 mm - 750 mm
- · High stability

Drilling jigs for Kinvaro S-35 on request.

#### Application range

Flap weight from 1.5 kg to 17.5 kg

Flap size: width 450 mm - 1200 mm, height 420 mm - 750 mm

#### Kinvaro S-35 application range for fronts with bar handles

Flap height	Flap weight incl. handle° in kg				
	Spring A	Spring B	Spring C	Spring D	Spring E
420 - 449	1.5 - 7.5	5.0 - 11.0(1)	-	-	-
450 - 479	1.8 - 7.5	5.0 - 12.0 <sup>(1)</sup>	-	-	-
480 - 509	1.8 - 6.5	5.0 - 12.5(1)	-	-	-
510 - 539	2.0 - 6.0	5.0 - 13.0(1)	-	-	-
540 - 569	2.0 - 6.0	5.0 - 12.5	6.0 - 14.0(1)	-	-
570 - 599	2.0 - 6.0	5.0 - 11.0	5.5 - 12.0	11.5 - 14.5(1)	-
600 - 629	2.0 - 5.5	4.5 - 10.0	5.5 - 11.5	10.5 - 15.5 <sup>(1)</sup>	-
630 - 659	2.0 - 5.5	-	4.5 - 11.0	8.5 - 16.0*	-
660 - 689	2.0 - 5.0	-	4.0 - 10.0	7.5 - 15.0	12.0 - 16.5(1)
690 - 719	2.0 - 5.0	-	4.0 - 8.5	6.5 - 13,5	12.0 - 17.5 <sup>(1)</sup>
720 - 750	-	-	4.0 - 8.0	6.5 - 12.5	10.0 - 17.0

#### Kinvaro S-35 application range for handle-free fronts

Flap height		Flap weight in kg					
	Spring A	Spring B	Spring C	Spring D	Spring E		
420 - 449	1.5 - 7.5	5.0 - 10.0(1)	-	-	-		
450 - 479	1.8 - 7.0	5.0 - 11.0 <sup>(1)</sup>	-	-	-		
480 - 509	1.8 - 6.0	5.0 - 11.5 <sup>(1)</sup>	-	-	-		
510 - 539	2.0 - 6.0	5.0 - 12.0(1)	-	-	-		
540 - 569	2.0 - 6.0	5.0 - 13.0	-	-	-		
570 - 599	2.0 - 6.0	5.0 - 11.5	6.0 - 13.5	11.5 - 13.5(1)	-		
600 - 629	2.0 - 5.5	4.5 - 10.5	5.5 - 12.0	10.5 - 14.0(1)	-		
630 - 659	2.0 - 5.5	-	4.5 - 11.5	8.5 - 15.0 <sup>(1)</sup>	-		
660 - 689	2.0 - 5.0	-	4.0 - 10.5	7.5 - 15.5	-		
690 - 719	2.0 - 5.0	-	4.0 - 9.0	7.5 - 14.0	12.0 - 16.5(1)		
720 - 749	-	-	4.0 - 8.5	7.5 - 13.5	12.0 - 17.0(1)		
750 - 779	-	-	-	6.5 - 13.0	11.0 - 17.5		
780 - 810	-	-	-	6.5 - 12.5	10.0 - 16.5		

<sup>(1)</sup> This value corresponds to the maximum flap weight with a 1200 mm cabinet width and bar handle in 22 mm thick MDF material (0.85 kg/dm³).

#### Calculation of flap weight (all measurements in dm)

Flap width x flap height x flap thickness x density  $^{\!(2)}$  + handle weight  $^{\!(3)}$  = flap weight Example: 6 dm x 4 dm x 0.19 dm x 0.85 kg/dm  $^3$  + 0.5 kg = 4.5 kg

#### Calculation of Flap width (all measurements in dm)

Flap weight - handle weight<sup>(3)</sup> = flap width Example:  $\frac{4.5 - 0.5}{4 \times 0.19 \times 0.85}$  = 6.0 dm (600 mm)

 $<sup>^{(2)}</sup>$  Density: pine/spruce = 0.45 kg/dm³, chipboard = 0.65 kg/dm³, MDF = 0.85 kg/dm³

<sup>(9)</sup> Bar handles must be calculated with 0.1 kg per 100 mm handle width when calculating the flap weight. Other weights are possible. When using higher weights, please consult the manufacturer. We recommend performing a trial mounting before series application.

#### Kinvaro S-35

Lift-up flap fitting.

#### Ordering information for set packaging

#### The Kinvaro S-35 is available in industrial or set packaging.

#### Flap fitting Kinvaro S-35 set packaging

	Spring	Cabinet width	Item No.
Kinvaro S-35 left / right	Spring A	450 - 1200	D2356001125
Kinvaro S-35 left / right	Spring B	450 - 1200	D2356002125
Kinvaro S-35 left / right	Spring C	450 - 1200	D2356003125
Kinvaro S-35 left / right	Spring D	450 - 1200	D2356004125
Kinvaro S-35 left / right	Spring E	450 - 1200	D2356005125
PU/packaging unit			PU 1

PU 1 = 1 set per carton consisting of: 1 fitting right and left with pre-mounted screws for fixing to cabinet side, 1 cover cap right and left in grey RAL 7040, 1 cross member 1090 mm for cutting to size, 2 sliding sleeves, 2 mounting plates for wooden front and front with wide aluminium frame or for mounting on aluminium frame adapter for narrow aluminium frame (19 mm), 1 mounting instruction

#### Aluminium frame adapter Kinvaro S-35 set packaging

	Item No.
Aluminium frame adapter for narrow aluminium frames (19 mm) / overlay 13 - 17 mm	D2359045000
PU/packaging unit	PU 1

PU 1 = 1 set consisting of: 2 aluminium frame adapters, 16 fixing screws, 1 mounting instruction

#### Ordering information for industrial packaging

#### The Kinvaro S-35 is available in industrial or set packaging.

#### Flap fitting Kinvaro S-35 industrial packaging

	Spring	Item No.
Kinvaro S-35 left	Spring A	D2357001125
Kinvaro S-35 right	Spring A	D2357002125
Kinvaro S-35 left	Spring B	D2357003125
Kinvaro S-35 right	Spring B	D2357004125
Kinvaro S-35 left	Spring C	D2357005125
Kinvaro S-35 right	Spring C	D2357006125
Kinvaro S-35 left	Spring D	D2357007125
Kinvaro S-35 right	Spring D	D2357008125
Kinvaro S-35 left	Spring E	D2357009125
Kinvaro S-35 right	Spring E	D2357010125
PU/packaging unit		PU 1

PU 1 = 1 carton with 10 fittings right or left with pre-mounted screws for fixing to cabinet side, 10 sliding sleeves, 1 mounting instruction, 10 adjusting instructions

#### Cover caps Kinvaro S-35 industrial packaging

	Colour	Item No.
Kinvaro S-35 cover cap left	grey RAL 7040	D2359002907
Kinvaro S-35 cover cap right	grey RAL 7040	D2359003907
Kinvaro S-35 cover cap left	white	D2359002962
Kinvaro S-35 cover cap right	white	D2359003962
Kinvaro S-35 cover cap left	aluminium coloured RAL 9006	D2359002997
Kinvaro S-35 cover cap right	aluminium coloured RAL 9006	D2359003997
PU/packaging unit		PU 10

PU 10 = 1 carton with 10 cover caps right or left

#### Ordering information for industrial packaging

#### Cross member S-35 industrial packaging

	Cabinet width	Item No.
Kinvaro S-35 cross member	1200	D2359008516
Kinvaro S-35 cross member	1000	D2359009516
Kinvaro S-35 cross member	900	D2359010516
Kinvaro S-35 cross member	800	D2359011516
Kinvaro S-35 cross member	700	D2359012516
Kinvaro S-35 cross member	600	D2359013516
Kinvaro S-35 cross member	500	D2359014516
Kinvaro S-35 cross member	450	D2359019516
PU/packaging unit		PU 10

PU 10 = 1 bundle of 10 cross members

# Mounting plate with aluminium frame adapter for narrow aluminium frames (19 mm), overlay 13 mm - 17 mm for Kinvaro S-35 industrial packaging

	Item No.	Item No.
Kinvaro S-35 mounting plate and adapter for aluminium frames right/left	D2359040000	D2359042000
PU/packaging unit	PU 20	PU 80

PU 20 = 20 mounting plates with aluminium frame adapter incl. 80 fixing screws

PU 80 = 80 mounting plates with aluminium frame adapter incl. 320 fixing screws

#### Mounting plate for wooden front and front with wide aluminium frame for Kinvaro S-35 industrial packaging

	Item No.	Item No.
Kinvaro S-35 mounting plate for wood right/left	D2359038000	D2359039000
PU/packaging unit	PU 20	PU 200

PU 20 = 1 carton with 20 mounting plates

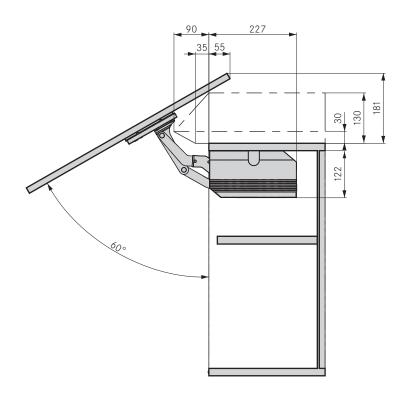
PU 200 = 1 carton mit 200 mounting plates

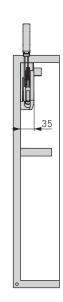
# Kinvaro S-35

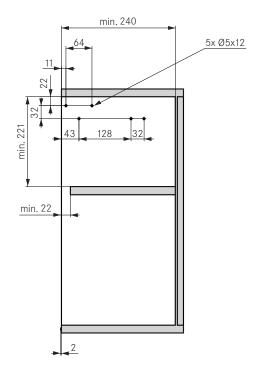
Lift-up flap fitting.

#### Mounting positions

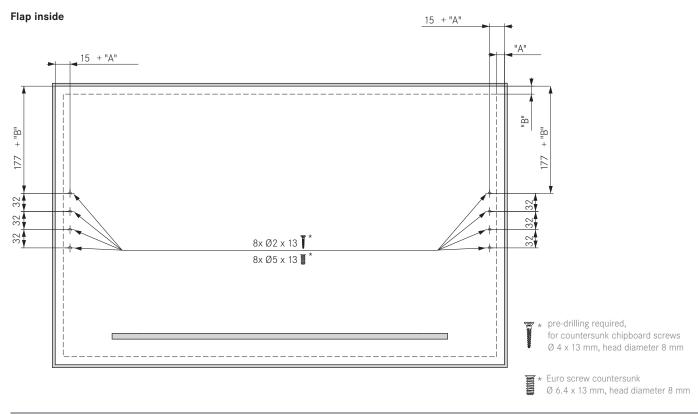
Left-hand cabinet side. (Right-hand cabinet side mirror-inverted)



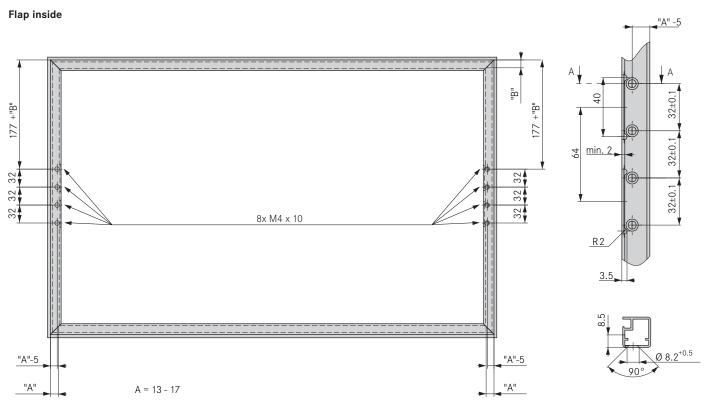




#### Mounting for wooden and frame flaps (min. 45 mm width)



#### lounting for flaps with standard aluminium frame profile (19 mm



# Kinvaro T-65 / Kinvaro T-70 / Kinvaro T-75

The best of modern design with intelligent, silent technology.





#### All product benefits at a glance

- Integrated, adjustable damped closing action permits quiet, gentle closing
- Wide application spectrum due to the wide spring force adjustment range – from small, lightweight flaps in natural wood to heavy versions in MDF or glass
- Special opening comfort due to spring powerassisted opening function
- · No concealed hinges required in top panel
- Variable opening angle: holds the flap securely at any opening position from 45° to 100°/110°

- Corrosion protection through galvanised finish
- Version for glass doors with metal frame, available for different profiles and door overlays
- · Allows additional cabinet installation above
- With narrow fixing bracket for frame doors (with 12 mm overlay for frame widths 39 mm - 50 mm; 17 mm overlay for frame widths 44 mm - 55 mm)
- Kinvaro T-70 / Kinvaro T-75 : with direct height adjustment on the flap side

Drilling jigs for Kinvaro T-65, T-70 and T-75 on request.

#### Controlled power - modern design combined with impressive technology.

Integrated damping puts an end to loud closing noises once and for all. The damping mechanism permits gentle, almost silent closing of wall-mounted cabinets, even with large and heavy flaps. Even excessive closing forces can be reliably compensated. The Kinvaro T-65 fitting extends the wide application range of the Grass flap fitting family to include small, lightweight flaps. The really impressive aspect of the Kinvaro T-65, T-70 and T-75 flap fittings is not just their innovative func-

tional capability. The standardised look allows them to blend in seamlessly with the aesthetic styling of contemporary kitchen and functional furniture.

The flap fittings are also capable of holding flaps effortlessly and reliably at any opening position between  $45\,^\circ$ and 100° or 110°. The spring-assisted opening function ensures of additional operating convenience.

Kinvaro T-65



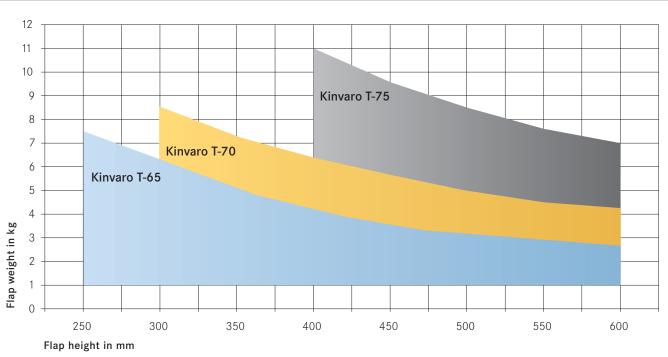




Kinvaro T-75



#### Application diagram for Kinvaro T-65, Kinvaro T-70, Kinvaro T-75



# Kinvaro T-65, Kinvaro T-70, Kinvaro T-75

Flap fittings.

#### Application range

Flap weight from 0.7 kg to 11.0 kg Flap size: width up to 1200 mm, height 250 mm - 600 mm

#### Application range for Kinvaro T-65, Kinvaro T-70, Kinvaro T-75

	Flap weight incl. handle° in kg					
Flap height	Kinvaro T-65	Kinvaro T-65	Kinvaro T-65	Kinvaro T-70	Kinvaro T-70	Kinvaro T-75
	spring on one side	spring on both sides				
	yellow	yellow	black	white	orange	standard
250	0.9 - 2.1	1.8 - 4.2	2.4 - 7.4	-	-	-
300	0.7 - 1.7	1.4 - 3.4	2.0 - 6.3	2.1 - 7.4	2.5 - 8.5	-
350	-	1.0 - 2.9	1.7 - 5.4	1.8 - 6.3	2.3 - 7.5	-
400	-	0.8 - 2.5	1.5 - 4.7	1.7 - 5.4	2.1 - 6.8	7.0 - 11.0
450	-	0.7 - 2.2	1.3 - 4.2	1.6 - 4.7	2.0 - 5.8	6.7 - 9.6
500	-	0.6 - 2.0	1.3 - 3.9	1.5 - 4.0	1.8 - 5.0	5.8 - 8.5
550	-	-	1.3 - 3.4	1.4 - 3.7	1.6 - 4.6	5.6 - 7.6
600	-	-	1.3 - 3.1	1.4 - 3.3	1.4 - 4.2	5.2 - 7.0

#### Calculation of flap weight (all measurements in dm)

Flap width x flap height x flap thickness x density $^{(2)}$  + handle weight $^{(3)}$  = flap weight Example: 6 dm x 4 dm x 0.19 dm x 0.85 kg/dm $^3$  + 0.5 kg = 4.5 kg

#### Calculation of Flap width (all measurements in dm)

Flap weight - handle weight<sup>(3)</sup> = flap width Example:  $\frac{4.5 - 0.5}{4 \times 0.19 \times 0.85}$  = 6.0 dm (600 mm)

 $<sup>^{(2)}</sup>$  Density: pine/spruce = 0.45 kg/dm³, chipboard = 0.65 kg/dm³, MDF = 0.85 kg/dm³

<sup>(3)</sup> Bar handles must be calculated with 0.1 kg per 100 mm handle width when calculating the flap weight. Other weights are possible. When using higher weights, please consult the manufacturer. We recommend performing a trial mounting before series application.

#### Ordering information for set packaging

#### The Kinvaro T-65 is available in industrial or set packaging.

#### Flap fitting Kinvaro T-65 set packaging

	Designation	Overlay	Spring	Cover cap	Item No.
Kinvaro T-65	wood	variable	black, mounted on both sides	grey RAL 7040	D267.200.23.25
			yellow, included		
Kinvaro T-65	narrow aluminium frame	13 mm	black, mounted on both sides	grey RAL 7040	D267.252.33.25
			yellow, included		
Kinvaro T-65	narrow aluminium frame	14 mm	black, mounted on both sides	grey RAL 7040	D267.252.23.25
			yellow, included		
Kinvaro T-65	narrow aluminium frame	16 mm	black, mounted on both sides	grey RAL 7040	D267.251.43.25
			yellow, included		
Kinvaro T-65	narrow aluminium frame	17 mm	black, mounted on both sides	grey RAL 7040	D267.251.83.25
			yellow, included		
PU/packaging u	nit				PU 1

PU 1 = 1 set per carton consisting of 1 fitting right and left with black spring, 1 cover cap right and left, 2 yellow springs, 1 mounting instruction, 1 adjustment instruction Other overlays on request.

#### Ordering information for industrial packaging

#### Flap fitting Kinvaro T-65 industrial packaging

	Designation	Overlay	Spring	Item No.
Kinvaro T-65	wood	variable	yellow, mounted on one side	D267.200.83.25
Kinvaro T-65	wood	variable	yellow, mounted on both sides	D267.200.53.25
Kinvaro T-65	wood	variable	black, mounted on both sides	D267.200.43.25
Kinvaro T-65	narrow aluminium frame	13 mm	yellow, mounted on one side	D267.252.43.25
Kinvaro T-65	narrow aluminium frame	13 mm	yellow, mounted on both sides	D267.250.33.25
Kinvaro T-65	narrow aluminium frame	13 mm	black, mounted on both sides	D267.250.53.25
Kinvaro T-65	narrow aluminium frame	14 mm	yellow, mounted on one side	D267.252.53.25
Kinvaro T-65	narrow aluminium frame	14 mm	yellow, mounted on both sides	D267.250.43.25
Kinvaro T-65	narrow aluminium frame	14 mm	black, mounted on both sides	D267.250.63.25
Kinvaro T-65	narrow aluminium frame	16 mm	yellow, mounted on one side	D267.252.63.25
Kinvaro T-65	narrow aluminium frame	16 mm	yellow, mounted on both sides	D267.251.73.25
Kinvaro T-65	narrow aluminium frame	16 mm	black, mounted on both sides	D267.251.33.25
Kinvaro T-65	narrow aluminium frame	17 mm	yellow, mounted on one side	D267.252.73.25
Kinvaro T-65	narrow aluminium frame	17 mm	yellow, mounted on both sides	D267.252.03.25
Kinvaro T-65	narrow aluminium frame	17 mm	black, mounted on both sides	D267.251.23.25
PU/packaging unit				PU 10

PU 10 = 1 carton with 10 fittings right and left, 1 mounting instruction, 10 adjustment instuctions

Other overlays on request.

#### Cover caps Kinvaro T-65 industrial packaging

	Colour	Item No.
Kinvaro T-65 cover caps right and left	grey RAL 7040	D267.900.19.07
Kinvaro T-65 cover caps right and left	white	D267.900.19.62
Kinvaro T-65 cover caps right and left	aluminium coloured RAL 9006	D267.900.19.97
PU/packaging unit		PU 10

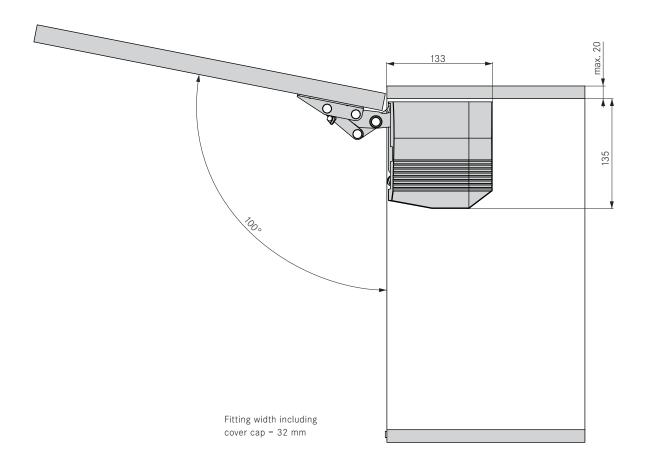
PU 10 = 1 carton with 10 cover caps right and left

Other colours on request.

# **Kinvaro T-65**

Flap fittings.

#### Installation measurements for Kinvaro T-65



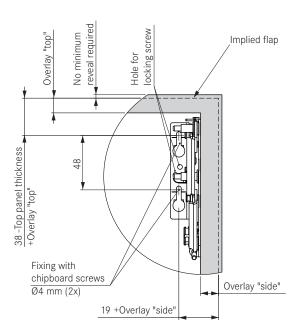
#### Mounting positions for wooden flaps

#### Cabinet side (mounting with countersunk Euro screws)

# With buffer thickness 2 mm 33 64 Buffer thickness 2 Top panel Spring force adjustment Side

\*Can also be used for fixing the fitting as desired

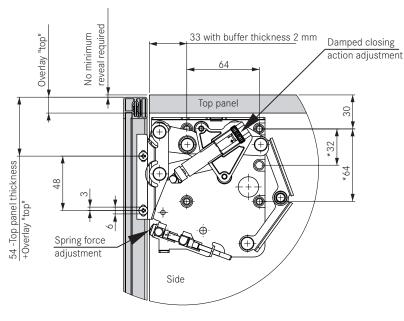
#### Wooden flap



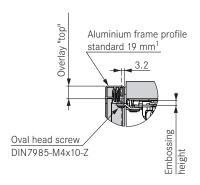
#### Mounting positions for flaps with aluminium frame 19 mm

#### Cabinet side (mounting with countersunk Euro screws)

<sup>1</sup>When using with other aluminium profiles, please enquire.







#### Kinvaro T-70

Flap fitting.

#### Ordering information for set packaging

#### The Kinvaro T-70 is available in industrial or set packaging.

#### Flap fitting Kinvaro T-70 individual packaging

	Designation	Overlay	Spring	Cover cap	Item No.
Kinvaro T-70	wood	variable	white, mounted	grey RAL 7040	D271.200.33.25
			orange included		
Kinvaro T-70	narrow aluminium frame	13 mm	white, mounted	grey RAL 7040	D271.253.03.25
			orange included		
Kinvaro T-70	narrow aluminium frame	14 mm	white, mounted	grey RAL 7040	D271.252.93.25
			orange included		
Kinvaro T-70	narrow aluminium frame	16 mm	white, mounted	grey RAL 7040	D271.252.13.25
			orange included		
Kinvaro T-70	narrow aluminium frame	17 mm	white, mounted	grey RAL 7040	D271.252.53.25
			orange included		
PU/packaging u	nit				PU 1

PU 1 = 1 set per carton consisting of 1 fitting right and left, 1 cover cap right and left, 2 orange springs, 1 mounting instruction

Other overlays on request.

#### Ordering information for industrial packaging

#### Flap fitting Kinvaro T-70 industrial packaging

	Designation	Overlay	Spring	Item No.
Kinvaro T-70	wood	variable	white, mounted on both sides	D271.200.53.25
Kinvaro T-70	wood	variable	orange, mounted on both sides	D271.200.63.25
Kinvaro T-70	narrow aluminium frame	13 mm	white, mounted on both sides	D271.252.23.25
Kinvaro T-70	narrow aluminium frame	13 mm	orange, mounted on both sides	D271.251.93.25
Kinvaro T-70	narrow aluminium frame	14 mm	white, mounted on both sides	D271.250.53.25
Kinvaro T-70	narrow aluminium frame	14 mm	orange, mounted on both sides	D271.250.33.25
Kinvaro T-70	narrow aluminium frame	16 mm	white, mounted on both sides	D271.251.83.25
Kinvaro T-70	narrow aluminium frame	16 mm	orange, mounted on both sides	D271.251.53.25
Kinvaro T-70	narrow aluminium frame	17 mm	white, mounted on both sides	D271.251.33.25
Kinvaro T-70	narrow aluminium frame	17 mm	orange, mounted on both sides	D271.252.83.25
PU/packaging u	nit			PU 10

PU~10 = 1~carton~with~10~fittings~right~and~left,~1~mounting~instruction,~10~adjusting~instruction

Other overlays on request.

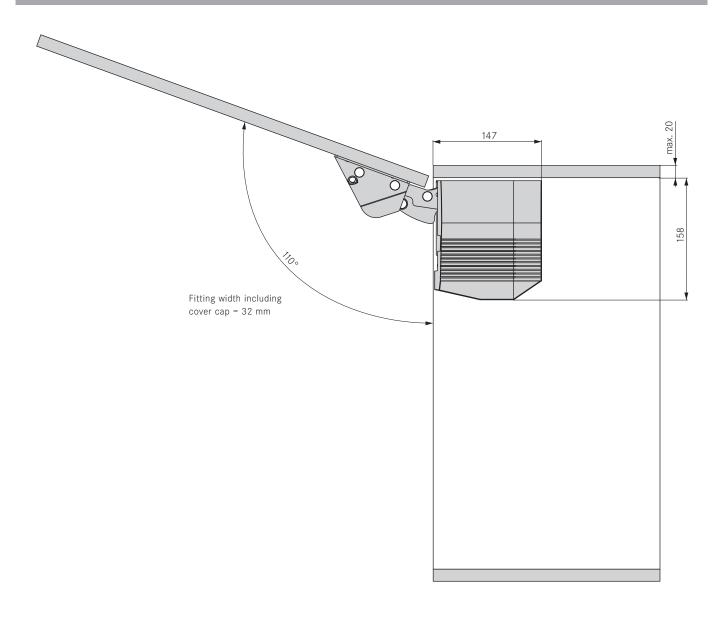
#### Cover caps Kinvaro T-70 industrial packaging

	Colour	Item No.
Kinvaro T-70 cover caps	grey RAL 7040	D271.900.19.07
Kinvaro T-70 cover caps	white	D271.900.19.62
Kinvaro T-70 cover caps	alu coloured RAL 9006	D271.900.19.97
PU/packaging unit		PU 10

PU 10 = 1 carton with 10 cover caps right and left

Other colours on request.

#### Installation measurements Kinvaro T-70



#### Kinvaro T-75

Flap fitting.

#### Ordering information for set packaging

#### The Kinvaro T-75 is available in industrial or set packaging.

#### Flap fitting Kinvaro T-75 set packaging

	Designation	Overlay	Spring	Cover cap	Item No.
Kinvaro T-75	wood	variable	standard	grey RAL 7040	D276.200.33.25
Kinvaro T-75	narrow aluminium frame	13 mm	standard	grey RAL 7040	D276.251.13.25
Kinvaro T-75	narrow aluminium frame	14 mm	standard	grey RAL 7040	D276.251.33.25
Kinvaro T-75	narrow aluminium frame	16 mm	standard	grey RAL 7040	D276.251.43.25
Kinvaro T-75	narrow aluminium frame	17 mm	standard	grey RAL 7040	D276.250.83.25
PU/packaging u	nit	PU 1			

PU 1 = 1 set per carton with 1 fitting right and left, 1 cover cap right and left, 1 mounting instruction

Other overlays on request.

#### Order information industrial packaging

#### Flap fitting Kinvaro T-75 industrial packaging

	Designation	Overlay	Spring	Item No.
Kinvaro T-75	wood	variable	standard	D276.200.53.25
Kinvaro T-75	narrow aluminium frame	13 mm	standard	D276.251.23.25
Kinvaro T-75	narrow aluminium frame	14 mm	standard	D276.250.73.25
Kinvaro T-75	narrow aluminium frame	16 mm	standard	D276.250.43.25
Kinvaro T-75	narrow aluminium frame	17 mm	standard	D276.251.53.25
PU/packaging u	nit	PU 10		

PU 1 = 1 carton with 10 fittings right and left, 1 mounting instruction, 10 adjusting instructions

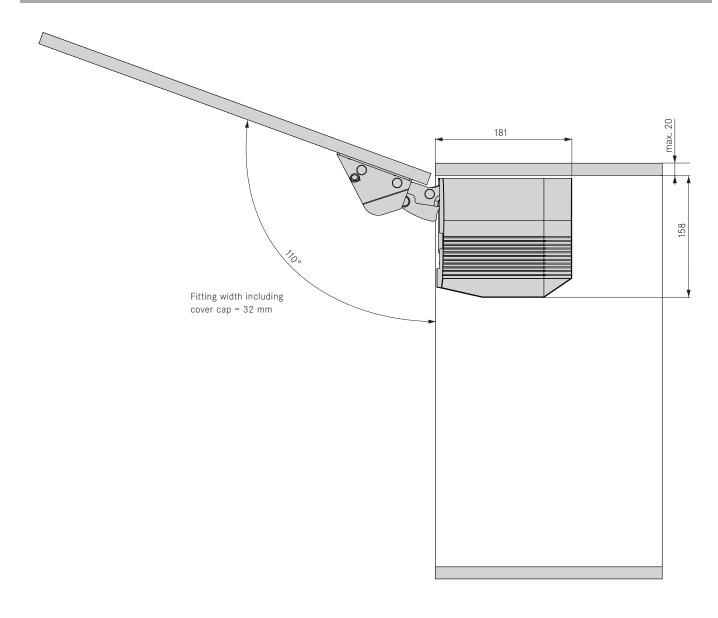
Other overlays on request.

#### Cover caps Kinvaro T-75 industrial packaging

	Colour	Item No.
Kinvaro T-75 cover caps	grey RAL 7040	D276.900.19.07
Kinvaro T-75 cover caps	white	D276.900.19.62
Kinvaro T-75 cover caps	aluminium coloured RAL 9006	D276.900.19.97
PU/packaging unit		PU 10

PU 10 = 1 carton with 10 cover caps right and left

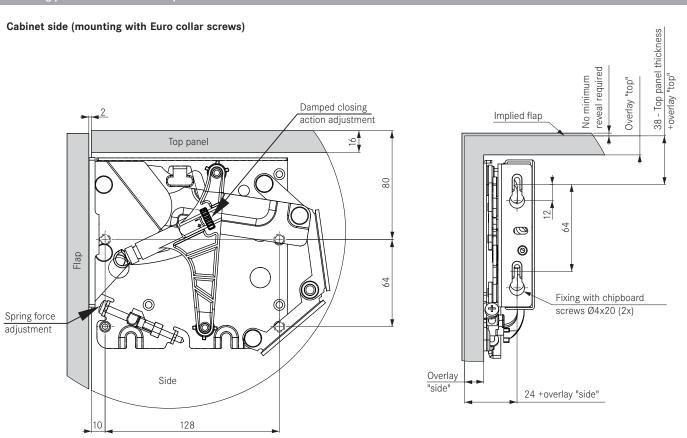
#### Installation measurements Kinvaro T-75



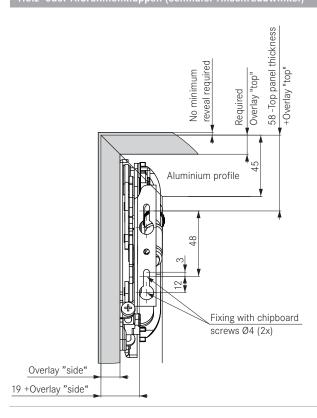
# Kinvaro T-70 / Kinvaro T-75

Flap fittings.

#### Mounting positions for wooden flaps

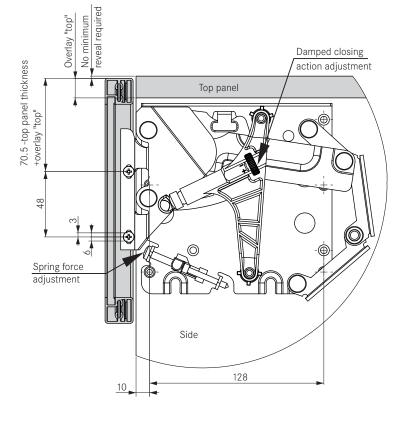


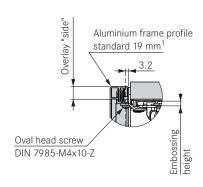
Holz- oder Alurahmenklappen (schmaler Anschraubwinkel)



#### Montage für Klappen mit Alurahmen von Schüco Nr. 901092 oder Nr. 9010783

Kinvaro T-70 and Kinvaro T-75 Side wall (mounting with Euro countersunk screws) \*Bei Einsatz mit anderen Aluprofilen bitte wir um Rücksprache.





#### Kinvaro T-57

#### Convertible flexibility.







#### Flap fitting Kinvaro T-57 is ideally equipped to cope with all situations.

The Kinvaro T-57 can be optionally used with a fixed or adjustable spring in line with the respective flap weight. The spring technology allows not only large but also very heavy flaps to be effortlessly lifted. Installation is equally simple: with keyholes on the flap side and 32 mm system holes on the side

wall. The fitting features two variable opening angles (75 degrees or 90 degrees) and is suitable both for wooden flaps and aluminium flaps with glass panels. The two-in-one solution (hinge and support function in one) means that no concealed hinges whatsoever are required in the top panel.

#### All product benefits at a glance

- For fitting with fixed or adjustable springs
- No concealed hinges in the top panel required
- High-grade nickel plated steel springs cover a wide spectrum of flap sizes / flap weights.
- Variable opening angle: 75° or 90°
- From approx. 17 degrees, the flap swivels upwards automatically and is held securely open.
- · Allows additional cabinet installation above
- For wooden flaps and aluminium flaps with glass panels
- High-grade epoxy coated surface white or nickel plated

- Excellent running properties due to maintenance-free plastic bearing
- 32 mm hole spacing system for mounting using Euro screws
- Fixing hole for securing the mounted fitting with a chipboard screw
- With narrow screw-on bracket for frame-type doors (for frame width 39 mm - 50 mm/12 mm overlay; for frame width 44 mm - 55 mm/17 mm)
- Height adjustment of the flap possible via slots

Drilling jigs for Kinvaro T-57 on request.

# **G**\*

#### Application range

#### Formula for determining your individual spring combination:

Now look for the spring combination which comes closest to your result in the table below.

All fitting components can be combined as required. In borderline cases, always take the next higher spring force.

A trial mounting is always required!

#### Application range for 0.85 kg/dm³ (e. MDF 19 mm thickness)

Flap height	Flap width						
		with small h	andle	v	with bar handle°		
	min.		max.	min.		max.	
300	400	to	1200	400	to	1000	
350	400	to	1000	400	to	700	
400	400	to	700	400	to	500	
450	400	to	500	400	to	400	
500	400	to	400	-		-	
550	-		-	-		-	
600	-		-	-		-	

#### Application range for 0.65 kg/dm³ (e. chipboard 19 mm thickness)

Flap height	Flap width							
		with small h	nandle	with bar handle°				
	min.		max.	min.		max.		
300	400	to	1200	400	to	1200		
350	400	to	1200	400	to	800		
400	400	to	900	400	to	600		
450	400	to	700	400	to	500		
500	400	to	500	400	to	400		
550	400	to	400	-		-		
600	-		-	-		-		

#### Application range for 0.45 kg/dm³ (e. pine 19 mm thickness)

Flap height	Flap width							
		with small I	nandle	with bar handle°				
	min.		max.	min.		max.		
300	400	to	1200	400	to	1200		
350	400	to	1200	400	to	1100		
400	400	to	1200	400	to	800		
450	400	to	1000	400	to	700		
500	400	to	800	400	to	500		
550	400	to	600	400	to	400		
600	400	to	500	400	to	400		

 $<sup>^{\</sup>circ}$  Bar handles must be calculated with 0.1 kg per 100 mm handle width when calculating the flap weight.

## **Kinvaro T-57**

Flap fitting.

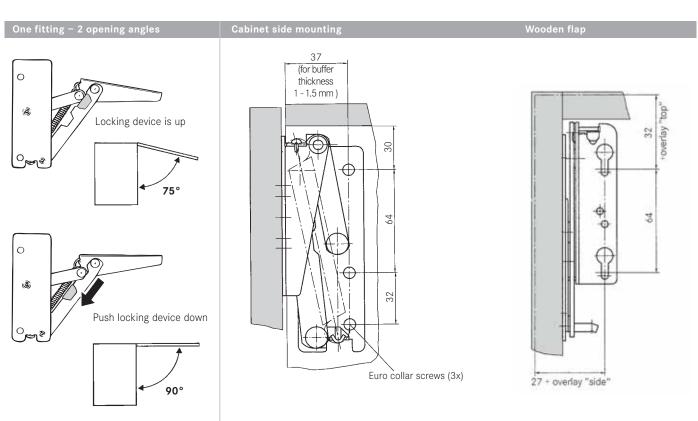
#### Order information industrial packaging

#### Flap fitting Kinvaro T-57 industrial packaging

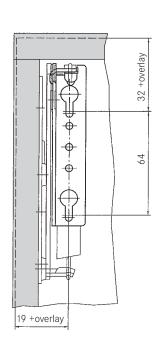
Туре	Designation	left/right	Overlay	Spring	Item No.	Item No.
					white	nickel plated
Kinvaro T-57	wood	left	variable	adjustable up to 240N	D257.500.51.62	D257.501.81.25
Kinvaro T-57	wood	right	variable	adjustable up to 240N	D257.500.52.62	D257.501.82.25
Kinvaro T-57	wood	left	variable	green 120N	D257.500.21.62	D257.501.61.25
Kinvaro T-57	wood	right	variable	green 120N	D257.500.22.62	D257.501.62.25
Kinvaro T-57	wood	left	variable	black 200N	D257.500.41.62	D257.502.71.25
Kinvaro T-57	wood	right	variable	black 200N	D257.500.42.62	D257.502.72.25
Kinvaro T-57	wood	left	variable	without spring	D257.500.61.62	D257.500.61.25
Kinvaro T-57	wood	right	variable	without spring	-	-
Kinvaro T-57	19 mm aluminium frame	left	13 mm	adjustable up to 240N	-	D257.550.21.25
Kinvaro T-57	19 mm aluminium frame	right	13 mm	adjustable up to 240N	-	D257.550.22.25
Kinvaro T-57	19 mm aluminium frame	left	13 mm	green 120N	-	D257.550.81.25
Kinvaro T-57	19 mm aluminium frame	right	13 mm	green 120N	-	D257.550.82.25
Kinvaro T-57	19 mm aluminium frame	left	13 mm	black 200N	-	D257.553.61.25
Kinvaro T-57	19 mm aluminium frame	right	13 mm	black 200N	-	D257.553.62.25
Kinvaro T-57	19 mm aluminium frame	left	13 mm	without spring	-	D257.651.61.25
Kinvaro T-57	19 mm aluminium frame	right	13 mm	without spring	-	-
Kinvaro T-57	19 mm aluminium frame	left	14 mm	adjustable up to 240N	-	D257.550.31.25
Kinvaro T-57	19 mm aluminium frame	right	14 mm	adjustable up to 240N	-	D257.550.32.25
Kinvaro T-57	19 mm aluminium frame	left	14 mm	green 120N	-	D257.552.21.25
Kinvaro T-57	19 mm aluminium frame	right	14 mm	green 120N	-	D257.552.22.25
Kinvaro T-57	19 mm aluminium frame	left	14 mm	black 200N	-	D257.553.71.25
Kinvaro T-57	19 mm aluminium frame	right	14 mm	black 200N	-	D257.553.72.25
Kinvaro T-57	19 mm aluminium frame	left	14 mm	without spring	-	D257.653.81.25
Kinvaro T-57	19 mm aluminium frame	right	14 mm	without spring	-	-
Kinvaro T-57	19 mm aluminium frame	left	16 mm	adjustable up to 240N	-	D257.550.51.25
Kinvaro T-57	19 mm aluminium frame	right	16 mm	adjustable up to 240N	-	D257.550.52.25
Kinvaro T-57	19 mm aluminium frame	left	16 mm	green 120N	-	D257.553.91.25
Kinvaro T-57	19 mm aluminium frame	right	16 mm	green 120N	-	D257.553.92.25
Kinvaro T-57	19 mm aluminium frame	left	16 mm	black 200N	-	D257.554.01.25
Kinvaro T-57	19 mm aluminium frame	right	16 mm	black 200N	-	D257.554.02.25
Kinvaro T-57	19 mm aluminium frame	left	16 mm	without spring	-	D257.652.51.25
Kinvaro T-57	19 mm aluminium frame	right	16 mm	without spring	-	-
Kinvaro T-57	19 mm aluminium frame	left	17 mm	adjustable up to 240N	-	D257.550.61.25
Kinvaro T-57	19 mm aluminium frame	right	17 mm	adjustable up to 240N	-	D257.550.62.25
Kinvaro T-57	19 mm aluminium frame	left	17 mm	green 120N	-	D257.553.41.25
Kinvaro T-57	19 mm aluminium frame	right	17 mm	green 120N	-	D257.553.42.25
Kinvaro T-57	19 mm aluminium frame	left	17 mm	black 200N	-	D257.554.11.25
Kinvaro T-57	19 mm aluminium frame	right	17 mm	black 200N	-	D257.554.12.25
Kinvaro T-57	19 mm aluminium frame	left	17 mm	without spring	-	D257.654.21.25
Kinvaro T-57	19 mm aluminium frame	right	17 mm	without spring	-	-
PU/packaging u	nit	'	·	PU 100	PU 100	

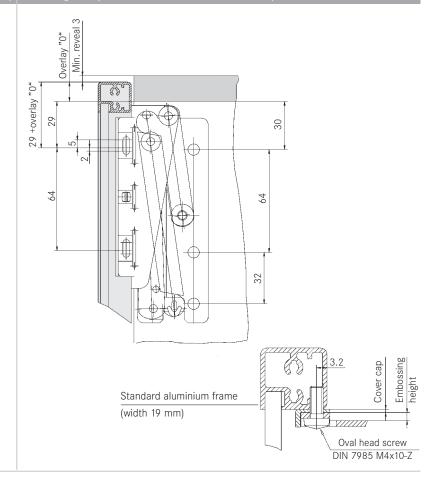
PU 100 = 1 carton with 100 fittings right and left, 100 mounting instructions

Other overlays on request.



Wooden or aluminium frame flaps (narrow screw-on bracket) | Mounting of flaps with standard aluminium frames, width 19 mm





#### Kinvaro T-105

Uplifting design plus powerful opening support.







# Large front, sophisticated design. The Kinvaro T-105 opens flaps up to an angle of $105^\circ$ - and keeps them there.

The wide adjusting range of the spring mechanism reduces the number of variants and ensures maximum flexibility for planning and installation. The Kinvaro T-105 takes everything easily in its stride: an efficient spring mechanism ensures effortless, convenient opening of flaps to any angle between 45° and 105° and holds them reliably in place. And installing the SK-105 flap is almost simpler still: the flap stay is simply clipped into place – done.

The Kinvaro T-105 is optionally available with a foot for wooden doors or for standard aluminium frame-type flaps with glass panels (width 19 mm). Door overlays of 12 mm - 17 mm are possible.

#### Hinges for use in combination with the Kinvaro T-105 can be found in the Grass Hinge Catalogue.



Example: Nexis Click-on 22



Example: Nexis Click-on 17AL

Nexis Click-on 17AL

Drilling jigs for Kinvaro T-105 on request.

- Design perfection for all types of uses: kitchen, living room or office furniture
- Wide adjusting range for a broad spectrum of different flaps
- Variable opening angle holds flaps securely open at 45° to 105°
- Spring-assisted opening action for extremely convenient flap opening
- Convenient access to the cabinet interior, as the flap swings out of the work area
- Suitable for wooden doors and aluminium frame-type flaps with glass panels
- Can be used with another cabinet directly
  above.
- · Maintenance-free, no readjustment required
- · High-grade die-cast zinc quality, nickel plated

#### Application range

Flap weight from 0,9 up to 10,4 kg Flap size: width up to 1200 mm, height 300 - 500 mm

#### application range Kinvaro T-105

		Klappengewicht inkl. Griff° in kg					
Flap height mm	Numbers of Kinvaro T-105	Kinvaro T-105 spring	Kinvaro T-105 spring	Kinvaro T-105 spring			
		red	standard	black			
300	1	1.4 - 3.1	1.6 - 4,3	2.8 - 5.2			
300	2	2.8 - 6.2	3.2 - 8.6	5.5 - 10.4			
350	1	1.3 - 2.8	1.3 - 4.1	2.4 4.8			
350	2	2.6 - 5.5	2.6 - 8.1	4.8 - 9.5			
400	1	1.2 - 2.4	1.3 - 3.4	2.2 - 4.0			
400	2	2.4 - 4.8	2.5 - 6.8	4.3 - 8.1			
450	1	1.0 - 2.2	1.2 - 3.1	1.9 - 3.8			
450	2	2.0 - 4.4	2.4 - 6.1	3.8 - 7.4			
500	1	0.9 - 1.9	1.1 - 2.9	1.7 - 3.5			
500	2	1.7 - 3.8	2.2 - 5.8	3.3 - 6.7			

#### Calculation of flap weight (all measurements in dm)

Flap width x flap height x flap thickness x density $^{(2)}$  + handle weight $^{(3)}$  = flap weight Example: 6 dm x 4 dm x 0.19 dm x 0.85 kg/dm $^3$  + 0.5 kg = 4.5 kg

#### Calculation of Flap width (all measurements in dm)

Flap weight - handle weight<sup>(3)</sup> = Flap width Example:  $\frac{4.5 - 0.5}{4 \times 0.19 \times 0.85}$  = 6.0 dm (600 mm)

 $<sup>^{(2)}</sup>$  Density: pine/spruce = 0.45 kg/dm³, chipboard = 0.65 kg/dm³, MDF = 0.85 kg/dm³

<sup>(3)</sup> Bar handles must be calculated with 0.1 kg per 100 mm handle width when calculating the flap weight. Other weights are possible. When using higher weights, please consult the manufacturer. We recommend performing a trial mounting before series application.

#### Kinvaro T-105

Flap stay.

#### Ordering information for set packaging

#### The Kinvaro T-105 is available in industrial or set packaging.

#### Flap stay Kinvaro T-105 set packaging

	Designation	left/right	Overlay	Spring	Cover vap	Item No.
Kinvaro T-105	wood	left	variable	red	black	D265.200.41.25
Kinvaro T-105	wood	right	variable	red	black	D265.200.42.25
Kinvaro T-105	wood	left	variable	standard	black	D265.100.31.25
Kinvaro T-105	wood	right	variable	standard	black	D265.100.32.25
Kinvaro T-105	wood	left	variable	black	black	D265.300.81.25
Kinvaro T-105	wood	right	variable	black	black	D265.300.82.25
Kinvaro T-105	19 mm aluminium frame	left	13 mm	red	black	D265.252.21.25
Kinvaro T-105	19 mm aluminium frame	right	13 mm	red	black	D265.252.22.25
Kinvaro T-105	19 mm aluminium frame	left	13 mm	standard	black	D265.152.21.25
Kinvaro T-105	19 mm aluminium frame	right	13 mm	standard	black	D265.152.22.25
Kinvaro T-105	19 mm aluminium frame	left	13 mm	black	black	D265.352.21.25
Kinvaro T-105	19 mm aluminium frame	right	13 mm	black	black	D265.352.22.25
Kinvaro T-105	19 mm aluminium frame	left	14 mm	red	black	D265.252.31.25
Kinvaro T-105	19 mm aluminium frame	right	14 mm	red	black	D265.252.32.25
Kinvaro T-105	19 mm aluminium frame	left	14 mm	standard	black	D265.152.31.25
Kinvaro T-105	19 mm aluminium frame	right	14 mm	standard	black	D265.152.32.25
Kinvaro T-105	19 mm aluminium frame	left	14 mm	black	black	D265.352.31.25
Kinvaro T-105	19 mm aluminium frame	right	14 mm	sblack	black	D265.352.32.25
Kinvaro T-105	19 mm aluminium frame	left	16 mm	red	black	D265.252.51.25
Kinvaro T-105	19 mm aluminium frame	right	16 mm	red	black	D265.252.52.25
Kinvaro T-105	19 mm aluminium frame	left	16 mm	standard	black	D265.152.51.25
Kinvaro T-105	19 mm aluminium frame	right	16 mm	standard	black	D265.152.52.25
Kinvaro T-105	19 mm aluminium frame	left	16 mm	black	black	D265.352.51.25
Kinvaro T-105	19 mm aluminium frame	right	16 mm	black	black	D265.352.52.25
Kinvaro T-105	19 mm aluminium frame	left	17 mm	red	black	D265.252.61.25
Kinvaro T-105	19 mm aluminium frame	right	17 mm	red	black	D265.252.62.25
Kinvaro T-105	19 mm aluminium frame	left	17 mm	standard	black	D265.152.61.25
Kinvaro T-105	19 mm aluminium frame	right	17 mm	standard	black	D265.152.62.25
Kinvaro T-105	19 mm aluminium frame	left	17 mm	black	black	D265.352.61.25
Kinvaro T-105	19 mm aluminium frame	right	17 mm	black	black	D265.352.62.25
PU/packaging ur	nit					PU 1

PU 1 = 1 carton with 1 fitting right or left incl. fixing bracket, 1 mounting instruction

Other overlays on request.

#### Ordering information for industrial packaging

#### Flap stay Kinvaro T-105 industrial packaging

	right/left	Overlay	Spring	Cover cap	Item No.
Kinvaro T-105	left	variable	red	black	D265.200.51.25
Kinvaro T-105	right	variable	red	black	D265.200.52.25
Kinvaro T-105	left	variable	standard	black	D265.100.41.25
Kinvaro T-105	right	variable	standard	black	D265.100.42.25
Kinvaro T-105	left	variable	black	black	D265.300.31.25
Kinvaro T-105	right	variable	black	black	D265.300.32.25
PU/packaging unit					PU 40

PU 40 = 1 carton with 40 fittings right or left, 1 mounting instruction, 40 adjusting instructions

#### Ordering information for industrial packaging

#### Front fixing bracket for flap stay Kinvaro T-105 industrial packaging

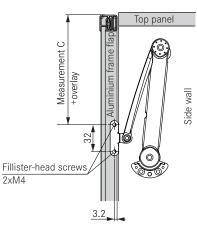
	Designation	right/left	Overlay	Item No.
Front fixing bracket	wood	right/left	variable	D265.902.11.25
Front fixing bracket	19 mm aluminium frame	right/left	13 mm	D265.952.21.25
Front fixing bracket	19 mm aluminium frame	right/left	14 mm	D265.952.31.25
Front fixing bracket	19 mm aluminium frame	right/left	16 mm	D265.952.51.25
Front fixing bracket	19 mm aluminium frame	right/left	17 mm	D265.952.61.25
PU/packaging unit				PU 40

PU 40 = 1 plastic bag with 40 fixing brackets right/left

Other overlays on request.

#### Mounting with wooden and aluminium frame flaps

#### Cabinet side Wooden flap Aluminium frame flaps Top panel Top panel Top panel and aluminium frame flaps $\circ$ Measurement C Measurement Measurement A Measurement B Wooden flap Side +overlay Side wall Countersunk chipboard 32 Adjusting 2x Ø5/8 deep screw Ø 3.5 screw for pin Fillister-head screws 2xM4 11+overlay 2x countersunk chipboard screw Ø4 \* Mounting dimensions with buffer width of 2 mm



Opening angle	Height of	Measurement	Mesurement	Mesurement
of hinge	mounting plate			С
95°	00	169	174	118
	01	170	175	119
	•	•	•	•
	•	•	•	•
	X	169 + X	174 + X	118 + X
100°	00	167	172	116
	01	168	173	117
	•	•	•	•
	•	•	•	•
	X	167 + X	172 + X	116 + X
105°	00	164	169	113
and above	01	165	170	114
	•	•	•	•
	•	•	•	•
	X	164 + X	169 + X	113 + X

#### The mounting dimensions refer to standard concealed hinges with cranking 00.

The opening angle can vary between approx. 95° and approx. 105° depending on hinge type and mounting method. Minimum reveal and gap distances depend on the concealed hinge used. Suitable hinges can be found in the Grass Hinge Catalogue.

If concealed hinges with different opening angles are used when combining wooden and aluminium frame flaps, the smaller opening angle of the concealed hinges used is taken as the basis for the mounting dimension for both flaps.

#### A trial mounting is always recommended prior to series application!







#### **QUATURIS** CORNER CABINET SYSTEMS

Comfortable corner cabinet solutions for more storage space. Efficient. Adaptable. Functional.



# **Quaturis corner carousels**

Product overview.

	Page
Quaturis 75 Corner carousel for 90° corner solutions  New, adjustable closing device Shelves individually adjustable in height Basic mechanism for 80 cm and 90 cm corner cabinets Variable telescopic tube for different worktop heights reduces the need to stock different variants	2.4
HT-28/29 3/4 circle wooden shelves for Quaturis 75  Distinctive design Optimum stability Toolless mounting	2.6
ET-28/29 3/4 circle plastic shelves for Quaturis 75  Attractive design Optimum stability Simple mounting and removal	2.8
Quaturis 90 Corner carousel for diagonal corner cabinets  • More storage space thanks to eccentric axle  • Adjustable damping for closing action  • For 90 cm corner cabinets	2.10
Circular wooden shelves for Quaturis 90  Attractive design Optimum stability Simple mounting and removal	2.12
Bearing crosses for Quaturis 75 and 90  • Precise guidance for the mechanism	2.14

	Page
Quaturis 10 Special fitting for 1/2 circle shelves	
Shelves swing out with the door	2.16
Semi-circular wooden shelves for Quaturis 10  Attractive design Optimum stability Simple mounting and removal	2.17
Quaturis 20 Special fitting with pivot bearings for circular shelves	2.18
Circular wooden shelves for Quaturis 20  Attractive design Optimum stability Simple mounting and removal	2.19

#### **Quaturis 75**

For 90° corner solutions.







# The Quaturis 75 stands for variability on every level: to benefit planners, furniture builders and users alike.

The Quaturis 75 is good news for everyone. Take damping mechanisme. The unique damping mechanism of the Quaturis 75 makes doors close smoothly and elegantly at any time as it can be adjusted to door weight, number of shelves and loading weight. Optimal function is guaranteed even with fully loaded shelves, due to the fact that the doors are not fixed at the shelves.

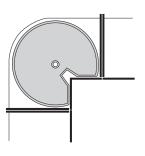
Because the Quaturis 75 serves as a basic mechanism for both 80 cm and 90 cm corner cabinets, the logistics department benefits too – with simpler warehousing and transport. Its ability to adapt to a wide range of door cutouts and accommodate all commonly used shelf types leaves only one possible conclusion: the versatile Quaturis 75 is totally in tune with contemporary requirements.

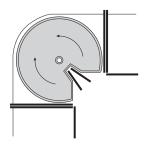
- One fitting for 80 cm and 90 cm corner cabinets
- Optimal stability due to door connection at the top and the bottom and all-steel door brackets
- · For use with either 2 or 3 shelves
- Shelves individually adjustable in height
- Standard door brackets usable for normal doors and frame doors
- Logistical advantages due to premounted components
- Thanks to telescopic tube, one fitting can be used for different cabinet heights
- Two-phase damping system, that can be adjusted individually according to door and shelf weight

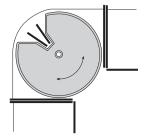
- Optimal reveals and gaps due to three dimensional door adjustment (height, side, depth)
- Integrated door lowering allows small reveals between door and worktop
- · Corrosion protection through epoxy coating
- · Outstanding moving and closing action
- Optimal access to the storage space of adjacent cabinets even when corner cabinet is open
- · Quick and easy mounting
- Toolless door mounting
- Toolless mounting of the telescopic tube
- Maintenance-free



#### Sequence of movements









The variable telescopic tube can be adjusted to different cabinet and worktop heights.









#### Ordering information

Whether you are selling to the trade or manufacturing – we can help you to put your ideas into practice.

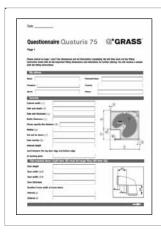
#### Sales support fort the trade

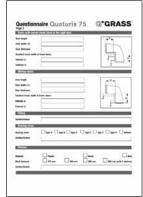
We sit down with you to select the right cabinet and the best fittings for your markets. We then follow this up by providing you with technical documentation tailored precisely to your specific fitting, which you can then give to your clients. How we can help: take the strain off your internal logistics department and order our special packaging units tailored specifically to the needs of the trade.

#### Individual solutions for industry

By supplying you with a product sample tailored precisely to your production needs, we offer you the chance to perform exhaustive function testing prior to production.

We also provide complete technical documentation to assist your initial assembly.





Like every other Grass corner carousel mechanism, the Quaturis 75 is individually produced in accordance with your needs. The data sheet is used as a basis for costumer specific production.

Using the information provided on the data sheet about the cabinet, doors, mechanism, bearing cross and shelves, we are able to define the ideal mechanism for your needs. We will also be pleased to advise you on how best to define individual specifications and dimensions, right through to the complete cabinet.

Packaging units:

- 30 pieces
- 1 piece

3/4 circle wooden shelves HT-28/29 Page 2.6

3/4 circle plastic shelves ET-28/29

Page 2.8

Bearing crosses

Page 2.14

# HT-28/29 shelves

3/4 circle wooden shelves for Quaturis 75.



#### Shelf ranges HT-28/29 offer a successful combination of aesthetics and functionality.

Wooden shelves in a 3/4 circle format suitable for the Quaturis 75 corner carousel made of melamine-coated 16 mm chipboard in conjunction with a modern wire rail or – equally remarkable and sophisticated – a translucent plastic rail. A shelf design that unites a sophisticated appearance with optimum functionality. Another major feature is the simplicity of installation – without the need for tools.

- Unique, top-class design
- · Different rail options
- Special versions on request
- Also available with anti-slip surface
- HT 28 for 800 x 800 corner cabinets
- HT 29 for 900 x 900 corner cabinets
- Self-explanatory toolless installation
- · Shelves are easy to remove
- Optimum stability due to 5-fold screw fixing
- The basic range permits highly flexible extension







#### Simple shelf mounting:

The most important criteria for shelf mounting are simplicity, speed, absolute safety and easy detachability: all guaranteed by simple connection assembly to the clamping element.





#### Modern design:

3/4 circle wooden shelves with wire rail and 3/4 circle wooden shelves with translucent plastic rail

#### 3/4 circle wooden shelves, 16 mm chipboard with grey surface

HT-28 for 800 x 800 corner cabinets, shelf diameter Ø 710 HT-29 for 900 x 900 corner cabinets, shelf diameter Ø 810

	Transluc	Translucent rail		Wire rail, chrome-plated		Wire rail, silver RAL 9006	
	Item No.	Item No.	Item No.	Item No.	Item No.	Item No.	
HT-28 (Ø 710)	D105.281.01.00	D105.282.01.00	D105.281.01.27	D105.282.01.27	D105.281.01.97	D105.282.01.97	
HT-29 (Ø 810)	D105.291.01.00	D105.292.01.00	D105.291.01.27	D105.292.01.27	D105.291.01.97	D105.292.01.97	
PU/packaging unit	PU 6	PU 2	PU 6	PU 2	PU 6	PU 2	

PU 6 = 6 pieces per carton

PU 2 = 2 pieces per carton

#### 3/4 circle wooden shelves, 16 mm chipboard with grey surface, anti-slip coated

# HT-28 for 800 x 800 corner cabinets, shelf diameter Ø 710 HT-29 for 900 x 900 corner cabinets, shelf diameter Ø 810

	Transluc	Translucent rail		Wire rail, chrome-plated		Wire rail, silver RAL 9006	
Anti-slip coated	Item No.	Item No.	Item No.	Item No.	Item No.	Item No.	
HT-28 (Ø 710)	D106.281.01.00	D106.282.01.00	D106.281.01.27	D106.282.01.27	D106.281.01.97	D106.282.01.97	
HT-29 (Ø 810)	D106.291.01.00	D106.292.01.00	D106.291.01.27	D106.292.01.27	D106.291.01.97	D106.292.01.97	
PU/packaging unit	PU 6	PU 2	PU 6	PU 2	PU 6	PU 2	

PU 6 = 6 pieces per carton

PU 2 = 2 pieces per carton

# HT-28/29 shelves

3/4 circle plastic shelves for Quaturis 75.



# Hard-wearing material, easy mounting and an attractive design: ET-28/29 shelves cannot fail to impress.

Starting with ease of assembly: the shelves can be simply mounted using just a screwdriver - even into already fitted cabinets.

The same applies to the materials: our shelves are made of impactresistant antistatic polystyrene.

One more factor which makes

Grass shelves so exceptionally easy to clean. Another benefit: is the choice of colours.

This show–stopping performance is rounded off by the wide rim and a particularly hard-wearing, ribbed construction underneath for maximum stability.

- Very attractive design
- · Impact-resistant polystyrene
- Anti-static surface
- ET 28 for 800 x 800 corner cabinets
- ET 29 for 900 x 900 corner cabinets
- · Simple mounting
- Ribbed construction underneath for maximum stability
- · Different colours available







White RAL 9010



Granite



Signal grey RAL 7004



Easy shelf mounting



#### 3/4 circle plastic shelves

# ET-28 for 800 x 800 corner cabinets, shelf diameter Ø 710 ET-29 for 900 x 900 corner cabinets, shelf diameter Ø 810

	,						
	White R	White RAL 9010		Granite		Signal grey RAL 7004	
	Item No.						
ET-28 (Ø 710)	D112.800.29.62	D112.800.19.62	D112.800.29.03	D112.800.19.03	D112.800.29.11	D112.800.19.11	
ET-29 (Ø 810)	D112.900.29.62	D112.900.19.62	D112.900.29.03	D112.900.19.03	D112.900.29.11	D112.900.19.11	
PU/packaging unit	PU 2	PU 10	PU 2	PU 10	PU 2	PU 10	

PU 10 = 10 pieces per carton PU 2 = 2 pieces per carton

#### **Quaturis 90**

For diagonal corner cabinets.

With more storage space due to eccentric axle.







# The Quaturis 90 features an axle set completely on the outside. Which not only looks good, it also permits the entire shelf area to be used with no obstructions.

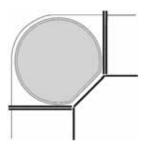
The innovative corner carousel mechanism Quaturis 90 opens up whole new perspectives for kitchen furniture design. Your customers will be amazed by its unique look and extensive clear storage area. These benefits are achieved not only by the eccentric axle but also the ability of the doors to rotate 360° to the left or right with the shelves inside the cabinet. The result: not only more space, but also easy, convenient access. The pneumatically damped closing action of the Quaturis 90 makes for quiet, gentle door closure. Special shelves designed for the Quaturis 90 are used, and the mechanism is equally suitable for use with straight and also curved doors.

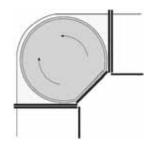
The technical sophistication and attractive appearance of this mechanism are enhanced by a 3-dimensional door adjustment system – an important final touch for perfect alignment of door reveals.

- More storage space due to eccentric axle
- Optimum access to the contents as the door swivels inside the cabinet
- Pneumatically damped closing action for quiet, gentle door closure
- For straight or curved fronts
- Shelves specifically designed in line with the fitting system
- Perfect action even when fully loaded, as the doors are not attached to the shelves
- Ideal door gap alignment due to 3-dimensional adjustment

G

#### Sequence of movements













#### Ordering information

Whether you are selling to the trade or manufacturing – we can help you to put your ideas into practice.

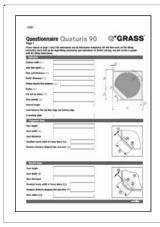
#### Sales support fort the trade

We sit down with you to select the right cabinet and the best fittings for your markets. We then follow this up by providing you with technical documentation tailored precisely to your specific fitting, which you can then give to your clients. How we can help: take the strain off your internal logistics department and order our special packaging units tailored specifically to the needs of the trade.

#### Individual solutions for industry

By supplying you with a product sample tailored precisely to your production needs, we offer you the chance to perform exhaustive function testing prior to production.

We also provide complete technical documentation to assist your initial assembly.





Like every other Grass corner carousel mechanism, the Quaturis 75 is individually produced in accordance with your needs. The data sheet is used as a basis for costumer specific production.

Using the information provided on the data sheet about the cabinet, doors, mechanism, bearing cross and shelves, we are able to define the ideal mechanism for your needs. We will also be pleased to advise you on how best to define individual specifications and dimensions, right through to the complete cabinet.

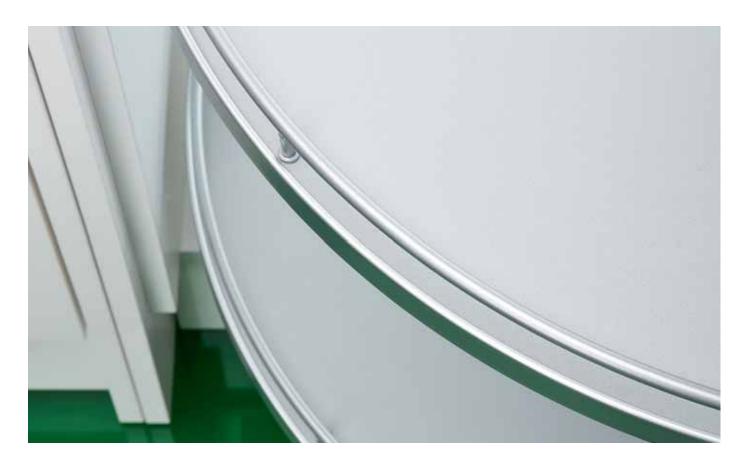
#### Packaging units:

- 15 pieces
- 1 piece

Circular wooden shelves HT-49	Page 2.12	Bearing crosses	Page 2.14

#### HT-49 shelves

Circular shelves for Quaturis 90.



#### Shelf range HT-49 offers a successful combination of aesthetics and functionality.

Wooden shelves in a circular format suitable for the Quaturis 90 corner carousel made of melamine-coated 16 mm chipboard in conjunction with a modern wire rail or – equally remarkable and sophisticated – a translucent plastic rail. A shelf design that unites a sophisticated appearance with optimum functionality. Another major feature is the simplicity of installation – without the need for tools.

- Unique, top-class design
- · Different rail options
- Special versions on request
- · Also available with anti-slip surface
- HT-49 for 900 x 900 corner cabinets



#### Innovative design:

Circular wooden shelves with wire rail, chrome-plated, silver RAL 9006 or plastic translucent.

#### Circular wooden shelves, 16 mm chipboard with grey surface

#### HT-49 for 900 x 900 corner cabinets, shelf diameter Ø 820 $\,$

	Translu	Translucent rail		Wire rail, chrome-plated		Wire rail, silver RAL 9006	
	Item No.	Item No.	Item No.	Item No.	Item No.	Item No.	
HT-49 (Ø 820)	D105.491.01.00	D105.492.01.00	D105.491.01.27	D105.492.01.27	D105.491.01.97	D105.492.01.97	
packaging unit	PU 6	PU 2	PU 6	PU 2	PU 6	PU 2	

PU 6 = 6 pieces per carton

PU 2 = 2 pieces per carton

#### Circular wooden shelves, 16 mm chipboard with grey surface, anti-slip coated

#### HT-49 for 900 x 900 corner cabinets, shelf diameter Ø 820

	Translucent rail		Wire rail, chrome-plated		Wire rail, silver RAL 9006	
Anti-slip coated	Item No.	Item No.	Item No.	Item No.	Item No.	Item No.
HT-49 (Ø 820)	D106.491.01.00	D106.492.01.00	D106.491.01.27	D106.492.01.27	D106.491.01.97	D106.492.01.97
PU/packaging unit	PU 6	PU 2	PU 6	PU 2	PU 6	PU 2

PU 6 = 6 pieces per carton

PU 2 = 2 pieces per carton

# **Bearing crosses for Quaturis 75 and 90**

Precise guidance for the mechanism – stability for the corner cabinet.



# The more precise the axle guidance in the bearing cross, the better the action of the entire corner carousel mechanism.

No wonder the quality of the bearing cross affects not only the running properties of the corner carousel mechanism, but also the life expectancy and stability of the cabinet. And Grass bearing crosses have a lot to offer in terms of economy, too. No additional upper panel is required, and the high-grade epoxy-coating lends optimum surface protection as well as attractive looks.

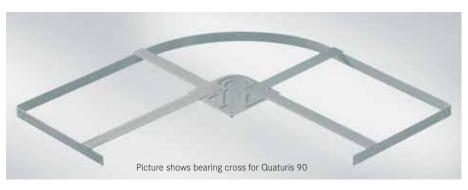


#### Bearing cross Type A for Quaturis 75

for 800 mm or 900 mm cabinet width, epoxy-coated steel

#### Bearing cross Type A for Quaturis 90

for 900 mm cabinet width, epoxy-coated steel

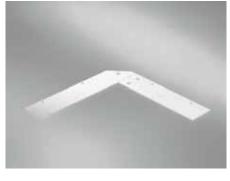


#### Bearing cross Type E for Quaturis 75

with rear wall fixture, for 800 mm or 900 mm cabinet width, galvanised steel

#### Bearing cross Type E for Quaturis 90

with rear wall fixture, for 900 mm cabinet width, galvanised steel



#### Cover bracket for cabinet bottom

Cover to close the gap at the cabinet bottom, epoxy-coated steel.

The order number for the bearing cross is provided with the order number of your customer-specific mechanism.

Packaging units:

Packaged in cartons, corresponding to the number of mechanisms

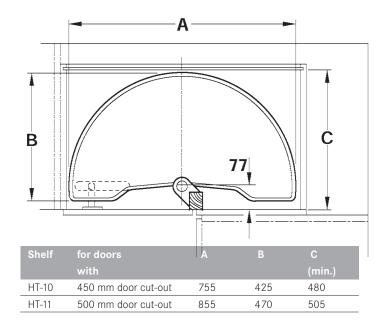
Quaturis 75	Page 2.4	Quaturis 90	Page 2.10

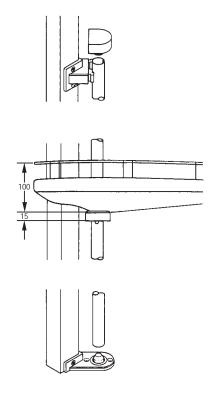
#### **Quaturis 10**

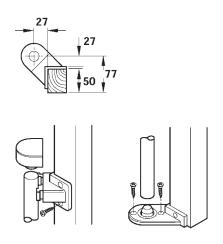
Corner carousel fitting for semi-circular wooden shelves.

#### Quaturis 10 is the special fitting for semi-circular shelves

This has a tubular aluminium axle with a length of 550 mm and bearing components in top-grade plastic. The swivel arm fitting in grey plastic allows the bottom shelf to swing out when the cabinet is opened.









#### Quaturis 10 corner cabinet fitting for semi-circular wooden shelves

	Item No.	Item No.
Quaturis 10	D105.005.51.69	D105.005.01.69
PU/packaging unit	PU 1	PU 15

PU 1 = 1 piece per carton

PU 15 = 15 pieces per carton

1 fitting consists of:

1 aluminium axle, height 550 mm bearing parts in white plastic

#### Swivel arm fitting for Quaturis 10

	Item No.	Item No.
Swivel arm	D105.006.29.56	D105.006.19.56
PU/packaging unit	PU 1	PU 15

PU 1 = 1 piece

PU 15 = 15 pieces per carton





#### Shelf ranges HT-10/11 for the Quaturis 10 corner carousel.

Wooden shelves in a semi-circular format suitable for the Quaturis 10 corner carousel made of melamine- coated 16 mm chipboard in conjunction with a modern wire rail or - equally remarkable and sophisticated – a translucent plastic rail. Edge and rail form a single continuous unit. A shelf design that unites a sophisticated appearance with optimum functionality.

#### Semi-circular wooden shelves, 16 mm chipboard with grey surface

#### HT-10 for 900 x 550 corner cabinets, shelf diameter Ø 755 HT-11 for 1000/1200 x 550 corner cabinets, shelf diameter Ø 855

	Transluc	Translucent rail		Wire rail, chrome-plated		er RAL 9006
	Item No.	Item No.	Item No.	Item No.	Item No.	Item No.
HT-10 (Ø 755)	D105.101.01.00*	D105.102.01.00	D105.101.01.27*	D105.102.01.27	D105.101.01.97*	D105.102.01.97
HT-11 (Ø 855)	D105.111.01.00	D105.112.01.00	D105.111.01.27	D105.112.01.27	D105.111.01.97	D105.112.01.97
PU/packaging unit	PU 6/*PU 12	PU 2	PU 6/*PU 12	PU 2	PU 6/*PU 12	PU 2

PU 12 = 12 pieces per carton

PU 6 = 6 pieces per carton

PU 2 = 2 pieces per carton

#### Semi-circularwooden shelves, 16 mm chipboard with grey surface, anti slip coated

#### HT-10 for 900 x 550 corner cabinets, shelf diameter Ø 755 HT-11 for $1000/1200 \times 550$ corner cabinets, shelf diameter Ø 855

	Translucent rail		Wire rail, chrome-plated		Wire rail, silver RAL 9006	
Anti-slip coated	Item No.	Item No.	Item No.	Item No.	Item No.	Item No.
HT-10 (Ø 755)	D106.101.01.00*	D106.102.01.00	D106.101.01.27*	D106.102.01.27	D106.101.01.97*	D106.102.01.97
HT-11 (Ø 855)	D106.111.01.00	D106.112.01.00	D106.111.01.27	D106.112.01.27	D106.111.01.97	D106.112.01.97
PU/packaging unit	PU 6/*PU 12	PU 2	PU 6/*PU 12	PU 2	PU 6/*PU 12	PU 2

PU 12 = 12 pieces per carton

PU 6 = 6 pieces per carton

PU 2 = 2 pieces per carton

#### **Quaturis 20**

Corner carousel fitting for circular wooden shelves.

#### Quaturis 20 is the special fitting for circular shelves.

Its galvanised steel tube and sturdy pivot bearings in steel and high-grade plastic ensure precise and maintenance-free function. Two steel bearing pins to take the shelves are also included.

#### Quaturis 20 corner carousel fitting for circular wooden shelves

	Item No.
Quaturis 20	D1.02.000
PU/packaging unit	PU 10

PU 10 = 10 pieces per carton

1 fitting comprising:

Pivot axle in galvanised steel

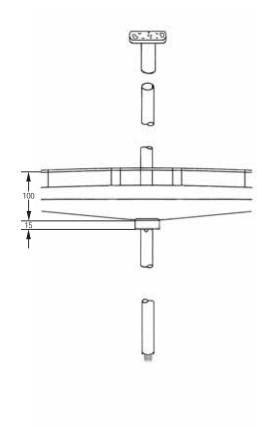
Upper bearing in white plastic

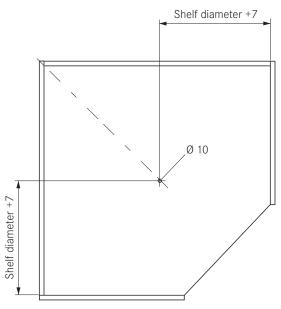
Lower bearing in galvanized steel

2 bearing pins in galvanised steel to take the shelves

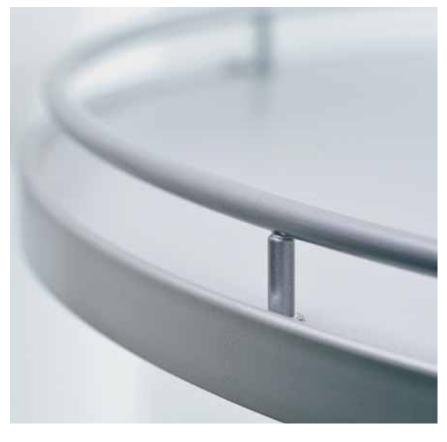
Pivot axles available in various lengths.

Please specify inside height of cabinet when ordering.





Tolerance  $\pm$  0.5 for all measurements



#### Shelf ranges HT-36/39 for the Quaturis 20 corner carousel.

Wooden shelves in a circular format suitable for the Quaturis 10 corner carousel made of melamine- coated 16 mm chipboard in conjunction with a modern wire rail or - equally remarkable and sophisticated - a translucent plastic rail. Edge and rail form a single continuous unit. A shelf design that unites a sophisticated appearance with optimum functionality.

#### Circular wooden shelves, 16 mm chipboard with grey surface

HT-36 for 600 x 600 mm corner cabinets, shelf diameter Ø 470  $\,$ HT-39 for 800 x 800 mm corner cabinets, shelf diameter Ø 720

	Translu	Translucent rail		Wire rail, chrome-plated		Wire rail, silver RAL 9006	
	Item No.	Item No.	Item No.	Item No.	Item No.	Item No.	
HT-36 (Ø 470)	D105.361.01.00	D105.362.01.00	D105.361.01.27	D105.362.01.27	D105.361.01.97	D105.362.01.97	
HT-39 (Ø 720)	D105.391.01.00	D105.392.01.00	D105.391.01.27	D105.392.01.27	D105.391.01.97	D105.392.01.97	
PU/packaging unit	PU 6	PU 2	PU 6	PU 2	PU 6	PU 2	

PU 6 = 6 pieces per carton

PU 2 = 2 pieces per carton

#### Circular wooden shelves, 16 mm chipboard with grey surface, anti slip coated

HT-36 for 600 x 600 corner cabinets, shelf diameter Ø 470 HT-39 for 800 x 800 corner cabinets, shelf diameter Ø 720

	Translucent rail		Wire rail, chrome-plated		Wire rail, silver RAL 9006	
Anti-slip coated	Item No.	Item No.	Item No.	Item No.	Item No.	Item No.
HT-36 (Ø 470)	D106.361.01.00	D106.362.01.00	D106.361.01.27	D106.362.01.27	D106.361.01.97	D106.362.01.97
HT-39 (Ø 720)	D106.391.01.00	D106.392.01.00	D106.391.01.27	D106.392.01.27	D106.391.01.97	D106.392.01.97
PU/packaging unit	PU 6	PU 2	PU 6	PU 2	PU 6	PU 2

PU 6 = 6 pieces per carton

PU 2 = 2 pieces per carton

All dimensions in millimetres.

corner cabinet systems



# 03



#### **CABINET** SUSPENSION FITTINGS

Extremely tough all-steel systems for reliable fixing. Small, versatile components with a big effect.



# **Cabinet suspension fitting**

Product overview.



	Page
Cabinet suspension fitting SH-25  Load capacity 200 kg per wall-mounted cabinet Load capacity 100 kg per SH-25 fitting All-steel design Surface nickel-plated or white epoxy—coated Visible mounting	3.2
Cabinet suspension fitting SH-40  Load capacity 130 kg per wall-mounted cabinet Load capacity 65 kg per SH-40 fitting All-steel design, galvanized finish Visible mounting Side, height and depth adjustment	3.4
Cabinet suspension fitting SH-62  Load capacity 130 kg per wall-mounted cabinet Load capacity 65 kg per SH-62 fitting All-steel design, galvanized finish Concealed mounting, not dependent on cabinet top panel Side, height and depth adjustment Cover caps suitable in different colours	3.6
Suspension rails for cabinet suspension fittings  For visible and concealed cabinet suspension fittings Also with anti-slip safeguard	3.8

## Up to 200 kg load capacity per wall-mounted cabinet.







# A lot of strength packed into a small space! The SH-25 copes with up to 200 kg per cabinet – and offers enormous flexibility and variability, too.

A prooven weight-lifter in a class of ist own, the SH-25 offers convincing proof that extreme load capacity and compact external dimensions can go hand in hand.

Flexibility is imperative here. The SH-25 is suitable for both steel and wooden rails as well as for hook mounting. And with a clearance requirement from only 13 mm, it can be used just about anywhere. Its variability stretches to assembly, too: using 4 mm dia. chipboard screws, Euro screws or screwmounted dowels. The SH-25 is also extremely durable, thanks to the corrosion resistance of its nickel-plated or white epoxy-coated surface.

- Load capacity up to 200 kg per wallmounted cabinet according to DIN 68840
- Extreme loading capacity due to all-steel design
- Surface: nickel-plated, white epoxy-coated
- Visible mounting with minimal space requirement
- For steel and wooden rail suspension as well as for hook mounting. With slip guard for hook suspension.
- · Transport safety device (optional)

- Screw locking to prevent screws inadvertently working loose
- Clearance requirement for hook mounting from 13 mm, for steel and wooden rail mounting from 15 mm
- Side adjustment: Adjustment range 6 mm with hook mounting; 18 mm with steel or wooden rail mounting
- Height adjustment: Adjustment range 16 mm
- Depth adjustment: Adjustment range 15 mm

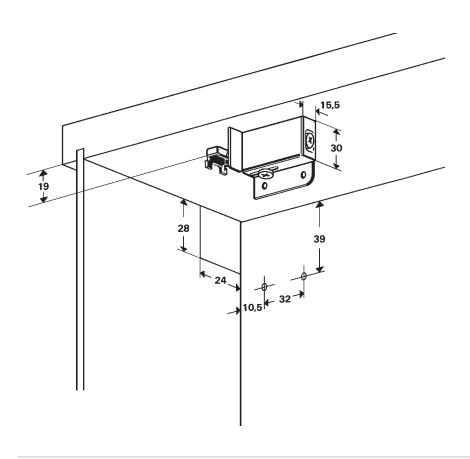
## Cabinet suspension fitting SH-25

	Item No. (nickel plated)	Item No. (white)
for chipboard screws, left	D825.103.11.25	D825.103.11.62
for chipboard screws, right	D825.103.21.25	D825.103.21.62
for Euro screws, left	D825.304.11.25	D825.304.11.62
for Euro screws, right	D825.304.21.25	D825.304.21.62
with dowels, left	D825.203.11.25	D825.203.11.62
with dowels, right	D825.203.21.25	D825.103.21.62
PU/packaging unit	PU 200	PU 200

PU 200 = 200 pieces per carton

## Mounting and installation information

For matching suspension rails see page 3.8



All dimensions in millimetres.

## Up to 130 kg load capacity per wall-mounted cabinet.









Strength can come in small packages! The SH-40 provides impressive proof that elegant design need not compromise outstanding functionality... it's small, it's elegant, and it has inner strength: the SH-40.

This all-steel cabinet suspension fitting carries loads of up to 130 kg per wall-mounted cabinet in compliance with DIN 68 840. The SH-40 also makes life easier with a whole series of convenience features: such as uniquely easy access to the adjusting screws for fast, precise adjustment at a convenient angle using a Pozidriv screwdriver.

It also allows easy, precise height and depth adjustment to the millimetre. Not to mention ease of assembly with Euro screws, chipboard screws or dowels. Another benefit is the unbeatable range of available colours for the cover caps: the choice is yours.

#### All product benefits at a glance

- Load capacity up to 130 kg per wallmounted cabinet according to DIN 68840
- · All-steel in a corrosion-proof galvanized finish
- · Extreme load capacity
- Visible mounting, small space requirement
- For steel and wooden rail suspension as well as for hook mounting. With slip guard for hook suspension.
- Transport safety device (optional)
- Screw locking to prevent screws inadvertently working loose

- Fast, precise adjustment using conventional Pozidriv size 2 screwdriver
- Installation also with automatic mounting units
- Cover cap in fashion colours
- Clearance requirement for hook mounting from 13 mm; for steel and wooden rail mounting from 15 mm
- Side adjustment: Adjustment range 5 mm with hook mounting, 18 mm with steel or wooden rail mounting
- Height adjustment: Adjustment range 16 mm
- Depth adjustment: Adjustment range 15 mm

#### Cabinet suspension fitting SH-40

	Item No. (left)	Item No. (right)
for chipboard screws	D840.101.11.17	D840.101.21.17
for Euro screws	D840.301.11.17	D840.301.21.17
with dowels	D840.201.11.17	D840.201.21.17
PU/packaging unit	PU 200	PU 200

PU 200 = 200 pieces per carton

#### Cover caps

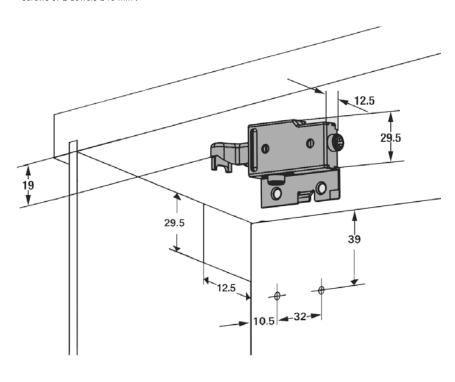
	Item No. (left)	Item No. (right)
white RAL 9010	D840.020.19.62	D840.020.29.62
grey	D840.020.19.07	D840.020.29.07
metallized silver	D840.020.19.74	D840.020.29.74
beige RAL 1001	D840.020.19.68	D840.020.29.68
brown beige RAL 1011	D840.020.19.96	D840.020.29.96
pearl white RAL 1013	D840.020.19.95	D840.020.29.95
nut brown RAL 8011	D840.020.19.51	D840.020.29.51
PU/packaging unit	PU 200	PU 200

PU 200 = 200 pieces per carton

Other colours on request.

#### Mounting and installation information

Mounting using  $\emptyset 4$  mm chipboard screws, Euro countersunk screws or 2 dowels  $\emptyset 10$  mm .





Fast, precise adjustment thanks to easy access to the adjusting screws: the Pozidriv screwdriver can even be applied at an angle.

Precision height, depth and side adjustment: Height adjustment: Adjustment range 16 mm, easy precision adjustment due to metric thread. Side adjustment: Adjustment range 5 mm with hook suspension; 18 mm with steel and wooden rail suspension.

**Depth adjustment:** Adjustment range 14 mm, easy precision adjustment due to metric thread.

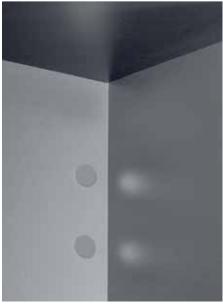
For matching suspension rails, see page 3.8

All dimensions in millimetres.

# Up to 130 kg load capacity per wall-mounted cabinet.





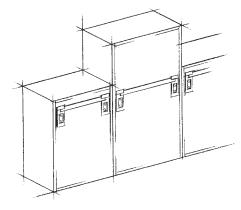




# Invisible, totally reliable and capable of bearing extreme loads: the concealed mounting SH-62 is a triumph of versatility and easy accessibility.

A fitting which does not depends on the position of the top panel, but goes wherever the installer wants it. The trick is in the side wall fastening, which allows cabinets of different heights to be mounted on a single level – and electrical leads to be elegantly accommodated.

An equally important factor with concealed fittings is easy accessibility of the adjusting screws – something the SH-62 masters to perfection. And what's more, all adjusting screws can be reached with equal ease from the inside and the back of the cabinet.



#### All product benefits at a glance

- Load capacity up to 130 kg per wallmounted cabinet according to DIN 68840
- All-steel in a corrosion-proof galvanized finish
- Concealed mounting independent of the cabinet top panel
- Uniform mounting level for cabinets of different heights
- Suitable for steel rail and wall hooks
- Transport safety device (optional)
- Load distribution over 3 mounting plugs and one chipboard screw

- Minimal clearance requirement of only 16 mm behind the rear wall
- Side adjustment:

With steel rail 16 mm; with wall hook 8 mm

- Height adjustment:
- Adjustment range approx. 15 mm
- Depth adjustment:

Depending on clearance, max. 21 mm

- · Installation also with automatic mounting units
- Plastic mounting guide steers the fitting to the right suspension position

#### Cabinet suspension fitting SH-62



Fitting variant SH-6202 permits additional screws to be fitted in the side wall or top panel.



The SH-6301 is a fitting variant with a 4 mm cranked hook. This ensures that even when mounting room-height cabinets with 16 mm clearance, a reliable clamping fixture is achieved on the suspension track. With this version, depth adjustment is reduced by 4 mm.

	Item No. (left)	Item No. (right)
SH 6201	D862.001.10.17	D862.001.20.17
SH 6202	D862.201.10.17	D862.201.20.17
SH 6301	D863.002.10.17	D863.002.20.17
PU/packaging unit	PU 100	PU 100

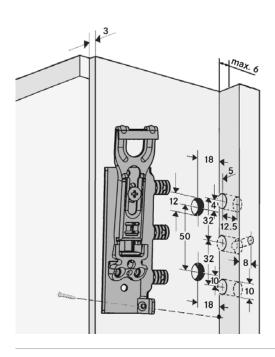
PU 100 = 100 pieces per carton Industrial packaging on request.

#### **Cover caps**

	Item No.
white RAL 9010	D851.000.99.62
pearl white RAL 1013	D851.000.99.95
grey white RAL 9002	D851.000.99.08
cream white RAL 9001	D851.000.99.09
ochre brown RAL 8001	D851.000.99.76
brown beige RAL 1011	D851.000.99.96
nickel plated	D851.001.59.25
PU/packaging unit	PU 100

PU 200 = 200 pieces per carton Other colours on request.

#### Mounting and installation information



Precision height, depth and side adjustment: Side adjustment: with steel rails 16 mm;

with wall hooks 8 mm

Height adjustment: Adjustment range 15 mm

Depth adjustment: Depending on clearance, max. 21 mm

For matching suspension rails, see page 3.8

All dimensions in millimetres.

# Suspension rails for cabinet suspension fittings

For secure wall mounting.



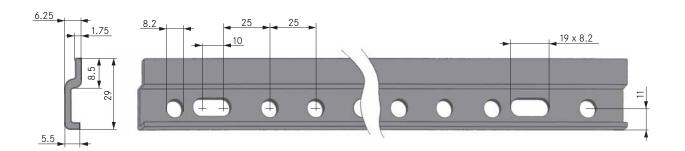
# Suspension rail Type 1

Perforated along the whole length with round holes and slots, each pattern repeated approx. every 200 mm

Surface galvanized, profile thickness 1.75 mm.

Length	Item No.
2500	D831.001.81.92
PU/packaging unit	PU 10

PU 10 = 10 pieces in a bundle



#### Suspension rail Type 2

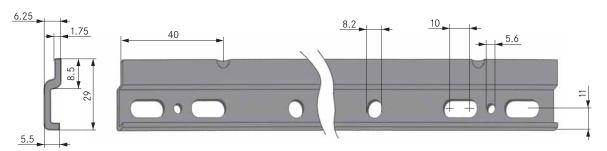
# With anti-slip stamped grooves for concealed cabinet suspension fittings SH-53, SH-62, SH 63

Surface galvanized, profile thickness 1.75 mm.

Length	Item No.
125	D831.020.01.92
PU/packaging unit	PU 25

PU 25 = 25 pieces in a bundle

Further lengths on request.



## Suspension rail Type 3

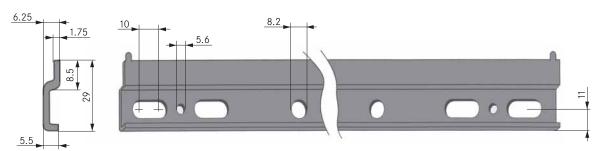
# With anti-slip stamped grooves for visible cabinet suspension fittings SH-25 and SH-40

Surface galvanized, profile thickness 1.75 mm.

Length	Item No.
58	D831.030.01.92
PU/packaging unit	PU 25

PU 25 = 25 pieces in a bundle

Further lengths on request.



#### Special screw (5.5 x 60 mm) to fit suspension rails

13 mm head with recessed head, surface with anti-friction coating



PU 1000 = 1000 pieces per carton

## Masonry dowel Ø 8 mm

To fit special screw



	Item No.
Ø 8 mm	D8.31.0071.901
PU/packaging unit	PU 100

PU 100 = 100 pieces per carton

All dimensions in millimetres.

To achieve the aesthetic whole, the details have to be right. We subscribe to this approach – our solutions are designed down to the last detail.

Reduction to the essential. For us that means focus on quality, design and function. Our range of hinges for furniture in offices and public buildings is the best proof. We offer the ideal single-joint hinge for all applications.

Its high-quality materials, top workmanship and reliable operation are just as important to us as is its aesthetic design. Try it for yourself.







# **SINGLE-JOINT** HINGES

Elegant all-metal hinges for individual or continuous cabinet construction and for concealed applications. Flexible. Functional. Decorative.



# Single-joint hinges

For offices and public buildings.





# Product overview.

Opening angle	Short description	Full overlay	Half overlay	Twin fixing	Inset	Page
270°/180°	MB-6010  Extremely narrow reveals (3 mm) Toolless clip mounting Side and height adjustment Visible joint					4.4
230°/180°	MB-6010  Narrow reveals (6/12.5 mm) Toolless clip mounting Side and height adjustment Visible joint					4.6
270°	MB-8010 for heavy doors  Narrow reveals (4 mm) Toolless clip mounting Side and height adjustment Visible joint					4.8
230°/180°	MB-8010 for heavy doors  Reveals (8/13.5 mm)  Toolless clip mounting Side and height adjustment Visible joint					4.10
120°	MV-8000  Reveals (4/13.5 mm)  Toolless clip mounting  Side and height adjustment  Concealed mounting	_1				4.12
	Accessories for MB-6010, MB-8010 and MV-8000 Decorative cover cap for glass door applie Clothes guard Opening angle limiter Screws	eation				4.14
	Assembly aids					4.15
	Technical information For MB-6010, MB-8010 and MV-8000					4.16
	Soft-close Pin  • Air damper  • For drill hole mounting or for fitting wi	th adapter plate				4.18

## **MB-6010**

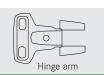
Single-joint hinges with extremely narrow reveals.



- Opening angle 270/180°
- Reveal 3 mm
- · Toolless clip mounting
- · Hinge cup edge cover
- Side adjustment -2 mm
- Height adjustment via slot ±2 mm
- Visible joint

With a suitable mounting set the screw-on hinge cup can also be used for glass doors, see page 4.14

Hinge arms and cups have to be ordered separately.







for screw fixing

for press fitting

#### MB-6310

Hinge arm und cup
Zamak, nickel plated\*

Item No.	Item No.	Item No.
M611.328.11.25	M690.030.11.25	M690.030.12.25
PU 100 pieces	PU 200 pieces	PU 200 pieces

#### Full overlay (16 mm cabinet side)

Full overlay (19 mm cabinet side)



#### MB-6210

Hinge arm and cup
Zamak, nickel plated\*

Item No.	Item No.	Item No.
M611.228.11.25	M690.030.11.25	M690.030.12.25
PU 100 pieces	PU 200 pieces	PU 200 pieces

#### Inset



#### MB-6110

Hinge arm and cup
Zamak, nickel plated\*

 Item No.
 Item No.
 Item No.

 M611.028.11.25
 M690.030.11.25
 M690.030.12.25

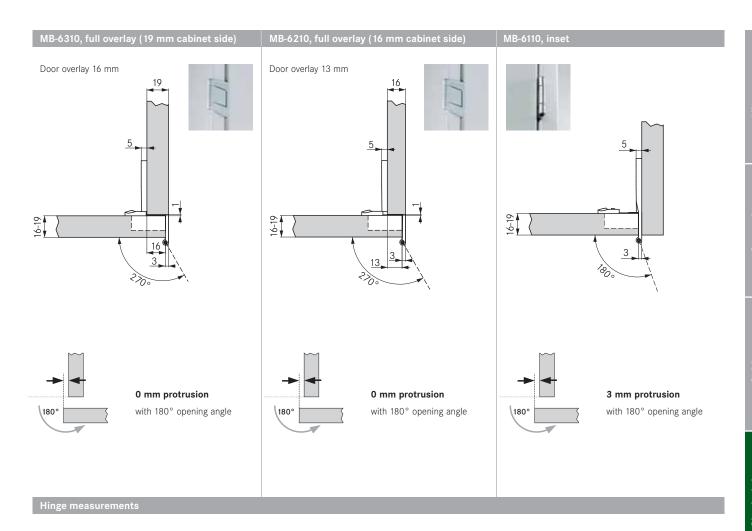
 PU 100 pieces
 PU 200 pieces
 PU 200 pieces

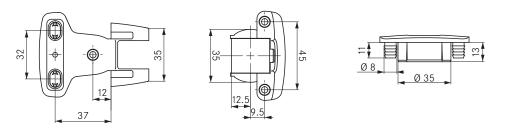
\* Black and lacquered surface on request.

Black cover cap without imprint included - with individual company logo on request.

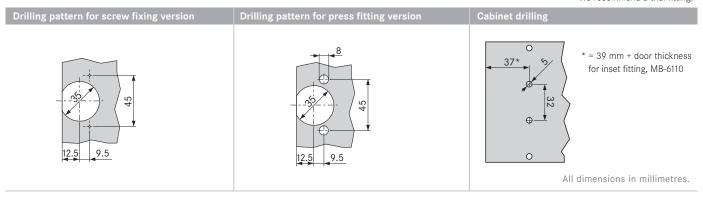
PU = packaging unit

Mounting set for glass doors	Page 4.14	Clothes guard	Page 4.14	Soft-close Pin	Page 4.16
Opening angle limiter	Page 4.14	Assembly aids	Page 4.15	Technical information	Page 4.18





We recommend a trial fitting.



#### **MB-6010**

# Single-joint hinges with narrow reveals.



- Opening angle 230°/180°
- Reveal 6/12.5 mm
- · Toolless clip mounting
- · Hinge cup edge cover
- Side adjustment -2 mm
- Height adjustment via slot ±2 mm
- Visible joint

\* Black and lacquered surface on request.

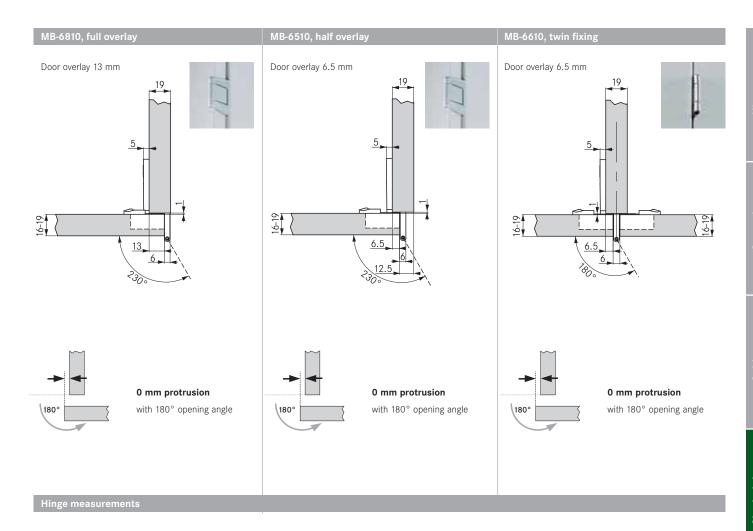
Black cover cap without imprint included - with individual company logo on request.

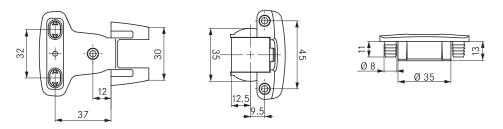
With a suitable mounting set the screw-on hinge cup can also be used for glass doors, see page 4.14

Hinge arms and cups have to be ordered separately. Hinge arm for screw fixing for press fitting Full overlay (19 mm cabinet side) MB-6810 M621.228.11.25 M690.030.11.25 M690.030.12.25 Hinge arm and cup Zamak, nickel plated\* PU 100 pieces PU 200 pieces PU 200 pieces Half overlay MB-6510 M621.128.11.25 M690.030.11.25 M690.030.12.25 Hinge arm and cup PU 200 pieces Zamak, nickel plated\* PU 100 pieces PU 200 pieces Twin fixing Two hinge cups are required MB-6610 for one hinge arm Hinge arm and cup M622.128.11.25 M690.030.11.25 M690.030.12.25 PU 100 pieces PU 200 pieces PU 200 pieces Zamak, nickel plated\*

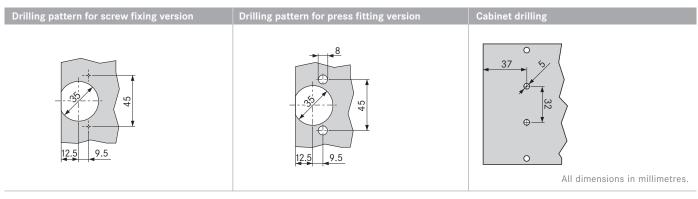
PU	=	packaging	unit

Mounting set for glass doors	Page 4.14	Clothes guard	Page 4.14	Soft-close Pin	Page 4.16
Opening angle limiter	Page 4.14	Assembly aids	Page 4.15	Technical information	Page 4.18





We recommend a trial fitting.



## **MB-8010**

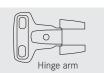
Single-joint hinges with narrow reveals, suitable for heavy doors.



- Opening angle 270°
- Reveal 4 mm
- · Toolless clip mounting
- · Hinge cup edge cover
- Side adjustment -2 mm
- Height adjustment via slot ±2 mm
- Visible joint

With a suitable mounting set the screw-on hinge cup can also be used for glass doors, see page 4.14

Hinge arms and cups have to be ordered separately.







for screw fixing

for press fitting

#### Full overlay (19 mm cabinet side)



#### MB-8310

Hinge arm and cup Zamak, nickel plated\*

Item No.	Item No.	Item No.
M811.328.11.25	M690.030.11.25	M690.030.12.25
PU 100 pieces	PU 200 pieces	PU 200 pieces

#### Full overlay (16 mm cabinet side)



#### MB-8210

Zamak, nickel plated\*

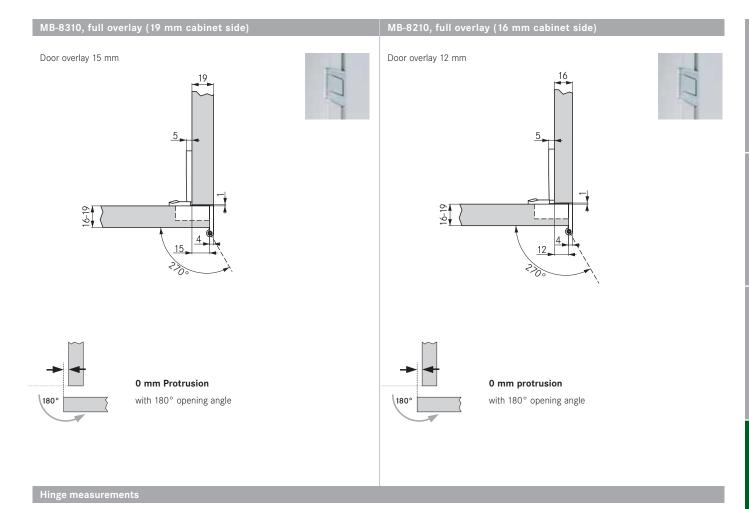
\* Black and lacquered surface on request.

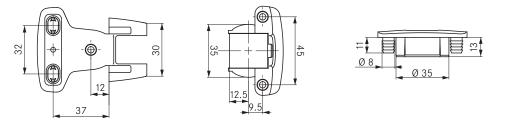
Black cover cap without imprint included - with individual company logo on request.

PU = packaging unit

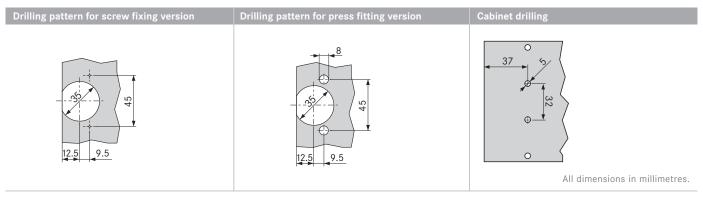
Mounting set for glass doors	Page 4.14	Clothes guard	Page 4.14	Soft-close Pin	Page 4.16
Opening angle limiter	Page 4.14	Assembly aids	Page 4.15	Technical information	Page 4.18

M811.228.11.25 M690.030.11.25 M690.030.12.25 Hinge arm and cup PU 200 pieces PU 200 pieces PU 100 pieces





We recommend a trial fitting.



## **MB-8010**

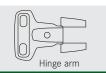
# Single-joint hinges for heavy doors.



- Opening angle 270°
- Reveal 8/13.5 mm
- Toolless clip mounting
- · Hinge cup edge cover
- Side adjustment -2 mm
- Height adjustment via slot ±2 mm
- Visible joint

With a suitable mounting set the screw-on hinge cup can also be used for glass doors, see page 4.14

Hinge arms and cups have to be ordered separately.







for screw fixing

for press fitting

#### Half overlay



#### MB-8510

Hinge arm and cup
Zamak, nickel plated\*

Item No.	Item No.	Item No.
M821.128.11.25	M690.030.11.25	M690.030.12.25
PU 100 pieces	PU 200 pieces	PU 200 pieces

#### Twin fixing



#### MB-8610

Hinge arm and cup
Zamak, nickel plated\*

\* Black and lacquered surface on request.

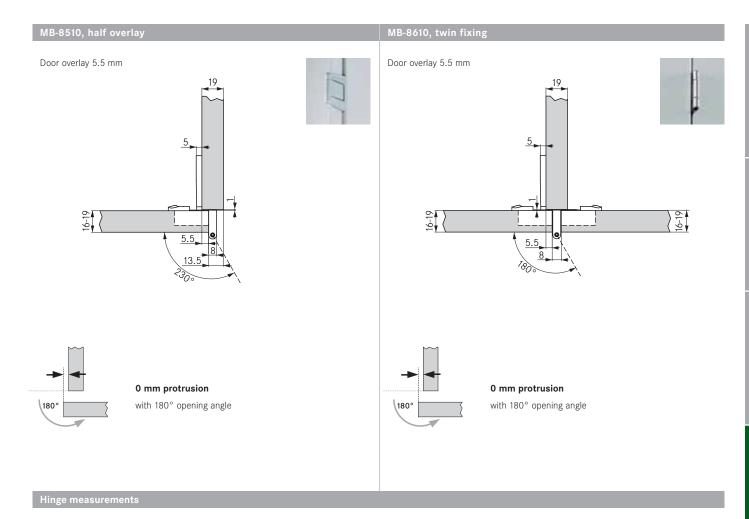
Black cover cap without imprint included - with individual company logo on request.

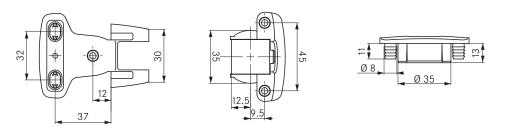
Two hinge cups are required for one hinge arm

Item No.	Item No.	Item No.
M822.128.11.25	M690.030.11.25	M690.030.12.25
PU 100 pieces	PU 200 pieces	PU 200 pieces

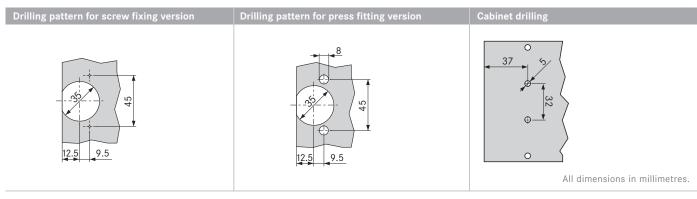
PU = packaging unit

Mounting set for glass doors	Page 4.14	Clothes guard	Page 4.14	Soft-close Pin	Page 4.16
Opening angle limiter	Page 4.14	Assembly aids	Page 4.15	Technical information	Page 4.18





We recommend a trial fitting.



## MV-8000

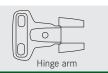
# 120° single-joint hinges for concealed mounting.



- Opening angle 120°
- Reveal 4/13.5 mm
- · Toolless clip mounting
- · Hinge cup edge cover
- Side adjustment -2 mm
- Height adjustment via slot ±2 mm
- · Concealed mounting

With a suitable mounting set the screw-on hinge cup can also be used for glass doors, see page 4.14

Hinge arms and cups have to be ordered separately.







for screw fixing

for press fitting

ı	 ,	



#### MV-8300

Hinge arm and cup
Zamak, nickel plated\*

Item No.	Item No.	Item No.
M851.328.11.25	M890.030.11.25	M890.030.12.25
PU 100 pieces	PU 200 pieces	PU 200 pieces

#### Half overlay



#### MV-8500

Hinge arm and cup
Zamak, nickel plated\*

Item No.	Item No.	Item No.
M851.128.11.25	M890.030.11.25	M890.030.12.25
PU 100 pieces	PU 200 pieces	PU 200 pieces

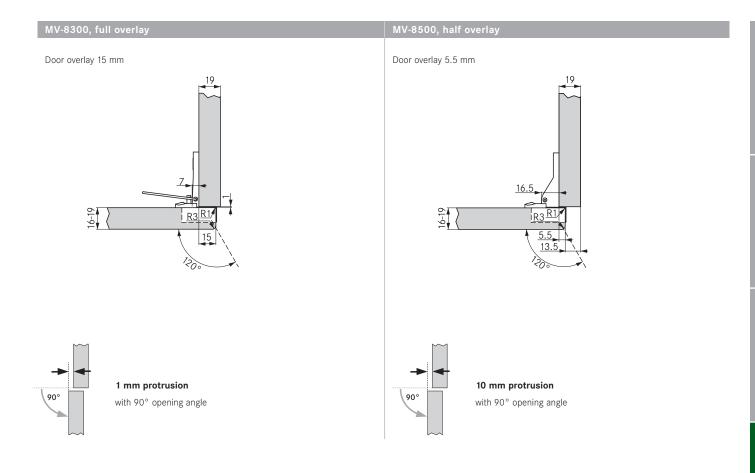
\* Black and coated surface on request.

Black cover cap without imprint included - with individual company logo on request.

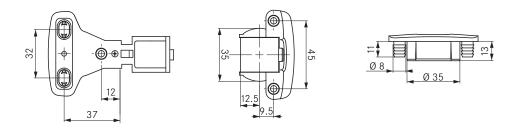
Axle cover: light grey RAL 7035

PU = packaging unit

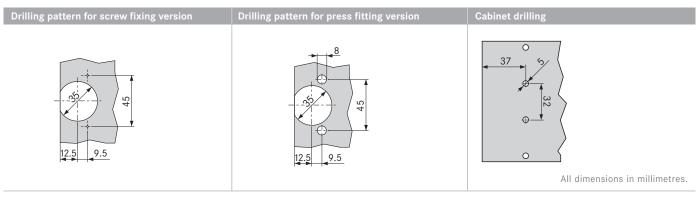
Mounting set for glass doors	Page 4.14	Clothes guard	Page 4.14	Soft-close Pin	Page 4.16
Opening angle limiter	Page 4.14	Assembly aids	Page 4.15	Technical information	Page 4.18



#### Hinge measurements



We recommend a trial fitting.



## **Accessories**

For MB-6010, MB-8010 and MV-8000 hinges.

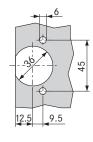
## Mounting set of decorative cover cap for glass door application

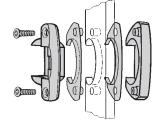


Decorative cover cap for using the hinges from pages 4.4 - 14.2 as glass door hinges. For glass thicknesses from 5 mm to 6 mm.

Set complete with plastic washers and connecting screws.

	Item No.
Zamak, nickel plated	M600.932.01.25
	PU 200 pieces





Glass drilling

Sequence of mounting

#### Clothes guard



Prevents damage and soiling caused by clothes becoming caught. To be used on all single-joint hinges.

	Item No.	
plastic	M600.930.01.01	
	PU 200 pieces	

#### Opening angle limiter

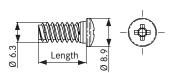


For all single-joint hinges, except when using inset applications.

Limitation to	Item No.
approx. 90°	M899.000.10.25
approx. 110°	M399.001.00.25
	PU 200 pieces

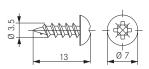
## Fixing screws

#### Euro collar screws, nickel plated



Item No. / Ø 6.3 x 10.5 mm	Item No. / Ø 6.3 x 13.5 mm
B5070054125	B4050005125
PU 1000 pieces	PU 1000 pieces

#### Chipboard screw, nickel plated



Item No.	/ Ø	3.5		13	mm	
----------	-----	-----	--	----	----	--

B5400026125 PU 1000 pieces

PU = packaging unit

All assembly aids for single-joint hinges can be found in the "Installation Technology" brochure, Item No. 71114-00

#### Insertion ram



For press fitting of all shown single-joint hinges with Ecoflex and Multiflex drilling and insertion machines.

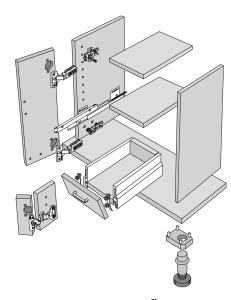
Item No.
F146109876299
PU 1 piece

#### Ecoflex



#### Processing:

- Hinges
- · Mounting plates with dowels
- Drawer runners
- · Drawers and pot drawers
- 32 mm line drilling
- Construction supports
- Dowels
- Frame connections, 90° mitre
- Handles
- Furniture legs



**y** ecoflex

#### • Drilling depth stop in gearbox

- Stop guide adjustment with clamping lever
- · Integrated dust extraction
- · Hold-down block
- Simple, well-conceived handling = efficient operation
- Compact construction

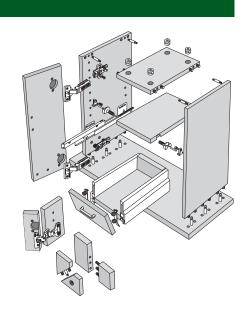
#### Multiflex



- $\bullet\,$  14-spindle vertical gearbox, 90  $^{\circ}\,$  swivel
- Drilling depth stop with scale
- · Service-friendly
- Stop guide adjustment with handweel
- 3-spindle horizontal gearbox
- Simple, well-conceived handling = efficient operation
- Compact construction, sturdy machine base

#### Processing:

- Hinges
- mounting plates with dowels
- Drawer slides
- · Drawers and pot drawers
- 32 mm line drilling
- Construction supports
- Dowels
- Frame connections, 90° mitre
- Handles



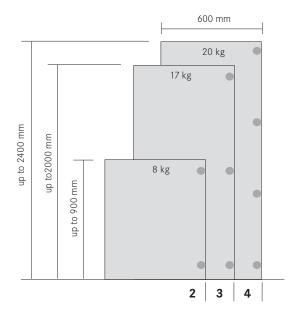
## **Technical information**

For MB-6010, MB-8010 and MV-8000 hinges.

#### Number of hinges per door

Applies for 19 mm chipboard.

Doors must not be greater in width than in height.



#### Mounting



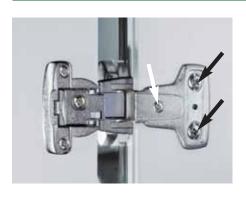
Finger pressure is sufficient to firmly and securely connect the door with the cabinet

#### Demounting



The hinge connection is removed with a simple twist of the screwdriver. This effectively prevents unintentional detachment.

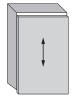
#### Screws for hinge arm fixing



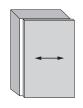
2 Euro collar screws (6.3 x 10.5 mm or 6.3 x 13.5 mm)

1 chipboard screw 3.5 x 13 mm, Pozidrive size 2. This screw is obligatory for safety reasons.

#### Adjustments



Height adjustment ±2 mm



Side adjustment -2 mm

#### Side adjustment MB-6010, MB-8010



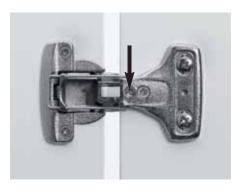
The reveal can be adjusted directly with this screw.
Adjustment -2 mm.

#### Height adjustment MB-6010, MB-8010, MV-8000



Adjustment via slot (by breaking out the two pins below the Euro screws).
Adjustment ±2 mm.
After adjusting, set 3rd screw.

#### Side adjustment MV-8000



The reveal can be adjusted directly with this screw.
Adjustment -2 mm.

#### Height adjustment MV-8000



Adjustment via slot (by breaking out the two pins below the Euro screws).
Adjustment ±2 mm.
After adjusting, set 3rd screw.

All dimensions in millimetres.

## **Soft-close Pin**

Air damper for doors with single-joint hinges.



- · Suitable for all door shapes, sizes and materials (wood and aluminium frames and glass doors)
- Suitable for upgrading
- For drill hole mounting or for fitting with adapter plate

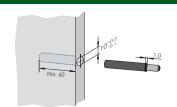
# **⊪> soft**close

#### Soft-close pin

#### · Hole drilled from the front



- For visual solutions
- · Housing: plastic, anthracite
- · Piston: light grey



#### For drill hole mounting

924.013.00.0055

PU 250 pieces

#### Adapter plate for line boring



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



#### For Euro screws

63310-42

PU 100 pieces

#### Frame adapter plate



- · Quick upgrade installation
- Fix with wood screws (3.5 x 13)
- · Plastic, light grey



#### For screw fixing

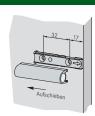
514.000.36.0539

PU 100 pieces

#### Linear adapter plate



- Design also suitable for inside fitting
- Fix with wood screws (3.5 x 13)
- · Plastic, light grey

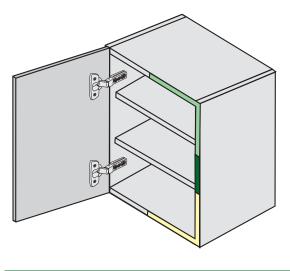


#### For screw fixing

514.000.36.0439

PU 100 pieces

#### Possible damper positions when fitting to a standard door



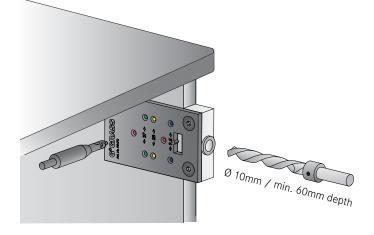
optimum position

good position

possible position

For larger doors we recommend the installation of an additional damper.

#### Drilling template for adapter plates and drill-in damper



95470

PU 1 pieces

The Grass drilling template for Soft-close can be used to drill the holes for all types of adapter plates and the drill-in damper.

#### Information:

Drill bits are not included!

All dimensions in millimetres.

# Lift fitting AS-41

With extrem loading capacity.



# Effortless swivel action lift fitting AS-41 links proven technology with extreme flexibility.

The fact that the AS-41 looks great from every angle is down to its high-grade steel springs, which are neatly concealed when the fitting is extended. Another plus is fast installation using Euro screws. The AS-41 is available in two different heights. The AS-4150 and 4160 are independent of different cabinet widths. The machine baseplate is released using two levers on the front edge.

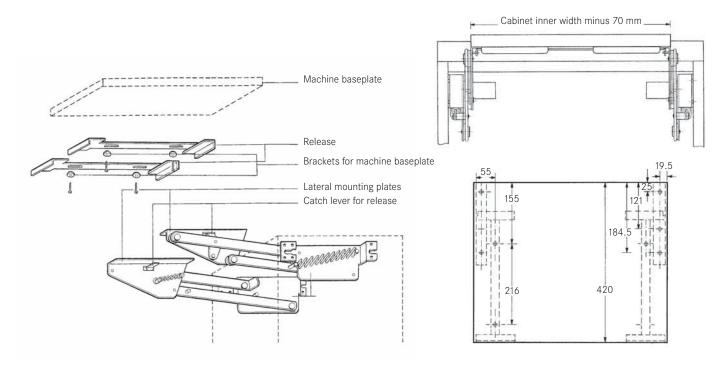
#### All product benefits at a glance

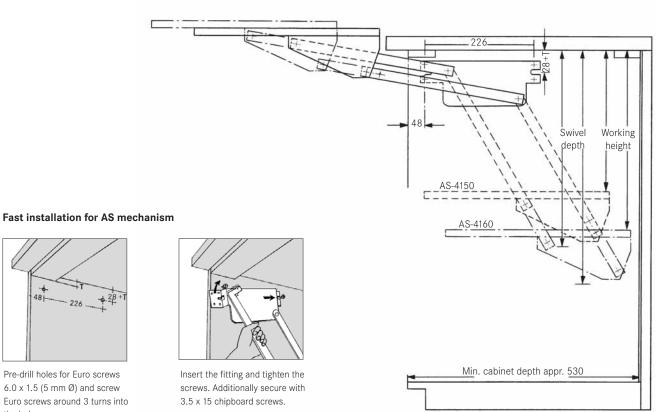
- Can be used independently of different cabinet widths
- · High-grade steel springs and plastic-bedded joints
- Easily accessible release buttons for extending and retracting the fitting
- Locking on both sides in the working and rest position
- Quick installation using Euro screws
- Load bearing capacity 10 kg
- Corrosion protection due to high-grade epoxy coating
- $\bullet$  Two working heights (310 mm / 410 mm) available
- Steel construction
- · Surface epoxy coated in white

#### Lift fitting AS-4150/4160, independently of cabinet width

Colour: white	Working height	Swivel depth	Item No.	Item No.
AS-4150	310	470	D346.050.00.62	D346.030.00.62
AS-4160	410	570	D346.010.00.62	D346.070.00.62
PU/packaging unit			PU 1	PU 20

PU 1 = 1 set per carton (1 fitting right, 1 fitting left)





#### Shelf bracket RT-150

For universal support.





# The cool sophistication of the matt chrome-plated RT-150 also makes a shining impression wherever it goes – in the kitchen, living area or office.

But what makes the RT-150 such a universal product is not just its ability to blend in anywhere – it also offers a range of different functions: Used as a shelf bracket, for instance, it serves at the same time as a bookend.

And the RT-150 gains its outstanding inner strength from an all-metal construction: All supporting elements are made of steel, and so capable of withstanding extreme loads.

A great outlook for installation too: Minor inaccuracies can be quickly and effortlessly compensated. The mounts, fixing bracket and mounting screws on the shelf are all elegantly concealed by matt chrome-plated plastic caps.

#### All product benefits at a glance

- · Universal bracket for the kitchen, living area or office
- Can be used as a shelf bracket and bookend
- All-metal construction with high loading capacity with bearing parts in steel
- Sophisticated matt chrome-plated design with chrome-plated plastic caps
- Easy to mount
- Adjustable fitting

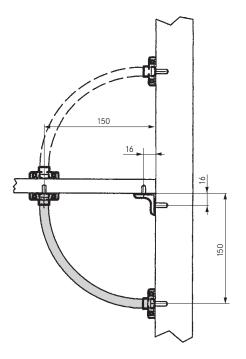
#### Shelf bracket RT-150

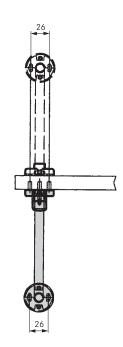
	Item No.
RT-150 chrome-plated	D401.100.21.35
PU/packaging unit	PU 1

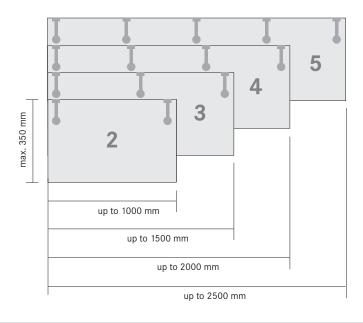
PU 1 = 1 set per carton (21 x 14 x 4,5)

#### 1 set consists of:

- 1 steel bow, matt chrome-plated
- 2 steel mounts with thread, galvanized
- 2 plastic covers for mounts, matt chrome plated
- 1 fixing bracket, galvanized steel
- 1 plastic cover for fixing bracket, matt chrome plated
- 3 chipboard screws Ø 4 x 16 with half-rounded head, Pozi size 2 (for fixing on the shelf)
- 3 chipboard screws Ø 4.5 x 40 with half-rounded head, Pozi size 2 (for fixing on the wall)
- 3 dowels Ø 6 mm (for fixing on the wall)
- 1 set of mounting instructions







Carrying capacity DIN 68874 / 4.2 Beanspruchungsgruppe L 75 (75 kg per  $\mathrm{m^2}$ )

All dimensions in millimetres.

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011.000.00.000	1.10					B5400026125	4.14

Kinvaro flap systems

Cabinet Quaturis suspension fittings corner cabinet systems

Single-joint hinges

Parallel lift fittings

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D105.000.51.69	2.16	D106.111.01.00	2.17	D2356003125	1.20	D257.500.41.62	1.38
D105.006.19.56	2.16	D106.111.01.27	2.17	D2356004125	1.20	D257.500.42.62	1.38
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D105.101.01.27	2.17	D106.112.01.27	2.17	D2357002125	1.20	D257.500.61.25	1.38
D105.101.01.97	2.17	D106.112.01.97	2.17	D2357003125	1.20	D257.500.61.62	1.38
D105.102.01.00	2.17	D106.281.01.00	2.7	D2357004125	1.20	D257.501.61.25	1.38
D105.102.01.27	2.17	D106.281.01.27	2.7	D2357005125	1.20	D257.501.62.25	1.38
D105.102.01.97	2.17	D106.281.01.97	2.7	D2357006125	1.20	D257.501.81.25	1.38
D105.111.01.00	2.17	D106.282.01.00	2.7	D2357007125	1.20	D257.501.82.25	1.38
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D105.291.01.97	2.7	D106.362.01.97	2.19	D2359012516	1.21	D257.552.22.25	1.38
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D265.152.21.25	1.42	D267.252.23.25	1.27	D271.200.63.25	1.30	D2806008125	1.13
D265.152.22.25	1.42	D267.252.33.25	1.27	D271.250.33.25	1.30	D2806009125	1.13
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Kinvaro flap systems

Cabinet Quaturis suspension fittings corner cabinet systems

Single-joint hinges

Parallel lift fittings

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D2876018125	1.7	D346.050.00.62	5.0			D825.103.21.25	3.3
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2879002962	1.8					D840.301.11.17	3.5
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				M600.932.01.25	4.14	M811.328.11.25	4.8
				M611.228.11.25	4.4	M821.128.11.25	4.10
				M611.328.11.25	4.4	M822.128.11.25	4.10
				M621.128.11.25	4.6	M851.128.11.25	4.12
				M621.228.11.25	4.6	M851.328.11.25	4.12
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				M690.030.11.25	4.4	M890.030.12.25	4.12
				M690.030.12.25	4.4	M899.000.10.25	4.14

# Notes

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# Notes

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