

Comfort in four dimensions.
**Flap systems provide the
 perfect movement solution
 for every application.**

kin varo.



A gentle tap or pull is all it takes to set the flaps gently in motion.
 The closing operation is also particularly comfortable.
 With Soft-close damping system, each movement becomes an experience.



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**Folding.
 Up-and-over.
 Parallel lifting.
 Top-hung lifting.**

**Kinvaro
 Flap Systems.**

Feel more WOW.



G*GRASS®

You know what you are getting when you buy a brand product. GRASS is the best example of this maxim. Our high-quality motion systems combine technological progress, convenient functionality, the highest quality and precision down to the last detail.



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Less is more: With the Kinvaro T-Slim lift-up flap system we have achieved the impossible – the full opening experience in the slimmest, most efficient fitting we have ever produced. Its dynamic elegance lends each piece of furniture a certain effortlessness. Kinvaro T-Slim combines purist aesthetics, a very stable construction and the art of perfect movement in a virtually unique manner.

Kinvaro T-Slim Flap System.

A major design trend of our time is transparency.

Transparency has not only become established as a style factor in modern architecture but has also become a central topic in furniture making. Open shelves, glass cabinets, glass fronts – “storage” has become superseded by a kind of “display”. Aluminium-framed fronts with glass infill are becoming increasingly popular. Ideal for Kinvaro T-Slim, as the new lift-up flap system actually realises its full potential and demonstrates its unique features when combined with aluminium-framed fronts. With Kinvaro T-Slim the open-transparent style of the furniture remains unblemished.

Invi si ble.

The less room the technology occupies, the more is available for your items. This is a simple calculation. With the extremely slim design of the Kinvaro T-Slim, all functional components can be perfectly milled into the cabinet wall. The result is a wall cabinet with invisible technology and maximum space.



Reinvent the wall cabinet.

Let your creativity run wild. With Kinvaro T-Slim you now have a functional movement system at your disposal that lends a completely new meaning to wall cabinets. Play with new options. Reduce the side wall thickness to 16 mm. Fit narrow partitions or create total transparency. Milled in or screwed on. Handle-free or with Soft-close. With inset or overlaying fronts. In wood, MDF or aluminium frames – Kinvaro T-Slim offers everything that makes designer hearts beat faster.

The renaissance of the flap cabinet.

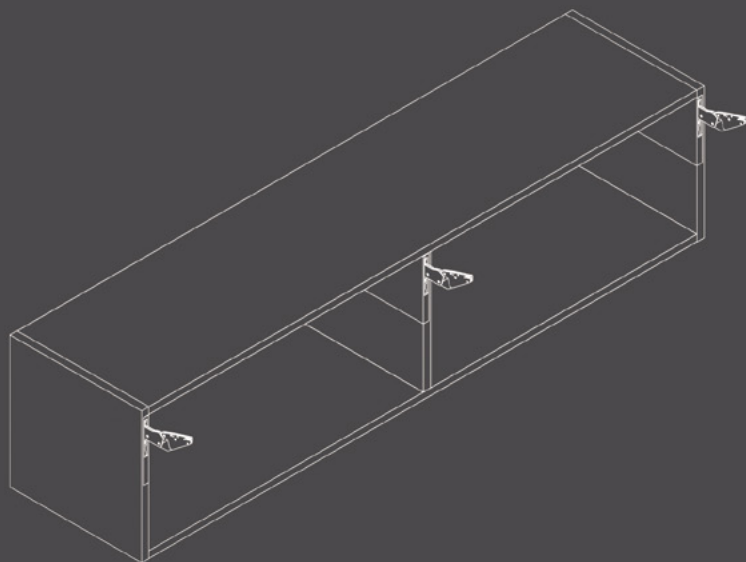
Horizontal storage spaces with lift-up flaps that are at eye level and therefore immediately accessible are particularly practical for many applications. Directly above the worktop in the kitchen, above the sink or cooker. Above the bathroom sink or next to the mirror. Above a desk or the TV in the living area – in modern interior design, flap cabinets have primarily become established as horizontal design elements. Whereas high wall units with high flap fronts used to be the norm, designers today are increasingly returning to horizontal formats. Kinvaro T-Slim is the ideal solution.



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Wide fronts are as popular as ever. Their advantages are particularly obvious in wall cabinets. Wide fronts avoid gaps – and when wide fronts are opened, much more storage space is revealed. There is no question that Kinvaro T-Slim also offers an intelligent solution for wide fronts. An additional flap fitting is simply added for cabinet widths of more than 1,200 mm. This creates a powerful trio that increases the load capacity by 50 percent.

**Example calculation:**

With three Kinvaro T-Slim units and a cabinet height of 350 mm, flap fronts with a total weight of up to 9.6 kg are possible; this corresponds approximately to a wooden front of 1,800 mm with a thickness of 19 mm.

**A strong trio
for a wider span.**

FRONT HEIGHT

250 MM

MAXIMUM FRONT WEIGHT

13.5

KILOGRAMS

FRONT HEIGHT

350 MM

MAXIMUM FRONT WEIGHT

9.6

KILOGRAMS

FRONT HEIGHT

450 MM

MAXIMUM FRONT WEIGHT

7.5

KILOGRAMS

FRONT HEIGHT

550 MM

MAXIMUM FRONT WEIGHT

6.1

KILOGRAMS

If you don't want to mill the wall, you can screw on the fitting. Sounds simple - and it is!

Kinvaro T-Slim can naturally also be mounted on the side wall of the cabinet in the usual way. A simple adapter makes the integrative T-Slim fitting a classic screw-mounted type – without losing any of the elegant, lightweight character. On the contrary. A quick look into the open flap cabinet is sufficient to see that the Kinvaro T-Slim also looks great as a screw-mounted version. Its 12 mm, slim, monolithic design looks like a formal work of art that can be harmoniously integrated into any furniture cabinet.

Even the screw-mounted version of Kinvaro T-Slim looks like a lightweight construction kit. Its slender appearance hardly suggests the power that it conceals.



Kinvaro T-Slim cover caps. Conspicuously inconspicuous.

The two-part cover cap can be fitted and removed without tools. This allows any adjustments to be made to the flap system even when it is installed. The cover caps are available in the standard colours ICE, STONE and SILVER. All cover caps can be painted and therefore also adapted to match unusual cabinet surfaces. The Kinvaro T-Slim fitting then creates an almost invisible unit with the cabinet.

Fully process compatible.

A movement system is only as good as its ability to be integrated into existing modern furniture-making processes. Kinvaro T-Slim has this ability. It is not necessary to change any processes for Kinvaro T-Slim. On the contrary. The new flap fitting was designed optimally to suit existing processes. This applies to industrial production, distributors and also the trades – nothing changes for you. Except that you can additionally mill in Kinvaro T-Slim. And that you can use the invisible technology in the future.

To achieve the highest degree of transparency, a movement system must be able to almost disappear. This is what the Kinvaro T-Slim flap system can do. Simply unobtrusive.



ICE



SILVER



STONE



INDIVIDUAL



Kinvaro T Lift-up flap systems

The single front opens up smoothly with a gentle lift movement. The particularly elegant movement sequence is enhanced by the integrated, adjustable Soft-close damping. Lift-up flap systems are ideal for light to medium-heavy fronts.



Kinvaro T-Slim adds another, almost invisible version to the lift-up flap system range, opening up new design possibilities for designers and innovative craftsmen.
Let your creativity run wild.

With the extremely slim design of the Kinvaro T-Slim, all functional components of the Kinvaro T-Slim can be perfectly milled into the cabinet wall. The result is a wall cabinet with invisible technology and maximum space.

Kinvaro Flap Systems.

Whichever flap you open – Kinvaro flap systems ensure perfect access and maximum freedom of movement.

There are no upper limits. Unless, of course, they are your personal choice. Wall cabinets still rank among the most favoured storage solutions for kitchens. And our highly functional flap systems ensure that this does not change. Stable and reliable movement systems, smooth and silent, ergonomically well designed and easy to operate – these are the special ingredients for contemporary storage space concepts. Kinvaro flap systems therefore embody the optimum synthesis of design demands and functional movement in the spirit of modern furniture culture.



Kinvaro F **Folding flap system**

The two-part front folds upwards to provide optimum access to the entire storage space. The particularly smooth movement sequence is complemented by the integrated, adjustable Soft-close damper.

Kinvaro L **Parallel lift flap system**

The single front opens in parallel to the cabinet and remains fixed in any position. Parallel lift flap systems move very elegantly, are extremely strong and are particularly suitable for cupboards with kitchen equipment.

Kinvaro S **Up-and-over flap system**

The single front lifts up above the cabinet at an angle and remains fixed in any position. Up-and-over flap systems are extremely stable and particularly well suited to cabinets with cornices, pelmet and attached lights.

INVISIBLE, SAFE, PRECISE AND MAGICAL.
KINVARO T-SLIM COMBINES PURIST AESTHETICS,
A VERY STABLE CONSTRUCTION AND THE ART OF
PERFECT MOVEMENT IN A VIRTUALLY UNIQUE
MANNER. SEE FOR YOURSELF!

kinvaro t-slim.

Intelligent.
Invisible.
Beautiful.

kinvaro.com

The Kinvaro D flap stay folds down elegantly and perfectly showcases drinks compartments.

The discreet flap stay with pull cable folds drinks cabinet fronts down. Combined with the Tiomos flap hinge, the open flap is almost flush with the base panel for an aesthetic overall look. Kinvaro D can be fitted horizontally or vertically on both sides and is available in two models for different depths, flap sizes and weights. With integrated damping and available in three colours, it is an elegant fitting for perfect furniture design.

Kinvaro D
Drinks compart-
ment flap

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Here you have to play "hunt the fitting". With Kinvaro T-Slim and Tiomos Hidden, the invisible GRASS hinge system, unprecedented, almost completely transparent furniture designs are possible.



A functional and ideal partner for perfect access. As an ideal complement to Kinvaro D, the Tiomos flap hinge combines maximum opening convenience with modern design freedom.

Kinvaro

Flap Systems

Kinvaro flap systems provide the perfect movement solution for every application. They are ideal as inset or screw-mounted versions in wall cabinets or as a drinks compartment flap.


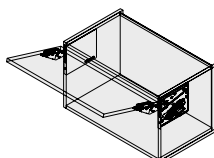

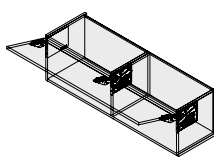

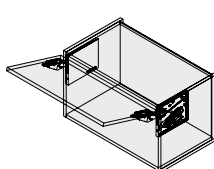

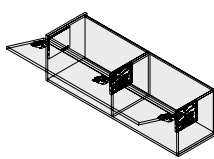

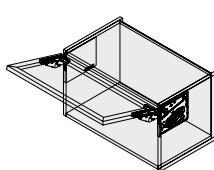
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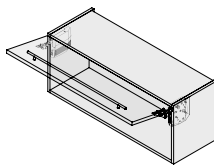

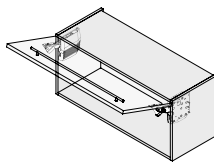

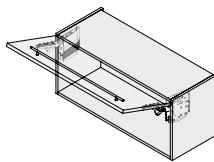

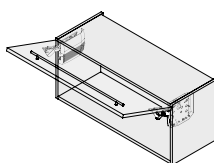

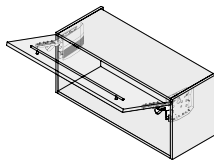
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Kinvaro

Flap Systems

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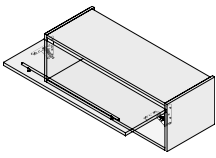

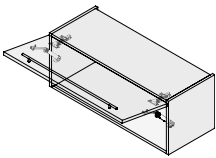

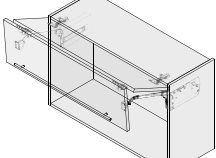

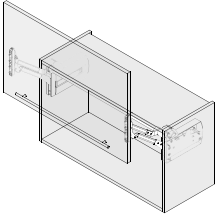

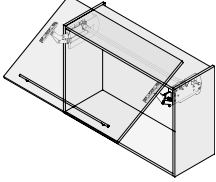
	Product description		Page
	Kinvaro T-Slim lift-up flap fitting for wooden fronts (inset) <ul style="list-style-type: none"> • Flush inset flap fitting for high design requirements and maximum storage space • Milling depth: cabinet side: 12.2 mm, front: 13.7 mm • Low opening forces and multi-position stop • Convenient adjustment of the spring force 		16
	Kinvaro T-Slim lift-up flap fitting for wide wooden fronts (inset) <ul style="list-style-type: none"> • Flush inset flap fitting for high design requirements and maximum storage space • Additional fitting for wide fronts • Milling depth: cabinet side: 12.2 mm, front: 13.7 mm • Low opening forces and multi-position stop • Convenient adjustment of the spring force 		18
	Kinvaro T-Slim lift-up flap fitting for wooden fronts (screw-mounted) <ul style="list-style-type: none"> • Slim flap fitting for high design requirements and more storage space in the wall cabinet • Low opening forces and multi-position stop • Convenient adjustment of the spring force 		22
	Kinvaro T-Slim lift-up flap fitting for wide wooden fronts (screw-mounted) <ul style="list-style-type: none"> • Slim flap fitting for high design requirements and more storage space in the wall cabinet • Additional fitting for wide fronts • Low opening forces and multi-position stop • Convenient adjustment of the spring force 		24
	Kinvaro T-Slim lift-up flap fitting for aluminium-framed fronts (inset) <ul style="list-style-type: none"> • Flush inset flap fitting for high design requirements and maximum storage space • Front connection for combination with aluminium frame • Milling depth: cabinet side: 12.2 mm • Low opening forces and multi-position stop 		28


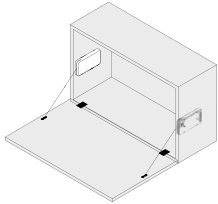

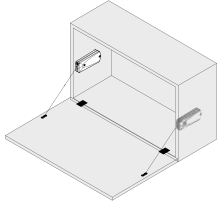
	Product description		Page
	Kinvaro T-65 lift-up flap fitting <ul style="list-style-type: none"> • Variable opening angle - holds flap securely at any angle between 45° and 100° • Extremely comfortable opening thanks to spring-supported opening mechanism • Adjustable spring force • Integrated adjustable closing damper • Allows additional cabinet installation above 		60
	Kinvaro T-70 lift-up flap fitting <ul style="list-style-type: none"> • Variable opening angle - holds flap securely at any angle between 45° and 100° • Extremely comfortable opening thanks to spring-supported opening mechanism • Adjustable spring force • Integrated adjustable closing damper • Allows additional cabinet installation above 		36
	Kinvaro T-71 lift-up flap fitting <ul style="list-style-type: none"> • Variable opening angle - holds flap securely at any angle between 45° and 110° • Extremely comfortable opening thanks to spring-supported opening mechanism • Adjustable spring force • Integrated adjustable closing damper • Allows additional cabinet installation above 		38
	Kinvaro T-75 lift-up flap fitting <ul style="list-style-type: none"> • Variable opening angle - holds flap securely at any angle between 45° and 110° • Extremely comfortable opening thanks to spring-supported opening mechanism • Adjustable spring force • Integrated adjustable closing damper • Allows additional cabinet installation above 		40
	Kinvaro T-76 lift-up flap fitting <ul style="list-style-type: none"> • Variable opening angle - holds flap securely at any angle between 45° and 110° • Extremely comfortable opening thanks to spring-supported opening mechanism • Adjustable spring force • Integrated adjustable closing damper • Allows additional cabinet installation above 		42

Kinvaro

Flap Systems

Kinvaro flap systems provide the perfect movement solution for every application. They are ideal as inset or screw-mounted versions in wall cabinets or as a drinks compartment flap.

	Product description		Page
	Kinvaro T-57 lift-up flap fitting <ul style="list-style-type: none"> • Opening angle adjustable to 75° or 90° • Easy to fit • Adjustable spring force • Allows additional cabinet installation above 		44
	Kinvaro T-105 flap stay <ul style="list-style-type: none"> • Variable opening angle - holds flap securely at any angle between 45° and -105° • Spring-supported opening function • Adjustable spring force • Convenient access, flap lifts clear of the work area • Allows additional cabinet installation above 		46
	Kinvaro F-20 folding flap fitting <ul style="list-style-type: none"> • Holds flap securely in any position • Extremely smooth movement • Adjustable spring force • Integrated adjustable closing damper 		48
	Kinvaro L-80 parallel lift flap fitting <ul style="list-style-type: none"> • Holds flap securely in any position • Extremely smooth movement • Adjustable spring force • Integrated adjustable closing damper • Allows the use of cornices, pelmets and attached lights 		52
	Kinvaro S-35 up-and-over flap fitting <ul style="list-style-type: none"> • Securely holds flap in any position from 45° opening angle • Extremely smooth movement • Adjustable spring force • Integrated adjustable closing damper • Allows the use of cornices, pelmets and attached lights 		54

	Product description		Page
	Kinvaro D-M flap stay with pull cable <ul style="list-style-type: none"> • Damped opening and gentle closing • Opening angle adjustable via length of pull cable • Spring force adjustment • Can be used with shallow cabinets from 110 mm depth • Flap height 200 mm – 480 mm 		56
	Kinvaro D-S flap stay with pull cable <ul style="list-style-type: none"> • Damped opening • Opening angle adjustable via length of pull cable • Can be used with shallow cabinets from 82 mm depth • Flap height 200 mm – 480 mm 		58

KINVARO

T-Slim lift-up flap fitting for fronts made from wood (inset)



- Flush inset flap fitting for high design requirements and maximum storage space
- Milling depth: cabinet side: 12.2 mm, front: 13.7 mm
- Low opening forces and multi-position stop
- Convenient adjustment of the spring force
- Fast, tool-free clip fitting of the front
- Flap with 3-dimensional adjustment of height ± 2.5 mm, side ± 2.0 mm, depth $+3.0$ mm / -1.0 mm
- 107 degrees opening angle
- Integrated, opening angle reduction clip with optional activation (75°)
- Three different power factors
- Can be used for flaps made from wood
- Cover caps and adapters in Stone, Ice and Silver (all cover caps can be painted)

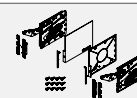
Available in two versions:

- With integrated damping (Soft-close, damper can be switched on/off)
- With integrated automatic opening system (Tipmatic Plus)

ORDER INFORMATION

Kinvaro T-Slim set for flaps made from wood

Set: Fitting (1x left/1x right), front connection (1x left/1x right), cover cap (3x left/3x right), screws (12x)



Power factor (LF)	Soft-close			Tipmatic Plus		
	Stone	Ice	Silver	Stone	Ice	Silver
250 – 550	F151149002	F151149004	F151149003	F151149011	F151149013	F151149012
500 – 1100	F151149005	F151149007	F151149006	F151149014	F151149016	F151149015
1000 – 2250	F151149008	F151149010	F151149009	F151149017	F151149019	F151149018

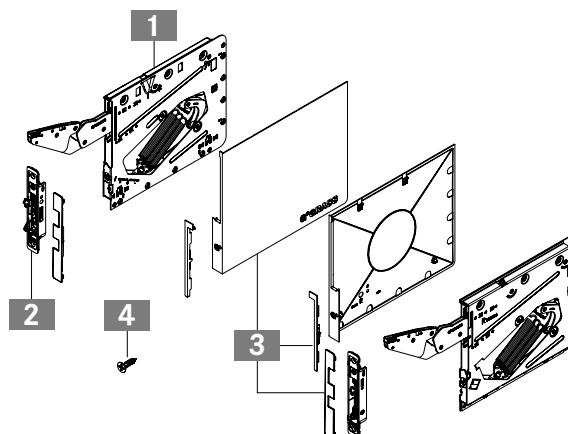
Power factor (LF) = flap height (mm) x (flap weight (kg) + 2 x handle weight (kg))
Cover caps can be painted

Tipmatic Pin see page 60



Kinvaro-T-Slim set consisting of:

- 1 Fitting left and right (1x)
 - 2 Front connection left and right (1x)
 - 3 Cover caps left and right (3x)
 - 4 Screws (12x)
- Installation instructions (1x)



Assembly aids	78
Kinvaro T-Slim adjustment options	62

Individual components	32

KINVARO

T-Slim lift-up flap fitting for wide wooden fronts (inset)



- Flush inset flap fitting for high design requirements and maximum storage space
- Additional fitting for wide fronts
- Milling depth: cabinet side: 12.2 mm, front: 13.7 mm
- Low opening forces and multi-position stop
- Convenient adjustment of the spring force
- Fast, tool-free clip fitting of the front
- Flap with 3-dimensional adjustment of height ± 2.5 mm, side ± 2.0 mm, depth $+3.0$ mm / -1.0 mm
- 107 degrees opening angle

- Integrated, opening angle reduction clip with optional activation (75°)
- Can be used for flaps made from wood
- Cover caps and adapters in Stone, Ice and Silver (all cover caps can be painted)

Available in two versions:

- With integrated damping (Soft-close, damper can be switched on/off)
- With integrated automatic opening system (Tipmatic Plus)

ORDER INFORMATION

Kinvaro T-Slim set for flaps made from wood

Set: Fitting (1x left/2x right), front connection (1x left/2x right), cover cap (3x left/6x right), screws (18x)



Power factor (LF)	Soft-close			Tipmatic Plus		
	Stone	Ice	Silver	Stone	Ice	Silver
1500 – 3375	F151149027	F151149029	F151149028	F151149024	F151149026	F151149025

Power factor (LF) = flap height (mm) x (flap weight (kg) + 2 x handle weight (kg))

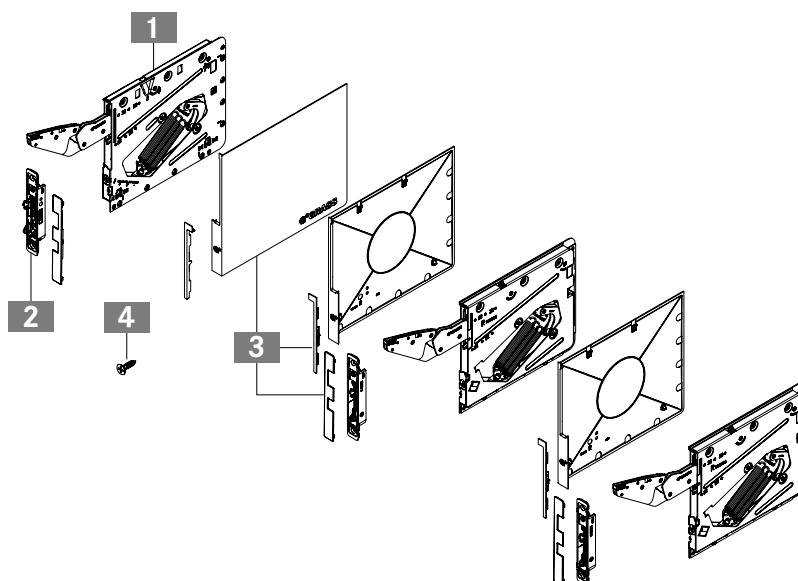
Cover caps can be painted

Tipmatic Pin see page 60



Kinvaro-T-Slim set consisting of:

- 1 Fitting left (1x) and right (2x)
 - 2 Front connection left (1x) and right (2x)
 - 3 Cover caps left (3x) and right (6x)
 - 4 Screws (18x)
- Installation instructions (1x)



Assembly aids	78
Kinvaro T-Slim adjustment options	62

Individual components	32

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

Required space	Tipmatic Pin
Side wall milling position	Front milling position
<p>Countersunk screw 3.5 x 13 mm</p>	<p>Countersunk screw 3.5 x 13 mm</p>
<p>Calculation of power factor (LF)</p> <p>Flap height (mm) x {flap weight (kg) + 2 x handle weight (kg)}</p>	

CORNICE

Cabinet top panel (KOB)	
Flap thickness (KLS)	Cornice (KP)
16	67
18	60
19	57
20	54
21	50
22	47
24	40
26	33
32	12

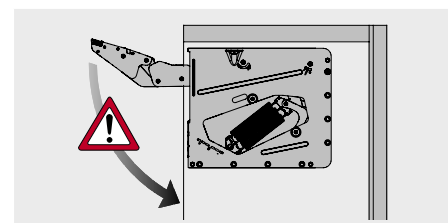
REVEAL

Front overlay, top (FAO)	
Flap thickness (KLS)	Reveal (F)
16	1
18	1
19	1
20	1
21	1
22	1
24	1.5
26	3
32	8

FLAP WEIGHT

Power factor (LF)	
Flap height (KLH)	Flap weight in kg
200	7.5 - 16.9
250	6.0 - 13.5
300	5.0 - 11.3
350	4.3 - 9.6
400	3.8 - 8.4
450	3.3 - 7.5
500	3.0 - 6.8
550	2.7 - 6.1

WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND

F	Reveal
FAO	Front overlay, top
FAS	Front overlay, side
FH	Front height
KB	Cabinet width
KLS	Flap thickness
KOB	Cabinet top panel
KP	Cornice
LF	Power factor

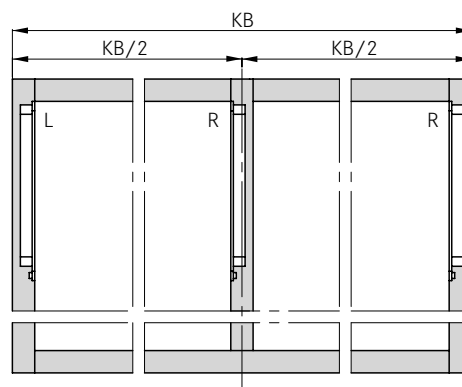
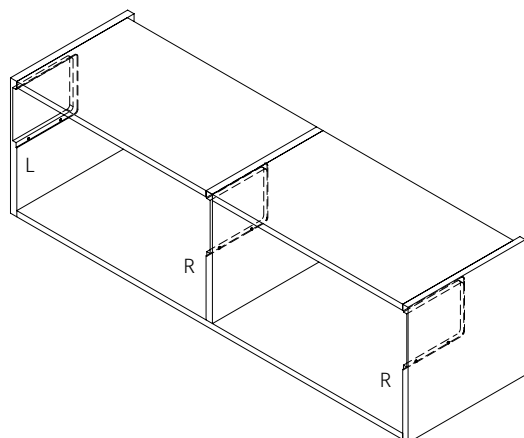
KINVARO

T-Slim lift-up flap fitting for wide wooden fronts (inset)

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

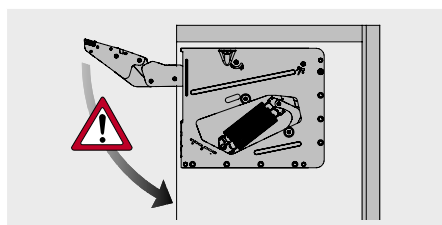
Position for third fitting



Assembly aids	78
Kinvaro T-Slim adjustment options	62

Individual components	32

WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND

KB	Cabinet width
L/R	Left/right

KINVARO

T-Slim lift-up flap fitting for wooden fronts (screw-mounted)



- Slim flap fitting for high design requirements and more storage space in the wall cabinet
- Low opening forces and multi-position stop
- Convenient adjustment of the spring force
- Fast, tool-free clip fitting of the front
- Flap with 3-dimensional adjustment of height ± 2.5 mm, side ± 2.0 mm, depth $+3.0$ mm / -1.0 mm
- No hinges fitted to the top panel
- 107 degrees opening angle
- Integrated, opening angle reduction clip with optional activation (75°)

- Three different power factors
- Can be used for flaps made from wood
- Cover caps and adapters in Stone, Ice and Silver (all cover caps can be painted)

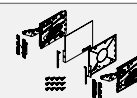
Available in two versions:

- With integrated damping (Soft-close, damper can be switched on/off)
- With integrated automatic opening system (Tipmatic Plus)

ORDER INFORMATION

Kinvaro T-Slim set for flaps made from wood

Set: Fitting (1x left/1x right), front connection (1x left/1x right), cover cap (3x left/3x right), screws (12x)



Power factor (LF)	Soft-close			Tipmatic Plus		
	Stone	Ice	Silver	Stone	Ice	Silver
250 – 550	F151149002	F151149004	F151149003	F151149011	F151149013	F151149012
500 – 1100	F151149005	F151149007	F151149006	F151149014	F151149016	F151149015
1000 – 2250	F151149008	F151149010	F151149009	F151149017	F151149019	F151149018

Power factor (LF) = flap height (mm) x (flap weight (kg) + 2 x handle weight (kg))

Cover caps can be painted

Adapter set for the screw-mounted version (1x left/1x right) incl. screws



Designation	Stone	Ice	Silver
Adapter set for screw-mounted version (1x left/1x right) for easy installation	F161149020	F161149022	F161149021

Adapter can be painted

Tipmatic Pin see page 60

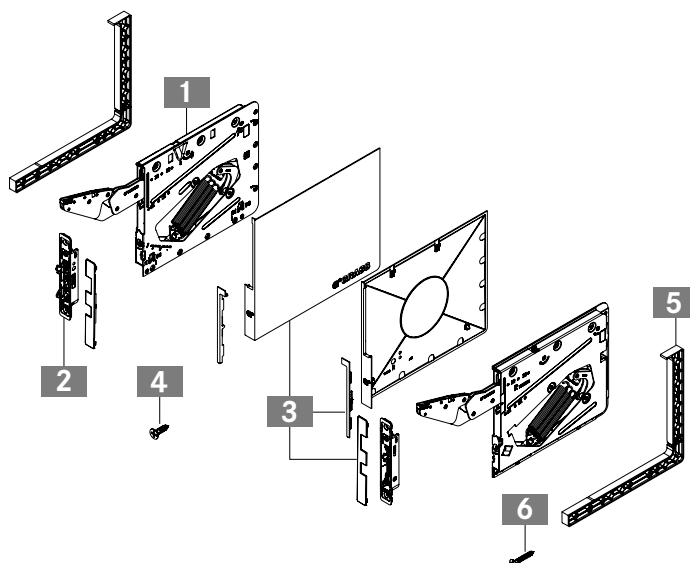


Kinvaro-T-Slim set consisting of:

- 1** Fitting left and right (1x)
- 2** Front connection left and right (1x)
- 3** Cover caps left and right (3x)
- 4** Screws (12x)
- Installation instructions (1x)

Adapter set consisting of:

- 5** Adapter left and right (1x)
- 6** Screws (8x)



Assembly aids	78
Kinvaro T-Slim adjustment options	62

Individual components	32

KINVARO

T-Slim lift-up flap fitting for wide wooden fronts (screw-mounted)



- Slim flap fitting for high design requirements and more storage space in the wall cabinet
- Additional fitting for wide fronts
- Low opening forces and multi-position stop
- Convenient adjustment of the spring force
- Fast, tool-free clip fitting of the front
- Flap with 3-dimensional adjustment of height ± 2.5 mm, side ± 2.0 mm, depth $+3.0$ mm / -1.0 mm
- No hinges fitted to the top panel
- 107 degrees opening angle

- Integrated, opening angle reduction clip with optional activation (75°)
- Can be used for flaps made from wood
- Cover caps and adapters in Stone, Ice and Silver (all cover caps can be painted)

Available in two versions:

- With integrated damping (Soft-close, damper can be switched on/off)
- With integrated automatic opening system (Tipmatic Plus)

ORDER INFORMATION

Kinvaro T-Slim set for flaps made from wood

Set: Fitting (1x left/2x right), front connection (1x left/2x right), cover cap (3x left/6x right), screws (18x)



Power factor (LF)	Soft-close			Tipmatic Plus		
	Stone	Ice	Silver	Stone	Ice	Silver
1500 – 3375	F151149027	F151149029	F151149028	F151149024	F151149026	F151149025

Power factor (LF) = flap height (mm) x (flap weight (kg) + 2 x handle weight (kg))

Cover caps can be painted

Adapter set for the screw-mounted version (1x left/1x right) incl. screws



Designation	Stone	Ice	Silver
Adapter set for screw-mounted version (1x left/1x right) for easy installation	F161149020	F161149022	F161149021

Adapter can be painted

Tipmatic Pin see page 60

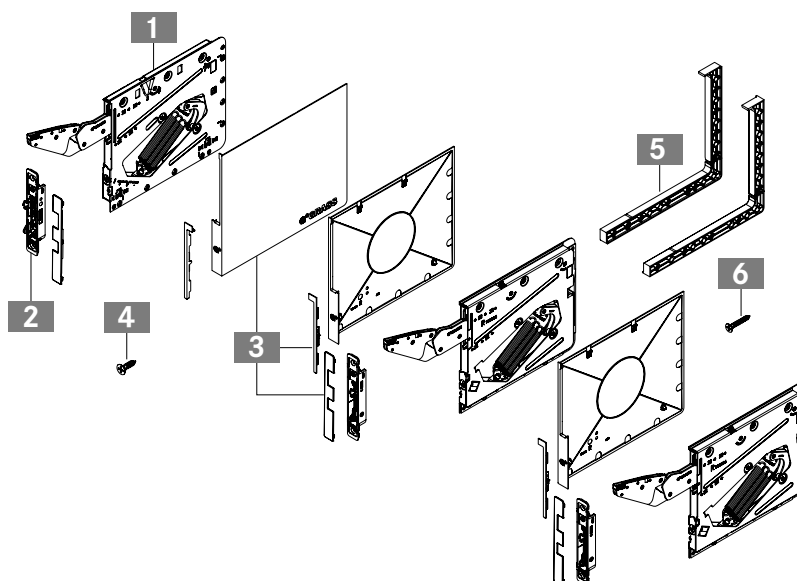


Kinvaro-T-Slim set consisting of:

- 1** Fitting left (1x) and right (2x)
 - 2** Front connection left (1x) and right (2x)
 - 3** Cover caps left (3x) and right (6x)
 - 4** Screws (18x)
- Installation instructions (1x)

Adapter set consisting of:

- 5** Adapter left and right (1x)
- 6** Screws (8x)



Assembly aids	78
Kinvaro T-Slim adjustment options	62

Individual components	32

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

<p>Required space</p>	<p>Tipmatic Pin</p>
<p>Side wall screw-on position</p> <p>● Countersunk screw 3.5 x 25 mm</p>	<p>Front milling position</p> <p>● Countersunk screw 3.5 x 13 mm</p>
<p>Calculation of power factor (LF) Flap height (mm) x {flap weight (kg) + 2 x handle weight (kg)}</p>	

CORNICE

Flap thickness (KLS)	Cabinet top panel (KOB)					
	16	18	19	20	22	24
	16	67	74	77	80	87
	18	60	67	70	73	80
	19	57	64	67	70	77
	20	54	60	63	67	73
	21	50	56	60	63	69
	22	47	53	57	60	66
	24	40	46	50	53	60
	26	33	40	43	46	53
	32	12	19	22	25	32
Cornice (KP)						

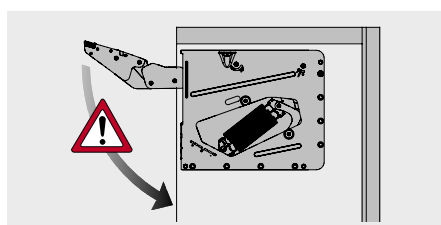
REVEAL

Flap thickness (KLS)	Front overlay, top (FAO)				
	15	17	19	21	22
	16	1	1	1	1
	18	1	1	1	1
	19	1	1	1	1
	20	1	1	1	1
	21	1	1	1	1
	22	1	1	1	1
	24	1.5	1	1	1
	26	3	2.5	1.5	1
	32	8	7	6	5.5
Reveal (F)					

FLAP WEIGHT

Flap height (KLH)	Power factor (LF)		
	1500 - 3375		
	200	7.5 - 16.9	
	250	6.0 - 13.5	
	300	5.0 - 11.3	
	350	4.3 - 9.6	
	400	3.8 - 8.4	
	450	3.3 - 7.5	
	500	3.0 - 6.8	
	550	2.7 - 6.1	
Flap weight in kg			

WARNING



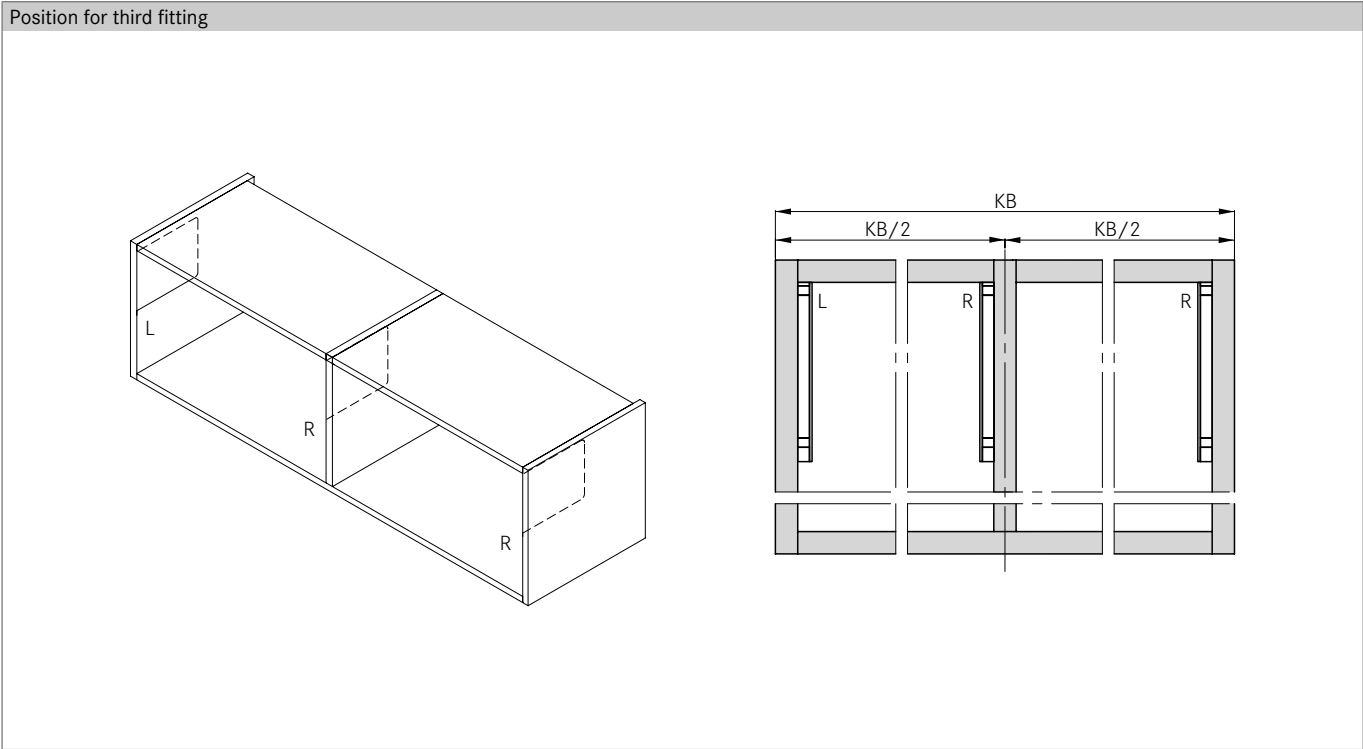
Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND

F	Reveal
FAO	Front overlay, top
FAS	Front overlay, side
FH	Front height
KB	Cabinet width
KLS	Flap thickness
KOB	Cabinet top panel
KP	Cornice
LF	Power factor

ASSEMBLY AND INSTALLATION INSTRUCTIONS

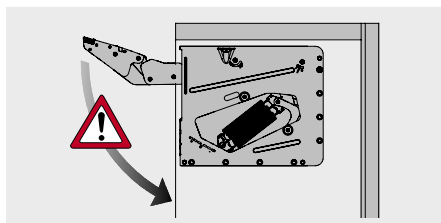
All dimensions in millimetres



Assembly aids	78
Kinvaro T-Slim adjustment options	62

Individual components	32

WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND

KB Cabinet width
L/R Left/right

KINVARO

T-Slim lift-up flap fitting for aluminium-framed fronts (inset)



- Flush inset flap fitting for high design requirements and maximum storage space
- Front connection for combination with aluminium frame (please order separately)
- Milling depth: cabinet side: 12.2 mm
- Low opening forces and multi-position stop
- Convenient adjustment of the spring force
- Fast, tool-free clip fitting of the front
- Flap with 3-dimensional adjustment of height ± 2.5 mm, side ± 2.0 mm, depth $+3.0$ mm / -1.0 mm
- 107 degrees opening angle

- Integrated, opening angle reduction clip with optional activation (75°)
- Three different power factors
- Cover caps and adapters in Stone, Ice and Silver (all cover caps can be painted)

Available in two versions:

- With integrated damping (Soft-close, damper can be switched on/off)
- With integrated automatic opening system (Tipmatic Plus)

ORDER INFORMATION

Kinvaro T-Slim set without front connection

Set: Fitting (1x left/1x right), cover cap (2x left/2x right), screws (12x)



Power factor (LF)	Soft-close			Tipmatic Plus		
	Stone	Ice	Silver	Stone	Ice	Silver
250 – 550	F151149038	F151149040	F151149039	F151149047	F151149049	F151149048
500 – 1100	F151149041	F151149043	F151149042	F151149050	F151149052	F151149051
1000 – 2250	F151149044	F151149046	F151149045	F151149053	F151149055	F151149054

Power factor (LF) = flap height (mm) x (flap weight (kg) + 2 x handle weight (kg))

Cover caps can be painted

Kinvaro T-Slim accessory set for aluminium frames

Set: Front connection (1x left/1x right), corner connectors (1x left/1x right), screws (10x)



Art.-no.				
F161149100				

Kinvaro T-Slim cover cap for front connection (1x left/1x right)



Black				
F161149081				

Cover caps can be painted

Tipmatic Pin see page 60

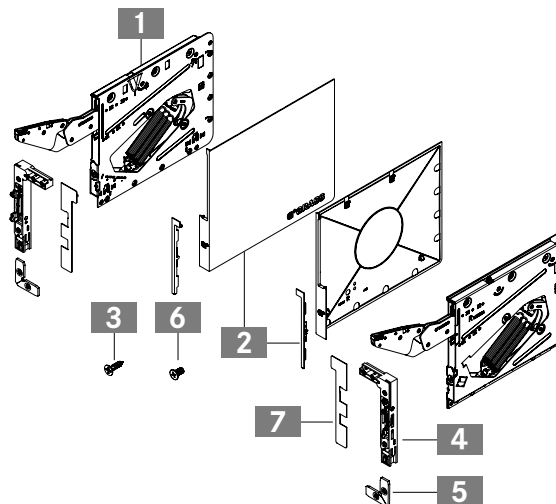


Kinvaro-T-Slim set consisting of:

- 1 Fitting left and right (1x)
 - 2 Cover caps left and right (2x)
 - 3 Screws (12x)
- Installation instructions (1x)

Accessories and cover cap for aluminium frames consisting of:

- 4 Front connection left and right (1x)
- 5 Corner connector left and right (1x)
- 6 Screws (10x)
- 7 Cover cap for front connection left and right (1x)



Assembly aids	78	Aluminium frame	31		
Kinvaro T-Slim adjustment options	62	Individual components	32		

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

Required space	Tipmatic Pin
Side wall milling position	
<p>Countersunk screw 3.5 x 13 mm</p>	
Calculation of power factor (LF)	
$\text{Flap height (mm)} \times \{\text{flap weight (kg)} + 2 \times \text{handle weight (kg)}\}$	

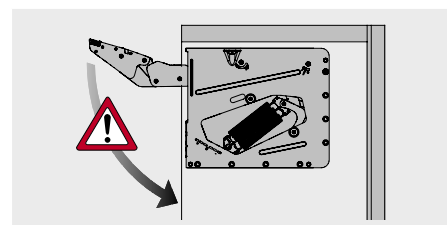
CORNICE

FLAP WEIGHT

Flap thickness (KLS)	Cabinet top panel (KOB)					
	16	18	19	20	22	24
19	57	64	67	70	77	84
Cornice (KP)						

Flap height (KLH)	Power factor (LF)		
	250 - 550	500 - 1100	1000 - 2250
200	1.3 - 2.8	2.5 - 5.5	5.0 - 11.3
250	1.0 - 2.2	2.0 - 4.4	4.0 - 9.0
300	0.8 - 1.8	1.7 - 3.7	3.3 - 7.5
350	0.7 - 1.6	1.4 - 3.1	2.9 - 6.4
400	0.6 - 1.4	1.3 - 2.8	2.5 - 5.6
450	0.6 - 1.2	1.1 - 2.4	2.2 - 5.0
500	0.5 - 1.1	1.0 - 2.2	2.0 - 4.5
550	0.5 - 1.0	0.9 - 2.0	1.8 - 4.1
Flap weight in kg			

WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND

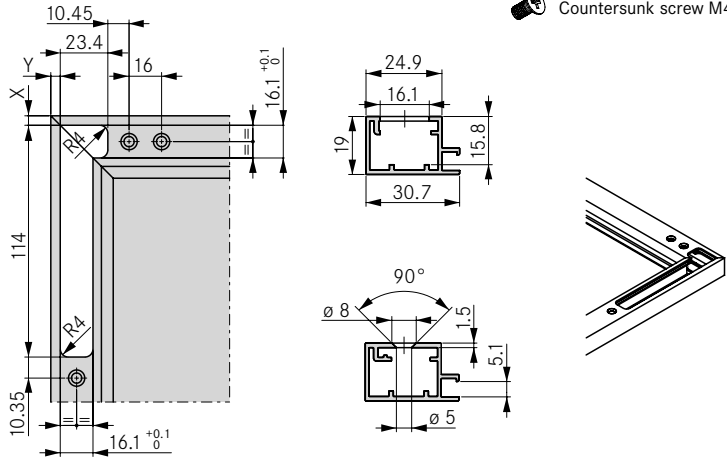
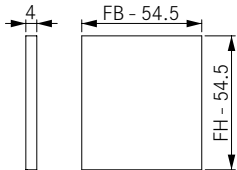
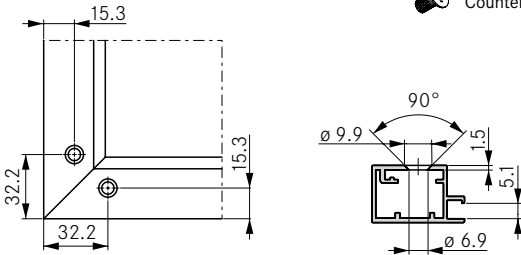
FAO	Front overlay, top
FAS	Front overlay, side
KB	Cabinet width
KLS	Flap thickness
KOB	Cabinet top panel
KP	Cornice
LF	Power factor

KINVARO

T-Slim lift-up flap fitting for aluminium-framed fronts (inset)

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

Milling position aluminium frame front connection	Cut glass
 <p>Countersunk screw M4 x 10 mm</p> <p>All dimensions without tolerance ± 0.1</p>	
Drilling position aluminium frame corner connector	
 <p>Countersunk screw M5 x 8 mm</p>	

FRONT OVERLAY, TOP

	X			
14	4.65			
15	5.65			
16	6.65			
17	7.65			

FRONT OVERLAY, SIDE


	Y			
14	4.65			
15	5.65			
16	6.65			
17	7.65			

Assembly aids	78
Kinvaro T-Slim adjustment options	62

Individual components	32

ALUMINIUM FRAME ORDERING INFORMATION

Aluminium profile from Schüco suitable for Kinvaro T-Slim, length: 5000 mm				
Schüco art.-no.				
Stainless steel	Black	Inox		
980037.64.00	980037.65.00	980037.67.00		

Schüco corner connector for aluminium profile		
Designation		Schüco art.-no.
Corner connector for glass frames		550484.98.00

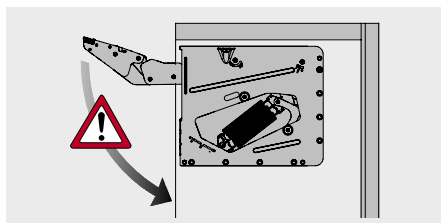
Countersunk screw for Schüco corner connectors		
Designation		Schüco art.-no.
Countersunk screw M5 x 8 mm, DIN 965, PH2, nickel-plated		511571.00.00

Rattle protection for Schüco aluminium profile		
Designation		Schüco art.-no.
Rattle protection		532917.00.00

NOTE

Aluminium frames and accessories can be ordered from the trade, quoting the respective Schüco article number. The trade also supplies precisely dimensioned prefabricated glass aluminium frames.

WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!


LEGEND

FAO Front overlay, top
FAS Front overlay, side
FB Front width
FH Front height


KINVARO

T-Slim lift-up flap fitting individual parts


ORDER INFORMATION

Kinvaro T-Slim fitting				
Power factor (LF)	Soft-close		Tipmatic Plus	
	Left	Right	Left	Right
250 – 550	F151149056	F151149057	F151149064	F151149063
500 – 1100	F151149058	F151149059		F151149065
1000 – 2250	F151149060	F151149061	F151149066	F151149067


Power factor (LF) = flap height (mm) x [flap weight (kg) + 2 x handle weight (kg)]


Kinvaro T-Slim cover cap for fitting					
	Stone	Ice	Silver	Champagne	
Left	F161149107	F161149111	F161149109	F161149114	
Right	F161149108	F161149112	F161149110	F161149113	


Cover caps can be painted


Kinvaro T-Slim cover cap for front fitting (1x right/1x left)					
Stone	Ice	Silver	Champagne		
F161149072	F161149074	F161149073	F161149075		


Cover caps can be painted

Kinvaro T-Slim front connection for flaps made from wood					
Left	Right				
F161149076	F161149077				

Kinvaro T-Slim cover cap for front connection for flaps made from wood (1x right/1x left)					
Nickel-plated					
F161149080					


Kinvaro T-Slim front connection for aluminium frames					
Left	Right				
F161149078	F161149079				

Kinvaro T-Slim corner connector for aluminium frames (1x left/1x right)					
Art.-no.					
F161149082					

Kinvaro T-Slim cover cap for front connection for aluminium frames (1x right/1x left)					
Black	Stainless steel / Inox				
F161149081	F161149106				

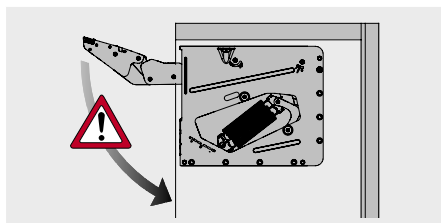
Cover caps can be painted

Assembly aids	78				
Kinvaro T-Slim adjustment options	62				

Adapter set for the screw-mounted version (1x left/ 1x right) incl. screws				
Stone	Ice	Silver		
F161149020	F161149022	F161149021		

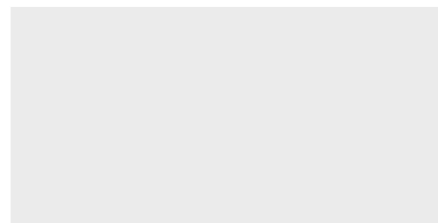
Adapter can be painted

WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND



KINVARO

T-65 lift-up flap fitting

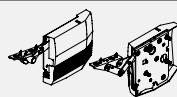


- Variable opening angle - holds flap securely at any angle between 45° and 100°
- Extremely comfortable opening thanks to spring-supported opening mechanism
- Adjustable spring force
- Integrated adjustable closing damper
- Adjustable flap height ± 3.0 mm
- No hinges fitted to the top panel
- Allows additional cabinet installation above
- Weight 0.7 to 7.4 kg
- Range of flaps:
Width: to 1200 mm
Height: 250 – 600 mm
- Cover caps in white and grey, similar to RAL 7045

APPLICATION RANGE

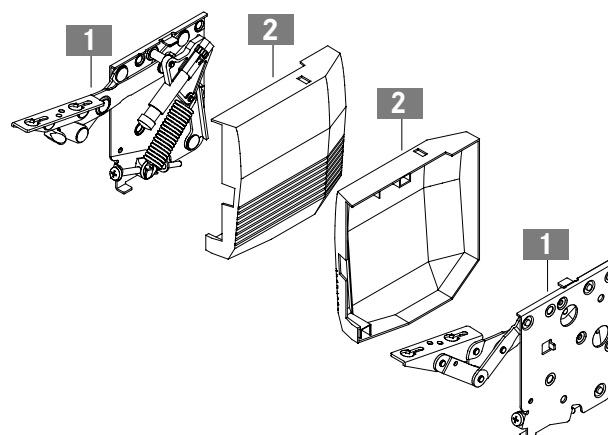
Cabinet height	Flap weight incl. handle (kg)		
	Spring on one side yellow	Spring on both sides yellow	Spring on both sides black
250	0.9 – 2.1	1.8 – 4.2	2.4 – 7.4
300	0.7 – 1.7	1.4 – 3.4	2.0 – 6.3
350	-	1.0 – 2.9	1.7 – 5.4
400	-	0.8 – 2.5	1.5 – 4.7
450	-	0.7 – 2.2	1.3 – 4.2
500	-	0.6 – 2.0	1.3 – 3.9
550	-	-	1.3 – 3.4
600	-	-	1.3 – 3.1

ORDER INFORMATION

Kinvaro T-65 set					
Designation	Springs	Version for	Overlay	Art.-no.	
				Cover cap white	Cover cap grey
Kinvaro T-65 on right without damper and on left with damper, pre-assembled springs black, incl. cover caps, 2 loose yellow springs	Black/yellow	wood	variable	F151147797	F151147682

Kinvaro T-65 set comprises:

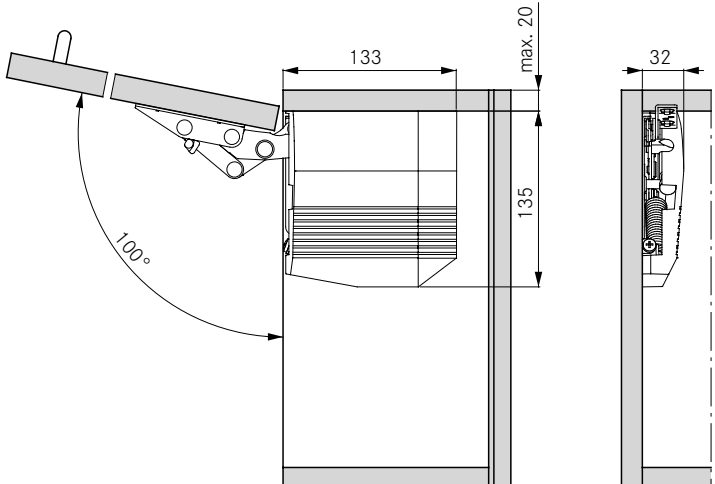
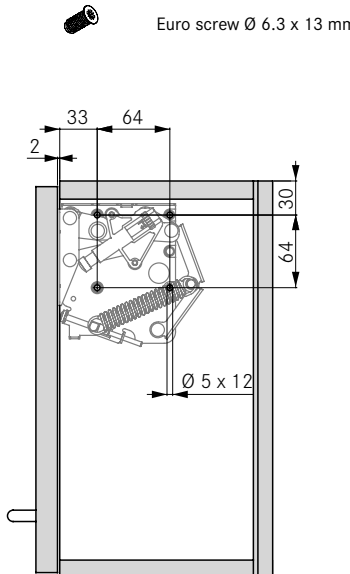
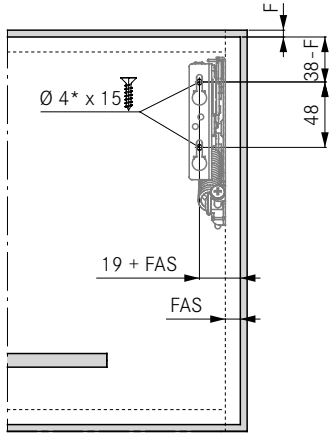
- 1** Fitting on the right without and on the left with damper (1x)
- 2** Cover caps on right and left (1x)
Springs, yellow, loose (2x)
Paper template (1x)
Installation instructions (1x)



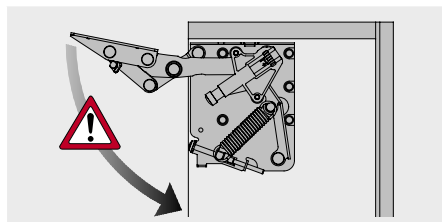
Assembly aids	78
Kinvaro T-65 adjustment options	64

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

Required space	Side wall drilling positions
	
<p>Front: installation for wooden and frame flaps (min. 45 mm width)</p>  <p>* Pre-drilling required - Ø 2 mm</p>	
<p>Calculation of flap weight</p> <p>Flap width x flap height x flap thickness x density¹ + weight of handle² = weight of flap</p> <p>¹ Densities: MDF 0.85 kg/dm³, chipboard 0.65 kg/dm³, spruce/pine 0.45 kg/dm³</p> <p>² For bar handles allow 0.1 kg for each 100 mm handle width. We recommend a trial fitting</p>	

WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND

F Reveal
FAS Front overlay, side

KINVARO

T-70 lift-up flap fitting

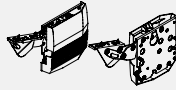


- Variable opening angle - holds flap securely at any angle between 45° and 110°
- Extremely comfortable opening thanks to spring-supported opening mechanism
- Adjustable spring force
- Integrated adjustable closing damper
- Adjustable flap height ± 2.0 mm
- No hinges fitted to the top panel
- Allows additional cabinet installation above
- Weight 1.4 to 8.5 kg
- Range of flaps:
Width: up to 1200 mm
Height: 300 – 600 mm
- Cover caps in white and grey, similar to RAL 7045

APPLICATION RANGE

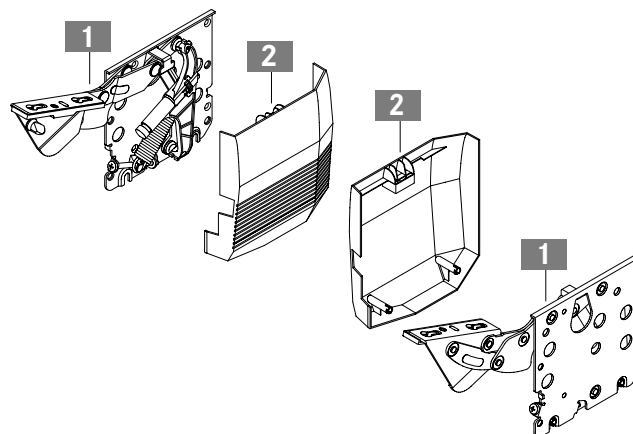
Cabinet height	Flap weight incl. handle (kg)	
	Spring, white	Spring, orange
300	2.1 – 7.4	2.5 – 8.5
350	1.8 – 6.3	2.3 – 7.5
400	1.7 – 5.4	2.1 – 6.8
450	1.6 – 4.7	2.0 – 5.8
500	1.5 – 4.0	1.8 – 5.0
550	1.4 – 3.7	1.6 – 4.6
600	1.4 – 3.3	1.4 – 4.2

ORDER INFORMATION

Kinvaro T-70 set						
Designation	Springs	Version for	Overlay	Art.-no.	Cover cap white	Cover cap grey
					F151147693	F151147692
Kinvaro T-70 on right without damper and on left with damper, pre-assembled springs white, incl. cover caps, 2 loose orange springs	white/orange	wood	variable			

Kinvaro T-70 set comprises:

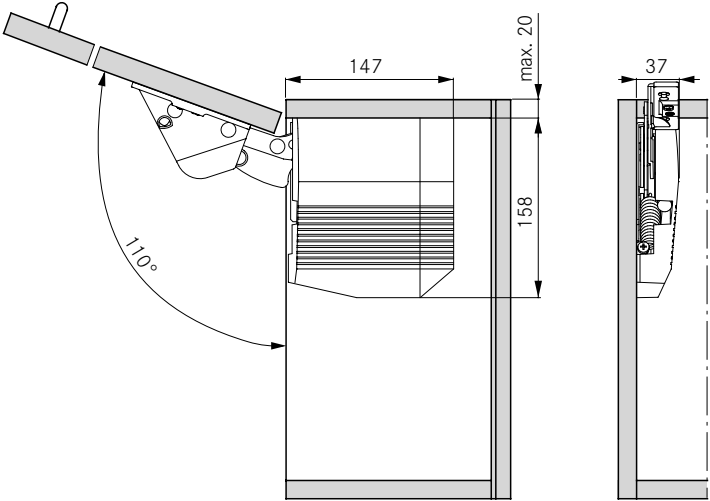
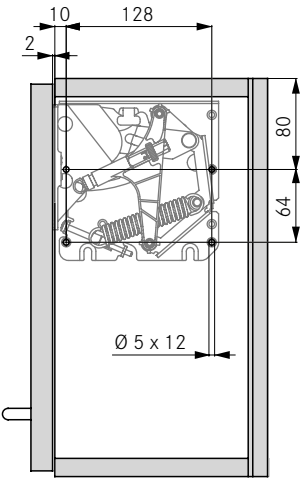
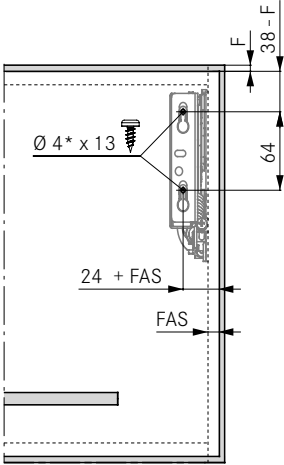
- 1 Fitting on the right without and on the left with damper (1x)
- 2 Cover caps on right and left (1x)
Springs, orange, loose (2x)
Paper template (1x)
Installation instructions (1x)



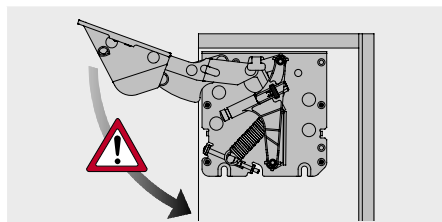
Assembly aids	78				
Kinvaro T-70 adjustment options	65				

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

Required space	Side wall drilling positions
	
<p>Front: installation for wooden and frame flaps (min. 55 mm width)</p>  <p>* Pre-drilling required - Ø 2 mm</p>	
<p>Calculation of flap weight</p> <p>Flap width x flap height x flap thickness x density¹ + weight of handle² = weight of flap</p> <p>¹ Densities: MDF 0.85 kg/dm³, chipboard 0.65 kg/dm³, spruce/pine 0.45 kg/dm³</p> <p>² For bar handles allow 0.1 kg for each 100 mm handle width. We recommend a trial fitting</p>	

WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND

F Reveal
FAO Front overlay, top
FAS Front overlay, side
KOB Cabinet top panel

KINVARO

T-71 lift-up flap fitting

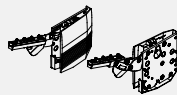



- Variable opening angle - holds flap securely at any angle between 45° and 110°
- Extremely comfortable opening thanks to spring-supported opening mechanism
- Adjustable spring force
- Integrated adjustable closing damper
- Flap 3-dimensionally adjustable - height, side, angle: direct adjustment ± 1.5 mm
- No hinges fitted to the top panel
- Allows additional cabinet installation above
- Can be used for wooden flaps or aluminium frames with glass infill
- Fast, tool-free clip fitting of the front
- Weight 1.4 to 8.5 kg
- Range of flaps:
Width: up to 1200 mm
Height: 300 – 600 mm
- Cover caps in white and grey, similar to RAL 7045

APPLICATION RANGE

Cabinet height	Flap weight incl. handle (kg)	
	Spring, white	Spring, orange
300	2.1 – 7.4	2.5 – 8.5
350	1.8 – 6.3	2.3 – 7.5
400	1.7 – 5.4	2.1 – 6.8
450	1.6 – 4.7	2.0 – 5.8
500	1.5 – 4.0	1.8 – 5.0
550	1.4 – 3.7	1.6 – 4.6
600	1.4 – 3.3	1.4 – 4.2

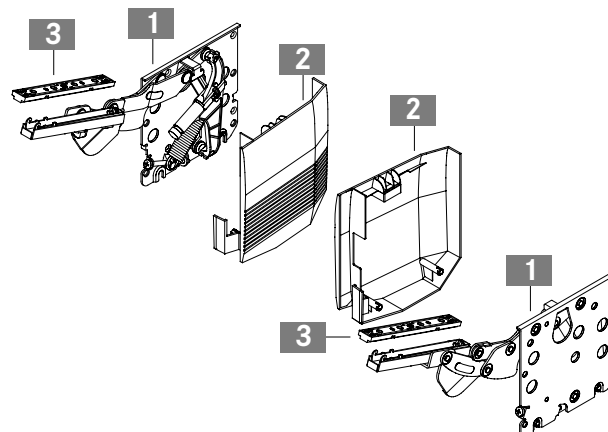
ORDER INFORMATION

Kinvaro T-71 set						
Designation	Springs	Version for	Overlay		Art.-no.	
					Cover cap white	Cover cap grey
Kinvaro T-71 on right without damper and on left with damper, pre-assembled springs white, incl. cover caps, 2 loose orange springs	white/orange	wood	variable		F151147811	F151147696

Aluminium frame adapter, Kinvaro T-71 set					
Designation				Overlay	Art.-no.
Aluminium frame adapter (2x) for narrow aluminium frames (19 mm) with fixing screws (16x)				13 – 17	F151145226

Kinvaro T-71 set comprises:

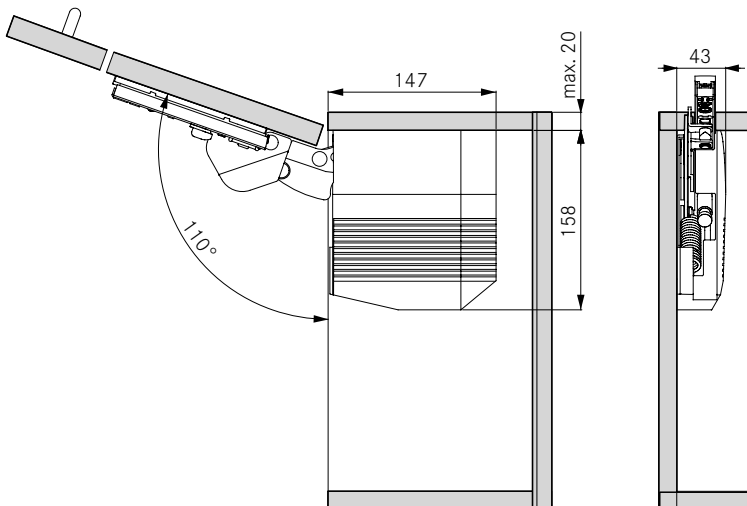
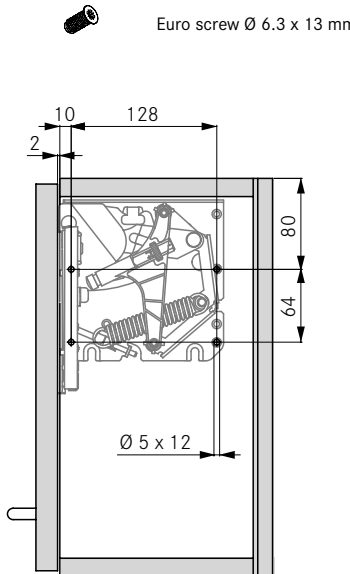
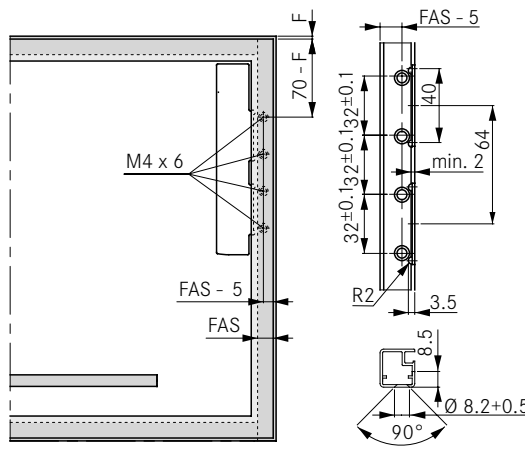
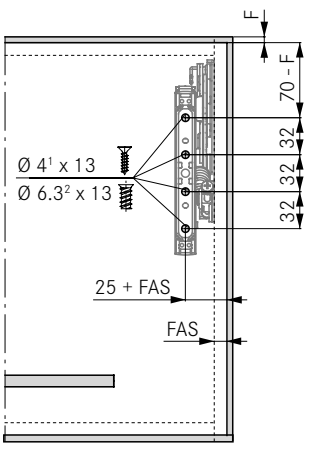
- 1** Fitting on the right without and on the left with damper (1x)
- 2** Cover caps on right and left (1x)
- 3** Mounting plates (2x)
Springs, orange, loose (2x)
Paper template (1x)
Installation instructions (1x)



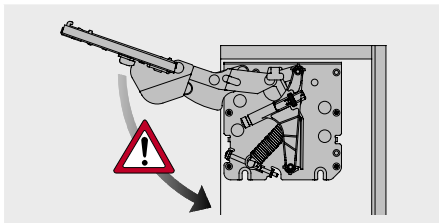
Assembly aids	78				
Kinvaro T-71 adjustment options	66				

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

Required space	Side wall drilling positions
	
<p>Front: installation for flaps with standard aluminium frame profiles (19 mm)</p>	<p>Front: installation for wooden and frame flaps (min. 55 mm width)</p>
 <p>* Standard aluminium frame profile (19 mm)</p>	 <p>¹ Pre-drilling required - Ø 2 mm ² Pre-drilling required - Ø 5 mm</p>
<p>Calculation of flap weight</p> <p>Flap width x flap height x flap thickness x density¹ + weight of handle² = weight of flap</p> <p>¹ Densities: MDF 0.85 kg/dm³, chipboard 0.65 kg/dm³, spruce/pine 0.45 kg/dm³</p> <p>² For bar handles allow 0.1 kg for each 100 mm handle width. We recommend a trial fitting</p>	

WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND

F Reveal
FAS Front overlay, side

KINVARO

T-75 lift-up flap fitting




- Variable opening angle - holds flap securely at any angle between 45° and 110°
- Extremely comfortable opening thanks to spring-supported opening mechanism
- Adjustable spring force
- Integrated adjustable closing damper
- Adjustable flap height ± 2.0 mm
- No hinges fitted to the top panel
- Allows additional cabinet installation above
- Weight 5.2 to 11.0 kg
- Range of flaps:
Width: up to 1200 mm
Height: 400 – 600 mm
- Cover caps in white and grey, similar to RAL 7045

APPLICATION RANGE

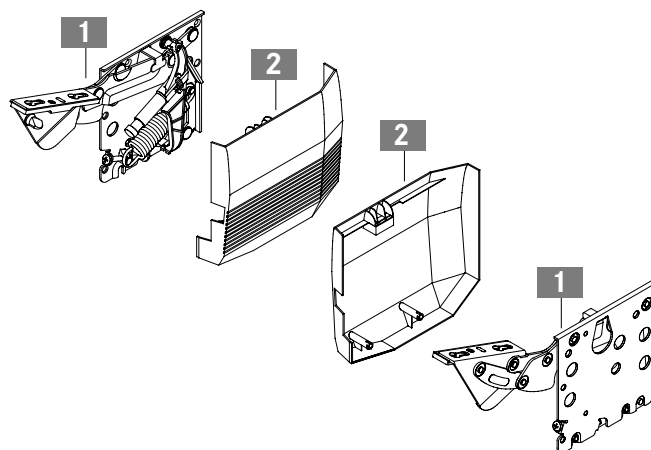
Cabinet height	Flap weight incl. handle (kg)
	Spring, standard
400	7.0 – 11.0
450	6.7 – 9.6
500	5.8 – 8.5
550	5.6 – 7.6
600	5.2 – 7.0

ORDER INFORMATION

Kinvaro T-75 set						
Designation	Springs	Version for	Overlay	Art.-no.		
				Cover cap white	Cover cap grey	
Kinvaro T-75 on right without damper and on left with damper incl. cover caps	standard	wood	variable	F151147700	F151147699	

Kinvaro T-75 set comprises:

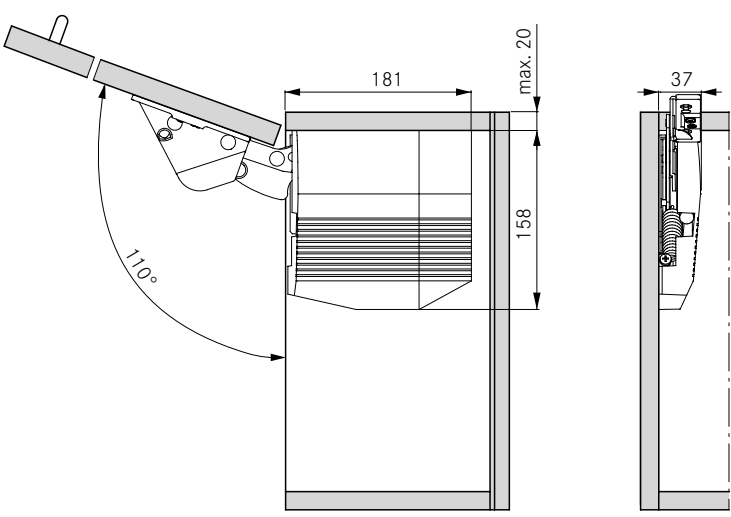
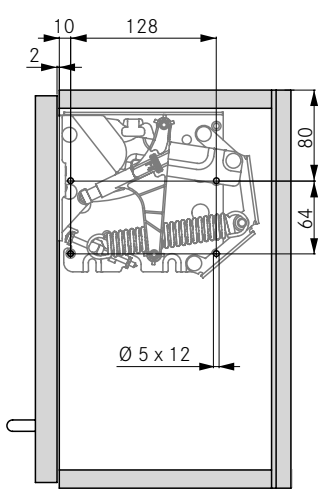
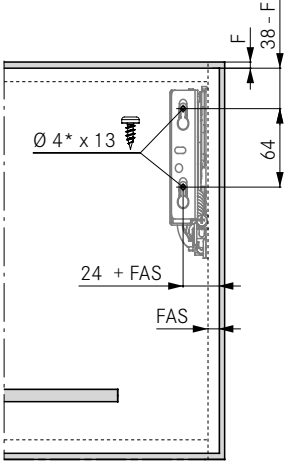
- 1** Fitting on the right without and on the left with damper (1x)
- 2** Cover caps on right and left (1x)
Paper template (1x)
Installation instructions (1x)



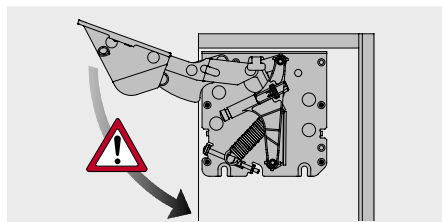
Assembly aids	78				
Kinvaro T-75 adjustment options	67				

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

Required space	Side wall drilling positions
	
<p>Front: installation for wooden and frame flaps (min. 55 mm width)</p>  <p>* Pre-drilling required - Ø 2 mm</p>	
<p>Calculation of flap weight</p> <p>Flap width x flap height x flap thickness x density¹ + weight of handle² = weight of flap</p> <p>¹ Densities: MDF 0.85 kg/dm³, chipboard 0.65 kg/dm³, spruce/pine 0.45 kg/dm³</p> <p>² For bar handles allow 0.1 kg for each 100 mm handle width. We recommend a trial fitting</p>	

WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND

F Reveal
FAS Front overlay, side

KINVARO

T-76 lift-up flap fitting

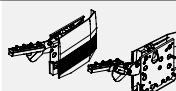



- Variable opening angle - holds flap securely at any angle between 45° and 110°
- Extremely comfortable opening thanks to spring-supported opening mechanism
- Adjustable spring force
- Integrated adjustable closing damper
- Flap 3-dimensionally adjustable - height, side, angle: direct adjustment ± 1.5 mm
- No hinges fitted to the top panel
- Allows additional cabinet installation above
- Can be used for wooden flaps or aluminium frames with glass infill
- Fast, tool-free clip fitting of the front
- Weight 5.2 to 11.0 kg
- Range of flaps:
Width: to 1200 mm
Height: 400 – 600 mm
- Cover caps in white and grey, similar to RAL 7045

APPLICATION RANGE

Cabinet height	Flap weight incl. handle (kg)
	Spring, standard
400	7.0 – 11.0
450	6.7 – 9.6
500	5.8 – 8.5
550	5.6 – 7.6
600	5.2 – 7.0

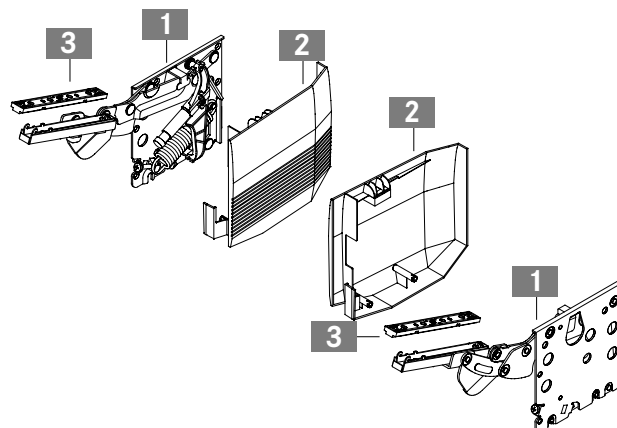
ORDER INFORMATION

Kinvaro T-76 set						
Designation	Springs	Version for	Overlay	Art.-no.		
					Cover cap white	Cover cap grey
Kinvaro T-76 on right without damper and on left with damper, pre-assembled springs standard, incl. cover caps	standard	wood	variable		F151147817	F151147706

Aluminium frame adapter, Kinvaro T-76 set					
Designation			Overlay	Art.-no.	
Aluminium frame adapter (2x) for narrow aluminium frames (19 mm) with fixing screws (16x)			13 – 17	F151145226	

Kinvaro T-76 set comprises:

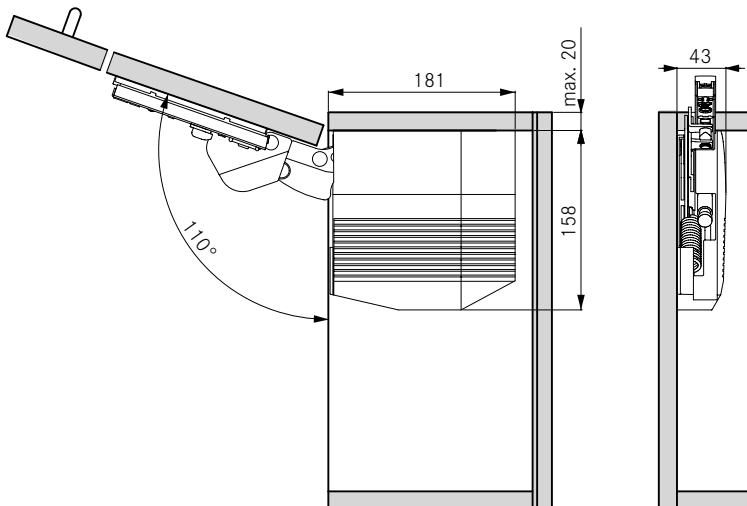
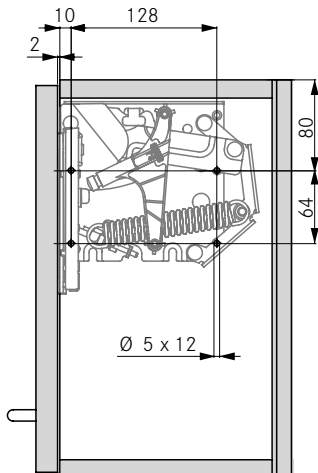
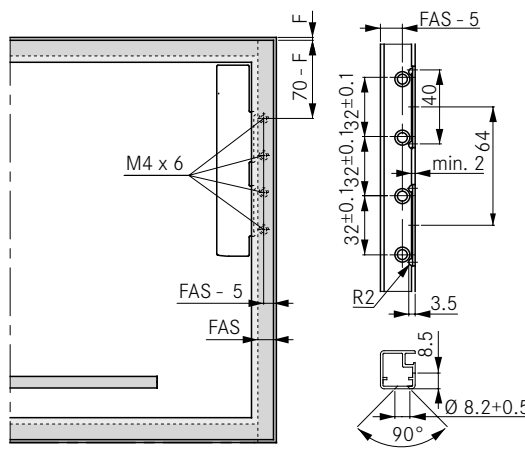
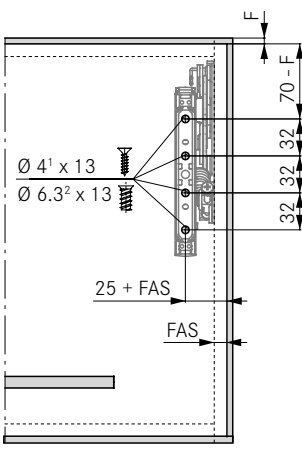
- 1 Fitting on the right without and on the left with damper (1x)
- 2 Cover caps on right and left (1x)
- 3 Mounting plates (2x)
Paper template (1x)
Installation instructions (1x)



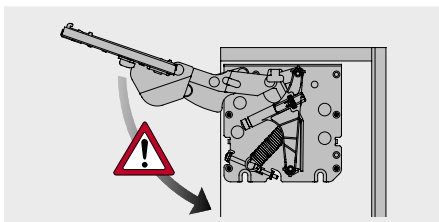
Assembly aids	78				
Kinvaro T-76 adjustment options	68				

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

Required space	Side wall drilling positions
	
<p>Front: installation for flaps with standard aluminium frame profiles (19 mm)</p>	<p>Front: installation for wooden and frame flaps (min. 55 mm width)</p>
	 <p>¹ Pre-drilling required - Ø 2 mm ² Pre-drilling required - Ø 5 mm</p>
<p>Calculation of flap weight</p> <p>Flap width x flap height x flap thickness x density¹ + weight of handle² = weight of flap</p> <p>¹ Densities: MDF 0.85 kg/dm³, chipboard 0.65 kg/dm³, spruce/pine 0.45 kg/dm³</p> <p>² For bar handles allow 0.1 kg for each 100 mm handle width. We recommend a trial fitting</p>	

WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND

F Reveal
FAS Front overlay, side

KINVARO

T-57 lift-up flap fitting

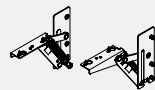


- Opening angle adjustable to 75° or 90°
- Easy to fit
- Adjustable spring force
- Adjustable flap height ± 1.0 mm
- No hinges fitted to the top panel
- Allows additional cabinet installation above
- Can be used for wooden flaps or aluminium frames with glass infill
- Weight 1.0 to 6.2 kg
- Range of flaps:
Width: up to 1200 mm
Height: 300 – 600 mm
- High-quality finish, nickel-plated

APPLICATION RANGE

Cabinet height	Flap weight incl. handle	
	min.	max.
300	1.0	6.2
350	1.2	4.9
400	1.4	3.8
450	1.5	3.6
500	1.7	2.9
550	1.9	2.7
600	2.1	2.5

ORDER INFORMATION

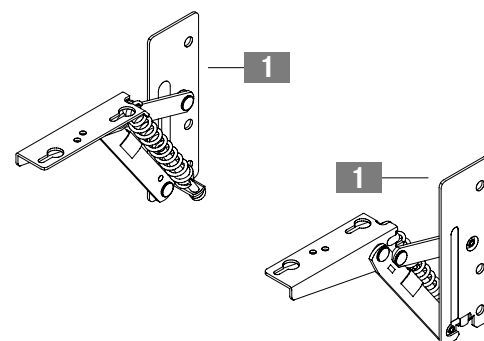
Kinvaro T-57 set				
Designation	Version for	Overlay	Art.-no.	
Kinvaro T-57, nickel-plated adjustable springs on right and left	wood	variable	F151145224	
	aluminium	14	F151145222	
		16	F151145223	

ACCESSORIES

	Designation	Material	Art.-no.
	Euro collar screws, nickel-plated, Ø 6.3 x 13.5 mm	–	F150145234

Kinvaro T-57 set comprises:

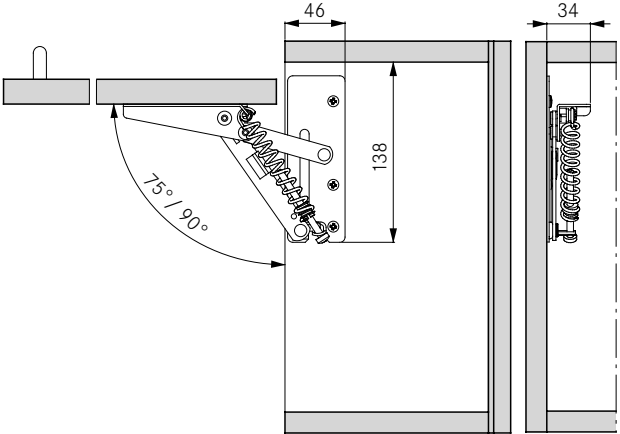
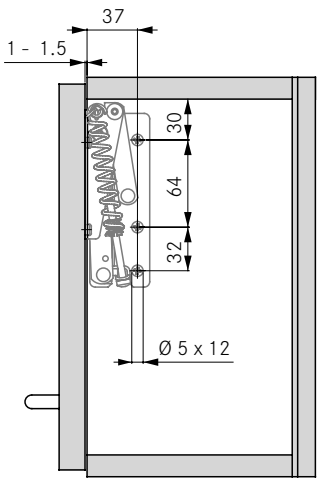
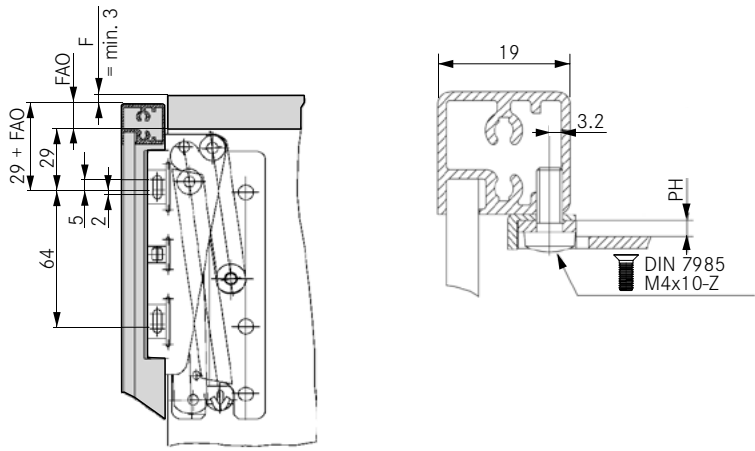
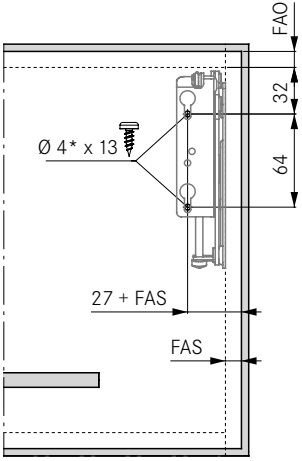
- 1** Fitting, right and left (1x)
- Paper template (1x)
- Installation instructions (1x)



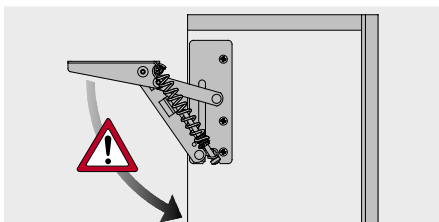
Assembly aids	78				
Kinvaro T-57 adjustment options	69				

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

Required space	Side wall drilling positions
	
<p>Front: installation for flaps with standard aluminium frame profiles (19 mm)</p>	<p>Front: installation for wooden and frame flaps (min. 55 mm width)</p>
	 <p>* Pre-drilling required - Ø 2 mm</p>
<p>Calculation of flap weight</p> <p>Flap width x flap height x flap thickness x density¹ + weight of handle² = weight of flap</p> <p>¹ Densities: MDF 0.85 kg/dm³, chipboard 0.65 kg/dm³, spruce/pine 0.45 kg/dm³</p> <p>² For bar handles allow 0.1 kg for each 100 mm handle width. We recommend a trial fitting</p>	

WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND

F Reveal
FAO Front overlay, top
FAS Front overlay, side
PH Stamping height

KINVARO

T-105 flap stay



- Variable opening angle, holds flaps securely from 45° to 105°
- Spring-supported opening function
- Convenient access, flap lifts clear of the work area
- Suitable for wooden doors and aluminium frames with glass infill
- Allows additional cabinet installation above
- Maintenance-free, no readjustment required
- High-quality zinc diecasting, nickel-plated
- Range of flaps:
Width: up to 1200 mm
Weight: 250 – 500 mm

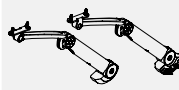
Note:

- Tiomos 120° hinges with spring, without damper, and Tiomos mounting plates for top panel need to be ordered separately

APPLICATION RANGE

Cabinet height	Number of flap stays	Flap weight incl. handle (kg)	
		Spring, standard	Spring, black
250	1	1.4 – 4.4	3.0 – 5.5
	2	3.4 – 8.9	6.0 – 11.1
300	1	1.6 – 4.3	2.8 – 5.2
	2	3.2 – 8.6	5.5 – 10.4
350	1	1.3 – 4.1	2.4 – 4.8
	2	2.6 – 8.1	4.8 – 9.5
400	1	1.3 – 3.4	2.2 – 4.0
	2	2.6 – 6.8	4.3 – 8.1
450	1	1.2 – 3.0	1.9 – 3.8
	2	2.4 – 6.1	3.8 – 7.4
500	1	1.1 – 2.9	1.7 – 3.5
	2	2.2 – 5.8	3.3 – 6.7

ORDER INFORMATION

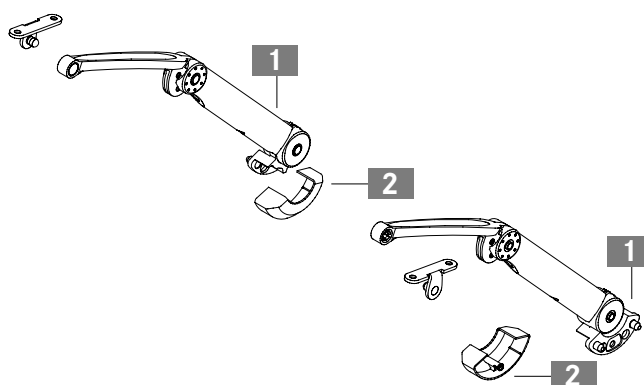
Kinvaro T-105 set					
					
Designation	Springs	Version for	Overlay	Left	Right
Kinvaro T-105 right, adjustable standard springs, incl. black cover cap	standard	wood	variable	F151145220	F151145221
	black			F151145218	F151145219
	standard	aluminium	14	F151145214	F151145215
			16	F151145216	F151145217

Note:

Please order separately: Tiomos 120° hinges with spring, without damper, and Tiomos mounting plates for top panel.

Kinvaro T-105 set comprises:

- 1** Fitting, right or left (1x)
- 2** Cover caps, right or left, in black (1x)
Paper template (1x)
Installation instructions (1x)



Assembly aids	78
Kinvaro T-105 adjustment options	70

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

Required space

Side wall
drilling positions

Front:
installation for flaps with standard aluminium frame profiles (19 mm)

Front: installation for wooden and frame flaps
(min. 45 mm width)

Opening angle	A	B	C
95°	169 + MH	174 + MH	118 + MH
≥ 105°	164 + MH	169 + MH	113 + MH

The installation dimensions apply to hinges with 0 cranking and the respective mounting plate height.

The opening angle can vary depending on the depending on type of hinge and application method between 95 and approx. 105°.

Minimum gap and door protrusion depend on the fitted hinge.
You can find suitable hinges in the hinge systems product catalogue.

Where cup hinges with different opening angles are used in a combination of wooden flaps and aluminium frame flaps, the smaller opening angle of the hinges used determines the installation dimensions for **both** flaps.

Calculation of flap weight

Flap width x flap height x flap thickness x density¹ + weight of handle² = weight of flap

¹ Densities: MDF 0.85 kg/dm³, chipboard 0.65 kg/dm³, spruce/pine 0.45 kg/dm³

² For bar handles allow 0.1 kg for each 100 mm handle width. We recommend a trial fitting

LEGEND

- A Side wall fastening dimension
- B Side wall fastening dimension
- C Front fastening dimension
- FAO Front overlay, top
- FAS Front overlay, side
- MH Mounting plate height

KINVARO

F-20 folding flap fitting

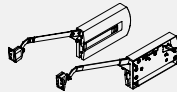



- Holds flap securely in any position
- Extremely smooth movement
- Adjustable spring force
- Integrated adjustable closing damper
- Flap with 3-dimensional adjustment – height, side, angle: Direct adjustment ± 1.5 mm
- 3-dimensional reveal height, side, depth adjustment: Direct adjustment
- Opening limiter adjustable to 90°
- Wide range of applications for many different flap materials
- Fast, tool-free clip fitting of the front
- Pre-assembled Euro screws and positioning pins for easy fixture of the fitting to the side wall
- Extremely strong
- Weight 3.8 to 19.2 kg
- Range of flaps:
Width: 400 – 1200 mm
Height: 520 – 900 mm
- Cover caps in white and grey, similar to RAL 7045

APPLICATION RANGE

Cabinet height	Guide lever	Flap weight incl. handle (kg)		
		Spring B	Spring C	Spring D
520 – 559	Type 2	4.6 – 13.8	–	–
560 – 599	Type 3	4.4 – 12.6	7.0 – 14.7	–
600 – 649	Type 4	4.1 – 12.1	6.8 – 15.8	–
650 – 699	Type 5	3.8 – 11.4	6.7 – 16.9	–
700 – 749	Type 6	–	6.5 – 16.4	10.0 – 18.0
750 – 799	Type 7	–	6.0 – 15.6	8.6 – 19.2
800 – 849	Type 7	–	–	7.8 – 18.0
850 – 900	Type 7	–	–	6.5 – 16.5

ORDER INFORMATION

Kinvaro F-20 set							
Cabinet height	Cover cap white			Cover cap grey			
	Spring B	Spring C	Spring D	Spring B	Spring C	Spring D	
520 – 559	F152147837	–	–	F152145237	–	–	
560 – 599	F152147838	F152147841	–	F152145238	F152145239	–	
600 – 649	F152147675	F152147842	–	F152145240	F152145241	–	
650 – 699	F152147840	F152147843	–	F152145242	F152145243	–	
700 – 749	–	F152147844	F152147846	–	F152145244	F152145245	
750 – 900	–	F152147787	F152147847	–	F152145246	F152145247	

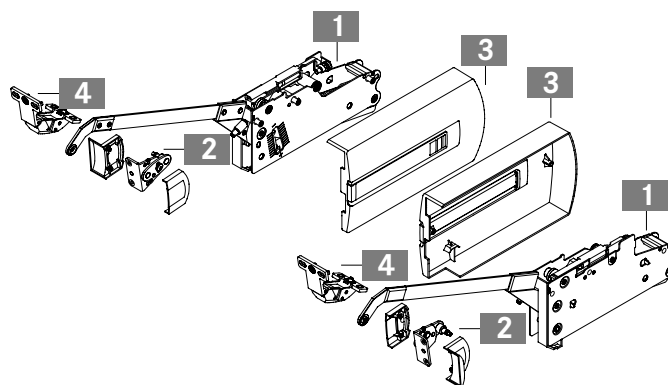
Aluminium frame adapter, Kinvaro F-20 set							
Designation						Overlay	Art.-no.
Aluminium frame adapter (2x) for narrow aluminium frames (19 mm) with fixing screws (8x)						13 – 17	F152145054

Note:

Please order separately: Tiomos 120° hinges with spring, without damper, and Tiomos mounting plates for top panel.

Kinvaro F-20 set comprises:

- 1** Fitting, right and left (1x)
 - 2** Screw-on bracket for wood, incl. cover caps (2x)
 - 3** Cover caps on right and left (1x)
 - 4** Link hinges (2x)
- Paper template (1x)
Installation instructions (1x)



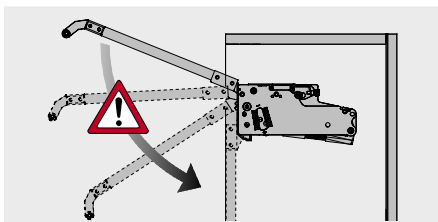
Assembly aids	78
Kinvaro F-20 adjustment options	72

ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR CABINET HEIGHT 520 – 799

All dimensions in millimetres

Required space		Side wall drilling positions	Side wall drilling distance																																																					
			<table><thead><tr><th>KH</th><th>Type</th><th>B</th></tr></thead><tbody><tr><td>520 – 529</td><td>2</td><td>173</td></tr><tr><td>530 – 539</td><td>2</td><td>158</td></tr><tr><td>540 – 549</td><td>2</td><td>143</td></tr><tr><td>550 – 559</td><td>2</td><td>128</td></tr><tr><td>560 – 569</td><td>3</td><td>183</td></tr><tr><td>570 – 579</td><td>3</td><td>168</td></tr><tr><td>580 – 589</td><td>3</td><td>153</td></tr><tr><td>590 – 599</td><td>3</td><td>138</td></tr><tr><td>600 – 609</td><td>4</td><td>208</td></tr><tr><td>610 – 619</td><td>4</td><td>198</td></tr><tr><td>620 – 629</td><td>4</td><td>178</td></tr><tr><td>630 – 639</td><td>4</td><td>168</td></tr><tr><td>640 – 649</td><td>4</td><td>158</td></tr><tr><td>650 – 699</td><td>5</td><td>225</td></tr><tr><td>700 – 749</td><td>6</td><td>235</td></tr><tr><td>750 – 799</td><td>7</td><td>250</td></tr></tbody></table>			KH	Type	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 – 799	7	250
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WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND

B	Drilling dimension - side wall
C	Drilling dimension - front
F	Reveal
FAS	Front overlay, side
KH	Cabinet height

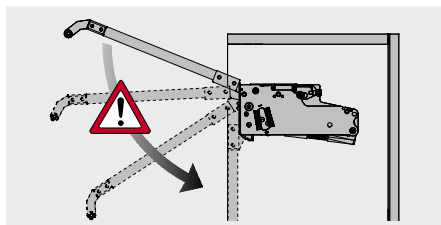
ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR CABINET HEIGHT 800 – 900

All dimensions in millimetres

Required space		Side wall drilling positions		Side wall drilling distance		
				KH	Type	B
				800 – 849	7	103
				850 – 900	7	110
				Shelf distance		
				KH	D	
				800 – 849	≤293	
				850 – 900	≤312	
Front: installation for flaps with standard aluminium frame profiles (19 mm)		Front: installation for wooden and frame flaps (min. 45 mm width)		Front: drilling distance		
				KH	Type	C
				800 – 900	7	304
		Number of hinges at top panel From 900 mm cabinet width: 3 hinges. Hinges with spring require an opening angle of min. 120°				
Calculation of flap weight Flap width x flap height x flap thickness x density ¹ + weight of handle ² = weight of flap ¹ Densities: MDF 0.85 kg/dm ³ , chipboard 0.65 kg/dm ³ , spruce/pine 0.45 kg/dm ³ ² For bar handles allow 0.1 kg for each 100 mm handle width. We recommend a trial fitting						

Assembly aids	78
Kinvaro F-20 adjustment options	72

WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND

B	Drilling dimension - side wall
C	Drilling dimension - front
D	Distance
FF	Reveal
FAS	Front overlay, side
KH	Cabinet height

KINVARO

L-80 parallel lift flap fitting



- Holds flap securely in any position
- Extremely smooth movement
- Adjustable spring force
- Integrated adjustable closing damper
- Flap 3-dimensionally adjustable – height, side, angle: direct adjustment ± 1.5 mm
- Allows the use of cornices, pelmets and attached lights
- Wide range of applications for many different flap materials
- Fast, tool-free clip fitting of the front
- Pre-assembled Euro screws and positioning pins for easy fixture of the fitting to the side wall
- Extremely strong
- Weight 1.9 to 14.6 kg
- Range of flaps:
Width: 450 – 1200 mm
Height: 350 – 600 mm
- Cover caps in white and grey, similar to RAL 7045

APPLICATION RANGE

Cabinet height	Guide lever	Flap weight incl. handle (kg)		
		Spring A	Spring B	Spring C
350 – 369	Type 1	2.5 – 6.5	6.0 – 9.5	–
370 – 389	Type 2	2.3 – 6.0	5.5 – 9.0	8.5 – 9.6
390 – 409	Type 3	2.1 – 5.5	5.0 – 8.5	8.0 – 10.1
410 – 429	Type 4	1.9 – 5.0	4.5 – 8.0	7.5 – 14.6
430 – 600	Type 5	2.0 – 4.5	4.0 – 7.5	7.0 – 14.6

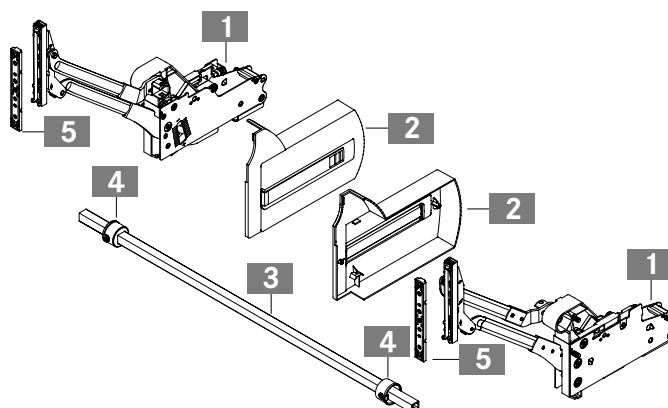
ORDER INFORMATION

Kinvaro L-80 set							
Cabinet height	Cover cap white			Cover cap grey			
	Spring A	Spring B	Spring C	Spring A	Spring B	Spring C	
350 – 369	F152147781	F152147828	–	F152145248	F152147444	–	
370 – 389	F152147824	F152147829	F152147833	F152147440	F152145249	F152145250	
390 – 409	F152147825	F152147830	F152147834	F152147441	F152145251	F152145252	
410 – 429	F152147826	F152147831	F152147835	F152147442	F152145281	F152145282	
430 – 600	F152147827	F152147715	F152147788	F152147443	F152145253	F152145254	

Aluminium frame adapter, Kinvaro L-80 set							
Designation				Overlay		Art.-no.	
Aluminium frame adapter (2x) for narrow aluminium frames (19 mm) with fixing screws (16x)				13 – 17		F152145055	

Kinvaro L-80 set comprises:

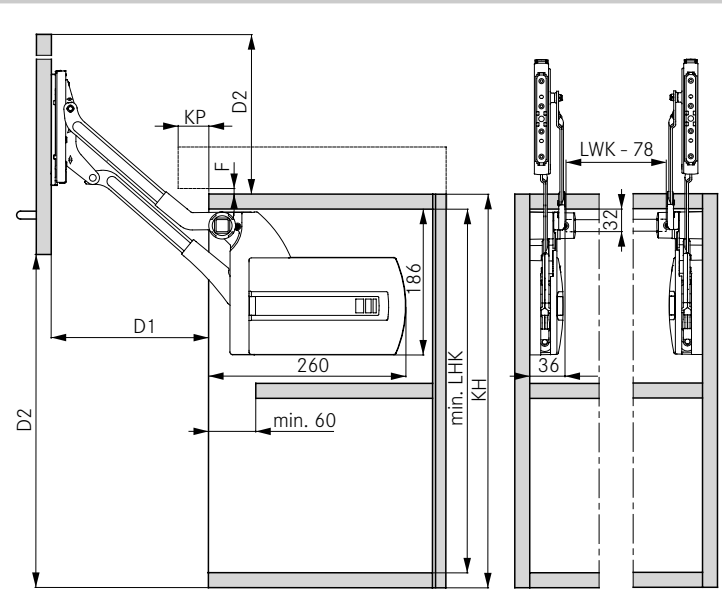
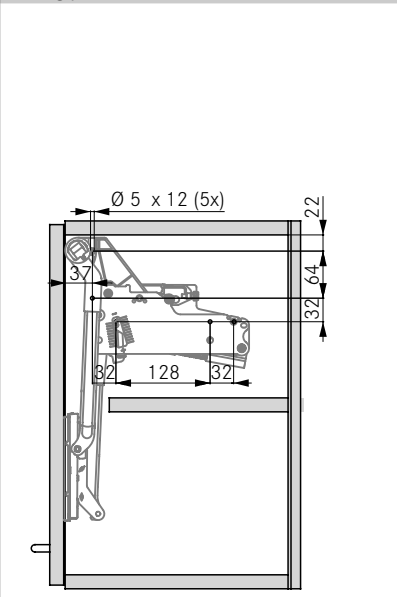
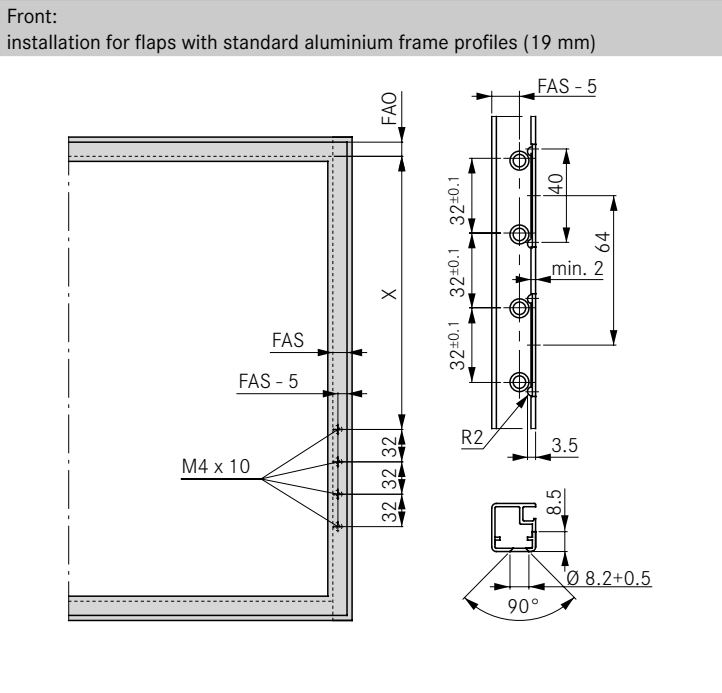
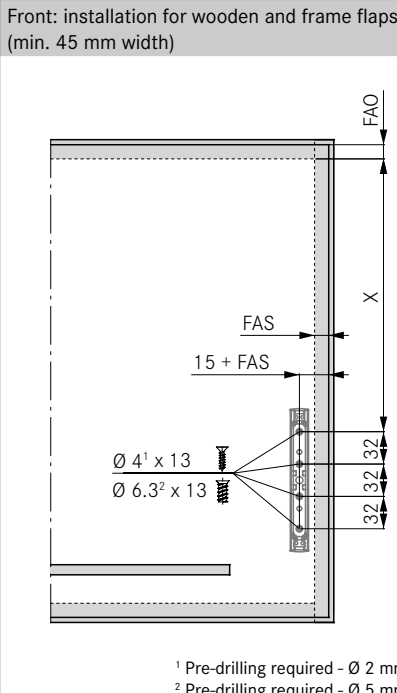
- 1** Fitting, right and left (1x)
- 2** Cover caps on right and left (1x)
- 3** 1090 mm cross bar for cutting to length (1x)
- 4** Sliding sleeves (2x)
- 5** Mounting plates (2x)
- Paper template (1x)
- Installation instructions (1x)



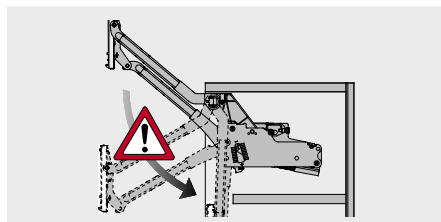
Assembly aids	78
Kinvaro L-80 adjustment options	74

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

Required space	Side wall drilling positions	Front Opening position			
		Type	min. LHK	D1	D2
		1	312	161	304
		2	332	176	337
		3	352	191	370
		4	372	206	403
		5	392	221	436
		Cornice projection			
		F	KP max.		
		2	22		
		3	35		
		4	39		
Front: installation for flaps with standard aluminium frame profiles (19 mm)	Front: installation for wooden and frame flaps (min. 45 mm width)	Front: drilling distance	KH	Type	X
			350 - 369	1	190
			370 - 389	2	210
			390 - 409	3	230
			410 - 429	4	250
			430 - 600	5	270
		Cutting dimensions			
		Cross bar			
					
	¹ Pre-drilling required - Ø 2 mm				
	² Pre-drilling required - Ø 5 mm				
Calculation of flap weight					
Flap width x flap height x flap thickness x density¹ + weight of handle² = weight of flap					
¹ Densities: MDF 0.85 kg/dm³, chipboard 0.65 kg/dm³, spruce/pine 0.45 kg/dm³					
² For bar handles allow 0.1 kg for each 100 mm handle width. We recommend a trial fitting					

WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND

D	Distance
F	Reveal
FAO	Front overlay, top
FAS	Front overlay, side
KH	Cabinet height
KP	Cornice
LHK	Inside cabinet height
LWK	Inside cabinet width

KINVARO

S-35 up-and-over flap fitting



- Securely holds flap in any position from 45° opening angle
- Extremely smooth movement
- Adjustable spring force
- Integrated adjustable closing damper
- Flap 3-dimensionally adjustable – height, side, angle: direct adjustment ± 1.5 mm
- Allows the use of cornices, pelmets and attached lights
- Wide range of applications for many different flap materials
- Fast, tool-free clip fitting of the front
- Pre-assembled Euro screws and positioning pins for easy fixture of the fitting to the side wall
- Extremely strong
- Weight 1.5 to 17.5 kg
- Range of flaps:
Width: 450 – 1200 mm
Height: 420 – 750 mm
- Cover caps in white and grey, similar to RAL 7045

APPLICATION RANGE

Cabinet height	Flap weight incl. handle (kg)				
	Spring A	Spring B	Spring C	Spring D	Spring E
420 – 449	1.5 – 7.5	5.0 – 11.0	-	-	-
450 – 479	1.8 – 7.5	5.0 – 12.0	-	-	-
480 – 509	1.8 – 6.5	5.0 – 12.5	-	-	-
510 – 539	2.0 – 6.0	5.0 – 13.0	-	-	-
540 – 569	2.0 – 6.0	5.0 – 12.5	6.0 – 14.0	-	-
570 – 599	2.0 – 6.0	5.0 – 11.0	5.5 – 12.0	11.5 – 14.5	-
600 – 629	2.0 – 5.5	4.5 – 10.0	5.5 – 11.5	10.5 – 15.5	-
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
690 – 719	2.0 – 5.0	-	4.0 – 8.5	6.5 – 13.5	12.0 – 17.5
720 – 750	-	-	4.0 – 8.0	6.5 – 12.5	10.0 – 17.0

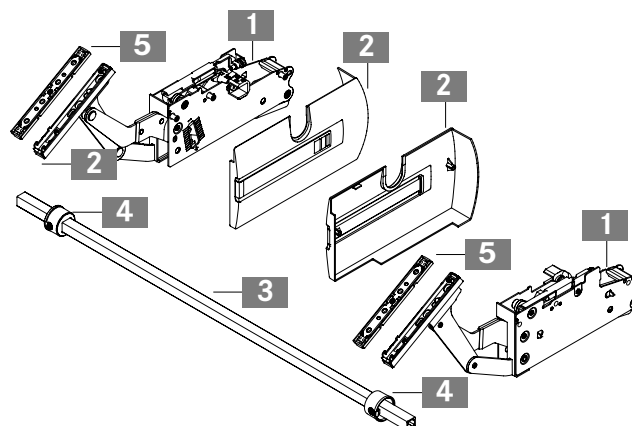
ORDER INFORMATION

Kinvaro S-35 set					
Cabinet height	Spring A	Spring B	Spring C	Spring D	Spring E
Cover caps white					
420 – 750	F152147818	F152147819	F152147820	F152147821	F152147822
Cover caps grey					
420 – 750	F152000255	F152000256	F152000257	F152000258	F152000259

Aluminium frame adapter, Kinvaro S-35 set		
Designation	Overlay	Art.-no.
Aluminium frame adapter (2x) for narrow aluminium frames (19 mm) with fixing screws (16x)	13 – 17	F152145055

Kinvaro S-35 set comprises:

- 1** Fitting, right and left (1x)
- 2** Cover caps on right and left (1x)
- 3** 1090 mm cross bar for cutting to length (1x)
- 4** Sliding sleeves (2x)
- 5** Mounting plates (2x)
- Paper template (1x)
- Installation instructions (1x)



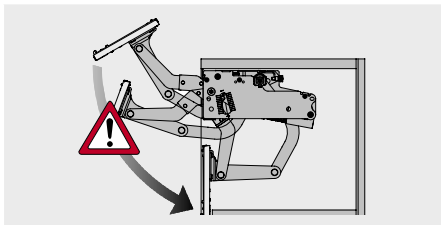
Assembly aids	78				
Kinvaro S-35 adjustment options	75				

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

[illegible]

WARNING



Important!
Caution - risk of injury!
Fitting is spring-tensioned!

LEGEND

FAO	Front overlay, top
FAS	Front overlay, side
LWK	Inside cabinet width

KINVARO

D-M flap stay with pull cable



- Damped opening and gentle closing
- Opening angle adjustable via length of pull cable
- Spring force adjustment
- Can be used with shallow cabinets from 110 mm depth
- Flap weight up to 10 kg
- Flap height 200 mm – 480 mm
- Can be used on left/right
- Easy to install horizontally or vertically
- Colours White, Night and Smoke
- Colour-coordinated with Tiomos flap hinge


Note:


- Please order Tiomos flap hinges separately

APPLICATION RANGE

Front height (FH)	V1								V2							
	Flap weight incl. handle (kg)								Flap weight incl. handle (kg)							
	Spring 60N		Spring 100N		Spring 160N		Spring 200N		Spring 60N		Spring 100N		Spring 160N		Spring 200N	
	1 x	2 x	1 x	2 x	1 x	2 x	1 x	2 x	1 x	2 x	1 x	2 x	1 x	2 x	1 x	2 x
200-230	4.0-4.8	–	4.2-6.2	–	5.8-8.0	–	7.2-10.4	–	4.1-5.9	–	5.3-7.3	–	–	–	–	–
230-270	3.0-4.4	6.0-8.4	3.6-5.2	6.8-9.6	5.2-7.0	–	6.8-8.6	–	3.3-4.8	6.8-9.6	4.2-6.0	9.6-12.8	–	–	–	–
270-330	2.9-3.8	5.6-7.8	3.0-4.6	6.4-8.8	4.6-6.0	8.6-11.8	6.4-7.8	–	3.2-4.5	6.3-8.1	3.8-5.1	7.9-11.1	6.1-8.0	12.9-15.5	–	–
330-380	2.7-3.7	5.0-7.0	3.2-4.3	6.5-8.5	4.3-5.7	8.7-11.1	5.5-7.1	11.9-13.5	2.6-3.4	5.0-6.5	3.3-4.5	7.3-8.5	5.3-6.5	10.7-12.9	6.7-7.3	13.3-14.9
380-430	2.9-3.6	4.5-6.1	3.1-3.9	5.7-7.3	4.5-6.1	8.5-10.1	5.4-6.9	10.9-12.5	2.5-3.4	5.0-6.2	3.2-4.2	6.2-8.2	4.8-5.6	9.8-11.4	5.9-6.6	11.8-13.0
430-460	2.7-3.1	4.3-6.1	2.7-3.9	5.9-8.3	4.1-4.9	8.3-9.5	5.3-5.7	10.1-11.5	2.3-3.0	4.6-6.2	3.0-3.8	6.2-7.8	4.6-5.4	9.0-10.4	5.6-6.0	11.4-12.2
460-480	2.5-2.9	4.1-5.7	2.8-3.8	5.3-7.7	3.8-4.8	7.2-9.6	5.4-5.6	9.8-11.4	2.4-3.2	4.6-6.0	2.8-4.0	5.6-7.8	4.5-5.4	8.8-10.4	5.4-6.0	10.8-11.6

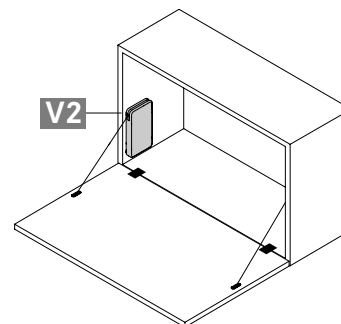
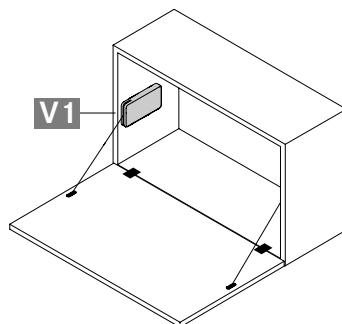
ORDER INFORMATION

Kinvaro D-M flap stay				
Designation	Spring	Colour	Art.-no.	
Kinvaro D-M flap stay including front holder and fixing screws	60N	Grey	F053139661	
	100N	Grey	F053139662	
	160N	Grey	F053139686	
	200N	Grey	F053139687	

Kinvaro D-M cover cap			
Designation	Colour	Art.-no.	
Cover cap for Kinvaro D-M White, Night, Smoke	White	F053139668	
	Night	F053139669	
	Smoke	F053139670	

Note:

Please order Tiomos flap hinges separately.



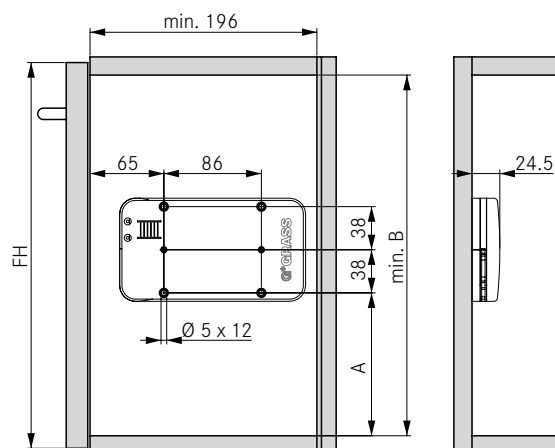
Assembly aids	78
Kinvaro D-M adjustment options	76

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

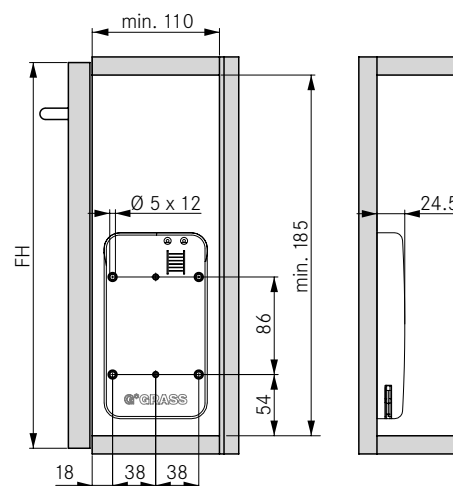
Drill position and space required

V1

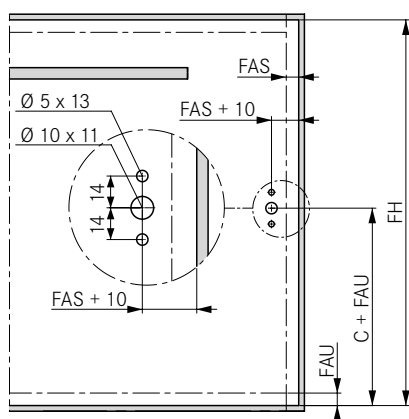


FH	A	B
200 - 330	102	194
330 - 430	126	218
430 - 480	136	228

V2



Front mounting for wooden flaps



FH	C (V1)	C (V2)
200 - 330	137	161
330 - 430	161	161
430 - 480	171	161

Minimum gap and door protrusion depend on the hinge fitted.
You can find suitable hinges in the hinge systems product catalogue.

Calculation of flap weight

Flap width x flap height x flap thickness x density ¹ + weight of handle ² = weight of flap

¹ Densities: MDF board 0.85 kg/dm³, chipboard 0.65 kg/dm³, spruce/pine 0.45 kg/dm³

² Bar handles must be entered with 0.1 kg per 100 mm of handle length. We recommend a trial fitting

LEGEND

FAS Front overlay, side
FAU Front overlay, bottom
FH Front height

KINVARO

D-S flap stay with pull cable



- Damped opening
- Opening angle adjustable via length of pull cable
- Can be used with shallow cabinets from 82 mm depth
- Flap height 200 mm – 480 mm
- Can be used on left/right
- Easy to install horizontally or vertically
- Colours White and Night
- Colour-coordinated with Tiomos flap hinge


Note:

- Please order Tiomos flap hinges separately

APPLICATION RANGE

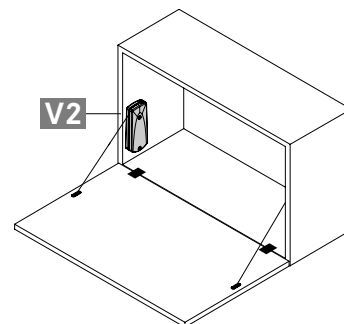
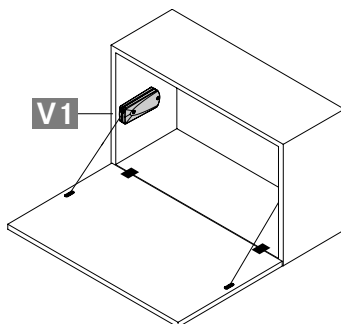
Front height (FH)	V1				V2			
	Flap weight incl. handle (kg)				Flap weight incl. handle (kg)			
	Spring 40N		Spring 60N		Spring 40N		Spring 60N	
	1 x	2 x	1 x	2 x	1 x	2 x	1 x	2 x
200 - 270	1.7 - 3.0	3.9 - 4.5	3.1 - 4.0	7.5 - 8.0	2.5 - 3.8	4.3 - 5.6	3.9 - 4.9	-
270 - 330	1.7 - 3.0	3.3 - 4.5	3.1 - 4.0	6.1 - 7.4	2.3 - 3.1	4.2 - 5.0	3.2 - 4.1	7.0 - 7.5
330 - 380	1.7 - 1.9	3.2 - 3.5	2.9 - 3.5	5.1 - 6.8	1.8 - 2.6	3.4 - 3.9	3.0 - 3.8	5.6 - 6.5
380 - 430	1.5 - 1.8	2.7 - 3.3	2.5 - 3.3	4.8 - 6.6	1.7 - 2.3	2.9 - 4.2	2.8 - 3.5	4.7 - 6.2
430 - 460	1.2 - 1.7	2.5 - 3.1	2.3 - 3.3	4.6 - 6.0	1.5 - 2.0	3.1 - 4.0	2.5 - 3.2	4.4 - 6.1
460 - 480	-	-	2.2 - 2.8	4.4 - 5.3	-	2.8 - 3.8	2.3 - 2.6	4.1 - 5.8

ORDER INFORMATION

Kinvaro D-S flap stay			
Designation	Spring	Colour	Art.-no.
Kinvaro D-S flap stay including front holder and fixing screws	40N	White	F053139664
		Night	F053139665
	60N	White	F053139666
		Night	F053139667

Note:

Please order Tiomos flap hinges separately.

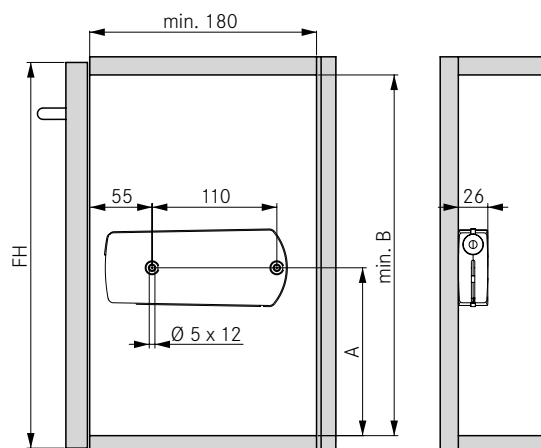


Assembly aids	78
Kinvaro D-S adjustment options	77

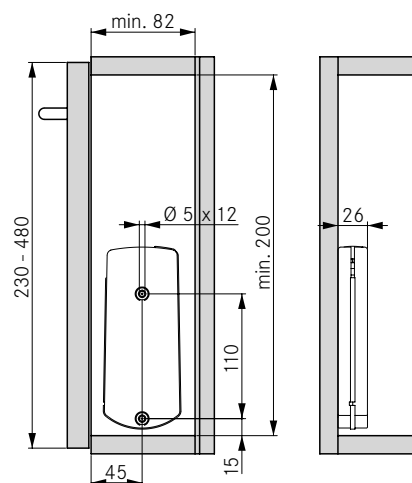
ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

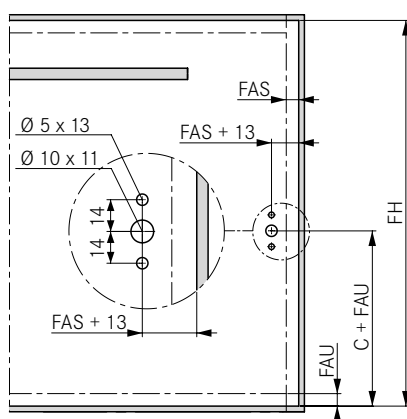
Drill position and space required

V1


FH	A	B
200 - 270	135	173
270 - 480	148	186

V2


Front mounting for wooden flaps



FH	C (V1)	C (V2)
200 - 270	123	-
270 - 480	144	-
230 - 480	-	123

Minimum gap and door protrusion depend on the fitted hinge.
You can find suitable hinges in the hinge systems product catalogue.

Calculation of flap weight

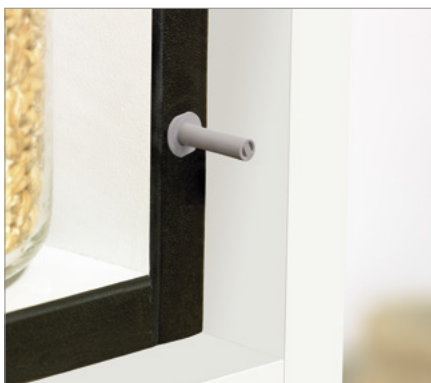
Flap width x flap height x flap thickness x density ¹ + weight of handle ² = weight of flap

¹ Densities: MDF board 0.85 kg/dm³, chipboard 0.65 kg/dm³, spruce/pine 0.45 kg/dm³

² Bar handles must be entered with 0.1 kg per 100 mm of handle length. We recommend a trial fitting

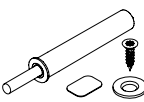
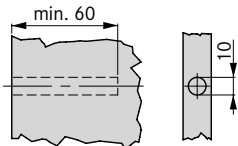
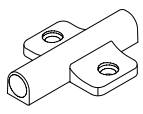
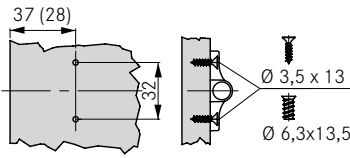
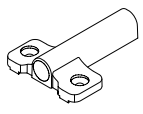
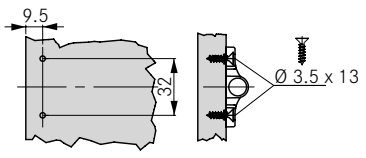
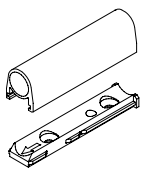
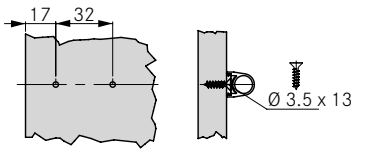
LEGEND

FAS Front overlay, side
FAU Front overlay, bottom
FH Front height



- Flaps open at a pleasant angle when the front is gently tapped
- Large magnet range - reliable closing of the doors
- Compensation of the front gap from 2.5 to 5.5 mm with integrated, self-locking and tool-free depth adjustment
- Installation in the front of the cabinet or with an adapter plate

ORDER INFORMATION

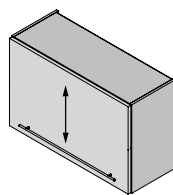
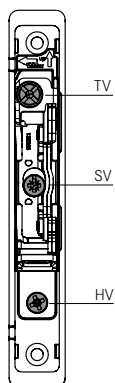
Tipmatic Pin	For drilling in	Colour	Art.-no.
<ul style="list-style-type: none"> • 1 mm drilled hole edge cover • Hole on front side • Plastic: platinum grey (RAL 7036) / black (RAL 9005) • Including adhesive pad, screw-on plate and screw 		Platinum grey (RAL 7036)	F069135396
		Black (RAL 9005)	F069135338
Raster adapter plate	For screw mounting	Art.-no.	
<ul style="list-style-type: none"> • Suitable for 28 and 37 mm hole spacing • Fixing with special Euro screws (Ø 6.3 x 13.5 mm) or chipboard screws (Ø 3.5 x 13) • Plastic, RAL 7035, light grey 		F069063310	
Frame adapter plate	For screw mounting	Art.-no.	
<ul style="list-style-type: none"> • For fast retrofitting • Fixing with chipboard screws (Ø 3.5 x 13 mm) • Plastic, RAL 7035, light grey 		F069073697	
Linear adapter plate	For screw mounting	Art.-no.	
<ul style="list-style-type: none"> • Design solution - also for insets • Fixing with chipboard screws (Ø 3.5 x 13 mm) • Plastic, RAL 7035, light grey 		F069073696	

PLANNING AND INSTALLATION INSTRUCTIONS

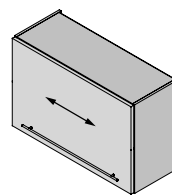
<p>Tipmatic Pin</p> <p>Counterplate for screw attachment Ø 15 for sticking 10 x 7</p> <p>TS max. 2 (S 16) max. 3 (S 19)</p> <p>Installation on front side</p>	<p>Raster adapter plate</p> <p>for 37 mm hole spacing</p> <p>for 28 mm hole spacing</p> <p>Counterplate for screw attachment Ø 15 for sticking 10 x 7</p> <p>TS</p> <p>Assembly with adapter plates</p>
<p>Inset linear adapter plate</p> <p>Counterplate for screw attachment Ø 15 for sticking 10 x 7</p> <p>TS</p> <p>Assembly with adapter plates</p>	<p>Overlying linear adapter plate</p> <p>Counterplate for screw attachment Ø 15 for sticking 10 x 7</p> <p>TS</p> <p>Assembly with adapter plates</p>
<p>Frame adapter plate</p> <p>Counterplate for screw attachment Ø 15 for sticking 10 x 7</p> <p>TS</p> <p>Assembly with adapter plates</p>	

KINVARO

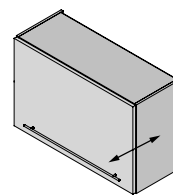
T-Slim adjustment options



(HV) Height adjustment
+/- 2.5 mm



(SV) Side adjustment
+/- 2 mm

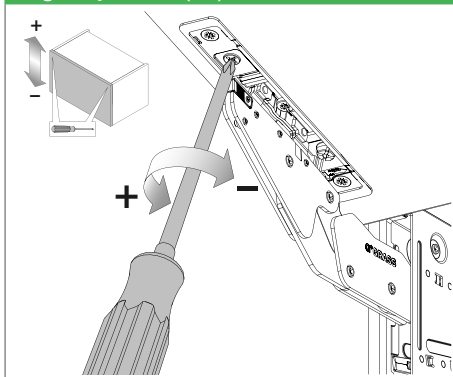


(TV) Depth adjustment
+ 3 /- 1 mm

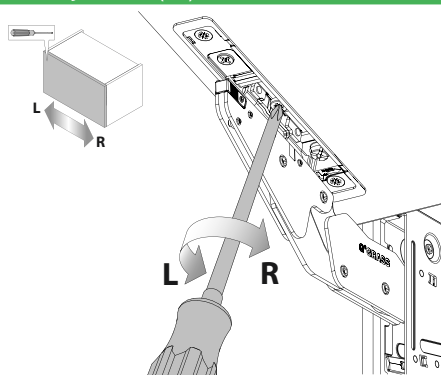
All adjustments can be carried out independently of each other.

ADJUSTMENT OPTIONS

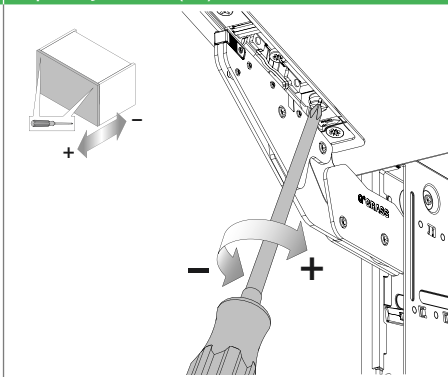
Height adjustment (HV)



Side adjustment (SV)

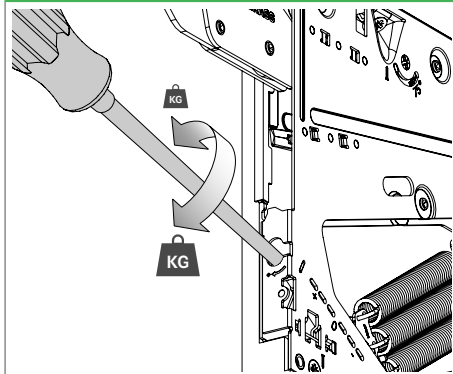


Depth adjustment (TV)

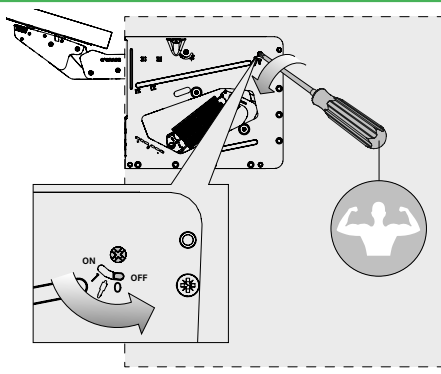


ADJUSTMENTS

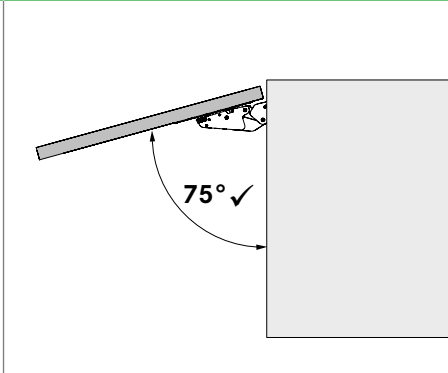
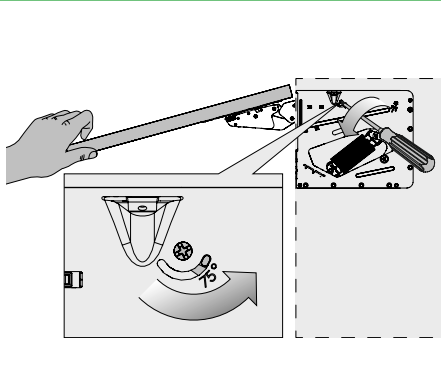
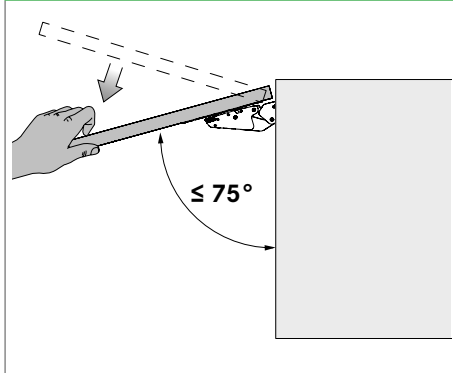
Adjusting the spring force



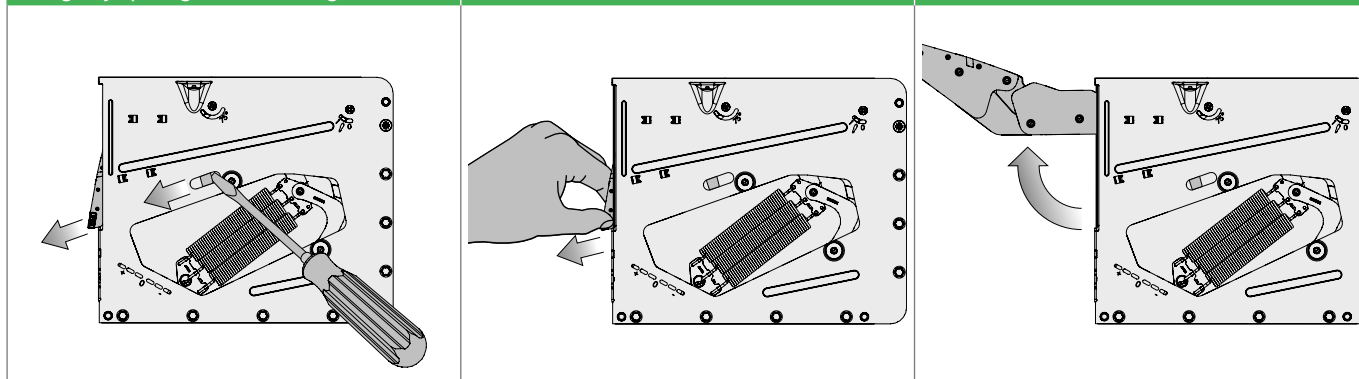
Deactivating the closing damper



Activating the opening angle limiting stay

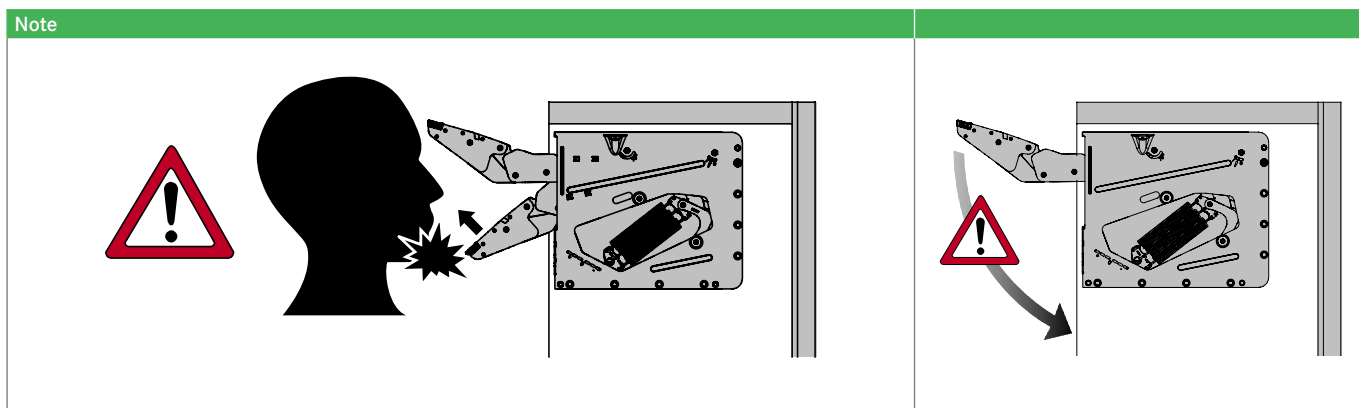


Emergency opening when the fitting is closed



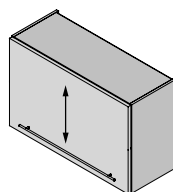
WARNING

Note



KINVARO

Adjustment options T-65



(HV) Height adjustment
+/-3 mm

All adjustments can be carried out independently of each other.

ADJUSTMENT OPTIONS

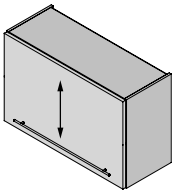
Height adjustment (HV)	Locking	

ADJUSTMENTS

Adjusting the spring force	Adjusting the damping system	

WARNING

		Note



(HV) Height adjustment
+/-2 mm

All adjustments can be carried out independently of each other.

ADJUSTMENT OPTIONS

Unlocking	Height adjustment (HV)	Locking

ADJUSTMENTS

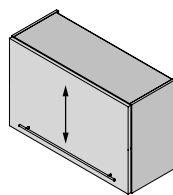
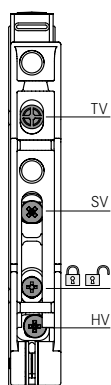
Adjusting the spring force	Adjusting the damping system	

WARNING

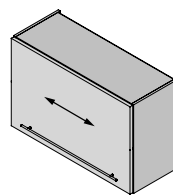
		Note

KINVARO

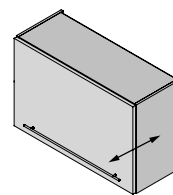
Adjustment options T-71



(HV) Height adjustment
+/- 1.5 mm



(SV) Side adjustment
+/- 1.5 mm



(TV) Depth adjustment
+/- 1.5 mm

All adjustments can be carried out independently of each other.

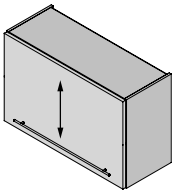
ADJUSTMENT OPTIONS

Unlocking	Height adjustment (HV)	Side adjustment (SV)
Depth adjustment (TV)	Locking	

ADJUSTMENTS

WARNING

Adjusting the spring force	Adjusting the damping system	Note



(HV) Height adjustment
+/-2 mm

All adjustments can be carried out independently of each other.

ADJUSTMENT OPTIONS

Unlocking	Height adjustment (HV)	Locking

ADJUSTMENTS

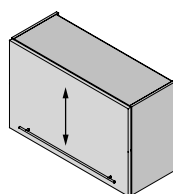
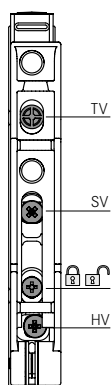
Adjusting the spring force	Adjusting the damping system	

WARNING

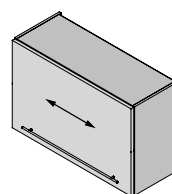
		Note

KINVARO

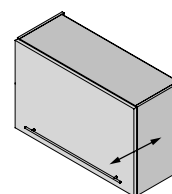
Adjustment options T-76



(HV) Height adjustment
+/- 1.5 mm



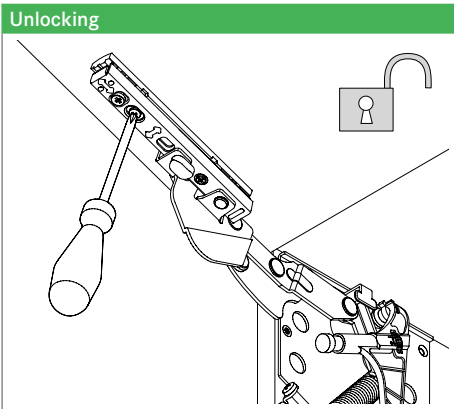
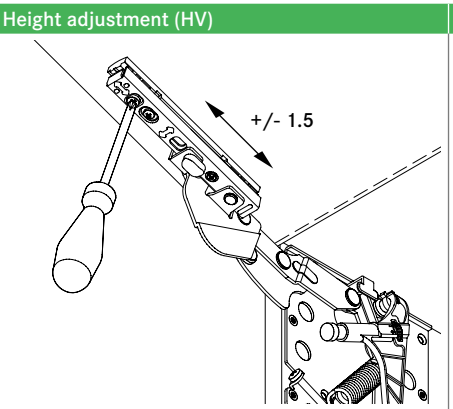
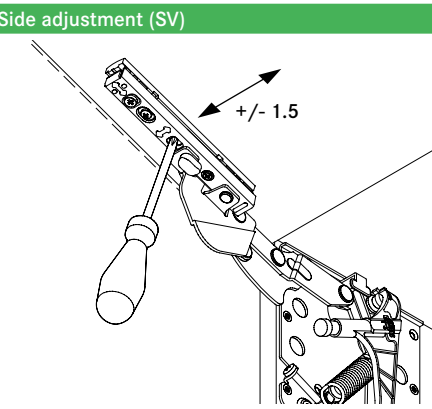
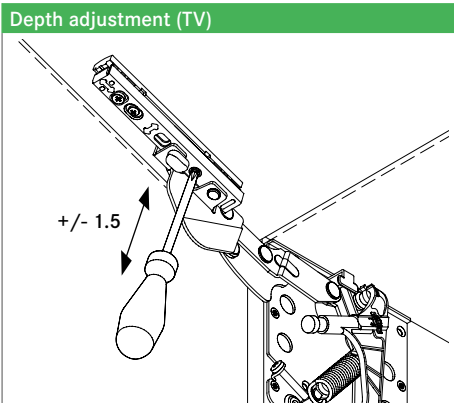
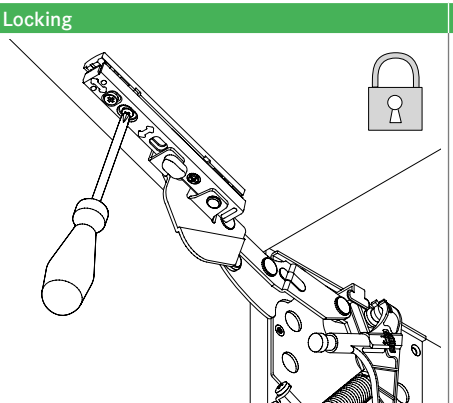
(SV) Side adjustment
+/- 1.5 mm



(TV) Depth adjustment
+/- 1.5 mm

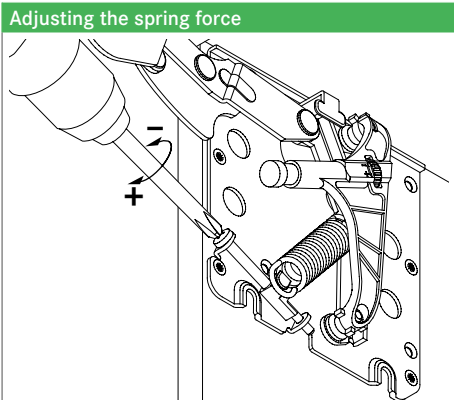
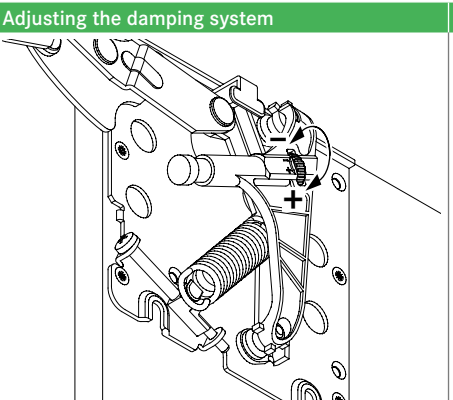
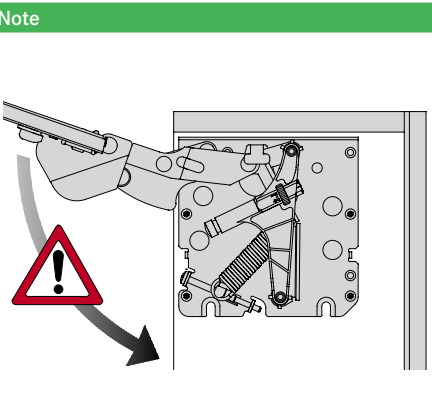
All adjustments can be carried out independently of each other.

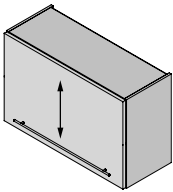
ADJUSTMENT OPTIONS

Unlocking	Height adjustment (HV)	Side adjustment (SV)
		
Depth adjustment (TV)	Locking	
		

ADJUSTMENTS

WARNING

Adjusting the spring force	Adjusting the damping system	Note
		



(HV) Height adjustment
+/- 1 mm

All adjustments can be carried out independently of each other.

ADJUSTMENT OPTIONS

Height adjustment (HV)	Locking	

ADJUSTMENTS

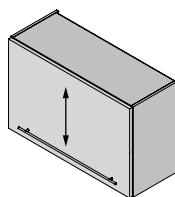
Adjusting to 75° opening angle	Adjusting to 100° opening angle	Adjusting the spring force

WARNING

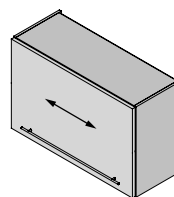
		Note

KINVARO

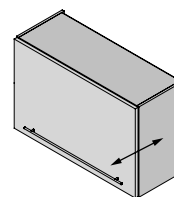
Adjustment options T-105



(HV) Height adjustment



(SV) Side adjustment



(TV) Depth adjustment

All adjustments can be carried out independently of each other.

ADJUSTMENT OPTIONS FOR HINGE IN CABINET TOP PANEL

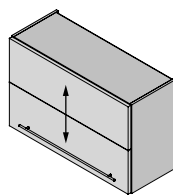
Height adjustment (HV)	Side adjustment (SV)	Depth adjustment (TV)

ADJUSTMENTS

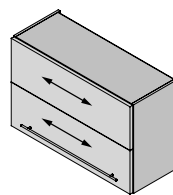
Adjusting the spring force		

KINVARO

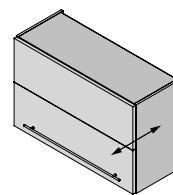
Adjustment options F-20



(HV) Height adjustment
+/- 1.5 mm



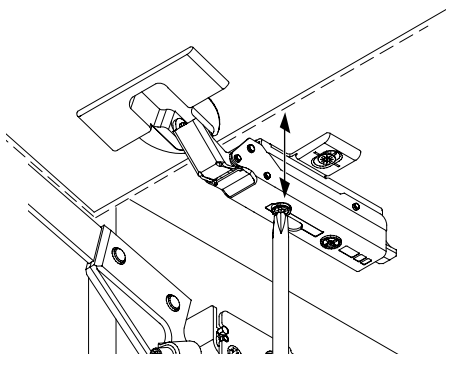
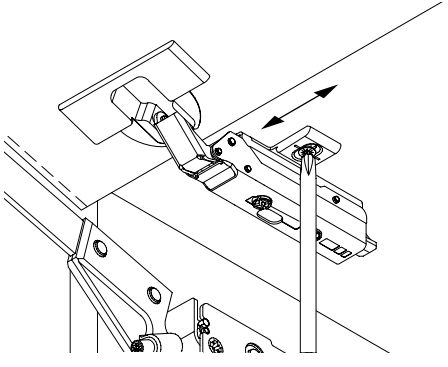
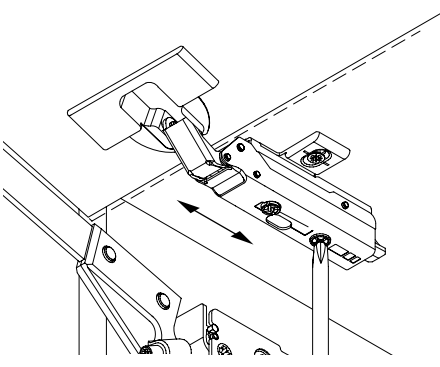
(SV) Side adjustment
+/- 2 mm



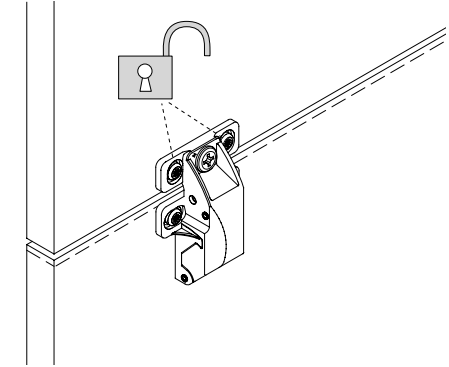
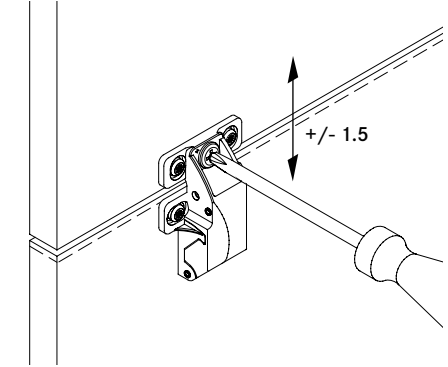
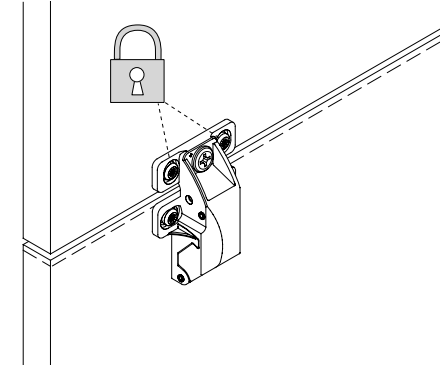
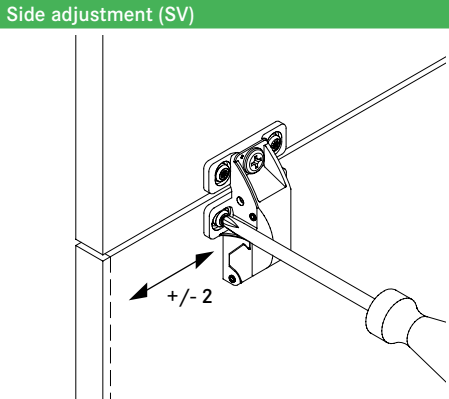
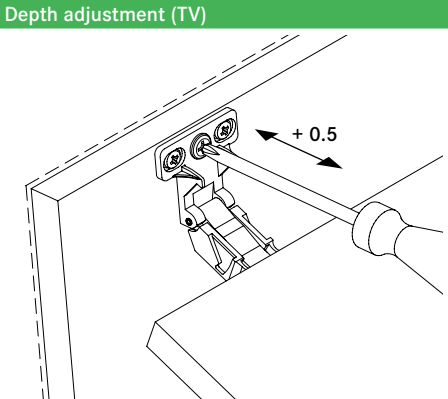
(TV) Depth adjustment
+/- 0.5 mm

All adjustments can be carried out independently of each other.

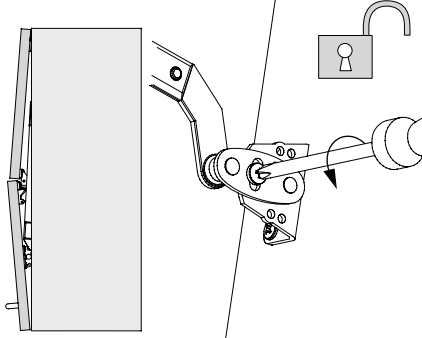
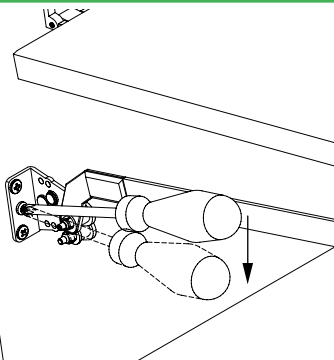
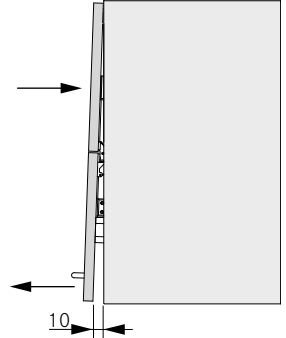
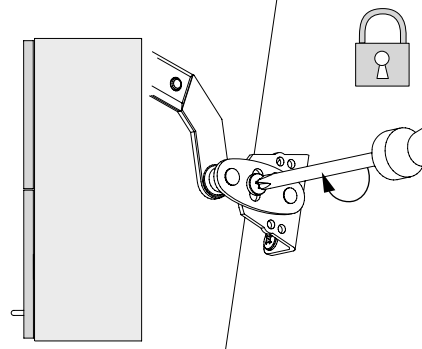
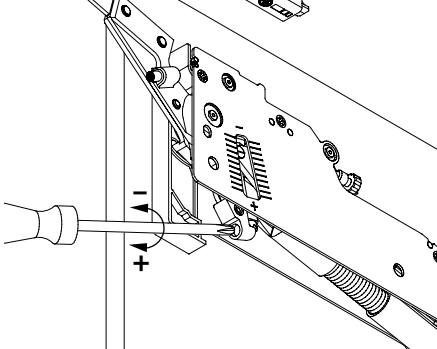
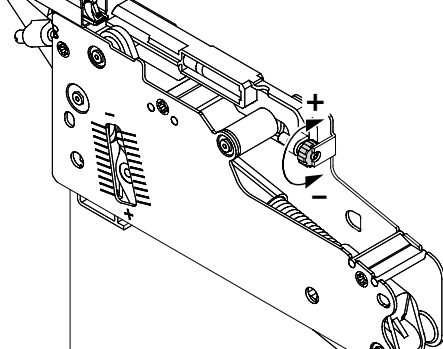
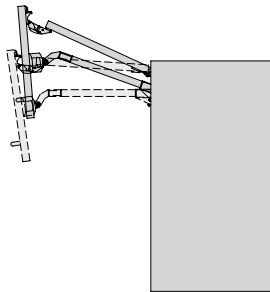
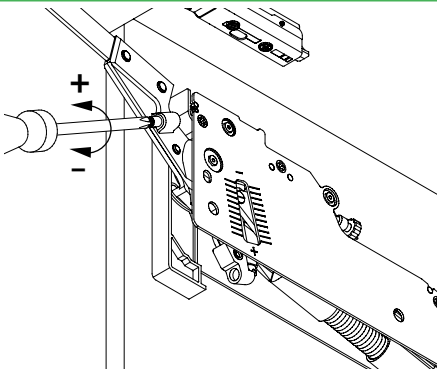
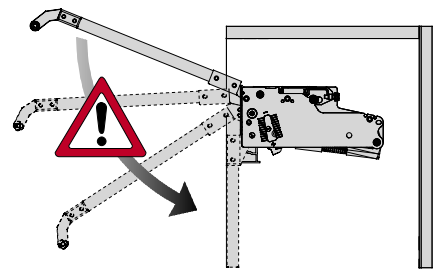
ADJUSTMENT OPTIONS FOR HINGE IN CABINET TOP PANEL

Height adjustment (HV)	Side adjustment (SV)	Depth adjustment (TV)
		

ADJUSTMENT OPTIONS FOR INTERMEDIATE HINGE

Height adjustment (HV)	Side adjustment (SV)	Depth adjustment (TV)
		
Side adjustment (SV)	Depth adjustment (TV)	
		

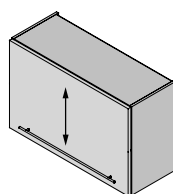
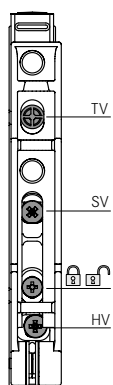
ADJUSTMENTS

Adjusting the flap closing position		
		
Adjusting the spring force	Adjusting the damping system	
		
Adjusting the opening angle 90° to 120°		Note
		

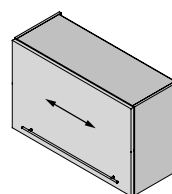
WARNING

KINVARO

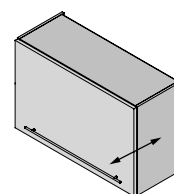
Adjustment options L-80



(HV) Height adjustment
+/- 1.5 mm



(SV) Side adjustment
+/- 1.5 mm



(TV) Depth adjustment
+/- 1.5 mm

All adjustments can be carried out independently of each other.

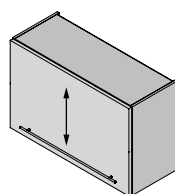
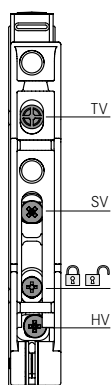
ADJUSTMENT OPTIONS

Unlocking	Height adjustment (HV)	Side adjustment (SV)
Depth adjustment (TV)	Locking	

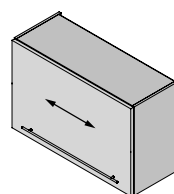
ADJUSTMENTS

WARNING

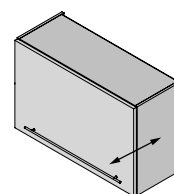
Adjusting the spring force	Adjusting the damping system	Note



(HV) Height adjustment
+/- 1.5 mm



(SV) Side adjustment
+/- 1.5 mm



(TV) Depth adjustment
+/- 1.5 mm

All adjustments can be carried out independently of each other.

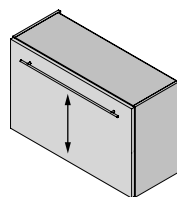
ADJUSTMENT OPTIONS

Unlocking	Height adjustment (HV)	Side adjustment (SV)
Depth adjustment (TV)	Locking	

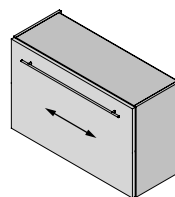
ADJUSTMENTS

WARNING

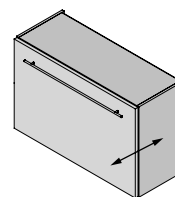
Adjusting the spring force	Adjusting the damping system	Note



(HV) Height adjustment
+2/-3 mm



(SV) Side adjustment
+/- 1 mm



(TV) Depth adjustment
+5/-0 mm

All adjustments can be carried out independently of each other.

ADJUSTMENT OPTIONS, HINGE IN THE CABINET BASE

Height adjustment (HV)	Side adjustment (SV)	Depth adjustment (TV)
<p>+2/-3 mm</p>	<p>+/- 1 mm</p>	<p>+5/-0 mm</p>

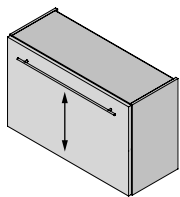
The adjustment options shown here refer to the TIOMOS flap hinge. You can find these in the hinge systems product catalogue.

ADJUSTMENTS

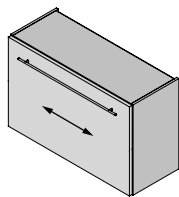
Adjusting the opening angle		Adjusting the opening speed
<p>Easing the weight of the door during adjustment.</p>		

WARNING

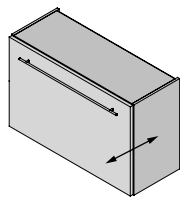
		Note



(HV) Height adjustment
+2/-3 mm



(SV) Side adjustment
+/- 1 mm



(TV) Depth adjustment
+5/-0 mm

All adjustments can be carried out independently of each other.

ADJUSTMENT OPTIONS, HINGE IN THE CABINET BASE

Height adjustment (HV)	Side adjustment (SV)	Depth adjustment (TV)
<p>+2/-3 mm</p>	<p>+/- 1 mm</p>	<p>+5/-0 mm</p>

The adjustment options shown here refer to the TIOMOS flap hinge. You can find these in the hinge systems product catalogue.

ADJUSTMENTS

Adjusting the opening angle		
<p>Easing the weight of the door during adjustment.</p>		

WARNING

		Note



DRILLING JIG FOR FLAP FITTINGS

For Kinvaro, side wall application

- S-35
- L-80
- F-20

Art.-no.
F146100495



DRILLING JIG FOR FLAP FITTINGS

For Kinvaro, side wall application

- T-65
- T-70
- T-71
- T-75
- T-76

Art.-no.
F146100494



DRILLING JIG FOR FLAP FITTINGS

For Kinvaro, flap application

- S-35
- L-80
- F-20
- T-65
- T-70
- T-71
- T-75
- T-76

Art.-no.
F146100609



WOOD DRILL BIT Ø 5 MM WITH STOP RING

Use for pre-drilling holes for Euro screws.

- Ø 5 mm
- with stop ring
- Length 85 mm
- Accessories for use with F146100494 and F146100495

Art.-no.
F146092594



SPECIAL DRILL Ø 5 MM FOR FLAP FITTINGS

Use for pre-drilling holes for Euro screws.

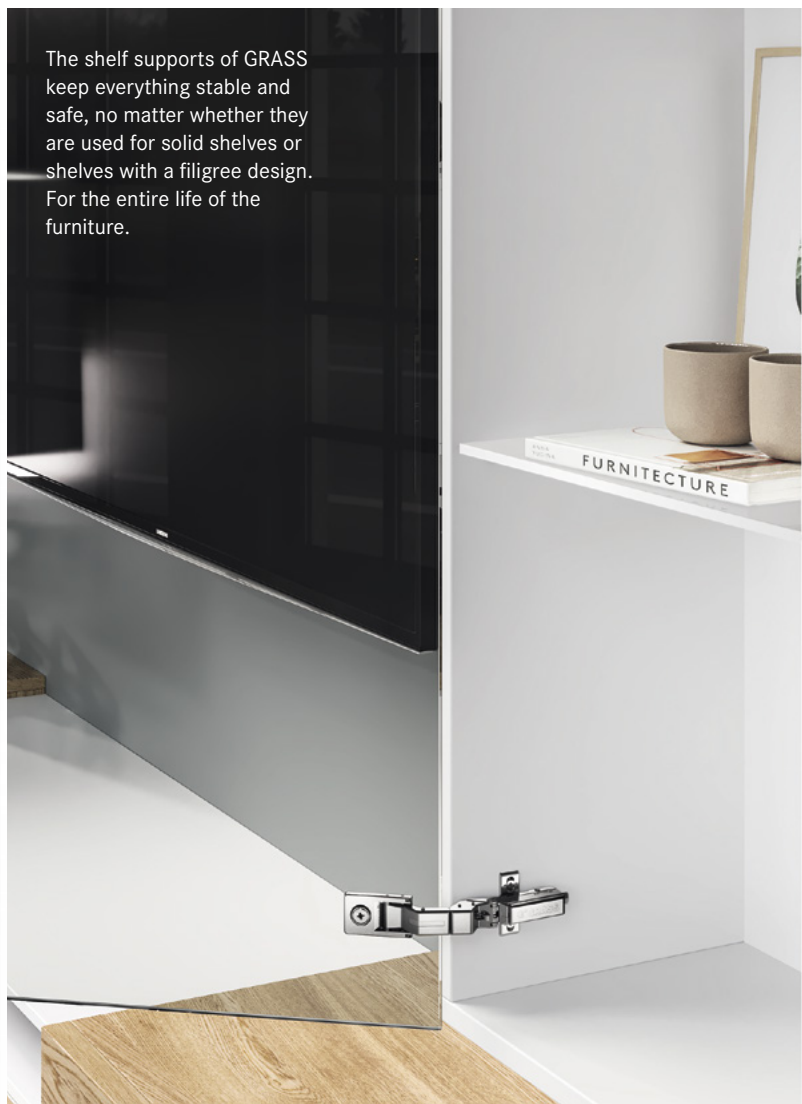
- Ø 5 mm
- Required for T-71, T-76, S-35, L-80 and connection hinge for F-20
- Accessories for use with F146100609

	Art.-no.
	F146100608

Kinvaro flap systems	11



The shelf supports of GRASS keep everything stable and safe, no matter whether they are used for solid shelves or shelves with a filigree design. For the entire life of the furniture.



Robust eccentric connectors
and shelf supports
for increased stability
and a long furniture life.




The strong connector
systems FixoGRASS 9000
and 9200 keep the side
walls with top, bottom
and intermediate shelves
securely and firmly in
shape. Even when they are
loaded with heavy goods.



Small
components.
High
efficiency.



Cabinet making accessories for secure attachment.

	Product description	Page
	Connecting shelf supports, shelf supports	82
	Mitre joint fasteners, front panel adjuster, door buffers	84
	Eccentric connector Fixoglass 9200	86

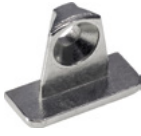
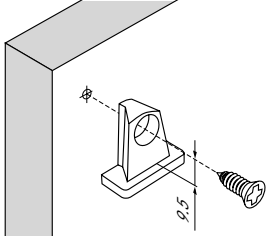

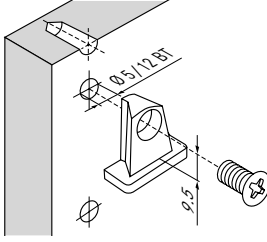

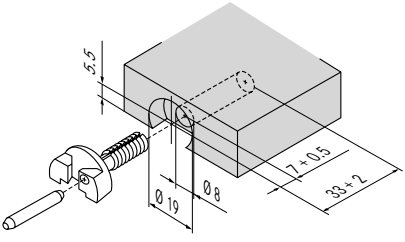

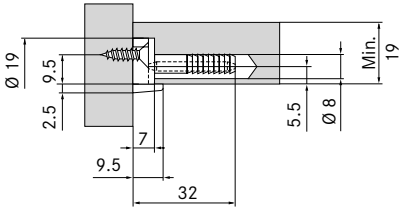
CABINET MAKING ACCESSORIES

Shelf supports


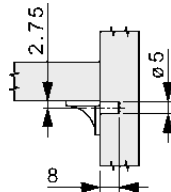

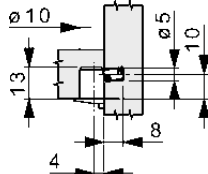

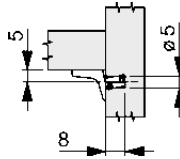

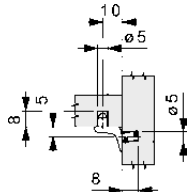

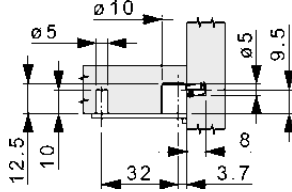

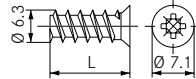

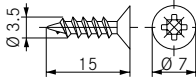


- Connecting shelf support FixoGRASS 9000
- Avoids possible buckling of cabinet side wall
- For heavily loaded shelves
- For shelves with a minimum thickness of 19 mm
- Clip prevents fitting from working loose

ORDER INFORMATION

Designation			Material	Art.-no.
Shelf support for fixing with wood screws (length 13 mm, Ø 3.5 mm)			Zamak, nickel-plated	F148043028
Shelf support for fixing with Euro screws (length 13 mm, Ø 6.2 mm) BT- drilling depth			Zamak, nickel-plated	F148043036
Housing			Plastic, white	F148043056
Expanding pin (for housing)			Steel, zinc-plated	F148043053

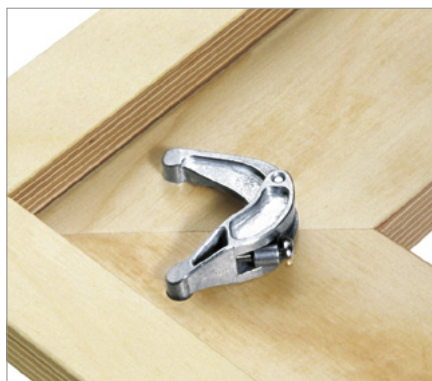
ORDER INFORMATION

Designation			Material	Art.-no.
Shelf support			Zamak, nickel-plated	F069073459
Shelf support			Zamak, nickel-plated	F069073460
Shelf support			Zamak, nickel-plated	F069073464
Shelf support			Zamak, nickel-plated	F069073463
Shelf support			Zamak, nickel-plated	F069073461
Euro screw, Ø 6.3 x 10.5 mm			Nickel-plated	F146073979
Euro screw, Ø 6.3 x 13 mm				F069135297
Chipboard screw, Ø 3.5 x 15 mm			Nickel-plated	F146073976


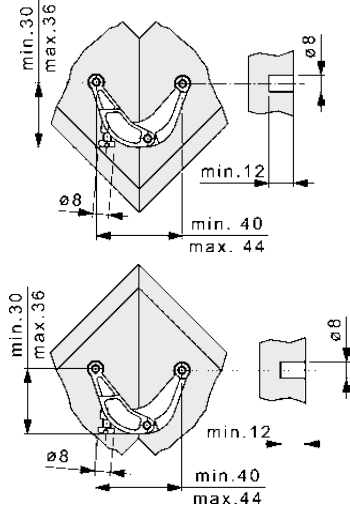

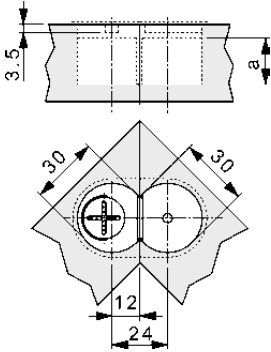
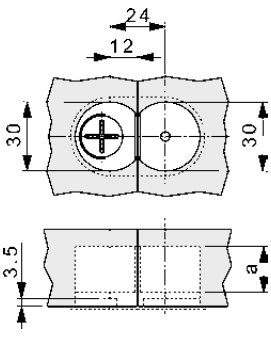
Assembly aids 78

CABINET MAKING ACCESSORIES

Mitre joint fasteners, front panel adjusters, door buffers



ORDER INFORMATION


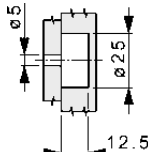
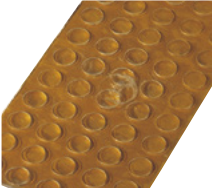
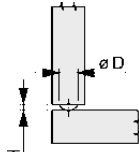
Designation			Material	Art.-no.
Mitre joint fastener			Zamak, natural	F069073454
Mitre joint fastener for thick profiles and worktops, drilling depth (a) 12 mm			Zamak, natural plastic, white	F069073453
Mitre joint fastener for thick profiles and worktops, drilling depth (a) 20 mm				F069073452

Assembly aids

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ORDER INFORMATION

Designation			Material	Art.-no.
Front panel adjuster (Fixing with screw M4)			Plastic, black	F069073381
Door buffer Ø 7 mm (D), H 1.5 mm			Plastic, transpar- ent	F146073835
Door buffer Ø 10 mm (D), H 3 mm				F146073836

Assembly aids	78

CABINET MAKING ACCESSORIES

Eccentric connectors FixoGRASS 9200



- For connecting side walls with worktops, base panels or shelves
- Small but sturdy connection fitting
- A range of steel bolts for different application options
- Easy to fit
- Eccentric installation with SW5 Allen key

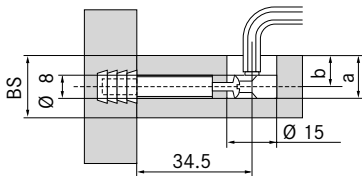
ORDER INFORMATION

Designation			Material	Art.-no.
Eccentric for board thickness 14 - 16 mm			Zamak, nickel-plated	F148043000
Eccentric for board thickness 17 - 20 mm				F148043007
Eccentric for board thickness 21 - 23 mm				F148043015
Corner bolt for fixing with Euro thread Ø 6 mm			Steel, zinc-plated	F148044883
Corner bolt for fixing with dowel Ø 8 mm/M5			Steel, zinc-plated	F148044748
Dowel Ø 8 mm/M5			Plastic, white	F071085142
Corner bolt for fixing with dowel Ø 10 mm/M6			Steel, zinc-plated	F148043024
Dowel Ø 10 mm/M6			Plastic, white	F145083050
Twin bolts for fitting in Ø 5 mm holes			Steel, zinc-plated	F148044841
Twin bolts for fitting in Ø 5 mm holes				F148044842

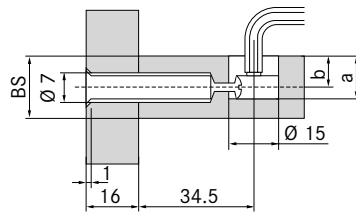
INSTALLATION INFORMATION

All dimensions in millimetres

Installation dimensions



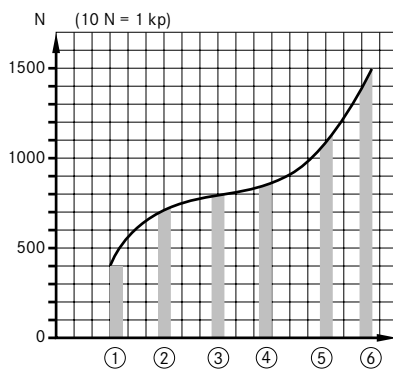
Installation drawing with corner bolts



Installation drawing with countersunk bolts / twin bolts

	Board thickness			
	14 - 16	17 - 20	21 - 23	
a	12.5	15.0	16.2	
b	8.0	9.5	11.0	

LOAD



- 1 Dowel Ø8/M5 (not glued)
- 2 Dowel Ø8/M5 (glued)
- 3 Euro screw Ø6 x 11
- 4 Dowel Ø10/M6 (not glued)
- 5 Dowel Ø10/M6 (glued)
- 6 Twin pins

NOTES

The max. loads shown in the diagram are guide values for the axial pull-out resistance (of the bolt on the cabinet side).

The critical factors are the material quality and the diameter of the hole.

In case of doubt, the pull-out resistance should be determined with a trial application.

LEGEND

BOLH	Bolt sleeve
BOLS	Bolt screw
BS	Shelf thickness
BT	Drilling depth

kp	Kilopond
N	Newton

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F148043028123	43028-42	100	82
F148043036123	43036-42	100	82
F148043053123	43053-42	100	82
F148043056123	43056-42	100	82
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PU code	Quantity (units, pair, set)
101	1
123	100
147	1000
201	1
204	5
211	20
213	25
216	40
240	500
247	1000
253	2500
256	5000
501	1
504	5
507	10
513	25
611	20

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LEGEND

PU code	Quantity (units, pair, set)
101	1
123	100
147	1000
201	1
211	20
213	25
240	500
247	1000
253	2500
256	5000
507	10
513	25



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