



G*GRASS®

KINVARO FLAP SYSTEMS

Modern design, innovative technology and functional operating comfort for wall cabinets.





Easy opening, effortless access to cabinet contents and gentle, silent closure - these are the special features of Kinvaro flap systems.





KINVARO FLAP SYSTEMS

Whether high-gloss, wood or aluminium frames - the Kinvaro flap systems not only look good, they also provide limitless design freedom.

And the inner values are irresistible too: a gentle tap or pull is all it takes to set the flaps gently in motion. They seem to glide upwards almost weightlessly. The closing operation is also particularly comfortable. With Soft-close, the integrated damping system, each movement becomes an experience. Soft-close gently slows the movement of the front and pulls it to the fully closed position. It is no surprise therefore, that Soft-close has become the benchmark.



Comfort in four dimensions.
Folding. Up-and-over. Parallel lifting. Top-hung lifting.
Kinvaro provides the perfect movement solution for
every application.

KINVARO F
FOLDING FLAP SYSTEM

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



KINVARO FLAP SYSTEMS

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

With all the space available at the top of cabinets, the only limit is personal choice. The GRASS Kinvaro series redefines the principle of the classic wall cabinet. Wall cabinets continue to rank among the most favoured storage solutions for kitchens. And they are destined to remain so, thanks to our extremely functional and comfortable flap systems. Stable and reliable movement systems, easy and silent in application, ergonomically well designed and comfortable to operate – these are the special ingredients for modern storage concepts. Kinvaro flap systems represent the perfect synthesis of innovative design ambition and functional movement in the spirit of modern furniture culture.



KINVARO L
PARALLEL LIFT FLAP SYSTEM

The single front opens in parallel with the cabinet and remains fixed in any position. Parallel lift flap systems are very elegant in their movement, extremely stable and particularly well suited to cabinets 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, pelmets and attached lights.



KINVARO T
LIFT-UP FLAP SYSTEMS

The single front opens up comfortably with a gentle lift movement. The particularly elegant movement sequence is enhanced by the integrated, adjustable Soft-close damping. Ideal for light to medium-weight fronts.



KINVARO FLAP SYSTEMS

A pleasure to watch.
Flap systems for an
elegant style.

QUALITY CERTIFICATE
LGAD

Opening a folding flap system is something special as the fronts glide weightlessly upwards, gently supported by a function spring throughout the entire movement sequence. This finely controlled power assistance provides a very smooth movement and holds the flaps securely in any position.




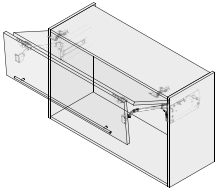

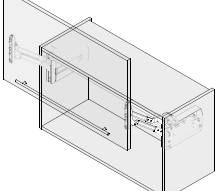

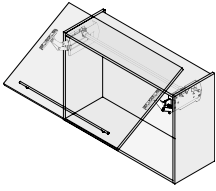

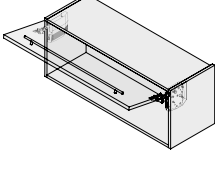

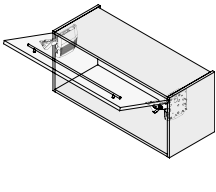
KINVARO FLAP SYSTEMS


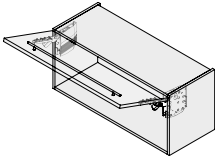

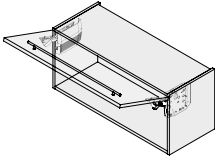

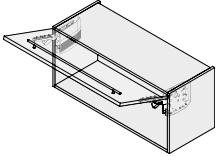

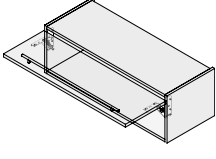

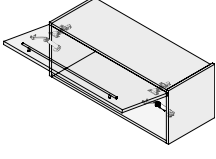
Exclusive flap systems for top requirements in design, technology and operating comfort

Product designation	Page
Kinvaro F-20 folding flap fitting	10
Kinvaro L-80 parallel lift flap fitting	14
Kinvaro S-35 up-and-over flap fitting	16
Kinvaro T-65 lift-up flap fitting	18
Kinvaro T-70 lift-up flap fitting	20
Kinvaro T-71 lift-up flap fitting	22
Kinvaro T-75 lift-up flap fitting	24
Kinvaro T-76 lift-up flap fitting	26
Kinvaro T-57 lift-up flap fitting	28
Kinvaro T-105 flap stay	30
Assembly aids	44
Cabinet making accessories and cabinet suspension fittings	47

KINVARO FLAP SYSTEMS

Exclusive flap systems for top requirements in design, technology and operating comfort

	Product description		Page
	<p>Kinvaro F-20 folding flap fitting</p> <ul style="list-style-type: none"> • Holds flap securely in any position • Extremely smooth movement • Adjustable spring force • Integrated adjustable closing damper 		10
	<p>Kinvaro L-80 parallel lift flap fitting</p> <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 		14
	<p>Kinvaro S-35 up-and-over flap fitting</p> <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 		16
	<p>Kinvaro T-65 lift-up flap fitting</p> <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 		18
	<p>Kinvaro T-70 lift-up flap fitting</p> <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 		20

	Product description		Page
	<p>Kinvaro T-71 lift-up flap fitting</p> <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 		22
	<p>Kinvaro T-75 lift-up flap fitting</p> <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 		24
	<p>Kinvaro T-76 lift-up flap fitting</p> <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 		26
	<p>Kinvaro T-57 lift-up flap fitting</p> <ul style="list-style-type: none"> • Opening angle adjustable to 75° or 90° • Easy to fit • Adjustable spring force • Allows additional cabinet installation above 		28
	<p>Kinvaro T-105 flap stay</p> <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 		30

KINVARO

F-20 folding flap fitting



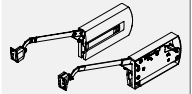
- Holds flap securely in any position
- Extremely smooth movement
- Adjustable spring force
- Integrated adjustable closing damper
- Flap with 3-dimensional adjustment – height, side, angle: Direct adjustment ± 1.5 mm
- 3-dimensional reveal height, side, depth adjustment: Direct adjustment
- Opening 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



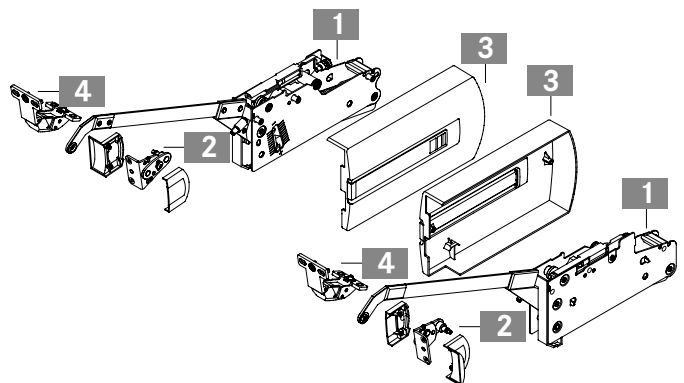
Designation	Overlay	Item No.
Aluminium frame adapter (2x) for narrow aluminium frames (19 mm) with fixing screws (8x)	13 – 17	F152145054

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)



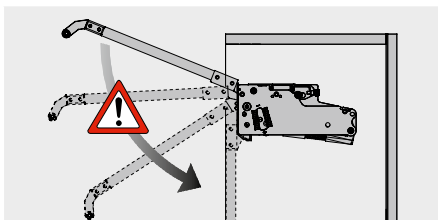
Assembly aids	44
Kinvaro F-20 adjustment options	32

ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR CABINET HEIGHT 520 – 799

All dimensions in millimetres

Required space	Side wall drilling positions	Side wall drilling distance																																																			
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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

KINVARO

F-20 folding flap fitting

ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR CABINET HEIGHT 800 – 900

All dimensions in millimetres

<p>Required space</p>	<p>Side wall drilling positions</p>	<table border="1"> <thead> <tr> <th colspan="3">Side wall drilling distance</th> </tr> <tr> <th>KH</th> <th>Type</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>800 – 849</td> <td>7</td> <td>103</td> </tr> <tr> <td>850 – 900</td> <td>7</td> <td>110</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="2">Shelf distance</th> </tr> <tr> <th>KH</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>800 – 849</td> <td>≤293</td> </tr> <tr> <td>850 – 900</td> <td>≤312</td> </tr> </tbody> </table>	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
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Assembly aids	44
Kinvaro F-20 adjustment options	32

KINVARO

L-80 parallel lift flap fitting



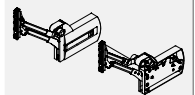
- Holds flap securely in any position
- Extremely smooth movement
- Adjustable spring force
- Integrated adjustable closing damper
- Flap 3-dimensionally adjustable – height, side, angle: direct adjustment ± 1.5 mm
- Allows the use of cornices, pelmets and attached lights
- Wide range of applications 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

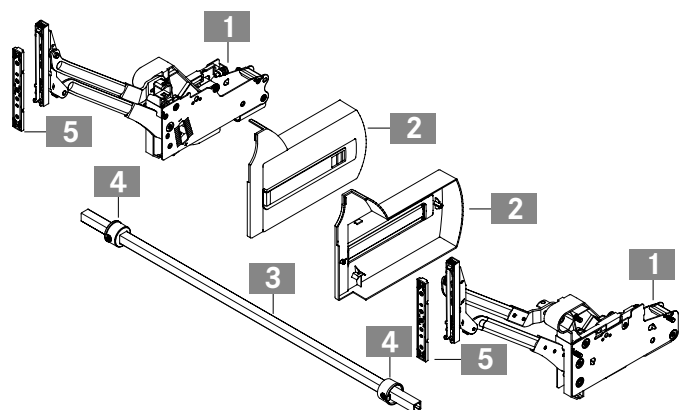
Aluminium frame adapter, Kinvaro L-80 set



Designation	Overlay	Item 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)



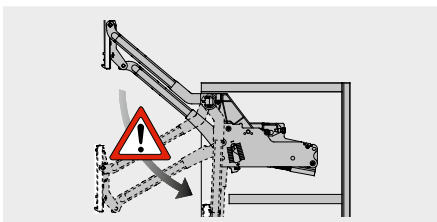
Assembly aids	44
Kinvaro L-80 adjustment options	34

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

<p>Required space</p>	<p>Side wall drilling positions</p>	<p>Side wall drilling distance</p> <table border="1"> <thead> <tr> <th>Type</th> <th>min. LHK</th> <th>D1</th> <th>D2</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>312</td> <td>161</td> <td>304</td> </tr> <tr> <td>2</td> <td>332</td> <td>176</td> <td>337</td> </tr> <tr> <td>3</td> <td>352</td> <td>191</td> <td>370</td> </tr> <tr> <td>4</td> <td>372</td> <td>206</td> <td>403</td> </tr> <tr> <td>5</td> <td>392</td> <td>221</td> <td>436</td> </tr> </tbody> </table> <p>Cornice projection</p> <table border="1"> <thead> <tr> <th>F</th> <th>KP max.</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>22</td> </tr> <tr> <td>3</td> <td>35</td> </tr> <tr> <td>4</td> <td>39</td> </tr> </tbody> </table>	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	F	KP max.	2	22	3	35	4	39
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																															
F	KP max.																																	
2	22																																	
3	35																																	
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<p>Front: installation for flaps with standard aluminium frame profiles (19 mm)</p>	<p>Front: installation for wooden and frame flaps (min. 45 mm width)</p> <p>* Pre-drilling required - Ø 2 mm</p>	<p>Front: drilling distance</p> <table border="1"> <thead> <tr> <th>KH</th> <th>Type</th> <th>X</th> </tr> </thead> <tbody> <tr> <td>350 - 369</td> <td>1</td> <td>190</td> </tr> <tr> <td>370 - 389</td> <td>2</td> <td>210</td> </tr> <tr> <td>390 - 409</td> <td>3</td> <td>230</td> </tr> <tr> <td>410 - 429</td> <td>4</td> <td>250</td> </tr> <tr> <td>430 - 600</td> <td>5</td> <td>270</td> </tr> </tbody> </table> <p>Cutting dimensions Cross bar</p>	KH	Type	X	350 - 369	1	190	370 - 389	2	210	390 - 409	3	230	410 - 429	4	250	430 - 600	5	270														
KH	Type	X																																
350 - 369	1	190																																
370 - 389	2	210																																
390 - 409	3	230																																
410 - 429	4	250																																
430 - 600	5	270																																
<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

- 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

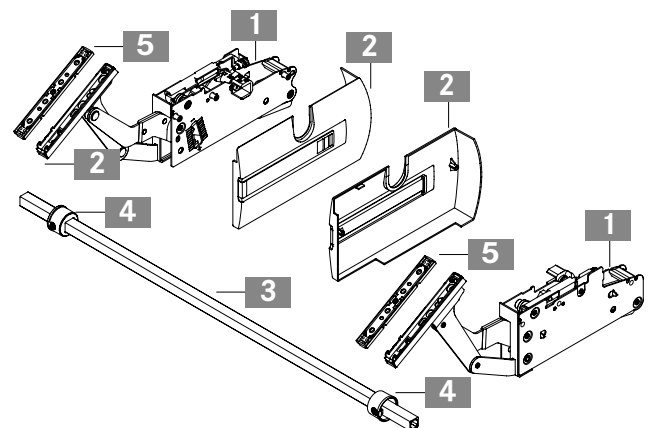
ORDER INFORMATION

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	Item 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)



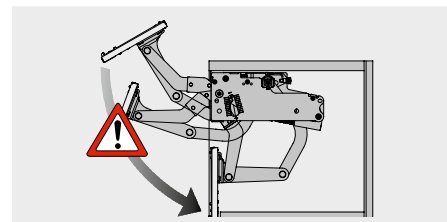
Assembly aids	44
Kinvaro S-35 adjustment options	35

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

<p>Required space</p>	<p>Side wall drilling positions</p>
<p>Front: installation for flaps with standard aluminium frame profiles (19 mm)</p>	<p>Front: installation for wooden and frame flaps (min. 45 mm width)</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

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

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
- Can be used for wooden flaps or aluminium frames with glass infill
- 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

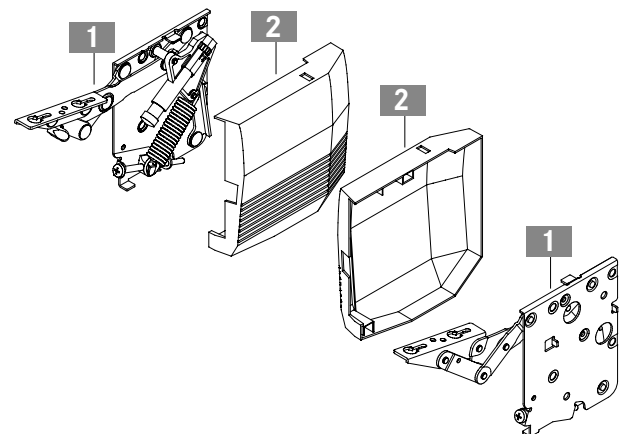
Cabinet height	Flap weight incl. handle (kg)		
	Spring on one side yellow	Spring on both sides yellow	Spring on both sides black
250	0.9 – 2.1	1.8 – 4.2	2.4 – 7.4
300	0.7 – 1.7	1.4 – 3.4	2.0 – 6.3
350	-	1.0 – 2.9	1.7 – 5.4
400	-	0.8 – 2.5	1.5 – 4.7
450	-	0.7 – 2.2	1.3 – 4.2
500	-	0.6 – 2.0	1.3 – 3.9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

ORDER INFORMATION

Kinvaro T-65 set					
Designation	Springs	Version for	Overlay	Item 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	F15 1147797	F15 1147682
		aluminium	13	F15 1147798	F15 1147678
			14	F15 1147799	F15 1147679
			16	F15 1147800	F15 1147680
			17	-	F15 1147681

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)



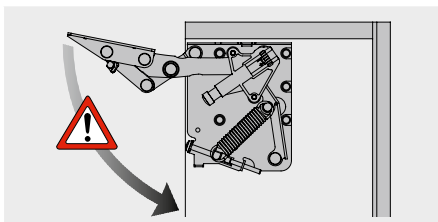
Assembly aids	44		
Kinvaro T-65 adjustment options	36		

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

<p>Required space</p>	<p>Side wall drilling positions</p>
<p>Front: installation for flaps with standard aluminium frame profiles (19 mm)</p>	<p>Front: installation for wooden and frame flaps (min. 45 mm width)</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



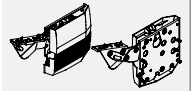
- Variable opening angle - holds flap securely at any angle between 45° and 110°
- Extremely comfortable opening thanks to spring-supported opening mechanism
- Adjustable spring force
- Integrated adjustable closing damper
- Adjustable flap height ± 2.0 mm
- No hinges fitted to the top panel
- Allows additional cabinet installation above
- Can be used for wooden flaps or aluminium frames with glass infill
- 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

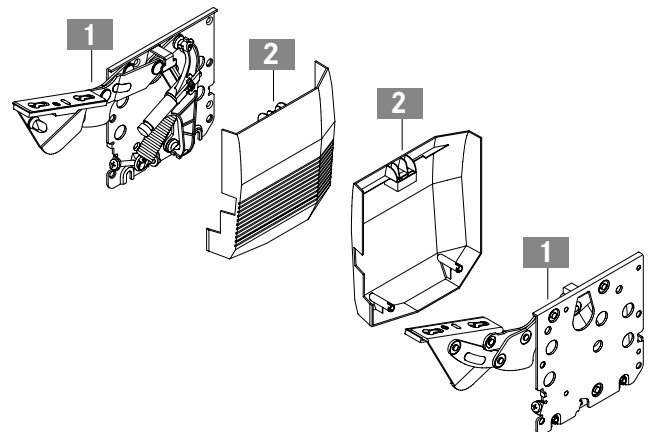
Kinvaro T-70 set



Designation	Springs	Version for	Overlay	Item No.	
				Cover cap white	Cover cap grey
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	F151147693	F151147692
		aluminium	13	F151147807	F151147688
			14	F151147808	F151147689
			16	F151147809	F151147690
			17	F151147810	F151147691

Kinvaro T-70 set comprises:

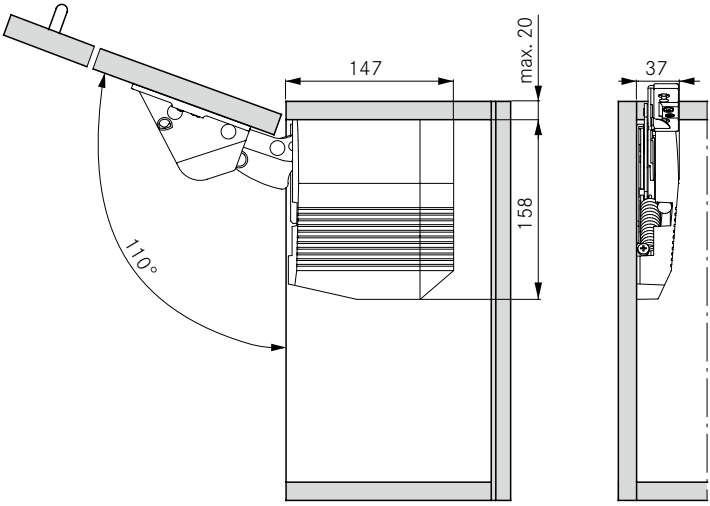
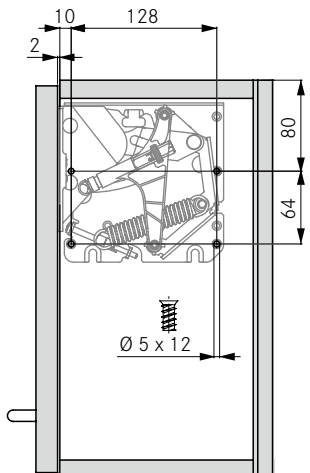
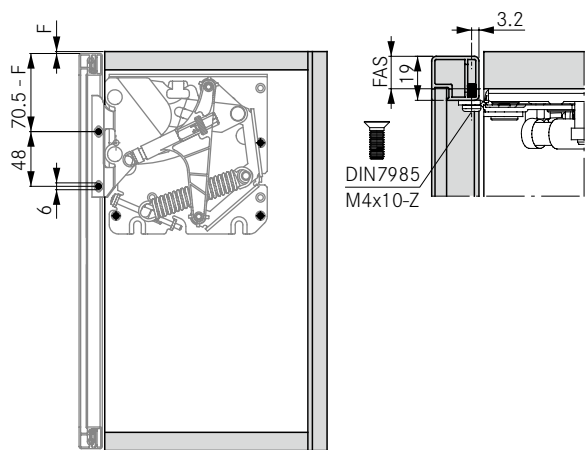
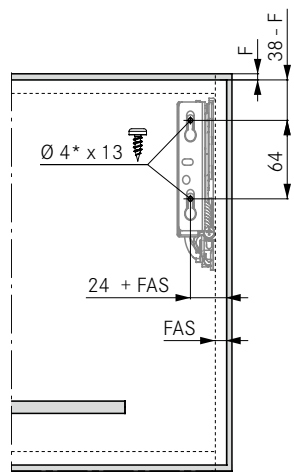
- 1 Fitting on the right without and on the left with damper (1x)
- 2 Cover caps on right and left (1x)
Springs, orange, loose (2x)
Paper template (1x)
Installation instructions (1x)



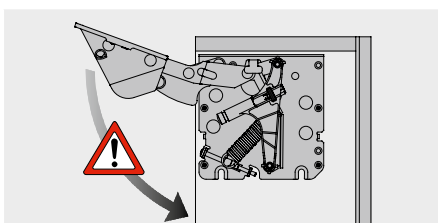
Assembly aids	44		
Kinvaro T-70 adjustment options	37		

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

<p>Required space</p> 	<p>Side wall drilling positions</p> 
<p>Front: installation for flaps with standard aluminium frame profiles (19 mm)</p>  <p>* Standard aluminium frame profile (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
- KOB Cabinet top panel

KINVARO

T-71 lift-up flap fitting



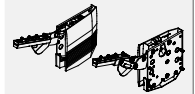
- Variable opening angle - holds flap securely at any angle between 45° and 110°
- Extremely comfortable opening thanks to spring-supported opening mechanism
- Adjustable spring force
- Integrated adjustable closing damper
- Flap 3-dimensionally adjustable - height, side, angle: direct adjustment ±1.5 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	Item 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

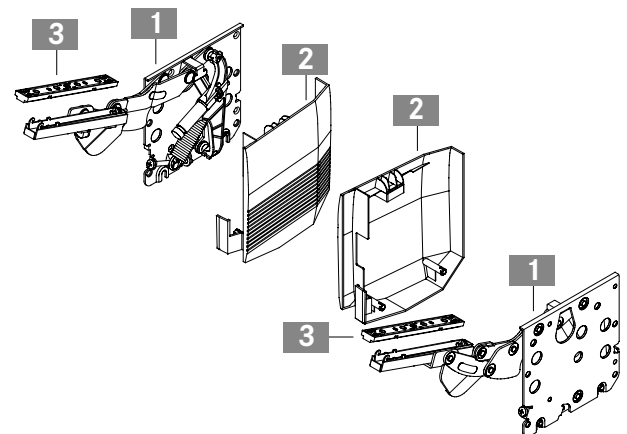
Aluminium frame adapter, Kinvaro T-71 set



Designation	Overlay	Item No.
Aluminium frame adapter (2x) for narrow aluminium frames (19 mm) with fixing screws (16x)	13 – 17	F151145226

Kinvaro T-71 set comprises:

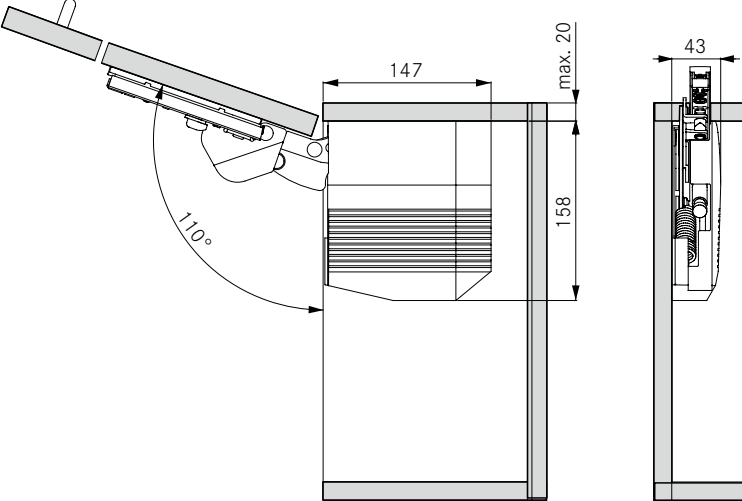
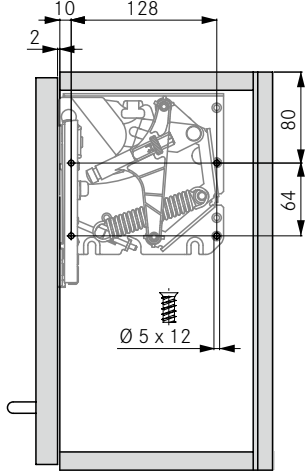
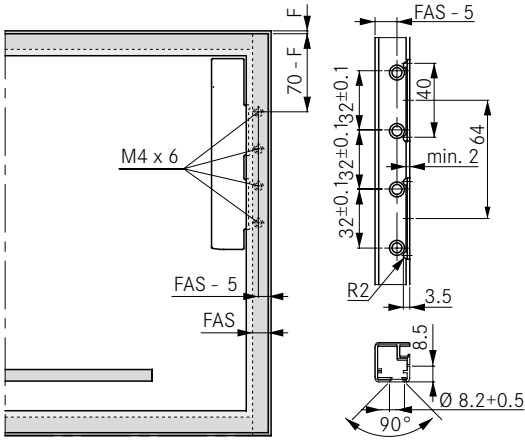
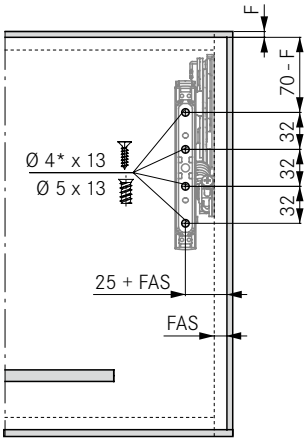
- 1** Fitting on the right without and on the left with damper (1x)
- 2** Cover caps on right and left (1x)
- 3** Mounting plates (2x)
Springs, orange, loose (2x)
Paper template (1x)
Installation instructions (1x)



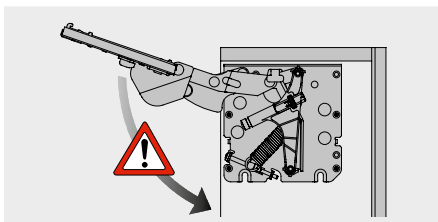
Assembly aids	44		
Kinvaro T-71 adjustment options	38		

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

<p>Required space</p> 	<p>Side wall drilling positions</p> 
<p>Front: installation for flaps with standard aluminium frame profiles (19 mm)</p>  <p>* Standard aluminium frame profile (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
FAS Front overlay, side

KINVARO

T-75 lift-up flap fitting



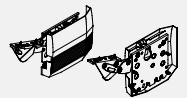
- Variable opening angle - holds flap securely at any angle between 45° and 110°
 - Extremely comfortable opening thanks to spring-supported opening mechanism
 - Adjustable spring force
 - Integrated adjustable closing damper
 - Adjustable flap height ±2.0 mm
 - No hinges fitted to the top panel
 - Allows additional cabinet installation above
 - Can be used for wooden flaps or aluminium frames with glass infill
 - 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

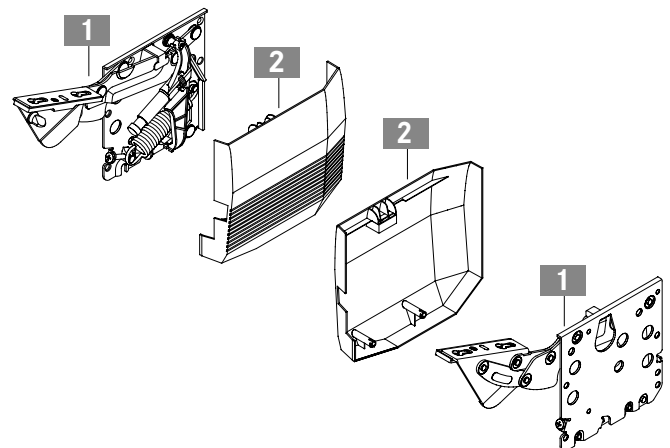
Kinvaro T-75 set



Designation	Springs	Version for	Overlay	Item 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
		aluminium	13	F151147813	F151147702
			14	F151147814	F151147703
			16	F151147815	F151147704
			17	F151147816	F151147705

Kinvaro T-75 set comprises:

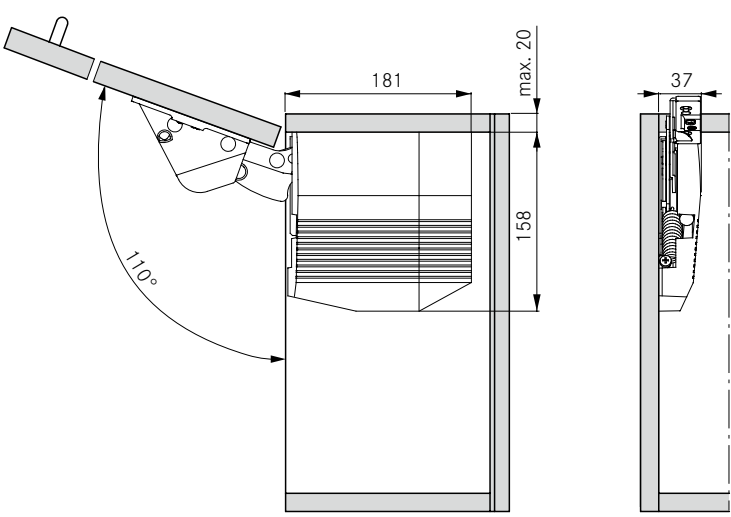
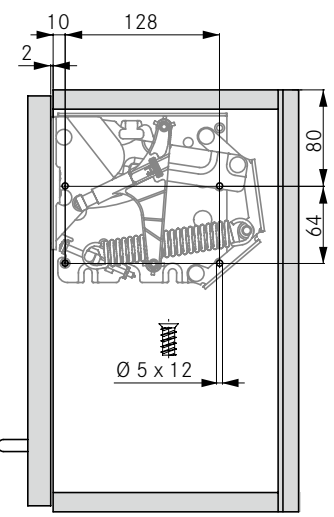
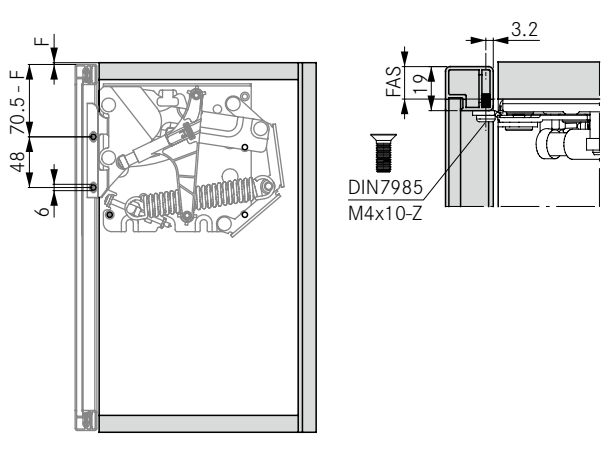
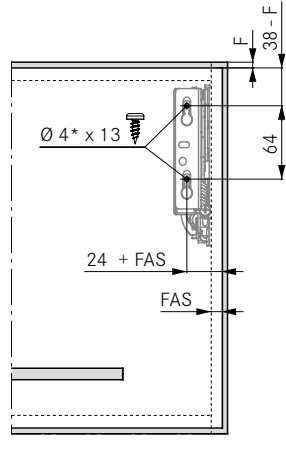
- 1 Fitting on the right without and on the left with damper (1x)
- 2 Cover caps on right and left (1x)
Paper template (1x)
Installation instructions (1x)



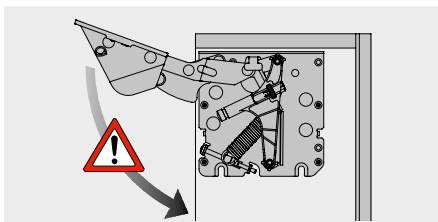
Assembly aids	44		
Kinvaro T-75 adjustment options	39		

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

<p>Required space</p> 	<p>Side wall drilling positions</p> 
<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
FAS Front overlay, side

KINVARO

T-76 lift-up flap fitting



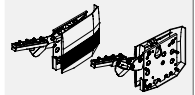
- Variable opening angle - holds flap securely at any angle between 45° and 110°
- Extremely comfortable opening thanks to spring-supported opening mechanism
- Adjustable spring force
- Integrated adjustable closing damper
- Flap 3-dimensionally adjustable - height, side, angle: direct adjustment ± 1.5 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	Item 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

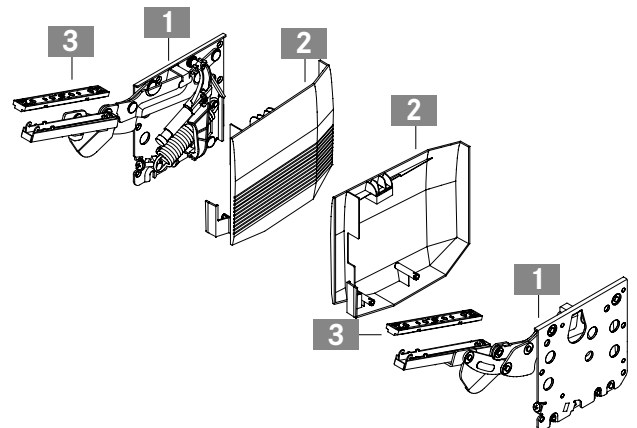
Aluminium frame adapter, Kinvaro T-76 set



Designation	Overlay	Item No.
Aluminium frame adapter (2x) for narrow aluminium frames (19 mm) with fixing screws (16x)	13 – 17	F151145226

Kinvaro T-76 set comprises:

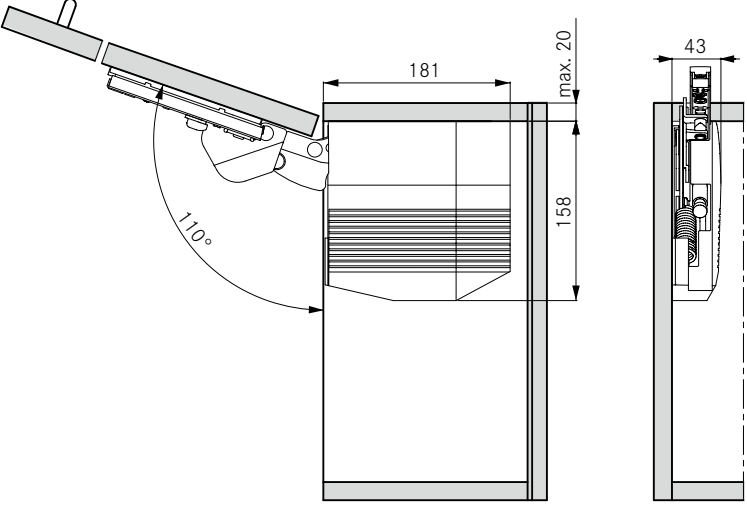
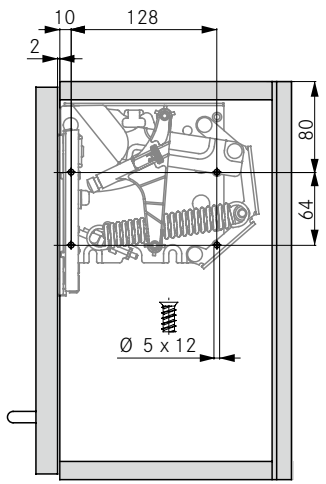
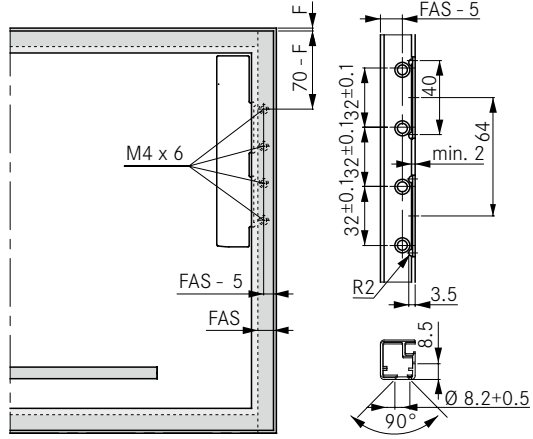
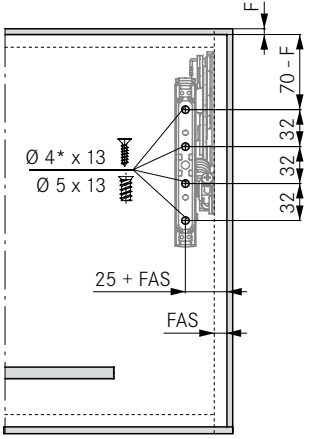
- 1 Fitting on the right without and on the left with damper (1x)
- 2 Cover caps on right and left (1x)
- 3 Mounting plates (2x)
Paper template (1x)
Installation instructions (1x)



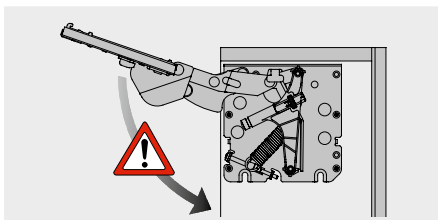
Assembly aids	44		
Kinvaro T-76 adjustment options	40		

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

<p>Required space</p> 	<p>Side wall drilling positions</p> 
<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
FAS Front overlay, side

KINVARO

T-57 lift-up flap fitting

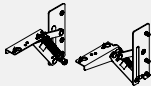


- Opening angle adjustable to 75° or 90°
- Easy to fit
- Adjustable spring force
- Adjustable flap height ± 1.0 mm
- No hinges fitted to the top panel
- Allows additional cabinet installation above
- Can be used for wooden flaps or aluminium frames with glass infill
- Weight 1.0 to 6.2 kg
- Range of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

APPLICATION RANGE

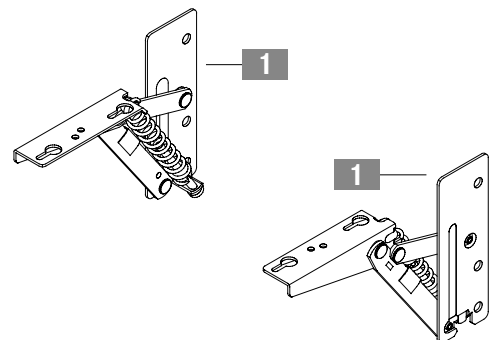
Cabinet height	Flap weight incl. handle	
	min.	max.
300	1.0	6.2
350	1.2	4.9
400	1.4	3.8
450	1.5	3.6
500	1.7	2.9
550	1.9	2.7
600	2.1	2.5

ORDER INFORMATION

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

Kinvaro T-57 set comprises:

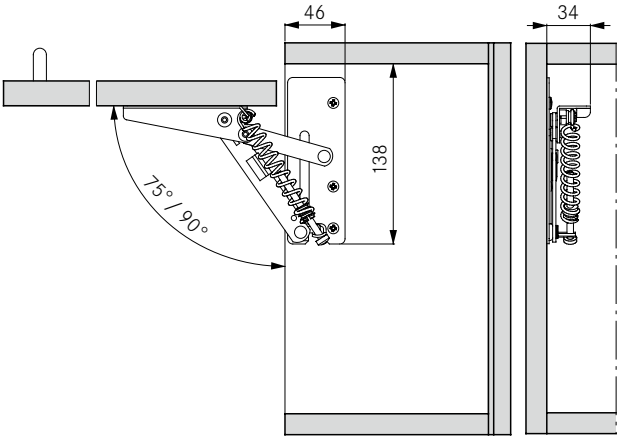
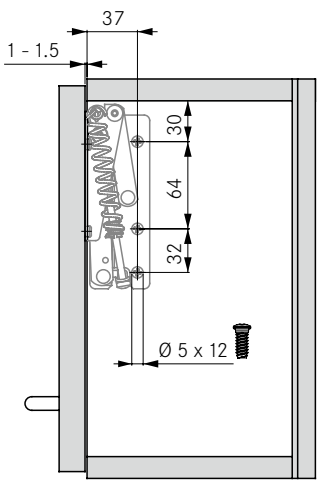
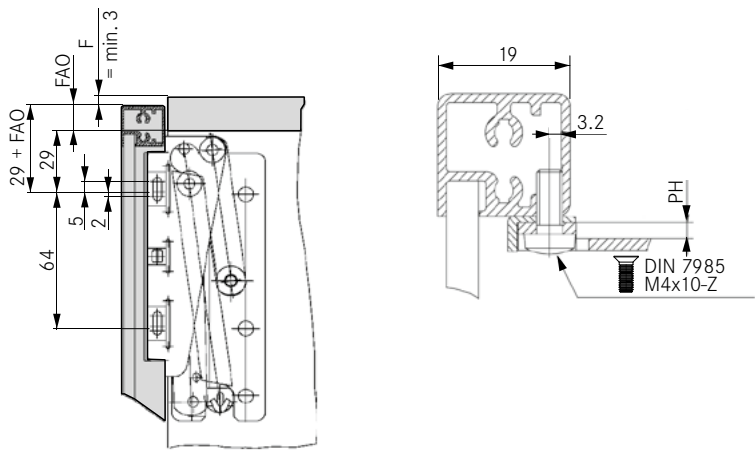
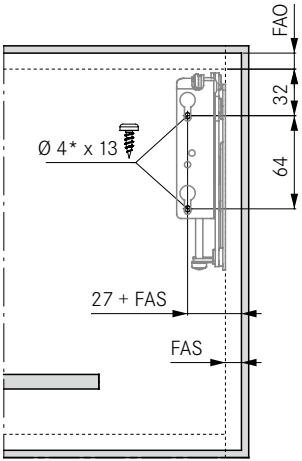
- 1** Fitting, right and left (1x)
- Paper template (1x)
- Installation instructions (1x)



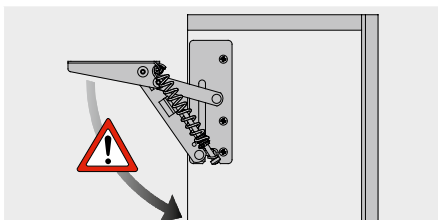
Assembly aids	44
Kinvaro T-57 adjustment options	41

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

<p>Required space</p> 	<p>Side wall drilling positions</p> 
<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

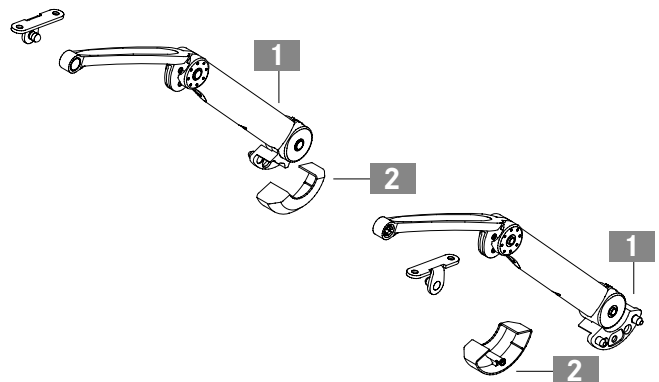


Note:

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	44
Kinvaro T-105 adjustment options	42

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

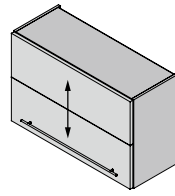
<p>Required space</p>	<p>Side wall drilling positions</p> <p>* Pre-drilling required - Ø 2 mm</p>												
<p>Front: installation for flaps with standard aluminium frame profiles (19 mm)</p>	<p>Front: installation for wooden and frame flaps (min. 45 mm width)</p> <p>* Pre-drilling required - Ø 2 mm</p>												
<table border="1"> <thead> <tr> <th>Opening angle</th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>95°</td> <td>169 + MH</td> <td>174 + MH</td> <td>118 + MH</td> </tr> <tr> <td>≥ 105°</td> <td>164 + MH</td> <td>169 + MH</td> <td>113 + MH</td> </tr> </tbody> </table>	Opening angle	A	B	C	95°	169 + MH	174 + MH	118 + MH	≥ 105°	164 + MH	169 + MH	113 + MH	<p>Minimum reveal and door protrusion depend on the fitted hinge. For suitable hinges please refer to the Hinge Systems section.</p> <p>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.</p>
Opening angle	A	B	C										
95°	169 + MH	174 + MH	118 + MH										
≥ 105°	164 + MH	169 + MH	113 + MH										
<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>													

LEGEND

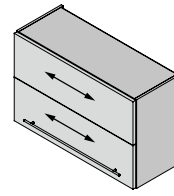
- A Side wall fastening dimension
- B Side wall fastening dimension
- C Front fastening dimension
- FAO Front overlay, top
- FAS Front overlay, side
- MH Mounting plate height

KINVARO

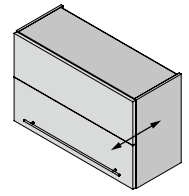
Adjustment options F-20



(HV) Height adjustment
+/- 1.5 mm



(SV) Side adjustment
+/- 2 mm

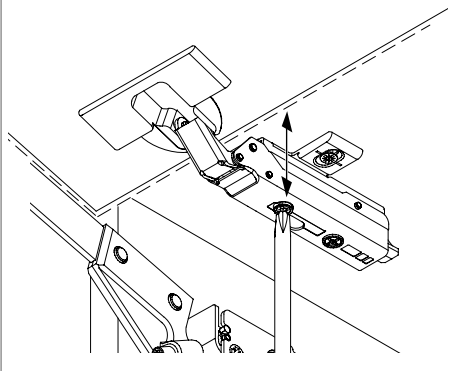


(TV) Depth adjustment
+/- 0.5 mm

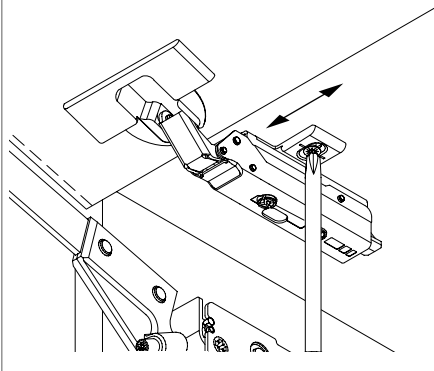
All adjustments can be carried out independently of each other.

ADJUSTMENT OPTIONS FOR HINGE IN CABINET TOP PANEL

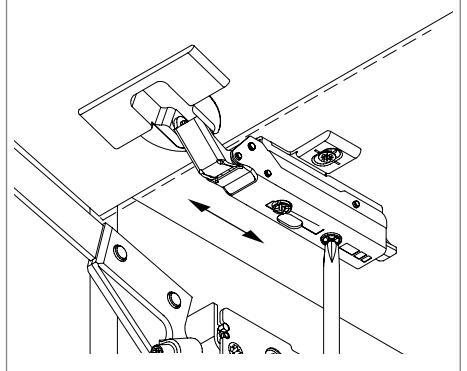
Height adjustment (HV)



Side adjustment (SV)

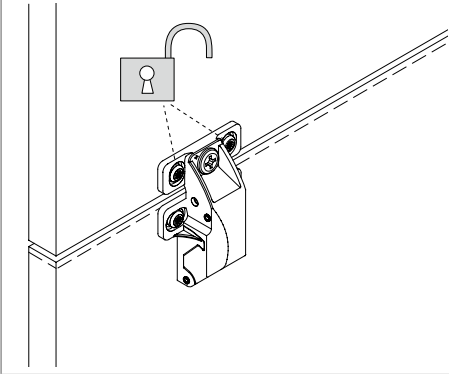


Depth adjustment (TV)

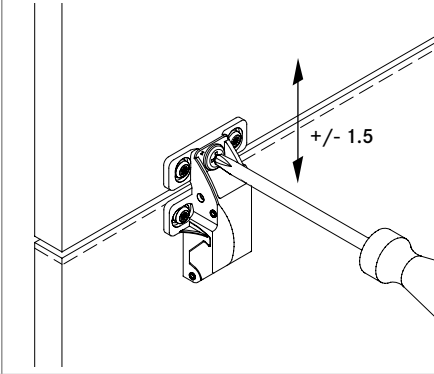


ADJUSTMENT OPTIONS FOR INTERMEDIATE HINGE

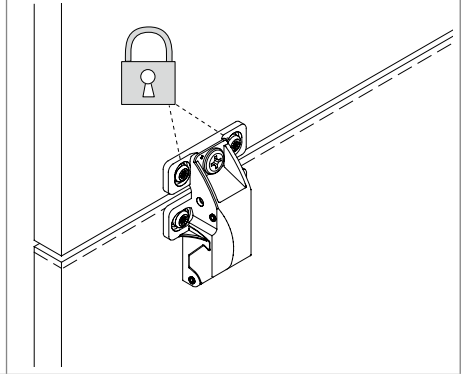
Height adjustment (HV)



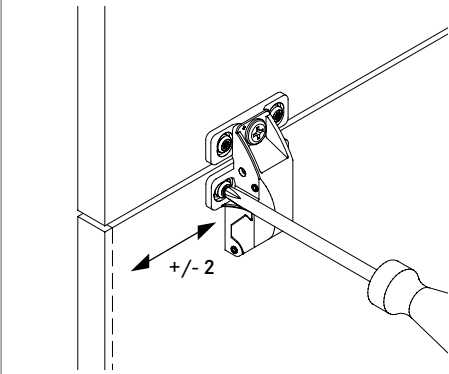
Side adjustment (SV)



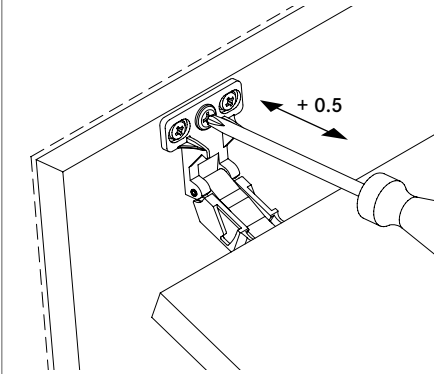
Depth adjustment (TV)



Side adjustment (SV)

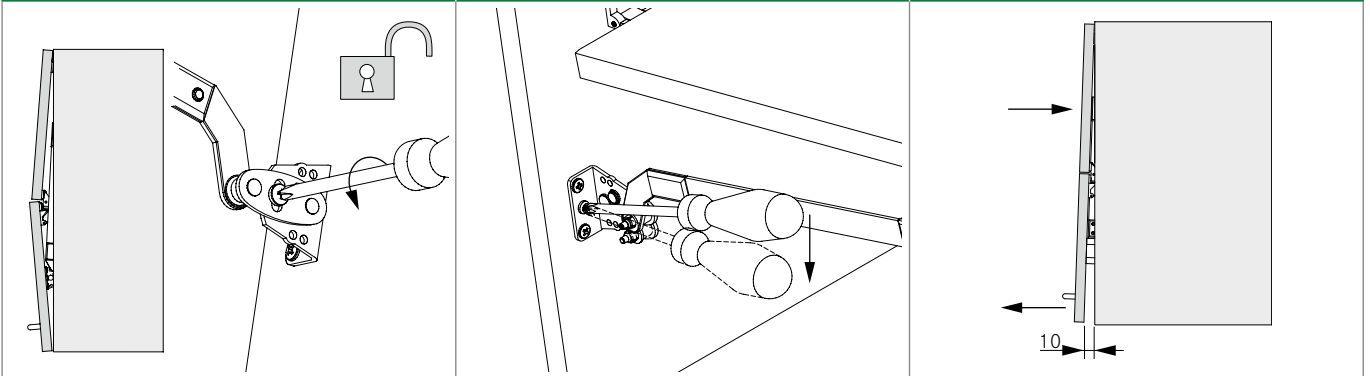


Depth adjustment (TV)

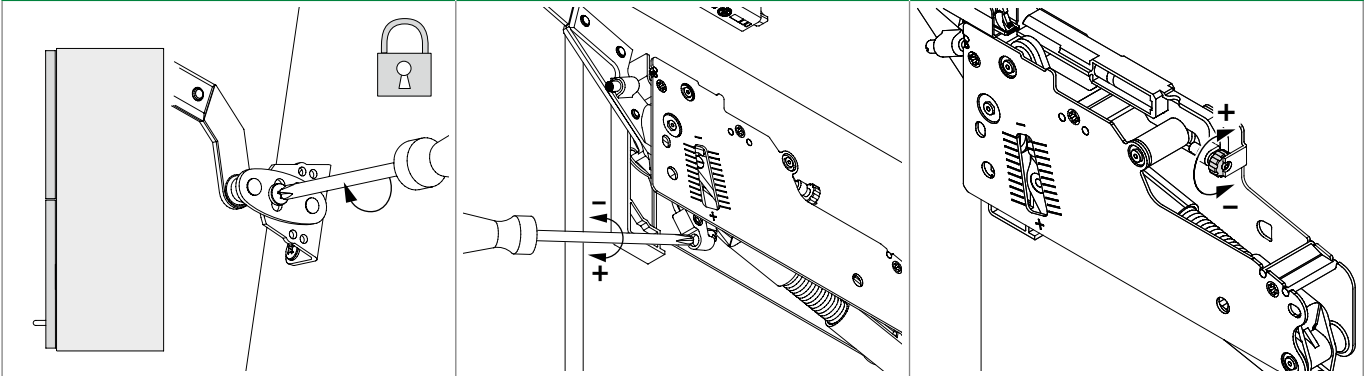


ADJUSTMENTS

Adjusting the flap closing position

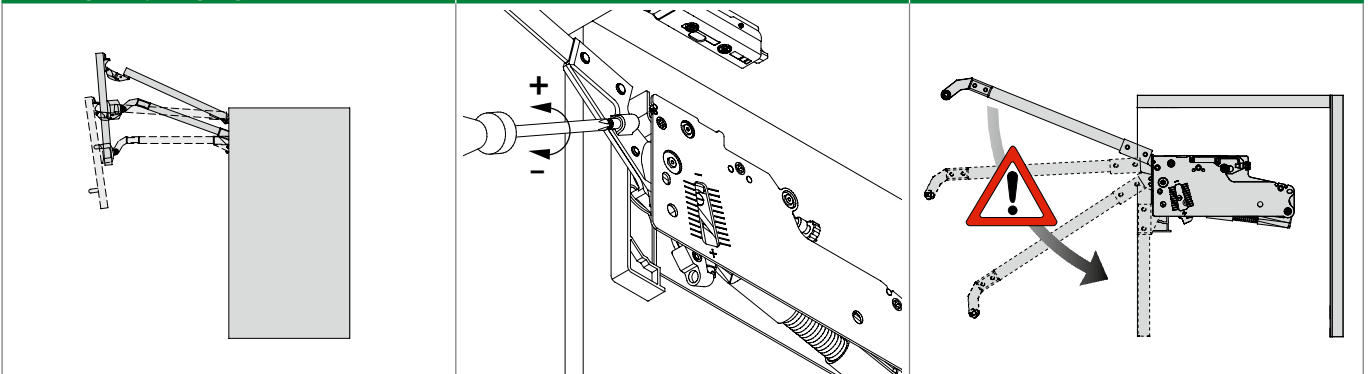


Adjusting the spring force



WARNING

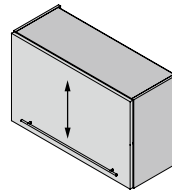
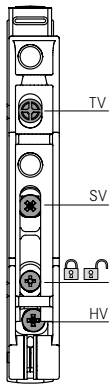
Adjusting the opening angle 90° to 120°



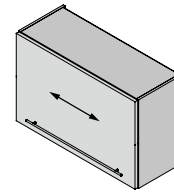
Note

KINVARO

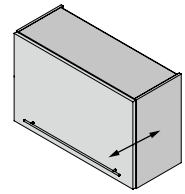
Adjustment options L-80



(HV) Height adjustment
+/- 1.5 mm



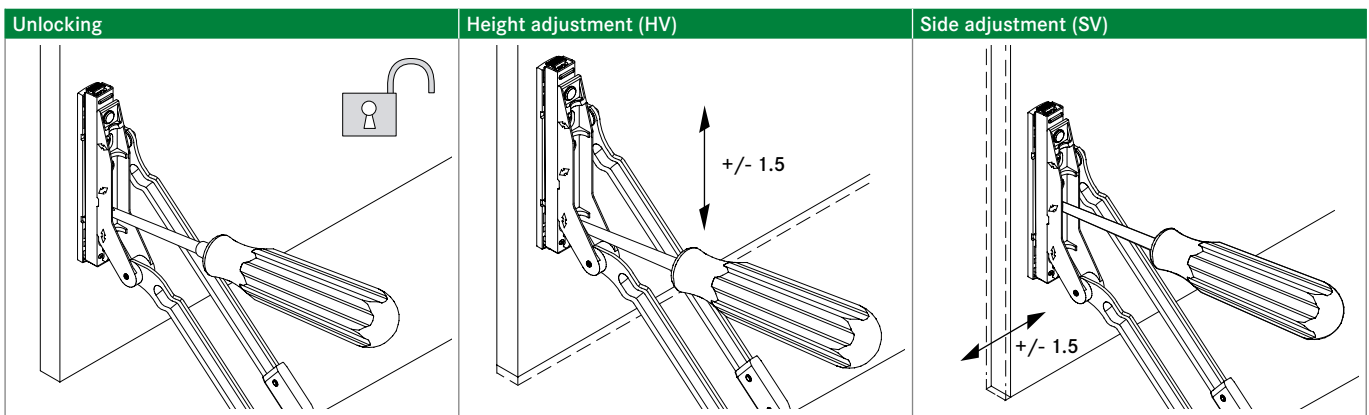
(SV) Side adjustment
+/- 1.5 mm



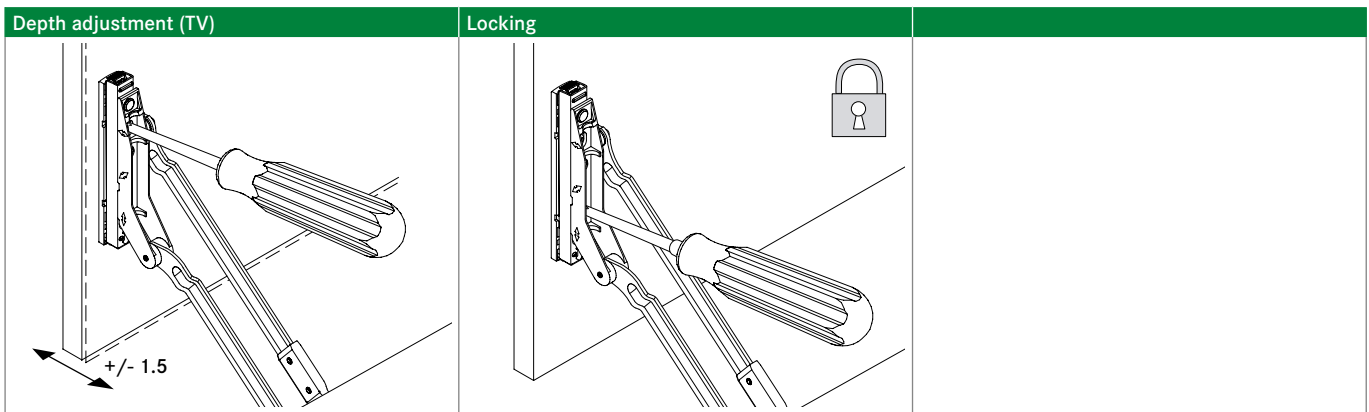
(TV) Depth adjustment
+/- 1.5 mm

All adjustments can be carried out independently of each other.

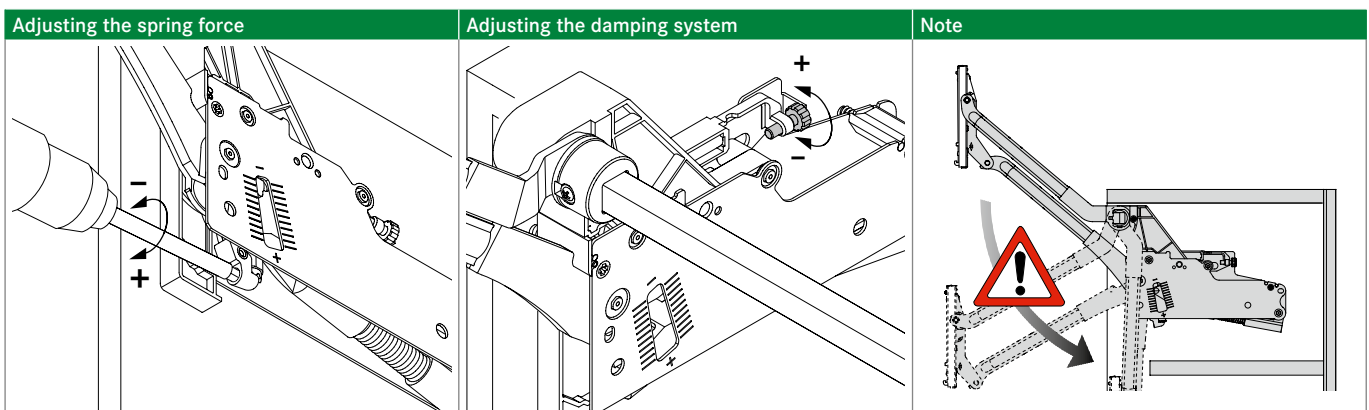
ADJUSTMENT OPTIONS

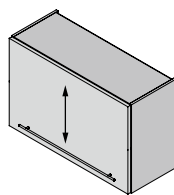
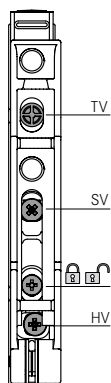


ADJUSTMENTS

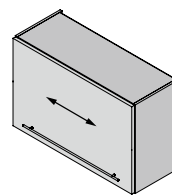


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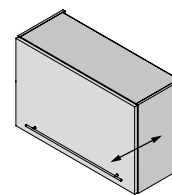




(HV) Height adjustment
+/- 1.5 mm



(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	

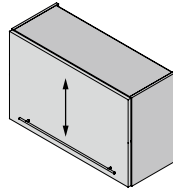
ADJUSTMENTS

WARNING

Adjusting the spring force	Adjusting the damping system	Note

KINVARO

Adjustment options T-65



(HV) Height adjustment
+/-3 mm

All adjustments can be carried out independently of each other.

ADJUSTMENT OPTIONS

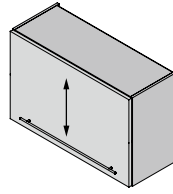
Height adjustment (HV)	Locking	

ADJUSTMENTS

Adjusting the spring force	Adjusting the damping system	

WARNING

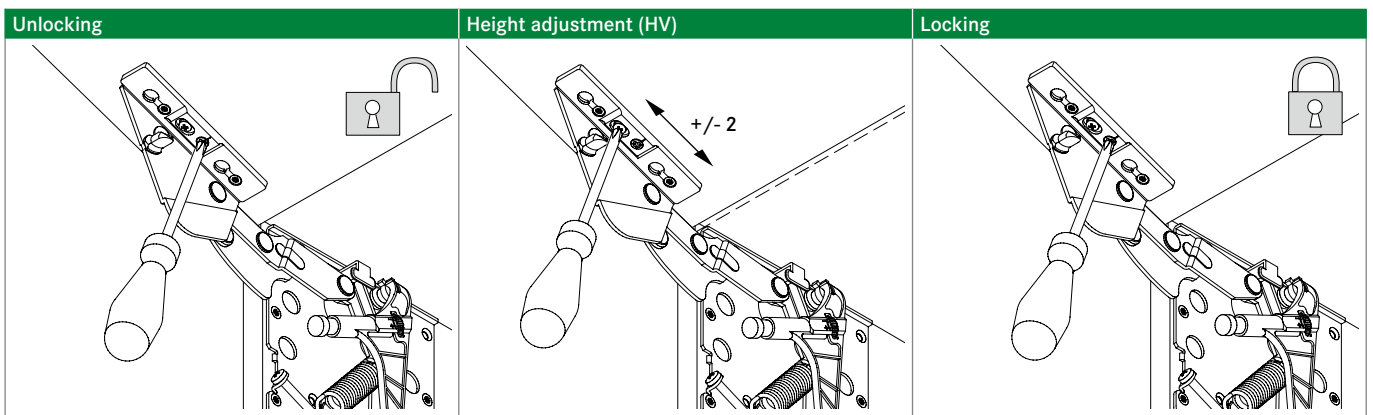
		Note



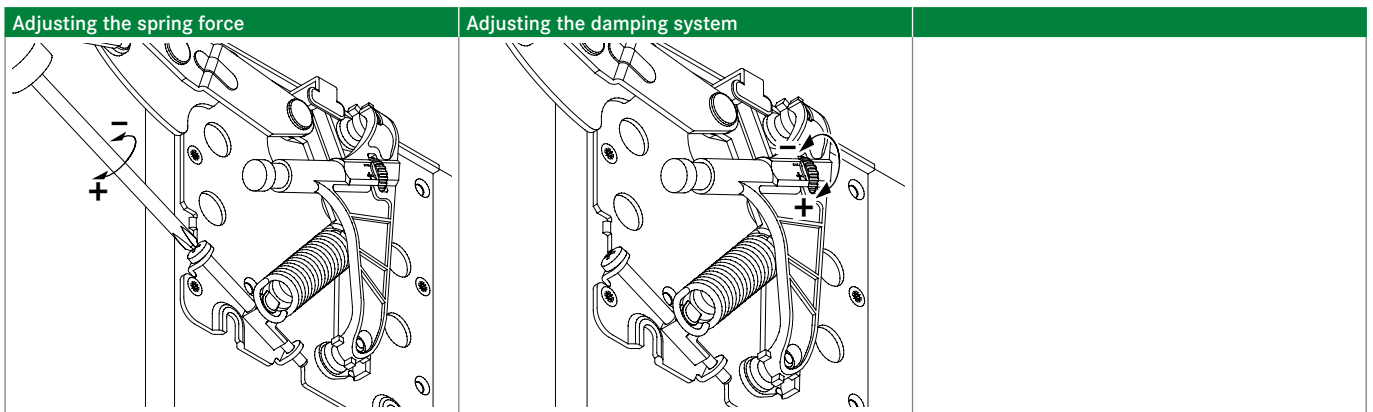
(HV) Height adjustment
+/-2 mm

All adjustments can be carried out independently of each other.

ADJUSTMENT OPTIONS



ADJUSTMENTS

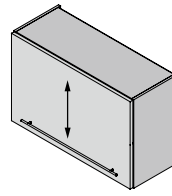
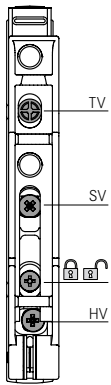


WARNING

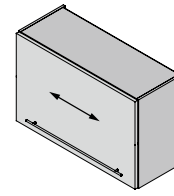


KINVARO

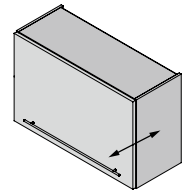
Adjustment options T-71



(HV) Height adjustment
+/- 1.5 mm



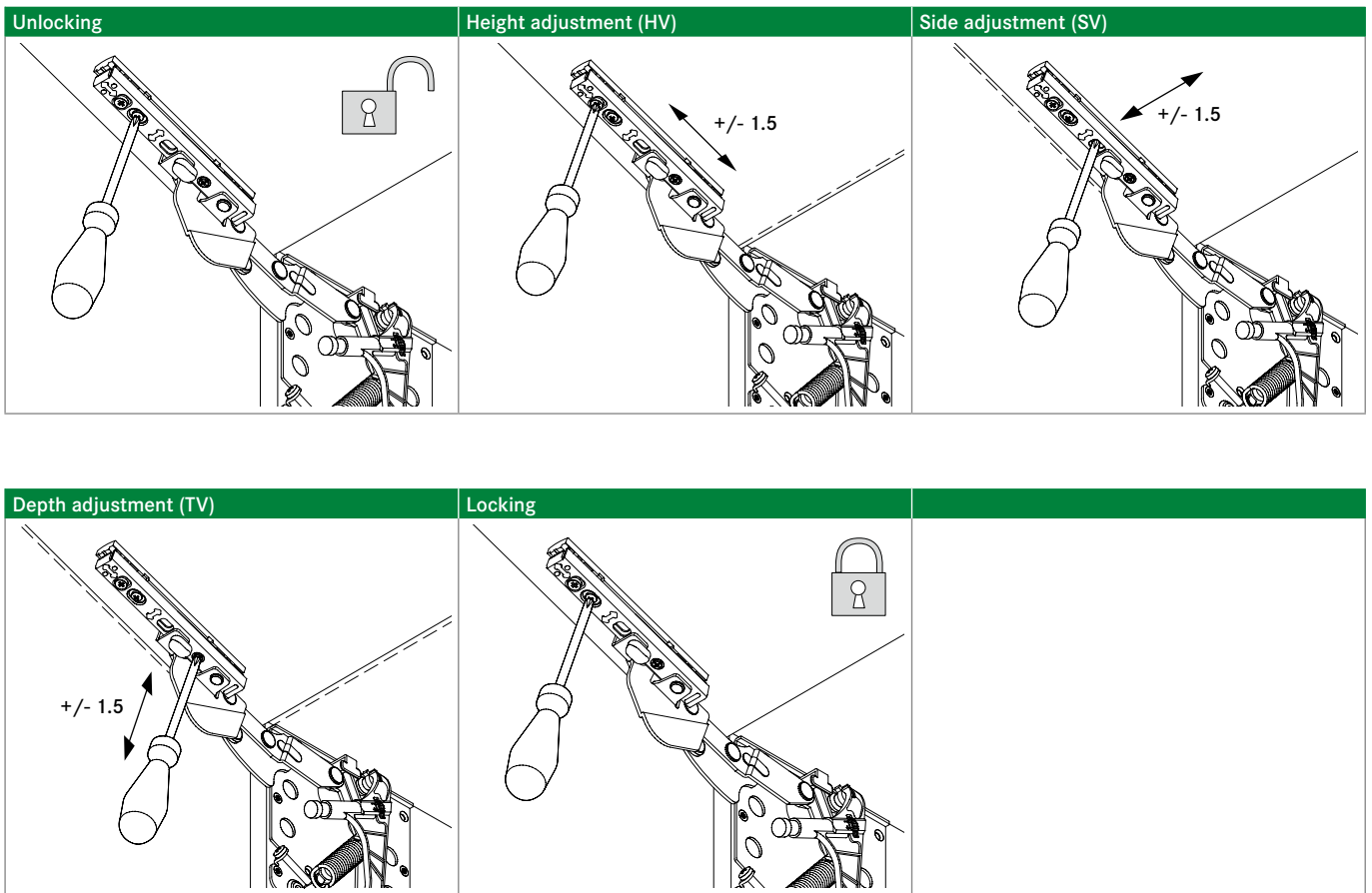
(SV) Side adjustment
+/- 1.5 mm



(TV) Depth adjustment
+/- 1.5 mm

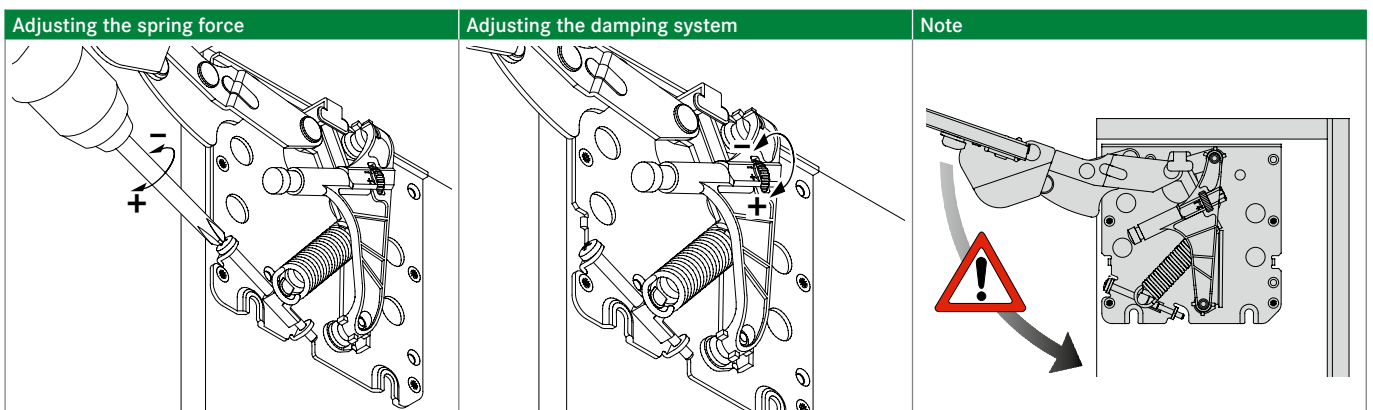
All adjustments can be carried out independently of each other.

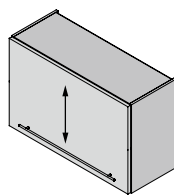
ADJUSTMENT OPTIONS



ADJUSTMENTS

WARNING

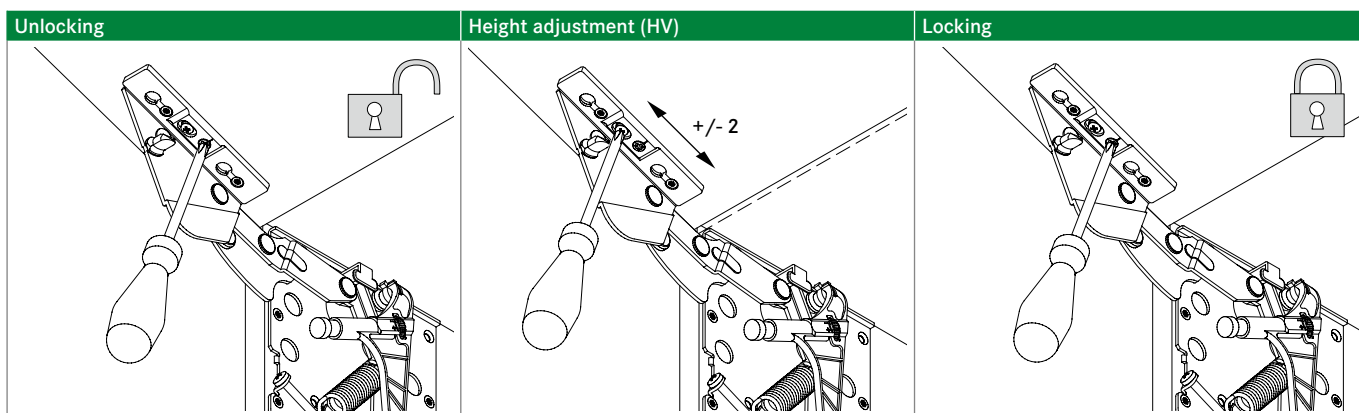




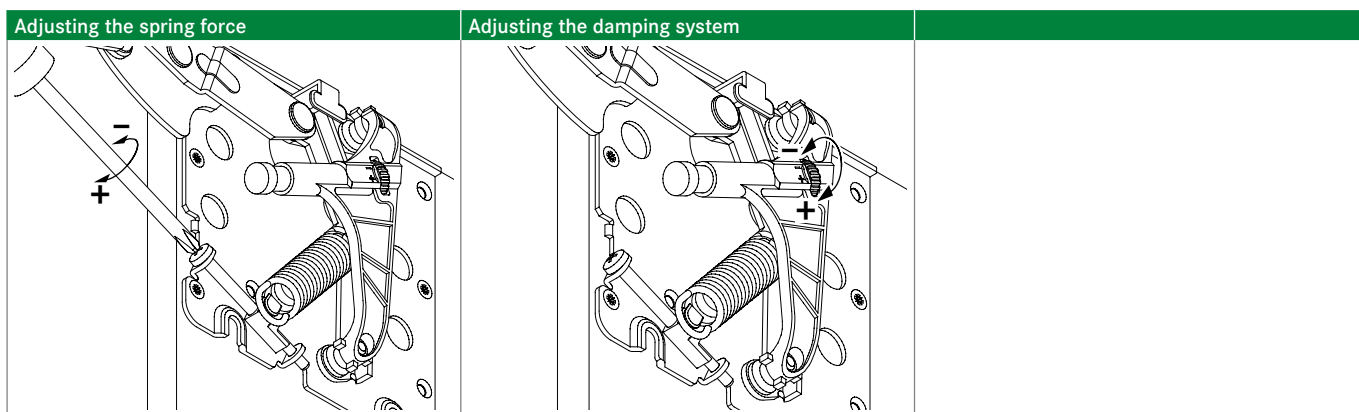
(HV) Height adjustment
+/-2 mm

All adjustments can be carried out independently of each other.

ADJUSTMENT OPTIONS



ADJUSTMENTS

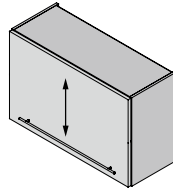
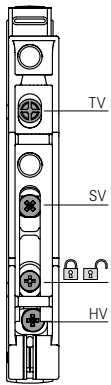


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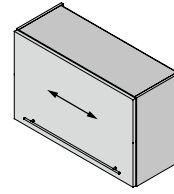


KINVARO

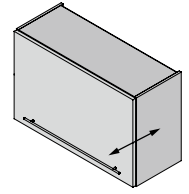
Adjustment options T-76



(HV) Height adjustment
+/- 1.5 mm



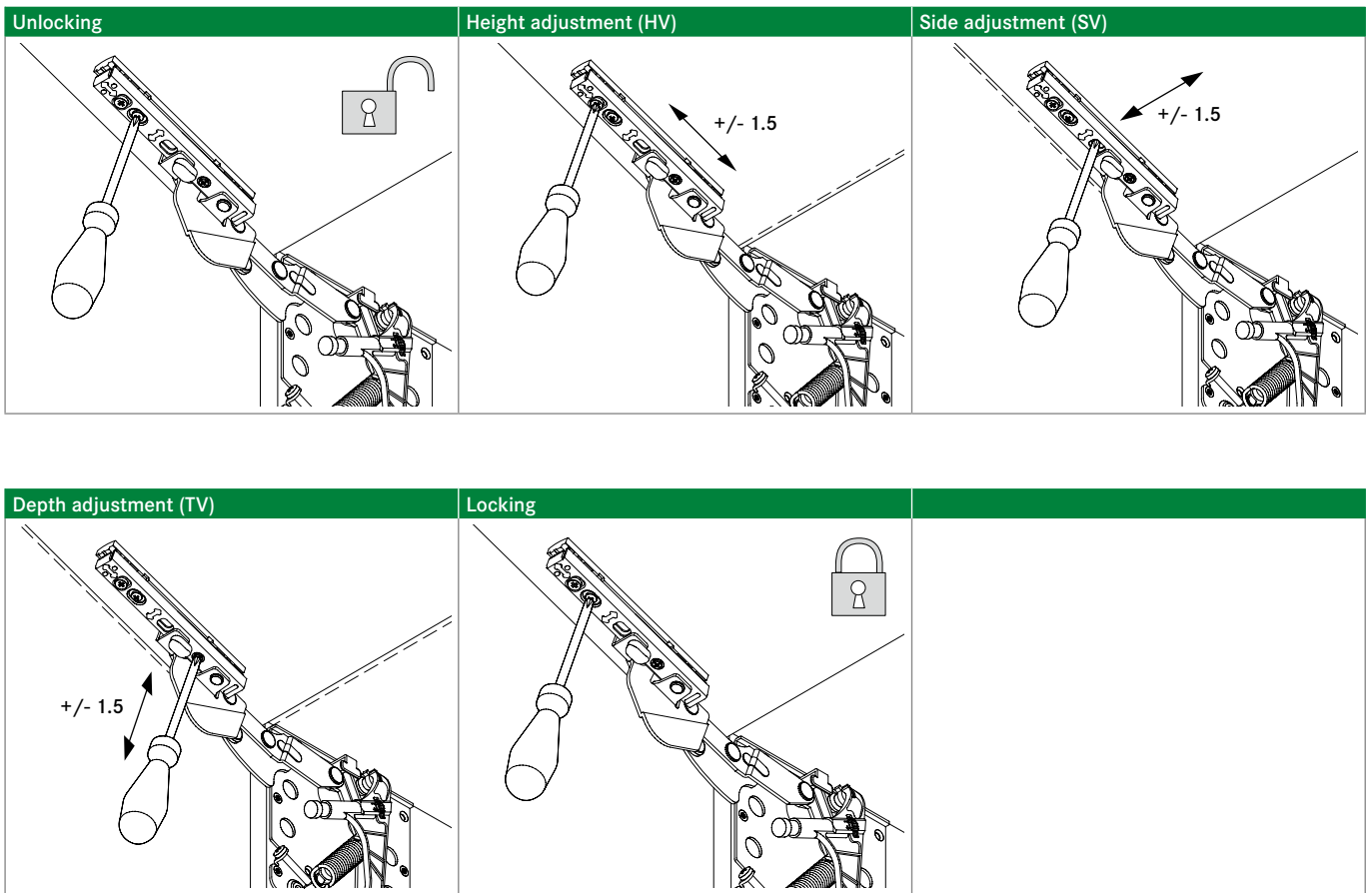
(SV) Side adjustment
+/- 1.5 mm



(TV) Depth adjustment
+/- 1.5 mm

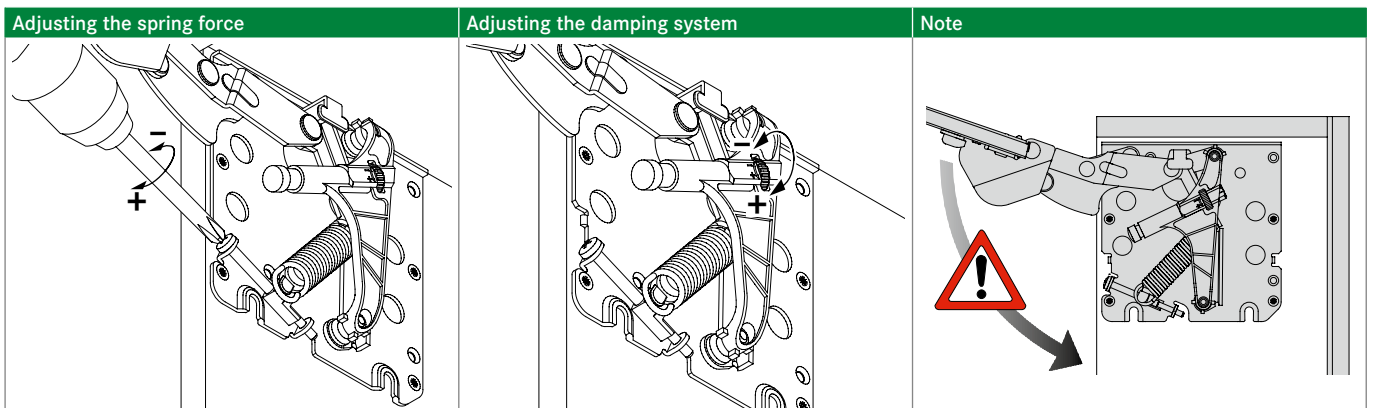
All adjustments can be carried out independently of each other.

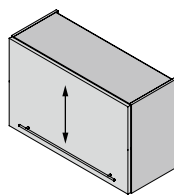
ADJUSTMENT OPTIONS



ADJUSTMENTS

WARNING





(HV) Height adjustment
+/- 1 mm

All adjustments can be carried out independently of each other.

ADJUSTMENT OPTIONS

Height adjustment (HV)	Locking	

ADJUSTMENTS

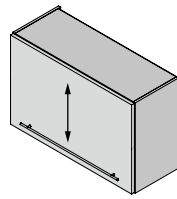
Adjusting to 75° opening angle	Adjusting to 100° opening angle	Adjusting the spring force

WARNING

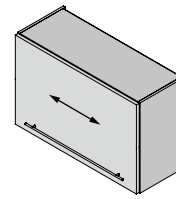
		Note

KINVARO

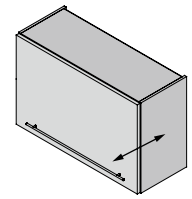
Adjustment options T-105



(HV) Height adjustment



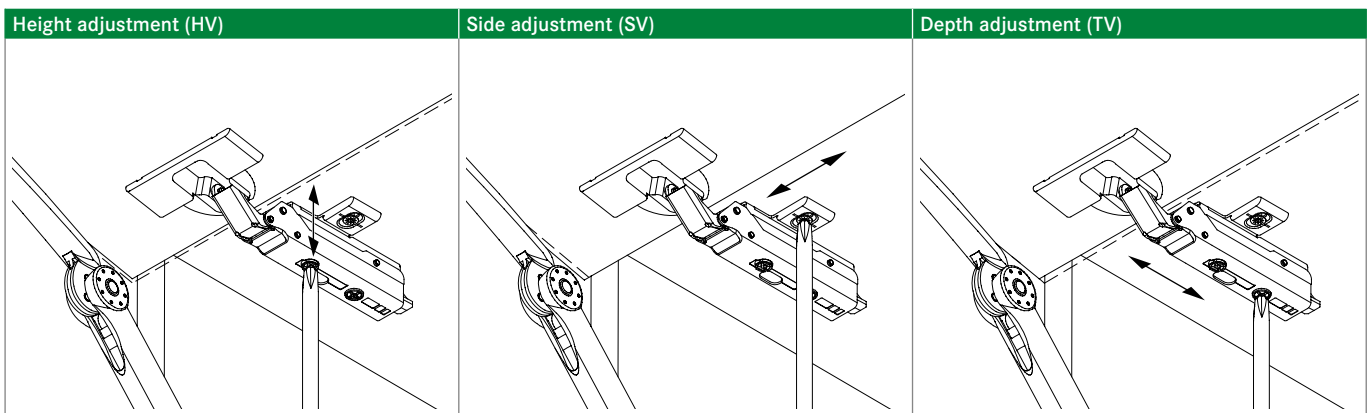
(SV) Side adjustment



(TV) Depth adjustment

All adjustments can be carried out independently of each other.

ADJUSTMENT OPTIONS FOR HINGE IN CABINET TOP PANEL



ADJUSTMENTS



DRILLING JIG FOR FLAP FITTINGS

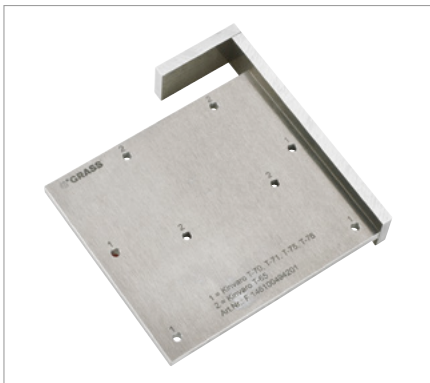


For Kinvaro, side wall application

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

	Item No.
	F146100495

DRILLING JIG FOR FLAP FITTINGS

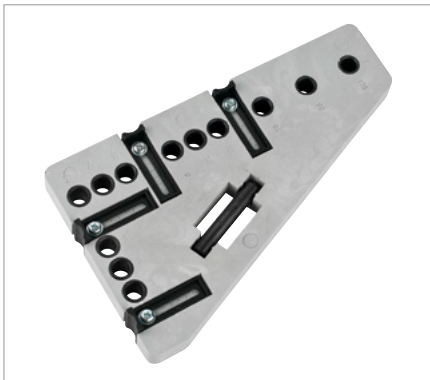


For Kinvaro, side wall application

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

	Item 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

	Item 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 75 mm
- Accessories for use with F146100494 and F146100495

	Item No.
	F146092594

Kinvaro flap systems 7

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

	Item No.
	F146100608

Kinvaro flap systems	7






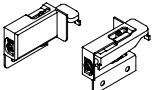
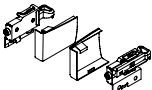



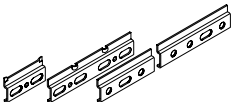
CABINET MAKING ACCESSORIES

From shelf supports, connecting screws, door buffers through to corner connectors – everything necessary for cabinet making.



CABINET MAKING ACCESSORIES

Small components
with a big effect.

	Product description	Page
	Connecting shelf supports, shelf supports	48
	Mitre joint fasteners, front panel adjuster, door buffers	50
	Eccentric connector Fixogross 9200	52
	Cabinet suspension fitting SH-25	54
	Cabinet suspension fitting SH-40	56
	Cabinet suspension fitting SH-62	58
	Cabinet suspension fitting SH-63	60
	Cabinet suspension fitting SH-64	62
	Suspension rails	64

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


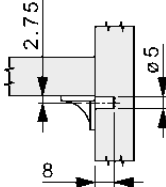

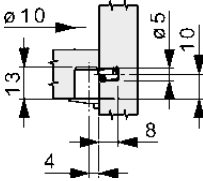

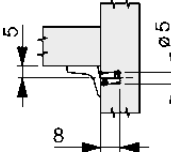

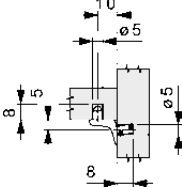

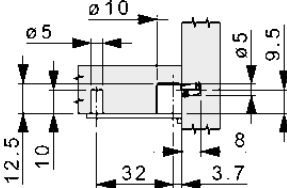

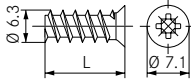

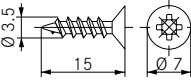
ORDER INFORMATION

Designation			Material	Item 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
Shelf support with steel pin Ø 3 mm BT- drilling depth			Zamak, nickel-plated	F148045392
Shelf support with steel pin Ø 5 mm BT- drilling depth			Zamak, nickel-plated	F148045314
Housing			Plastic, white	F148043056
Expanding pin (for housing)			Steel, zinc-plated	F148043053

Assembly aids

44

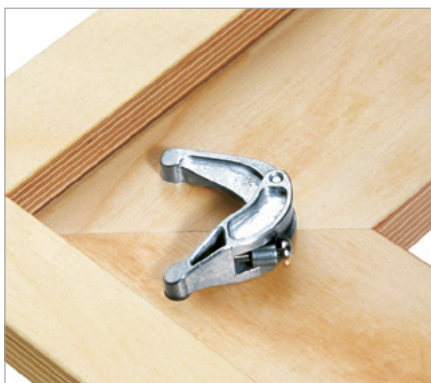
ORDER INFORMATION

Designation			Material	Item 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	44

CABINET MAKING ACCESSORIES

Mitre joint fasteners, front panel adjusters, door buffers




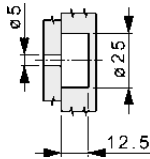
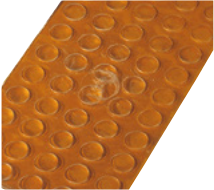
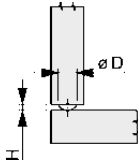
ORDER INFORMATION

Designation			Material	Item 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	44
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ORDER INFORMATION

Designation			Material	Item 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	44

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	Item 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 \varnothing 6 mm			Steel, zinc-plated	F148044883
Corner bolt for fixing with dowel \varnothing 8 mm/M5			Steel, zinc-plated	F148044748
Dowel \varnothing 8 mm/M5			Plastic, white	F071085142
Corner bolt for fixing with dowel \varnothing 10 mm/M6			Steel, zinc-plated	F148043024
Dowel \varnothing 10 mm/M6			Plastic, white	F145083050
Twin bolts for fitting in \varnothing 5 mm holes			Steel, zinc-plated	F148044841
Twin bolts for fitting in \varnothing 5 mm holes				F148044842

Assembly aids

44

INSTALLATION INFORMATION

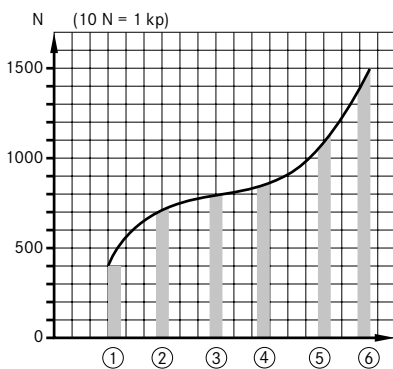
All dimensions in millimetres

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

CABINET SUSPENSION FITTING SH-25

Load capacity 200 kg

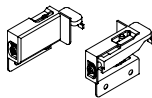


- Load capacity up to 200 kg per top cabinet in compliance with DIN 68840
- Made completely of steel
- Bearing arm closed
- Suitable for very heavy loads
- Surface: Nickel-plated or white powder coating
- Visible installation with low space requirements
- For steel rail suspension
- Screw fixing prevents accidental unscrewing

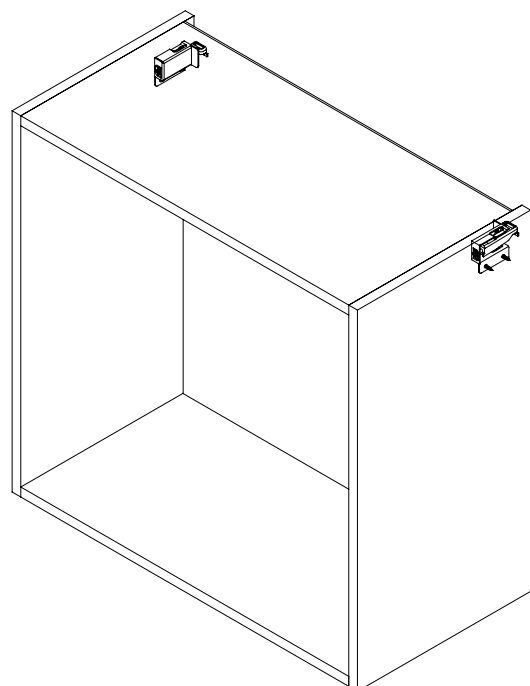
One set includes:

- Right-hand version (15x)
- Left-hand version (15x)

ORDER INFORMATION

Designation		White	Nickel-plated
Cabinet suspension fitting set SH-25 left/right		F155000003	F155000001

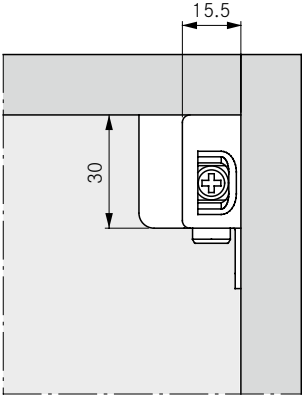
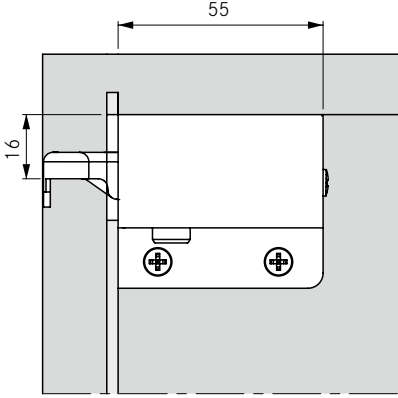
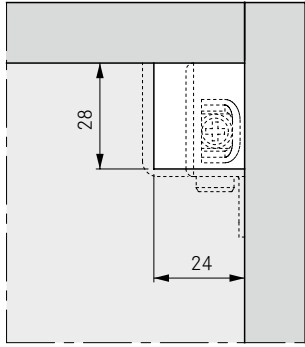
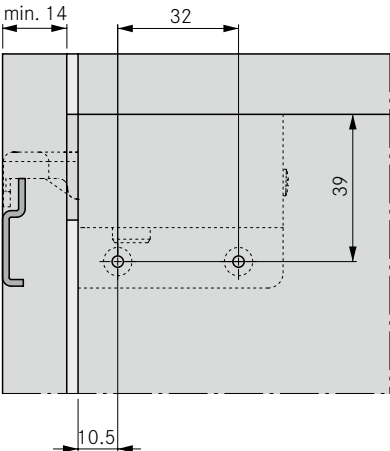
Fixing with chipboard screws only



Cabinet making accessories	47
Suspension rails	64

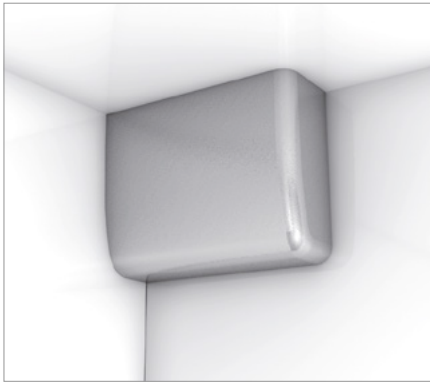
ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

Required space in the cabinet	Required space on the side wall	Back panel cut-out
		
<p>Fixture with suspension rail</p>  <p>Suspension rail adjustment range:</p> <ul style="list-style-type: none"> • Downwards 9 mm • Upwards 7 mm • To the rear 7 mm • To the front 7 mm • To the left 9 mm • To the right 9 mm 		
<p>Fixing with chipboard screw $\varnothing 4 \times 16$</p>		

CABINET SUSPENSION FITTING SH-40

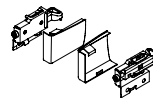
Load capacity 130 kg



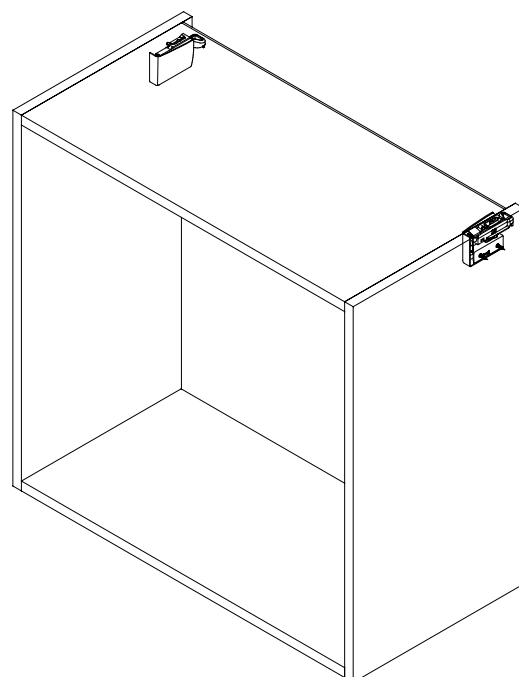
- Load capacity up to 130 kg per top cabinet in compliance with DIN 68840
 - Made completely of steel, anti-corrosion zinc coating
 - Suitable for very heavy loads
 - Visible installation with low space requirements
 - For steel rail, hook and wood rail suspension, with slip guard when suspended with hooks
 - Screw fixing prevents accidental unscrewing
 - Fast, exact adjustment with cross-recess screwdriver Pozidriv size 2
 - Automated installation possible
 - Cover caps in two colours
- One set includes:**
- Right-hand version (15x)
 - Left-hand version (15x)
 - Cover caps white or metallic silver (30x)

ORDER INFORMATION

Designation	Cover caps	
	White	Metallic silver
Cabinet suspension fitting set SH-40 left/right including cover caps	F155145202	F155145203



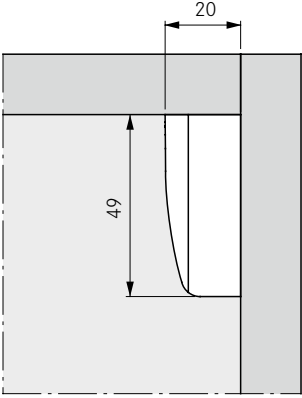
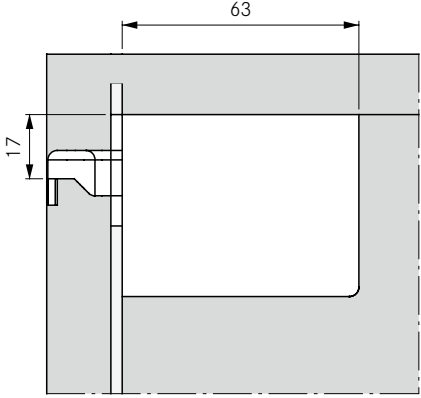
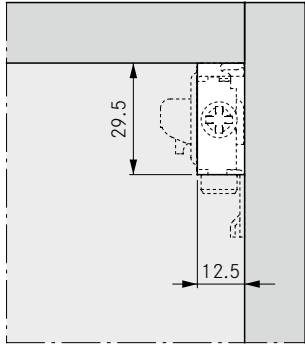
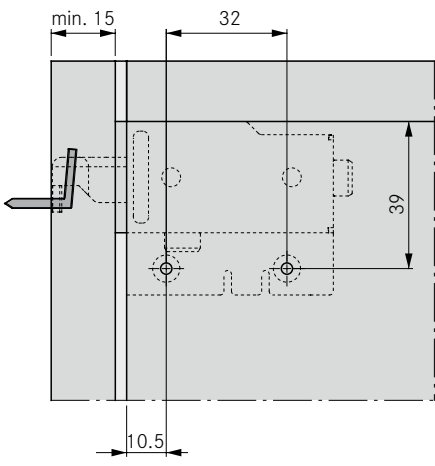
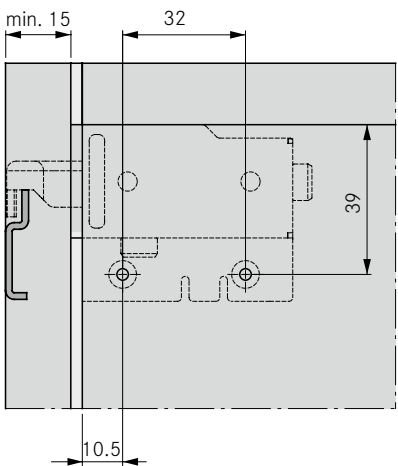

Fixture with chipboard screws only



Cabinet making accessories	47
Suspension rails	64

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

Required space in the cabinet	Required space on the side wall	Back panel cut-out
		
Fixture with hooks	Fixture with suspension rail	Note
 <p>Hook adjustment range:</p> <ul style="list-style-type: none"> • Downwards 10 mm • Upwards 8 mm • To the rear 7 mm • To the front 7 mm • To the left 2.5¹ mm • To the right 2.5¹ mm <p>¹ with hooks Ø 5 mm</p>	 <p>Suspension rail adjustment range:</p> <ul style="list-style-type: none"> • Downwards 10 mm • Upwards 8 mm • To the rear 7 mm • To the front 7 mm • To the left 9 mm • To the right 9 mm 	<p>The cross-recess screwdriver can be positioned at an angle.</p> 
<p>Fixing with chipboard screw Ø 4 x 16</p>		

CABINET SUSPENSION FITTING SH-62

Load capacity 130/184 kg – Straight bearing arm

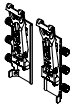
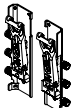


- SH6201: Load capacity up to 130 kg per top cabinet in compliance with DIN EN 15939
- SH6202: Load capacity up to 184 kg per top cabinet in compliance with DIN EN 15939
- Straight bearing arm
- Concealed installation independent of the top cabinet panel
- If SH-6202 is used, additional fixing on top panel possible
- Suitable for steel rails and wall hooks
- Load distribution on 3 mounting studs and chipboard screws
- Low space requirements of only 16 mm behind the back panel
- Automated installation possible
- Plastic assembly guide to ensure correct positioning of fitting
- Cover caps for back panel in two colours

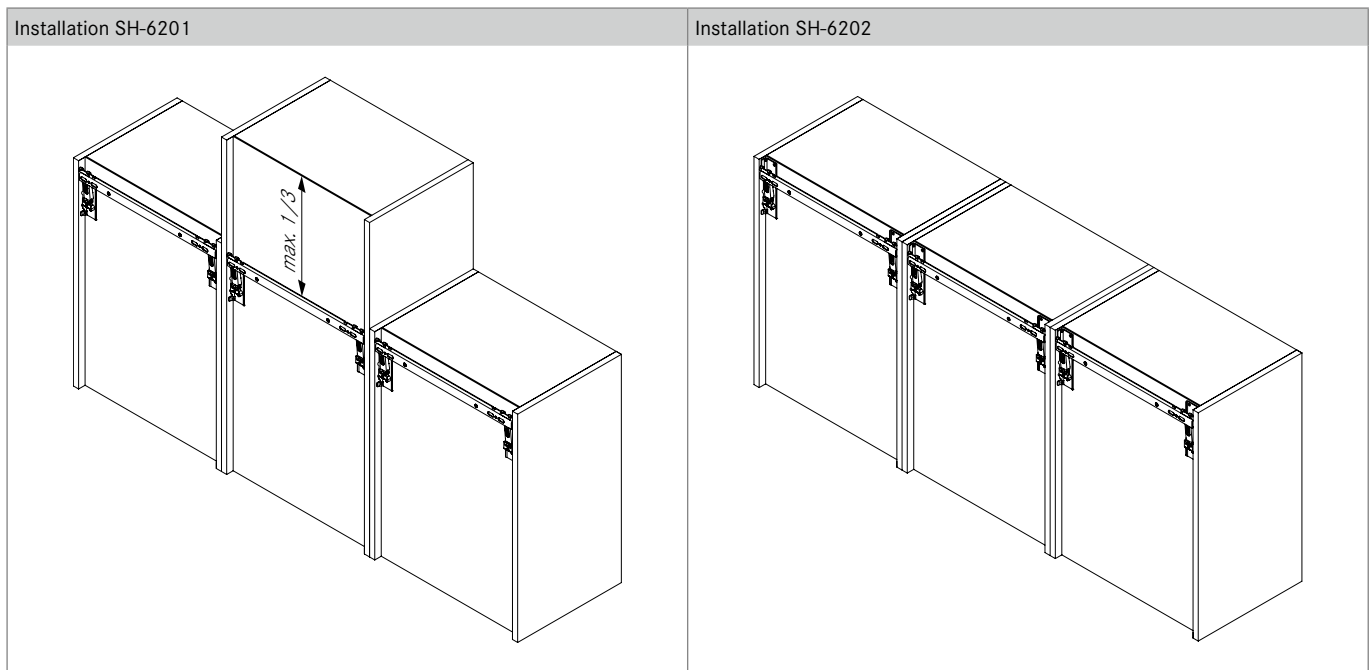
One set includes:

- Right-hand version (15x)
- Left-hand version (15x)
- Cover caps white or nickel-plated (60x)

ORDER INFORMATION

Designation	Cover caps	
	White	Nickel-plated
Cabinet suspension fitting set SH-6201 with short base plate, straight bearing arm, left/right including cover caps	 F155147979	F155147980
Cabinet suspension fitting set SH-6202 with long base plate for additional fixing on the top panel, straight bearing arm, left/right incl. cover caps, transport protection for suspension rail	 F155147985	F155147986

ASSEMBLY AND INSTALLATION INSTRUCTIONS



Cabinet making accessories	47
Suspension rails	64

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

Space requirements for SH-6201		Fixing with hooks or suspension rail for SH-6201	
		Hook adjustment range	Suspension rail adjustment range
Height adjustment		± 7.5 mm	± 7.5 mm
Side adjustment		± 4 mm (with 6 mm hook width)	± 8 mm
Depth adjustment (with 16 mm space)		To the rear 9 mm	To the rear 9 mm
		To the front 11 mm	To the front 11 mm

Space requirements for SH-6202		Fixing with hooks or suspension rail for SH-6202	
		Hook adjustment range	Suspension rail adjustment range
Height adjustment		± 7.5 mm	± 7.5 mm
Side adjustment		± 4 mm (with 6 mm hook width)	± 8 mm
Depth adjustment (with 16 mm space)		To the rear 9 mm	To the rear 9 mm
		To the front 11 mm	To the front 11 mm

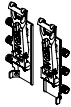
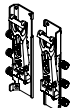
CABINET SUSPENSION FITTING SH-63

Load capacity 130/184 kg – Offset bearing arm

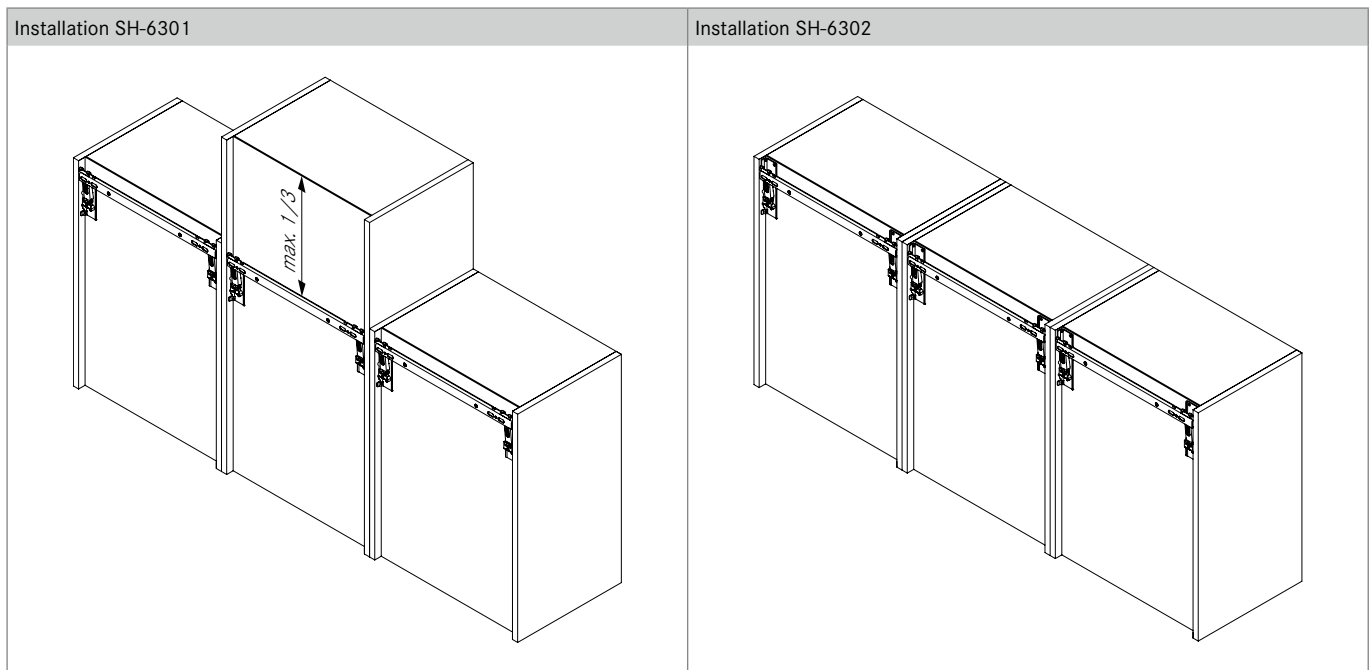


- SH6301: Load capacity up to 130 kg per top cabinet in compliance with DIN EN 15939
 - SH6302: Load capacity up to 184 kg per top cabinet in compliance with DIN EN 15939
 - Offset bearing arm – safe clamping with small spaces
 - Concealed installation independent of the top cabinet panel
 - If SH-6302 is used, additional fixing on top panel possible
 - Suitable for steel rails and wall hooks
 - Load distribution on 3 mounting studs and chipboard screws
 - Low space requirements of only 16 mm behind the back panel
 - Automated installation possible
 - Plastic assembly guide to ensure correct positioning of fitting
 - Cover caps for back panel in two colours
- One set includes:**
- Right-hand version (15x)
 - Left-hand version (15x)
 - Cover caps white or nickel-plated (60x)

ORDER INFORMATION

Designation		Cover caps	
		White	Nickel-plated
Cabinet suspension fitting set SH-6301 with short base plate, offset bearing arm, left/right including cover caps		F155145206	F155145207
Cabinet suspension fitting set SH-6302 with long base plate for additional fixing on the top panel, offset bearing arm, left/right incl. cover caps, transport protection for suspension rail		F155147983	F155147984

ASSEMBLY AND INSTALLATION INSTRUCTIONS



Cabinet making accessories	47
Suspension rails	64

ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

Space requirements for SH-6301		Fixing with hooks or suspension rail for SH-6301	
		Hook adjustment range	Suspension rail adjustment range
Height adjustment		± 7.5 mm	± 7.5 mm
Side adjustment		± 4 mm (with 6 mm hook width)	± 8 mm
Depth adjustment (with 16 mm space)		To the rear 4 mm	To the rear 4 mm
		To the front 11 mm	To the front 11 mm

Space requirements for SH-6302		Fixing with hooks or suspension rail for SH-6302	
		Hook adjustment range	Suspension rail adjustment range
Height adjustment		± 7.5 mm	± 7.5 mm
Side adjustment		± 4 mm (with 6 mm hook width)	± 8 mm
Depth adjustment (with 16 mm space)		To the rear 4 mm	To the rear 4 mm
		To the front 11 mm	To the front 11 mm

CABINET SUSPENSION FITTING SH-64

Load capacity 130/184 kg – Offset bearing arm incl. tool-free dislodgement protection



- SH6401: Load capacity up to 130 kg per top cabinet in compliance with DIN EN 15939
 - SH6402: Load capacity up to 184 kg per top cabinet in compliance with DIN EN 15939
 - Offset bearing arm
 - Incl. tool-free dislodgement prevention
 - Concealed installation independent of the top cabinet panel
 - If SH-6402 is used, additional fixing on top panel possible
 - Suitable for GRASS suspension rail and wall hook
 - Load distribution on 3 mounting studs and chipboard screws
 - Low space requirements of only 16 mm behind the back panel
 - Automated installation possible
 - Plastic assembly guide to ensure correct positioning of fitting
 - Cover caps for back panel in two colours
- One set includes:**
- Right-hand version (15x)
 - Left-hand version (15x)
 - Cover caps white or nickel-plated (60x)

ORDER INFORMATION

Designation	Cover caps	
	White	Nickel-plated
Cabinet suspension fitting set SH-6401 with short base plate with dislodgement prevention, offset bearing arm, left/right incl. cover caps	F155147965	F155147966
Cabinet suspension fitting set SH-6402 with long base plate for additional fixing on the top panel with dislodgement prevention, offset bearing arm, left/right incl. cover caps, transport protection for suspension rail	F155147967	F155147968

ASSEMBLY AND INSTALLATION INSTRUCTIONS

<p>Installation SH-6401</p>	<p>Installation SH-6402</p>	
<p>Installation SH-64 with dislodgement prevention ¹</p>	<p>Hook-in adjustment</p>	<p>Depth adjustment with effective dislodgement prevention ¹</p>
<p>Before hanging: Put the bearing arm down completely</p>		

¹ When using the GRASS suspension rail

Cabinet making accessories	47
Suspension rails	64

ASSEMBLY AND INSTALLATION INSTRUCTIONS

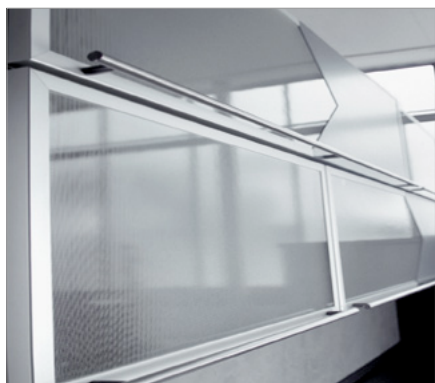
All dimensions in millimetres

Space requirements for SH-6401		Fixing with hooks or suspension rail for SH-6401	
		Hook adjustment range	Suspension rail adjustment range
Height adjustment		± 7.5 mm	± 7.5 mm
Side adjustment		± 4 mm (with 6 mm hook width)	± 8 mm
Depth adjustment (with 16 mm space)		To the rear 4 mm	To the rear 4 mm
		To the front 11 mm	To the front 11 mm

Space requirements for SH-6402		Fixing with hooks or suspension rail for SH-6402	
		Hook adjustment range	Suspension rail adjustment range
Height adjustment		± 7.5 mm	± 7.5 mm
Side adjustment		± 4 mm (with 6 mm hook width)	± 8 mm
Depth adjustment (with 16 mm space)		To the rear 4 mm	To the rear 4 mm
		To the front 11 mm	To the front 11 mm

SUSPENSION RAILS

For cabinet suspension fittings



- Safe wall fixing
- Surface zinc-coated
- Profile thickness 1.75 mm

One set includes:

- Suspension rail type 1 (10x)
- Suspension rail type 2 +3 (30x)

ORDER INFORMATION

	Length	Item No.
Suspension rail type 1, with round holes and slots for cabinet suspension fittings	2500	F155146852
Suspension rail type 2, with slip guard (embossing) for concealed cabinet suspension fittings SH-62, SH-63, SH-64	125	F155145208
Suspension rail type 3, with slip guard for visible cabinet suspension fitting SH-25 and SH-40	58	F155145209

For fixing use screw with a 13 mm head (5.5 x 60) as well as a suitable masonry dowel.
Fixing lengths upon request.

Cabinet suspension fitting SH-25	54
Cabinet suspension fitting SH-40	56

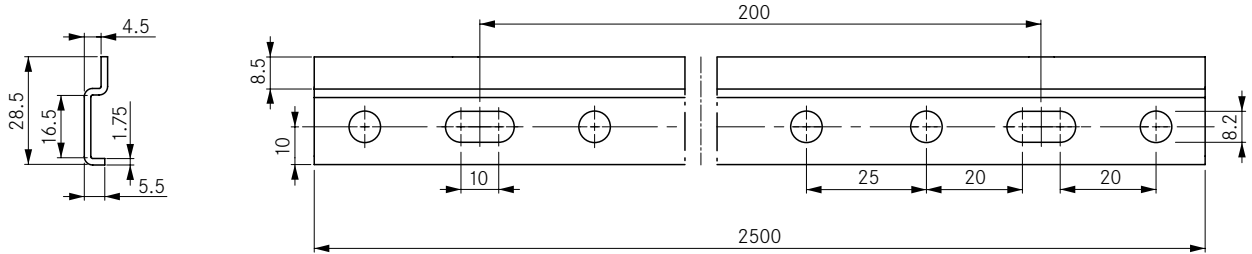
Cabinet suspension fitting SH-62	58
Cabinet suspension fitting SH-63	60

Cabinet suspension fitting SH-64	62

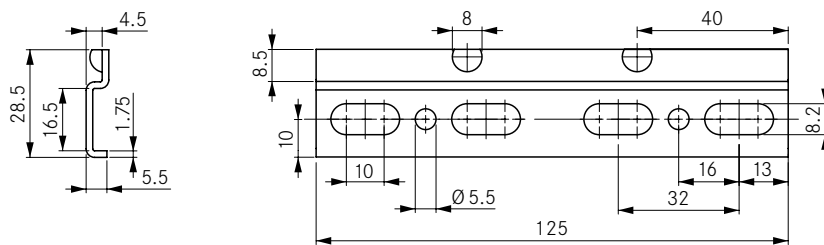
ASSEMBLY AND INSTALLATION INSTRUCTIONS

All dimensions in millimetres

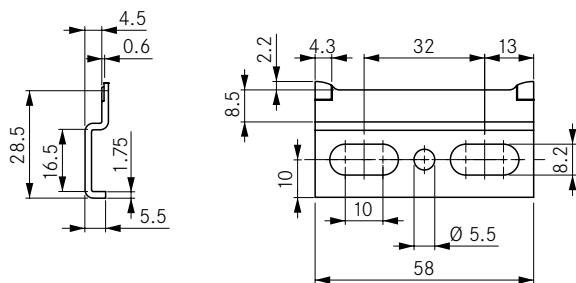
Suspension rail type 1



Suspension rail type 2



Suspension rail type 3



ITEM NO. INDEX

F article no. / Article no., old

F Article no.	Article no., old	PU	Page
---------------	------------------	----	------

F069

F069073381211	351.002.02.2662	20	51
F069073452240	371.001.02.0074	500	50
F069073453240	371.001.03.0074	500	50
F069073454240	371.201.00.0801	500	50
F069073459240	517.206.61.9915	500	49
F069073460240	517.206.64.9915	500	49
F069073461240	517.206.65.9915	500	49
F069073463240	517.206.73.9915	500	49
F069073464240	517.206.87.9915	500	49
F069135297256	711.362.61.9715	5000	49

F071

F071085142123	85142-42	100	52
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F145

F145083050123	83050-42	100	52
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F146

F146073835253	630.000.03.0750	2500	51
F146073836256	630.000.03.1050	5000	51
F146073976256	707.333.51.9815	5000	49
F146073979256	711.331.61.9715	5000	49
F146092594501	92594	1	44
F146100494201	-	1	44
F146100495201	-	1	44
F146100608101	-	1	45
F146100609201	-	1	44

F148

F148043000123	43000-42	100	52
F148043007123	43007-42	100	52
F148043015123	43015-42	100	52
F148043024123	43024-42	100	52
F148043028123	43028-42	100	48
F148043036123	43036-42	100	48
F148043053123	43053-42	100	48
F148043056123	43056-42	100	48
F148044748123	44748-42	100	52
F148044841123	44841-42	100	52
F148044842123	44842-42	100	52
F148044883123	44883-42	100	52
F148045314123	45314-42	100	48
F148045392123	45392-42	100	48

F151

F151145214513	D2651533125	25	30
F151145215513	D2651533225	25	30
F151145216513	D2651535125	25	30
F151145217513	D2651535225	25	30
F151145218513	D2653108125	25	30
F151145219513	D2653108225	25	30
F151145220513	D2651103125	25	30
F151145221513	D2651103225	25	30
F151145222501	-	1	28
F151145223501	-	1	28
F151145224501	-	1	28
F151145226101	D2712521325	1	22
F151147678201	-	1	18
F151147679201	-	1	18
F151147680201	-	1	18

F Article no.	Article no., old	PU	Page
---------------	------------------	----	------

F151147681201	-	1	18
F151147682201	-	1	18
F151147688201	-	1	20
F151147689201	-	1	20
F151147690201	-	1	20
F151147691201	-	1	20
F151147692201	-	1	20
F151147693201	-	1	20
F151147696201	-	1	22
F151147699201	-	1	24
F151147700201	-	1	24
F151147702201	-	1	24
F151147703201	-	1	24
F151147704201	-	1	24
F151147705201	-	1	24
F151147706201	-	1	26
F151147797201	-	1	18
F151147798201	-	1	18
F151147799201	-	1	18
F151147800201	-	1	18
F151147807201	-	1	20
F151147808201	-	1	20
F151147809201	-	1	20
F151147810201	-	1	20
F151147811201	-	1	22
F151147813201	-	1	24
F151147814201	-	1	24
F151147815201	-	1	24
F151147816201	-	1	24
F151147817201	-	1	26

F152

F152000255201	-	1	16
F152000256201	-	1	16
F152000257201	-	1	16
F152000258201	-	1	16
F152000259201	-	1	16
F152145054201	D2879013000	1	10
F152145055201	D2359045000	1	16
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F152145251201	-	1	14
F152145252201	-	1	14
F152145253201	-	1	14
F152145254201	-	1	14
F152145281201	-	1	14
F152145282201	-	1	14
F152147440201	-	1	14
F152147441201	-	1	14
F152147442201	-	1	14

F Article no.	Article no., old	PU	Page
---------------	------------------	----	------

F152147443201	-	1	14
F152147444201	-	1	14
F152147675201	-	1	10
F152147715201	-	1	14
F152147781201	-	1	14
F152147787201	-	1	10
F152147788201	-	1	14
F152147818201	-	1	16
F152147819201	-	1	16
F152147820201	-	1	16
F152147821201	-	1	16
F152147822201	-	1	16
F152147824201	-	1	14
F152147825201	-	1	14
F152147826201	-	1	14
F152147827201	-	1	14
F152147828201	-	1	14
F152147829201	-	1	14
F152147830201	-	1	14
F152147831201	-	1	14
F152147833201	-	1	14
F152147834201	-	1	14
F152147835201	-	1	14
F152147836201	-	1	14
F152147837201	-	1	10
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F152147847201	-	1	10

F155

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F155145203210	-	15	56
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F155145207210	-	15	60
F155145208514	-	30	64
F155145209514	-	30	64
F155146852307	-	10	64
F155147965210	-	15	62
F155147966210	-	15	62
F155147967210	-	15	62
F155147968210	-	15	62
F155147979210	-	15	58
F155147980210	-	15	58
F155147983210	-	15	60
F155147984210	-	15	60
F155147985210	-	15	58
F155147986210	-	15	58

ITEM NO. INDEX

F article no. / Article no., old

LEGEND

PU code	Quantity (units, pair, set)
101	1
123	100
201	1
210	15
211	20
240	500
253	2500
256	5000
501	1
513	25
514	30
807	10

ITEM NO. INDEX

Article no., old / F Article no.

Article no., old	F Article no.	PU	Page
------------------	---------------	----	------

35

351.002.02.2662	F069073381211	20	51
-----------------	----------------------	----	----

37

371.001.02.0074	F069073452240	500	50
371.001.03.0074	F069073453240	500	50
371.201.00.0801	F069073454240	500	50

43

43000-42	F148043000123	100	52
43007-42	F148043007123	100	52
43015-42	F148043015123	100	52
43024-42	F148043024123	100	52
43028-42	F148043028123	100	48
43036-42	F148043036123	100	48
43053-42	F148043053123	100	48
43056-42	F148043056123	100	48

44

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44883-42	F148044883123	100	52

45

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45392-42	F148045392123	100	48

51

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517.206.87.9915	F069073464240	500	49

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630.000.03.1050	F146073836256	5000	51

70

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71

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711.362.61.9715	F069135297256	5000	49

83

83050-42	F145083050123	100	52
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85

85142-42	F071085142123	100	52
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92

92594	F146092594501	1	44
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D2

D2359045000	F152145055201	1	16
D2651103125	F151145220513	25	30
D2651103225	F151145221513	25	30
D2651533125	F151145214513	25	30
D2651533225	F151145215513	25	30

Article no., old	F Article no.	PU	Page
------------------	---------------	----	------

D2651535125	F151145216513	25	30
D2651535225	F151145217513	25	30
D2653108125	F151145218513	25	30
D2653108225	F151145219513	25	30
D2712521325	F151145226101	1	22
D2879013000	F152145054201	1	10

LEGEND

PU code	Quantity (units, pair, set)
101	1
123	100
201	1
210	15
211	20
240	500
253	2500
256	5000
501	1
513	25
514	30
807	10



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